

## **GROVE**

# YB5500 Series



### **features**

• 2 models ...

**YB5515:** 15.0T (13.6mt) 3-section boom with 41 ft. 0 in. (12.5m) outreach **YB5518:** 18.0T (16.3mt) 4-section boom with 54 ft. 6 in. (16.6m) outreach

- 15 ft. (4.6m) offsettable swingaway extension
- 20,000 lb. (9 072kg) deck carrying capacity
- 101 bhp (75.3 kW) GM EFI dual fuel engine or 99 bhp (73.8 kW) Cummins, Tier III, diesel engine





Industrial Hydraulic Crane

www.manitowoc.com

| contents           |                |
|--------------------|----------------|
| Features           | <b>2</b> 3     |
| Specifications     | 3              |
| YB5515             |                |
| Dimensions         | 5              |
| Working Range      | 6              |
| Load Chart         | 8              |
| Load Chart         | 9              |
| YB5518             |                |
| Dimensions         | 10<br>11<br>12 |
| Range Diagram      | 11             |
| Load Chart         | 12             |
| YB5515 (metric)    |                |
| Range Diagram      | 13             |
| Range Diagram      | 14             |
| DIN/ISO Load Chart | 15             |
| DIN/ISO Load Chart | 16             |
| YB5518 (metric)    |                |
| Range Diagram      | 17             |
| DIN/ISO Load Chart | 18             |
|                    |                |

## **features**





· Cummins QSB 3.3L, Tier III, diesel rated @ 99 bhp (73.8Kw) @ 2600 r.p.m.



Standard: Open air cab shell w/overhead

safety glass

Optional: Closed cab with hinged door,

heater, and defroster



YB5500 Series



Standard: 41 ft. (12.5m) main boom on the YB5515

54 ft. 6 in. (16.6m) main boom on the

Optional: YB5515: Manual 4th main boom section

adds 11 ft. (3.4m) additional main boom

length



Standard: 2-wheel, 4-wheel and crab steer

(YB5515)

Optional: 2-wheel, -4-wheel, and crab steer with

electronic self-alignment (std. on

YB5518)





## **specifications**

#### **Superstructure**



YB5515: 18 ft. 6 in. - 41 ft. 0 in. (5.6m - 12.5m) three-section full power boom.

Maximum tip height: 46 ft. 3 in. (14.1m)

YB5518: 18 ft. 6 in. - 54 ft. 6 in. (5.6m - 16.6m) four-section full power boom.

Maximum tip height: 62 ft. 6 in. (19.0m)



### \*Optional Boom

YB5515: Manual 4th main boom fly section Maximum tip height: 56 ft. 3 in. (17.0m)



### \*Boom Extension

15 ft. (4.6m) offsettable swingaway extension



YB5515: 2 sheave non-pivoting boom nose

YB5518: Two sheave, -3-position (0°, +40°, +80°) pivoting boom nose for minimizing head space requirements. Lowers head height 15.9 in. (0.4m) when nose is pivoted fully forward.



### **Boom Elevation**

YB5515: Single double acting hydraulic cylinder with integral holding valve.

YB5518: Two double acting hydraulic cylinders with integral holding valve.

Elevation: 0° to 69° for the YB5515 0° to 80° for the YB5518



### Anti-Two Block Device

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



### Load Indicator (wireless LSI)

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



### \*Rated Capacity Limiter (wireless RCL)

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



### \*Load Moment Indicator (hardwired LMI)

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



### Ball bearing swing circle with 360° continuous rotation.

Hydraulic driven worm gear and pinion. Maximum speed: YB5515: 2.1 rpm

YB5518: 2.5 rpm

### Hydraulic System

4 section gear pump providing a system pressure of 3500 psi (241.3 bars)

Combined flow: 88.0 gpm (333.1 Lpm)

YB5515: Six section valve bank mounted in dash with direct mechanical linkage for low effort lever control.

YB5518: 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.

40 gallon (151.4 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. Equal speed power up and down.

Drum Diameter: 9.75 in. (0.25m) Maximum hoist single line pull: 12,000 lb. (5 443kg)

Maximum hoist single line speed:

YB5515: 126 FPM (38.4m / min) YB5518: 158 FPM (48.2m / min)

Maximum Permissible Single Line Pull:

YB5515: 7,500 lb (3 402kg)

(1/2" [12.7mm] EEIPS)

YB5518: 9,000 lb (4 082kg)

(1/2" [12.7mm] Python Ultra)

Rope Length:

YB5515:

(3-section boom) 240 ft. (73.0m) (4-section boom) 290 ft. (88.4m) YB5518: 310 ft. (94.5m)

\*Denotes optional equipment







## specifications

#### Carrier



High strength alloy steel constructed with integral outrigger housings; front and rear tie-down lugs. 75 ft.2 carrydeck size with 20,000 lb (9 072kg) carrying capacity. Deck coated with anti-skid treatment.

## -Outriggers

YB5515: Front and rear oblique type beams at all four corners with integral holding valves. Outrigger pads form an integral part of the beam. Outrigger pad size 8.75" x 10" (222 mm x 254 mm). YB5518: 2-stage hydraulic telescoping beam with oblique type jack on all four corners, provides extended and down and retracted and down lifting capacities. Integral holding valves on both beam and jack. Outrigger pad size 8.75" x 10" (222 mm x

### Utrigger Controls

YB5515: Lever controls located on dash panel and operate the beams in pairs from side to side. Level bubble located inside operators compartment.

YB5518: Two switch operation mounted on dash panel. One 3position 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 3.3L turbo-charged diesel rated @ 99 bhp (73.8kW) @ 2600 rpm.

### \*Optional Engine

G.M. 4.3L V-6 EFI dual fuel (gasoline / L.P.) rated @ 101 bhp (75.3kW) @ 2500 rpm.

### 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 include a durable weather resistant seat with seat belt, hourmeter, sight level bubble, and fire extinguisher. The dash panel includes engine oil pressure gauge, engine water temperature gauge, fuel gauge, transmission low oil and high temperature warning lights, low battery warning light, and brake system low pressure warning light. The LSI (load indicator) receiver is mounted to the top of the dash.

### \*Operators Control Station Enclosed

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

Front windshield wiper, heater and defroster are included.

### Fuel Tank Capacity

40 gallon (151.4 L) all steel construction with steel side plate to guard against side impact.

### Electrical System

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

### Drive

4 x 2 - Front axle drive with planetary hubs and limited slip differential

### $f{T}$ Steer

YB5515: 2-wheel, 4-wheel, and crab steer YB5518: 2-wheel, -4-wheel, and crab steer w/electric self alignment.

### C Transmission

YB5515: I.T.L. synchromesh 4-speeds forward and reverse.

YB5518: I.T.L. powershift 4-speeds forward and reverse. Stalk mounted shifter on left side of steering column.

### **U** Tires

385/65R 22.5 radial traction tread pneumatic.

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 1.5° oscillation for use on semi-rough terrain. Axle lock-out must be engaged (locked) whenever picking on rubber or traveling in the crab steer mode. A warning light indicates when the axle lock-outs are engaged.

\*Optional 4° oscillation.

### Lights

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

### **W** Maximum Speed

YB5515: 14.5 mph (23.3km/h) YB5518: 21.0 mph (33.8km/h)

### Gradeability\*\*

73%....no load

41%....20,000lb (9 072kg) load

YB5518: 68%....no load

40%....20,000lb (9 072kg) load

#### G.V.W.

YB5515: 26,300 lb (11 930kg) 3-section boom 26,750 lb (12 134kg) 4-section boom

YB5518: 30,000 lb (13 608kg)

#### **Miscellaneous Standard Equipment**

Two sheave, "Quick Reeve" style hookblock; YB5515: 15.0T (13.6mt); YB5518: 18.0T (16.3mt).

Back-up alarm

Lifting and tie down lugs

\*Denotes Optional Equipment

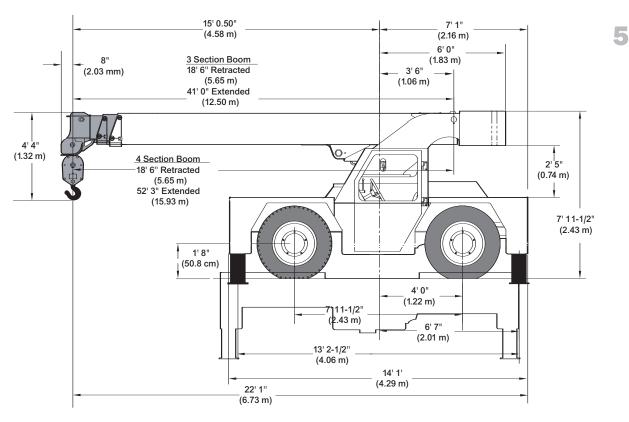


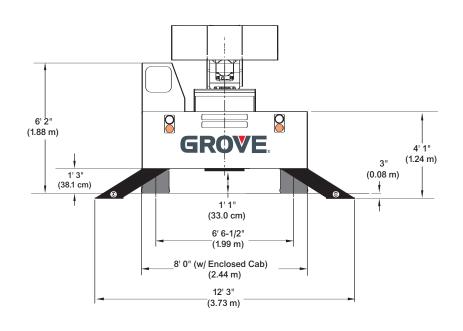


<sup>\*\*</sup>Theoretical

## dimensions

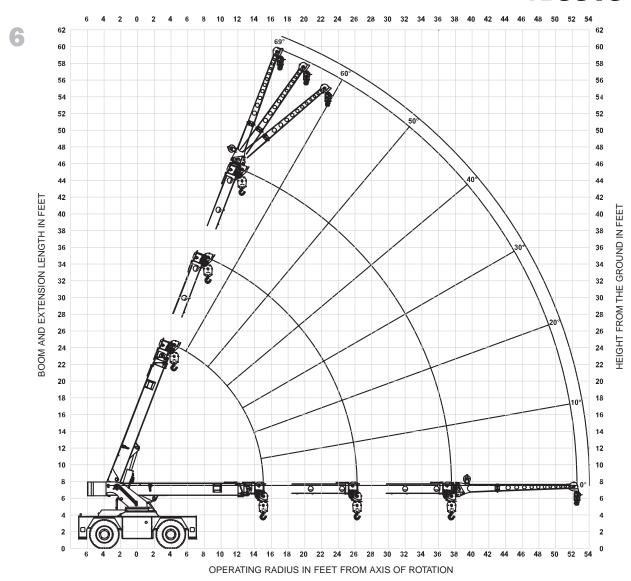
### YB5515





### 3-SECTION BOOM

YB5515

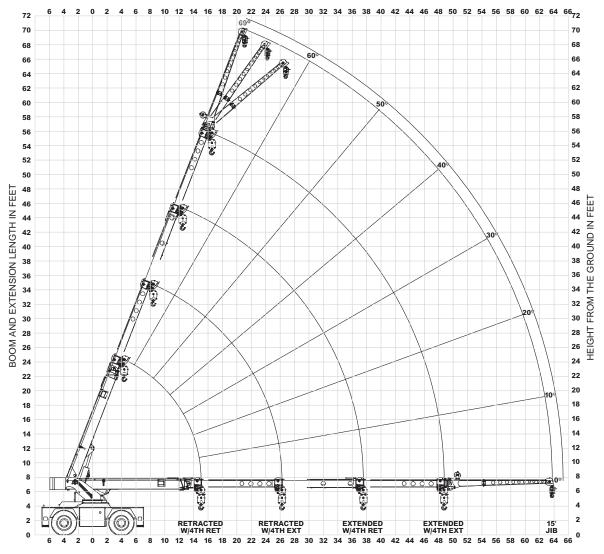


YB5500 Series

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.

**YB5515** 

4-SECTION BOOM



OPERATING RADIUS IN FEET FROM AXIS OF ROTATION

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.



## load chart

### YB5515 w/3-section boom

8

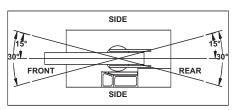
|           | RADIUS | ON OUTRIG | GERS (lbs) | ON RUBI | BER (lbs) |
|-----------|--------|-----------|------------|---------|-----------|
|           | (ft)   | F/R       | 360°       | F/R     | 360°      |
|           | 6.0    | 30000     | 30000      | 17000   | 17000     |
|           | 8.0    | 26200     | 26200      | 13500   | 14600     |
|           | 10.0   | 22300     | 22300      | 10700   | 10880     |
|           | 12.0   | 18600     | 18600      | 8710    | 8100      |
|           | 14.0   | 14800     | 14800      | 7210    | 6000      |
|           | 15.0   | 13000     | 13000      | 6600    | 5250      |
| l _       | 16.0   | 12200     | 12200      | 6060    | 4760      |
| 8         | 18.0   | 10800     | 10800      | 5120    | 3900      |
| Ö         | 20.0   | 9630      | 9180       | 4370    | 3190      |
| MAIN BOOM | 22.0   | 8640      | 7480       | 3710    | 2660      |
| I         | 24.0   | 7790      | 6210       | 3070    | 2200      |
| 2         | 26.0   | 7040      | 5310       | 2620    | 1820      |
|           | 28.0   | 6420      | 4740       | 2260    | 1530      |
|           | 30.0   | 5700      | 4290       | 1990    | 1320      |
|           | 32.0   | 5060      | 3920       | 1790    | 1160      |
|           | 34.0   | 4510      | 3580       | 1610    | 1040      |
|           | 36.0   | 4020      | 3260       | 1460    | 930       |
|           | 37.5   | 3700      | 3060       | 1370    | 860       |
|           | 40.0   | 3480      | 2860       | 1270    | 800       |
|           | 42.0   | 3310      | 2700       | 1190    | 740       |
| <u>m</u>  | 44.0   | 3130      | 2560       | 1120    | 690       |
| 胃         | 46.0   | 2960      | 2410       | 1040    | 640       |
|           | 48.8   | 2710      | 2210       | 930     | 570       |
|           | 52.5   | 2390      | 1940       | 790     | 480       |

| MAIN<br>BOOM<br>ANGLE | JIB STRUCTURAL<br>CAPACITIES (lbs) |      |      |  |  |  |
|-----------------------|------------------------------------|------|------|--|--|--|
| (deg)                 | 0°                                 | 15°  | 30°  |  |  |  |
| 69                    | 6000                               | 3900 | 2800 |  |  |  |
| 65                    | 5000                               | 3500 | 2550 |  |  |  |
| 60                    | 4300                               | 3150 | 2350 |  |  |  |
| 55                    | 3800                               | 2850 | 2200 |  |  |  |
| 50                    | 3400                               | 2600 | 2100 |  |  |  |
| 45                    | 3050                               | 2400 | 2000 |  |  |  |
| 40                    | 2800                               | 2250 | 1950 |  |  |  |
| 35                    | 2600                               | 2150 | 1900 |  |  |  |
| 30                    | 2400                               | 2080 | 1850 |  |  |  |
| 25                    | 2300                               | 2050 | -    |  |  |  |
| 20                    | 2200                               | 2000 | -    |  |  |  |
| 15                    | 2100                               | 1950 | -    |  |  |  |
| 10                    | 2050                               | -    | -    |  |  |  |
| 5                     | 2020                               | -    | -    |  |  |  |
| 0                     | 2000                               | -    | -    |  |  |  |

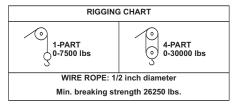
JIB CAPACITY IS LIMITED BY BOTH STRUCTURAL CAPACITY CHART AND MAIN CAPACITY CHART.

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.



| REDUCTION CHART |                              |         |  |  |  |  |
|-----------------|------------------------------|---------|--|--|--|--|
|                 | FROM<br>MAIN BOOM<br>RATINGS |         |  |  |  |  |
| MAIN BLOCK      | 210 lbs                      | N/A     |  |  |  |  |
| HOOK & BALL     | 100 lbs                      | 100 lbs |  |  |  |  |
| JIB, STOWED     | 0 lbs                        | N/A     |  |  |  |  |
| JIB, DEPLOYED   | 700 lbs                      | 0 lbs   |  |  |  |  |



- 1) The rated loads are the maximum lifting capacities as determined by operating radius only. Any combination of boom lengths and angles may be used to obtain operating radius. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of vertical hoist line or tackle with load applied.
- 2) 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 suroundings, climatic conditions, experience of operator and proper training must be taken into account by the operator.
- The weights of all load handling devices, such as hooks, hook blocks, slings, etc., except the hoist rope, shall be considered as part of the load. See reduction chart.

- Ratings on outriggers are with outriggers fully extended.
- 5) Ratings on rubber depend on tire capacity, condition of tires and proper inflation pressure (120 psi). Loads on rubber may be transported at a maximum speed of 2.5 mph on a smooth, hard, level surface with the boom retracted to the shortest length possible and centered over the front.
- For operating radius not shown, use load rating of next larger radius.
- The maximum combined total boom and deck load is 16000 lbs.
   The maximum deck load only is 20000 lbs.
- Do not induce any external side loads to boom or jib.

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



## load chart

### YB5515 w/ 4-section boom

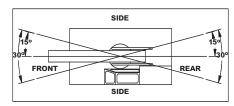
|        | 4TH RETRACTED |             |        |           |      |        | 4TH EXTENDED |            |         |           |
|--------|---------------|-------------|--------|-----------|------|--------|--------------|------------|---------|-----------|
| RADIUS | ON OUTRIC     | GGERS (lbs) | ON RUB | BER (lbs) |      | RADIUS | ON OUTRIG    | GERS (lbs) | ON RUBI | BER (lbs) |
| (ft)   | F/R           | 360°        | F/R    | 360°      |      | (ft)   | F/R          | 360°       | F/R     | 360°      |
| 6.0    | 30000         | 30000       | 17000  | 17000     |      | 6.0    | -            | -          | -       | -         |
| 8.0    | 26200         | 26200       | 13500  | 14600     |      | 8.0    | 11000        | 11000      | 11000   | 11000     |
| 10.0   | 22300         | 22300       | 10700  | 11000     |      | 10.0   | 10700        | 10700      | 10700   | 10700     |
| 12.0   | 18600         | 18600       | 8710   | 7650      |      | 12.0   | 9250         | 9250       | 9250    | 9250      |
| 14.0   | 14800         | 14800       | 7210   | 5480      |      | 14.0   | 8290         | 8390       | 7760    | 7500      |
| 15.0   | 13000         | 13000       | 6600   | 4890      |      | 15.0   | 8200         | 8200       | 7150    | 6080      |
| 16.0   | 12200         | 12200       | 6060   | 4500      |      | 16.0   | 8110         | 8110       | 6610    | 5510      |
| 18.0   | 10800         | 10600       | 4950   | 3750      |      | 18.0   | 7950         | 7950       | 5680    | 4500      |
| 20.0   | 9630          | 8630        | 3980   | 3080      | _    | 20.0   | 7820         | 7820       | 4730    | 3560      |
| 22.0   | 8640          | 7350        | 3230   | 2460      | 6    | 22.0   | 7710         | 7710       | 3980    | 3000      |
| 24.0   | 7790          | 6460        | 2720   | 1990      | ВООМ | 24.0   | 7630         | 7270       | 3410    | 2520      |
| 26.0   | 6800          | 5700        | 2360   | 1610      | z    | 26.0   | 7100         | 6330       | 2940    | 2150      |
| 28.0   | 5820          | 5040        | 2100   | 1410      | MAIN | 28.0   | 6590         | 5420       | 2550    | 1840      |
| 30.0   | 5020          | 4420        | 1880   | 1220      | -    | 30.0   | 5710         | 4760       | 2190    | 1580      |
| 32.0   | 4400          | 3950        | 1650   | 1070      |      | 32.0   | 5180         | 4080       | 1880    | 1360      |
| 34.0   | 3930          | 3570        | 1460   | 920       |      | 34.0   | 4680         | 3570       | 1600    | 1160      |
| 36.0   | 3510          | 3190        | 1280   | 770       |      | 36.0   | 4250         | 3190       | 1370    | 990       |
| 37.5   | 3210          | 2890        | 1180   | 680       |      | 37.5   | 3830         | 2970       | 1240    | 880       |
| 40.0   | 2950          | 2600        | 1070   | 610       | 1\   | 40.0   | 3400         | 2700       | 1070    | 740       |
| 42.0   | 2760          | 2430        | 970    | 550       | \    | 42.0   | 3150         | 2490       | 960     | 630       |
| 44.0   | 2590          | 2250        | 890    | 500       |      | 44.0   | 2890         | 2300       | 870     | 540       |
| 46.0   | 2430          | 2090        | 800    | 450       | \    | 46.0   | 2630         | 2130       | 790     | 470       |
| 48.8   | 2240          | 1850        | 680    | 380       | ۱ ۱  | 48.8   | 2320         | 1930       | 710     | 370       |
| 52.5   | 2030          | 1480        | 500    | 290       | 8    | 52.5   | 2070         | 1710       | 590     | 280       |
| 58.0   | -             | -           | -      | -         | ٦    | 58.0   | 1720         | 1380       | 420     | 170       |
| 63.8   | _             | _           | _      | _         |      | 63.8   | 1330         | 1020       | 230     | 60        |

| $\overline{}$ |                                 |        |      |      |       |      |  |  |  |  |
|---------------|---------------------------------|--------|------|------|-------|------|--|--|--|--|
| MAIN          | JIB STRUCTURAL CAPACITIES (Ibs) |        |      |      |       |      |  |  |  |  |
| BOOM          | 4TH                             | RETRAC | TED  | 4TH  | EXTEN | DED  |  |  |  |  |
| (deg)         | 00                              | 15°    | 30°  | 0°   | 15°   | 30°  |  |  |  |  |
| 69            | 6000                            | 3900   | 2800 | 5180 | 3900  | 2800 |  |  |  |  |
| 65            | 5000                            | 3500   | 2550 | 4970 | 3500  | 2550 |  |  |  |  |
| 60            | 4300                            | 3150   | 2350 | 4300 | 3150  | 2350 |  |  |  |  |
| 55            | 3800                            | 2850   | 2200 | 3800 | 2850  | 2200 |  |  |  |  |
| 50            | 3400                            | 2600   | 2100 | 3400 | 2600  | 2100 |  |  |  |  |
| 45            | 3050                            | 2400   | 2000 | 3050 | 2400  | 2000 |  |  |  |  |
| 40            | 2800                            | 2250   | 1950 | 2800 | 2250  | 1950 |  |  |  |  |
| 35            | 2600                            | 2150   | 1900 | 2600 | 2150  | 1900 |  |  |  |  |
| 30            | 2400                            | 2080   | 1850 | 2400 | 2080  | 1850 |  |  |  |  |
| 25            | 2300                            | 2050   | -    | 2300 | 2050  | -    |  |  |  |  |
| 20            | 2200                            | 2000   | -    | 2200 | 2000  | -    |  |  |  |  |
| 15            | 2100                            | 1950   | -    | 2100 | 1950  | -    |  |  |  |  |
| 10            | 2050                            | -      | -    | 2050 | -     | -    |  |  |  |  |
| 5             | 2020                            | -      | -    | 2020 | -     | -    |  |  |  |  |
| 0             | 2000                            | -      | -    | 2000 | -     | -    |  |  |  |  |

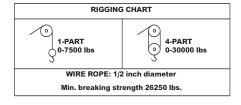
JIB CAPACITY IS LIMITED BY BOTH STRUCTURAL CAPACITY CHART AND MAIN CAPACITY CHART.

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.



| REDUCTION CHART |                              |                        |  |  |  |  |
|-----------------|------------------------------|------------------------|--|--|--|--|
|                 | FROM<br>MAIN BOOM<br>RATINGS | FROM<br>JIB<br>RATINGS |  |  |  |  |
| MAIN BLOCK      | 210 lbs                      | N/A                    |  |  |  |  |
| HOOK & BALL     | 100 lbs                      | 100 lbs                |  |  |  |  |
| JIB, STOWED     | 0 lbs                        | N/A                    |  |  |  |  |
| JIB, DEPLOYED   | 700 lbs                      | 0 lbs                  |  |  |  |  |



- 1) The rated loads are the maximum lifting capacities as determined by operating radius only. Any combination of boom lengths and angles may be used to obtain operating radius. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of vertical hoist line or tackle with load applied.
- 2) 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 suroundings, climatic conditions, experience of operator and proper training must be taken into account by the operator.
- The weights of all load handling devices, such as hooks, hook blocks, slings, etc., except the hoist rope, shall be considered as part of the load. See reduction chart.

- Ratings on outriggers are with outriggers fully extended.
- 5) Ratings on rubber depend on tire capacity, condition of tires and proper inflation pressure (120 psi). Loads on rubber may be transported at a maximum speed of 2.5 mph on a smooth, hard, level surface with the boom retracted to the shortest length possible and centered over the front.
- For operating radius not shown, use load rating of next larger radius.
- The maximum combined total boom and deck load is 16000 lbs.
   The maximum deck load only is 20000 lbs.
- Do not induce any external side loads to boom or jib.

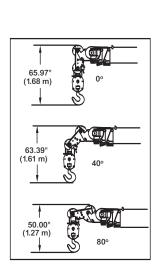
YB5500 Series

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.

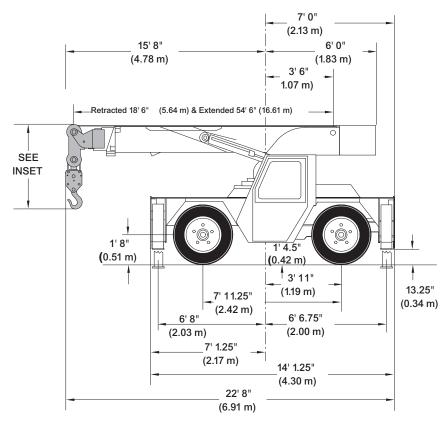
## dimensions

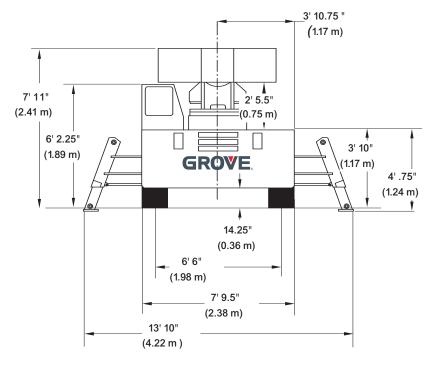
### **YB5518**

10



Dimensions are with the boom horizontal and the anti-two block bottomed.

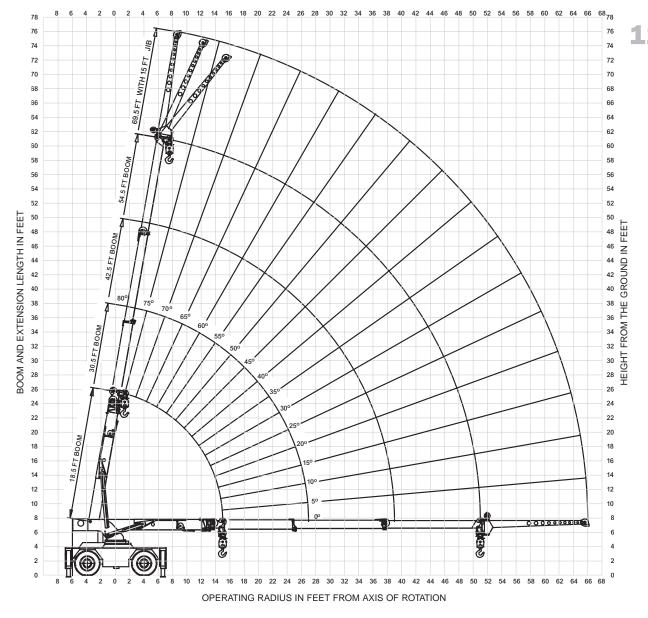




THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

### **GROVE**

### **YB5518**



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

**GROVE** 

260 North Smith Ave. Corona, CA 92880



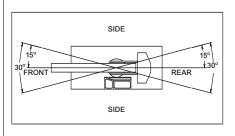
## load chart

### YB5518

12

|  | Exte  | MAIN BO<br>ended and                               |   | AD RATIN<br>60° or Ref  |   | MAIN E<br>ON RU   |  |   |  |   |   |
|--|---|--|---|---|---|---|--|---|--|---|---|
|  | 18.5 ft   | BOOM   | 30.5 ft   | ft BOOM 42.5 ft BOOM 54.5 ft BOOM   |   |   |  |   | Any Boor   | n Length  |   |
| 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)  | Boom<br>Angle<br>(deg)   | Rated<br>Load<br>(lbs)  | Radius<br>(ft)   | Front<br>Rating<br>(lbs)  | 360°<br>Rating<br>(lbs)   |
| 6<br>8<br>10<br>12<br>14<br>15.0<br>16<br>18<br>20<br>22<br>24<br>26<br>27.0<br>28<br>30<br>32<br>34<br>36<br>39.0<br>40<br>42<br>44 | 64<br>57<br>49<br>39<br>25<br>0<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- | 36000<br>31500<br>24000<br>19500<br>16200<br>15000 | 75<br>71<br>67<br>63<br>58<br>56<br>53<br>48<br>43<br>37<br>29<br>18<br>0 | 24500<br>24500<br>24000<br>24000<br>16800<br>15500<br>14400<br>12500<br>11000<br>8700<br>7400 | 79<br>77<br>74<br>71<br>68<br>66<br>65<br>59<br>55<br>52<br>48<br>46<br>44<br>40<br>36<br>30<br>24<br>15<br>0 | 23700<br>23000<br>21500<br>19700<br>15800<br>15800<br>12700<br>114600<br>12700<br>11200<br>9000<br>8100<br>7700<br>7300<br>5700<br>5100<br>4500<br>4000<br>3900 | - 80<br>77<br>75<br>73<br>72<br>71<br>69<br>66<br>64<br>61<br>59<br>58<br>56<br>54<br>45<br>42<br>41<br>39<br>35<br>31 | 7400<br>15800<br>14000<br>12600<br>12600<br>12000<br>9600<br>8900<br>8300<br>7500<br>7500<br>6700<br>6700<br>4800<br>4800<br>4800<br>4800<br>3800<br>3400<br>3100 | 6<br>8<br>10<br>12<br>14<br>15.0<br>16<br>18<br>20<br>22<br>24<br>26<br>27.0<br>28<br>30<br>32<br>34<br>36<br>38<br>39.0<br>40<br>42<br>44 | 16000<br>13000<br>11000<br>9100<br>7800<br>7100<br>6500<br>6500<br>4200<br>3600<br>3150<br>2950<br>2950<br>2100<br>1900<br>1750<br>1525<br>1450<br>1350<br>1150 | 10900<br>8700<br>7400<br>6400<br>5600<br>4900<br>4200<br>2500<br>2200<br>2200<br>2050<br>1900<br>1400<br>1200<br>850<br>1400<br>850<br>775<br>725<br>625<br>525 |
| 46<br>48   | -   | -  | -   | -   | -   | -   | 27<br>21   | 2900<br>2700  | 46<br>48   | 950<br>850  | 425<br>300  |
| 51.0   | -   | -  | -   | -   | -   | -   | 0  | 2400  | 51.0   | 700   | 200   |

| RAING REDUCTIONS FOR LOAD HANDLING DEVICES INSTALLED (Ibs) |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|
| FROM MAIN BOOM FROM JIB                                    |  |  |  |  |  |  |  |  |
| 230  | NOT APPLICABLE                                       |  |  |  |  |  |  |  |
| 100  | 100  |  |  |  |  |  |  |  |
| NO REDUCTION   | NOT APPLICABLE                                       |  |  |  |  |  |  |  |
| 700  | NO REDUCTION   |  |  |  |  |  |  |  |
|  | G DEVICES INSTAL FROM MAIN BOOM 230 100 NO REDUCTION |  |  |  |  |  |  |  |



|  | MAIN BOOM LOAD RATINGS ON OUTRIGGERS<br>Retracted and Down 360° |  |   |   |   |   |   |  |  |  |
|--|---|--|---|---|---|---|---|--|--|--|
|  | 18.5 ft   | BOOM   | 30.5 ft   | BOOM  | 42.5 ft   | BOOM  | 54.5 ft   | 54.5 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)  | Boom<br>Angle<br>(deg)  | Rated<br>Load<br>(lbs)   |  |  |
| 6<br>8<br>10<br>12<br>14<br>15.0<br>16<br>18<br>20<br>22<br>24<br>26<br>27.0<br>28<br>30<br>32<br>34<br>36<br>38<br>39.0<br>40<br>42<br>44<br>46 | 64<br>57<br>49<br>39<br>25<br>0<br>-<br>-<br>-<br>-<br>-<br>-   | 36000<br>29000<br>16000<br>11400<br>8900<br>8000<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- | 75<br>71<br>67<br>63<br>58<br>56<br>53<br>48<br>43<br>37<br>29<br>18<br>0 | 24500<br>24500<br>22000<br>9900<br>8900<br>8900<br>5900<br>5900<br>4100<br>3600<br>3400 | 79<br>77<br>74<br>74<br>68<br>66<br>65<br>62<br>59<br>55<br>52<br>48<br>44<br>40<br>36<br>30<br>24<br>15<br>0 | 23700<br>23000<br>23000<br>12800<br>10200<br>9300<br>8500<br>7200<br>4500<br>3800<br>3800<br>3800<br>2900<br>2500<br>2000<br>1800<br>1700 | -80<br>77<br>75<br>73<br>72<br>71<br>69<br>66<br>64<br>61<br>59<br>58<br>56<br>54<br>51<br>48<br>45<br>42<br>41<br>39<br>35<br>31<br>27 | 17400<br>15800<br>15800<br>10600<br>9500<br>8500<br>7200<br>8500<br>3900<br>3600<br>3900<br>2800<br>2200<br>2200<br>1700<br>1600<br>1400<br>1300<br>1400 |  |  |
| 48<br>51.0   | -   | -  | -   | -   | -   | -   | 21  | 900  |  |  |

|                |                            |                            | •                          | •                          |                       |  |  |  |  |  |  |
|----------------|----------------------------|----------------------------|----------------------------|----------------------------|-----------------------|--|--|--|--|--|--|
|                | 15 FT JIB CA               | PACITIES ON                | EXTENDED                   | OUTRIGGER                  | S                     |  |  |  |  |  |  |
| Main           | Jib Offset Angle           |                            |                            |                            |                       |  |  |  |  |  |  |
| Boom           | 0 0                        | deg                        | 15 c                       | deg                        | 30 deg                |  |  |  |  |  |  |
| Angle<br>(deg) | To 42.5 ft<br>Main<br>Boom | To 54.5 ft<br>Main<br>Boom | To 42.5 ft<br>Main<br>Boom | To 54.5 ft<br>Main<br>Boom | Any<br>Boom<br>Length |  |  |  |  |  |  |
| 80             |                            | -                          | 5000                       | 5000                       | 3500                  |  |  |  |  |  |  |
| 75             | 7500                       | -                          | 4400                       | 4400                       | 3100                  |  |  |  |  |  |  |
| 70<br>65       | 6100<br>5000               | 4600                       | 3900<br>3500               | 3900<br>3500               | 2800<br>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<br>0         | 2020<br>2000               | 1450<br>1440               | -                          | -                          | -                     |  |  |  |  |  |  |
| U              | 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 load ing, to the center of vertical hoist line or tackle with load applied.
- 2) 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.
- 3) 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.
- 5) Ratings on rubber depend on tire capacity, co ndition of tires and proper inflation pressure (120 psi). Loads on rubber may be transported at a maximum speed of 2.5 mp h on a smooth hard level surface with boom retacted 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 16,000 lbs. The maximum deck load only is 20,000 lbs.
- 8) Do not induce any external side loads to boom or jib.

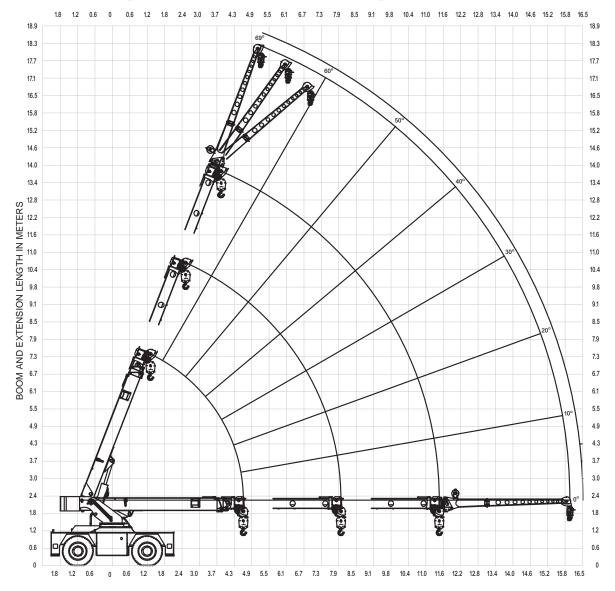
MAXIMUM PERMISSIBLE SINGLE LINE PULL = 9000 lbs

WIRE ROPE: 1/2 inch dia. 10 x 19 EIPS IWRC BRIGHT Min. req'd breaking strength = 31,500 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.

### GROVE

## YB5515 (w/3-section boom)



OPERATING RADIUS IN METERS FROM AXIS OF ROTATION

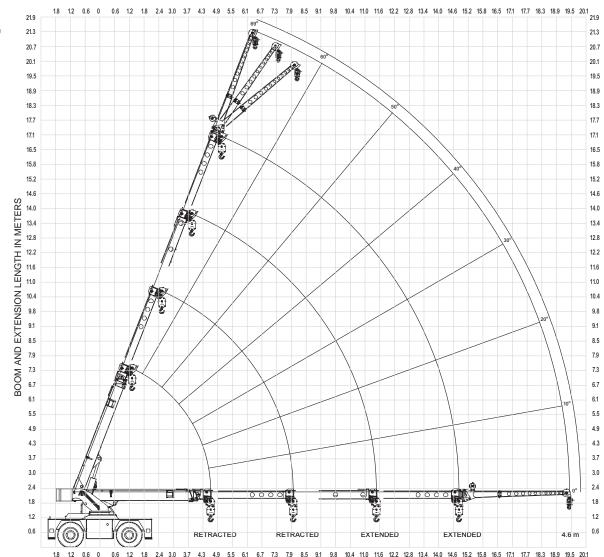
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

**GROVE** 

**'B5500 Seri** 

## YB5515 (w/4-section boom)

14



OPERATING RADIUS IN METERS FROM AXIS OF ROTATION

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

**GROVE** 



# DIN/ISO load chart

## YB5515 (w/3-section boom)

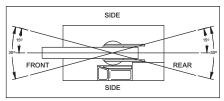
|           | RADIUS | ON OUTRIG | GERS (kg) | ON RUBE | BER (kg) |
|-----------|--------|-----------|-----------|---------|----------|
|           | (m)    | F/R       | 360°      | F/R     | 360°     |
|           | 1.8    | 13610     | 13610     | 7710    | 7710     |
|           | 2.4    | 11880     | 11880     | 6120    | 6620     |
|           | 3.0    | 10120     | 10120     | 4850    | 4860     |
|           | 3.7    | 8440      | 8440      | 3950    | 3600     |
|           | 4.3    | 6710      | 6710      | 3270    | 2650     |
|           | 4.6    | 5900      | 5900      | 2990    | 2310     |
|           | 4.9    | 5540      | 5530      | 2750    | 2090     |
| Σ         | 5.5    | 4900      | 4750      | 2320    | 1700     |
| 8         | 6.1    | 4370      | 3840      | 1940    | 1370     |
| MAIN BOOM | 6.7    | 3920      | 3120      | 1610    | 1130     |
| MAI       | 7.3    | 3460      | 2570      | 1320    | 920      |
|           | 7.9    | 3010      | 2190      | 1110    | 750      |
|           | 8.5    | 2660      | 1950      | 950     | 620      |
|           | 9.1    | 2350      | 1750      | 830     | 530      |
|           | 9.8    | 2080      | 1600      | 740     | 450      |
|           | 10.4   | 1850      | 1450      | 660     | 400      |
|           | 11.0   | 1640      | 1310      | 590     | 350      |
|           | 11.4   | 1500      | 1230      | 550     | 320      |
|           | 12.2   | 1410      | 1140      | 500     | 290      |
|           | 12.8   | 1330      | 1080      | 470     | 260      |
| _ m       | 13.4   | 1260      | 1010      | 430     | 240      |
| E E       | 14.0   | 1190      | 950       | 400     | 220      |
|           | 14.9   | 1080      | 870       | 350     | 190      |
|           | 16.0   | 940       | 750       | 280     | 140      |

| MAIN<br>BOOM<br>ANGLE | JIB STRUCTURAL<br>CAPACITIES (kg) |      |      |  |  |  |
|-----------------------|-----------------------------------|------|------|--|--|--|
| (deg)                 | 0°                                | 15°  | 30°  |  |  |  |
| 69                    | 2720                              | 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  | 840  |  |  |  |
| 25                    | 1040                              | 930  | -    |  |  |  |
| 20                    | 1000                              | 910  | -    |  |  |  |
| 15                    | 950                               | 880  | -    |  |  |  |
| 10                    | 930                               | -    | -    |  |  |  |
| 5                     | 920                               | -    | -    |  |  |  |
| 0                     | 910                               | -    | -    |  |  |  |

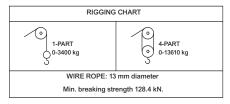
JIB CAPACITY IS LIMITED BY BOTH STRUCTURAL CAPACITY CHART AND MAIN CAPACITY CHART.

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.



| REDUCTION CHART               |        |       |  |  |  |  |
|-------------------------------|--------|-------|--|--|--|--|
| FROM FROM JIB RATINGS RATINGS |        |       |  |  |  |  |
| MAIN BLOCK                    | 100 kg | N/A   |  |  |  |  |
| HOOK & BALL                   | 50 kg  | 50 kg |  |  |  |  |
| JIB, STOWED                   | 0 kg   | N/A   |  |  |  |  |
| JIB, DEPLOYED                 | 320 kg | 0 kg  |  |  |  |  |



- 1) The rated loads are the maximum lifting capacities as determined by operating radius only. Any combination of boom lengths and angles may be used to obtain operating radius. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of vertical hoist line or tackle with load applied.
- 2) 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 suroundings, climatic conditions, experience of operator and proper training must be taken into account by the operator.
- 3) The weights of all load handling devices, such as hooks, hook blocks, slings, etc., except the hoist rope, shall be considered as part of the load. See reduction chart.

- 4) Ratings on outriggers are with outriggers fully extended.
- 5) Ratings on rubber depend on tire capacity, condition of tires and proper inflation pressure (8.3 bar). Loads on rubber may be transported at a maximum speed of 1.4 km/h on a smooth, hard, level surface with the boom retracted to the shortest length possible and centered over the front.
- For operating radius not shown, use load rating of next larger radius.
- The maximum combined total boom and deck load is 7 260 kgs.
   The maximum deck load only is 9 070 kgs.
- 8) Do not induce any external side loads to boom or jib.

YB5500 Series

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.



## DIN/ISO load chart

## YB5515 (w/4-section boom)

16

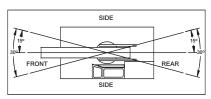
|        |           | 4TH RETI  | RACTED  |          |      |      |      | 4TH EXT | TENDED     |      |
|--------|-----------|-----------|---------|----------|------|------|------|---------|------------|------|
| RADIUS | ON OUTRIG | GERS (kg) | ON RUBI | BER (kg) |      | (m)  |      | ON RUBI | UBBER (kg) |      |
| (m)    | F/R       | 360°      | F/R     | 360°     |      | (m)  | F/R  | 360°    | F/R        | 360° |
| 1.8    | 13610     | 13610     | 7710    | 7710     |      | 1.8  | -    | -       | -          | -    |
| 2.4    | 11880     | 11880     | 6120    | 6120     |      | 2.4  | 5030 | 5030    | 5030       | 5030 |
| 3.0    | 10120     | 10120     | 4860    | 4890     |      | 3.0  | 4850 | 4850    | 4850       | 4850 |
| 3.7    | 8440      | 8440      | 3950    | 3390     |      | 3.7  | 4200 | 4200    | 4200       | 4200 |
| 4.3    | 6710      | 6710      | 3270    | 2400     |      | 4.3  | 3760 | 3760    | 3520       | 3320 |
| 4.6    | 5900      | 5900      | 2990    | 2140     |      | 4.6  | 3720 | 3720    | 3240       | 2670 |
| 4.9    | 5540      | 5540      | 2670    | 1960     |      | 4.9  | 3680 | 3680    | 3000       | 2420 |
| 5.5    | 4900      | 4450      | 2160    | 1620     |      | 5.5  | 3610 | 3610    | 2530       | 1960 |
| 6.1    | 4370      | 3600      | 1720    | 1310     |      | 6.1  | 3550 | 3550    | 2060       | 1530 |
| 6.7    | 3920      | 3050      | 1380    | 1030     | ĕ    | 6.7  | 3500 | 3500    | 1720       | 1280 |
| 7.3    | 3320      | 2670      | 1150    | 820      | BOOM | 7.3  | 3460 | 3020    | 1470       | 1060 |
| 7.9    | 2820      | 2340      | 990     | 650      | MAIN | 7.9  | 3180 | 2620    | 1250       | 890  |
| 8.5    | 2400      | 2060      | 870     | 560      | ž    | 8.5  | 2730 | 2230    | 1080       | 750  |
| 9.1    | 2050      | 1800      | 770     | 470      |      | 9.1  | 2350 | 1950    | 910        | 630  |
| 9.8    | 1790      | 1600      | 670     | 400      |      | 9.8  | 2120 | 1660    | 770        | 530  |
| 10.4   | 1590      | 1440      | 580     | 340      |      | 10.4 | 1910 | 1440    | 640        | 450  |
| 11.0   | 1410      | 1270      | 500     | 270      |      | 11.0 | 1690 | 1270    | 540        | 370  |
| 11.4   | 1290      | 1150      | 450     | 230      |      | 11.4 | 1550 | 1180    | 480        | 320  |
| 12.2   | 1170      | 1020      | 400     | 190      | 1    | 12.2 | 1360 | 1070    | 400        | 250  |
| 12.8   | 1090      | 950       | 360     | 170      | ١\   | 12.8 | 1260 | 970     | 350        | 200  |
| 13.4   | 1020      | 880       | 320     | 150      | ١\   | 13.4 | 1150 | 890     | 310        | 160  |
| 14.0   | 950       | 810       | 280     | 120      | 1 \  | 14.0 | 1040 | 820     | 280        | 130  |
| 14.9   | 870       | 700       | 230     | 90       | \    | 14.9 | 900  | 740     | 240        | 90   |
| 16.0   | 780       | 550       | 150     | 50       | 뽁    | 16.0 | 800  | 640     | 190        | 50   |
| 17.7   | -         | -         | -       | -        | _    | 17.7 | 650  | 500     | 110        | 0    |
| 19.4   | -         | -         | -       | -        |      | 19.4 | 480  | 350     | 20         | 0    |

| MAIN          |      | JIB STR | UCTURAL | CAPACITIES (kg) |         |      |  |
|---------------|------|---------|---------|-----------------|---------|------|--|
| BOOM<br>ANGLE | 4TH  | RETRACT | ED      | 4TI             | EXTENDE | ΞD   |  |
| (deg)         | 0°   | 15°     | 30°     | 0°              | 15°     | 30°  |  |
| 69            | 2720 | 1770    | 1270    | 2350            | 1770    | 1270 |  |
| 65            | 2270 | 1590    | 1160    | 2250            | 1590    | 1160 |  |
| 60            | 1950 | 1430    | 1070    | 1950            | 1430    | 1070 |  |
| 55            | 1720 | 1290    | 1000    | 1720            | 1290    | 1000 |  |
| 50            | 1540 | 1180    | 950     | 1540            | 1180    | 950  |  |
| 45            | 1380 | 1090    | 910     | 1380            | 1090    | 910  |  |
| 40            | 1270 | 1020    | 880     | 1270            | 1020    | 880  |  |
| 35            | 1180 | 980     | 860     | 1180            | 980     | 860  |  |
| 30            | 1090 | 940     | 840     | 1090            | 940     | 840  |  |
| 25            | 1040 | 930     | -       | 1040            | 930     |      |  |
| 20            | 1000 | 910     | -       | 1000            | 910     | - 1  |  |
| 15            | 950  | 880     | -       | 950             | 880     | - 1  |  |
| 10            | 930  | -       | -       | 930             | -       | -    |  |
| 5             | 920  | -       | -       | 920             | -       | - 1  |  |
| 0             | 910  | -       | -       | 910             | -       | -    |  |

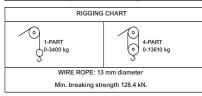
JIB CAPACITY IS LIMITED BY BOTH STRUCTURAL CAPACITY CHART AND MAIN CAPACITY CHART.

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.



| REDUCTION CHART               |        |       |  |  |  |  |
|-------------------------------|--------|-------|--|--|--|--|
| FROM FROM JIB RATINGS RATINGS |        |       |  |  |  |  |
| MAIN BLOCK                    | 100 kg | N/A   |  |  |  |  |
| HOOK & BALL                   | 50 kg  | 50 kg |  |  |  |  |
| JIB, STOWED                   | 0 kg   | N/A   |  |  |  |  |
| JIB, DEPLOYED                 | 320 kg | 0 kg  |  |  |  |  |

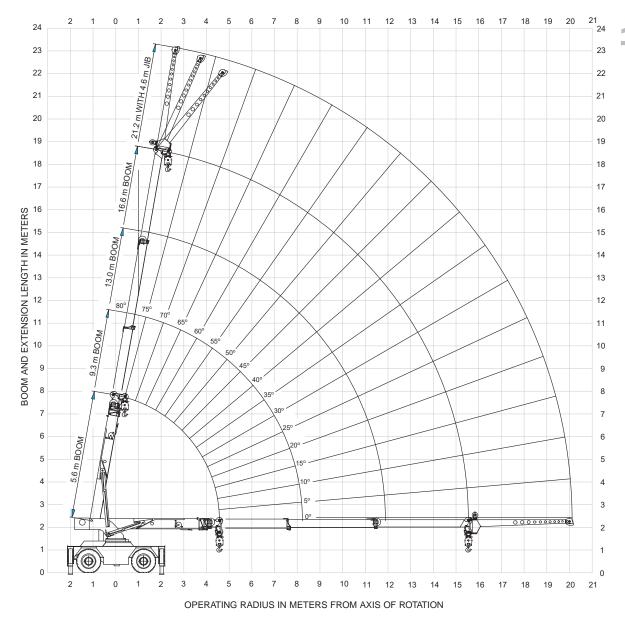


- The rated loads are the maximum lifting capacities as determined by operating radius only. Any combination of boom lengths and angles may be used to obtain operating radius. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of vertical hoist line or tackle with load applied.
- 2) 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 suroundings, climatic conditions, experience of operator and proper training must be taken into account by the operator.
- 3) The weights of all load handling devices, such as hooks, hook blocks, slings, etc., except the hoist rope, shall be considered as part of the load. See reduction chart.

- 4) Ratings on outriggers are with outriggers fully extended.
- 5) Ratings on rubber depend on tire capacity, condition of tires and proper inflation pressure (8.3 bar). Loads on rubber may be transported at a maximum speed of 1.4 km/h on a smooth, hard, level surface with the boom retracted to the shortest length possible and centered over the front.
- 6) For operating radius not shown, use load rating of next larger radius.
- The maximum combined total boom and deck load is 7 260 kgs.
   The maximum deck load only is 9 070 kgs.
- 8) 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.

### **YB5518**



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.



## DIN/ISO load chart

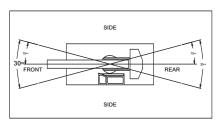
**YB5518** 

18

|   | E:   | MAIN BOOM LOAD RATINGS ON OUTRIGGERS<br>Extended and Down 360° or Retracted and Down Front/Rear |   |   |  |  |  |  |  |  |
|---|--|---|---|---|--|--|--|--|--|--|
|   | 5.6 m  | воом  | 9.3 m   | 9.3 m BOOM  |  | BOOM   | 16.6 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)   |  |  |
| 1.8<br>2.4<br>3.0<br>3.7<br>4.3<br>4.6<br>4.9<br>5.5<br>6.1<br>7.3<br>7.9<br>8.2<br>8.5<br>9.1<br>9.8<br>10.4<br>11.0<br>11.6<br>11.9 | 64<br>57<br>48<br>38<br>25<br>0<br>-<br>-<br>-<br>-<br>-<br>-<br>- | (895)<br>16330<br>14290<br>10900<br>8850<br>7120<br>6390<br>                                    | 75<br>71<br>67<br>63<br>58<br>56<br>53<br>48<br>43<br>36<br>29<br>18<br>0 | 10560<br>10430<br>10000<br>8880<br>7260<br>6640<br>6100<br>5220<br>4530<br>3980<br>3530<br>3160<br>3040 | 79 76 74 71 68 66 65 62 59 55 52 48 46 44 40 36 30 24 15 0 | 8230<br>8000<br>7110<br>6280<br>5610<br>5330<br>5070<br>4620<br>4240<br>3920<br>3570<br>3260<br>3100<br>2960<br>2625<br>2335<br>2050<br>1810<br>1630<br>1630<br>1650 | 80<br>77<br>75<br>73<br>72<br>71<br>68<br>66<br>64<br>61<br>59<br>58<br>56<br>54<br>51<br>42<br>40<br>39 | 5860<br>5800<br>5530<br>4920<br>4660<br>4420<br>3670<br>3380<br>3130<br>2910<br>2820<br>2750<br>2580<br>2170<br>1930<br>1725<br>1630<br>1540 |  |  |
| 12.8  | [  | _   | -   | -   | -  | -  | 35   | 1390   |  |  |
| 13.4  | -  | -   | -   | -   | -  | -  | 31   | 1270   |  |  |
| 14.0  | -  | -   | -   | -   | -  | -  | 26   | 1150<br>1045   |  |  |
| 14.6<br>15.5  | -  | -   | -   | -   | -  | -  | 21<br>0  | 930  |  |  |

|        | MAIN BOOM<br>ON RUBBER |          |  |  |  |  |  |
|--------|------------------------|----------|--|--|--|--|--|
|        | Any Boor               | n Length |  |  |  |  |  |
|        | Front                  | 360°     |  |  |  |  |  |
| Radius | Rating                 | Rating   |  |  |  |  |  |
| (m)    | (kgs)                  | (kgs)    |  |  |  |  |  |
| 1.8    | 7260                   | 4950     |  |  |  |  |  |
| 2.4    | 5680                   | 3950     |  |  |  |  |  |
| 3.0    | 4500                   | 3360     |  |  |  |  |  |
| 3.7    | 3620                   | 2880     |  |  |  |  |  |
| 4.3    | 3040                   | 2390     |  |  |  |  |  |
| 4.9    | 2570                   | 2000     |  |  |  |  |  |
| 5.5    | 2190                   | 1690     |  |  |  |  |  |
| 6.1    | 1890                   | 1430     |  |  |  |  |  |
| 6.7    | 1640                   | 1210     |  |  |  |  |  |
| 7.3    | 1420                   | 1030     |  |  |  |  |  |
| 7.9    | 1220                   | 870      |  |  |  |  |  |
| 8.5    | 1090                   | 740      |  |  |  |  |  |
| 9.1    | 950                    | 630      |  |  |  |  |  |
| 9.8    | 840                    | 525      |  |  |  |  |  |
| 10.4   | 720                    | 430      |  |  |  |  |  |
| 11.0   | 610                    | 340      |  |  |  |  |  |
| 11.6   | 520                    | 270      |  |  |  |  |  |
| 12.2   | 470                    | 215      |  |  |  |  |  |
| 12.8   | 400                    | 165      |  |  |  |  |  |
| 13.4   | 340                    | 120      |  |  |  |  |  |
| 14.0   | 280                    | 80       |  |  |  |  |  |
| 14.6   | 230                    | 45       |  |  |  |  |  |
| 15.5   | 150                    | 0        |  |  |  |  |  |
| Note:  | For 360∞ i             | rating   |  |  |  |  |  |

| RATING REDUCTIONS FOR LOAD       |              |                |  |  |  |  |  |
|----------------------------------|--------------|----------------|--|--|--|--|--|
| HANDLING DEVICES INSTALLED (kgs) |              |                |  |  |  |  |  |
| FROM MAIN BOOM FROM JIB          |              |                |  |  |  |  |  |
| MAIN BLOCK 95 NOT APPLICABLE     |              |                |  |  |  |  |  |
| HOOK & BALL 43 43                |              |                |  |  |  |  |  |
| JIB STOWED                       | NO REDUCTION | NOT APPLICABLE |  |  |  |  |  |
| JIB DEPLOYED                     | 318          | NO REDUCTION   |  |  |  |  |  |



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.

|  | MAIN BOOM LOAD RATINGS ON OUTRIGGERS<br>Retracted and Down 360°    |   |   |  |   |  |   |   |  |
|--|--|---|---|--|---|--|---|---|--|
|  | 5.6 m  | воом  | 9.3 m BOOM  |  | 13.0 m  | BOOM   | 16.6 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)  |  |
| 1.8<br>2.4<br>3.0<br>3.7<br>4.3<br>4.6<br>4.9<br>5.5<br>6.1<br>6.7<br>7.3<br>7.9<br>8.2<br>8.5<br>9.1<br>9.8<br>10.4<br>11.0<br>11.6<br>11.9 | 64<br>57<br>48<br>38<br>25<br>0<br>-<br>-<br>-<br>-<br>-<br>-<br>- | 16330<br>9760<br>6890<br>5050<br>3700<br>3260<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- | 75<br>71<br>67<br>63<br>58<br>56<br>53<br>48<br>43<br>36<br>29<br>18<br>0 | 10560<br>8450<br>6250<br>4860<br>3910<br>3530<br>2700<br>2240<br>1610<br>1390<br>-<br>-<br>- | 79<br>76<br>74<br>71<br>68<br>66<br>65<br>62<br>59<br>55<br>52<br>48<br>40<br>36<br>30<br>24<br>15<br>0 | 8230<br>7500<br>7500<br>7630<br>3660<br>3320<br>3070<br>2590<br>2200<br>1890<br>1420<br>1320<br>1320<br>1220<br>1050<br>930<br>830<br>640<br>610 | -<br>80<br>77<br>75<br>73<br>72<br>71<br>68<br>66<br>64<br>61<br>59<br>58<br>56<br>54<br>45<br>42<br>40<br>39 | 5850<br>5130<br>4180<br>3420<br>3140<br>2870<br>2440<br>2100<br>1810<br>1580<br>1380<br>1290<br>1210<br>920<br>810<br>920<br>650<br>600 |  |
| 12.8<br>13.4   | -  | -   | -   | -  | -   | :  | 35<br>31  | 470<br>390  |  |
| 14.0   | :  | -   | -   | -  | -   | [  | 26  | 320   |  |
| 14.6<br>15.5   | -  |   |   | -  | -   | -  | 21<br>0   | 250<br>170  |  |

|                | 4.6 m JIB CAPACITIES ON EXTENDED OUTRIGGERS (kgs) |                           |                           |                           |                       |  |  |  |  |
|----------------|---|---------------------------|---------------------------|---------------------------|-----------------------|--|--|--|--|
| Main           |   | J                         | ib Offset Angle           |                           |                       |  |  |  |  |
| Boom           | 0.0   | deg                       | 15 c                      | leg                       | 30 deg                |  |  |  |  |
| Angle<br>(deg) | To 13.0 m<br>Main<br>Boom                         | To 16.6 m<br>Main<br>Boom | To 13.0 m<br>Main<br>Boom | To 16.6 m<br>Main<br>Boom | Any<br>Boom<br>Length |  |  |  |  |
| 80             | -   | -                         | 2270                      | 2270                      | 1590                  |  |  |  |  |
| 75             | 3450  | -                         | 2000                      | 2000                      | 1410                  |  |  |  |  |
| 70             | 2770  | -                         | 1770                      | 1770                      | 1270                  |  |  |  |  |
| 65             | 2270  | 2090                      | 1590                      | 1590                      | 1160                  |  |  |  |  |
| 60             | 1950  | 1730                      | 1430                      | 1420                      | 1070                  |  |  |  |  |
| 55             | 1730  | 1460                      | 1290                      | 1260                      | 1000                  |  |  |  |  |
| 50             | 1540  | 1225                      | 1180                      | 1100                      | 930                   |  |  |  |  |
| 45             | 1380  | 1020                      | 1090                      | 940                       | 850                   |  |  |  |  |
| 40             | 1270  | 870                       | 1020                      | 800                       | 780                   |  |  |  |  |
| 35             | 1180  | 760                       | 980                       | 700                       | 700                   |  |  |  |  |
| 30             | 1090  | 680                       | 940                       | 625                       | 630                   |  |  |  |  |
| 25             | 1010  | 610                       | 930                       | 570                       | -                     |  |  |  |  |
| 20             | 930   | 565                       | 910                       | 535                       | -                     |  |  |  |  |
| 15             | 870   | 550                       | 890                       | 520                       | -                     |  |  |  |  |
| 10             | 840   | 535                       | -                         | -                         | -                     |  |  |  |  |
| 5              | 830   | 530                       | -                         | -                         | -                     |  |  |  |  |
| 0              | 825   | 530                       | -                         | -                         | -                     |  |  |  |  |

- 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.
- 2) 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.
- 5) Ratings on rubber depend on tire capacity, condition of tires and proper inflation pressure (8.3 bar). Loads on rubber may be transported at a maximum speed of 14 km/h on a smooth hard level surface with boom retacted to the shortest length possible and centered over front. Do not use jib with crane on rubber.
- 6) For operating radius not shown, use load rating of next larger radius
- The maximum combined total boom and deck load is 7 264 kgs. The maximum deck load only is 9 080 kgs.
- 8) Do not induce any external side loads to boom or jib.

MAXIMUM PERMISSIBLE SINGLE LINE PULL = 4 080 kgs

WIRE ROPE: 13 mm dia. 10 x 19 EIPS IWRC BRIGHT Min. req'd breaking strength = 15 710 kgs

Min. req'd breaking strength = 15 710 kgs

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

19





## GRUYE

#### **Regional Headquarters** Americas

Manitowoc, Wisconsin, USA Tel: +1 920 684 6621 Fax: +1 920 683 6278

Shady Grove, Pennsylvania, USA

Tel: +1 717 597 8121 Fax: +1 717 597 4062

#### Europe, Middle East, Africa

Ecully, France Tel: +33 472 18 2020 Fax: +33 472 18 2000

#### Asia - Pacific

Shanghai, China Tel: +86 21 51113579 Fax: +86 21 51113578

Singapore Tel: +65 6264 1188 Fax: +65 6862 4142

### **Regional Offices**

### **Americas**

#### **Brazil**

Alphaville

Tel: +55 11 3103 0200 Fax: +55 11 4688 2013

#### Mexico

Monterrey

Tel: +52 81 8124 0128 Fax: +52 81 8124 0129

### Europe, Middle East, Africa Algeria

Hydra

Tel: +21 3 21 48 1173 Fax: +21 3 21 48 1454

### **Czech Republic**

Netvorice

Tel: +420 317 78 9313 Fax: +420 317 78 9314

### France

Baudemont

Tel: +33 385 28 2589 Fax: +33 385 28 0430

Cergy

Tel: +33 130 31 3150 Fax: +33 130 38 6085

Decines

Tel: +33 472 81 5000 Fax: +33 472 81 5010

#### Germany

Langenfeld

Tel: +49 21 73 8909-0 Fax: +49 21 73 8909 30

#### Hungary

Budapest

Tel: +36 13 39 8622 Fax: +36 13 39 8622

#### Italy

Parabiago

Tel: +390 331 49 3311 Fax: +390 331 49 3330

### Netherlands

Breda

Tel: +31 76 578 3999 Fax: +31 76 578 3978

#### **Poland**

Warsaw

Tel: +48 22 843 3824 Fax: +48 22 843 3471

### **Portugal**

Alfena

Tel: +351 229 69 8840 Fax: +351 229 69 8848

#### Lisbon

Tel: +351 212 109 340 Fax: +351 212 109 349

#### Russia

Moscow

Tel: +7 495 641 2359 Fax: +7 495 641 2358

#### U.A.E.

Dubai

Tel: +971 4 3381 861 Fax: +971 4 3382 343

### U.K.

Middlesex

Tel: +44 1 895 43 0053 Fax: +44 1 895 45 9500

#### Sunderland

Tel: +44 191 522 2000 Fax: +44 191 522 2052

#### Asia - Pacific Australia

Brisbane

38 Suscatand Street Rocklea Queensland 4106 Tel: +617 3274 5879 Fax: +617 3274 6558

#### Melbourne

1/46 Venture Drive Sunshine West VIC 3020 Tel: +(03) 9336 1322 Fax: +(03) 9336 1300

### Sydney

142 Magowar Road Girraween, NSW 2145 Tel: +61 02 9896 4433 Fax: +61 02 9896 3122

### China

Beijing

Tel: +86 10 58674761 Fax: +86 10 58674760

Xi'ar

Tel: +86 29 87891465 Fax: +86 29 87884504

### Korea

Seoul

Tel: +82 2 3439 0400 Fax: +82 2 3439 0405

### **Philippines**

Makati City Tel: +63 2 844 9437 Fax: +63 2 844 4712

#### **Factories**

Brazil Alphaville

China

Zhangjiagang

France

Charlieu La Clayette Moulins

### Germany

Wilhelmshaven

India Calcutta Pune

Italy

Niella Tanaro

Portugal Baltar Fânzeres

Slovakia Saris

Sans

U.S.A. Manitowoc

Port Washington Shady Grove



## **Bigge Crane and Rigging Co.** 10700 Bigge Avenue

San Leandro, CA 94577 Phone: (888) 337-BIGGE or (510) 638-8100

Fax: (510) 639-4053

Email: info@bigge.com
Web site: www.bigge.com

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

©2008 MANITOWOC Printed in USA

Form No. YB5500 Series Part No. 04-022 / 0708 / 1M



www.manitowoc.com