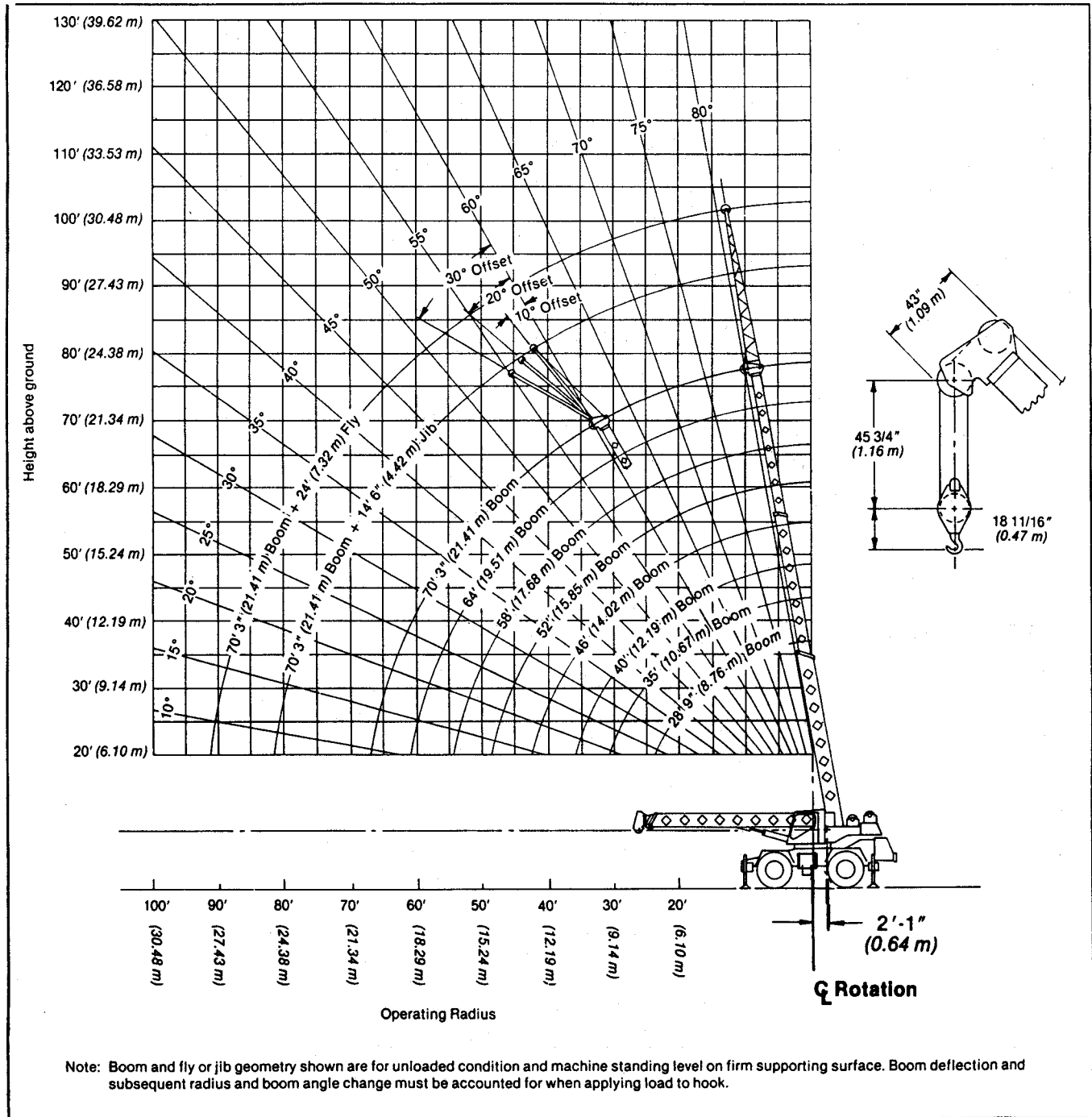


Lifting Capacities

Hydraulic Rough Terrain Crane

HSP-8028S 28-ton (25.42 metric ton)

3-Section Boom



HSP-8028S Lifting Capacities

28' 9" (8.76 m)-70' 3" (21.41 m) 3-section boom

Refer to Operating Instructions page 4

Capacities On Outriggers ^① – 3-Section Boom																	70.25' (21.41 m) Boom plus 24' (7.32 m) fly			
Load Radius	28.75' (8.76 m)		35.0' (10.67 m)		40.0' (12.19 m)		46.0' (14.02 m)		52.0' (15.85 m)		58.0' (17.68 m)		64.0' (19.51 m)		70.25' (21.41 m)		Angle	360°	Front	
	360°	Front	360°	Front	360°	Front	360°	Front	360°	Front	360°	Front	360°	Front	360°	Front				
10' 3.05 m	56,000 25,402	56,000 25,402	44,200 20,049	44,200 20,049	43,500 19,732	43,500 19,732	43,000 19,505	43,000 19,505	42,700 19,369	42,700 19,369	42,500 19,278	42,500 19,278								
12' 3.66 m	43,800 19,868	45,900 20,820	43,800 19,868	44,200 20,049	43,500 19,732	43,500 19,732	43,000 19,505	43,000 19,505	41,700 18,915	41,700 18,915	39,400 17,872	39,400 17,872	37,300 16,919	37,300 16,919						
15' 4.57 m	35,900 16,284	35,900 16,284	35,900 16,284	35,900 16,284	35,900 16,284	35,900 16,284	35,900 16,284	35,900 16,284	35,900 16,148	35,900 16,148	35,600 15,286	35,600 15,286	33,700 14,561	33,700 14,561	21,100 9,571	21,100 9,571				
20' 6.10 m	25,800 11,703	25,800 11,703	25,800 11,703	25,800 11,703	25,800 11,703	25,800 11,703	25,800 11,703	25,800 11,703	25,800 11,703	25,800 11,703	25,800 11,703	25,800 11,703	25,800 11,703	25,800 11,703	21,100 9,571	21,100 9,571	78.5°	13,900 6,305	13,900 6,305	
25' 7.62 m	18,300 8,301	19,600 8,891	18,300 8,301	19,600 8,891	18,300 8,301	19,600 8,891	18,300 8,301	19,600 8,891	18,300 8,301	19,600 8,891	18,300 8,301	19,600 8,891	18,300 8,301	19,600 8,891	18,300 8,301	19,600 8,891	75.5°	12,800 5,806	12,800 5,806	
30' 9.14 m			13,400 6,078	15,700 7,122	13,400 6,078	15,700 7,122	13,400 6,078	15,700 7,122	13,400 6,078	15,700 7,122	13,400 6,078	15,700 7,122	13,400 6,078	15,700 7,122	13,400 6,078	15,700 7,122	72.5°	11,300 5,126	11,300 5,126	
35' 10.67 m					10,200 4,627	12,200 5,534	10,200 4,627	12,200 5,534	10,200 4,627	12,200 5,534	10,200 4,627	12,200 5,534	10,200 4,627	12,200 5,534	10,200 4,627	12,200 5,534	69.5°	9,900 4,491	9,900 4,491	
40' 12.19 m							8,000 3,629	9,600 4,355	8,000 3,629	9,600 4,355	8,000 3,629	9,600 4,355	8,000 3,629	9,600 4,355	8,000 3,629	9,600 4,355	66.0°	8,700 3,946	8,700 3,946	
45' 13.72 m									6,500 2,948	7,800 3,538	6,500 2,948	7,800 3,538	6,500 2,948	7,800 3,538	6,500 2,948	7,800 3,538	62.5°	7,400 3,357	7,900 3,583	
50' 15.24 m											5,300 2,404	6,500 2,948	5,300 2,404	6,500 2,948	5,300 2,404	6,500 2,948	59.0°	6,100 2,767	7,300 3,311	
55' 16.76 m											4,300 1,950	5,400 2,449	4,300 1,950	5,400 2,449	4,300 1,950	5,400 2,449	55.5°	5,100 2,313	6,100 2,767	
60' 18.29 m													3,500 1,588	4,500 2,041	3,500 1,588	4,500 2,041	51.5°	4,300 1,950	5,300 2,404	
65' 19.81 m															2,900 1,315	3,800 1,724	47.5°	3,600 1,633	4,500 2,041	
70' 21.34 m																	42.5°	3,100 1,406	3,900 1,769	
75' 22.86 m																	37.5°	2,600 1,179	3,300 1,497	
80' 24.38 m																	32.0°	2,200 998	2,900 1,315	
90' 27.43 m																	14.5°	1,500 680	2,100 953	

① Boom sections must be extended equal distances.
② Capacities are determined by boom angle only.

Wire rope size and type

Wire rope application	Size and type used	Wire rope description
Main winch Auxiliary winch	9/16" (14 mm) diameter, Type "N" 9/16" (14 mm) diameter, Type "N"	Type "N" - 6 x 25 (6 x 19 class) filler wire, extra improved plow steel, preformed, independent wire rope core, right lay, regular lay.

Tire Inflation

Tires	PR	Stationary	'Pick & Carry'
16.00 x 24	16	80 p.s.i. (5.52 Bars)	80 p.s.i. (5.52 Bars)
20.50 x 25	20	80 p.s.i. (5.52 Bars)	80 p.s.i. (5.52 Bars)

GENERAL INFORMATION ONLY

Refer to Operating Instructions page 4

Capacities ^① On Tires ^② – 3-Section Boom									
Load Radius	Max. Boom Length	16.00 x 24 (16-PR)				20.50 x 25 (20-PR)			
		Pick & Carry ^③		Stationary		Pick & Carry ^③		Stationary	
		Front	360°	Front	360°	Front	360°	Front	360°
10' 3.05m	28.75' 8.76m	29,300 13,290	19,700 8,936	29,700 13,472	29,200 13,245	21,700 9,843	29,900 13,563		
12' 3.66m	28.75' 8.76m	25,400 11,521	14,600 6,623	26,300 11,930	25,400 11,521	16,000 7,258	26,400 11,975		
15' 4.57m	28.75' 8.76m	20,900 9,480	10,000 4,536	21,300 9,662	20,900 9,480	11,000 4,990	21,500 9,752		
20' 6.10m	28.75' 8.76m	12,900 5,851	6,000 2,722	12,900 5,851	13,300 6,033	6,700 3,039	13,300 6,033		
25' 7.62m	28.75' 8.76m	8,700 3,946	3,700 1,678	8,700 3,946	9,000 4,082	4,200 1,905	9,000 4,082		
30' 9.14m	35.0' 10.67m	6,400 2,903	2,500 1,134	6,400 2,903	6,600 2,994	2,900 1,315	6,600 2,994		
35' 10.67m	40.0' 12.19m	4,800 2,177	1,600 726	4,800 2,177	5,000 2,268	2,000 907	5,000 2,268		
40' 12.19m	46.0' 14.02m	3,700 1,678	1,000 454	3,700 1,678	3,800 1,724	1,300 590	3,800 1,724		
45' 13.72m	52.0' 15.85m	2,900 1,315		2,900 1,315	3,000 1,361		3,000 1,361		
50' 15.24m	58.0' 17.68m	2,200 998		2,200 998	2,300 1,043		2,300 1,043		
55' 16.76m	58.0' 17.68m	1,600 726		1,600 726	1,700 771		1,700 771		
60' 18.29m	64.0' 19.51m	1,300 590		1,300 590	1,400 635		1,400 635		
65' 19.81m	70.25' 21.41m				1,000 454		1,000 454		

- ① Off main boom head only. Boom sections must be extended equal distances.
- ② Refer to tire inflation chart.
- ③ See Operating Instructions; Set-up Note Number 3.

Line Speeds and Pulls

Wire Rope Layer	Speed	Main or auxiliary winch 12' (0.30 m) drum				Main or auxiliary winch 13.25' (0.34 m) drum			
		Line Speeds		Available Line Pulls		Line Speeds		Available Line Pulls	
		(fpm)	(m/min)	(Lbs.)	(Kgs.)	(fpm)	(m/min)	(Lbs.)	(Kgs.)
1	Low	161	49.07	9,600	4,355	177	53.95	9,015	4,089
	High ^①	287	87.48	5,510	2,499	315	96.01	5,020	2,277
2	Low	175	53.34	9,090	4,123	191	58.22	8,350	3,787
	High ^①	313	95.40	5,060	2,295	341	103.94	4,650	2,109
3	Low	190	57.91	8,400	3,810	205	62.48	7,770	3,524
	High ^①	339	103.33	4,680	2,123	366	111.56	4,330	1,964
4	Low	204	62.18	7,810	3,543	219	66.75	7,270	3,298
	High ^①	365	111.25	4,340	1,969	391	119.18	4,050	1,837
5	Low	218	66.45	7,290	3,307	233	71.02	6,830	3,098
	High ^①	390	118.87	4,060	1,842	417	127.10	3,800	1,724
6	Low	233	71.02	6,840	3,103	246	74.98	6,440	2,912
	High ^①	416	126.80	3,810	1,728	443	135.03	3,590	1,628

① Two-speed motor optional

Jib Capacities			
14.5' (4.42 m) A-Frame Jib			
Boom angle	Jib Offset		
	10°	20°	30°
80°	11,500* 5,216	8,700 3,946	5,900 2,676
75°	9,900* 4,491	7,800 3,538	5,100 2,313
70°	8,500 3,856	6,700 3,039	4,600 2,087
65°	7,600 3,447	6,100 2,767	4,400 1,996
60°	7,000 3,175	5,500 2,495	4,000 1,814
55°	5,400 2,449	4,900 2,223	3,800 1,724
50°	4,500 2,041	4,000 1,814	3,600 1,633
45°	3,600 1,633	3,300 1,497	3,200 1,452
40°	3,100 1,406	2,900 1,315	2,800 1,270
35°	2,700 1,225	2,700 1,225	2,700 1,225
30°	2,200 998	2,200 998	2,200 998

* 11,500 & 9,900 lb. capacity require two parts line. All other capacities must be picked using one part of line.

Capacity Deductions for Auxiliary Load Handling Equipment	
Aux. Head	100 lb. (45.36 kg)
Fly Stowed	300 lb. (136.08 kg)
Fly Erected	800 lb. (362.88 kg)
Jib Stowed	500 lb. (226.8 kg)
Jib Erected	800 lb. (362.88 kg)

Drum Wire Rope Capacities

Wire Rope Layer	Main or auxiliary winch 12' (0.30 m) root diameter smooth lagging				Main or auxiliary winch 13.25' (0.34 m) root diameter grooved lagging*			
	Wire Rope Diameter = 0.5625 in. (14.3 mm)							
	Capacity		Capacity		Capacity		Capacity	
Rope Per Layer	Total Wire Rope	Rope Per Layer	Total Wire Rope	Rope Per Layer	Total Wire Rope	Rope Per Layer	Total Wire Rope	
Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters	
1	82	25.0	82	25.0	94	28.7	94	28.7
2	93	28.3	175	53.3	106	32.3	200	61.0
3	101	30.8	276	84.1	109	33.2	309	94.2
4	108	32.9	384	117.0	117	35.7	426	129.8
5	112	34.1	496	151.2	125	38.1	551	167.9
6	119	36.3	615	187.5	132	40.2	683	208.2

*Optional equipment – recommended for export use only, 25:1 ratio.

GENERAL INFORMATION ONLY

HSP-8028S Warning and Operating Instructions

General:

1. Rated lifting capacities in pounds as shown on lift chart pertain to this machine as originally manufactured and normally equipped by Link-Belt Construction Equipment Company. Modifications to the machine 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 machine must be in compliance with the information in the operator's parts and safety manuals supplied with this machine. If these manuals are missing, order replacements through the distributor.
3. The operator and other personnel associated with this machine shall fully acquaint themselves with the latest applicable American National Standards Institute (ANSI) safety standards for cranes.
4. The maximum allowable lifting capacities are based on machine standing level on firm supporting surface.
5. All capacities are in pounds with metric equivalent in *italics*.

Set-Up:

1. The machine shall be leveled on a firm supporting surface. Depending on the nature of the supporting surface, it may be necessary to have structural supports under the outrigger floats or tires to spread the load to a larger bearing surface.
2. When making lifts on outriggers, outrigger beams must be fully extended with tires free of supporting surface. Crane capacities on tires depend on tire capacity, condition of tires, and tire air pressure. On tire picks require lifting from main boom head only on a smooth and level surface. Boom sections must be extended equally. Pick and carry operations (creep) are restricted to a maximum speed of 1 m.p.h. and not exceeding 200 ft. in a 30 minute swing. The boom must be centered over front with swinglock engaged and the load must be restrained from swinging. Lifts with fly or jib erected on tires are prohibited.

Operation:

1. Rated lifting capacities at rated radius shall not be exceeded. Do not tip machine to determine allowable load. For concrete bucket operation, weight of bucket and load shall not exceed 80% of rated lifting capacity. For clamshell bucket operation, weight of bucket and bucket content is restricted to a maximum weight of 5,000 pounds or 80% of rated lifting capacity, whichever is less. For magnet operation, weight of magnet and load is restricted to a maximum weight of 5,000 pounds or 80% of rated lifting capacity, whichever is less. For clamshell and magnet operation, maximum boom length is restricted to 46 feet and the boom angle is restricted to a minimum of 35°. The fly is prohibited and the jib is prohibited for both clam and magnet operation.
2. Crane capacities on outriggers do not exceed 85% of the tipping loads and capacities on tires do not exceed 75% of the tipping loads as determined by SAE Crane Stability Test Code J-765a.
3. The crane capacities above the bold lines are based on structural strength or hydraulic limitations.
4. Rated lifting capacities include the weight of hook block, slings, bucket, magnet and auxiliary lifting devices. Their weights must be subtracted from the listed rated load to obtain the net load to be lifted. See also deductions for auxiliary head, fly and jib.
5. Rated lifting capacities are based on freely suspended loads. No attempt shall be made to move a load horizontally on the ground in any direction.
6. Rated lifting capacities are for lift crane service only.
7. Do not operate at radii or boom lengths where capacities are not listed. At these positions, the machine can overturn without any load on the hook.
8. The maximum loads which can be telescoped are not definable because of variation in loadings and crane maintenance, but it is permissible to attempt retraction and extension within the limits of the load rating chart.

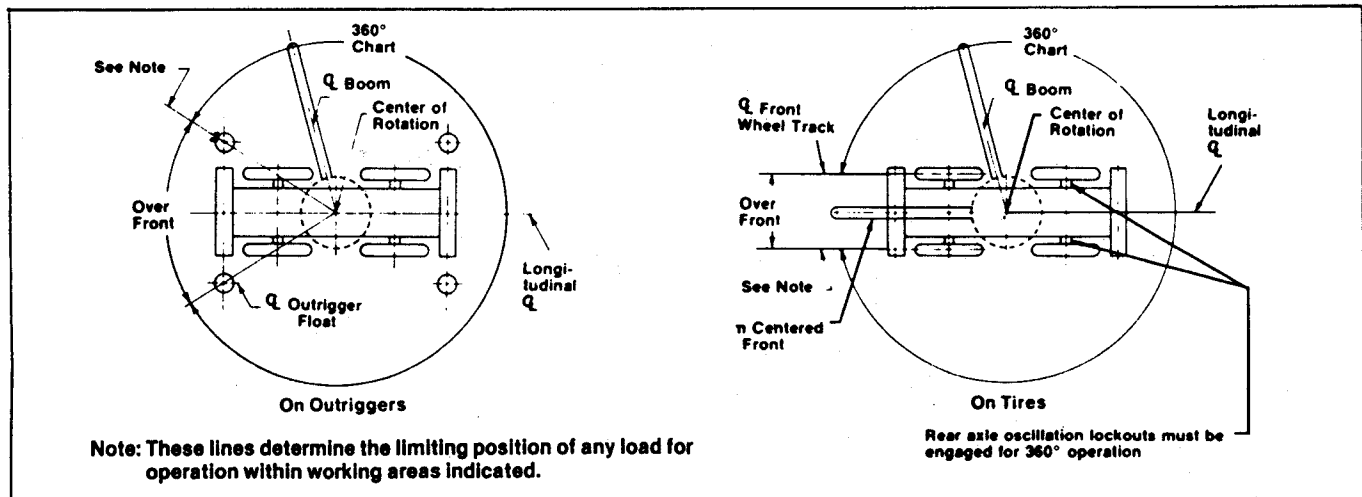
9. When either boom length or radius or both are between values listed, the smallest load shown at either the next larger radius or the next longer or shorter boom length shall be used.
10. The user shall operate at reduced ratings to allow for adverse job conditions such as: soft or uneven ground, out of level conditions, wind, side loads, pendulum action, jerking or sudden stopping of loads, hazardous conditions, experience of personnel, two machine lifts, traveling with loads, electrical wires, etc. Side load on boom, fly or jib is extremely dangerous.
11. When making lifts with auxiliary head machinery, the effective length of the boom increases by 2 feet. Effective length of boom is length shown on boom length indicator plus 2 feet.
12. Power sections must be extended equally.
13. For boom lengths with fly less than 94.25 ft., the rated loads are determined by boom angle only in the column headed by 94.25 ft. For angles not shown, use next lower boom angle to determine allowable capacity.
14. The 28.75 ft. boom length capacities are based on boom fully retracted. If not fully retracted, do not exceed ratings for the 35 ft. boom length.
15. The 14.5 ft. jib capacities are based on main boom angle regardless of main boom length. For angles not shown, use next lower boom angle to determine allowable capacity. Capacity values are for 360° operation.

Definitions:

1. Load Radius: Horizontal distance from a projection of the axis of rotation to the supporting surface before loading to the center of the vertical hoist line or tackle with load applied.
2. Loaded Boom Angle: The angle between the boom base section and the horizontal after lifting the load at the rated radius. The boom angle, before loading, should be greater to account for deflections.
3. Working Area: Area measured in a circular arc about the centerline of rotation as shown on the working area diagram.
4. Freely Suspended Load: Load hanging free with no direct external force applied except by the hoist line.
5. Side Load: Horizontal side force applied to the lifted load either on the ground or in the air.

GENERAL INFORMATION ONLY

HSP-8028S Working Areas



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Link-Belt Construction Equipment Company Lexington, Kentucky

