



LIFTING CHARTS - Conventional Truck Cranes

LINK-BELT MODEL HC-278H - 300 TON CAPACITY

WARNING

READ AND UNDERSTAND THE OPERATOR'S AND SAFETY MANUAL AND THE FOLLOWING INSTRUCTIONS AND CHART VALUES BEFORE OPERATING THE CRANE. OPERATION WHICH DOES NOT FOLLOW THESE INSTRUCTIONS MAY RESULT IN AN ACCIDENT.

OPERATING INSTRUCTIONS

GENERAL:

1. Rated lifting capacities as shown on lift chart pertain to this crane as originally manufactured and normally equipped by Link-Belt Construction Equipment Company (LBCE). Modifications to the crane or use of optional equipment other than that specified can result in a reduction of capacity.
2. Construction equipment can be dangerous if improperly operated or maintained. Operation and maintenance of this crane must be in compliance with the information in the Operator's, Parts and Safety manuals supplied with this crane. If the manuals are missing, order replacements through the distributor.
3. The operator and other personnel associated with this crane shall fully acquaint themselves with the latest applicable American National Standards Institute (ANSI) safety standards for cranes.
4. All capacities listed in this book are in compliance with SAE J987—April 1994 (Crane Structures—Method Of Test) and SAE J765a – October 1990 (Crane Load Stability Test).

Lifting Crane Operation:

1. Capacities shown are not more than 85% of the tipping loads on outriggers and 75% of the tipping loads on tires with crane standing level on firm supporting surface. A deduction must be made from these capacities for weight of hook block, hook ball, sling, grapple, load weighing devices, etc. When using main hook while jib is attached, reduce capacities by values shown on chart "Capacity Deductions For Lifting Off Main Boom Hook With Jib Installed." See Operator's Manual for all limitations when raising or lowering attachment.
2. The crane capacities in the shaded areas are based on structural strength or hydraulic limitations. The crane capacities below the bold lines are based on stability ratings. Some capacities are limited by a maximum obtainable 82° boom angle.
3. For recommended reeving, parts of line, wire rope type and wire rope inspection, see Wire Rope Strength Chart, Parts Manual and Operator's Manual.

4. The maximum outrigger pontoon reaction seen under any condition listed in this crane rating manual is 285,000 lb (314 psi).
5. "On outrigger" capacities require that all four outrigger beams be fully extended, all five jacks be extended until all tires are clear of the ground and crane be properly leveled on a firm supporting surface.
6. The least stable rated condition is over the side.
7. "0+0" counterweight indicates no upper or bumper counterweight on the machine.
8. "A+0" counterweight indicates 30,000 lb "A" upper counterweight with no bumper counterweight.
9. "AB+0" counterweight indicates 55,200 lb "AB" upper counterweight with no bumper counterweight.
10. "ABCD+0" counterweight indicates 98,200 lb "ABCD" upper counterweight with no bumper counterweight.
11. "ABCD+A" counterweight indicates 98,200 lb "ABCD" upper counterweight and 11,400 lb "A" bumper counterweight.
12. "ABCD+AB" counterweight indicates 98,200 lb "ABCD" upper counterweight and 26,700 lb "AB" bumper counterweight.
13. Maximum boom length on outriggers without jib and with "0+0" counterweight is 210' and booms longer than 190' must be raised and lowered over the rear.
14. Maximum boom length on outriggers without jib and with "A+0" counterweight is 240' and booms longer than 230' must be raised and lowered over the rear.
15. Maximum boom length on outriggers without jib and with "AB+0" counterweight is 270' and booms longer than 250' must be raised and lowered over the rear.
16. Maximum boom length on outriggers without jib and with "ABCD+0" counterweight is 310' and booms longer than 300' must be raised and lowered over the rear.
17. Maximum boom length on outriggers without jib and with "ABCD+A" counterweight is 320' and booms longer than 300' must be raised and lowered over the rear.
18. Maximum boom length on outriggers without jib and with "ABCD+AB" counterweight is 330' and

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- booms longer than 310' must be raised and lowered over the rear.
19. For boom lengths exceeding 240' the midpoint suspension pendants are required.
 20. Do not lift or suspend a load from the main boom and boom tip extension or jib at the same time.
 21. Do not swing over side until all four outrigger beams are fully extended, all five jacks are extended until all tires are clear of the ground and crane is properly leveled on a firm supporting surface.
 22. On tire capacities are restricted to a maximum travel speed of 1 mph. The boom must be centered straight over the rear with swing lock engaged and the load must be restrained from swinging.
 23. Load ratings shown on chart are based on freely suspended loads and make no allowance for such factors as the effect of wind, ground conditions and operating speeds. Therefore the operator shall reduce load ratings in order to take these conditions into account.

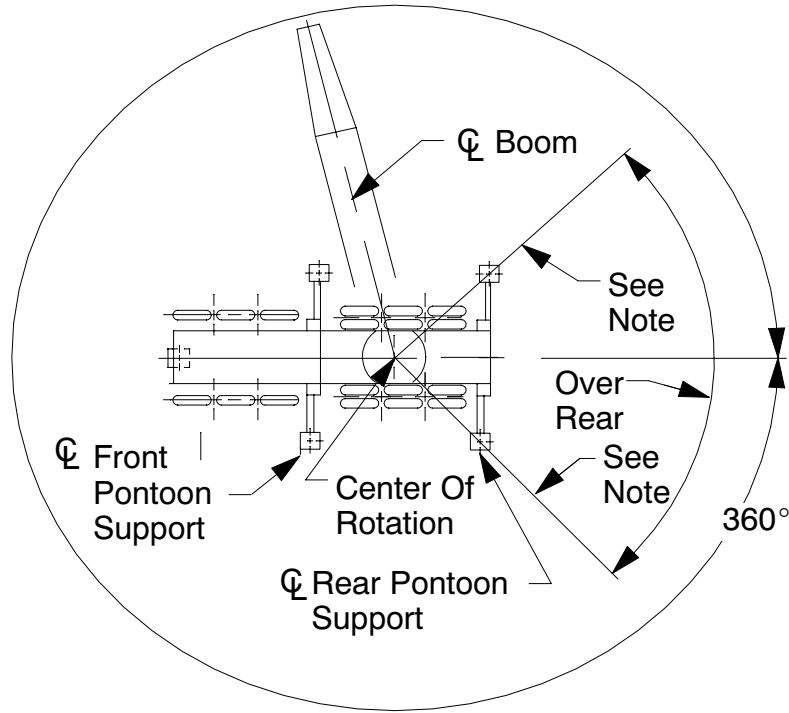
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WIRE ROPE CAPACITY

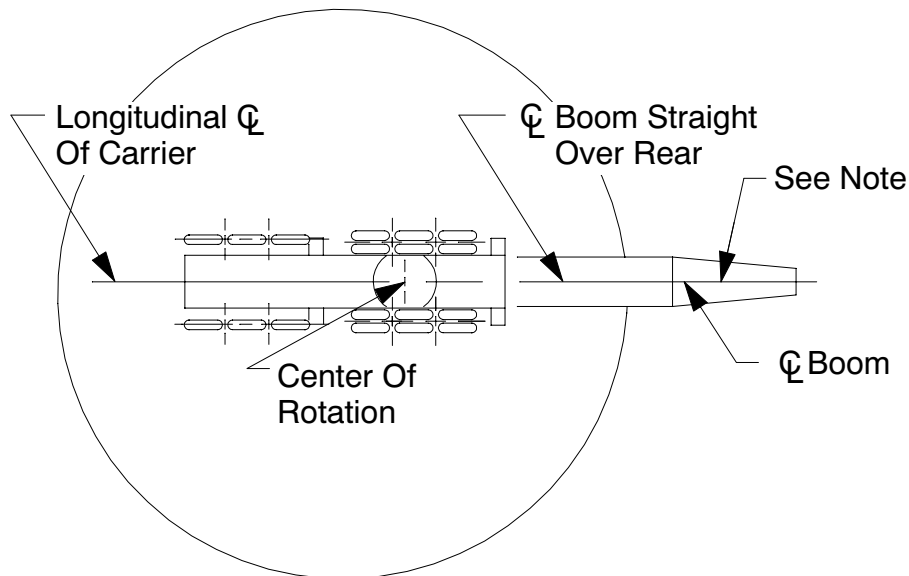
Parts of Line	1"				1-1/8"					(28.5 mm)
	Type N	Type P	Type LB	Type RB	Type N	Type P	Type LB	Type RB	Type ZB	Type SB
1	29,500	16,800	32,500	22,700*	37,100	21,200	40,800	28,600*	35,300	52,400
2	59,000	33,600	65,000	45,400	74,200	42,400	81,600	57,200	70,600	104,800
3	88,500	50,400	97,500	68,100	111,300	63,600	122,400	85,800	105,900	157,200
4	118,000	67,200	130,000	90,800	148,400	84,800	163,200	114,400	141,200	209,600
5	147,500	84,000	162,500	113,500	185,500	106,000	204,000	143,000	176,500	262,000
6	177,000	100,800	195,000	136,200	222,600	127,200	244,800	171,600	211,800	314,400
7	206,500	117,600	227,500	158,900	259,700	148,400	285,600	200,200	247,100	366,800
8	236,000	134,400	260,000	181,600	296,800	169,600	326,400	228,800	282,400	419,200
9	265,500	151,200	292,500	204,300	333,900	190,800	367,200	257,400	317,700	471,600
10	295,000	168,000	325,000	227,000	371,000	212,000	408,000	286,000	353,000	524,000
11	324,500	184,800	357,500	249,700	408,100	233,200	448,800	314,600	388,300	576,400
12	354,000	201,600	390,000	272,400	445,200	254,400	489,600	343,200	423,600	628,800
13	383,500	218,400	422,500	295,100	482,300	275,600	530,400	371,800	458,900	681,200
14	413,000	235,200	455,000	317,800	519,400	296,800	571,200	400,400	494,200	733,600
LBCE Type	Description									
N	6 X 25 (6X19 Class) - Filler Wire - Extra Improved Plow Steel - Preformed - I.W.R.C. - Right Lay - Regular Lay									
P	19 X 7 Rotation Resistant - Extra Improved Plow Steel - Preformed - Wire Center Core									
LB	6 X 25 (6 X 19 Class - Filler Wire - Preformed - I.W.R.C. - Right Lay - Regular Lay - Compacted Strands									
RB	19 X 19 Rotation Resistant - Extra, Extra Improved Plow Steel - Preformed Right Lay - Regular Lay. Swaged									
SB	8 Strand Rope - Parallel Lay Construction - Compacted Strand - Right Lay - Regular Lay									
ZB	36 X 7 Non-Rotating - Extra Improved Plow Steel - Right Regular Lay									
* Use of swivel end with one part of line is not recommended.										
Notes:										
1. Capacities shown are in pounds and working loads must not exceed the ratings on the capacity charts in this Crane Rating Manual.										
2. Study Operator's Manual for wire rope inspection procedures.										

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WORKING AREAS



Carrier On Outriggers



Carrier On Tires

Note: These Lines Determine The Limiting Position Of Any Load For Operation Within Working Areas Indicated.

Working Areas Chart

ALLOWABLE COUNTERWEIGHTS

COUNTERWEIGHT COMBINATIONS ¹ UPPER + BUMPER	ALLOWABLE OPEN THROAT BOOM LENGTHS	
	W/O JIB	WITH JIB ³
0+0 On Outriggers	60 - 210	PROHIBITED
A+0 On Outriggers ²	60 - 240	
AB+0 On Outriggers ²	60 - 270	
ABCD+0 On Outriggers ²	60 - 310	60 - 270
ABCD+A On Outriggers ²	100 - 320	PROHIBITED
ABCD+AB On Outriggers ²	140 - 330	140 - 300

¹ Counterweight combinations are for a crane equipped with a 250 ton open throat boom. Counterweight combinations must be used only as shown on this chart, otherwise crane may overturn or other damage may occur.

"A" Upper Counterweight - 30,000 lb

"AB" Upper Counterweight - 55,200 lb

"ABC" Upper Counterweight - 76,700 lb

"ABCD" Upper Counterweight - 98,200 lb

"A" Bumper Counterweight - 11,400 lb

"AB" Bumper Counterweight - 26,700 lb

² Do not swing over the side until outrigger beams are fully extended and outrigger jacks properly set with upper counterweights, or crane may overturn.

³ Maximum jib length is 100 ft.

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LIFTOFF CAPABILITIES ON OUTRIGGERS*				
Counterweight	Maximum Boom	Maximum Boom	Maximum Boom + Jib	
	Over Side	Over Rear	Over Side	Over Rear
upper+bumper	ft	ft	ft	ft
0+0	190	210	PROHIBITED	
A+0	230	240		
AB+0	250	270		
ABCD+0	300	310	260+100	270+100
ABCD+A	300	320	PROHIBITED	
ABCD+AB	310	330	270+100	300+100

- *NOTES:**
1. 95% of available crane stability.
 2. Machine on firm and level surface.

LIFTOFF CAPABILITIES ON TIRES OVER THE REAR*		
Counterweight	Boom	Boom + Jib
upper+bumper	ft	ft
0+0	110	PROHIBITED
A+0	150	
AB+0	180	
ABCD+0	210	170+100
ABCD+A	230	PROHIBITED
ABCD+AB	250	210+100

- *NOTES:**
1. 95% of available crane stability.
 2. Machine on firm and level surface.