New Dimensions in Motion

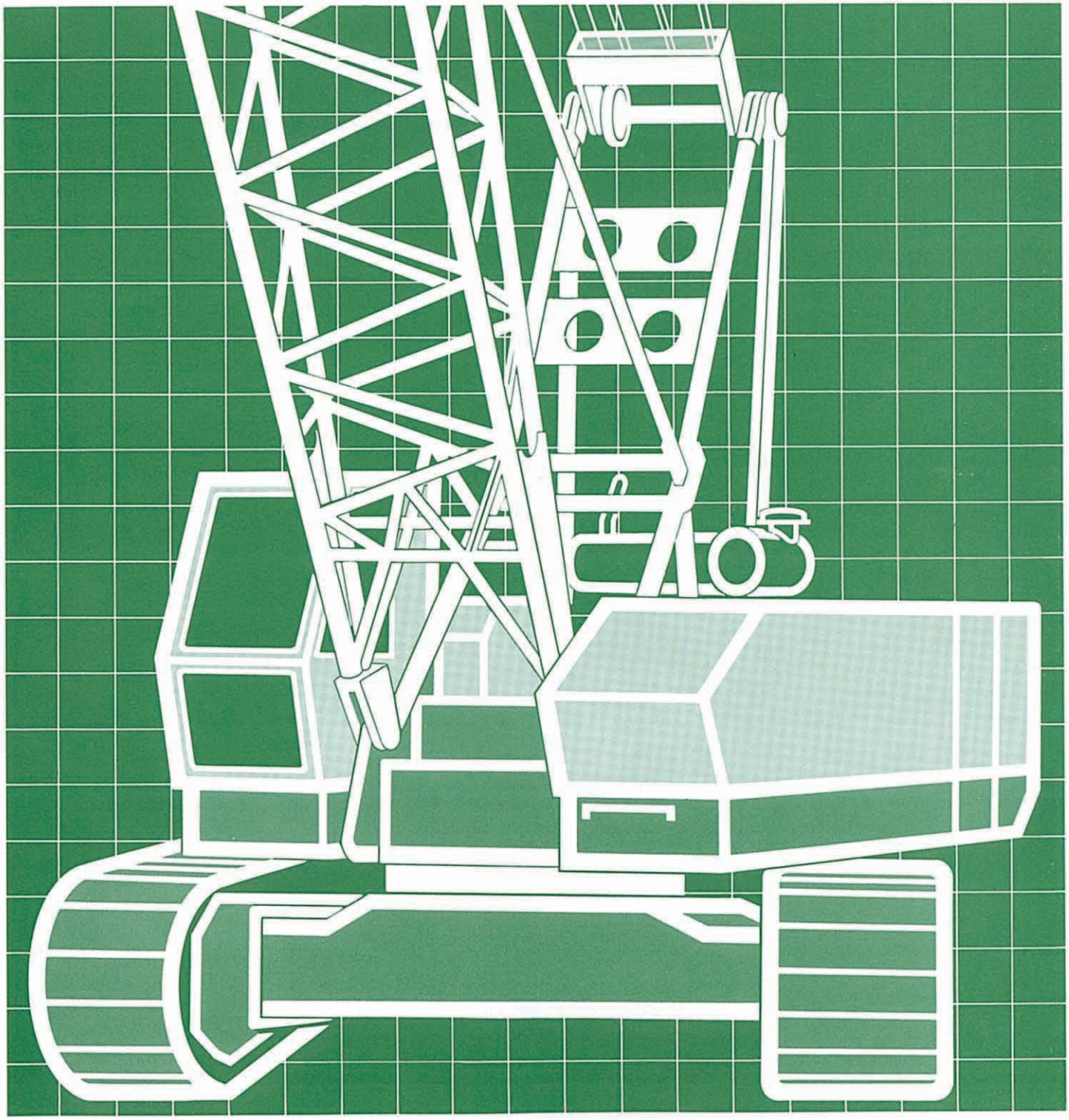
SPECIFICATIONS

HITACHI

KH180-3

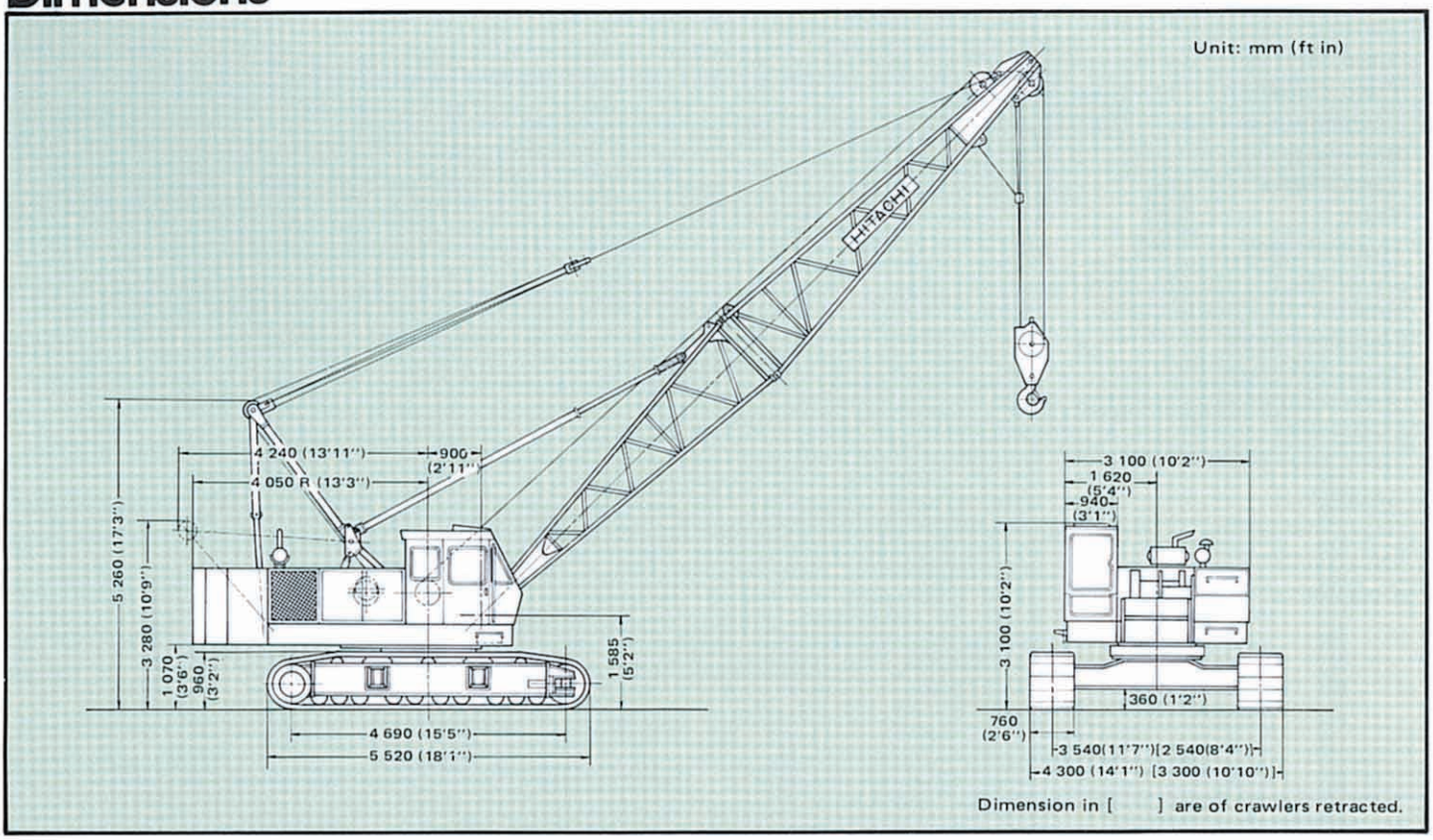
HYDRAULIC CRAWLER CRANE

Max. Rated Load : 50 000 kg



CRAWLER CRANE
With Tubular Chord CRANE Boom

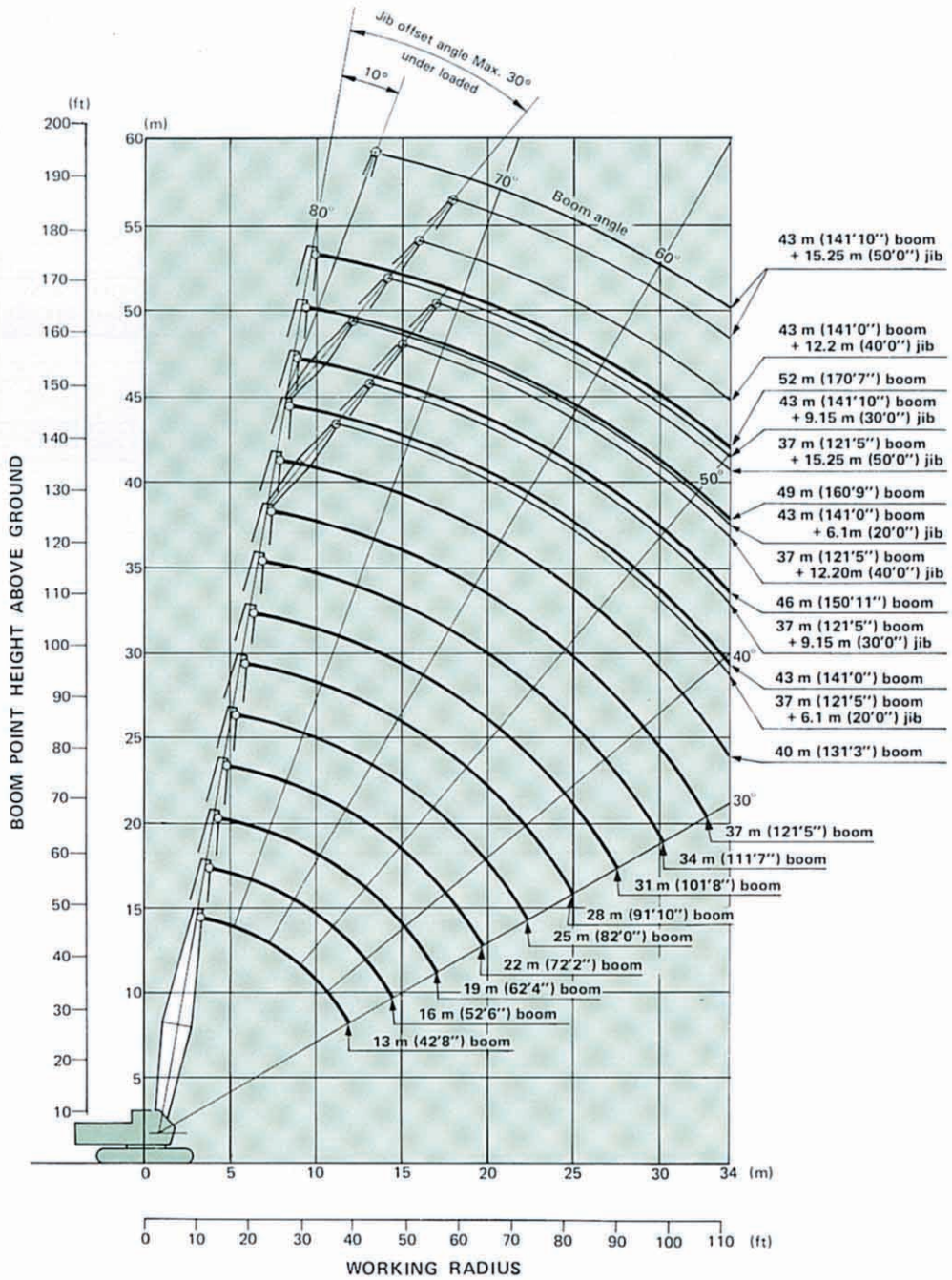
Dimensions



Specifications

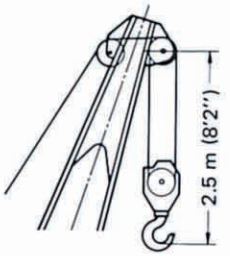
Maximum rated load		50 000 kg (110 200 lb) at 3.7 m (12'2") working radius
Boom	Basic boom length	13.0 m (42'8")
	Max. boom length	52.0 m (170'7")
	Jib length	6.10 m (20'0") – 9.15 m (30'0") – 12.20 m (40'0") – 15.25 m (50'0")
	Max. boom length with jib	58.25 m (191'1") [43.0 m (141'0") + 15.25 m (50'0")]
Swing speed		0 – 3.5 min^{-1} (0 – 3.5 rpm)
Travel speed		0 – 1.5 km/h (0.93 mph)
Gradeability		22° (40%)
Ground pressure		0.61 bar (0.61 kgf/cm^2, 8.67 psi)
Operating weight	Equipped with basic boom, 50 000 kg (110 200 lb) capacity hook and 15 900 kg (35 100 lb) counterweight	46 900 kg (103 000 lb)
Engine	Model	HINO EM100
	Rated horsepower	110 kW (150 PS) at 2 000 min^{-1} (2 000 rpm)

Working Ranges



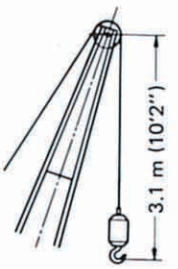
HOOK CLEARANCE

Boom



50 000 kg (110 200 lb)
Capacity hook

Jib



5 000 kg (11 000 lb)
Capacity hook

See page 12, for construction

Crane Ratings

BS Rating:
The rated loads are determined according to BS (British Standard, 1981) and the machine is stationed on firm level ground.

PCSA Rating:
The rated loads, listed are determined according to PCSA (Power Crane and Shovel Association in U.S.A.) and do not exceed 75% of tipping load on condition that the machine is stationed on firm, level ground.

JIS Rating:
The rated loads shown don't exceed 78% of tipping loads with the machine on firm level ground.

Tubular Chord CRANE Boom in 360° Working Area

Boom length	Working radius		Boom angle	Rated load				
				JIS rating	BS rating		PCSA rating	
m (ft in)	m	ft in	degree	kg	kg	lb	kg	lb
13.0 (42'8")	3.7	12' 2"	78.67	50 000	50 000	110 200	50 000	110 200
	4.0	13' 1"	77.31	45 800	45 800	100 900	43 600	96 100
	4.5	14' 9"	75.03	38 600	37 900	83 500	35 650	78 500
	5.0	16' 5"	72.72	32 100	32 000	70 500	30 100	66 300
	5.5	18' 1"	70.38	27 600	27 600	60 800	26 000	57 300
	6.0	19' 8"	68.01	24 600	24 250	53 400	22 850	50 300
	7.0	23' 0"	63.12	19 500	19 450	42 800	18 350	40 400
	8.0	26' 3"	58.00	16 200	16 200	35 700	15 300	33 700
	9.0	29' 6"	52.57	13 800	13 800	30 400	13 050	28 700
	10.0	32'10"	46.68	12 100	12 050	26 500	11 350	25 000
	12.0	39' 4"	32.49	9 500	9 500	20 900	9 000	19 800
	12.3	40' 4"	30.00	9 250	9 200	20 200	8 750	19 200
16.0 (52'6")	4.1	13' 5"	79.36	44 200	44 200	97 400	41 500	91 400
	4.5	14' 9"	77.89	38 550	37 800	83 300	35 550	78 300
	5.0	16' 5"	76.05	32 000	31 900	70 300	30 000	66 100
	5.5	18' 1"	74.19	27 500	27 500	60 600	25 900	57 100
	6.0	19' 8"	72.31	24 500	24 150	53 200	22 750	50 100
	7.0	23' 0"	68.49	19 400	19 350	42 600	18 250	40 200
	8.0	26' 3"	64.56	16 100	16 050	35 300	15 150	33 400
	9.0	29' 6"	60.48	13 700	13 700	30 200	12 950	28 500
	10.0	32'10"	56.24	12 000	11 900	26 200	11 250	24 800
	12.0	39' 4"	46.97	9 400	9 350	20 600	8 850	19 500
	14.0	45'11"	35.95	7 800	7 650	16 800	7 250	15 900
	14.9	48'11"	30.00	6 800	6 800	14 900	6 750	14 800

Continued on next page.

Boom length	Working radius		Boom angle	Rated load				
				JIS rating	BS rating		PCSA rating	
m (ft in)	m	ft in	degree	kg	kg	lb	kg	lb
19.0 (62'4")	4.6	15' 1"	79.53	36 800	36 300	80 000	34 150	75 200
	5.0	16' 5"	78.29	31 900	31 850	70 200	30 000	66 100
	5.5	18' 1"	76.74	27 400	27 400	60 400	25 850	56 900
	6.0	19' 8"	75.18	24 400	24 150	53 200	22 750	50 100
	7.0	23' 0"	72.03	19 300	19 300	42 500	18 200	40 100
	8.0	26' 3"	68.81	16 000	16 000	35 200	15 150	33 400
	9.0	29' 6"	65.52	13 600	13 600	29 900	12 900	28 400
	10.0	32'10"	62.14	11 900	11 850	26 100	11 200	24 600
	12.0	39' 4"	55.01	9 300	9 300	20 500	8 800	19 400
	14.0	45'11"	47.17	7 700	7 550	16 600	7200	15 800
	16.0	52' 6"	38.13	6 500	6 350	13 900	6 050	13 300
	17.5	57' 5"	30.00	5 600	5 600	12 300	5 400	11 900
22.0 (72'2")	5.1	16'11"	79.51	30 200	30 200	66 500	28 500	62 800
	5.5	18' 1"	78.58	27 300	27 300	60 100	25 800	56 800
	6.0	19' 8"	77.25	24 200	24 050	53 000	22 650	49 900
	7.0	23' 0"	74.55	19 200	19 200	42 300	18 150	40 000
	8.0	26' 3"	71.82	15 900	15 900	35 000	15 050	33 100
	9.0	29' 6"	69.05	13 500	13 500	29 700	12 850	28 300
	10.0	32'10"	66.22	11 800	11 750	25 900	11 150	24 500
	12.0	39' 4"	60.35	9 300	9 200	20 200	8 750	19 200
	14.0	45'11"	54.11	7 600	7 450	16 400	7 100	15 600
	16.0	52' 6"	47.31	6 400	6 200	13 600	5 950	13 100
	18.0	59' 1"	39.64	5 500	5 300	11 600	5 100	11 200
	20.0	65' 7"	30.41	4 700	4 600	10 100	4 400	9 700
25.0 (82'0")	5.7	18' 8"	79.50	26 400	25 900	57 100	24 400	53 700
	6.0	19' 8"	78.80	24 100	24 000	52 900	22 650	49 900
	7.0	23' 0"	76.45	19 100	19 100	42 100	18 100	39 900
	8.0	26' 3"	74.07	15 700	15 700	34 600	15 000	33 000
	9.0	29' 6"	71.67	13 400	13 400	29 500	12 800	28 200
	10.0	32'10"	69.23	11 700	11 700	25 700	11 100	24 400
	12.0	39' 4"	64.21	9 150	9 100	20 000	8 650	19 000
	14.0	45'11"	58.97	7 500	7 400	16 300	7 050	15 500
	16.0	52' 6"	53.42	6 300	6 150	13 500	5 900	13 000
	18.0	59' 1"	47.42	5 400	5 200	11 400	5 000	11 000
	20.0	65' 7"	40.76	4 700	4 500	9 920	4 350	9 590
	22.0	72' 2"	33.01	4 100	3 900	8 590	3 800	8 370
	22.7	74' 6"	30.00	3 900	3 750	8 260	3 650	8 040
28.0 (91'10")	6.2	20' 4"	79.60	22 800	22 700	50 000	21 450	47 200
	7.0	23' 0"	77.93	19 000	19 000	41 800	18 000	39 600
	8.0	26' 3"	75.82	15 500	15 500	34 100	14 950	32 900
	9.0	29' 6"	73.70	13 300	13 300	29 300	12 700	27 900
	10.0	32'10"	71.55	11 600	11 600	25 500	11 000	24 200
	12.0	39' 4"	67.16	9 050	9 000	19 800	8 550	18 800
	14.0	45'11"	62.62	7 400	7 250	15 900	6 950	15 300
	16.0	52' 6"	57.88	6 200	6 050	13 300	5 800	12 700
	18.0	59' 1"	52.87	5 300	5 100	11 200	4 900	10 800
	20.0	65' 7"	47.50	4 600	4 350	9 590	4 250	9 360
	22.0	72' 2"	41.61	4 000	3 800	8 370	3 700	8 150
	24.0	78' 9"	34.93	3 500	3 300	7 270	3 250	7 160
	25.3	83' 0"	30.00	3 200	3 050	6 720	3 000	6 610

Boom length	Working radius		Boom angle	Rated load				
				JIS rating	BS rating		PCSA rating	
m (ft in)	m	ft in	degree	kg	kg	lb	kg	lb
31.0 (101'9")	7.0	23' 0"	79.11	18 900	18 900	41 600	18 000	39 600
	8.0	26' 3"	77.22	15 400	15 400	33 900	14 900	32 800
	9.0	29' 6"	75.32	13 200	13 200	29 100	12 650	27 800
	10.0	32'10"	73.39	11 500	11 500	25 300	10 950	24 100
	12.0	39' 4"	69.48	8 900	8 900	19 600	8 550	18 800
	14.0	45'11"	65.47	7 300	7 200	15 800	6 900	15 200
	16.0	52' 6"	61.31	6 100	5 950	13 100	5 750	12 600
	18.0	59' 1"	56.99	5 200	5 050	11 100	4 850	10 600
	20.0	65' 7"	52.43	4 500	4 300	9 470	4 150	9 140
	22.0	72' 2"	47.57	3 900	3 700	8 150	3 600	7 930
	24.0	78' 9"	42.29	3 400	3 250	7 160	3 200	7 050
	26.0	85' 4"	36.40	3 000	2 850	6 280	2 800	6 170
	27.9	91' 6"	30.00	2 550	2 550	5 620	2 500	5 510
34.0 (111'7")	8.0	26' 3"	78.37	15 300	15 300	33 700	14 850	32 700
	9.0	29' 6"	76.64	13 100	13 100	28 800	12 600	27 700
	10.0	32'10"	74.90	11 400	11 400	25 100	10 900	24 000
	12.0	39' 4"	71.37	8 800	8 800	19 400	8 500	18 700
	14.0	45'11"	67.76	7 200	7 150	15 700	6 850	15 100
	16.0	52' 6"	64.05	6 000	5 900	13 000	5 700	12 500
	18.0	59' 1"	60.23	5 100	4 950	10 900	4 800	10 500
	20.0	65' 7"	56.24	4 400	4 200	9 250	4 100	9 030
	22.0	72' 2"	52.06	3 800	3 650	8 040	3 550	7 820
	24.0	78' 9"	47.62	3 300	3 150	6 940	3 100	6 830
	26.0	85' 4"	42.84	2 900	2 750	6 060	2 750	6 060
	28.0	91'10"	37.57	2 600	2 400	5 290	2 400	5 290
	30.0	98' 5"	31.57	2 300	2 150	4 730	2 150	4 730
	30.5	100' 1"	30.00	2 250	2 100	4 620	2 100	4 620
37.0 (121'5")	8.0	26' 3"	79.32	15 300	15 300	33 700	14 800	32 600
	9.0	29' 6"	77.74	13 000	13 000	28 600	12 550	27 600
	10.0	32'10"	76.15	11 300	11 400	25 100	10 800	23 800
	12.0	39' 4"	72.93	8 800	8 800	19 400	8 400	18 500
	14.0	45'11"	69.65	7 200	7 050	15 500	6 750	14 800
	16.0	52' 6"	66.30	6 000	5 800	12 700	5 600	12 300
	18.0	59' 1"	62.86	5 100	4 850	10 600	4 700	10 300
	20.0	65' 7"	59.31	4 400	4 150	9 140	4 050	8 920
	22.0	72' 2"	55.62	3 800	3 550	7 820	3 450	7 600
	24.0	78' 9"	51.76	3 300	3 050	6 720	3 000	6 610
	26.0	85' 4"	47.67	2 850	2 650	5 840	2 650	5 840
	28.0	91'10"	43.30	2 500	2 300	5 070	2 350	5 180
	30.0	98' 5"	38.53	2 250	2 050	4 510	2 050	4 510
	32.0	105' 0"	33.19	1 900	1 800	3 960	1 850	4 070
	33.0	108' 3"	30.00	1 750	1 650	3 630	1 700	3 740

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Boom length	Working radius		Boom angle	Rated load				
				JIS rating	BS rating		PCSA rating	
m (ft in)	m	ft in	degree	kg	kg	lb	kg	lb
40.0 (131'3")	9.0	29' 6"	78.67	12 900	12 900	28 400	12 450	27 400
	10.0	32'10"	77.21	11 200	11 300	24 900	10 750	23 600
	12.0	39' 4"	74.25	8 750	8 700	19 100	8 300	18 200
	14.0	45'11"	71.24	7 100	6 950	15 300	6 700	14 700
	16.0	52' 6"	68.18	5 900	5 700	12 500	5 500	12 100
	18.0	59' 1"	65.05	5 000	4 750	10 400	4 600	10 100
	20.0	65' 7"	61.84	4 300	4 000	8 810	3 950	8 700
	22.0	72' 2"	58.52	3 700	3 450	7 600	3 400	7 490
	24.0	78' 9"	55.08	3 200	2 950	6 500	2 950	6 500
	26.0	85' 4"	51.49	2 750	2 550	5 620	2 550	5 620
	28.0	91'10"	47.71	2 400	2 200	4 850	2 250	4 960
	30.0	98' 5"	43.68	2 150	1 900	4 180	1 950	4 290
	32.0	105' 0"	39.33	1 850	1 650	3 630	1 750	3 850
	34.0	111' 7"	34.52	1 600	1 450	3 190	1 550	3 410
43.0 (141'1")	9.0	29' 6"	79.48	12 800	11 600	25 500	12 350	27 200
	10.0	32'10"	78.12	11 100	11 200	24 600	10 650	23 400
	12.0	39' 4"	75.37	8 700	8 600	18 900	8 250	18 100
	14.0	45'11"	72.60	7 000	6 850	15 100	6 600	14 500
	16.0	52' 6"	69.77	5 800	5 600	12 300	5 400	11 900
	18.0	59' 1"	66.90	4 900	4 650	10 200	4 550	10 000
	20.0	65' 7"	63.96	4 200	3 900	8 590	3 850	8 480
	22.0	72' 2"	60.95	3 600	3 350	7 380	3 300	7 270
	24.0	78' 9"	57.84	3 100	2 850	6 280	2 850	6 280
	26.0	85' 4"	54.62	2 700	2 450	5 400	2 450	5 400
	28.0	91'10"	51.27	2 350	2 100	4 620	2 150	4 730
	30.0	98' 5"	47.74	2 050	1 800	3 960	1 850	4 070
	32.0	105' 0"	44.01	1 750	1 550	3 410	1 650	3 630
	34.0	111' 7"	40.00	1 500	1 350	2 970	1 450	3 190
46.0 (150'11")	10.0	32'10"	78.90	11 000	9 700	21 300	10 650	23 400
	12.0	39' 4"	76.35	8 550	8 550	18 800	8 200	18 000
	14.0	45'11"	73.77	6 900	6 800	14 900	6 550	14 400
	16.0	52' 6"	71.15	5 700	5 550	12 200	5 400	11 900
	18.0	59' 1"	68.49	4 800	4 600	10 100	4 500	9 920
	20.0	65' 7"	65.78	4 100	3 850	8 480	3 800	8 370
	22.0	72' 2"	63.01	3 500	3 300	7 270	3 250	7 160
	24.0	78' 9"	60.17	3 000	2 800	6 170	2 800	6 170
	26.0	85' 4"	57.24	2 500	2 400	5 290	2 400	5 290
	28.0	91'10"	54.22	2 200	2 050	4 510	2 100	4 620
	30.0	98' 5"	51.07	1 900	1 750	3 850	1 800	3 960
	32.0	105' 0"	47.77	1 600	1 500	3 300	1 600	3 520
	34.0	111' 7"	44.29	1 300	1 300	2 860	1 400	3 080
49.0 (160'9")	10.1	33' 2"	79.47	10 750	8 320	18 300	10 450	23 000
	12.0	39' 4"	77.20	8 400	7 750	17 000	8 150	17 900
	14.0	45'11"	74.79	6 800	6 750	14 800	6 500	14 300
	16.0	52' 6"	72.34	5 600	5 450	12 000	5 300	11 600
	18.0	59' 1"	69.87	4 700	4 500	9 920	4 450	9 810
	20.0	65' 7"	67.35	4 000	3 800	8 370	3 750	8 260
	22.0	72' 2"	64.79	3 400	3 200	7 050	3 200	7 050
	24.0	78' 9"	62.17	2 900	2 700	5 950	2 700	5 950
	26.0	85' 4"	59.48	2 400	2 300	5 070	2 350	5 180
	28.0	91'10"	56.72	2 100	1 950	4 290	2 000	4 400
	30.0	98' 5"	53.86	1 800	1 650	3 630	1 750	3 850
	32.0	105' 0"	50.90	1 500	1 400	3 080	1 500	3 300
	34.0	111' 7"	47.80	1 200	1 200	2 640	1 300	2 860

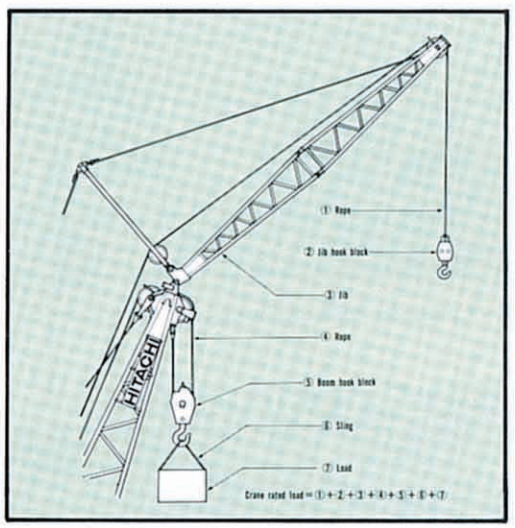
Boom length	Working radius		Boom angle	Rated load				
				JIS rating	BS rating		PCSA rating	
m (ft in)	m	ft in	degree	kg	kg	lb	kg	lb
52.0 (170'7")	12.0	39' 4"	77.95	8 200	6 650	14 600	8 050	17 700
	14.0	45'11"	75.68	6 700	6 200	13 600	6 400	14 100
	16.0	52' 6"	73.39	5 500	5 350	11 700	5 250	11 500
	18.0	59' 1"	71.08	4 600	4 400	9 700	4 350	9 590
	20.0	65' 7"	68.73	3 900	3 700	8 150	3 650	8 040
	22.0	72' 2"	66.34	3 300	3 100	6 830	3 100	6 830
	24.0	78' 9"	63.90	2 800	2 600	5 730	2 650	5 840
	26.0	85' 4"	61.41	2 350	2 200	4 850	2 250	4 960
	28.0	91'10"	58.87	2 000	1 850	4 070	1 950	4 290
	30.0	98' 5"	56.25	1 700	1 550	3 410	1 650	3 630
	32.0	105' 0"	53.54	1 400	1 300	2 860	1 400	3 080
	34.0	111' 7"	50.74	1 100	1 050	2 310	1 200	2 640

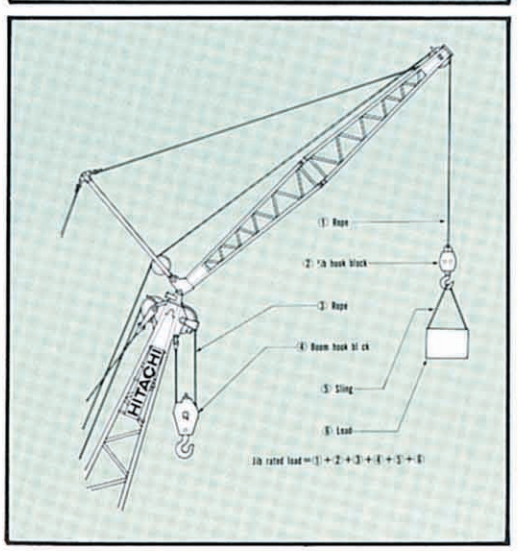
Rated Load for Main Boom

Notes: 1) The rated loads shown are based on the machine on firm level ground without traveling.
2) The rated loads shown include the weights of all lifting attachments, such as hook and bucket. The load to be actually lifted is the rated load minus the weight of all lifting attachments.
3) When the jib or the auxiliary jib is attached, the load to be actually lifted is the rated load minus the weight listed below.

Jib length	6.10 m (20'0")	9.15 m (30'0")	12.20 m (40'0")	15.25 m (50'0")	Aux. jib
Weight to be reduced	700 kg (1 540 lb)	850 kg (1 870 lb)	1 000 kg (2 200 lb)	1 150 kg (2 540 lb)	200 kg (440 lb)

4) The jib can be attached to boom of 22.0 m (72'2") to 43.0 m (141'0") long.
5) The auxiliary jib can be attached to boom of 13.0 m (42'8") to 49.0 m (160'8") long.
6) The rated load for auxiliary jib is equal to that of main boom at the same working radius, but do not exceed maximum rated load 5 000 kg (11 100 lb).
7) Counterweight is 15 900 kg (35 100 lb).
8) In operation, crawlers must be extended.





Rated Load for Jib

Maximum jib rating

Jib length / Jib offset angle		6.10 m (20'0")	9.15 m (30'0")	12.20 m (40'0")	15.25 m (50'0")
Max. rated load	10°	5 000 kg (11 020 lb)	5 000 kg (11 020 lb)	4 000 kg (8 820 lb)	3 250 kg (7 170 lb)
	30°	5 000 kg (11 020 lb)	4 600 kg (10 140 lb)	3 650 kg (8 050 lb)	3 050 kg (6 720 lb)

Notes: 1) The rated load for jib is equal to that of the main boom at the same working radius, but should not exceed maximum jib ratings shown.
The jib offset angle to the main boom is 10° and 30° under loaded condition.
2) The maximum working radius of the jib do not exceed that of the main boom used.