



# 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



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## features

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- 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

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## 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

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# specifications

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## Carrier



### Frame

High strength alloy steel constructed with integral outrigger housings; front and rear tie-down lugs. 60 ft.<sup>2</sup> 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

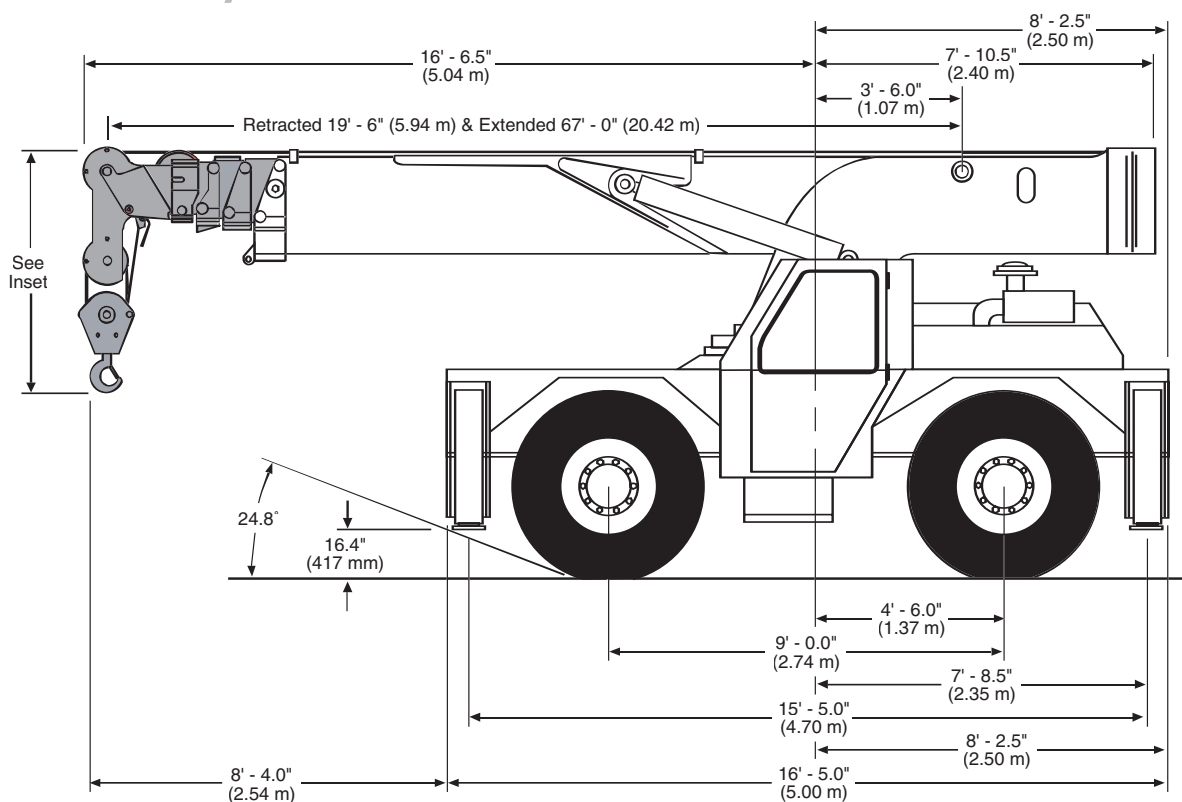
YB7700 Series

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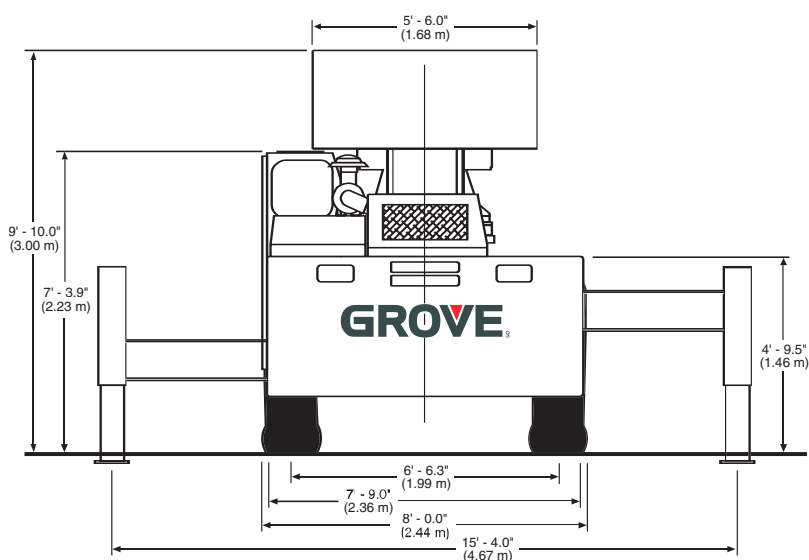
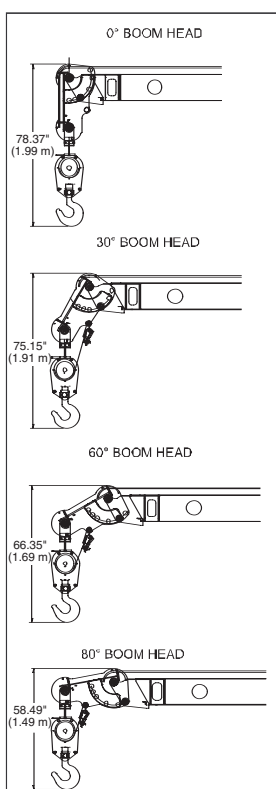


## dimensions

### YB7720 / XL



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YB7700 Series

**GROVE**

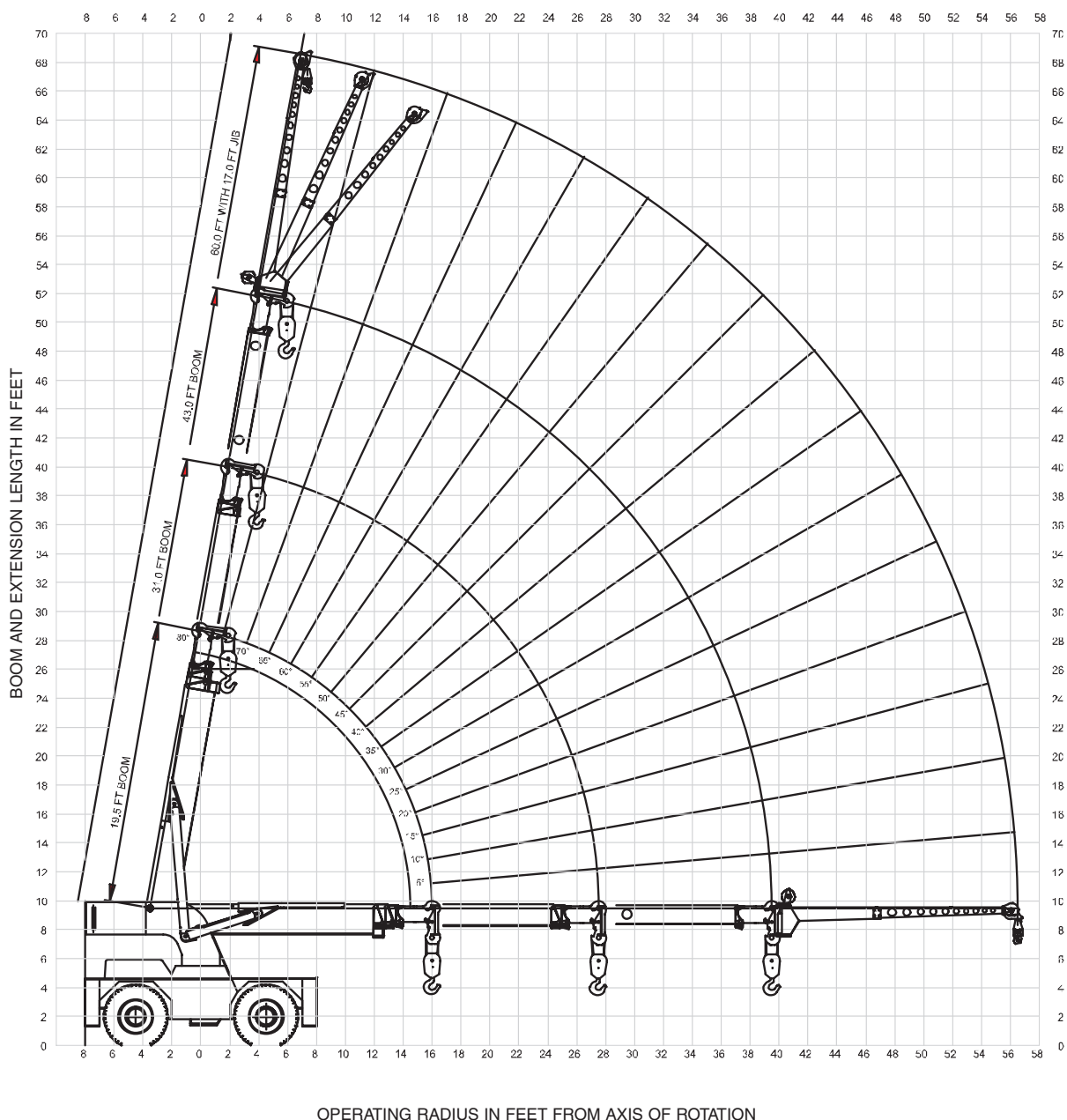




## range diagram

### YB7720 (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



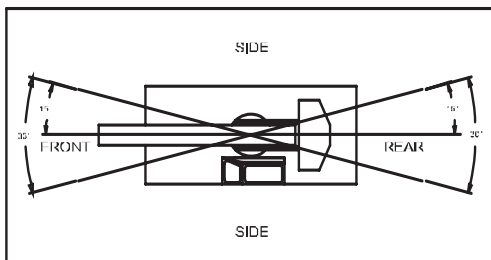
# load chart

## YB7720 (3-section boom)

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| MAIN BOOM LOAD RATINGS ON OUTRIGGERS<br>Extended and Down 360°<br>or Retracted and Down Front/Rear |                        |                        |                        |                        |                        |                        |
|----------------------------------------------------------------------------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Radius<br>(ft)                                                                                     | 19.5 ft BOOM           |                        | 31.0 ft BOOM           |                        | 43.0 ft BOOM           |                        |
|                                                                                                    | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(lbs) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(lbs) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(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°              |                        |                        |                        |                        |
|                |                        | 19.5 ft BOOM                         |                        | 31.0 ft BOOM           |                        | 43.0 ft BOOM           |
| Radius<br>(ft) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(lbs)               | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(lbs) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(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<br>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<br>ON RUBBER |                          |                         |
|------------------------|--------------------------|-------------------------|
| Radius<br>(ft)         | Any Boom Length          |                         |
|                        | Front<br>Rating<br>(lbs) | 360°<br>Rating<br>(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<br>Boom<br>Angle<br>(deg)          | Jib Offset Angle      |                       |                       |
|                                         | 0 deg                 | 15 deg                | 30 deg                |
|                                         | Any<br>Boom<br>Length | Any<br>Boom<br>Length | Any<br>Boom<br>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.

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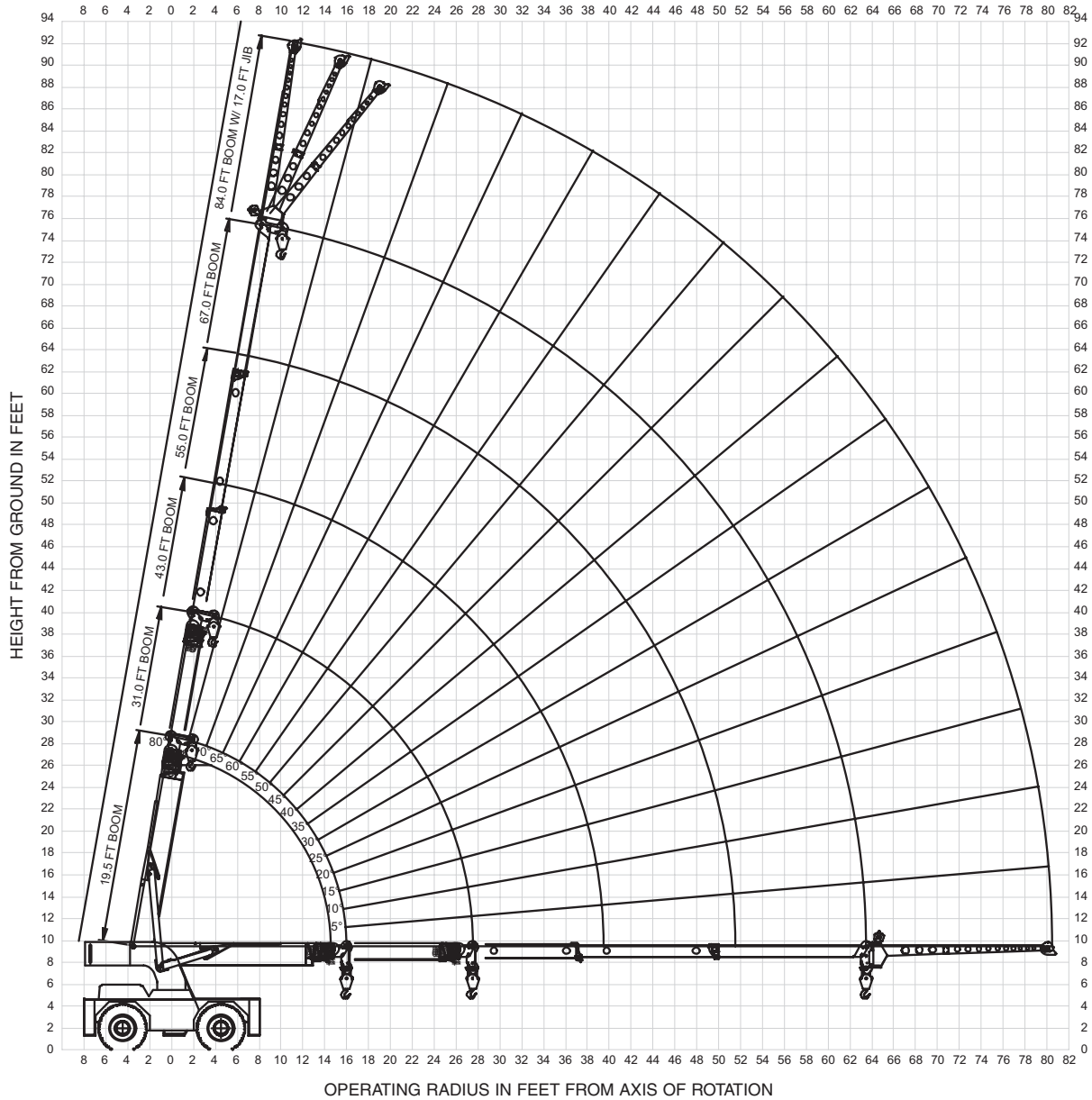
YB7700 Series



## range diagram

### YB7720 XL (5-section boom)

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YB7700 Series

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# load chart

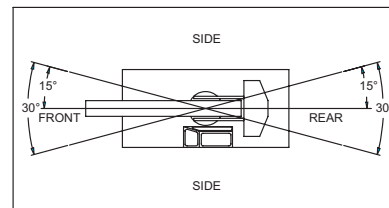
## YB7720 XL (5-section boom)

| MAIN BOOM LOAD RATINGS ON OUTRIGGERS<br>Extended and Down 360° or Retracted and Down Front/Rear |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |
|-------------------------------------------------------------------------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Radius<br>(ft)                                                                                  | 19.5 ft BOOM           |                        | 31.0 ft BOOM           |                        | 43.0 ft BOOM           |                        | 55.0 ft BOOM           |                        | 67.0 ft BOOM           |                        |
|                                                                                                 | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(lbs) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(lbs) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(lbs) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(lbs) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(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<br>ON RUBBER |                          |                         |
|------------------------|--------------------------|-------------------------|
| Radius<br>(ft)         | Any Boom Length          |                         |
|                        | Front<br>Rating<br>(lbs) | 360°<br>Rating<br>(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<br>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<br>Retracted and Down 360° |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |
|-----------------------------------------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Radius<br>(ft)                                                  | 19.5 ft BOOM           |                        | 31.0 ft BOOM           |                        | 43.0 ft BOOM           |                        | 55.0 ft BOOM           |                        | 67.0 ft BOOM           |                        |
|                                                                 | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(lbs) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(lbs) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(lbs) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(lbs) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(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<br>Boom<br>Angle<br>(deg)              | Jib Offset Angle           |                            |                            |                            |        |
|                                             | 0 deg                      |                            | 15 deg                     |                            | 30 deg |
|                                             | To 55.0 ft<br>Main<br>Boom | To 67.0 ft<br>Main<br>Boom | To 55.0 ft<br>Main<br>Boom | To 67.0 ft<br>Main<br>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 EEIFS IWRC BRIGHT  
Min. req'd breaking strength = 37,000 lbs

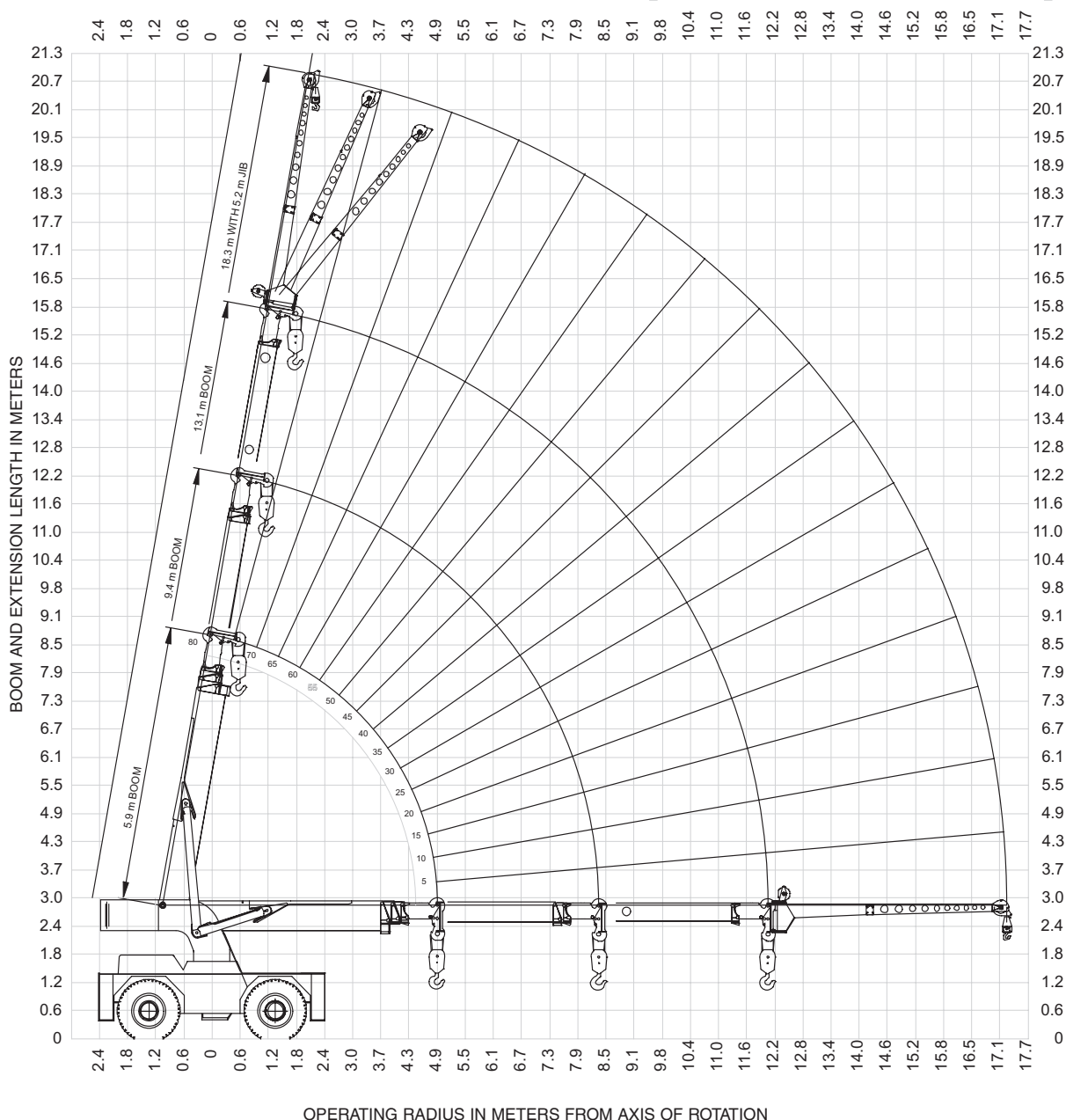
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.



## 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.

YB7700 Series

GROVE.

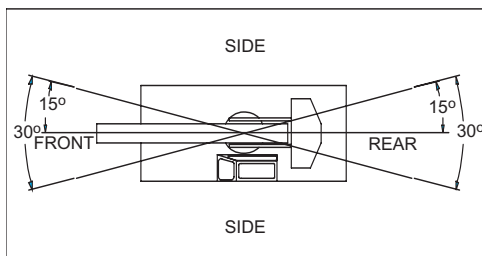


# DIN/ISO load chart

## YB7720 (3-section boom)

11

| MAIN BOOM LOAD RATINGS ON OUTRIGGERS<br>Extended and Down 360°<br>or Retracted and Down Front/Rear |                        |                       |                        |                       |                        |                       |
|----------------------------------------------------------------------------------------------------|------------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|
| 5.9 m BOOM                                                                                         |                        | 9.4 m BOOM            |                        | 13.1 m BOOM           |                        |                       |
| Radius<br>(m)                                                                                      | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(kg) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(kg) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(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<br>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<br>Retracted and Down 360° |                        |                       |                        |                       |                        |                       |
|-----------------------------------------------------------------|------------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|
| 5.9 m BOOM                                                      |                        | 9.4 m BOOM            |                        | 13.1 m BOOM           |                        |                       |
| Radius<br>(m)                                                   | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(kg) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(kg) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(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<br>ON RUBBER |                         |                        |
|------------------------|-------------------------|------------------------|
| Any Boom Length        |                         |                        |
| Radius<br>(m)          | Front<br>Rating<br>(kg) | 360°<br>Rating<br>(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<br>Boom<br>Angle<br>(deg)          | Jib Offset Angle           |                            |                            |
|                                         | 0 deg                      | 15 deg                     | 30 deg                     |
|                                         | Any<br>Boom<br>Length (kg) | Any<br>Boom<br>Length (kg) | Any<br>Boom<br>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

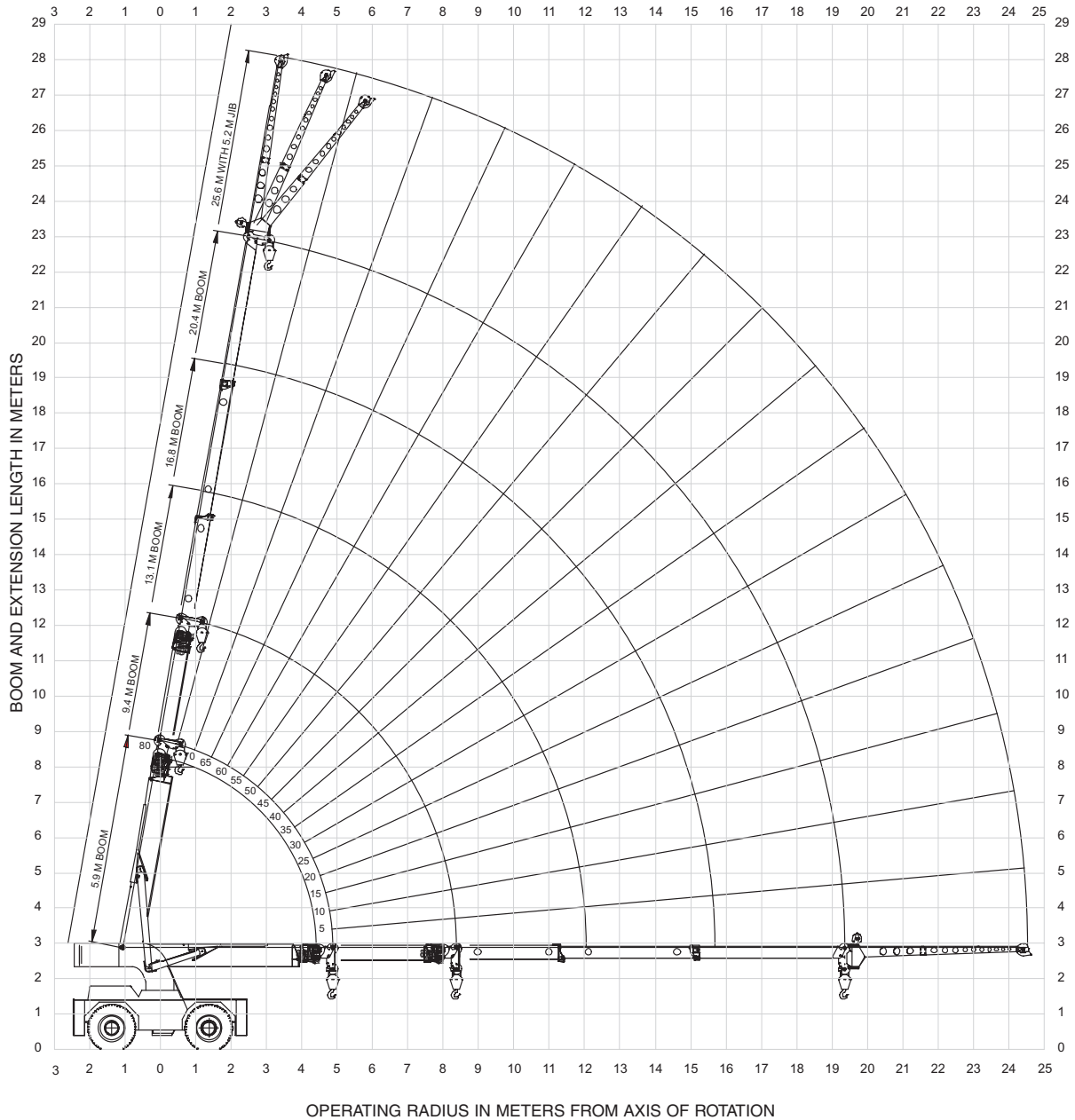
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.



## 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.



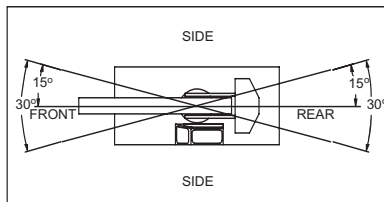
# DIN/ISO load chart

## YB7720 (5-section boom)

13

| MAIN BOOM LOAD RATINGS ON OUTRIGGERS<br>Extended and Down 360° or Retracted and Down Front/Rear |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
|-------------------------------------------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|                                                                                                 | 5.9 m BOOM       |                  | 9.4 m BOOM       |                  | 13.1 m BOOM      |                  | 16.8 m BOOM      |                  | 20.4 m BOOM      |                  |
| Radius (m)                                                                                      | 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               | 2260             |
| 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<br>Retracted and Down 360° |                        |                        |                        |                        |                        |                        |                        |                        |  |
|---------------|------------------------|-----------------------------------------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|--|
|               |                        | 5.9 m BOOM                                                      |                        | 9.4 m BOOM             |                        | 13.1 m BOOM            |                        | 16.8 m BOOM            |                        | 20.4 m BOOM            |  |
| Radius<br>(m) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(kgs)                                          | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(kgs) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(kgs) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(kgs) | Boom<br>Angle<br>(deg) | Rated<br>Load<br>(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                     | 310                    | 63                     | 370                    | 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                     | 200                    | 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<br>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<br>ON RUBBER |                          |                         |
|------------------------|--------------------------|-------------------------|
| Any Boom Length        |                          |                         |
| Radius<br>(m)          | Front<br>Rating<br>(kgs) | 360°<br>Rating<br>(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                    | 1780                     | 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<br>Angle<br>(deg)                 | Jib Offset Angle       |                        |                        |                        |                    |
|                                             | 0 deg                  |                        | 15 deg                 |                        | Any Boom<br>Length |
|                                             | To 16.8 m<br>Main Boom | To 20.4 m<br>Main Boom | To 16.8 m<br>Main Boom | To 20.4 m<br>Main Boom |                    |
| 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**



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