

50 TON

Hydraulic Rough-Terrain Crane



Boom Lengths: 35' to 110'
Jib Lengths: 33' to 58'

Notes:

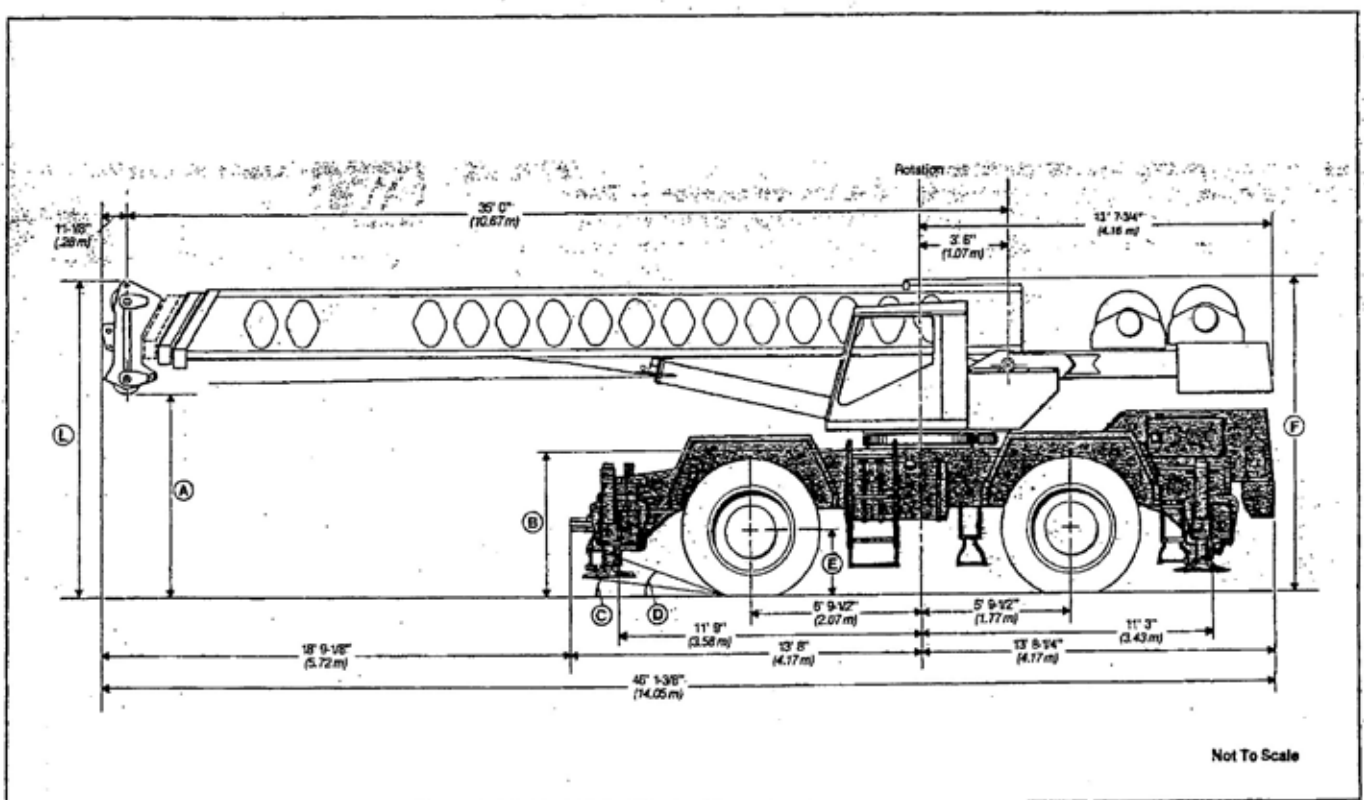


General Specifications

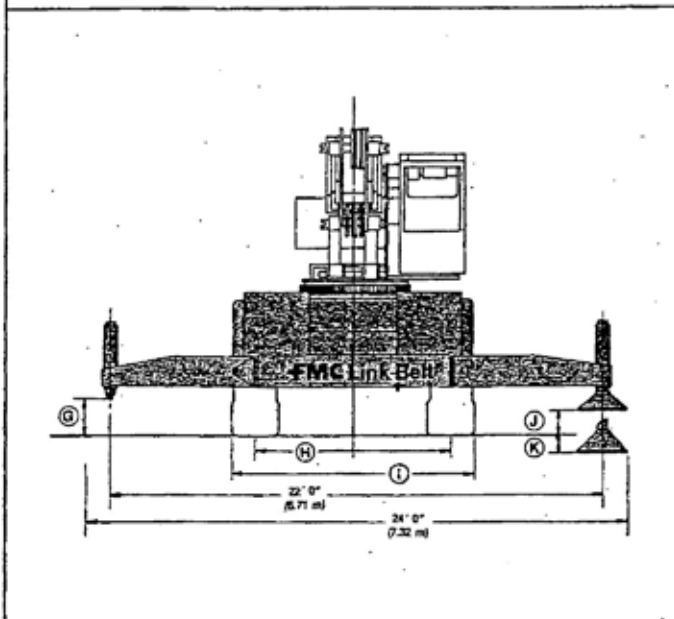
Link-Belt®

Eighty Series Hydraulic Rough Terrain Crane

HSP-8050 50-ton (45.36 metric ton)



Not To Scale



General dimensions	Feet	meters
Turning radius (4-wheel steer) Q_{TIRE}	25'	7.62
Tailswing of counterweight	13' 8-5/8"	4.18

Dimensions affected by tires

Tires	26.5 x 25 (24-PR)		29.5 x 25 (22-PR)	
	Feet	meters	Feet	meters
A	7' 9-1/4"	2.37	7' 10-3/4"	2.41
B	5' 9-1/2"	1.77	5' 11"	1.80
C	9"	—	10.97"	—
D	22"	—	24.5"	—
E	2' 6-3/8"	.77	2' 8"	.81
F	12' 2-1/2"	3.72	12' 4"	3.76
G	1' 7-3/4"	.50	1' 9-5/16"	0.54
H	8' 6-1/2"	2.60	8' 2-1/2"	2.50
I	10' 10"	3.30	10' 9-1/2"	3.28
J	9-3/4"	.25	11-5/16"	.29
K	10"	.25	7-9/32"	.18



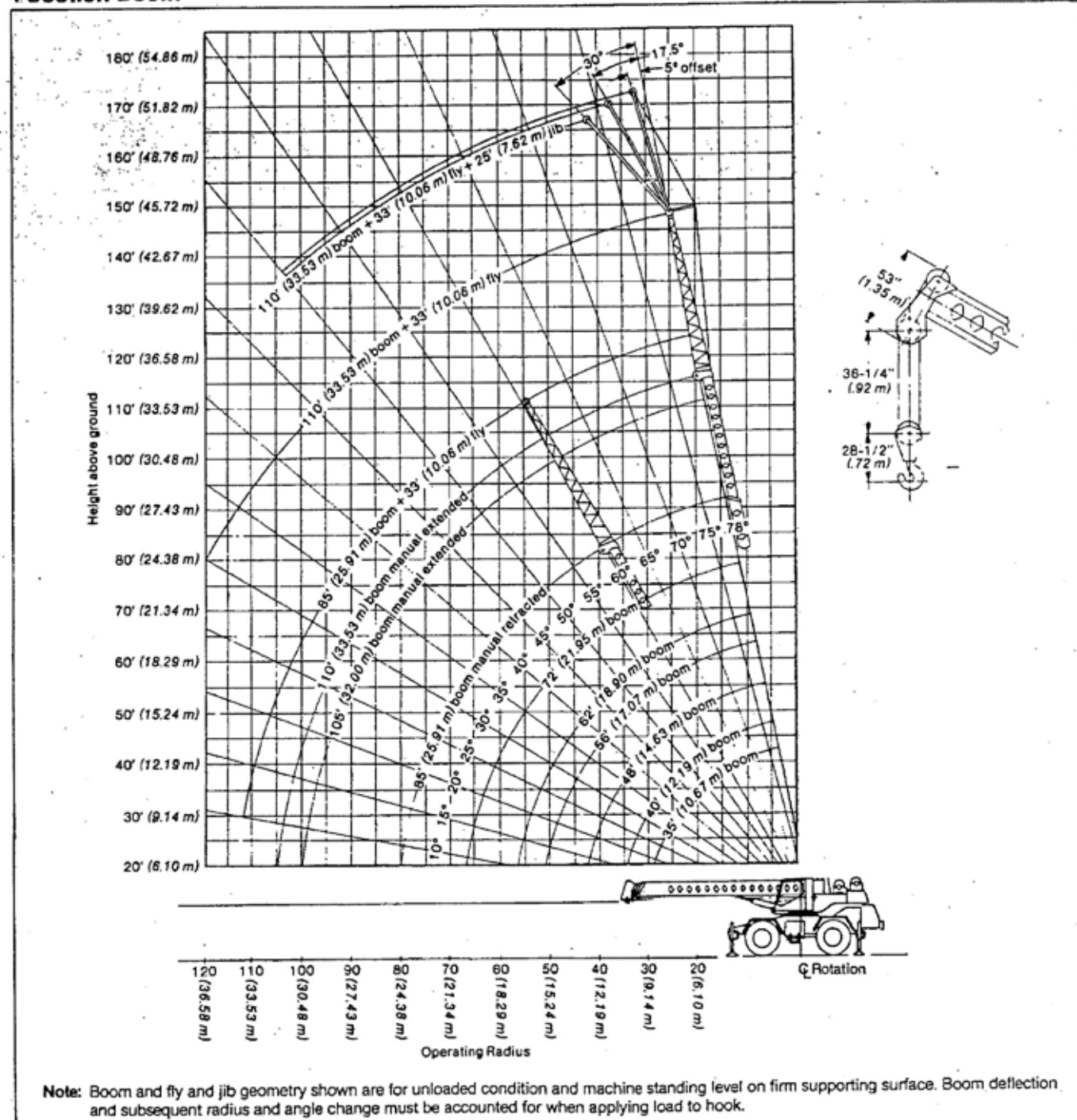
Lifting Capacities

Hydraulic Rough Terrain Crane

PCSA Class 10-213

HSP-8050 50-ton (45.36 metric ton)

4-Section Boom



SP-8050 Lifting Capacities

35'-110' (10.67-33.53 m) 4-section boom

Refer to Operating Instructions page 4

Capacities On Outriggers ^① Manual Section Retracted														77' (23.47 m) boom plus 33' (10.06 m) fly			85' (25.91 m) boom plus 33' (10.06 m) fly									
Load radius	35' (10.67 m)		40' (12.19 m)		48' (14.63 m)		56' (17.07 m)		62' (18.90 m)		72' (21.95 m)		85' (25.91 m)		Boom angle	33' (10.06 m) fly		Boom angle	33' (10.06 m) fly							
	Front	360°	Front	360°	Front	360°	Front	360°	Front	360°	Front	360°	Front	360°		Front	360°		Front	360°						
10' 3.05 m	100,000	100,000	72,100	72,100	70,800	70,800	68,100	68,100							See Note ②	See Note ②	See Note ②	See Note ②	See Note ②	See Note ②						
12' 3.66 m	98,300	98,300	72,100	72,100	70,800	70,800	68,100	68,100	67,600	67,600																
15' 4.57 m	84,000	84,000	71,500	71,500	70,800	70,800	68,100	68,100	59,400	58,400	51,800	51,800														
20' 6.10 m	64,300	64,300	64,300	64,300	64,300	64,300	64,300	64,300	57,200	57,200	48,900	48,900	43,200	43,200												
25' 7.62 m	49,800	49,800	49,800	49,800	49,800	49,800	48,100	48,100	41,300	41,300	36,800	36,800	30,500	30,500	76°	22,200	22,200	77°	18,500	18,500						
30' 9.14 m			40,300	36,800	40,300	36,800	40,300	36,800	35,500	35,500	31,800	31,800	25,800	25,800	74°	22,200	22,200	75°	17,500	17,500						
35' 10.67 m					32,400	27,500	32,400	27,500	32,400	27,500	27,800	27,500	22,200	22,200	71°	20,200	20,000	72°	15,500	15,500						
40' 12.19 m					25,200	21,300	25,200	21,300	25,400	21,300	24,500	21,300	19,400	19,400	68°	18,900	18,900	70°	13,900	13,900						
45' 13.72 m							20,400	17,100	20,400	17,100	20,400	17,100	17,100	17,100	66°	17,300	17,300	67°	12,400	12,400						
50' 15.24 m							16,600	13,900	16,600	13,900	16,600	13,900	15,400	13,900	63°	15,400	15,400	64°	10,900	10,900						
55' 16.76 m									13,900	11,500	13,900	11,500	13,800	11,500	60°	14,300	13,800	62°	9,600	9,600						
60' 18.29 m											11,700	9,600	11,700	9,600	58°	13,200	11,600	59°	8,600	8,600						
65' 19.81 m											9,900	7,900	9,900	7,900	53°	11,900	9,900	56°	7,700	7,700						
70' 21.33 m											8,400	6,700	8,400	6,700	50°	10,400	8,600	53°	6,900	6,900						
75' 22.86 m											6,000	4,500	6,000	4,500	42°	8,000	6,500	46°	5,600	5,600						
80' 24.38 m											4,400	3,583	4,400	3,583	33°	6,200	4,900	39°	4,600	4,400						
85' 25.91 m																										
90' 27.43 m																										
95' 28.96 m																										
100' 30.48 m																										
110' 33.53 m																										

Wire rope application	Size and type used	Wire rope description
Main winch	3/4" (19 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	3/4" (19 mm) diameter, Type "N"	

Drum wire rope capacities

Wire rope layer	Main and auxiliary drum 17" (0.43 m) root diameter smooth and grooved lagging			
	3/4" (19 mm) wire rope			
	Rope per layer		Total wire rope	
	Feet	Meters	Feet	Meters
1	97	29.57	97	29.57
2	111	33.83	208	63.40
3	114	34.75	322	98.15
4	122	37.19	444	135.33
5	130	39.62	574	174.96
6	139	42.37	713	217.32
7	140	42.67	853	259.99

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 plus fly must be based on boom angle only for boom lengths other than those listed. See Operating Instructions Number 14.
- ③ See Operating Instructions; set-up Number 4.

Capacities On Tires

Load Radius	Max. boom length	Pick & Carry ^③	Stationary	
			Over Front	Over Front
10' 3.05 m	35' 10.67 m	58,000 26 309	42,100 19 097	57,300 25 991
12' 3.66 m	35' 10.67 m	50,600 22 952	33,700 15 286	50,500 22 907
15' 4.57 m	35' 10.67 m	42,100 19 097	23,100 10 478	42,700 19 369
20' 6.10 m	35' 10.67 m	32,200 14 606	14,000 6 350	32,700 14 833
25' 7.62 m	35' 10.67 m	22,400 10 160	9,100 4 127	22,600 10 251
30' 9.14 m	40' 12.19 m	15,900 7 212	6,000 2 721	15,900 7 212
35' 10.67 m	40' 12.19 m	11,900 5 398	3,800 1 723	11,900 5 398
40' 12.19 m	48' 14.63 m	9,100 4 127	—	9,100 4 127
45' 13.72 m	56' 17.07 m	7,000 3 175	—	7,000 3 175
50' 15.24 m	56' 17.07 m	5,400 2 449	—	5,400 2 449



HSP-8050 Lifting Capacities

Refer to Operating Instructions page 4

35'-110' (10.67-33.53 m) 4-section boom

Capacities ^① On Outriggers Manual Section Extended									
Load radius	105' (32.00 m)			110' (33.53 m)			110' (33.53 m) boom plus 33' (10.06 m) fly		
	Boom angle	Front	360°	Boom angle	Front	360°	Boom angle	Front	360°
	See Note ②			See Note ②			See Note ③		
25' 7.62 m	76°	20,200 9 163	20,200 9 163	77°	19,000 8 618	19,000 8 027			
30' 9.14 m	73°	20,200 9 163	20,200 9 163	74°	18,500 8 392	18,500 8 392			
35' 10.67 m	71°	20,200 9 163	20,200 9 163	72°	17,600 8 121	17,600 8 121	76°	8,400 4 264	8,400 4 264
40' 12.19 m	68°	18,200 8 256	18,200 8 256	69°	15,500 7 030	15,500 7 030	74°	8,400 4 264	8,400 4 264
45' 13.72 m	65°	16,400 7 439	16,400 7 439	66°	13,700 6 214	13,700 6 214	72°	8,000 4 082	8,000 4 082
50' 15.24 m	62°	15,000 6 804	15,000 6 804	63°	12,100 5 488	12,100 5 488	70°	8,400 3 810	8,400 3 810
55' 16.76 m	59°	13,800 6 260	13,100 5 942	60°	10,700 4 853	10,700 4 853	68°	8,000 3 629	8,000 3 629
60' 18.29 m	55°	12,700 5 760	11,100 5 034	57°	9,700 4 400	9,700 4 400	66°	7,300 3 311	7,300 3 311
65' 19.81 m	52°	11,500 5 216	9,500 4 306	54°	8,700 3 946	8,700 3 946	64°	6,500 2 948	6,500 2 948
70' 21.34 m	48°	9,900 4 490	8,200 3 719	50°	7,800 3 557	7,800 3 557	61°	5,700 2 586	5,700 2 586
80' 24.38 m	39°	7,500 3 401	6,100 2 767	43°	6,400 2 903	6,000 2 721	56°	4,600 2 087	4,600 2 087
90' 27.43 m	29°	5,800 2 631	4,500 2 040	34°	5,500 2 495	4,400 1 995	51°	3,600 1 633	3,600 1 633
100' 30.48 m	12°	4,400 1 996	3,200 1 451	22°	4,300 1 950	3,200 1 451	46°	2,800 1 270	2,800 1 270
110' 33.53 m							39°	2,100 953	2,100 953
120' 36.58 m							32°	1,500 680	1,500 680

- 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 Instructions Number 13.
- ③ Calculating capacities for extended or retracted boom with manual section extended plus fly must be based on boom angle only. See Operating Instructions Number 15.

Jib Capacities			
33' (8.84 m) fly plus 25' (7.62 m) jib			
Boom angle	Jib Offset		
	5'	17.5'	30'
78°	5,100 2 313	5,100 2 313	4,200 1 905
75°	5,100 2 313	5,100 2 313	4,000 1 814
70°	5,100 2 313	4,900 2 223	3,600 1 633
65°	4,500 2 041	4,100 1 860	3,400 1 542
60°	3,700 1 678	3,300 1 497	2,800 1 270
55°	3,000 1 361	2,700 1 225	2,400 1 089
50°	2,500 1 134	2,300 1 043	2,000 907

HSP-8050 hydraulic circuit pressure settings		
Circuit	Function	Pressure
Main	Boom hoist	2,900 p.s.i. (200.0 Bars)
	Wire rope hoist	2,750 p.s.i. (189.66 Bars)
Secondary	Swing	1,500 p.s.i. (103.45 Bars) at port relief
	Innermid telescope Steering	2,500 p.s.i. (172.41 Bars)
	Outermid telescope	2,700 p.s.i. (189.21 Bars)
	Outriggers	2,700 p.s.i. (189.21 Bars)
Charge Pump	Winch brake and clutch	1,500 p.s.i. (103.45 Bars)

Line Speeds and Pulls

Layer	Speed	Main or auxiliary winch -17' (0.43 m) drum			
		Line Speeds		Available Line Pulls	
		F.p.m.	m/min.	Lbs.	kgs.
First	Low	172	52.43	15,870	7 199
	High	364	110.95	7,520	3 411
Second	Low	187	57.00	14,630	6 636
	High	394	120.09	6,930	3 143
Third	Low	201	61.26	13,580	6 160
	High	425	129.54	6,430	2 917
Fourth	Low	216	65.84	12,660	5 743
	High	456	138.99	6,000	2 722
Fifth	Low	230	70.10	11,860	5 380
	High	487	148.44	5,620	2 549
Sixth	Low	245	74.68	11,160	5 062
	High	517	157.58	5,280	2 395
Seventh	Low	260	79.25	10,530	4 776
	High	548	167.03	4,990	2 264

Tire Inflation

Tires	Ply	Pressure
26.5 x 25	24	75 p.s.i. (5.17 Bars)
29.5 x 25	22	60 p.s.i. (4.14 Bars)

