

50 TON

Hydraulic Truck Crane



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

Notes:

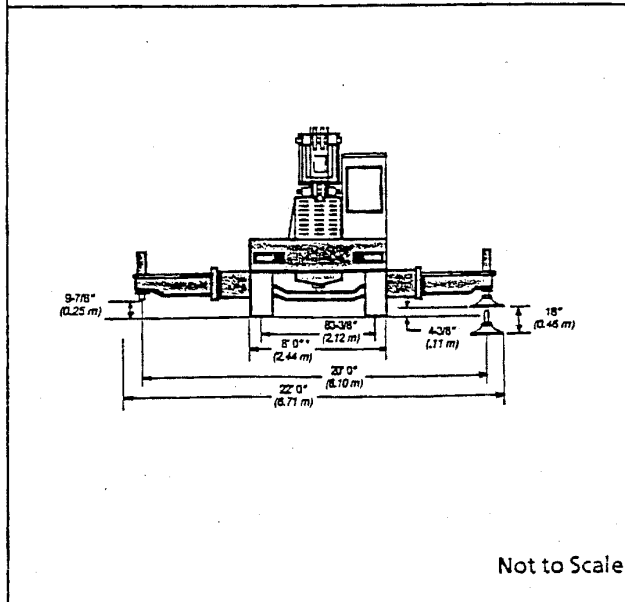
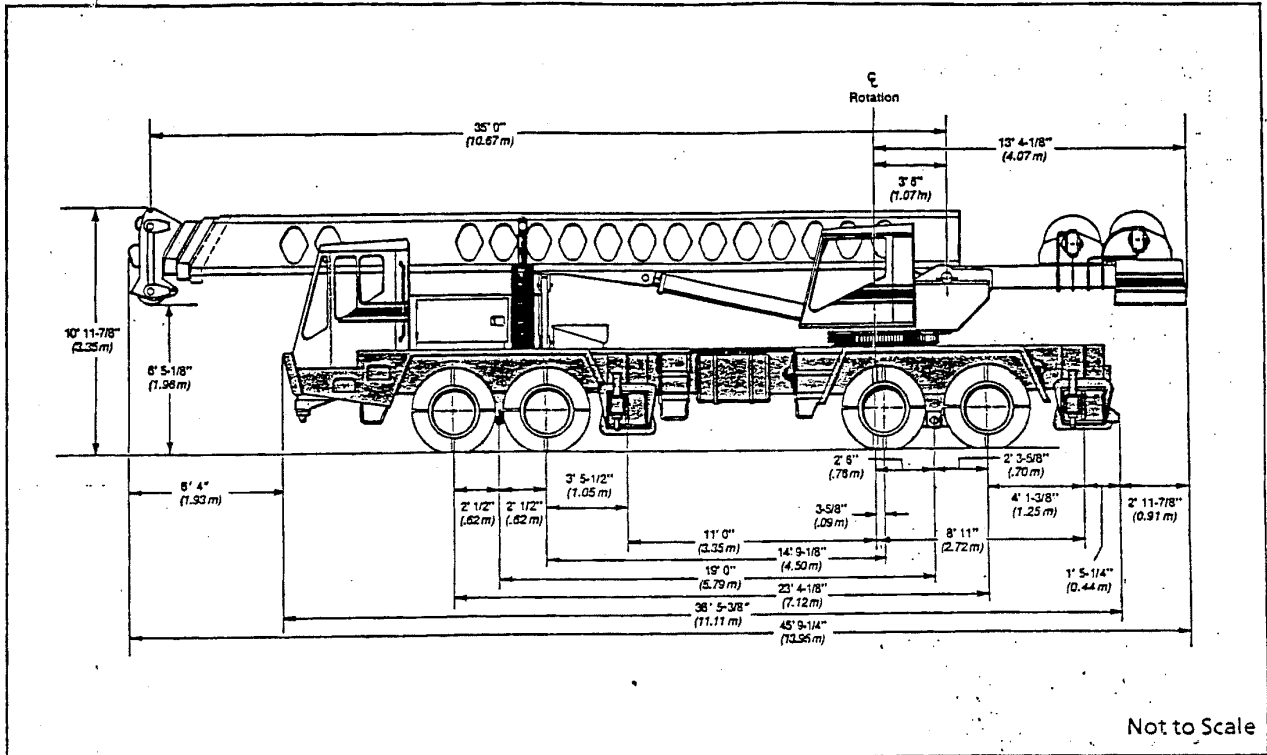


Specifications

Hydraulic Truck Crane

HTC-850

50-Ton (45.36 metric ton)



General dimensions	feet	meters
Tailswing of counterweight	13' 8-5/8"	4.18
Ground clearance — Standard tires	8-1/2"	.22
Ground clearance — Optional tires	9"	.23
Turning radius — Standard tires	49' 0"	14.93
Turning radius — (wall to wall) (outside front bumper)	55' 7"	16.94



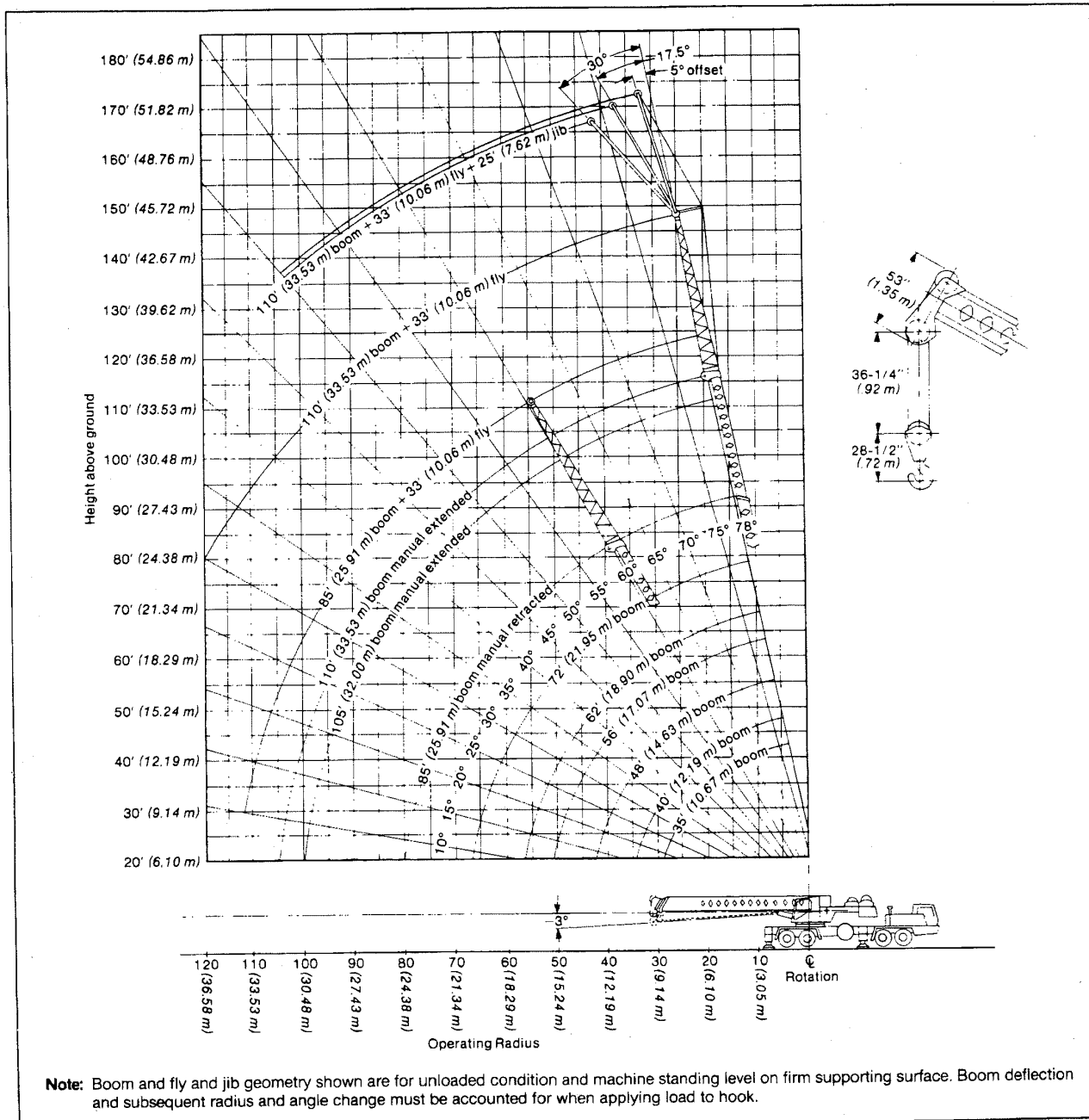


Lifting Capacities Hydraulic Crane

PCSA Class 10-154

HTC-850 50-ton (45.36 metric ton)

4-section boom



Litho in U.S.A. 4/86

CAUTION: This material is supplied for reference only. Operator MUST refer to in-cab capacity plate to determine allowable machine lifting capacities and operating procedures.

#6070

50TM2



HTC-850 Lifting Capacities

Refer to Operating Instructions page 4

8' (2.44 m) carrier

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

Capacities On Outriggers ^① Manual Section Retracted															77' (23.47 m) boom With 33' (10.06 m) Fly			85' (25.91 m) boom With 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)		110' (33.52 m) ^②			118' (35.96 m) ^②									
	Side	Rear	Side	Rear	Side	Rear	Side	Rear	Side	Rear	Side	Rear	Side	Rear	Angle	Side	Rear	Angle	Side	Rear							
10' 3.05 m	100,000 45360	100,000 45360	72,100 32705	72,100 32705	70,800 32115	70,800 32115	68,000 30845	68,000 30845							See Note ①												
12' 3.66 m	92,200 41822	92,200 41822	71,800 32568	71,800 32568	70,800 32115	70,800 32115	68,000 30845	68,000 30845	67,200 30482	67,200 30482																	
15' 4.57 m	73,100 33158	73,100 33158	68,700 31162	68,700 31162	63,300 28713	63,300 28713	63,300 28713	63,300 28713	58,800 26672	58,800 26672	50,000 22680	50,000 22680															
20' 6.10 m	53,300 24177	53,300 24177	53,000 24041	53,000 24041	53,000 24041	53,000 24041	53,000 24041	53,000 24041	48,500 22000	48,500 22000	42,100 19097	42,100 19097	36,200 16420	36,200 16420													
25' 7.62 m	37,600 17055	42,000 19051	37,600 17055	42,000 19051	37,600 17055	42,000 19051	37,600 17055	42,000 19051	37,600 17055	41,000 18598	36,300 16466	36,300 16466	30,000 13608	30,000 13608	77.0	22,200 10070	22,200 10070	77.0	18,500 8392	18,500 8392							
30' 9.14 m			27,000 12247	31,600 14334	27,000 12247	31,600 14334	27,000 12247	31,600 14334	27,000 12247	31,600 14334	27,000 12247	31,600 14334	27,000 12247	31,500 14288	24,700 11204	75.0	22,200 10070	22,200 10070	75.0	17,500 7938	17,500 7938						
35' 10.67 m					20,100 9117	24,400 11068	20,100 9117	24,400 11068	20,100 9117	24,400 11068	20,100 9117	24,400 11068	20,100 9117	24,400 11068	20,100 9117	72.0	20,200 9163	20,200 9163	73.0	15,500 7031	15,500 7031						
40' 12.19 m					15,400 6985	19,500 8845	15,400 6985	19,500 8845	15,400 6985	19,500 8845	15,400 6985	19,500 8845	15,400 6985	19,500 8845	15,400 6985	69.0	17,700 8029	18,900 8573	71.0	13,900 6305	13,900 6305						
45' 13.72 m							12,200 5534	15,600 7076	12,200 5534	15,600 7076	12,200 5534	15,600 7076	12,200 5534	15,600 7076	12,200 5534	67.0	14,400 6532	17,300 7847	68.0	12,400 5625	12,400 5625						
50' 15.24 m							9,700 4400	12,800 5806	9,700 4400	12,800 5806	9,700 4400	12,800 5806	9,700 4400	12,800 5806	9,700 4400	64.0	11,900 5388	15,000 6804	65.0	10,900 4944	10,900 4944						
55' 16.76 m									7,800 3538	10,700 4854	7,800 3538	10,700 4854	7,800 3538	10,700 4854	7,800 3538	61.0	9,900 4491	12,800 5806	63.0	9,600 4355	9,600 4355						
60' 18.29 m											6,300 2858	8,800 3992	6,300 2858	8,800 3992	6,300 2858	57.0	8,300 3765	10,900 4944	60.0	8,100 3674	8,600 3901						
65' 19.81 m											5,000 2268	7,500 3402	5,000 2268	7,500 3402	5,000 2268	54.0	7,000 3175	9,400 4264	57.0	6,800 3084	7,700 3493						
70' 21.34 m													4,000 1814	6,300 2858	50.0	5,900 2676	8,100 3674	54.0	5,700 2586	6,900 3130							
80' 24.38 m														2,200 998	4,300 1950	43.0	4,200 1905	6,100 2767	47.0	3,900 1769	5,600 2540						
90' 27.43 m																34.0	2,800 1270	4,600 2087	40.0	2,600 1179	4,400 1996						
100' 30.48 m																22.0	1,800 816	3,500 1588	31.0	1,600 726	3,300 1497						

Note: For 360 capacities, use the over side capacities with the bumper outrigger set in proper working position.

① Boom sections must be extended equal distances.

② Intermediate capacities for boom plus fly are permissible; See Operating Instructions Number 16.

Main Boom Capacities ^① On Tires																
Load radius	Bias Tires						Radials Tires						Crane capacities on tires depend on tire capacity, condition of tires, and tire pressures.			
	Creep ^② over rear only		1 mph. (1.61 kph) over rear only		Creep ^② over rear only		1 mph. (1.61 kph) over rear only									
Feet	meters	Pounds	Kg	Pounds	Kg	Pounds	Kg	Pounds	Kg	Pounds	Kg	Tires	Ply rating	Creep ^② Inflation	1.0 m.p.h. (1.61 km/hr) Inflation	
10	3.05	34,800	15785	22,000	9,979	26,800	12,156	21,600	9,798							
12	3.66	32,400	14697	20,500	9299	25,000	11,340	20,100	9,117							
15	4.57	29,100	13200	18,400	8346	22,500	10,206	18,100	8,210	11.0 x 20.0	14	100 p.s.i. (6.90 Bars)	100 p.s.i. (6.90 Bars)			
20	6.10	18,900	8573	14,800	6713	18,300	8,301	14,600	6,623	12.0 x 20.0	14	100 p.s.i. (6.90 Bars)	90 p.s.i. (6.21 Bars)			
25	7.62	13,200	5988	11,900	5399	12,800	5,806	11,700	5,307	16.5 x 22.5	16	100 p.s.i. (6.90 Bars)	90 p.s.i. (6.21 Bars)			
30	9.14	9,400	4264	9,200	4173	9,100	4,128	9,100	4,128	18.0 x 22.5	16	95 p.s.i. (6.55 Bars)	85 p.s.i. (5.86 Bars)			
35	10.67	6,900	3130	6,800	3084	6,600	2,994	6,600	2,994							

① See Operating Instruction; Set-Up Number 4

② See Operating Instruction; Set-Up Number 3

Wire rope size and type

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"	





HTC-850 Lifting Capacities

8' (2.44 m) carrier

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

Refer to Operating Instructions page 4

Capacities On Outriggers Manual Section Extended									
Load radius	105' (32.00 m) ⓐ ⓑ			110' (33.53 m) ⓐ			110' (33.53 m) Boom With 33' (10.06 m) Fly		
	Angle	Side	Rear	Angle	Side	Rear	Angle	Side	Rear
	See Note ⓐ			See Note ⓐ			See Note ⓑ		
25' 7.62 m	77°	20,200 9 163	20,200 9 163	77°	19,000 8 618	19,000 8 618			
30' 9.14 m	74°	20,200 9 163	20,200 9 163	75°	18,500 8 392	18,500 8 392			
35' 10.67 m	72°	19,500 8 845	19,500 8 845	73°	17,900 8 119	17,900 8 119	77°	9,400 4 264	9,400 4 264
40' 12.19 m	69°	17,200 7 802	18,000 8 165	70°	16,000 7 258	16,000 7 258	75°	9,400 4 264	9,400 4 264
45' 13.72 m	66°	14,000 6 350	16,200 7 348	67°	13,900 6 305	14,100 6 396	73°	9,000 4 082	9,000 4 082
50' 15.24 m	63°	11,400 5 171	14,600 6 623	64°	11,300 5 126	12,500 5 670	71°	8,400 3 810	8,400 3 810
55' 16.76 m	60°	9,400 4 264	12,400 5 625	61°	9,400 4 264	11,100 5 035	69°	8,000 3 629	8,000 3 629
60' 18.29 m	56°	7,900 3 583	10,500 4 763	58°	7,800 3 538	10,000 4 536	67°	7,300 3 311	7,300 3 311
65' 19.81 m	53°	6,800 2 994	9,000 4 082	55°	6,500 2 948	8,900 4 037	65°	6,500 2 948	6,500 2 948
70' 21.34 m	49°	5,500 2 495	7,800 3 538	51°	5,400 2 449	7,700 3 493	62°	5,700 2 586	5,700 2 586
80' 24.38 m	40°	3,700 1 678	5,800 2 631	44°	3,600 1 633	5,700 2 586	57°	4,500 2 041	4,600 2 087
90' 27.43 m	30°	2,400 1 089	4,300 1 950	35°	2,300 1 043	4,200 1 905	52°	3,200 1 452	3,600 1 633
100' 30.48 m							47°	2,200 998	2,800 1 270
110' 33.53 m							40°		2,100 953

Note: For 360° capacities, use the over side capacities with the bumper outrigger set in proper working position.

- ⓐ Capacities for boom with manual section extended can be extended or retracted, but are based on boom angle only: See Operating Instructions Number 15.
- ⓑ Capacities for boom plus fly can be extended or retracted, but are based on boom angle only. See Operating Instructions Number 17.
- ⓒ Capacities are shown for 4-section boom with manual extended and with boom retracted to 105' (32.00 m)

Jib Capacities			
33' (10.06 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°	2,900 1 315	2,600 1 179	2,400 1 089
55°	1,800 816	1,600 726	1,500 680

Capacity Deductions for Auxiliary Load Handling Equipment	
Aux. Head	200 lb. (91 kg)
Jib Stowed	600 lb. (272 kg)
Fly Stowed	700 lb. (318 kg)
Fly Erected	1700 lb. (771 kg)
Fly & Jib Stowed	1300 lb. (590 kg)
Fly & Jib Erected	4300 lb. (1951 kg)
Picking From 33 Ft. (10.66 m) Fly With	
Jib Erected	2000 lb. (907 kg)
Jib Stowed	600 lb. (272 kg)

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

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

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
	Inner-mid telescope	2,500 p.s.i. (172.41 Bars)
	Outer-mid telescope	2,500 p.s.i. (172.41 Bars)
	Outriggers	2,500 p.s.i. (172.41 Bars)
Charge Pump	Winch brake and clutch	1,500 p.s.i. (103.45 Bars)

