

GROVE

YB7700 Series

product guide

features

- 2 models ... YB7722 & YB7722XL
- 22 ton (19.9 mt) capacity 360° on outriggers @ 8.5 ft. (2.6m) radius
- 15 ton (13.6 mt) deck carrying capacity
- 15 ton (13.6 mt) on rubber capacity
- YB7722 – 43 ft. (13.1m) 3-section boom
- YB7722XL – 67 ft. (20.43m) 5-section boom
- 17 ft. (5.18m) offsettable swingaway extension
- 130 bhp (97.0 kW) Cummins QSB4.5L (Tier III) diesel engine



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YB7722/XL (metric)

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Industrial Hydraulic Crane

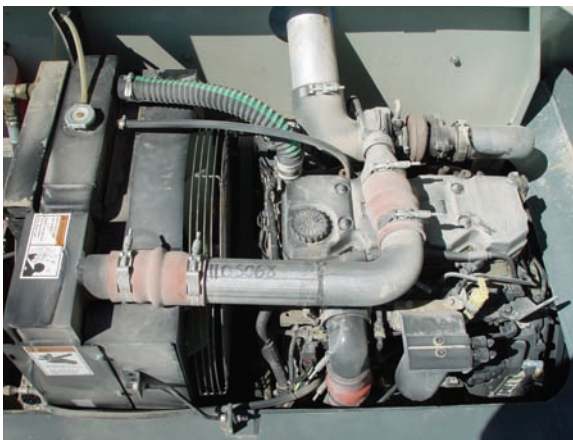
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features

2



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



Standard:

- Water-cooled Cummins QSB4.5L Turbo-charged diesel engine rated @ 130 BHP (97.0kW)
- Variable displacement piston pump w/piggyback gear pump.



Standard: Open air cab shell w/overhead safety glass

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



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



Standard: 4-wheel drive and 4-wheel steer and crab steer with electronic self-alignment

Standard: 17.5 X 25 bias ply tires

YB7700 Series

GROVE

specifications

3

Superstructure



Boom

YB7722: 19 ft. 6 in. – 43 ft. 0 in. (5.9m – 13.1m) three-section full power boom.

Maximum tip height: 51 ft. 8 in. (15.7m)

YB7722XL: 19 ft. 6 in. – 67 ft. 0 in. (5.9m – 20.4m) five-section full power boom.

Maximum tip height: 75 ft. 0 in. (22.8m)

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 23.9 in. (0.60m) 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 warning to the crane operator and disengages all crane functions whose movement can cause two-blocking.



Load Indicator (wireless LSI)

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 (wireless 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 (hardwired 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.

Planetary swing.

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: 320 fpm (97.5m/min)

Maximum Permissible Single Line Pull: 11,000 lb (4990kg)
(5/8" [16.0mm] XIPS)

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

*Denotes optional equipment

YB7700 Series

GROVE

specifications

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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.

Outrigger pad size: 11.5 in. x 11.5 in. (29.2cmx29.2cm)

*Independent outrigger controls available as an option.



Std. Engine

Cummins QSB 4.5L turbo-charged diesel rated @ 130 bhp (97kW) @ 2500 rpm with 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, right and rear glass. Hinged full door with sliding glass.

Front windshield wiper, heater and defroster are 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 x 25 Bias (std.)

*17.5 R 25 radial



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.

YB7722: 41,270 lb. (18 720kg)

YB7722XL: 43,000 lb (19 504kg)

Miscellaneous Standard Equipment

Two sheaves, "Quick Reeve" style 22T (19.9mt) hookblock

Back-up alarm

Dual rearview mirrors

Outrigger motion alarm

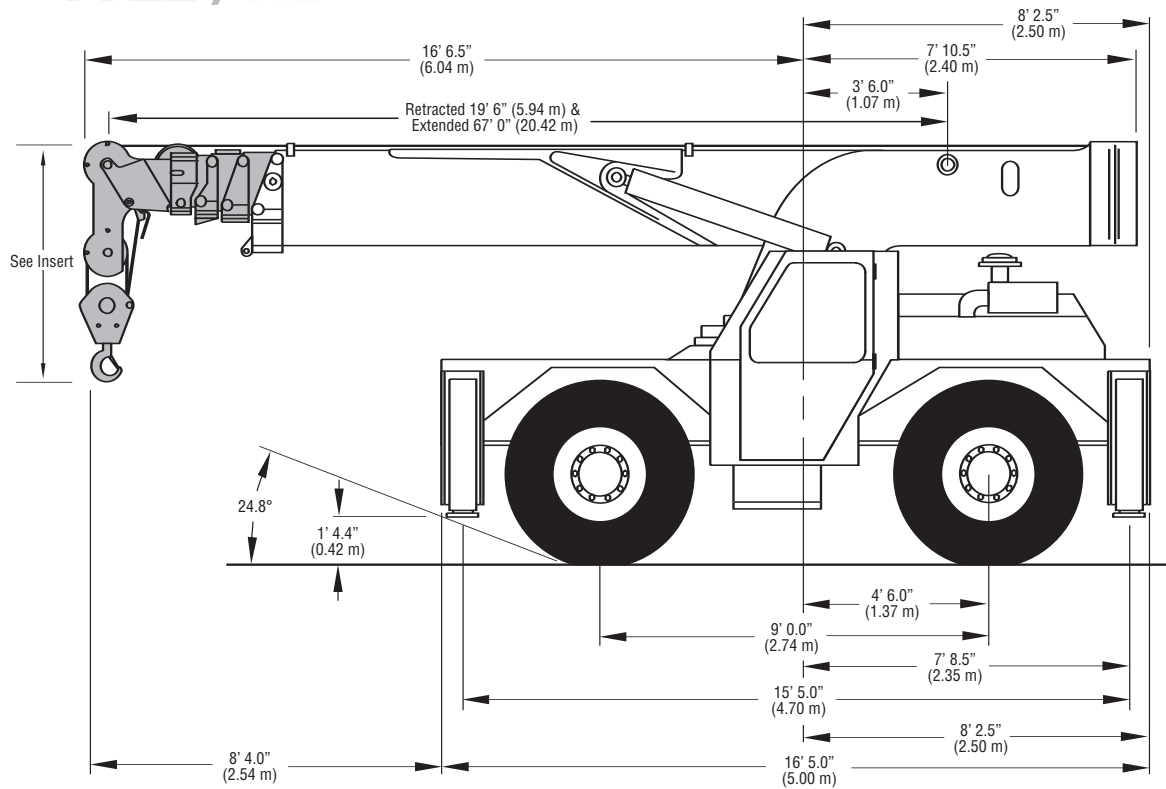
Lifting and tie down lugs

*Denotes optional equipment

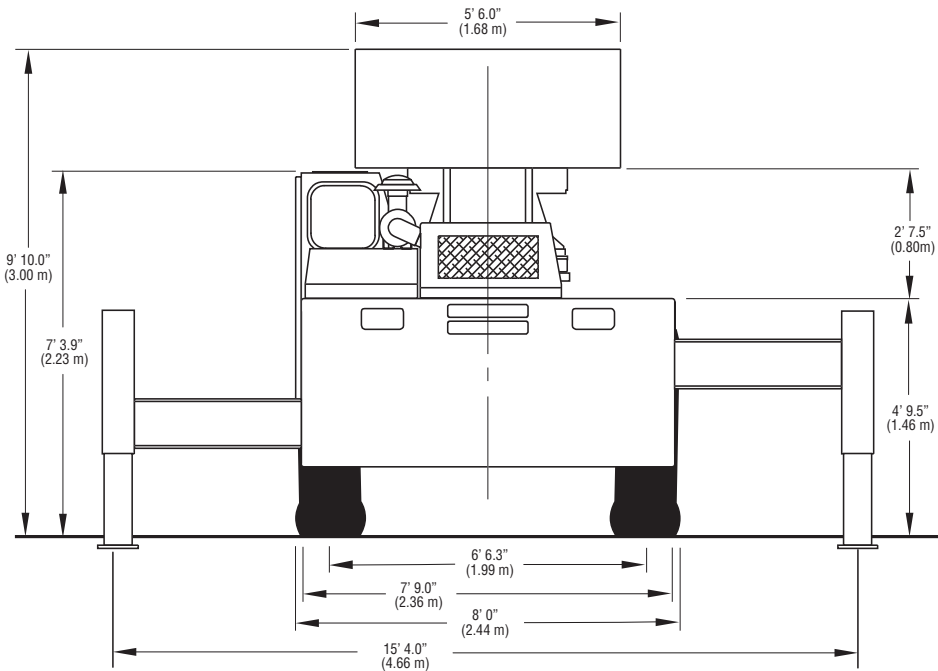
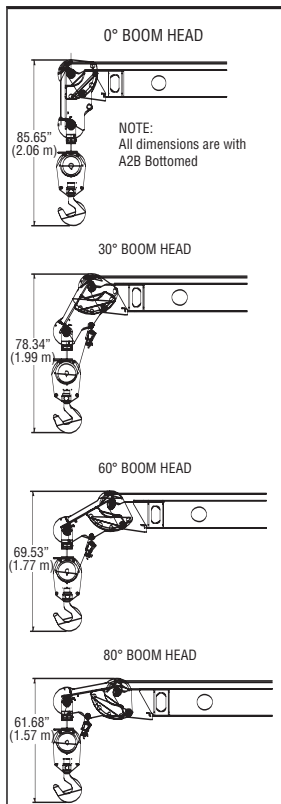
**Theoretical

dimensions

YB7722 / XL



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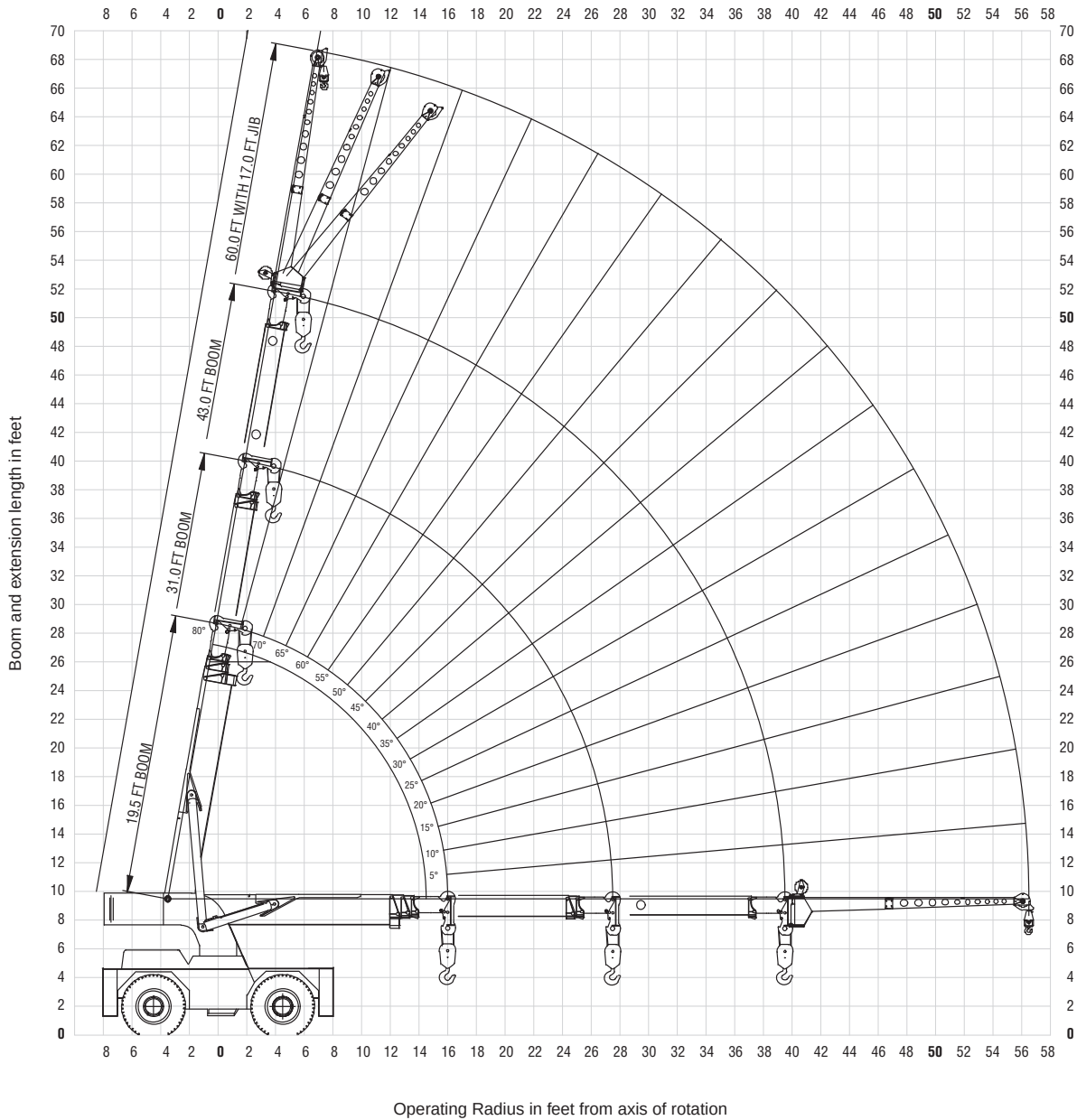
YB7700 Series

GROVE

range diagram

YB7722 (3-section boom)

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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

YB7722 (3-section boom)

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MAIN BOOM LOAD RATINGS ON OUTRIGGERS									MAIN BOOM LOAD RATINGS ON OUTRIGGERS														
Extended and Down 360° or Retracted and Down Front/Rear									Retracted and Down 360°														
		19.5 ft Boom		20.5-30 ft Boom		31 ft Boom		32-42 ft Boom		43 ft Boom				19.5 ft Boom		20.5-30 ft Boom		31 ft Boom		32-42 ft Boom		43 ft Boom	
Radius (ft)	Boom Angle (deg)	Rated Load (lbs)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Radius (ft)	Boom Angle (deg)	Rated Load (lbs)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)
8.5	58	44000	26500	71	26500	26400	75	26400	8.5	58	31000	26500	71	26500	26400	76	26400						
10	52	40000	31600	68	31600	28000	74	28000	10	52	24000	22300	68	22300	22000	74	22000						
12	44	33800	30500	64	30500	25000	72	25000	12	44	17200	16300	64	16300	16300	72	17000						
14	33	28500	28500	59	28500	22600	69	22600	14	33	13300	12500	59	12500	12500	69	13600						
16	0	24900	24900	55	25700	20000	66	20000	16	0	10200	9800	55	9800	9800	66	11100						
18	-	-	22800	50	22800	17900	63	17900	18	-	-	7900	50	7900	7900	63	9100						
20	-	-	20200	45	20200	16100	60	16100	20	-	-	6000	45	6000	6000	60	7600						
22	-	-	17800	39	17800	14600	56	14600	22	-	-	5300	39	5300	5300	56	6200						
24	-	-	-	31	16360	13300	53	13300	24	-	-	4300	31	4300	4300	53	5200						
26	-	-	-	22	13250	12300	49	12300	26	-	-	3600	22	3600	3600	49	4400						
27.5	-	-	11600	0	11600	11600	47	11600	27.5	-	-	2900	0	2900	2900	47	3900						
30	-	-	-	-	-	9900	42	10500	30	-	-	-	-	-	2600	42	3200						
32	-	-	-	-	-	8800	37	9800	32	-	-	-	-	-	2300	37	2700						
34	-	-	-	-	-	7800	32	8700	34	-	-	-	-	-	1900	32	2300						
36	-	-	-	-	-	7100	26	7800	36	-	-	-	-	-	1750	26	1900						
39.5	-	-	-	-	-	6400	0	6400	39.5	-	-	-	-	-	1400	0	1400						

MAIN BOOM ON RUBBER		
Any Boom Length		
Radius (ft)	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

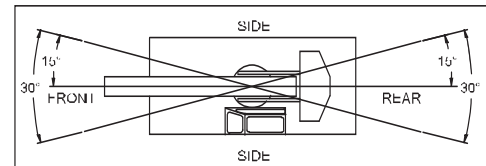
17 FT JIB CAP. ON EXT. OUTRIGGERS (lbs)			
Main Boom Angle (deg)	Jib Offset Angle		
	0 deg	15 deg	30 deg
	Any Boom Length	Any Boom Length	Any Boom Length
80	-	5000	3500
75	7500	4400	3100
70	6100	3900	2800
65	5000	3500	2550
60	4300	3150	2350
55	3800	2850	2200
50	3400	2600	2100
45	3050	2400	2000
40	2800	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	-	-

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.

MAXIMUM PERMISSIBLE SINGLE LINE PULL
= 11,000 lbs

HOIST ROPE: 5/8" diameter
6 x 19 XIPS IWRC BRIGHT
Min. req'd breaking strength = 38,500 lbs



- The rated loads are the maximum lifting 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.
- Rated load columns for discrete boom lengths apply when actual boom length is within +/- 1.0 ft of discrete length. For other boom lengths, use appropriate intermediate boom length column.
- For operating radius not shown, use load rating of next larger radius.
- 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 reduction chart.
- 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. For 360° ratings on rubber, rear axle oscillation locks must be in place. Do not use jib with crane on rubber.
- 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.

RATING REDUCTIONS FOR LOAD HANDLING DEVICES INSTALLED (lbs)		
	FROM MAIN BOOM	FROM JIB
MAIN BLOCK	400	N/A
HOOK & BALL	100	100
JIB STOWED	0	N/A
JIB DEPLOYED	500	0

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.

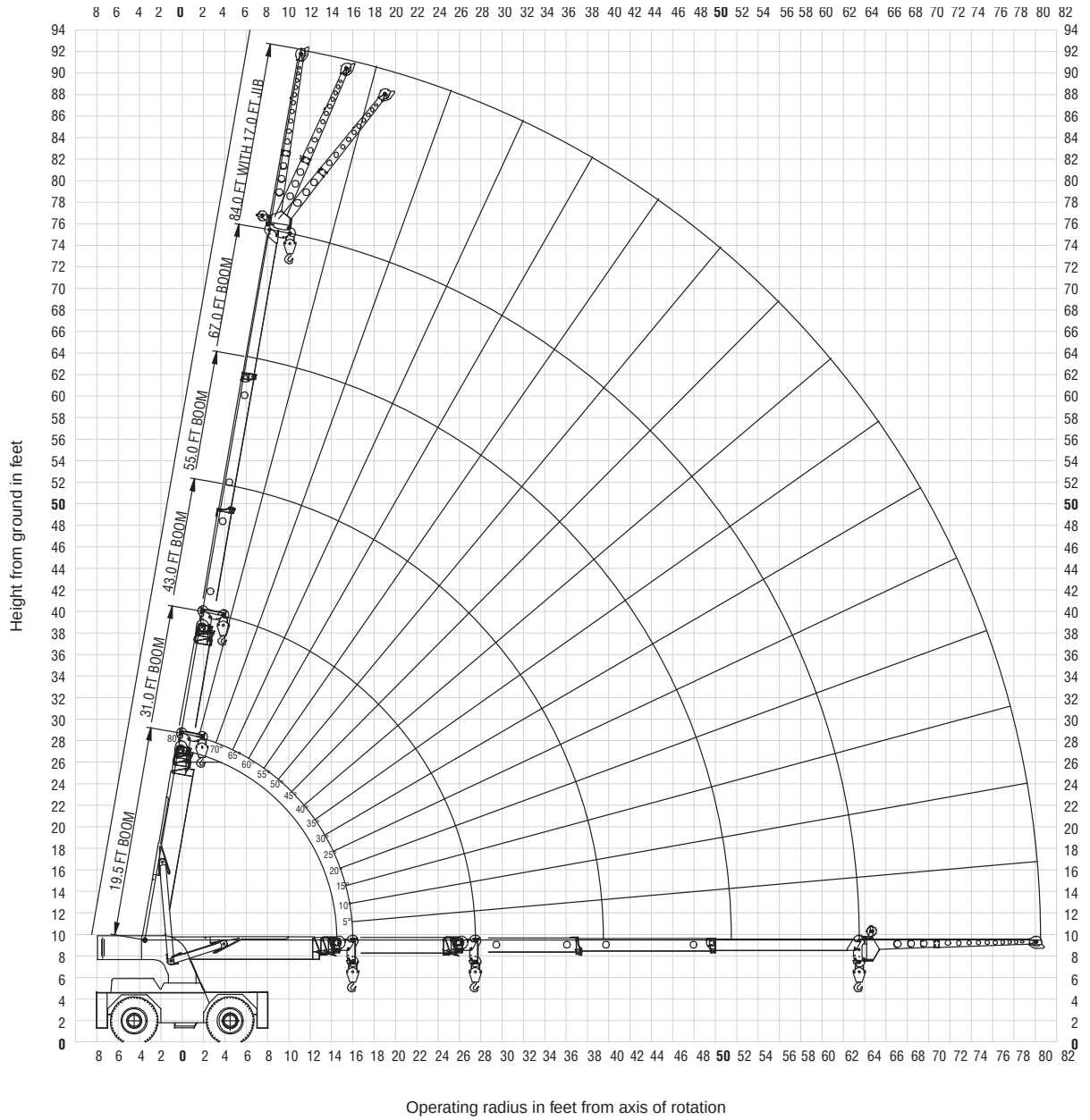
YB7700 Series

GROVE

range diagram

YB7722 XL (5-section boom)

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YB7700 Series

GROVE

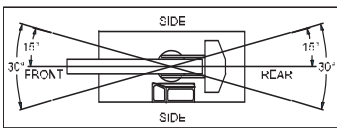
load chart

YB7722 XL (5-section boom)

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MAIN BOOM LOAD RATINGS ON OUTRIGGERS Extended and Down 360° or Retracted and Down Front/Rear																			
		19.5 ft Boom		20.5-30 ft Boom		31 ft Boom		32-42 ft Boom		43 ft Boom		44-54 ft Boom		55 ft Boom		56-66 ft Boom		67 ft Boom	
Radius (ft)	Boom Angle (deg)	Rated Load (lbs)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Rated Load (lbs)	Boom Angle (deg)
8.5	58	44000	26500	71	26500	25400	78	25400	19500	79	19500	-	-	-	-	-	-	-	-
10	52	40000	26500	68	26500	25400	74	25400	19500	78	19500	-	-	-	-	-	-	-	-
12	44	33800	25300	64	24200	24200	72	24200	17600	76	17600	14500	78	14500	13200	77	13200	13200	13200
14	33	28500	22900	59	22900	22600	69	22600	16100	74	16100	14800	71	14800	12200	75	12200	12200	12200
16	0	23700	20900	55	20900	20000	66	20000	14800	71	14800	13700	69	13700	11200	73	11200	11200	11200
18	-	-	19300	50	19300	17900	63	17900	13700	69	13700	12800	67	12800	10400	71	10400	10400	10400
20	-	-	17900	45	17900	16100	60	16100	12800	67	12800	12000	64	12000	9700	69	9700	9700	9700
22	-	-	16400	39	16400	14600	56	14600	12000	64	12000	11200	62	11200	9100	67	9100	9100	9100
24	-	-	14700	31	14700	13300	53	13300	10600	60	10600	10600	59	10600	8600	66	8600	8600	8600
26	-	-	13200	22	13200	12300	49	12300	10200	58	10200	9400	55	9400	7700	64	7700	7700	7700
27.5	-	-	11500	0	11500	11600	47	11600	9400	55	9400	8700	52	8700	7300	60	7300	7300	7300
30	-	-	-	-	-	9900	42	10500	8400	55	9400	8100	49	8100	6900	58	6900	6900	6900
32	-	-	-	-	-	8800	37	9800	7600	46	7600	7000	43	7100	6300	53	6300	6300	6300
34	-	-	-	-	-	7900	32	8700	6400	41	6800	6100	38	5900	5500	49	5500	5500	5500
36	-	-	-	-	-	7100	26	7900	5900	36	6300	5800	32	5400	5000	44	5000	5000	5000
38	-	-	-	-	-	6500	18	7000	5300	32	5900	5300	28	4800	4500	40	4500	4500	4500
39.5	-	-	-	-	-	6400	0	6400	4900	23	4900	4400	16	4400	4000	37	4000	4000	4000
42	-	-	-	-	-	-	-	-	4500	16	4500	4000	12	4000	3600	33	3600	3600	3600
44	-	-	-	-	-	-	-	-	4000	12	4000	3600	9	3600	3200	29	3200	3200	3200
46	-	-	-	-	-	-	-	-	3600	9	3600	3200	7	3200	2800	25	2800	2800	2800
48	-	-	-	-	-	-	-	-	3200	7	3200	2800	5	2800	2400	21	2400	2400	2400
50	-	-	-	-	-	-	-	-	2800	5	2800	2400	4	2400	2000	18	2000	2000	2000
51.5	-	-	-	-	-	-	-	-	2400	4	2400	2000	3	2000	1600	16	1600	1600	1600
54	-	-	-	-	-	-	-	-	2000	3	2000	1600	2	1600	1200	14	1200	1200	1200
56	-	-	-	-	-	-	-	-	1600	2	1600	1200	1	1200	800	11	800	800	800
58	-	-	-	-	-	-	-	-	1200	1	1200	800	0	800	600	9	600	600	600
60	-	-	-	-	-	-	-	-	800	0	800	600	0	600	400	7	400	400	400
62	-	-	-	-	-	-	-	-	600	0	600	400	0	400	300	5	300	300	300
63.5	-	-	-	-	-	-	-	-	400	0	400	300	0	300	200	4	200	200	200

RATING REDUCTIONS FOR LOAD HANDLING DEVICES INSTALLED (lbs)		
	FROM MAIN BOOM	FROM JIB
MAIN BLOCK	400	N/A
HOOK & BALL	100	100
JIB SLOWED	0	N/A
JIB DEPLOYED	500	0



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- Do not induce any external side loads to boom or jib.

MAIN HOOM LOAD RATINGS ON OUTRIGGERS Retracted and Down 360°																			
		19.5 ft Boom		20.5-30 ft Boom		31 ft Boom		32-42 ft Boom		43 ft Boom		44-54 ft Boom		55 ft Boom		56-66 ft Boom		67 ft Boom	
Radius (ft)	Boom Angle (deg)	Rated Load (lbs)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Rated Load (lbs)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Rated Load (lbs)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)
8.5	58	31000	26500	71	26500	25400	78	25400	19500	79	19500	-	-	-	-	-	-	-	-
10	52	24000	22300	68	22300	22000	74	22000	19500	77	19500	-	-	-	-	-	-	-	-
12	44	17200	16300	64	16300	16300	72	17000	17000	76	17100	14500	78	14500	13200	77	13200	13200	13200
14	33	13300	12500	59	12500	12500	69	13000	13600	74	14000	13200	77	13200	11500	75	11500	11500	11500
16	0	10200	9800	55	9800	9000	66	11100	11100	71	11200	11200	71	11200	9300	73	9300	9300	9300
18	-	-	7900	50	7900	7900	63	9100	9100	69	9300	9300	73	9400	8400	71	8400	8400	8400
20	-	-	6500	45	6500	6000	60	7500	7500	67	7800	7700	71	7700	6900	69	6900	6900	6900
22	-	-	5300	39	5300	5300	56	6200	6200	64	6600	6500	69	6500	5800	67	5800	5800	5800
24	-	-	4300	31	4300	4300	53	5200	5200	62	5600	5600	67	5600	4800	65	4800	4800	4800
26	-	-	3500	22	3500	3500	49	4400	4400	60	4800	4800	66	4800	4000	64	4000	4000	4000
27.5	-	-	2900	0	2900	2900	47	3800	3800	63	4300	4300	68	4300	3600	66	3600	3600	3600
30	-	-	-	-	-	2600	42	3200	3200	65	3600	3600	70	3600	3000	68	3000	3000	3000
32	-	-	-	-	-	2300	37	2700	2700	62	3100	3100	68	3100	2600	66	2600	2600	2600
34	-	-	-	-	-	1900	32	2300	2300	49	2700	2700	68	2700	2200	66	2200	2200	2200
36	-	-	-	-	-	1750	28	1900	1900	46	2300	2300	66	2300	1900	64	1900	1900	1900
38	-	-	-	-	-	1500	18	1600	1600	43	2000	2000	63	2100	1600	62	1600	1600	1600
39.5	-	-	-	-	-	1400	0	1400	1400	41	1750	1750	52	1850	1400	50	1400	1400	1400
42	-	-	-	-	-	-	-	-	1150	36	1450	1450	49	1500	1100	47	1100	1100	1100
44	-	-	-	-	-	-	-	-	1000	32	1200	1200	47	1300	900	45	900	900	900
46	-	-	-	-	-	-	-	-	850	28	1000	1000	44	1100	750	42	750	750	750
48	-	-	-	-	-	-	-	-	750	23	850	850	42	900	600	40	600	600	600
50	-	-	-	-	-	-	-	-	650	16	700	700	39	800	500	38	500	500	500
51.5	-	-	-	-	-	-	-	-	600	0	600	600	37	700	400	36	400	400	400
54	-	-	-	-	-	-	-	-	-	-	-	-	450	33	500	300	300	300	300
56	-	-	-	-	-	-	-	-	-	-	-	-	350	29	350	250	250	250	250
58	-	-	-	-	-	-	-	-	-	-	-	-	250	25	250	200	200	200	200
60	-	-	-	-	-	-	-	-	-	-	-	-	150	20	150	140	140	140	140
62	-	-	-	-	-	-	-	-	-	-	-	-	50	14	50	40	40	40	40
63.5	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	-	-

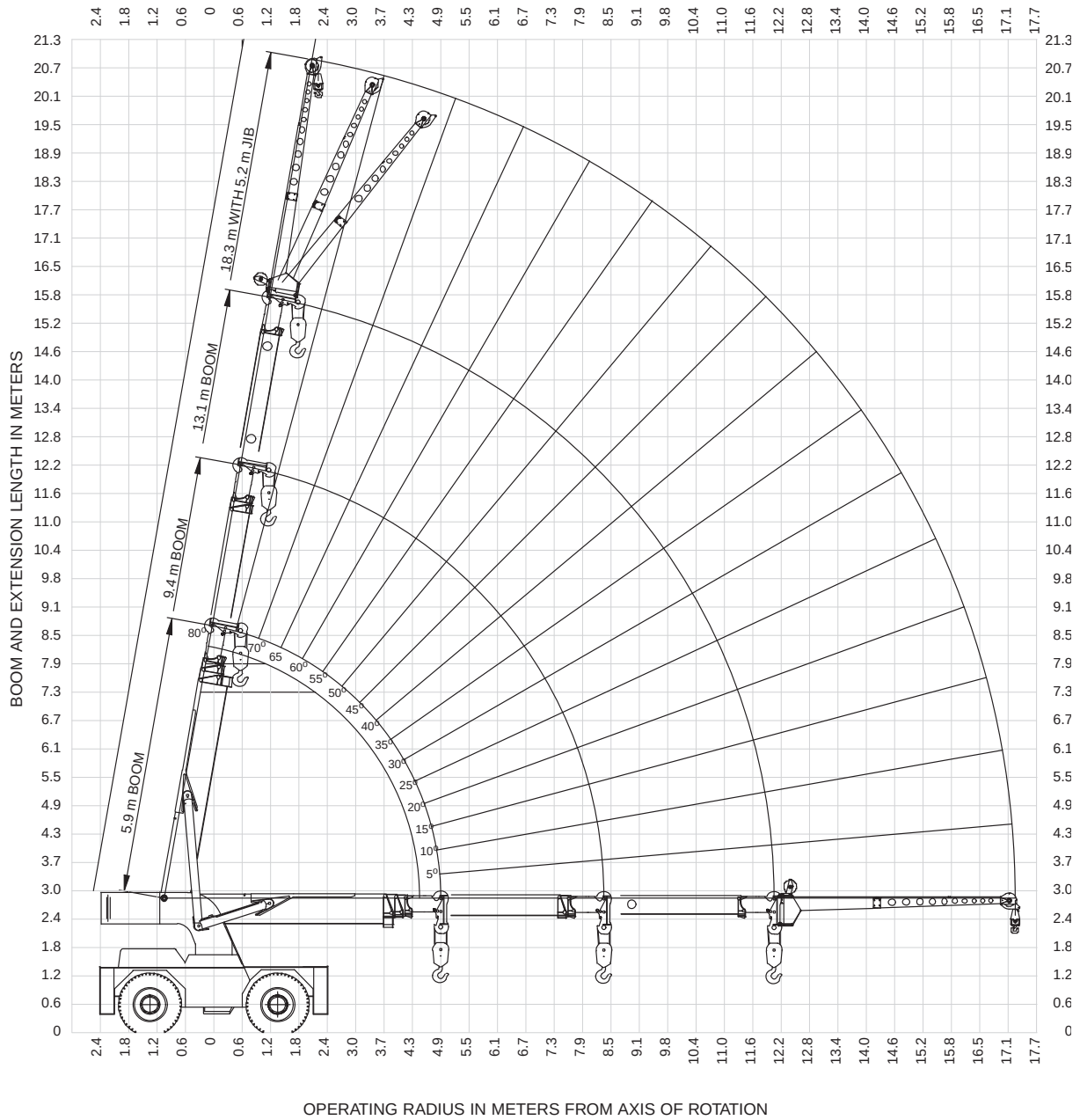
MAIN BOOM ON RUBBER		
Any Boom Length		
Radius (ft)	Front Rating (lbs)	360° Rating (lbs)
8	30000	21000
10	28000	17000
12	25000	15000
14	15000	9500
16	12400	7400
18	9800	6000
20	8100	4800
22	6100	3700
24	5700	3000
26	4900	2350
28	4200	2100
30	3700	1800
32	3300	1550
34	3000	1300
36	2700	1100
38	2500	950
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	-

SHADED AREAS ARE GOVERNED BY

range diagram

YB7722 (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.

YB7700 Series

GROVE

DIN/ISO load chart

YB7722 (3-section boom)

MAIN BOOM LOAD RATINGS ON OUTRIGGERS Extended and Down 360° or Retracted and Down Front/Rear								
Radius (m)	5.9 m Boom		6.2-9.1 m Boom		9.4 m Boom		9.7-12.8 m Boom	
	Boom Angle (deg)	Rated Load (kg)	Rated Load (kg)	Boom Angle (deg)	Rated Load (kg)	Rated Load (kg)	Boom Angle (deg)	Rated Load (kg)
2.6	58	19960	14330	71	14330	12700	76	12700
3.0	52	18140	14330	68	14330	12700	74	12700
3.7	44	15350	13830	64	13830	11340	72	11340
4.3	33	12930	12930	59	12930	10270	69	10270
4.9	0	10740	10740	55	11660	9090	66	9090
5.5	-	-	10340	50	10340	8110	63	8110
6.1	-	-	8900	45	8900	7300	60	7300
6.7	-	-	7710	39	7710	6620	56	6620
7.3	-	-	6550	31	6550	6050	53	6050
7.9	-	-	5520	22	5520	5520	49	5560
8.4	-	-	4790	0	4790	4790	47	5150
9.1	-	-	-	-	-	4050	42	4630
9.8	-	-	-	-	-	3580	37	4050
10.4	-	-	-	-	-	3160	32	3560
11.0	-	-	-	-	-	2880	26	3180
12.0	-	-	-	-	-	2580	0	2580

MAIN BOOM LOAD RATINGS ON OUTRIGGERS Retracted and Down 360°								
Radius (m)	5.9 m Boom		6.2-9.1 m Boom		9.4 m Boom		9.7-12.8 m Boom	
	Boom Angle (deg)	Rated Load (kg)	Rated Load (kg)	Boom Angle (deg)	Rated Load (kg)	Rated Load (kg)	Boom Angle (deg)	Rated Load (kg)
2.6	58	13070	13070	71	13270	12700	76	12700
3.0	52	10110	9360	68	9360	9020	74	9020
3.7	44	7190	6800	64	6800	6800	72	7100
4.3	33	5520	5210	59	5210	5210	69	5630
4.9	0	4230	4050	55	4050	4050	66	4630
5.5	-	-	3210	50	3210	3210	63	3730
6.1	-	-	2620	45	2620	2620	60	3060
6.7	-	-	2100	39	2100	2100	56	2490
7.3	-	-	1710	31	1710	1710	53	2060
7.9	-	-	1340	22	1340	1340	49	1720
8.4	-	-	1080	0	1080	1080	47	1510
9.1	-	-	-	-	-	950	42	1200
9.8	-	-	-	-	-	820	37	1000
10.4	-	-	-	-	-	670	32	820
11.0	-	-	-	-	-	590	26	660
12.0	-	-	-	-	-	450	0	450

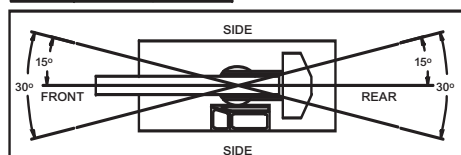
MAIN BOOM ON RUBBER		
Any Boom Length		
Radius (m)	Front Rating (kg)	360° Rating (kg)
1.8	13610	9520
2.4	12700	8120
3.0	11340	6800
3.7	8890	5470
4.3	6990	4340
4.9	5570	3320
5.5	4520	2680
6.1	3620	2070
6.7	2940	1620
7.3	2480	1260
7.9	2070	980
8.5	1760	810
9.1	1530	670
9.8	1350	550
10.4	1210	440
11.0	1080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

**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.**

**MAXIMUM PERMISSIBLE SINGLE LINE PULL
= 4990 kg**

**WIRE ROPE: 16 mm dia.
6 x 19 XXIPS IWRC BRIGHT
Min. req'd breaking strength = 188.4 kN**



RATING REDUCTIONS FOR LOAD HANDLING DEVICES INSTALLED (kg)		
	FROM MAIN BOOM	FROM JIB
MAIN BLOCK	180	N/A
HOOK & BALL	50	50
JIB STOWED	0	N/A
JIB DEPLOYED	230	0

5.2 m JIB CAP. ON EXT. OUTRIGGERS (kg)			
Main Boom Angle (deg)	Jib Offset Angle		
	0 deg	15 deg	30 deg
	Any Boom Length	Any Boom Length	Any Boom Length
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	-	-

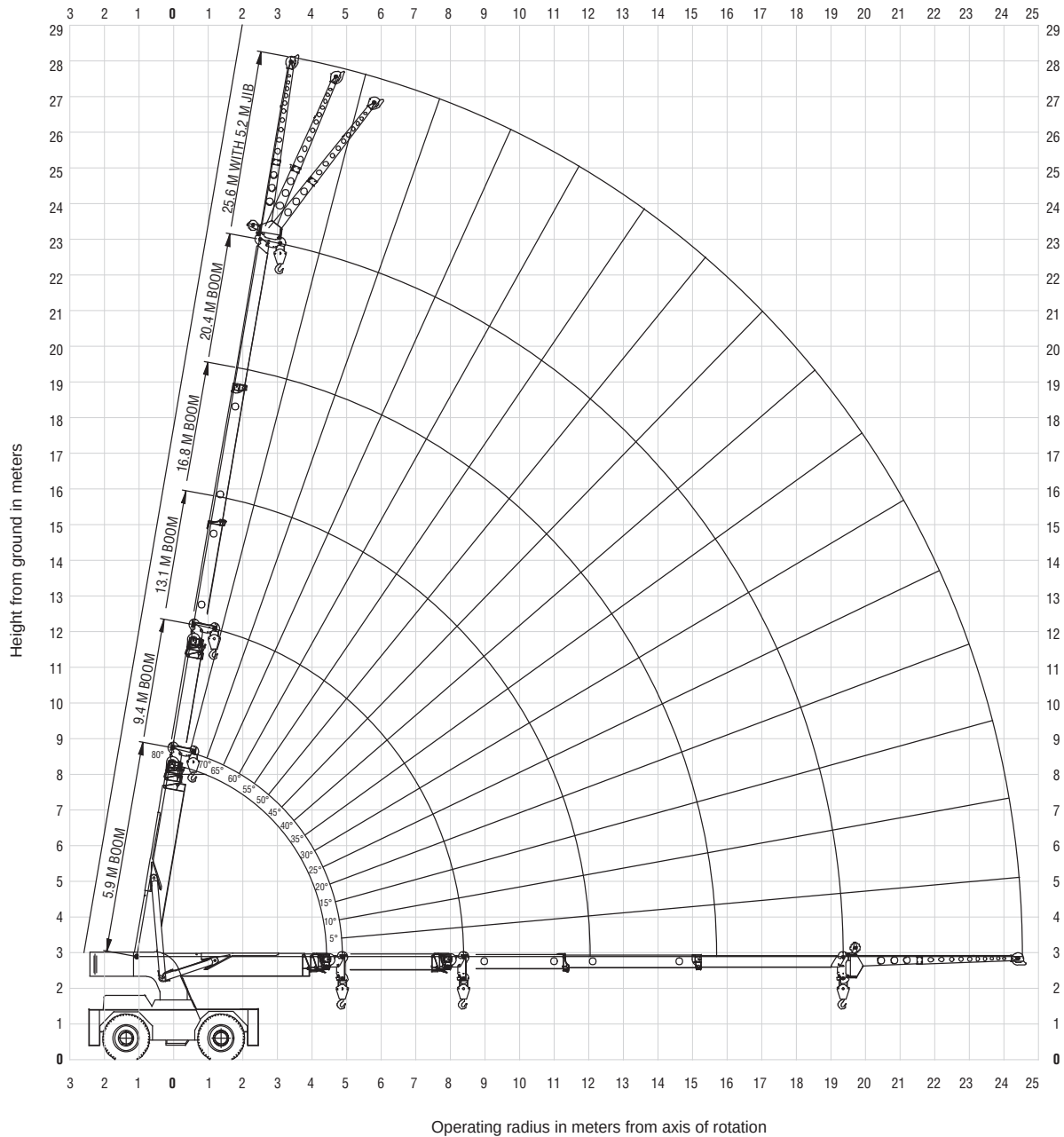
- 1) The rated loads are the maximum lifting capacities as determined by operating radius, boom length, and boom angle. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of vertical hoist line or tackle with load applied.
- 2) Rated load columns for discrete boom lengths apply when actual boom length is within +/- 0.3 m of discrete length. For other boom lengths, use appropriate intermediate boom length column.
- 3) For operating radius not shown, use load rating of next larger radius.
- 4) 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.
- 5) 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 reduction chart.
- 6) 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.
- 7) 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. For 360° ratings on rubber, rear axle oscillation locks must be in place. Do not use jib with crane on rubber.
- 8) The maximum combined total boom and deck load is 9070 kg. The maximum deck load only is 13610 kg.
- 9) 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

YB7722XL (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

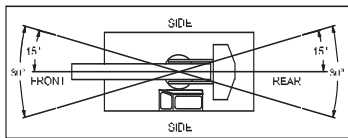
DIN/ISO load chart

YB7722XL (5-section boom)

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MAIN BOOM LOAD RATINGS ON OUTRIGGERS Extended and Down 90° or Retracted and Down Front/Rear											
5.9 m Boom		6.2-9.1 m Boom		9.4 m Boom		9.7-12.0 m Boom		13.1 m Boom		13.4-16.5 m Boom	
Radius (m)	Boom Angle (deg)	Rated Load (kg)	Rated Load (kg)	Boom Angle (deg)	Rated Load (kg)	Rated Load (kg)	Rated Load (kg)	Rated Load (kg)	Rated Load (kg)	Rated Load (kg)	Rated Load (kg)
2.6	0°	19000	12020	71	12020	11520	79	11520	8950	79	8950
3.0	0°	18140	12020	69	12020	11520	74	11520	8950	74	8950
3.7	0°	15350	11480	64	11480	10800	72	10800	7300	70	7300
4.3	0°	12930	10390	59	10390	10250	69	10250	7300	74	7300
4.9	0°	10750	9490	54	9490	9070	65	9070	6710	71	6710
5.5	0°	-	8750	49	8750	8120	63	8120	6210	69	6210
6.1	0°	-	7940	44	7940	7300	61	7300	5910	67	5910
6.7	0°	-	7440	39	7440	6620	58	6620	5440	64	5440
7.3	0°	-	6940	34	6940	6030	55	6030	5090	62	5090
7.9	0°	-	6440	29	6440	5530	52	5530	4810	59	4810
8.5	0°	-	5940	24	5940	5030	49	5030	4330	56	4330
9.1	0°	-	5440	19	5440	4530	46	4530	3950	53	3950
9.7	0°	-	4940	14	4940	4030	43	4030	3470	50	3470
10.3	0°	-	4440	9	4440	3530	40	3530	3000	47	3000
10.9	0°	-	3940	4	3940	3030	37	3030	2530	44	2530
11.5	0°	-	3440	-	3440	2530	34	2530	2050	41	2050
12.1	0°	-	2940	-	2940	2030	31	2030	1570	38	1570
12.7	0°	-	2440	-	2440	1530	28	1530	1100	35	1100
13.3	0°	-	1940	-	1940	1030	25	1030	650	32	650
13.9	0°	-	1440	-	1440	530	22	530	200	29	200
14.5	0°	-	940	-	940	30	19	30	100	26	100
15.1	0°	-	440	-	440	-	16	440	50	23	50
15.7	0°	-	-	-	-	-	13	390	0	20	0
16.3	0°	-	-	-	-	-	10	340	0	17	0
16.9	0°	-	-	-	-	-	7	290	0	14	0
17.5	0°	-	-	-	-	-	4	240	0	11	0
18.1	0°	-	-	-	-	-	1	190	0	8	0
18.7	0°	-	-	-	-	-	-	140	0	5	0
19.3	0°	-	-	-	-	-	-	120	0	2	0
19.9	0°	-	-	-	-	-	-	100	0	-	0

MAIN BOOM ON RUBBER			
Any Boom Length		Front Holding (kg)	Rear Holding (kg)
2.6	0°	13010	9330
3.0	0°	12700	9120
3.7	0°	11340	8000
4.3	0°	8920	5700
4.9	0°	6790	4940
5.5	0°	4920	3140
6.1	0°	4750	2920
6.7	0°	3620	1990
7.3	0°	2920	1620
7.9	0°	2400	1170
8.5	0°	2090	930
9.1	0°	1790	610
9.7	0°	1590	470
10.3	0°	1390	330
10.9	0°	1210	190
11.5	0°	1090	50
12.1	0°	980	0
12.7	0°	880	0
13.3	0°	790	0
13.9	0°	690	0
14.5	0°	590	0
15.1	0°	490	0
15.7	0°	390	0
16.3	0°	290	0
16.9	0°	190	0
17.5	0°	90	0
18.1	0°	0	0
18.7	0°	0	0
19.3	0°	0	0
19.9	0°	0	0



RATING REDUCTIONS FOR LOAD HANDLING DEVICES INSTALLED (%)		
	FROM MAIN BOOM	FROM JIB
MAIN BLOCK	10%	N/A
HOOK & BAL	0%	0%
JIB STOPPER	0%	N/A
JIB DEPLOYED	25%	0%

MAIN BOOM LOAD RATINGS ON OUTRIGGERS Retracted and Down 90°											
5.9 m Boom		6.2-9.1 m Boom		9.4 m Boom		9.7-12.0 m Boom		13.1 m Boom		13.4-16.5 m Boom	
Radius (m)	Boom Angle (deg)	Rated Load (kg)	Rated Load (kg)	Boom Angle (deg)	Rated Load (kg)	Rated Load (kg)	Rated Load (kg)	Rated Load (kg)	Rated Load (kg)	Rated Load (kg)	Rated Load (kg)
2.6	0°	15700	12020	71	12020	11520	79	11520	8950	79	8950
3.0	0°	14110	9990	69	9990	9420	74	9420	8520	74	8520
3.7	0°	11690	8210	64	8210	8040	72	8040	7100	70	7100
4.3	0°	9820	6210	59	6210	6050	69	6050	5650	74	5650
4.9	0°	8230	5050	54	5050	4950	66	4950	4650	71	4650
5.5	0°	-	4210	49	4210	4110	63	4110	3750	69	3750
6.1	0°	-	3520	44	3520	3420	61	3420	3150	67	3150
6.7	0°	-	2830	39	2830	2730	58	2730	2490	64	2490
7.3	0°	-	2140	34	2140	2040	55	2040	1880	62	1880
7.9	0°	-	1450	29	1450	1350	52	1350	1220	59	1220
8.5	0°	-	860	24	860	760	49	760	690	56	690
9.1	0°	-	270	19	270	170	46	590	510	53	440
9.7	0°	-	-	14	-	120	43	530	450	50	410
10.3	0°	-	-	9	-	60	40	480	400	47	380
10.9	0°	-	-	4	-	30	37	370	300	44	310
11.5	0°	-	-	-	-	0	34	340	270	41	280
12.1	0°	-	-	-	-	-	31	310	240	38	250
12.7	0°	-	-	-	-	-	28	280	210	35	220
13.3	0°	-	-	-	-	-	25	250	180	32	190
13.9	0°	-	-	-	-	-	22	220	150	29	160
14.5	0°	-	-	-	-	-	19	190	120	26	130
15.1	0°	-	-	-	-	-	16	160	90	23	100
15.7	0°	-	-	-	-	-	13	130	60	20	70
16.3	0°	-	-	-	-	-	10	100	30	17	40
16.9	0°	-	-	-	-	-	7	70	0	14	0
17.5	0°	-	-	-	-	-	4	40	0	11	0
18.1	0°	-	-	-	-	-	1	10	0	8	0
18.7	0°	-	-	-	-	-	-	0	0	5	0
19.3	0°	-	-	-	-	-	-	0	0	2	0
19.9	0°	-	-	-	-	-	-	0	0	-	0

- The rated loads are the maximum lifting 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 trolley with load applied.
- Rated load columns for discrete boom lengths apply when actual boom length is within +/- 0.3 m. of discrete length. For other boom lengths, use appropriate intermediate boom length column.
- For operating radius not shown, use load rating of next larger radius.
- 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 for the hoist rope, shall be considered as part of the load. See reduction chart.
- 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 (7.5 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. For 90° ratings on rubber, rear axle oscillation locks must be in place. Do not use jib with crane on rubber.
- The maximum combined total boom and deck load is 8070 kg. The maximum deck load only is 13610 kg.
- Do not induce any external side loads to boom or jib.

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 VOID WARRANTY.

MAXIMUM PERMISSIBLE SINGLE POINT LOAD = 4500 kg

WIRE ROPE: 16 mm dia. 6 x 19 3000 S IWRC BRIGH
Min. rope breaking strength = 100.4 kN

5.2 m JIB CAPACITIES ON EXTENDED OUTRIGGERS (kg)					
Main Boom Angle (deg)	0 deg		15 deg		30 deg
	To 16.0 m Main Boom	To 21.4 m Main Boom	To 16.0 m Main Boom	To 21.4 m Main Boom	
0°	-	-	2270	2270	1500
7°	3400	-	2000	2000	1410
7°	2710	-	1770	1770	1270
6°	2270	2000	1500	1500	1160
6°	1940	1720	1430	1430	1070
5°	1720	1500	1290	1290	1000
5°	1540	1320	1160	1160	950
4°	1380	1180	1090	1090	910
4°	1270	1080	1020	1020	880
3°	1180	980	980	930	850
3°	1080	880	940	840	810
2°	1040	790	930	780	-
2°	1000	730	910	720	-
1°	960	680	880	690	-
1°	930	650	-	-	-
0°	920	650	-	-	-
0°	910	640	-	-	-

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.

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Calcutta

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Italy

Niella Tanaro

Portugal

Baltar

Fânzeres

Slovakia

Saris

U.S.A.

Manitowoc

Port Washington

Shady Grove

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.