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LR 1600 H Boom

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Crawler Crane
Grue sur chenilles

LR 1600/2

Technical Data
Caractéristiques techniques

LR 1600/2

H-Boom Kit

LIEBHERR

LIEBHERR

Table of content
Tables des matières

Technical Data · Caractéristiques technique	
Technical description · Description téchniques Dimensions · Encombrement Winches, Working speeds, Hook blocks, Reeving chart Treuils, Vitesses, Moufles à crochet, Tableau de mouflage Transportation plan · Plan de transport Boom/jib combinations · Configurations de flèche	A
SL	B
HSLDB/B2/BW	C
HSL2DB/B2/BW	D
S	E
HSDB/B2/BW	F
SW	G
HSDWB/B2/BW	H
HSDWVB/B2/BW	I
SWF	J
SLF	K
HSL2DFB/B2/BW	L
SL3F	M
HSL4DFB/B2/BW	N
SL10DFB/B2	O
SL13DFB/B2	P
Description of symbols · Explication des symboles Remarks · Remarques	Q

Max. capacity	**1322 kips at 39 ft radius HSDB – System with HS 138 ft.**
Max. load moment	**64.094.150 lbs-ft – 870 kips at 72 ft radius. HSDB2 – System with HS 138 ft**

Crawler travel gear

Crawler chassis	Liebherr crawler chassis consisting of one centre section and two crawler carriers with crawler plates 4'11" (optional 6'7") and quadruple drive.
Central ballast	2 brackets 5500 lbs each. Total central ballast 143300 lbs. 6 ballast plates 22050 lbs each (option).

Crane superstructure

Superstructure frame	Liebherr-slewing platform frame, consisting of slewing platform with winch IV and removable A-frame, connected to the centre section by a roller slewing bearing.
Crane engine with sound insulation	6-cylinder diesel engine, make Liebherr, type D946 A7, water cooled, rated power 400 kW (544 HP) at 1900 rpm, max torque 1856 lbs-ft at 1300 rpm. Fuel tank approx. 314 gallons, exhaust emission according to directive 97/68/EG and EPA/CARB.
Winch I	Standard hoist drum, hydraulically driven by axial-piston swivel pumps with integrated planetary gear.
Winch IV	Boom hoist.
Reeving winch	Auxiliary winch for the reeving of ropes.
Slewing gear	1 slewing gear, hydraulically powered by axial-piston swivel pump, with integrated planetary gear.
Crane cabin	Air conditioned crane cabin tiltable to the rear with safety glazing, heat insulating glass, roof window with bullet proof glass, standardized control units ergonomically positioned. Additional thermostatically controlled hot water heating.
Crane control	Setting of configuration data by convenient interactive functions. All crane movements are initiated by means of two 4-way joystick hand levers and two 2-way hand/foot levers. All working movements are independently controllable.
Safety devices	Hoist limit switch. Safety valves against hose and pipe rupture. Drum switch limit at 3 rest layers. Wind speed gauge. Electronic inclination indicator. Aircraft warning control light.
Camera observation	2 colour-screens, 3 cameras for winches and rear area.
Counterweight	2 brackets 11025 lbs each. Total counterweight at superstructure 418950 lbs. 18 ballast plates 22050 lbs each (option).

Boom system

Main boom HS	System 2825 with head section for max. 1322774 lbs load capacity. Boom length S 79 – S 315 ft. Boom length HSDB 118 – HSDB 472 ft with derrick system.
Lattice type luffing fly jib W	System 2420 with head section for max. 1322774 lbs load capacity. Luffing jib lengths 79 – 315 ft. Winch V is needed for all luffing jib operations.
Fixed lattice fly jib F	System 1916 with head section for max. capacity of 302000 lbs, attachable at 10°, 15° and 30°, jib lengths F 39 – F 118 ft.
Derrick system D	System 2420 including guy rods. Winch III is needed for all derrick operations. Length 98 ft/118 ft.
Counterweight frame B	For max. derrick counterweight of 771600 lbs, for infinitely variable radius from 33 – 59 ft.
Counterweight trailer BW	For max. derrick counterweight of 771600 lbs at max. radius of 59 ft, infinitely variable radii from 43 – 59 ft.
Derrick-Counterweight	Plates for a total of 771600 lbs.
Heavy duty jib WV	Using existing parts of main boom and luffing jib. Mountable on S-main boom; tiltable between 12° and 20°. Length 39 – 315 ft.
Winch II	Second hoist winch.
Winch III	Reeving main boom / Derrick operation.
Winch V	Luffing for W-jib configuration.
Winch VI	Auxiliary hoist gear.
Whip line 79365 lbs	To be mounted on the S, SL, W, WV-boom head.

Additional equipment

Mechanical outriggers	For erection of long boom combinations without derrick-counterweight.
Hydraulic assembly jacks	Lifting of the basic machine for assembly/disassembly. Consisting of 4 lifting cylinders with supporting plates, installed on the centre part.
Hydraulic assembly cylinder	For assembly/disassembly of the crawler carrier by the crane itself.
Pin pulling device	Including mobile hydraulic aggregate. For assembly/disassembly of the pins at S and W intermediate sections.

Other items of equipment available on request.
Standard equipment and options according to effective price list.

Technical description
Description téchniques

Capacité max.	**1322 kips pour une portée de 39 ft. Système HSDB avec HS 138 ft.**
Couple de charge max.	**64.094.150 lbs-ft – 870 kips pour une portée de 72 ft. Système HSDB2 avec HS 138 ft.**

Train de chenilles

Mécanisme de translation	Le train de chenilles Liebherr est composé d'une partie centrale et de deux longerons avec patins de chenilles 4'11" (en option 6'7") et un entraînement à 4 positions.
Contrepoids central	2 consoles de 5500 lbs. Contrepoids central total 143300 lbs. 6 plaques de lest de 22050 lbs (option).

Partie tournante

Cadre de la partie tournante	Le cadre de la partie tournante Liebherr est composé de la partie tournante avec treuil IV et du chevalet démontable A, il est relié à la partie centrale du train de roulement par une couronne d'orientation à rouleaux.
Moteur de la grue avec isolation phonique	Diesel Liebherr 6 cylindres, type D946 A7, refroidissement par eau, puissance 400 kW (544 PS) à 1900 rpm, couple de rotation max. 1856 lbs-ft à 1300 rpm. Réservoir de carburant: env. 314 gallons. Emissions polluantes conformes aux normes 97/68/EG et EPA/CARB.
Treuil I	Treuil de levage standard, il est entraîné hydrauliquement par des pompes à débit variable à pistons axiaux avec réducteur planétaire intégré.
Treuil IV	Mécanisme de relevage.
Treuil de mouflage	Treuil auxiliaire pour le mouflage des câbles.
Mécanisme d'orientation	1 mécanisme d'orientation, il est entraîné hydrauliquement par des pompes à débit variable à pistons axiaux avec réducteur planétaire intégré.
Cabine du grutier	La cabine du grutier est climatisée, inclinable vers l'arrière, possède un vitrage de sécurité, un vitrage isolant thermiquement, une fenêtre de toit en verre blindé, des unités de commande normalisées disposées de façon ergonomique. Chauffage d'appoint et chauffage de l'eau régulé thermostatiquement.
Commande de la grue	Entrée des données de configuration par des fonctions interactives simples. Tous les mouvements de la grues sont commandés par deux manipulateurs à 4 voies et deux pédale/levier à 2 voies. Tous les mouvements de travail peuvent être commandés indépendamment.
Dispositifs de sécurité	Interrupteur de fin de course. Clapets de sécurité contre les ruptures de tuyaux et de flexibles. Coupure de fin de course du tambour avec 3 enroulements de sécurité. Anémomètre de sécurité. Inclinomètre électronique. Balise aérienne.
Contrôle vidéo	2 écrans couleur, 3 caméras pour la zone de treuils et la partie arrière.
Contrepoids	2 consoles de 11025 lbs chacune. Contrepoids total 418950 lbs. 18 plaques de lest à 22050 lbs (option).

Système de flèche

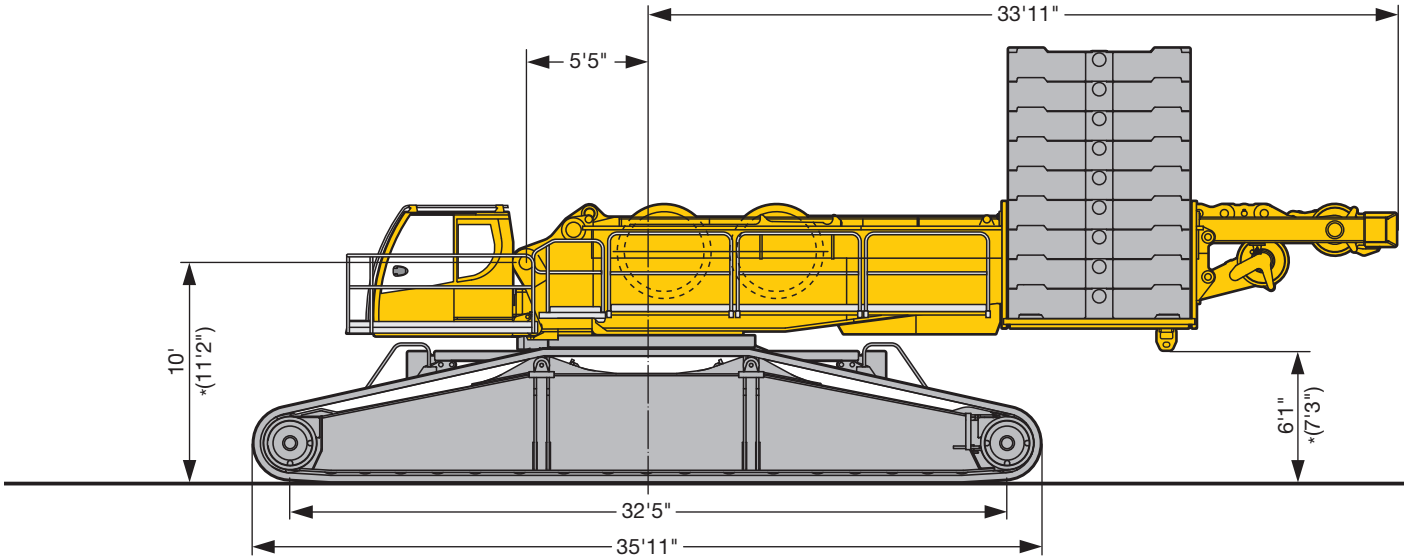
Flèche principale HS	Système 2825 avec élément de tête pour une capacité max. de 1322774 lbs. Longueur de la flèche S 79 – S 315 ft. Longueur de la flèche HSDB 118 – HSDB 472 ft avec système derrick.
Fléchette treillis à volée variable W	Système 2420 avec élément de tête pour une capacité max. de 1322774 lbs. Longueurs de flèche treillis 79 – 315 ft. Le treuil V est nécessaire pour fonctionnement fléchette treillis.
Fléchette treillis fixe F	Système 1916 avec élément de tête pour une capacité max. de 302000 lbs, montage possible sous 10°, 15° et 30°. Longueurs de flèche F 39 – F 118 ft.
Système derrick D	Le système 2420 comprend des tirants. Le treuil III est nécessaire au mode derrick. Longueur 98 ft/118 ft.
Palette de lest B	Pour un contrepoids derrick max. de 771600 lbs et rayons variables progressivement de 33 – 59 ft.
Remorque à contrepoids BW	Pour un contrepoids derrick max. de 771600 lbs pour un rayon max. de 59 ft, pour des rayons variables progressivement de 43 – 59 ft.
Contrepoids derrick	Plaques de poids total de 771600 lbs.
Fléchette pour charge lourde WV	Utilisation des parties disponibles de la flèche principale et de la fléchette treillis. Montage possible au niveau de la flèche S entre 12° et 20°. Longueur 39 – 315 ft.
Treuil II	2. treuil de levage.
Treuil III	Réglage flèche principale/mode derrick.
Treuil V	Réglage fléchette treillis à volée variable.
Treuil VI	Treuil de levage auxiliaire.
Poulie en extrémité de mât 79365 lbs	Elle sert au montage au niveau de la tête S, SL, W, WV.

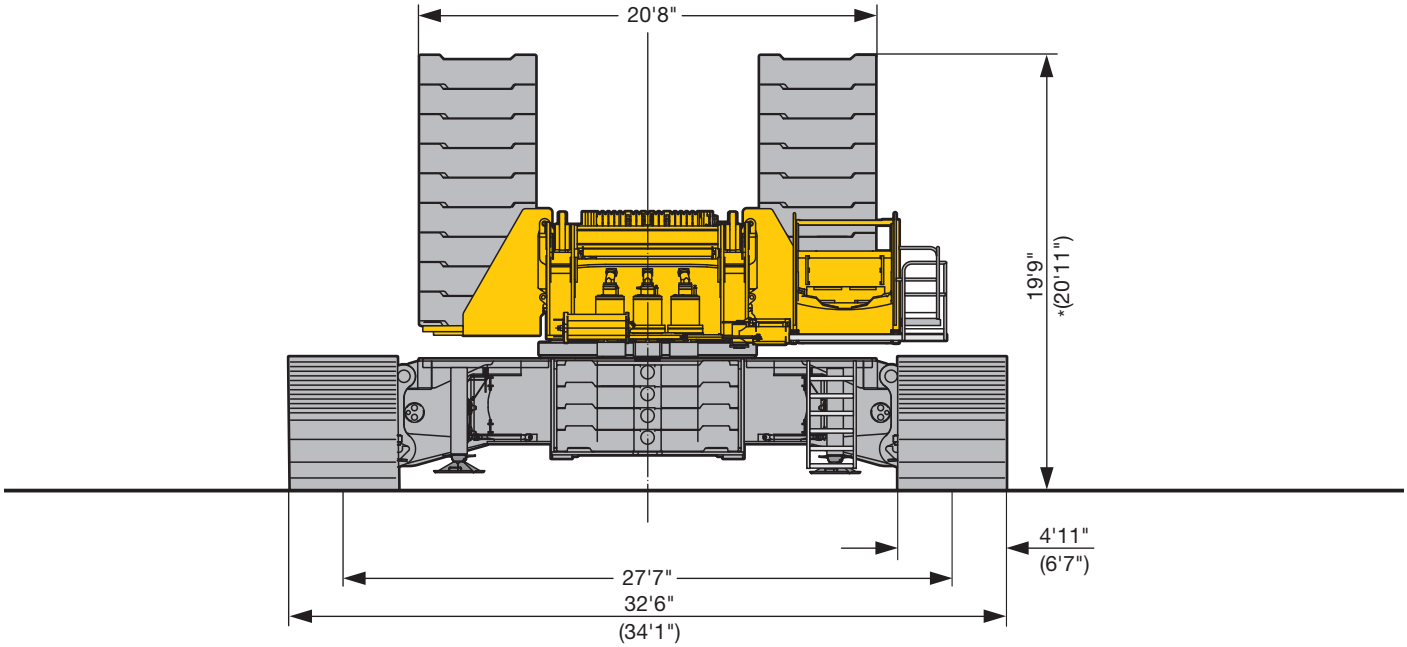
Equipement additionnel

Stabilisateur additionnel mécanique	Il sert au relevage de longues combinaisons de flèche sans contrepoids derrick.
Stabilisateurs hydrauliques de montage	Ils soulèvent l'engin de base pour le montage/démontage. Ils sont constitués de 4 vérins de calage dont les patins de calage montés sur l'élément central.
Vérin hydraulique de montage	Pour le montage autonome/démontage du train de chenilles.
Dispositif d'extraction des axes	Il est constitué du composant hydraulique mobile. Il sert à l'insertion et l'extraction d'axes des éléments intermédiaires S et W.

D'autres équipements additionnels sont disponibles sur demande. Les équipements de série et les options correspondent à la liste de prix actuelle.

Dimensions
Encombrement

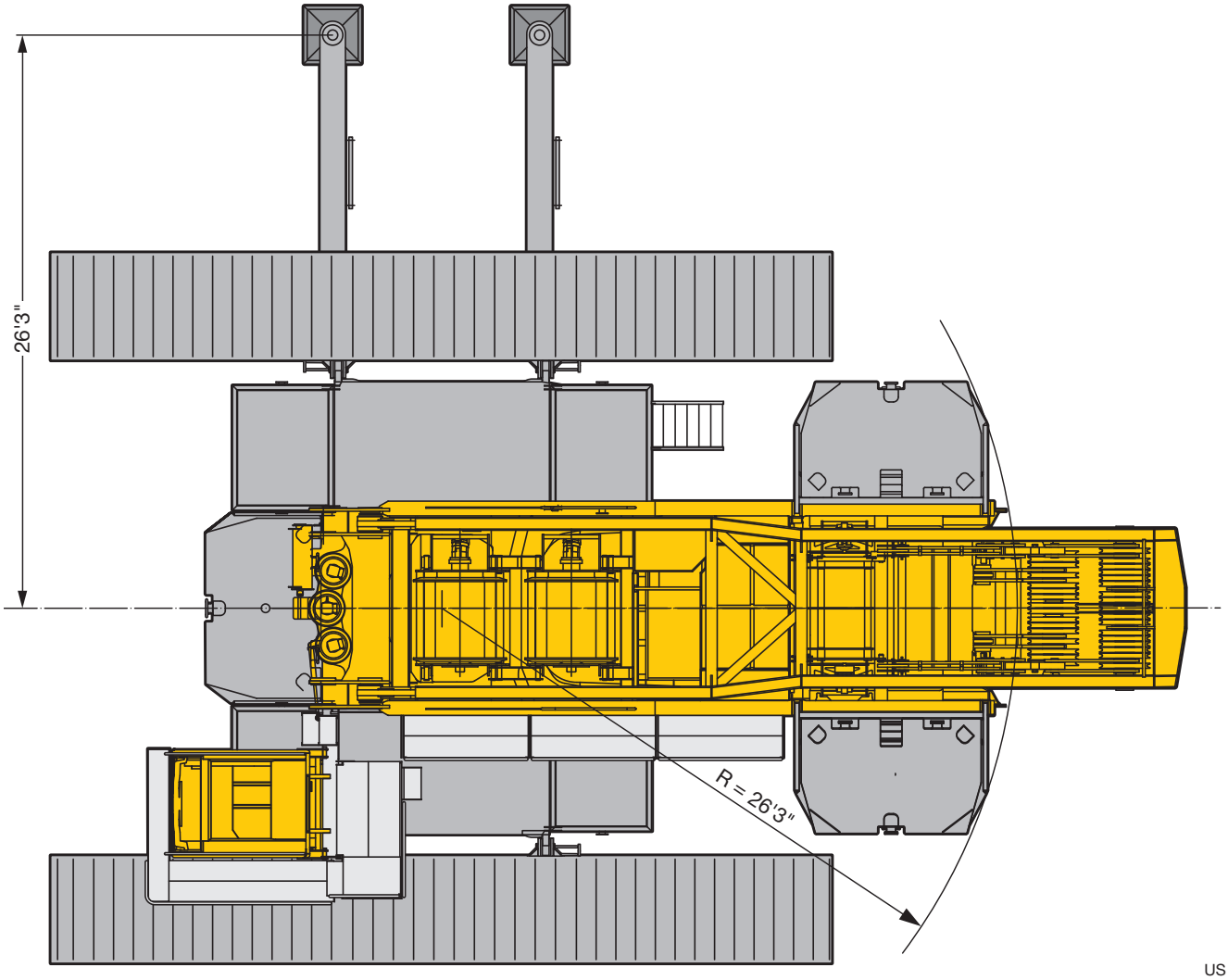




* Quick Connection / Raccord rapide

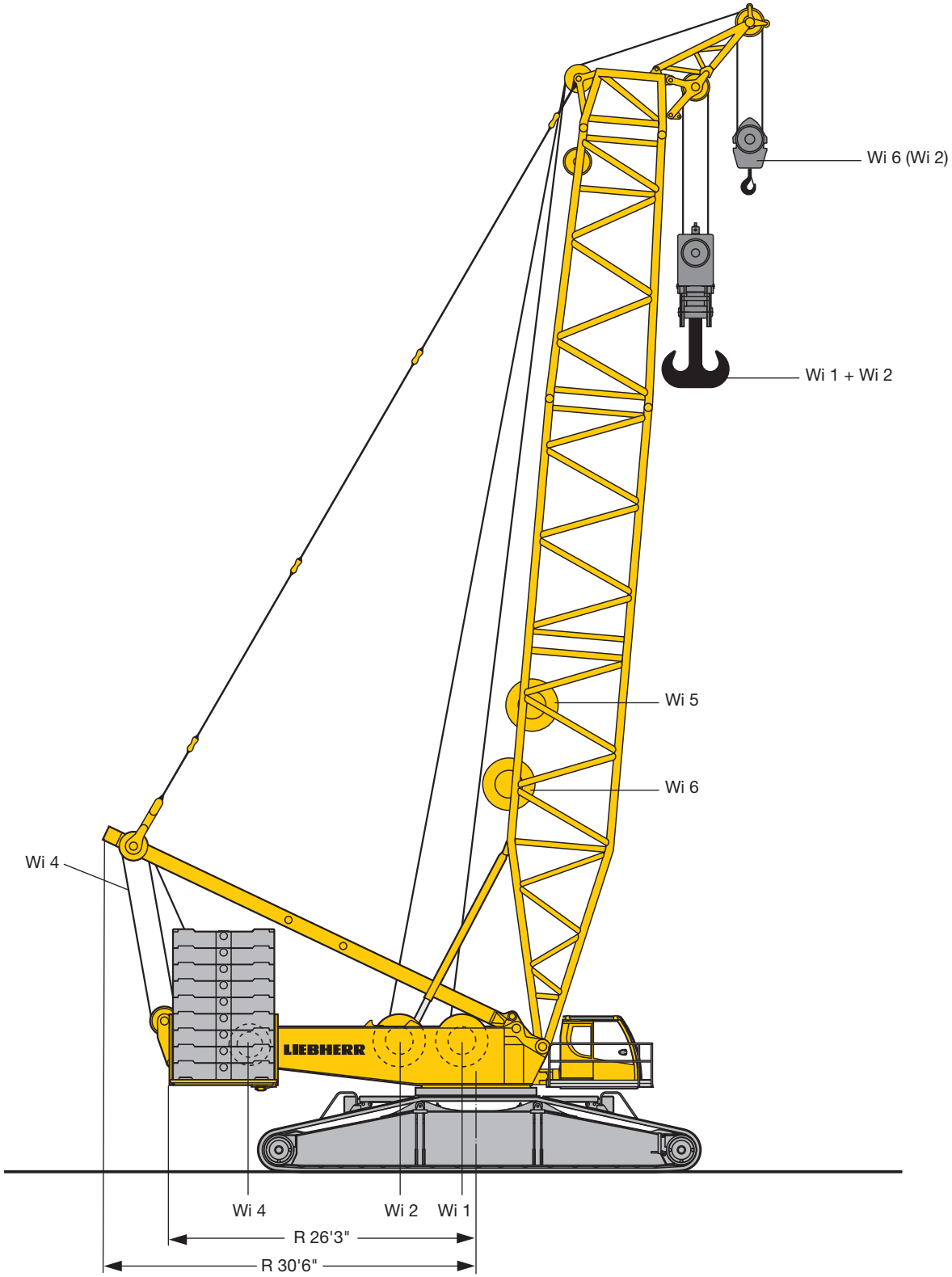
US2210.01

Dimensions
Encombrement



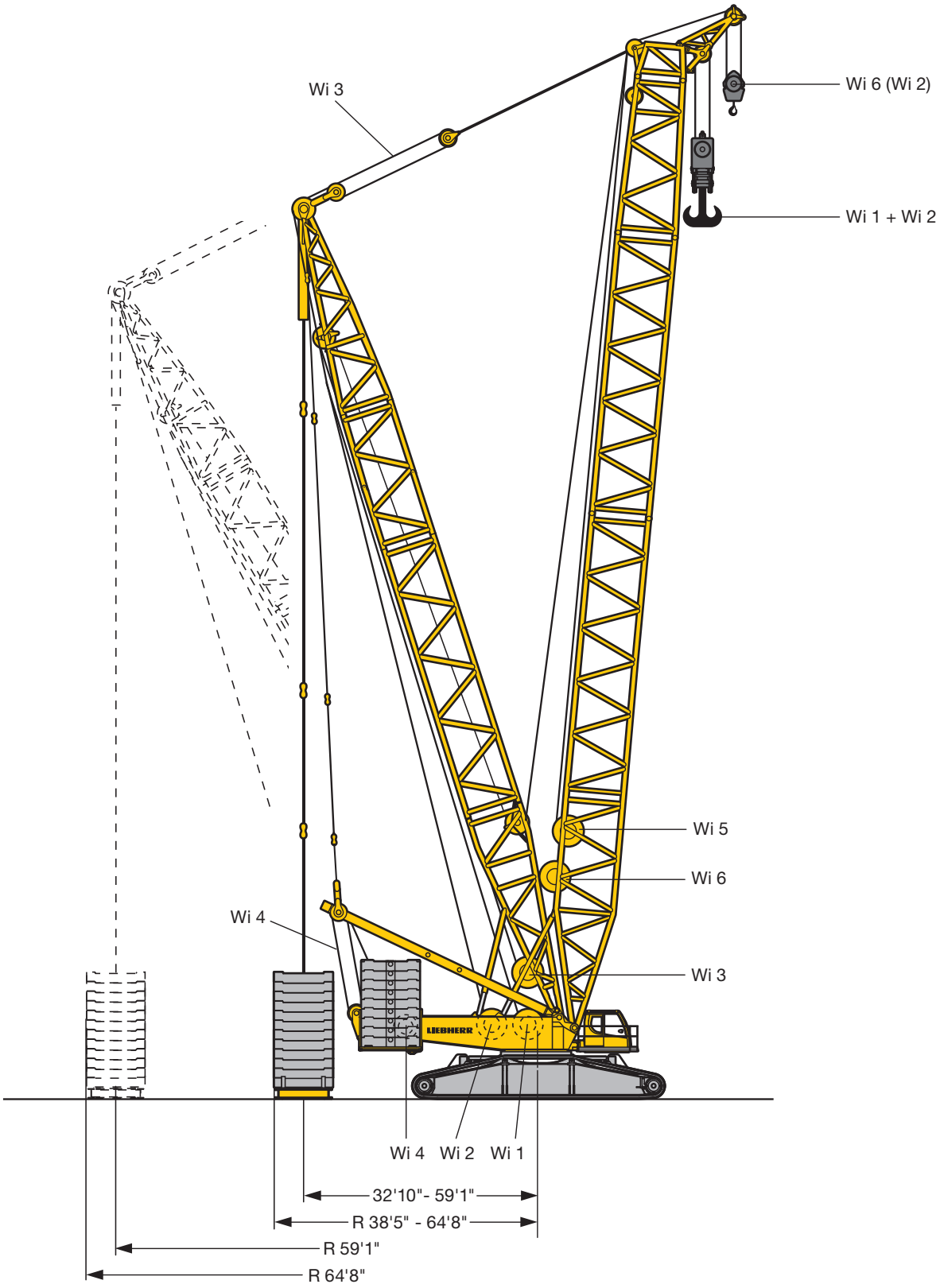
US 2211.01

Dimensions
Encombrement



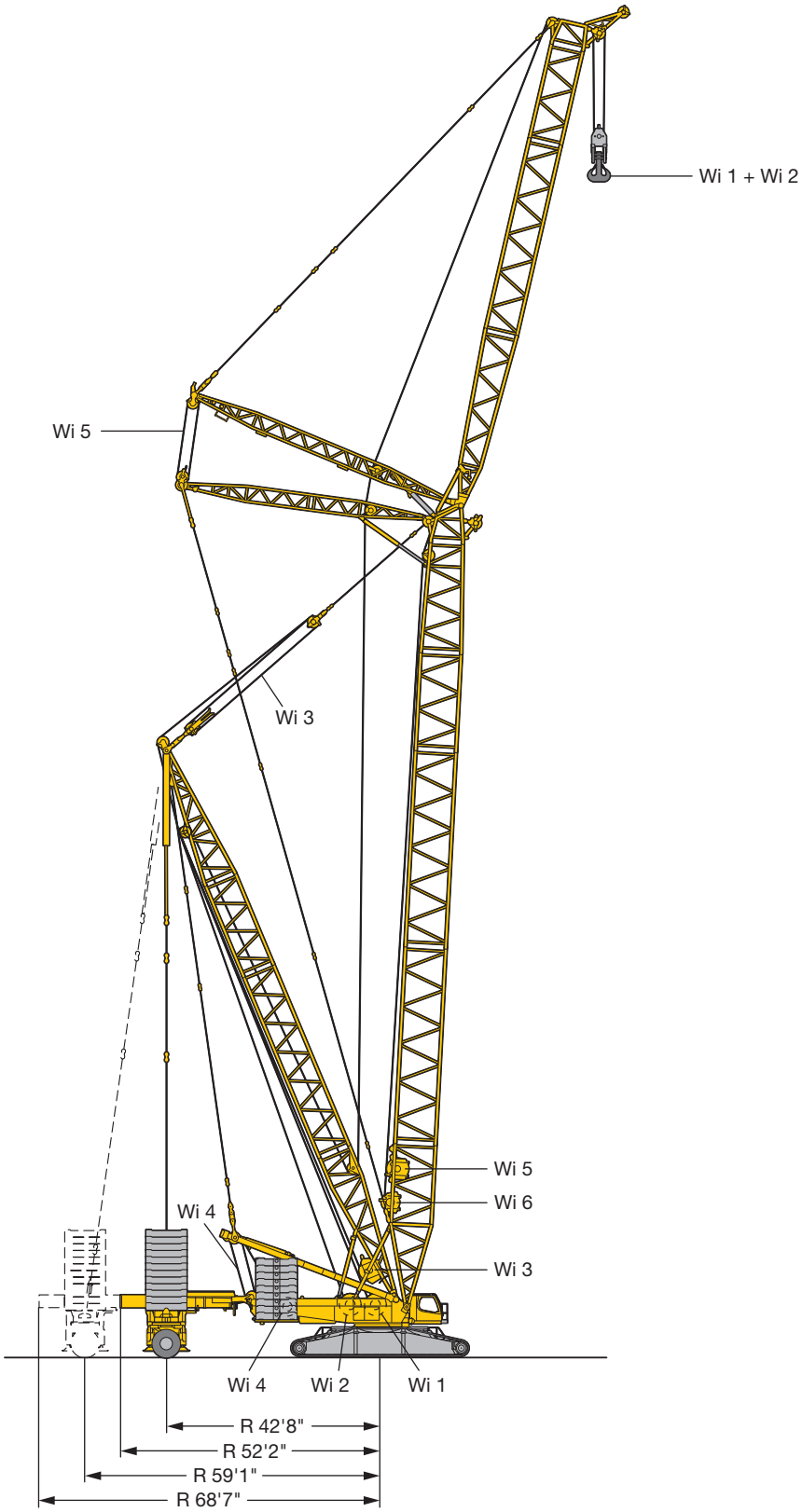
US2212

Dimensions
Encombrement



US2213.01

Dimensions
Encombrement

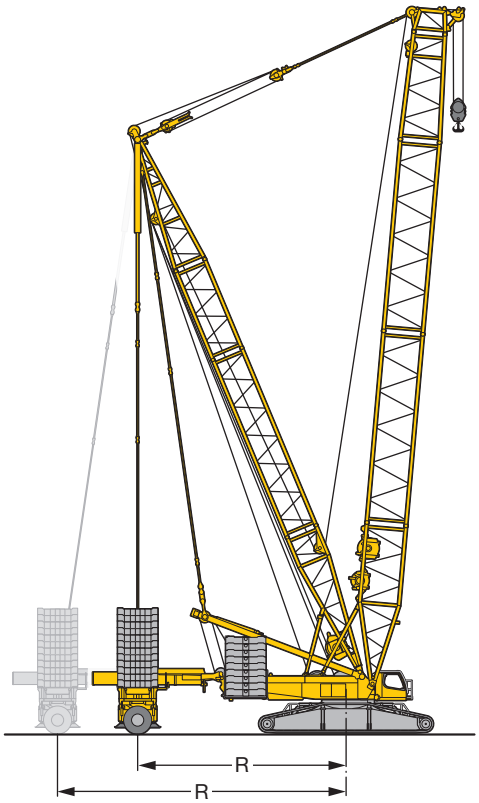


US2416.02

Dimensions
Encombrement

B ≙ R 32.8 ft - 59 ft

BW ≙ R 42.7 ft - 59 ft



B2 ≙ R 49.2 ft - 57.4 ft - 65.6 ft

US2819

Winches
Treuils

Drive Mécanismes	Working speeds Witesses	Max. single line pull Effort au brin maxi.	Rope diameter / length Diamètre / Longueur du câble
1	0 – 436 ft/min	39700 lbs	1.1" / 3609 ft
2	0 – 436 ft/min	39700 lbs	1.1" / 3609 ft
3	0 – 427 ft/min		
4	0 – 2 x 256 ft/min		
5	0 – 436 ft/min		
6	0 – 449 ft/min	27560 lbs	0.98" / 1970 ft

Working speeds
Vitesses

360°	Slewing speeds Vitesses d'orientation	0 - 0.95 rpm
mph	Travel speeds Vitesses de translation	0 - 0.95 mph

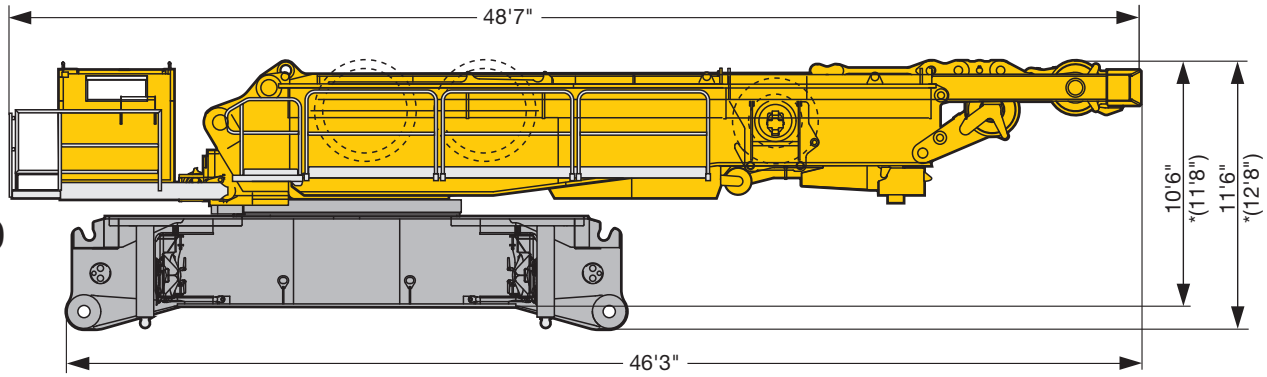
Hook blocks
Moufles à crochet

Load kips Forces de levage kips	Rope diameter Diamètre du câble	No. of sheaves Poulies	No. of lines Brins	Weight lbs Poids lbs
1320 / 660	1"	2 x 9	2 x 19	24250 – 35300 / 18750
790 / 395	1"	2 x 5	2 x 11	13300 – 24250 / 11025 – 15430
395	1"	5	11	4400 – 15430
265	1"	3	7	3300 – 12125
110	1"	1	3	2200 – 6600
35	1"	–	1	2425

Transportation plan
Plan de transport

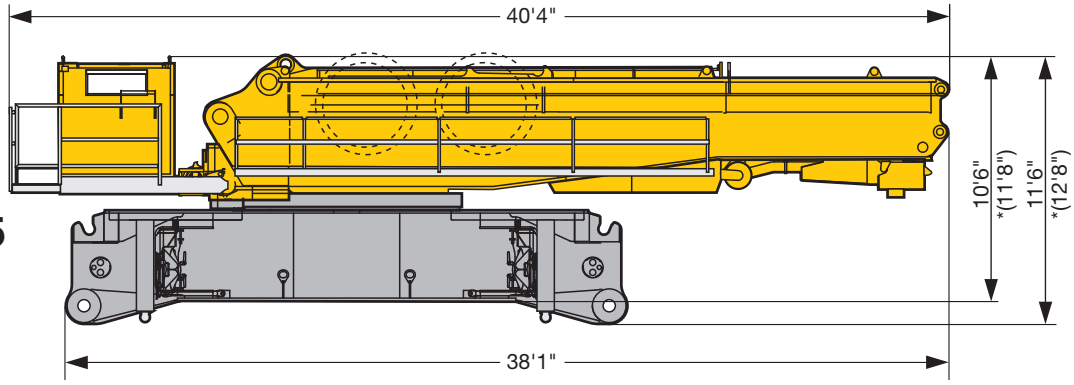
Superstructure and crawler center section with SA-frame, winch 4, with assembly jacks
Partie tournante et partie centrale du porteur avec chevalet SA, treuil 4, avec vérins de montage

163140 lbs



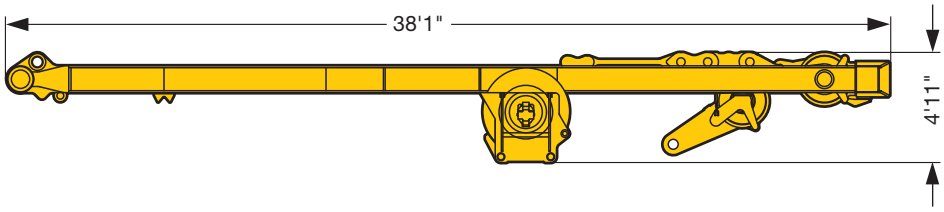
Superstructure and crawler center section, assembly jacks
Partie tournante et partie centrale du porteur, vérins de montage

125665 lbs



SA-frame, winch 4 incl. rope and pulley block
Chevalet SA, treuil 4 incl. câble et bloc de poulies

37480 lbs



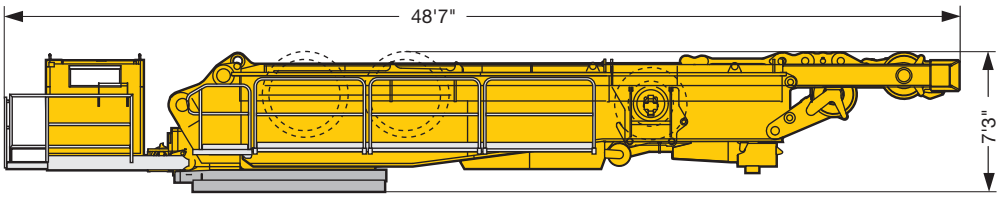
* Quick Connection / Raccord rapide

US2214

Transportation plan
Plan de transport

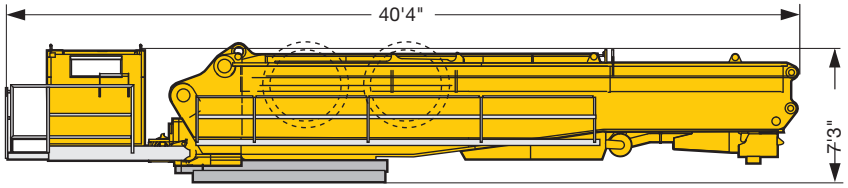
Superstructure with SA-frame, winch 4, quick connection
Partie tournante avec chevalet SA, treuil 4, quick connection

110250 lbs



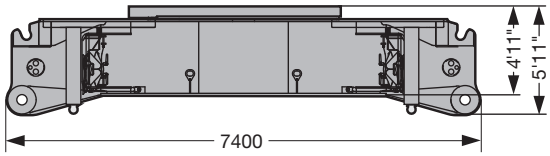
Superstructure with quick connection
Partie tournante avec quick connection

72750 lbs



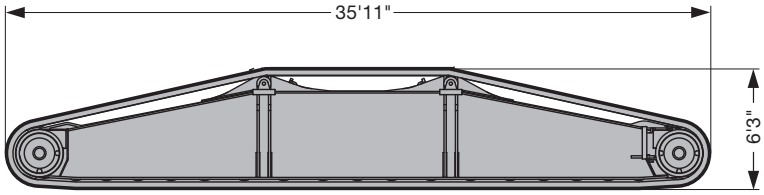
Crawler center section with assembly jacks, quick connection
Partie centrale du porteur avec vérins de montage, quick connection

59525 lbs



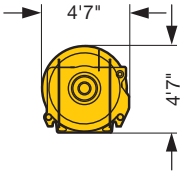
Crawler with track pads 4'11" (6'7")
Chenille avec pains de chenille de 4'11" (6'7")

72750 lbs
(2 x 83775 lbs)



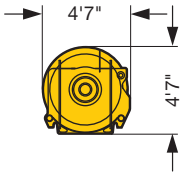
Winch 1 incl. rope
Treuil 1 incl. câble

16550 lbs



Winch 2 incl. rope
Treuil 2 incl. câble

16550 lbs



US2217.01

A

Boom/jib combinations
Configurations de flèche

S Main boom, heavy
Flèche principale, lourde

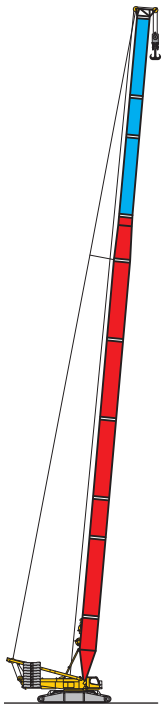
SL Main boom, heavy/light
Flèche principale, lourde/légère

D Derrick
Flèche derrick

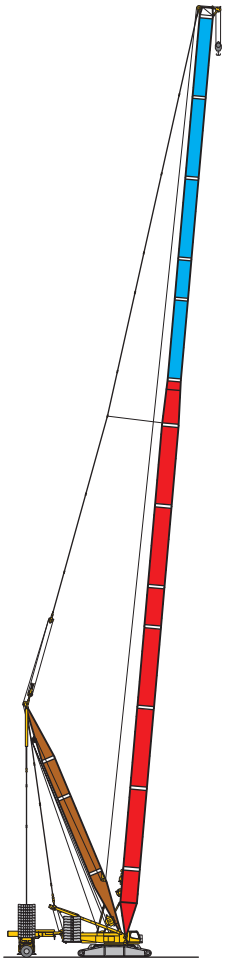
W Luffing fly jib, heavy
Flèchette, lourde

F Lattice fly jib
Fléchette treillis fixe

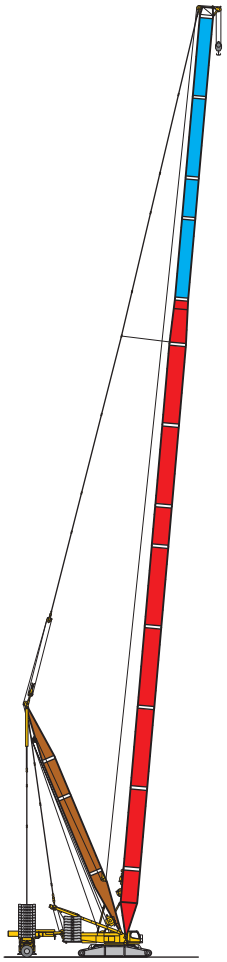
B Suspended ballast
Lest suspendu



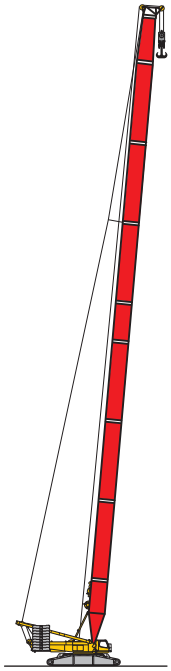
SL
177 ft - 335 ft



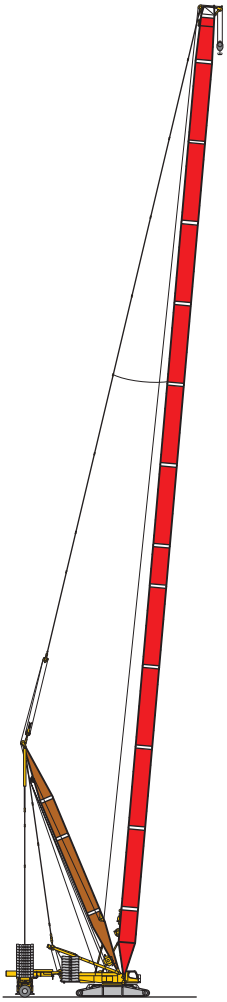
HSLDB/BW/B2
HSL 177 ft - 453 ft
D 118 ft



HSL2DB/BW/B2
HSL2 236 ft - 453 ft
D 118 ft



S
79 ft - 315 ft



HSDB/BW/B2
HS 138 ft - 473 ft
D 98 ft - 118 ft

US2847.01

B C D E F

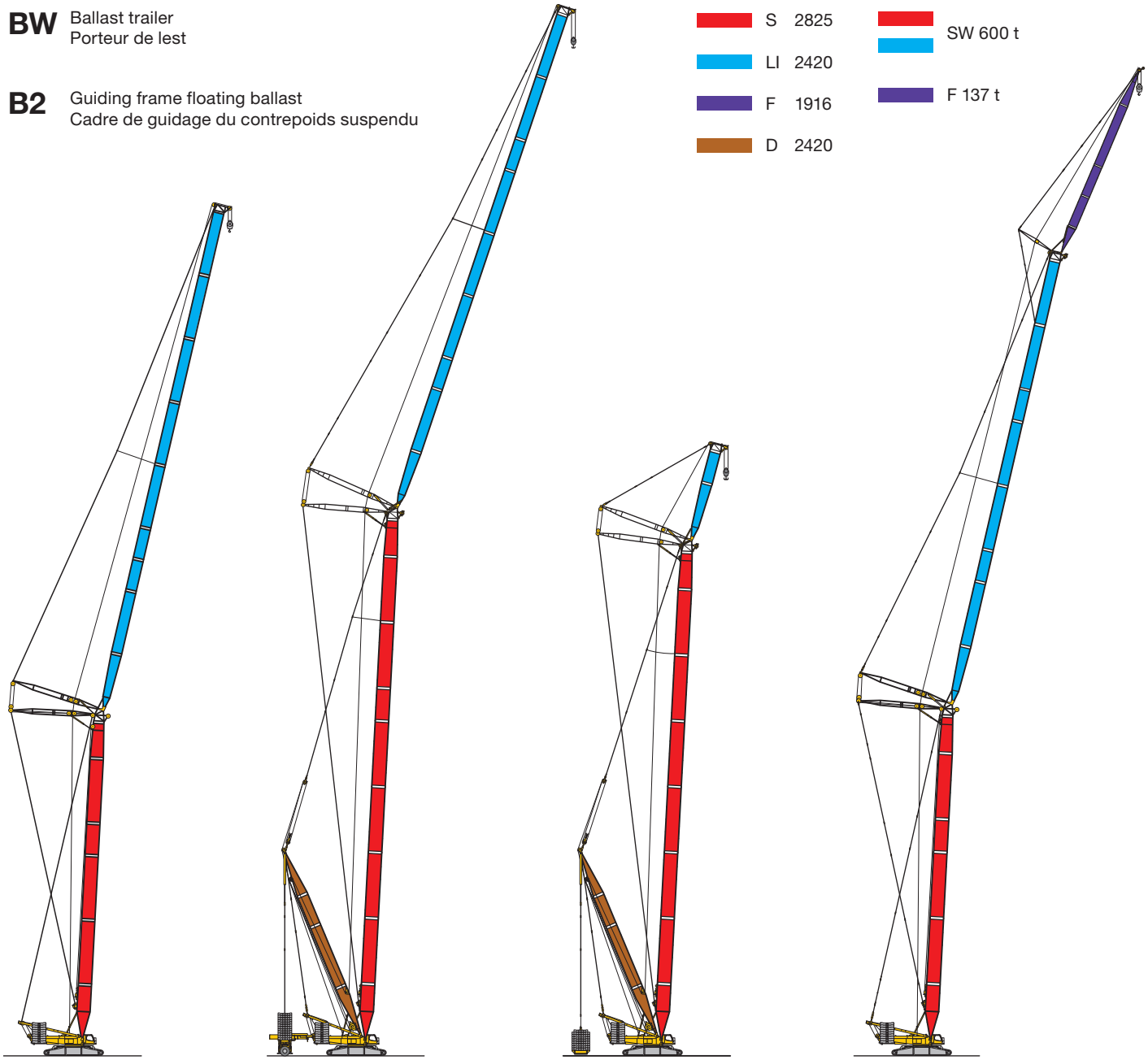
Boom/jib combinations
Configurations de flèche

BW Ballast trailer
Porteur de lest

B2 Guiding frame floating ballast
Cadre de guidage du contrepoids suspendu

S 2825
LI 2420
F 1916
D 2420

SW 600 t
F 137 t



SW
S 118 ft - 217 ft
W 79 ft - 315 ft

HSDWB/BW/B2
HS 138 ft - 335 ft
W 79 ft - 315 ft
D 98 ft - 118 ft

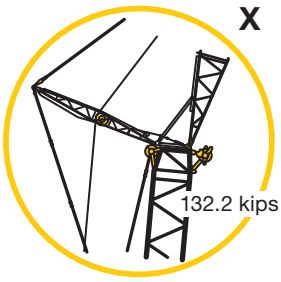
HSDWVB/BW/B2
HS 138 ft - 335 ft
WV 39 ft - 315 ft
D 98 ft - 118 ft

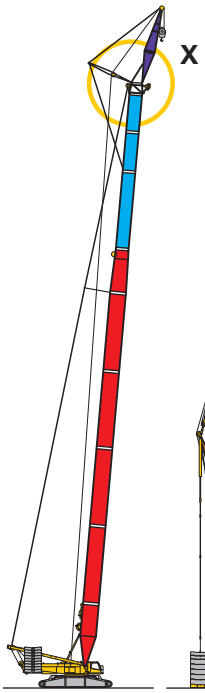
SWF
S 138 ft - 197 ft
W 157 ft - 276 ft
F 39 ft - 118 ft

US2847.01

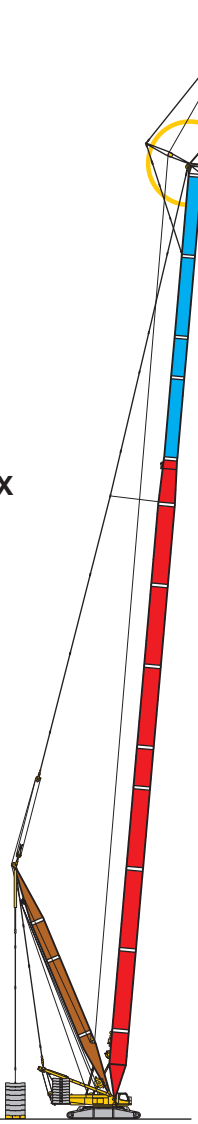
G H I J

Boom/jib combinations
Configurations de flèche

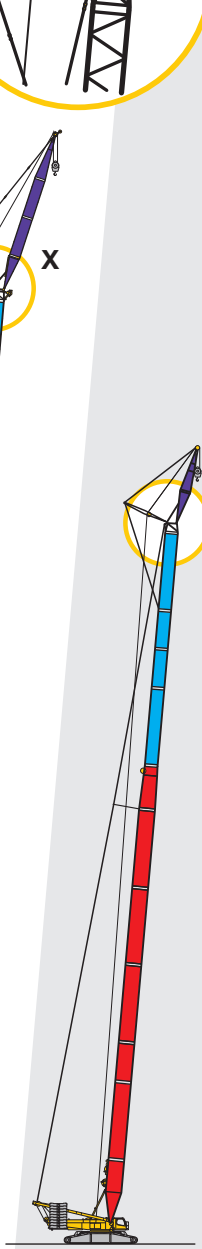




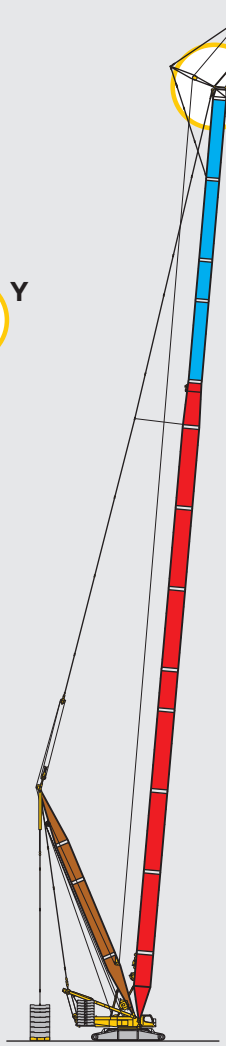
SLF
SL 177 ft - 295 ft
F 39 ft - 118 ft



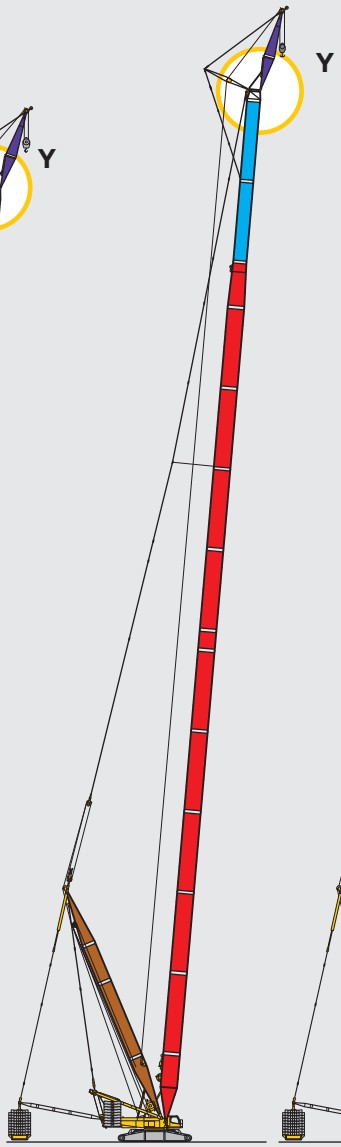
HSL2DFB/BW/B2
HSL2 236 ft - 453 ft
D 118 ft
F 39 ft - 118 ft



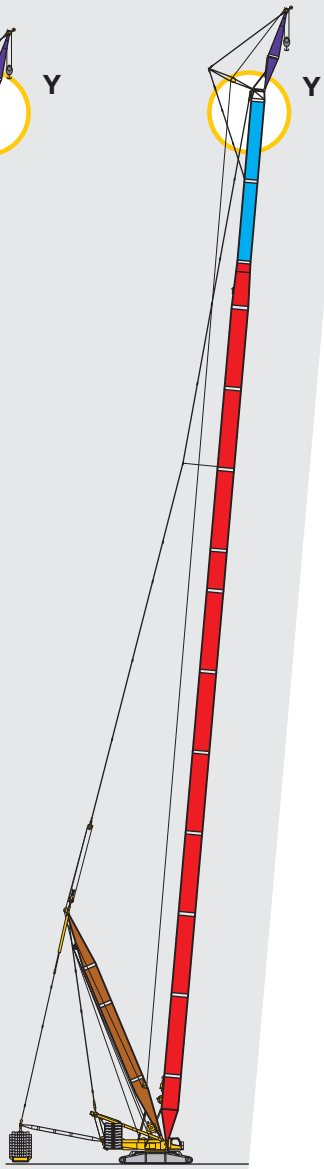
SL3F
SL3 236 ft - 354 ft
F 39 ft - 118 ft



HSL4DFB/BW/B2
HSL4 236 ft - 453 ft
D 118 ft
F 39 ft - 118 ft



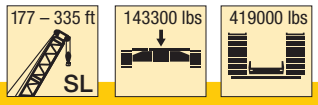
SL10DFB/B2
SL10 335 ft - 502 ft
D 118 ft
F 39 ft



SL13DFB/B2
SL13 335 ft - 512 ft
D 118 ft
F 39 ft

US2847.01

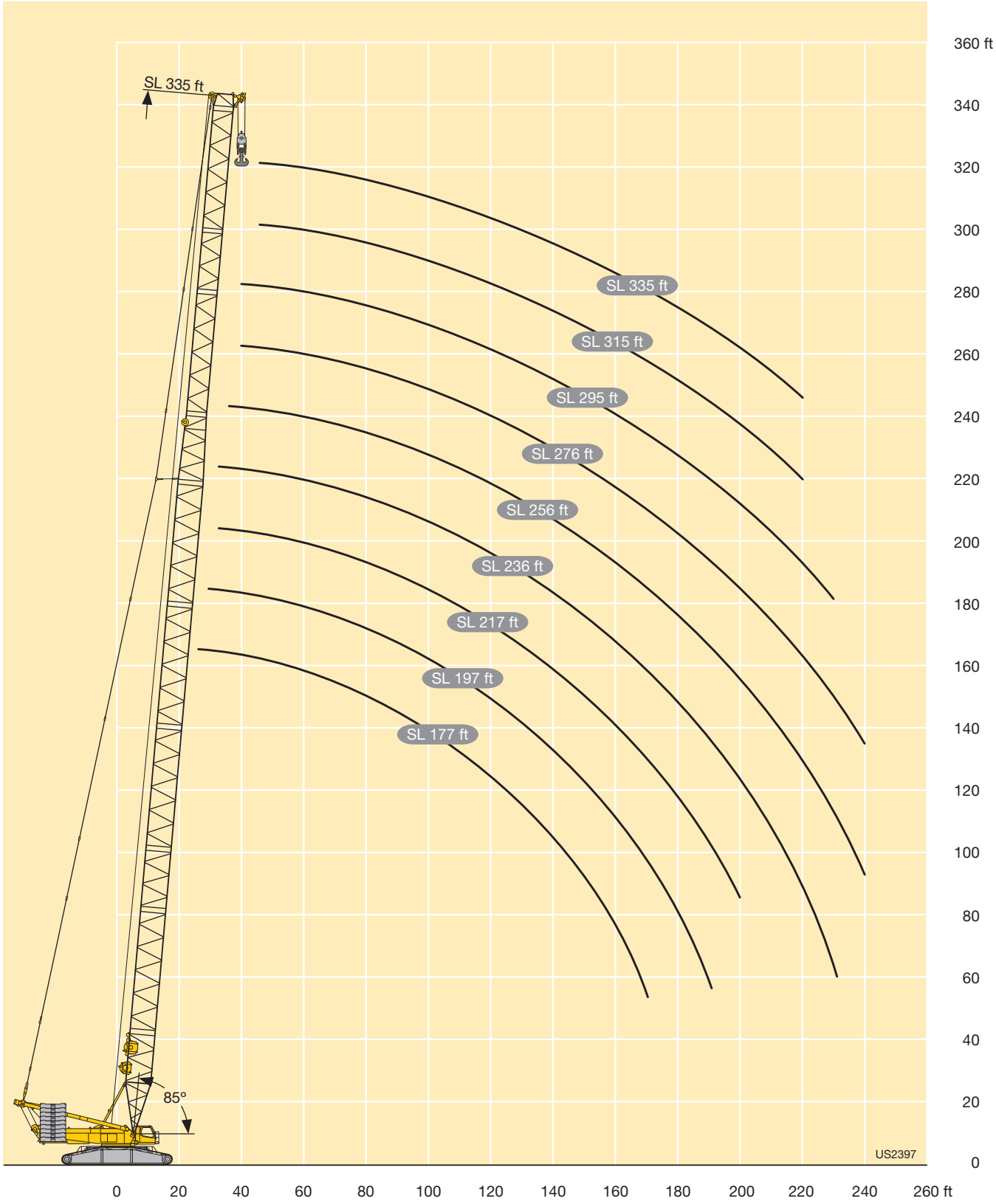
K L M N O P



ft	SL 177	SL 197	SL 217	SL 236	SL 256	SL 276	SL 295	SL 315	SL 335	ft
26	679									26
28	679									28
30	679	657								30
32	679	656	620	572						32
34	665	643	612	567						34
36	641	622	598	559	521					36
38	605	585	563	535	509					38
40	569	549	529	510	493	456	419			40
45	492	476	459	444	431	410	379	343	314	45
50	429	419	404	391	381	367	346	320	295	50
55	374	369	359	347	339	328	315	295	273	55
60	327	325	320	311	304	294	285	273	254	60
65	290	288	285	280	274	266	257	250	237	65
70	260	258	255	253	250	242	234	227	220	70
75	235	232	230	228	227	220	213	207	202	75
80	213	211	208	206	205	201	195	189	185	80
85	194	192	189	187	187	184	178	173	169	85
90	178	176	173	171	171	168	164	160	156	90
95	165	162	159	157	157	154	151	147	143	95
100	152	150	146	144	144	142	139	136	132	100
105	141	138	135	133	133	130	128	125	122	105
110	131	129	125	123	123	121	118	116	113	110
115	123	120	117	115	114	112	109	108	104	115
120	115	112	109	106	106	103	101	99.5	96.5	120
125	107	105	101	99	98.5	96	93.5	92	89.5	125
130	101	98	94.5	92.5	92	89.5	86.5	85	83	130
135	95	92	88.5	86.5	86	83.5	80.5	79	77	135
140	89.5	86.5	83	81	80.5	77.5	74.5	73	71	140
150	79.5	76.5	73	70.5	70	67	64	62	60.5	150
160	71.5	68	64	61.5	60.5	57.6	54.4	52.4	50.9	160
170	64	60.5	56.2	53.4	52.6	49.5	46.2	44.1	42.6	170
180		53.8	49.5	46.6	45.7	42.5	39.3	37.1	35.5	180
190		47.9	43.5	40.5	39.5	36.3	33	30.8	29.2	190
200			38.2	35.1	34	30.8	27.4	25.1	23.5	200
210				30.2	29.1	25.8	22.4	20.1	18.3	210
220				26.1	24.8	21.5	18	15.6	13.8	220
230				22.5	21	17.6	14.1			230
240					17.5	14				240

TAB 181018

Lifting heights
Hauteurs de levage



ft		HSL 177 – 453														
		177	197	217	236	256	276	295	315	335	354	374	394	413	433	453
30	–	670														
	B	676														
	B2	675														
	BW	675														
32	–	654	617													
	B	677	673	659												
	B2	677	594													
	BW	677	629													
34	–	623	595													
	B	679	673	667												
	B2	678	669	661												
	BW	679	672	662												
36	–	583	557	532	510											
	B	680	672	668	645											
	B2	679	671	663	490											
	BW	681	673	663	642											
38	–	549	525	504	484											
	B	682	674	669	647											
	B2	681	673	665	648											
	BW	683	674	665	647											
40	–	517	496	476	458	443	426									
	B	684	676	670	647	600	572									
	B2	683	675	667	649	601	572									
	BW	685	676	667	648	601	572									
45	–	451	434	418	403	390	376	354	339	331						
	B	687	681	671	645	604	576	533	496	436						
	B2	689	681	673	653	604	576	501	483	439						
	BW	691	682	673	653	604	576	534	491	440						
50	–	399	385	371	358	348	336	324	310	304						
	B	694	685	675	650	605	572	533	497	429						
	B2	696	687	679	659	608	579	536	498	432						
	BW	696	688	678	659	608	579	536	497	433						
55	–	356	343	331	320	312	301	292	279	274	266	254	247	220		
	B	697	690	677	647	607	573	533	493	423	349	359	307	264		
	B2	699	693	684	659	613	582	539	498	423	341	350	297	256		
	BW	698	694	684	659	613	583	538	497	424	341	350	297			
60	–	320	308	298	288	281	272	263	252	247	241	229	223	216	210	189
	B	694	694	683	642	606	579	533	487	417	341	356	305	262	221	191
	B2	699	696	689	659	617	585	542	495	413	331	346	295	254	212	184
	BW	696	698	690	657	617	586	542	495	414	331	346	295	254	212	184
65	–	289	279	270	261	255	247	239	228	225	219	208	203	197	191	184
	B	704	683	688	656	605	573	533	485	409	329	354	304	260	220	189
	B2	705	689	693	674	622	583	545	493	401	318	343	294	253	211	183
	BW	704	688	695	674	623	583	545	492	402	318	343	294	253	211	183
70	–	264	255	247	239	233	226	219	208	206	201	190	185	180	174	170
	B	705	689	673	661	607	573	524	482	398	318	352	302	257	218	187
	B2	705	700	687	676	628	592	536	488	389	305	342	293	252	210	182
	BW	705	697	682	676	628	591	535	488	390	305	342	293	252	210	182
75	–	239	233	226	218	214	207	200	191	188	184	174	169	164	159	155
	B	704	693	663	654	610	577	519	474	388	307	351	299	255	216	184
	B2	705	705	685	666	632	598	528	479	377	291	341	293	251	210	182
	BW	705	701	672	669	632	598	528	479	377	291	341	292	251	210	182
80	–	217	214	207	200	197	190	184	175	173	169	159	155	150	146	142
	B	694	688	655	637	605	577	513	463	377	296	349	297	252	213	182
	B2	702	705	684	653	628	600	521	466	365	278	340	292	251	210	181
	BW	699	698	665	655	630	600	522	466	365	278	340	292	251	210	181
85	–	198	196	191	185	181	175	169	161	159	155	146	142	138	134	130
	B	665	679	642	620	591	572	508	453	365	285	346	295	250	210	180
	B2	689	703	678	648	607	599	512	452	353	266	339	291	250	209	180
	BW	675	688	651	635	612	596	513	453	353	266	340	291	250	209	180
90	–	182	180	177	171	168	162	157	148	147	143	134	131	127	123	120
	B	636	646	627	602	576	557	498	442	354	275	343	291	246	208	178
	B2	668	674	668	635	602	585	502	439	341	254	339	291	249	209	179
	BW	645	655	636	615	593	579	501	440	341	254	340	291	249	209	179
95	–	167	165	164	158	156	150	145	137	136	133	124	121	117	113	110
	B	607	612	604	584	560	541	485	432	342	265	339	288	243	206	177
	B2	645	643	645	621	593	571	491	427	330	241	339	290	247	208	178
	BW	616	621	612	595	575	560	488	427	330	242	340	290	248	208	178
100	–	154	152	151	147	144	139	134	126	126	123	114	111	107	104	101
	B	580	579	575	564	545	526	475	423	332	254	336	285	242	204	175
	B2	620	612	615	603	579	557	483	418	320	229	339	289	246	206	177
	BW	588	587	584	573	557	542	478	417	320	230	340	289	246	206	177
105	–	143	141	139	136	134	129	125	117	116	113	105	102	98.7	95.2	92.9
	B	553	545	547	540	530	510	475	415	325	244	333	283	240	202	172
	B2	592	581	585	578	566	543	480	412	314	218	339	289	244	204	174
	BW	561	552	555	549	539	523	478	412	313	218	340	289	244	204	174
110	–	133	131	129	127	125	120	116	108	108	105	96.9	94.3	91	87.6	85.4
	B	527	520	519	516	509	495	467	407	319	239	327	282	238	200	170
	B2	564	556	555	552	545	528	473	404	309	214	338	288	242	202	172

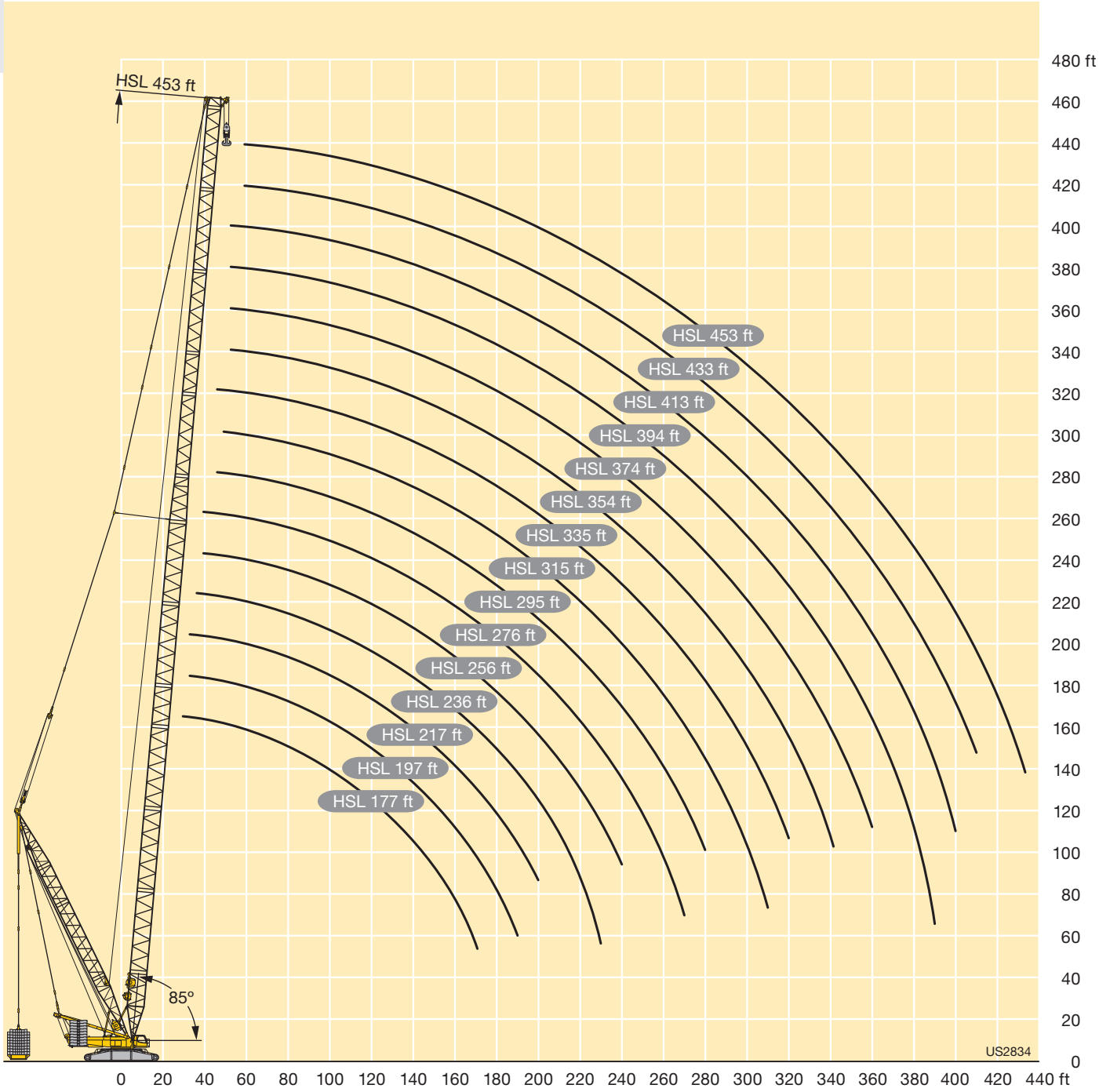
HSLDB/B2/BW

HSL 177 – 453

ft		HSL 177 – 453														
		177	197	217	236	256	276	295	315	335	354	374	394	413	433	453
115	–	124	122	120	118	117	112	108	100	100	97.5	89.4	86.9	83.8	80.5	78.5
	B	501	498	492	492	489	478	458	399	314	234	320	278	236	197	168
	B2	536	533	526	527	523	512	465	396	304	211	333	285	240	200	169
	BW	508	505	499	499	497	486	461	397	304	212	331	286	240	200	169
120	–	116	113	111	109	109	104	100	93.1	92.8	90.4	82.4	80	77	73.9	72
	B	477	476	470	468	468	460	448	391	308	229	315	272	233	195	165
	B2	510	510	502	501	501	493	456	388	299	208	329	282	237	198	167
	BW	483	483	476	475	476	468	451	389	299	209	327	283	237	198	167
125	–	108	105	103	101	101	97.2	93.4	86.2	86.1	83.8	75.9	73.6	70.7	67.8	65.9
	B	456	454	451	444	447	442	434	382	302	223	313	266	229	193	163
	B2	489	487	483	476	479	474	443	380	293	205	329	279	234	195	164
	BW	462	461	458	451	455	450	437	381	294	206	329	279	234	196	164
130	–	101	98.3	96.2	93.9	94.2	90.8	87.1	80	80	77.7	69.9	67.8	65	62.1	60.3
	B	438	432	433	427	426	424	419	372	296	218	308	266	225	189	160
	B2	470	464	464	458	457	455	426	370	288	201	325	275	230	192	162
	BW	444	439	439	433	433	431	422	371	289	202	326	275	230	192	162
135	–	95.2	92.3	90.2	87.4	87.6	84.6	81.4	74.4	74.4	72.2	64.5	62.5	59.8	57	55.3
	B	421	415	414	411	409	406	403	359	288	212	303	263	221	185	157
	B2	451	446	444	441	439	436	410	359	281	198	322	270	226	189	159
	BW	426	422	420	417	416	413	406	358	281	199	322	271	226	189	159
140	–	89.6	86.6	84.4	81	81.2	78.4	75.9	69	69.1	66.9	59.3	57.3	54.7	52	50.4
	B	403	400	396	395	393	388	387	346	280	207	298	259	218	182	154
	B2	432	429	425	424	422	416	394	346	273	194	318	266	222	185	156
	BW	408	406	402	401	400	395	390	345	274	195	319	267	222	185	156
150	–	78.7	75.5	73.2	69.8	70.1	67.6	65.8	59.1	59.3	57.3	49.8	47.9	45.5	42.9	41.4
	B	364	370	366	364	364	359	357	319	262	193	286	250	210	175	147
	B2	391	397	393	391	391	385	363	322	256	183	310	258	214	178	149
	BW	374	375	371	369	370	365	360	321	257	183	309	259	215	179	150
160	–	68.8	65.4	63	60.6	60.8	58.5	56.8	50.4	50.7	48.7	41.3	39.6	37.2	34.7	33.4
	B	322	340	341	335	337	334	329	294	243	177	274	240	202	172	145
	B2	348	366	366	360	363	360	335	298	238	168	301	250	207	172	143
	BW	340	347	346	340	343	340	333	297	239	169	297	251	207	172	144
170	–	61.4	58	55.7	53.2	53.3	50.9	49.2	42.7	43	41.1	33.8	32.1	29.9	27.5	26.2
	B	282	310	316	314	311	311	308	271	224	162	264	226	193	169	141
	B2	303	334	340	338	334	335	313	277	220	154	291	244	200	165	137
	BW	303	322	321	319	316	316	312	275	221	154	284	244	199	165	137
180	–		52	49.5	46.8	47	44.5	42.5	36	36.3	34.5	27.3	25.6	23.5	21.1	19.9
	B		279	292	293	292	288	286	253	209	146	253	218	185	159	135
	B2		303	314	316	315	311	291	258	206	139	281	237	193	159	131
	BW		299	300	298	297	293	291	257	206	140	270	237	194	160	132
190	–		46.8	43.9	40.3	40.4	37.9	36	29.9	30.2	28.4	21.3	19.7	17.6	15.3	
	B		236	268	273	274	267	265	236	195	134	242	213	179	150	129
	B2		260	289	294	296	289	270	240	193	128	270	230	187	154	127
	BW		260	281	278	279	274	271	239	193	130	256	231	188	155	127
200	–			38.7	34.4	34.4	31.9	30.2	24.4	24.7	22.9					
	B			241	253	256	249	245	218	182	124	230	207	173	146	123
	B2			262	273	277	270	250	222	180	120	258	223	181	149	123
	BW			261	260	261	257	251	222	181	121	243	223	182	150	123
210	–				30.2	30.1	27.5	25.7	19.3	19.6	17.9					
	B				233	237	231	226	201	169	114	219	200	168	141	117
	B2				253	257	250	233	205	168	111	244	216	175	144	119
	BW				245	243	240	233	204	168	112	229	215	176	145	119
220	–				26.2	26.3	23.3	21.3	15	15.2	13.4					
	B				210	217	213	208	186	156	104	207	192	161	136	113
	B2				230	236	231	216	193	156	103	230	209	170	139	114
	BW				227	227	223	215	190	156	103	215	205	171	140	114
230	–				22.6	22.5	19.2	17.1								
	B				173	197	195	189	171	144	95.3	195	184	157	130	108
	B2				194	214	211	198	180	145	94.7	216	201	166	135	110
	BW				193	211	207	197	176	145	95	202	195	167	136	110
240	–					19	15.5									
	B					175	177	172	157	133	87	184	176	154	126	105
	B2					192	192	182	168	134	87	203	194	162	132	107
	BW					192	190	180	162	134	87.2	189	185	162	132	107
250	–															
	B						159	156	144	121	79.6	173	168	150	123	101
	B2						173	165	155	123	79.9	191	186	157	128	104
	BW						173	164	148	123	80	177	175	158	128	104
260	–															
	B						140	141	133	111	72.3	164	159	147	119	97.9
	B2						152	150	142	112	72.8	181	178	153	125	101
	BW						152	149	136	112	72.8	168	166	154	125	101
270	–															
	B						117	128	122	101	65.1	155	152	143	116	95.1
	B2						124	134	129	102	65.7	172	170	148	121	98.1
	BW						124	134	126	103	65.8	159	157	149	121	98.2
280	–															
	B							114	111	92.1	58.2	146	144	137	113	92.4
	B2							118	117	93.4	58.6	162	161	144	118	95.2
	BW							119	115	93.8	58.8	149	148	143	117	95.3

ft		HSL 177 – 453														
		177	197	217	236	256	276	295	315	335	354	374	394	413	433	453
290	–															
	B								102	83.6	51.2	137	136	130	110	89.7
	B2								104	84.9	51.4	153	152	139	115	92.3
	BW								104	85.2	51.7	140	140	136	114	92.3
300	–															
	B								90.6	75.3	44.6	129	128	123	107	86.6
	B2								91.7	76.4	44.2	144	144	134	113	90
	BW								91.8	76.6	44.5	132	131	129	111	90.3
310	–															
	B								73.5	67	38.1	121	120	117	104	85.8
	B2								74.1	67.4	37.1	137	135	129	111	88.1
	BW								74.2	67.6	37.2	125	123	122	108	88.6
320	–															
	B									59.1	31.6	114	113	110	100	84.9
	B2									57.2	30	129	128	125	109	86.4
	BW									57.6	30.2	119	116	115	105	87.1
330	–															
	B										25.3	107	107	103	97.2	83.6
	B2										23.1	121	121	119	107	84.6
	BW										23.3	112	111	108	102	85.6
340	–															
	B										19	100	101	97.8	93.9	82.2
	B2										16.8	114	114	113	105	82.9
	BW										16.8	106	105	103	99.3	84
350	–															
	B											89.8	94.3	92	89	80.9
	B2											104	107	107	101	81.1
	BW											99.4	99.1	98.3	94.7	82.4
360	–															
	B											65.2	87.2	86.3	83.8	78.4
	B2											87.6	99.9	101	96.9	79.4
	BW											85.9	93.5	93.2	89.8	80.3
370	–															
	B												79	80.5	78.4	75
	B2												91.7	94.5	92.4	77.8
	BW												87.9	88.1	84.9	77.6
380	–															
	B												69.6	74.5	73	70.9
	B2												82.4	87.8	88	76.2
	BW												81.9	82.8	79.8	74.5
390	–															
	B												27.8	67.6	67.6	66.9
	B2													79.4	83.4	74.6
	BW													76.7	74.8	71.5
400	–															
	B													23.4	62.1	62.9
	B2														76.9	73
	BW														70.2	68.4
410	–															
	B														55.2	58.8
	B2														67.7	70.6
	BW														64.3	65.2
420	–															
	B															54.4
	B2															66.4
	BW															61.6
430	–															
	B															49.7
	B2															59.6
	BW															57.5

C


HSL 453 ft
HSL 453 ft
HSL 433 ft
HSL 413 ft
HSL 394 ft
HSL 374 ft
HSL 354 ft
HSL 335 ft
HSL 315 ft
HSL 295 ft
HSL 276 ft
HSL 256 ft
HSL 236 ft
HSL 217 ft
HSL 197 ft
HSL 177 ft
85°
US2834
480 ft
460
440
420
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340
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220
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60
40
20
0
0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400 420 440 ft

ft		HSL2 236 – 453											
		236	256	276	295	315	335	354	374	394	413	433	453
36	–	510											
	B	645											
	B2	490											
	BW	642											
38	–	484											
	B	647											
	B2	648											
	BW	647											
40	–	458	439	422									
	B	647	626	599									
	B2	649	626	599									
	BW	648	627	598									
45	–	403	387	372	348	334	323						
	B	645	629	601	564	523	489						
	B2	653	630	603	552	479	482						
	BW	653	631	602	553	524	482						
50	–	358	344	332	318	306	296						
	B	650	629	596	561	524	489						
	B2	659	635	605	548	527	480						
	BW	659	636	606	548	527	480						
55	–	320	308	297	285	274	265	257	250	242	216		
	B	647	631	598	556	522	485	441	386	337	294		
	B2	659	640	608	543	527	477	446	390	340			
	BW	659	641	610	542	527	477	446	390	340			
60	–	288	277	268	257	247	239	231	225	218	212	206	201
	B	642	630	603	551	515	480	438	384	336	293	254	220
	B2	659	645	611	536	525	474	444	389	339	296	245	209
	BW	657	644	613	536	525	474	444	389	339	296	245	209
65	–	261	251	243	233	224	217	209	204	198	193	187	183
	B	656	620	595	549	511	476	434	381	334	292	253	219
	B2	674	650	606	530	522	470	442	388	338	295	243	207
	BW	674	651	610	530	522	471	442	388	338	295	243	207
70	–	239	229	222	212	204	197	191	186	180	176	171	167
	B	661	630	600	532	505	472	432	380	332	291	252	218
	B2	676	655	618	521	515	467	440	387	336	294	242	205
	BW	676	656	619	519	517	468	441	387	336	294	242	205
75	–	218	210	203	194	186	180	174	170	164	160	156	152
	B	654	635	603	509	493	464	429	378	331	289	250	216
	B2	666	658	626	514	511	461	438	386	335	293	239	204
	BW	669	660	626	512	513	461	439	386	335	293	239	204
80	–	200	192	186	177	170	165	159	155	150	146	142	139
	B	637	631	603	496	482	450	424	376	329	288	249	214
	B2	653	655	629	507	508	455	436	385	334	292	237	203
	BW	655	656	629	508	509	455	436	385	334	292	237	203
85	–	185	177	171	163	156	151	145	142	137	134	130	127
	B	620	610	599	489	479	442	415	370	326	287	247	212
	B2	648	637	626	500	504	454	434	382	332	291	235	202
	BW	635	632	625	501	504	455	432	382	332	291	235	201
90	–	171	164	158	150	143	139	133	130	126	123	119	116
	B	602	589	579	477	473	438	410	367	324	284	246	210
	B2	635	619	608	488	500	450	431	381	331	290	233	200
	BW	615	608	602	491	501	451	431	381	331	290	233	200
95	–	158	151	146	138	132	127	123	120	115	113	109	107
	B	584	569	558	460	463	433	406	363	322	282	244	208
	B2	621	601	588	480	491	446	429	380	329	289	232	199
	BW	595	584	577	479	493	446	429	380	329	289	232	199
100	–	147	140	135	128	121	117	112	110	106	103	100	97.6
	B	564	548	537	444	450	425	402	359	320	280	241	206
	B2	603	583	568	474	479	440	426	378	328	287	230	199
	BW	573	560	553	469	483	440	426	379	328	287	230	198
105	–	136	130	125	118	112	108	103	101	97.1	94.5	91.6	89.3
	B	540	527	516	433	435	409	397	355	318	277	240	204
	B2	578	565	549	465	465	431	422	376	326	286	229	198
	BW	549	536	528	466	472	428	422	377	327	286	229	198
110	–	127	121	116	109	103	99.5	95.1	92.7	89.1	86.7	83.9	81.8
	B	516	506	495	425	432	397	385	350	316	276	239	203
	B2	552	543	529	456	468	428	411	373	325	284	228	198
	BW	524	515	504	457	460	425	414	373	325	284	229	198
115	–	118	113	108	101	95.5	91.7	87.4	85.2	81.8	79.5	76.8	74.8
	B	492	486	476	418	428	393	377	343	313	273	238	201
	B2	527	521	509	448	463	423	407	367	321	283	227	197
	BW	499	493	483	448	448	419	406	365	321	283	228	197
120	–	109	105	99.9	93.9	88.1	84.5	80.3	78.2	74.9	72.7	70.2	68.3
	B	468	465	457	410	422	388	371	338	308	269	237	200
	B2	501	498	490	438	455	417	404	363	318	281	226	197
	BW	475	472	463	438	437	412	398	360	317	281	227	197
125	–	101	97.6	92.8	86.9	81.3	77.8	73.7	71.7	68.5	66.4	64	62.2
	B	444	444	439	400	415	382	364	332	303	264	234	199
	B2	476	476	471	428	447	410	398	363	318	277	225	196
	BW	451	451	445	425	425	404	390	360	315	276	225	196

D

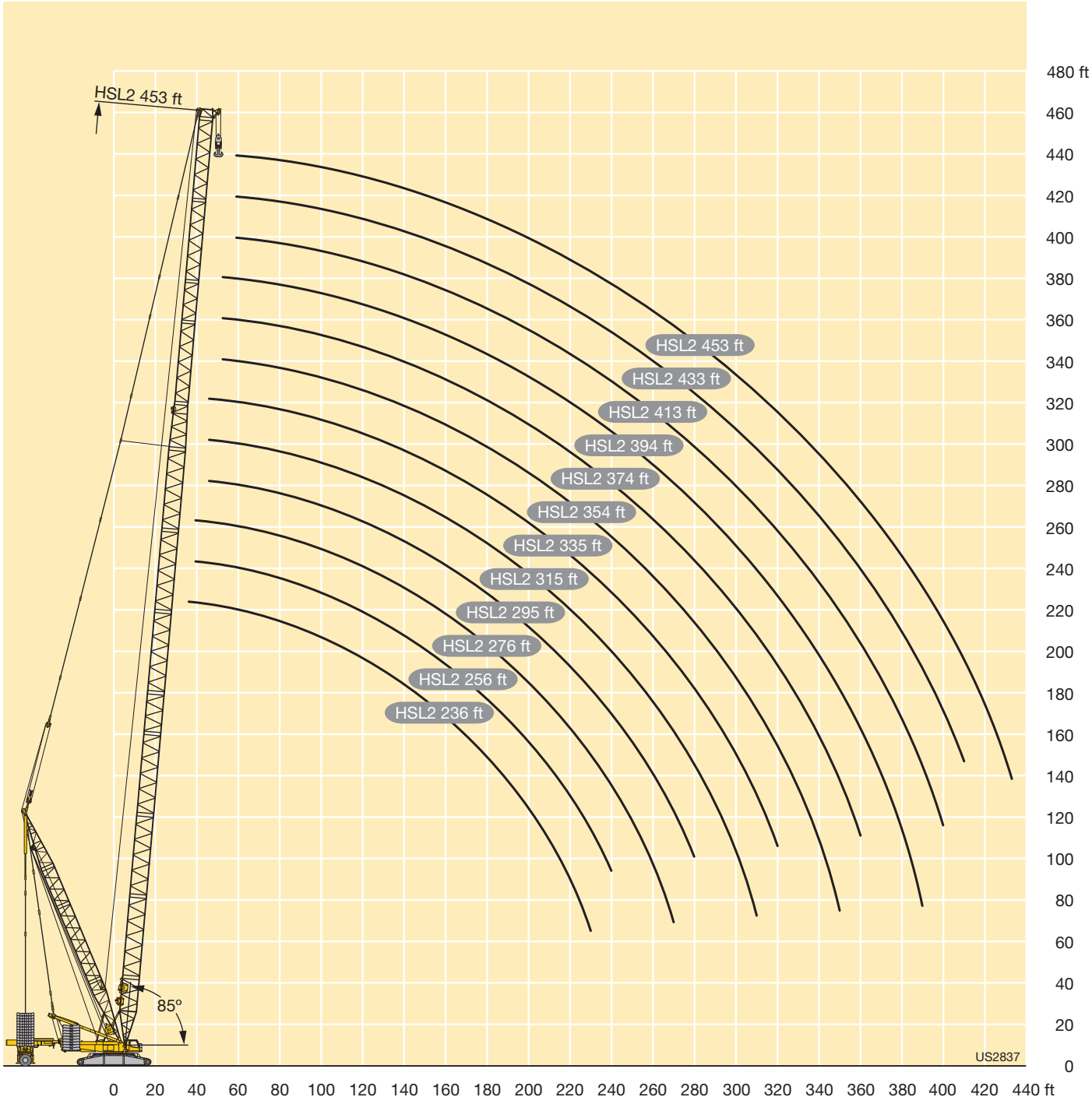
ft		HSL2 236 – 453											
		236	256	276	295	315	335	354	374	394	413	433	453
130	–	93.9	90.8	86.4	80.6	75.1	71.6	67.6	65.7	62.6	60.6	58.3	56.6
	B	427	423	421	389	404	377	357	326	298	259	227	197
	B2	458	454	451	417	435	404	392	359	319	275	222	195
	BW	433	429	426	411	412	397	382	356	319	275	221	195
135	–	87.4	84.2	80.4	75	69.5	66.1	62.1	60.3	57.3	55.4	53.2	51.5
	B	411	406	403	378	391	368	350	320	293	256	224	194
	B2	441	436	432	406	420	395	385	356	318	271	222	194
	BW	417	412	408	397	397	387	374	351	319	272	221	194
140	–	81	77.7	74.6	69.5	64.1	60.7	56.8	55.1	52.2	50.3	48.2	46.6
	B	395	390	385	367	377	359	343	314	288	254	223	192
	B2	424	419	413	394	405	385	378	352	317	268	223	192
	BW	401	396	389	383	383	375	365	346	318	269	222	192
150	–	69.8	66.6	64.2	59.5	54.2	51	47.2	45.6	42.8	41.1	39.1	37.6
	B	364	361	355	346	348	338	326	302	278	247	219	187
	B2	391	388	381	372	375	363	359	341	315	262	223	189
	BW	369	366	359	355	354	351	345	333	315	262	223	189
160	–	60.6	57.5	55.2	50.7	45.5	42.4	38.7	37.1	34.4	32.8	30.9	29.5
	B	335	334	331	324	321	315	307	289	268	240	214	182
	B2	360	359	355	350	346	340	337	325	309	256	222	186
	BW	340	339	335	330	326	325	321	316	308	256	222	186
170	–	53.2	50	47.7	43	37.8	34.7	31	29.6	27	25.4	23.6	22.3
	B	314	307	307	304	297	292	288	275	256	230	210	178
	B2	338	331	330	328	321	316	314	307	294	250	220	183
	BW	319	312	311	308	302	299	298	295	290	249	221	183
180	–	46.8	43.7	39.8	36.3	31.1	28	24.4	23	20.5	19	17.3	16
	B	293	289	284	283	278	274	269	260	244	222	200	173
	B2	316	311	306	306	301	297	292	288	280	245	216	178
	BW	298	293	288	287	283	279	275	274	272	241	217	179
190	–	40.3	37.2	33.7	30.2	25	22	18.4	17				
	B	273	270	266	263	260	257	252	246	233	214	193	166
	B2	294	292	285	285	282	279	274	270	265	239	212	175
	BW	278	275	270	267	264	262	257	254	254	232	213	176
200	–	34.4	31.3	28.7	24.7	19.5							
	B	253	252	250	245	242	241	237	233	221	206	187	163
	B2	273	273	267	266	263	261	258	254	251	234	208	172
	BW	260	257	254	249	246	245	242	237	237	224	208	172
210	–	30.2	26.9	24	19.7								
	B	233	233	235	232	225	224	222	219	210	198	181	159
	B2	253	253	248	251	245	244	242	240	237	229	204	168
	BW	245	240	238	235	229	228	227	223	221	216	204	168
220	–	26.2	22.5	19.4	15.4								
	B	210	213	218	218	213	210	207	206	199	189	175	154
	B2	230	233	229	236	232	228	227	225	224	219	199	164
	BW	227	225	222	222	217	213	212	209	209	205	200	164
230	–	22.6	18.5	15.3									
	B	173	193	197	204	200	197	194	192	188	180	168	149
	B2	194	212	210	222	219	216	212	211	211	208	192	160
	BW	193	209	205	208	204	201	198	196	196	194	191	159
240	–		15										
	B		169	174	191	188	186	181	180	177	171	161	144
	B2		190	191	208	206	204	200	198	198	196	184	156
	BW		190	188	196	192	190	186	183	184	183	180	155
250	–												
	B			154	179	176	175	171	168	166	162	154	139
	B2			171	195	193	193	189	186	185	185	176	153
	BW			170	186	180	179	175	171	171	171	170	149
260	–												
	B			138	167	166	164	161	159	156	153	146	134
	B2			149	182	182	181	179	176	175	173	167	150
	BW			148	176	170	168	165	162	161	160	159	144
270	–												
	B			112	154	156	154	151	150	148	145	139	129
	B2			121	169	171	171	168	167	165	163	159	146
	BW			121	165	161	158	155	153	152	150	149	139
280	–												
	B				138	146	145	142	141	139	137	132	124
	B2				153	160	161	158	157	157	154	151	143
	BW				152	152	150	145	144	143	141	139	133
290	–												
	B					136	137	133	132	131	130	125	119
	B2					149	151	149	147	148	146	144	140
	BW					143	142	137	135	135	134	131	128
300	–												
	B					120	129	126	124	123	122	119	113
	B2					136	141	141	139	139	138	136	134
	BW					134	134	130	127	126	126	124	122
310	–												
	B					83.6	118	119	117	115	115	113	108
	B2					104	130	132	131	131	130	129	128
	BW					103	125	123	120	119	118	117	116

ft		HSL2 236 – 453											
		236	256	276	295	315	335	354	374	394	413	433	453
320	–												
	B						102	111	111	109	107	106	103
	B2						117	123	124	123	122	122	121
	BW						114	116	114	112	111	111	110
330	–												
	B							102	104	103	100	100	97.1
	B2							114	117	116	115	114	114
	BW							109	107	106	104	104	103
340	–												
	B							90.5	97.1	96.9	94.8	93.6	91.7
	B2							103	109	110	109	107	107
	BW							102	101	101	98.2	96.7	97.1
350	–												
	B							58.6	88	91.2	89.3	88.1	86.3
	B2							78.5	99.9	103	103	101	101
	BW							78	95.1	95.2	92.8	91.3	90.9
360	–												
	B								62.1	83.6	83.8	82.7	81.2
	B2								84.6	95.7	97.2	95.7	94.8
	BW								83.2	89.6	87.4	86.2	85.3
370	–												
	B									74	78.1	77.4	76.4
	B2									87.7	91.2	90.3	89.5
	BW									84.2	82.1	81.2	80.3
380	–												
	B									62.2	72	72	71.6
	B2									78.6	84.7	84.8	84.5
	BW									78.5	76.9	76.1	75.6
390	–												
	B									33.5	64.4	66.7	66.9
	B2										76.1	79.3	79.6
	BW									40.7	72.1	71	70.9
400	–												
	B										43.6	54.6	62.2
	B2										62	73.1	74.6
	BW										60.7	66.7	66.2
410	–												
	B											44.2	54.7
	B2											64.9	69.3
	BW											61.4	61.8
420	–												
	B												41.4
	B2												63.5
	BW												57.8
430	–												
	B												34.8
	B2												56.9
	BW												54.5

D

Lifting heights
Hauteurs de levage

HSL2DB/B2/BW

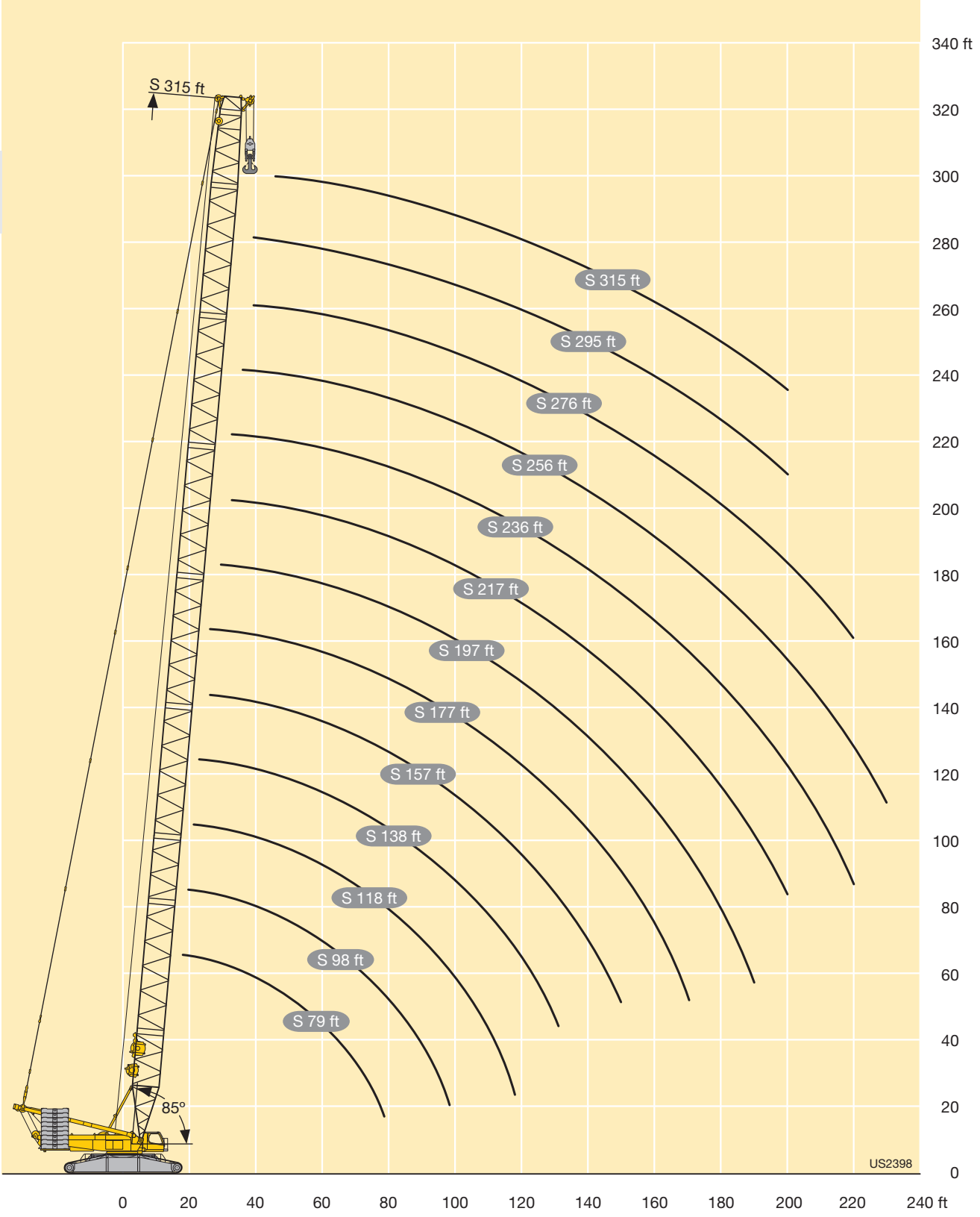


ft	S 79	S 98	S 118	S 138	S 157	S 177	S 197	S 217	S 236	S 256	S 276	S 295	S 315	ft
18	1323													18
19	1286													19
20	1243	1235												20
21	1194	1183	1150											21
22	1147	1134	1121											22
23	1100	1086	1078	1058										23
24	1059	1047	1039	1021										24
26	977	971	960	947	926	902								26
28	904	902	892	883	870	853								28
30	837	837	827	822	809	798	773							30
32	784	780	770	766	759	742	715	663	637					32
34	734	727	720	714	711	690	663	637	612					34
36	687	676	677	664	665	640	616	593	570	543				36
38	642	641	633	629	621	599	578	556	536	516				38
40	601	606	593	595	581	562	542	523	504	489	454	417		40
45	508	509	505	505	501	485	469	453	437	425	408	376	339	45
50	434	434	432	431	430	423	411	398	384	375	362	344	317	50
55	375	374	373	371	370	369	362	352	340	332	322	311	292	55
60	328	328	326	324	323	321	320	313	304	297	287	277	269	60
65	292	291	289	287	286	284	282	280	273	267	259	249	243	65
70	262	262	259	258	256	254	252	250	247	242	234	226	220	70
75	237	237	234	233	230	229	227	224	222	220	213	205	200	75
80		215	213	211	209	207	205	202	200	200	194	186	182	80
85		197	194	192	190	188	186	184	181	181	178	170	166	85
90		182	179	177	175	172	170	168	165	165	163	156	152	90
95		168	165	163	161	159	156	154	151	151	149	143	139	95
100			153	151	148	146	144	141	139	138	136	131	128	100
105			142	140	137	135	133	130	127	127	125	121	117	105
110			133	130	128	125	123	120	117	117	115	111	108	110
115			124	122	119	117	114	111	109	108	106	103	99.5	115
120				114	111	109	106	103	100	100	97.5	94.5	91.5	120
125				107	104	101	99	96	93	92.5	90	86.5	84	125
130				101	97.5	95	92.5	89	86.5	86	83	79.5	77.5	130
135					91.5	89	86.5	83.5	80	79.5	77	73	71	135
140					86.5	84	81	77.5	74.5	73.5	70.5	67	65	140
150					77	74	71	67.5	63.5	63	59.7	55.9	54.3	150
160						65.5	62	58	54.3	53.5	50.2	46.3	44.7	160
170						58.2	54.1	50.1	46.2	45.4	42	38	36.3	170
180							47.6	43.3	39.4	38.4	35	31	29.2	180
190							41.9	37.4	33.3	32.2	28.7	24.7	22.9	190
200								32.1	27.9	26.7	23.1	19.1	17.2	200
210									23.1	21.8	18			210
220									19	17.5	13.7			220
230										13.7				230

TAB 181009

E

E


S 315 ft
S 315 ft
S 295 ft
S 276 ft
S 256 ft
S 236 ft
S 217 ft
S 197 ft
S 177 ft
S 157 ft
S 138 ft
S 118 ft
S 98 ft
S 79 ft
85°
US2398
340 ft
320
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240 ft

ft		HS 138 – 472																	
		138	157	177	197	217	236	256	276	295	315	335	354	374	394	413	433	453	472
26	–	933																	
	B	1323																	
	B2	1323																	
	BW	1323																	
28	–	864																	
	B	1323																	
	B2	1323																	
	BW	1323																	
30	–	790	743	702															
	B	1323	1323	1312															
	B2	1323	1323	1321															
	BW	1323	1323	1319															
32	–	730	688	651	602														
	B	1323	1323	1285	1185	1072													
	B2	1323	1323	1315	1223	1109													
	BW	1323	1323	1301	1212	1108													
34	–	677	640	607	579														
	B	1323	1314	1259	1173	1066													
	B2	1323	1322	1302	1214	1104													
	BW	1323	1319	1281	1200	1101													
36	–	629	595	566	542	517	497												
	B	1323	1299	1232	1154	1056	933												
	B2	1323	1321	1284	1197	1096	965												
	BW	1323	1312	1260	1181	1090	962												
38	–	589	559	532	510	489	470												
	B	1306	1268	1206	1134	1045	932												
	B2	1323	1304	1259	1180	1087	966												
	BW	1322	1288	1234	1162	1077	964												
40	–	553	525	500	480	461	445	427	411										
	B	1284	1237	1181	1114	1033	928	813	725										
	B2	1315	1285	1234	1161	1077	965	843	738										
	BW	1311	1261	1209	1142	1064	963	843	737										
45	–	478	455	435	418	403	389	375	362	338	327	315							
	B	1199	1165	1119	1064	996	906	812	717	643	574	510							
	B2	1256	1223	1173	1113	1043	946	842	737	658	581	456							
	BW	1225	1192	1147	1092	1026	949	842	738	659	581	514							
50	–	419	400	382	369	356	344	332	321	309	299	288							
	B	1120	1096	1062	1016	958	887	795	703	637	572	508							
	B2	1183	1158	1118	1067	1008	931	832	726	655	580	513							
	BW	1143	1122	1088	1041	988	925	829	732	655	581	514							
55	–	370	354	339	327	316	307	296	287	275	267	257	250	241	231	205			
	B	1044	1027	1005	969	920	864	780	691	631	563	503	446	387	345	300			
	B2	1107	1090	1063	1023	971	910	820	718	654	579	513	450	394	349	303			
	BW	1062	1051	1029	990	946	897	813	725	653	578	513	450	394	349	303			
60	–	327	316	303	292	282	275	266	257	247	239	231	224	217	208	201	193	188	180
	B	971	959	947	922	882	835	764	683	628	557	497	443	386	344	300	264	231	203
	B2	1031	1019	1005	978	934	883	807	716	654	577	512	449	393	348	303	265	231	202
	BW	984	979	968	939	903	864	795	716	655	575	512	449	393	348	303	265	231	202
65	–	289	285	272	263	255	248	240	232	223	216	209	202	195	187	182	174	169	162
	B	904	891	887	873	844	805	740	668	623	556	495	435	385	341	299	262	231	202
	B2	963	949	942	929	897	854	785	704	653	577	511	445	393	347	302	264	231	201
	BW	915	906	904	887	860	828	771	701	654	578	511	445	393	347	302	264	231	201
70	–	259	255	247	239	231	225	218	211	202	196	189	183	177	170	164	158	153	146
	B	843	831	826	821	802	774	716	649	608	550	491	431	384	340	297	260	229	201
	B2	898	887	879	874	854	825	763	694	642	574	510	441	392	346	301	262	230	199
	BW	853	844	839	833	815	791	746	689	639	575	510	442	392	347	302	263	230	200
75	–	233	229	225	217	210	205	198	192	184	178	172	167	161	154	149	143	139	132
	B	784	778	770	768	758	739	692	638	598	539	485	428	382	339	296	259	228	200
	B2	837	830	820	818	808	790	741	683	635	569	506	438	391	346	301	261	229	198
	BW	794	789	780	779	769	753	721	675	629	567	505	439	392	346	301	262	229	199
80	–	211	207	204	198	192	187	181	175	167	162	156	151	146	139	135	129	125	119
	B	730	729	720	716	712	702	666	625	589	531	475	423	379	337	295	258	227	199
	B2	781	778	767	763	760	750	715	670	630	565	501	435	390	345	300	260	228	198
	BW	740	739	728	726	723	714	694	659	622	557	500	435	390	345	300	261	228	198
85	–	192	188	185	182	175	171	165	160	153	148	142	138	133	127	123	117	113	107
	B	689	679	679	668	667	663	637	609	577	522	469	417	374	335	294	257	227	198
	B2	737	726	724	712	713	709	683	654	622	564	504	431	386	344	299	260	228	197
	BW	699	689	686	677	676	674	661	640	610	557	504	430	386	345	300	260	228	197
90	–	176	172	169	167	161	157	152	147	140	136	130	126	121	115	111	106	103	96.6
	B	649	641	638	633	624	625	607	586	561	514	462	412	370	331	291	255	225	197
	B2	694	685	681	676	668	668	652	629	606	560	501	427	387	343	298	259	227	196
	BW	657	650	645	642	632	635	627	612	591	550	503	427	388	341	299	259	227	196
95	–	162	158	155	153	148	145	139	135	128	124	119	115	111	105	101	95.8	93.1	87
	B	609	607	600	600	590	587	578	562	542	502	454	407	366	327	289	253	224	196
	B2	651	649	640	640	632	628	620	603	586	549	499	423	388	342	298	258	226	195
	BW	619	616	606	607	598	596	594	584	569	537	500	424	388	341	298	258	227	195
100	–	149	145	142	141	137	133	128	124	117	114	109	105	101	95.2	91.8	86.6	84	78.1
	B	571	574	566	566	562	553	548	538	521	488	446	402	363	325	287	252	222	195
	B2	610	615	605	604	601	592	588	577	563	534	493	419	387	342	297	257	226	194
	BW	584	583	572	573	569	561	561	556	544	520	494	420	388	342	297	257	226	194
105	–	138	134	131	129	126	123	118	114	108	104	99.2	95.7	91.8	86.3	83.1	78.1	75.7	69.9
	B	535	542	540	532	533	529	519	513	501	473	436	397	359	322	284	251	221	193
	B2	572	580	577	569	571	566	557	552	540	516	481	414	386	341	296	256	225	194
	BW	555	551	546	539	540	536	528	527	520	501	479	416	387	342	296	256	225	194

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138 – 472 ft	98 – 118 ft	143300 lbs	331000 lbs	B B2 BW	550000 – 771000 lbs	331000 – 550000 lbs	0 – 331000 lbs	0 lbs
HS	D							

ft		HS 138 – 472																	
		138	157	177	197	217	236	256	276	295	315	335	354	374	394	413	433	453	472
110	–	129	124	121	119	117	114	109	105	99	95.4	90.8	87.5	83.7	78.4	75.3	70.4	68.2	62.6
	B	499	514	513	508	505	504	497	489	480	458	425	386	354	320	282	250	219	192
	B2	533	550	549	543	541	541	533	526	517	498	467	404	382	340	295	255	224	193
	BW	525	524	520	514	511	512	505	499	495	482	463	408	383	341	295	255	225	193
115	–	120	115	112	110	107	105	101	97	90.9	87.5	82.9	79.8	76.2	71	68.1	63.3	61.2	55.7
	B	464	489	487	485	479	480	476	468	460	443	415	378	347	316	280	248	218	191
	B2	496	523	521	519	513	515	511	503	495	481	454	400	375	337	294	254	224	192
	BW	493	500	493	491	485	487	483	476	471	462	447	400	377	337	294	254	224	192
120	–	112	107	103	101	98.8	97.2	92.9	89.4	83.4	80.1	75.7	72.6	69.2	64.2	61.3	56.6	54.6	49.2
	B	428	465	463	463	456	456	455	449	440	428	404	372	341	311	276	247	217	190
	B2	459	497	496	496	489	489	489	483	473	463	441	396	369	333	291	253	223	191
	BW	459	477	469	469	462	462	462	456	448	443	430	392	371	332	291	254	223	192
125	–	105	99.9	95.6	93.2	91.1	89.9	85.8	82.4	76.5	73.3	68.9	66	62.6	57.7	55	50.4	48.5	43.2
	B	396	441	442	441	438	432	434	431	423	413	393	364	335	306	269	246	215	189
	B2	424	471	474	473	469	464	466	463	454	445	427	389	368	328	286	252	222	191
	BW	424	455	449	447	443	438	440	438	429	423	414	384	364	325	285	253	222	191
130	–	98.6	93.4	89.1	86.6	84.4	83.3	79.3	76	70.1	67	62.8	59.9	56.7	51.9	49.2	44.7	42.9	37.7
	B	374	416	425	419	420	415	413	413	406	399	383	355	328	300	266	240	212	188
	B2	389	445	455	450	450	446	444	444	437	429	414	383	363	330	285	249	221	190
	BW	389	432	431	425	425	420	419	419	413	407	398	376	357	327	285	247	221	190
135	–		87.4	82.8	80.1	77.8	76.8	73.4	70.2	64.4	61.4	57.2	54.4	51.2	46.5	43.9	39.5	37.8	32.6
	B		389	408	402	402	399	396	395	390	384	371	347	321	295	263	237	210	186
	B2		418	436	432	430	429	426	425	420	413	401	376	358	328	282	248	219	189
	BW		409	413	408	407	404	401	401	396	392	384	367	350	324	283	247	219	190
140	–		81.5	76.6	73.7	71.2	70.2	67.8	64.7	58.9	56	51.8	49.1	46	41.4	38.8	34.5	32.9	27.7
	B		362	390	387	384	383	380	377	374	370	359	338	314	289	259	234	207	184
	B2		390	417	415	411	412	409	405	403	398	388	369	352	325	279	248	216	189
	BW		384	395	393	389	388	385	382	380	377	370	359	343	320	279	248	217	189
150	–		71.6	66.3	63.1	60.5	59.5	57.6	54.7	49	46.1	42.1	39.4	36.5	32	29.6	25.4	23.8	18.8
	B		310	351	357	354	352	351	347	343	341	335	320	300	278	251	227	201	180
	B2		332	376	384	379	379	378	373	370	368	362	350	338	320	272	248	211	187
	BW		330	361	363	358	357	356	352	349	348	343	338	326	313	272	248	212	187
160	–			58.2	54.8	52.1	51	48.8	45.8	40.2	37.3	33.4	30.8	28	23.6	21.3			
	B			307	328	328	324	324	323	315	314	311	300	285	266	243	221	195	176
	B2			333	353	353	349	350	348	340	339	335	328	321	311	265	246	206	186
	BW			327	334	333	328	329	327	321	320	317	314	308	302	265	246	206	186
170	–			51.8	47.9	44.9	43.6	41	38	32.4	29.6	25.7	23.2	20.4	16.2	13.9			
	B			270	296	304	303	298	299	294	290	286	281	270	254	235	214	190	172
	B2			288	321	327	327	321	323	318	314	309	306	301	294	257	244	201	184
	BW			289	309	308	307	302	303	299	296	291	291	287	283	256	244	201	184
180	–				41.7	37.7	36.2	34	31.3	25.7	22.9	19	16.5	13.9					
	B				264	279	282	279	276	274	271	267	262	255	241	224	205	183	168
	B2				289	302	304	302	298	296	294	289	284	281	277	249	236	196	183
	BW				285	287	286	283	280	278	276	271	267	266	264	244	234	196	183
190	–				36.5	31.9	30.1	28	25.3	19.6									
	B				225	254	262	261	258	254	253	250	245	241	228	214	197	176	162
	B2				247	276	283	283	279	275	274	271	266	262	259	240	228	191	178
	BW				247	268	266	265	262	258	257	254	249	247	245	232	223	192	180
200	–					27.2	25	22.6											
	B					228	242	243	242	236	235	233	230	226	216	204	188	170	156
	B2					250	262	264	263	256	255	254	251	245	243	231	219	187	174
	BW					248	249	247	246	240	239	237	234	229	227	220	212	187	176
210	–						20.2												
	B						222	226	226	222	218	216	215	212	204	194	180	165	151
	B2						241	246	246	242	237	236	235	231	227	222	210	182	174
	BW						235	231	231	226	222	220	219	216	212	207	201	183	171
220	–						16.2												
	B						200	210	211	209	205	202	200	198	192	183	171	159	145
	B2						219	229	230	227	224	221	219	217	214	210	201	177	171
	BW						217	218	216	212	209	205	204	202	199	196	189	178	166
230	–						13												
	B						166	194	196	195	193	189	186	185	180	173	163	153	139
	B2						187	213	214	213	212	208	205	203	202	199	191	172	167
	BW						187	205	203	198	197	193	190	188	186	184	179	173	162
240	–																		
	B							175	182	182	181	178	174	172	168	163	155	146	133
	B2							194	199	199	199	196	193	190	189	187	181	166	163
	BW							190	192	186	185	182	178	175	174	172	168	165	156
250	–																		
	B								167	170	169	167	164	160	156	153	146	140	127
	B2								184	186	186	185	182	178	176	175	170	158	157
	BW								180	176	172	170	168	163	161	161	157	156	149
260	–																		
	B								149	158	158	155	154	151	146	143	138	133	121
	B2								166	173	175	173	172	168	165	163	160	151	149
	BW								165	166	163	159	158	154	151	149	147	146	140
270	–																		
	B								123	145	148	146	143	142	138	134	130	126	115
	B2								140	159	164	163	161	159	155	152	149	144	141
	BW								140	155	154	149	147	145	142	139	136	136	131
280	–																		
	B									129	138	137	134	133	130	126	122	119	109
	B2									143	153	153	151	149	147	143	139	136	132
	BW									142	145	141	138	136	134	130	127	126	122

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138 – 472 ft HS	98 – 118 ft D	143300 lbs	331000 lbs	B B2 BW	550000 – 771000 lbs	331000 – 550000 lbs	0 – 331000 lbs	0 lbs

ft		HS 138 – 472																	
		138	157	177	197	217	236	256	276	295	315	335	354	374	394	413	433	453	472
290	– B B2 BW										128 141 136	129 143 133	126 142 129	124 139 127	121 138 125	119 135 123	115 131 118	112 129 117	104 124 113
300	– B B2 BW										113 127 125	121 134 125	119 134 122	116 130 118	113 129 117	112 127 115	108 124 112	105 122 109	97.5 116 104
310	– B B2 BW										89.4 105 105	111 123 116	112 125 115	109 123 112	105 121 109	104 119 108	101 117 105	98.7 115 103	91.8 109 96.8
320	– B B2 BW											96.6 109 106	105 117 108	103 115 106	98.6 113 102	97 112 100	93.8 109 98	92.2 109 96	86.2 102 90.6
330	– B B2 BW												95.8 107 101	96.9 108 99.2	92.8 107 96	90.1 104 93.3	86.8 102 91.1	85.8 102 89.5	80.7 96.1 84.7
340	– B B2 BW												84.1 96.6 94.9	90.7 100 92.9	87 101 90	84.6 97.5 87.7	79.8 94.7 84.3	79.3 95.3 82.9	75.1 89.7 78.7
350	– B B2 BW												62.4 77.4 77.5	80.2 90.3 86.3	81.2 94.1 84	79.2 91.1 82.1	74.8 88.8 79	72.8 88.7 76.4	69.6 83.3 72.8
360	– B B2 BW													66.5 78.1 76.8	74.3 86.5 78.3	73.7 84.6 76.4	70.2 83.2 74	67.5 82.7 70.9	64.1 77 66.9
370	– B B2 BW														66.2 77.5 72.7	68.1 78.1 70.9	65.7 77.6 69	63.2 77.3 66.3	58.8 71 61.3
380	– B B2 BW														56.9 67.2 67.3	62.2 71.5 65.7	61.1 72 64.1	59.2 72.2 62.2	54.2 66.1 56.6
390	– B B2 BW														39.3 50.6 50.8	54.7 64.2 61.5	56.6 66.4 59.1	55.3 67 58.1	50.1 61.9 52.4
400	– B B2 BW															43.6 53.7 53.1	50.1 60.2 54.9	51.4 61.9 53.9	46 57.8 48.2
410	– B B2 BW																42.1 53.3 50.7	46.8 56.3 49.7	42 53.7 44.1
420	– B B2 BW																27.2 45.3 45.2	41 49.9 45.3	37.9 49.6 39.9
430	– B B2 BW																20.9 31.7 31.6	33.7 42.3 40.6	33.6 44.9 36.1
440	– B B2 BW																	19.1 32.8 32.5	28.7 38.9 33
450	– B B2 BW																		23 31.9 29.3

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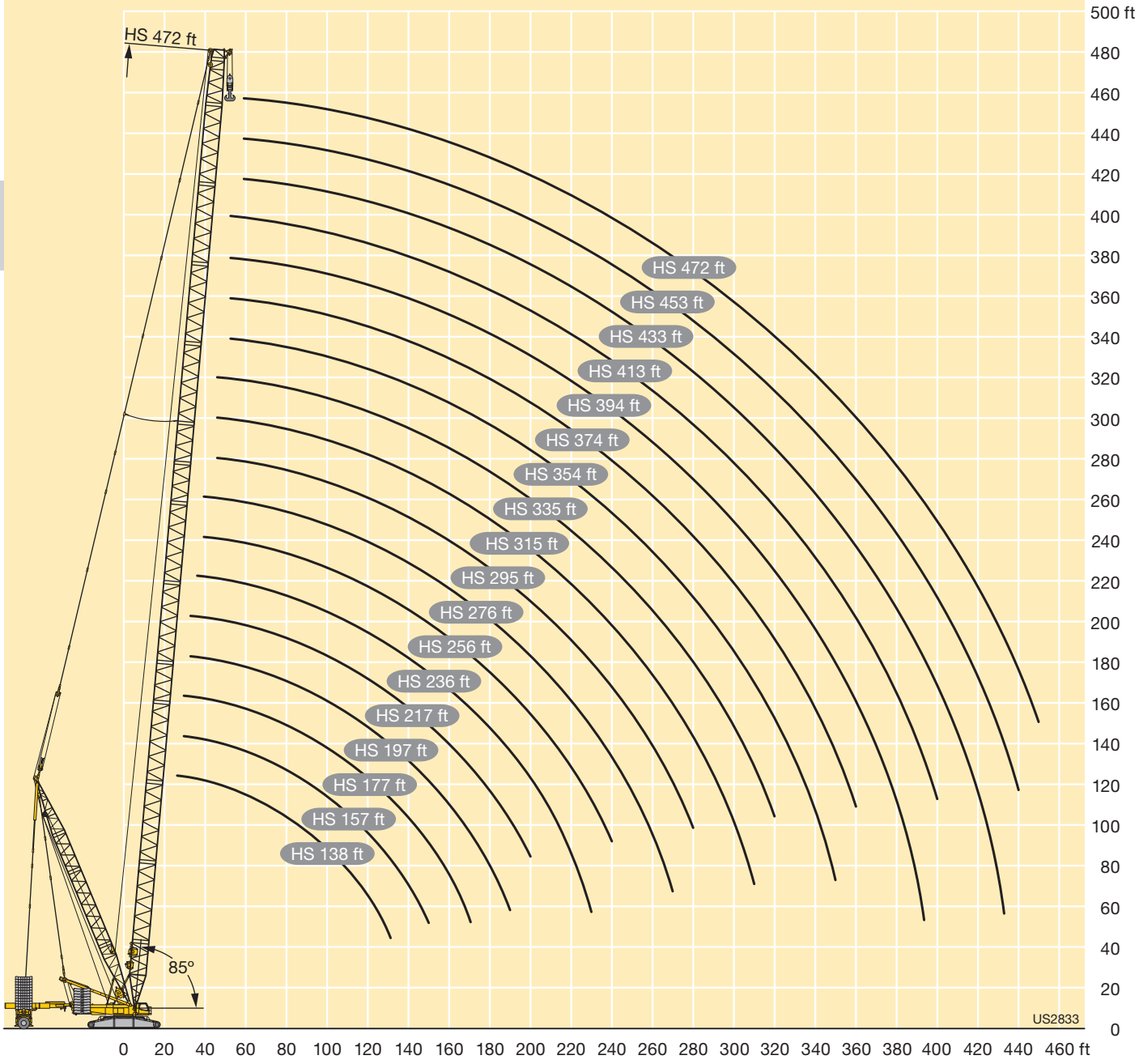
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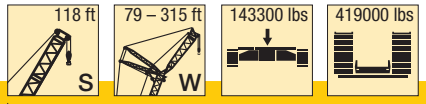
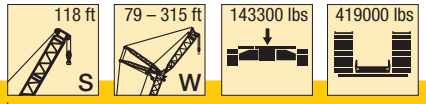


ft	S 118																					ft
	W 79			W 98			W 118			W 138			W 157			W 177			W 197			
	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	
40	526																					40
45	467			437																		45
50	419			402																		50
55	379			364			352															55
60	345			331			320			312			300									60
65	316			304			294			287			276			265						65
70	293			281			272			265			255			248						70
75	270			261			253			246			237			230			222			75
80	248	223		243			235			229			221			214			207			80
85	228	207		226	199		220			214			206			200			193			85
90	210	191		209	187		206			201			194			188			181			90
95		178		195	175		193	170		190			182			177			171			95
100		166		181	163		180	160		179	155		171			167			161			100
105		154	139	169	152		169	150		169	146		162	139		157			151			105
110		145	130	158	143		158	141		158	139		153	132		149			143			110
115			122		134		149	133		149	131		145	124		141			136			115
120			115		126	112	140	125		140	124		138	118		134	114		129			120
125			108		119	105	132	118		132	117		130	112		127	108		122	103		125
130			102		112	100	125	111	96	125	111		123	106		121	102		116	97		130
135						94		105	92	119	105		117	101		115	97		111	93		135
140						89		100	87	113	100	82	111	96		109	93		106	88		140
150									79		90	78	100	87		99	84		96	80		150
160									71		81	70	90	78	66	90	76		88	72		160
170									64		74	63	82	71	59	82	70	56	80	65	51	170
180												57		65	54	75	64	51	73	60	46.6	180
190															48.2		58	46.3	67	55	42	190
200															43.3		53	41.9	61	49.9	37.8	200
210																		37.6		45.4	34	210
220																		33.8		41.2	30.7	220
230																					27.5	230
240																					24.5	240

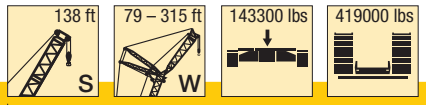
TAB 181047 / 181054 / 181061



ft	S 118																ft
	W 217			W 236			W 256			W 276			W 295		W 315		
	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	87°	77°	
80	200			195													80
85	187			182			175										85
90	175			171			165										90
95	165			160			155			149			143				95
100	155			151			146			140			137		121		100
105	146			142			137			131			129		120		105
110	138			134			130			124			121		115		110
115	131			127			123			117			115		110		115
120	124			120			116			111			108		103		120
125	117			114			110			104			102		98		125
130	112	91		108			104			99			97		92		130
135	106	88		103			99			94			92		87		135
140	101	83		98	76		94			89			87		83		140
150	92	75		89	72		85			80			79		74		150
160	84	68		81	65		77	61		72	56		71		67		160
170	77	61		74	58		70	55		65	50		64	48.1	60	43.7	170
180	70	56		67	53		64	49.4		59	44.7		58	43.1	54	38.9	180
190	65	51	38	62	47.8		58	44.4		54	39.8		52	38.2	48.3	34.1	190
200	59	46.1	33.9	56	43.1	30.9	53	39.9		48.8	35.3		47.2	33.8	43.3	29.7	200
210	54	41.9	30.2	52	38.9	27.2	48.6	35.8	23.9	44.1	31.2		42.6	29.7	38.7	25.7	210
220	49.8	38.2	26.9	47.6	35.2	23.9	44.5	32.1	20.7	40.1	27.6	15.1	38.5	26.1	34.7	22.1	220
230		34.9	23.9	43.7	31.9	20.9	40.7	28.7	17.8	36.3	24.3	13.2	34.7	22.8	30.9	18.8	230
240		31.6	21.2	39.9	28.7	18.1	37.3	25.6	15	32.9	21.2		31.2	19.6	27.4	15.7	240
250			18.7		25.9	15.6	34.1	22.8	12.5	29.7	18.4		27.9	16.8	24.2	12.9	250
260			16.6		23.4	13.3	31.2	20.2	10.2	26.8	15.8		25	14.2	21.2	10.3	260
270						11.2		17.9		24.3	13.5		22.3	11.7	18.5		270
280								15.9		22.1	11.3		19.8		16		280
290													17.5		13.7		290
300													15.5		11.5		300

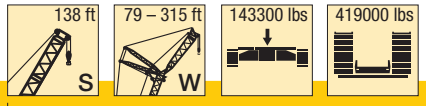
TAB 181047 / 181054 / 181061

G



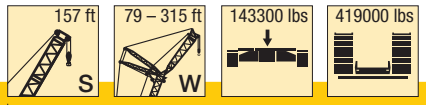
ft	S 138																					ft
	W 79			W 98			W 118			W 138			W 157			W 177			W 197			
	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	
45	437			419																		45
50	402			386																		50
55	364			350			338															55
60	332			319			309			300												60
65	305			293			284			276			263			255						65
70	282			271			263			256			246			239						70
75	262			252			244			238			229			222			215			75
80	244	210		235			227			222			213			207			200			80
85	227	196		220			213			208			199			194			187			85
90	210	184		206			200			195			187			182			175			90
95		173		193	165		188			184			176			171			165			95
100		161		181	155		177	150		173			166			161			155			100
105		151		169	146		168	141		164	137		157			152			146			105
110		141		158	138		158	133		155	130		148	121		144			139			110
115		132			130		148	126		147	123		141	116		136			131			115
120			109		122		140	120		140	116		134	110		129	106		124			120
125			102		115	98	132	114		132	111		127	104		123	100		118			125
130			97		109	93	124	108		125	105		121	99		117	95		112	89		130
135						88		102		119	100		115	94		112	90		107	85		135
140						84		97	76	113	96		110	89		107	86		102	81		140
150						75		87	72		87		99	81		97	78		93	73		150
160									65		79	63	90	74	57	89	70		85	66		160
170									58		71	57	82	67	51	81	64	47.7	78	60		170
180												52		62	46.4	74	59	43.2	72	54		180
190												46.7		56	41.9		54	38.9	66	49.5	34.6	190
200															37.9		49.2	34.9	61	45.1	30.8	200
210																		31.4		41.1	27.3	210
220																		28.3		37.7	24.2	220
230																		25.6		34.4	21.4	230
240																					18.8	240

TAB 181047 / 181054 / 181061



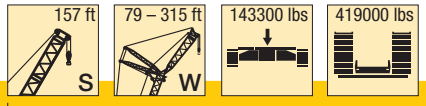
ft	S 138															ft
	W 217			W 236			W 256			W 276		W 295		W 315		
	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	87°	77°	87°	77°	
80	193															80
85	180			175			169									85
90	169			165			159									90
95	159			155			150			143						95
100	150			146			141			135		132		116		100
105	141			137			133			127		124		115		105
110	133			130			125			119		117		111		110
115	126			123			118			113		111		106		115
120	120			116			112			106		104		100		120
125	113			110			106			101		99		94		125
130	108			105			101			95		93		89		130
135	103			99			96			90		89		84		135
140	98	73		95	70		91			86		84		80		140
150	89	69		86	66		82			77		76		71		150
160	81	62		78	59		74	55		70		68		64		160
170	74	56		71	53		67	49.3		63	44.1	61	42.6	57		170
180	68	50		65	47.6		61	44.1		57	39.4	55	37.9	51		180
190	62	45.6		59	42.8		56	39.4		51	34.7	50	33.3	46	29.1	190
200	57	41.2	26.9	54	38.4		51	35.1		46.5	30.5	45	29.1	41.1	25	200
210	53	37.2	23.4	49.6	34.4	20.6	46.4	31.2		42	26.6	40.5	25.2	36.6	21.1	210
220	48.9	33.8	20.4	45.5	30.9	17.5	42.4	27.7	13.4	38	23.2	36.5	21.8	32.7	17.8	220
230		30.6	17.6	41.9	27.6	14.8	38.7	24.5	11.6	34.3	20	32.8	18.6	29	14.6	230
240		27.8	15.1	38.7	24.7	12.2	35.3	21.6		30.9	17.1	29.4	15.7	25.6	11.7	240
250			12.8		21.9		32.3	18.8		27.8	14.4	26.2	12.9	22.4		250
260			10.8		19.6		29.7	16.4		25	12	23.3	10.5	19.6		260
270					17.6			14.2		22.6		20.7		16.9		270
280								12.2		20.4		18.2		14.4		280
290												16		12.1		290
300												14		10		300

TAB 181047 / 181054 / 181061



ft	S 157																					ft
	W 79			W 98			W 118			W 138			W 157			W 177			W 197			
	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	
45	418																					45
50	386																					50
55	350			337			325															55
60	319			308			297			289												60
65	294			284			273			266			254									65
70	272			263			253			247			238									70
75	253			244			235			230			221			216			207			75
80	236			228			219			214			206			202			193			80
85	221	183		213			205			201			192			189			180			85
90	208	172		201			193			189			181			177			169			90
95		162		189	155		182			178			170			167			159			95
100		153		179	146		171			168			160			157			150			100
105		144		169	138		162	131		158			151			148			141			105
110		136		158	130		154	124		150	118		143			141			134			110
115		128			124		146	117		143	114		136			133			127			115
120					117		139	111		136	108		129	102		127			120			120
125			94		111		131	105		129	103		123	96		120	94		114			125
130			89		106		124	100		123	97		117	91		115	89		108	81		130
135			84					96		117	93		112	87		109	85		103	78		135
140			80			72		91	66	112	88		107	82		104	80		99	74		140
150						68		83	63		80		98	74		95	73		90	67		150
160									56		73	54	89	67		87	66		82	60		160
170									51		67	48.6	81	61	42.5	80	60		75	54		170
180									46.3			44		56	38.3	74	54		69	48.9		180
190												39.9		51	34.2		49.6	32.6	64	44.2		190
200															30.5		45.3	29	59	40	23.4	200
210															27.2			25.6		36.2	20.2	210
220															24.4			22.7		32.9	17.4	220
230																		20.1		30	14.8	230
240																					12.5	240

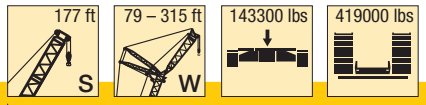
TAB 181047 / 181054 / 181061



ft	S 157														ft
	W 217			W 236			W 256		W 276		W 295		W 315		
	87°	77°	67°	87°	77°	67°	87°	77°	87°	77°	87°	77°	87°	77°	
80	188														80
85	176			169											85
90	165			159											90
95	155			149			144		140						95
100	146			140			136		132		127				100
105	138			132			128		124		119		108		105
110	131			125			121		117		113		106		110
115	124			118			114		111		106		101		115
120	117			112			108		105		100		96		120
125	111			106			102		99		95		90		125
130	106			101			97		94		90		85		130
135	101			96			92		89		85		81		135
140	96	68		91			87		84		81		76		140
150	87	64		83			79		76		72		68		150
160	79	58		75	53		71	49.2	69		65		61		160
170	72	52		68	47.1		65	43.6	62	40.5	59		54		170
180	66	46.6		62	42.1		59	38.7	56	36	53		48.7		180
190	61	42		57	37.6		53	34.2	51	31.6	47.5	28.2	43.5	23.9	190
200	56	37.8		52	33.4		48.6	30.1	46	27.5	42.7	24.2	38.8	20	200
210	52	34	18.1	47.3	29.6	13.6	44.1	26.4	41.6	23.9	38.4	20.6	34.5	16.4	210
220	47.8	30.6	15.3	43.4	26.3	10.8	40.2	23.1	37.7	20.6	34.4	17.3	30.6	13.3	220
230		27.5	12.7	39.8	23.2		36.6	20.1	34	17.5	30.8	14.3	27		230
240		24.7		36.6	20.4		33.3	17.3	30.6	14.7	27.5	11.5	23.7		240
250					17.8		30.3	14.7	27.5	12.1	24.4		20.6		250
260					15.5		27.8	12.4	24.7	9.8	21.6		17.8		260
270					13.5			10.3	22.2		19		15.2		270
280									19.9		16.6		12.8		280
290											14.4				290
300											12.4				300

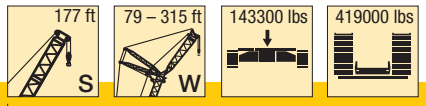
TAB 181047 / 181054 / 181061

G



ft	S 177																					ft
	W 79			W 98			W 118			W 138			W 157			W 177			W 197			
	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	
45	400																					45
50	370																					50
55	336			324																		55
60	307			297			287			278												60
65	283			273			265			257			246									65
70	263			254			246			238			231									70
75	244			236			229			222			215			208						75
80	228			220			213			207			200			195			186			80
85	214			206			200			194			188			182			174			85
90	202			194			188			182			176			171			163			90
95		151		183			177			172			166			161			154			95
100		142		173	136		167			162			156			152			145			100
105		134		163	128		158	123		153			148			143			136			105
110		127		155	121		150	116		145			140			136			129			110
115		120			115		143	110		138			133			129			122			115
120		114			109		136	104		131	100		126			122			116			120
125					103		129	99		125	94		120	90		116			110			125
130			77		98		124	94		119	90		114	85		111	80		105			130
135			74		94			89		114	85		109	81		106	77		100			135
140			70		89	62		85		109	81		104	77		101	73		95	64		140
150						58		77			74		95	69		92	66		86	60		150
160						52			48.5		67		88	63		84	59		79	54		160
170						47.2			43.5		61	39.7	81	57		77	54		72	48		170
180									39.1		56	35.8		52		72	48.7		66	43.2		180
190												32		47.1	27.8		44.2	24.8	61	38.8		190
200												28.5			24.4		40.1	21.5	56	34.8	15.9	200
210															21.2		36.5	18.5		31.2	13	210
220															18.5		33.4	15.8		28.1	10.4	220
230																		13.4		25.2		230

TAB 181047 / 181054 / 181061



ft	S 177												ft
	W 217		W 236		W 256		W 276		W 295		W 315		
	87°	77°	87°	77°	87°	77°	87°	77°	87°	77°	87°	77°	
80	181												80
85	170		162										85
90	159		153										90
95	150		144		139		135						95
100	141		135		131		127		120				100
105	133		128		123		119		115		101		105
110	126		121		116		113		108		100		110
115	119		114		110		106		102		96		115
120	113		108		104		101		96		92		120
125	107		102		98		95		91		86		125
130	102		97		93		90		86		81		130
135	97		92		88		85		82		77		135
140	92	61	88		84		81		77		73		140
150	84	58	79		76		73		69		65		150
160	76	51	72	46.6	68		66		62		58		160
170	70	45.9	65	41.2	62	37.4	59	34.7	56		52		170
180	64	41.1	59	36.5	56	33.1	54	30.5	50		46.2		180
190	58	36.7	54	32.3	51	28.9	48.5	26.4	45.1	22.9	41.1		190
200	54	32.8	49.4	28.4	46.2	25.1	43.8	22.6	40.5	19.2	36.5	15	200
210	49.3	29.1	45	24.8	41.9	21.6	39.4	19.1	36.2	15.8	32.3		210
220	45.6	25.9	41.2	21.6	38	18.5	35.6	16	32.4	12.8	28.5		220
230		23	37.7	18.8	34.5	15.6	32	13.2	28.8		25		230
240		20.3	34.6	16.1	31.3	13	28.7		25.6		21.8		240
250		17.9		13.6	28.4		25.7		22.6		18.8		250
260		15.8		11.4	25.9		23		19.8		16		260
270							20.5		17.3		13.5		270
280							18.2		14.9		11.1		280
290									12.7				290
300									10.8				300

TAB 181047 / 181054 / 181061

G

197 ft S | 79 – 315 ft W | 143300 lbs | 419000 lbs

ft	S 197																				ft
	W 79			W 98			W 118			W 138			W 157			W 177			W 197		
	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	67°	87°	77°	
45	383																				45
50	354																				50
55	323			311																	55
60	296			285			276														60
65	272			263			255			246			237								65
70	253			244			237			231			222								70
75	236			227			220			215			207			201					75
80	220			212			206			201			193			187			181		80
85	206			199			193			189			181			176			169		85
90	194			187			181			177			170			165			159		90
95				176			171			167			160			155			150		95
100		132		167			161			158			151			146			141		100
105		124		158	119		153			149			143			138			133		105
110		118		150	112		145	105		142			135			131			126		110
115		111			106		138	101		135			128			124			120		115
120		105			100		131	96		128	93		122			118			113		120
125		100			95		125	91		122	88		116			112			108		125
130		95			90		119	86		116	84		110	76		107			102		130
135					86			82		111	80		105	73		102			98		135
140			57		82			78		107	76		101	70		97	63		93	59	140
150			54					71			68		92	63		89	59		85	55	150
160						43.6		64			62		84	56		81	53		77	49.3	160
170						38.9		59	34.9		56	32.9	78	51		74	47.9		71	44	170
180						34.6			31.2		52	29.3		46.1		69	43.2		65	39.4	180
190									27.6			25.8		41.8	20.2		38.9		60	35.2	190
200												22.6		37.9	17.1		35	14.3	55	31.4	200
210															14.3		31.5			28	210
220															11.8		28.5			24.9	220
230																				22.1	230
240																				19.6	240

TAB 181047 / 181054 / 181061

197 – 217 ft S | 79 – 315 ft W | 143300 lbs | 419000 lbs

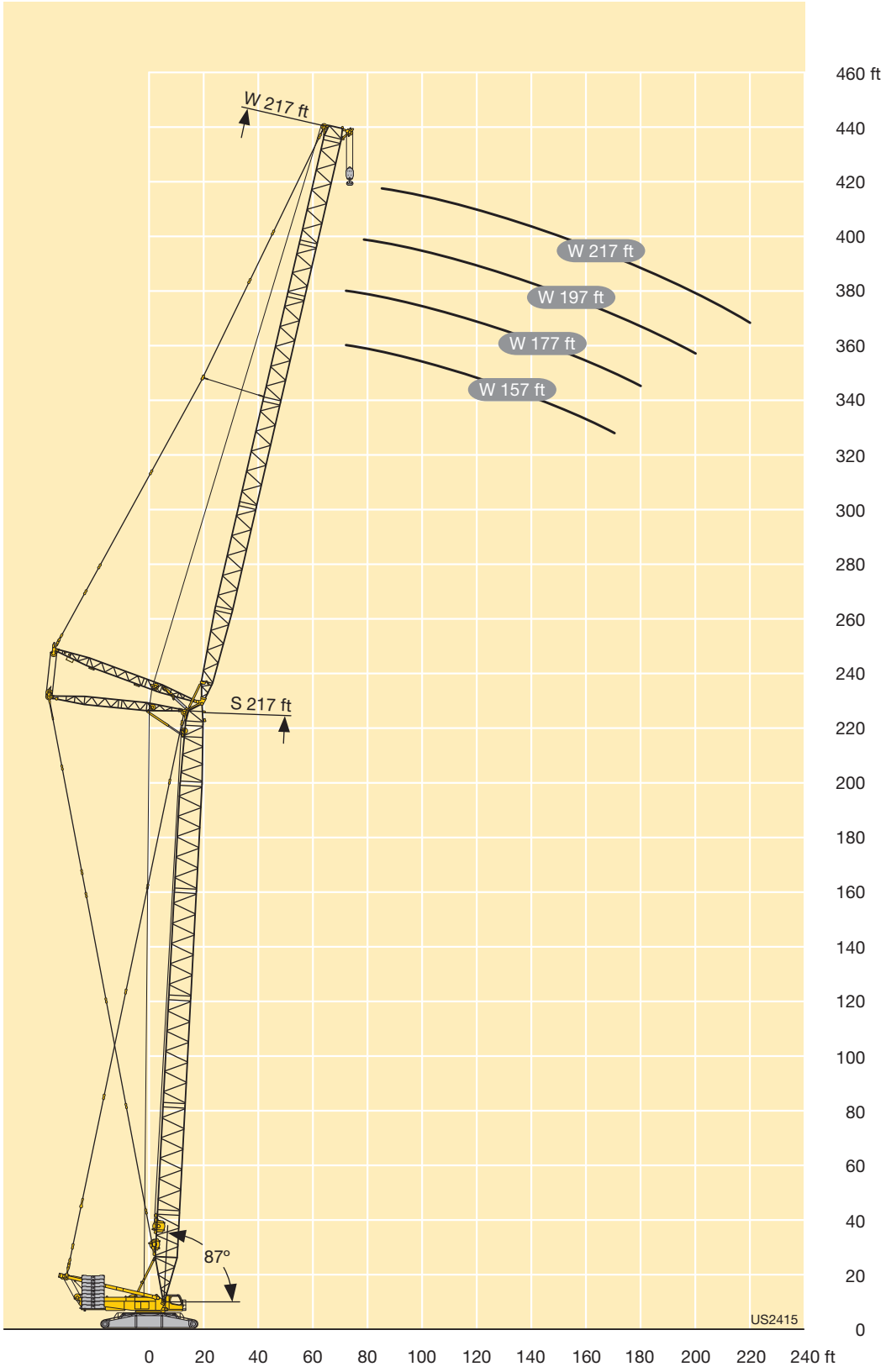
ft	S 197										S 217								ft
	W 217		W 236		W 256		W 276		W 295		W 157		W 177		W 197		W 217		
	87°	77°	87°	77°	87°	77°	87°	77°	87°	77°	87°	77°	87°	77°	87°	77°	87°	77°	
75											199		195						75
80											186		182		174				80
85	163		156								174		171		163		156		85
90	153		147								164		161		153		147		90
95	144		138		136						154		151		144		139		95
100	136		130		128		122		112		145		143		136		131		100
105	128		123		120		115		110		137		135		128		123		105
110	121		116		114		108		104		130		128		121		116		110
115	115		110		108		102		98		123		121		115		110		115
120	109		104		102		96		92		117		115		109		104		120
125	103		98		96		91		87		111		110		103		99		125
130	98		93		91		86		82		106	68	104		98		94		130
135	93		89		87		82		78		101	66	100		94		89		135
140	89		84		83		78		74		97	62	95	58	89		85		140
150	81		76		75		70		66		88	55	87	54	81		77		150
160	73	45.2	69	40.5	67		63		59		81	49.6	79	48.5	74	42.6	70	38.6	160
170	67	40.1	62	35.4	61	33.8	57		53		74	44.5	73	43.4	68	37.7	64	33.8	170
180	61	35.6	57	31	56	29.8	51		47.6			40	67	38.9	62	33.4	58	29.6	180
190	56	31.5	52	27	50	25.8	46	21.2	42.7	17.7		36		34.9	57	29.5	53	25.8	190
200	51	27.8	46.9	23.4	45.8	22.2	41.4	17.6	38.1	14.2		32.3		31.2	52	26	48.6	22.3	200
210	47	24.4	42.7	20	41.5	18.9	37.2	14.4	33.9					27.8		22.7	44.5	19.1	210
220	43.3	21.4	38.9	17	37.7	15.9	33.5	11.5	30.2					24.9		19.9	40.9	16.3	220
230		18.6	35.5	14.3	34.2	13.2	30		26.8							17.3		13.7	230
240		16	32.5	11.8	31		26.8		23.6							14.9		11.3	240
250		13.7			28.1		23.8		20.7										250
260		11.7			25.4		21.1		18										260
270							18.7		15.5										270
280							16.5		13.2										280
290									11.1										290
300									9.2										300

TAB 181047 / 181054 / 181061

G

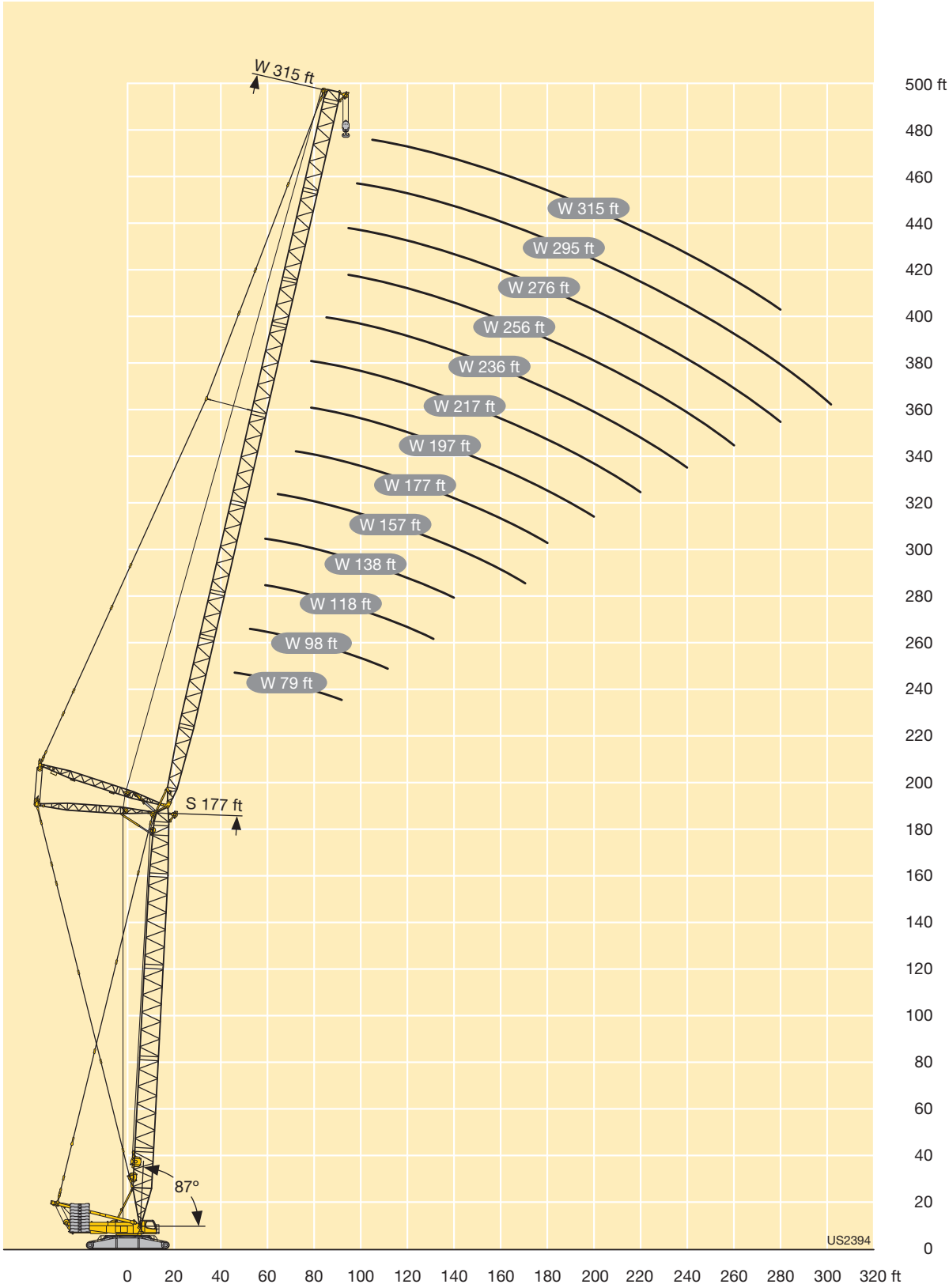
Lifting heights
Hauteurs de levage

SW

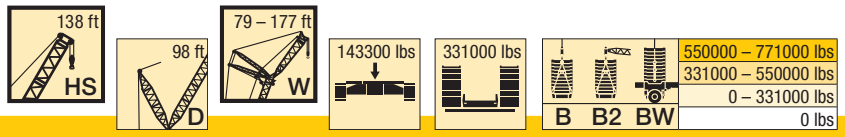


Lifting heights
Hauteurs de levage

SW



G



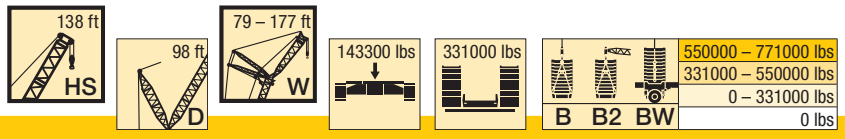
ft		HS 138																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
45	–	423				405																			
	B	705				705																			
	B2	705				705																			
	BW	705				705																			
50	–	389				373																			
	B	705				705																			
	B2	705				705																			
	BW	705				705																			
55	–	352	341			337				326															
	B	705	705			694				611															
	B2	705	705			699				618															
	BW	705	705			698				618															
60	–	320	311			307	298			297	287			290				280							
	B	700	705			671	704			594	624			523				452							
	B2	703	705			684	705			602	632			527				455							
	BW	702	705			682	705			603	633			527				456							
65	–	294	285			282	273			273	264			266	255			258				249			
	B	672	705			645	695			580	610			511	532			445				386			
	B2	692	705			663	705			587	620			516	533			449				387			
	BW	687	705			657	705			588	621			517	533			449				387			
70	–	272	263			261	252			252	244			247	238			238				233			
	B	628	674			615	660			563	592			500	524			437				381			
	B2	638	684			626	679			571	607			506	529			441				383			
	BW	635	684			621	675			571	605			506	529			442				383			
75	–	253	244			242	234			234	226			229	221			221	214			216			
	B	581	628			579	620			545	569			488	514			430	447			375			
	B2	583	638			583	638			552	586			493	521			433	451			378			
	BW	582	638			580	633			553	582			495	521			434	452			378			
80	–	235	228	199		225	218			217	210			213	206			206	199			202	194		
	B	534	578	636		540	577			521	542			476	502			422	440			369	383		
	B2	533	580	692		537	587			526	558			477	510			425	445			371	384		
	BW	533	579	697		538	586			527	554			484	510			426	445			371	384		
85	–	220	213	186		210	203	176		203	196			199	192			192	186			188	181		
	B	488	531	600		496	535	589		489	512			464	489			412	433			361	375		
	B2	486	532	652		493	533	639		489	526			460	496			417	438			363	377		
	BW	488	532	664		494	537	657		490	522			473	497			417	439			363	378		
90	–	205	200	174		197	191	165		191	184			187	180			181	174			177	170		
	B	433	489	567		460	492	560		457	482			443	472			403	425			351	367		
	B2	432	489	617		458	492	608		455	490			438	478			408	430			353	369		
	BW	431	490	624		459	493	618		456	489			449	478			408	431			354	370		
95	–			163		186	179	155		179	173			176	170			170	163			166	160		
	B		426	537		429	458	531		425	453			420	450			392	415			341	358		
	B2		425	585		427	457	577		423	455			416	454			396	420			344	361		
	BW			586		429	457	581		425	456			423	455			397	420			345	362		
100	–			154		175	169	146		169	163	140		166	160			160	154			156	151		
	B			510		397	428	504		395	424	497		396	424			378	404			332	349		
	B2			554		395	426	547		394	423	541		393	426			382	407			335	352		
	BW			552		397	427	548		395	424	546		397	427			382	408			335	353		
105	–			145		164	160	137		159	153	131		156	151	129		151	145			148	142		
	B			484		360	399	479		371	395	473		373	396	470		361	392			323	340		
	B2			523		359	398	518		371	393	515		371	396	510		363	394			325	343		
	BW			518		359	399	516		371	394	515		374	396	518		364	395			326	344		
110	–			136		154	150	130		151	145	124		148	143	121		143	137	114		140	134		
	B			462		319	362	457		351	371	452		350	372	448		345	369	428		313	331		
	B2			484	482	318	362	485		350	370	483		349	371	485		345	370	434		316	335		
	BW			481		319	362	485		350	371	481		351	372	488		345	371	435		316	335		
115	–			125			141	123		143	138	117		141	135	115		135	130	109		132	127		
	B			400			313	436		329	350	431		329	349	429		327	347	419		304	321		
	B2				466		311	449		329	349	451		329	349	454		328	347	429		307	323		
	BW						312	451		329	350	448		331	349	455		327	347	430		307	324		
120	–				101			116		135	131	111		134	128	109		128	123	103		126	120	101	
	B				404			416		307	329	411		312	329	410		309	326	404		294	311	346	
	B2				445			418		306	329	419		312	328	422		310	325	416		298	310	351	
	BW				443			422		307	330	417		314	329	422		309	326	416		297	312	352	
125	–				94.6			109	88.7	128	124	105		127	122	103		122	117	97.7		119	114	95.3	
	B				385			395	379	283	308	389		297	311	391		291	309	388		284	300	341	
	B2				425			395	417	282	307	389		297	310	392		293	308	391		287	296	346	
	BW				424			396	398	283	308	390		298	310	392		291	308	391		286	300	346	
130	–				89.2			102	84	121	116	99.7		121	116	97.7		116	111	92.6		113	109	90.3	
	B				368			369	364	252	286	365		282	297	369		276	292	366		273	289	334	
	B2				406			368	401	249	285	364		282	296	368		278	290	367		274	281	339	
	BW				406			368	383	252	285	365		283	296	368		276	291	367		273	287	339	
135	–								79.2			94.7		115	110	93.1		110	106	88		108	104	85.8	
	B								351			345		266	282	348		264	278	346		262	276	324	
	B2								385			345		266	282	347		265	276	346		261	269	328	
	BW								368			345		266	281	347		264	277	346		260	274	328	
140	–								74.4			89.7	67.3	108	104	88.6		105	101	83.6		103	98.8	81.4	
	B								338			327	323	250	267	327		253	265	326		251	263	313	
	B2								369			327	353	249	267	326		253	264	326		248	257	316	
	BW								354			328	337	249	266	326		252	264	325		248	260	315	
150	–								66			79.8	63.3		93.6	79.5		94.7	91.2	75.4		93.9	89.9	73.6	
	B								312			280	308		225	291		227	240	290		230	239	288	
	B2								340			281	338		225	291		227	239	290		227	235	288	
	BW								328			280	324		225	292		227	239	290		227	237	288	

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

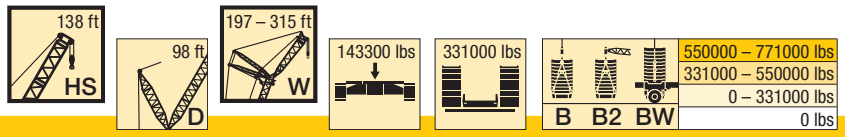
HS 138



ft		HS 138																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
160	–												56.7			70.7	55.7	85.4	82.2	67.9	50.9	85	81.6	66.6	
	B												284			262	282	196	215	261	278	211	219	261	
	B2												311			261	313	196	214	261	308	208	216	258	
	BW												302			263	314	197	214	261	311	208	216	260	
170	–												51			63.6	50.2	76.3	73.1	61.1	45.5	75.9	72.7	60.4	43.3
	B												266			240	264	157	186	237	260	190	201	237	257
	B2												288			239	290	158	186	238	287	187	198	234	283
	BW												282			240	292	158	186	239	288	188	198	235	273
180	–																45.6			55.5	40.9	68.7	65.8	54.8	39
	B																249			217	245	167	181	217	242
	B2																268			217	265	165	178	215	264
	BW																268			218	265	166	179	215	257
190	–																40.5			50.5	36.7		60.1	49.8	34.9
	B																232			185	228		151	200	225
	B2																248			185	243		148	199	242
	BW																247			185	242		149	198	238
200	–																				33			45.4	31.1
	B																				212			184	211
	B2																				222			183	220
	BW																				221			183	219
210	–																								27.8
	B																								200
	B2																								201
	BW																								201
220	–																								24.8
	B																								186
	B2																								185
	BW																								184
230	–																								22.3
	B																								173
	B2																								172
	BW																								172

TAB 181391 / 181393 / 181397

H



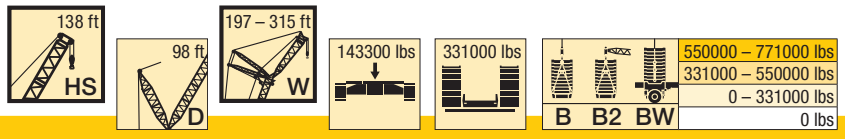
ft		HS 138																													
		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
75	–	208																											
	B	321																											
	B2	322																											
	BW	322																											
80	–	194				189				184																			
	B	317				274				235																			
	B2	319				275				235																			
	BW	319				275				235																			
85	–	181	173			177				172				166															
	B	313	320			271	276			233				197															
	B2	315	322			272	277			234				197															
	BW	315	322			272	277			234				197															
90	–	170	163			166	159			161				156															
	B	310	318			268	274			231				195															
	B2	312	320			270	275			232				195															
	BW	312	320			270	275			232				195															
95	–	159	153			156	149			151	145			146				140				137							
	B	306	315			265	272			229	232			193				167				143							
	B2	308	317			267	273			229	233			193				167				143							
	BW	308	317			267	273			229	233			193				167				143							
100	–	150	144			146	140			142	136			138	131			132				129				118			
	B	302	312			262	269			227	231			190	193			166				141				119			
	B2	304	314			263	271			227	231			191	193			166				142				119			
	BW	304	315			264	271			227	231			191	194			166				142				119			
105	–	141	135			138	132			134	128			129	124			124	118			121				116			
	B	298	309			258	266			224	229			188	192			164	166			140				117			
	B2	301	311			260	268			225	229			189	192			164	166			140				117			
	BW	301	312			260	268			225	229			189	192			164	166			140				117			
110	–	133	128			130	125			127	121			122	117			117	111			114	107			109			
	B	295	305			254	263			222	227			186	189			162	164			139	140			116	116		
	B2	297	307			256	265			223	228			187	190			163	165			139	140			116	116		
	BW	297	309			257	265			223	228			186	190			163	165			139	140			116	116		
115	–	126	121			123	118			120	114			115	110			110	105			108	102			103	93.8		
	B	289	302			251	260			219	224			184	187			160	163			137	139			114	116		
	B2	292	302			252	262			220	226			184	188			161	163			138	139			115	115		
	BW	292	306			253	262			220	226			184	188			161	163			138	139			115	116		
120	–	120	114			117	112			113	108			109	104			104	98.7			102	96.5			97	91.7		
	B	282	299			247	256			216	222			181	186			159	162			136	138			113	114		
	B2	285	297			249	258			217	224			182	186			159	162			136	138			113	114		
	BW	285	303			249	259			217	224			182	186			159	162			136	138			113	114		
125	–	113	108			111	106			107	102			103	98.2			98.1	93.1			96.1	91.1			91.4	86.4		
	B	275	295			243	253			213	220			179	184			157	160			135	137			111	113		
	B2	276	291			245	255			215	221			180	184			158	160			135	137			112	113		
	BW	277	298			245	255			215	221			180	184			158	161			135	137			112	113		
130	–	108	103	84.4		105	100			102	96.9			97.9	93			92.9	88			90.9	86			86.3	81.4		
	B	268	282	303		239	250			211	217			177	182			155	159			133	135			110	112		
	B2	268	279	307		241	252			212	219			178	182			156	159			134	136			110	112		
	BW	269	285	307		241	252			212	219			178	182			156	159			134	136			110	112		
135	–	103	98	80		99.9	95.3			96.8	92.1			93	88.3			88.1	83.3			86.2	81.5			81.7	76.9		
	B	258	270	301		235	245			208	215			175	180			154	157			132	134			109	110		
	B2	258	268	304		237	247			209	216			176	181			154	158			132	134			109	110		
	BW	259	272	305		238	247			209	217			176	181			154	158			132	134			109	110		
140	–	97.7	93.2	75.7		95	90.5	69.5		92	87.5	66.4		88.3	83.7			83.5	78.9			81.6	77.1			77.3	72.6		
	B	247	257	298		231	240	251		205	212	212		173	178			152	155			131	133			107	109		
	B2	247	256	301		233	241	253		206	214	213		174	179			152	156			131	133			107	109		
	BW	248	259	301		234	241	253		207	214	213		174	179			153	156			131	133			107	109		
150	–	88.8	84.5	68		86.2	81.9	65.5		83.3	79	62.5		79.7	75.4			75	70.7			73.3	69			69.1	64.7		
	B	226	234	282		219	228	249		199	207	211		169	174			148	152			128	131			104	106		
	B2	225	233	283		221	228	250		200	209	213		170	175			149	153			128	131			104	107		
	BW	225	235	284		221	228	252		201	209	213		170	175			149	153			129	131			104	107		
160	–	80.6	76.6	61.2		78.3	74.3	58.8		75.5	71.4	55.8		72.1	68	52.3		67.5	63.3			65.8	61.8			61.7	57.6		
	B	205	215	258		203	214	244		192	202	210		165	171	173		145	149	147		126	128			101	104		
	B2	205	213	257		204	213	243		193	203	212		166	172	174		146	150	148		126	129			102	104		
	BW	205	215	258		204	214	246		194	203	212		166	172	174		146	150	148		126	129			102	104		
170	–	72.7	69.3	55.1		71.4	67.5	52.8		68.6	64.7	49.9		65.3	61.4	46.5		60.7	56.8	41.8		59.2	55.3	39.9		55.2	51.2		
	B	190	198	234		187	196	229		181	193	208		161	167	172		142	146	146		123	126	124		98.4	101		
	B2	190	196	232		187	196	226		181	195	209		162	168	173		143	147	147		123	127	124		98.8	101		
	BW	190	198	234		187	196	230		182	194	210		162	168	173		143	147	147		124	127	124		98.6	101		
180	–	65.8	62.9	49.9		64.7	61.6	47.5		62.5	58.9	44.7		59.3	55.6	41.4		54.9	51.2	36.8		53.4	49.7	35.3		49.4	45.7		
	B	174	183	214		174	181	211		170	179	204		156	162	170		138	143	145		121	124	123		95.9	98.4		
	B2	174	181	212		174	181	210		170	180	204		157	163	172		139	144	146		121	124	124		96	98.7		
	BW	175	183	213		174	181	212		171	180	205		157	163	172		139	144	146		121	124	124		96	98.7		
190	–	59.9	57.3	45.1	29.6	58.9	56.2	42.8		57.1	53.6	40		53.9	50.4	36.8		49.5	46	32.3		48.1	44.5	30.8		44.2	40.6	26.7	
	B	158	167	196	221	161	168	194		159	166	193		151	155	169		135	140	144		118	122	122		93.4	95.9	96.2	
	B2	157	166	195	240	161	168	194		159	166	192		151	156	170		136	141	145		119	122	123		93.4	96.2	96.5	
	BW	159	167	196	235	161	167	195		160	166	194		151	156	170		136	141	145		119	122	123		93.5	96.3	96.6	
200	–	54.8	52.3	40.7	25.9	53.7	51.2	38.5	23.6	52.1	48.7	35.7		49	45.6	32.6		44.7	41.3	28.1		43.2	39.8	26.7		39.3	35.9	22.6	
	B	138	151	181	207	148	156	178	204	148	154	179		145	147	165		132	135	143		115	120	122		90.7	93.6	94.9	
	B2	137	150	180	219	148	156	179	214	148	154	178		145	148	166		132	136	144		116	120	122		90.9	93.8	95.3	
	BW	138	151	180	217	149	155	179	214	149	154	179		145	147	166		133	136	144		116	120	122		91	94	95.3	
210	–			36.4	22.5	49.1	46.6	34.6	20.3	47.5	44.3	31.8	17.5	44.5	41.2	28.7		40.2	36.9	24.3		38.8	35.5	22.9		34.9	31.7	18.9	
	B			168	196	135	144	164	194	138	144	165	183	136	139	158		130	130	141		113	117	120		87.8	91.3	93.5	
	B2			168	199	135	143	165	200	138	144	164	185	136	139	159		129	131	142		114	118	121		88.6	91.4	94.1	
	BW			168	199	136	143	164	198	139	143	165	185	136	139	158		130	131	142		114	118	121		88.5	91.7	94	

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 138



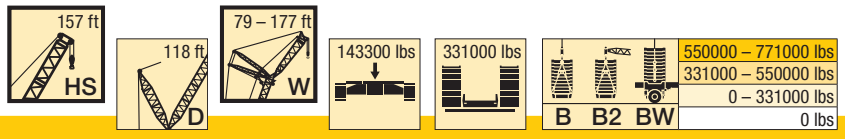
ft		HS 138																											
		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
220	–			33.1	19.6	45	42.7	31.2	17.4	43.6	40.4	28.4	14.6	40.5	37.4	25.3	11.4	36.2	33.1	21		34.8	31.7	19.6		31	27.9	15.6	
	B			155	183	120	131	154	182	127	133	151	178	127	130	149	151	122	125	138	122	111	115	119		85	88.8	92.1	
	B2			155	183	120	130	155	183	127	133	152	177	127	131	149	142	122	125	139	107	112	116	120		86.2	89.1	92.7	
	BW			156	183	120	130	154	183	128	133	152	179	127	130	149	153	122	125	138	123	112	116	120		86.1	89.4	92.7	
230	–			30.1	17		38.2	28.1	14.7	38.9	36.3	25.2	11.9	36.6	33.8	22.2	8.7	32.6	29.6	17.8		31.1	28.1	16.5		27.4	24.4	12.5	
	B			132	169		108	144	169	116	123	141	167	118	122	139	151	114	118	133	124	107	113	119		82.3	86.6	90.7	
	B2			133	169		107	144	168	115	123	141	166	118	122	139	153	114	118	133	125	108	114	119		83.9	86.9	91.3	
	BW			133	169		108	144	168	116	123	141	168	118	122	139	151	114	118	133	125	108	114	119		83.8	87.1	91.3	
240	–				14.6			25.3	12.2	34.6	32.5	22.3	9.4	33.1	30.6	19.3		29.3	26.3	15		27.7	24.8	13.6		24	21.1	9.7	
	B				157			133	156	101	112	132	155	109	114	129	148	107	110	125	125	103	109	117	102	79.9	84.3	89.3	
	B2				157			132	155	99.8	111	132	155	109	113	129	149	106	110	125	126	103	109	117	103	81.5	84.7	89.9	
	BW				156			133	155	101	111	133	155	109	114	129	146	107	110	125	126	103	110	117	103	81.4	84.8	89.9	
250	–								10			19.6		30.1	27.6	16.6		26.2	23.3	12.3		24.6	21.8	10.9		20.9	18		
	B								144			124	143	99.8	106	120	141	99.7	103	116	125	97.9	103	113	104	77.8	82.1	87.8	77.3
	B2								144			124	143	99.8	105	120	141	98.8	103	115	127	98	103	113	104	79.1	82.6	88.4	77.8
	BW								143			124	144	100	105	120	139	99.5	103	116	127	98.4	103	113	104	79.1	82.6	88.6	77.8
260	–								8			17.2		27.4	25	14.2		23.4	20.6	9.9		21.7	19	8.5		18	15.3		
	B								134			115	133	89.4	96.4	112	131	92.7	96.4	108	122	92.9	96.4	107	105	75.8	80	86.3	77.4
	B2								135			115	133	89	95.8	112	131	92	96.2	107	126	92.6	96.6	106	106	76.7	80.4	87	78.1
	BW								134			115	133	89	96	112	130	92.9	96.3	108	126	93.1	96.6	107	106	76.8	80.5	87.2	78.1
270	–														22.9	12		20.9	18.2	7.7		19.1	16.5			15.4	12.7		
	B								126			98.5	123		77.8	105	121	84.4	89.8	101	116	86.8	90	101	105	73.8	77.9	85.1	77.5
	B2								127			98.3	124		77.2	104	122	84	89.7	101	119	86.4	90.1	100	106	74.3	78.2	85.6	78.2
	BW								126			98.3	124		77.5	105	122	85	89.9	101	118	86.8	90	100	106	74.6	78.4	85.8	78.2
280	–																	18.7	16			16.6	14.1			12.9	10.4		
	B												115			98.3	113	71.8	80.8	94.8	109	80.4	83.5	94.7	104	71.2	75.5	83.1	77.5
	B2												116			97.4	113	71.6	80.8	94.6	110	79.9	83.6	94.1	105	71.5	75.6	83.6	78.2
	BW												116			98.4	113	72.4	81.2	94.4	109	80.2	83.8	94.3	105	71.9	75.9	83.8	78.2
290	–																					14.4	11.9			10.7			
	B																105			89.2	102	73.5	76.9	88.7	101	68	72.3	80.1	77.3
	B2																105			89.1	102	73	76.9	88.3	102	68.3	72.4	80.5	78
	BW																106			88.7	102	73.1	77.4	88.5	101	68.7	72.7	80.8	78
300	–																					12.4	9.9			8.6			
	B																99			83.6	95.5	64.1	69.6	82.8	95.6	64.9	68.1	75.6	77.2
	B2																98.8			83.5	94.8	63.3	69.6	82.6	95.7	65.1	68.2	75.7	77.9
	BW																99.7			83.7	95.3	63.7	70.1	82.8	95.6	65.4	68.3	76.1	77.9
310	–																												
	B																93.7			70.5	89.4		55.3	77.2	89.3	60.4	63.8	71.2	76.8
	B2																93.4			70.7	89.1		55.2	76.9	89.2	60.2	63.8	71.2	77.4
	BW																94.1			70.5	89.3		55.5	77.1	89.3	60.6	63.8	71.6	77.3
320	–																												
	B																				84.8			71.8	82.9	50.5	57.3	67.4	76
	B2																				84.7			71.4	82.7	50.1	57.3	67.2	76.3
	BW																				84.7			71.3	82.8	50.5	57.3	67.5	76.2
330	–																												
	B																								76.9			63.9	74
	B2																								76.7			63.7	74.1
	BW																								76.8			63.7	73.9
340	–																												
	B																								73.2			60.1	68.7
	B2																								73.1			60	68.7
	BW																								73			59.9	68.7
350	–																												
	B																								68.2			51.4	64.7
	B2																								67.8			51.3	64.7
	BW																								68.2			51.2	64.6
360	–																												
	B																												61.4
	B2																												61.3
	BW																												61.2

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 157



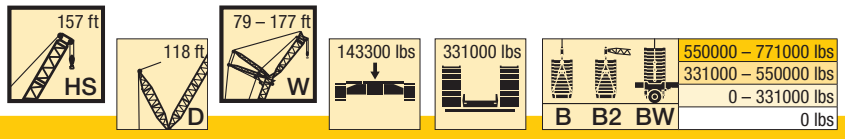
ft		HS 157																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
45	–	418																							
	B	705				674																			
	B2	705				681																			
	BW	705				681																			
50	–	386				352																			
	B	705				658																			
	B2	705				666																			
	BW	705				666																			
55	–	349	337			337				325															
	B	700	705			637				560															
	B2	705	705			647				568															
	BW	705	705			648				568															
60	–	319	308			307	296			297				289											
	B	683	704			617	656			546				480											
	B2	699	705			628	671			555				485											
	BW	699	705			629	672			556				486											
65	–	293	283			283	272			273	260			266				254				249			
	B	644	698			596	638			532	559			471	487			411				358			
	B2	667	705			608	654			540	570			477	496			414				359			
	BW	664	705			610	655			541	572			477	496			415				360			
70	–	271	262			262	252			253	243			246	229			238				233			
	B	608	662			574	620			517	548			461	482			404				353			
	B2	628	687			586	637			526	561			466	490			408				355			
	BW	627	673			587	635			527	561			467	490			408				356			
75	–	252	243			243	234			235	226			229	220			221	213			217			
	B	572	625			549	599			503	535			450	473			396	414			347			
	B2	585	649			562	616			512	547			456	482			402	418			351			
	BW	587	634			563	612			514	549			457	483			401	419			352			
80	–	235	226			226	218			219	210			213	205			206	198			202	194		
	B	536	588			523	574			486	516			439	464			389	407			342	355		
	B2	542	598			534	589			497	531			446	473			395	413			346	358		
	BW	544	592			535	585			498	537			447	475			395	414			346	358		
85	–	220	212	180		212	203			205	197			200	192			193	185			189	181		
	B	500	547	647		497	544			468	494			429	455			381	401			335	349		
	B2	498	547	694		500	553			480	511			437	465			386	407			339	354		
	BW	498	548	661		501	554			481	525			437	466			387	408			339	354		
90	–	208	199	169		199	191			192	185			188	180			181	174			177	170		
	B	457	503	616		471	508			448	471			416	445			374	395			327	343		
	B2	453	504	660		468	512			459	488			422	457			379	402			331	348		
	BW	456	506	628		470	513			460	499			426	458			380	402			331	349		
95	–		188	159		187	180	152		181	174			177	169			170	163			167	160		
	B		461	585		442	474	573		426	448			404	434			366	387			320	337		
	B2		460	627		438	475	613		433	464			405	445			372	394			323	341		
	BW		461	596		440	476	586		435	470			415	446			372	395			324	342		
100	–			149		177	170	143		171	164	137		166	159			161	154			157	150		
	B			557		410	444	549		403	426	534		390	419			357	378			312	329		
	B2			593		406	442	587		405	438	567		386	429			363	385			315	334		
	BW			566		407	442	557		407	440	549		401	430			364	386			316	335		
105	–			141		168	160	134		161	154	129		157	150			151	145			149	142		
	B			530		373	416	523		381	404	514		373	401			347	371			304	321		
	B2			558		371	414	560		380	411	551		368	406			352	377			307	326		
	BW			539		373	414	531		381	410	525		382	406			354	378			308	326		
110	–			133		159	152	127		153	146	121		149	143	116		143	137			141	134		
	B			505		334	380	500		360	383	493		354	381	465		338	359			296	313		
	B2			517		333	378	525		360	385	525		350	383	471		341	363			299	318		
	BW			510		334	379	507		361	384	502		358	383	480		344	365			300	318		
115	–			126			145	120		145	139	115		141	135	111		136	130			133	127		
	B			477			343	475		339	363	472		335	360	457		326	347			289	305		
	B2			479			340	489		339	363	489		333	360	458		327	349			291	310		
	BW			478			341	481		339	363	479		337	361	469		330	351			292	310		
120	–							114		138	132	109		134	128	105		129	123	100		127	121		
	B							449		317	343	449		318	339	443		311	333	393		281	297		
	B2							454		316	342	452		317	338	438		312	333	402		284	300		
	BW							451		317	343	452		318	339	449		314	336	402		284	302		
125	–				89.1			108		132	126	103		128	122	99.8		123	117	94.7		120	114	92.3	
	B				427			422		292	322	420		303	319	422		295	318	386		273	290	324	
	B2				458			422		291	320	421		302	318	417		296	317	396		276	289	330	
	BW				434			421		292	322	422		303	319	422		297	319	395		276	294	331	
130	–				84.5			103	77.6	125	120	97.8		122	116	94.7		117	111	89.7		114	109	87.5	
	B				410			397	401	265	298	393		288	304	395		281	301	373		265	282	320	
	B2				441			398	430	264	297	393		288	303	393		281	300	387		267	278	326	
	BW				416			397	407	265	298	394		288	304	393		281	301	381		268	285	326	
135	–				79.9				74.7			93.2		116	111	90.2		112	106	85.2		109	104	83.1	
	B				395				390			371		272	289	371		268	285	358		258	273	314	
	B2				424				418			371		271	288	371		268	285	368		259	268	320	
	BW				400				396			371		272	289	370		268	286	363		260	275	320	
140	–				75.3				70.8			88.8	62.7	111	106	85.8		107	101	80.9		104	99	78.8	
	B				380				375			350	359	255	274	349		257	271	342		251	263	306	
	B2				408				403			350	386	255	273	349		257	271	346		250	257	314	
	BW				386				381			350	364	256	274	349		257	272	344		252	265	312	
150	–								63.7			80	59.1		96.2	77.9		97.2	92.3	73.1		95.2	90.2	71.1	
	B								349			312	345		239	310		232	245	308		234	244	288	
	B2								375			312	372		238	310		231	245	308		232	237	298	
	BW								354			313	350		240	310		231	246	308		234	244	294	

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 157



ft		HS 157																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
160	–												53.1			70.7	50.4	88.6	84.1	66.2		87.1	82.3	64.3	
	B												321			278	319	203	222	276		214	225	266	
	B2												347			278	344	202	220	276		213	219	276	
	BW												326			278	324	203	222	276		215	225	272	
170	–												47.8			63.6	45.2	80.6	75.4	60.1	40.2	80.1	74.9	58.3	
	B												301			252	299	170	194	250	293	194	206	247	
	B2												325			253	322	168	193	250	317	193	202	249	
	BW												305			251	303	170	194	250	298	195	207	248	
180	–												43.4				40.8			54.9	36.1	71.8	67.9	53	
	B												283				281			230	276	172	186	227	
	B2												297				295			230	293	171	184	226	
	BW												287				285			230	281	172	186	227	
190	–																36.8			50.2	32.1		61.9	48.3	30.4
	B																261			207	258		160	210	257
	B2																268			206	266		159	209	263
	BW																264			207	261		160	210	260
200	–																				28.5			44.1	26.8
	B																				239			195	239
	B2																				240			194	242
	BW																				239			194	240
210	–																				25.3				23.6
	B																				217				218
	B2																				219				220
	BW																				218				218
220	–																				22.7				20.8
	B																				202				200
	B2																				202				202
	BW																				203				201
230	–																								18.2
	B																								185
	B2																								186
	BW																								186

TAB 181391 / 181393 / 181397

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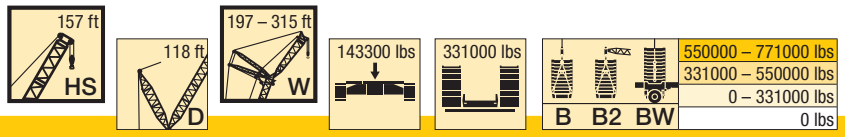

ft		HS 157																											
		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
75	–	210																											
	B	301																											
	B2	302																											
	BW	303																											
80	–	196				190																							
	B	298				257				221																			
	B2	299				258				222																			
	BW	300				258				222																			
85	–	183	175			177				172				166															
	B	294	301			254				219				186															
	B2	296	303			256				220				187															
	BW	296	304			256				220				187															
90	–	172	165			166				162				157															
	B	290	299			252				217				185															
	B2	293	301			253				218				185															
	BW	293	302			253				219				185															
95	–	162	155			156	149			152				147				141											
	B	287	296			249	255			215				183				158											
	B2	289	299			250	257			216				183				159											
	BW	290	299			251	257			217				183				159											
100	–	153	146			147	140			143	136			138	124			133				130				113			
	B	283	293			245	253			213	218			181	184			157				135				113			
	B2	285	296			247	255			214	218			181	184			157				135				113			
	BW	286	297			248	255			214	219			181	184			157				135				113			
105	–	144	137			139	132			135	128			130	124			125	118			122				111			
	B	279	291			242	251			211	216			178	182			155	157			133				111			
	B2	282	294			244	253			212	217			179	182			156	157			133				111			
	BW	283	294			245	253			212	217			179	183			156	157			134				112			
110	–	136	130			131	125			128	121			123	117			118	111			115	107			109			
	B	275	287			239	248			208	214			176	180			154	156			132	133			110			
	B2	278	291			241	250			210	215			177	181			154	156			132	133			110			
	BW	279	291			241	250			210	216			177	181			154	156			132	133			110			
115	–	129	123			124	118			121	114			116	110			111	105			109	103			104			
	B	271	284			235	244			205	212			174	178			152	155			131	132			109			
	B2	274	288			237	247			207	213			175	179			153	155			131	132			109			
	BW	275	288			237	247			207	214			175	179			153	155			131	132			109			
120	–	122	116			118	112			114	108			110	104			105	98.8			103	96.7			98	91.8		
	B	266	281			231	241			203	210			172	177			150	154			130	131			107	109		
	B2	271	285			234	244			205	211			173	177			151	154			130	132			107	109		
	BW	270	285			234	244			205	212			173	178			151	154			130	132			108	109		
125	–	116	110			112	106			108	102			104	98.4			99.1	93.2			97.2	91.3			92.5	86.5		
	B	262	277			228	238			200	208			170	175			149	152			129	130			106	108		
	B2	267	282			230	241			202	209			171	176			150	153			129	131			106	108		
	BW	266	282			231	241			202	210			171	176			150	153			129	131			106	108		
130	–	110	105	82.1		106	100			103	97.2			98.9	93.3			93.8	88.2			91.9	86.3			87.4	81.6		
	B	259	271	283		224	235			198	205			168	173			147	151			127	129			105	106		
	B2	263	275	288		226	238			200	207			169	174			148	151			128	130			105	107		
	BW	263	276	288		227	238			200	207			170	174			148	151			128	130			105	107		
135	–	105	99.8	79		101	95.5			97.8	92.4			94	88.6			89.1	83.5			87.2	81.7			82.7	77.2		
	B	252	266	283		221	231			195	203			166	171			146	149			126	128			103	105		
	B2	256	268	289		223	234			197	205			167	173			146	150			126	129			103	105		
	BW	256	269	289		223	235			197	205			168	173			147	150			126	129			104	106		
140	–	100	95.1	74.8		96.1	90.8	67		93.1	87.8			89.3	84			84.4	79.1			82.7	77.3			78.3	72.8		
	B	245	261	283		217	228	235		192	200			164	170			144	148			125	127			102	104		
	B2	248	262	289		220	230	238		194	202			165	171			145	149			125	128			102	104		
	BW	248	262	289		220	232	239		194	203			166	171			145	149			125	128			102	104		
150	–	91.3	86.3	67.2		87.2	82.2	63.1		84.3	79.3			80.7	75.7			76	70.9			74.3	69.3			70.1	64.9		
	B	228	244	276		208	221	234		187	196			160	166			141	145			122	125			99.4	102		
	B2	229	244	285		211	222	238		189	198			162	168			141	146			123	125			99.6	102		
	BW	230	244	283		211	225	238		189	198			162	168			142	146			123	126			99.7	102		
160	–	83.3	78.6	60.5		79.3	74.6	56.5		76.5	71.8	53.6		73.1	68.3	50		68.4	63.6			66.9	62.1			62.7	57.9		
	B	211	224	262		199	212	232		182	191	198		157	163	164		137	142			119	123			96.7	99.1		
	B2	210	223	272		201	211	236		184	194	200		158	164	166		138	143			120	123			97.1	99.6		
	BW	212	223	269		201	216	236		184	193	201		159	164	166		138	143			120	124			97.2	99.5		
170	–	76.3	71.8	54.5		72.3	67.8	50.6		69.6	65.1	47.8		66.2	61.7	44.3		61.7	57.2	39.2		60.2	55.7	33.8		56.1	51.5		
	B	196	205	244		189	198	229		176	185	197		153	160	164		134	139	138		117	120	116		94.2	96.7		
	B2	196	204	249		190	197	233		177	188	200		155	161	166		135	140	140		118	121	117		94.7	97.1		
	BW	196	204	249		189	200	233		177	188	200		155	161	165		135	140	139		118	121	117		94.6	97.2		
180	–	69.4	65.7	49.4		66.2	62	45.5		63.5	59.3	42.8		60.3	56	39.4		55.8	51.5	34.7		54.4	50.1	33.3		50.4	46		
	B	180	190	226		177	184	219		170	176	196		150	156	163		131	136	138		114	118	116		91.6	94.5		
	B2	181	189	227		177	183	222		171	178	195		152	158	165		132	138	139		115	119	117		91.9	94.8		
	BW	180	189	226		177	184	222		171	178	199		152	158	165		132	138	139		115	119	117		92.2	94.9		
190	–	63.3	60.1	44.7		60.7	56.6	40.9		58	53.9	38.2		54.8	50.7	34.9		50.4	46.3	30.3		49	44.9	28.9		45.1	40.9	24.7	
	B	164	174	208		164	171	204		161	167	191		147	152	162		128	133	137		112	116	116		89.1	92.1	91.8	
	B2	164	173	207		165	170	205		162	167	187		149	153	164		129	135	138		113	117	117		89.4	92.5	92.4	
	BW	164	174	207		164	171	205		162	168	194		149	153	164		129	135	138		113	117	117		89.8	92.7	92.5	
200	–	57.9	54.9	40.4	23.1	55.7	51.8	36.7		53	49.1	34		49.9	45.9	30.7		45.5	41.6	26.2		44.2	40.2	24.9		40.3	36.3	20.8	
	B	145	157	191	237	152	159	188		151	157	183		143	148	160		125	131	136		109	114	115		86.6	89.7	90.9	
	B2	144	157	190	242	152	158	187		152	156	177		144	148	162		126	132	138		110	115	116		87	90.4	91.5	
	BW	145	157	191	240	151	159	188		151	158	185		145	148	162		127	132	138		110	115	116		87.3	90.5	91.6	
210	–			36.5	19.9	51.1	47.5	32.8	16.2	48.5	44.7	30.1	13.4	45.4	41.6	27		41	37.2	22.5		39.7	35.9	21.2		35.8	32	17.1	
	B			178	219	138	147	173	198	141	147	172	169	136	143	158		123	128	135		107	112	114		83.9	87.6	89.9	
	B2			177	218	138	146	172	207	141	146	166	171	137	143	158		124	130	137		108	113	116		84.5	88.2	90.4	
	BW			178	218	138	147	172	202	140	147	172	171	137	142	159		124	130	137		108	113	116		84.7	88.3	90.6	

TAB 181391 / 181393 / 181397

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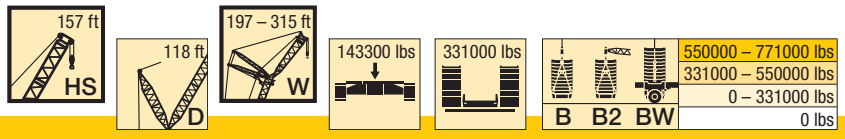


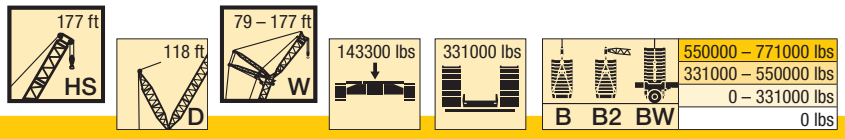
ft		HS 157																													
		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
220	–			33.2	17	47	43.7	29.5	13.4	44.5	40.8	26.8	10.6	41.4	37.7	23.6		37.1	33.4	19.2		35.7	32	17.9		31.9	28.2	13.9	
	B			165	200	123	134	161	187	130	137	159	172	129	134	154	140	118	126	134		105	110	114		81.2	84.8	88.6	
	B2			164	200	123	133	161	195	130	136	156	175	128	134	151	135	119	127	136		106	111	115		81.8	85.7	89.4	
	BW			164	200	123	134	161	191	129	137	159	175	129	134	154	137	119	127	136		106	111	115		81.9	85.8	89.5	
230	–			30.2	14.4		39.3	26.4	10.9	40.2	37.2	23.6	8.1	37.7	34.2	20.6		33.4	29.9	16.2		32	28.5	14.9		28.2	24.7	10.9	
	B			150	183		115	150	176	119	126	148	170	120	125	145	143	112	120	132		102	108	113		78.5	82.3	87.5	
	B2			150	184		114	150	181	119	126	146	173	120	125	143	145	113	121	134		103	109	114		79.1	83.1	88.3	
	BW			149	184		114	150	179	118	126	148	173	120	125	145	145	114	120	134		104	109	115		79.2	83.3	88.3	
240	–				12.1			23.6		36.3	33.9	20.8		34.3	30.9	17.7		30	26.6	13.4		28.6	25.2	12.1		24.8	21.4		
	B				169			140	166	105	115	138	163	111	117	135	145	107	112	128	116	99.6	105	112		75.8	79.7	86.2	
	B2				169			140	167	104	115	138	166	111	116	134	145	107	113	130	118	100	106	114		76.5	80.6	87.1	
	BW				169			140	166	105	115	138	166	111	116	135	147	108	113	130	118	101	106	114		76.7	80.8	87.1	
250	–											18.1		31.2	27.9	15.1		26.9	23.6	10.8		25.4	22.1			21.7	18.4		
	B				156				154			129	153	102	108	125	146	101	105	120	118	97.1	101	111	96.4	73.7	77.3	85	
	B2				155				154			129	154	102	108	125	141	100	105	121	119	97.5	102	112	97.4	74.2	78.2	85.7	
	BW				156				154			129	154	102	108	125	146	102	106	121	120	97.7	102	113	97.4	74.5	78.3	85.8	
260	–											15.8		28.6	25.3	12.7		24.1	20.9	8.4		22.6	19.4			18.8	15.6		
	B				147				143			120	142	91.7	99.2	117	140	94.2	98.3	113	119	94.1	96.8	107	97.8	71.9	75.6	83.4	72.1
	B2				147				143			120	142	91.4	99	117	134	93.9	98.5	113	121	94.1	97	108	98.9	72.4	76.4	84.3	70.3
	BW				147				143			120	142	91.3	99.4	117	140	94.6	98.7	112	122	94.4	97.3	108	98.9	72.6	76.5	84.5	73
270	–											13.7			23	10.6		21.6	18.4			19.9	16.8			16.2	13.1		
	B								134			110	132		83.6	110	131	86.6	91.5	105	118	88.5	91.8	103	99.1	70.1	73.8	81.7	72.7
	B2								134			110	132		83.4	110	127	86.3	92	105	120	88.4	91.7	104	100	70.6	74.7	82.7	73.6
	BW								134			110	132		83.6	110	131	86.8	91.9	105	120	88.7	92.1	103	100	70.8	74.8	82.8	73.6
280	–															8.6		19.4	16.2			17.4	14.4			13.7	10.7		
	B												123			102	122	75.8	83.4	98.7	115	81.9	86.1	98.1	100	68.1	72	79.9	73
	B2												124			103	120	75	84	98.2	116	81.8	85.8	98.6	101	68.7	72.8	81	74
	BW												123			103	121	75.3	83.9	98.6	116	82.1	86.1	98.1	102	68.8	72.9	81.1	74
290	–																					15.1	12.2			11.4			
	B												116				113			92.5	109	75.1	79.6	92.2	101	66.2	69.9	78.1	73.2
	B2												116				113			91.8	109	75	79.2	92.2	102	66.9	70.7	79.1	74.3
	BW												116				113			92.6	110	75.3	79.3	92.2	103	67	70.7	79.2	74.3
300	–																					13.1	10.2			9.3			
	B												109				105			87.1	102	66.3	72.2	86.3	101	64.8	67.3	75.5	73.3
	B2												109				105			86.8	102	66.2	72.2	85.9	101	65.2	67.7	76.4	74.5
	BW												109				105			87.4	102	66.8	72.1	86.4	102	65.1	67.7	76.2	74.5
310	–																												
	B																99.7			79.2	94.9		60.5	80.7	95.4	61.4	64.8	73.1	73.4
	B2																99.3			78.9	95.3		60.5	80.3	95.5	61.5	64.7	73.6	74.6
	BW																99.3			79.3	95.4		60.5	80.8	96	61.6	64.9	73.2	74.6
320	–																												
	B																				89.4			75.2	89	53.3	60.5	70.1	73
	B2																				89.8			74.8	89	53.2	60.2	70.5	74.6
	BW																				89.7			75.2	89.2	53.4	60.5	69.9	74.7
330	–																												
	B																				84.7				82.7			66.4	72
	B2																				84.9				82.7			66.8	74.2
	BW																				84.4				82.7			66.5	74.3
340	–																												
	B																				79.1				77			62.9	69.7
	B2																				79.2				77			63.1	71.9
	BW																				78.8				76.9			63	72.2
350	–																												
	B																								72.9			57.2	66.1
	B2																								73			56.9	67.9
	BW																								72.9			57.2	68.4
360	–																												
	B																												62.7
	B2																												64.4
	BW																												64.7
370	–																												
	B																												59.7
	B2																												61.3
	BW																												61.4
380	–																												
	B																												57
	B2																												57.7
	BW																												58

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 177



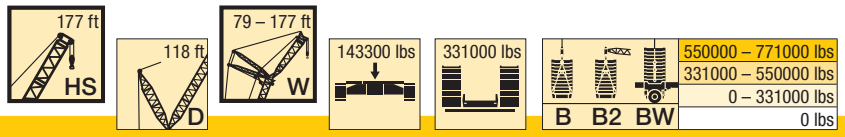
ft		HS 177																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
45	–	400																							
	B	703																							
	B2	705																							
	BW	705																							
50	–	369																							
	B	678																							
	B2	689																							
	BW	690																							
55	–	335	322			325				314															
	B	649	697			590				521															
	B2	664	705			598				527															
	BW	666	705			599				527															
60	–	307	294			297	284			287				279											
	B	620	677			570	603			509				448											
	B2	635	699			580	624			515				453											
	BW	636	700			581	624			516				454											
65	–	282	270			273	262			265	250			258				247							
	B	590	650			547	592			496	525			439				384				334			
	B2	607	671			559	608			502	533			445				387				337			
	BW	608	673			559	609			504	533			445				387				337			
70	–	261	250			253	242			245	234			239				231				217			
	B	562	623			525	573			480	513			430				378				331			
	B2	578	644			535	589			489	523			436				382				333			
	BW	580	643			538	590			490	524			436				382				334			
75	–	243	232			236	225			228	218			222	212			215				209			
	B	534	596			503	552			465	500			420	444			372				327			
	B2	549	618			509	569			475	512			426	452			376				329			
	BW	551	614			517	571			476	513			427	452			376				330			
80	–	227	217			220	210			213	203			208	198			201	191			195	185		
	B	506	569			482	531			451	488			411	436			365	382			321	334		
	B2	521	592			482	549			461	501			416	445			369	386			324	337		
	BW	523	583			496	550			461	501			418	445			369	386			325	337		
85	–	213	203			206	196			199	190			194	185			188	179			182	173		
	B	480	541			460	512			435	474			402	429			357	377			316	331		
	B2	494	562			457	529			443	488			408	438			361	383			319	334		
	BW	496	550			472	531			445	489			409	437			362	383			320	334		
90	–	200	191			193	184			187	178			183	174			177	168			171	163		
	B	448	510			438	494			418	458			390	419			350	371			310	326		
	B2	453	516			433	510			424	471			397	428			354	378			313	329		
	BW	453	513			451	510			428	475			398	429			356	378			313	330		
95	–		180	147		182	174			176	168			172	164			166	158			161	153		
	B		472	573		418	475			400	444			377	410			343	365			303	320		
	B2		472	613		411	489			405	452			386	419			348	371			306	324		
	BW		473	585		430	487			412	460			386	421			349	372			307	325		
100	–			138		172	164	133		166	158			162	154			157	149			152	144		
	B			547		397	453	535		384	429			365	400			335	358			296	313		
	B2			585		389	462	573		386	432			374	410			341	364			299	317		
	BW			556		406	459	548		396	444			374	411			342	365			300	318		
105	–			130		163	155	125		157	149	120		153	146			148	140			143	136		
	B			521		369	424	514		368	415	500		352	387			327	352			289	306		
	B2			558		364	424	550		367	413	532		360	398			333	358			291	311		
	BW			529		374	424	522		379	425	514		361	398			333	359			293	311		
110	–			123		155	147	118		149	141	113		145	138	108		140	133			136	128		
	B			497		336	389	491		353	401	482		339	374	437		318	343			281	300		
	B2			533		333	388	526		349	394	516		344	386	452		325	350			284	304		
	BW			505		337	388	499		362	406	493		349	385	452		325	351			285	304		
115	–			117			140	112		142	134	107		138	131	104		133	126			129	122		
	B			475			351	470		337	380	464		326	360	433		308	335			274	293		
	B2			504			349	504		332	374	497		328	372	451		315	341			278	297		
	BW			484			350	478		344	382	473		336	371	452		316	342			278	297		
120	–			111				106		135	128	101		131	124	98.2		126	119			122	115		
	B			455				451		318	356	445		314	346	426		298	327			268	285		
	B2			473				483		312	354	476		313	357	449		304	332			271	290		
	BW			462				458		322	358	454		323	356	445		307	333			271	290		
125	–							101		128	121	95.8		125	118	92.9		120	113	88.1		116	109		
	B							433		293	332	427		302	331	415		289	317	369		261	279		
	B2							463		290	333	457		300	341	446		293	322	380		264	282		
	BW							439		294	334	435		309	341	430		297	323	381		264	283		
130	–				71.6			95.6		123	116	90.9		119	113	88.2		114	108	83.4		110	104	78.5	
	B				396			416		266	305	411		291	316	403		279	307	363		253	272	306	
	B2				427			436		265	305	436		287	323	429		281	310	375		257	275	313	
	BW				402			420		266	306	418		295	324	415		287	311	375		258	276	313	
135	–				68.8			85.8				86.6		114	108	83.8		109	103	79.1		105	99.2	75.5	
	B				385			327				395		274	300	390		268	295	352		246	264	303	
	B2				415							411		271	305	408		269	297	368		250	268	310	
	BW				391			336				400		278	305	398		275	298	368		251	269	310	
140	–				65.2			81.7	58			82.4		109	103	79.7		104	98.1	75.1		101	94.5	71.5	
	B				371			314	355			379		256	284	376		258	283	340		240	258	298	
	B2				400				382			385		255	286	386		258	284	359		244	261	305	
	BW				377			323	360			380		259	286	380		262	285	361		244	261	306	
150	–								54.6			74.8			94.3	72.2		95.3	89.5	67.7		91.7	86	64.2	
	B								341			339			247	342		233	256	318		225	243	289	
	B2								368			337			247	345		232	256	335		229	245	294	
	BW								346			338			247	343		234	257	336		229	246	295	

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 177



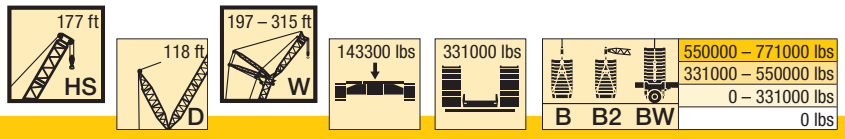
ft		HS 177																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
160	–								48.9				44.7			65.6		87.4	81.8	61.1		83.9	78.5	57.8	
	B								318				314			305		205	227	295		211	228	277	
	B2								343				339			307		204	225	305		213	229	279	
	BW								322				320			307		204	227	304		213	230	283	
170	–								43.9				39.8			59.8	37.2	80.5	74.7	55.3		77.1	71.8	52.1	
	B								298				294			273	291	173	197	273		193	211	264	
	B2								321				318			274	315	172	196	275		194	210	261	
	BW								302				299			275	295	173	196	273		194	211	267	
180	–												35.6			55	33.4			50.3		70.3	66.1	47.2	
	B												276			236	275			248		171	188	245	
	B2												299			237	297			248		170	187	243	
	BW												281			237	279			248		171	189	246	
190	–																29.7			45.8	25.3		60.6	42.7	22.3
	B																259			221	255		163	226	251
	B2																280			220	276		163	226	265
	BW																263			222	259		164	226	256
200	–																26.4				22			38.7	19
	B																244				240			206	237
	B2																264				260			207	257
	BW																248				245			207	241
210	–																				19			35.1	16.1
	B																				227			186	224
	B2																				246			186	242
	BW																				231			186	229
220	–																				16.4			32.2	13.5
	B																				215			159	213
	B2																				226			160	224
	BW																				218			160	217
230	–																								11.2
	B																								202
	B2																								207
	BW																								204
240	–																								
	B																								190
	B2																								190
	BW																								190

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 177



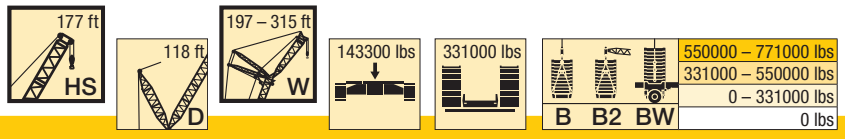
ft		HS 177																													
		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
75	–	203																											
	B	285																											
	B2	286																											
	BW	286																											
80	–	189				183																							
	B	282				244																							
	B2	283				245																							
	BW	283				245																							
85	–	177	167			171				166				160															
	B	279	286			241				209				178															
	B2	280	288			243				210				179															
	BW	280	288			243				210				179															
90	–	166	157			160				156				151															
	B	274	284			239				207				177															
	B2	277	286			240				208				177															
	BW	277	286			240				208				177															
95	–	156	148			151	142			147				142				138											
	B	270	282			236	243			205				175				152											
	B2	273	284			237	244			206				175				152											
	BW	274	284			238	244			206				175				152											
100	–	147	139			142	134			138	130			133				130				125				107			
	B	267	279			233	240			203	208			173				151				129				108			
	B2	270	282			234	242			204	208			174				150				129				108			
	BW	270	282			235	242			204	208			174				150				130				108			
105	–	139	131			134	126			130	122			126	118			122				118				107			
	B	262	275			230	239			201	206			171	175			149	151			128				107			
	B2	266	278			231	240			202	207			172	175			149	151			128				107			
	BW	266	279			232	240			202	207			172	175			149	151			128				107			
110	–	131	124			127	119			123	116			119	111			115	106			111	101			105			
	B	259	271			226	236			199	205			169	173			148	150			127	128			106			
	B2	262	275			228	238			199	206			170	174			148	150			127	128			106			
	BW	262	276			228	238			200	206			170	174			148	150			127	128			106			
115	–	124	117			120	113			116	109			112	105			109	102			105	97.5			99.8			
	B	255	268			223	233			196	203			167	171			146	149			126	127			104			
	B2	258	272			225	235			197	204			168	172			146	149			126	128			104			
	BW	258	273			225	235			197	204			168	172			146	149			126	128			105			
120	–	118	111			113	107			110	103			106	99.1			103	96.2			98.8	91.9			94	87		
	B	250	265			219	229			193	200			165	170			144	148			125	127			103	105		
	B2	254	269			221	232			194	202			166	171			145	148			125	127			103	105		
	BW	254	270			222	232			195	202			166	171			145	148			125	127			103	105		
125	–	112	105			107	101			104	97.7			100	93.7			97.6	90.8			93.4	86.7			88.7	81.9		
	B	246	262			216	226			190	198			163	168			142	146			124	126			102	103		
	B2	250	266			218	229			192	200			164	169			143	146			124	126			102	104		
	BW	251	266			218	229			192	200			164	169			143	147			124	126			102	104		
130	–	107	100			102	95.7			99.1	92.6			95.2	88.7			92.4	85.9			88.4	81.8			83.8	77.2		
	B	242	257			212	224			188	196			162	166			141	145			122	125			100	102		
	B2	246	262			214	226			190	197			162	167			141	145			122	125			101	103		
	BW	247	263			215	226			190	198			162	168			142	145			122	125			101	103		
135	–	102	95.3			97.2	91			94.3	88			90.4	84.2			87.8	81.5			83.8	77.5			79.3	72.9		
	B	237	254			209	220			185	194			159	165			139	143			121	124			99.2	101		
	B2	242	259			211	223			187	195			160	166			140	144			121	124			99.5	102		
	BW	242	259			212	223			187	196			161	166			140	144			121	124			99.6	102		
140	–	96.8	90.7	64.2		92.5	86.5	60		89.6	83.6			85.9	79.8			83.3	77.2			79.4	73.3			74.9	68.8		
	B	232	250	268		205	217	223		182	191			157	163			138	142			119	123			98	100		
	B2	237	256	266		208	220	227		184	193			159	164			138	143			120	123			98.3	100		
	BW	237	256	274		208	220	227		185	194			159	165			138	143			120	123			98.3	101		
150	–	88	82.3	60.4		83.9	78.2	56.3		81.1	75.4			77.5	71.8			75.1	69.3			71.3	65.5			67	61.1		
	B	220	241	268		198	211	223		178	187			154	160			134	139			117	120			95.4	98		
	B2	225	245	275		201	214	227		179	189			155	161			135	140			117	121			95.8	98.3		
	BW	226	246	275		202	215	227		180	189			155	161			135	140			117	121			95.9	98.3		
160	–	80.2	74.8	54.1		76.2	70.8	50.1		73.5	68.1	47.3		70.1	64.7			67.7	62.2			64	58.6			59.8	54.3		
	B	208	230	268		191	205	222		173	182	189		150	157			131	136			114	118			92.9	95.9		
	B2	213	231	274		195	208	226		175	185	192		152	158			132	137			115	119			93.5	96.1		
	BW	213	232	274		195	208	226		175	185	192		152	158			132	137			115	119			93.5	96.1		
170	–	73.4	68.2	48.5		69.4	64.3	44.6		66.8	61.7	41.8		63.5	58.3	38		61.1	55.9	35.5		57.6	52.4			53.5	48.2		
	B	195	216	266		184	199	220		167	178	188		147	153	157		128	133	132		112	116			90.6	93.5		
	B2	198	216	273		189	201	225		170	180	192		148	155	159		129	135	134		112	117			91.1	93.8		
	BW	198	217	270		189	201	225		170	180	192		149	155	159		129	135	134		112	117			91	93.9		
180	–	67.4	62.5	43.6		63.5	58.6	39.8		60.9	56	37.1		57.6	52.7	33.7		55.3	50.4	31.3		51.9	46.9			47.8	42.8		
	B	181	198	246		174	192	217		163	173	187		143	150	157		125	131	132		109	113			88	91.4		
	B2	182	197	248		178	193	222		165	176	191		145	152	159		126	132	134		110	114			88.6	91.7		
	BW	182	198	247		178	193	222		166	176	191		145	152	159		126	132	134		110	115			88.5	91.8		
190	–	62	57.3	39.2		58.2	53.4	35.4		55.5	50.8	32.8		52.3	47.6	29.5		50.1	45.3	27.1		46.7	41.9	23.6		42.7	37.9	19.4	
	B	164	178	226		164	180	212		156	168	185		141	147	156		122	128	132		107	111	111		85.7	89.1	88.7	
	B2	164	178	226		167	180	215		159	171	189		142	148	158		123	130	133		107	112	112		86.2	89.6	89.3	
	BW	164	178	226		167	180	212		159	172	189		142	149	158		123	130	133		108	113	112		86.1	89.6	89.3	
200	–	57.1	52.6	35.1	15.4	53.3	48.8	31.4		50.7	46.2	28.8		47.5	43	25.6		45.2	40.7	23.2		41.9	37.4	19.8		38	33.4	15.7	
	B	144	159	208	230	152	166	203		147	162	182		137	145	155		119	125	131		104	109	111		83.3	86.7	87.9	
	B2	143	159	207	243	154	165	204		151	164	187		138	144	157		120	127	133		105	110	112		83.8	87.5	88.6	
	BW	144	159	208	237	154	165	199		151	165	186		139	147	157		121	127	133		105	110	112		83.7	87.5	88.6	
210	–			31.5	12.4	48.9	44.5	27.8		46.2	41.8	25.2		43.1	38.8	22		40.8	36.5	19.7		37.5	33.2	16.4		33.7	29.3	12.3	
	B			191	221	138	151	189	193	138	152	175		131	142	154		116	123	130		102	107	110		80.5	84.6	87	
	B2			191	240	138	150	189	197	142	153	185		133	140	156		117	125	132		103	108	112		81.2	85.3	87.7	
	BW			192	225	138	150	186	197	142	153	182		133	144	157		118	125	132		103	108	112		81.1	85.4	87.7	

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 177



ft		HS 177																													
		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
220	–			28.3	9.9	45.2	40.9	24.6		42.3	38.1	22		39.2	35	18.9		36.9	32.7	16.6		33.7	29.5	13.3		29.8	25.6	9.2	
	B			176	209	122	135	175	196	128	142	166	161	124	135	153		112	120	129		99.7	105	110		77.8	81.9	85.9	
	B2			176	223	122	135	175	201	131	141	173	161	127	132	155		113	122	131		101	106	111		78.5	82.8	86.7	
	BW			176	214	122	135	174	201	131	142	171	164	127	137	155		114	123	132		101	106	111		78.4	82.9	86.8	
230	–			25.4			37.5	21.7		38.7	34.6	19.1		35.6	31.6	16		33.3	29.2	13.7		30	26	10.4		26.3	22.2		
	B			157	199		116	162	192	117	129	157	164	117	129	149		108	117	129		97.1	103	109		75	79.5	84.9	
	B2			158	206		116	162	197	118	128	161	168	119	124	150		109	117	131		98.2	105	111		75.7	80.2	85.8	
	BW			158	202		116	163	197	118	129	160	168	119	130	151		110	119	131		98.5	105	111		75.7	80.3	85.8	
240	–							19.1		35.5	31.5	16.4		32.3	28.4	13.3		29.9	26	11		26.7	22.8			23	19		
	B				188			149	184	104	116	148	167	109	122	142	138	104	114	127		94.3	101	108		72.3	77.1	83.6	
	B2				190			149	187	103	115	150	169	110	116	144	140	105	111	129		95.7	102	110		73.1	77.6	84.7	
	BW				189			150	187	104	115	149	171	111	122	144	140	105	115	129		96	103	110		73.2	77.7	84.7	
250	–											13.9		29.3	25.5	10.8		26.8	23			23.6	19.9			19.9	16.1		
	B				176			134	173			139	168	99.9	111	136	140	99.3	111	126	112	91.4	99.4	108	90.9	70.2	74.7	81.9	
	B2				175			134	173			140	165	100	107	136	142	100	105	125	113	93.1	98.8	109	92.1	70.9	75	83.5	
	BW				175			134	173			140	171	101	110	137	142	100	110	125	113	93.4	101	110	92.1	71	75.1	83.5	
260	–											11.6		26.7	22.9	8.6		23.9	20.3			20.8	17.2			17.1	13.4		
	B				162			114	160			128	159	89.9	99.1	128	142	92.8	105	124	113	88.5	98.2	107	92.5	68.4	72.5	80.1	68
	B2				162			114	159			129	156	89.4	98.3	128	144	93	98.2	121	115	90.3	95.4	109	93.8	69	73.3	82.3	64.5
	BW				162			114	160			129	159	89.9	99.1	128	144	93	103	121	115	90.7	99.6	109	93.8	69.1	73.3	82.4	68.9
270	–											9.6			20.7			21.4	17.8			18.2	14.6			14.5	10.9		
	B								149			116	148		84.6	120	140	85.8	95.9	118	115	83.1	95	107	94	66.6	70.7	78.6	69
	B2								148			116	147		84.3	119	141	85.4	91.5	115	117	84.9	91.2	109	95.3	67.1	71.6	80.8	69.9
	BW								148			116	148		84.8	120	142	85.2	93.7	115	117	85.4	96.1	109	95.3	67.2	71.6	80.9	70
280	–																	19	15.5			15.8	12.3			12.1	8.6		
	B								138				137			110	135	75.6	86.1	111	116	76.8	89.1	104	95.4	64.4	69	77.3	69.6
	B2								138				138			110	135	74.3	83.3	108	119	78.8	85.7	106	96.7	65.2	70	79	70.4
	BW								138				138			110	136	74.3	83.8	108	118	79.2	89.9	106	96.8	65.2	69.8	79.2	70.6
290	–																					13.6	10.2			9.8			
	B												128			99.1	126			104	114	70.6	80.6	99.7	96.7	62.2	67.2	76	70
	B2												129			99.2	127			101	119	72.3	79	101	98.1	63.2	68.3	77.3	70.9
	BW												129			98.8	126			101	116	72.7	81	101	98.3	63.3	68.1	77.6	71.1
300	–																					11.6	8.2			7.7			
	B												120			83.7	118			96	110	64.4	72.7	94.3	97.8	59.8	65.6	74.8	70.3
	B2												121			83.1	118			93.4	114	64.6	71.7	94.4	99.5	61.1	66.3	75.9	71.4
	BW												120			83.6	118			93.4	111	64.9	72.2	94.9	99.6	61.3	66	76.2	71.5
310	–																												
	B																110			86.5	104		61	87.8	97	56.8	64	73.6	70.6
	B2																111			84.2	107		60.4	87.6	98.7	58	64.4	74.8	71.6
	BW																110			84.4	106		60.7	88.1	99	58.4	64	74.9	71.7
320	–																												
	B																103				99.3			80.9	94.9	50.5	60	72	70.7
	B2																104				100			80.8	96.6	51.3	60.2	73	71.8
	BW																103				99.6			81.1	96.9	51.8	59.9	73.2	71.9
330	–																												
	B																				94.8			72.8	91.7			69.8	70.6
	B2																				94			72.9	93.1			70.4	72.1
	BW																				93.6			73.1	93.4			70.8	72.1
340	–																												
	B																				90.8			60.6	87.4			66.8	70.6
	B2																				90			60.4	87.9			66.8	72.3
	BW																				89.3			60.9	88			67.5	72.3
350	–																												
	B																								82.8			61.5	70.6
	B2																								82.9			61.5	71.7
	BW																								83.1			61.9	71.9
360	–																												
	B																								77.4				70
	B2																								77.2				70.4
	BW																								77.6				70.9
370	–																												
	B																												68.4
	B2																												68.5
	BW																												69.1
380	–																												
	B																												64.9
	B2																												65.5
	BW																												65.7

TAB 181391 / 181393 / 181397

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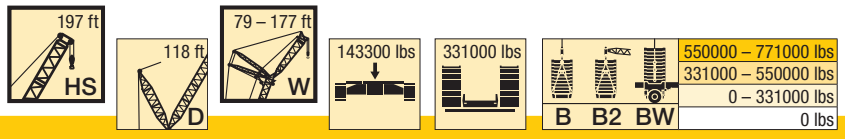

ft		HS 197																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
45	–	385																							
	B	630																							
	B2	638																							
	BW	640																							
50	–	356																							
	B	609																							
	B2	618																							
	BW	619																							
55	–	324				312				281															
	B	583				531				471															
	B2	593				538				477															
	BW	594				539				478															
60	–	296	282			286	272			276				269											
	B	558	609			512	553			462				409											
	B2	567	624			519	564			467				411											
	BW	569	626			520	565			468				413											
65	–	273	260			263	250			255	240			248				238							
	B	533	583			491	534			450	478			401				351							
	B2	544	600			498	548			455	484			404				353							
	BW	545	602			501	548			456	485			405				354							
70	–	253	241			244	232			237	224			231				223							
	B	509	559			472	516			433	469			392				345							
	B2	521	577			480	529			441	477			397				348							
	BW	521	578			482	530			441	477			398				349							
75	–	236	224			227	216			220	209			215	203			208				204			
	B	486	537			454	497			420	457			384	406			339				301			
	B2	498	554			463	510			426	467			388	411			343				302			
	BW	498	555			464	512			428	467			389	413			343				303			
80	–	220	209			212	201			205	194			200	190			194	183			190			
	B	464	515			436	479			405	442			374	400			334	352			297			
	B2	475	532			445	493			412	454			379	405			337	355			298			
	BW	475	532			446	494			413	454			380	406			338	355			299			
85	–	206	196			199	188			192	182			188	177			181	171			178	167		
	B	440	490			418	462			391	429			362	393			328	346			292	305		
	B2	453	507			428	476			398	439			367	399			331	350			294	307		
	BW	452	511			428	477			400	441			369	400			331	351			295	308		
90	–	194	184			187	177			181	171			176	167			171	161			167	158		
	B	421	466			400	445			378	414			351	382			319	341			287	302		
	B2	431	483			410	460			385	425			357	390			324	345			290	304		
	BW	433	492			411	459			386	426			358	391			325	346			290	305		
95	–		173	137		176	166			170	161			166	157			161	151			158	148		
	B		444	555		383	428			363	401			340	373			312	335			281	297		
	B2		460	594		393	444			372	412			346	380			317	340			284	300		
	BW		470	573		393	443			373	413			347	382			318	341			284	301		
100	–			129		166	157			161	151			157	148			151	142			149	140		
	B			534		367	413			349	388			330	362			304	328			275	291		
	B2			572		375	427			357	400			336	370			309	335			278	295		
	BW			546		376	427			358	400			337	372			311	335			278	296		
105	–			122		157	148	116		152	143			148	140			143	134			140	132		
	B			511		350	396	498		335	376			319	350			296	322			269	286		
	B2			547		358	410	533		343	387			325	360			301	330			272	290		
	BW			520		358	409	512		344	388			326	361			302	330			272	290		
110	–			115		150	141	109		144	136	102		141	132			135	127			133	125		
	B			488		337	377	479		323	364	446		308	340			288	315			262	280		
	B2			523		340	389	514		330	375	480		314	350			293	322			265	284		
	BW			498		341	389	491		330	376	470		315	351			294	323			266	284		
115	–			109			134	103		137	129	98.1		133	125			128	120			126	118		
	B			467			355	460		310	351	438		296	330			279	308			256	275		
	B2			501			360	494		317	363	474		303	340			284	315			259	278		
	BW			477			362	470		317	363	459		304	341			286	316			259	278		
120	–			103				97.4		130	122	92.7		127	119	89.8		122	114			120	112		
	B			448				442		297	338	425		286	321	394		271	300			250	269		
	B2			480				474		304	349	462		292	331	410		276	307			253	272		
	BW			456				450		304	351	443		293	332	411		277	308			253	272		
125	–			94.1				92.2		124	116	87.6		121	113	84.9		116	108	80.1		114	106		
	B			383				424		285	325	412		275	312	386		262	292	338		244	262		
	B2							455		289	336	447		282	322	409		267	299	349		247	266		
	BW			362				432		290	338	427		283	322	409		268	300	349		247	266		
130	–			89.6				87.5		119	111	83		115	108	80.4		110	103	75.7		108	101		
	B			367				408		271	307	399		265	303	377		253	283	338		237	256	286	
	B2							438		271	313	431		271	311	406		258	292	349		241	260	293	
	BW			347				415		273	315	411		272	312	402		259	292	349		241	260		
135	–							83.3				78.9		110	103	76.3		105	98.4	71.7		104	96.6		
	B							391				386		255	292	368		244	276	333		231	250	284	
	B2							415				415		261	299	398		250	284	345		235	254	291	
	BW							397				396		261	300	391		251	284	346		235	254	291	
140	–				52.7			79.3				74.9		105	98.4	72.4		101	93.8	67.9		98.8	92	66.2	
	B				351			374				373		246	281	358		236	268	327		225	244	282	
	B2				378			390				398		251	287	389		242	276	341		229	247	288	
	BW				357			379				381		250	288	377		242	276	342		230	248	289	
150	–				49.6							67.7			90.2	65.3		91.9	85.4	60.9		90.2	83.8	59.4	
	B				337							347			252	338		219	251	310		212	232	275	
	B2				364							359			254	359		224	256	328		217	235	281	
	BW				343							351			255	350		224	256	330		217	235	282	

TAB 181391 / 181393 / 181397

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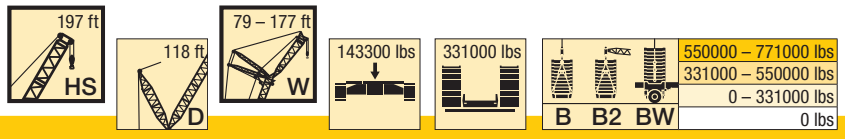
HSDWB/B2/BW

HS 197



ft		HS 197																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
160	–								39.4			56.9	28.2			59.1		84.3	78.1	54.8		82.5	76.4	53.3	
	B								310			312	194			317		201	232	290		199	220	266	
	B2								335			311				323		203	232	309		204	223	271	
	BW								316			312				321		203	232	313		204	223	273	
170	–								34.9			51.9	30.9			53.6	28.4	77.8	71.7	49.3		75.7	69.9	47.9	
	B								291			249	285			288	283	177	203	271		186	208	256	
	B2								314			252	309			288	306	176	202	286		189	210	257	
	BW								295			248	291			288	288	178	202	288		190	211	263	
180	–								31				27.1			49	25			44.6		70	64.3	43.2	
	B								273				270			254	267			253		173	191	243	
	B2								296				292			254	290			260		173	192	240	
	BW								278				274			256	272			261		174	192	248	
190	–												23.7				21.6			40.3	17.4		59.3	38.9	
	B												254				252			232	248		170	228	
	B2												275				273			233	269		170	225	
	BW												258				256			234	252		170	232	
200	–																18.6			36.6	14.4			35	13.1
	B																238			203	234			214	232
	B2																258			202	254			211	249
	BW																242			203	238			215	237
210	–																				11.7			31.6	10.4
	B																224				221			199	219
	B2																244				240			197	238
	BW																229				224			199	223
220	–																				9.3			28.5	8.1
	B																213				209			175	208
	B2																230				228			174	226
	BW																216				213			176	212
230	–																								
	B																				199				197
	B2																				215				215
	BW																				202				201
240	–																								
	B																								187
	B2																								203
	BW																								191
250	–																								
	B																								177
	B2																								189
	BW																								181
260	–																								
	B																								160
	B2																								162
	BW																								161

TAB 181391 / 181393 / 181397

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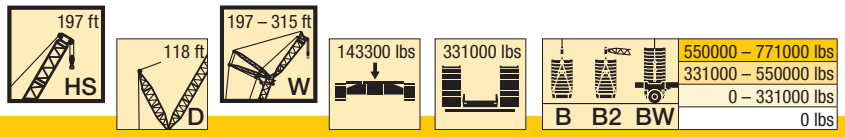


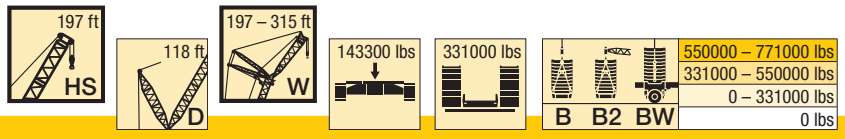
ft		HS 197																											
		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
75	–	185																											
	B	262																											
	B2	264																											
	BW	264																											
80	–	182				178																							
	B	260				228																							
	B2	261				228																							
	BW	261				228																							
85	–	171				167				160																			
	B	256	264			225				195				166															
	B2	258	266			226				195				167															
	BW	258	266			226				195				167															
90	–	160	147			157				151				142															
	B	253	262			222				193				165															
	B2	254	264			224				194				166															
	BW	255	264			224				194				166															
95	–	151	142			148	138			142				137				133											
	B	249	260			220	227			191				164				142											
	B2	251	262			221	228			192				164				143											
	BW	252	262			221	228			192				164				143											
100	–	142	133			139	130			133	124			129				125				120							
	B	245	257			217	225			189	194			162				141				122							
	B2	248	260			217	226			190	195			163				141				122							
	BW	248	260			218	226			190	195			163				141				122							
105	–	134	126			131	123			126	117			121	112			118				113				101			
	B	242	255			214	222			187	193			160	164			140				120				101			
	B2	244	257			215	224			188	193			161	165			140				120				101			
	BW	244	257			215	224			188	194			161	165			140				121				101			
110	–	127	119			124	116			119	110			114	106			111	101			107				99			
	B	238	251			210	220			185	191			158	163			138	141			119				99.2			
	B2	241	254			212	221			185	192			159	164			139	141			119	121			99.3			
	BW	241	255			212	221			186	192			160	164			139	141			119	121			99.4			
115	–	120	112			118	110			112	104			108	100			105	97			101				95.3			
	B	235	248			207	217			182	189			157	161			136	140			118				98			
	B2	238	251			209	219			183	190			158	162			137	140			118	120			98.2			
	BW	238	252			209	219			183	190			158	162			137	140			118	120			98.3			
120	–	114	106			111	104			106	98.5			102	94.4			99.3	91.5			95.1	87.3			90.3	82.4		
	B	231	245			203	214			179	187			155	160			135	139			117	119			96.9	98.7		
	B2	234	248			206	216			181	188			156	161			136	139			117	119			97.2	98.6		
	BW	234	249			206	217			181	189			156	161			136	139			117	119			97.2	98.7		
125	–	108	101			106	98.3			101	93.2			96.6	89.1			93.9	86.4			89.8	82.2			85.1	77.5		
	B	226	242			200	211			177	185			153	159			133	137			116	118			95.8	97.9		
	B2	228	245			203	213			178	187			154	159			134	138			116	118			96.1	97.7		
	BW	230	246			203	214			179	187			154	160			134	138			116	119			96.2	97.8		
130	–	103	95.6			100	93.3			95.5	88.3			91.6	84.3			89	81.7			84.9	77.6			80.3	72.9		
	B	222	238			197	208			175	183			152	157			132	136			114	117			94.8	96.8		
	B2	224	242			199	211			176	185			152	158			133	137			115	117			95	96.8		
	BW	225	242			200	211			177	185			152	158			133	137			115	118			95.1	96.8		
135	–	98	91			95.7	88.8			90.8	83.8			87	80			84.5	77.4			80.5	73.4			75.9	68.8		
	B	216	234			194	205			172	181			150	156			131	135			113	116			93.7	95.8		
	B2	220	239			196	208			174	183			150	156			131	135			114	117			93.9	95.8		
	BW	220	239			197	208			174	183			151	157			131	135			114	117			93.9	95.9		
140	–	93.3	86.5	57.3		91.1	84.4			86.3	79.5			82.6	75.8			80.1	73.2			76.2	69.3			71.7	64.8		
	B	211	231	247		191	202			170	179			148	154			129	134			112	115			92.7	94.9		
	B2	215	235	252		193	205			171	180			149	155			130	134			112	116			92.7	94.9		
	BW	215	236	252		194	206			172	181			149	155			130	134			112	116			92.8	95		
150	–	84.8	78.4	53.8		82.7	76.3			78.1	71.6			74.5	68			72.1	65.6			68.3	61.8			64	57.5		
	B	200	222	247		184	197			165	174			144	151			126	131			109	113			90.3	92.9		
	B2	204	227	254		186	200			167	176			145	152			127	132			110	114			90.5	93.1		
	BW	205	228	254		187	200			167	177			146	152			127	132			110	114			90.6	93.2		
160	–	77.3	71.2	47.8		75.2	69.2	45.9		70.7	64.6	41.1		67.2	61.1			64.9	58.8			61.3	55.2			57.1	50.8		
	B	189	213	247		177	191	208		160	170	177		141	148			123	128			107	111			87.9	90.9		
	B2	192	218	254		179	194	211		162	172	179		142	149			124	129			107	112			88.2	91.2		
	BW	194	219	254		180	195	212		162	172	179		142	149			124	129			108	112			88.3	91.3		
170	–	70.6	64.8	42.6		68.6	62.8	40.7		64.1	58.3	36		60.8	55	32.2		58.5	52.7			55	49.2			50.9	45		
	B	177	203	246		169	185	206		154	166	176		138	145	148		120	126			104	109			85.6	88.8		
	B2	182	209	253		172	189	210		156	168	179		139	146	150		121	127			105	110			86	89		
	BW	183	210	254		173	189	211		157	168	180		139	146	150		121	127			105	110			86	89.3		
180	–	64.8	59.2	38		62.7	57.3	36.2		58.4	52.9	31.6		55.1	49.6	28.1		52.9	47.3			49.5	43.9			45.4	39.8		
	B	167	192	239		160	180	204		148	161	175		134	142	148		117	123			102	107			83	86.8		
	B2	171	195	245		163	183	209		151	164	179		135	143	150		118	124			103	108			83.2	87		
	BW	172	196	246		164	184	209		152	164	179		136	144	150		118	124			103	108			83.2	87.2		
190	–	59.5	54.2	33.8		57.5	52.2	32		53.2	47.9	27.5		50	44.7	24.2		47.8	42.5	21.9		44.4	39.1	18.4		40.4	35		
	B	156	178	228		151	173	202		142	157	175		130	139	147		114	120	125		99.6	105	104		80.3	84.4		
	B2	159	179	232		154	176	206		144	160	178		132	141	150		115	121	126		101	106	106		80.5	84.7		
	BW	160	180	233		155	176	207		145	160	178		133	141	150		115	122	126		101	106	106		80.5	84.9		
200	–	54.9	49.6	30		52.6	47.6	28.2		48.4	43.3	23.8		45.3	40.2	20.6		43.1	38	18.3		39.8	34.7	14.9		35.8	30.7	10.6	
	B	144	163	214		142	165	198		135	152	173		126	136	147		111	117	124		97.3	103	104		77.4	81.6	83.4	
	B2	144	162	216		145	166	200		137	155	177		128	138	149		112	119	126		98.3	104	106		77.8	82.3	84.2	
	BW	145	163	217		146	167	203		138	155	177		129	139	150		112	119	126		98.4	104	106		77.8	82.5	84.1	
210	–			26.5		48.3	43.4	24.8		44	39.2	20.4		41	36.1	17.2		38.8	33.9	15		35.5	30.6	11.6		31.6	26.7		
	B			198	210	133	156	192		128	146	171		120	134	146		108	115	124		95.2	100	104		74.4	79.1	82.8	
	B2			198	229	136	156	192		130	148	176		122	136	149		109	117	125		96.3	101	106		75.2	79.8	83.6	
	BW			199	218	137	156	196		130	149	176		123	136	149		110	117	125		96.4	101	105		75.2	80	83.6	

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 197



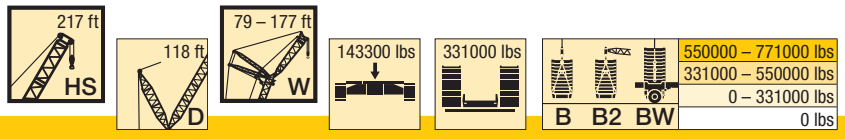
ft		HS 197																													
		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
220	–			23.5		44.5	39.7	21.7		40.2	35.5	17.4		37.1	32.4	14.3		34.9	30.2	12		31.7	27	8.7		27.9	23.1		
	B			184	202	123	140	183	172	120	140	167		114	129	145		104	113	123		93.3	98.6	104		72	76.4	81.9	
	B2			184	220	125	140	181	185	122	142	171		116	132	148		106	114	125		94.2	99.7	105		72.9	77.4	82.8	
	BW			184	207	125	140	183	176	123	142	171		117	132	148		106	114	125		94.5	99.8	105		72.9	77.6	82.8	
230	–			20.8			36.4	18.9		36.7	32.1	14.6		33.6	29.1	11.5		31.4	26.8	9.3		28.2	23.6			24.4	19.8		
	B			167	192		124	171	181	112	130	162		107	125	144		99.8	110	122		90.4	96.8	103		69.8	74.2	80.5	
	B2			167	210		123	170	189	114	131	163		109	128	146		101	112	124		91.5	98	105		70.6	75.2	81.5	
	BW			167	197		123	170	186	115	131	163		110	128	146		102	112	124		92	98.2	105		70.8	75.5	81.5	
240	–							16.3		33.6	29	12.1		30.4	26	9		28.1	23.7			24.9	20.5			21.1	16.7		
	B			144	182			158	178	102	118	154	154	100	119	142	127	95.1	108	121		86.8	95	103		67.6	72.1	78.8	
	B2			145	199			158	189	104	118	154	158	102	122	143	130	97.1	110	123		88.3	96	104		68.4	73	79.9	
	BW			144	187			158	183	104	118	155	158	103	122	143	130	97.3	110	124		89.2	96.5	104		68.6	73.4	80	
250	–							13.9				9.7		27.5	23.1			25	20.8			21.9	17.6			18.1	13.9		
	B				172			144	171			145	156	93.6	111	139	130	90.2	106	120	103	83	93.4	102		65.7	70	77.3	
	B2				186			144	185			145	161	95.7	112	139	132	92.4	108	122	104	84.9	93.8	104		66.3	71	78.4	
	BW				177			144	175			145	161	96.4	113	138	133	92.6	108	123	105	86.2	94.9	104		66.6	71.3	78.6	
260	–							11.8				7.6		24.9	20.6			22.3	18.1			19.1	15			15.4	11.3		
	B				164			128	162			134	154	87.4	101	132	133	84.1	102	118	105	79.2	92.3	101	85.5	64	68.3	76.2	
	B2				173			128	173			134	160	89	101	132	135	86.1	103	121	107	81.4	91.4	103	86.6	64.3	69.3	77.3	
	BW				169			128	167			134	159	89.1	102	131	135	86.5	104	121	107	83.1	93.7	103	86.6	64.9	69.4	77.4	
270	–														18.4			19.7	15.7			16.6	12.6			12.9	8.9		
	B				156				154			122	149		88.9	124	134	77.9	95.1	115	107	74.4	90.3	101	87.3	62.3	66.7	75	
	B2				160				161			122	155		88.8	124	137	79.9	95.9	118	109	76.6	88.5	103	88.6	62.3	67.6	76.2	
	BW				158				158			122	153		89.3	124	137	80.7	96.3	118	109	78.1	91.7	103	88.7	63.1	67.7	76.2	
280	–																	17.4	13.4			14.2	10.3			10.5			
	B								146			106	142			115	134	70.9	87.3	110	109	69.3	86.3	99.7	88.9	60.2	65.1	73.8	64.6
	B2								149			106	147			115	137	72.5	87.2	113	111	71.2	84.5	102	90.3	59.9	66	75.1	65.5
	BW								148			107	145			115	137	73.6	87.5	113	111	72.3	87.4	102	90.4	61.2	66	75.1	65.7
290	–																					12.1							
	B								137				135			104	131			104	110	64.6	80	97.7	90.3	57.7	63.5	72.6	65.3
	B2								138				136			104	134			107	112	65.9	79.2	99.3	91.9	56.9	64.4	73.9	66.3
	BW								138				136			105	134			107	113	66.4	80.6	99.6	92	58.9	64.4	74	66.4
300	–																					10.1							
	B								118				127			93.9	125			98	111	59.9	73.6	94.4	91.7	54.9	62.1	71.4	65.8
	B2								120				127			93.7	124			99.7	113	61	73.7	95.4	93.4	53.6	63.1	72.6	66.9
	BW								118				127			93.8	125			99.8	113	61.3	74.1	95.6	93.4	56.4	63.2	72.9	67
310	–																												
	B												119				117			91.3	111		64	90	93	51.8	60.9	70.2	66.2
	B2												119				116			91.8	111		63.7	90.5	94.7	50.4	61.8	71.2	67.4
	BW												119				117			91.9	112		64.1	90.6	94.7	53.5	61.9	71.8	67.4
320	–																												
	B																110			79	107			84.2	94.3	47.2	58.6	69	66.5
	B2																109			79	106			84.4	95.7	46.1	59	69.6	67.8
	BW																110			79.1	107			84.4	95.6	48.6	59.2	70.7	67.9
330	–																												
	B																102				101			77.4	94.8			67.8	66.8
	B2																102				101			77	95.7			67.6	68.1
	BW																102				101			77.1	95.5			69.3	68.1
340	–																												
	B																88				95.1			68.8	92.3			66.5	67
	B2																86.7				95.4			68.1	92.8			64.3	68.3
	BW																88				94.9			68.4	92.6			67.3	68.4
350	–																												
	B																				90.2				87.3			63.9	67.3
	B2																				89.9				87.3			61	68.6
	BW																				89.8				87.5			64	68.5
360	–																												
	B																								82.2			55.9	67.6
	B2																								82.2			54.1	69
	BW																								82.3			55.9	68.3
370	–																												
	B																								75.7				67.7
	B2																								75.8				68.9
	BW																								75.6				67.6
380	–																												
	B																								64.3				66.8
	B2																								64.5				67.3
	BW																								63.9				65.3
390	–																												
	B																												64.3
	B2																												64
	BW																												62.4

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 217



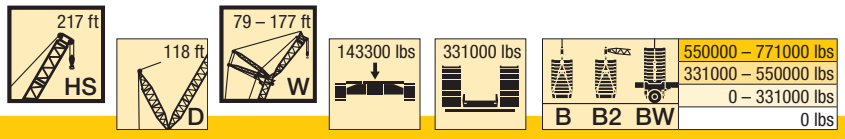
ft		HS 217																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
45	–	370																							
	B	561																							
	B2	568																							
	BW	570																							
50	–	343																							
	B	544																							
	B2	552																							
	BW	553																							
55	–	312				301																			
	B	524				474																			
	B2	532				481																			
	BW	532				482																			
60	–	286	271			276				268															
	B	503	548			459				416				372											
	B2	511	559			465				421				375											
	BW	511	561			466				422				375											
65	–	264	250			255	238			247				239				229							
	B	480	529			443	481			403	432			366				320							
	B2	490	540			449	488			409	438			368				322							
	BW	491	542			450	490			410	439			369				322							
70	–	245	232			237	223			229	209			224				215							
	B	462	507			427	467			391	423			356				315							
	B2	469	521			434	476			397	429			360				317							
	BW	471	521			435	477			397	431			361				318							
75	–	229	216			221	208			214	201			209	196			200				196			
	B	443	487			411	450			379	412			347	370			310				275			
	B2	450	501			417	461			384	419			352	375			312				277			
	BW	452	501			418	461			385	420			352	376			313				277			
80	–	214	201			206	194			200	188			195	183			187	175			183			
	B	424	468			395	434			366	400			337	364			303	321			271			
	B2	431	480			401	446			372	408			342	369			307	324			273			
	BW	434	482			403	446			373	409			342	370			308	324			273			
85	–	200	188			193	181			187	176			183	171			175	164			172	160		
	B	404	449			380	420			353	389			328	356			297	317			268	279		
	B2	412	463			387	430			360	396			333	361			301	320			269	281		
	BW	414	465			389	431			361	397			333	363			302	320			269	282		
90	–	189	177			182	171			176	165			172	161			164	154			161	151		
	B	387	433			365	406			342	375			319	347			290	310			263	277		
	B2	395	447			372	415			347	384			324	353			294	315			265	279		
	BW	396	448			374	417			349	386			324	354			295	316			265	279		
95	–		167			171	161			166	155			162	152			155	144			152	142		
	B		417			351	391			331	364			308	338			283	305			257	273		
	B2		431			358	401			335	373			314	344			287	310			260	276		
	BW		432			359	403			337	374			315	345			287	311			261	276		
100	–		151	120		162	152			156	146			153	143			146	136			143	134		
	B		402	511		337	377			319	353			299	329			276	299			252	269		
	B2		415	549		343	388			324	362			304	336			280	304			255	272		
	BW		416	531		344	389			325	362			305	336			280	305			256	273		
105	–			113		153	143	107		148	138			145	135			138	128			136	126		
	B			495		323	363	461		307	341			290	318			268	293			247	265		
	B2			532		328	375	491		312	349			294	327			273	298			250	268		
	BW			510		330	376	487		314	351			296	327			272	298			251	269		
110	–			106		146	136	101		140	131			137	128			131	121			128	119		
	B			476		311	351	447		295	331	410		281	310			260	286			242	260		
	B2			512		317	362	482		301	339			285	318			265	291			245	263		
	BW			488		318	363	474		302	340			286	318			265	292			245	264		
115	–			101			129	95.3		133	124	90.7		130	122			124	115			122	113		
	B			457			339	434		284	320	403		272	301			252	278			236	255		
	B2			491			350	473		289	329	422		276	308			257	284			240	258		
	BW			467			351	458		290	330	422		278	310			258	284			240	259		
120	–			95.2			123	90		127	118	85.6		124	115			118	109			116	107		
	B			439			323	421		273	309	394		262	293			245	271			230	250		
	B2			471			330	460		278	319	416		267	299			249	277			234	253		
	BW			448			331	441		279	320	416		268	301			251	278			234	253		
125	–			86.7				85.1		121	112	80.8		118	110	78.3		112	103			110	102		
	B			377				408		263	299	383		253	285	353		238	264			224	244		
	B2							446		268	309	409		257	291	365		242	270			228	248		
	BW			386				424		270	310	410		258	293	366		243	271			228	248		
130	–			82.2				80.7		116	107	76.5		113	105	74.1		106	98.3	66.7		105	96.6		
	B			362				395		254	289	374		244	276	348		231	257	307		218	239		
	B2							429		259	298	402		248	283	362		235	263	316		221	243		
	BW			370				408		261	299	399		249	285	361		236	264	316		222	243		
135	–							76.7			103	72.6		108	99.9	70.3		102	93.7	64		99.8	92		
	B							382			272	363		235	267	341		223	250	305		212	233		
	B2							413			278	394		240	275	356		227	256	314		215	237		
	BW							393			280	386		241	276	357		228	257	315		217	238		
140	–				43.4			72.8			98.3	68.8		103	95.4	66.6		96.9	89.3	60.5		95.2	87.7	55.8	
	B				342			370			255	353		228	258	333		215	244	302		206	228	261	
	B2				370			397			255	385		232	267	350		220	249	311		209	232	268	
	BW				349			379			258	373		233	268	352		221	251	312		211	233	268	
150	–				40.5							62			87.3	60		88.5	81.2	54		86.8	79.7	52.5	
	B				330							333			242	317		201	230	293		194	218	258	
	B2				356							363			249	332		206	236	305		197	220	265	
	BW				336							349			250	339		206	237	305		199	223	265	

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 217



ft		HS 217																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
160	–				35.6				31.1			56				54		81.1	74.1	48.2		79.4	72.6	46.8	
	B				308				303			312				301		188	216	280		182	207	252	
	B2				333				328			333				310		192	221	295		185	207	259	
	BW				313				309			322				322		192	223	297		186	213	259	
170	–				31.1				27			50.7	23			48.8		74.7	67.9	43		72.8	66.3	41.8	
	B				287				284			286	278			285		176	201	265		170	196	244	
	B2				311				307			289	303			291		177	203	284		174	193	251	
	BW				292				289			287	284			300		178	203	287		175	203	251	
180	–								23.4				19.8			44.3			62.9	38.6		67.2	60.9	37.4	
	B								267				263			266			166	248		161	184	235	
	B2								289				285			268			167	267		164	180	241	
	BW								271				268			271			167	269		164	190	242	
190	–												16.6				14.8			34.6			56.1	33.3	
	B												248				246			232			171	226	
	B2												269				267			246			167	229	
	BW												252				251			245			173	230	
200	–																12.1			31				29.7	
	B												234				232			214	227			215	
	B2												254				252			220	247			216	
	BW												238				236			218	231			217	
210	–																							26.4	
	B																219				214			203	212
	B2																238				233			205	232
	BW																223				218			206	217
220	–																							23.5	
	B																208				203			183	201
	B2																226				221			185	220
	BW																212				207			185	206
230	–																								
	B																				192				190
	B2																				210				209
	BW																				196				195
240	–																								
	B																				182				180
	B2																				200				199
	BW																				187				185
250	–																								
	B																								171
	B2																								189
	BW																								176
260	–																								
	B																								163
	B2																								181
	BW																								167

TAB 181391 / 181393 / 181397

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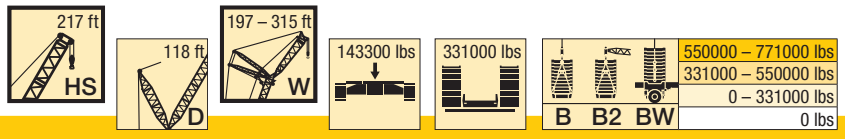

HS 217

ft		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
80	–	176				172																							
	B	238				210																							
	B2	239				210																							
	BW	240				210																							
85	–	164				161				154																			
	B	235				207				181																			
	B2	237				208				181																			
	BW	237				209				181																			
90	–	155				151				145																			
	B	232				205				179																			
	B2	233				206				179																			
	BW	234				206				180																			
95	–	145	135			142				136				134				128											
	B	229	239			202				177				154				133											
	B2	230	241			204				178				154				133											
	BW	231	241			204				178				154				133											
100	–	137	127			134	124			128	111			126				120				112							
	B	226	237			200	208			175	181			152				131				113							
	B2	227	238			201	209			176	181			153				132				113							
	BW	228	239			201	209			176	181			153				132				114							
105	–	129	120			126	117			121	111			119	109			113				109				94.2			
	B	222	234			197	207			173	179			151	155			130				112				94.2			
	B2	224	236			198	207			174	180			151	155			130				112				94.2			
	BW	224	236			199	207			174	180			151	155			131				112				94.2			
110	–	122	113			120	110			114	105			112	103			107	95.7			102				92.8			
	B	218	232			194	204			171	177			149	154			129	131			111				93			
	B2	220	234			196	205			172	178			150	154			129	131			111				93.1			
	BW	221	234			196	205			172	178			150	154			129	132			111				93.3			
115	–	116	107			113	104			108	99			106	97.3			101	91.9			96.6				90.2			
	B	214	228			191	201			169	176			147	152			128	131			110				92			
	B2	217	231			193	203			170	176			148	153			128	131			110				92.2			
	BW	218	231			193	203			170	177			148	153			128	131			110				92.3			
120	–	110	101			107	98.8			102	93.6			101	91.9			95.4	86.7			91.1	82.4			86.3			
	B	211	225			189	199			167	174			146	151			126	130			109	111			91			
	B2	214	228			190	200			167	175			147	151			127	130			109	112			91.2			
	BW	214	228			191	201			168	175			147	151			127	130			109	112			91.3			
125	–	104	95.8			102	93.6			96.7	88.4			95.2	86.8			90.2	81.7			86	77.6			81.3	72.8		
	B	206	222			186	196			164	172			144	150			125	129			108	111			89.9	92.1		
	B2	209	225			187	198			165	173			145	150			125	129			108	111			90.2	91.9		
	BW	209	225			188	198			165	173			145	150			126	129			108	111			90.3	92		
130	–	98.9	90.9			96.7	88.7			91.8	83.7			90.3	82.2			85.4	77.2			81.3	73.2			76.7	68.5		
	B	202	219			183	193			162	170			143	148			123	128			107	110			89	91.1		
	B2	205	222			184	195			163	172			143	149			124	128			107	110			89.2	91.1		
	BW	205	222			185	196			163	171			144	149			124	128			107	110			89.3	91.3		
135	–	94.3	86.5			92.1	84.4			87.2	79.4			85.8	78			81	73.1			77	69.1			72.5	64.5		
	B	197	215			180	190			159	168			141	147			122	126			105	109			88	90.2		
	B2	200	218			182	193			161	170			142	148			123	127			106	109			88.2	90.3		
	BW	200	218			182	193			161	170			142	148			123	127			106	109			88.2	90.4		
140	–	89.8	82.2	50.1		87.7	80.1			82.9	75.3			81.5	73.9			76.8	69.1			72.9	65.2			68.4	60.7		
	B	191	210	226		177	188			157	167			140	146			120	125			104	108			87	89.3		
	B2	195	214	231		179	190			159	168			140	146			121	126			105	108			87.2	89.5		
	BW	195	214	231		179	191			159	168			140	146			121	126			105	108			87.2	89.6		
150	–	81.5	74.3	46.9		79.5	72.4			74.9	67.7			73.6	66.5			69	61.8			65.3	58			60.9	53.6		
	B	182	201	227		170	183			153	162			136	143			117	123			102	106			84.4	87.5		
	B2	185	206	232		172	186			154	164			137	144			118	123			103	106			84.8	87.8		
	BW	186	206	233		172	186			154	164			137	144			118	124			103	106			84.8	87.8		
160	–	74.2	67.4	41.3		72.2	65.5	39.5		67.7	60.9			66.6	59.8			62	55.2			58.4	51.5			54.2	47.3		
	B	172	193	227		162	178	193		148	158			133	140			114	120			99.5	104			81.6	85.6		
	B2	175	197	233		164	180	196		150	160			134	141			115	121			100	104			82.3	85.9		
	BW	176	198	233		165	181	196		150	160			134	141			115	121			100	104			82.2	85.8		
170	–	67.7	61.2	36.4		65.8	59.3	34.7		61.3	54.9	29.6		60.3	53.8	28.5		55.8	49.3			52.3	45.8			48.2	41.6		
	B	162	185	224		154	171	192		142	154	164		130	137	140		111	117			97.3	102			79	83.3		
	B2	165	187	231		157	175	196		144	156	167		131	138	117		112	118			97.7	102			79.6	83.5		
	BW	166	190	231		158	175	196		144	156	167		132	139	142		113	119			98	103			79.6	83.6		
180	–	62	55.8	32.1		60.1	54	30.4		55.7	49.6	25.8		54.7	48.6	24.7		50.4	44.2			46.9	40.7			42.8	36.6		
	B	152	176	220		146	165	190		136	149	164		125	134	140		108	115			94.9	99.9			76.6	80.9		
	B2	155	175	227		149	169	195		138	152	167		127	136	142		109	116			95.6	101			77	81.1		
	BW	156	181	228		150	169	195		139	152	167		127	136	142		110	116			96	101			77.1	81.3		
190	–	56.9	50.9	28.2		55	49.1	26.5		50.7	44.7	22		49.7	43.8	21		45.4	39.4	16.4		42	36	12.9		38	32		
	B	143	166	215		138	158	188		130	145	163		121	131	140		106	112	116		92.8	98	97.6		74.3	78.4		
	B2	146	163	222		140	161	193		132	148	166		123	133	142		107	114	118		93.6	98.7	98.8		74.6	78.8		
	BW	147	172	223		142	163	193		132	148	166		123	133	142		107	114	118		93.8	98.8	98.8		74.8	79		
200	–	52.3	46.5	24.6		50.3	44.6	23		46	40.3	18.5		45	39.4	17.5		40.8	35.1	13.1		37.5	31.8	9.7		33.5	27.8		
	B	134	156	208		130	151	186		123	140	161		116	128	139		103	110	116		90.8	96.1	97.7		71.9	76	76.9	
	B2	137	153	215		132	151	191		125	143	165		118	131	142		104	111	118		91.7	96.9	98.8		72.3	76.6	77.7	
	BW	138	160	215		133	156	191		126	144	165		119	131	142		104	111	118		91.7	96.9	98.9		72.5	76.8	77.8	
210	–		42.6	21.4		46	40.5	19.7		41.8	36.3	15.4		40.8	35.3	14.4		36.6	31.1			33.3	27.9			29.4	23.9		
	B		146	198	193	122	143	183		116	134	160		111	126	139		100	107	115		88.9	94	97.6		69.3	74.1	76.5	
	B2		143	203	206	124	141	188		118	136	164		113	128	141		102	109	118		89.8	95	98.9		70.1	74.6	77.4	
	BW		146	204		125	148	189		119	138	164		113	129	141		102	109	117		89.8	95.1	98.9		70.4	74.8	77.4	
220	–		39.5	18.6		42.3	37	16.9		38	32.8	12.6		37	31.8	11.6		32.9	27.6			29.6	24.4			25.8	20.5		
	B		118	187	189	114	135	180	163	109	129	158		105	121	138		96.6	105	115		87	92.2	97.1		67.3	71.7	75.9	
	B2		118	190	209	117	133	183	153	111	129	162		107	123	141		97.7	106	117		87.9	93.3	98.7		68	72.5	76.8	
	BW		119	190	197	117	138	183	167	112	133	163		107	125	141		98.1	107	117		87.9	93.3	98.7		68.3	72.6	76.8	

TAB 181391 / 181393 / 181397

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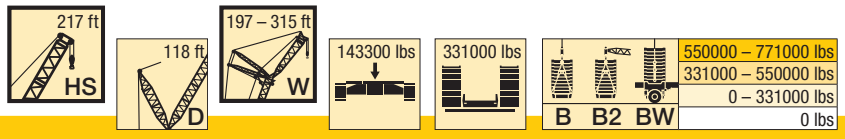

ft		HS 217																											
		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
230	–			16			33.8	14.2		34.6	29.5	10		33.5	28.5	9		29.4	24.3			26.2	21.1			22.4	17.3		
	B			174	183		124	173	167	102	122	156		99.4	116	137		92.1	103	114		84	90.4	96.8		65.3	69.6	75	
	B2			174	203		123	175	173	104	121	157		101	118	140		93.3	104	116		85	91.6	98.4		65.9	70.5	76	
	BW			175	190		125	175	173	105	126	160		101	120	140		93.9	104	117		85.1	91.7	98.4		66.2	70.5	76	
240	–							11.8		31.5	26.5			30.3	25.4			26.2	21.3			23	18.1			19.2	14.3		
	B			157	175			163	166	95.7	115	153	141	93.5	111	136		87.4	99.8	113		80.5	88.7	96.5		63.3	67.5	74	
	B2			156	194			164	177	96.8	114	151	145	94.7	112	139		88.9	101	116		81.4	89.9	98		63.9	68.6	75.2	
	BW			157	180			164	174	98.2	117	156	145	95.3	115	140		89.5	102	116		81.8	90.2	98.1		64.1	68.5	75.3	
250	–							9.5			23.8			27.3	22.6			23.2	18.4			20.1	15.3			16.3	11.5		
	B				166			151	162		106	148	144	87.4	105	135	121	82.5	97.3	112		76.3	86.8	96		61.5	65.6	73.2	
	B2				185			151	179		106	144	148	88.6	106	138	124	84.3	98.4	115		77.5	88.3	97.6		62.1	66.6	74.4	
	BW				171			151	169		107	149	148	89.4	109	139	124	84.9	100	115		77.8	88.8	97.7		62.2	66.6	74.4	
260	–							7.5			21.6			24.7	20			20.5	15.9			17.4	12.8			13.6	9		
	B				158			135	155		85	139	143	81.3	98.9	133	124	77	93.8	111	96	72.1	85.3	95.4		59.8	63.8	72.1	
	B2				176			136	173		85.3	137	150	82.5	99.8	135	127	78.5	94.9	114	87.5	73.6	86.7	97.2		60.6	64.9	73.3	
	BW				163			135	161		85.3	140	151	83.4	102	136	127	79	97.1	115	98.1	73.9	87.6	97.3		60.6	64.9	73.4	
270	–														17.7			18	13.5			14.9	10.4			11.2			
	B				150				148			128	141		91.8	129	126	71.5	88.3	110	98.4	67.6	83.6	94.8		58.2	62.3	70.8	
	B2				167				166			127	153		92.1	129	129	72.7	90.4	113	101	69.1	85	96.8		59.1	63.4	72.2	
	BW				155				153			128	147		93.6	130	129	73.1	91.9	113	100	69.6	86.2	96.9		59.1	63.4	72.3	
280	–																	15.8	11.3			12.6				8.9			
	B				143				141			115	136			122	127	65.8	82.3	109	100	63	80.1	94.2	81.8	56.3	60.9	69.7	
	B2				154				157			115	151			121	131	66.8	85.1	111	103	64.3	81.8	96.4	83.7	57.2	62	71.2	60.8
	BW				147				145			115	141			122	131	67.2	85.6	110	103	65	82.9	96.4	83.8	57.1	62	71.2	60.8
290	–																					10.4							
	B								135				130			113	125		75.5	107	102	58.5	74.5	93.4	83.7	53.5	59.6	68.7	60.8
	B2								147				143			112	133		77.9	107	105	59.6	76.7	95.7	85.4	54.6	60.6	70.1	61.7
	BW								138				134			112	131		77.8	105	105	60.4	77.2	95.6	85.4	54.5	60.6	70.1	61.8
300	–																					8.5							
	B								128				124			102	121		61.5	103	104	54.3	68.8	92.6	85.2	50.3	58.3	67.7	61.4
	B2								137				134			101	131		62.3	103	106	55.3	71.6	94	87	51.5	59.4	69.1	62.4
	BW								132				128			101	127		61.7	99.5	106	56	71.5	93.3	87	51.4	59.4	69	62.6
310	–																												
	B												118				117			95.7	104		63.2	91.8	86.4	46.9	57.2	66.4	61.9
	B2												125				125			95.7	107		65.6	92.3	88.4	48.3	58.2	67.8	63
	BW												123				121			93.7	107		65.5	91.1	88.5	48.2	58.2	68	63.2
320	–																												
	B												112				111			86.2	104			87.7	87.7	43.1	55.2	65.3	62.4
	B2												114				118			85.9	107			87.8	89.8	44.5	56.4	66.7	63.5
	BW												114				116			85.3	107			86.9	89.9	44.4	56.5	67.1	63.7
330	–																												
	B																106				102			80.8	89		50.9	64.5	62.7
	B2																110				105			80.4	91.3		52.3	65.8	64
	BW																110				105			80.6	91.2		52.5	66.3	64.1
340	–																												
	B																101				97.2			73.4	90.5		41.1	64	63
	B2																104				99.1			72.6	92.8		41	65.3	64.3
	BW																105				99.6			73.3	92.5		41.5	65.9	64.5
350	–																												
	B																				93.2				88.1			63.8	63.2
	B2																				94.3				89.6			65	64.6
	BW																				94.9				89.3			65.6	64.8
360	–																												
	B																				86.3				84.6			60	63.5
	B2																				86.3				85.6			60.4	65
	BW																				86.7				85.1			60.9	65.1
370	–																												
	B																								80.4				63.9
	B2																								80.9				65.4
	BW																								80.4				65.5
380	–																												
	B																								75.1				64.3
	B2																								75.5				65.7
	BW																								75.1				65.8
390	–																												
	B																												64.5
	B2																												64.4
	BW																												65.6
400	–																												
	B																												61.1
	B2																												60.6
	BW																												61.3

TAB 181391 / 181393 / 181397

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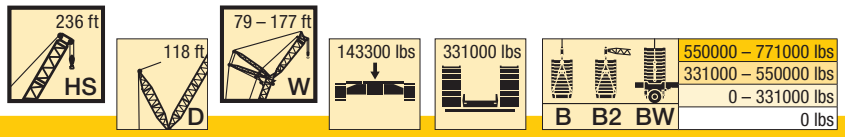


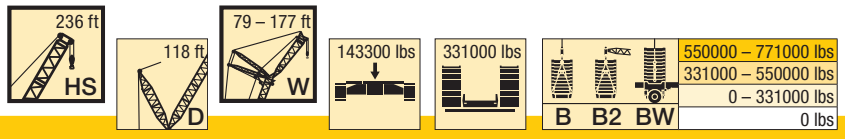
ft		HS 236																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
45	–																								
	B	502																							
	B2	505																							
	BW	508																							
50	–	314																							
	B	487																							
	B2	492																							
	BW	493																							
55	–	302				291																			
	B	469				427																			
	B2	474				429																			
	BW	476				430																			
60	–	277	260			267				259															
	B	451	494			413				374															
	B2	457	501			416				376															
	BW	459	502			417				377															
65	–	256	240			247	229			240				230				222							
	B	434	476			398	431			364				326				291							
	B2	440	484			402	437			366				329				293							
	BW	441	485			404	437			367				329				293							
70	–	238	223			230	215			223				216				209							
	B	417	459			383	418			352				320				286							
	B2	423	467			389	425			355				322				288							
	BW	424	469			390	427			357				322				288							
75	–	222	208			214	200			208	194			201				195				189			
	B	401	442			370	405			340	368			311				281				250			
	B2	408	451			376	412			345	374			314				282				252			
	BW	408	452			376	414			346	374			315				283				252			
80	–	207	194			200	187			194	181			188	175			182	169			177			
	B	383	426			357	392			330	359			303	324			275	290			246			
	B2	392	435			363	400			334	365			306	328			276	292			248			
	BW	392	436			363	401			335	365			307	329			277	293			248			
85	–	195	182			188	175			182	170			176	164			171	158			165	152		
	B	367	409			345	380			320	350			295	317			269	285			242	254		
	B2	375	420			350	387			324	355			298	321			270	288			244	256		
	BW	376	420			351	388			325	356			299	322			271	288			244	256		
90	–	183	171			177	165			171	160			166	154			160	149			156	144		
	B	352	395			331	368			310	339			285	310			262	280			237	250		
	B2	356	405			338	374			314	345			289	314			264	283			239	253		
	BW	360	405			339	376			314	346			291	314			265	283			239	253		
95	–	174	161			167	155			162	150			156	145			151	140			147	135		
	B	339	381			319	355			300	329			277	303			255	274			232	246		
	B2	338	390			325	362			304	336			281	306			258	278			234	249		
	BW	347	392			326	363			304	336			282	307			259	278			234	249		
100	–		153			158	147			153	142			148	137			143	132			138	127		
	B		367			306	342			290	320			269	295			248	268			228	242		
	B2		374			312	351			294	326			273	299			252	272			229	245		
	BW		379			314	351			295	327			274	300			252	272			230	245		
105	–			105		149	139			144	134			140	129			135	124			131	120		
	B			457		294	331			279	310			262	287			242	263			223	238		
	B2			481		297	339			285	316			265	292			246	266			224	241		
	BW			482		301	340			285	317			266	292			246	266			225	241		
110	–			98.8		142	131	91.8		137	127			132	122			128	118			124	114		
	B			442		284	321	405		269	299			254	280			236	257			217	234		
	B2			470		283	328	419		274	307			258	285			239	260			220	237		
	BW			470		290	330	420		275	308			258	285			240	261			220	237		
115	–			93.3		135	125	88.2		130	120			126	116			121	112			117	108		
	B			428		274	310	399		259	291			246	272			230	250			212	229		
	B2			457		269	316	414		263	298			251	278			233	254			215	232		
	BW			455		280	319	415		265	298			251	278			233	255			215	232		
120	–			88.2			119	83.3		124	114	79.1		120	110			115	106			111	102		
	B			414			300	390		249	282	353		237	264			223	245			207	224		
	B2			445			302	406		252	289	365		243	270			226	248			210	227		
	BW			439			310	406		255	290	366		243	271			227	249			210	228		
125	–			83.5				78.7		118	109	74.6		114	105	70.4		109	100			106	96.8		
	B			401				379		241	274	347		229	256	311		217	239			202	220		
	B2			432				396		241	280	359		234	263	320		220	243			205	222		
	BW			422				398		246	282	360		235	263	321		220	243			205	223		
130	–			79.1				74.5		113	104	70.6		109	99.8	66.5		104	95.5			101	91.9		
	B			389				368		233	266	341		221	249	308		211	233			197	215		
	B2			415				384		231	271	353		225	256	317		214	237			200	218		
	BW			406				388		238	273	354		227	256	318		214	237			200	219		
135	–							70.8			99.3	66.9		104	95.3	63		99.5	91			96.1	87.6		
	B							357			257	333		214	242	304		204	227			192	210		
	B2							371			261	346		217	249	313		208	232			195	214		
	BW							378			265	347		219	249	313		208	232			195	214		
140	–							67.1			95	63.4		99.4	90.9	59.5		95	86.7	52.4		91.6	83.4	49	
	B							347			249	325		207	236	299		197	221	266		187	206	236	
	B2							358			250	339		208	242	308		201	226	273		190	209	242	
	BW							368			257	340		211	243	309		202	226	274		190	210	242	
150	–							60.5				56.9		91.4	83.1	53.3		86.8	78.9	49.2		83.5	75.7	45.9	
	B							328				306		192	222	288		184	210	262		176	196	234	
	B2											324		191	226	298		187	215	269		179	201	240	
	BW							311				326		196	229	299		189	216	270		180	201	240	

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 236



ft		HS 236																							
		W 79				W 98				W 118				W 138				W 157				W 177			
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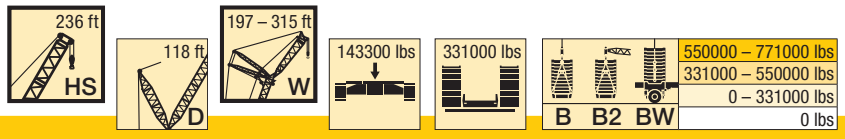
160	–				28							51.2				47.7		79.5	72	43.8		76.3	68.8	40.6	
	B				301							286				277		173	199	254		165	187	229	
	B2				326							307				287		173	204	262		168	192	236	
	BW				306							312				287		177	205	262		169	192	236	
170	–				24				19.7			46.1				42.8		73.1	65.8	38.9		69.9	62.8	35.9	
	B				282				276			268				264		163	188	246		155	178	223	
	B2				305				300			288				275		160	192	253		157	183	230	
	BW				287				282			299				276		167	194	253		158	183	230	
180	–								16.7							38.5			60.7	34.7		64.4	57.5	31.8	
	B								261							248			176	237		146	169	217	
	B2								283							265			177	244		146	174	223	
	BW								266							265			178	245		149	174	224	
190	–												10.4			34.7				30.9		59.7	52.8	28	
	B								245				242			233				226		134	160	211	
	B2								267				263			245				237		133	164	216	
	BW								250				247			245				234		136	165	217	
200	–																			27.4				24.6	
	B												228				225			214	217			204	
	B2												249				245			226	241			209	
	BW												233				230			220	225			210	
210	–																							21.5	
	B																213				209			196	197
	B2																232				229			202	217
	BW																217				213			202	210
220	–																							18.8	
	B																202				197			185	190
	B2																220				217			190	212
	BW																206				203			190	199
230	–																								
	B																191				187			170	182
	B2																210				206			171	203
	BW																195				192			171	189
240	–																								
	B																				177				174
	B2																				196				193
	BW																				182				179
250	–																								
	B																								165
	B2																								184
	BW																								170
260	–																								
	B																								157
	B2																								175
	BW																								161
270	–																								
	B																								149
	B2																								167
	BW																								154

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 236



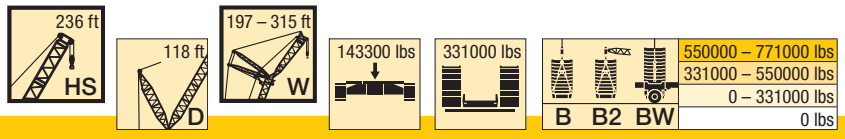
ft		HS 236																											
		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
80	–	171																											
	B	219				192																							
	B2	220				193																							
	BW	220				193																							
85	–	161				154				148																			
	B	216				190				166																			
	B2	217				191				166																			
	BW	217				191				166																			
90	–	151				146				139																			
	B	213				188				164																			
	B2	214				189				165																			
	BW	214				189				165																			
95	–	142	131			137				131				129															
	B	209	219			185				163				143															
	B2	211	221			187				163				143															
	BW	211	221			187				163				143															
100	–	134	123			129	118			123				121				116				105							
	B	206	216			183	191			161				141				122				105							
	B2	207	218			185	192			162				141				122				105							
	BW	207	219			185	192			162				142				122				105							
105	–	127	116			122	111			116	106			114				109				104				88			
	B	202	213			181	189			159	165			140	143			121				104				88			
	B2	203	216			182	190			160	166			140	144			121				104				88			
	BW	204	216			182	191			160	166			140	144			121				104				88			
110	–	120	110			115	105			110	99.6			108	96			103	90.6			98				86.7			
	B	198	210			178	187			157	164			139	143			119	122			103				86.8			
	B2	199	213			179	188			158	164			139	143			119	122			103				86.9			
	BW	200	213			179	189			158	164			139	143			120	123			103				87.1			
115	–	114	104			109	99.3			104	93.9			102	92.3			96.8	87			92.5				85.2			
	B	194	207			175	184			155	162			137	142			118	122			102				85.8			
	B2	196	209			176	186			156	163			137	142			118	122			102				85.9			
	BW	196	209			176	187			156	163			138	142			118	122			102				86.2			
120	–	108	98.4			103	93.9			98.1	88.7			96.6	87.1			91.4	81.9			87.2	77.7			82.4			
	B	190	204			172	182			153	161			135	141			117	121			101	103			84.8			
	B2	192	206			173	184			154	161			136	141			117	121			101	103			85			
	BW	192	206			173	184			154	162			136	141			117	121			101	104			85.2			
125	–	102	93.2			97.9	88.9			92.8	83.7			91.4	82.3			86.4	77.2			82.3	73.1			77.6	68.3		
	B	186	200			169	180			151	159			134	139			115	120			99.9	103			83.8	86.2		
	B2	188	202			170	182			151	160			134	140			116	120			100	103			84.1	85.9		
	BW	189	203			170	182			152	160			135	140			116	120			100	103			84.2	86		
130	–	97.3	88.5			93	84.3			88	79.2			86.7	77.8			81.8	72.8			77.7	68.8			73.1	64.1		
	B	182	196			166	177			149	157			132	138			114	118			98.8	102			82.6	85.3		
	B2	185	199			167	179			149	158			133	138			114	119			99	102			82.9	85.3		
	BW	185	199			167	179			149	158			133	139			114	119			99.2	102			82.9	85.3		
135	–	92.7	84.2			88.6	80			83.7	75.1			82.4	73.8			77.5	68.9			73.6	64.9			69	60.3		
	B	178	193			163	174			146	155			131	137			112	117			97.7	101			81.3	84.5		
	B2	181	195			164	176			147	156			132	137			113	118			98	101			81.5	84.5		
	BW	181	196			164	176			147	156			132	137			113	118			98.1	101			81.6	84.6		
140	–	88.3	80			84.2	76			79.4	71.1			78.2	69.9			73.4	65			69.6	61.1			65.1	56.6		
	B	174	189			159	171			144	153			130	135			111	116			96.4	100			80	83.6		
	B2	177	192			161	173			145	154			130	136			112	116			97	100			80.2	83.8		
	BW	177	192			161	173			145	154			130	136			112	117			97.1	100			80.3	83.8		
150	–	80.3	72.5			76.3	68.5			71.7	63.8			70.6	62.7			65.9	58			62.2	54.2			57.8	49.8		
	B	166	182			153	166			139	148			126	133			108	114			94.3	98.5			77.5	81.6		
	B2	169	185			155	167			140	150			127	134			109	114			94.9	98.6			77.7	81.7		
	BW	169	185			155	168			140	150			127	134			109	114			95.1	98.7			77.9	81.7		
160	–	73.1	65.7	37.3		69.3	61.9	33.4		64.7	57.3			63.7	56.2			59.2	51.6			55.5	48			51.3	43.7		
	B	158	174	204		147	160	177		133	144			122	130			105	112			92.3	96.6			75.2	79.1		
	B2	160	178	209		149	162	181		135	145			123	131			106	112			92.9	96.8			75.5	79.2		
	BW	160	178	209		149	162	181		135	146			124	131			106	112			93	97.1			75.7	79.3		
170	–	66.7	59.6	32.6		63	55.9	28.9		58.5	51.4	23.8		57.6	50.5			53.1	46			49.6	42.4			45.5	38.2		
	B	149	167	201		140	154	177		128	140	151		119	127			103	109			90.3	94.9			72.9	76.7		
	B2	151	171	206		142	156	181		130	141	154		120	128			103	110			90.6	95.2			73.3	76.9		
	BW	152	171	206		142	157	181		130	141	154		120	128			104	110			90.9	95.4			73.6	77.1		
180	–	61.1	54.4	28.6		57.5	50.7	24.9		53.1	46.3	20.3		52.2	45.4			47.8	41			44.4	37.5			40.3	33.4		
	B	139	159	198		133	148	174		123	135	151		114	123			99.9	107			88.4	92.9			70.7	74.8		
	B2	142	164	202		135	151	179		125	136	154		116	125			101	107			88.6	93.5			71.2	75.1		
	BW	143	164	202		135	151	179		125	137	154		116	125			101	108			88.8	93.6			71.4	75.1		
190	–	56.1	49.6	24.9		52.4	46	21.3		48.1	41.7	16.7		47.3	40.8	15.8		43	36.4	11.2		39.6	33			35.6	29		
	B	131	152	192		125	142	172		117	130	150		110	119	130		97.1	104	108		86.1	91.1			68.6	72.8		
	B2	133	157	197		128	145	176		119	132	153		112	121	133		98.1	105	109		86.6	91.8			69	73.2		
	BW	135	157	198		128	145	176		119	133	154		112	122	133		98.4	105	109		86.8	91.8			69.3	73.2		
200	–	51.5	45.2	21.5		47.9	41.7	18		43.6	37.4	13.5		42.8	36.5	12.6		38.5	32.3			35.2	28.9			31.2	24.9		
	B	124	145	187		118	136	168		111	126	148		106	116	130		94.5	102	108		83.8	89.3	91.1		66.4	70.7	71.4	
	B2	125	149	192		120	140	173		113	128	152		107	118	133		95.6	103	109		84.5	90	92.2		66.9	71.2	72.1	
	BW	127	149	192		121	140	173		113	128	152		107	118	133		95.8	103	109		84.7	90.1	92.2		67	71.3	72.2	
210	–		41.3	18.4		43.7	37.7	14.9		39.5	33.5	10.5		38.6	32.7			34.4	28.4			31.1	25.1			27.2	21.2		
	B		137	182		111	130	165		104	121	147		101	113	129		91.9	98.8	108		81.4	87.6	91.1		64.3	68.6	71	
	B2		141	186		113	134	169		107	123	150		103	114	132		93.1	100	109		82.3	88.3	92.3		64.7	69.2	72	
	BW		141	187		114	134	169		107	124	150		103	114	132		93.4	100	109		82.4	88.4	92.3		64.8	69.3	72.1	
220	–		38	15.7		40.1	34.3	12.3		35.8	30.1	7.9		34.9	29.2			30.8	25			27.5	21.8			23.7	17.9		
	B		124	177	174	104	124	161		98.4	116	144		95.7	109	129		88.2	96.6	107		79.1	85.6	90.8		62.3	66.7	70.6	
	B2		126	182	179	105	128	165		101	119	147		97.6	111	131		89.6	97.9	109		80.1	86.5	92.2		62.8	67.3	71.5	
	BW		127	182	188	107	127	165		101	119	148		97.7	111	131		89.9	98.2	109		80.2	86.8	92.3		63	67.4	71.7	

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 236



ft		HS 236																											
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230	–			13.1		37	31.1	9.8		32.5	26.9			31.5	26			27.4	21.8			24.2	18.6			20.4	14.8		
	B			171	171	95.4	117	157		92.7	110	141		90.4	105	127		83.7	94.2	106		76.4	83.8	90.5		60.5	64.8	69.9	
	B2			177	190	96.3	120	161		95.2	114	144		92.4	107	130		85.4	95.6	108		77.4	84.8	92.1		61	65.5	71	
	BW			176	184	97.4	121	161		95.3	114	145		92.6	107	130		85.6	95.9	108		77.5	85.2	92.2		61.2	65.6	71.1	
240	–			10.8						29.5	24			28.4	23			24.3	18.9			21.1	15.7			17.3	11.9		
	B			162	167			154	152	87.2	104	137		84.9	100	125		78.8	91.4	105		73.1	81.8	90.1		58.6	63.1	69.1	
	B2			167	188			158	161	89.5	108	141		86.9	103	128		80.7	93.2	108		74.2	83.2	91.8		59.2	63.8	70.3	
	BW			166	176			158	160	89.6	108	141		87.1	103	128		80.8	93.5	108		74.2	83.4	91.9		59.4	64	70.4	
250	–										21.4			25.5	20.3			21.3	16.1			18.2	13			14.4			
	B				161			150	150		97.9	134	130	79.1	95.8	122		74	88.5	105		69.2	79.4	89.8		56.8	61.4	68.4	
	B2				180			155	164		101	137	135	80.9	99.1	126		76.1	90.6	107		70.5	81.3	91.4		57.5	62	69.6	
	BW				167			155	161		101	139	135	81.3	99	126		76.1	91	107		70.4	81.3	91.6		57.8	62.3	69.6	
260	–										19.1			22.9	17.8			18.7	13.7			15.6	10.6			11.8			
	B				153			140	146		87.1	132	131	73.6	90.5	120	113	69.4	85.2	104	87.8	65.4	76.9	89.3		55.4	59.6	67.2	
	B2				172			142	164		88.7	132	138	75.3	93.6	123	110	71.2	87.7	106	82.1	66.8	79.1	90.9		56.1	60.4	68.7	
	BW				159			142	154		88.9	136	138	75.6	93.6	123	116	71.1	88.1	106	83.5	66.5	79	91.2		56.3	60.6	68.7	
270	–													20.6	15.5			16.3	11.4			13.2	8.3			9.4			
	B				146			123	141			127	130	67.9	84.7	118	115	64.8	80.4	103	90.1	61.4	74.3	88.6		54	58.2	66.3	
	B2				164			125	159			125	140	68.7	88.2	120	119	66.2	82.8	105	92	62.7	76.9	90.5		54.6	59	67.7	
	BW				151			125	147			130	138	69.2	88.1	121	119	66.1	83.2	105	92.2	62.5	76.8	90.7		54.8	59.2	67.7	
280	–																	14.1	9.2			10.9							
	B				139				136			119	127			115	116	60.4	75.1	102	91.9	57.4	71	88.1	73.1	52.1	56.8	65.2	
	B2				156				153			118	141			116	121	61.6	77.4	104	94.1	58.5	73.7	90	74.8	52.7	57.6	66.7	
	BW				144				140			121	135			119	121	61.5	77.7	104	94.3	58.4	73.6	90.2	74.8	52.9	57.9	66.7	
290	–																					8.8							
	B								129				123			112	115		69.4	99.8	93.6	53.3	66.6	87.6	74.9	49.4	55.4	64.3	55.7
	B2								146				140			112	124		71.7	102	96.1	54.2	69.2	89.5	76.9	50.1	56.3	65.8	56.8
	BW								133				129			114	123		71.9	102	96.1	54.5	69.2	89.8	76.9	50.3	56.5	65.8	57
300	–																					6.9							
	B								123				118			105	112		61.5	98.4	95.2	49.4	62.2	86.6	76.6	45.9	53.7	63.5	56.6
	B2								139				134			105	125		63	101	97.8	50.3	64.5	88.7	78.9	46.8	54.9	64.9	57.8
	BW								127				123			106	121		62.9	101	97.9	50.6	64.6	88.7	79.1	47	54.9	65	57.9
310	–																												
	B								118				113			91.9	110			94.5	96.6	45.5	57.9	85.7	78.2	42.3	51.9	62.4	57.2
	B2								131				129			91.8	124			96	99.4	46.5	60	87.8	81.3	43.3	53.4	63.9	58.6
	BW								122				117			92.5	116			96.2	99.5	46.6	60.2	87.6	81.4	43.5	53.6	64.1	58.7
320	–																												
	B												108				106			88.8	96.3			83.7	80.1	38.3	49.8	61.5	57.8
	B2												123				121			89.4	101			85.6	83.2	39.4	51.5	63	59.3
	BW												112				111			89.6	99.9			85.4	83.2	39.5	51.8	63.2	59.3
330	–																												
	B																101				94.4			80.4	82		46.6	60.8	58.3
	B2																116				102			81.8	84.5		48.3	62.3	59.9
	BW																105				98.7			81.8	84.6		48.6	62.4	60
340	–																												
	B																96.8				91.8			76.3	82.5		41	60.1	58.8
	B2																109				101			77.1	85.8		41.6	61.8	60.3
	BW																100				96			77.4	85.9		41.8	61.9	60.4
350	–																												
	B																93				88.6			65.6	81.7			59.7	59
	B2																100				97.3			65.9	86.3			61.6	60.6
	BW																96.1				92.3			66.2	86			61.9	60.8
360	–																												
	B																				85.2				79.4			58.6	59.3
	B2																				93.4				86			60.3	61
	BW																				88.6				84.5			60.8	61.1
370	–																												
	B																								76.1				59.5
	B2																								84.3				61.3
	BW																								81.5				61.5
380	–																												
	B																								72.7				59.8
	B2																								80.1				61.7
	BW																								77.1				62
390	–																												
	B																								68.7				60.2
	B2																								72.5				62.6
	BW																								71.9				62.7
400	–																												
	B																												60.3
	B2																												63.5
	BW																												63.1

TAB 181391 / 181393 / 181397

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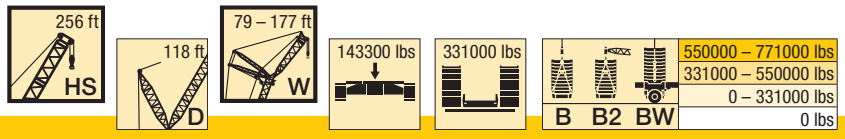

ft		HS 256																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
55	–	291				281																			
	B	411				368																			
	B2	414				371																			
	BW	414				371																			
60	–	268	250			259				249															
	B	398	424			358				320															
	B2	400	429			361				322															
	BW	401	430			361				322															
65	–	248	231			239	221			230				223											
	B	385	413			347	369			312				280				249							
	B2	387	417			349	372			314				281				250							
	BW	388	417			350	372			314				282				250							
70	–	231	215			223	207			214				209				194							
	B	372	400			337	360			303				274				245							
	B2	374	404			338	363			305				276				246							
	BW	375	405			339	364			306				276				246							
75	–	215	200			208	193			200	185			196				187				184			
	B	358	388			327	351			295	314			268				240				216			
	B2	362	391			328	354			296	317			270				241				217			
	BW	363	393			329	353			297	317			270				241				217			
80	–	201	187			195	180			187	173			183	169			175				172			
	B	346	376			316	341			286	307			262	277			235				212			
	B2	350	379			318	344			288	309			263	279			236				213			
	BW	351	380			319	343			289	309			263	279			236				213			
85	–	189	175			183	169			175	162			172	158			164	150			161			
	B	333	364			306	330			279	299			254	272			230	242			209	217		
	B2	337	367			308	334			279	301			256	273			230	243			209	219		
	BW	338	367			309	333			280	302			256	274			231	244			210	219		
90	–	178	165			172	159			165	152			162	149			154	142			152	136		
	B	320	353			297	321			271	291			248	265			223	238			204	214		
	B2	325	355			299	323			271	294			249	267			225	239			205	215		
	BW	325	356			299	324			272	294			250	268			225	239			205	216		
95	–	169	156			162	150			156	143			153	140			146	133			143	131		
	B	309	341			287	312			263	283			242	260			218	233			200	211		
	B2	314	347			290	313			264	286			242	261			220	234			201	212		
	BW	314	348			290	315			265	287			243	262			220	235			201	212		
100	–		147			154	142			147	135			144	132			137	126			135	123		
	B		333			276	303			256	276			236	254			213	228			196	207		
	B2		340			281	304			257	278			236	255			214	230			197	208		
	BW		341			281	305			257	279			237	256			215	230			197	209		
105	–			96.6		145	134			139	128			136	125			130	118			128	117		
	B			390		267	294			249	269			230	248			208	224			191	204		
	B2			398		271	296			250	270			230	249			209	225			192	205		
	BW			399		271	297			250	271			231	249			209	225			192	205		
110	–			91.1		138	127			132	121			130	119			123	112			121	110		
	B			381		258	287			241	262			224	241			203	219			187	200		
	B2			388		263	290			243	263			224	243			204	220			188	201		
	BW			390		263	291			243	264			225	243			205	220			188	201		
115	–			86		132	121			126	115			123	113			117	106			115	105		
	B			372		251	280			233	255			219	235			199	214			183	196		
	B2			380		255	284			236	256			219	237			199	215			184	197		
	BW			381		255	285			236	257			220	237			200	215			184	197		
120	–			81.2			115	76.5		119	109			117	107			111	101			109	99.1		
	B			363			271	330		225	249			213	229			194	209			179	192		
	B2			371			277	335		229	250			213	231			194	210			180	193		
	BW			372			278	336		229	250			214	231			195	210			180	193		
125	–			76.8				72.3		114	104	66.5		111	102			105	95.4			104	94		
	B			354				322		218	243	289		207	224			190	204			175	189		
	B2			360				328		222	245	295		207	224			189	205			176	189		
	BW			362				329		222	246	295		208	225			190	206			176	190		
130	–			72.7				68.3		109	98.8	62.7		106	96.8	59.7		100	90.7			98.9	89.4		
	B			346				315		211	238	285		200	218	256		185	199			171	185		
	B2			350				321		215	241	290		202	219	260		185	200			172	185		
	BW			353				322		215	242	290		202	220	261		186	201			172	185		
135	–			68.9				64.8			94.4	59.3		102	92.4	57.3		95.7	86.4			94.4	85.2		
	B			340				308			232	280		194	214	253		180	195			168	181		
	B2			344				313			236	284		197	215	257		181	195			168	181		
	BW			344				313			236	284		197	216	257		181	196			168	182		
140	–			65.3				61.3			90.3	56		97.3	88.2	54.1		91.3	82.3	45.3		90	81.1		
	B			334				300			225	274		188	210	249		175	190	220		164	177	196	
	B2			338				305			230	278		191	211	253		176	191	223		164	178	200	
	BW			335				305			231	279		191	212	254		177	192	224		165	178	200	
150	–							55.1				50		89.3	80.6	48.3		83.3	74.8	42.4		82.1	73.6	41.3	
	B							290				263		178	200	241		165	183	216		157	169	195	
	B2							289				266		181	204	245		168	183	220		157	170	198	
	BW							294				267		181	204	245		168	184	220		157	170	198	
160	–											44.6				43.1		76.2	68	37.3		75	67	36.3	
	B											252				233		157	176	210		149	162	191	
	B2											255				235		159	177	214		150	163	194	
	BW											257				236		159	177	214		150	164	194	
170	–								12.6			39.9				38.4		70.1	62.1	32.8		68.8	61.1	31.9	
	B				274				270			248				223		148	168	203		141	157	186	
	B2				297				293			247				225		150	171	206		143	158	189	
	BW				279				275			251				227		150	171	206		143	158	189	

TAB 181391 / 181393 / 181397

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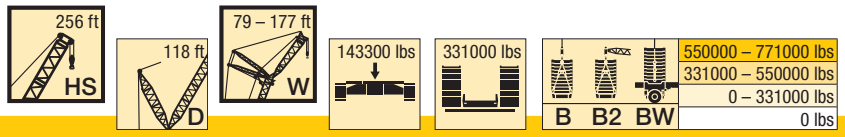
HSDWB/B2/BW

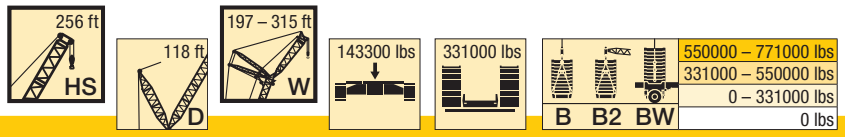
HS 256



ft		HS 256																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
180	–								9.9			35.7				34.4			57.1	28.9		63.3	55.9	28	
	B				258				255			237				215			160	196		134	152	180	
	B2				281				277			232				216			164	198		136	153	182	
	BW				263				259			239				217			164	199		136	153	183	
190	–															30.7				25.3		58.5	51.3	24.5	
	B								240				235			209				190		127	145	175	
	B2								261				255			209				191		128	147	176	
	BW								244				240			211				191		128	148	177	
200	–																			22				21.3	
	B												222				215			184				169	
	B2												242				230			187				171	
	BW												226				224			184				171	
210	–																							18.3	
	B												209				207			180	192			164	
	B2												229				226			182	200			166	
	BW												213				212			178	200			166	
220	–																							15.7	
	B												197				196			168	186			162	169
	B2												217				215			169	197			164	175
	BW												203				201			166	194			164	175
230	–																							13.3	
	B																185				179			157	167
	B2																205				193			158	174
	BW																191				185			157	174
240	–																								
	B																				170				164
	B2																				187				172
	BW																				175				171
250	–																								
	B																				162				159
	B2																				180				168
	BW																				166				165
260	–																								
	B																				154				152
	B2																				171				165
	BW																				158				157
270	–																								
	B																								145
	B2																								160
	BW																								149

TAB 181391 / 181393 / 181397

H



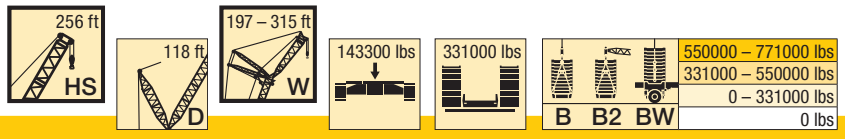
ft		HS 256																											
		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
80	–	165																											
	B	188																											
	B2	189																											
	BW	189																											
85	–	154				148				144																			
	B	185				164				146																			
	B2	186				165				146																			
	BW	186				165				146																			
90	–	145				140				136																			
	B	182				162				144																			
	B2	183				162				144																			
	BW	183				162				144																			
95	–	137	124			132				128				123															
	B	179	187			159				142				126															
	B2	179	188			160				142				126															
	BW	180	188			160				143				126															
100	–	129	117			124	112			121				116				107				93.9							
	B	176	184			157	163			140				124				108				93.9							
	B2	176	186			157	164			140				125				108				93.9							
	BW	176	186			158	164			141				125				108				93.9							
105	–	122	110			117	106			114	102			110				104				93.2				78.2			
	B	173	181			154	161			138	143			123				106				93.2				78.2			
	B2	173	182			155	162			138	144			123				107				93.2				78.2			
	BW	173	183			155	162			139	144			123				107				93.2				78.1			
110	–	115	104			111	99.6			108	96.7			104	90.7			98.2				92.1				77.3			
	B	170	179			152	159			136	141			121	125			105				92.1				77.3			
	B2	170	180			152	160			136	142			122	125			105				92.1				77.3			
	BW	170	180			152	160			137	142			122	125			105				92.2				77.3			
115	–	109	98.6			105	94.1			102	91.3			97.8	87.2			92.6				88.3				76			
	B	165	176			149	157			134	140			119	124			104				90.9				76.2			
	B2	166	177			150	157			134	141			120	124			104				91				76.4			
	BW	166	177			150	158			135	141			120	124			104				91.1				76.4			
120	–	104	93.3			99.1	88.9			96.5	86.2			92.5	82.2			87.4	77			83.2	68.7			74.9			
	B	162	173			146	154			132	138			117	122			102	106			89.9	92.1			75.2			
	B2	163	174			147	155			132	139			118	123			103	106			90	92.3			75.4			
	BW	163	174			147	155			133	139			118	123			103	106			90.1	92.3			75.6			
125	–	98.3	88.4			94	84.1			91.4	81.5			87.6	77.6			82.5	72.5			78.5	68.4			73.8	63.6		
	B	158	170			144	152			130	136			116	121			101	105			88.9	91.3			74.3	76.6		
	B2	159	171			144	152			130	137			116	121			101	105			89	91.6			74.5	76.3		
	BW	160	171			144	153			130	137			116	121			101	105			89	91.6			74.7	76.4		
130	–	93.4	83.8			89.2	79.6			86.7	77.1			83	73.3			78.1	68.3			74.1	64.3			69.4	59.6		
	B	155	167			140	150			128	134			114	120			99.6	104			87.8	90.5			73.3	75.9		
	B2	156	167			141	150			128	135			114	120			99.9	104			88	90.8			73.5	75.7		
	BW	156	168			141	151			128	135			114	120			99.9	104			88	90.8			73.6	75.7		
135	–	89	79.7			84.9	75.6			82.5	73.1			78.8	69.4			74	64.5			70	60.6			65.5	55.9		
	B	152	164			138	147			126	133			112	118			98.2	102			86.7	89.7			72.4	75.1		
	B2	153	164			139	147			126	133			113	118			98.5	103			86.9	89.9			72.6	74.9		
	BW	153	165			138	148			126	133			112	118			98.6	103			86.9	90			72.6	75		
140	–	84.7	75.7			80.7	71.7			78.4	69.3			74.8	65.7			70	60.8			66.2	57			61.7	52.4		
	B	149	161			135	145			123	131			111	116			96.9	101			85.5	88.8			71.4	74.1		
	B2	149	161			136	145			124	131			111	117			97.1	102			85.7	89.1			71.6	74.1		
	BW	150	161			136	145			124	131			111	117			97.2	102			85.8	89.1			71.6	74.2		
150	–	77	68.4			73	64.5			70.8	62.2			67.4	58.8			62.7	54			59	50.3			54.6	45.9		
	B	143	154			130	140			119	127			107	113			94.2	98.8			83	87.1			69.5	72.3		
	B2	143	155			130	140			119	127			107	113			94.4	99.2			83.2	87.3			69.6	72.6		
	BW	144	155			130	140			119	127			107	114			94.5	99.2			83.2	87.3			69.7	72.7		
160	–	70	61.9	30.9		66.2	58.1			64	55.9			60.7	52.6			56.2	48			52.6	44.3			48.3	40		
	B	138	148	168		125	135			114	123			103	110			91.4	96.2			80.3	85			67.6	70.6		
	B2	137	149	171		125	135			114	123			103	110			91.6	96.5			80.4	85.2			67.8	71		
	BW	138	149	171		125	135			114	123			103	110			91.7	96.7			80.4	85.2			67.8	71.1		
170	–	63.8	56.1	26.6		60.1	52.4	22.6		58	50.3	20.3		54.8	47			50.3	42.5			46.8	39			42.7	34.8		
	B	131	142	166		121	130	146		110	119	128		99.6	107			88.4	93.9			77.7	82.3			65.7	68.9		
	B2	132	143	168		120	130	148		110	119	130		99.6	107			88.8	94.2			77.6	82.6			65.9	69.4		
	BW	132	143	168		121	130	148		110	119	130		99.7	107			88.9	94.1			77.7	82.7			66	69.4		
180	–	58.4	51	22.8		54.7	47.4	19.2		52.7	45.3	16.9		49.5	42.2			45.2	37.7			41.7	34.3			37.7	30.1		
	B	124	138	162		115	125	144		106	115	127		96.5	103			85.7	91.5			75.3	79.7			63.6	67.2		
	B2	126	138	164		116	126	146		106	115	129		96.3	103			85.8	91.7			75.1	80.1			64.1	67.6		
	BW	126	138	164		116	126	146		106	115	129		96.5	104			86.2	91.6			75.2	80.3			64.2	67.8		
190	–	53.5	46.4	19.4		49.8	42.8	15.8		47.8	40.8	13.6		44.8	37.7	10.4		40.5	33.3			37.1	29.9			33.1	25.8		
	B	118	134	158		110	121	141		102	110	126		93.6	100	110		82.9	89.1			72.6	77.4			61.8	65.4		
	B2	120	134	160		111	122	143		102	111	127		93.1	100	111		82.7	89			72.4	77.8			62.3	65.9		
	BW	120	134	160		111	122	143		102	111	127		93.4	100	111		83.2	89			72.7	77.9			62.4	66.1		
200	–	49	42.2	16.3		45.4	38.6	12.7		43.4	36.6	10.6		40.4	33.6			36.1	29.3			32.8	26			28.9	21.9		
	B	112	129	153		105	118	138		98.2	107	124		90.5	97	108		80	86.5	93.1		70	75.3	78.4		60	63.6		
	B2	114	130	155		106	118	140		98.6	107	125		89.9	96.9	110		79.6	86.3	94.1		69.8	75.5	79.4		60.5	64.3		
	BW	114	131	155		107	118	140		98.6	107	126		90.3	97.1	110		80.1	86.3	94		70.2	75.6	79.5		60.6	64.4		
210	–		38.3	13.4		41.3	34.8	9.9		39.3	32.8			36.4	29.8			32.2	25.6			28.9	22.3			25	18.3		
	B		123	149		99.8	115	134		93.9	104	121		87	93.6	107		77.1	83.6	92.5		67.9	73.3	78.2		58.3	62	64	
	B2		125	150		101	115	136		95.1	104	123		86.8	93.8	108		76.6	83.3	93.4		67.7	73.2	79.1		58.6	62.7	64.8	
	BW		126	150		102	115	136		95.2	104	123		86.9	94	108		76.9	83.4	93.2		67.9	73.2	79.1		58.7	62.8	64.8	
220	–		35.1	10.9		37.8	31.5	7.4		35.7	29.4			32.8	26.5			28.6	22.3			25.4	19.1			21.5	15.1		
	B		116	144		94.5	110	131		89.5	102	119		83	91.3	105		74.2	80.4	91.2		65.8	71.1	77.7		56.6	60.4	63.7	
	B2		120	146		96	111	132		90.9	101	120		83.7	91.2	107		73.8	80.3	92.2		65.5	71	78.6		57	61.1	64.6	
	BW		121	146		96.4	111	132		91.1	101	120		83.9	91.4	107		74	80.4	92.2		65.7	71	78.6		57	61.3	64.6	

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 256



ft		HS 256																											
		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
230	–			8.5		34.7	28.4			32.3	26.2			29.5	23.4			25.3	19.2			22.1	16			18.3	12.1		
	B			141		89.8	104	127		84.7	98.5	115		79.1	89.4	103		71.2	77.8	90		63.6	69	76.7		54.9	58.8	63.3	
	B2			144		91.3	107	128		86.1	98.6	117		80.5	89.1	105		71.5	77.6	90.9		63.4	68.7	77.7		55.3	59.5	64.3	
	BW			144		91.4	107	129		86.2	98.4	117		80.7	89.3	104		71.6	77.7	91		63.5	68.7	77.7		55.4	59.6	64.3	
240	–									29.3	23.3			26.4	20.5			22.3	16.4			19.1	13.2			15.3	9.4		
	B			137	146			125		79.5	94.5	112		75.1	87.4	101		68.2	75.7	88.8		61.4	66.9	75.7		53.1	57.1	62.8	
	B2			141	150			126	129	81	95.7	113		76.6	87.1	102		69.3	75.4	89.5		61.5	66.5	76.7		53.7	57.8	63.8	
	BW			141	151			126	129	80.9	95.5	114		76.8	87.3	102		69.3	75.5	89.7		61.4	66.6	76.7		53.8	58	63.8	
250	–										20.7			23.5	17.9			19.4	13.7			16.3	10.6			12.5			
	B			131	145			124	126		90.4	109	107	70.4	84.7	98.3		65.5	74.1	87.3		59	64.7	74.7		51.1	55.5	62.2	
	B2			135	150			125	130		92.5	111	110	71.8	84.7	99.5		66.9	73.8	88		59.7	64.6	75.6		52	56.1	63.3	
	BW			135	150			125	130		92.3	111	111	72.1	85	99.9		67	73.9	88		59.7	64.8	75.6		52	56.4	63.3	
260	–										18.3			21	15.4			16.9	11.3			13.8	8.2			10			
	B			121	143			120	126		84.9	108	108	65.7	80	96.1	91.5	61.6	72.4	84.8		56.7	63.7	73.3		49.4	54.1	61.3	
	B2			124	148			122	130		86.8	109	112	67.2	81.2	97.2	78.6	63	72.1	86.3		57.8	63.4	74.3		50.4	54.6	62.5	
	BW			125	149			122	130		86.9	109	112	67.4	81.7	97.6	93.9	63	72.4	86.3		57.9	63.6	74.3		50.5	54.8	62.6	
270	–													18.8	13.2			14.5	9.1			11.4							
	B				139			114	125			106	109	61.7	75.8	94.5	93	57.6	69.2	82.5		53.9	62.6	71.9		47.7	52.8	60.4	
	B2				145			117	129			107	112	63.1	77.3	95.3	95.4	58.9	69.8	84.4		55	62.2	72.8		48.8	53.3	61.6	
	BW				144			118	129			107	112	63.1	77.9	95.7	95.7	58.9	70.1	84.6		55.1	62.5	72.9		48.9	53.6	61.7	
280	–																	12.3				9.2							
	B				133				124			103	109			93.2	93.9	53.6	65.5	80.5	76.5	50.6	60.7	70.4		45.6	51.5	59.7	
	B2				142				128			105	112			93.8	96.3	54.9	67.1	82.5	79	51.7	60.5	71.3		46.8	52.1	60.6	
	BW				138				128			105	113			94.1	96.6	54.9	67.4	82.6	78.7	51.8	60.7	71.4		47	52.4	60.7	
290	–																												
	B				127				121			98.9	108			91.9	94.2		62.5	78.7	77.5	46.8	57.7	69	63.4	42.9	50.2	58.9	
	B2				139				126			101	112			92.4	96.8		64.2	80.4	81	48	58.4	69.7	64.9	44.2	50.8	59.6	
	BW				131				126			101	112			92.8	96.9		64.5	80.6	80.1	48.1	58.6	69.8	65	44.2	51.1	59.7	
300	–																												
	B				121				117			91.1	107			89.9	94.1		58.4	77.2	78.1	42.8	54.6	67.6	64.4	39.2	48.2	58	46.7
	B2				136				124			92.3	111			90.7	96.8		59.8	78.2	82	44.5	56.1	68.1	66.1	40.5	49.2	58.5	49.8
	BW				126				121			92.8	111			90.8	96.9		59.9	78.6	81.5	44.7	56.2	68.3	66.2	40.4	49.5	58.6	50.4
310	–																												
	B								112				105			87.1	93.6			75.9	78.3	38.8	51.4	66.1	65	35.6	46.2	57	51.3
	B2								123				109			88.3	96.2			76.5	82.4	40.6	53	66.7	66.9	36.9	47.4	57.4	52.6
	BW								116				109			88.5	96.3			77	82.2	40.7	53.2	66.9	66.9	36.7	47.7	57.4	52.6
320	–																												
	B												103				92.9			74.8	78.3			64.9	65.4	32.4	43.9	55.9	51.9
	B2												107				95.3			75.1	82.2			65.3	67.5	33.5	45.1	56.3	53.4
	BW												106				95.6			75.6	82.2			65.7	67.5	33.4	45.4	56.3	53.4
330	–																												
	B												99.1				91.9			72.6	78			64	65.7		41.1	54.7	52.4
	B2												107				94.1			72.8	81.6			64.3	67.8		42.2	55.1	54
	BW												103				94.5			73.2	81.6			64.7	67.9		42.5	55.2	54.1
340	–																												
	B												94.8				90.7			65.7	77.6			63.7	65.8		36.5	53.7	52.9
	B2												107				92.8			66.1	80.3			63.8	67.9		38	54.1	54.5
	BW												98.4				93.4			66.3	80.3			64.1	68.1		38	54.1	54.7
350	–																												
	B																87.9				76.9			62.3	65.7			53.5	53.2
	B2																92.6				79.2			62.5	67.6			53.9	55
	BW																90.9				79.4			62.8	67.9			53.9	55.1
360	–																												
	B																				75.7				65.3			53.3	53.5
	B2																				78.8				67.2			53.6	55.4
	BW																				78.3				67.5			53.7	55.5
370	–																												
	B																				73.8				64.8			52.1	53.7
	B2																				78.8				66.8			52.3	55.7
	BW																				76.8				66.9			52.4	55.7
380	–																												
	B																				71.1				64.1			47.9	53.9
	B2																				78.8				66.8			47.8	55.9
	BW																				74.7				66.5			48.1	55.9
390	–																												
	B																								63.5				53.9
	B2																								66.8				55.8
	BW																								66.5				55.9
400	–																												
	B																												54.3
	B2																												55.8
	BW																												55.9
410	–																												
	B																												54.3
	B2																												55.8
	BW																												55.9

TAB 181391 / 181393 / 181397

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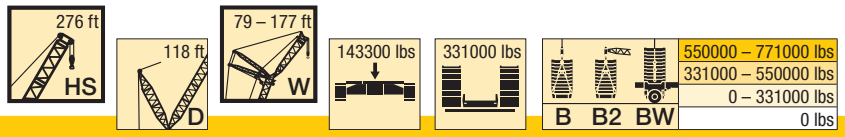


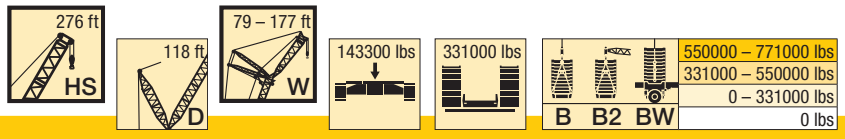
ft		HS 276																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
55	–	280				251																			
	B	371				332																			
	B2	374				335																			
	BW	375				335																			
60	–	258				248				240															
	B	360				324				292															
	B2	363				326				293															
	BW	363				327				294															
65	–	239	219			229				222				213											
	B	349	376			314	338			286				256											
	B2	350	381			317	340			286				257											
	BW	352	382			318	341			287				257											
70	–	223	206			214	190			207				201											
	B	337	367			306	332			278				252											
	B2	339	372			308	334			279				253											
	BW	340	372			309	334			280				253											
75	–	208	192			199	183			194	177			187				181				176			
	B	325	357			297	323			270	292			246				222				198			
	B2	327	362			298	326			272	293			247				222				199			
	BW	329	362			299	326			273	294			247				222				199			
80	–	195	179			187	171			181	166			175	160			170				165			
	B	313	346			288	313			263	286			240	258			218				196			
	B2	316	351			289	318			265	287			241	258			218				195			
	BW	318	351			290	318			265	288			241	259			218				196			
85	–	183	168			175	161			170	155			165	150			159	144			155			
	B	302	334			278	305			256	278			234	254			214	227			193			
	B2	305	340			280	309			257	281			236	254			213	227			192			
	BW	307	340			281	310			258	281			236	254			213	227			192			
90	–	173	159			165	151			160	146			155	141			150	136			146			
	B	290	323			269	297			249	271			229	248			208	223			189			
	B2	294	329			272	301			250	274			229	249			209	224			189			
	BW	296	330			273	302			251	275			230	249			209	224			189			
95	–	163	150			156	142			151	138			146	133			142	128			137	124		
	B	280	313			261	288			242	264			223	242			203	220			185	198		
	B2	285	318			264	293			243	268			223	244			204	220			185	198		
	BW	285	319			264	293			244	268			224	244			204	220			186	198		
100	–		141			147	134			143	130			138	125			134	121			130	117		
	B		302			252	280			235	258			217	236			199	216			181	195		
	B2		309			255	284			237	261			217	239			199	216			182	195		
	BW		310			256	285			238	261			218	239			199	216			182	195		
105	–					140	127			135	123			131	119			126	114			122	110		
	B					242	271			228	252			211	231			195	211			178	192		
	B2					246	275			230	255			212	233			194	212			178	192		
	BW					247	277			231	255			213	234			195	212			178	192		
110	–			81.2		133	121			128	117			124	112			120	108			116	104		
	B			355		234	264			221	244			206	225			190	206			174	188		
	B2			369		238	267			224	248			207	228			190	208			174	188		
	BW			370		239	269			225	248			207	228			190	208			174	189		
115	–			78		126	114			122	111			118	106			114	102			110	98.6		
	B			348		227	256			214	238			200	220			185	201			171	185		
	B2			364		230	260			216	241			202	223			185	203			170	185		
	BW			365		231	261			217	242			202	223			186	204			171	186		
120	–			73.6			109	67.3		116	105			112	101			108	97			105	93.5		
	B			340			248	310		206	232			195	215			181	197			167	181		
	B2			356			253	321		209	235			197	218			181	199			166	182		
	BW			357			254	322		210	236			197	218			181	199			167	182		
125	–			69.5				63.3		111	99.9			107	96			103	92.1			99.3	88.6		
	B			331				305		199	225	269		189	210			176	193			163	177		
	B2			347				316		202	229	284		191	213			177	195			163	179		
	BW			348				317		203	230	284		192	213			177	195			163	179		
130	–			65.7				59.7		106	95.2	55.2		102	91.4			97.9	87.5			94.5	84.2		
	B			322				299		193	219	270		183	205			172	189			159	173		
	B2			339				309		196	222	280		185	207			172	191			159	175		
	BW			340				311		197	224	280		186	208			173	191			160	175		
135	–			62.2				56.4			90.9	52.9		97.4	87.2			93.5	83.4			90.2	80.2		
	B			315				290			213	267		177	199			167	184			156	170		
	B2			331				303			217	275		179	202			168	187			156	172		
	BW			332				304			218	276		180	203			169	187			156	172		
140	–			58.8				53.3			86.8	49.9		93.1	83.2	43.6		89.2	79.4	39.8		86	76.3		
	B			307				282			207	262		171	194	235		163	181	211		152	166		
	B2			323				297			211	271		174	197	243		163	183	217		152	168		
	BW			324				297			212	272		175	198	243		164	183	217		153	168		
150	–							47.5				44.3		85.4	75.8	40.8		81.4	72.2	37		78.4	69.1		
	B							268				252		161	184	231		153	173	208		145	160		
	B2							283				261		164	188	238		154	175	214		145	162		
	BW							283				262		165	188	239		155	175	214		146	162		
160	–											39.3				36		74.5	65.7	32.3		71.5	62.7	29.3	
	B											239				223		143	164	204		137	153	183	
	B2											251				231		145	167	210		138	155	188	
	BW											251				232		146	167	210		139	155	188	
170	–											34.8				31.7		68.4	59.9	28.2		65.4	57.1	25.3	
	B				267							227				215		135	156	197		129	147	179	
	B2				290							240				223		137	159	204		130	148	185	
	BW				272							240				224		138	160	204		131	149	185	

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

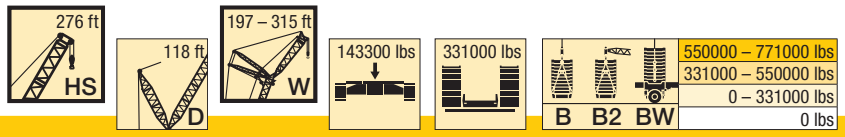
HS 276



ft		HS 276																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
180	–											30.9				28			54.9	24.5		60.2	52.1	21.7	
	B				252							219				205			148	191		121	140	174	
	B2				274							231				216			151	198		123	142	180	
	BW				257							231				216			152	198		124	143	180	
190	–															24.5				21.2		55.5	47.6	18.5	
	B								232							197				184		115	133	170	
	B2								254							208				191		117	136	175	
	BW								237							208				192		117	136	176	
200	–																			18.1				15.5	
	B								219				212							175				165	
	B2								239				231							184				171	
	BW								223				220							184				171	
210	–																							12.8	
	B												203				193			166				160	
	B2												223				205			176				166	
	BW												208				204			176				166	
220	–																							10.4	
	B												192				186			164	170			152	150
	B2												212				201			171	179			159	142
	BW												197				194			174	180			159	156
230	–																							8.1	
	B																178				167			144	150
	B2																195				177			155	158
	BW																184				177			155	158
240	–																								
	B																169				163				149
	B2																188				174				157
	BW																174				170				157
250	–																								
	B																				156				147
	B2																				171				155
	BW																				162				155
260	–																								
	B																				148				143
	B2																				166				153
	BW																				154				150
270	–																								
	B																								138
	B2																								150
	BW																								143
280	–																								
	B																								132
	B2																								146
	BW																								136

TAB 181391 / 181393 / 181397

H



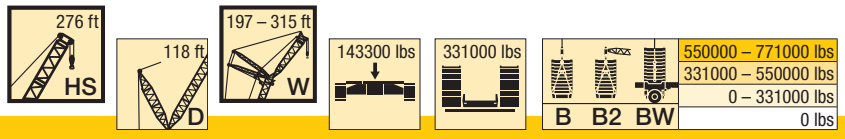
ft		HS 276																											
		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
80	–	158																											
	B	173																											
	B2	173																											
	BW	173																											
85	–	148				144				134																			
	B	171				153				134																			
	B2	170				152				134																			
	BW	171				152				134																			
90	–	139				136				129																			
	B	169				151				133																			
	B2	168				150				132																			
	BW	168				151				132																			
95	–	131	112			128				122				115															
	B	166	174			149				132				116															
	B2	165				148				131				115															
	BW	165				149				131				116															
100	–	123	110			121	102			115				111				99.2											
	B	163	173			147	154			130				115				99.6											
	B2	162	173			146	153			129				114				98.8											
	BW	163	173			146	154			129				114				98.9											
105	–	116	104			114	102			109	96.2			104				98.3				86.1				71			
	B	161	171			145	152			129	134			113				98.3				86.1				71			
	B2	160	170			144	152			128	133			113				97.6				85.9				71			
	BW	160	171			144	152			128	133			113				98				85.9				71			
110	–	110	98.2			108	96.1			103	90.7			98.6	84.9			93.1				85				70.3			
	B	157	168			143	151			127	133			112	116			97.2				85				70.3			
	B2	157	168			142	151			126	132			111	116			96.6				84.9				70.3			
	BW	157	168			142	151			126	132			111	116			96.8				85.1				70.3			
115	–	104	92.8			102	90.8			97.2	85.6			93.1	81.5			87.9				82.5				69.5			
	B	154	166			141	149			126	131			111	116			96.3				84.2				69.5			
	B2	154	166			140	149			124	131			110	115			95.6				84				69.5			
	BW	154	166			140	149			124	131			110	115			95.6				84.1				69.5			
120	–	98.9	87.7			97	85.9			91.9	80.7			88	76.8			82.9	71.6			78.7				68.1			
	B	151	163			138	147			124	130			110	115			95.3	98.7			83.3				68.6			
	B2	151	163			137	147			122	130			108	114			94.5	98.4			83.1				68.6			
	BW	151	164			137	147			123	130			109	114			94.6	98.4			83.1				68.7			
125	–	93.8	83			92	81.3			87.1	76.2			83.2	72.3			78.2	67.3			74.2	63.2			67.2			
	B	148	160			135	145			122	129			108	114			94.3	98			82.4	84.8			67.4	69.3		
	B2	148	161			135	145			121	128			107	113			93.5	97.7			82	85.2			67.6	69.5		
	BW	148	161			135	145			121	128			107	113			93.5	97.7			82.1	85.2			67.9	69.5		
130	–	89.1	78.7			87.4	77			82.6	72.1			78.8	68.3			73.9	63.3			69.9	59.3			64.8	53.6		
	B	145	157			133	143			119	127			107	112			93.3	97.3			81.1	84.2			66.6	68.6		
	B2	144	158			133	143			119	127			106	112			92.4	96.9			80.6	84.7			66.8	68.8		
	BW	145	158			133	143			119	127			106	112			92.4	96.8			80.7	84.7			66.9	68.9		
135	–	84.8	74.7			83.2	73.1			78.4	68.3			74.8	64.6			70	59.7			66.1	55.7			61.5	51.1		
	B	142	154			131	141			117	126			105	111			92.2	96.3			79.9	83.6			65.8	68		
	B2	141	155			130	141			117	125			104	111			91.3	96			79.3	84			66	68.2		
	BW	142	156			130	141			117	125			104	111			91.2	96			79.4	84			66	68.3		
140	–	80.7	70.9			79.2	69.4			74.5	64.6			70.9	61			66.1	56.1			62.3	52.3			57.8	47.7		
	B	139	151			129	139			115	124			103	110			91.1	95.3			78.8	82.9			64.9	67.3		
	B2	139	152			127	139			115	124			103	110			90.1	95.2			78.1	83.3			65.2	67.5		
	BW	139	153			128	139			115	124			103	110			90.1	95.2			78.1	83.3			65.2	67.6		
150	–	73.2	63.9			71.7	62.5			67.2	57.9			63.8	54.4			59.1	49.7			55.4	45.9			51.1	41.5		
	B	133	146			124	134			111	121			100	108			88.7	93.4			76.7	80.9			63.3	65.9		
	B2	133	147			122	135			111	120			99.6	107			87.8	93.3			75.8	81.4			63.5	66.2		
	BW	134	147			123	135			111	120			99.6	107			87.7	93.4			75.9	81.4			63.6	66.3		
160	–	66.5	57.7	21.3		65.1	56.3			60.7	51.8			57.4	48.5			52.8	43.8			49.2	40.2			45	35.9		
	B	127	140	162		119	129			107	117			97.1	105			85.9	91.7			74.7	78.6			61.7	64.4		
	B2	128	142	165		118	130			106	117			96.5	104			85.3	91.3			73.8	79.2			61.8	64.8		
	BW	128	142	165		119	130			107	117			96.6	105			85.3	91.6			73.9	79.2			61.9	64.9		
170	–	60.5	52.1	19.9		59.1	50.8	18.4		54.8	46.4			51.6	43.2			47.2	38.6			43.7	35.1			39.5	30.9		
	B	121	135	160		114	125	142		104	112			94.1	102			83	89.8			72.5	77			60	63		
	B2	122	136	164		113	126	144		103	113			93	102			82.5	89.4			71.8	77.2			60.2	63.5		
	BW	122	136	164		114	126	145		103	113			93.5	102			82.4	89.7			71.9	77.4			60.2	63.5		
180	–	55.3	47.2	16.5		53.9	45.9	15.3		49.7	41.6			46.6	38.5			42.2	34			38.7	30.6			34.7	26.4		
	B	114	129	157		109	120	140		99.6	109			91.1	98.6			80.1	87.8			70.3	75.4			58.3	61.6		
	B2	115	131	161		108	121	143		98.9	110			90.1	98.8			79.6	87.3			69.8	75.5			58.5	62.1		
	BW	115	131	161		109	121	143		99.2	109			90.4	98.9			79.5	87.5			69.6	75.6			58.6	62.1		
190	–	50.5	42.8	13.4		49.1	41.5	12.2		45	37.3			41.9	34.2			37.6	29.8			34.2	26.5			30.2	22.3		
	B	108	124	153		103	116	138		95.5	105	122		88	95.5	106		77.3	85.3			68.2	73.7			56.5	60.2		
	B2	109	126	158		103	117	142		95.1	106	124		87.2	95.8	108		76.5	85.2			67.7	73.7			56.9	60.6		
	BW	109	127	158		104	117	142		95.3	106	124		87.5	96	108		76.7	85.3			67.5	73.8			57	60.7		
200	–	46.2	38.7	10.5		44.7	37.4	9.3		40.7	33.3			37.7	30.3			33.4	26			30.1	22.6			26.1	18.6		
	B	102	118	149		97.6	111	135		91.3	102	120		84.8	92.8	105		74.5	82.5	88.7		66.1	71.9	73		54.9	58.7		
	B2	103	121	154		98.1	112	139		91.1	102	123		84.2	93	107		73.6	82.9	90.1		65.5	71.8	74.2		55.3	59.1		
	BW	103	122	155		98.5	113	139		91.4	102	123		84.4	93.2	107		73.9	82.9	90.2		65.5	71.9	74.3		55.4	59.3		
210	–		35			40.7	33.7			36.7	29.6			33.8	26.7			29.6	22.4			26.3	19.1			22.4	15.1		
	B		112	145		92.5	107	132		86.8	97.9	118		81.1	90	104		71.9	79.9	88.8		64.1	69.8	73.4		53.3	57.1	58.3	
	B2		115	150		93.1	108	137		87	98.4	121		80.9	90.3	106		70.9	80.3	90.3		63.2	69.9	74.6		53.8	57.6	59	
	BW		116	151		93.5	109	137		87.4	99	121		81.1	90.5	107		71.3	80.3	90.4		63.4	70.1	74.7		53.8	57.8	59	
220	–		31.9			37.2	30.4			33.2	26.3			30.3	23.4			26.1	19.2			22.9	16			19	12.1		
	B		107	142		87.6	102	129		82.2	94.3	116		76.7	87	103		69	77	88.3		62.2	67.9	73.4		51.7	55.7	58.2	
	B2		109	146		88.4	104	134		82.7	95.4	119		76.8	87.3	105		68.2	77.3	90.2		61.2	68	74.8		52	56.1	59	
	BW		110	147		88.9	104	134		83.1	95.9	119		77	87.5	105		68.5	77.4	90.3		61.4	68.1	74.9		52.1	56.3	59	

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 276



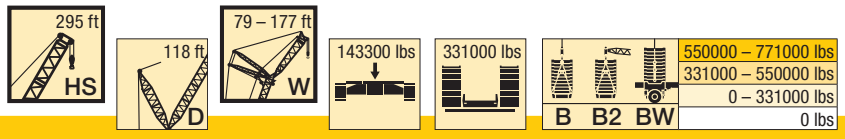
ft		HS 276																											
		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
230	–					34	27.3			29.9	23.3			27.1	20.5			22.9	16.3			19.8	13.1			15.9	9.2		
	B			137		82.7	97.1	127		77.1	90.2	113		72.2	83.6	101		65.8	74.2	87.8		60	66	73.2		50.1	54.1	58	
	B2			142		84.1	98.9	131		78	92.1	117		72.6	84.3	104		65.5	74.4	89.7		59.1	66.1	74.9		50.3	54.6	58.9	
	BW			142		84.4	99.5	131		78.5	92.6	117		73	84.6	104		65.8	74.6	89.8		59.3	66.1	74.9		50.5	54.7	59	
240	–									27	20.5			24.1	17.7			20	13.5			16.8	10.4			13			
	B			130	130			123		71.9	86.3	110		67.9	80	99.4		62.6	71.3	86.8		57.6	64	73.1		48.4	52.5	57.7	
	B2			137	136			127		73.3	88.5	114		68.6	81.4	102		62.8	71.8	88.9		56.9	64.1	74.8		48.8	53.2	58.6	
	BW			137	136			128		73.7	89	115		69	81.8	102		63	72.1	89.1		57.2	64.1	74.8		49	53.3	58.7	
250	–										17.9			21.4	15.1			17.3	11			14.1				10.3			
	B			126	130			119	114		81.7	108		63.9	76.5	97.5		59.3	68.6	85.7		54.8	62	72.8		46.4	51.1	57.2	
	B2			133	137			123	118		84.3	112		64.6	78.2	100		60	69.7	87.9		54.6	62.1	74.7		47.2	51.8	58.3	
	BW			133	137			124	119		84.9	112		65	78.7	101		60.2	70	88		54.9	62.3	74.7		47.4	51.8	58.3	
260	–										15.6			18.9	12.8			14.8	8.7			11.6				7.9			
	B			124	128			115	114		77.6	105	89.8	59.9	72.8	95.3		55.9	66.2	84.3		52	59.9	72		44.1	49.7	56.8	
	B2			130	136			119	119		79.7	109	99.6	60.7	74.5	98.4		56.5	67.6	86.7		52.3	60.6	74		45.5	50.3	57.9	
	BW			132	136			119	119		79.9	109	94.4	61.1	74.8	98.7		56.7	68	86.7		52.6	60.9	74		45.7	50.4	57.9	
270	–														10.7			12.4				9.4							
	B				127			109	113			102	97.6	56.5	69	93.4		52.5	63.4	82.2		48.7	57.8	71		42	48.5	56.1	
	B2				134			117	119			106	102	57	70.7	96.4		53	64.8	85.3		49.3	59.1	73.2		43.8	49.1	57.3	
	BW				134			115	120			106	102	57.5	71	96.7		53.2	65.1	85.4		49.7	59.4	73.3		44	49.2	57.3	
280	–																	10.3											
	B				124				112			98.4	97.7			91.3	84.8	49.1	60.4	80.1		44.9	55.8	69.8		39.7	47.3	55.4	
	B2				132				119			103	103			94.3	88	49.5	61.6	83.8		45.8	57.1	72.2		41.9	47.9	56.6	
	BW				131				119			103	103			94.6	88.1	49.6	62.1	84		46.2	57.4	72.4		42	48	56.7	
290	–																												
	B				120				111			95.4	97.3			88.9	85		57.3	78.2	69.1	40.9	53.2	68.4	56.7	37.2	46	54.8	
	B2				130				118			101	103			92.1	89		58.4	82.1	72	42	54.5	71	58.5	39.4	46.6	56	
	BW				126				118			101	103			92.3	89.2		59	82.4	72.1	42.4	54.9	71.2	58.5	39.5	46.8	56	
300	–																												
	B				115				109			94.6	96.5			85.2	85.3		53.3	76.5	70	37.5	50.1	67.2	57.8	34.3	43.9	54	37.3
	B2				127				116			99.7	102			90.3	89.4		54.9	79.8	73.1	38.4	51.5	69.8	59.9	36	44.8	55.3	42.6
	BW				120				116			100	102			90.1	89.6		55.5	80.2	73.3	38.9	51.9	70	59.8	36.1	45	55.4	44.3
310	–																												
	B								107				95.6			82.1	84.9			74.3	70	34.7	46.9	66	58.8	31.5	41.5	53.3	44.8
	B2								114				101			88.7	89.5			77.7	73.9	35.3	48.3	68.6	60.9	32.7	42.4	54.6	46.1
	BW								112				101			87.8	89.5			78	73.9	35.6	48.8	68.7	61	32.8	42.7	54.7	46.1
320	–																												
	B								103				94.6				84.4			71.4	70.1			64.7	59.5	29	38.8	52.6	45.8
	B2								111				100				89.2			75.9	74.4			67.4	61.8	29.6	39.9	54	47.3
	BW								107				99.9				89.2			76.2	74.4			67.5	62	29.7	40.2	54.1	47.3
330	–																												
	B												92.9				83.8			69.8	70			63.2	59.6		36	51.9	46.7
	B2												98.8				88.6			74.6	74.5			66.2	62.5		37.2	53.4	48.3
	BW												97.2				88.8			74.9	74.6			66.2	62.6		37.5	53.4	48.2
340	–																												
	B												89.8				83.1			69.3	69.7			60.8	59.7		32.9	51.3	47.5
	B2												96.4				87.9			74.3	74.4			64.9	62.8		34.2	52.7	49.1
	BW												93.7				88			74.6	74.6			64.7	62.9		34.5	52.8	49.1
350	–																												
	B																81.2				69.2			58.5	59.6			50.6	48.1
	B2																86.6				74.1			64	62.9			52.6	49.8
	BW																86.3				74.3			63	63			52.5	49.8
360	–																												
	B																78.1				68.6				59.5			50.1	48.6
	B2																85.1				73.7				62.9			52.5	50.4
	BW																83.1				73.7				63.1			52.4	50.5
370	–																												
	B																				67.7				59.2			49.8	49
	B2																				72.8				62.9			52.4	50.9
	BW																				72.4				63.1			52.2	51
380	–																												
	B																				65.8				58.8			49.7	49.2
	B2																				70.8				62.8			52	51.3
	BW																				69.5				63			51.2	51.4
390	–																												
	B																								57.8				49.2
	B2																								61.8				51.9
	BW																								62				52
400	–																												
	B																								56.6				49
	B2																								61.2				52.2
	BW																								60.3				52.4
410	–																												
	B																												48.5
	B2																												52
	BW																												52.2

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 295



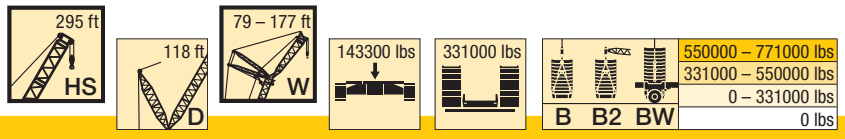
ft		HS 295																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
55	–	268																							
	B	337																							
	B2	339																							
	BW	339																							
60	–	247				239				230															
	B	326				296				265															
	B2	330				297				265															
	BW	330				297				266															
65	–	229	207			222				213				206											
	B	317	341			287				259				233											
	B2	320	345			290				260				234											
	BW	320	347			290				260				234											
70	–	213	195			207				198				194											
	B	307	333			279				252				229											
	B2	309	338			282				254				229											
	BW	310	339			282				254				230											
75	–	199	182			193	175			185				182				174				160			
	B	297	324			272	294			245				224				201				180			
	B2	298	329			274	297			247				225				201				180			
	BW	300	330			274	297			248				225				201				180			
80	–	187	170			181	164			174	157			170	153			163				157			
	B	288	315			264	287			239	259			220	234			197				177			
	B2	289	320			266	290			241	260			220	234			197				177			
	BW	290	320			266	290			241	260			220	234			197				177			
85	–	176	160			170	154			163	147			160	144			153	136			148			
	B	278	305			256	279			233	254			215	230			193	205			174			
	B2	279	310			257	283			235	254			215	230			193	205			174			
	BW	281	310			258	283			235	255			215	230			193	205			174			
90	–	166	150			160	145			154	138			151	136			144	128			139			
	B	267	296			248	272			227	248			209	226			189	202			171			
	B2	270	301			249	276			228	249			210	226			189	202			171			
	BW	271	301			251	276			229	249			210	226			189	202			171			
95	–	157	142			151	137			145	130			142	128			135	121			131	117		
	B	259	286			241	265			221	241			203	222			185	199			168	179		
	B2	262	292			242	268			222	243			205	221			184	198			167	179		
	BW	263	292			243	269			223	244			205	222			185	199			167	178		
100	–		134			143	129			137	123			135	121			128	114			124	110		
	B		277			232	257			215	235			199	218			180	196			165	176		
	B2		283			234	261			216	238			200	217			180	195			164	176		
	BW		283			235	261			217	238			200	218			181	195			164	176		
105	–		127			136	122			130	116			127	114			121	107			117	104		
	B		269			224	250			209	229			194	212			176	193			162	174		
	B2		273			227	254			210	232			194	212			176	191			161	173		
	BW		275			228	254			211	232			195	213			177	192			161	173		
110	–		120			129	116			123	110			121	108			115	102			111	97.9		
	B		263			217	241			203	224			189	207			172	189			158	171		
	B2		268			220	247			204	227			189	208			172	187			157	170		
	BW		269			221	247			205	227			190	208			173	188			157	170		
115	–					123	110			117	104			115	102			109	96.3			105	92.6		
	B					211	235			196	218			184	202			168	185			154	168		
	B2					213	239			198	221			185	204			168	184			154	167		
	BW					214	240			199	221			186	204			169	184			154	167		
120	–			63.5			104			111	99.1			109	97.3			103	91.2			99.8	87.7		
	B			322			228			190	212			180	198			164	180			151	166		
	B2			339			232			192	215			180	199			164	180			151	164		
	BW			340			233			193	216			181	199			165	180			151	164		
125	–			59.8			99.4	55.6		106	94.1			104	92.5			98.2	86.5			94.8	83.1		
	B			314			223	286		184	205			175	193			160	176			148	163		
	B2			333			227	300		185	210			176	195			161	176			147	161		
	BW			333			228	300		187	210			177	195			161	177			147	161		
130	–			56.4			94.8	52.3		101	89.6	46		99.4	88			93.5	82.2			90.2	78.8		
	B			306			218	281		178	200	254		169	188			156	172			145	158		
	B2			325			222	296		180	204	262		171	191			157	173			144	158		
	BW			326			223	297		181	205	262		172	191			157	173			144	158		
135	–			53.2				49.3			85.5	43.9		95.1	84			89.3	78.2			86	75		
	B			298				275			195	251		164	183			152	168			141	155		
	B2			318				291			199	260		166	187			153	169			141	155		
	BW			319				292			199	260		167	187			154	169			141	155		
140	–			50.1				46.4			81.6	41.1		90.9	80.1	37.3		85.2	74.4			82	71.3		
	B			291				270			191	247		159	178	223		148	165			138	152		
	B2			311				286			194	257		161	182	229		149	166			138	152		
	BW			312				286			194	258		162	182	229		150	166			138	152		
150	–							41.1				36.1		83.3	73	34.7		77.6	67.5			74.6	64.5		
	B							258				237		150	170	219		140	157			131	146		
	B2							274				251		152	173	226		141	159			132	146		
	BW							275				251		153	174	227		142	159			132	146		
160	–							36.3				31.6			66.7	30.4		70.9	61.2	24.7		68	58.4	21.7	
	B							246				229			162	212		132	150	191		125	140	171	
	B2							262				242			165	222		133	152	197		126	141	174	
	BW							264				243			165	222		134	152	197		126	141	174	
170	–							31.8				27.5			61.1	26.5		65	55.7	20.9		62.1	52.9	18	
	B							235				219			155	205		125	142	186		117	133	169	
	B2							252				233			158	216		126	145	193		119	135	173	
	BW							253				233			158	217		127	145	194		119	135	173	

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

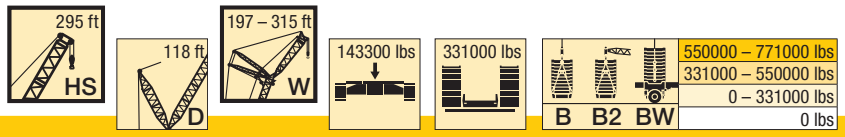
HS 295



ft		HS 295																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
180	–											23.9				23			50.9	17.6		57	48.2	14.8	
	B											209				197			136	181		111	128	165	
	B2											223				209			138	189		112	130	170	
	BW											224				209			139	189		113	130	170	
190	–															19.8				14.6		52.5	43.9	11.9	
	B				228											190				175		106	122	161	
	B2				250											201				184		107	124	167	
	BW				233											202				184		107	125	167	
200	–																			11.8			40	9.2	
	B								210				196			183				168			116	157	
	B2								232				226			194				179			119	163	
	BW								217				212			194				179			119	164	
210	–																								
	B												190				178			161				151	
	B2												215				202			173				159	
	BW												200				198			173				160	
220	–																								
	B												182				173			156	157			145	
	B2												204				199			165	165			155	
	BW												189				187			167	175			155	
230	–																								
	B												173				167				154			140	
	B2												192				192				175			150	
	BW												179				177				170			150	
240	–																								
	B																161				150			136	138
	B2																182				173			144	153
	BW																168				162			146	152
250	–																								
	B																				144				136
	B2																				167				153
	BW																				154				150
260	–																								
	B																				139				132
	B2																				159				152
	BW																				146				143
270	–																								
	B																				134				127
	B2																				151				147
	BW																				139				136
280	–																								
	B																								123
	B2																								141
	BW																								130

TAB 181391 / 181393 / 181397

H



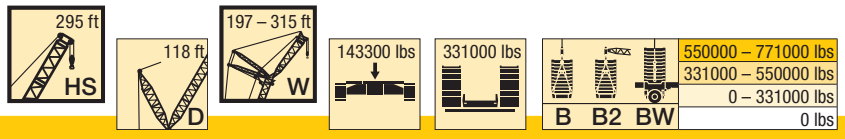
ft		HS 295																											
		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
80	–	153																											
	B	158																											
	B2	158																											
	BW	158																											
85	–	143				138																							
	B	156				139																							
	B2	156				139																							
	BW	156				139																							
90	–	135				130																							
	B	154				137																							
	B2	153				137																							
	BW	153				137																							
95	–	127				122				116				105															
	B	152				135				119				106															
	B2	151				135				119				105															
	BW	151				135				119				105															
100	–	120	106			115				110				103				91.1											
	B	149	158			134				118				104				91.1											
	B2	148	157			132				117				104				90.4											
	BW	148	157			133				117				104				90.5											
105	–	114	99.9			109	95.4			103				99.2				90.1				77.4				65			
	B	147	156			132	139			116	122			103				90.1				77.4				65.1			
	B2	145	155			130	138			115	121			102				89.3				76.7				64.7			
	BW	146	155			131	138			115	121			102				89.5				76.7				64.8			
110	–	108	94.4			103	90			97.8	83			93.6	78.9			87.4				76.6				64.5			
	B	144	154			130	137			115	121			102	105			88.8				76.6				64.6			
	B2	143	153			128	136			113	119			101	105			88.1				75.7				64.1			
	BW	143	153			128	136			114	120			101	105			88.3				75.7				64.1			
115	–	102	89.3			97.6	85			92.4	79.7			88.4	75.7			83.2				75.5				64			
	B	141	152			127	135			113	119			100	105			87.8				75.6				64			
	B2	140	150			126	134			112	118			99.1	104			87				74.7				63.5			
	BW	140	150			126	134			112	118			99.3	104			87.1				74.8				63.4			
120	–	96.7	84.5			92.5	80.3			87.4	75.1			83.5	71.2			78.4	66			73.6				63.2			
	B	138	149			125	133			111	118			99.1	104			86.8	90.2			74.5				63.2			
	B2	137	148			124	132			110	117			97.7	103			85.8	89.5			73.6				62.7			
	BW	137	148			124	133			110	117			97.8	103			85.9	89.5			73.8				62.7			
125	–	91.8	80			87.7	75.9			82.7	70.8			78.9	67			73.9	61.9			69.9	57.8			62.2			
	B	135	147			123	132			110	117			97.8	103			85.8	89.6			73.6	76.5			62.3			
	B2	134	146			121	130			108	115			96.3	102			84.7	88.7			72.7	75.8			61.9			
	BW	134	146			121	131			108	115			96.4	102			84.8	88.7			72.8	75.8			62			
130	–	87.3	75.8			83.2	71.8			78.4	66.9			74.7	63.1			69.7	58.1			65.8	54.1			60.6	48.5		
	B	133	145			120	130			108	115			96.4	102			84.8	88.8			72.6	75.9			61.5	63.3		
	B2	132	143			119	128			106	114			94.8	101			83.6	87.8			71.6	75.1			61.1	63.2		
	BW	132	143			119	129			106	114			95	101			83.6	87.8			71.7	75.1			61.3	63.2		
135	–	83.1	72.1			79.2	68.1			74.4	63.3			70.8	59.6			65.9	54.7			62.1	50.7			57.5	46.1		
	B	130	142			118	128			106	113			95	101			83.5	88.1			71.7	75.3			60.7	62.8		
	B2	129	141			117	127			104	112			93.4	99.7			82.2	86.9			70.5	74.3			60.3	62.8		
	BW	129	141			117	127			104	112			93.6	99.5			82.3	87			70.6	74.4			60.5	62.8		
140	–	79.2	68.4			75.3	64.5			70.6	59.8			67.1	56.2			62.3	51.3			58.5	47.5			54	42.9		
	B	127	140			115	126			104	112			93.7	99.5			82.2	87.3			70.7	74.7			60	62.3		
	B2	126	138			114	125			103	110			91.9	98.5			80.7	86			69.5	73.6			59.6	62.2		
	BW	127	138			115	125			103	110			92.2	98.4			80.8	86.1			69.6	73.6			59.6	62.3		
150	–	71.9	61.7			68.1	58			63.6	53.3			60.2	49.9			55.5	45.2			51.8	41.4			47.5	37		
	B	122	134			111	123			100	109			90.6	97			79.5	85.2			68.7	73.4			58.5	61.1		
	B2	121	133			110	121			98.9	107			88.9	95.9			77.7	84			67.4	71.9			58	61		
	BW	122	133			110	121			99	107			89.3	95.9			77.9	84.1			67.4	72			58	61.1		
160	–	65.3	55.7			61.7	52			57.3	47.5			54	44.2			49.4	39.6			45.8	36			41.6	31.6		
	B	117	129			107	118			96.4	106			87.5	94.7			76.6	82.7			66.8	71.8			57	59.8		
	B2	116	128			106	116			95.3	104			85.8	93.3			74.7	81.7			65.3	70.2			56.3	59.8		
	BW	116	129			106	117			95.5	104			86.1	93.4			74.9	81.8			65.3	70.3			56.4	59.8		
170	–	59.5	50.3	14.9		56	46.8	11.3		51.6	42.4			48.4	39.2			44	34.6			40.5	31.1			36.3	26.8		
	B	111	124	149		103	114	131		93	103			84.6	92.4			73.5	80.2			64.8	69.7			55.4	58.3		
	B2	111	124	151		102	112	131		91.8	101			82.4	90.7			72	78.6			63.2	68.4			54.6	58.5		
	BW	111	124	151		102	113	131		92.1	101			82.7	90.8			72.1	78.9			63.2	68.4			54.8	58.5		
180	–	54.4	45.6	12		50.9	42.1	8.4		46.7	37.8			43.6	34.7			39.2	30.2			35.7	26.8			31.6	22.6		
	B	105	119	148		98.3	109	130		89.8	99			81.5	89.9			70.9	77.8			62.8	68			53.9	56.9		
	B2	106	119	150		97.7	108	131		88.6	97.4			79.1	88.2			69.5	76.1			61.3	66.4			52.9	57.1		
	BW	106	120	151		97.8	109	131		89	97.5			79.4	88.3			69.4	76.3			61.3	66.4			53.1	57.1		
190	–	49.7	41.2	9.1		46.3	37.9			42.1	33.7			39.1	30.6			34.8	26.2			31.4	22.8			27.4	18.7		
	B	99.7	114	145		93.7	105	129		86.3	95.7	112		78.3	87.1			68.5	75.7			60.8	66.3			52.1	55.5		
	B2	100	115	149		93.6	105	131		85.3	94.5	113		76.2	85.6			66.9	73.7			59.3	64.6			51.3	55.7		
	BW	101	115	149		93.8	105	131		85.8	94.5	113		76.4	85.6			66.9	73.8			59.5	64.6			51.5	55.7		
200	–	45.4	37.3			42	34			37.9	29.8			35	26.8			30.7	22.5			27.4	19.2			23.4	15.1		
	B	94.5	109	142		89	101	128		82.3	92.3	111		75.1	84.1	96.8		66.1	73.4	80.3		58.8	64.6			50.5	54.2		
	B2	95.4	110	147		89.4	101	130		81.7	91.6	112		73.4	82.8	97.2		64.5	71.4	82.6		57.4	62.8			49.8	54.1		
	BW	96.1	111	147		89.8	101	130		82.3	91.6	112		73.6	82.7	97.2		64.6	71.5	82.6		57.6	62.9			49.8	54.3		
210	–		33.7			38.1	30.4			34.1	26.3			31.2	23.4			27	19.1			23.7	15.8			19.8	11.8		
	B		104	139		84.1	96.6	126		77.7	89	110		71.8	80.9	96.3		63.8	71.1	82.1		56.9	62.9	66.8		49	52.8	54.1	
	B2		106	144		84.9	97.8	128		77.8	88.7	112		70.6	79.8	97.2		62.3	69.2	82.9		55.4	61.1	68.2		48.2	52.7	55	
	BW		106	145		85.5	98.2	128		78.3	88.8	112		70.8	79.7	97.2		62.4	69.2	82.9		55.5	61.3	68.2		48.1	52.8	55	
220	–		30.5			34.7	27.2			30.7	23.2			27.8	20.3			23.6	16.1			20.4	12.8			16.5	8.9		
	B		99.4	135		79.1	92.7	123		73.2	85.6	109		68.3	77.4	95.6		61.4	68.8	82.2		55.1	61.1	67.4		47.3	51.4	54.1	
	B2		101	141		80	94.1	127		73.8	86.1	111		67.8	76.8	96.6		60.1	67	82.8		53.6	59.4	68.5		46.5	51.3	55	
	BW		101	141		80.5	94.5	127		74.4	86.3	111		68	76.8	96.7		60.2	67.2	82.8		53.8	59.5	68.4		46.5	51.3	55	

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 295



ft		HS 295																											
		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
230	–					31.6	24.3			27.5	20.3			24.7	17.4			20.5	13.2			17.4	10.1			13.5			
	B			131		74.9	88.8	120		69.2	82.1	107		64.9	74.4	94.7		58.8	66.4	81.4		53.2	59.4	67.5		45.8	49.8	53.8	
	B2			138		75.8	90.2	124		69.9	83.2	109		65	74.3	95.9		58	65	82.6		51.8	57.8	68.5		44.9	49.9	54.8	
	BW			138		76.2	90.7	125		70.3	83.4	109		65.2	74.5	96.1		58.2	65.1	82.5		52	57.8	68.5		44.9	49.9	54.9	
240	–									24.6	17.6			21.8	14.8			17.7	10.6			14.6				10.7			
	B			126			85	117		65.4	78.3	104		61.5	71.5	93.4		56.2	64.1	80.2		51.2	57.6	67.2		44.3	48.4	53.5	
	B2			134			86.5	121		66.1	79.7	108		62	72.1	95.1		55.9	63.2	82		50	56.2	68.4		43.3	48.5	54.6	
	BW			134			87.1	122		66.3	80.1	108		62.3	72.3	95.2		56.1	63.3	81.9		50.2	56.1	68.4		43.3	48.5	54.7	
250	–										15.1			19.1	12.3			15				11.9							
	B			122	123			113			74.3	102		58.1	68.5	91.8		53.5	61.8	78.9		48.9	55.8	67		42.7	47.1	53.1	
	B2			130	133			119			75.4	106		58.5	69.8	94.1		53.7	61.6	81.1		48.3	54.6	68		41.6	47.1	54.3	
	BW			130	133			119			76.1	106		59	70.2	94.1		54	61.8	81.1		48.4	54.5	68		41.7	47.2	54.3	
260	–										12.9			16.7	10.1			12.6				9.5							
	B			119	121			109	108		70.4	100		54.8	65.6	90.3		50.5	59.5	77.7		46.6	53.9	66.5		40.4	45.7	52.7	
	B2			127	134			116	114		71.6	104		55.1	66.7	92.8		50.7	60	79.7		46.5	53.2	67.5		39.7	45.7	54	
	BW			127	134			116	112		72.3	104		55.8	67.1	92.9		51.1	60.3	79.7		46.6	53.3	67.6		39.8	45.8	53.9	
270	–														8			10.4											
	B				118			105	107			96.9		51.4	62.7	88.7		47.3	57	76.4		43.8	52	66		38.1	44.5	52.1	
	B2				133			113	116			102		51.8	63.5	91.4		47.5	57.7	78.4		44	51.9	67		37.8	44.7	53.4	
	BW				131			113	116			102		52.3	64	91.7		47.9	58.2	78.5		44.1	52.2	67.1		37.9	44.6	53.4	
280	–																	8.3											
	B				115			103	105			93.8	93.2		59.5	86.8	78.4	43.7	54.5	75.1		40.6	50	65.2		35.7	43.3	51.6	
	B2				133			110	116			99.6	98.8		60.3	90.1	83.8	43.9	55.2	77.2		40.9	50.3	66.4		35.8	43.7	52.9	
	BW				126			110	116			99.8	98.8		60.8	90.4	83.8	44.2	55.7	77.4		41.1	50.7	66.5		35.9	43.7	52.8	
290	–																												
	B				111				103			91.1	92.6			84.4	79.8		51.8	73.7	64.8	37.1	47.7	64.3		33.2	42.1	50.9	
	B2				131				116			97.5	99.6			88.8	85.4		52.5	76.3	67.2	37.3	48.3	65.6		33.5	42.7	52.2	
	BW				120				115			97.6	99.8			88.9	85.4		53	76.4	67.2	37.6	48.8	65.7		33.7	42.8	52.2	
300	–																												
	B				108				100			89.6	91.1			81.8	80.6		48.7	71.7	65.6	33.8	45.2	63.3	51.9	30.6	40.4	50	
	B2				126				116			95.3	99.9			87.4	86.4		49.4	75.3	69.2	34	45.8	64.9	38.5	30.8	41.1	51.5	
	BW				115				111			95.5	100			87.3	86.4		49.7	75.4	69.2	34.3	46.2	65	54.8	30.9	41.3	51.6	
310	–																												
	B				104				97.4				89.2			78.8	79.9			69.9	66.4	30.8	42.1	62.1	54.8	28	37.8	49.4	
	B2				120				113				99.9			85.6	86.9			74.4	70.5	31.1	42.5	64.2	56.9	28	38.4	50.8	
	BW				109				106				98.8			85.5	87			74.3	70.6	31.4	43.1	64.3	56.9	28.1	38.6	50.9	
320	–																												
	B								94.6				87.1			76.7	78.2			68	66.6		38.5	61	55.9	25.3	35	48.6	40.5
	B2								110				99.6			82.5	87.2			73.1	71.4		38.9	63.5	58.4	25.3	35.4	50.1	43.1
	BW								101				96			82.8	87.1			73	71.6		39.5	63.7	58.4	25.8	35.7	50.2	43.1
330	–																												
	B												84.9				75.9			66	66.2			59.7	56.6		32.2	47.9	42.5
	B2												98.8				87.4			71.5	72.1			62.8	59.7		32.5	49.5	44.2
	BW												92.1				86.5			71.3	72.2			62.9	59.8		33	49.5	44.2
340	–																												
	B												82.6				74			64.9	65			58.2	56.9		29.5	47.3	43.4
	B2												97.3				87.3			69.7	72.5			61.9	60.6		29.7	48.8	45.1
	BW												88				84.7			69.8	72.6			61.9	60.8		30.1	48.9	45
350	–																												
	B												78.8				71.9				63.8			56.6	56.8			46.8	44.1
	B2												93.2				87.2				72.7			60.9	61.2			48.4	45.8
	BW												84.1				80.1				72.3			60.9	61.2			48.6	45.8
360	–																												
	B																69.8				62.5			55.7	56.1			46.5	44.6
	B2																84.9				72.8			59.3	61.5			48.2	46.4
	BW																75.8				70.4			59.1	61.6			48.3	46.5
370	–																												
	B																				60.9				55.1			46.5	45.1
	B2																				72.4				61.7			48.1	47
	BW																				67.3				61.6			48.1	47
380	–																												
	B																				59.4				54			46.5	45.5
	B2																				71.3				61.9			48.1	47.5
	BW																				64.1				60.4			47.4	47.5
390	–																												
	B																				57.8				52.9				45.4
	B2																				68.6				62.1				48
	BW																				61.5				58.3				48
400	–																												
	B																								51.7				44.8
	B2																								61.5				48.4
	BW																								55.8				48.5
410	–																												
	B																												44
	B2																												49.2
	BW																												48.5
420	–																												
	B																												43.1
	B2																												50.4
	BW																												47.3
430	–																												
	B																												40.5
	B2																												50.8
	BW																												45.3

TAB 181391 / 181393 / 181397

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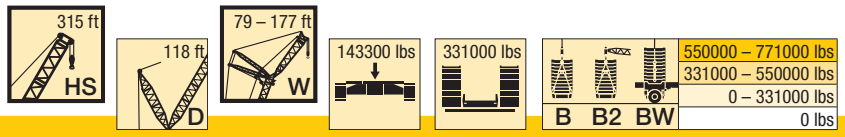

ft		HS 315																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
55	–	258																							
	B	298																							
	B2	299																							
	BW	300																							
60	–	239				229																			
	B	290				261				231															
	B2	291				262																			
	BW	292				262																			
65	–	222	199			212				204				198											
	B	281	301			255				229				206											
	B2	284	303			255				230				207											
	BW	284	303			256				230				208											
70	–	207	187			198				192				186											
	B	273	294			247				225				203											
	B2	276	296			249				225				204											
	BW	276	297			249				226				204											
75	–	194	175			185	167			180				174				166							
	B	265	287			240	258			220				199				178							
	B2	268	288			242	260			220				200				178							
	BW	268	289			243	260			221				200				179							
80	–	181	164			174	156			169	151			163				156				153			
	B	258	280			233	252			214	228			195				175				158			
	B2	260	280			236	253			215	230			195				175				158			
	BW	260	281			236	254			215	230			196				175				158			
85	–	171	154			163	146			159	142			153	136			146				144			
	B	250	273			227	247			208	224			191	202			171	180			156			
	B2	252	272			229	246			209	224			191	203			172	180			155			
	BW	252	273			229	247			209	224			191	203			172	181			155			
90	–	161	145			154	138			150	133			145	128			138	119			136			
	B	243	264			221	241			202	219			185	199			168	177			153			
	B2	244	264			222	240			204	219			186	199			168	178			152			
	BW	245	265			223	240			204	219			187	199			168	178			152			
95	–	152	137			145	130			141	126			137	121			130	114			128	113		
	B	235	256			214	234			197	214			180	195			164	174			150	158		
	B2	237	257			216	233			198	213			182	194			164	175			149	157		
	BW	238	257			216	234			199	214			182	195			165	175			149	157		
100	–		129			138	123			134	119			129	114			123	108			121	106		
	B		249			208	227			191	210			176	191			160	172			147	156		
	B2		251			209	227			193	208			177	190			160	171			146	155		
	BW		251			210	227			193	208			178	191			161	171			146	155		
105	–		122			130	116			127	112			122	108			116	101			115	100		
	B		243			203	222			186	205			171	187			156	169			144	154		
	B2		246			204	221			188	203			173	186			156	167			143	152		
	BW		246			205	221			188	203			173	186			157	168			143	152		
110	–		116			124	110			120	106			116	102			110	95.9			109	94.7		
	B		237			197	216			181	199			167	183			152	165			141	151		
	B2		240			198	215			182	197			168	181			153	164			140	149		
	BW		240			199	215			183	198			168	182			153	164			140	149		
115	–					118	104			114	101			110	96.9			104	90.8			103	89.7		
	B					192	210			176	194			163	179			148	162			138	149		
	B2					192	210			177	192			164	177			149	160			137	146		
	BW					193	210			178	193			164	177			149	161			137	146		
120	–			56.8			99			109	95.8			105	92			99	86			98	85		
	B			286			205			172	189			158	175			144	158			135	146		
	B2			290			206			173	187			160	172			145	157			134	143		
	BW			290			206			173	188			160	173			146	157			134	143		
125	–			53.4			94.1			104	91			99.9	87.4			94	81.4			93.1	80.6		
	B			283			200			168	185			155	171			141	155			132	143		
	B2			285			201			168	182			156	168			142	153			131	140		
	BW			286			201			169	183			156	169			142	154			131	140		
130	–			50.2			89.7	43.5		98.9	86.7			95.3	83.1			89.5	77.3			88.7	76.5		
	B			277			196	249		163	180			151	166			138	151			128	140		
	B2			279			197	250		164	179			152	164			139	150			128	137		
	BW			280			197	251		165	179			152	165			139	150			128	138		
135	–			47.3				41.5			82.7			91.1	79.3			85.4	73.5			84.6	72.8		
	B			271				246			176			147	163			134	148			126	137		
	B2			274				247			176			148	161			135	146			125	134		
	BW			275				247			176			148	161			135	147			125	135		
140	–			44.5				38.9			78.8	33.5		87.1	75.6	30		81.4	69.9			80.7	69.2		
	B			264				243			172	216		143	159	194		131	145			123	135		
	B2			268				243			172	217		144	157	195		132	143			122	132		
	BW			270				243			172	217		145	158	195		132	143			122	132		
150	–			39				34				31.1		79.7	68.7	27.7		74.1	63.2			73.5	62.7		
	B			252				233				213		136	152	192		125	139			117	129		
	B2			260				234				213		137	151	192		126	137			116	126		
	BW			261				234				213		138	151	192		126	137			116	126		
160	–							29.6				26.9			62.6	23.7		67.6	57.2	18		67.1	56.8		
	B							223				206			145	188		119	133	167		112	125		
	B2							225				206			145	187		120	131	167		110	120		
	BW							226				206			145	187		120	131	167		111	121		
170	–							25.5				23.2			57.3	20.1		61.9	51.9	14.6		61.3	51.5	14.1	
	B							213				199			139	182		113	127	164		107	120	148	
	B2							220				198			140	181		113	127	163		106	115	146	
	BW							220				198			140	182		114	126	163		106	115	147	

TAB 181391 / 181393 / 181397

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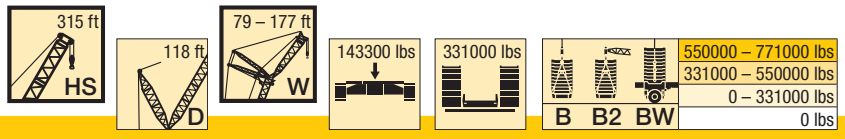
HSDWB/B2/BW

HS 315



ft		HS 315																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
180	–											19.8				17			47.3	11.6		56.3	46.8	11.2	
	B											191				177			122	159		102	114	146	
	B2											193				175			121	158		100	111	144	
	BW											194				176			121	159		101	111	144	
190	–															14.1				8.8		51.7	42.6	8.5	
	B				216							184				171				155		96.8	110	142	
	B2				242							188				169				153		95.7	107	140	
	BW				227							188				170				154		96.4	107	140	
200	–																						38.7		
	B				206				193							165				151			105	138	
	B2				227				222							164				149			103	136	
	BW				214				209							165				149			103	136	
210	–																								
	B								186				173							146				135	
	B2								208				207							144				132	
	BW								197				193							145				132	
220	–																								
	B								178				167				154			141				131	
	B2								196				195				183			141				128	
	BW								186				183				176			142				129	
230	–																								
	B												161				151			137				128	
	B2												184				179			138				126	
	BW												173				170			138				126	
240	–																								
	B												155				147				134			125	
	B2												173				171				158			123	
	BW												164				161				154			123	
250	–																								
	B																141				131				122
	B2																161				156				139
	BW																152				147				139
260	–																								
	B																136				127				119
	B2																153				148				139
	BW																145				139				136
270	–																								
	B																				122				116
	B2																				140				136
	BW																				132				130
280	–																								
	B																				118				112
	B2																				133				131
	BW																				126				124
290	–																								
	B																								109
	B2																								123
	BW																								117
300	–																								
	B																								105
	B2																								117
	BW																								111

TAB 181391 / 181393 / 181397

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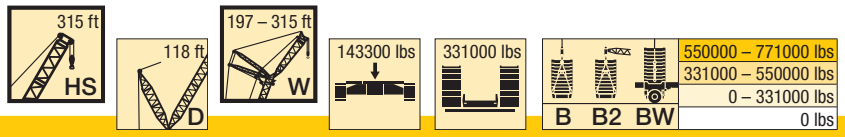

ft		HS 315																											
		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
80	–	140																											
	B	141																											
	B2	141																											
	BW	141																											
85	–	137				124																							
	B	139				124																							
	B2	139				124																							
	BW	139				124																							
90	–	129				121																							
	B	136				122																							
	B2	137				122																							
	BW	137				123																							
95	–	122				116				105				92.6															
	B	134				120				106				93															
	B2	134				120				106				93.7															
	BW	135				121				106																			
100	–	115	99.9			110				103				92.1				79.3											
	B	132	139			118				104				92.5				79.3											
	B2	132	139			118				104				92.6				79.3											
	BW	132	139			118				104				92.6				79.3											
105	–	109	94.1			104	89.6			98.7				90.8				78.5				67.5							
	B	129	138			116	123			102				90.9				78.5				67.5							
	B2	130	137			116	121			102				91.2				78.5				67.5							
	BW	130	137			116	122			103				91.4				78.3				67.5							
110	–	103	88.8			98.5	84.4			93.2	77.5			88.2				77.1				66.6				56.8			
	B	127	135			114	121			100	105			89.6	92.6			77.1				66.6				56.8			
	B2	127	134			114	119			101	105			89.9				77.2				66.6				56.8			
	BW	127	134			114	120			101	105			90.1				77.2				66.6				56.8			
115	–	97.5	83.9			93.2	79.7			88	74.4			84	67.6			75.7				65.8				56.3			
	B	124	133			111	119			98.7	105			88.3	92.1			75.8				65.8				56.3			
	B2	125	132			112	118			99	104			88.6				76				65.8				56.3			
	BW	125	132			112	118			99.1	104			88.8				76.1				65.7				56.3			
120	–	92.4	79.3			88.2	75.2			83.2	70			79.3	66.1			73.7	60.9			64.6				55.6			
	B	122	131			109	117			97.2	103			87	91.6			74.5	78			64.7				55.6			
	B2	122	130			110	116			97.3	102			87.3	90.7			74.8	77.3			64.8				55.6			
	BW	122	130			110	116			97.4	102			87.4	90.9			74.8	77.4			64.8				55.6			
125	–	87.7	75.1			83.6	70.9			78.7	65.9			74.9	62.1			69.9	57			63.8	53			54.8			
	B	119	129			107	115			95.6	102			85.8	90.7			73.3	77.4			63.8	66.3			54.9			
	B2	119	127			107	114			95.6	101			86	89.6			73.6	76.4			63.7	65.6			54.9			
	BW	119	128			108	114			95.8	101			86	89.8			73.5	76.5			63.9	65.7			54.9			
130	–	83.3	71.1			79.3	67.1			74.5	62.1			70.8	58.4			65.9	53.4			61.5	49.4			54.1	43.8		
	B	117	127			105	114			94	101			84.4	89.8			72.2	76.6			62.8	65.7			54.1	55.8		
	B2	117	125			105	112			94	99.4			84.5	88.5			72.3	75.4			62.8	64.9			54.1	55.3		
	BW	117	125			106	112			94.2	99.5			84.5	88.7			72.2	75.5			63	64.9			54.2	55.3		
135	–	79.4	67.5			75.4	63.5			70.7	58.7			67.1	55			62.2	50.1			58.4	46.2			52	41.5		
	B	114	124			103	112			92.4	99			82.8	88.6			71.1	75.6			62	65.1			53.3	55.4		
	B2	114	122			103	110			92.4	97.8			82.8	87.3			71	74.4			61.9	64.2			53.3	54.8		
	BW	114	123			104	110			92.6	97.9			82.8	87.5			71	74.5			62	64.3			53.4	54.8		
140	–	75.5	64			71.7	60.1			67	55.3			63.5	51.7			58.7	46.9			54.9	43.1			49.6	38.5		
	B	111	122			101	110			90.8	97.4			81.2	87.6			70	74.7			61.1	64.5			52.4	54.9		
	B2	111	120			101	108			90.8	96.3			81.1	86.1			69.8	73.3			61	63.6			52.5	54.2		
	BW	112	120			101	108			91	96.3			81.1	86.3			69.8	73.4			61	63.6			52.5	54.2		
150	–	68.5	57.6			64.8	53.8			60.2	49.2			56.8	45.7			52.2	41			48.5	37.3			44.1	32.8		
	B	106	117			97	106			87.7	94.5			78.1	84.8			67.7	72.9			59.4	63.3			51	53.8		
	B2	107	115			97.2	104			87.6	93.2			77.8	83.4			67.3	71.2			59.1	62			50.9	52.9		
	BW	107	116			97.3	104			87.8	93.1			77.8	83.4			67.4	71.3			59.1	62			50.9	53		
160	–	62.2	51.8			58.6	48.2			54.1	43.7			50.8	40.3			46.3	35.7			42.7	32.1			38.4	27.7		
	B	102	113			93	102			84.4	91.6			75.1	81.8			65.4	70.8			57.6	61.9			49.5	52.8		
	B2	102	110			93.3	100			84.3	90.1			74.6	80.2			64.8	69			57.2	60.4			49.2	51.6		
	BW	102	111			93.2	100			84.4	90.1			74.7	80.3			65	69.2			57.2	60.3			49.3	51.7		
170	–	56.5	46.7			53	43.1			48.7	38.7			45.5	35.5			41	31			37.5	27.4			33.3	23.1		
	B	97.4	108	130		89.6	98.3			80.7	88.7			72.2	78.8			63.2	68.3			55.9	60.4			48	51.7		
	B2	97.7	106	130		89.6	96.2			80.9	87.1			71.7	76.9			62.5	66.8			55.3	58.7			47.6	50.3		
	BW	97.8	106	130		89.6	96.4			80.9	87.2			71.7	77.1			62.8	66.9			55.4	58.7			47.6	50.3		
180	–	51.5	42.1			48.1	38.7			43.9	34.3			40.8	31.2			36.4	26.8			32.9	23.3			28.8	19.1		
	B	93.2	104	129		85.8	95			77.1	85.7			69	76			61	66.2			54.1	58.4			46.5	50.4		
	B2	93.8	101	128		85.7	92.7			77	84			68.8	74.1			60.3	64.5			53.4	57			45.8	48.9		
	BW	94.1	102	129		85.9	92.9			77	84.1			68.8	74.2			60.5	64.7			53.5	56.9			45.8	48.9		
190	–	47	37.9			43.6	34.6			39.5	30.4			36.4	27.3			32.1	22.9			28.7	19.5			24.7	15.4		
	B	89.2	100	127		81.8	91.7	112		73.3	82.5	97.1		66.4	73.4			58.6	64.2			52.3	56.7			45	48.9		
	B2	89.6	97.9	126		82	89.2	111		73.1	80.4	96.7		66.1	71.4			58.1	62.4			51.5	55.2			43.7	47.4		
	BW	90.3	97.9	126		82.3	89.3	112		73.2	80.6	96.8		66	71.5			58.3	62.5			51.7	55.1			43.7	47.4		
200	–	42.8	34.1			39.5	30.8			35.4	26.7			32.4	23.7			28.2	19.3			24.9	16			20.9	11.9		
	B	84.6	96.4	124		77.8	88.5	111		70.1	79.1	96.3		63.7	70.8	84.8		56.4	62.2			50.3	55			43.2	47.3		
	B2	85	94.8	123		78.4	85.9	110		69.7	76.7	96.1		63.3	68.7	84.1		56	60.4			49.7	53.4			41.4	45.9		
	BW	86.1	94.7	124		78.8	85.9	110		69.9	76.8	96.1		63.3	68.8	84.1		56.1	60.3			49.8	53.4			41.4	45.7		
210	–		30.6			35.7	27.4			31.7	23.3			28.8	20.4			24.5	16.1			21.3	12.8			17.4			
	B		92.7	121		74.2	85.4	108		67.1	75.8	95.3		61	68.3	84.2		54.3	60.3	69.1		48.2	53.4	57.5		41.6	45.9		
	B2		91.7	120		74.6	82.7	107		67.2	73.1	94.7		60.7	66.1	83.6		53.8	58.4	69.1		47.9	51.7	58.5		39.2	44.3		
	BW		91.5	120		75.1	82.8	108		67.6	73.1	95		60.7	66.1	83.8		54	58.3	69.1		48	51.6	58.4		39.1	43.6		
220	–		27.5			32.4	24.3			28.4	20.3			25.5	17.4			21.3	13.2			18.1	9.9			14.2			
	B		88.9	118		70.2	81.8	106		64.3	73	94		58.6	65.8	83.1		52	58.4	69.2		46.5	51.8	58.6		39.7	44.5	47.1	
	B2		88.5	116		70.6	79.6	105		64.6	70.8	93		58.8	63.6	82.3		51.7	56.3	68.6		46.1	49.9	58.5		37.6	42.8	38.2	
	BW		88.4	117		71	79.6	105		65.1	70.8	93.4		58.9	63.5	82.5		51.8	56.3	68.7		46.1	49.9	58.4		37.5	41.3	48.1	

TAB 181391 / 181393 / 181397

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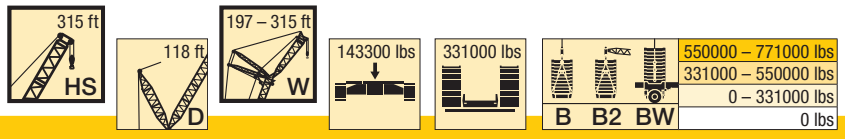


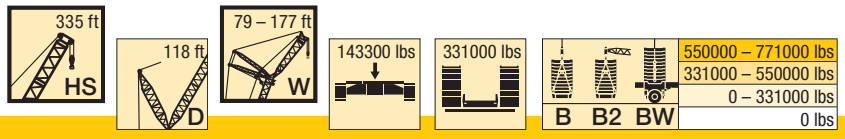
ft		HS 315																											
		W 197				W 217				W 236				W 256				W 276				W 295				W 315			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
230	–					29.3	21.5			25.3	17.5			22.5	14.6			18.3	10.4			15.2				11.3			
	B			115		66.5	78	103		61.3	70.2	92.4		56.5	63.6	81.4		50.1	56.4	68.7		44.4	50.2	58.8		37.7	42.9	47.7	
	B2			113		66.9	76.6	102		61.6	68.6	91.1		56.9	61.6	80.3		49.9	54.3	67.9		44.3	48.2	58.3		36	41.1	48.3	
	BW			113		67.3	76.6	102		62.1	68.5	91.4		57	61.4	80.7		50.1	54.3	67.9		44.2	48.2	58.2		36	39.4	48.4	
240	–									22.5	14.9			19.7	12.1			15.6				12.4							
	B			112			74.3	101		58.2	67.3	90.6		54.3	61.6	79.8		48.2	54.6	67.9		42.5	48.5	58.5		35.6	41.1	48	
	B2			110			73.9	99.2		58.5	66.2	89.1		54.7	59.8	78.3		48.4	52.5	66.9		42.3	46.5	57.8		34.5	39.3	48.2	
	BW			111			73.8	99.7		58.9	66.2	89.3		54.9	59.7	78.6		48.5	52.5	66.9		42.3	46.4	57.7		34.5	37.8	48.2	
250	–										12.5			17.1	9.7			13				9.9							
	B			110	107			98.4			64.5	88.5		51.5	59.5	78.2		46.3	52.8	67.1		40.4	46.8	57.9		33.6	39.2	47.7	
	B2			108	117			96.6			63.7	86.9		51.9	58	76.6		46.8	51	65.9		40.1	44.8	57.2		33.1	37.3	47.8	
	BW			109	117			97			63.8	87.2		52.2	58	76.7		46.9	51	65.9		40.4	44.7	57.2		33.1	36.5	48	
260	–										10.3			14.7	7.6			10.6				7.5							
	B			107	106			96.7	93.9		61.7	86.6		48.7	57	76.1		43.5	51	65.9		38.3	44.6	57.2		32.3	37.3	47	
	B2			106	120			95.3	92		61.5	84.8		49	56.2	74.8		43.9	49.5	64.6		38.2	42.8	56.4		32	35.3	47.3	
	BW			106	120			95.5	99.6		61.4	85		49.4	56.1	74.9		44.2	49.5	64.6		38.5	42.8	56.5		32	35.1	47.5	
270	–																	8.4											
	B			104	104			94.6	93.5			85		45.7	54.8	74.3		40.2	48.8	64.5		36	43.3	56.4		31	35.6	46.5	
	B2			103	121			93.5	102			83.2		45.9	54.3	72.8		40.7	48	63.3		36.2	40.8	55.5		30.9	33.9	46.8	
	BW			103	121			93.6	103			83.2		46.4	54.3	72.9		41	47.9	63.3		36.5	40.9	55.5		30.9	33.9	46.9	
280	–																												
	B				102			92.3	92.5			83.4	79.8		52.3	72.8		37	47	63.1		33.7	41.8	55.4		29.5	34.1	46	
	B2				121			91.3	104			81.7	86.9		52.4	71		37.4	46.4	61.8		33.9	39	54.4		29.6	32.8	46.1	
	BW				119			91.4	104			81.7	87		52.4	71.1		37.8	46.3	62		34.2	39	54.5		29.8	32.8	46.2	
290	–																												
	B				99.2				91.1			81.5	79.1			71.5	68.6		44.8	61.8		31.3	39.9	54.3		27.9	32.9	45.4	
	B2				119				105			79.8	88.8			69.5	72.2		44.7	60.4		31.5	37.2	53.2		28.1	31.7	45.3	
	BW				114				105			79.9	88.9			69.5	72.3		44.5	60.5		31.7	37.2	53.3		28.4	31.8	45.3	
300	–																												
	B				96.6				89.4			78.6	78.1			70.4	68.3		41.3	60.7	49.8	28.8	37.5	53.3		25.4	31.8	44.7	
	B2				115				105			76.7	89.8			68.1	74.3		43.1	59	58.1	29.1	35.9	52.1		25.8	30.6	44.4	
	BW				108				104			76.9	90.1			68.3	74.3		42.9	59.2	53.8	29.3	35.9	52.1		26	30.7	44.4	
310	–																												
	B				93.6				87.2			76.9	76.7			68.7	67.8			59.7	57.7	26.3	35	52.3		23.1	30.2	44	
	B2				110				104			75.2	90.3			66.6	75.7			57.9	60.8	26.5	34.4	51		23.4	29.3	43.4	
	BW				103				99.3			75.3	90.6			66.8	75.7			58	60.9	26.8	34.5	51		23.7	29.5	43.5	
320	–																												
	B				91.1				84.9				75			66.7	66.8			58.7	57.5		32.3	51.4	48.7	20.8	28.4	43.2	34.1
	B2				105				102				90.2			65.2	76.5			56.8	62.3		32.5	50	50.5	21	28	42.3	35.5
	BW				98.2				94.8				89.4			65.3	76.6			56.9	62.3		32.8	49.9	50.5	21.4	28.3	42.5	35.6
330	–																												
	B								82.4				72.9				65.5			57.6	57			50.5	49.2		26.6	42.2	35
	B2								97.7				89.6				76.9			55.8	63.4			48.9	51.8		26.5	41	36.6
	BW								90.8				86.3				76.8			55.9	63.4			48.8	51.8		27	41.2	36.7
340	–																												
	B								78.5				70.8				64.2			56.6	56.2			49.7	49		24.2	40.7	35.7
	B2								93.2				87.2				77.1			54.9	63.9			47.8	52.9		24.9	39.2	37.4
	BW								87.2				81.8				75.6			55.1	64.1			47.9	52.9		25.1	39.4	37.4
350	–																												
	B												68.8				62.7			55.8	55.1			48.9	48.5			39.3	36.4
	B2												83.5				76.1			54.4	64.1			47.2	53.7			37.5	38
	BW												77.4				73.2			54.5	64.1			47.3	53.7			37.6	38.2
360	–																												
	B												67.1				61.2				54			48	47.8			38.4	36.7
	B2												79.5				74.3				64.1			46.4	54.3			36.6	39.2
	BW												73.5				70				63.6			46.5	54.3			36.7	38.8
370	–																												
	B																59.6				52.9				47			37.8	36.7
	B2																71.7				64				54.6			36.3	40.8
	BW																66.6				62.2				54.7			36.4	39.4
380	–																												
	B																58.3				51.7				46			37.1	36.4
	B2																68.6				63.9				54.7			35.8	42
	BW																63.6				59.6				54.8			36	40.2
390	–																												
	B																				50.5				45			37.1	35.8
	B2																				61.6				54.8			35.7	42.4
	BW																				57				53.1			35.9	41.7
400	–																												
	B																				49.6				44				35.1
	B2																				59.2				54.3				42.8
	BW																				54.6				51.2				41.8
410	–																												
	B																								42.7				34.4
	B2																								53.1				43.1
	BW																								49.2				40.9
420	–																												
	B																												33.6
	B2																												43.1
	BW																												39.4
430	–																												
	B																												32.9
	B2																												41.2
	BW																												37.5
440	–																												
	B																												32.4
	B2																												39.5
	BW																												36

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 335



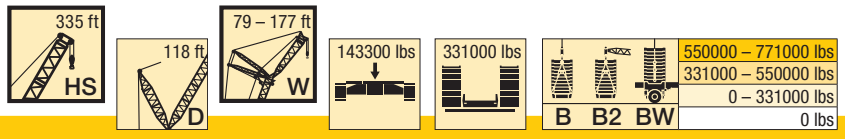
ft		HS 335																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
55	–	247																							
	B	262																							
	B2	263																							
	BW	263																							
60	–	228				221																			
	B	256				230																			
	B2	257				231																			
	BW	257				231																			
65	–	212				205				195				181											
	B	249	261			225				202				182											
	B2	249	264			226				202				182											
	BW	250	264			226				203				183											
70	–	198	171			192				184				175											
	B	241	256			219				198				178											
	B2	242	258			220				198				179											
	BW	242	258			220				199				179											
75	–	185	165			179	159			172				166				156							
	B	234	250			213	227			193				175				157							
	B2	235	251			213	227			193				175				156							
	BW	235	251			214	228			194				175				157							
80	–	174	155			168	149			161	142			156				151				138			
	B	227	244			207	222			187	199			171				154				139			
	B2	228	244			207	222			188	200			171				153				140			
	BW	228	244			208	222			188	200			171				154				140			
85	–	163	145			158	140			152	133			147	128			142				136			
	B	220	237			201	216			182	196			166	176			151				137			
	B2	221	237			201	216			183	196			167	177			150				137			
	BW	221	237			202	216			183	196			167	177			150				138			
90	–	154	137			149	132			143	126			138	121			134				129			
	B	214	231			195	211			178	191			162	174			148				134			
	B2	216	230			195	210			178	191			163	174			147				135			
	BW	216	231			196	210			178	191			163	174			147				135			
95	–	146	129			141	124			135	118			131	114			126	110			122			
	B	209	226			189	206			173	186			158	171			144	154			131			
	B2	211	223			190	204			173	186			159	170			143	152			132			
	BW	211	224			190	205			173	186			159	169			143	152			132			
100	–		122			134	118			128	112			123	107			119	103			116	99.4		
	B		220			184	201			168	182			154	167			141	151			129	136		
	B2		217			185	198			168	180			155	166			140	149			129	136		
	BW		218			185	199			168	181			155	165			140	149			129	136		
105	–		115			127	111			121	106			117	101			113	97.5			109	93.7		
	B		215			179	196			163	178			150	163			137	148			126	134		
	B2		213			181	192			164	176			151	162			136	146			126	134		
	BW		214			181	193			164	176			151	162			136	146			126	134		
110	–		109			120	106			115	100			111	95.9			107	92.2			104	88.6		
	B		210			175	191			159	174			146	159			134	146			123	132		
	B2		208			177	187			159	171			146	157			133	142			123	131		
	BW		209			176	187			159	171			147	157			133	143			123	131		
115	–					115	100			109	94.8			105	90.9			102	87.3			98.3	83.8		
	B					171	186			155	170			143	155			131	142			120	130		
	B2					172	183			155	167			143	153			129	139			120	128		
	BW					172	183			156	167			143	153			130	139			120	128		
120	–						95.1			104	90			100	86.2			96.7	82.7			93.4	79.4		
	B						182			151	166			139	152			128	139			117	127		
	B2						179			152	162			139	149			126	135			117	126		
	BW						179			152	162			139	149			126	136			117	126		
125	–			44			90.4			99	85.4			95.4	81.8			91.9	78.4			88.7	75.2		
	B			240			178			148	162			136	149			125	136			114	125		
	B2			237			175			149	158			135	145			123	132			114	123		
	BW			237			175			149	158			135	146			123	132			114	123		
130	–			41.2			86.1	36.8		94.4	81.3			90.9	77.8			87.6	74.5			84.4	71.3		
	B			236			175	211		144	158			133	145			122	133			112	122		
	B2			232			171	209		146	154			132	142			120	129			111	120		
	BW			233			171	209		145	155			132	142			120	129			111	120		
135	–			38.6				35			77.5			86.9	74.1			83.6	70.8			80.5	67.8		
	B			232				209			155			130	142			119	130			109	119		
	B2			227				206			151			130	138			117	126			109	117		
	BW			228				206			151			130	138			117	126			109	117		
140	–			36				32.6			73.8	25.4		83	70.6			79.7	67.3			76.8	64.4		
	B			227				205			152	182		127	139			116	127			107	116		
	B2			222				202			148	179		127	135			114	122			106	114		
	BW			223				202			148	179		127	135			114	123			106	114		
150	–			31.3				28.2				23.2		75.9	64.1			72.7	60.9			69.8	58.1		
	B			218				198				179		121	133			111	121			102	111		
	B2			213				194				176		122	130			109	116			101	108		
	BW			213				194				176		122	130			109	117			101	109		
160	–							24.2				19.5			58.2	16.2		66.3	55.2	13		63.6	52.5		
	B							191				173			128	157		106	116	141		97.7	107		
	B2							186				169			125	154		105	111	138		96.6	103		
	BW							186				169			125	155		104	111	138		96.7	103		
170	–							20.5				16.1			53	13		60.6	50	9.9		58	47.5		
	B							186				167			124	152		101	112	137		93.7	102	124	
	B2							181				162			119	148		99.7	107	134		93.3	98.5	122	
	BW							181				162			119	149		99.8	107	134		93.3	98.7	123	

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 335



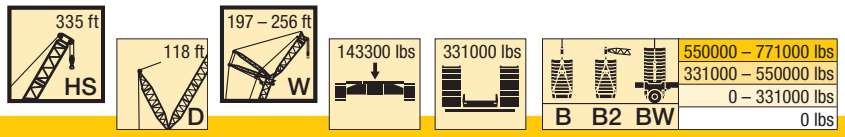
ft		HS 335																							
		W 79				W 98				W 118				W 138				W 157				W 177			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
180	–											13.1				10.2			45.5			53.2	43		
	B											161				148			108	134		89.5	98.8	121	
	B2											157				143			102	129		89.8	95.3	119	
	BW											157				143			102	129		89.7	95.6	119	
190	–																					48.7	39		
	B											157				142				130		85.9	95.6	118	
	B2											151				137				124		86.3	91.8	115	
	BW											152				137				125		86.3	92.2	115	
200	–																						35.2		
	B				187											137				125			92.5	114	
	B2				213											132				120			88.2	111	
	BW				206											132				120			88.5	111	
210	–																								
	B								168											121				111	
	B2								193											115				107	
	BW								190											115				107	
220	–																								
	B								162				148				76.2			118				107	
	B2								185				167				147			112				102	
	BW								179				167							113				103	
230	–																								
	B								156				145				134			114				104	
	B2								176				165				146			108				99.5	
	BW								170				163				147			109				100	
240	–																								
	B												140				130				118			102	
	B2												160				145				127			97.2	
	BW												156				146				127			97.5	
250	–																								
	B																127				116				105
	B2																143				126				111
	BW																143				126				111
260	–																								
	B																122				113				103
	B2																139				124				111
	BW																137				124				111
270	–																								
	B																118				110				101
	B2																133				121				110
	BW																130				122				110
280	–																								
	B																				106				98.5
	B2																				118				108
	BW																				118				108
290	–																								
	B																								95.8
	B2																								106
	BW																								106
300	–																								
	B																								92.9
	B2																								104
	BW																								104
310	–																								
	B																								90.6
	B2																								103
	BW																								101

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 335



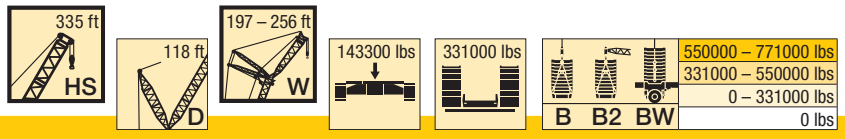
ft		HS 335															
		W 197				W 217				W 236				W 256			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
80	–																
	B	122															
	B2																
	BW																
85	–	122				108											
	B	122				108											
	B2	122				108											
	BW	123				108											
90	–	119				107											
	B	120				107											
	B2	120				107											
	BW	120				107											
95	–	115				104				92.7							
	B	117				105				92.7							
	B2	118				105				92.7							
	BW	118				105				92.7							
100	–	109	93.2			102				90.8							
	B	115	121			103				91.3							
	B2	115	122			103				91.4				80.3			
	BW	115	122			103				91.4				80.2			
105	–	103	87.7			98.9	83.2			89.5							
	B	112	119			101	106			89.6							
	B2	113	119			101	106			89.9				78.8			
	BW	113	119			101	106			90.1				78.7			
110	–	97.8	82.7			93.5	78.4			87.2	71.6						
	B	110	117			98.7	104			88	91.6						
	B2	110	117			99.1	104			88.3	91.8			77.4			
	BW	110	117			99.1	104			88.6	91.9			77.5			
115	–	92.7	78.1			88.4	73.8			83.3	68.6						
	B	107	115			96.8	103			86.5	90.7						
	B2	108	115			97	103			86.8	90.9			76			
	BW	108	115			97.2	103			87	91			76.2			
120	–	87.8	73.7			83.7	69.6			78.7	64.5						
	B	105	114			94.9	101			84.9	89.3						
	B2	105	112			95.1	101			85.1	89.6			74.6	78.1		
	BW	105	113			95.2	101			85.3	89.7			74.8	78.2		
125	–	83.3	69.6			79.2	65.6			74.3	60.6						
	B	103	112			93.1	99.7			83.1	88.3						
	B2	103	110			93.1	98.8			83.3	88.2			73.1	76.9		
	BW	103	110			93.3	99			83.5	88.2			73.2	77.1		
130	–	79.1	65.9			75.1	61.9			70.3	57						
	B	100	110			91.2	98.2			81	87.1						
	B2	100	108			91.1	96.9			81.2	86.7			71.7	75.6		
	BW	101	108			91.3	97.2			81.4	86.8			71.7	75.9		
135	–	75.3	62.5			71.4	58.5			66.6	53.7						
	B	98.4	107			89.3	96.7			79.1	85.8						
	B2	98.1	105			89.3	95.2			79.1	85.1			70.2	74.3		
	BW	98.4	105			89.2	95.4			79.3	85.2			70.2	74.5		
140	–	71.6	59.1			67.8	55.3			63.1	50.5						
	B	96.3	105			87.6	95			77.1	84.5						
	B2	95.9	103			87.4	93.4			77	83.5			68.7	72.9		
	BW	96.1	103			87	93.5			77.3	83.7			68.7	73.1		
150	–	64.8	53			61.1	49.3			56.6	44.7						
	B	92.4	101			84.2	91.5			73.8	81.3						
	B2	91.6	98.4			83.8	89.6			73.3	79.7			65.7	70.2		
	BW	91.8	98.4			82.7	89.7			73.6	79.9			65.7	70.3		
160	–	58.7	47.5			55.1	43.9			50.7	39.4						
	B	88.8	96.5			80.6	87.8			70.7	77.8						
	B2	87.7	93.9			79.9	85.5			70	75.7			62.9	67.5		
	BW	87.7	94.1			78.4	85.9			70.2	75.9			62.9	67.5		
170	–	53.3	42.6			49.8	39.1			45.4	34.7						
	B	85	92.8	108		76.7	84.4			67.6	74.2						
	B2	83.8	89.9	107		75.5	80.7			66.7	72.1			60.3	64.8		
	BW	83.7	89.9	107		74.8	82.3			66.8	72.2			60.4	64.7		
180	–	48.5	38.3			45	34.8			40.8	30.5						
	B	81	89.3	106		72.9	80.8			65	71.1						
	B2	80.3	86.1	105		71.4	76.9			63.7	68.7			57.8	62.2		
	BW	80.2	86	105		71.4	78			63.9	68.8			57.8	62.1		
190	–	44.1	34.3			40.7	30.9			36.5	26.7						
	B	77.1	86.2	104		69.7	77.1	92.8		62.4	68.3						
	B2	76.8	82.4	102		68.4	73.4	91.2		60.8	65.6			55.3	59.5		
	BW	76.7	82.5	102		68.6	73.8	91.4		61	65.6			55.4	59.6		
200	–	40.1	30.6			36.7	27.4			32.6	23.2						
	B	73.2	83.3	102		66.8	73.8	90.8		59.9	65.7	79.4					
	B2	73.4	78.8	99.3		66	70.3	89.2		58.4	62.7	77		53	56.8	66.9	
	BW	73.3	79.2	99.1		66.1	70.1	89.4		58.5	62.8	77.1		53	57.1	66.9	
210	–		27.3			33.1	24.1			29	20						
	B		80.1	98.9		63.9	71.3	88.9		57.6	63	77.6					
	B2		75.3	95.8		63.5	67.8	86.9		56.5	59.8	75.3		50.7	54.5	65.7	
	BW		75.8	96.1		63.6	67.7	87.1		56.6	59.9	75.5		50.6	54.6	65.8	
220	–		24.3			29.8	21.1			25.8	17.1						
	B		76.7	96.1		60.9	68.8	86.8		55.3	61	75.3					
	B2		71.9	92.7		60.9	65.3	83.8		54.7	58.1	73		49.1	52.3	64.3	
	BW		72.2	92.8		61	65.3	84.3		54.7	58.2	73.2		49	52.2	64.4	

TAB 181391 / 181393 / 181397

H

HSDWB/B2/BW

HS 335



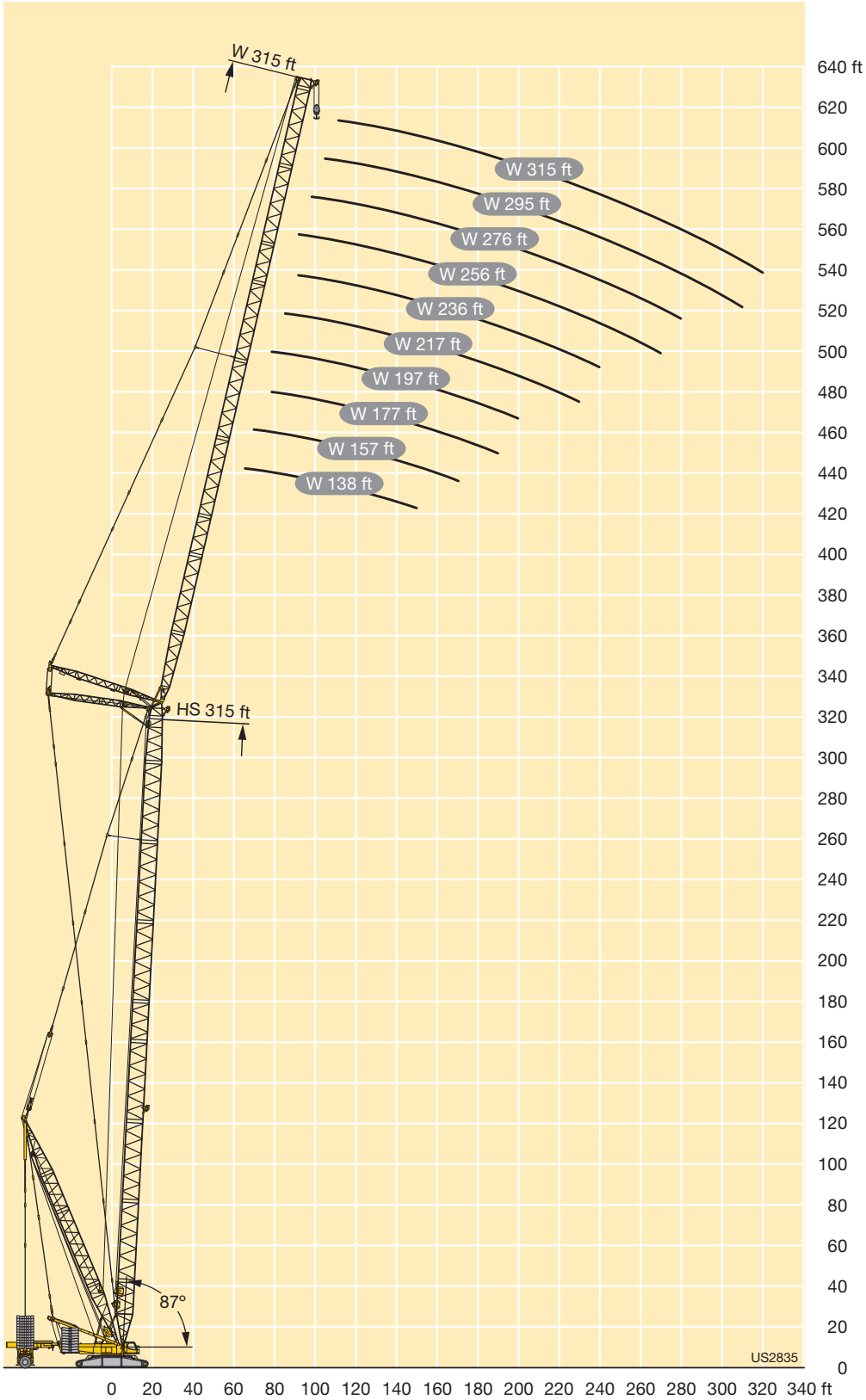
ft		HS 335															
		W 197				W 217				W 236				W 256			
		87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°	87°	85°	77°	67°
230	–					26.9	18.4			22.9	14.4						
	B			93.4		58.3	66.4	84.6		52.5	59.1	73.3					
	B2			89.4		58.5	62.7	80.3		52.7	56.4	70.6		47.4	50.5	62.7	
	BW			89.7		58.6	62.7	80.9		52.6	56.4	70.9		47.3	50.4	62.8	
240	–									20.1	11.9						
	B			91			64.3	81.9		50.2	57.2	71.2					
	B2			86.7			60.2	77		50.5	54.5	68.2		45.4	48.9	61	
	BW			87.2			60.2	77.4		50.6	54.4	68.6		45.2	48.9	61.1	
250	–										9.6						
	B			88.8				78.7			55.4	69.1					
	B2			85				74.4			52.2	65.8		42.7	47.3	59.2	
	BW			85.4				74.5			52.2	66.1		42.7	47.4	59.3	
260	–										7.6						
	B			86.9	91.4			76.2			53.7	67					
	B2			82.5	88.4			72.6			50	63.6		39.9	44.6	57.3	
	BW			82.7	95.1			72.6			50.1	63.8		39.9	45.6	57.6	
270	–																
	B			84.5	90.6			74.5				65.2					
	B2			78.8	95.2			70.9				61.8		37.8	41.5	55.4	
	BW			79	95.3			70.9				61.9		37.9	43.7	55.7	
280	–																
	B				89.1			72.7	78.1			63.6					
	B2				94.7			68.7	82.7			60.3			39.1	53.7	
	BW				94.8			68.7	82.7			60.5			41	54	
290	–																
	B				87.2				76.8			62.3	66.3				
	B2				93.6				82.4			59.1	68.2			52.2	
	BW				93.7				82.6			59.3	68.1			52.5	
300	–																
	B				85.2				75.3			60.7	65.7				
	B2				92.1				81.3			57.2	68.3			51.2	57.2
	BW				92.4				82.1			57.5	68.4			51.3	52.1
310	–																
	B				82.2				73.5			59.2	64.7				
	B2				90.5				79.6			55.2	68			49.9	58.3
	BW				90.7				80.7			55.5	68.1			50	58.4
320	–																
	B				79.2				71.6				63.5				
	B2				89.7				78				67.4			48.5	58.3
	BW				89.2				78.7				67.5			48.5	58.3
330	–																
	B								69.5				62.1				
	B2								76.6				66.5				58.1
	BW								76.7				66.6				58.1
340	–																
	B								67.3				60.5				
	B2								76.1				65.4				57.6
	BW								75.4				65.6				57.7
350	–																
	B								65.6				59				
	B2								76				64.2				56.9
	BW								74.1				64.6				56.9
360	–																
	B												57.5				
	B2												63.7				56
	BW												64.2				56.1
370	–																
	B																
	B2																55.2
	BW																55.5
380	–																
	B																
	B2																55.2
	BW																55.5
390	–																
	B																
	B2																55.2
	BW																55.1

TAB 181391 / 181393 / 181397

H

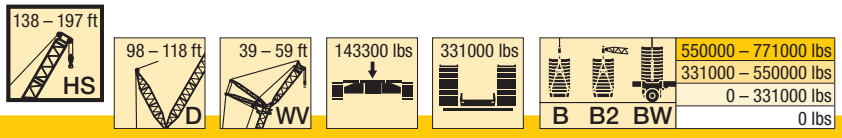
Lifting heights
Hauteurs de levage

HSDWB/B2/BW



HSDWVB/B2/BW

HS 138 – 197



ft		HS 138				HS 157				HS 177				HS 197			
		D 98				D 118				D 118				D 118			
		W 39		W 59		W 39		W 59		W 39		W 59		W 39		W 59	
		12°	20°	12°	20°	12°	20°	12°	20°	12°	20°	12°	20°	12°	20°	12°	20°
45	–	425				421				404							
	B	1049				1001				936							
	B2	1120				1045				977							
	BW	1091				1028				962							
50	–	382				379				364							
	B	995				968				912							
	B2	1067				1016				955							
	BW	1048				995				938							
55	–	336	343	335		334	342	332		320	328	320		308			
	B	927	931	824		928	919	812		881	866	793		816			
	B2	1000	1004	839		978	967	821		926	909	803		853			
	BW	994	992	837		953	946	818		906	894	806		846			
60	–	297	303	297	307	295	302	295	305	283	290	284		272	280	274	
	B	859	859	809	839	886	882	809	820	846	838	786		794	784	714	
	B2	931	931	847	886	937	931	825	858	895	885	808		831	823	745	
	BW	938	941	848	880	910	907	817	845	872	864	810		823	811	738	
65	–	264	270	266	275	263	269	264	273	252	259	253	260	242	249	244	251
	B	793	796	784	790	840	844	797	796	811	809	765	748	769	762	700	675
	B2	860	864	846	852	892	894	831	841	861	858	798	786	813	805	734	704
	BW	880	882	850	857	861	866	817	820	836	833	792	772	798	789	721	700
70	–	237	242	239	247	236	242	237	246	226	232	228	237	217	223	220	229
	B	736	736	736	736	793	796	770	770	771	773	740	729	739	738	681	665
	B2	800	799	797	798	844	846	814	817	820	822	783	771	785	784	719	698
	BW	824	821	807	817	809	814	793	788	791	793	769	752	766	766	704	688
75	–	213	218	216	223	212	217	214	222	203	208	205	214	194	200	197	206
	B	686	685	685	687	748	748	735	738	729	732	710	707	706	707	660	650
	B2	745	744	742	746	798	798	782	786	778	781	756	753	753	755	702	687
	BW	770	766	758	767	760	762	755	753	744	749	736	728	728	733	684	673
80	–	192	196	195	202	191	196	194	201	182	187	185	193	174	180	178	186
	B	640	641	638	643	704	703	694	700	689	691	676	681	671	673	638	632
	B2	696	698	692	699	752	752	741	748	736	739	721	730	718	718	681	671
	BW	718	716	711	712	714	713	709	713	700	703	696	700	688	692	660	654
85	–	173	177	177	183	172	177	175	182	164	168	167	174	157	161	160	168
	B	594	598	601	601	661	662	655	658	652	651	641	646	637	638	614	612
	B2	646	652	653	654	707	708	701	704	696	697	685	692	683	682	656	651
	BW	666	667	670	662	671	672	666	669	661	661	656	662	648	651	633	632
90	–	157	161	161	167	156	160	159	166	148	152	152	158	141	146	145	152
	B	557	559	565	567	618	621	621	621	615	616	609	611	604	605	590	588
	B2	607	611	614	617	662	665	665	664	657	659	651	654	649	648	631	627
	BW	622	622	629	625	627	631	631	631	623	625	620	623	615	616	605	604
95	–	143	146	147	152	142	145	145	151	134	138	138	144	127	131	131	138
	B	523	525	529	534	581	583	587	587	578	580	578	579	572	574	565	564
	B2	570	574	575	581	622	624	629	629	618	621	619	620	615	614	604	602
	BW	581	582	588	588	589	592	596	597	586	588	587	589	582	583	577	577
100	–	130	132	134	139	128	132	132	137	121	124	125	130	115	118	119	125
	B	491	493	496	502	548	550	553	556	543	546	548	549	540	543	540	539
	B2	535	541	540	546	588	589	593	596	581	584	587	588	581	582	577	576
	BW	541	543	550	553	556	558	561	565	550	553	557	558	550	551	550	549
105	–	117	119	122	126	116	119	120	125	109	112	113	118	103	106	107	113
	B	458	461	469	473	520	521	519	525	512	513	518	521	508	512	513	514
	B2	500	507	511	515	558	559	557	562	549	550	555	559	546	549	549	550
	BW	501	504	518	520	527	529	526	533	519	520	526	530	517	519	522	524
110	–	105	107	111	115	106	108	109	114	98.5	101	103	107	92.5	95.6	96.8	102
	B	432	435	443	448	491	493	494	497	488	489	488	494	480	482	487	489
	B2	471	477	482	488	527	529	531	532	523	524	524	529	517	518	521	524
	BW	471	474	487	490	498	500	502	504	494	495	496	501	488	489	495	498
115	–	95.2	96.9	101	104	95.8	98.2	99.6	104	88.8	91.4	92.9	97.5	82.9	85.8	87.3	92.2
	B	408	410	417	424	465	466	471	473	463	464	464	467	456	458	461	465
	B2	443	448	453	460	499	500	506	507	496	498	498	501	492	493	493	498
	BW	443	445	456	461	471	473	478	479	469	470	471	474	464	465	468	472
120	–	86.3	87.7	91.9	94.8	86.7	88.8	90.6	94.4	79.8	82.3	84	88.2	74.1	76.8	78.5	83.1
	B	384	386	393	401	441	442	448	450	438	440	442	444	435	437	437	440
	B2	415	419	426	434	475	475	481	483	470	472	475	477	469	470	467	472
	BW	416	418	427	433	447	449	454	457	444	446	449	450	443	443	443	447
125	–	78.1	79.3	83.7	86.3	78.2	80.1	82.2	85.8	71.5	73.7	75.7	79.7	65.9	68.3	70.3	74.6
	B	360	362	373	379	422	423	425	428	414	416	422	424	414	415	416	417
	B2	388	391	403	410	454	454	456	460	444	447	454	456	446	447	446	448
	BW	388	390	403	407	427	429	431	434	419	421	429	430	421	422	422	424
130	–	69	70.2	74.8	77.4	69.9	71.5	74.6	77.9	64	66	68.2	71.9	58.4	60.7	62.9	66.9
	B	339	341	354	360	402	403	404	406	396	397	402	405	392	394	398	400
	B2	364	366	381	388	433	434	434	437	426	428	432	435	423	425	427	430
	BW	364	366	381	386	407	409	410	411	401	403	408	410	399	400	404	406
135	–	62.2	63.2	67.9	70.2	63.2	64.5	67.8	70.9	57.2	59.1	61.5	64.9	51.7	53.8	56.2	59.9
	B	320	322	335	341	383	385	386	388	379	380	384	386	375	376	380	383
	B2	341	344	360	366	413	414	416	418	408	410	413	415	404	406	409	411
	BW	341	343	359	365	389	390	392	394	384	386	390	392	381	382	386	388

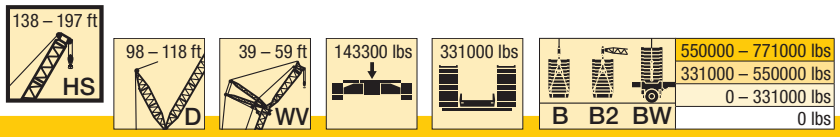
Further lengths on request · Autres longueurs sur demande

TAB 181470 / 181472 / 181476

I

HSDWVB/B2/BW

HS 138 – 197



ft		HS 138				HS 157				HS 177				HS 197			
		D 98				D 118				D 118				D 118			
		W 39		W 59		W 39		W 59		W 39		W 59		W 39		W 59	
		12°	20°	12°	20°	12°	20°	12°	20°	12°	20°	12°	20°	12°	20°	12°	20°
140	–	56.2	57	61.7	63.6	57	58.1	61.3	64.1	50.7	52.4	55	58.2	45.3	47.2	49.7	53.2
	B	302	304	316	322	365	367	370	372	362	363	366	368	358	359	362	365
	B2	320	322	338	345	393	395	399	401	390	391	395	397	387	388	390	393
	BW	320	321	337	343	371	372	376	378	367	368	372	374	364	365	368	371
150	–	44.7	45.2	50.3	51.9	45.2	46	49.4	51.8	39	40.3	43.2	45.9	33.6	35.2	38	41.1
	B	265	267	282	288	331	334	339	340	331	331	335	337	327	328	331	334
	B2	278	279	299	305	357	360	366	368	357	358	362	363	354	355	357	359
	BW	278	279	298	305	339	340	344	346	335	337	340	342	333	334	336	339
160	–	34.2	34.3	40.1	41.6	34.3	34.8	39	40.9		29.6	32.8	35.1			27.6	30.3
	B	227	228	252	257	299	303	308	311	302	303	307	309	300	300	304	306
	B2	237	238	264	269	322	326	333	336	326	328	333	335	324	325	329	330
	BW	237	238	263	269	310	311	315	317	307	308	313	314	305	305	309	311
170	–	25.1	24.8	30.8	31.9	25	25.3	29.8	31.4		20.3	23.6	25.5			18.5	20.8
	B	194	195	221	226	266	268	281	285	278	278	281	283	274	275	279	281
	B2	198	198	229	234	287	290	304	308	301	302	305	307	298	299	303	304
	BW	198	198	229	235	281	280	292	293	282	283	286	288	279	280	284	286
180	–			22.9	23.4			21.8	23								
	B			187	193	229	230	254	257	253	252	260	262	253	254	257	258
	B2			198	203	251	252	274	279	274	274	282	285	276	276	279	280
	BW			199	201	247	248	269	269	258	259	266	267	258	258	261	263
190	–																
	B			162	163	198		225	227	224	224	240	241	233	232	238	239
	B2			165	168	212		244	248	245	244	260	263	254	254	258	260
	BW			166	167	211		242	243	235	237	246	246	238	238	242	243
200	–																
	B							194	195	193	194	218	219	211	210	220	221
	B2							214	216	214	214	237	239	232	231	240	241
	BW							213	215	210	213	225	226	218	219	224	225
210	–																
	B											192	194	187	189	203	202
	B2											211	214	207	209	221	221
	BW											205	207	200	203	207	207
220	–																
	B											165	167	163	163	183	183
	B2											185	187	182	183	200	201
	BW											184	185	181	181	190	193
230	–																
	B											142		136		162	164
	B2											156		154		179	181
	BW											156		154		174	178
240	–																
	B															140	142
	B2															157	158
	BW															156	159

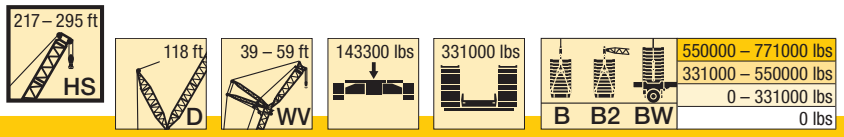
Further lengths on request · Autres longueurs sur demande

TAB 181470 / 181472 / 181476

I

HSDWVB/B2/BW

S 217 – 295



ft		S 217				S 236				S 256				S 276				S 295	
		D 118				D 118				D 118				D 118				D 118	
		W 39		W 59		W 39		W 59		W 39		W 59		W 39		W 59		W 59	
		12°	20°	12°	20°	12°	20°	12°	20°	12°	20°	12°	20°	12°	20°	12°	20°	12°	20°
55	–	298				288													
	B	733				652													
	B2	764				673													
	BW	761				674													
60	–	263	271	264		254	262	255		246				236					
	B	723	706	636		646	623	567		562				502					
	B2	757	735	661		672	646	580		573				515					
	BW	750	729	661		673	650	581		574				515					
65	–	234	241	236	243	226	234	228		219	222	217		210	214	209		199	
	B	703	694	634	601	640	625	562		558	545	482		500	488	436		392	
	B2	740	727	661	617	668	650	580		567	557	489		515	497	429		399	
	BW	730	716	662	623	666	651	581		569	557	489		516	501	443		399	
70	–	210	216	211	221	203	209	204		195	202	198		188	194	190		181	
	B	682	677	626	603	631	617	553		551	540	478		492	487	435		391	
	B2	724	713	655	626	662	647	575		563	553	487		508	501	446		398	
	BW	710	701	652	627	656	644	573		563	551	486		514	501	446		399	
75	–	188	194	190	199	181	187	184	193	175	181	177	187	168	174	170	180	162	
	B	660	658	616	598	620	609	550	527	545	535	473	459	488	481	432	417	388	
	B2	703	696	648	625	654	643	574	549	557	549	482	467	506	499	445	427	398	
	BW	686	682	640	623	643	636	572	551	558	547	482	467	511	499	444	428	398	
80	–	168	174	171	179	162	168	165	173	156	162	159	168	150	155	153	162	144	154
	B	637	636	604	588	605	599	551	523	537	530	467	456	486	477	429	416	386	373
	B2	680	676	638	621	642	635	574	547	549	543	477	463	507	496	441	427	397	383
	BW	658	658	625	614	627	624	574	551	550	543	478	464	507	497	441	427	398	383
85	–	151	156	154	161	145	151	148	156	140	145	143	151	134	139	137	145	129	137
	B	614	612	586	579	586	582	546	527	522	521	462	452	480	473	425	410	385	371
	B2	656	653	622	616	624	620	570	552	538	536	473	460	503	493	439	423	397	383
	BW	629	629	605	603	605	603	569	553	534	534	474	460	502	494	440	426	397	383
90	–	136	141	139	146	131	135	134	141	125	130	129	136	119	124	123	131	115	123
	B	589	588	567	561	567	563	533	523	517	513	455	448	468	462	421	409	383	370
	B2	631	629	603	600	606	602	560	549	536	530	467	456	497	486	436	423	396	383
	BW	601	601	582	582	583	581	552	548	533	528	466	457	488	483	437	424	397	383
95	–	122	126	125	132	117	122	120	127	112	117	115	123	107	111	110	117	102	110
	B	563	562	547	542	546	544	519	512	509	504	449	441	461	452	411	406	379	368
	B2	603	603	585	581	586	584	549	541	531	524	462	452	491	482	432	420	393	383
	BW	572	572	560	559	560	558	535	535	527	521	461	451	485	480	431	421	395	383
100	–	110	114	113	119	105	109	108	115	100	104	104	110	94.8	99.1	98.3	105	90.8	98.1
	B	535	535	526	523	524	524	505	499	497	494	444	435	454	447	404	399	374	366
	B2	573	574	564	561	563	563	538	529	521	516	455	447	484	478	427	417	391	381
	BW	543	544	536	536	536	535	518	517	516	511	457	445	486	478	425	417	393	382
105	–	98.2	102	101	107	93.6	97.4	96.9	103	89.1	93	92.5	98.8	83.9	88	87.5	94	80.2	87
	B	506	508	503	503	500	500	490	485	480	482	438	432	446	441	397	390	368	363
	B2	544	545	541	540	537	538	527	518	506	505	449	443	478	472	422	414	393	377
	BW	514	516	513	512	510	510	501	499	499	498	451	443	480	473	423	409	394	380
110	–	88	91.3	91.3	96.8	83.6	87.1	87	92.7	79.2	82.9	82.7	88.6	74.3	78.1	77.9	84	70.8	77.2
	B	478	481	480	481	475	476	470	470	460	462	430	427	433	431	392	384	362	358
	B2	514	516	516	517	511	512	506	504	486	486	442	438	464	461	417	409	392	381
	BW	485	488	489	490	484	485	480	481	476	477	443	438	462	461	418	408	393	382
115	–	78.6	81.7	81.9	87.1	74.3	77.6	77.8	83.1	70.1	73.5	73.6	79.2	65.3	68.8	69	74.8	61.9	68
	B	452	455	457	459	451	452	450	451	440	442	417	418	418	417	385	379	356	352
	B2	486	487	491	494	485	487	484	485	467	468	431	431	448	448	411	405	391	381
	BW	458	461	465	467	459	460	459	461	454	455	430	429	444	444	410	405	392	382
120	–	69.8	72.7	73.2	78.1	65.7	68.7	69.2	74.2	61.6	64.8	65.2	70.4	56.9	60.3	60.7	66.1	53.7	59.5
	B	429	431	433	437	426	428	429	432	420	422	403	406	402	402	377	373	350	347
	B2	462	462	467	470	459	461	462	464	448	449	420	421	433	432	402	399	387	381
	BW	435	437	441	444	434	436	437	440	431	433	415	417	424	425	400	398	388	382
125	–	61.7	64.3	65.1	69.7	57.7	60.5	61.2	65.9	53.7	56.7	57.3	62.3	49.2	52.3	52.9	58.1	46	51.5
	B	410	412	410	415	403	405	409	412	400	402	389	392	387	388	366	364	342	341
	B2	442	443	443	447	435	436	440	443	428	430	408	409	417	417	392	391	380	380
	BW	416	417	417	422	410	411	416	420	409	411	399	402	405	406	386	387	379	381
130	–	54.3	56.7	57.8	62	50.4	53	53.9	58.4	46.5	49.3	50.1	54.8	42.1	45	45.8	50.7	39	44.2
	B	392	393	391	394	387	388	388	392	380	382	375	378	372	373	356	355	334	333
	B2	422	423	422	424	417	419	418	422	409	412	396	398	401	402	381	381	370	370
	BW	397	398	398	400	393	394	395	399	387	389	384	387	385	387	373	374	365	368
135	–	47.6	49.9	51.1	55.1	43.8	46.3	47.4	51.6	40	42.6	43.6	48.1	35.7	38.4	39.4	44.1	32.7	37.6
	B	373	375	374	377	370	372	371	375	364	366	361	363	357	359	345	345	326	326
	B2	402	403	405	406	399	401	400	404	392	395	384	386	386	387	371	371	359	360
	BW	378	379	381	383	376	377	377	381	370	372	369	372	368	369	360	361	352	355
140	–	41.2	43.3	44.7	48.5	37.5	39.8	41	45	33.7	36.2	37.3	41.5	29.5	32.1	33.2	37.6	26.5	31.2
	B	354	356	359	361	354	355	355	358	349	351	347	349	343	344	335	335	317	318
	B2	382	383	388	390	382	383	383	386	377	379	372	374	371	373	361	361	349	350
	BW	359	360	365	367	359	360	361	364	355	357	354	357	351	353	347	349	339	342
150	–	29.6	31.4	33.1	36.4	26	27.9	29.5	33.1		24.5	25.9	29.7			22	25.9		
	B	323	325	327	330	322	323	325	328	319	321	321	322	315	317	313	315	301	302
	B2	349	350	354	357	348	350	352	354	346	348	347	349	342	344	339	341	329	330
	BW	328	328	333	335	327	328	331	333	325	326	327	329	321	323	321	323	313	316
160	–																		
	B	297	298	298	301	294	295	298	300	291	293	295	297	289	290	291	294	283	285
	B2	322	323	323	326	318	320	323	325	316	318	320	323	314	316	316	319	308	310
	BW	301	302	303	306	298	300	303	305	296	297	301	303	294	296	297	299	289	291

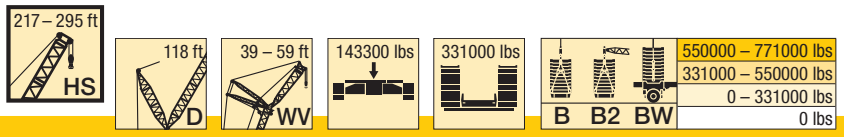
Further lengths on request · Autres longueurs sur demande

TAB 181470 / 181472 / 181476

I

HSDWVB/B2/BW

S 217 – 295

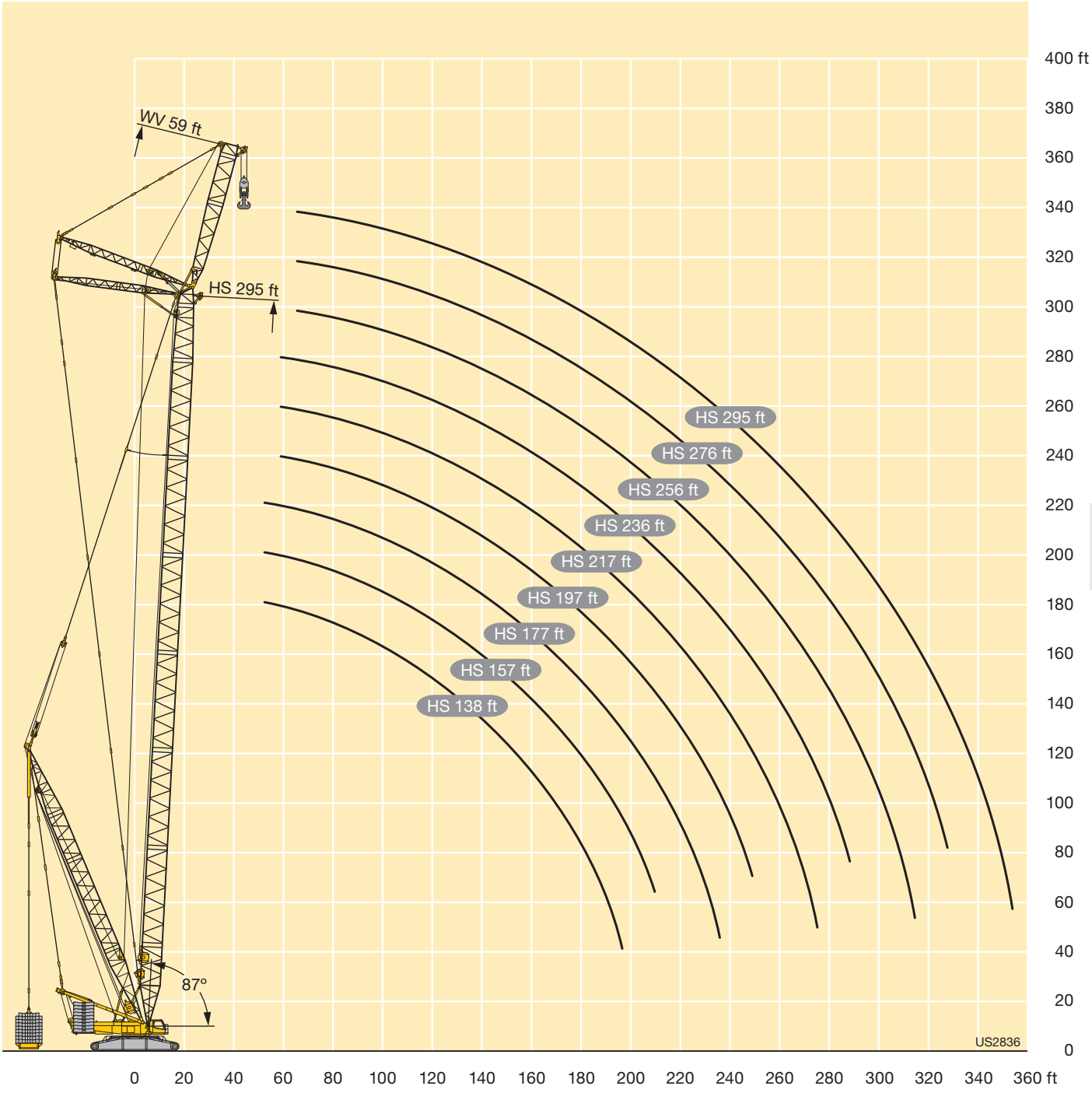


ft		S 217				S 236				S 256				S 276				S 295	
		D 118				D 118				D 118				D 118				D 118	
		W 39		W 59		W 39		W 59		W 39		W 59		W 39		W 59		W 59	
		12°	20°	12°	20°	12°	20°	12°	20°	12°	20°	12°	20°	12°	20°	12°	20°	12°	20°
170	–																		
	B	272	272	276	278	271	272	271	274	267	268	270	272	262	264	269	271	262	265
	B2	295	295	300	302	294	295	296	298	290	292	294	296	287	288	292	295	286	288
	BW	275	276	281	283	275	276	277	279	271	273	275	277	267	269	273	276	267	269
180	–																		
	B	250	251	254	256	248	248	252	254	246	247	248	250	242	244	246	248	241	244
	B2	272	273	277	278	271	271	275	276	269	270	271	273	265	267	268	271	264	266
	BW	253	255	259	260	253	253	257	259	251	252	253	255	247	249	250	252	246	248
190	–																		
	B	231	231	233	236	228	229	232	234	226	226	229	231	224	225	226	228	221	223
	B2	252	252	256	257	250	250	254	256	248	248	251	253	245	247	247	250	242	245
	BW	234	235	239	240	233	233	237	238	231	231	234	236	228	229	230	232	225	227
200	–																		
	B	213	213	215	217	211	211	214	215	208	207	212	214	206	207	209	211	202	205
	B2	233	233	236	238	231	232	234	236	228	228	233	234	226	227	229	231	223	225
	BW	216	217	220	222	215	216	218	219	212	212	216	218	210	211	213	215	206	208
210	–																		
	B	195	195	200	202	195	195	197	199	192	192	195	196	188	188	193	195	187	190
	B2	214	213	220	221	215	215	217	218	211	212	214	215	207	208	212	214	208	210
	BW	198	199	205	206	199	199	201	203	196	197	199	200	192	192	197	199	192	193
220	–																		
	B	176	178	185	186	180	179	183	184	178	177	180	182	174	175	177	179	173	175
	B2	195	195	204	204	198	198	202	204	197	197	199	200	193	194	195	197	193	194
	BW	184	185	189	190	183	184	187	188	182	182	184	185	178	179	182	183	177	178
230	–																		
	B	158	159	169	170	164	165	169	170	164	163	167	168	161	161	163	165	158	159
	B2	175	176	187	188	182	182	188	189	182	182	185	186	179	181	180	182	178	179
	BW	170	170	175	176	170	170	174	174	168	167	170	172	165	165	167	169	162	163
240	–																		
	B	137	138	153	155	149	151	155	156	150	150	154	155	148	148	151	152	145	146
	B2	154	154	170	171	166	167	173	174	168	167	172	173	167	167	167	170	164	165
	BW	153	152	161	163	157	157	160	161	154	154	158	159	152	152	155	156	149	150
250	–																		
	B			136	140	133	136	142	144	137	139	142	142	136	135	140	140	133	134
	B2			153	155	149	151	159	160	154	154	160	160	154	153	156	158	152	153
	BW			148	151	145	144	148	149	143	143	145	146	139	139	143	145	137	138
260	–																		
	B			118	119	115	115	128	132	124	128	130	131	124	125	128	128	123	124
	B2			134	136	131	132	144	146	141	141	147	147	141	141	145	146	141	142
	BW			133	134	130	130	138	138	132	131	134	135	128	129	132	133	126	127
270	–																		
	B			94.8		92		115	117	111	113	119	121	113	114	117	118	112	113
	B2			112		110		130	131	127	126	134	135	128	128	134	135	130	130
	BW			112		110		127	126	121	121	124	125	118	118	121	122	116	116
280	–																		
	B							99.4	99.4	95.7	94.8	108	110	102	103	106	108	102	102
	B2							114	114	110	110	122	123	116	116	123	124	119	120
	BW							114	112	108	108	114	115	109	108	111	113	106	106
290	–																		
	B											96.4	98.2	90.3	90	96.3	99.5	92.6	93.1
	B2											109	110	102	102	112	113	109	110
	BW											105	105	98.6	98.6	103	103	95.8	96.8
300	–																		
	B											80.7	82.1	74	74.2	86.2	90.2	84.4	84.9
	B2											95	95	87.5	86.7	101	102	98.5	101
	BW											94.2	93.4	86.4	86	94.8	94.3	88	88.4
310	–																		
	B											62.3		56		74.8	76.3	76.1	76.6
	B2											77.2		70.3		88.4	89.2	88.6	92.5
	BW											77.6		70.3		85.1	86.5	80.2	80
320	–																		
	B															61.4		67.7	67.9
	B2															74.6		78.6	82
	BW															73.4		72.4	72.2
330	–																		
	B																	58.5	57.9
	B2																	68.5	69.7
	BW																	64.7	64.9
340	–																		
	B																	46.7	44.9
	B2																	58	57.3
	BW																	57.5	56.3
350	–																		
	B																	31.6	
	B2																	43.3	
	BW																	43.4	

Further lengths on request · Autres longueurs sur demande

TAB 181470 / 181472 / 181476

I


WV 59 ft
HS 295 ft
87°
HS 295 ft
HS 276 ft
HS 256 ft
HS 236 ft
HS 217 ft
HS 197 ft
HS 177 ft
HS 157 ft
HS 138 ft
US2836
400 ft
380
360
340
320
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360 ft

I

ft	S 138																				ft
	W 157										W 177										
	F 39		F 59		F 79		F 98		F 118		F 39		F 59		F 79		F 98		F 118		
	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
80	204																				80
85	191	143									185										85
90	179	139									175										90
95	168	136	160								164	139	164								95
100	159	132	153		123						155	135	156								100
105	150	128	147	98	118		105				146	132	147	100	122						105
110	142	125	141	95.5	113		100		89		138	129	139	97.5	117		102				110
115	134	122	135	93.5	108		95.5		86		131	126	132	95.5	113		99.5				115
120	128	120	129	91	104	78.5	91.5		82		124	123	126	93.5	108	79	95.5		85		120
125	121	117	123	89	99.5	77	87.5	65.5	78.5		118	121	119	91.5	105	78.5	91.5		81.5		125
130	115	115	117	87	96	75	84.5	63.5	75		112	116	114	89.5	101	76.5	88	64.5	78.5		130
135	110	112	112	85	93	73	81	61.5	72		107	112	109	87.5	97.5	75	85	63	75.5		135
140	105	108	107	83.5	89.5	71.5	78.5	60	69	48.1	102	106	104	86	94.5	73.5	82	61.5	72.5	50.7	140
150	95.5	100	98	80	84	68.5	73	57	64	44.5	93	97	94.5	83	88.5	70.5	76.5	58.6	67.5	47.5	150
160	87.5	91.5	89.5	77.5	78.5	65.5	68	54.2	59.7	37.7	85	88.5	86.5	80	83	67.5	71.5	55.9	63	41.6	160
170	80	83.5	82.5	75	74	63	63.5	51.6	55.3	30.3	77.5	81	79	77.5	78.5	65	67	53.4	58.8	35.5	170
180	74		76	73.5	70	61	59.8	49.3	51.5	21	71.5	74	73	75	73.5	63	63.5	51.1	54.8	27.8	180
190	68		70		66.5	59.2	56.5	47.3	46.9		65.5		67	70.5	68	61	60	49	51.1	19.5	190
200			65		63.5	57.7	53.4	45.1	40.1		60.5		62	65	63	59.3	56.7	47.2	46.9		200
210					60.5		50.3	42.3	29.5				57.1		58.2	57.9	53.9	45.4	41.4		210
220					56.7		48.1	38.9	19.3				52.9		54	56.3	51.1	42.8	31.2		220
230							45.9	32.7							50		48.8	39.9	21.2		230
240							43.1								46.4		46.6	35.5			240
250																	43.8				250
260																	40.7				260

TAB 181198

J

ft	S 138																				ft
	W 197										W 217										
	F 39		F 59		F 79		F 98		F 118		F 39		F 59		F 79		F 98		F 118		
	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
85	177																				85
90	167																				90
95	157										152										95
100	148	138	150								143										100
105	139	134	142		125						135	137	137								105
110	132	131	134	98.5	120						128	132	129		118						110
115	125	128	127	97	116						121	126	122		117						115
120	118	123	121	95	112		98		87.5		114	119	116	96.5	115		99				120
125	112	117	115	93	108	79	94.5		84		108	113	110	94.5	111		97		85.5		125
130	106	111	109	91	105	78	91		81		103	107	105	93	106	78.5	94		83		130
135	101	106	104	89.5	101	76.5	88.5		78		98	102	99.5	91.5	101	77.5	91.5		80		135
140	96.5	101	99	88	98	75	85.5	61.5	75.5		93	97	95	89.5	96	76	88.5	62.5	77.5		140
150	87.5	91.5	90	85	90	72	80	59.9	70.5		84	88	86	86.5	87.5	73.5	83	61	73		150
160	79.5	83.5	82	82	82.5	69.5	75	57.3	65.5	44.4	76.5	79.5	78	82.5	79.5	71	77.5	58.6	68.5	47	160
170	72.5	76	75	78.5	75.5	67	70.5	54.9	61.5	38.8	69.5	72.5	71.5	75	72.5	68.5	72.5	56.3	64	42	170
180	66	69.5	69	72	69	64.5	66.5	52.7	57.8	33	63	66	65	68.5	66.5	66	66.5	54.2	60.5	36.7	180
190	60.5	63.5	63	66	63.5	62.5	63	50.6	54.1	25.9	57.7	60	59.5	63	61	63.5	61	52.1	57.1	30.8	190
200	55.5		58	60.5	58.4	60.5	59.3	48.6	50.5	18.3	52.6	54.8	54.4	57.5	55.9	59.7	55.8	50.2	53.6	24.3	200
210	50.9		53.3	55.7	53.7	57.8	54.6	47.1	46.9		47.9	49.9	49.8	52.5	51.2	54.7	51.2	48.4	50.3	17	210
220	46.8		49.1	51.2	49.5	53.3	50.5	45.4	41.3		43.8	45.6	45.6	48.1	47	50.3	47.1	47	46.6	11.2	220
230			45.2		45.7	49	46.6	43	33.4		40.1		41.8	43.9	43.2	46.1	43.3	45.4	41.7		230
240			41.6		42.1	45.1	43	40.4	24.3		36.6		38.2		39.6	42.2	39.7	43	35.2		240
250					38.7		39.7	37.6	15.6				34.9		36.2	38.6	36.4	39.6	26.8		250
260					35.7		36.6	31.5	10.9				31.9		33.2	35.3	33.4	36.3	18.3		260
270							33.8								30.4		30.6	32.8	12.8		270
280							31.2								27.7		28	28.4			280
290																	25.5				290
300																	23.2				300

TAB 181198

ft	S 138																				ft
	W 236										W 256										
	F 39		F 59		F 79		F 98		F 118		F 39		F 59		F 79		F 98		F 118		
	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
100	138																				100
105	130										126										105
110	122	126	122								119	121	113								110
115	116	121	118								112	117	112								115
120	109	114	111		107						106	110	108								120
125	103	108	105	95.5	105		91				100	104	103		94						125
130	98	103	100	94	101		89.5		79		95	99	97.5	94	92.5		81				130
135	93	97.5	95	92.5	96.5		88		78.5		90.5	94	92.5	92	90		80				135
140	88.5	92.5	90.5	91	91.5	76	86.5		77.5		85.5	89	88	90	87	76	79		70.5		140
150	79.5	83.5	82	85.5	83	74.5	81.5		75.5		77	80	79.5	83.5	79.5	75	76		69.5		150
160	72	75.5	74	78.5	75.5	72	75	59.6	72.5	49.2	69.5	72	71.5	75.5	72	72.5	72	60.5	67.5		160
170	65	68.5	67	71.5	68.5	69.5	68.5	57.3	68.5	44.2	62.5	65	65	68.5	65.5	70.5	65	58.1	65.5	45.3	170
180	59	62	61	65	62.5	66.5	62.5	55.3	63	39.4	56.7	58.9	58.9	62	59.5	64.5	59.4	56.1	59.9	41.2	180
190	53.5	56.3	55.6	59.2	57.2	61.5	57.1	53.4	57.7	34.5	51.3	53.2	53.5	56.3	54	58.8	54	54.2	54.6	36.7	190
200	48.5	51	50.5	53.9	52.1	56.3	52.1	51.5	52.8	29.1	46.3	48.1	48.5	51	49.1	53.5	49.1	52.2	49.8	32	200
210	43.9	46.2	45.9	49	47.5	51.4	47.5	49.7	48.3	22.7	41.7	43.3	43.9	46.2	44.5	48.7	44.5	49.6	45.3	27	210
220	39.8	41.9	41.8	44.6	43.3	46.9	43.5	47.3	44.2	16	37.7	39	39.8	41.8	40.4	44.3	40.5	45.2	41.3	20.9	220
230	36.1	37.9	38	40.5	39.5	42.8	39.7	43.8	40.5		33.9	35.1	36	37.8	36.6	40.2	36.8	41.2	37.6	14.8	230
240	32.6		34.4	36.7	36	39	36.1	40	37		30.4	31.4	32.4	34.1	33.1	36.4	33.3	37.4	34.2		240
250	29.4		31.1		32.6	35.4	32.9	36.4	33.6		27.2		29.2	30.5	29.8	32.9	30	33.9	30.9		250
260	26.5		28.1		29.6	32.1	29.9	33.1	28.4		24.3		26.1	27.4	26.8	29.6	27	30.7	28		260
270			25.4		26.8	29	27.1	30.1	21.2		21.6		23.4	24.4	24	26.6	24.3	27.6	25.3		270
280			22.8		24.2		24.5	27.2	14.9		19.1		20.7		21.4	23.7	21.7	24.8	21.4		280
290					21.7		22	24.4					18.3		18.9		19.2	22.1	16.1		290
300					19.4		19.7	21.9					16		16.7		17	19.5	11.7		300
310							17.6								14.6		14.9	17.1			310
320							15.6								12.6		12.9				320
330																	11				330
340																	9.2				340

TAB 181198

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ft	S 138																				ft
	W 276										W 295										
	F 39		F 59		F 79		F 98		F 118		F 39		F 59		F 79		F 98		F 118		
	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
105	120																				105
110	113										103										110
115	107										101										115
120	101	106	99.5								98										120
125	95.5	101	97.5		85.5						92.5	93.5	86								125
130	90	95	92.5	88	84.5						87.5	91	85		74.5						130
135	85.5	90.5	88	86.5	83						82.5	86.5	82		74						135
140	81	85.5	83	85	81	73.5	73		65		78	82	78.5	76	73		63.5		56.5		140
150	72.5	77	75	79	75.5	73	72		64		70	73.5	71.5	74	70		63		55.7		150
160	65	69	67.5	71.5	68	71	69	61	63		62.5	65.5	64	69.5	65.5	63	61		54.4		160
170	58.2	62	60.5	64.5	61	67	62.5	59.1	61.5	48.3	55.8	58.7	57.2	62.5	59.2	61.5	58.9	52.7	53.1		170
180	52.3	55.8	54.7	58.1	55.3	61	56.6	57.1	56	44	50	52.6	51.4	56.2	53.3	57.4	53.4	51.9	51.4		180
190	46.9	50.2	49.3	52.4	50	55.2	51.3	54.5	50.8	39.6	44.7	47.1	46.1	50.5	48	52.3	48.1	50.7	47.6	41.3	190
200	42	45.1	44.4	47.2	45.1	49.9	46.4	50.9	46	35.3	39.8	42	41.2	45.3	43.1	47.1	43.3	48.1	42.9	37.3	200
210	37.5	40.3	39.8	42.4	40.5	45.1	41.9	46.1	41.6	31	35.4	37.3	36.7	40.6	38.6	42.3	38.8	43.4	38.5	33.2	210
220	33.5	36.1	35.8	38.1	36.5	40.7	37.9	41.8	37.6	25.7	31.4	33.1	32.7	36.3	34.6	38	34.9	39.1	34.6	29.1	220
230	29.8	32.2	32	34.1	32.7	36.7	34.1	37.8	33.9	20.2	27.6	29.2	28.9	32.3	30.9	34	31.2	35.1	30.9	24.2	230
240	26.3	28.5	28.5	30.4	29.3	33	30.7	34	30.5	14.7	24.2	25.6	25.5	28.6	27.4	30.2	27.7	31.3	27.5	18.9	240
250	23.1	25.2	25.3	26.9	26	29.4	27.4	30.5	27.3		21	22.2	22.2	25.2	24.1	26.7	24.5	27.8	24.4		250
260	20.2	22	22.3	23.8	23	26.2	24.5	27.3	24.4		18.1	19.2	19.3	22	21.2	23.5	21.5	24.6	21.5		260
270	17.5	19.2	19.5	20.8	20.3	23.2	21.7	24.3	21.6		15.4	16.3	16.5	19.1	18.4	20.6	18.8	21.7	18.8		270
280	15		16.9	18	17.7	20.4	19.1	21.5	19.1		12.8	13.6	14	16.3	15.8	17.7	16.2	18.8	16.2		280
290	12.7		14.5		15.2	17.7	16.6	18.8	16.6				11.5	13.6	13.4	15.1	13.8	16.2	13.8		290
300	10.5		12.3		13	15.2	14.4	16.3	14.4				9.3	11.2	11.1	12.6	11.5	13.7	11.6		300
310			10.2		10.8	12.8	12.2	13.9	12.3							10.3		11.4			310
320								11.7													320

TAB 181198

ft	S 157																				ft
	W 157										W 177										
	F 39		F 59		F 79		F 98		F 118		F 39		F 59		F 79		F 98		F 118		
	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
80	197																				80
85	184										179										85
90	173										169										90
95	163	136	162								159	139									95
100	153	132	154		124						150	136	151								100
105	145	129	147	98.5	119		106				141	132	142		123						105
110	137	126	139	96	114		101		89.5		134	129	135	97	118		103				110
115	130	123	132	93.5	109		96.5		86.5		127	126	128	95.5	114		100				115
120	123	120	125	91.5	105	78.5	92.5		83		120	123	121	93.5	109		96		86		120
125	117	118	119	89.5	100	77	88.5		79		114	119	115	91.5	105	79	92.5		82.5		125
130	111	115	114	87.5	97	75	85	63.5	75.5		108	113	110	89.5	102	77	89	64.5	79		130
135	106	111	109	85.5	93.5	73.5	82	62	72.5		103	108	105	88	98.5	75.5	85.5	63.5	76		135
140	101	106	104	83.5	90.5	72	79	60.5	69.5	48.8	98.5	103	100	86.5	95	74	82.5	62	73	51.3	140
150	92.5	97	94.5	80.5	84.5	68.5	73.5	57.2	64.5	45.2	89.5	93.5	91	83	89	70.5	77	58.9	68	48.1	150
160	84.5	88.5	86.5	77.5	79	66	68.5	54.4	60	38.5	82	85.5	83.5	80.5	83	68	72	56.2	63	42.3	160
170	77.5	81	79.5	75.5	74.5	63	64	51.8	55.7	31.4	75	78	76.5	77.5	77.5	65	67.5	53.6	59.1	36.1	170
180	71		73.5	73.5	70.5	61	60	49.5	51.7	22.1	68.5	71.5	70	73.5	71.5	63	64	51.3	55.2	28.7	180
190	65.5		67.5		67	59.3	56.7	47.4	47.7	13.9	63		64.5	68	66	61	60	49.2	51.4	20.5	190
200			62.5		63	57.8	53.6	45.3	41.3		58.1		59.5	62.5	60.5	59.4	57	47.3	47.4		200
210					58.9		50.6	42.6	30.2				54.9		56	58	54.2	45.6	42.8		210
220					54.7		48.3	39.7	19.1				50.7		51.9	54.8	51.4	43	33		220
230					50.8		46.1	33.6							48		48.4	40.3	23.1		230
240							43.3								44.5		45.3	36.1	15		240
250																	42				250
260																	39				260
270																	36.2				270

TAB 181198

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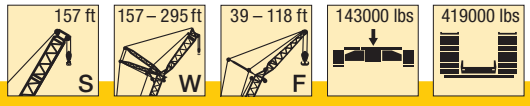

ft	S 157																				ft
	W 157										W 177										
	F 39		F 59		F 79		F 98		F 118		F 39		F 59		F 79		F 98		F 118		
	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
95	151										147										95
100	142	138	145								138										100
105	134	135	137								130	136	132								105
110	127	132	129	98.5	119						123	128	125		116						110
115	120	126	123	97	117						116	121	118		115						115
120	114	119	116	95	113		98.5				110	115	112	96.5	112						120
125	108	113	111	93.5	109	79	95		84.5		104	109	106	94.5	107		95.5		84		125
130	102	107	105	91.5	105	78	92		81.5		99	103	101	93	102	79	93.5		82.5		130
135	97.5	102	100	89.5	100	76.5	89		78.5		94	98.5	96	91.5	97	78	91		80.5		135
140	93	97.5	95.5	88	95.5	75	86	61.5	76		89.5	93.5	91.5	90	92.5	76	88.5	63	78		140
150	84	88.5	87	85	87	72	80.5	60	71		81	84.5	83	85.5	84	73.5	82.5	61.5	73.5		150
160	76.5	80.5	79	81.5	79.5	69.5	75.5	57.5	66	45	73.5	76.5	75.5	79.5	76.5	71	76.5	58.8	69	47.6	160
170	69.5	73	72.5	76	72.5	67	71	55.1	62	39.4	66.5	69.5	68.5	72.5	70	68.5	69.5	56.5	64.5	42.5	170
180	63.5	67	66.5	69.5	66.5	64.5	66.5	52.9	58.1	33.7	60.5	63.5	62.5	66	64	66.5	64	54.3	61	37.3	180
190	58.1	61	60.5	64	61	62.5	62	50.7	54.4	26.7	55.2	57.7	57.1	60.5	58.6	62.5	58.5	52.3	57.1	31.6	190
200	53.1	55.9	55.7	58.4	56.1	60	57	48.8	50.8	19.1	50.2	52.5	52.1	55.2	53.6	57.5	53.5	50.4	53	25.2	200
210	48.6		51.1	53.5	51.5	55.7	52.4	47.2	47.2		45.7	47.8	47.6	50.3	49	52.6	49	48.5	48.6	18	210
220	44.6		47	49.1	47.4	51.3	48.4	45.6	42.3		41.7	43.5	43.5	46	45	48.3	45	47.1	44.6	11.8	220
230	41		43.2		43.7	47.1	44.6	43.3	34.5		38		39.8	42	41.2	44.2	41.3	44.5	41		230
240			39.7		40.1	43.3	41.1	40.6	25.4		34.6		36.3		37.7	40.4	37.8	41.3	35.8		240
250					36.9		37.9	37.8	16.6				33		34.4	36.9	34.6	37.8	27.9		250
260					33.9		34.9	32.1	11.4				30.1		31.5	33.6	31.7	34.6	19.4		260
270							32.2								28.7		28.9	31.6	13.5		270
280							29.6								26.1		26.4	28.6			280
290																	23.9				290
300																	21.7				300

TAB 181198

ft	S 157																				ft
	W 236										W 256										
	F 39		F 59		F 79		F 98		F 118		F 39		F 59		F 79		F 98		F 118		
	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
100	134																				100
105	126										121										105
110	119	121	118								114										110
115	112	116	113								108										115
120	106	110	107		105						102	107	104								120
125	101	104	101	95.5	103		89				96.5	102	98.5		90.5						125
130	95.5	99	96.5	94	97.5		87.5		79		91.5	96	93.5	92.5	89.5		79				130
135	90.5	94	91.5	92	93		86		78		86.5	91.5	89	90.5	86.5		78.5				135
140	86	89	87	90	88.5	76	85		76.5		82	86.5	84.5	87.5	83.5	76.5	77.5		68.5		140
150	77.5	80.5	78.5	83.5	80	74.5	79.5		74		74	78	76	80.5	76.5	75	74.5		67.5		150
160	70	72.5	71	75.5	72.5	72	72.5	59.8	71	50	66.5	70.5	69	72.5	69	72	70	60.5	65.5		160
170	63.5	65.5	64.5	68.5	66	70	65.5	57.5	66	44.8	59.9	63.5	62	65.5	62.5	68	64	58.3	63	46	170
180	57.4	59.5	58.5	62.5	60	64.5	60	55.4	60.5	40	54.1	57.4	56.4	59.5	56.9	62	58	56.2	57.4	41.7	180
190	52	53.9	53.1	56.8	54.7	59.3	54.7	53.5	55.3	35	48.8	51.9	51.1	53.9	51.6	56.5	52.8	54.3	52.3	37.2	190
200	47.1	48.7	48.2	51.6	49.8	54.1	49.8	51.7	50.5	29.7	44	46.8	46.2	48.7	46.8	51.3	48	51.7	47.6	32.5	200
210	42.6	44	43.7	46.8	45.3	49.2	45.4	49.9	46.1	23.5	39.5	42.1	41.7	44	42.3	46.5	43.6	47.5	43.2	27.8	210
220	38.6	39.8	39.7	42.5	41.3	44.9	41.4	45.8	42.2	16.8	35.6	38	37.7	39.8	38.3	42.3	39.6	43.2	39.3	21.6	220
230	34.9	35.9	35.9	38.5	37.5	40.9	37.7	41.8	38.6		31.9	34.1	34	35.8	34.6	38.3	35.9	39.3	35.7	15.5	230
240	31.5		32.5	34.8	34.1	37.2	34.3	38.1	35.2		28.5	30.5	30.6	32.2	31.2	34.6	32.5	35.6	32.3		240
250	28.3		29.3		30.8	33.7	31.1	34.6	32		25.3		27.3	28.8	28	31.1	29.3	32.1	29.2		250
260	25.4		26.4		27.9	30.4	28.1	31.4	28.9		22.5		24.4	25.6	25.1	27.9	26.4	29	26.3		260
270			23.7		25.1	27.4	25.4	28.4	22.3		19.8		21.7	22.7	22.3	25	23.7	26	23.6		270
280			21.1		22.6		22.8	25.6	15.7		17.4		19.1		19.8	22.2	21.1	23.2	20.5		280
290					20.1		20.4	22.9					16.7		17.4	19.5	18.7	20.5	16.6		290
300					17.9		18.2	20.4					14.5		15.2	17	16.5	18.1	12		300
310							16.1								13.1		14.4	15.7			310
320							14.2								11.1		12.4				320

TAB 181198

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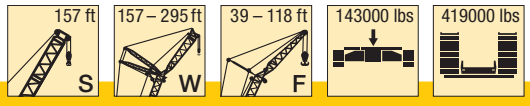

ft	S 157																		ft
	W 276										W 295								
	F 39		F 59		F 79		F 98		F 118		F 39		F 59		F 79		F 98		
	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
105	114																		105
110	110										97.5								110
115	104										96.5								115
120	98	102	95								94								120
125	92.5	96.5	94								88.5	89	81.5						125
130	87.5	91.5	89		81						83.5	87	81		71				130
135	83	86.5	84.5		79.5						79	83	78.5		70.5				135
140	78.5	82	80	80.5	78		70		62		75	78.5	75	73	70		61		140
150	70.5	73.5	71.5	76	72		69		61.5		67	70	68	71	67		60		150
160	63	66	64.5	68.5	65	68.5	66	59.5	60		59.6	62.5	61	66.5	63	60.5	58.6		160
170	56.6	59.3	57.9	61.5	58.5	64.5	59.7	58.5	58.7	48.8	53.1	56	54.5	59.7	56.5	59.5	56.2	50.7	170
180	50.9	53.3	52.2	55.5	52.8	58.4	54.1	57	53.5	44.6	47.5	50.1	48.9	53.7	50.8	54.9	50.9	50	180
190	45.6	47.8	46.9	50	47.5	52.8	48.9	53.4	48.4	40.2	42.3	44.7	43.7	48.2	45.6	49.9	45.7	48.6	190
200	40.8	42.8	42.1	44.9	42.8	47.7	44.1	48.7	43.7	35.9	37.6	39.7	38.9	43.1	40.9	44.8	41	45.9	200
210	36.4	38.2	37.7	40.2	38.4	42.9	39.7	44	39.4	31.5	33.2	35.1	34.5	38.5	36.5	40.1	36.7	41.2	210
220	32.5	34.1	33.7	36	34.4	38.7	35.8	39.7	35.5	26.4	29.3	31.1	30.6	34.3	32.6	35.9	32.8	37	220
230	28.8	30.2	30.1	32.1	30.8	34.8	32.2	35.8	32	20.9	25.7	27.3	27	30.4	28.9	32	29.2	33.1	230
240	25.4	26.7	26.6	28.5	27.3	31.1	28.8	32.1	28.6	15.2	22.3	23.8	23.6	26.8	25.5	28.4	25.8	29.5	240
250	22.3	23.4	23.5	25.1	24.2	27.7	25.6	28.7	25.5		19.2	20.5	20.4	23.4	22.4	25	22.7	26.1	250
260	19.4	20.3	20.6	22	21.3	24.5	22.7	25.6	22.6		16.4	17.5	17.6	20.3	19.5	21.8	19.8	22.9	260
270	16.8	17.5	17.9	19.1	18.6	21.6	20	22.6	20		13.7	14.7	14.9	17.4	16.8	18.9	17.1	20	270
280	14.3		15.3	16.4	16	18.8	17.5	19.9	17.5		11.2	12	12.3	14.7	14.2	16.2	14.6	17.3	280
290	11.9		12.9		13.7	16.2	15.1	17.2	15.1					12.1	11.8	13.6	12.2	14.7	290
300	9.8		10.7		11.4	13.7	12.9	14.8	12.9					9.7	9.6	11.1	10	12.2	300
310						11.4	10.8	12.5	10.9									9.9	310

TAB 181198

ft	S 177																				ft
	W 157										W 177										
	F 39		F 59		F 79		F 98		F 118		F 39		F 59		F 79		F 98		F 118		
	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
80	190																				80
85	177										172										85
90	167										163										90
95	157	137	159								153										95
100	148	133	150		125						144	136	145								100
105	140	130	142	99	120						136	133	137		124						105
110	132	126	134	96.5	115		100		90.5		129	130	130	97.5	119		104				110
115	125	123	128	93.5	110		97.5		87.5		122	126	124	96	114		101				115
120	119	121	121	91.5	106	78.5	93.5		83.5		116	121	117	94	110		97		86.5		120
125	113	118	115	89.5	102	77.5	89.5		80		110	115	111	92	106	79	93		83		125
130	107	113	110	87.5	97.5	75.5	86	63.5	76.5		105	109	106	90	102	77.5	89.5		79.5		130
135	103	108	105	85.5	94	74	82.5	62.5	73		99.5	104	101	88	99	75.5	86.5		76.5		135
140	97.5	103	100	84	91	72	79.5	60.5	70.5	49.5	95	99.5	96.5	86.5	95.5	74	83	61	74	52	140
150	89	93.5	91.5	80.5	85	69	74	57.5	65	45.9	86.5	90.5	88	83	88.5	71	77.5	59.2	68.5	48.8	150
160	81	85.5	83.5	78	79.5	66	69	54.7	60.5	39.4	78.5	82.5	80.5	80	81.5	68	72.5	56.4	63.5	42.9	160
170	74.5	78	76.5	75.5	75	63.5	64.5	52.1	56.1	32.5	72	75.5	73.5	77.5	74.5	65.5	68	53.8	59.5	36.8	170
180	68.5		70.5	73	71	61	60.5	49.7	52.1	23.2	66	69	67.5	71.5	68.5	63	64	51.5	55.5	29.7	180
190	63		65	68.5	66	59.4	57.1	47.6	48.2	14.8	60.5		62	66	63.5	61	60.5	49.4	51.7	21.5	190
200			60		61.5	57.9	53.9	45.5	42.3		55.6		57.2	60.5	58.4	59.3	57.2	47.5	48		200
210					56.7		50.9	42.9	32.1				52.6		53.8	57.6	54.4	45.7	44.2		210
220					52.6		48.5	39.9	21.3				48.6		49.8	53.2	50.6	43.2	34.3		220
230					48.8		46.2	34.2	13.7				44.9		46		46.9	40.5	24.4		230
240							43.5								42.5		43.4	36.5	16		240
250																	40.2				250
260																	37.3				260
270																	34.5				270

TAB 181198

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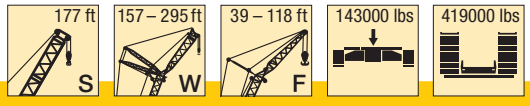

ft	S 177																				ft
	W 157										W 177										
	F 39		F 59		F 79		F 98		F 118		F 39		F 59		F 79		F 98		F 118		
	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
95	147																				95
100	138	139									133										100
105	130	136	132								125	131	127								105
110	123	128	125		118						119	124	120								110
115	117	122	118		116						112	117	114								115
120	111	115	112	95.5	113		98.5				106	111	108	97	109						120
125	105	109	107	93.5	108		96		85		100	105	102	95	103		93				125
130	99.5	104	101	91.5	102	78	93		81.5		95	99.5	97	93.5	98.5	79	91.5		80.5		130
135	95	99	96.5	90	98	77	89.5		79		90.5	94.5	92.5	91.5	93.5	78	89.5		79		135
140	90.5	94	92	88.5	93.5	75.5	86.5	62	76.5		86	90	88	90	89	76.5	87	63	77.5		140
150	82	85.5	83.5	84.5	85	72.5	81	60.5	71		77.5	81.5	79.5	84.5	81	74	80.5	61.5	73.5		150
160	74.5	77.5	76	80	77.5	69.5	75.5	57.7	66.5	45.6	70.5	73.5	72.5	76.5	74	71	73.5	59	69	48.3	160
170	67.5	70.5	69.5	73	71	67	70.5	55.3	62	40.1	63.5	67	66	70	67	68.5	67	56.7	64.5	43.2	170
180	62	64.5	63.5	67	65	65	65	53.1	58.5	34.4	58	61	60	63.5	61.5	65	61.5	54.5	60	37.9	180
190	56.5	58.7	58.3	61.5	59.7	62	59.5	50.9	54.8	27.6	52.7	55.3	54.7	58.1	56.2	60.5	56.1	52.5	55.4	32.3	190
200	51.6	53.6	53.4	56.2	54.8	58.4	54.7	49	51.1	20	47.9	50.2	49.8	52.9	51.3	55.3	51.3	50.5	50.7	26.1	200
210	47.1		48.9	51.4	50.3	53.6	50.3	47.3	47.5		43.5	45.6	45.4	48.2	46.9	50.5	46.9	48.6	46.4	18.9	210
220	43.2		44.9	47.1	46.3	49.3	46.3	45.7	43.4		39.6	41.5	41.4	44	42.9	46.3	43	46.5	42.6	12.3	220
230	39.6		41.2		42.6	45.3	42.7	43.5	35.8		36		37.8	40.1	39.3	42.3	39.4	43.2	39		230
240			37.8		39.1	41.5	39.2	40.9	26.7		32.7		34.4		35.9	38.6	36	39.5	34.8		240
250					35.9		36.1	38	17.8				31.2		32.7	35.1	32.8	36.1	29.1		250
260					33		33.2	32.8	12				28.3		29.8	31.9	29.9	32.9	20.6		260
270							30.5	26.9							27.1		27.3	29.9	14.3		270
280							27.9								24.5		24.7	27.1			280
290																	22.4				290
300																	20.2				300
310																	18.2				310

TAB 181198

ft	S 177																				ft
	W 236										W 256										
	F 39		F 59		F 79		F 98		F 118		F 39		F 59		F 79		F 98		F 118		
	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
100	129																				100
105	121										117										105
110	114	117	113								110										110
115	108	112	109								104										115
120	102	106	103		101						98	103	99.5								120
125	96.5	100	97.5	95.5	99						92.5	97.5	95		86.5						125
130	91.5	95	92.5	94	94		85		76.5		87.5	92.5	90	89	85.5		76				130
135	87	90.5	88	91	89.5		83.5		75.5		83	88	85.5	87	83		75.5				135
140	82.5	85.5	83.5	88	85	76	82		74.5		79	83.5	81	84	80	74.5	74.5		65.5		140
150	74.5	77	75.5	80.5	77	74.5	76.5		72		71	75	73	77	73.5	73.5	72		64.5		150
160	67	69.5	68	73	69.5	72	69.5	60	69		63.5	67.5	66	69.5	66.5	71	67.5	61	62.5		160
170	60.5	63	61.5	66	63	68.5	63	57.7	63.5	45.1	57.2	61	59.5	63	60	65.5	61	58.4	60	46.7	170
180	54.8	56.9	55.9	59.9	57.5	62.5	57.4	55.6	58	40.6	51.5	54.9	53.9	56.9	54.3	59.6	55.6	56.4	54.9	42.4	180
190	49.6	51.4	50.7	54.4	52.3	56.9	52.3	53.7	53	35.7	46.4	49.5	48.7	51.5	49.2	54.1	50.5	53.6	49.9	37.8	190
200	44.8	46.4	45.9	49.3	47.5	51.8	47.5	51.3	48.3	30.3	41.7	44.5	43.9	46.5	44.5	49.1	45.8	50	45.3	33.2	200
210	40.4	41.8	41.5	44.7	43.2	47.1	43.2	48	44	24.3	37.3	40	39.6	41.8	40.1	44.4	41.5	45.3	41.1	28.5	210
220	36.5	37.7	37.6	40.5	39.2	42.9	39.3	43.8	40.2	17.6	33.5	35.9	35.7	37.7	36.3	40.3	37.6	41.2	37.3	22.4	220
230	32.9	33.9	33.9	36.6	35.6	39	35.7	39.9	36.6		29.9	32.1	32	33.9	32.7	36.4	34	37.3	33.7	16.2	230
240	29.6		30.6	33	32.2	35.3	32.4	36.3	33.3		26.6	28.6	28.7	30.3	29.3	32.8	30.7	33.7	30.5		240
250	26.5		27.4		29	31.9	29.2	32.9	30.2		23.5		25.5	27	26.2	29.4	27.6	30.4	27.4		250
260	23.7		24.6		26.2	28.8	26.4	29.7	27.4		20.7		22.7	23.9	23.3	26.3	24.7	27.2	24.6		260
270	21.1		21.9		23.5	25.8	23.7	26.8	22.3		18.1		20	21	20.7	23.4	22.1	24.4	22		270
280			19.5		20.9		21.2	24	16.6		15.7		17.5		18.2	20.6	19.5	21.6	19.5		280
290					18.6		18.9	21.4					15.2		15.8	18	17.2	19	16.9		290
300					16.4		16.7	19					13		13.6	15.6	15	16.6	12.3		300
310							14.7								11.6		12.9	14.3			310
320							12.7										11				320

TAB 181198

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ft	S 177																ft
	W 276										W 295						
	F 39		F 59		F 79		F 98		F 118		F 39		F 59		F 79		
	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
110	104										91.5						110
115	100										91						115
120	94	97	90								89						120
125	89	93	89								85	84.5	78.5				125
130	84	88	85		78						80	83	77.5				130
135	79.5	83	81		77						75.5	79.5	75.5				135
140	75	78.5	76.5	78.5	75.5		67		59.2		71.5	75	73	69.5	65.5		140
150	67.5	70.5	68.5	74	70.5		66		58.6		63.5	67	66.5	67.5	64		150
160	60	63	61.5	67	63.5	65.5	63		57.5		56.7	59.8	59.4	63.5	60	57.8	160
170	53.9	56.6	55.2	60	57.1	61.5	57	56.3	56	48.5	50.5	53.3	53.2	57	53.8	56.9	170
180	48.3	50.7	49.6	54.2	51.5	55.8	51.5	55.1	50.9	45	45	47.5	47.6	51.1	48.3	52.4	180
190	43.2	45.4	44.5	48.8	46.5	50.4	46.5	51.4	46	40.9	39.9	42.3	42.6	45.8	43.3	47.5	190
200	38.6	40.5	39.8	43.8	41.8	45.4	41.9	46.4	41.5	36.5	35.3	37.4	37.9	40.9	38.7	42.5	200
210	34.3	36	35.5	39.2	37.5	40.8	37.6	41.8	37.3	32.1	31.1	33	33.6	36.3	34.4	38	210
220	30.4	32	31.7	35.1	33.6	36.7	33.8	37.7	33.5	27.2	27.3	29	29.8	32.3	30.6	33.9	220
230	26.9	28.3	28.1	31.3	30	32.8	30.3	33.9	30	21.7	23.7	25.3	26.2	28.5	27	30.1	230
240	23.6	24.8	24.7	27.8	26.7	29.2	26.9	30.3	26.8	15.9	20.5	21.9	22.9	25	23.7	26.5	240
250	20.5	21.6	21.6	24.4	23.6	25.9	23.9	26.9	23.7		17.4	18.7	19.8	21.7	20.6	23.2	250
260	17.7	18.6	18.8	21.4	20.7	22.8	21	23.9	20.9		14.6	15.7	17	18.7	17.8	20.1	260
270	15.1	15.8	16.2	18.5	18	19.9	18.4	21	18.3		12	13	14.3	15.8	15.1	17.3	270
280	12.6		13.7	15.8	15.5	17.2	15.9	18.3	15.9				11.9	13.1	12.7	14.6	280
290			11.4		13.2	14.6	13.6	15.7	13.6							12	290
300			9.2		11	12.2	11.4	13.3	11.4							9.7	300

TAB 181198

ft	S 197																				ft
	W 197										W 217										
	F 39		F 59		F 79		F 98		F 118		F 39		F 59		F 79		F 98		F 118		
	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
95	141																				95
100	133										129										100
105	126	131	127								122										105
110	119	124	120		115						115	117	114								110
115	112	117	114		113						109	113	110								115
120	106	111	108	95.5	109		97				103	107	104		105						120
125	101	105	103	93.5	104		95		83.5		97.5	101	98.5	95	99.5		90.5				125
130	96	100	97.5	92	98.5	78.5	92.5		82		92.5	96	93.5	93.5	94.5		89		79		130
135	91	95	93	90	94	77	89.5		79.5		88	91	89	91	90		86.5		78.5		135
140	87	90.5	88.5	88.5	90	75.5	87	62.5	76.5		83.5	86.5	84.5	88	86	75.5	84		77.5		140
150	78.5	82	80.5	83.5	81.5	72.5	81	60.5	71.5		75.5	78	76.5	81	78	74	77.5		74.5		150
160	71.5	74.5	73	77.5	74.5	70	74	58	67	46.3	68.5	70.5	69.5	73.5	71	71.5	70.5	59.3	71	49.1	160
170	65	67.5	66.5	70.5	68	67.5	68	55.5	62.5	40.8	62	64	63	67	64.5	69	64	56.8	64.5	43.8	170
180	59.1	61.5	61	64.5	62.5	65	62	53.3	58.8	35.1	56.3	58.2	57.3	61	58.8	63.5	58.6	54.6	59.2	38.6	180
190	53.9	56.2	55.8	58.9	57.2	61	57.1	51.1	55.2	28.4	51.2	52.8	52.2	55.6	53.7	58	53.6	52.6	54.2	33.2	190
200	49.1	51.2	51	53.8	52.5	56.1	52.4	49.1	51.4	21	46.5	47.9	47.4	50.6	49	53	48.9	50.7	49.7	27.1	200
210	44.8		46.6	49.2	48.1	51.4	48.1	47.4	47.5		42.2	43.3	43.1	46	44.7	48.4	44.7	48.8	45.5	19.8	210
220	41		42.7	45	44.2	47.2	44.2	45.9	43.8		38.3	39.3	39.3	41.9	40.8	44.2	40.9	44.9	41.7	12.8	220
230	37.5		39.1		40.6	43.3	40.6	43.5	36.8		34.8		35.7	38	37.3	40.3	37.3	41.2	38.2		230
240			35.8		37.2	39.6	37.3	40.5	28		31.5		32.4		33.9	36.7	34	37.6	34.8		240
250					34.1		34.2	37.1	19				29.3		30.8	33.4	30.9	34.3	30.9		250
260					31.2		31.4	33.3	12.7				26.5		28	30.2	28.1	31.2	22.4		260
270					28.5		28.7	27.7					23.9		25.3		25.5	28.3	15.6		270
280							26.3								22.9		23.1	25.5			280
290																	20.8				290
300																	18.7				300
310																	16.7				310

TAB 181198

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ft	S 197																				ft
	W 236										W 256										
	F 39		F 59		F 79		F 98		F 118		F 39		F 59		F 79		F 98		F 118		
	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
105	116										113										105
110	110	112	110								107										110
115	104	108	106								101										115
120	98	102	100								95.5	99.5	94.5								120
125	92.5	96.5	95		94.5						90	94	91								125
130	88	91.5	90	93.5	90		81.5				85	89	86.5	85	81						130
135	83.5	86.5	85.5	90	86		80.5				81	84.5	82	83	79						135
140	79	82	81.5	85.5	81.5	76	78.5		71		76.5	80	77.5	80.5	76.5	71.5	70.5		62.5		140
150	71	74	73.5	77.5	73.5	74.5	73.5		70		69	72	70	74	70.5	71	68.5		61.5		150
160	64	66.5	66.5	70	66.5	71.5	66.5	60	67		62	64.5	63	66.5	63.5	68.5	64.5	59.6	59.9		160
170	57.7	60	60	63	60.5	65.5	60	57.9	61	45.9	55.6	58	56.7	60	57.2	62.5	58.4	58.2	57.4	48.1	170
180	52.2	54.2	54.4	57.3	54.9	59.9	54.8	55.8	55.5	41.3	50.1	52.3	51.2	54.3	51.7	57	53	56.4	52.3	43.3	180
190	47.1	48.9	49.3	51.9	49.8	54.5	49.8	53.5	50.5	36.3	45.1	47	46.2	49	46.7	51.7	48	52.5	47.5	38.5	190
200	42.4	44	44.7	47	45.2	49.5	45.2	50.4	46	31	40.4	42.2	41.6	44.1	42.1	46.8	43.5	47.6	43	33.8	200
210	38.2	39.6	40.4	42.4	40.9	44.9	41	45.8	41.8	25.3	36.2	37.8	37.3	39.6	37.9	42.2	39.3	43.1	38.9	29.1	210
220	34.4	35.6	36.5	38.4	37.1	40.8	37.2	41.7	38.1	18.5	32.4	33.8	33.5	35.6	34.1	38.2	35.5	39.1	35.2	23.2	220
230	30.8	31.9	32.9	34.6	33.6	37	33.7	37.9	34.6	12.6	28.9	30.1	30	31.9	30.6	34.4	32	35.3	31.7	17.1	230
240	27.6		29.6	31	30.2	33.4	30.4	34.4	31.4		25.7	26.7	26.8	28.4	27.4	30.9	28.8	31.8	28.5		240
250	24.6		26.5	27.7	27.2	30.1	27.4	31.1	28.4		22.6		23.7	25.1	24.3	27.6	25.7	28.5	25.6		250
260	21.8		23.7	24.7	24.4	27	24.6	28	25.6		19.9		20.9	22.1	21.5	24.5	23	25.5	22.8		260
270	19.3		21.1		21.7	24.1	22	25.1	22.1		17.3		18.3	19.3	18.9	21.7	20.4	22.7	20.3		270
280			18.6		19.3		19.5	22.4	17.3		14.9		15.9		16.5	19	17.9	20	17.9		280
290					16.9		17.2	19.8					13.6		14.2	16.5	15.6	17.5	15.5		290
300					14.8		15.1	17.4					11.5		12.1	14.1	13.5	15.1	12.3		300
310							13.1								10.1		11.5	12.9			310
320							11.2											10.7			320

TAB 181198

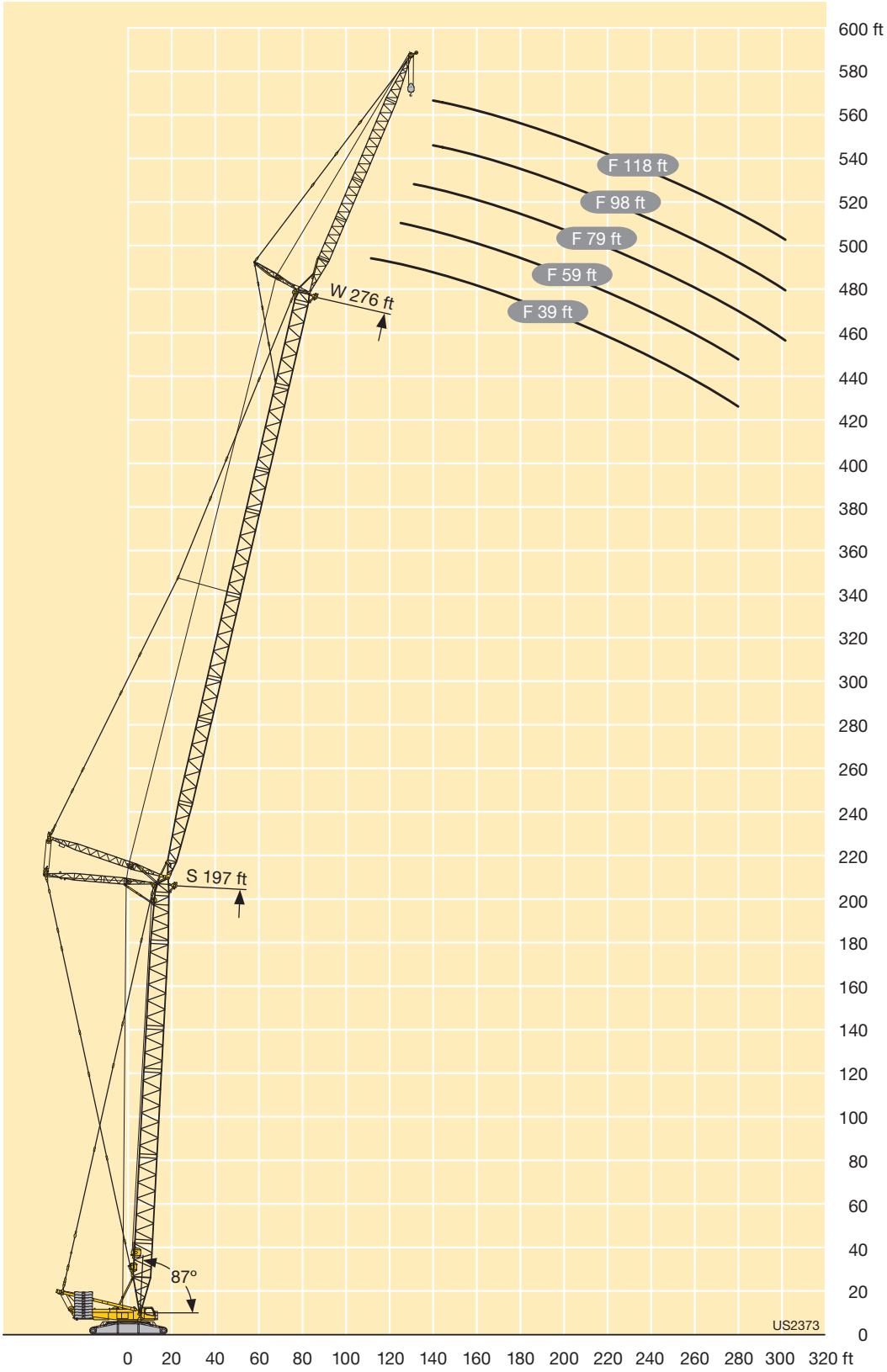
ft	S 197 W 276 F 39 10°	F 39 30°	F 59 10°	F 59 30°	F 79 10°	F 79 30°	F 98 10°	F 98 30°	F 118 10°	F 118 30°	ft
110	99.5										110
115	95.5										115
120	90										120
125	85	89	84								125
130	80.5	84	81		73.5						130
135	76	79.5	77		73						135
140	72	75.5	73	75.5	72		63.5		56.1		140
150	64	67.5	65.5	71	67.5		62.5		55.5		150
160	57.3	60	58.6	64	60.5	62.5	60.5		54.4		160
170	51.1	53.8	52.4	57.3	54.3	58.8	54.3	53.6	53.3		170
180	45.7	48.1	47	51.6	49	53.2	48.9	52.5	48.3		180
190	40.8	42.9	42	46.4	44	47.9	44.1	48.9	43.5	42.2	190
200	36.2	38.2	37.5	41.5	39.5	43.1	39.6	44.1	39.1	37.3	200
210	32	33.8	33.3	37.1	35.3	38.6	35.4	39.6	35	32.7	210
220	28.3	29.9	29.5	33.1	31.5	34.6	31.7	35.6	31.4	28	220
230	24.9	26.3	26.1	29.3	28	30.8	28.3	31.9	28	22.5	230
240	21.6	22.9	22.8	25.9	24.8	27.3	25	28.4	24.8	16.7	240
250	18.6	19.7	19.8	22.6	21.7	24.1	22	25.1	21.9		250
260	15.9	16.8	17	19.6	18.9	21.1	19.3	22.1	19.2		260
270	13.4	14.1	14.5	16.8	16.3	18.3	16.7	19.3	16.6		270
280	11		12	14.2	13.9	15.6	14.3	16.6	14.2		280
290					11.6	13.1	12	14.1	12		290
300					9.5	10.7	9.9	11.8	9.9		300

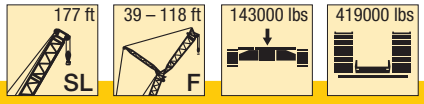
TAB 181198

J

Lifting heights
Hauteurs de levage

SWF

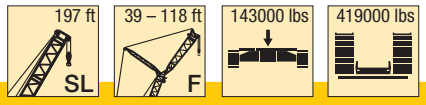




ft	SL 177															ft
	F 39			F 59			F 79			F 98			F 118			
	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	
32	303															32
34	303															34
36	303															36
38	303															38
40	303	302														40
45	303	301	167	246	204											45
50	303	288	162	235	195											50
55	303	272	157	221	186		173			151						55
60	299	258	152	209	177	113	164	139		142	121		132			60
65	282	247	147	198	169	109	155	133		135	115		124	105		65
70	260	236	143	188	162	106	147	127		128	110		117	100		70
75	239	226	139	179	155	103	140	122	86.5	121	105		111	95.5		75
80	220	216	135	170	149	101	134	116	84	115	100	72.5	105	91		80
85	202	203	132	163	142	98	127	112	81.5	110	95.5	70	100	86.5	62	85
90	186	187	129	156	138	95.5	122	108	79	105	92	68	95.5	83	59.9	90
95	171	173	126	150	133	93	117	104	77	100	88.5	66	91	79.5	57.8	95
100	159	160	123	144	129	90.5	113	100	75	95.5	85	64	86.5	76	55.8	100
105	147	148	120	138	124	88.5	108	97	73	92	81.5	62	82.5	73	54	105
110	137	139	118	133	120	86.5	104	93.5	71	88.5	79	60	79	70	52.2	110
115	128	129	115	129	116	84.5	99.5	90.5	69.5	85	76.5	58.3	76	67.5	50.6	115
120	120	121	113	123	113	83	96	87	68	81.5	73.5	56.7	73	65	49.2	120
125	113	114	110	116	110	81.5	93	84.5	66.5	78	71	55.2	70	62.5	47.7	125
130	106	107	108	109	106	80	90.5	82	65	75.5	68.5	53.9	67	60.5	46.1	130
135	100	101	103	103	102	78.5	87.5	80	63.5	73	66.5	52.6	64.5	58.2	44.2	135
140	94.5	95	97	97.5	97.5	77	84.5	77.5	62.5	71	64.5	51.2	62.5	56	42.3	140
150	84	84.5	86	87	88	74.5	79.5	73.5	60	66.5	60.5	48.9	58.1	52.4	38.4	150
160	75	75.5	77	78	78.5	72.5	75.5	70	58	62	57.2	46.9	54.1	49.3	33.6	160
170	67.5	68	69	70	70.5	70.5	71.5	66.5	56.2	58.9	54.1	44.9	50.1	46.3	25.9	170
180	60.5	61		63.5	64	65	65	63.5	54.5	55.7	51.6	43.3	46.7	40.5	17.7	180
190	54.4	54.7		57.2	57.7	59	59.2	59.1	53.1	52.6	49.2	41.8	43.3	33.5	11.3	190
200				51.5	51.9		53.6	54.2	51.7	49.9	46.9	40.4	39.5	25.8		200
210				46.2			48.3	48.9	50.4	47.8	45.1	38.9	34.8	18.1		210
220				41.6			43.7	44.2	45.4	44.7	43.4	35.4	25.1	13.3		220
230							39.4	39.8		40.8	40.8	32				230
240										36.9	37.5					240
250										33.3						250
260										30.1						260

TAB 181118

K



ft	SL 197															ft
	F 39			F 59			F 79			F 98			F 118			
	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	
36	303															36
38	303															38
40	303	303														40
45	303	303		249												45
50	303	293		238												50
55	303	280	158	226	189		176									55
60	298	266	154	215	180	114	166	141		145			133			60
65	272	254	149	203	173	110	159	135		137	116		126	106		65
70	250	244	146	194	166	107	151	130		130	111		119	102		70
75	230	230	142	185	159	105	144	124	87	124	107		114	97.5		75
80	212	214	138	177	153	102	138	119	84.5	118	102	72.5	108	93		80
85	197	199	135	169	147	99.5	132	115	82	113	98	70.5	102	89		85
90	182	184	132	163	142	97	126	111	80	108	94	68.5	98	84.5		90
95	169	170	129	157	138	94.5	121	107	78	104	90.5	66.5	94	81	58.2	95
100	156	157	126	151	133	92.5	117	103	76	99	87.5	64.5	89.5	78	56.3	100
105	145	146	123	145	129	90.5	113	99.5	74	95	84	62.5	85.5	75	54.6	105
110	135	136	121	138	125	88.5	109	96.5	72.5	92	81	61	82	72	52.9	110
115	126	127	118	129	121	86.5	105	93.5	71	88.5	78.5	59.4	79	69.5	51.3	115
120	117	118	116	121	117	85	101	90.5	69.5	85.5	76	57.8	76	67	49.9	120
125	110	111	113	113	114	83	97	88	68	82	74	56.1	73.5	65	48.5	125
130	103	104	106	107	108	81.5	94	85	66.5	79	71.5	54.9	70.5	62.5	47.1	130
135	97	98	100	100	102	80.5	91.5	83	65	76.5	69	53.7	68	60.5	45.5	135
140	91.5	92	94.5	94.5	96	79	89	81	64	74	67	52.4	65	58.4	43.8	140
150	81	82	83.5	84	85	76.5	83.5	76.5	61.5	69.5	63	50.1	60.5	54.6	40.2	150
160	72	73	74.5	75	76	73.5	77	73	59.5	65.5	59.8	47.9	56.9	51.3	36.3	160
170	64.5	65	66.5	67	68	69.5	69	69.5	57.5	61.5	56.4	46.1	53.2	48.5	31.4	170
180	57.3	57.7	59	60.5	61	63	62.5	63	55.9	58.6	53.8	44.3	49.7	45.6	24	180
190	50.9	51.3	52.4	53.9	54.6	56.2	56.1	57	54.4	55.5	51.4	42.8	46.4	40.5	16.4	190
200	45.1	45.4		48.1	48.6	50.1	50.3	51.1	51.9	51.7	49.1	41.5	43.2	33.7	10.1	200
210	39.9			42.8	43.2		44.9	45.6	47.5	46.4	46.9	40.3	40	26.7		210
220	35.3			38.1	38.5		40.3	40.9	42.5	41.7	42.4	38.8	35.4	19.6		220
230				33.9	34.2		36	36.5	37.9	37.4	38.2	36.2	27.8	14.5		230
240							32	32.5		33.5	34.1	33				240
250							28.4			29.8	30.4	29.9				250
260							25.1			26.6	27.1	27.2				260
270										23.6	24					270

TAB 181118

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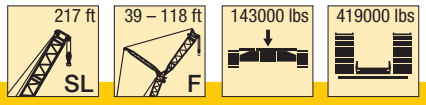

ft	SL 217															ft
	F 39			F 59			F 79			F 98			F 118			
	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	
40	303															40
45	303	303		251												45
50	303	296		241												50
55	299	286	160	230	192		178									55
60	288	273	155	219	184		169	143		147			135			60
65	262	261	151	209	177	111	161	137		139	118		128			65
70	240	242	147	199	170	108	154	132		133	113		121			70
75	221	223	144	191	163	105	148	127	87.5	127	108		116	98.5		75
80	204	206	141	183	157	103	141	122	85	121	104		110	94		80
85	189	191	137	176	152	101	136	117	83	116	100	71	105	90.5		85
90	175	177	134	168	147	98.5	131	113	80.5	111	96	69	101	86.5		90
95	163	165	131	162	142	96	125	110	78.5	107	92.5	67	96.5	83	58.8	95
100	152	154	129	154	137	94	120	106	76.5	103	89.5	65	92.5	79.5	57	100
105	142	143	126	144	133	91.5	116	102	75	98	86.5	63.5	88.5	77	55.3	105
110	132	133	124	136	129	90	113	99.5	73.5	94.5	83.5	62	84.5	74	53.6	110
115	123	124	121	127	125	88.5	109	96.5	72	91.5	80.5	60.5	81.5	71.5	51.9	115
120	115	116	117	118	120	86.5	105	94	70.5	88.5	78	58.7	78.5	69	50.4	120
125	107	108	111	111	112	85	102	91	69	85.5	76	57.2	76	66.5	49.1	125
130	100	101	104	104	105	83.5	98	88.5	67.5	82.5	74	55.7	73.5	64.5	47.8	130
135	94.5	95	98	98	99	82	94.5	86	66.5	80	71.5	54.5	70.5	62.5	46.4	135
140	88.5	89.5	92	92	93	80.5	91.5	83.5	65	77	69.5	53.4	68	60.5	45	140
150	78	79	81	81.5	82.5	78	83.5	79.5	62.5	72.5	65.5	51.1	63.5	56.6	41.8	150
160	69	70	71.5	72	73	74.5	74.5	75	60.5	68.5	62	48.9	59.4	53	38.4	160
170	61	61.5	63.5	64.5	65	67.5	66.5	67.5	58.7	64.5	58.9	47.1	55.9	50.3	34.9	170
180	53.7	54.3	55.9	57	57.9	60	59.3	60.5	56.9	60	55.8	45.4	52.5	47.7	29	180
190	47.3	47.8	49.2	50.5	51.2	53.3	52.8	53.9	54.3	54.4	53.1	43.8	49.2	44.7	22.3	190
200	41.5	41.9	43.1	44.6	45.3	47.1	46.9	47.8	50.4	48.4	49.6	42.4	46.1	40.5	15.4	200
210	36.3	36.6		39.2	39.8	41.4	41.5	42.3	44.6	43	44.1	41.2	43	33.9		210
220	31.7	32		34.6	35.1	36.4	36.8	37.5	39.5	38.3	39.3	40.1	38.9	27.3		220
230	27.6	27.8		30.3	30.7		32.5	33.1	34.9	34	34.9	37	34.8	20.7		230
240				26.4	26.8		28.5	29.1	30.6	30	30.8	33	29.4	15.1		240
250				22.8			24.9	25.4		26.3	27.1	29	21.8	11.3		250
260				19.6			21.6	22		23.1	23.7	25.4	13.5	7.6		260
270							18.6	18.9		20.1	20.6	22				270
280										17.3	17.7					280
290										14.7						290
300										12.3						300

TAB 181118

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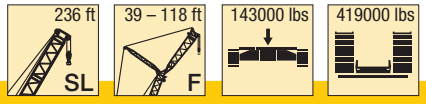
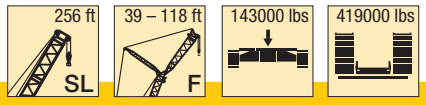


ft	SL 236															ft
	F 39			F 59			F 79			F 98			F 118			
	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	
40	303															40
45	303	303														45
50	303	298														50
55	295	289	160	231	194											55
60	277	276	156	222	186		172	144		148						60
65	253	255	152	213	179	111	164	139		141	118		128			65
70	232	235	149	204	173	108	157	133		135	114		123			70
75	213	216	145	196	166	106	151	129		129	110		117	99		75
80	197	199	142	188	160	104	145	124	85	124	106		113	95		80
85	182	184	139	181	155	101	139	119	83	119	102	71	108	91.5		85
90	169	171	136	170	150	99	134	115	81	114	98	69	103	88		90
95	157	159	133	159	145	97	129	112	79	110	94.5	67.5	98.5	84.5	58.9	95
100	146	148	131	149	141	95	124	108	77.5	106	91	65.5	95	81	57.2	100
105	136	138	128	139	137	93	119	105	75.5	102	88.5	64	91	78.5	55.5	105
110	128	129	126	130	131	91	116	102	74	97.5	85.5	62.5	87.5	76	54	110
115	120	121	123	122	124	89.5	112	99	72.5	94	82.5	61	84	73	52.4	115
120	112	113	117	115	116	88	109	96.5	71	91	80	59.4	80.5	70.5	50.9	120
125	105	106	109	108	109	86.5	106	94	69.5	88.5	78	58	78	68	49.5	125
130	98	99	102	101	103	85	102	91.5	68.5	85.5	75.5	56.5	75.5	66	48.3	130
135	92	93	96	95.5	97	83.5	96.5	89	67.5	83	73.5	55.3	73.5	64	47.1	135
140	86.5	87.5	90	89.5	91	82	91	86.5	66	80	71.5	54.1	71	62.5	45.9	140
150	76	77	79	79	80.5	78.5	81	80.5	64	75.5	67.5	52	66	58.6	43.1	150
160	66.5	67.5	69.5	70	71	74	72	73.5	61.5	70.5	64	49.9	61.5	55.1	39.9	160
170	58.2	59.1	61	61.5	63	65.5	64	65.5	59.8	65	61	47.8	58.3	51.9	36.7	170
180	51.1	51.9	53.7	54.4	55.4	58	56.8	58.1	58	58.2	58.2	46.2	55	49.4	33.1	180
190	44.7	45.4	47	47.8	48.8	51.1	50.2	51.4	53.8	51.7	53.1	44.7	51.1	46.9	27.6	190
200	38.9	39.5	40.9	41.9	42.8	44.8	44.2	45.3	48.1	45.7	47.1	43.2	46.4	44.1	21	200
210	33.7	34.2	35.4	36.6	37.4	39.2	38.8	39.8	42.4	40.3	41.6	41.8	41	40.3	14.5	210
220	29.1	29.6	30.6	32	32.6	34.2	34.1	35	37.3	35.5	36.7	39	36.3	34.3	9.4	220
230	25	25.4		27.7	28.3	29.6	29.8	30.6	32.6	31.2	32.3	35	32	28.3		230
240	21.2	21.5		23.8	24.3	25.4	25.8	26.6	28.3	27.2	28.2	30.7	28	22.3		240
250	17.7			20.2	20.6		22.2	22.8	24.4	23.6	24.5	26.7	24.4	16.4		250
260	14.5			17	17.3		18.9	19.5	20.8	20.3	21.1	23.1	21.1	12.8		260
270				14	14.3		15.9	16.4		17.3	18	19.7	15.6	9.3		270
280							13.1	13.5		14.4	15.1	16.6				280
290										11.8	12.4					290
300										9.5	10					300
310											7.7					310

TAB 181118

K



ft	SL 256															ft
	F 39			F 59			F 79			F 98			F 118			
	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	
45	301	269														45
50	294	263														50
55	283	256	159	207												55
60	268	250	155	201	181		164									60
65	244	243	152	195	176	110	159	137		136			123			65
70	224	226	148	190	171	108	154	132		132			120			70
75	206	209	145	184	166	105	149	128		127	109		115	97.5		75
80	190	193	142	179	161	103	144	124	84.5	123	105		111	94		80
85	176	178	139	175	156	101	139	120	82.5	118	101	70.5	107	90.5		85
90	164	166	137	165	152	99	134	116	80.5	113	98	68.5	102	87.5		90
95	152	154	134	154	147	97	130	112	79	109	94.5	67	98	84.5	58.4	95
100	142	143	131	144	142	95	126	109	77	106	91.5	65.5	94.5	81.5	56.8	100
105	132	134	129	134	137	93.5	121	106	75.5	102	88.5	64	91.5	78.5	55.2	105
110	124	125	127	126	128	92	117	103	74	99	86	62.5	88.5	76	53.8	110
115	116	117	121	118	120	90	114	100	72.5	95.5	83.5	61	85	73.5	52.3	115
120	108	110	114	111	113	88.5	110	97	71	92	81	59.5	82	71.5	50.9	120
125	102	103	107	104	106	87	105	95	70	89.5	78.5	58.2	79	69	49.5	125
130	95.5	96.5	100	97.5	99.5	86	98.5	92.5	68.5	87	76.5	56.9	77	66.5	48.3	130
135	89.5	91	94.5	92	93.5	84.5	93	90	67.5	84.5	74.5	55.6	74.5	65	47.2	135
140	84.5	85.5	88.5	86.5	88.5	83	88	87.5	66.5	82	73	54.4	72.5	63	46.1	140
150	74.5	75.5	78	77	78.5	79	78	80	64.5	76.5	69	52.3	68	59.7	43.6	150
160	65.5	66.5	68.5	68	69.5	73	69.5	71	62	69.5	65.5	50.4	63.5	56.3	40.8	160
170	57	57.9	60	60	61.5	64.5	61.5	63	60.5	62	62.5	48.5	59.6	53	37.5	170
180	49.8	50.7	52.6	53	54.1	56.9	55	56.4	58.2	55.4	56.8	46.8	54.6	50.4	34.3	180
190	43.4	44.2	45.9	46.5	47.5	49.9	48.6	49.9	53.3	49.4	51	45.3	49.1	48.1	30	190
200	37.7	38.3	39.9	40.6	41.5	43.7	42.7	43.9	46.9	43.8	45.3	43.9	43.7	45.1	24.7	200
210	32.5	33.1	34.4	35.3	36.1	38.1	37.3	38.4	41.1	38.7	40	42.5	38.7	40.4	18.5	210
220	28	28.5	29.6	30.6	31.4	33.1	32.6	33.6	36.1	33.9	35.2	38.2	34.4	35.9	12.3	220
230	23.8	24.3	25.3	26.4	27.1	28.6	28.3	29.2	31.5	29.6	30.8	33.7	30.2	31.7		230
240	20	20.4		22.5	23.1	24.4	24.4	25.2	27.2	25.6	26.7	29.4	26.4	27.4		240
250	16.5	16.9		18.9	19.4	20.6	20.7	21.5	23.3	22	23	25.4	22.7	22.8		250
260	13.4	13.7		15.7	16.2	17.1	17.5	18.2	19.7	18.7	19.6	21.8	19.4	17.1		260
270	10.6	10.8		12.7	13.1		14.5	15.1	16.4	15.7	16.5	18.5	16.4	13.3		270
280				10	10.3		11.7	12.2	13.4	12.9	13.7	15.4	13.6	10.1		280
290								9.6		10.3	11	12.5				290
300								7.2		8	8.5	9.9				300

TAB 181118

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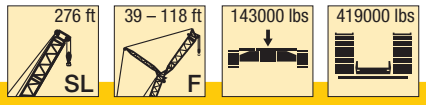

ft	SL 276															SL 295									ft
	F 39			F 59			F 79			F 98			F 118			F 39			F 59			F 79			
	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	
45	301	270														294									45
50	295	265														289									50
55	280	259		209												274	257		207						55
60	258	252	157	203	182		165									249	249	157	203	182		164			60
65	235	237	153	198	178		161	138		138			124			227	230	154	198	179		160	139		65
70	216	218	150	194	174		156	134		134			120			208	211	151	194	175		157	135		70
75	198	201	147	189	169	106	151	130		129	110		116	98.5		191	194	148	188	171	106	153	131		75
80	182	185	144	182	164	104	147	126	84.5	125	106		112	95		176	179	146	178	166	104	148	127		80
85	169	171	141	171	159	102	142	122	83	120	103		108	91.5		162	165	143	165	162	102	144	124	83	85
90	156	159	138	159	155	100	137	118	81	116	99.5		104	88.5		150	153	140	153	154	101	140	120	81.5	90
95	145	147	136	148	148	98	133	115	79.5	112	96.5	67.5	100	86		140	142	138	142	145	99	135	117	80	95
100	135	137	134	137	140	96	129	111	78	108	93	65.5	96.5	83	57	130	132	134	132	135	97	131	113	78.5	100
105	126	127	131	128	131	94.5	125	108	76	105	90.5	64.5	93.5	80	55.6	120	122	128	123	126	95.5	124	110	77	105
110	117	119	123	120	122	93	120	105	74.5	102	88	63	90.5	77.5	54.1	112	114	119	115	117	94	116	108	75.5	110
115	109	111	116	112	114	91	113	102	73.5	98	85.5	61.5	87.5	75	52.8	105	106	111	107	110	92.5	108	105	74	115
120	102	104	108	105	107	89.5	106	99.5	72	95	83	60	84.5	73	51.4	97.5	99	104	100	102	90.5	101	102	72.5	120
125	95.5	97	101	98	100	88	99.5	97	71	91.5	80.5	58.8	82	71	50.1	91	92.5	96.5	93.5	95.5	89	95	97.5	71.5	125
130	89.5	91	94.5	92	94	87	93.5	94.5	69.5	89.5	78	57.6	79	68.5	48.8	85	86.5	90.5	87.5	89.5	88	89	91.5	70.5	130
135	84	85.5	89	86.5	88.5	85.5	88	90	68.5	86	76.5	56.4	76.5	66.5	47.7	79.5	81	84.5	82	84	85	83.5	86	69	135
140	78.5	80	83.5	81	83	84	82.5	84.5	67.5	81.5	74.5	55.2	74.5	64.5	46.7	74.5	75.5	79.5	77	78.5	81.5	78.5	80.5	68	140
150	69	70	73.5	71.5	73	77.5	73	75	65.5	73	71	53	70	61.5	44.5	64.5	66	69.5	67.5	69	73.5	69	71	66	150
160	60.5	61.5	64	63	64.5	68	64.5	66	63.5	64.5	66.5	51.2	64	58.1	42.2	56.3	57.4	60.5	58.8	60.5	64.5	60.5	62	63.5	160
170	52.8	53.8	56.3	55.2	56.5	60	56.6	58.3	61.5	57.1	59.2	49.4	56.8	55	39.2	48.8	49.8	52.5	51.3	52.7	56.3	52.7	54.5	59	170
180	46.1	47	49.2	48.5	49.8	52.9	50	51.6	55.3	50.5	52.4	47.6	50.3	51.4	36.1	42.2	43.2	45.6	44.7	46	49.3	46.2	47.8	52.1	180
190	39.8	40.6	42.6	42.5	43.6	46.5	43.9	45.4	49.1	44.5	46.3	46.1	44.4	46.5	33.1	36.3	37.2	39.4	38.7	39.9	42.9	40.2	41.7	45.7	190
200	34	34.8	36.5	36.9	37.9	40.5	38.4	39.8	43.2	39.1	40.7	43.8	39	40.9	29.2	30.9	31.7	33.7	33.2	34.3	37.1	34.7	36.1	39.8	200
210	28.8	29.4	31	31.7	32.6	34.9	33.4	34.6	37.8	34.1	35.6	39.5	34.1	35.9	23.4	25.9	26.7	28.5	28.2	29.2	31.8	29.7	31	34.4	210
220	24.2	24.8	26.2	27	27.9	29.9	28.9	30.1	33	29.6	31.1	34.7	29.7	31.4	17.6	21.6	22.2	23.9	23.8	24.7	27.1	25.3	26.5	29.6	220
230	20.1	20.6	21.8	22.8	23.5	25.4	24.7	25.8	28.4	25.5	26.9	30.2	25.6	27.2	11.8	17.5	18.1	19.5	19.7	20.6	22.7	21.2	22.3	25.2	230
240	16.2	16.7	17.8	18.8	19.5	21.2	20.8	21.8	24.1	21.8	23	26.1	21.9	23.4		13.7	14.2	15.5	16	16.8	18.6	17.4	18.4	21	240
250	12.7	13.2	14	15.2	15.9	17.3	17.2	18	20.1	18.2	19.4	22.2	18.4	19.8			10.7	11.8	12.5	13.2	14.9	13.9	14.8	17.2	250
260	9.6	10	10.7	12	12.6	13.8	13.9	14.7	16.5	15.1	16.1	18.7	15.3	16.6			7.5	8.4	9.3	10	11.5	10.7	11.6	13.8	260
270				9	9.5	10.6	10.9	11.6	13.2	12.1	13.1	15.4	12.4	13.6							8.3		8.6	10.6	270
280									10.1	9.3	10.2	12.3	9.7	10.8											280

TAB 181118

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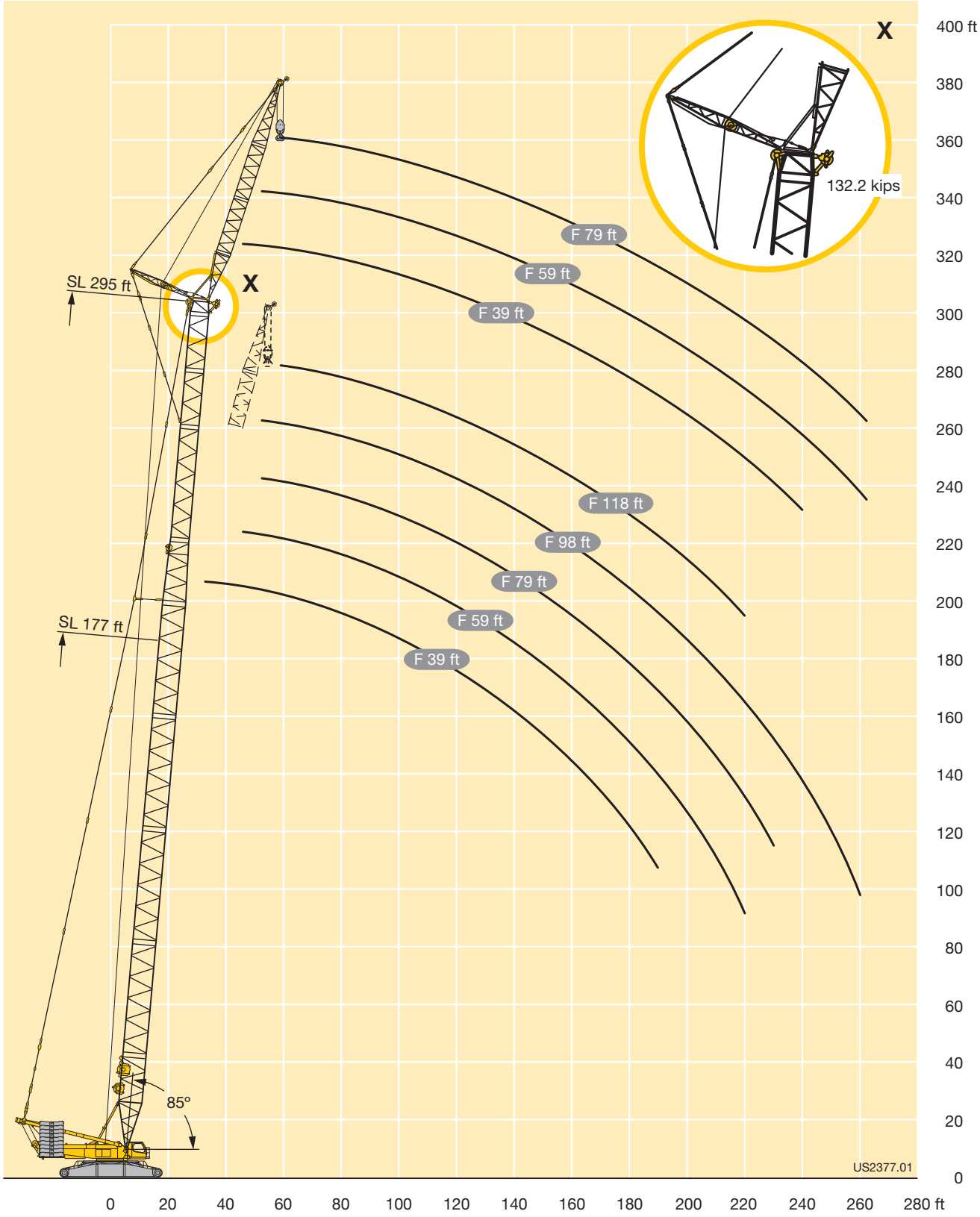
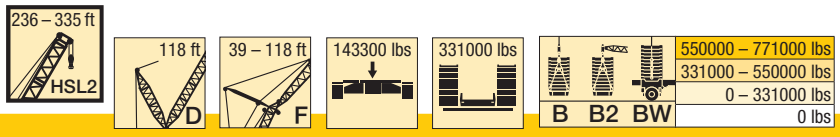

X
132.2 kips
X
SL 295 ft
SL 177 ft
85°
F 79 ft
F 59 ft
F 39 ft
F 118 ft
F 98 ft
F 79 ft
F 59 ft
F 39 ft
US2377.01
400 ft
380
360
340
320
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280 ft

K

HSL2DFB/B2/BW

HSL2 236 – 335



ft		SL2 236					SL2 256					SL2 276					SL2 295					SL2 315					SL2 335				
		39	59	79	98	118	39	59	79	98	118	39	59	79	98	118	39	59	79	98	118	39	59	79	98	118	39	59	79	98	118
45	–	302																													
	B	302					302																								
	B2	302					302																								
	BW	302					302																								
50	–	302					302																								
	B	302					302																								
	B2	302					302																								
	BW	302					302																								
55	–	296	228				292					288					278					269									
	B	302	236				302					302					302					302									
	B2	302	236				302					302					302					302									
	BW	302	236				302					302					302					302									
60	–	281	227				271	228				262	228				252	223				244					234				
	B	302	227				302	228				302	228				302	223				301					294				
	B2	302	226				302	228				302	228				301	222				301					289				
	BW	302	226				302	228				302	227				301	223				301					290				
65	–	256	217	173	152		247	221	175			238	223	178			229	216				222	213				213	205			
	B	302	217	173	152		302	221	176			302	223	178			302	217	175			297	213				290	210			
	B2	302	217	172	152		302	221	175			302	222	177			296	217	175			297	213				283	209			
	BW	302	217	172	152		302	221	175			302	223	177			297	218	175			296	213				284	209			
70	–	235	207	166	146		226	212	169			218	216	172			209	204	169			203	203				194	194			
	B	302	207	166	146		302	212	169			302	216	172			297	213	171			291	210				285	207			
	B2	302	207	166	146		302	212	169			302	216	171			288	212	171			292	210				276	205			
	BW	302	207	166	146		302	212	169			302	217	171			289	212	171			291	210				277	205			
75	–	216	198	159	140	127	208	203	163	142	129	200	204	165	144	131	192	192	166	145		186	191	167	142		178	183	164		
	B	299	199	159	140	127	299	203	163	142	129	298	210	165	144	131	291	209	166	145		286	206	167	144		279	204	165		
	B2	300	198	159	140	127	299	203	162	142	129	298	210	165	144	130	280	206	166	145		286	206	166	144		270	201	164		
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80	–	199	190	153	134	121	191	193	156	136	123	184	189	159	139	125	176	181	161	140	126	170	176	163	141	126	163	169	158	141	125
	B	294	191	153	134	121	293	195	156	136	123	292	204	159	139	126	284	204	161	140	126	282	202	163	141	126	275	201	161	141	125
	B2	294	190	152	134	121	294	195	156	136	123	292	204	159	139	125	272	200	161	140	126	280	202	163	141	126	263	196	160	140	125
	BW	294	190	153	134	121	294	196	156	137	123	293	204	159	138	125	272	200	161	140	126	280	203	163	141	126	264	196	160	140	125
85	–	184	183	146	128	116	177	180	150	131	118	170	174	153	134	120	162	167	156	135	122	157	162	157	137	123	150	155	153	138	122
	B	283	183	146	128	116	286	188	150	131	118	286	197	153	134	121	277	199	156	135	122	277	199	158	137	123	269	197	158	138	122
	B2	284	183	146	128	116	287	188	149	131	118	286	197	153	133	120	264	194	156	135	122	273	199	157	137	123	257	191	156	137	122
	BW	284	183	146	128	116	287	188	149	131	118	287	197	153	133	120	264	194	156	135	122	274	199	158	137	123	258	191	156	137	122
90	–	170	173	141	123	111	164	167	144	126	114	157	162	148	129	115	150	155	149	130	117	145	150	150	133	119	138	144	144	133	120
	B	273	176	141	123	111	278	181	144	126	114	280	190	148	129	116	268	193	150	131	117	273	194	153	133	119	262	193	154	134	120
	B2	273	176	141	123	111	278	181	144	126	114	280	190	148	129	116	256	189	149	131	117	266	194	152	132	119	251	187	153	133	119
	BW	273	176	141	123	111	279	181	144	126	114	280	190	147	128	116	257	189	150	131	117	267	195	153	133	119	252	187	153	133	119
95	–	158	162	135	118	107	152	156	139	121	109	145	150	142	124	111	139	144	143	126	113	134	139	142	128	115	127	133	136	128	116
	B	262	170	135	118	107	269	175	139	121	109	273	184	143	124	112	260	187	146	126	113	269	189	148	128	115	256	190	150	130	116
	B2	262	170	135	118	107	269	175	139	121	109	273	183	143	124	111	249	184	144	126	113	260	189	148	128	115	245	182	149	129	116
	BW	263	170	135	118	107	270	175	139	121	109	273	183	142	124	111	250	185	145	126	113	260	190	148	128	115	246	182	149	129	116
100	–	147	151	130	113	102	141	145	134	116	105	135	140	137	120	107	129	134	136	122	109	124	129	132	124	111	117	123	126	123	112
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	BW	252	164	130	114	102	261	169	134	117	105	266	177	138	120	107	243	180	140	122	109	254	185	144	124	111	240	178	145	125	112
105	–	137	141	126	109	98.2	131	135	129	112	101	125	130	133	116	103	119	124	127	118	105	114	120	122	119	107	108	114	117	118	108
	B	243	159	126	109	98.2	252	164	129	112	101	259	172	133	116	104	247	175	137	118	106	257	179	139	120	108	243	181	142	122	109
	B2	242	159	126	109	98.2	252	164	129	112	101	259	171	133	116	103	237	174	135	118	105	247	179	139	120	107	233	174	141	122	109
	BW	242	159	126	109	98.2	253	164	129	112	101	259	172	133	116	103	237	175	136	118	105	248	179	139	120	108	235	174	141	121	109
110	–	128	132	122	105	94.1	122	126	125	108	97.3	117	122	124	112	99.6	111	116	119	113	102	106	111	114	115	104	99.9	106	109	110	104
	B	235	153	122	105	94.1	244	159	126	108	97.3	252	167	129	112	99.9	240	170	132	114	102	252	175	135	117	104	238	177	138	119	106
	B2	235	153	122	105	94	244	159	125	108	97.3	252	166	129	112	99.5	230	169	131	114	102	241	175	135	117	104	228	170	138	118	105
	BW	235	153	122	105	94	244	159	125	108	97.3	252	167	129	112	99.6	230	170	131	114	102	242	174	135	117	104	230	170	137	118	105
115	–	120	123	118	102	90.6	114	118	120	104	93.6	109	114	116	108	96.1	103	108	111	109	98.1	98.2	104	107	108	100	92.3	98.1	101	103	100
	B	228	148	118	102	90.6	237	154	122	105	93.6	245	162	125	108	96.2	233	165	128	110	98.5	246	171	131	113	101	232	173	134	115	103
	B2	227	148	118	102	90.6	237	154	122	104	93.6	245	161	125	108	96	224	165	127	110	98.1	236	170	131	113	101	223	166	134	115	102
	BW	227	148	118	102	90.6	237	154	122	105	93.5	245	162	125	108	96	224	165	127	110	98.2	237	170	131	113	101	225	166	133	115	102
120	–	112	116	114	98.3	87.5	107	111	114	101	90.3	101	106	109	104	92.7	95.4	101	103	104	94.6	91	96.4	99.4	101	96.7	85.3	91	94.1	95.8	95.2
	B	220	143	114	98.3	87.5	230	149	118	102	90.3	239	157	121	104	92.7	225	161	124	107	95	240	166	127	110	97.8	227	169	130	112	99.5
	B2	220	143	114	98.1	87.5	230	149	118	101	90.2	238	157	121	104	92.7	218	160	123	106	94.8	230	165	127	109	97.4	219	163	130	112	99.2
	BW	220	143	114	98.2	87.5	230	149	118	102	90.2	238	157	121	104	92.7	218	161	124	106	94.9	231	165	127	109	97.4	220	163	129	111	99.2
125	–	105	109	110	95	84.6	99.6	103	107	98.1	87.4	94.1	99.1	102	101	89.6	88.6	93.8	96.7	98.3	91.3	84.3	89.7	92.7	94.4	93.4	78.7	84.3	87.5	89.4	88.8
	B	213	139	110	95	84.6	223	144	114	98.5	87.4	232	152	118	101	89.6	219	156	121	104	91.6	233	162	124	106	94.7	222	165	127	109	96.5
	B2	212	139	110	94.6	84.6	223	144	114	98	87.3	231	152	118	101	89.6	211	156	120	103	91.6	225	161	124	106	94.4	214	159	126	108	96.2
	BW	213	139	110	94.7	84.6	223	144	114	98.4	87.4	232	152	118	101	89.6	212	156	120	103	91.7	225	161	124	106	94.2	214	159	126	108	96.1
130	–	98.4	102	105	91.7	81.6	93.2	97	100	95	84.5	87.8	92.8	95.5	96.6	86.9	82.4	87.6	90.5	92.1	88.5	78.2	83.6	86.6	88.3	87.8	72.6	78.3	81.5	83.4	82.9
	B	206	135	107	91.7	81.6	216	141	110	95.3	84.5	226	148	114	98.1	86.9	213	151	118	101	88.8	227	157	121	103	91.6	216	160	124	106	93.6
	B2	205	135	107	91.3	81.6	216	140	110	95	84.4	225	147	114	98	86.9	206	151	117	100	88.8	219	156	121	103	91.3	209	156	123	105	93.2
	BW	206	135	106	91.3	81.6	216	140	110	95.3	84.5	225	147	114	98.1	86.9	206	152	117	100	88.9	219	156	121	103	90.8	209	156	123	105	93
135	–	92.5	96.2	99.3	88.8	78.8	87.4	91.2	94.6	91.8	81.7	82.1	87	89.8	91.4	84.3	76.8	81.9	84.9	86.6	84.5	72.6	78	81	82.8	82.5	67.2	72.8	76	78	77.6
	B	200	131	104	88.8	78.8	210	137	107	92.2	81.7	219	144	111	95.1	84.3	207	147	114	97.8	86.2	221	153	117	100	89	211	156	121	103	90.9
	B2	200	131	104	88.4	78.8	210	137	107	92	81.6	218	144	111	95.1	84.2	201	147	114	97.5	86.2	214	152	117	100	88.7	204	153	120	102	90.5
	BW	200	131	103	88.4	78.8	210	136	107	92.3	81.6	219	144	111	95.2	84.3	201	148	114	97.5	86.3	214	152	117	100	88.2	205	152	120	102	90.3
140	–	86.9	90.5	93.7	86.1	75.9	81.8	85.6	89	88.6	78.8	76.6	81.5	84.3	86	81.7	71.4	76.5	79.5	81.2	80.2	67.3	72.6	75.7	77.5	77.3	61.9	67.5	70.7	72.8	72.5
	B	195	128	101	86.1	75.9	204	133	105	89.2	78.8	213	140	108	92.2	81.7	201	144	111	94.8	83.7	215	149	114	97.6	86.5	206	152	118	100	88.3
	B2	195	127	101	85.7	75.9	204	133	104	89.1	78.8	212	140	108	92.2	81.5	195	143	111	94.8	83.6	209	148	114	97.6	86.2	200	149	117	99.7	88
	BW	195	127	101	85.7	75.9	204	133	104	89.3	78.8	212	140	108	92.3	81.7	196	144	110	94.8	83.7	209	148	114	97.4	85.8	200	149	117	99.8	87.9
150	–	76.6	80.2	83.4	81	71.1	71.6	75.4	78.9	80.5	73.8	66.5	71.4	74.2	76	75	61.5	66.5	69.6	71.4	71.3	57.5	62.7	65.8	67.8	67.7	52.2	57.7	61	63.2	63.1
	B	184	121	95.2	81	71.1	194	126	99	84	73.8	201	133	102	87	76.5	190	137	105	89.4	78.7	204	141	108	92.1	81.6	196	145	112	94.9	83.4
	B2	184	120	94.7	80.7	71.1	193	126	98.7	83.9	73.7	201	133	102	86.9	76.3	185	136	105	89.4	78.6	198	141	108	92.3	81.3	191	143	111	94.6	83.2
	BW	184	121	95.1	80.7	71.1	193	126	98.8	84	73.8	201	133	102	87.2	76.6	186	137	105	89.5	78.6	198	141	108	92.1	81.1	190	143	111	94.7	83.2

TAB 181450 / 181452 / 181456

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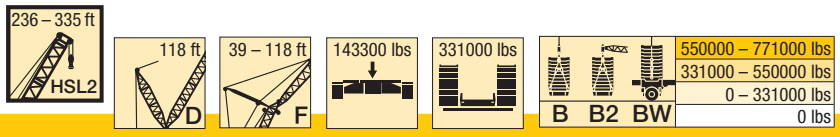
HSL2DFB/B2/BW

HSL2 236 – 335



ft		SL2 236					SL2 256					SL2 276					SL2 295					SL2 315					SL2 335				
		39	59	79	98	118	39	59	79	98	118	39	59	79	98	118	39	59	79	98	118	39	59	79	98	118	39	59	79	98	118
160	–	67.3	71	74.3	75.5	66.9	62.5	66.3	69.8	71.6	68.9	57.5	62.4	65.3	67.2	67.2	52.7	57.7	60.7	62.7	62.8	48.8	53.9	57.1	59.2	59.2	43.6	49	52.3	54.5	54.7
	B	175	115	90.1	76.3	66.9	184	120	93.8	79.4	69.4	192	126	97	82.3	71.8	180	130	100	84.5	73.9	193	135	103	87.1	76.7	186	138	106	89.8	78.8
	B2	174	115	89.4	76.1	66.9	183	120	93.4	79.3	69.2	192	126	96.9	82.2	71.7	177	129	100	84.5	73.8	189	134	103	87.3	76.5	182	137	105	89.7	78.7
	BW	175	115	90.1	76	66.9	184	120	93.7	79.3	69.4	192	126	97.2	82.4	71.8	177	130	99.6	84.6	73.7	189	134	103	87	76.5	182	137	105	89.8	78.8
170	–	58.6	62.7	66.2	67.8	62.8	54.5	58.3	61.8	63.6	63.6	49.6	54.4	57.3	59.3	59.4	44.9	49.8	52.8	54.9	55.1	41	46.1	49.3	51.4	51.6	36	41.3	44.6	46.9	47.1
	B	167	109	85.8	71.8	62.8	174	114	89.2	74.9	65.4	183	121	92.2	78	68.1	173	124	94.9	80.5	69.8	183	128	98.3	82.9	72.2	176	132	101	85	74.2
	B2	167	109	85.4	71.8	62.8	174	114	88.9	74.8	65.3	182	121	91.8	77.9	68	171	123	95.2	80.5	69.8	181	128	98.2	83.1	72.1	173	131	101	85.2	74.2
	BW	167	109	85.8	71.8	62.8	174	114	89.1	74.8	65.5	183	121	92.1	78	68.1	171	123	95	80.4	69.8	181	128	98.5	82.8	72	173	131	101	85.1	74.4
180	–	51.1	55.2	58.7	60.8	59.3	47.6	51.3	54.8	56.7	56.9	42.7	47.4	50.3	52.3	52.6	38.1	42.9	46	48.1	48.4	34.3	39.3	42.4	44.6	44.9	29.3	34.5	37.8	40.2	40.5
	B	159	105	81.5	68.4	59.3	167	109	85.1	71.2	61.6	175	115	88.3	74.1	64.4	167	119	90.4	76.4	66.3	173	123	93.7	79.2	68.7	166	126	96.8	81.5	70.5
	B2	159	105	81.4	68.3	59.2	167	109	85	71.1	61.4	174	116	88	73.7	64.3	165	118	90.7	76.6	66.3	175	123	93.7	79.1	68.6	167	125	96.5	81.3	70.5
	BW	159	105	81.6	68.3	59.3	167	109	85.1	71.2	61.5	175	115	88.2	73.9	64.4	165	118	90.7	76.3	66.3	175	123	93.9	79	68.5	167	126	96.5	81.3	70.8
190	–	44.4	48.4	51.9	54.1	54.5	41.2	44.8	48.3	50.3	50.7	36.5	41	44	46	46.4	31.9	36.6	39.7	41.8	42.2	28.1	33	36.2	38.4	38.8	23.2	28.3	31.6	34	34.4
	B	153	100	77.8	65.1	56.1	160	104	81.3	67.9	58.4	168	111	84.5	70.7	61	159	114	86.6	72.8	62.8	168	118	89.6	75.3	65.4	161	121	92.4	77.9	67.1
	B2	152	100	77.8	64.8	56	160	104	81.1	67.8	58.3	167	111	84.3	70.3	60.9	159	114	86.9	72.9	62.8	169	118	89.7	75.1	65.2	162	121	92.1	77.5	67.1
	BW	153	100	77.9	64.9	56.2	160	105	81.1	67.9	58.3	168	110	84.4	70.5	61	159	114	87	72.6	62.8	169	118	89.8	75.2	65.1	162	121	92.1	77.7	67.4
200	–	38.3	42.3	45.7	47.9	48.8	35.3	39	42.5	44.5	45	30.7	35.2	38.1	40.3	40.8	26.3	30.9	33.9	36.1	36.6	22.5	27.3	30.5	32.7	33.2	17.6	22.7	26	28.4	28.9
	B	146	96.3	74.5	61.9	53.2	154	100	77.7	64.8	55.6	161	106	81	67.6	57.9	153	109	83.3	69.5	59.7	162	114	86	71.8	62.1	155	117	88.5	74.2	64
	B2	146	96.2	74.4	61.7	53.1	153	101	77.5	64.7	55.5	161	106	80.7	67.3	57.8	154	109	83.5	69.6	59.5	164	113	86.1	71.5	61.9	157	117	88.2	74	63.9
	BW	146	96.3	74.5	61.7	53.1	153	101	77.5	64.8	55.5	162	106	80.8	67.6	58	154	109	83.6	69.4	59.6	164	113	86.2	71.6	61.8	157	117	88.2	74.1	64.1
210	–	32.8	36.7	40.1	42.3	43.2	29.8	33.7	37.1	39.2	39.7	25.5	29.9	32.8	35	35.5	21.1	25.7	28.7	30.9	31.5	17.4	22.1	25.2	27.5	28.1		17.5	20.8	23.2	23.8
	B	141	92.2	71.5	59.3	50.2	148	96.6	74.7	61.8	53	155	102	77.6	64.7	55.3	149	105	79.9	66.7	57	157	109	82.8	69	58.9	150	113	85.3	70.7	60.9
	B2	141	92.4	71.4	59	50.1	147	96.6	74.4	61.6	52.8	155	102	77.2	64.4	55.2	150	105	80.2	66.8	56.8	159	109	82.9	68.7	58.8	151	113	85.2	70.6	60.5
	BW	141	92.5	71.5	59	50.2	147	96.8	74.4	61.7	52.8	155	102	77.3	64.7	55.4	150	105	80.3	66.7	56.9	159	109	83	68.8	58.8	151	113	85.2	70.7	60.9
220	–	28.1	31.8	35.2	37.3	38.3	24.9	28.8	32.2	34.5	35	20.9	25.2	28.1	30.3	30.9	16.6	21	24	26.2	26.9	12.9	17.5	20.5	22.9	23.5		12.9	16.1	18.6	19.2
	B	136	89	68.5	56.9	46.1	143	93.1	71.9	59.3	50.3	150	98.7	74.8	61.8	52.8	145	102	76.8	63.9	54.6	153	105	79.7	66.3	56.5	145	108	82.3	68.2	58.3
	B2	136	89.3	68.3	56.7	45.9	142	92.9	71.6	59.2	49.9	149	98.3	74.5	61.5	52.5	146	102	77.1	64	54.3	155	105	79.6	66	56.4	148	109	82.2	68.1	58.2
	BW	136	89.4	68.4	56.6	46	142	93.2	71.6	59.3	49.9	150	98.1	74.6	61.8	52.8	146	101	77.2	63.9	54.4	155	105	79.7	66.2	56.5	147	108	82.3	68.2	58.2
230	–	23.7	27.3	30.6	32.8	33.8	20.5	24.3	27.7	30	30.7	16.7	20.8	23.7	25.9	26.6		16.7	19.6	21.9	22.6			16.2	18.6	19.3				14.3	15
	B	131	85.9	66	54.5	41.8	138	89.9	69.2	57	46.6	145	95.3	72	59.3	50	142	98.2	74.1	61.3	52.1	149	102	76.8	63.7	54.2	142	105	79.2	65.7	55.9
	B2	131	86.2	65.7	54.3	41.5	138	89.8	68.9	56.8	46.2	144	94.8	71.8	59.1	49.6	143	97.9	74.4	61.3	51.8	151	101	76.7	63.4	54.1	144	105	79.1	65.6	55.9
	BW	131	86.3	65.9	54.2	41.6	137	89.9	68.9	56.9	46.2	145	94.6	72	59.4	50.1	142	98.1	74.5	61.3	51.9	151	102	76.7	63.6	54.2	144	105	79.4	65.7	55.8
240	–		23.2	26.5	28.6	29.7	16.4	20.1	23.6	25.8	26.7		16.8	19.6	21.8	22.6			15.6	17.9	18.6				14.6	15.3					
	B		83.1	63.7	52.3	37.5	133	87.1	66.6	54.7	42.5	140	92.1	69.4	57	46.8	139	94.8	71.7	58.9	49.4	146	98.7	74.2	61.2	51.9	138	102	76.4	63.3	53.7
	B2		83.2	63.5	52.2	37.1	133	86.9	66.4	54.4	42.1	139	91.7	69.1	56.9	46.1	140	94.5	71.9	59	49.1	147	98.2	74.1	60.9	51.7	140	102	76.3	63	53.8
	BW		83.2	63.6	52	37.2	133	86.8	66.5	54.5	42.3	140	91.5	69.3	57.3	46.8	140	94.9	72	58.9	49.2	147	98.6	74.2	61.1	51.8	140	101	76.8	63.3	53.6
250	–			22.6	24.8	25.8		16.3	19.8	21.9	23			15.8	18	18.9															
	B			61.4	50.3	32.9		84.4	64.4	52.5	38.5	135	89.1	66.9	54.9	43	137	91.7	69.2	56.9	46.3	143	95.5	71.8	58.9	49.6	135	98.6	74	60.8	51.5
	B2			61.3	50.3	32.4		84.1	64.2	52.1	38	134	89.1	66.5	54.8	42.1	137	91.3	69.3	56.9	45.8	144	95.1	71.8	58.6	49.3	137	98.5	73.9	60.6	51.6
	BW			61.3	50.2	32.5		83.7	64.4	52.2	38.3	135	88.8	66.8	55.1	43	137	91.8	69.5	56.8	46	144	95.5	71.8	58.9	49.5	136	98.4	74.3	60.9	51.3
260	–			19.1	21.5	22.1		12.8	16.2	18.6	19.6			12.4	14.6	15.5															
	B			59.6	48.4	24.2		81.6	62.3	50.7	34.4	130	86.5	64.9	52.7	39.3	135	89.3	66.9	54.9	42.4	140	92.6	69.6	57	46.5	133	95.7	71.9	58.8	49.4
	B2			59.7	48.5	23		81.6	62	50.5	33.9	130	86.5	64.6	52.6	38.1	134	88.8	67	54.8	42	140	92.3	69.5	56.7	46.1	134	95.3	71.6	58.6	49.4
	BW			59.6	48.4	23.4		81.9	62.3	50.6	34.3	131	86.2	64.9	53	39.3	135	89.3	67	54.8	42.2	140	92.6	69.5	57	46.4	134	95.3	72.1	58.8	49.1
270	–				18.3				12.9	15.4	16.4																				
	B				46.7				60.4	49	27		84.2	63	51	35.5	132	86.9	64.9	53	38.6	137	90	67.3	55.1	43	131	92.9	69.7	56.9	46.2
	B2				46.8				60.3	48.8	26.6		84	62.7	50.9	33.9	131	86.4	65	52.7	38.2	137	89.7	67.3	54.8	42.7	132	92.5	69.4	56.7	46.3
	BW				46.6				60.3	49	26.9		83.7	62.9	51.2	35.4	131	86.9	65	52.7	38.3	137	90.1	67.3	55.1	42.9	131	92.5	69.9	56.9	46
280	–				15.2																										
	B				45.2				58.7	47.3	18.1		81.8	61.2	49.3	29.7		84.5	63.2	51.2	34.6	134	87.5	65.3	53.2	39.5	129	90.4	67.6	55.1	42.9
	B2				45.3				58.7	47.2			81.6	60.8	49.3	28.2		84	63.3	50.9	34.3	133	87.3	65.3	52.9	39.2	129	90	67.2	54.9	42.9
	BW				45.1				58.6	47.4			81.4	61	49.5	29.6		84.6	63.1	50.8	34.4	133	87.8	65.3	53.2	39.3	129	90	67.8	55.1	42.6
290	–																														
	B									45.7				59.5	47.8	21.5		82.4	61.4	49.7	30.1	130	85.3	63.7	51.3	35.9	128	88.1	65.6	53.3	39.4
	B2									45.7				59.1	47.8	20.5		81.8	61.5	49.4	29.7	130	84.9	63.6	51.1	35.7	127	87.9	65.2	53.1	39.4
	BW									45.8				59.4	47.9	21.5		82.4	61.3	49.4	29.9	130	85.4	63.6	51.4	35.8	126	87.8	65.7	53.2	39.2
300	–																														
	B									44.3				58	46.3	13.4		80.5	59.7	48.3	22.5	127	83.3	62	49.8	31.9	126	85.9	64	51.6	36
	B2									44.4				57.5	46.3	12.8		79.9	59.8	48	22	127	82.8	61.8	49.7	31.7	126	85.8	63.7	51.4	35.9
	BW									44.3				57.9	46.3	13.4		80.3	59.6	47.9	22.1	127	83	62	49.9	31.8	125	85.7	64	51.4	35.7
310	–																														
	B														45				58.3	46.8			81.2	60.4	48.4	25.1	123	83.9	62.4	50.2	32.2
	B2														44.8				58.2	46.5			80.6	60.2	48.3	25	124	83.8	62.2	50	32
	BW														44.9				58.2	46.5			81.1	60.3	48.4	25	124	83.6	62.3	50	31.8
320	–																														
	B																			45.4				58.9	47	17.8		81.7	60.8	48.9	26.5
	B2																			45.2				58.8	46.9	17.8		81.9	60.7	48.6	26.5
	BW																			45.3				58.7	46.9	17.7		81.7	60.7	48.7	26.4
330	–																														
	B																								45.7				59.3	47.6	19.4
	B2																								45.6				59.3	47.3	19.7
	BW																								45.6				59.2	47.4	19.6
340	–																														
	B																								44.6				58.1	46.3	12.7
	B2																								44.7				57.8	46	12.9
	BW																								44.7				57.9	46.1	12.9
350	–																														
	B																								43.5				57	45.1	
	B2																								43.6				56.8	45	
	BW																								43.6				56.9	45	
360	–																														
	B																													44.1	
	B2																													44	
	BW																													44	

TAB 181450 / 181452 / 181456

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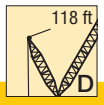
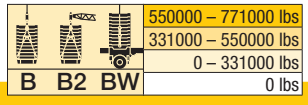
HSL2DFB/B2/BW

HSL2 354 - 453





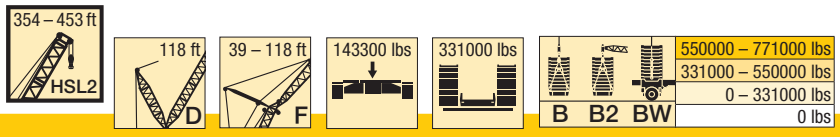
ft		SL2 354					SL2 374					SL2 394					SL2 413					SL2 433					SL2 453	
		39	59	79	98	118	39	59	79	98	118	39	59	79	98	118	39	59	79	98	118	39	59	79	98	118	39	59
60	–	225					218																					
	B	282					262																					
	B2	283					262																					
	BW	283					262																					
65	–	204	201				199					190					184					180					167	
	B	279	205				259					241					219					193					168	
	B2	279	205				260					230					217					193					169	
	BW	279	205				260					241					217					193					169	
70	–	186	190				181					176					170					167					155	
	B	276	203				257					239					218					192					167	
	B2	275	202				257					230					215					193					167	
	BW	275	202				257					240					215					193					167	
75	–	170	176	161			166	172				160	167				155	157				152	143				146	
	B	272	200	161			254	190				237	181				216	167				191	154				165	
	B2	270	199	161			254	190				230	181				213	167				191	155				166	
	BW	270	199	161			254	190				238	181				213	167				192	155				166	
80	–	156	162	156	138		152	158	151	130		147	153	145			142	147	136			139	145				134	
	B	269	197	159	138		252	188	153	130		235	179	146			215	166	137			189	153				164	
	B2	265	196	158	138		250	188	153	130		230	179	146			211	165	137			190	154	126			164	136
	BW	265	196	159	138		251	188	153	130		236	179	147			211	165	137			190	154				164	136
85	–	143	149	150	135	120	139	145	147	128	116	134	141	142	123	112	130	135	133	118	104	127	133	125	109		122	
	B	265	194	156	135	120	250	185	151	128	116	234	177	145	123	112	212	164	135	118	104	187	153	125	109		162	
	B2	260	192	156	135	120	247	186	150	128	116	230	177	145	123	112	208	163	135	118	104	188	153	125	109		163	135
	BW	260	193	156	135	120	248	186	150	128	116	233	177	145	124	112	209	164	135	118	104	188	153	125	109		163	135
90	–	131	138	140	132	118	128	134	137	126	115	123	130	133	122	110	119	125	126	117	103	117	122	121	108		112	
	B	261	191	153	133	118	246	183	149	126	115	231	175	143	122	110	210	163	134	117	103	185	151	124	108		160	
	B2	255	189	153	133	118	243	183	148	126	114	230	175	143	122	110	206	161	134	117	103	186	151	124	108		161	133
	BW	255	190	153	133	118	244	183	148	126	114	231	176	143	122	110	206	161	134	117	103	187	151	124	108		161	133
95	–	121	127	130	126	116	117	124	127	121	112	113	120	123	118	108	109	115	118	112	102	107	113	115	107	94.6	102	
	B	257	188	150	130	116	244	181	146	125	113	229	174	141	120	108	207	161	132	115	102	184	151	123	107	94.6	159	
	B2	250	186	150	130	116	239	181	146	124	112	229	174	141	120	108	204	159	132	115	102	185	150	123	107	94.6	160	132
	BW	250	186	150	130	116	240	181	146	124	113	228	174	141	120	108	204	159	132	115	102	185	150	123	107	94.6	160	132
100	–	111	117	120	121	112	108	114	117	117	109	104	110	114	114	106	100	106	109	108	99.3	98.3	104	106	104	93.4	93.6	
	B	253	185	147	127	113	241	178	144	123	111	227	172	140	118	107	205	160	131	114	100	181	150	122	106	93.5	157	
	B2	245	182	147	127	113	235	178	144	122	111	227	172	139	119	107	201	157	130	113	100	183	148	122	106	93.7	158	131
	BW	245	183	147	127	113	236	178	144	123	111	225	172	140	119	107	201	157	130	114	100	183	148	122	106	93.7	158	131
105	–	102	108	111	113	108	98.9	105	109	109	106	95.2	102	105	105	103	91.8	97.1	101	102	97.5	90	95.4	97.6	99.5	92.1	85.5	
	B	249	182	145	124	110	237	176	142	121	109	225	170	138	117	105	202	159	129	113	98.9	179	149	121	105	92.4	155	
	B2	241	178	144	124	110	232	175	142	121	109	224	169	138	117	105	199	155	128	112	99	181	147	121	105	92.7	156	129
	BW	240	179	144	124	110	232	175	142	121	109	222	170	138	117	105	199	155	128	112	99.1	181	147	121	105	92.7	156	129
110	–	94.2	100	103	105	103	91.1	97.3	101	101	101	87.5	93.8	97.3	97.8	97.7	84.2	89.5	93	95	92.6	82.6	87.9	90.2	92.2	89.2	78.2	
	B	243	179	141	121	107	234	174	140	119	107	223	168	136	115	104	200	157	128	111	97.8	178	147	119	104	91.4	153	
	B2	236	175	140	121	107	227	172	140	119	107	221	167	136	115	104	196	152	126	110	97.4	179	145	120	104	91.8	154	128
	BW	236	175	140	121	107	228	172	140	119	107	219	167	136	116	104	197	152	126	110	97.4	179	145	120	104	91.8	155	128
115	–	86.7	92.7	96	97.8	97	83.7	89.9	93.4	94.1	94.5	80.3	86.6	90	90.7	91.3	77.1	82.4	85.9	88	87.3	75.6	80.9	83.2	85.3	84.4	71.3	
	B	238	176	137	117	105	230	172	138	116	105	220	166	134	114	102	197	154	127	110	96.6	178	146	118	103	90.5	152	
	B2	231	171	136	117	104	224	169	138	117	105	217	165	134	114	102	194	150	124	108	95.8	177	143	118	103	90.8	153	126
	BW	231	172	136	118	104	224	169	138	117	106	216	165	134	114	102	194	150	125	109	95.9	177	144	118	103	90.8	153	126
120	–	79.7	85.7	89.1	91	90.3	76.9	83.1	86.5	87.3	87.9	73.5	79.8	83.3	84.1	84.7	70.5	75.7	79.3	81.4	80.8	69.1	74.4	76.7	78.8	78.2	64.9	
	B	234	173	133	114	102	226	170	136	114	103	216	165	133	112	101	194	152	125	108	95.4	177	144	118	102	89.5	151	
	B2	227	168	133	114	101	220	165	135	114	103	214	162	132	112	101	191	148	123	107	94.2	175	142	117	102	89.8	151	125
	BW	227	168	133	114	101	220	166	135	114	104	213	163	132	112	101	192	148	123	107	94.4	175	142	117	102	89.8	151	125
125	–	73.2	79.2	82.6	84.5	84	70.5	76.6	80.1	81	81.7	67.2	73.4	77	77.8	78.6	64.3	69.5	73.1	75.3	74.8	63	68.2	70.6	72.8	72.3	59	
	B	229	169	129	111	98.5	222	167	133	111	101	212	163	131	110	99.3	191	150	124	107	94.3	175	143	117	101	88.6	151	
	B2	222	165	129	111	98.4	216	162	133	111	101	211	160	130	110	99.3	189	145	121	105	92.7	173	140	115	101	88.9	149	123
	BW	222	164	129	111	98.4	216	162	133	112	101	210	160	131	110	99.2	189	145	121	105	92.9	173	140	115	101	88.9	149	123
130	–	67.3	73.2	76.6	78.6	78.3	64.6	70.7	74.2	75.2	76	61.4	67.6	71.2	72.1	73	58.6	63.8	67.4	69.7	69.3	57.4	62.6	64.9	67.2	66.8	53.5	
	B	225	165	126	108	95.6	218	165	131	109	98.9	210	161	130	109	97.7	189	148	122	106	93	173	141	116	99.9	87.6	149	
	B2	218	161	126	108	95.6	213	160	130	109	98.9	208	157	128	108	97.6	186	143	119	103	91.1	171	138	114	99.3	87.7	147	121
	BW	218	161	126	108	95.7	213	160	130	109	98.9	207	158	129	108	97.5	186	143	119	103	91.4	171	139	114	99.4	87.7	147	122
135	–	61.9	67.8	71.2	73.3	73	59.3	65.3	68.9	69.9	70.8	56.2	62.3	65.9	66.9	67.9	53.4	58.5	62.2	64.5	64.2	52.3	57.5	59.8	62.1	61.8	48.4	
	B	220	161	123	106	93	215	162	129	106	96.8	207	158	128	107	96.2	186	146	120	104	91.8	171	139	115	99.1	86.8	147	
	B2	214	158	123	105	93	209	157	127	106	96.6	205	155	126	106	96	183	141	117	102	89.6	169	137	112	97.9	86.4	145	120
	BW	214	158	123	105	93.1	209	157	128	106	96.7	204	155	127	106	95.9	184	141	117	102	89.9	169	137	112	98	86.4	146	120
140	–	56.7	62.5	65.9	68.1	67.9	54.1	60.1	63.7	64.8	65.8	51.1	57.2	60.8	61.8	62.9	48.5	53.5	57.2	59.5	59.3	47.4	52.5	54.8	57.2	57	43.6	
	B	215	157	120	103	90.4	211	159	126	104	94.7	204	156	126	105	94.6	184	143	119	103	90.6	169	138	114	98.3	85.9	145	
	B2	209	155	120	102	90.4	205	154	125	103	94.3	202	153	124	104	94.3	181	139	115	100	88.1	167	135	111	96.5	85.2	144	118
	BW	209	155	120	102	90.4	205	154	125	104	94.4	201	153	124	105	94.3	181	139	115	99.9	88.4	167	135	111	96.7	85.2	144	118
150	–	47.1	52.9	56.3	58.6	58.6	44.7	50.7	54.2	55.4	56.6	41.8	47.9	51.4	52.6	53.8	39.3	44.3	47.9	50.4	50.3	38.3	43.4	45.7	48.2	48.1	34.7	
	B	204	150	115	97.7	85.7	202	154	120	99.3	90.5	198	152	121	101	91.2	178	139	115	100	87.9	165	134	111	96.4	84.3	142	
	B2	200	149	114	97.3	85.6	198	149	119	98.4	89.9	196	148	120	100	90.9	176	135	111	96.6	85	162	131	108	93.6	82.6	140	115
	BW	201	148	114	97.3	85.6	198	149	120	98.9	90	194	148	120	101	90.9	176	135	111	96.6	85.3	163	131	108	93.9	82.6	140	115
160	–	38.6	44.3	47.7	50.1	50.2	36.3	42.2	45.7	47	48.3	33.5	39.5	43	44.2	45.6	31.1	36	39.6	42.1	42.2	30.2	35.2	37.5	40	40.1	26.7	
	B	194	143	109	92.7	81.2	191	148	114	94.7	86.2	189	147	117	96.5	87.4	172	135	111	97.1	85	161	131	108	94.1	82.5	138	
	B2	192	142	109	92.5	81.1	190	143	114	93.8	85.6	189	143	115	95.9	87.2	170	130	108	93.3	82.1	158	127	105	90.9	80.1	136	112
	BW	192	142	109	92.4	81.1	190	144	114	94.2	85.7	188	143	116	96.3	87.2	171	131	108	93.5	82.3	158	128	105	91.2	80.1	136	112
170	–	31	36.6	40.1	42.5	42.7	28.8	34.6	38.1	39.4	40.9	26.1	32	35.5	36.8	38.3	23.8	28.6	32.2	34.8	35	23	27.8	30.2	32.8	32.9	19.5	
	B	183	137	104	87.9	76.8	180	142	109	90.2	81.8	178	143	112	92.2	83.6	164	130	108	93.8	82.1	155	128	105	91.2	80.2	135	
	B2	183	137	104	87.6	76.6	183	138	109	89.9	81.4	183	138	111	91.7	83	165	126	104	90.3	79.4	153	124	102	88.4	77.8	132	109
	BW	184	136	104	87.6	76.8	183	138	109	89.6	81.5	182	138	111	92	83.2	165	126	104	90.5	79.6	154	124	102	88.7	77.8	133	109
180	–	24.4	29.9	33.3	35.8	36.2	22.3	27.9	31.4	32.8	34.4	19.7	25.4	28.9	30.2	31.8	17.4	22.1	25.7	28.3	28.6	16.6	21.4	23.8	26.3	26.6		
	B	174	131	100	84	72.7	173	137	105	85.9	77.5	172	137	108	87.8	79.7	157	126	104	90.4	79.1	148	124	102	88.6	77.8	130	
	B2	176	131	99.6	83.8	72.6	176	133	105	85.7	77.1	176	134	107	87.5	79.1	160	122	101	87.3	76.8	149	120	99.2	85.9	75.5	128	106
	BW	177	131	99.7	83.7	72.7	176	133	105	85.3	77.3	175	133	107	87.8	79.2	160	122	101	87.5	77	149	121	99	86	75.4	128	106
190	–	18.4	23.8	27.2	29.7	30.1	16.3	21.8	25.3	26.7	28.4		19.3	22.9	24.2	25.9		16.1	19.7	22.3	22.7		15.5	17.8	20.4	20.8		
	B	169	126	95.8	80.3	69.3	166	131	101	82.2	73.8	166	132	104	84.2	75.8	152	121	101	87.2	76.1	141	119	98.7	86	75.4	126	
	B2	171	125	95.5	80.1	69.2	170	128	101	82	73.5	170	129	103	83.8	75.4	154	118	97.4	84.4	74.2	144	116	96.2	83.4	73.2	124	102
	BW	171	125	95.5	80.1	69.3	170	128	101	81.7	73.6	169	129	103	83.9	75.5	154	118	97.5	84.6	74.3	144	117	96.1	83.3	73.1	124	103
200	–		18.1	21.5	24.1	24.6		16.2	19.7	21.2	22.9			17.3	18.7	20.4				16.8	17.3							
	B	164	121	91.6	76.7	66.4	160	125	96.8	78.9	70.6	159	127	99.5	81.1	72.4	146	117	97.2	84.1	73.1	136	115	95.5	83.3	73	122	
	B2	166	120	91.6	76.6	66.2	165	123	96.5	78.6	70.3	165	125	99.2	80.5	72	149	115	94.1	81.6	71.6	139	113	93.3	80.9	70.9	119	98.9
	BW	166	121	91.5	76.6	66.3	165	124	96.5	78.4	70.3	164	124	99.2	80.6	72.1	149	115	94.3	81.8	71.7	139	113	93.1	80.7	70.8	120	99.2
210	–				18.9	19.5					17.8																	
	B	159	117	88	73.3	63.4	156	120	92.6	75.5	67.6	155	122	95.4	77.8	69.6	141	113	93.8	81.1	70.3	132	111	92.6	80.7	70.6	118	
	B2	161	116	88	73	63.2	161	119	92.4	75.2	67.3	161	120	95.2	77.3	69.2	144	111	91	79	69.1	134	109	90.4	78.3	68.6	115	95.4
	BW	161	117	87.8	73.1	63.3	160	120	92.4	75.3	67.2	160	120	95.3	77.5	69.2	144	111	91.2	79.1	69	134	109	90.3	78.3	68.5	116	95.7

TAB 181450 / 181452 / 181456

L

HSL2DFB/B2/BW

HSL2 354 - 453



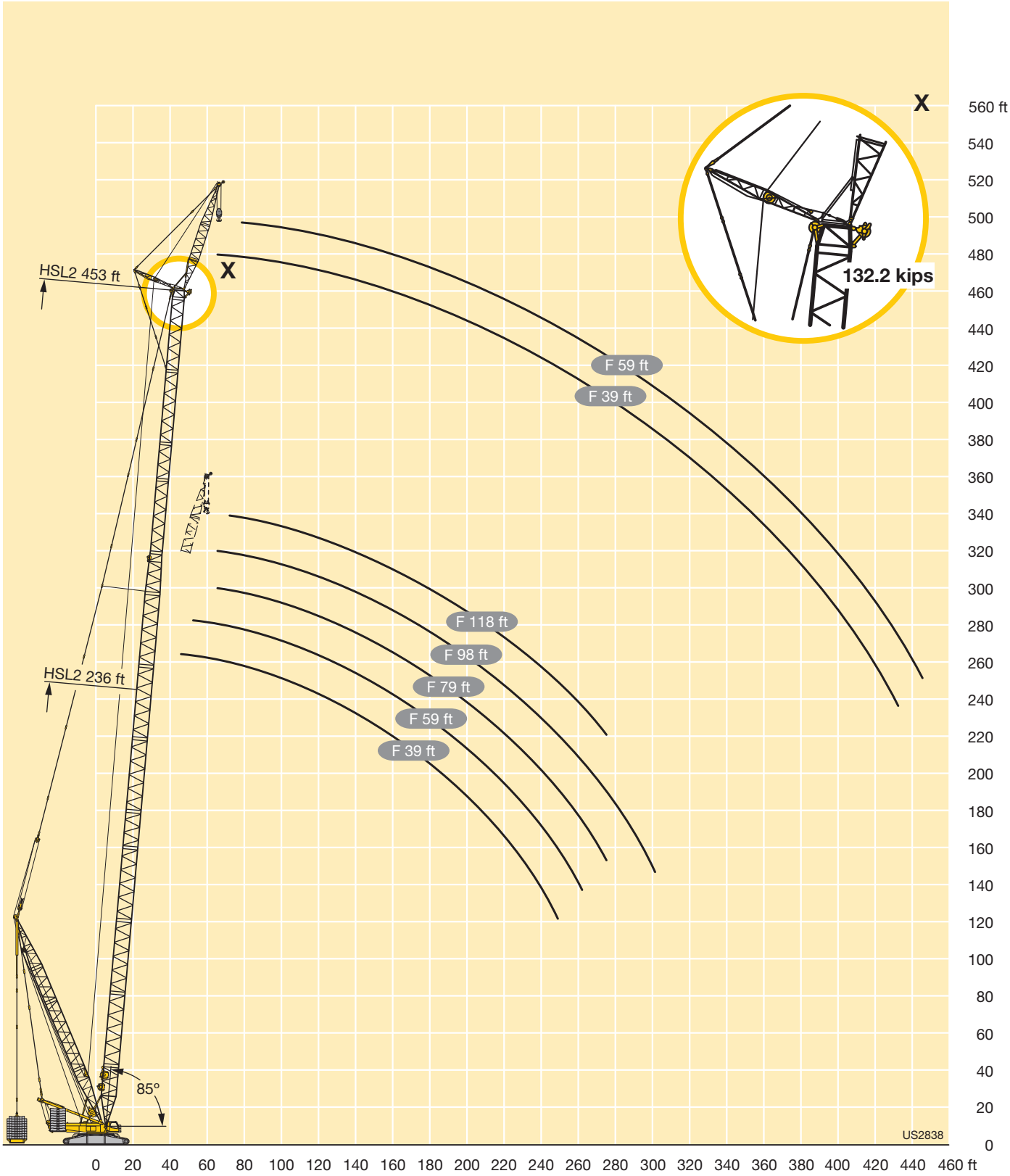
ft		SL2 354					SL2 374					SL2 394					SL2 413					SL2 433					SL2 453	
		39	59	79	98	118	39	59	79	98	118	39	59	79	98	118	39	59	79	98	118	39	59	79	98	118	39	59
220	–				14.3	15					13.3																	
	B	153	112	85.1	70.4	60.3	152	116	89.3	72.2	64.5	151	116	91.4	74.4	66.7	136	108	90.2	78.2	67.5	127	107	89.6	78.1	68.2	112	
	B2	157	112	85	70.2	60.3	156	116	89.3	71.9	64.3	157	117	91.5	74.2	66.3	141	107	87.9	76.3	66.6	131	105	87.5	76	66.4	111	92.1
	BW	156	113	84.9	70.4	60.2	156	116	89.3	72.1	64.2	155	117	91.6	74.4	66.3	140	107	88.1	76.4	66.5	131	105	87.5	75.9	66.4	111	92.3
230	–																											
	B	148	108	82.2	67.8	57.8	147	112	86.4	69.5	61.6	147	113	88.3	71.3	63.7	133	104	87.2	75.2	64.6	123	103	86.7	75.5	65.8	106	
	B2	153	108	82	67.8	57.8	152	112	86.3	69.2	61.4	152	114	88.5	71.2	63.5	137	105	85.1	73.7	64.1	128	102	84.6	73.6	64.3	108	88.9
	BW	152	109	82.1	67.9	57.7	152	113	86.4	69.4	61.3	151	114	88.5	71.4	63.4	137	105	85.3	73.7	64	128	102	84.7	73.6	64.3	108	88.9
240	–																											
	B	145	105	79.4	65.4	55.6	143	109	83.5	67.2	59.1	142	110	85.6	68.7	61	129	101	84.7	72.4	61.8	120	97.6	83.7	72.8	63.4	104	
	B2	149	105	79	65.5	55.6	148	109	83.4	66.9	58.9	149	112	85.7	68.6	60.8	133	102	82.8	71.2	61.5	124	99.2	82	71.2	62.1	105	86.1
	BW	149	105	79.3	65.5	55.5	148	110	83.6	67.1	58.8	147	111	85.7	68.7	60.8	133	102	82.9	71.2	61.5	124	99.3	82.1	71.2	62.3	105	86.2
250	–																											
	B	142	102	76.6	63	53.5	141	106	80.6	64.9	57	139	107	82.9	66.5	58.6	126	98.8	82.6	69.9	59	117	95.2	80.8	70.2	61	101	
	B2	145	102	76.1	63.2	53.5	145	106	80.5	64.6	56.8	145	109	82.9	66.5	58.5	130	99.7	80.8	69	59	121	96.8	79.9	68.8	60	103	84
	BW	146	102	76.5	63.1	53.4	145	106	80.9	64.9	56.7	144	108	82.9	66.6	58.4	129	99.8	81	68.9	59.1	121	96.8	80.1	68.9	60.2	103	84.1
260	–																											
	B	139	99.1	74.3	60.7	51.5	138	103	77.8	62.6	54.9	137	104	80.3	64.3	56.7	122	96.3	80.5	67.9	57.2	114	92.8	78	68.3	58.8	98.1	
	B2	142	98.8	74	60.8	51.3	142	103	77.7	62.4	54.8	143	106	80.1	64.3	56.4	127	97.2	78.9	67	57.1	118	94.3	78	67.2	58	99.8	81.8
	BW	142	98.9	74.3	60.8	51.3	142	104	78.1	62.6	54.7	141	106	80.2	64.4	56.4	127	97.3	79.1	67	57.1	118	94.4	78.2	67.2	58	99.9	82
270	–																											
	B	136	96.3	72.2	58.8	49.3	135	101	75.7	60.3	52.9	134	102	77.7	62.2	54.7	120	93.4	78.4	65.8	55.3	110	90.4	75.3	66.5	56.9	94.8	
	B2	139	96	72	58.8	49	139	100	75.5	60.2	52.7	140	103	77.6	62.2	54.4	124	95	77	65.1	55.2	115	91.9	76.1	65.6	56.3	97.1	79.6
	BW	139	96.1	72.2	58.8	49	139	101	75.9	60.4	52.6	138	103	77.6	62.3	54.3	124	95	77.2	65.2	55.3	115	92	76.3	65.6	56.2	97.1	79.8
280	–																											
	B	133	93.6	70.1	57.1	46.7	132	98	73.6	58.3	50.7	132	99.4	75.6	60.2	52.8	118	91.5	75.7	63.7	53.5	108	87.5	73.4	64.6	55.1	91	
	B2	137	93.3	69.9	57	46.3	136	97.6	73.5	58.3	50.4	137	101	75.3	60.1	52.4	121	93.1	75.1	63.1	53.3	113	89.7	74.2	64.1	54.5	94.8	77.5
	BW	136	93.3	70.1	57.1	46.3	135	97.9	73.9	58.5	50.4	135	100	75.4	60.2	52.3	121	93.1	75.3	63.4	53.5	113	89.8	74.5	64	54.5	94.8	77.7
290	–																											
	B	130	91	68	55.5	43.5	128	95	71.6	56.6	48.1	129	97.1	73.7	58.2	50.7	116	89.9	72.8	61.6	51.7	106	85.4	71.6	62.7	53.3	88.6	
	B2	135	90.9	67.9	55.2	43.1	134	94.9	71.5	56.7	47.7	134	98.2	73.4	58.2	50.3	119	91.4	73.4	61.2	51.5	110	87.9	72.4	62.5	52.8	92.8	75.5
	BW	133	90.8	68.1	55.4	43.2	130	95.2	71.9	56.8	47.8	132	97.9	73.6	58.2	50.2	119	91.4	73.6	61.5	51.7	111	87.9	72.6	62.3	52.7	92.8	75.7
300	–																											
	B	127	88.7	66.1	53.8	40.4	123	92.6	69.6	55	44.9	124	94.8	71.8	56.7	48.1	113	88.2	71.4	59.7	49.9	104	83.9	69.9	60.9	51.6	87	
	B2	133	88.8	66.1	53.5	39.9	131	92.4	69.5	55.1	44.3	130	95.6	71.4	56.7	47.5	116	89.7	71.9	59.5	49.5	108	86.3	70.8	61	51.1	90.8	74
	BW	130	88.8	66.1	53.7	40.2	126	92.7	69.9	55.2	44.5	126	95.4	71.7	56.7	47.5	116	89.7	72	59.8	49.8	108	86.3	71.1	60.7	51	90.9	74.1
310	–																											
	B	121	86.4	64.5	52.1	37.3	118	90.5	67.7	53.4	41.8	118	92.5	69.9	55.1	45.1	110	86.5	69.9	58.1	47.2	102	82.3	68.3	59.2	49.8	85.3	
	B2	130	86.6	64.5	51.8	36.4	129	90.3	67.7	53.5	40.8	126	93.2	69.5	55.1	44.3	114	88	70.4	58	46.8	106	84.6	69.5	59.4	49.4	88.7	72.5
	BW	124	86.8	64.5	52	37.2	121	90.6	67.9	53.5	41.2	120	93	69.9	55.2	44.6	112	88	70.5	58.2	47.1	106	84.6	69.6	59.2	49.3	88.9	72.6
320	–																											
	B	115	84.3	62.9	50.5	33.9	113	88.4	66	51.8	38.6	112	90.5	68	53.5	42	105	84.7	68.4	56.6	44.1	99.4	80.8	66.8	57.7	47.3	83.7	
	B2	127	84.5	63	50.3	32.8	126	88.2	66	52	37.4	122	91.1	67.7	53.6	41	112	86.3	68.9	56.6	43.7	104	82.8	68.2	57.9	47	86.7	71.1
	BW	118	84.7	63	50.5	33.7	116	88.6	66.2	51.9	38	114	90.9	68.1	53.7	41.6	108	86.4	68.9	56.7	44	103	82.9	68.2	57.8	46.8	87	71.1
330	–																											
	B		82.3	61.4	49.1	29.5	107	86.3	64.6	50.3	35.3	105	88.6	66.3	51.9	38.9	101	83.5	67	55	41	95.8	78.9	65.3	56.3	44.2	81.9	
	B2		82.6	61.4	49	28.5	120	86.2	64.5	50.5	33.8	118	89.3	66.1	52	37.7	110	84.9	67.4	55.1	40.3	102	81.2	66.9	56.4	44	84.8	69.6
	BW		82.6	61.5	49.1	29.3	110	86.6	64.7	50.4	34.6	108	88.8	66.4	52.2	38.6	104	85	67.4	55.2	40.7	99.4	81.3	66.8	56.5	43.9	85.1	69.6
340	–																											
	B		80.6	59.8	47.8	22.8	102	84.3	63.2	49.2	31.4	99.6	86.7	64.8	50.4	35.8	96.6	82.5	65.7	53.5	37.8	92.1	77.8	64.1	54.8	41	79.8	
	B2		80.8	59.8	47.8	22.2	114	84.2	63	49.3	29.7	112	87.3	64.8	50.6	34.4	107	83.8	65.9	53.7	36.9	101	79.9	65.6	54.9	40.8	83.5	68.1
	BW		80.6	60	47.7	22.6	104	84.7	63.1	49.2	30.6	103	86.8	64.9	50.7	35.6	99.8	83.8	65.9	53.7	37.4	95.8	80	65.4	55.1	40.8	83.5	68.1
350	–																											
	B			58.7	46.6	16.1		82.7	61.8	48.1	25.4	94	84.8	63.3	49.3	31.9	91.9	81.6	64.5	51.9	34.7	88.5	77	62.7	53.4	37.8	77.8	
	B2			58.3	46.5	15.8		82.5	61.6	48	23.9	107	85.5	63.4	49.4	30.5	104	82.8	64.4	52.3	33.5	99.2	78.8	64.4	53.4	37.6	82.1	66.9
	BW			58.6	46.4	15.9		83	61.6	48	24.8	96.9	84.9	63.5	49.5	31.8	95.1	82.7	64.6	52.3	34	92.2	78.9	64.1	53.7	37.8	82	66.8
360	–																											
	B			57.5	45.4			81.4	60.3	47	19.2		83.1	61.9	48.2	26.9	86.8	80.7	63.2	50.7	31.1	84.6	76.1	61.8	51.9	34.7	75.8	
	B2			57	45.4			81.2	60.3	46.8	18		83.7	62	48.3	25.6	99.2	81.7	63	51	29.8	96.9	77.6	63.4	52	34.4	80.8	65.9
	BW			57.3	45.3			81.4	60.3	46.9	18.7		83.3	62	48.3	26.8	89.9	81.6	63.3	51	30.4	88.3	77.8	63.1	52.3	34.8	80.5	65.8
370	–																											
	B				44.4				59.1	45.9			81.5	60.6	47.2	21	81.8	79.6	62	49.7	26.9	80.5	75.3	61.4	50.8	31.5	73.7	
	B2				44.4				59.1	45.5			82.1	60.7	47.1	20.1	94	80.8	61.6	49.9	25.6	93.5	76.5	62.5	50.7	31.1	79.5	64.9
	BW				44.3				59.1	45.7			81.9	60.5	47.2	20.9	84.7	80.6	62	49.9	26.2	83.9	76.8	62.3	51	31.5	78.8	64.8
380	–																											
	B				43.5				57.9	44.8			80	59.5	46.1	15.1	76.9	78	60.8	48.7	21.6	75.9	74.4	60.8	49.7	27.7	71.1	
	B2				43.4				57.8	44.5			80.6	59.4	46	14.6	89.2	80	60.2	48.7	20.5	88.6	75.4	61.5	49.7	27.3	78.4	64
	BW				43.3				58.1	44.6			80.5	59.2	46	15	79.9	80	60.7	48.8	21	78.9	75.7	61.4	49.9	27.9	76.4	63.9
390	–																											
	B									43.8				58.3	45.1			74.8	59.3	47.6	16.2	71.4	71.7	60.2	48.7	22.7	67.3	
	B2									43.6				58.3	45			79.4	59.3	47.6	15.5	83.9	74.8	60.6	48.6	22.5	77.6	63
	BW									43.7				58.1	45.1			77.3	59.4	47.7	15.8	74.3	74.2	60.5	48.7	22.9	71.9	62.9
400	–																											
	B														44				58.5	46.6			68.5	59.4	47.7	17.8	63.4	
	B2														44.2				58.4	46.6			74.3	59.6	47.6	17.7	75.4	62.2
	BW														44.2				58.3	46.6			72	59.5	47.7	18	67.4	62.1
410	–																											
	B														43				57.6	45.6				58.4	46.7			
	B2														43.3				57.6	45.6				58.6	46.5			61.5
	BW														43.3				57.3	45.6				58.5	46.8			61.3
420	–																											
	B																			44.8				57.3	45.7			
	B2																			44.8				57.6	45.5			61
	BW																			44.7				57.5	45.8			60.1
430	–																											
	B																			43.9				56.3	44.9			
	B2																			43.9				56.8	44.7			60.6
	BW																			43.9				56.9	44.9			57.2
440	–																											
	B																								44.2			
	B2																								43.9			
	BW																								43.7			

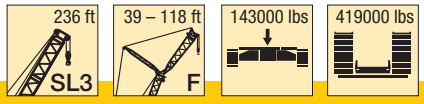
TAB 181450 / 181452 / 181456

L

Lifting heights
Hauteurs de levage

HSL2DFB/B2/BW





ft	SL3 236															ft
	F 39			F 59			F 79			F 98			F 118			
	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	
40	303															40
45	303	303														45
50	303	298														50
55	295	289	160	231	194											55
60	277	276	156	222	186		172	144		148						60
65	253	255	152	213	179	111	164	139		141	118		128			65
70	232	235	149	204	173	108	157	133		135	114		123			70
75	213	216	145	196	166	106	151	129		129	110		117	99		75
80	197	199	142	188	160	104	145	124	85	124	106		113	95		80
85	182	184	139	181	155	101	139	119	83	119	102	71	108	91.5		85
90	169	171	136	170	150	99	134	115	81	114	98	69	103	88		90
95	157	159	133	159	145	97	129	112	79	110	94.5	67.5	98.5	84.5	58.9	95
100	146	148	131	149	141	95	124	108	77.5	106	91	65.5	95	81	57.2	100
105	136	138	128	139	137	93	119	105	75.5	102	88.5	64	91	78.5	55.5	105
110	128	129	126	130	131	91	116	102	74	97.5	85.5	62.5	87.5	76	54	110
115	120	121	123	122	124	89.5	112	99	72.5	94	82.5	61	84	73	52.4	115
120	112	113	117	115	116	88	109	96.5	71	91	80	59.4	80.5	70.5	50.9	120
125	105	106	109	108	109	86.5	106	94	69.5	88.5	78	58	78	68	49.5	125
130	98	99	102	101	103	85	102	91.5	68.5	85.5	75.5	56.5	75.5	66	48.3	130
135	92	93	96	95.5	97	83.5	96.5	89	67.5	83	73.5	55.3	73.5	64	47.1	135
140	86.5	87.5	90	89.5	91	82	91	86.5	66	80	71.5	54.1	71	62.5	45.9	140
150	76	77	79	79	80.5	78.5	81	80.5	64	75.5	67.5	52	66	58.6	43.1	150
160	66.5	67.5	69.5	70	71	74	72	73.5	61.5	70.5	64	49.9	61.5	55.1	39.9	160
170	58.2	59.1	61	61.5	63	65.5	64	65.5	59.8	65	61	47.8	58.3	51.9	36.7	170
180	51.1	51.9	53.7	54.4	55.4	58	56.8	58.1	58	58.2	58.2	46.2	55	49.4	33.1	180
190	44.7	45.4	47	47.8	48.8	51.1	50.2	51.4	53.8	51.7	53.1	44.7	51.1	46.9	27.6	190
200	38.9	39.5	40.9	41.9	42.8	44.8	44.2	45.3	48.1	45.7	47.1	43.2	46.4	44.1	21	200
210	33.7	34.2	35.4	36.6	37.4	39.2	38.8	39.8	42.4	40.3	41.6	41.8	41	40.3	14.5	210
220	29.1	29.6	30.6	32	32.6	34.2	34.1	35	37.3	35.5	36.7	39	36.3	34.3	9.4	220
230	25	25.4		27.7	28.3	29.6	29.8	30.6	32.6	31.2	32.3	35	32	28.3		230
240	21.2	21.5		23.8	24.3	25.4	25.8	26.6	28.3	27.2	28.2	30.7	28	22.3		240
250	17.7			20.2	20.6		22.2	22.8	24.4	23.6	24.5	26.7	24.4	16.4		250
260	14.5			17	17.3		18.9	19.5	20.8	20.3	21.1	23.1	21.1	12.8		260
270				14	14.3		15.9	16.4		17.3	18	19.7	15.6	9.3		270
280							13.1	13.5		14.4	15.1	16.6				280
290										11.8	12.4					290
300										9.5	10					300
310											7.7					310

TAB 181111

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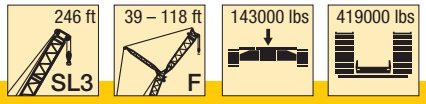

ft	SL3 246															ft
	F 39			F 59			F 79			F 98			F 118			
	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	
40	303															40
45	303	301														45
50	303	296														50
55	295	289	161	231	194											55
60	279	277	157	223	187		173			148						60
65	254	257	153	215	180	111	165	139		142	119		129			65
70	234	236	150	206	174	109	159	134		136	115		124			70
75	216	218	146	198	168	106	153	129		130	110		118	99.5		75
80	199	201	143	190	162	104	147	125	85.5	125	106		113	95.5		80
85	185	187	140	184	157	102	141	121	83.5	120	102	71	109	92		85
90	172	174	137	173	152	99.5	136	116	81.5	115	98.5	69	104	88.5		90
95	160	162	134	162	147	97.5	131	113	79.5	111	95	67.5	100	85.5	59	95
100	150	152	132	151	143	95.5	126	110	77.5	107	92	66	96	82	57.3	100
105	140	142	129	142	138	93.5	121	106	76	103	89	64	92.5	79	55.7	105
110	132	133	127	133	134	91.5	117	103	74.5	99	86.5	62.5	89	76.5	54.2	110
115	124	125	125	125	127	90	114	100	73	95.5	83.5	61	85.5	74	52.6	115
120	116	117	121	118	120	88.5	111	97.5	71.5	92.5	81	59.7	82	71.5	51.1	120
125	109	110	113	111	113	87	107	95	70	89.5	78.5	58.3	79	69	49.8	125
130	102	103	106	105	106	85.5	104	92.5	69	87	76.5	57	77	67	48.6	130
135	96	97	99.5	99	100	84	99.5	90	67.5	84.5	74.5	55.7	74.5	65	47.4	135
140	90	91	93.5	93	94.5	82.5	94	87.5	66.5	82	72.5	54.5	72	63	46.2	140
150	80	80.5	83	82.5	83.5	80	84.5	82.5	64.5	77	69	52.4	67.5	59.6	43.6	150
160	71	71.5	73.5	73.5	74.5	76.5	75	76.5	62	72	65	50.3	63	56.1	40.6	160
170	62.5	63.5	65.5	65.5	66.5	68.5	67	68.5	60.5	68	62	48.3	59.4	52.7	37.6	170
180	55.6	56.3	58	58.3	59.3	61.5	60	61.5	58.6	61.5	59.2	46.7	56.2	50.2	34.5	180
190	49.2	49.9	51.4	51.9	52.7	54.9	53.7	54.9	55.7	54.9	55.2	45.2	53	47.8	29.6	190
200	43.4	44	45.4	46	46.8	48.7	47.8	48.8	51.5	48.9	50.2	43.7	49.2	45.4	23.6	200
210	38.2	38.7	39.9	40.6	41.4	43.1	42.4	43.4	45.8	43.5	44.7	42.2	44	43	17.2	210
220	33.7	34.1	35.1	36	36.7	38.2	37.7	38.6	40.8	38.8	39.9	41.2	39.3	37.2	10.9	220
230	29.6	29.9	30.8	31.8	32.3	33.7	33.4	34.2	36.2	34.5	35.5	38	35	31.5		230
240	25.7	26.1		27.9	28.4	29.5	29.5	30.2	31.9	30.5	31.5	33.8	31	25.7		240
250	22.2	22.5		24.3	24.7		25.8	26.5	28	26.9	27.8	29.9	27.4	19.9		250
260	19.1	19.4		21.1	21.5		22.6	23.2	24.5	23.6	24.4	26.3	24.2	15.3		260
270				18.1	18.5		19.6	20.1	21.2	20.6	21.3	23.1	19.8	11.6		270
280				15.4			16.8	17.3		17.8	18.5	20				280
290							14.3	14.6		15.2	15.8	17.1				290
300							11.9	12.2		12.9	13.4	14.5				300
310										10.7	11.1					310
320										8.7						320

TAB 181111

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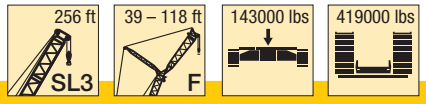

ft	SL3 256															ft
	F 39			F 59			F 79			F 98			F 118			
	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	
45	301	269														45
50	294	263														50
55	283	256	159	207												55
60	268	250	155	201	181		164									60
65	244	243	152	195	176	110	159	137		136			123			65
70	224	226	148	190	171	108	154	132		132			120			70
75	206	209	145	184	166	105	149	128		127	109		115	97.5		75
80	190	193	142	179	161	103	144	124	84.5	123	105		111	94		80
85	176	178	139	175	156	101	139	120	82.5	118	101	70.5	107	90.5		85
90	164	166	137	165	152	99	134	116	80.5	113	98	68.5	102	87.5		90
95	152	154	134	154	147	97	130	112	79	109	94.5	67	98	84.5	58.4	95
100	142	143	131	144	142	95	126	109	77	106	91.5	65.5	94.5	81.5	56.8	100
105	132	134	129	134	137	93.5	121	106	75.5	102	88.5	64	91.5	78.5	55.2	105
110	124	125	127	126	128	92	117	103	74	99	86	62.5	88.5	76	53.8	110
115	116	117	121	118	120	90	114	100	72.5	95.5	83.5	61	85	73.5	52.3	115
120	108	110	114	111	113	88.5	110	97	71	92	81	59.5	82	71.5	50.9	120
125	102	103	107	104	106	87	105	95	70	89.5	78.5	58.2	79	69	49.5	125
130	95.5	96.5	100	97.5	99.5	86	98.5	92.5	68.5	87	76.5	56.9	77	66.5	48.3	130
135	89.5	91	94.5	92	93.5	84.5	93	90	67.5	84.5	74.5	55.6	74.5	65	47.2	135
140	84.5	85.5	88.5	86.5	88.5	83	88	87.5	66.5	82	73	54.4	72.5	63	46.1	140
150	74.5	75.5	78	77	78.5	79	78	80	64.5	76.5	69	52.3	68	59.7	43.6	150
160	65.5	66.5	68.5	68	69.5	73	69.5	71	62	69.5	65.5	50.4	63.5	56.3	40.8	160
170	57	57.9	60	60	61.5	64.5	61.5	63	60.5	62	62.5	48.5	59.6	53	37.5	170
180	49.8	50.7	52.6	53	54.1	56.9	55	56.4	58.2	55.4	56.8	46.8	54.6	50.4	34.3	180
190	43.4	44.2	45.9	46.5	47.5	49.9	48.6	49.9	53.3	49.4	51	45.3	49.1	48.1	30	190
200	37.7	38.3	39.9	40.6	41.5	43.7	42.7	43.9	46.9	43.8	45.3	43.9	43.7	45.1	24.7	200
210	32.5	33.1	34.4	35.3	36.1	38.1	37.3	38.4	41.1	38.7	40	42.5	38.7	40.4	18.5	210
220	28	28.5	29.6	30.6	31.4	33.1	32.6	33.6	36.1	33.9	35.2	38.2	34.4	35.9	12.3	220
230	23.8	24.3	25.3	26.4	27.1	28.6	28.3	29.2	31.5	29.6	30.8	33.7	30.2	31.7		230
240	20	20.4		22.5	23.1	24.4	24.4	25.2	27.2	25.6	26.7	29.4	26.4	27.4		240
250	16.5	16.9		18.9	19.4	20.6	20.7	21.5	23.3	22	23	25.4	22.7	22.8		250
260	13.4	13.7		15.7	16.2	17.1	17.5	18.2	19.7	18.7	19.6	21.8	19.4	17.1		260
270	10.6	10.8		12.7	13.1		14.5	15.1	16.4	15.7	16.5	18.5	16.4	13.3		270
280				10	10.3		11.7	12.2	13.4	12.9	13.7	15.4	13.6	10.1		280
290								9.6		10.3	11	12.5				290
300								7.2		8	8.5	9.9				300

TAB 181111

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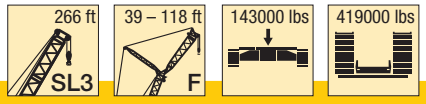

ft	SL3 266															ft
	F 39			F 59			F 79			F 98			F 118			
	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	
45	303	273														45
50	298	268														50
55	287	261		210												55
60	270	254	156	205	183		166									60
65	247	247	152	199	178	110	161	137		138			125			65
70	227	229	149	194	173	108	156	133		133			121			70
75	209	211	146	189	168	106	151	129		128	109		116	98		75
80	193	196	143	184	163	103	146	125	84.5	124	106		112	94.5		80
85	179	181	140	179	158	101	140	121	82.5	119	102	70.5	108	91		85
90	167	169	138	168	153	99.5	136	117	81	115	99	69	104	88		90
95	156	158	135	157	149	97.5	131	114	79	111	95.5	67	99.5	85		95
100	145	147	132	147	144	95.5	127	110	77.5	107	92.5	65.5	95.5	82	57	100
105	136	138	130	137	140	94	123	107	76	104	89.5	64	92.5	79.5	55.4	105
110	128	129	128	129	131	92	119	104	74.5	100	87	62.5	89.5	77	54	110
115	120	121	124	121	123	90.5	115	101	73	97	84.5	61	86.5	74.5	52.6	115
120	113	114	118	114	116	89	112	98.5	71.5	93.5	82	59.8	83.5	72	51.2	120
125	106	107	111	107	109	87.5	108	96	70.5	90.5	79.5	58.5	80.5	70	49.8	125
130	99.5	101	104	101	103	86	102	94	69	88.5	77.5	57.3	78	67.5	48.6	130
135	94	95	98	96	97.5	85	96.5	91.5	68	86	75.5	56	75.5	66	47.5	135
140	88.5	90	92.5	90.5	92	83.5	91	89.5	67	83.5	73.5	54.8	73.5	64	46.4	140
150	79	79.5	82	81	82	80.5	81.5	83	65	78.5	70	52.7	69	60.5	44.1	150
160	69.5	70.5	72.5	72	73.5	76	73	74.5	63	73	66.5	50.8	65	57.3	41.5	160
170	61.5	62.5	64.5	64.5	65.5	67.5	65.5	67	61	65.5	63	48.9	60.5	54	38.4	170
180	54.5	55.3	57.1	57.1	58.1	60.5	58.7	60	59.2	58.8	59.4	47.2	57.1	51.3	35.3	180
190	48.1	48.8	50.4	50.6	51.6	53.9	52.4	53.6	55.5	52.8	54.3	45.7	52.2	48.9	31.6	190
200	42.4	43	44.4	44.7	45.6	47.7	46.4	47.6	50.4	47.3	48.7	44.3	46.9	46.5	27	200
210	37.2	37.7	39	39.5	40.2	42.1	41.1	42.1	44.7	42.1	43.4	43	42	43.5	21	210
220	32.6	33.1	34.3	34.8	35.5	37.2	36.4	37.4	39.7	37.4	38.6	40.7	37.6	39.1	15	220
230	28.5	29	29.9	30.6	31.2	32.7	32.1	33	35.1	33.1	34.2	36.9	33.5	34.8	9.7	230
240	24.7	25.1	25.9	26.7	27.3	28.6	28.2	29	30.9	29.1	30.2	32.7	29.6	30.5		240
250	21.2	21.6		23.1	23.7	24.8	24.6	25.3	27	25.5	26.4	28.7	25.9	26		250
260	18.1	18.4		19.9	20.4	21.4	21.3	22	23.5	22.3	23.1	25.2	22.7	20.5		260
270	15.3	15.5		17	17.4		18.4	19	20.3	19.3	20	22	19.7	16		270
280	12.7			14.3	14.6		15.6	16.1	17.3	16.5	17.2	18.9	16.9	12.2		280
290				11.8	12.1		13	13.5		13.9	14.5	16				290
300				9.5	9.7		10.7	11.1		11.5	12.1	13.4				300
310							8.5	8.9		9.4	9.9	11				310

TAB 181111

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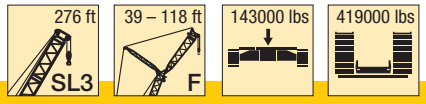
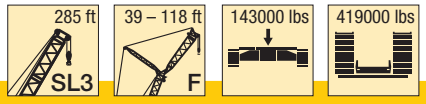


ft	SL3 276															ft
	F 39			F 59			F 79			F 98			F 118			
	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	
45	301	270														45
50	295	265														50
55	280	259		209												55
60	258	252	157	203	182		165									60
65	235	237	153	198	178		161	138		138			124			65
70	216	218	150	194	174		156	134		134			120			70
75	198	201	147	189	169	106	151	130		129	110		116	98.5		75
80	182	185	144	182	164	104	147	126	84.5	125	106		112	95		80
85	169	171	141	171	159	102	142	122	83	120	103		108	91.5		85
90	156	159	138	159	155	100	137	118	81	116	99.5		104	88.5		90
95	145	147	136	148	148	98	133	115	79.5	112	96.5	67.5	100	86		95
100	135	137	134	137	140	96	129	111	78	108	93	65.5	96.5	83	57	100
105	126	127	131	128	131	94.5	125	108	76	105	90.5	64.5	93.5	80	55.6	105
110	117	119	123	120	122	93	120	105	74.5	102	88	63	90.5	77.5	54.1	110
115	109	111	116	112	114	91	113	102	73.5	98	85.5	61.5	87.5	75	52.8	115
120	102	104	108	105	107	89.5	106	99.5	72	95	83	60	84.5	73	51.4	120
125	95.5	97	101	98	100	88	99.5	97	71	91.5	80.5	58.8	82	71	50.1	125
130	89.5	91	94.5	92	94	87	93.5	94.5	69.5	89.5	78	57.6	79	68.5	48.8	130
135	84	85.5	89	86.5	88.5	85.5	88	90	68.5	86	76.5	56.4	76.5	66.5	47.7	135
140	78.5	80	83.5	81	83	84	82.5	84.5	67.5	81.5	74.5	55.2	74.5	64.5	46.7	140
150	69	70	73.5	71.5	73	77.5	73	75	65.5	73	71	53	70	61.5	44.5	150
160	60.5	61.5	64	63	64.5	68	64.5	66	63.5	64.5	66.5	51.2	64	58.1	42.2	160
170	52.8	53.8	56.3	55.2	56.5	60	56.6	58.3	61.5	57.1	59.2	49.4	56.8	55	39.2	170
180	46.1	47	49.2	48.5	49.8	52.9	50	51.6	55.3	50.5	52.4	47.6	50.3	51.4	36.1	180
190	39.8	40.6	42.6	42.5	43.6	46.5	43.9	45.4	49.1	44.5	46.3	46.1	44.4	46.5	33.1	190
200	34	34.8	36.5	36.9	37.9	40.5	38.4	39.8	43.2	39.1	40.7	43.8	39	40.9	29.2	200
210	28.8	29.4	31	31.7	32.6	34.9	33.4	34.6	37.8	34.1	35.6	39.5	34.1	35.9	23.4	210
220	24.2	24.8	26.2	27	27.9	29.9	28.9	30.1	33	29.6	31.1	34.7	29.7	31.4	17.6	220
230	20.1	20.6	21.8	22.8	23.5	25.4	24.7	25.8	28.4	25.5	26.9	30.2	25.6	27.2	11.8	230
240	16.2	16.7	17.8	18.8	19.5	21.2	20.8	21.8	24.1	21.8	23	26.1	21.9	23.4		240
250	12.7	13.2	14	15.2	15.9	17.3	17.2	18	20.1	18.2	19.4	22.2	18.4	19.8		250
260	9.6	10	10.7	12	12.6	13.8	13.9	14.7	16.5	15.1	16.1	18.7	15.3	16.6		260
270				9	9.5	10.6	10.9	11.6	13.2	12.1	13.1	15.4	12.4	13.6		270
280									10.1	9.3	10.2	12.3	9.7	10.8		280

TAB 181111

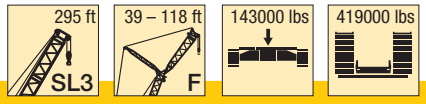
M



ft	SL3 285															ft
	F 39			F 59			F 79			F 98			F 118			
	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	
45	303															45
50	298															50
55	283	263		212												55
60	260	255	157	207	184		167									60
65	237	239	154	202	180		162	138		139			125			65
70	218	221	151	197	175		158	135		135			121			70
75	201	203	148	193	171	106	153	131		130	110		117			75
80	186	188	145	186	166	104	148	127	85	126	107		113	95.5		80
85	172	174	142	173	161	102	143	123	83	122	103		109	92.5		85
90	160	162	139	162	156	100	139	119	81.5	117	100		106	89.5		90
95	149	151	137	151	151	98.5	134	116	79.5	113	97	67.5	102	86.5		95
100	139	141	135	141	143	96.5	130	112	78	109	94	66	98	83.5	57.1	100
105	130	131	132	131	134	95	127	109	76.5	106	91	64.5	94.5	81	55.7	105
110	121	123	126	123	125	93.5	122	107	75	103	88.5	63	91.5	78	54.3	110
115	114	115	119	116	118	91.5	116	104	73.5	99.5	86.5	61.5	88.5	76	53	115
120	107	108	112	108	110	90	109	101	72.5	96.5	84	60.5	86	73.5	51.6	120
125	100	101	105	102	104	88.5	103	98	71	93.5	81.5	59.1	83	71.5	50.3	125
130	94	95	98.5	96	97.5	87.5	96.5	96	70	90.5	79	57.9	80	69.5	49	130
135	88.5	89.5	93	90.5	92	86	91	92	69	87.5	77.5	56.7	78	67.5	47.9	135
140	83	84.5	87.5	85	86.5	85	86	87.5	67.5	84	75.5	55.6	75.5	65.5	46.9	140
150	73.5	74.5	77.5	75.5	77	79.5	76.5	78.5	65.5	76.5	72	53.4	71.5	62	44.9	150
160	65	66	68.5	67	68.5	72	68	69.5	64	68	68	51.5	66.5	59	42.7	160
170	57.5	58.4	61	59.4	60.5	64	60.5	62	62	60.5	62.5	49.8	59.8	55.9	39.9	170
180	50.8	51.6	53.7	52.8	53.9	56.9	53.8	55.2	58	54	55.8	48	53.5	52.8	37	180
190	44.5	45.3	47.1	46.8	47.8	50.5	47.8	49.1	52.7	48	49.7	46.5	47.6	48.8	34.1	190
200	38.7	39.4	41.1	41.2	42.2	44.6	42.3	43.6	46.8	42.6	44.2	44.8	42.2	44.1	30.5	200
210	33.5	34.1	35.6	35.9	36.8	38.9	37.3	38.5	41.5	37.7	39.1	42.8	37.4	39.1	25.7	210
220	28.9	29.5	30.9	31.3	32.1	34	32.9	34	36.6	33.3	34.6	38.1	33	34.6	20	220
230	24.8	25.3	26.5	27	27.8	29.5	28.7	29.6	32	29.2	30.5	33.7	29	30.5	14.4	230
240	21	21.4	22.5	23.1	23.8	25.3	24.7	25.6	27.8	25.5	26.6	29.6	25.3	26.7		240
250	17.5	17.9	18.8	19.5	20.1	21.5	21.1	21.9	23.9	22	23.1	25.7	21.9	23.2		250
260	14.3	14.7	15.5	16.3	16.9	18.1	17.8	18.6	20.3	18.8	19.7	22.2	18.8	20		260
270	11.4	11.8		13.3	13.8	14.9	14.8	15.5	17.1	15.8	16.7	18.9	15.9	17		270
280	8.8	9.1		10.6	11	11.9	12	12.6	14	13	13.8	15.8	13.2	14.3		280
290							9.4	10	11.2	10.3	11.1	12.9	10.7	11.7		290
300							7	7.5	8.6	7.9	8.6	10.3	8.4	9.3		300
310												7.8				310

TAB 181111

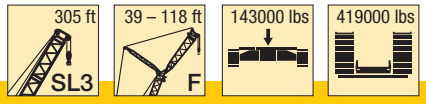
M



ft	SL3 295															ft
	F 39			F 59			F 79			F 98			F 118			
	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	
45	294															45
50	289															50
55	274	257		207												55
60	249	249	157	203	182		164									60
65	227	230	154	198	179		160	139		137			122			65
70	208	211	151	194	175		157	135		134			120			70
75	191	194	148	188	171	106	153	131		130	111		117			75
80	176	179	146	178	166	104	148	127		126	107		113	96		80
85	162	165	143	165	162	102	144	124	83	122	104		110	92.5		85
90	150	153	140	153	154	101	140	120	81.5	118	101		106	89.5		90
95	140	142	138	142	145	99	135	117	80	114	98	67.5	102	87		95
100	130	132	134	132	135	97	131	113	78.5	110	95	66	99	84	57.1	100
105	120	122	128	123	126	95.5	124	110	77	107	92.5	64.5	95	81.5	55.8	105
110	112	114	119	115	117	94	116	108	75.5	104	89.5	63	92.5	79	54.4	110
115	105	106	111	107	110	92.5	108	105	74	101	87.5	62	89.5	76.5	53.1	115
120	97.5	99	104	100	102	90.5	101	102	72.5	97.5	85	60.5	87	74.5	51.8	120
125	91	92.5	96.5	93.5	95.5	89	95	97.5	71.5	94.5	82.5	59.3	84	72.5	50.5	125
130	85	86.5	90.5	87.5	89.5	88	89	91.5	70.5	89	80.5	58.2	81.5	70	49.2	130
135	79.5	81	84.5	82	84	85	83.5	86	69	83.5	78.5	57	78.5	68	48.2	135
140	74.5	75.5	79.5	77	78.5	81.5	78.5	80.5	68	78.5	76.5	55.9	76	66	47.1	140
150	64.5	66	69.5	67.5	69	73.5	69	71	66	69	70.5	53.8	68.5	62.5	45.1	150
160	56.3	57.4	60.5	58.8	60.5	64.5	60.5	62	63.5	60.5	63	51.8	60.5	59.4	43	160
170	48.8	49.8	52.5	51.3	52.7	56.3	52.7	54.5	59	53.3	55.4	50.1	52.9	55.2	40.5	170
180	42.2	43.2	45.6	44.7	46	49.3	46.2	47.8	52.1	46.7	48.7	48.4	46.5	48.8	37.7	180
190	36.3	37.2	39.4	38.7	39.9	42.9	40.2	41.7	45.7	40.8	42.7	45.7	40.6	42.8	34.9	190
200	30.9	31.7	33.7	33.2	34.3	37.1	34.7	36.1	39.8	35.4	37.1	41.6	35.3	37.3	31.8	200
210	25.9	26.7	28.5	28.2	29.2	31.8	29.7	31	34.4	30.4	32	36.2	30.4	32.3	27.9	210
220	21.6	22.2	23.9	23.8	24.7	27.1	25.3	26.5	29.6	26	27.5	31.4	26	27.8	22.4	220
230	17.5	18.1	19.5	19.7	20.6	22.7	21.2	22.3	25.2	21.9	23.3	27	22	23.7	16.9	230
240	13.7	14.2	15.5	16	16.8	18.6	17.4	18.4	21	18.1	19.5	22.8	18.3	19.9	11.5	240
250		10.7	11.8	12.5	13.2	14.9	13.9	14.8	17.2	14.7	15.9	19	14.8	16.3	6.5	250
260		7.5	8.4	9.3	10	11.5	10.7	11.6	13.8	11.5	12.6	15.5	11.7	13.1	5.2	260
270						8.3		8.6	10.6	8.6	9.6	12.3	8.8	10.1		270
280											6.8	9.2		7.3		280

TAB 181111

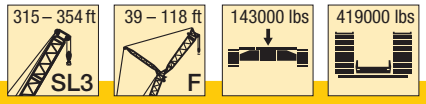
M



ft	SL3 305															ft
	F 39			F 59			F 79			F 98			F 118			
	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	
45	294															45
50	289															50
55	275	259								258	236					55
60	251	252	158	205	184					246	230	156	187			60
65	229	232	155	201	180		162	139		225	225	153	182	164		65
70	211	214	152	197	177		159	136		207	209	150	178	161		70
75	194	197	149	190	172	107	155	132		190	193	148	174	158	106	75
80	179	182	146	181	168	105	151	128		175	178	145	169	155	104	80
85	166	168	144	168	164	103	146	124	83.5	162	165	142	164	151	102	85
90	154	156	141	156	157	101	141	121	81.5	151	153	140	153	148	100	90
95	143	145	139	145	148	99.5	137	118	80	140	142	137	142	143	98.5	95
100	134	135	136	136	138	97.5	132	114	78.5	130	132	134	132	135	97	100
105	125	126	131	126	129	96	127	111	77	121	123	128	123	126	95	105
110	116	118	123	118	121	94.5	119	109	75.5	113	115	120	115	118	94	110
115	109	111	115	111	113	93	112	106	74.5	106	108	112	108	110	92.5	115
120	102	103	108	104	106	91.5	105	103	73	99	101	105	101	103	91	120
125	95.5	97	101	97.5	99.5	90	98.5	100	72	92.5	94	98	94.5	96.5	89.5	125
130	89.5	91	94.5	91.5	93.5	88.5	92.5	94.5	70.5	86.5	88	92	89	90.5	88.5	130
135	84	85.5	89	86	88	86.5	87	89	69.5	81.5	82.5	86.5	83.5	85	85.5	135
140	79	80	83.5	81	82.5	84.5	82	84	68.5	76	77.5	81	78.5	80	82.5	140
150	69.5	70.5	73.5	71.5	73	77	72.5	74.5	66.5	66.5	68	71	69	70.5	74.5	150
160	61	62	65	63	64.5	68	64	66	64.5	58.4	59.5	62.5	60.5	62	66	160
170	53.6	54.6	57.1	55.6	56.9	60.5	56.6	58.3	62.5	51	52	54.6	53	54.4	57.9	170
180	47.1	48	50.3	49.1	50.3	53.4	50.1	51.6	55.7	44.5	45.4	47.8	46.5	47.8	51	180
190	41.2	42.1	44.2	43.1	44.2	47.1	44.2	45.6	49.3	38.6	39.5	41.7	40.6	41.8	44.8	190
200	35.9	36.6	38.5	37.7	38.7	41.4	38.7	40.1	43.5	33.3	34.1	36.1	35.2	36.3	39	200
210	31	31.7	33.4	32.8	33.7	36.1	33.8	35	38.2	28.4	29.1	30.9	30.3	31.3	33.8	210
220	26.5	27.1	28.7	28.4	29.2	31.4	29.4	30.6	33.5	24.1	24.8	26.4	25.9	26.8	29.1	220
230	22.4	22.9	24.3	24.3	25.1	27.1	25.4	26.4	29.1	20.1	20.7	22.2	21.9	22.7	24.8	230
240	18.5	19	20.2	20.6	21.3	23.1	21.6	22.6	25.1	16.4	17	18.3	18.1	18.9	20.8	240
250	15	15.5	16.5	17.1	17.8	19.4	18.1	19	21.3	13	13.6	14.8	14.7	15.4	17.2	250
260	11.9	12.3	13.2	13.9	14.5	15.9	15	15.8	17.9	9.9	10.4	11.4	11.6	12.2	13.8	260
270	9	9.3	10.1	10.9	11.4	12.7	12.1	12.9	14.8			8.3	8.7	9.3	10.7	270
280						9.7	9.4	10.1	11.8							280

TAB 181111

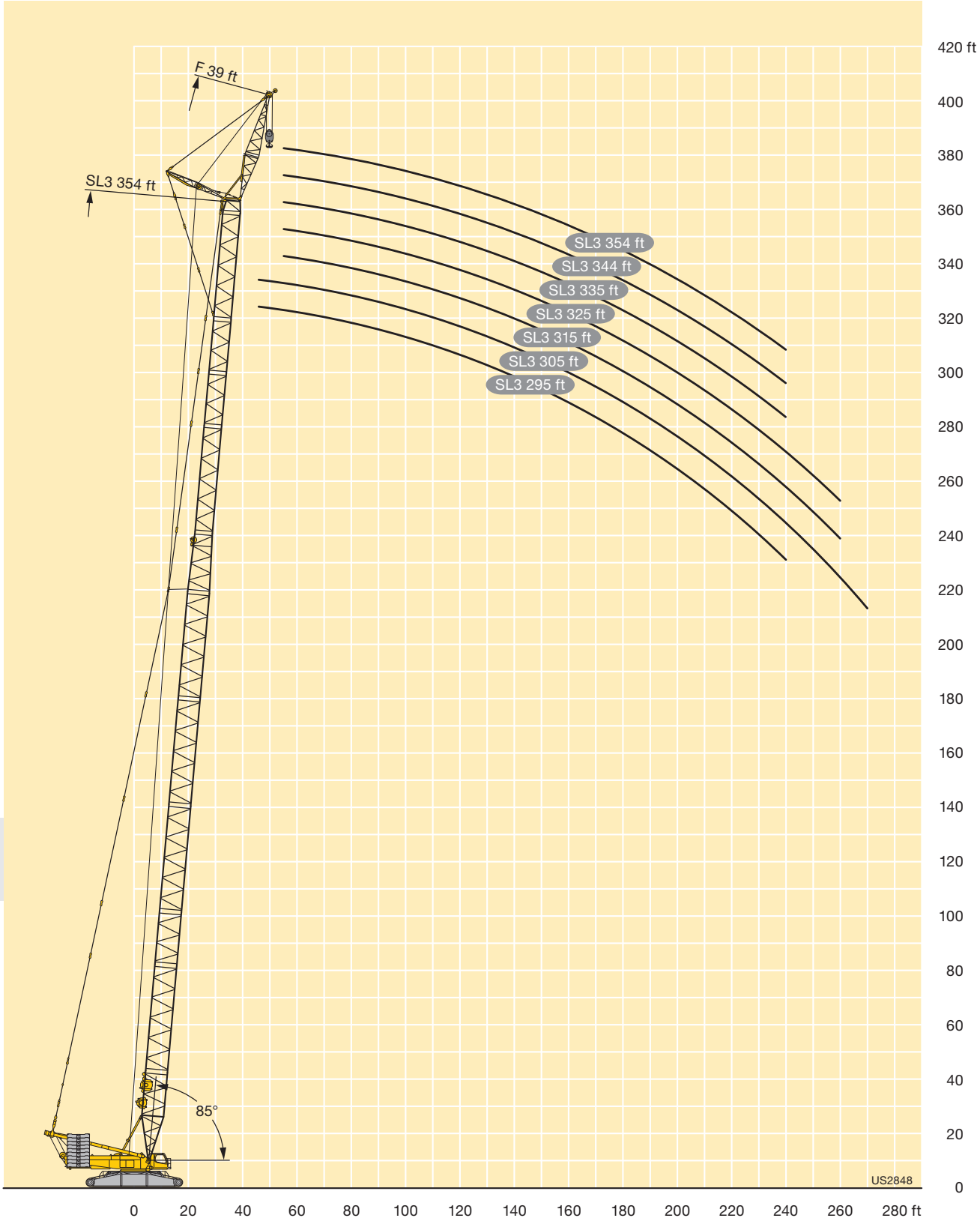
M



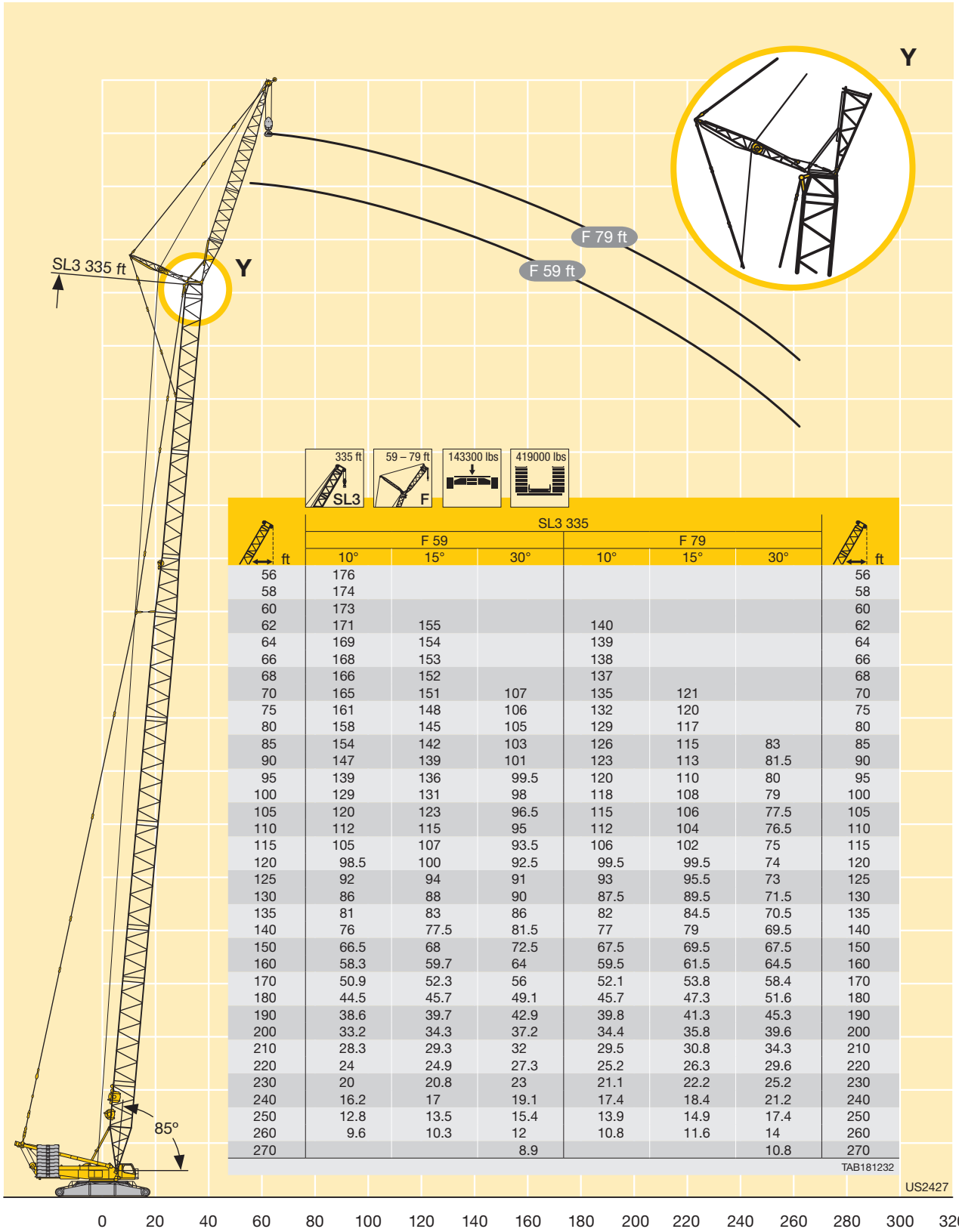
ft	SL3 315						SL3 325						SL3 335			SL3 344			SL3 354			ft
	F 39			F 59			F 39			F 59			F 39			F 39			F 39			
	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	10°	15°	30°	
55	258	236					255	235					238	219		235			209			55
60	246	230	156	187			241	230	156	187			231	214		228	213		204	190		60
65	225	225	153	182	164		220	222	154	183	165		217	209	154	213	209	154	198	185	154	65
70	207	209	150	178	161		202	205	151	178	162		200	200	151	196	197	152	191	181	151	70
75	190	193	148	174	158	106	186	189	148	174	158	106	184	187	148	180	183	149	180	176	148	75
80	175	178	145	169	155	104	172	174	146	169	155	104	170	172	146	166	169	146	166	168	146	80
85	162	165	142	164	151	102	159	161	143	161	152	102	157	159	143	154	156	144	153	156	143	85
90	151	153	140	153	148	100	147	150	140	149	149	100	146	148	141	142	145	142	142	144	140	90
95	140	142	137	142	143	98.5	137	139	138	139	142	99	135	137	138	132	134	137	132	134	136	95
100	130	132	134	132	135	97	127	129	134	129	132	97	126	128	133	123	125	130	123	125	130	100
105	121	123	128	123	126	95	118	120	125	121	123	95.5	117	119	124	114	116	121	114	116	121	105
110	113	115	120	115	118	94	110	112	117	113	115	94	109	111	116	106	108	113	106	108	113	110
115	106	108	112	108	110	92.5	103	105	109	105	107	93	102	104	108	99	101	105	99	101	106	115
120	99	101	105	101	103	91	96	97.5	102	98.5	100	91.5	95	96.5	101	92	94	98.5	92.5	94	98.5	120
125	92.5	94	98	94.5	96.5	89.5	89.5	91	95.5	92	94	90	88.5	90	94.5	86	87.5	92	86	88	92	125
130	86.5	88	92	89	90.5	88.5	84	85.5	89	86	88	89	83	84.5	88.5	80	81.5	86	80.5	82	86	130
135	81.5	82.5	86.5	83.5	85	85.5	78.5	80	83.5	81	82.5	85.5	77.5	79	83	75	76.5	80.5	75.5	77	80.5	135
140	76	77.5	81	78.5	80	82.5	73.5	74.5	78.5	75.5	77.5	81	72.5	74	77.5	70	71.5	75	70.5	72	75.5	140
150	66.5	68	71	69	70.5	74.5	64	65.5	68.5	66.5	68	72.5	63.5	64.5	68	60.5	62	65.5	61.5	62.5	66	150
160	58.4	59.5	62.5	60.5	62	66	55.8	56.9	59.9	57.9	59.5	63.5	55	56.2	59.2	52.5	53.7	56.8	53.1	54.3	57.4	160
170	51	52	54.6	53	54.4	57.9	48.4	49.4	52.1	50.5	51.9	55.6	47.7	48.8	51.5	45.2	46.3	49.1	45.9	47	49.8	170
180	44.5	45.4	47.8	46.5	47.8	51	41.9	42.9	45.4	44.1	45.4	48.7	41.3	42.3	44.8	38.8	39.8	42.4	39.6	40.6	43.2	180
190	38.6	39.5	41.7	40.6	41.8	44.8	36.1	37	39.3	38.2	39.4	42.5	35.5	36.4	38.7	33	34	36.3	33.8	34.7	37.1	190
200	33.3	34.1	36.1	35.2	36.3	39	30.8	31.6	33.7	32.8	33.9	36.8	30.2	31	33.1	27.7	28.6	30.8	28.5	29.4	31.6	200
210	28.4	29.1	30.9	30.3	31.3	33.8	25.9	26.7	28.6	27.9	28.9	31.5	25.3	26.1	28	22.9	23.7	25.7	23.7	24.5	26.5	210
220	24.1	24.8	26.4	25.9	26.8	29.1	21.6	22.3	24	23.5	24.5	26.9	21	21.7	23.5	18.6	19.3	21.2	19.4	20.2	22	220
230	20.1	20.7	22.2	21.9	22.7	24.8	17.6	18.3	19.9	19.5	20.4	22.6	17	17.7	19.3	14.6	15.3	17	15.4	16.1	17.8	230
240	16.4	17	18.3	18.1	18.9	20.8	14	14.6	16	15.8	16.6	18.6	13.4	14	15.4	11	11.6	13.1	11.8	12.4	14	240
250	13	13.6	14.8	14.7	15.4	17.2	10.6	11.1	12.4	12.3	13.1	14.9		10.5	11.9							250
260	9.9	10.4	11.4	11.6	12.2	13.8	7.5	8	9.2	9.2	9.9	11.6		7.4	8.6							260
270			8.3	8.7	9.3	10.7						8.5										270

TAB 181111

M


F 39 ft
SL3 354 ft
SL3 354 ft
SL3 344 ft
SL3 335 ft
SL3 325 ft
SL3 315 ft
SL3 305 ft
SL3 295 ft
85°
US2848
420 ft
400
380
360
340
320
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280 ft

M



335 ft SL3 | 59 – 79 ft F | 143300 lbs | 419000 lbs

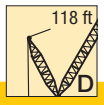
ft	SL3 335						ft
	F 59			F 79			
	10°	15°	30°	10°	15°	30°	
56	176						56
58	174						58
60	173						60
62	171	155		140			62
64	169	154		139			64
66	168	153		138			66
68	166	152		137			68
70	165	151	107	135	121		70
75	161	148	106	132	120		75
80	158	145	105	129	117		80
85	154	142	103	126	115	83	85
90	147	139	101	123	113	81.5	90
95	139	136	99.5	120	110	80	95
100	129	131	98	118	108	79	100
105	120	123	96.5	115	106	77.5	105
110	112	115	95	112	104	76.5	110
115	105	107	93.5	106	102	75	115
120	98.5	100	92.5	99.5	99.5	74	120
125	92	94	91	93	95.5	73	125
130	86	88	90	87.5	89.5	71.5	130
135	81	83	86	82	84.5	70.5	135
140	76	77.5	81.5	77	79	69.5	140
150	66.5	68	72.5	67.5	69.5	67.5	150
160	58.3	59.7	64	59.5	61.5	64.5	160
170	50.9	52.3	56	52.1	53.8	58.4	170
180	44.5	45.7	49.1	45.7	47.3	51.6	180
190	38.6	39.7	42.9	39.8	41.3	45.3	190
200	33.2	34.3	37.2	34.4	35.8	39.6	200
210	28.3	29.3	32	29.5	30.8	34.3	210
220	24	24.9	27.3	25.2	26.3	29.6	220
230	20	20.8	23	21.1	22.2	25.2	230
240	16.2	17	19.1	17.4	18.4	21.2	240
250	12.8	13.5	15.4	13.9	14.9	17.4	250
260	9.6	10.3	12	10.8	11.6	14	260
270			8.9			10.8	270

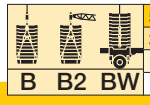
TAB181232

M

HSL4DFB/B2/BW

HSL4 236 – 453





550000 – 771000 lbs
331000 – 550000 lbs
0 – 331000 lbs
0 lbs

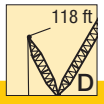
ft		236		256		276		295		315		335		354		374		394		413		433		453
		11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°
45	–	302																						
	B	302		302																				
	B2	302		302																				
	BW	302		302																				
50	–	302		302																				
	B	302		302																				
	B2	302		302																				
	BW	302		302																				
55	–	298	291	295	292	291	285	285		274														
	B	302	291	302	293	302	289	302		302														
	B2	302	290	302	292	302	289	302		302														
	BW	302	290	302	292	302	289	302		302														
60	–	288	278	278	281	268	272	258	257	248	252	241	246	232		226								
	B	302	279	302	284	302	283	302	276	301	270	296	266	285	259	266								
	B2	302	278	302	284	302	282	301	274	301	271	292	266	285	259	265								
	BW	302	279	302	284	302	282	301	275	301	270	292	266	285	259	265								
65	–	263	264	254	257	245	248	236	239	226	230	220	224	212	213	206	207	197	202	192	189	187		172
	B	302	267	302	273	302	275	302	271	298	266	292	264	282	256	263	240	244	228	223	208	193		173
	B2	302	266	302	273	302	274	298	268	298	267	285	260	281	256	263	239	245	227	221	208	197		174
	BW	302	267	302	273	302	275	298	268	298	266	286	260	282	256	263	239	245	228	221	208	198		174
70	–	242	244	233	236	225	228	217	219	207	210	202	206	194	198	189	192	183	187	178	175	173		161
	B	302	257	302	263	302	267	298	266	293	262	287	261	278	253	261	238	243	226	221	207	193		172
	B2	302	256	302	263	302	266	291	261	293	263	279	255	277	253	260	238	243	226	219	206	196		172
	BW	302	257	302	263	302	267	290	262	293	262	279	255	277	253	260	238	243	226	219	206	196		172
75	–	223	225	215	217	207	210	199	202	191	193	185	189	178	182	173	176	168	172	163	166	159	162	154
	B	300	248	300	254	299	259	292	261	288	258	282	258	274	250	258	236	241	224	220	206	193	187	170
	B2	300	247	300	253	299	258	282	254	288	259	273	249	272	250	257	235	241	224	217	204	195	186	171
	BW	300	248	300	254	299	259	282	255	288	259	272	250	273	250	257	235	241	224	217	204	195	187	171
80	–	206	208	198	201	191	194	184	186	175	178	170	174	163	167	159	162	154	158	150	152	146	149	141
	B	294	239	295	246	294	251	285	255	283	254	278	254	271	247	255	233	239	223	218	204	193	186	169
	B2	294	239	295	245	294	251	274	248	282	255	266	244	267	246	253	233	239	222	215	202	193	185	169
	BW	293	239	296	245	294	251	274	248	283	255	266	244	268	246	254	233	239	223	215	203	193	185	169
85	–	191	193	184	186	177	179	170	172	162	164	157	161	150	154	146	149	142	146	138	140	134	137	130
	B	284	231	288	237	288	243	278	248	279	249	272	250	267	245	253	231	237	221	216	203	191	186	167
	B2	283	230	288	236	288	243	266	242	275	249	260	239	262	241	250	230	236	221	213	200	191	184	168
	BW	284	230	289	236	288	243	266	242	276	250	260	239	263	242	251	230	237	221	213	200	191	184	168
90	–	177	179	171	173	164	166	157	160	150	152	145	149	139	142	135	138	131	135	127	129	124	126	120
	B	273	223	280	230	281	235	271	240	274	243	265	244	263	242	249	228	235	220	214	201	189	185	165
	B2	273	223	279	229	282	235	258	236	269	243	254	233	257	237	246	227	234	219	210	198	190	182	166
	BW	273	223	280	229	282	235	259	235	270	243	254	234	258	238	247	228	234	220	210	198	190	182	166
95	–	165	167	159	161	153	155	146	148	139	141	135	138	128	132	125	127	121	124	117	119	114	116	110
	B	263	216	271	223	274	228	264	232	270	237	258	239	260	238	247	226	233	218	212	200	188	184	163
	B2	262	216	270	223	275	228	251	229	262	236	248	228	252	233	243	224	231	217	208	196	188	181	164
	BW	263	216	271	222	275	228	252	229	264	237	248	229	253	233	243	224	232	218	208	196	188	181	165
100	–	154	156	148	150	142	144	136	138	129	131	125	128	119	122	115	118	111	115	108	110	105	107	101
	B	252	210	262	216	267	222	257	226	265	232	252	233	256	235	244	224	231	216	209	198	186	182	162
	B2	252	209	261	216	267	222	245	223	256	230	242	223	247	229	239	220	228	214	205	193	186	179	163
	BW	253	209	262	216	267	222	245	224	257	231	242	224	248	229	239	221	228	215	205	193	186	179	163
105	–	144	146	138	140	133	134	127	128	120	121	116	119	110	113	107	109	103	106	99.5	102	96.7	99	93.3
	B	243	203	253	210	259	216	250	220	259	226	246	228	252	233	241	222	229	214	207	195	183	181	160
	B2	243	202	252	210	260	216	238	218	250	225	237	218	242	225	235	217	225	212	203	191	184	177	161
	BW	243	202	253	209	260	216	239	218	251	225	236	219	243	225	235	217	225	212	203	191	184	177	161
110	–	135	137	130	131	124	126	118	120	111	113	108	110	102	105	98.8	101	95.2	98.4	92	94.1	89.3	91.5	86.1
	B	235	197	245	203	252	210	243	214	254	221	240	223	246	230	238	220	226	213	204	193	183	179	159
	B2	235	196	244	203	253	210	232	212	244	219	231	214	238	221	230	213	222	209	200	188	182	175	159
	BW	235	196	245	203	253	210	232	213	246	220	231	215	238	221	231	214	222	209	200	188	182	175	159
115	–	127	128	122	123	116	118	110	112	104	105	100	103	94.4	97.3	91.4	93.4	88	91.1	84.9	86.9	82.4	84.4	79.2
	B	227	191	237	198	245	204	235	209	249	216	235	218	241	226	234	217	224	211	201	191	182	177	158
	B2	227	191	237	198	245	204	226	207	238	214	226	210	233	217	226	210	219	206	198	186	180	173	157
	BW	227	191	237	197	245	204	226	207	241	214	226	210	233	217	227	210	219	206	198	186	180	174	158
120	–	119	121	114	115	109	110	103	105	96.4	98.1	92.9	95.6	87.4	90.2	84.6	86.5	81.3	84.3	78.3	80.2	75.9	77.8	72.9
	B	220	186	230	193	238	199	228	203	243	210	229	214	236	221	229	214	220	209	198	188	181	175	157
	B2	220	185	230	193	238	198	219	202	232	208	221	206	229	213	223	207	216	203	195	184	178	171	156
	BW	220	185	230	193	238	199	220	202	235	209	221	206	229	214	223	207	216	204	195	183	178	172	156
125	–	112	113	107	108	102	103	96.2	97.7	89.7	91.3	86.3	88.9	80.9	83.7	78.2	80	75	77.9	72.1	74	69.8	71.7	66.9
	B	213	181	223	188	232	194	222	198	238	205	224	209	232	217	225	210	217	206	195	185	180	174	156
	B2	212	180	223	188	231	194	214	196	226	203	216	202	225	209	219	203	212	200	192	181	176	170	154
	BW	212	181	223	188	231	194	214	196	230	204	216	202	225	210	219	204	212	201	193	181	176	170	154
130	–	106	107	101	102	95.3	96.7	90	91.4	83.6	85.1	80.3	82.8	75	77.7	72.4	74.1	69.3	72.1	66.5	68.2	64.2	66	61.4
	B	206	175	216	183	225	189	216	193	233	200	219	204	227	212	221	207	213	203	192	182	177	171	154
	B2	205	175	216	183	225	189	208	192	221	198	211	198	220	206	215	200	209	198	190	179	174	167	152
	BW	206	175	215	183	225	189	209	192	224	199	211	198	221	206	216	200	209	198	190	178	174	168	152
135	–	99.4	100	94.8	96	89.6	90.9	84.4	85.8	78.1	79.6	74.9	77.3	69.6	72.2	67.1	68.7	64.1	66.8	61.3	63	59.2	60.9	56.4
	B	200	171	210	178	219	184	210	188	227	195	213	200	222	208	218	203	210	200	190	180	175	169	152
	B2	200	171	209	178	218	184	203	188	215	193	206	194	216	202	211	197	206	195	187	176	172	165	150
	BW	200	171	209	178	219	184	203	188	219	194	206	194	216	202	212	197	206	195	187	176	172	166	150
140	–	93.4	94.4	89.2	90.4	84.1	85.3	79	80.3	72.8	74.2	69.6	72	64.4	67	62	63.5	59	61.7	56.4	58	54.3	55.9	51.6
	B	195	167	204	174	212	180	204	184	221	191	208	195	217	203	214	200	207	198	187	177	173	167	151
	B2	194	167	203	174	212	179	198	183	210	189	201	190	211	198	208	194	203	192	184	174	170	164	148
	BW	195	168	203	174	212	180	198	183	214	190	202	190	212	198	208	194	203	192	185	174	170	164	148
150	–	82.7	83.5	79.1	80.1	74.1	75.2	69.2	70.3	63.1	64.3	60	62.3	55	57.3	52.6	54	49.8	52.3	47.3	48.8	45.3	46.8	42.7
	B	184	160	193	166	201	172	193	176	209	182	198	187	208	195	205	193	201	192	182	173	169	163	147
	B2	184	160	193	166	201	171	188	175	200	181	193	182	203	191	200	187	197	187	179	169	165	160	144
	BW	184	160	193	166	201	172	188	175	204	182	193	182	203	191	201	188	197	187	179	169	166	160	144
160	–	73.3	74	70	70.9	65.2	66.2	60.4	61.5	54.4	55.6	51.5	53.6	46.5	48.7	44.2	45.5	41.5	43.9	39.1	40.5	37.2	38.6	34.7
	B	175	153	184	159	192	165	183	168	198	174	188	179	199	187	195	186	192	185	176	168	165	159	144
	B2	174	153	184	159	192	164	179	167	191	173	184	174	194	184	193	181	190	181	173	164	161	156	141
	BW	174	153	183	159	192	165	179	167	194	174	184	175	195	184	193	181	191	181	174	165	161	156	141
170	–	64.8	65.5	61.8	62.5	57.3	58.2	52.7	53.6	46.7	47.8	43.8	45.8	39	41.1	36.8	38	34.1	36.5	31.8	33.1	30	31.3	27.6
	B	167	147	174	152	183	158	176	162	188	167	178	171	189	180	184	179	182	177	169	162	159	155	139
	B2	166	147	175	152	183	158	173	161	184	167	175	167	186	177	185	175	184	175	168	159	156	152	137
	BW	167	147	174	152	182	158	173	161	187	167	175	167	187	177	186	175	184	176	168	160	157	152	137

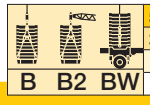
TAB 181371 / 181373 / 181377

N

HSL4DFB/B2/BW

HSL4 236 - 453





550000 – 771000 lbs
331000 – 550000 lbs
0 – 331000 lbs
0 lbs

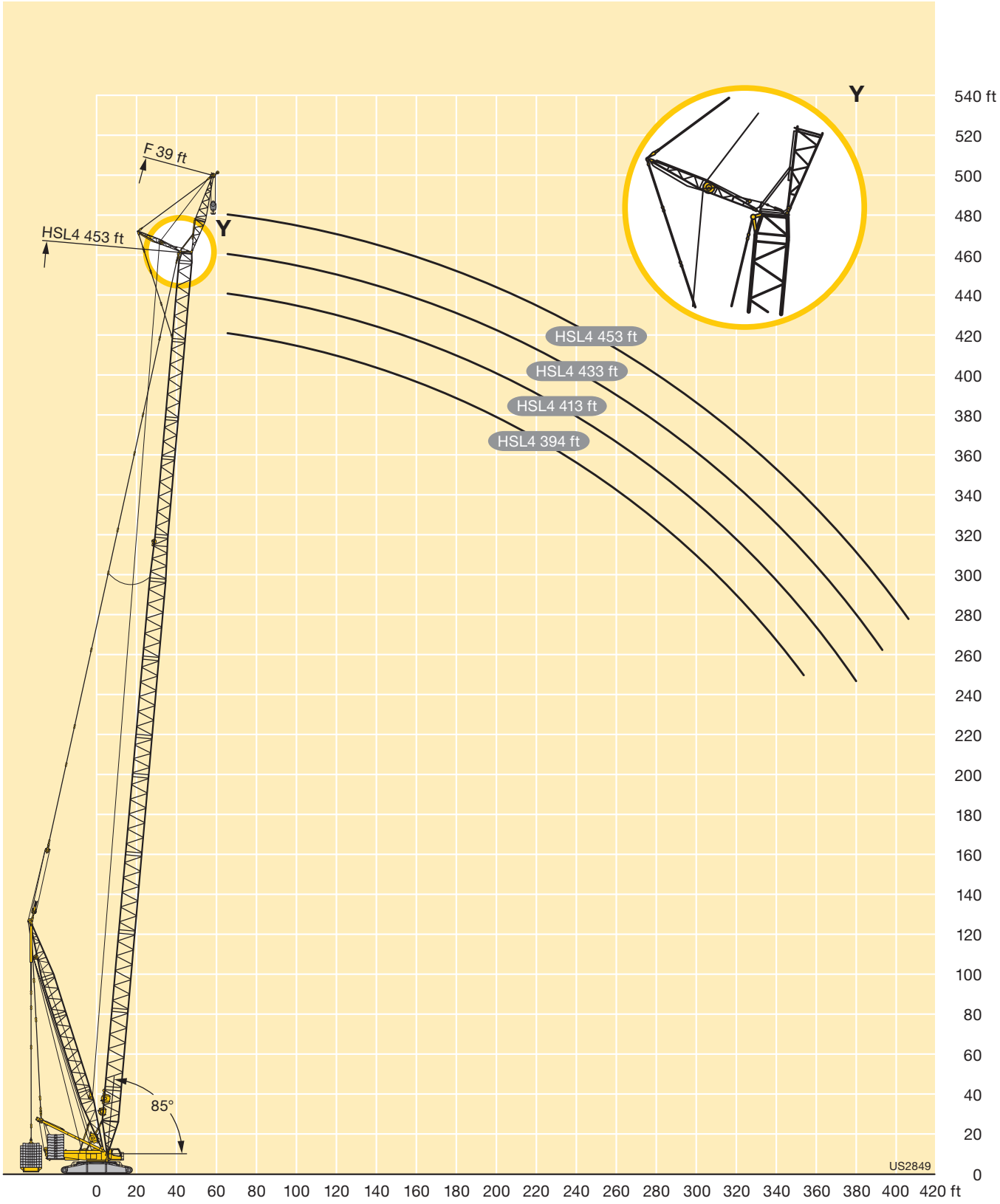
ft		236		256		276		295		315		335		354		374		394		413		433		453
		11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°
180	–	57.5	58.1	54.4	55.1	50.4	51.3	45.9	46.8	40	41	37.2	39.1	32.3	34.4	30.2	31.4	27.7	29.9	25.4	26.6	23.6	24.8	21.4
	B	159	142	167	147	175	152	169	156	179	161	170	164	179	172	176	172	176	168	161	156	153	149	135
	B2	159	141	167	147	175	152	166	155	178	161	170	161	179	170	178	169	178	169	163	155	152	147	133
	BW	159	141	167	147	175	152	167	156	181	161	170	161	179	170	178	168	178	170	163	155	152	147	133
190	–	50.9	51.4	47.8	48.4	44.2	44.9	39.7	40.5	33.9	34.8	31.1	32.9	26.3	28.3	24.3	25.3	21.8	23.9	19.5	20.7	17.8	18.9	15.6
	B	153	136	161	142	168	147	162	150	173	155	163	157	172	164	170	163	169	162	155	150	146	143	130
	B2	152	136	160	142	167	147	161	150	172	156	165	157	174	165	172	163	171	164	157	150	147	142	128
	BW	152	136	160	142	168	147	161	150	175	156	164	157	174	165	172	163	172	164	158	150	147	142	128
200	–	44.9	45.4	41.8	42.3	38.5	39.1	34.1	34.8	28.3	29.1	25.6	27.3	20.8	22.7	18.8	19.8	16.4	18.4					
	B	147	132	154	137	161	143	155	145	168	150	158	151	167	160	165	156	163	157	150	144	141	138	126
	B2	146	132	153	137	161	142	156	145	166	150	159	152	169	160	167	158	166	159	152	145	142	138	124
	BW	147	131	153	137	161	142	156	145	169	150	159	152	169	160	167	158	166	159	152	145	142	138	124
210	–	39.5	39.9	36.4	36.9	33.1	33.7	29	29.6	23.3	24	20.5	22.1		17.6									
	B	141	127	148	133	155	138	151	141	163	145	153	146	162	155	160	153	158	152	145	139	136	132	122
	B2	141	127	147	133	154	138	152	141	162	146	154	148	163	155	163	155	162	155	148	141	137	133	120
	BW	141	128	148	132	155	137	152	141	164	145	154	148	164	156	163	154	162	156	148	141	137	133	120
220	–	34.8	35.2	31.7	32.1	28.4	28.9	24.5	25	18.7	19.4	16	17.6		13									
	B	136	124	143	129	149	134	148	137	158	141	148	143	156	151	155	149	154	147	141	136	132	128	117
	B2	135	124	142	129	149	134	148	136	158	142	150	145	159	151	158	151	158	152	144	138	133	130	116
	BW	136	124	143	128	149	133	148	137	159	141	150	144	159	151	158	151	158	152	144	138	134	130	116
230	–	30.4	30.7	27.3	27.7	24	24.5	20.3	20.8	14.6	15.2													
	B	131	120	138	125	144	130	145	133	154	137	144	140	151	146	150	144	150	145	137	133	128	125	111
	B2	131	120	137	125	144	130	145	133	154	138	147	141	155	147	154	147	154	148	140	135	130	127	113
	BW	131	121	138	125	145	130	145	133	154	137	146	141	155	147	154	147	154	148	140	135	130	127	113
240	–			23.3	23.6	20	20.4	16.4	16.9															
	B			133	122	140	126	141	129	149	134	141	137	148	142	146	141	146	141	133	130	124	122	108
	B2			133	122	140	126	141	129	150	134	143	138	151	143	151	144	150	145	137	131	127	124	110
	BW			133	121	140	126	141	129	150	134	143	138	152	143	150	144	150	145	137	132	127	124	110
250	–					16.3	16.6																	
	B					135	123	138	126	145	130	138	134	145	139	144	138	142	137	130	126	121	119	105
	B2					135	123	138	126	145	130	139	135	148	139	148	141	146	142	133	128	124	121	107
	BW					135	123	138	126	146	130	139	135	148	140	147	141	147	141	133	129	124	121	107
260	–					12.9	13.2																	
	B					131	120	135	123	141	127	136	131	142	136	141	136	140	135	126	122	118	116	103
	B2					131	120	135	123	141	127	137	132	144	136	145	138	144	139	130	126	121	118	104
	BW					131	120	135	123	142	127	136	132	145	136	144	138	144	139	130	125	121	118	104
270	–																							
	B							132	121	138	124	133	129	140	133	139	133	138	134	123	119	114	111	99.6
	B2							131	121	137	124	134	129	142	133	141	135	141	137	127	123	118	116	102
	BW							132	121	137	125	134	129	142	133	141	135	141	137	128	123	118	116	102
280	–																							
	B									134	122	131	126	138	130	136	131	135	132	121	117	112	109	96.1
	B2									133	121	132	126	139	130	139	133	138	135	125	121	116	114	99.2
	BW									133	122	131	126	140	130	137	132	138	134	125	121	116	114	99.2
290	–																							
	B									130	120	129	124	136	127	132	128	132	129	119	115	110	107	94.2
	B2									130	119	129	124	137	127	136	130	135	132	122	119	113	112	97.2
	BW									130	119	129	124	137	127	134	130	135	132	122	119	114	112	97.2
300	–																							
	B									127	118	129	121	134	125	128	126	128	126	117	114	108	105	92.3
	B2									127	117	128	121	135	125	134	127	133	130	120	116	111	109	95.2
	BW									126	117	127	121	135	124	131	127	130	128	120	117	111	110	95.3
310	–																							
	B											127	119	128	122	125	123	123	122	114	111	106	104	90.4
	B2											127	119	133	123	132	125	130	128	118	114	109	107	93.2
	BW											126	119	130	122	127	125	125	124	117	114	109	107	93.3
320	–																							
	B													122	119	120	120	118	117	110	108	104	101	88.5
	B2													130	121	129	122	127	126	116	113	107	106	91.3
	BW													125	120	123	121	120	120	113	111	106	105	91.3
330	–																							
	B															115	115	113	113	107	106	100	98.9	86.7
	B2															126	120	124	124	114	111	105	104	89.4
	BW															117	117	115	115	110	108	103	103	89.3
340	–																							
	B															109	109	107	108	103	103	97.1	96.2	85.1
	B2															121	118	119	120	112	110	104	103	88.1
	BW															112	112	110	111	106	106	100	100	88
350	–																							
	B																	102	103	99.3	99.3	93.9	93.4	83.6
	B2																	114	114	109	108	103	101	86.8
	BW																	104	105	102	102	97.4	97.6	86.7
360	–																							
	B																		97.4	94.5	94.7	90.4	90.3	82.1
	B2																		109	106	105	101	99.9	85.5
	BW																		99.9	97.4	97.5	94	94.7	85.4
370	–																							
	B																			89.4	89.6	86.3	86.7	80.4
	B2																			101	101	97.8	97.7	84.2
	BW																			92.5	92.5	89.9	91	83.9
380	–																							
	B																			84.8	84.9	81.6	81.9	78.2
	B2																			96.6	96.7	93.9	94.4	83.1
	BW																			87.8	87.8	85	86	82.1
390	–																							
	B																					77.1	77.4	74.3
	B2																					89.6	90.4	82.4
	BW																					80.6	81.4	78.8
400	–																							
	B																							70.3
	B2																							80.9
	BW																							75.1

TAB 181371 / 181373 / 181377

N

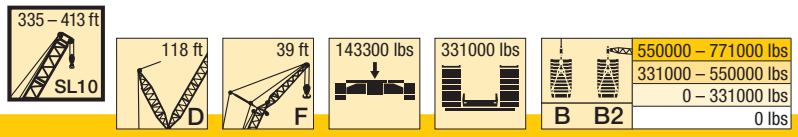
Lifting heights
Hauteurs de levage

HSL4DFB/B2/BW



SL10DFB/B2

SL10 335 – 413



ft		SL10 335		SL10 344		SL10 354		SL10 364		SL10 374		SL10 384		SL10 394		SL10 404		SL10 413	
		11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°
60	–	223	228	218	223	214		209		206		202							
	B	293	264	289	260	283	256	277		269		262		262					
	B2	291	262	289	260	282	256	277		269		263							
65	–	204	208	199	204	195	198	191	193	188	190	184	186	177	181	172	176	170	175
	B	288	259	284	257	278	253	273	250	267	245	261	240	261	241	253	236	245	230
	B2	285	258	285	256	279	253	274	249	266	244	261	240	263	241	255	236	246	230
70	–	187	191	183	187	179	183	175	179	172	176	169	172	164	167	159	163	157	162
	B	284	255	280	254	275	250	270	247	264	243	259	238	260	239	252	234	243	229
	B2	277	253	279	252	275	250	271	247	264	243	259	238	261	239	254	235	245	229
75	–	172	176	168	172	165	168	160	164	158	162	155	158	150	153	146	149	144	148
	B	280	252	277	250	272	247	267	244	261	240	257	236	258	237	251	232	242	228
	B2	270	247	273	248	271	247	268	245	261	240	257	236	259	237	253	233	243	228
80	–	158	162	154	158	151	155	147	151	145	149	142	145	137	140	133	136	131	136
	B	276	249	273	247	269	244	264	241	259	238	255	234	256	235	249	231	241	226
	B2	263	241	267	244	267	244	265	242	259	238	255	234	257	235	251	231	242	227
85	–	146	150	142	146	139	143	135	139	133	137	130	133	126	129	122	125	120	124
	B	270	246	268	244	265	241	262	239	256	235	252	232	254	233	247	229	238	225
	B2	256	235	261	240	264	241	262	239	257	236	253	232	255	234	249	230	241	226
90	–	135	139	131	135	129	132	125	128	123	126	120	123	116	118	112	114	110	114
	B	264	241	264	240	262	238	258	236	253	233	250	230	251	231	245	227	237	223
	B2	249	229	255	235	258	237	259	237	254	233	251	231	253	232	248	228	240	224
95	–	125	128	121	125	119	122	115	118	113	117	111	113	106	109	102	105	101	105
	B	257	235	259	237	259	235	255	234	250	230	248	228	249	229	243	226	235	222
	B2	243	224	249	230	253	233	254	233	251	231	249	229	251	230	246	227	238	223
100	–	116	119	112	115	110	113	106	109	104	108	102	104	97.5	99.9	93.8	96.3	92.6	96.2
	B	251	230	254	233	255	233	253	232	248	228	245	226	247	227	241	224	234	220
	B2	237	219	243	225	247	228	250	230	248	228	247	227	249	228	244	225	237	222
105	–	107	110	104	107	101	104	97.7	101	96.1	99.3	93.7	95.9	89.4	91.7	85.8	88.2	84.7	88.2
	B	245	225	249	230	252	231	250	229	246	226	244	223	245	226	240	222	232	219
	B2	231	213	237	219	241	223	245	226	245	226	245	225	248	227	243	224	236	220
110	–	99.7	103	96.2	99.1	93.8	96.8	90.3	93.4	88.7	91.9	86.4	88.5	82.2	84.3	78.6	80.9	77.6	81
	B	239	220	244	227	248	228	247	228	243	224	241	222	243	224	238	221	231	217
	B2	225	209	231	214	236	219	240	223	241	223	243	223	246	225	241	223	234	219
115	–	92.6	95.3	89.1	92	86.8	89.7	83.3	86.3	81.8	84.9	79.5	81.6	75.4	77.5	71.9	74.1	70.9	74.2
	B	233	215	239	222	243	225	243	225	240	222	238	220	241	222	236	219	230	216
	B2	220	204	226	210	231	214	236	219	238	221	240	221	244	224	240	222	233	218
120	–	85.9	88.6	82.5	85.3	80.2	83	76.8	79.7	75.4	78.3	73.1	75.1	69	71	65.6	67.7	64.7	67.9
	B	226	210	233	218	238	220	238	221	236	220	235	218	238	220	234	218	228	215
	B2	215	200	221	205	227	210	231	215	234	218	237	219	242	222	238	220	232	217
125	–	79.7	82.3	76.3	79	74.1	76.8	70.8	73.6	69.4	72.2	67.2	69	63.1	65	59.7	61.7	58.8	61.9
	B	219	205	228	213	233	216	234	216	233	216	231	215	234	218	230	216	225	213
	B2	210	195	216	201	222	206	227	211	230	214	234	216	239	219	236	219	230	216
130	–	74	76.5	70.6	73.2	68.5	71.1	65.2	67.9	63.9	66.6	61.7	63.4	57.6	59.5	54.3	56.2	53.4	56.5
	B	214	200	222	208	228	212	230	213	230	213	227	212	231	214	227	213	222	211
	B2	204	191	211	197	217	202	222	208	225	211	230	213	236	216	233	216	228	215
135	–	68.8	71.2	65.5	68	63.4	66	60.1	62.8	58.8	61.5	56.7	58.4	52.7	54.4	49.3	51.2	48.5	51.5
	B	208	195	216	203	222	208	226	209	226	210	223	209	228	212	225	210	220	209
	B2	199	186	206	193	213	198	218	204	221	207	226	210	232	213	231	213	226	213
140	–	63.8	66.2	60.5	63	58.5	61	55.2	57.8	54	56.6	51.8	53.5	47.8	49.5	44.6	46.3	43.8	46.7
	B	203	190	210	198	217	203	222	205	223	207	220	207	225	209	223	208	218	207
	B2	194	182	201	188	208	194	213	200	217	204	223	207	229	210	228	211	224	212
150	–	54.6	56.9	51.4	53.7	49.4	51.8	46.2	48.7	45.1	47.5	43	44.5	39	40.6	35.8	37.4	35.1	37.9
	B	193	181	200	189	206	195	210	197	210	200	212	201	218	203	218	204	215	204
	B2	185	174	192	181	199	186	204	192	209	197	215	200	222	203	223	205	220	208
160	–	46.4	48.5	43.3	45.5	41.3	43.6	38.2	40.5	37.1	39.4	35	36.4	31.1	32.5	27.9	29.4	27.3	29.9
	B	183	173	191	181	195	187	195	188	198	192	204	192	210	198	212	199	210	201
	B2	176	167	183	173	190	179	196	185	201	190	208	194	215	197	218	200	216	205
170	–	39.1	41.1	36	38.1	34.1	36.2	31	33.2	30	32.2	27.9	29.2	24	25.3	20.9	22.3	20.3	22.8
	B	173	164	181	172	183	178	187	179	191	181	197	185	202	191	204	193	203	197
	B2	168	160	175	166	182	171	188	178	193	183	200	187	208	190	211	194	212	201
180	–	32.8	34.7	29.7	31.6	27.8	29.8	24.7	26.8	23.7	25.9	21.7	22.9	17.8	19	14.7	16	14.1	16.5
	B	164	157	171	164	172	170	179	169	183	174	190	179	193	184	195	185	196	188
	B2	161	153	167	159	174	164	180	171	186	176	193	181	201	184	205	188	206	194
190	–	26.9	28.7	23.9	25.7	22	24	19	21	18	20	16	17.1						
	B	156	150	160	156	166	159	171	163	176	167	183	173	186	178	189	178	191	183
	B2	155	148	161	154	167	158	173	165	178	170	186	175	194	178	198	181	200	188
200	–	21.6	23.3	18.5	20.3	16.7	18.6												
	B	149	145	156	149	161	153	164	157	168	161	175	166	179	170	183	173	185	178
	B2	150	144	156	150	162	154	167	159	172	164	179	168	187	172	192	175	194	181
210	–	16.7	18.4																
	B	144	139	151	145	156	149	159	153	163	155	167	160	172	164	177	167	180	173
	B2	146	140	151	146	157	150	163	155	168	159	174	163	181	166	186	168	188	174
220	–	12.4	13.9																
	B	140	135	146	140	151	145	155	149	159	152	162	156	167	158	171	161	170	165
	B2	141	136	146	142	152	146	158	152	163	155	170	159	177	161	181	164	184	169
230	–																		
	B	136	132	141	136	146	140	150	145	155	149	158	152	164	154	167	157	166	161
	B2	137	133	143	138	148	142	154	148	159	151	166	154	173	157	177	160	180	164

TAB 181337 / 181357

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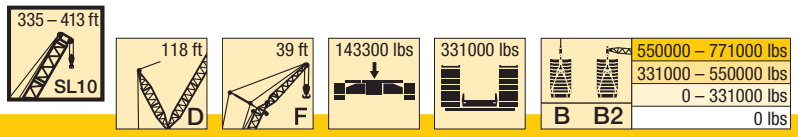
SL10DFB/B2

SL10 335 – 413



ft		SL10 335		SL10 344		SL10 354		SL10 364		SL10 374		SL10 384		SL10 394		SL10 404		SL10 413	
		11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°
240	–																		
	B	133	129	138	133	141	137	146	141	150	145	154	149	160	151	164	153	161	158
	B2	134	130	139	135	144	139	150	144	154	147	161	150	168	152	173	156	176	160
250	–																		
	B	130	127	135	131	139	134	143	138	146	141	150	145	156	147	160	149	156	154
	B2	131	128	136	132	141	136	147	141	151	143	157	145	164	148	169	151	172	156
260	–																		
	B	128	125	133	129	136	132	141	135	144	138	146	141	150	143	155	145	152	151
	B2	128	125	133	130	139	134	144	138	148	140	154	142	159	144	163	147	169	152
270	–																		
	B	126	123	130	127	134	130	138	133	142	136	142	138	144	138	148	139	145	145
	B2	126	123	130	127	136	131	141	134	145	137	151	139	154	141	157	143	162	147
280	–																		
	B	125	122	128	125	131	128	136	130	139	133	138	135	138	134	140	134	138	138
	B2	124	121	128	125	133	129	138	131	141	134	148	136	148	138	150	139	154	142
290	–																		
	B	124	121	127	123	129	126	133	128	137	130	134	132	131	129	132	128	130	131
	B2	122	120	127	123	131	127	135	128	138	131	145	132	143	135	143	136	146	137
300	–																		
	B	122	120	127	122	126	124	128	124	131	126	129	129	125	124	124	122	123	124
	B2	121	119	125	122	130	124	133	126	135	127	141	129	138	132	136	132	137	133
310	–																		
	B	122	119	125	120	124	122	122	120	125	121	123	123	119	119	116	116	115	117
	B2	120	118	124	120	128	122	130	124	131	125	135	126	132	128	129	128	129	128
320	–																		
	B	121	117	121	118	120	119	117	117	118	116	116	117	113	113	110	110	109	110
	B2	120	116	123	119	126	120	128	122	127	123	129	122	126	123	123	123	122	122
330	–																		
	B			116	116	115	115	112	113	112	112	110	110	106	107	104	104	103	104
	B2			122	117	124	119	124	120	123	121	122	119	119	117	116	117	116	117
340	–																		
	B			110	110	109	109	106	107	106	106	104	104	100	101	97.7	98	97.1	98.2
	B2			120	115	121	117	119	117	118	117	116	115	113	112	110	111	110	111
350	–																		
	B							100	101	100	101	98.1	98.5	94.4	94.7	91.7	92	91.4	92.5
	B2							113	113	112	113	110	110	107	107	104	105	104	105
360	–																		
	B									94.3	95.4	92.7	92.9	89.1	89.2	86.1	86.4	85.9	86.9
	B2									107	107	105	105	101	101	98.6	99	98.7	99.3
370	–																		
	B													84.1	84.2	80.9	81.4	80.6	81.5
	B2													96	96.2	93.4	93.6	93.3	93.8
380	–																		
	B													79.5	79.5	76.1	76.6	75.8	76.7
	B2													91.3	91.3	88.5	88.6	88.5	89
390	–																		
	B															71.8	72	71.3	72.1
	B2															83.9	84.2	83.9	84.3

TAB 181337 / 181357

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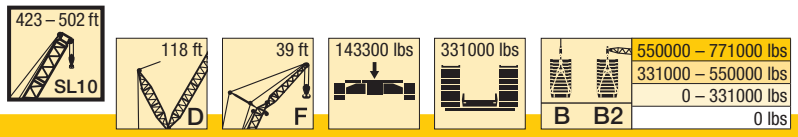
SL10DFB/B2

SL10 423 – 502



ft		SL10 423		SL10 433		SL10 443		SL10 453		SL10 463		SL10 472		SL10 482		SL10 492		SL10 502	
		11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°
65	–	165		163		158													
	B	236	223	227		218		203											
	B2	237	225	227		219		204											
70	–	152	151	150		146		141											
	B	235	222	225		217		202											
	B2	236	224	227		219		203											
75	–	139	144	137	141	133	136	134	137	131	134	128	131	123	118	122			
	B	233	222	224	215	216	208	201	193	193	188	184	179	176	172	166			
	B2	235	223	226	215	218	208	203	194	193	189	184	179	177	171	167		158	
80	–	127	131	125	128	121	124	122	125	120	123	116	120	112	115	111	114		
	B	232	221	223	213	215	207	200	193	192	187	183	177	175	171	165	160		
	B2	234	221	225	214	217	207	202	193	192	188	184	178	177	170	166	160	157	155
85	–	116	120	114	117	110	113	112	115	109	112	106	109	102	105	101	104		
	B	231	220	221	212	213	206	199	191	191	186	182	176	174	169	164	159		
	B2	233	220	224	213	215	205	201	192	191	187	183	177	176	169	165	159	157	155
90	–	106	110	105	108	101	103	102	105	99.8	103	96.8	99.7	92.8	95.7	91.7	94.6		
	B	230	218	221	211	212	204	197	191	190	184	181	175	173	168	163	158		
	B2	232	219	223	212	214	204	199	190	190	186	182	176	175	168	164	158	156	154
95	–	97	101	95.7	98.4	91.7	94.4	93.4	96	91.1	93.8	88.3	91	84.3	87.1	83.3	86.1		
	B	228	217	219	210	210	203	196	190	188	183	179	173	172	167	161	156		
	B2	231	218	222	211	213	202	198	189	189	185	181	175	174	166	163	156	155	153
100	–	88.6	92.4	87.4	89.9	83.5	86.1	85.3	87.8	83	85.6	80.3	82.9	76.5	79.1	75.6	78.2		
	B	226	216	218	209	209	202	194	189	187	182	178	172	170	166	160	155		
	B2	230	217	221	210	211	201	197	188	188	184	180	174	172	165	161	155	155	151
105	–	80.8	84.4	79.7	82.1	75.8	78.3	77.7	80.1	75.6	78	72.9	75.4	69.2	71.7	68.3	70.8		
	B	224	213	216	207	207	200	192	188	186	180	177	171	169	164	158	154		
	B2	228	215	219	209	210	199	195	186	187	182	179	172	171	164	160	154	154	150
110	–	73.8	77.3	72.7	75	68.9	71.3	70.9	73.2	68.8	71.1	66.2	68.6	62.5	64.9	61.8	64.2		
	B	223	212	215	206	205	199	191	186	185	178	175	170	167	163	157	152		
	B2	226	213	218	208	208	197	193	184	186	181	178	171	170	163	159	153	153	149
115	–	67.2	70.6	66.2	68.3	62.5	64.7	64.5	66.7	62.4	64.7	59.9	62.2	56.3	58.6	55.6	57.9		
	B	222	211	213	205	204	197	189	184	183	177	174	169	166	161	155	151		
	B2	223	212	217	206	206	195	192	183	185	180	177	170	168	161	157	151	152	148
120	–	61	64.3	60	62.1	56.4	58.6	58.5	60.6	56.5	58.6	54	56.2	50.5	52.7	49.9	52		
	B	220	210	211	205	203	195	187	183	181	176	173	167	164	160	154	149		
	B2	221	210	216	205	204	194	190	181	184	178	175	168	167	160	156	150	151	147
125	–	55.2	58.4	54.3	56.3	50.7	52.8	52.9	54.9	50.9	52.9	48.5	50.6	45	47.1	44.5	46.5		
	B	218	209	210	204	201	193	186	181	180	174	171	166	163	158	153	148		
	B2	219	208	214	204	202	192	188	180	184	177	174	167	165	158	154	148	150	146
130	–	49.9	53	49	50.9	45.5	47.5	47.7	49.6	45.7	47.7	43.4	45.4	39.9	42	39.4	41.5		
	B	214	207	207	202	199	191	184	179	179	173	170	165	162	157	152	147		
	B2	217	206	213	202	200	190	186	178	183	176	173	166	164	157	153	147	148	144
135	–	45	48.1	44.2	46	40.7	42.6	43	44.8	41	42.9	38.8	40.7	35.3	37.3	34.9	36.8		
	B	209	203	205	199	195	188	181	177	178	171	168	163	160	156	150	145		
	B2	215	204	211	201	198	188	185	176	181	174	171	164	162	156	151	145	147	143
140	–	40.3	43.3	39.5	41.3	36	37.9	38.4	40.1	36.5	38.3	34.2	36.1	30.8	32.7	30.4	32.3		
	B	207	199	203	194	192	185	179	175	176	170	166	162	159	154	149	144		
	B2	212	202	209	199	196	186	183	174	180	173	169	163	161	154	150	144	146	142
150	–	31.7	34.5	30.9	32.6	27.5	29.2	29.9	31.6	28.1	29.8	25.9	27.6	22.6	24.3	22.3	24		
	B	202	193	200	190	187	178	176	170	173	166	163	158	155	150	145	141		
	B2	207	197	205	195	192	182	179	171	177	170	166	160	158	151	147	141	143	140
160	–	23.9	26.6	23.2	24.8	19.9	21.5	22.3	23.9	20.5	22.1	18.4	20						
	B	197	189	196	186	183	175	172	165	170	164	160	154	151	146	142	138		
	B2	202	192	201	191	188	178	175	167	174	167	163	157	154	148	144	138	141	137
170	–	17	19.6	16.3	17.7	13	14.5	15.6	17	13.8	15.2	11.7	13.2						
	B	192	184	192	182	179	171	168	161	167	161	157	151	148	143	139	135		
	B2	196	188	197	187	183	174	172	164	171	164	160	154	151	145	140	135	138	134
180	–		13.3																
	B	183	177	184	176	172	165	163	157	162	157	153	148	145	139	135	132		
	B2	191	183	192	183	179	170	168	160	168	161	157	151	148	142	137	132	135	132
190	–																		
	B	178	171	179	171	167	159	157	152	158	152	149	144	141	136	131	126		
	B2	185	178	187	178	174	165	164	156	164	158	154	148	144	139	134	129	132	129
200	–																		
	B	173	166	174	166	163	155	153	147	154	148	144	139	137	132	128	123		
	B2	180	173	182	174	169	161	159	152	160	154	150	144	141	135	131	126	130	127
210	–																		
	B	168	161	170	162	158	151	149	143	150	145	141	136	133	128	124	121		
	B2	174	168	177	169	164	157	155	148	157	150	146	141	137	132	128	123	127	124
220	–																		
	B	160	156	162	158	154	147	145	139	147	141	138	133	130	125	121	118		
	B2	170	163	172	165	159	152	151	144	153	147	143	137	134	129	124	120	124	121
230	–																		
	B	156	151	157	151	147	141	140	135	142	138	134	129	126	122	117	115		
	B2	166	159	169	161	155	148	146	141	149	143	139	134	131	126	121	117	121	118
240	–																		
	B	152	148	152	147	143	138	135	130	137	133	130	126	123	118	114	111		
	B2	162	156	165	158	152	144	143	137	146	140	136	131	127	122	118	114	118	115

TAB 181337 / 181357

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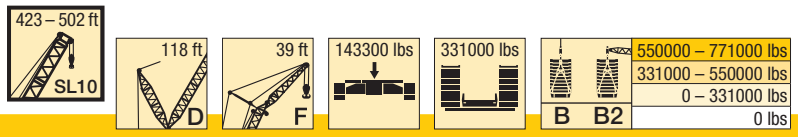
SL10DFB/B2

SL10 423 - 502



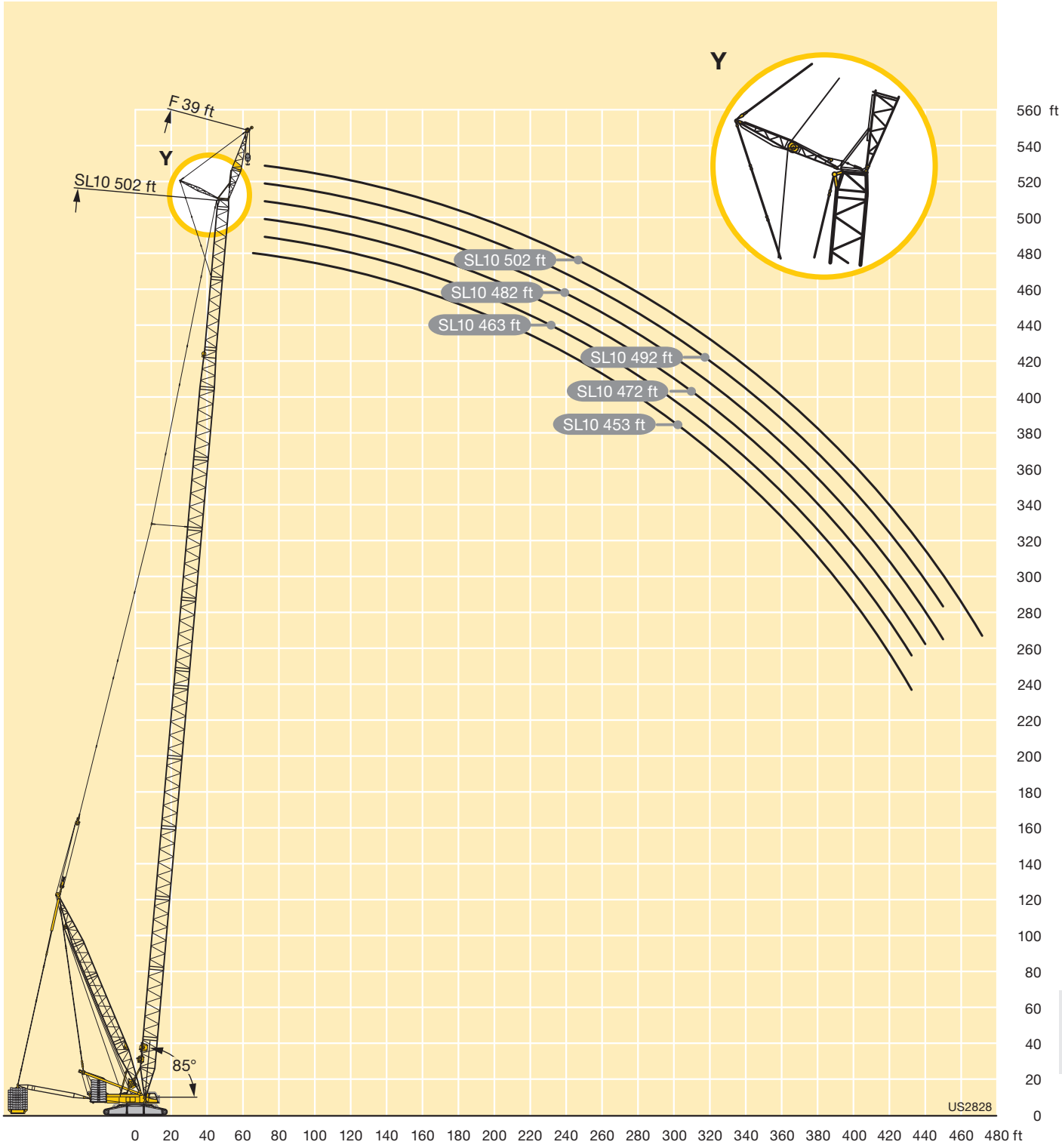
ft		SL10 423		SL10 433		SL10 443		SL10 453		SL10 463		SL10 472		SL10 482		SL10 492		SL10 502	
		11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°
250	–																		
	B	149	145	147	143	139	135	133	128	132	129	125	121	118	114	111	108		
	B2	159	153	162	155	149	143	141	135	144	138	133	127	124	120	115	111	115	113
260	–																		
	B	146	143	142	139	135	132	130	126	128	126	122	119	115	112	108	105		
	B2	155	150	159	152	146	140	138	132	141	135	131	126	122	118	113	109	113	110
270	–																		
	B	141	139	137	136	131	130	127	124	124	122	118	116	112	110	106	103		
	B2	150	146	155	149	143	137	135	130	138	133	128	123	120	116	110	107	111	108
280	–																		
	B	134	134	131	131	127	126	124	121	120	119	115	114	109	108	104	101		
	B2	145	141	149	145	139	134	132	127	135	131	126	121	117	113	108	105	109	107
290	–																		
	B	127	127	124	125	121	121	120	119	116	115	112	111	106	106	101	99.1		
	B2	138	136	142	138	133	129	128	124	132	128	123	119	115	111	106	103	107	105
300	–																		
	B	120	121	118	118	115	115	115	113	111	111	107	108	103	104	99.1	97.2		
	B2	132	131	134	132	127	124	124	120	127	124	119	116	112	109	104	101	104	103
310	–																		
	B	113	114	112	112	108	109	109	108	106	106	103	103	99	99.8	96	94.8		
	B2	126	125	127	125	121	119	119	117	121	119	115	112	108	106	101	98.2	102	101
320	–																		
	B	106	107	105	106	102	103	104	103	100	101	97.8	98.2	94.2	95.2	92.3	91.4		
	B2	119	120	120	119	115	114	115	113	116	114	110	108	104	103	98.5	95.9	99.1	98.2
330	–																		
	B	99.7	101	98.8	99.5	96	96.4	98.4	98.2	95.3	95.6	92.9	93.4	89.4	90.4	88	87.4		
	B2	113	114	112	113	109	109	110	109	110	109	106	104	100	99	95.6	93.5	95.4	94.9
340	–																		
	B	94.2	95.7	93.3	93.8	90.1	90.3	93	93.1	90.2	90.5	88	88.6	84.7	85.6	83.7	83.3		
	B2	108	109	107	107	104	104	106	106	105	104	101	100	96.3	95.5	92.7	91.1	91.6	91.4
350	–																		
	B	88.7	90.1	87.9	88.4	84.9	85.2	87.9	88.1	85.2	85.4	83.2	83.7	79.9	80.8	79.5	79.3		
	B2	102	103	101	101	98.3	98.5	101	101	99	99	96.9	96.4	92.3	91.9	89.9	88.7	87.9	88
360	–																		
	B	83.2	84.6	82.6	83	79.7	80.1	82.8	83.1	80.3	80.5	78.4	78.9	75.2	76	75.2	75.2		
	B2	96.3	97.4	95.6	95.8	93	93.2	95.7	96.2	93.8	94	92.1	92.1	88.2	88.3	87	86.3	84.2	84.6
370	–																		
	B	77.8	79.2	77.3	77.6	74.5	75	77.8	78.2	75.5	75.8	73.7	74.3	70.6	71.3	70.9	71.2		
	B2	90.7	91.9	90.1	90.3	87.7	87.9	90.5	91.1	88.7	88.9	87.2	87.5	83.9	84.4	83.8	83.6	80.4	81.2
380	–																		
	B	73	74.1	72	72.2	69.3	70	72.8	73.2	70.6	71	69.1	69.6	66.1	66.8	66.7	67		
	B2	85.6	86.8	84.6	84.9	82.4	82.6	85.4	86	83.6	83.8	82.2	82.6	79.1	79.7	79.9	80.2	76.5	77.8
390	–																		
	B	68.5	69.3	67.4	67.7	64.6	65.2	67.7	68.3	65.8	66.3	64.5	65	61.6	62.3	62.4	62.7		
	B2	80.8	82	79.8	80.1	77.3	77.6	80.3	80.9	78.5	78.7	77.2	77.7	74.3	74.9	75.3	75.6	72.1	73.4
400	–																		
	B	64.3	65	63.1	63.4	60.3	60.6	63.3	63.8	61.1	61.6	59.8	60.4	57.1	57.8	58.1	58.4		
	B2	76.2	77.3	75.2	75.6	72.6	72.8	75.5	76.1	73.6	73.7	72.2	72.8	69.6	70.1	70.7	71	67.7	68.9
410	–																		
	B			59	59.2	56.3	56.4	59.3	59.5	56.8	57.2	55.4	55.9	52.6	53.3	53.8	54.1		
	B2			70.8	71.3	68.1	68.2	71.1	71.6	68.9	69	67.4	68	64.8	65.4	66.1	66.4	63.2	64.4
420	–																		
	B							55.4	55.5	53	53.1	51.4	51.7	48.3	48.8	49.5	49.8		
	B2							66.8	67.2	64.7	64.9	63.1	63.5	60.2	60.6	61.4	61.8	58.8	60
430	–																		
	B							51.7	51.7	49.3	49.3	47.6	47.8	44.7	44.9	45.5	45.8		
	B2							63	63.3	60.8	60.9	59	59.3	56.4	56.7	57.2	57.5	54.3	55.5
440	–																		
	B										45.6	44	44.1	41.1	41.2	41.8	42		
	B2										57	55.3	55.4	52.7	52.8	53.3	53.6	50.3	51.4
450	–																		
	B													37.6	37.6	38.2	38.4		
	B2													49	49	49.5	49.9	46.6	47.5
460	–																		
	B																35		
	B2																46.2	43	43.7
470	–																		
	B																31.6		
	B2																42.5	39.4	40.3

TAB 181337 / 181357

O

Lifting heights
Hauteurs de levage

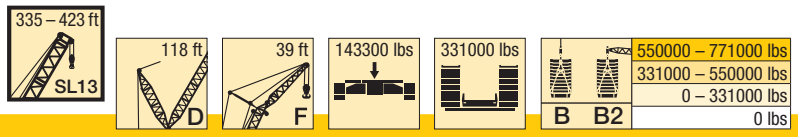
SL10DFB/B2



O

SL13DFB/B2

SL13 335 - 423



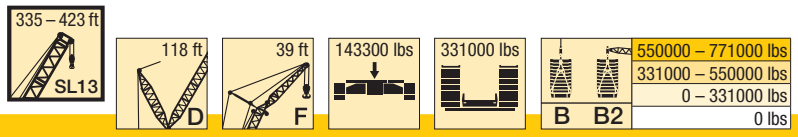
ft		SL13 335		SL13 344		SL13 354		SL13 364		SL13 374		SL13 384		SL13 394		SL13 404		SL13 413		SL13 423	
		11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°
55	–	256																			
	B	303																			
	B2																				
60	–	239	242	234	238	230	235	225	230	223		218		212		207					
	B	302	267	299	266	293	264	288	260	267	254	267		267		267		255			
	B2	300	266	298	266	292	262	287		267		267									
65	–	217	221	213	217	209	214	205	209	203	204	198	200	193	194	188	190	184	187	179	183
	B	297	263	294	263	289	259	285	257	267	252	267	248	267	249	266	244	255	237	247	231
	B2	294	262	293	263	288	259	284	256	267	251	267	248	267	248	266	244	257	237	248	231
70	–	199	202	195	199	191	196	187	191	186	189	181	185	176	180	172	175	170	173	165	169
	B	292	259	289	260	284	256	280	254	267	249	267	246	267	247	264	242	254	236	245	230
	B2	286	256	287	259	284	256	281	253	267	249	267	245	267	247	265	242	256	236	247	230
75	–	183	186	178	182	175	179	171	175	170	173	166	169	161	164	156	160	155	158	150	154
	B	287	255	285	256	280	253	277	251	267	246	266	243	267	245	262	240	252	234	244	229
	B2	278	250	280	254	280	253	277	251	267	247	266	243	267	244	263	240	254	235	246	229
80	–	168	171	164	168	161	165	157	161	156	159	152	155	147	150	143	146	141	144	137	140
	B	282	252	281	253	276	250	273	248	267	244	265	241	266	242	260	238	251	232	243	227
	B2	269	244	274	250	276	250	274	248	267	244	266	241	266	242	261	238	253	233	245	227
85	–	154	157	151	154	148	152	144	148	143	146	139	142	134	137	130	134	129	132	125	128
	B	275	248	276	249	273	247	269	245	267	242	262	239	263	240	258	237	249	231	241	226
	B2	262	237	268	245	271	247	271	245	267	241	263	239	265	240	259	236	251	231	243	226
90	–	143	145	139	142	136	140	133	136	132	134	128	131	123	126	120	122	118	121	114	117
	B	269	243	272	245	269	243	266	242	263	239	258	236	261	238	256	235	248	229	240	224
	B2	255	231	261	239	265	243	266	242	264	239	261	237	262	238	257	235	249	230	242	225
95	–	132	134	128	132	126	129	122	126	121	124	118	120	113	116	109	112	108	111	104	107
	B	263	238	267	241	266	240	263	240	261	236	256	233	258	236	253	232	245	227	238	223
	B2	248	225	254	234	259	238	261	238	261	237	259	235	260	236	255	233	248	228	241	224
100	–	122	124	118	122	116	119	112	116	112	114	108	111	104	106	100	103	99	102	95.2	97.9
	B	256	233	262	238	262	238	260	237	258	234	254	231	256	233	251	230	242	226	235	221
	B2	241	219	248	228	253	233	257	235	257	234	256	233	258	234	253	232	246	227	239	223
105	–	113	115	109	113	107	110	104	107	103	105	99.8	102	95.1	97.5	91.6	94.1	90.5	93	86.8	89.3
	B	249	228	257	234	259	235	257	235	255	232	252	229	254	232	249	229	242	224	234	219
	B2	234	214	241	222	247	228	251	231	254	232	254	231	256	233	252	230	245	225	237	221
110	–	105	107	101	104	99	102	95.6	98.8	95.3	97.4	91.9	94.1	87.3	89.6	83.9	86.2	82.9	85.3	79.2	81.6
	B	243	223	251	230	254	233	254	233	252	230	249	228	252	230	247	228	240	223	232	218
	B2	228	209	236	217	241	223	247	228	250	229	252	229	254	231	250	229	243	224	235	219
115	–	97.1	99	93.7	96.7	91.5	94.5	88.2	91.3	87.9	89.9	84.6	86.7	80	82.2	76.7	78.9	75.8	78	72.2	74.4
	B	237	217	244	226	249	228	250	229	249	227	246	226	250	228	245	226	239	221	231	217
	B2	223	205	231	213	236	218	242	223	246	226	248	227	252	230	249	228	242	223	232	218
120	–	90	91.8	86.7	89.6	84.6	87.5	81.3	84.3	81	83	77.8	79.8	73.3	75.3	69.9	72.1	69.1	71.2	65.5	67.7
	B	231	212	238	221	243	224	245	225	244	224	242	223	246	225	242	224	237	220	230	216
	B2	218	200	225	208	231	214	237	219	241	223	244	224	249	227	246	226	240	222	230	216
125	–	83.4	85.1	80.1	82.9	78.1	80.9	74.8	77.7	74.6	76.5	71.4	73.3	66.9	68.9	63.6	65.7	62.8	64.9	59.3	61.5
	B	225	207	232	216	238	219	240	220	240	220	237	219	241	222	238	222	233	218	228	215
	B2	212	196	220	204	225	210	232	215	237	219	240	220	245	224	243	223	238	221	227	214
130	–	77.3	79	74.1	76.8	72.1	74.8	68.9	71.7	68.8	70.5	65.6	67.4	61.1	63	57.9	59.8	57.1	59.1	53.7	55.7
	B	218	202	226	210	232	214	236	216	236	216	233	216	238	219	234	218	230	215	222	212
	B2	207	191	215	200	220	205	227	211	232	215	236	217	242	220	241	220	236	218	225	211
135	–	71.9	73.5	68.7	71.3	66.7	69.4	63.5	66.3	63.4	65.1	60.3	62.1	55.8	57.7	52.6	54.5	51.9	53.8	48.5	50.5
	B	211	197	220	205	227	209	231	211	232	212	229	213	234	215	231	215	227	213	217	207
	B2	202	187	209	195	215	201	222	207	228	211	232	213	238	217	238	217	234	216	222	209
140	–	66.6	68.1	63.5	66	61.5	64.1	58.3	61	58.3	59.9	55.2	56.9	50.7	52.5	47.6	49.4	46.9	48.7	43.5	45.4
	B	205	192	214	200	221	205	227	207	229	208	225	210	231	212	230	212	226	210	214	203
	B2	197	183	204	191	210	197	218	203	223	207	228	209	235	213	236	214	232	213	219	206
150	–	57	58.3	53.9	56.3	52	54.4	48.9	51.4	48.9	50.4	45.8	47.4	41.4	43	38.3	40	37.7	39.3	34.4	36.1
	B	194	182	203	191	209	196	216	198	218	200	217	204	224	205	225	206	222	206	209	198
	B2	187	174	195	183	200	189	208	195	214	199	220	202	228	206	230	208	228	208	214	201
160	–	48.4	49.6	45.3	47.6	43.5	45.8	40.4	42.8	40.4	41.8	37.5	38.9	33	34.5	30	31.5	29.4	31	26.1	27.8
	B	185	174	194	183	198	187	203	188	204	191	209	196	216	199	218	200	217	202	203	193
	B2	178	167	185	175	191	181	199	187	206	191	211	195	220	199	224	201	224	203	208	196
170	–	40.8	41.9	37.7	39.9	35.9	38.1	32.9	35.1	33	34.2	30	31.3	25.6	27	22.5	24	22	23.5	18.8	20.3
	B	175	165	184	174	186	180	190	179	196	184	201	187	206	192	208	193	209	196	197	187
	B2	169	159	176	167	182	173	190	180	197	185	203	188	212	191	216	194	218	197	201	190
180	–	34.1	35.1	31.1	33.1	29.3	31.4	26.3	28.4	26.4	27.5	23.5	24.7	19	20.4	16	17.4	15.6	16.9		13.8
	B	166	158	174	166	175	172	182	172	188	177	194	181	197	185	200	187	200	189	188	179
	B2	163	153	169	161	175	166	182	172	189	178	195	181	204	184	209	187	211	191	195	185
190	–	28	29	25	26.9	23.3	25.2	20.3	22.3	20.4	21.5	17.5	18.6								
	B	157	151	163	158	168	163	174	166	180	170	187	175	190	178	194	180	194	183	182	172
	B2	157	149	164	156	169	160	176	167	182	171	188	174	197	177	202	180	204	185	189	179
200	–	22.5	23.3	19.5	21.3	17.7	19.6		16.7												
	B	151	144	157	150	163	156	166	160	172	163	178	168	183	171	187	174	187	176	177	168
	B2	151	144	158	151	164	156	170	162	177	166	183	168	190	171	195	174	198	178	183	173
210	–	17.4	18.2																		
	B	146	139	152	146	158	151	161	155	167	158	169	161	175	165	180	168	181	170	171	163
	B2	146	140	153	147	158	151	165	158	172	161	178	164	185	166	190	168	193	172	177	168
220	–	12.9	13.6																		
	B	141	135	147	141	153	147	156	150	162	154	164	157	170	160	173	163	174	165	163	157
	B2	142	136	148	143	154	147	160	153	167	156	172	159	180	162	186	164	188	167	173	164

TAB 181508 / 181596

P

SL13DFB/B2

SL13 335 - 423



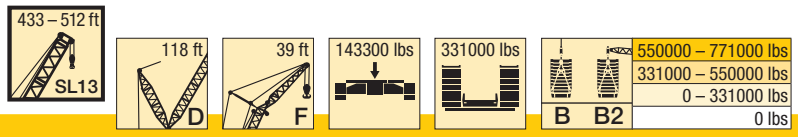
ft		SL13 335		SL13 344		SL13 354		SL13 364		SL13 374		SL13 384		SL13 394		SL13 404		SL13 413		SL13 423	
		11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°
230	–																				
	B	137	132	143	137	148	143	152	147	158	150	161	153	167	156	169	159	169	161	159	152
	B2	139	133	145	139	150	144	156	149	162	151	168	154	175	157	181	159	184	163	169	160
240	–																				
	B	135	129	139	134	143	138	147	142	153	146	157	149	163	152	165	154	163	157	155	149
	B2	135	130	141	136	146	141	152	145	158	147	163	150	170	152	176	154	180	158	165	157
250	–																				
	B	132	127	137	132	141	136	145	139	149	142	153	145	159	147	160	150	158	153	151	146
	B2	132	127	137	133	143	138	148	142	154	144	160	146	165	148	170	150	175	153	161	153
260	–																				
	B	129	125	134	130	138	134	143	136	146	139	148	142	153	143	154	145	153	149	147	144
	B2	129	125	134	130	139	135	145	138	151	140	156	143	160	145	163	147	167	149	156	149
270	–																				
	B	128	123	131	128	136	132	140	134	143	136	143	138	146	138	147	139	145	143	141	140
	B2	127	123	132	128	137	132	142	135	148	137	153	139	155	141	156	143	159	145	150	144
280	–																				
	B	127	121	130	126	133	129	138	131	140	134	138	135	138	133	139	133	138	136	135	134
	B2	125	121	130	126	134	130	139	132	144	134	149	136	150	138	149	140	151	141	144	139
290	–																				
	B	125	120	129	124	130	126	134	128	137	131	133	132	131	128	130	127	130	129	127	127
	B2	123	120	128	124	132	127	137	129	141	131	144	133	145	134	142	137	143	137	137	135
300	–																				
	B	124	119	128	122	126	124	128	124	131	126	128	128	124	123	122	121	122	122	120	119
	B2	122	119	126	122	130	125	135	127	137	128	139	130	138	130	135	133	135	133	131	130
310	–																				
	B	124	117	125	120	123	122	122	120	124	121	122	122	117	117	115	115	115	115	112	112
	B2	120	117	125	120	129	122	132	124	134	125	133	127	131	125	128	127	128	128	125	125
320	–																				
	B	121	116	121	118	119	119	116	116	118	116	115	116	111	112	108	108	108	108	105	105
	B2					127	120	128	122	129	123	127	125	124	121	122	121	121	121	118	119
330	–																				
	B			115	115	113	114	111	111	111	111	109	109	105	105	102	102	102	102	98.5	98.7
	B2							123	119	123	120	121	121	117	116	115	114	115	115	112	113
340	–																				
	B			109	110	107	108	105	106	105	105	103	103	98.6	99.2	96.1	96.3	95.8	96.2	92.9	93.2
	B2							117	116	117	117	115	115	111	111	108	108	108	109	106	106
350	–																				
	B							99.7	100	99.5	99.8	97.1	97.3	92.8	93.3	90	90.3	90	90.4	87.4	87.7
	B2											109	109	105	105	102	103	102	103	99.7	100
360	–																				
	B									94.3	94.6	91.8	92	87.4	87.8	84.4	84.7	84.3	84.8	81.8	82.1
	B2														99.6	96.8	97.3	96.6	97	94.1	94.3
370	–																				
	B													82.5	82.7	79.3	79.6	79	79.4	76.5	76.8
	B2																	91.3	91.8	89	89.2
380	–																				
	B													77.7	77.8	74.6	74.8	74.2	74.6	71.4	71.8
	B2																	86.5	87	84	84.3
390	–																				
	B															70.1	70.4	69.7	70.1	66.8	67.2
	B2																				
400	–																				
	B																			62.6	63
	B2																				

TAB 181508 / 181596

P

SL13DFB/B2

SL13 433 – 512



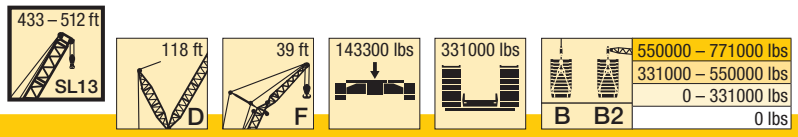
ft		SL13 433		SL13 443		SL13 453		SL13 463		SL13 472		SL13 482		SL13 492		SL13 502*		SL13 512*	
		11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°
65	–	177	181	172		173		168		165									
	B	230	225	228	217	212		204		195									
	B2	230		229		213													
70	–	163	167	158	155	159		155		152									
	B	230	224	227	216	211		204		194									
	B2	230		229		212													
75	–	148	152	144	148	145	149	141	145	138	143	135	139	133	137	130	128	126	112
	B	230	223	226	216	210	201	202	194	192	187	185	179	174	168	166	161	157	152
	B2	230	223	228	216	211	201	203	195	194	187	186	178	174		166		158	
80	–	135	139	131	134	132	136	129	132	125	130	123	126	121	125	118	121	114	118
	B	230	221	224	215	209	200	201	194	191	186	184	178	172	166	165	160	156	151
	B2	230	222	227	215	210	200	202	194	193	185	185	177	173	166	165	161	157	152
85	–	123	127	119	123	121	124	117	120	114	119	111	115	110	113	107	110	104	107
	B	230	221	223	214	207	199	199	192	190	184	182	177	171	165	164	159	156	150
	B2	230	221	225	214	209	199	201	193	192	184	184	176	172	165	165	159	157	151
90	–	113	116	109	112	110	113	107	110	104	108	101	105	100	103	96.9	100	93.9	97
	B	230	219	221	213	206	198	198	191	188	183	181	175	169	164	162	158	154	150
	B2	230	220	224	212	208	198	200	192	190	183	182	174	171	163	164	158	156	150
95	–	103	106	99.2	102	101	104	97.5	100	94.7	98.9	92.2	95.1	91.2	94.1	87.8	90.8	85	87.9
	B	229	218	220	212	204	197	197	190	186	182	179	173	168	162	161	156	153	148
	B2	230	219	222	210	206	196	199	191	189	181	181	173	169	162	163	157	155	149
100	–	94.1	96.8	90.3	93	92.1	94.8	88.7	91.4	86	90.1	83.6	86.4	82.8	85.5	79.4	82.3	76.7	79.5
	B	227	216	218	210	202	196	195	188	185	181	178	172	166	161	160	155	152	147
	B2	230	218	220	209	205	195	198	189	187	180	179	171	168	161	162	156	153	148
105	–	85.7	88.3	82	84.6	84	86.5	80.6	83.2	78	82	75.7	78.3	74.9	77.6	71.7	74.3	69	71.7
	B	225	214	216	208	200	195	193	186	183	179	176	170	165	160	159	154	150	146
	B2	229	217	218	207	203	193	197	188	186	179	178	170	166	159	161	154	152	146
110	–	78.2	80.7	74.6	77.1	76.6	79	73.3	75.8	70.8	74.6	68.5	71.1	67.8	70.3	64.6	67.2	62	64.6
	B	223	214	215	206	198	193	192	184	182	177	174	168	164	158	157	152	149	145
	B2	227	216	216	204	201	191	195	186	184	177	176	168	165	158	159	153	151	145
115	–	71.2	73.5	67.6	70	69.7	72	66.5	68.8	64	67.7	61.8	64.3	61.2	63.6	58	60.5	55.5	58
	B	222	213	213	204	197	191	190	183	180	176	173	167	162	156	156	151	148	143
	B2	226	214	214	202	199	189	194	185	183	176	175	167	163	156	158	152	150	144
120	–	64.7	66.9	61.1	63.4	63.3	65.5	60.1	62.3	57.7	61.3	55.5	57.9	55	57.3	51.8	54.2	49.4	51.7
	B	221	212	211	202	196	190	189	182	178	175	172	165	161	155	154	150	146	141
	B2	225	213	212	200	197	188	192	183	181	174	173	165	161	155	157	151	148	142
125	–	58.5	60.7	55	57.2	57.3	59.4	54.1	56.2	51.8	55.3	49.6	51.9	49.2	51.4	46	48.3	43.6	45.9
	B	219	211	210	200	195	188	188	182	177	173	170	164	159	153	153	148	145	140
	B2	223	211	210	198	196	186	191	182	179	173	171	164	160	153	155	149	147	141
130	–	52.9	54.9	49.4	51.5	51.7	53.8	48.6	50.6	46.3	49.7	44.2	46.3	43.8	45.9	40.7	42.9	38.3	40.5
	B	215	210	207	198	193	186	185	180	175	172	169	163	158	152	152	147	144	139
	B2	221	210	207	196	193	184	189	180	178	171	170	162	158	152	154	148	145	140
135	–	47.7	49.7	44.3	46.3	46.7	48.6	43.6	45.5	41.3	44.7	39.3	41.3	38.9	40.9	35.8	37.9	33.5	35.6
	B	213	206	203	195	190	183	183	178	173	170	167	161	156	150	150	146	142	138
	B2	219	208	205	194	191	182	187	179	176	169	168	160	156	150	153	147	144	138
140	–	42.8	44.7	39.4	41.3	41.8	43.7	38.7	40.6	36.5	39.8	34.5	36.5	34.2	36.1	31.1	33.2	28.8	30.9
	B	211	201	198	190	186	180	181	176	171	167	164	158	153	149	149	145	141	136
	B2	217	206	203	192	189	180	186	177	174	168	166	159	155	148	151	145	142	137
150	–	33.7	35.4	30.4	32.2	32.8	34.6	29.8	31.6	27.7	30.8	25.7	27.5	25.5	27.3	22.5	24.3	20.2	22.1
	B	207	197	193	184	182	174	178	170	167	162	160	154	149	145	146	141	138	132
	B2	213	201	198	187	185	176	182	174	171	165	163	155	151	145	148	142	139	134
160	–	25.5	27.1	22.3	23.9	24.8	26.4	21.8	23.4	19.7	22.7		19.5		19.3				
	B	203	192	189	180	178	169	174	167	164	158	156	150	146	142	142	138	134	129
	B2	208	197	193	183	181	172	179	170	167	161	159	152	148	141	145	139	136	131
170	–	18.2	19.7	15	16.5	17.6	19.1	14.6	16.2	12.6	15.4		12.3		12.2				
	B	198	188	184	175	174	165	171	164	161	155	153	146	142	139	139	134	131	127
	B2	203	192	188	178	177	168	176	167	164	158	156	149	144	138	142	137	134	128
180	–																		
	B	188	180	176	169	168	160	166	161	157	152	149	143	138	135	136	131	128	125
	B2	198	187	183	173	172	164	171	163	160	155	152	145	141	135	139	134	131	126
190	–																		
	B	182	175	171	162	161	155	161	155	152	147	144	139	135	131	133	129	125	122
	B2	192	182	178	168	167	159	167	160	156	151	148	142	137	131	136	131	128	123
200	–																		
	B	176	171	166	158	157	150	157	150	147	142	140	134	130	126	129	125	122	118
	B2	186	177	172	164	163	155	163	156	152	147	144	138	133	128	133	128	125	120
210	–																		
	B	171	166	162	154	153	146	153	146	143	139	136	131	127	123	126	121	118	114
	B2	181	172	167	159	158	151	159	152	148	143	140	134	130	125	129	125	121	117
220	–																		
	B	165	161	157	149	148	142	149	143	139	135	133	127	123	120	123	118	115	111
	B2	177	168	163	154	153	147	155	148	144	140	137	131	126	122	126	122	118	114
230	–																		
	B	160	154	149	144	143	137	144	139	136	132	129	124	120	116	120	115	112	109
	B2	173	164	159	151	150	143	151	145	140	136	133	127	123	118	123	119	115	111
240	–																		
	B	155	151	146	141	139	133	138	133	131	128	125	120	117	113	117	113	109	106
	B2	169	161	156	148	147	140	148	142	137	133	130	124	120	115	120	116	112	109

* raisable only with B2 · seulement relevable avec B2

TAB 181508 / 181596

SL13DFB/B2

SL13 433 – 512



ft		SL13 433		SL13 443		SL13 453		SL13 463		SL13 472		SL13 482		SL13 492		SL13 502*		SL13 512*	
		11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°	11°	16°
250	–																		
	B	150	147	142	138	136	131	134	130	127	124	121	117	113	110	113	110	106	104
	B2	165	158	152	145	144	137	145	139	135	131	127	122	117	113	117	113	109	106
260	–																		
	B	145	143	138	136	133	128	130	127	124	122	118	115	110	106	109	106	102	100
	B2	161	154	148	142	140	135	142	137	132	128	124	120	115	111	115	111	107	104
270	–																		
	B	140	140	134	133	130	126	126	124	121	119	115	113	108	104	106	104	99.3	97.6
	B2	154	149	144	138	137	131	139	134	129	126	122	117	112	108	113	109	105	102
280	–																		
	B	134	134	130	129	127	123	122	122	118	117	113	111	106	103	104	102	97	95.6
	B2	147	142	138	133	133	128	135	130	126	123	119	115	110	106	110	107	102	99.9
290	–																		
	B	126	127	123	124	123	120	118	118	114	114	110	109	104	101	101	99.8	94.8	93.5
	B2	139	136	132	129	129	125	130	126	122	120	116	112	107	104	108	105	99.6	97.9
300	–																		
	B	119	120	116	117	117	114	112	113	110	111	107	107	102	98.6	98	97.6	92.6	91.4
	B2	132	130	126	124	124	122	124	122	118	116	112	109	105	102	105	103	97.2	95.9
310	–																		
	B	112	113	109	110	110	109	106	107	104	106	102	102	98.2	95.9	94.9	95.4	90.4	89.3
	B2	124	124	121	119	120	118	119	117	114	113	109	106	102	99.9	102	100	94.6	93.7
320	–																		
	B	104	105	102	103	104	103	100	101	98.7	99.9	96.4	96.8	93.9	92.2	90.9	91.9	87.3	86.6
	B2	117	118	115	114	116	115	113	112	110	109	105	103	100	98	99	97	92	91.3
330	–																		
	B	97.4	98.4	95.1	96	97.9	97.5	94.5	95.3	92.9	94.2	90.9	91.3	89.2	87.8	86.1	87	83.3	83.1
	B2	111	112	109	109	111	111	108	108	105	106	101	100	97.7	96.1	95.7	94.2	89.5	89
340	–																		
	B	91.8	92.4	88.7	89.4	91.6	91.8	88.5	89.4	87.2	88.5	85.3	85.8	84.4	83.4	81.3	82.1	78.7	78.6
	B2	105	106	103	103	106	106	102	103	101	102	97.7	97.3	95.3	94.2	92.4	91.3	87	86.6
350	–																		
	B	86.5	87	83.4	84	86.3	86.6	83	83.6	81.4	82.9	79.8	80.2	79.6	78.9	76.5	77.2	74.1	74.2
	B2	99.3	99.9	97	97.3	100	100	96.8	97.5	95.7	97	93.3	93.5	92.9	92.3	89.1	88.5	84.5	84.2
360	–																		
	B	81.2	81.6	78.3	78.8	81.3	81.6	77.9	78.4	76.3	77.6	74.5	74.8	74.8	74.5	71.7	72.3	69.5	69.7
	B2	93.5	94.1	91.1	91.4	94.4	94.7	91.3	92	90.3	91.7	88.3	88.8	89	88.9	85.3	85.2	82	81.8
370	–																		
	B	75.8	76.2	73.1	73.5	76.3	76.7	73.1	73.5	71.5	72.7	69.4	69.6	70.1	70.1	66.9	67.4	64.9	65.3
	B2	88.1	88.6	85.4	85.8	88.9	89.1	85.8	86.6	84.9	86.3	83.1	83.6	83.9	84.3	80.9	81.3	78.9	78.9
380	–																		
	B	70.6	70.8	68	68.3	71.3	71.8	68.3	68.7	66.9	68	64.9	65.2	65.6	65.7	62.2	62.6	60.3	60.8
	B2	83.1	83.3	80.3	80.8	83.6	83.7	80.3	81.2	79.5	80.9	77.9	78.4	78.8	79.2	76	76.4	74.2	74.5
390	–																		
	B	66	66.2	63.3	63.4	66.3	66.9	63.5	63.8	62.3	63.4	60.3	60.7	61.3	61.3	57.9	58.3	56.1	56.5
	B2	78.3	78.5	75.4	75.9	78.8	78.9	75.5	76.2	74.3	75.6	72.7	73.1	73.8	74.2	71.1	71.5	69.5	69.8
400	–																		
	B	61.6	61.8	58.9	59	61.8	62.4	58.9	59.1	57.7	58.7	55.8	56.2	56.9	57	53.6	54	51.9	52.3
	B2			70.8	71.2	74.2	74.4	70.9	71.5	69.6	70.7	67.8	68.2	68.7	69.1	66.1	66.6	64.7	65.1
410	–																		
	B	57.4	57.6	54.7	54.8	57.8	58.1	54.6	54.8	53.3	54.3	51.3	51.7	52.5	52.7	49.3	49.7	47.8	48.2
	B2							66.5	67	65.2	66.1	63.2	63.6	63.9	64.3	61.3	61.8	60	60.4
420	–																		
	B					53.8	54.1	50.5	51	49.2	50.2	46.8	47.3	48.2	48.4	45.1	45.5	43.7	44.1
	B2											58.7	59.2	59.7	60	56.8	57.1	55.3	55.7
430	–																		
	B					50.1	50.3	46.8	47.2	45.3	46.4	43.2	43.5	44.1	44.3	40.8	41.2	39.6	39.9
	B2											54.7	55.2	55.7	56	52.6	52.9	51.1	51.5
440	–																		
	B								43.5	41.7	42.7	39.6	39.8	40.2	40.4	37	37.3	35.6	35.9
	B2													51.8	52	48.7	48.9	47	47.5
450	–																		
	B											36	36.3	36.5	36.8	33.4	33.8	31.8	32
	B2																	43.2	43.6
460	–																		
	B														33.4	29.8	30.2	28.1	28.5
	B2																		
470	–																		
	B														30.2	26.5	26.7	24.9	25.2
	B2																		
480	–																		
	B																	22	22.2
	B2																		

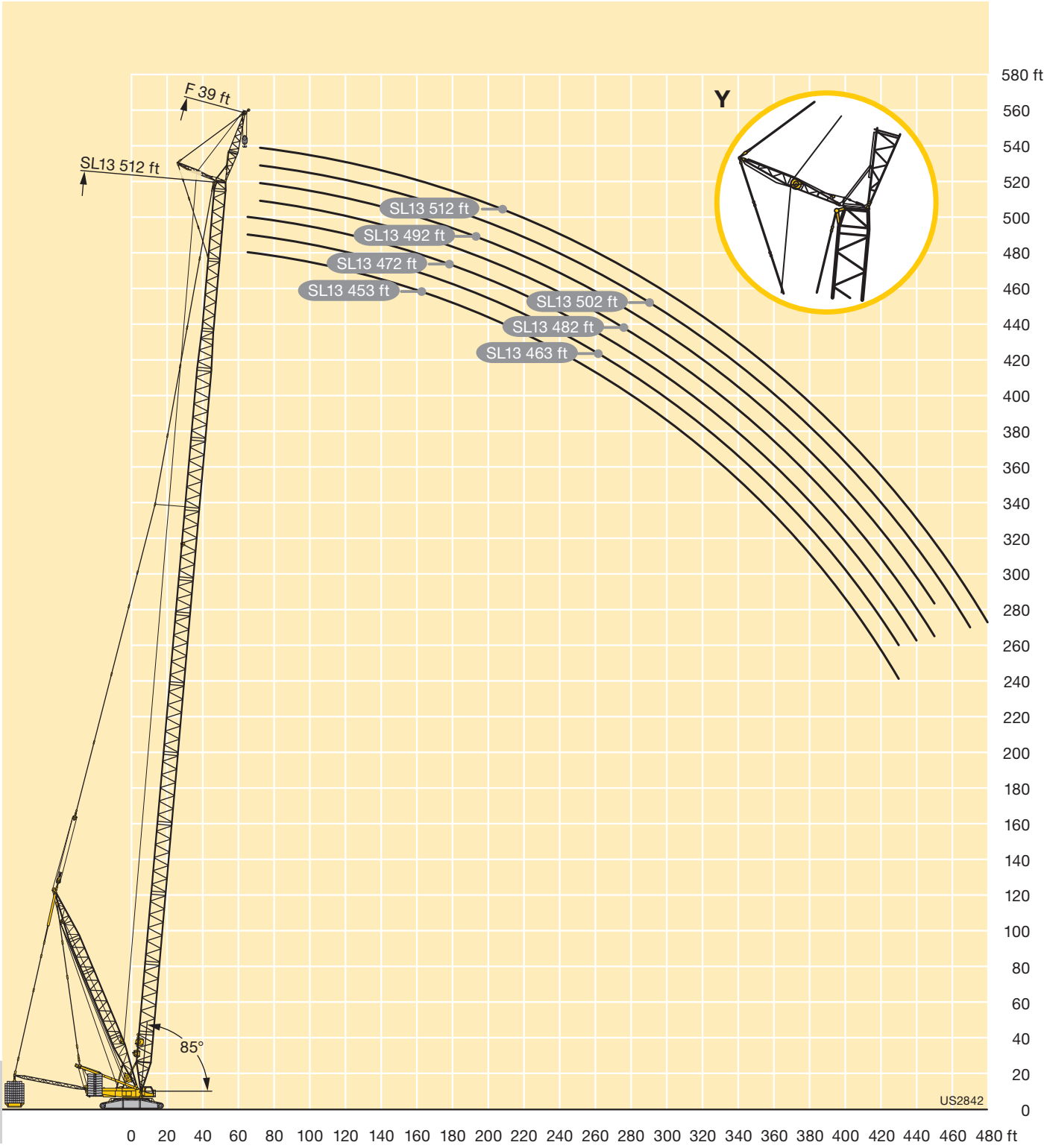
* raisable only with B2 · seulement relevable avec B2

TAB 181508 / 181596

P

Lifting heights
Hauteurs de levage

SL13DFB/B2



P

Description of symbols
Explication des symboles

General symbols
Symboles généraux

	Hoist gear Treuil de levage
360°	Slewing speeds Vitesses d'orientation
mph	Driving speed Vitesse de translation
	Hookblock / Capacity Moufle à crochet / Capacité de charge
ft	Radius Portée

	Page Page
	Wind power applications Applications de centrale éolienne
	Central ballast Contrepoids central
	Counterweight Contrepoids

Crane specific symbols
Symboles spécifiques à la grue

S	Main boom S Flèche principale S
HS	Main boom HS Flèche principale HS
SL	Main boom SL Flèche principale SL
HSL	Main boom HSL Flèche principale HSL
D	Derrick system D Système derrick D

W	Lattice type luffing fly jib W Fléchette treillis à volée variable W
WV	Heavy duty jib WV Fléchette pour charge lourde WV
F	Fixed lattice jib F Fléchette à treillis fixe F
B B2 BW	Counterweight frame B/B2/Counterweight trailer BW Palette de lest B/B2/Remorque à contrepoids BW

Remarks referring to load charts

1. The lifting capacities do not exceed 75 % of the tipping load according to ASME B 30.5.
   The crane's structural steelwork is in accordance with EN 13000 and ASME B 30.5.
2. For the calculation of the load charts at least a wind speed of 29 ft/s (9 m/s, 20.1 miles/hour) and regarding the load a sail area of 1 m² per ton load and a wind resistance coefficient of 1.2 on the load have been taken into account. For lifting of loads with large sail areas and/or high wind resistance coefficients the maximum wind speed as stated in the load charts has to be reduced.
3. Lifting capacities are given in kips.
4. The weight of the hook blocks and hooks is part of the load and therefore it must be deducted from the lifting capacities.
5. The working radii are measured from the slewing centreline.
6. The subsoil must be even and of good bearing capacity.
7. Subject to modification of lifting capacities.
8. The data of this brochure serves only for general information. All information is provided without warranty. Instructions for the correct commissioning of the crane please take from the operation manual and the load chart book.

Remarques relatives aux tableaux des charges

1. La capacité de charge ne doit pas dépasser 75 % de la charge de basculement conformément à ASME B 30.5.
   La structure métallique de la grue est conforme à EN 13000 et ASME B 30.5.
2. Une vitesse de vent de 29 ft/s (9 m/s, 20.1 miles/hour) minimum, une surface de prise au vent de 1 m² par tonne ainsi qu'un coefficient de résistance au vent de la charge 1,2 sont pris en compte pour le calcul des tableaux de charge. Lorsque des charges ayant une surface de prise au vent et/ou un coefficient de résistance au vent plus élevé(e)(s) sont levées, la vitesse de vent maximale indiquée dans les tableaux de charge doit être réduite.
3. Les charges sont indiquées en kips.
4. Le poids du crochet de levage resp. de la moufle à crochet est une partie de la charge et doit donc être déduit de la capacité de charge.
5. Les portées sont prises à partir de l'axe de rotation de la partie tournante.
6. Le sol doit être plat et résistant.
7. Charges données sous réserve de modification.
8. Les données de cette brochure sont données à titre informatif. Ces renseignements sont sans garantie. Les consignes relatives à la bonne mise en service de la grue sont disponibles dans le manuel d'utilisation et le manuel de tableaux de charge.

Subject to modification / Sous réserve de modifications

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