

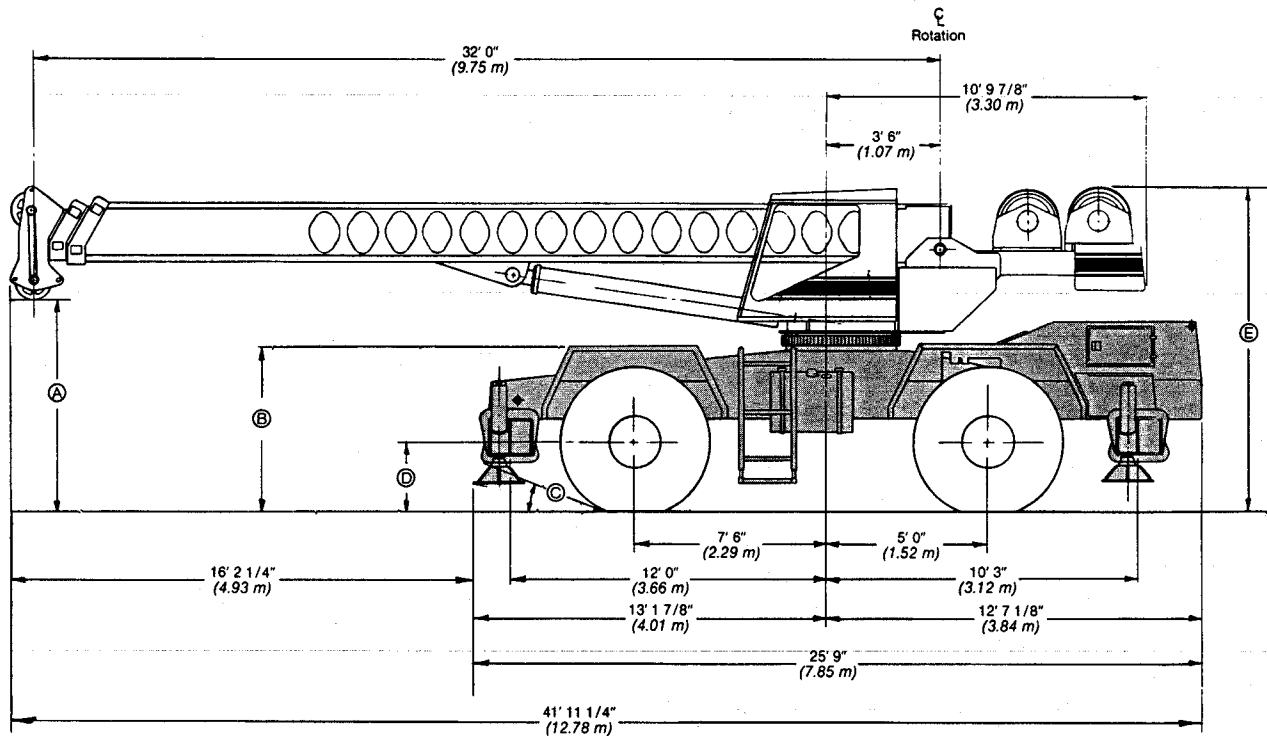
Specifications

Hydraulic Rough Terrain Crane

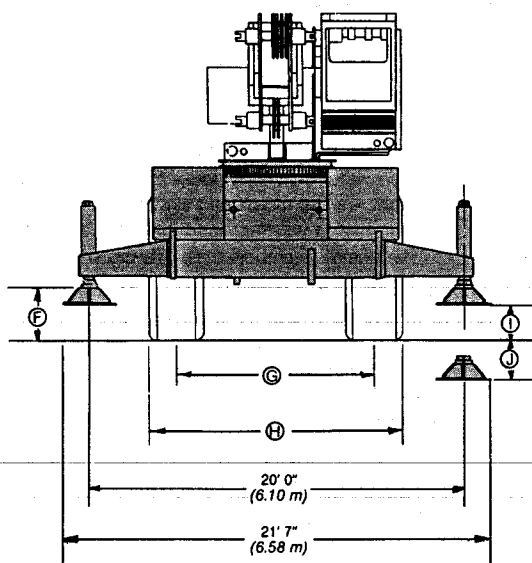
GENERAL INFORMATION ONLY

HSP-8030

30 Ton (27.22 metric ton)



Not to scale



Not to scale

General dimensions	feet	meters
Turning radius (4-wheel steer)	19' 4"	5.89
Tailswing of counterweight:	11' 1"	3.38

Dimensions affected by tires

Tires	20.5 x 25 (24-PR)		23.5 x 25 (20-PR)	
	feet	meters	feet	meters
A	7' 3"	2.21	7' 5"	2.26
B	5' 9"	1.75	5' 10"	1.78
C	22° 5'	—	24° 4'	—
D	2' 3"	.68	2' 4"	.71
E	11' 6"	3.50	11' 8"	3.55
F	18.26"	.46	20.16"	.51
G	7' 6"	2.29	7' 5"	2.26
H	9' 3"	2.82	9' 5"	2.87
I	11.26"	.29	13.16"	.33
J	7.29"	.18	4.89"	.12

Upperstructure

■ Boom

Link-Belt patented design. Boom side plates have diamond shaped impressions for superior strength to weight ratio and 100,000 psi (689.5 MPa) steel angle chord for lateral stiffness. Boom sections are supported by wear shoes both vertically and horizontally. Anti two block, electronic boom length/angle indicator and function kickout.

Load Moment Indicator — Optional; Audio-visual warning system with anti-two block and function kickouts. Constant display of boom length and angle, tip height, radius of load, machine configuration, allowed load, actual load and % of allowed load. Presettable alarms for maximum and minimum boom angles, maximum tip height and maximum boom length.

Standard boom — 32' 0" - 80' 0"
(9.75 m-24.38 m) 3-section full power boom.

Optional boom — 32' 0" - 101' 0"
(9.75 m-30.78 m) 4-section boom includes base section, two power sections, and manual fourth section. Fourth section is power pinned by manually activating a cylinder locking system.

Boom head — Standard; Three 14-1/2" (0.37 m) root diameter head sheaves with four 14-1/2" (0.37 m) available to handle up to 8 parts of wire rope. Two easily removable wire rope guards; rope dead end lugs provided on each side of boom head. Meets 24:1 ratio European safety code with 5/8" (16 mm) wire rope.

Auxiliary lifting sheave — Optional; Single 14-1/2" (0.37 m) root diameter head sheave with removable wire rope guard, mounted to boom, for use with one or two parts of line off the optional auxiliary winch. Does not affect erection of fly or jib, or use of main head sheave for multiple reeving.

Boom elevation — One hydraulic cylinder with holding valve. Self-aligning steel bushings. Hand and optional foot controls for controlling the boom elevation from -3° to 80°.

■ Fly

Optional — 29' 0" (8.84 m) stowable one-piece lattice type with 2° offset.

■ Jib

Optional — 21' 0" (6.40 m) stowable A-frame. Can be offset 5°, 17.5°, and 30°. Attaches to fly only.

■ Cab and Controls

Environmental cab; isolated from sound and vibration by a neoprene seal. All windows are tinted and tempered safety glass. Sliding rear and right side windows and swing up roof window for maximum visibility and ventilation. Slide-by-door opens to 3' 0" (0.91 m) width. 6-way adjustable operator's seat. 4-way adjustable tilt/telescoping steering wheel. Control levers for swing, boom telescope, winch and boom hoist with foot control swing brake. Outrigger controls, sight level bubble. Optional foot control for boom hoist.

Cab instrumentation — Dash mounted gauges for hydraulic oil temperature, converter temperature, oil pressure, water temperature, fuel and volt-meter.

■ Swing

Bi-directional hydraulic swing motor mounted to a planetary reducer for 360° continuous smooth swing at 2.05 r.p.m.

Swing brake — Standard; foot operated, spring released disc brake mounted on the speed reducer.

Swing lock — Standard; 360° position pin-type and two position travel lock operated from the operator's cab.

Counterweight — Pinned to upperstructure frame.

■ Hydraulic System

Main pump — Triple gear-type pump. Combined pump capacity 110 gpm (416.35 lpm). Powered by torque converter through a pump disconnect. Pump disconnect is a jaw-type clutch engaged/disengaged from carrier. Maximum system pressure at 2900 p.s.i. (199.94 Bars).

Steering/outrigger pump — Single gear-type pump, 21 gpm (79.5 lpm) maximum capacity. Powered by torque converter through a straight mechanical drive. Pump operates at 2,500 p.s.i. (172.37 bars).

Reservoir — 110 gallon (416.0 L) capacity. Diffusers for deaeration.

Filtration — One six-micron filter located inside of the hydraulic reservoir. Accessible for easy replacement.

Control valves — Six separate control valves allow simultaneous operation of all crane functions.

■ Load Hoist System

Standard — Model 2M main winch with two-speed motor and automatic brake; power up/power down mode of operation. Bi-directional gear type hydraulic motor.

Optional — Model 2M auxiliary winch with two-speed motor and automatic brake, power up/power down mode of operation. Bi-directional, gear-type hydraulic motor.

Optional — Model 3M winch with power up/power down, two-speed motor and exclusive controlled true gravity free fall. Available on main winch only.

Line pulls and speeds — Maximum line pull 11,700 lbs. (5 307 kg) and maximum line speed 413 f.p.m. (125.88 m/min.) on 10 5/8" (0.27 m) root diameter standard smooth drum.

■ Additional Equipment - Standard

Rear view mirrors, seat belt, fire extinguisher, backup alarm, travel lights and sound suppressed cab.

■ Additional Upperstructure Equipment - Optional

Propane heater, diesel heater, air conditioning, drum rotation indicators, 25-ton (22.68 metric ton) or 35-ton (31.75 metric ton) hook block, 8-1/2 ton (7.71 metric ton) hook ball and swivel, rear steer indicator, boom-mounted working light, engine monitoring system, top hatch wiper, windshield washer, hand throttle, lifting lugs, tachometer, amber rotating beacon, cab spotlight and boom hoist foot control.

GENERAL INFORMATION ONLY

Carrier

■ Type

Link-Belt 9' 3" (2.75 m) wide, 150" (3.81 m) wheelbase.

4 x 4 x 4 — (4-wheel steer, 4-wheel drive)

Standard; for rough terrain with limited turning area.

4 x 4 x 4 — (4-wheel steer, 4-wheel drive)

Optional; no spin differential on front axle; for rough terrain with limited turning area.

Frame - 100,000 p.s.i. (689.5 MPa) steel, double walled construction with integral 100,000 p.s.i. (689.5 MPa) steel outrigger boxes.

■ Axles

Front - Standard; — heavy duty planetary drive/steer type.

Rear - Standard; — heavy duty planetary drive/steer type.

Front - Optional — heavy duty no-spin high traction differential, planetary drive/steer type.

■ Suspension

Front axle — Rigid mounted to frame.

Rear axle — Pin-mounted on bronze bushings. Automatic hydraulic rear axle oscillation lock-out cylinders engage when upperstructure rotates past 2-1/2° of centerline.

■ Tires

Front and rear

Standard — 20.5 x 25 (24-PR)
Earthmover type

Optional — 23.5 x 25 (20-PR)
Earthmover type

■ Brakes

Service — Air over hydraulic, drum-type brakes at each wheel end. Drum diameter 17-1/2" (0.44 m). Shoe width 4" (.10 m).

Parking/emergency — Disc caliper type spring applied, air released, fade resistant; cab controlled, mounted on front axle.

■ Steering

Hydraulic two wheel, four wheel and "crab" steering.

■ Transmission

3-speed, 2-range power shift transmission. Six speeds available forward and 2 reverse. Front axle disconnect for two or four-wheel drive.

■ Outriggers

Four hydraulic, beam and jack outriggers. Vertical jack cylinders equipped with integral holding valve. Beams extend to 20' 0" (6.10 m) centerline-to-centerline and retract to within 9' 3" (2.82 m) overall width with floats stored. Equipped with stowable, lightweight 19" (0.48 m) diameter floats. Controls and sight level bubble located in upperstructure cab.

■ Additional Equipment - Standard

Cab steps, 2 front carrier steps, skid resistant finish on carrier deck, storage compartment and fenders.

■ Additional Equipment - Optional

Towing shackles, ether injection, no-spin differential on front axle, spare tires and rims, pintle hook, jack cylinder hose covers, propane fired engine block heater, air dryer, lifting lugs and emergency steering system.

Travel Speeds and Gradeability

Engine	Tires	Maximum Speed		Gradeability at stall	Maximum tractive effort at stall		Gradeability at 1.0 mph (1.61 km/h)	Maximum tractive effort at 1.0 mph (1.61 km/h)	
		mph	km/h		pounds	kg		pounds	kg
Cummins 6BT5.9	20.5 x 25	21.9	35.23	89.0%	40,396	18 324	50.6%	27,807	12 613
	*23.5 x 25	22.8	36.68	78.9%	37,712	17 106	46.3%	25,960	11 775
Detroit Diesel 4-53T	20.5 x 25	21.6	34.79	84.0%	41,063	18 626	49.0%	28,298	12 835
	*23.5 x 25	22.4	36.04	78.4%	38,335	17 338	45.7%	26,418	11 983

* Optional Equipment

Engine	Cummins 6BT5.9	Detroit Diesel 4-53T *
Cylinders - cycle	6-4	4-2
Bore	4.02" (.10m)	3.875" (.10 m)
Stroke	4.72" (.12m)	4 1/2" (.11 m)
Displacement	359.0 cu. in. (5 884 cm ³)	212 cu. in. (3 474 cm ³)
Maximum brake h.p.	152 @ 2500 r.p.m.	165 @ 2,500 r.p.m.
Peak torque	400 ft. lbs. (542 J)	412 ft. lbs. (559 J)
Electrical system	12 volt negative ground	12 volt negative ground
Fuel capacity	75 gal. (283 L)	75 gal. (283 L)
Alternator	80 amps	80 amps
Crankcase capacity	4.1 gal. (15.52 L)	4.0 gal. (15 L)
Air compressor	9.5 c.f.m. (.27 m ³ /min)	12 c.f.m. (.34 m ³ /min)

* Optional Equipment

GENERAL INFORMATION ONLY

Axle Loads

Base machine with standard 32'-80' (9.75 m-24.38 m) 3-section boom, main winch with 2-speed hoisting and power up/down, 450' (137.16 m) 5/8" (16 mm) wire rope, 4x4x4 carrier with Cummins 6BT5.9 engine, 20.5x25 tires, full fuel, counterweight, 3-sheave head machinery.	GVW [Ⓞ]		Upper facing front				Upper facing rear			
			Front axle		Rear axle		Front axle		Rear axle	
		lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.
	52,271	23 710	23,744	10 770	28,527	12 940	15,084	6 842	37,187	16 868
32' - 101' (9.57 m-30.78 m) 4-section boom	3,120	1 415	2,891	1 311	229	104	-395	-179	3,515	1 594
Free fall main winch with 450' (137.16m) rope	140	63	-26	-12	166	75	138	63	2	1
Power up/down auxiliary winch with 350' (106.75 m) rope	620	281	108	49	512	232	388	176	232	105
29' (8.8 m) lattice fly stowed	1,080	490	1,334	605	-254	-115	-470	-213	1,550	703
21' (6.40 m) A-frame jib stowed	970	440	1,093	496	-123	-56	-317	-144	1,287	584
Hook block at bumper	650	295	884	401	-234	-106	—	—	—	—
Headache ball at bumper	325	148	441	200	-116	-52	—	—	—	—
Auxiliary lifting sheave	125	57	350	159	-225	-102	-250	-113	375	170
23.5 x 25 tires	112	51	56	25	56	25	—	—	—	—

[Ⓞ] Adjust gross vehicle weight and axle loading according to components weight.

Note: All weights are \pm 3%.

Tire	Max. Axle Load @ 20 mph (32.7 km/h)
20.50 x 25 (24-PR)	31,000 lbs. (14 060 kg)
23.50 x 25 (20-PR)	31,000 lbs. (14 060 kg)

GENERAL INFORMATION ONLY

• Link-Belt is a registered trademark.

We are constantly improving our products and therefore reserve the right to change designs and specifications.

Link-Belt Construction Equipment Company Lexington, Kentucky

A unit of Sumitomo Construction Machinery Co., Ltd.

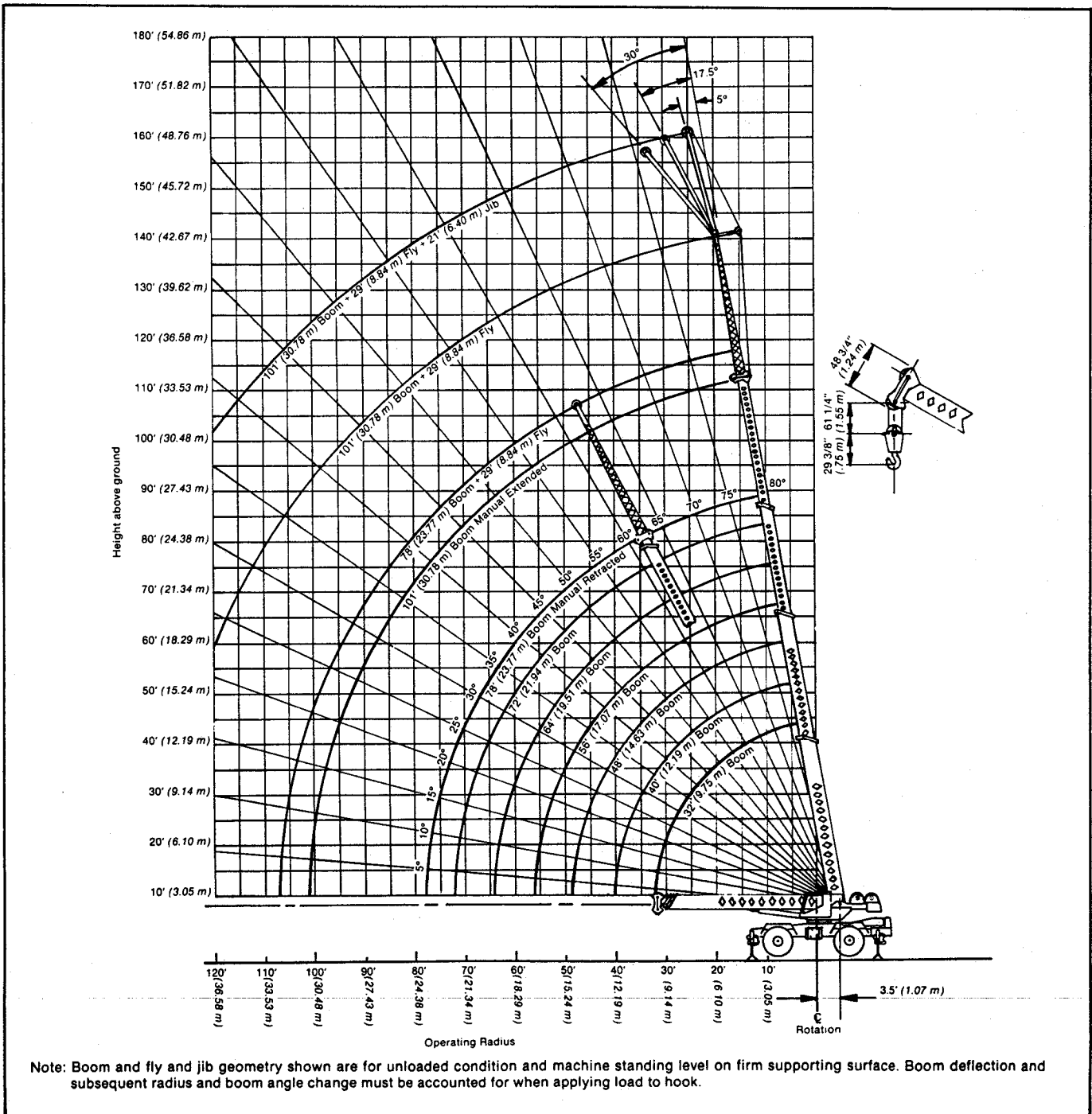
Lifting Capacities

Hydraulic Rough Terrain Crane

GENERAL INFORMATION ONLY

HSP-8030 30-ton (27.22 metric ton)

4-Section Boom



HSP-8030 Lifting Capacities

32'-101' (9.75 m - 30.78 m) 4-section boom

Refer to Operating Instructions page 4

Capacities On Outriggers ^① Manual Section Retracted

Load Radius	32' (9.75 m)		40' (12.19 m)		48' (14.63 m)		56' (17.07 m)		64' (19.50 m)		72' (21.95 m)		78' (23.77 m)		107' (32.61 m) 78' (23.77 m) boom plus 29' (8.84 m) fly		
	Front	360°	Front	360°	Front	360°	Front	360°	Front	360°	Front	360°	Front	360°	Boom Angle	Front	360°
10' 3.05 m	60,000 27 216	60,000 27 216	51,800 23 496	51,800 23 496	50,900 23 088	50,900 23 088	50,400 22 861	50,400 22 861	41,700 18 915	41,700 18 915							
12' 3.66 m	60,000 27 216	57,300 25 991	51,800 23 496	51,800 23 496	50,900 23 088	50,900 23 088	50,400 22 861	50,400 22 861	38,600 17 509	38,600 17 509	32,300 14 651	32,300 14 651			See Note ^②		
15' 4.57 m	53,200 24 131	48,900 22 181	51,100 23 179	48,900 22 181	48,400 21 954	48,400 21 954	45,900 20 820	45,900 20 820	34,600 15 694	34,600 15 694	29,200 13 245	29,200 13 245	24,700 11 204	24,700 11 204			
20' 6.10 m	38,300 17 373	36,300 16 466	38,300 17 373	36,300 16 466	38,300 17 373	36,300 16 466	37,000 16 783	36,300 16 466	29,200 13 245	29,200 13 245	25,000 11 340	25,000 11 340	22,600 10 251	22,600 10 251	79°	14,500 6 577	14,500 6 577
25' 7.62 m	29,300 13 290	27,800 12 610	29,300 13 290	27,800 12 610	29,300 13 290	27,800 12 610	29,300 13 290	27,800 12 610	25,200 11 431	25,200 11 431	21,400 9 707	21,400 9 707	19,400 8 800	19,400 8 800	77°	13,600 6 169	13,600 6 169
30' 9.14 m			23,400 10 614	19,600 8 891	23,400 10 614	19,600 8 891	23,400 10 614	19,600 8 891	22,100 10 024	19,600 8 891	18,900 8 573	18,900 8 573	17,100 7 756	17,100 7 756	74°	12,100 5 489	12,100 5 489
35' 10.67 m					19,200 8 936	14,600 6 623	19,200 8 709	14,600 6 623	14,600 6 623	14,600 6 623	16,800 7 620	14,600 6 623	15,200 6 895	14,600 6 623	72°	11,500 5 216	11,500 5 216
40' 12.19 m					15,700 7 122	11,100 5 035	15,700 7 122	11,100 5 035	15,700 7 122	11,100 5 035	15,000 6 804	11,100 5 035	13,600 6 169	11,100 5 035	69°	10,500 4 763	10,500 4 763
45' 13.72 m							12,600 5 715	8,800 3 992	12,600 5 715	8,800 3 992	12,600 5 715	8,800 3 992	12,200 5 534	8,800 3 992	66°	8,700 3 946	8,700 3 946
50' 15.24 m							10,100 4 581	7,000 3 175	10,100 4 581	7,000 3 175	10,100 4 581	7,000 3 175	10,100 4 581	7,000 3 175	63°	7,900 3 583	7,900 3 583
55' 16.76 m									8,300 3 765	5,600 2 540	8,300 3 765	5,600 2 540	8,300 3 765	5,600 2 540	60°	7,200 3 266	6,900 3 130
60' 18.29 m											6,900 3 130	4,500 2 041	6,900 3 130	4,500 2 041	56°	6,600 2 994	5,700 2 586
65' 19.81 m												5,700 2 586	3,500 1 588	5,700 2 586	53°	6,100 2 767	4,700 2 132
70' 21.34 m													4,700 2 132	2,800 1 270	49°	5,600 2 540	4,000 1 814
75' 22.86 m															45°	5,200 2 359	3,300 1 497
80' 24.38 m															41°	4,400 1 996	2,700 1 225
85' 25.91 m															37°	3,800 1 724	2,200 998
90' 27.43 m															31°	3,200 1 452	1,800 816
95' 28.95 m															25°	2,700 1 225	1,400 635
100' 30.48 m															16°	2,300 1 043	1,000 454

Capacities On Tires

Load Radius	Max. Boom Length	Stationary		^③ Creep
		360°	Over Front	Boom Centered Over Front
10' 3.05 m	32' 9.75 m	18,200 8 256	35,500 16 103	28,100 12 746
12' 3.66 m	32' 9.75 m	15,400 6 985	31,500 14 288	24,500 11 113
15' 4.57 m	32' 9.75 m	12,000 5 443	26,500 12 020	20,000 9 072
20' 6.10 m	32' 9.75 m	7,900 3 583	20,600 9 344	14,700 6 668
25' 7.62 m	32' 9.75 m	5,100 2 313	15,600 7 076	11,100 5 035
30' 9.14 m	40' 12.19 m	3,100 1 406	11,200 5 080	8,500 3 856
35' 10.67 m	40' 12.19 m	1,800 816	8,300 3 765	6,600 2 994
40' 12.19 m	48' 14.63 m		6,300 2 858	5,100 2 313
45' 13.72 m	56' 17.07 m		4,800 2 177	4,000 1 814
50' 15.24 m	56' 17.07 m		3,600 1 633	3,000 1 361
55' 16.76 m	64' 19.51 m		2,700 1 225	2,200 998
60' 18.29 m	64' 19.51 m		2,000 907	1,600 726

Wire rope size and type

Wire rope application	Size and type used	Wire rope description
Main winch	5/8" (16 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.
Auxiliary winch	5/8" (16 mm) diameter, Type "N"	

Drum wire rope capacities

Wire rope layer	Main and auxiliary drum 10%" (.27 m) root diameter smooth lagging				Main and auxiliary drum 15%" (.38 m) root diameter grooved lagging			
	% (16 mm) wire rope				% (16 mm) wire rope			
	Rope per layer		Total wire rope		Rope per layer		Total wire rope	
	Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters
1	74	22.55	74	22.55	103	31.39	103	31.39
2	85	25.91	159	48.46	111	33.83	214	65.23
3	90	27.43	249	75.89	120	36.58	334	101.80
4	98	29.87	347	105.76	128	39.01	462	140.82
5	106	32.31	453	138.07	136	41.52	598	182.27
6	115	35.05	568	173.13	144	43.89	742	226.16

Footnotes:

- ① All capacities on outriggers are based on outriggers fully extended with boom sections extended equal distance.
- ② Calculating capacities for extended or retracted boom with manual section retracted plus fly must be based on boom angle only for boom lengths other than those listed. See Operating Instructions Number 16.
- ③ See Operating Instructions; Set-up Number 4.

GENERAL INFORMATION ONLY

HSP-8030 Lifting Capacities
32'-101' (9.75 m - 30.78 m) 4-section boom

Refer to Operating Instructions page 4

Capacities On Outriggers ① Manual Section Extended						
Load radius	101' (30.78 m)			130' (39.62 m) 101' (30.78 m) boom plus 29' (8.84 m) fly		
	Boom angle	Front	360°	Boom angle	Front	360°
	See Note ②			See Note ③		
20' 6.10 m	79°	14,800 6 713	14,800 6 713			
25' 7.62 m	76°	14,300 6 486	14,300 6 486			
30' 9.14 m	74°	13,800 6 260	13,800 6 260	78°	7,000 3 175	7,000 3 175
35' 10.67 m	71°	12,500 5 670	12,500 5 670	76°	7,000 3 175	7,000 3 175
40' 12.19 m	68°	11,100 5 035	11,100 5 035	74°	7,000 3 175	7,000 3 175
45' 13.72 m	65°	9,900 4 491	9,900 4 491	72°	7,000 3 175	7,000 3 175
50' 15.24 m	61°	8,900 4 037	8,200 3 720	70°	6,800 3 084	6,800 3 084
55' 16.76 m	58°	8,100 3 674	6,700 3 039	67°	6,200 2 812	6,200 2 812
60' 18.29 m	54°	7,300 3 311	5,600 2 540	65°	5,700 2 586	5,700 2 586
65' 19.81 m	51°	6,700 3 039	4,600 2 087	62°	5,200 2 359	5,200 2 359
70' 21.34 m	47°	5,900 2 676	3,900 1 769	60°	4,700 2 132	4,400 1 996
75' 22.86 m	42°	5,000 2 268	3,200 1 452	57°	4,200 1 905	3,700 1 678
80' 24.38 m	37°	4,300 1 950	2,600 1 179	54°	3,800 1 724	3,100 1 406
85' 25.91 m	32°	3,700 1 678	2,100 953	51°	3,500 1 588	2,600 1 179
90' 27.43 m	25°	3,100 1 406	1,700 771	48°	3,100 1 406	2,200 998
95' 28.95 m	16°	2,600 1 179	1,300 590	45°	2,800 1 270	1,800 816
100' 30.48 m				41°	2,500 1 134	1,500 680
110' 33.53 m				33°	2,000 907	

- ① All capacities on outriggers are based on outriggers fully extended with boom sections extended equal distance.
- ② Calculating capacities for extended or retracted boom with manual section extended must be based on boom angle only. See Operating Instruction Number 15.
- ③ Calculating capacities for extended or retracted boom with manual section extended plus fly must be based on boom angle only. See Operating Instruction Number 17.
- ④ See Operating Instruction Number 19.

Jib capacities ④			
29' (8.84 m) fly plus 21' (6.40 m) jib			
Boom angle	Jib Offset		
	5°	17.5°	30°
80°	4,000 1 814	4,000 1 814	4,000 1 814
75°	4,000 1 814	4,000 1 814	3,600 1 633
70°	4,000 1 814	3,700 1 678	3,100 1 406
65°	3,400 1 542	3,000 1 361	2,600 1 179
60°	2,300 1 043	2,100 953	1,900 862
55°	1,500 680	1,400 635	1,300 590

Hydraulic circuit pressure settings	
Function	Pressure
Boom hoist	2,900 p.s.i. (199.94 Bars)
Wire rope hoist	2,500 p.s.i. (172.41 Bars)
Swing	1,500 p.s.i. (103.42 Bars) at port relief
Innermid telescope	2,500 p.s.i. (172.41 Bars)
Outermid telescope	2,500 p.s.i. (172.41 Bars)
Steering	2,100 p.s.i. (144.79 Bars)
Outriggers	2,500 p.s.i. (172.41 Bars)
Winch brake and clutch	1,500 p.s.i. (103.41 Bars)

Line speeds and pulls

Layer	Speed	Main or auxiliary winch-10 5/8" (27 m) drum				Main or auxiliary winch-15 1/8" (38 m) drum			
		Line speeds		Line pulls		Line speeds		Line pulls	
				Available				Available	
		F.p.m.	m/min.	Lbs.	kgs.	F.p.m.	m/min.	Lbs.	kgs.
1st	Low	133	40.54	11,700	5 307	186	56.69	9,260	4 200
	High	266	81.08	6,480	2 939	372	113.38	4,630	2 100
2nd	Low	148	45.11	11,670	5 207	201	61.26	8,570	3 887
	High	296	90.22	5 840	2 649	402	122.52	4,290	1 945
3rd	Low	163	49.68	10,610	4 812	216	65.83	7,980	3 619
	High	325	99.06	5,310	2 408	432	131.67	3 990	1 809
4th	Low	177	53.94	9,730	4 413	231	70.40	7,470	3 388
	High	355	108.20	4,860	2 204	462	140.81	3,730	1 691
5th	Low	192	58.52	8,980	4 073	246	74.98	7,020	3 184
	High	384	117.04	4,490	2 036	492	149.96	3,510	1 592
6th	Low	207	63.09	8,340	3 783	261	79.55	6,620	3 003
	High	413	125.88	4,170	1 891	522	159.11	3,310	1 501

Tire inflation

Tires	Ply	Pressure
20.5 x 25	24	80 p.s.i. (5.51 Bars)
18.00 x 25	20	85 p.s.i. (5.86 Bars)
23.5 x 25	20	70 p.s.i. (4.83 Bars)

Deductions For Auxiliary Load Handling Equipment	
Picking From Main Boom With	
Aux. Head	200 Lbs.
Jib Stowed	600 Lbs.
Fly Stowed	600 Lbs.
Fly Erected	1500 Lbs.
Fly & Jib Stowed	1200 Lbs.
Fly & Jib Erected	4200 Lbs.
Picking From 29 Ft. Fly With	
Jib Erected	1300 Lbs.
Jib Stowed	600 Lbs.

HSP-8030 Warning and Operating Instructions

General:

- Rated 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.
- 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.
- 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.
- The maximum allowable lifting capacities are based on this machine standing on firm supporting surface.
- All capacities are in pounds with metric equivalent in *italics*.

Set-Up:

- 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.
- 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 1.0 m.p.h. (1.61 km/h) and not exceeding 200' (60.96 m) in a 30 minute period, the boom must be centered over front with swinglock engaged and the load must be restrained from swinging. Lifts with manual extended, fly or fly-jib combination erected are prohibited on tires.
- When making lifts on rubber, tires must be inflated to the recommended air pressure.

Operation:

- 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 of 6,000 lbs. (2722 kg) or 80% of rated

lifting capacity, whichever is less. For magnet operation, weight of magnet and load is restricted to a maximum of 6,000 lbs. (2722 kg) or 80% of rated lifting capacity, whichever is less. For clamshell and magnet operation, maximum boom length is restricted to 50' (15.24 m) and the boom angle is restricted to a minimum of 35°. Manual extended, fly or fly-jib combinations are prohibited for both clam and magnet operations.

- The crane capacities shown on outriggers do not exceed 85% of the tipping loads and crane capacities on tires do not exceed 75% of the tipping loads as determined by SAE Crane Stability Test Code J-765a.
- The crane capacities above the bold lines are based on structural strength or hydraulic limitations.
- Rated lifting capacities include the weight of hook block, slings, bucket, magnet and auxiliary lifting devices. Their weight 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.
- 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.
- Rated lifting capacities are for lift crane crane service only.
- 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.
- The maximum loads which can be telescoped are not definable because of variations in loadings and crane maintenance, but it is permissible to attempt retraction and extension within the limits of the load rating chart.
- When either boom length or radius or both are between values listed, the smallest load shown at either the next larger radius or boom length shall be used.
- 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 load, hazardous conditions, experience of personnel, two machine lifts, traveling with loads, electrical wires, etc. Side load on boom, fly or jib is extremely dangerous.
- When making lifts with auxiliary head machinery, the effective boom length of the boom increases by 2' (0.61 m). Effective length of boom is length shown on boom length indicator plus 2' (0.61 m).
- Power sections must be extended equally.
- For definition of working area, see working area diagram. The least stable rated working area on outriggers is over the rear. The least stable rated working area on tires is over the side.

- Rated lifting capacities are based on correct reeving. Deduction must be made for excessive reeving. Any reeving over minimum required (see wire rope strength plate) is considered excessive and must be accounted for. Use working range plate to estimate the extra feet of rope then deduct 0.72 lb. (0.33 kg) for each foot of wire rope before attempting to lift a load.
- For boom lengths less than 101' (30.80 m) with manual extended, the rated loads are determined by boom angle only in the second column headed by 101' (30.80 m). For angles not shown, use the next lower boom angle to determine allowable capacity.
- For boom lengths with fly less than 107' (32.63 m) with manual retracted, the rated loads are determined by boom angle only in the column headed by 107' (32.63 m). For angles not shown, use the next lower boom angle to determine allowable capacity.
- For boom lengths with fly less than 130' (39.62 m) with manual extended the rated loads are determined by boom angle only in the column headed by 130' (39.62 m). For angles not shown, use the next lower boom angle to determine allowable capacity. Do not lower 101' (30.80 m) boom with 29' (8.84 m) jib below 29°. Failure to follow Note 18 will result in a tipping condition.
- The 21' (6.40 m) jib capacities are based on main boom angle regardless of the main boom length. For angles not shown use next lower boom angle to determine allowable capacity. Capacity values are for 360° operation. **Warning:** Do not lower 21' (6.40 m) jib in working position below 40° unless boom is fully retracted.
- The 32' (9.75 m) boom length capacities are based on boom fully retracted. If not fully retracted, do not exceed ratings for the 40' (12.19 m) boom length.

Definitions:

- 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.
- 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. The loaded boom angle combined with the boom length give only an approximation of the operating radius.
- Working Area:** Area measured in a circular arc about the centerline of rotation as shown on the working area diagram.
- Freely Suspended Load:** Load hanging free with no direct external force applied except by the hoist line.
- Side Load:** Horizontal side force applied to the lifted load either on the ground or in the air.

HSP-8030 Working Areas

