



GROVE®

YB7700 Series



product guide

features

- 2 models ... YB7720 & YB7720XL
- 20 ton (18 mt) capacity 360° on outriggers @ 10 ft. (3.0m) radius
- 15 ton (13.6 mt) deck carrying capacity
- 15 ton (13.6 mt) on rubber capacity
- YB7720 – 43 ft. (13.1m) 3-section boom
- YB7720XL – 67 ft. (20.43m) 5-section boom
- 17 ft. (5.18m) offsettable swingaway extension
- 130 bhp (97.0 kW) Cummins QSB5.9L diesel engine



contents

Features

2

Specifications

3

YB7720 / XL

Dimensions

5

YB7720

Working Range

6

Load Chart

7

YB7720XL

Range Diagram

8

Load Chart

9

YB7720/XL (metric)

Range Diagram

10

DIN/ISO Load Chart

11

Range Diagram

12

DIN/ISO Load Chart

13



features

2



- Two position beam – jack style outriggers
- All beams or jacks can be extended or retracted at the same time



Standard:

- Water-cooled Cummins QSB5.9L Turbo-charged diesel engine rated @ 130 BHP
- Variable displacement piston pump w/piggyback gear pump.



- 43 ft. (13.1m) 3-section main boom or 67 ft. (20.42m) 5-section main boom
- 3-position pivoting boom head for low head room clearance
- Quick reeve boom head and hookblock



Standard: Open air cab shell w/overhead safety glass

Optional: Closed cab with hinged door, heater, and defroster



Standard: 4-wheel drive and 4-wheel steer (front-rear-crab)

Standard: 17.5 R 25 tires



specifications

3

Superstructure



Boom

YB7720: 19 ft. 6 in. – 43 ft. 0 in. (5.9m – 13.1m) three-section full power boom.

Maximum tip height: 52 ft. 6 in. (16.0m)

YB7720XL: 19 ft. 6 in. – 67 ft. 0 in. (5.9m – 20.4m) five-section full power boom.

Maximum tip height: 76 ft. 0 in. (23.1m)

Boom angle indicator mounted on both sides of base section.



*Boom Extension

17 ft. (5.18m) fixed boom extension, offsettable to 30° and 60° via pivoting boom nose.

Maximum tip height: 92 ft. 0 in. (28.0m)



Boom Nose

2 sheave, 4-position (0°, + 30°, + 60°, + 80°) pivoting boom nose for minimizing head space requirements. Lowers head height 19.8 in. (0.52m) when nose is pivoted fully forward.



Boom Elevation

Two double acting hydraulic cylinders with integral holding valve.

Elevation: 0° to 80°



Anti-Two Block Device

Standard anti-two block device, when activated, provides an audible and visual warning to the crane operator and disengages all crane functions whose movement can cause two-blocking.



Load Indicator

A simple effective and easy to use load indicating system used in conjunction with the anti-two block system to assist the operator in efficient operation of the unit within the limits of the load chart. The display panel displays the hook load and warns the operator when a preset load capacity is exceeded. The warning is by a flashing light on the display panel. In conjunction with the load display panel (receiver), there is a wireless transmitter and load sensing pin attached to the boom head that transmits the hook load to the display panel.



*Rated Capacity Limiter (RCL)

Similar to the Load Indicator, but stops the telescope out and boom lift down function when a load limit is exceeded. Uses a similar display panel with the addition of displaying boom angle and boom length read outs on the panel.



*Load Moment Indicator (LMI)

Digital display of boom angle, boom length, boom radius, capacity, and allows for operator input to set the limits based on load chart. Displays color coded light bar and audible alarm with function cutout if load exceeds entered parameters.



Swing

Ball bearing swing circle with 360° continuous rotation.

Hydraulic driven worm gear and pinion.

Maximum speed: 2.5 rpm



Hydraulic System

Variable displacement piston pump and piggyback gear pump.

Combined flow: 74.0 gpm (280.0 Lpm)

Maximum system operating pressure: 3600 p.s.i.

Six section valve bank, chassis mounted, operated via dash mounted, pilot pressure hydraulic joysticks.

Return line filter with full flow by-pass protection and service indicator.

60.0 gallon (227 L) hydraulic reservoir with sight level gauge and steel side plating to guard against side impact damage.



Hoist Specifications

Piston motor drive with spring applied / hyd. released brake.

Two speed power up and down.

Maximum Single Line Pull: 13,800 lb. (6260kg)

Maximum Single Line Speed: 335 fpm (102.1m/min)

Maximum Permissible Single Line Pull: 10,000 lb (4535kg)
(9/16" [14.0mm] EEIPS)

Rope Length (Std): 375 ft. (114.3m)

*Denotes optional equipment

YB7700 Series



specifications

4

Carrier



Frame

High strength alloy steel constructed with integral outrigger housings; front and rear tie-down lugs. 60 ft.² carrydeck size with 30,000 lb (13 608kg) deck only carrying capacity & 20,000 lb (9 072kg) combined with boom load. Deck coated with anti-skid treatment.



Outriggers

2- stage hydraulic telescoping beam with vertical jack at the four corners provides extended and down and retracted and down lifting capacities. Integral holding valves on both beam and jack.



Outrigger Controls

Three switch operation mounted on dash panel. One 3- position rocker switch to select all beams / jacks, left beams / jacks only, or right beams / jacks only. Separate 4- way toggle switch to activate beams out / in and jacks down / up. Level bubble indicator located inside operators compartment.

*Independent outrigger controls available as an option.



Std. Engine

Cummins QSB 5.9L turbo-charged diesel rated @ 130 bhp (97kW) @ 2500 rpm with cold-start aid (ether injection) and engine block heater.



Operators Control Station

Frame mounted, open air style control station with cab shell includes all crane functions, driving controls, and overhead safety glass. Other standard equipment includes a durable weather resistant seat with seat belt, hourmeter, sight level bubble, and fire extinguisher. The dash panel includes engine oil pressure gauge, engine water temperature gauge, fuel gauge, transmission low oil and high temperature warning lights, low battery warning light, and brake system low pressure warning light. The LSI (load indicator) receiver is mounted to the top of the dash.



*Operators Control Station Enclosed

Includes the standard cab shell with the addition of front and rear glass and sliding glass on the right side. Hinged full door with sliding glass.

Front windshield wiper and heater and defroster is included.



Fuel Tank Capacity

50 gallon (189 L) all steel construction with steel side plate to guard against side impact. Fuel gauge located on dash panel in operators station.



Electrical System

One 12V maintenance free battery, 820CCA @ 0°. 63 amp alternator.



Drive

4 x 4 – Front and rear axle drive with planetary hubs and limited slip differential.



Steer

Standard: 3-steering modes:

Front 2-wheel, 4-wheel coordinated, and crab steer w/ electronic self alignment. Rotary switch select on dash panel.



Transmission

Clark powershift 4-speeds forward and reverse. Stalk mounted shifter on left side of steering column.



Tires

17.5 R 25 radial pneumatic



Brakes

Hydraulic actuated internal wet-disc service brakes acting on all four wheels. A dash mounted toggle switch activates the dry disc parking brake on the transmission output yoke with a dash warning light.



Suspension

Front: Rigid mounted to frame.

Rear: Provides 3.5° oscillation for use on semi-rough terrain.

Axle lock-out switch, on dash panel, to engage / disengage the axle lock-out. Axle lock-out must be engaged (locked) whenever picking on rubber and when traveling in the crab steer mode. A warning light indicates when the axle lock-outs are engaged.



Lights

Recessed mounted, includes head, tail, rear work, stop, and turn signals.



Maximum Speed

19.5 MPH (31.3km/h)



Gradeability**

63%.....no load

38%.....30,000lb (13 608kg) load

G.V.W.

YB7720: 41,270 lb. (18 720kg)

YB7720XL: 43,000 lb (19 504kg)

Miscellaneous Standard Equipment

Two sheaves, "Quick Reeve" style 20T (18mt) hookblock

Back-up alarm

Dual rearview mirrors

Outrigger motion alarm

*Denotes optional equipment

**Theoretical

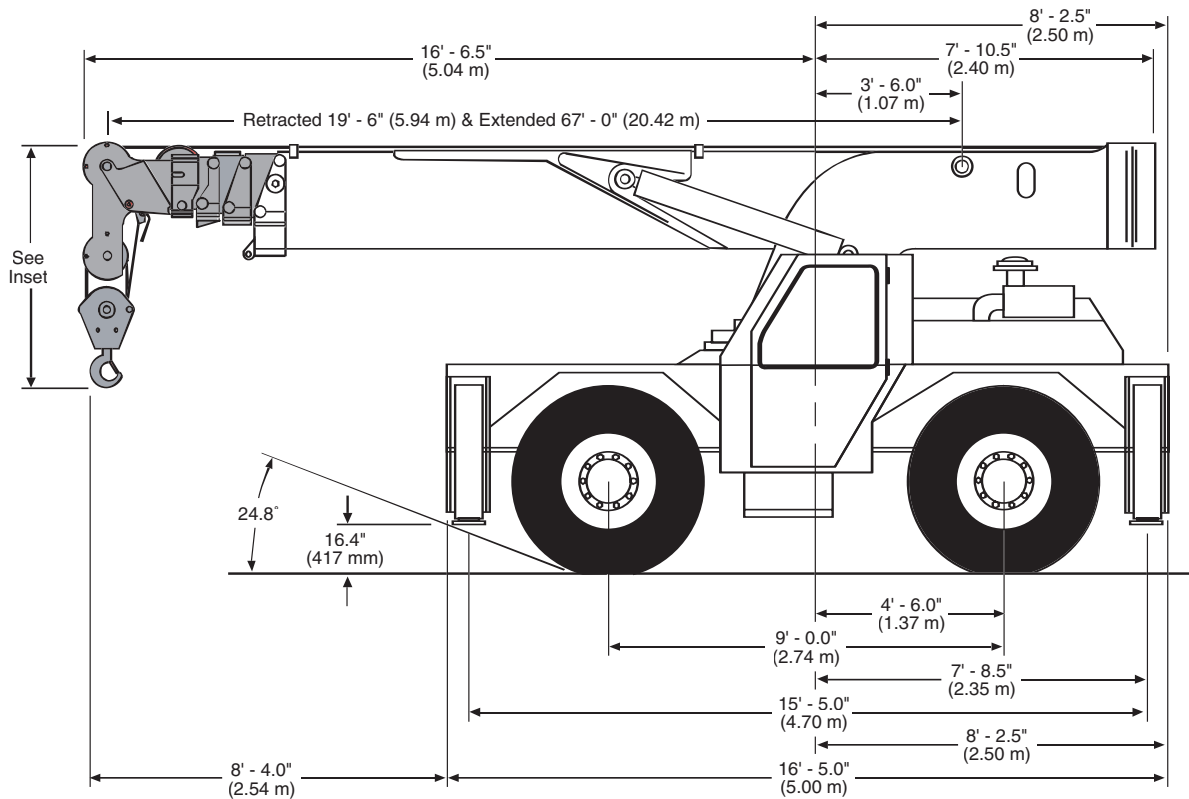
YB7700 Series

GROVE.

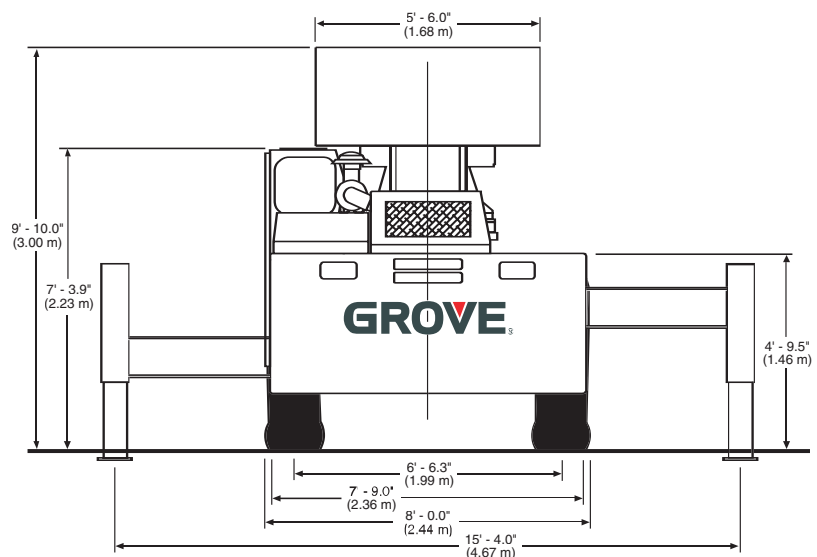
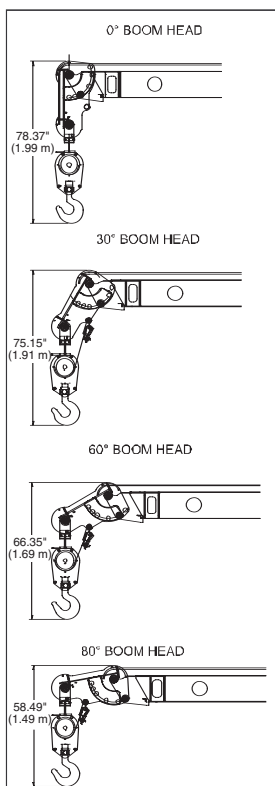


dimensions

YB7720 / XL



5



YB7700 Series

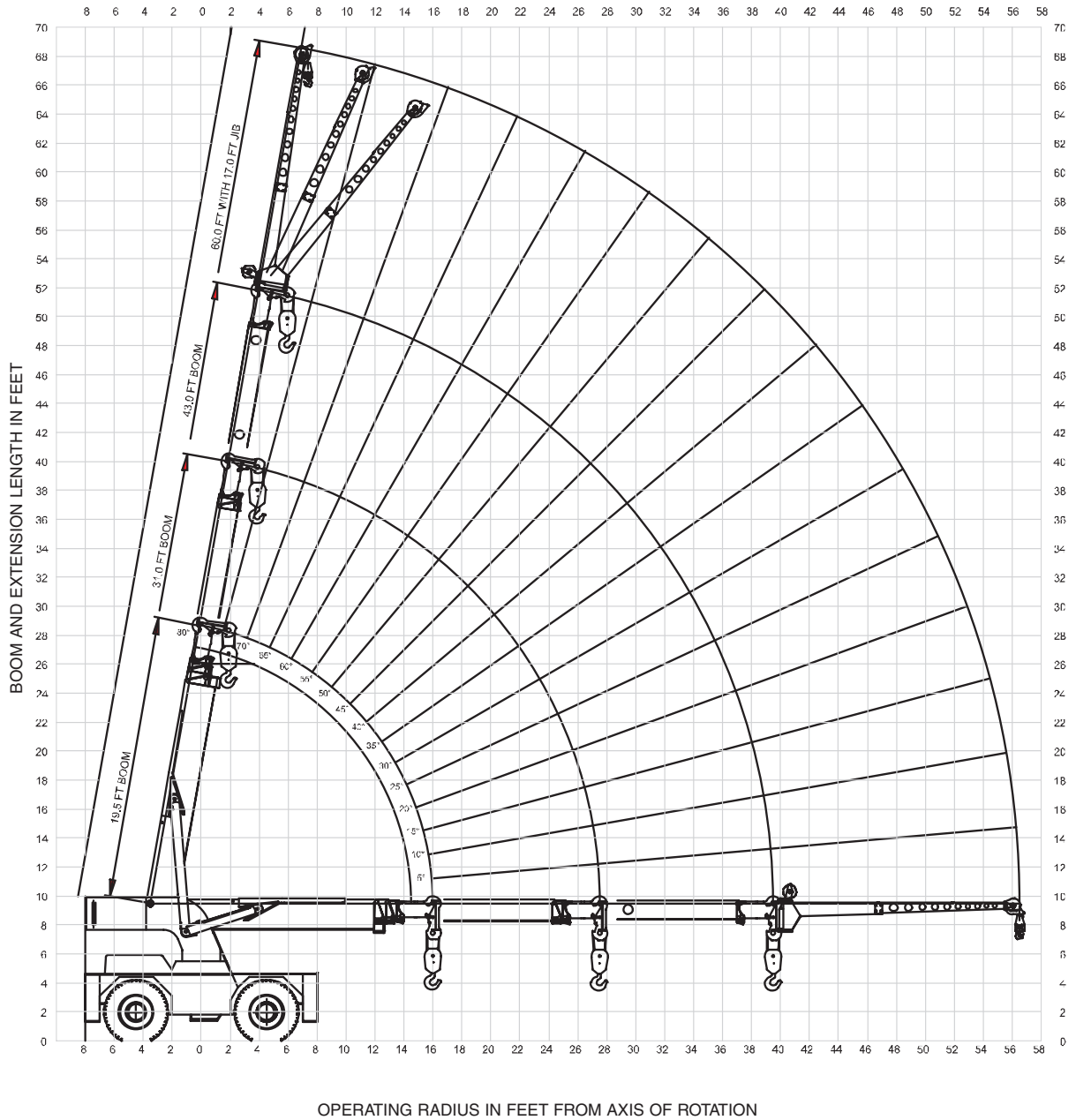
GROVE



range diagram

YB7720 (3-section boom)

6



THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

YB7700 Series

GROVE.



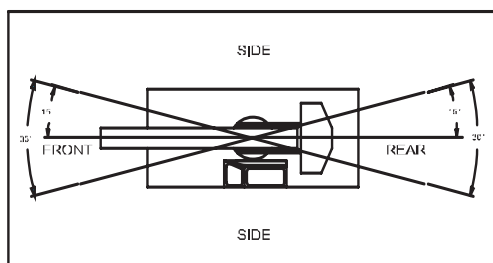
load chart

YB7720 (3-section boom)

7

MAIN BOOM LOAD RATINGS ON OUTRIGGERS Extended and Down 360° or Retracted and Down Front/Rear						
Radius (ft)	19.5 ft BOOM		31.0 ft BOOM		43.0 ft BOOM	
	Boom Angle (deg)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)
10	52	40000	68	31600	74	28000
12	44	33800	64	30500	72	25000
14	33	28500	59	28500	69	22600
16	0	24900	55	25700	66	20000
18	-	-	50	22800	63	17900
20	-	-	45	20200	60	16100
22	-	-	39	17800	56	14600
24	-	-	31	15360	53	13300
26	-	-	22	13250	49	12300
27.5	-	-	0	11600	47	11600
30	-	-	-	-	42	10500
32	-	-	-	-	37	9800
34	-	-	-	-	32	8700
36	-	-	-	-	26	7800
38	-	-	-	-	18	7000
39.5	-	-	-	-	0	6400

MAIN BOOM LOAD RATINGS ON OUTRIGGERS Retracted and Down 360°						
Radius (ft)	19.5 ft BOOM		31.0 ft BOOM		43.0 ft BOOM	
	Boom Angle (deg)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)
10	52	24000	68	22300	74	22000
12	44	17200	64	16300	72	17000
14	33	13300	59	12500	69	13600
16	0	10200	55	9800	66	11100
18	-	-	50	7900	63	9100
20	-	-	45	6500	60	7500
22	-	-	39	5300	56	6200
24	-	-	31	4300	53	5200
26	-	-	22	3500	49	4400
27.5	-	-	0	2900	47	3900
30	-	-	-	-	42	3200
32	-	-	-	-	37	2700
34	-	-	-	-	32	2300
36	-	-	-	-	26	1900
38	-	-	-	-	18	1600
39.5	-	-	-	-	0	1400



RATING REDUCTIONS FOR LOAD HANDLING DEVICES INSTALLED (lbs)		
	FROM MAIN BOOM	FROM JIB
MAIN BLOCK	400	NOT APPLICABLE
HOOK & BALL	100	100
JIB STOWED	NO REDUCTION	NOT APPLICABLE
JIB DEPLOYED	500	NO REDUCTION

MAIN BOOM ON RUBBER		
Radius (ft)	Any Boom Length	
	Front Rating (lbs)	360° Rating (lbs)
6	30000	21000
8	28000	17900
10	25000	15000
12	19500	12100
14	15600	9900
16	12700	7700
18	10300	6300
20	8300	4900
22	6800	3900
24	5800	3100
26	4900	2500
28	4200	2100
30	3700	1800
32	3300	1550
34	3000	1300
36	2700	1100
38	2500	950
40	2200	800

Note: For 360° rating
on rubber, rear axle
locks must be in place.

17 FT JIB CAPACITIES ON EXT. OUTRIGGERS			
Main Boom Angle (deg)	Jib Offset Angle		
	0 deg	15 deg	30 deg
	Any Boom Length	Any Boom Length	Any Boom Length
80	-	5000	3500
75	7500	4400	3100
70	6100	3800	2800
65	5000	3500	2550
60	4300	3150	2350
55	3800	2850	2200
50	3400	2600	2100
45	3050	2400	2000
40	2800	2250	1950
35	2600	2150	1900
30	2400	2080	1830
25	2300	2050	-
20	2200	2000	-
15	2100	1950	-
10	2050	-	-
5	2020	-	-
0	2000	-	-

- The rated loads are the maximum lift capacities as determined by operating radius, boom length and boom angle. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of vertical hoist line or tackle with load applied.
- The rated loads shown on outriggers do not exceed 85% of actual tipping. The rated loads shown on rubber do not exceed 75% of actual tipping. These ratings are based on freely suspended loads with the crane leveled, standing on a firm, uniform supporting surface. Practical working loads depend on supporting surface, operating radius and other factors affecting stability. Hazardous surroundings, climatic conditions, experience of personnel and proper handling must all be taken into account by the operator.
- The weights of all load handling devices, such as hooks, hook blocks, slings, etc., except the hoist rope, shall be considered as part of the load. See above.
- Ratings on outriggers are for either outriggers fully extended and down or fully retracted and down. Ratings for outriggers fully retracted and down will apply for any intermediate outrigger setting.
- Ratings on rubber depend on tire capacity, condition of tires and proper inflation pressure (110 psi). Loads on rubber may be transported at a maximum speed of 2.5 mph on a smooth hard level surface with boom retracted to the shortest length possible and centered over front. Do not use jib with crane on rubber.
- For operating radius not shown, use load rating of next larger radius.
- The maximum combined total boom and deck load is 20,000 lbs. The maximum deck load only is 30,000 lbs.
- Do not induce any external side loads to boom or jib.

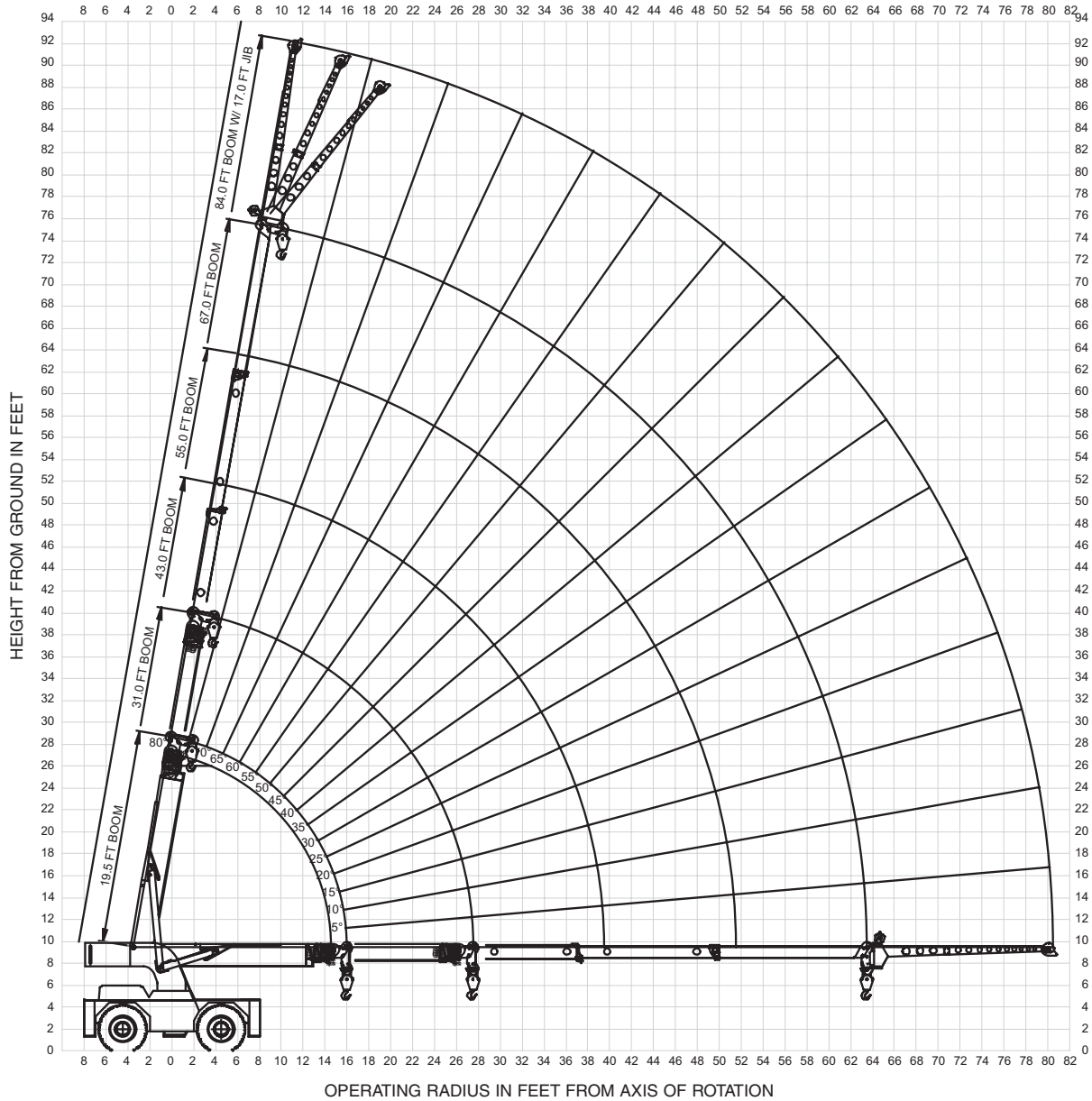
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.



range diagram

YB7720 XL (5-section boom)

8



THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

GROVE.



load chart

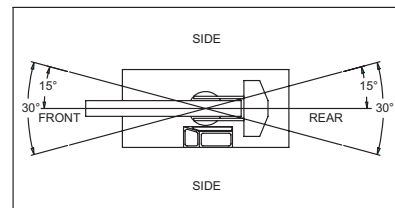
YB7720 XL (5-section boom)

MAIN BOOM LOAD RATINGS ON OUTRIGGERS Extended and Down 360° or Retracted and Down Front/Rear										
Radius (ft)	19.5 ft BOOM		31.0 ft BOOM		43.0 ft BOOM		55.0 ft BOOM		67.0 ft BOOM	
	Boom Angle (deg)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)
10	52	40000	68	26500	74	25400	78	19500	-	-
12	44	33800	64	25300	72	24200	76	17600	78	14500
14	33	28500	59	22900	69	22800	74	16100	77	13200
16	0	23700	55	20900	66	20000	71	14800	75	12200
18	-	-	50	19300	63	17900	69	13700	73	11200
20	-	-	45	17800	60	16100	67	12800	71	10400
22	-	-	39	16400	56	14600	64	12000	69	9700
24	-	-	31	14700	53	13300	62	11200	67	9100
26	-	-	22	13200	49	12300	60	10600	66	8600
27.5	-	-	0	11600	47	11600	58	10200	64	8200
30	-	-	-	-	42	10500	55	9400	62	7700
32	-	-	-	-	37	9800	52	8700	60	7300
34	-	-	-	-	32	8700	49	8100	58	6900
36	-	-	-	-	26	7800	46	7600	56	6600
38	-	-	-	-	18	7000	43	7100	53	6300
39.5	-	-	-	-	0	6400	41	6800	52	6100
42	-	-	-	-	-	-	36	6300	49	5800
44	-	-	-	-	-	-	32	5800	47	5600
46	-	-	-	-	-	-	28	5300	44	5300
48	-	-	-	-	-	-	23	4800	42	5000
50	-	-	-	-	-	-	16	4400	39	4700
51.5	-	-	-	-	-	-	0	4000	37	4600
54	-	-	-	-	-	-	-	-	33	4200
56	-	-	-	-	-	-	-	-	29	3900
58	-	-	-	-	-	-	-	-	25	3600
60	-	-	-	-	-	-	-	-	20	3300
62	-	-	-	-	-	-	-	-	14	3000
63.5	-	-	-	-	-	-	-	-	0	2800

MAIN BOOM ON RUBBER		
Radius (ft)	Any Boom Length	
	Front Rating (lbs)	360° Rating (lbs)
6	30000	21000
8	28000	17900
10	25000	15000
12	19600	12400
14	15600	9900
16	12700	7700
18	10300	6300
20	8300	4900
22	6800	3900
24	5800	3100
26	4900	2500
28	4200	2100
30	3700	1800
32	3300	1550
34	3000	1300
36	2700	1100
38	2500	950
40	2200	800
42	2000	675
44	1800	550
46	1650	450
48	1400	350
50	1300	250
52	1150	200
54	1050	150
56	950	75
58	875	25
60	800	-
62	700	-
63.5	600	-

Note: For 360° rating on rubber, rear axle locks must be in place.

RATING REDUCTIONS FOR LOAD HANDLING DEVICES INSTALLED (lbs)		
	FROM MAIN BOOM	FROM JIB
MAIN BLOCK	400	NOT APPLICABLE
HOOK & BALL	100	100
JIB STOWED	NO REDUCTION	NOT APPLICABLE
JIB DEPLOYED	500	NO REDUCTION



MAIN BOOM LOAD RATINGS ON OUTRIGGERS Retracted and Down 360°										
Radius (ft)	19.5 ft BOOM		31.0 ft BOOM		43.0 ft BOOM		55.0 ft BOOM		67.0 ft BOOM	
	Boom Angle (deg)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)
10	52	24000	68	22300	74	22000	78	19500	-	-
12	44	17200	64	16300	72	17000	76	17100	78	14500
14	33	13300	59	12500	69	13600	74	14000	77	13200
16	0	10200	55	9800	66	11100	71	11200	75	11500
18	-	-	50	7900	63	9100	69	9300	73	11500
20	-	-	45	6500	60	7500	67	7800	71	9400
22	-	-	39	5300	56	6200	64	6600	69	7700
24	-	-	31	4300	53	5200	62	5600	67	6500
26	-	-	22	3500	49	4400	60	4800	66	5600
27.5	-	-	0	2900	47	3900	58	4300	64	5000
30	-	-	-	-	42	3200	55	3600	62	4600
32	-	-	-	-	37	2700	52	3100	60	3900
34	-	-	-	-	32	2300	49	2700	58	3400
36	-	-	-	-	26	1900	46	2300	56	2900
38	-	-	-	-	18	1600	43	2000	53	2500
39.5	-	-	-	-	0	1400	41	1750	52	2100
42	-	-	-	-	-	-	36	1450	49	1850
44	-	-	-	-	-	-	32	1200	47	1500
46	-	-	-	-	-	-	28	1000	44	1300
48	-	-	-	-	-	-	23	850	42	1100
50	-	-	-	-	-	-	16	700	39	950
51.5	-	-	-	-	-	-	0	600	37	800
54	-	-	-	-	-	-	-	-	33	700
56	-	-	-	-	-	-	-	-	29	500
58	-	-	-	-	-	-	-	-	25	350
60	-	-	-	-	-	-	-	-	20	250
62	-	-	-	-	-	-	-	-	14	150
63.5	-	-	-	-	-	-	-	-	0	50

17 FT JIB CAPACITIES ON EXTENDED OUTRIGGERS					
Main Boom Angle (deg)	Jib Offset Angle				
	0 deg		15 deg		30 deg
	To 55.0 ft Main Boom	To 67.0 ft Main Boom	To 55.0 ft Main Boom	To 67.0 ft Main Boom	
80	-	-	5000	5000	3500
75	7500	-	4400	4400	3100
70	6100	-	3900	3900	2800
65	5000	4600	3500	3500	2550
60	4300	3800	3150	3150	2350
55	3800	3300	2850	2850	2200
50	3400	2900	2600	2600	2100
45	3050	2600	2400	2400	2000
40	2800	2400	2250	2250	1950
35	2600	2150	2150	2050	1900
30	2400	1930	2080	1850	1830
25	2300	1750	2050	1720	-
20	2200	1600	2000	1590	-
15	2100	1500	1950	1520	-
10	2050	1460	-	-	-
5	2020	1450	-	-	-
0	2000	1440	-	-	-

SHADED AREAS ARE GOVERNED BY STRUCTURAL STRENGTH, DO NOT RELY ON TIPPING.

OPERATION OF THIS EQUIPMENT IN EXCESS OF RATING CHARTS AND DISREGARD OF INSTRUCTIONS IS DANGEROUS AND VOIDS WARRANTY.

- The rated loads are the maximum lift capacities as determined by operating radius, boom length and boom angle. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of vertical hoist line or tackle with load applied.
- The rated loads shown on outriggers do not exceed 85% of actual tipping. The rated loads shown on rubber do not exceed 75% of actual tipping. These ratings are based on freely suspended loads with the crane leveled, standing on a firm, uniform supporting surface. Practical working loads depend on supporting surface, operating radius and other factors affecting stability. Hazardous surroundings, climatic conditions, experience of personnel and proper handling must all be taken into account by the operator.
- The weights of all load handling devices, such as hooks, hook blocks, slings, etc., except the hoist rope, shall be considered as part of the load. See above.
- Ratings on outriggers are for either outriggers fully extended and down or fully retracted and down. Ratings for outriggers fully retracted and down will apply for any intermediate outrigger setting.
- Ratings on rubber depend on tire capacity, condition of tires and proper inflation pressure (110 psi). Loads on rubber may be transported at a maximum speed of 2.5 mph on a smooth hard level surface with boom retracted to the shortest length possible and centered over front. Do not use jib with crane on rubber.
- For operating radius not shown, use load rating of next larger radius.
- The maximum combined total boom and deck load is 20,000 lbs. The maximum deck load only is 30,000 lbs.
- Do not induce any external side loads to boom or jib.

MAXIMUM PERMISSIBLE SINGLE LINE PULL = 10,000 lbs

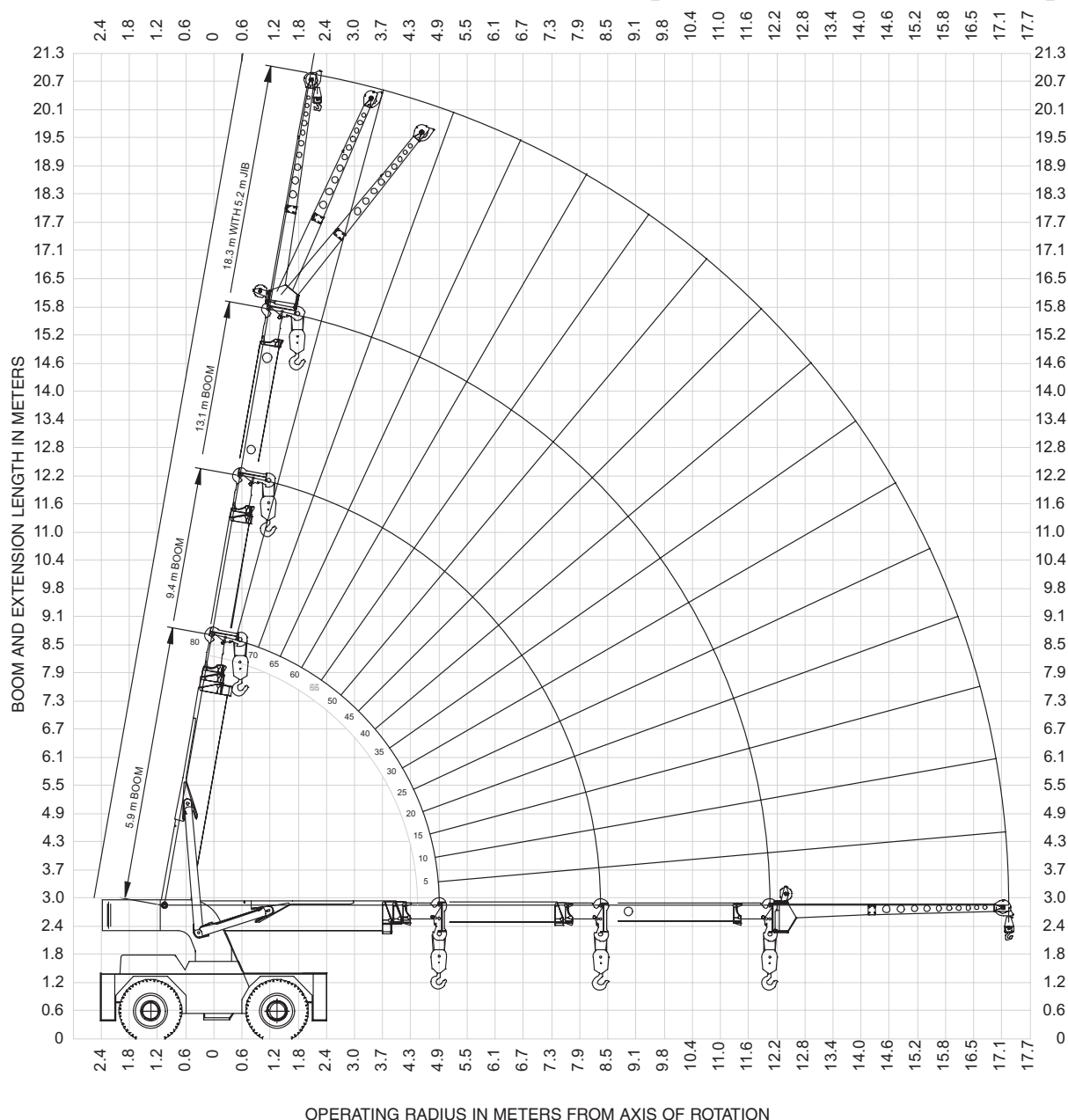
WIRE ROPE: 9/16 inch dia. 6 x 19 EEEIPS IWRC BRIGHT
Min. req'd breaking strength = 37,000 lbs

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

range diagram

YB7720 (3-section boom)

10



THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

YB 7700 Series

GROVE.

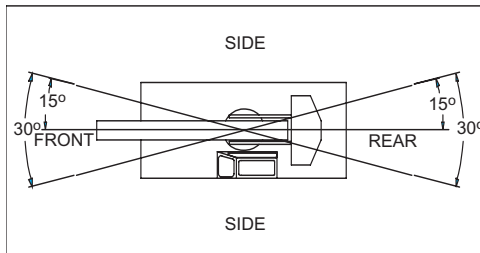


DIN/ISO load chart

YB7720 (3-section boom)

11

MAIN BOOM LOAD RATINGS ON OUTRIGGERS Extended and Down 360° or Retracted and Down Front/Rear						
5.9 m BOOM		9.4 m BOOM		13.1 m BOOM		
Radius (m)	Boom Angle (deg)	Rated Load (kg)	Boom Angle (deg)	Rated Load (kg)	Boom Angle (deg)	Rated Load (kg)
3.0	52	18140	68	14330	74	12700
3.7	44	15350	64	13830	72	11340
4.3	33	12930	59	12930	69	10270
4.9	0	10740	55	11660	66	9090
5.5	-	-	50	10340	63	8110
6.1	-	-	45	8900	60	7300
6.7	-	-	39	7710	56	6620
7.3	-	-	31	6550	53	6050
7.9	-	-	22	5520	49	5560
8.4	-	-	0	4790	47	5150
9.1	-	-	-	-	42	4630
9.8	-	-	-	-	37	4050
10.4	-	-	-	-	32	3560
11.0	-	-	-	-	26	3180
11.6	-	-	-	-	18	2830
12.0	-	-	-	-	0	2580



RATING REDUCTIONS FOR LOAD HANDLING DEVICES INSTALLED (kg)		
	FROM MAIN BOOM	FROM JIB
MAIN BLOCK	180	NOT APPLICABLE
HOOK & BALL	50	50
JIB STOWED	NO REDUCTION	NOT APPLICABLE
JIB DEPLOYED	230	NO REDUCTION

MAIN BOOM LOAD RATINGS ON OUTRIGGERS Retracted and Down 360°						
5.9 m BOOM		9.4 m BOOM		13.1 m BOOM		
Radius (m)	Boom Angle (deg)	Rated Load (kg)	Boom Angle (deg)	Rated Load (kg)	Boom Angle (deg)	Rated Load (kg)
3.0	52	10110	68	9360	74	9020
3.7	44	7190	64	6800	72	7100
4.3	33	5520	59	5210	69	5630
4.9	0	4230	55	4050	66	4630
5.5	-	-	50	3210	63	3730
6.1	-	-	45	2620	60	3060
6.7	-	-	39	2100	56	2490
7.3	-	-	31	1710	53	2060
7.9	-	-	22	1340	49	1720
8.4	-	-	0	1080	47	1510
9.1	-	-	-	-	42	1200
9.8	-	-	-	-	37	1000
10.4	-	-	-	-	32	820
11.0	-	-	-	-	26	660
11.6	-	-	-	-	18	530
12.0	-	-	-	-	0	450

MAIN BOOM ON RUBBER		
Any Boom Length		
Radius (m)	Front Rating (kg)	360° Rating (kg)
1.8	13610	9520
2.4	12700	8120
3.0	11340	6800
3.7	8890	5470
4.3	6990	4340
4.9	5570	3320
5.5	4520	2680
6.1	3620	2070
6.7	2940	1620
7.3	2480	1260
7.9	2070	980
8.5	1760	810
9.1	1530	670
9.8	1350	550
10.4	1210	440
11.0	1080	350
11.6	960	280
12.0	900	210

Note: For 360° rating
on rubber, rear axle
locks must be in place.

5.2 m JIB CAPACITIES ON EXT. OUTRIGGERS			
Main Boom Angle (deg)	Jib Offset Angle		
	0 deg	15 deg	30 deg
	Any Boom Length (kg)	Any Boom Length (kg)	Any Boom Length (kg)
80	-	2270	1590
75	3400	2000	1410
70	2770	1770	1270
65	2270	1590	1160
60	1950	1430	1070
55	1720	1290	1000
50	1540	1180	950
45	1380	1090	910
40	1270	1020	880
35	1180	980	860
30	1090	940	830
25	1040	930	-
20	1000	910	-
15	950	880	-
10	930	-	-
5	920	-	-
0	910	-	-

- The rated loads are the maximum lift capacities as determined by operating radius, boom length and boom angle. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of vertical hoist line or tackle with load applied.
- The rated loads shown on outriggers do not exceed 80% of actual tipping. The rated loads shown on rubber do not exceed 75% of actual tipping. These ratings are based on freely suspended loads with the crane leveled, standing on a firm, uniform supporting surface. Practical working loads depend on supporting surface, operating radius and other factors affecting stability. Hazardous surroundings, climatic conditions, experience of personnel and proper handling must all be taken into account by the operator.
- The weights of all load handling devices, such as hooks, hook blocks, slings, etc., except the hoist rope, shall be considered as part of the load. See above.

SHADED AREAS ARE GOVERNED BY STRUCTURAL
STRENGTH, DO NOT RELY ON TIPPING.

OPERATION OF THIS EQUIPMENT IN EXCESS OF
RATING CHARTS AND DISREGARD OF INSTRUCTIONS
IS DANGEROUS AND Voids WARRANTY.

- Ratings on outriggers are for either outriggers fully extended and down or fully retracted and down. Ratings for outriggers fully retracted and down will apply for any intermediate outrigger setting.
- Ratings on rubber depend on tire capacity, condition of tires and proper inflation pressure (7.6 bar). Loads on rubber may be transported at a maximum speed of 1.4 km/h on a smooth hard level surface with boom retracted to the shortest length possible and centered over front. Do not use jib with crane on rubber.
- For operating radius not shown, use load rating of next larger radius.
- The maximum combined total boom and deck load is 9 070 kg. The maximum deck load only is 13 610 kg.
- Do not induce any external side loads to boom or jib.

MAXIMUM PERMISSIBLE SINGLE LINE PULL = 4 540 kg

WIRE ROPE: 14 mm dia. 6 x 19 EEEIPS IWRC BRIGHT
Min. req'd breaking strength = 171.2 kN

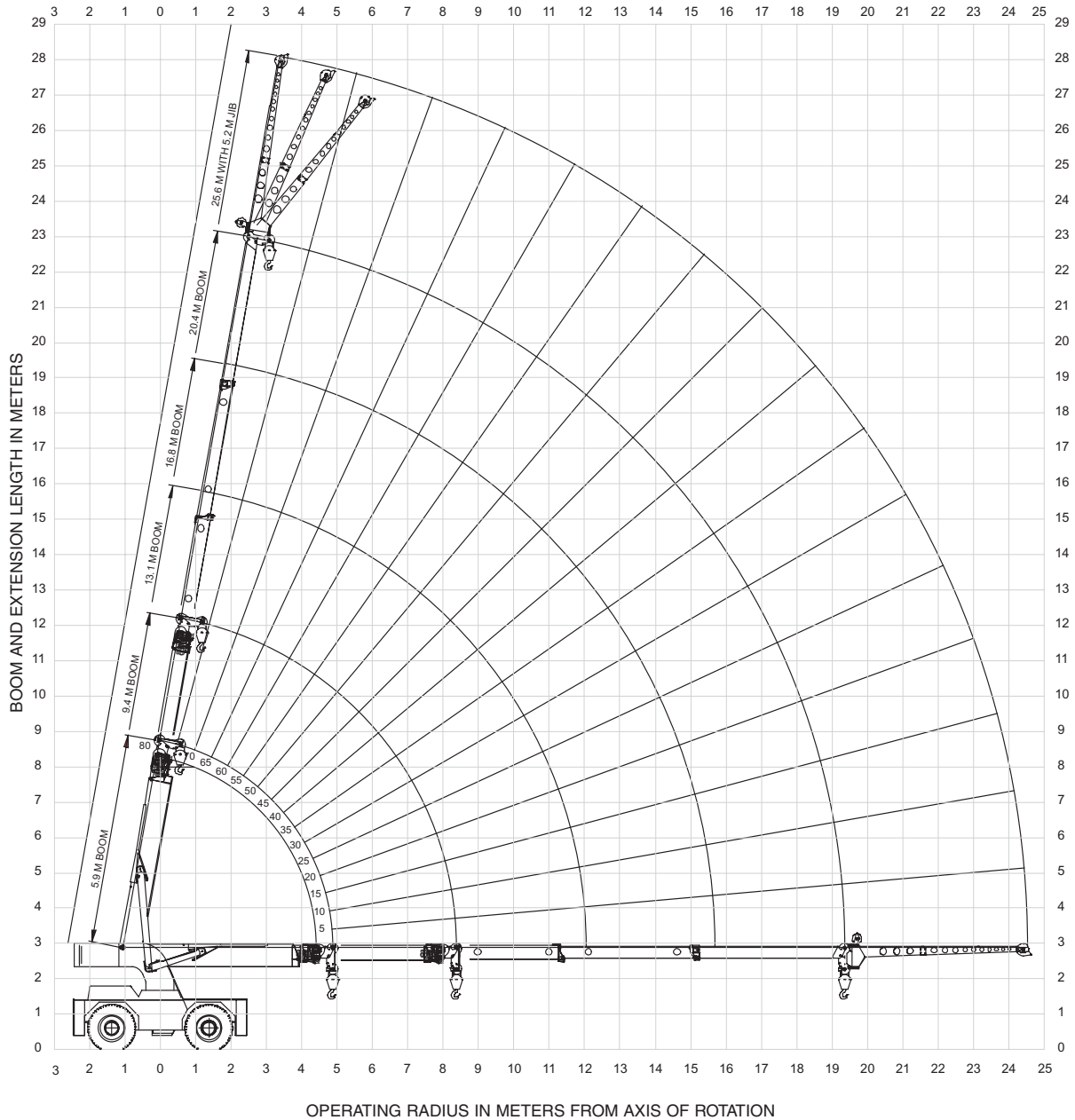
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.



range diagram

YB7720 (5-section boom)

12



THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

YB7700 Series

GROVE.



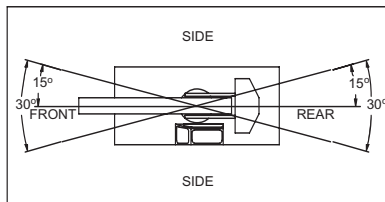
DIN/ISO load chart

YB7720 (5-section boom)

13

MAIN BOOM LOAD RATINGS ON OUTRIGGERS Extended and Down 360° or Retracted and Down Front/Rear										
Radius (m)	5.9 m BOOM		9.4 m BOOM		13.1 m BOOM		16.8 m BOOM		20.4 m BOOM	
	Boom Angle (deg)	Rated Load (kgs)	Boom Angle (deg)	Rated Load (kgs)	Boom Angle (deg)	Rated Load (kgs)	Boom Angle (deg)	Rated Load (kgs)	Boom Angle (deg)	Rated Load (kgs)
3.0	52	18140	68	12000	74	11540	78	8840	-	-
3.7	44	15350	64	11490	72	10980	76	7980	78	6580
4.3	33	12930	59	10400	69	10270	74	7300	77	5990
4.9	0	10740	55	9490	66	9090	71	6710	75	5540
5.5	-	-	50	8740	63	8110	69	6210	73	5080
6.1	-	-	45	8100	60	7300	67	5810	71	4720
6.7	-	-	39	7430	56	6620	64	5440	69	4400
7.3	-	-	31	6550	53	6050	62	5080	67	4130
7.9	-	-	22	5520	49	5560	60	4810	66	3900
8.4	-	-	0	4790	47	5150	58	4630	64	3720
9.1	-	-	-	-	42	4630	55	4250	62	3500
9.8	-	-	-	-	37	4050	52	3920	60	3310
10.4	-	-	-	-	32	3560	49	3680	58	3130
11.0	-	-	-	-	26	3180	46	3440	56	3000
11.6	-	-	-	-	18	2830	43	3180	53	2860
12.0	-	-	-	-	0	2580	41	2920	52	2770
12.8	-	-	-	-	-	-	36	2540	49	2660
13.4	-	-	-	-	-	-	32	2320	47	2470
14.0	-	-	-	-	-	-	28	2110	44	2290
14.6	-	-	-	-	-	-	23	1910	42	2070
15.2	-	-	-	-	-	-	16	1720	39	1920
15.7	-	-	-	-	-	-	0	1550	37	1810
16.5	-	-	-	-	-	-	-	-	33	1640
17.1	-	-	-	-	-	-	-	-	29	1510
17.7	-	-	-	-	-	-	-	-	25	1380
18.3	-	-	-	-	-	-	-	-	20	1250
18.9	-	-	-	-	-	-	-	-	14	1120
19.4	-	-	-	-	-	-	-	-	0	1040

MAIN BOOM LOAD RATINGS ON OUTRIGGERS Retracted and Down 360°										
Radius (m)	5.9 m BOOM		9.4 m BOOM		13.1 m BOOM		16.8 m BOOM		20.4 m BOOM	
	Boom Angle (deg)	Rated Load (kgs)	Boom Angle (deg)	Rated Load (kgs)	Boom Angle (deg)	Rated Load (kgs)	Boom Angle (deg)	Rated Load (kgs)	Boom Angle (deg)	Rated Load (kgs)
3.0	52	10110	68	9360	74	9020	78	8840	-	-
3.7	44	7190	64	6800	72	7100	76	7130	78	6580
4.3	33	5520	59	5210	69	5630	74	5810	77	5610
4.9	0	4230	55	4050	66	4630	71	4630	75	4720
5.5	-	-	50	3210	63	3730	69	3810	73	3850
6.1	-	-	45	2620	60	3060	67	3170	71	3130
6.7	-	-	39	2100	56	2490	64	2660	69	2620
7.3	-	-	31	1710	53	2060	62	2230	67	2240
7.9	-	-	22	1340	49	1720	60	1890	66	1970
8.4	-	-	0	1080	47	1510	58	1680	64	1780
9.1	-	-	-	-	42	1200	55	1380	62	1500
9.8	-	-	-	-	37	1000	52	1160	60	1290
10.4	-	-	-	-	32	820	49	990	58	1090
11.0	-	-	-	-	26	660	46	830	56	910
11.6	-	-	-	-	18	530	43	690	53	740
12.0	-	-	-	-	0	450	41	590	52	630
12.8	-	-	-	-	-	-	36	460	49	490
13.4	-	-	-	-	-	-	32	360	47	400
14.0	-	-	-	-	-	-	28	270	44	320
14.6	-	-	-	-	-	-	23	270	42	250
15.2	-	-	-	-	-	-	16	140	39	180
15.7	-	-	-	-	-	-	0	100	37	130
16.5	-	-	-	-	-	-	-	-	33	50
17.1	-	-	-	-	-	-	-	-	29	0
17.7	-	-	-	-	-	-	-	-	25	0
18.3	-	-	-	-	-	-	-	-	20	0
18.9	-	-	-	-	-	-	-	-	14	0
19.4	-	-	-	-	-	-	-	-	0	0



RATING REDUCTIONS FOR LOAD HANDLING DEVICES INSTALLED (kgs)		
	FROM MAIN BOOM	FROM JIB
MAIN BLOCK	180	NOT APPLICABLE
HOOK & BALL	50	50
JIB STOWED	NO REDUCTION	NOT APPLICABLE
JIB DEPLOYED	230	NO REDUCTION

MAIN BOOM ON RUBBER		
Any Boom Length		
Radius (m)	Front Rating (kgs)	360° Rating (kgs)
1.8	13610	9520
2.4	12700	8120
3.0	11340	6800
3.7	8890	5470
4.3	6990	4340
4.9	5570	3320
5.5	4520	2680
6.1	3620	2070
6.7	2940	1620
7.3	2480	1260
7.9	2070	980
8.5	1760	810
9.1	1530	670
9.8	1350	550
10.4	1210	440
11.0	1080	350
11.6	960	280
12.2	850	210
12.8	760	160
13.4	660	100
14.0	570	50
14.6	500	10
15.2	440	0
15.8	370	0
16.5	330	0
17.1	280	0
17.7	240	0
18.3	200	0
18.9	170	0
19.4	130	0

Note: For 360° rating on rubber, rear axle locks must be in place.

SHADED AREAS ARE GOVERNED BY STRUCTURAL STRENGTH, DO NOT RELY ON TIPPING.

OPERATION OF THIS EQUIPMENT IN EXCESS OF RATING CHARTS AND DISREGARD OF INSTRUCTIONS IS DANGEROUS AND VOIDS WARRANTY.

5.2 M JIB CAPACITIES ON EXTENDED OUTRIGGERS					
Main Boom Angle (deg)	Jib Offset Angle				
	0 deg		15 deg		30 deg
	To 16.8 m Main Boom	To 20.4 m Main Boom	To 16.8 m Main Boom	To 20.4 m Main Boom	Any Boom Length
80	3400	-	2270	2270	1590
75	2770	-	2000	2000	1410
70	2770	-	1770	1770	1270
65	2270	2090	1590	1590	1160
60	1950	1720	1430	1430	1070
55	1720	1500	1290	1290	1000
50	1540	1320	1180	1180	950
45	1380	1180	1090	1090	910
40	1270	1090	1020	1020	880
35	1180	980	980	930	860
30	1090	880	940	840	830
25	1040	790	930	780	-
20	1000	730	910	720	-
15	950	680	880	690	-
10	930	660	-	-	-
5	920	660	-	-	-
0	910	650	-	-	-

MAXIMUM PERMISSIBLE SINGLE LINE PULL = 4 540 kg

WIRE ROPE: 14 mm dia. 6 x 19 EEIFS IWRC BRIGHT
Min. req'd breaking strength = 171.2 kN

- The rated loads are the maximum lift capacities as determined by operating radius, boom length and boom angle. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of vertical hoist line or tackle with load applied.
- The rated loads shown on outriggers do not exceed 80% of actual tipping. The rated loads shown on rubber do not exceed 75% of actual tipping. These ratings are based on freely suspended loads with the crane leveled, standing on a firm, uniform supporting surface. Practical working loads depend on supporting surface, operating radius and other factors affecting stability. Hazardous surroundings, climatic conditions, experience of personnel and proper handling must all be taken into account by the operator.
- The weights of all load handling devices, such as hooks, hook blocks, slings, etc., except the hoist rope, shall be considered as part of the load. See above.
- Ratings on outriggers are for either outriggers fully extended and down or fully retracted and down. Ratings for outriggers fully retracted and down will apply for any intermediate outrigger setting.
- Ratings on rubber depend on tire capacity, condition of tires and proper inflation pressure (7.6 bar). Loads on rubber may be transported at a maximum speed of 1.4 km/h on a smooth hard level surface with boom retracted to the shortest length possible and centered over front. Do not use jib with crane on rubber.
- For operating radius not shown, use load rating of next larger radius.
- The maximum combined total boom and deck load is 9 070 kgs. The maximum deck load only is 13 610 kgs.
- Do not induce any external side loads to boom or jib.

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.



notes

14

YB7700 Series

GROVE.



notes



Manitowoc Crane Group - Americas

Manitowoc, Wisconsin Facility

Tel: [Int + 001] 920 684 6621

Fax: [Int + 001] 920 683 6277

Shady Grove, Pennsylvania Facility

Tel: [Int + 001] 717 597 8121

Fax: [Int + 001] 717 597 4062

Manitowoc Crane Group - EMEA

Europe Middle East & Africa

Tel: [Int + 33] (0) 191 565 6281

Fax: [Int + 33] (0) 4 72 18 20 20

Manitowoc Crane Group - UK

Europe Middle East & Africa

Tel: [Int + 44] (0) 191 565 6281

Fax: [Int + 44] (0) 191 564 0442

Manitowoc Crane Group - Germany

(Sales, Parts & Service)

Tel: [Int + 49] (0) 2173 8909 0

Fax: [Int + 49] (0) 2173 8909-30

Manitowoc Crane Group - France

France & Africa (Sales, Parts & Service)

Tel: [Int + 33] (0) 1 303 13150

Fax: [Int + 33] (0) 1 303 86085

Manitowoc Crane Group - Netherlands

(Sales, Parts & Service)

Tel: [Int + 31] (0) 76 578 39 99

Fax: [Int + 31] (0) 76 578 39 78

Manitowoc Crane Group - Italy

Italy & Southern Europe (Sales, Parts & Service)

Tel: [Int + 39] (0) 331 49 33 11

Fax: [Int + 39] (0) 331 49 33 30

Manitowoc Crane Group - Portugal

Portugal & Spain (Sales, Parts & Service)

Tel: [Int + 351] (0) 22 968 08 89

Fax: [Int + 351] (0) 22 968 08 97

Manitowoc Crane Group - Singapore

Asia/Pacific excl China (Sales, Parts & Service)

Tel: [Int + 65] 6861 1733

Fax: [Int + 65] 6862 4040 / 4142

Manitowoc Crane Group - Shanghai

China (Sales, Parts & Service)

Tel: [Int + 86] (0) 21 64955555

Fax: [Int + 86] (0) 2164852038

Manitowoc Crane Group - Beijing

China (Sales, Parts & Service)

Tel: [Int + 86] (0) 10 646 71690

Fax: [Int + 86] (0) 10 646 71691

Manitowoc Crane Group - Middle East

(Sales)

Tel: [Int + 971] (0) 4 348 4478

Fax: [Int + 971] (0) 4 348 4478

(Parts & Service)

Tel: [Int + 973] (0) 9 660 899

Fax: [Int + 973] (0) 2 707 740

Distributed By:



www.manitowoccrane.com



Constant improvement and engineering progress make it necessary that we reserve the right to make specification, equipment, and price changes without notice. Illustrations shown may include optional equipment and accessories, and may not include all standard equipment.