

Grove YB5515-2

Provisional Product Guide

ASME B30.5 Imperial 85%



Features

- 13,6 t (15 USt) capacity
- 12,5 m (41 ft) three-section, full-power synchronized boom
- 9,1 t (10 USt) deck carrying capacity
- Load sensing piston pump with hydraulic proportional controls

Features



The reach and capacity to get the job done

The standard three-section boom offers 4,6 m - 12,5 m (15 ft -41 ft) of reach with a max tip height of 14,2 m (46.5 ft). The optional four-section boom offers 5,4 m - 15,4 m (17.8 ft -50.0 ft) of reach that can be enhanced with the optional 4,6 m (15 ft) swingaway extension to provide a total max tip height of 20,4 m (67 ft).



Outriggers

The YB5515-2 outriggers are two-position (0° and 100°) beam/jack style outriggers with inverted jack cylinders and pivoting pad.



Steering

The YB5515-2 comes standard with three steering modes: front (two-wheel), four-wheel coordinated, and four-wheel crab steer with electronic self alignment. Operators can choose between modes via three-position rocker switch located on dash panel.

Operator cab

New operator control layout with hydraulic proportional joystick controls, tilt steering wheel, and automotive dash panel gauges and indicator lights.



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Superstructure



Boom

4,6 m – 12,5 m (15 ft – 41 ft) three-section, full-power, synchronized, telescopic boom.

Maximum tip height: 14,2 m (46.5 ft)

*Optional Boom

5,4 m – 15,4 m (17.8 ft – 50 ft) four-section, full-power, synchronized, telescopic boom.

Maximum tip height: 16,5 m (54 ft)



*Optional boom extensions

4,6 m (15 ft) fixed swingaway extension

Maximum tip height with standard boom: 18,1m (59.5 ft)

Maximum tip height with optional boom: 20,4 m (67 ft)

Boom extension can be offset 0°, -15°, and -30° via pivoting boom nose on the optional boom.



Boom nose

Fixed two-sheave quick reeve boom nose with standard 12,5 m (41 ft) boom.

Two-sheave, quick reeve type with-3- pinned pivoting (0°, +40°, and +80°) boom nose design to minimize head space requirements. With optional boom only. Lowers head height 0,4 m (1.3 ft) when nose is pivoted fully forward.



Boom elevation

Single double acting hydraulic cylinder with integral holding valve. Elevation: 0° to 69°



Anti-two block device

Standard anti-two block device (hardwired), which, when activated, provides an audible and visual warning to the operator and "locks out" all functions whose movement can cause two-blocking.



Load Moment Indicator

A simple, effective, and easy to use load moment 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 max. load allowed, the actual hook load, length and angle of the boom, and load radius in Dot Matrix numerical values and provides a load utilization colored bar graph. Inputs by operator are maximum allowed load and parts of line. If non-permitted conditions are approached the L.M.I. will warn the operator with an audible alarm and a warning light and will lock out those functions that may aggravate the condition.



* Optional Load Moment Indicator

"Graphics Display" of boom angle, boom length, load radius, and capacity. Operator input to set the limit parameters based on the load chart. Displays color coded light bar and audible alarm with function cut-out if load exceeds the load chart parameters.



Swing

Ball bearing swing circle with 360° continuous rotation. Worm gear and pinion driven by hydraulic motor. Spring applied, hydraulic released brake. Equipped with swing enable control. Maximum speed: 2.5 rpm



Hydraulic system

One pressure compensated variable displacement axial piston pump, with load sensing.

Maximum output of: 155 LPM (41.0 GPM) Maximum operating pressure: 276 bars (4000 p.s.i.)

Four section valve bank, chassis mounted, operated via dash mounted pilot pressure hydraulic joystick controllers.

140L (37 gal) steel hydraulic reservoir with sight level gauge and steel side plating to guard against side impact.

Return line replaceable filter with by-pass protection and service indicator. Cartridge filter rating of 3 micron.



Hoist specifications

Two speed gear motor driven hoist with automatic spring applied / hydraulically released wet brake. Smooth drum with cable follower.

Maximum hoist pull (first layer): 63,6 kN (14,300 lb)

Maximum permissible single line pull: 44,5 kN (10,000 lb.) (3.5:1 design factor)

Maximum single line speed: 64 m/min (210 fpm)

Rope construction: 6 x 19 XXIPS / IWRC

Rope diameter: 14 mm (9/16 in)

Rope length: 97,5 m (320 ft)

Carrier



Chassis

High strength alloy frame constructed with integral outrigger housings; front and rear lifting, tie-down, and towing lugs. 66.3 sq. ft. carry deck size with 9072 kg (20,000 lb) deck only carrying capacity. Deck coated with anti-skid treatment.



Outriggers

Single stage hydraulic telescoping beam with oblique style jack cylinder on all four corners. Provides extended and down and retracted and down lifting capabilities.

Integral holding valve on both beam and jack. Outrigger positioning indicator located in dash display.

Outrigger pad size: 222 mm x 254 mm (8.75 in x 10 in)

Maximum outrigger pad load: 15 876 kg (35,000 lb)



Outrigger controls

Independent outrigger control rocker switches for beam or jack selection with a separate extend /retract rocker selector switch. 360° level bubble located inside cab.



Engine (Tier IV)

Cummins QSB 3.3L four cylinder / turbo-charged diesel rated at 75kW (100 hp) at 2600 rpm. Includes std. 120V engine block heater and air intake "Grid" heater. Engine hourmeter located in dash display. Alternator: 120 amp.

Maximum Torque: 414Nm (305 ft/lb).

Fuel requirements: Maximum of 15 ppm sulphur content. Requires "Ultra Low" sulphur diesel fuel.

NOTE: Tier IV required for sale in North America and European Union countries.



Engine (Tier III)

Cummins QSB 3.3L four cylinder / turbo-charged diesel rated at 74kW (99 hp) at 2600 rpm. Includes std. 120V engine block heater and air intake "Grid" heater. Engine hourmeter located in dash display. Alternator: 90 amp. Maximum Torque: 415Nm (306 ft/lb)

NOTE: Required for sale outside of North America and European Union countries.



Fuel tank capacity

Steel with side impact plate. Capacity: 151.4L (40 gal).



Transmission

Powershift with four speeds forward and four reverse. Steering column mounted shifter.



Operators control station

Frame mounted, open air style control station with cab shell includes all crane functions and driving controls and equipped with overhead safety glass. Other standard equipment includes a suspension seat with seat belt, sight level bubble and 1.1kg (2.5 lb) fire extinguisher, and tilt steering wheel. The dash panel will display the fuel level gauge, water temperature gauge, engine rpm, battery voltage, and hourmeter. Indicator lights will display parking brake, low transmission pressure, low brake pressure, outrigger position, headlights, work lights (if ordered), and hoist 3rd wrap (if ordered). Crane function indicator and turn signal indicators are also included. The load indicator display will be mounted on the top of the dash panel for direct line of sight for the operator.

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*Operators control station enclosed

Includes the standard cab shell and all controls and indicators noted above, with the addition of front, rear, and right side glass, a split (two-piece) hinged door with sliding glass, front windshield wiper and washer, hot water heater and defroster with fan and cab dome



Electrical system

One heavy duty maintenance free 12V battery, 820CCA at 0°F

I-●-I Drive

Two-wheel (front-wheel) as standard with four-wheeldrive as an option. Drive axles supplied with planetary hubs and limited slip differential.



Steer

Standard three steering modes. Front (two wheel), four wheel coordinated, and four wheel crab steer with electronic self realignment. Three position rocker switch located on dash panel.

Outside Turning Radius:

Two wheel steer: 6,2m (20 ft. 4.8 in.) Four wheel steer: 3,9m (13 ft. 1.0 in.)



Suspension/axles

Front: Drive / steer in both two wheel drive and four wheel drive Rear: non-drive with steer in two wheel drive, drive/steer in four wheel drive Front axle is rigid mounted to frame. Rear axle offers 1.5° of oscillation



Brakes

Hydraulic actuated internal wet-disc service brake acting on each drive wheel. Dash mounted rocker switch with indicator light for activating or release of the dry disc parking brake mounted on the transmission output yoke.



Tires

Tubeless type, semi-aggressive tread, 12.00R20.



Lights

Full LED lighting includes turn indicators, head, tail, brake, and hazard warning lights recessed mounted.



Maximum speed

33.8 km/h (21.0 mph)



Gradeability (theoretical)

68%.....(to drive train stall) NO LOAD 40%....(to drive train stall) with 9072 kg (20,000 lb) DECK LOAD

Gross vehicle weight (G.V.W.)

13 488 kg (29,735 lb) basic unit with Tier IV engine.

Miscellaneous standard equipment

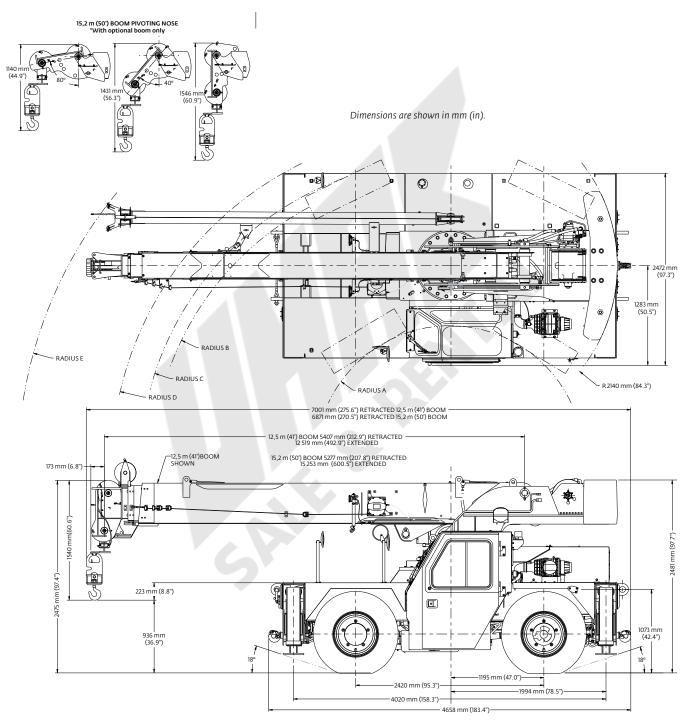
18t (20 USt) two sheave low profile "galvanize coated" hookblock with "quick reeve design". Back-up motion alarm; outrigger motion alarm; non-skid decking; front and rear lifting, towing, and tie-down lugs.

*Optional equipment

- AUXILIARY LIGHTING: Includes cab mounted amber flashing light and dual base boom mounted LED work lights.
- CONVENIENCE PACKAGE: Includes front and rear pintle hitch, dual rear view mirrors, head and tail lightmetal mesh grille covers.
- ENCLOSED CAB PACKAGE: Includes heater and defroster, cab dome light, all window glass, and two-piece split door.
- FOUR WHEEL DRIVE
- Below deck hydraulic tow winch with 4536 kg (10,000 lb) capacity.
- 4,6 m (15 ft) fixed boom extension
- Air conditioning (enclosed cab option required)
- Hoist third wrap indicator with hoist function
- Hoist drum rotation indicator
- ≥ 360° swing lock
- C.E. compliant package

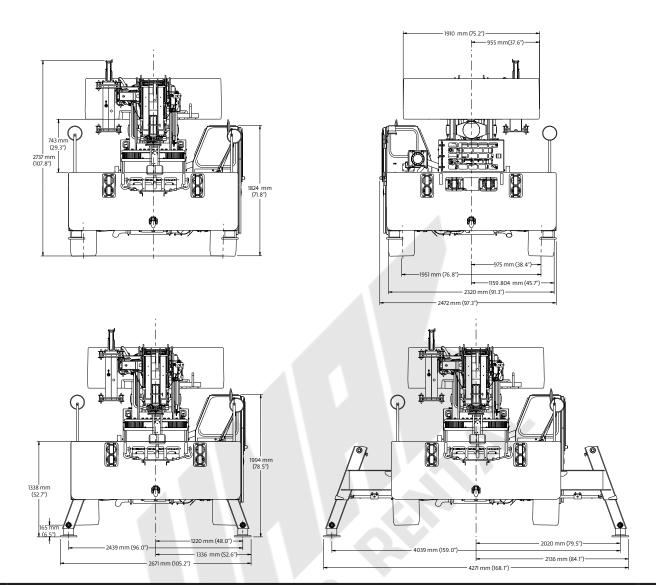
Dimensions

Dimensions						
	Α	В	С	D	E 12.5 m (41 ft) boom	E 15,2 m (50 ft) boom
Two-wheel steer	3375 mm	6058 mm	6218 mm	6675 mm	7750 mm	7662 mm
	(11 ft 1 in)	(19 ft 10.5 in)	(20 ft 4.8 in)	(21 ft 10.8 in)	(25 ft 5 in)	(25 ft 2 in)
Four-wheel steer	1722 mm	3841 mm	3993 mm	4481 mm	5572 mm	5478 mm
	(5 ft 8 in)	(12 ft 7 in)	(13 ft 1 in)	(14 ft 8 in)	(18 ft 3 in)	(18 ft 0 in)



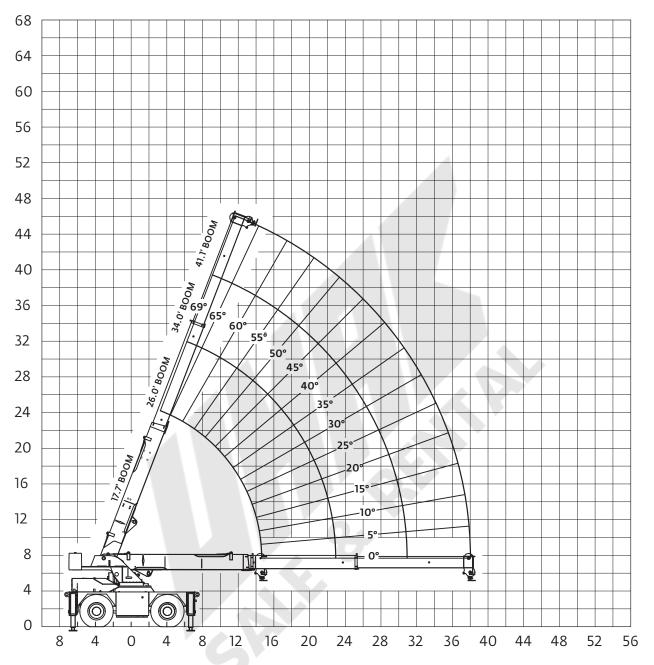
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Dimensions and weights



Weights						
	G۷	/W	Fro	ont	Re	ear
	kg	lb	kg	lb	kg	lb
Basic machine: Including 12,5 m (41 ft) main boom, main hoist with 97,5 m (320 ft) of wire rope, 18 t (20 USt) hook block, full counterweight, Tier IV engine	13 488	29,735	5817	12,823	7671	16,912
Add: enclosed cab, heater and glass	84,8	187	37,1	82	47,6	105
Crane weight	13 573	29,922	5854	12,905	7719	17,017
Basic machine: Including 12,5 m (41 ft) main boom, main hoist with 97,5 m (320 ft) of wire rope, 18 t (20 USt) hook block, full counterweight, Tier IV engine	13 488	29,735	5817	12,823	7671	16,912
Add: 4,6 m (15 ft) fixed swingaway extension and extension carrier brackets and downhaul weight	178	394	271	598	-93	-204
Crane weight	13 666	30,129	6088	13,421	7578	16,708
Basic machine: Including 12,5 m (41 ft) main boom, main hoist with 97,5 m (320 ft) of wire rope, 18 t (20 USt) hook block, full counterweight, Tier IV engine	13 488	29,735	5817	12,823	7671	16,912
Add: 5,4 m - 15,4 m (17.8 ft - 50 ft) four-section full-power boom	435	961	363	802	72	159
Crane weight	13 923	30,696	6180	13,625	7743	17,071

Working range: 5,5 m -12,5 m (18 ft - 41 ft) boom (standard)



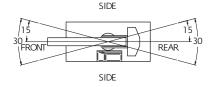
Operating radius in feet from axis of rotation

Load chart

		MAIN BOOM LOAD RATINGS ON OUTRIGGERS Extended and Down 360° or Retracted and Down Front/Rear								
	17.7 ft BOOM 26 ft BOOM			34 ft BOOM 41.1 ft BO			воом			
Radius (ft)	Boom Angle (deg)	Rated Load (lb)	Boom Angle (deg)	Rated Load (lb)	Boom Angle (deg)	Rated Load (lb)	Boom Angle (deg)	Rated Load (lb)		
6	65	30,000	_	_	_	_	_	_		
8	57	26,850	68.5	26,400	_	_	_	-		
10	48	22,300	63.5	21,000	_	_	_	-		
12	37.5	18,600	58.5	17,500	67	17,000	_	_		
14	21.5	15,000	53	14,900	63	14,000	68.5	13,350		
14.7	0	13,500	51	13,500	61.5	13,250	67.5	13,100		
16	-	-	46.5	12,250	59	12,400	65.5	12,450		
18	-	-	40	11,000	55	11,200	63	11,350		
20	-	-	31.5	9200	50.5	9550	59	9680		
22	-	-	19.5	7400	45.5	8300	55.5	8450		
22.9	-	-	0	6900	43.5	7750	54	7750		
24	-	-	_	-	40.5	7100	52	7340		
26	-	-	_	-	34.5	6000	48	6450		
28	_	-	_	_	27	5300	44	5730		
30	_	-	_	_	16.5	4500	39.5	5120		
30.9	_	-	_	_	0	4100	38	4850		
32	_	_	_	_	_	_	34.5	4620		
34	_	_	_	_	_	-	29	4180		
36	_	_	_	_	_	-	21	3800		
37.9	_	_	_	_	_	_	0	3480		

MAIN DOOM LOAD DATINGS ON OUTDICCEDS

	M	MAIN BOOM LOAD RATINGS ON OUTRIGGERS Retracted and Down 360°								
	17.7 ft	воом	26 ft I	воом	34 ft BOOM 41.1 ft					
Radius (ft)	Boom Angle (deg)	Rated Load (lb)	Boom Angle (deg)	Rated Load (lb)	Boom Angle (deg)	Rated Load (lb)	Boom Angle (deg)	Rated Load (lb)		
6 8 10 12 14 14.7 16 18 20 22 22.9 24 26 28	65 57 48 37.5 21.5 0 - - - - -	26,000 19,500 13,630 9730 7390 6810 - - - - - -	- 68.5 63.5 58.5 53 51 46.5 40 31.5 19.5 0	- 17,940 12,890 9920 7720 6800 6165 5030 4190 3530 3280 - -	- - 67 63 61.5 59 55 50.5 43.5 40.5 34.5 27	- - 9500 7680 6850 6310 5200 4350 3690 3450 3160 2730 2370		- - 7440 6850 6200 5250 4420 3770 3550 3240 2810 2450		
30	-	-	-	-	16.5	2080	39.5	2140		
30.9	_	_	-	_	0	1950	38	1910		
32	_	_	-		-	_	34.5	1880		
34	_	_	- 1	- \		_	29	1650		
36	_	_		-		_	21	1460		
37.9	-	-	_	-	—	_	0	1290		



- 1) 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 85% of actual tipping. The rated loads shown on rubber do not exceed 75% of actual tipping. Retracted outrigger loads meet ASME B30.5-2011. 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 training 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 part of the load. See above.
- 4) 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 12.00R20 tire capacity, condition of tires and proper inflation pressure (130 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.
- 6) For operating radius not shown, use load rating of next larger radius.
- 7) The maximum deck load only is 20,000 lb. Combined boom and deck loads are not permitted on rubber.
- 8) Do not induce any external side loads to boom or jib.

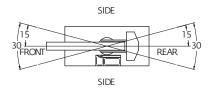
NOTES:

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.

Load chart

М	AIN BOOM ON RU	JBBER		
	Any Boom Lengt	:h		
Radius (ft)	Front Rating (lb)	360° Rating (lb)		
6	17,800	15,650		
8	14,600	11,400		
10	11,800	9720		
12	9550	8590		
14	8010	6710		
14.7	7500	5750		
16	6930	5390		
18	5610	4400		
20	4730	3630		
22	3960	3080		
22.9	3650	2850		
24	3300	2585		
26	2860	2255		
28	2530	1980		
30	2310	1760		
30.9	2100	1650		
32	2035	1540		
34	1875	1375		
36	1650	1260		
37.9	1450	1100		



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

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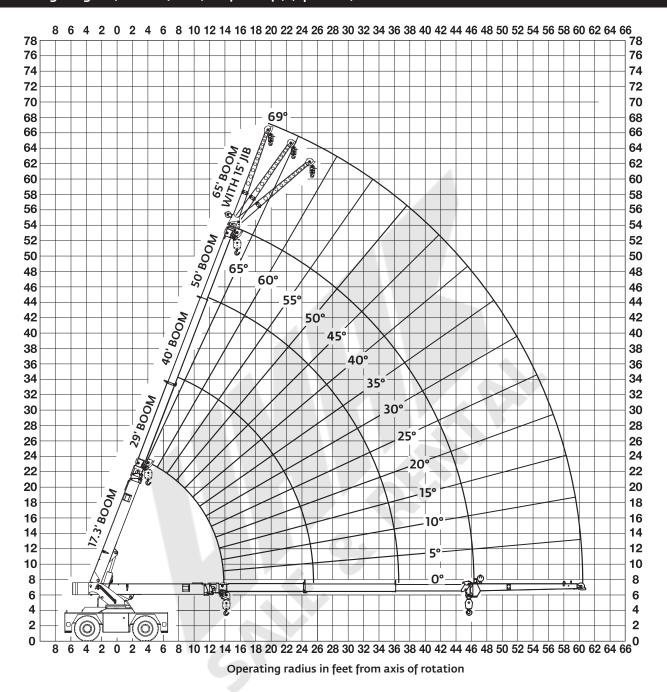
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- 2) The rated loads shown on outriggers do not exceed 85% of actual tipping. The rated loads shown on rubber do not exceed 75% of actual tipping. Retracted outrigger loads meet ASME B30.5-2011. These ratings are based on freely suspended loads with 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 training 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 part of the load. See above.

- 4) 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 12.00R20 tire capacity, condition of tires and proper inflation pressure (130 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.
- 6) For operating radius not shown, use load rating of next larger radius.
- 7) The maximum deck load only is 20,000 lb. Combined boom and deck loads are not permitted on rubber.
- 8) Do not induce any external side loads to boom or jib.

Working range

Working range: 5,4 m - 15,4 m (17.8 ft - 50 ft) (optional)



Load chart

	M Exte	MAIN BOOM LOAD RATINGS ON OUTRIGGERS Extended and Down 360° or Retracted and Down Front/Rear								
	17.3 ft	воом	29 ft E	ВООМ	40 ft I	ВООМ	OOM 50 ft BOOM			
Radius (ft)	Boom Angle (deg)	Rated Load (lb)	Boom Angle (deg)	Rated Load (lb)	Boom Angle (deg)	Rated Load (lb)	Boom Angle (deg)	Rated Load (lb)		
6	64.5	30,000	_	_	-	-	_	_		
8	56.5	25,760	_	_	_	_	_	-		
10	47	21,270	67	16,950	-	-	-	-		
12	36	18,050	62.5	16,950	_	_	_	-		
14.2	0	13,100	57.5	15,520	67.5	15,520	_	-		
16	_		53	12,420	65	12,420	-	-		
18	_	_	47 .5	10,990	61 .5	10,990	68.5	10,990		
20	-	_	41	9830	58	9800	66	9830		
22	_	_	34	8600	54.5	8670	63	8700		
24	-	_	25	7400	51	7 490	60.5	7500		
25.9	-	_	0	6480	47	6580	58	6620		
28	-	_	-	_	42.5	5770	55	5800		
30	-	_	-	_	38	5130	52	51 60		
32	-	_	-	_	32.5	4510	49	4620		
34	-	_	-	_	25.5	4120	45.5	41 60		
36	-	_	-	_	16	3710	42	3710		
36.9	-	_	-	_	0	3 62 0	40.5	3590		
38	-	_	-	_	_	-	38	3410		
40	-	_	-	_	_		34	3040		
42	-	_	-	_	_		29	2760		
44	-	_	-	_	_	-	23	2410		
46.9		_	_	_	_	_	0	2110		

	М	MAIN BOOM LOAD RATINGS ON OUTRIGGERS Retracted and Down 360°								
	17.3 ft	BOOM	29 ft E	ВООМ	40 ft E	ВООМ	50 ft BOOM			
Radius (ft)	Boom Angle (deg)	Rated Load (lb)	Boom Angle (deg)	Rated Load (lb)	Boom Angle (deg)	Rated Load (lb)	Boom Angle (deg)	Rated Load (lb)		
6	64.5	30,000	_	-	_	-	-	^		
8	56.5	25,760	- 1	-	-	-	-			
10	47	18,600	67	16,950	-	-	- 7			
12	36	13,400	62.5	13,300	-	-	-	-		
14.2	0	10,000	57.5	10,400	67.5	9 97 0	- 4			
16	_	- 1	53	8550	65	8500	-			
18	_	-	47.5	7050	61 .5	7150	68.5	6950		
20	_	_	41	5920	58	6030	66	591 0		
22	_	_	34	5040	54.5	5160	63	5060		
24	_	_	25	4330	51	4450	60.5	4390		
25.9	_	-	0	3780	47	3 900	58	3860		
28	_	_	_	_	42.5	3390	55	3370		
30	_	-	-	-	38	2980	52	2970		
32	-	-	-	-	32.5	2630	49	2630		
34	_	_	-	_	25.5	2330	45.5	2340		
36	_	-	-	-	16	2060	42	2080		
36.9	_	_	-	-	0	1960	40.5	1970		
38	_	_	-		_	_	38	1850		
40	-	_	-	-	-	-	34	1650		
42	-	_	- 1	= \	-	-	29	1470		
44	_	_	- "	-	_	-	23	131 0		
46.9	-	_	_	_	_	-	0	1100		

SIDE
115 30 FRONT REAR
SIDE

1) 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.

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3) The weights of all load handling devices such as hooks, hook blocks, slings, etc., except the hoist rope, shall be considered part of the load. See above.

4) 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 12.00R20 tire capacity, condition of tires and proper inflation pressure (130 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.

6) For operating radius not shown, use load rating of next larger radius.

7) The maximum deck load only is 20,000 lb. Combined boom and deck loads are not permitted on rubber.

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

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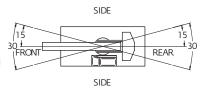
Load chart

М	AIN BOOM ON R	UBBER								
	Any Boom Length									
Radius (ft)	Front Rating (lb)	360° Rating (lb)								
6	17,800	15,550								
8	14,350	11,500								
10	11,450	8950								
12	9790	7420								
14.2	8170	6030								
16	7020	5350								
18	6210	4450								
20	5540	3670								
22	4830	3050								
24	4160	2640								
25.9	3630	2220								
28	3280	1960								
30	2910	1650								
32	2600	1400								
34	2320	1170								
36	2080	990								
36.9	1980	900								
38	1900	820								
40	1700	670								
42	1520	510								
44	1370	420								
46.9	1160	-								

NOTES: 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.



	15 FT FIXED JIB CAPACITIES ON EXTENDED OUTRIGGERS									
Main			Jib Offset A	ingle						
Boom	0 0	leg	15 c	leg	30	deg				
Angle (deg)	To 40 ft Main Boom	To 50 ft Main Boom	To 40 ft Main Boom	To 50 ft Main Boom	To 40 ft Main Boom	To 50 ft Main Boom				
69	7500	7020	5480	5280	3950	3950				
65	7180	5670	4890	4510	3690	3690				
60	6000	4770	4440	3940	3510	3510				
55	5180	4130	4100	3520	3400	3210				
50	4580	3440	3830	3170	3220	2970				
45	4040	2860	3620	2680	3130	2580				
40	3490	2440	3270	2320	3070	2250				
35	3080	2120	2930	2040	2860	2000				
30	2770	1890	2660	1830	2630	1810				
25	2540	1710	2470	1670	_	_				
20	2370	1570	2320	1550	-	_				
15	2240	1480	2220	1460		-				
10	2160	1410	-	_	_	_				
5	2120	1380	-	-	-	_				
0	2110	1370	-	-	-	_				

- 1) 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 85% of actual tipping. The rated loads shown on rubber do not exceed 75% of actual tipping. Retracted outrigger loads meet ASME B30.5-2011. 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 training 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 part of the load. See above.

- 4) 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 12.00R20 tire capacity, condition of tires and proper inflation pressure (130 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.
- 6) For operating radius not shown, use load rating of next larger radius.
- 7) The maximum deck load only is 20,000 lb. Combined boom and deck loads are not permitted on rubber.
- 8) Do not induce any external side loads to boom or jib.

Rigging chart

LOAD DISTRIBUTION CHART

FRONT TANK SUPPORT (REF) CAB

Maximum Allowable Uniformly Distributed Load

AREA1

4.01 m² (43.2 sq ft) 5985 kg (13,195 lb)

AREA 2

2.15 m² (23.1 sq ft) 3087 kg (6805 lb)

TOTAL

6.16 m² (66.3 sq ft) 9072 kg (20,000 lb

- 1. Maximum travel speed with any or all loads 4.0 km/h (2.5 MPH)
- 2. Loads to be transported on smooth level firm surfaces only.
- 3. Boom must be retracted and in center forward position.
- 4. Any combination or total of areas 1 & 2 may be used.
- 5. Lifting is not permitted when carry deck is loaded except for loading and unloading carry deck.
- 6. Rated pick and carry loads may be transported on deck area 1 provided the load is cribbed directly on the frame rails.

PIVOT HOLE PATTERN LOW HEADROOM OPERATION (35° MAX. BOOM ANGLE; SINGLE PART LINE ONLY) PIVOT LOW HEADROOM OPERATION (55° MAX. BOOM ANGLE) STANDARD HEADROOM OPERATION (-30°) (80° MAX BOOM ANGLE) NO OFFSET JIB OPERATION (75° MAX. BOOM ANGLE) OFFSET JIB OPERATION (80° MAX. BOOM ANGLE)

TRANSPORTATION AND LIFTING DATA - YB5515-2

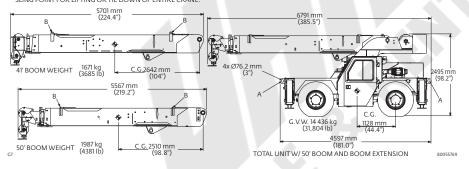
- 1. LIFTING OF ENTIRE CRANE OR MAJOR CRANE ASSEMBLIES MUST BE ACCOMPUSHED BY UTILIZING SPECIFIC FITTINGS INDICATED ON ADJACENT CHART. USE OF FITTINGS FOR PURPOSES OTHER THAN THOSE DESIGNATED ON CHART IS PROHIBITED. FITTING CAPACITIES ARE MAXIMUM A LLOWABLE LOADS PER INDIVIDUAL FITTING.

 2. RIGGING PERSONNEL SHALL BE RESPONSIBLE FOR PROPER SELECTION AND PLACEMENT OF ALL SLINGS A VID. LOAD HANDLING DEVICES.

 3. DIMENSIONS AND WEIGHTS SHOWN ARE ESTIMATED FOR LARGEST CONFIGURATION AVAILABLE. WEIGHTS DO NOT INCLUDE BOOM EXTENSION AND CRJ JIB, UNLESS OTHERW ISE INDICATED.

- 4. RIGGING PERSONNEL SHALL VERIEV DIMENSIONS AS REQUIRED FOR CLEARANCE
- S. DO NOT USE COUNTERW EIGHT LIFT LOCATIONS OR BOOM SLING POINT FOR LIFTING OR TIE DOWN OF ENTIRE CRANE.

	L				воом	CWT	CAPACITY-TONNES [TONS]				
S	S		_	OWN	A				TI	E DOW	N
FITTII	NO./	ЫП	TOV	TIE DO	LIFT	LIFT	LIFT	TOW	FORE & AFT	SIDE	DOWN
Α	4	Х	Х	Х			9.1 [10]	27.2 [30]	27.2 [30]	0.9 [1]	27.2 [30]
В	4				Х		1.8 [2]				



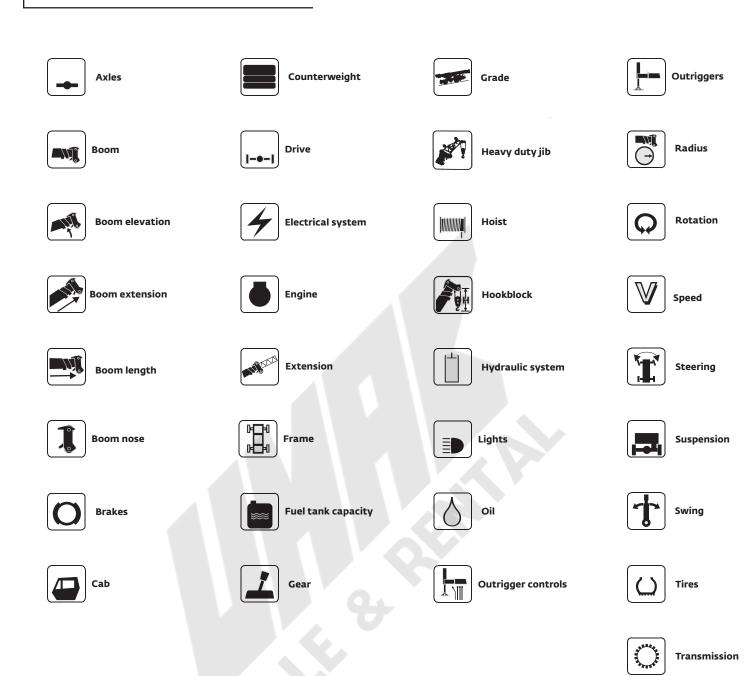
RIGGING	CHART			
1-PART 0-7500 lb	9-30,000 lb			
WIRE ROPE: 9/16" Diameter 6 X 19 Bright Minimum required breaking strength = 37,000 lb				

MAXIMUM PERMISSIBLE SINGLE LINE PULL = 10,000 LB

RATING REDUCTIONS FOR LOAD HANDLING DEVICES INSTALLED (Ib)							
	FROM MAIN BOOM FROM JIB						
MAIN BLOCK	MAIN BLOCK 356* NOT APPLICABLE						
HOOK & BALL 105* 105							
JIB STOWED NO REDUCTION NOT APPLICABLE							
15' JIB DEPLOYED	700	NO REDUCTION					

^{*} Refer to rating plate for actual weight

Symbols glossary





Grove YB5515-2 17





Grove YB5515-2 19



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This document is non-contractual. 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.



Grove YB5500 Series

Product Guide

capacity

engine

• Available with diesel or dual fuel



Features

Outriggers

The YB5515 is equipped with single-position oblique style outriggers. The YB5518 comes equipped with two-position beam/jack style outriggers.



Cab

Both models come equipped with a **standard** open air cab shell with overhead safety glass.

An **optional** enclosed cab with hinged door, heater, and defroster is available.



Steering

Standard steering modes on the YB5515 is two-wheel, four-wheel, and crab steer with an option for electronic self-alignment.



Standard steering modes on the YB5518 include two-wheel, four-wheel, crab steer and electronic self-alignment



Cummins engine

The Cummins QSB 3,3 L, Tier III, diesel comes **standard** in both models.

Horsepower rating: YB5515: 63 kW (85 hp) at 2600 rpm. YB5518: 73,8 kW (99 hp) at 2600 rpm.



Boom

A 12,5 m (41 ft) main boom comes **standard** on the YB5515. An **optional** fourth main boom section adds 3,4 m (11 ft) additional boom length.

The YB5518 comes **standard** with a 16,6 m (54 ft 6 in) main boom.

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Superstructure



Boom

YB5515: 5,6 m – 12,5 m (18 ft 6 in – 41 ft 0 in) three-section full power boom. Maximum tip height: 14,1 m (46 ft 3 in) YB5518: 5,6 m – 16,6 m (18 ft 6 in – 54 ft 6 in) four-section full power boom. Maximum tip height: 19,0 m (62 ft 6 in)



*Optional boom

YB5515: Manual fourth main boom fly section Maximum tip height: 17,0 m (56 ft 3 in)



*Boom extension

4,6 m (15 ft) offsettable swingaway extension



Boom nose

YB5515: Two sheave non-pivoting boom nose YB5518: Two sheave, -3-position (0°, + 40°, + 80°) pivoting boom nose for minimizing head space requirements. Lowers head height 0,4 m (15.9 in) 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.



Swing

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

Four section gear pump providing a system pressure of 241,3 bars (3500 psi)

Combined flow: 333,1 Lpm (88.0 gpm)

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 jovsticks.

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

151,4 L (40 gal) hydraulic reservoir with sight level gauge and steel side plating to guard against side impact damage.

Superstructure (continued)



Hoist specifications

Piston motor drive with spring applied / hyd. released brake. Equal speed power up and down.

Drum diameter: 0,25m (9.75 in)

Maximum hoist single line pull: 5443 kg (12,000 lb)

Maximum hoist single line speed:

YB5515: 38,4 m/min (126 fpm) YB5518: 48,2 m/min (158 fpm)

Maximum permissible single line pull:

YB5515: 3402 kg (7500 lb) (12,7 mm [1/2 in])

YB5518: 4082 kg (9000 lb) (12,7 mm [1/2 in])

Rope length:

YB5515:

(three-section boom) 73,0 m (240 ft) (four-section boom) 88,4 m (290 ft) YB5518: 94,5 m (310 ft)

Carrier



Frame

High strength alloy steel constructed with integral outrigger housings; front and rear tie-down lugs. 75 $\rm ft^2$ carrydeck size with 9072 kg (20,000 lb) 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 222 mm x 254 mm (8.75 in x 10 in).

Maximum pad load: 16 p.s.i.

YB5518: Two-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 222 mm x 254 mm (8.75 in x 10 in).

Maximum pad load: 389 p.s.i.



Outrigger 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 three- position rocker switch to select all beams / jacks, left beams / jacks only, or right beams / jacks only. Separate four- 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.



Standard engine (Tier III)

YB5515: Cummins QSB 3,3 L turbo-charged diesel rated @ 63,0 kW (85 bhp) @ 2600 rpm. YB5518: Cummins QSB 3,3 L turbo-charged diesel rated @ 73,8 kW (99 bhp) @ 2600 rpm.



*Optional engine (0.7 EPA)

G.M. 4,3 L V-6 EFI dual fuel (gasoline / L.P.) rated @ 69,3 kW (93 bhp) @ 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.

Carrier (continued)



Fuel tank capacity

151,4 L (40 gal) all steel construction with steel side plate to guard against side impact.



Electrical system

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

I-●-I Drive

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



YB5515: Two-wheel, four-wheel, and crab steer YB5518: Two-wheel, four-wheel, and crab steer with electric self alignment.

Outside turning radius:

YB5515/5518:

Two wheel steer: 6,55 m (21 ft 6 in) Four wheel steer: 3,76 m (12 ft 4 in)



Transmission

YB5515: I.T.L. synchromesh four-speeds forward and

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



Tires

385/65R 22.5 radial traction tread 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 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 signals.



Maximum speed

YB5515: 23,3 km/h (14.5 mph) YB5518: 33,8 km/h (21.0 mph)

Gradeability (theoretical)

YB5515: 73%....no load

41%.... 9072 kg (20,000 lb) load

YB5518: 68%....no load

40%.... 9072 kg (20,000 lb) load

GVW

YB5515: 12 742 kg (28,090 lb) three-section boom

12 966 kg (28,584 lb) four-section boom

YB5518: 14 769 kg (32,560 lb)

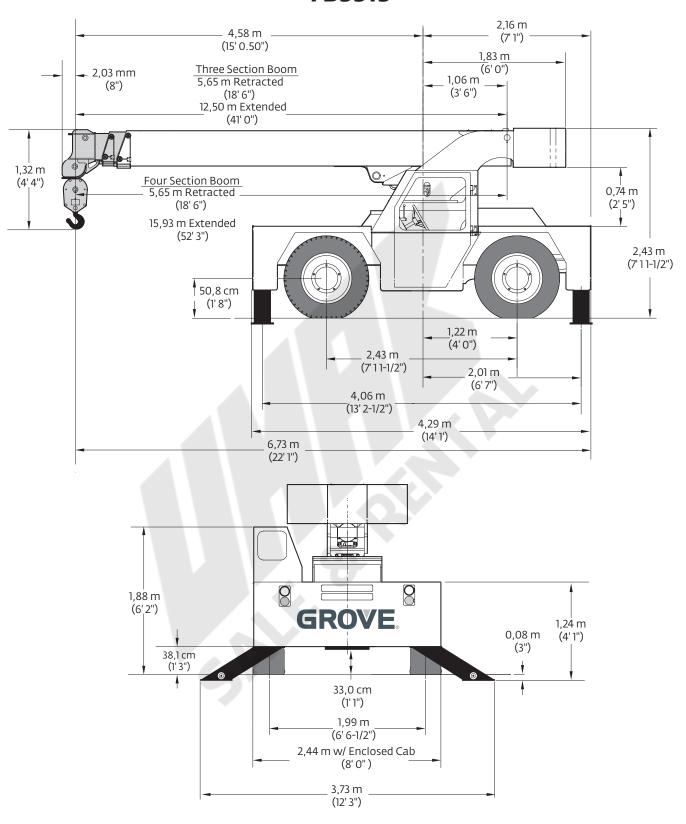
Miscellaneous standard equipment

Two sheave, "Quick Reeve" style hookblock; YB5515: 13,6 t (15.0 USt); YB5518: 16,3 t (18.0 USt). Back-up alarm

Lifting and tie down lugs Outrigger motion alarm

Dimensions

YB5515

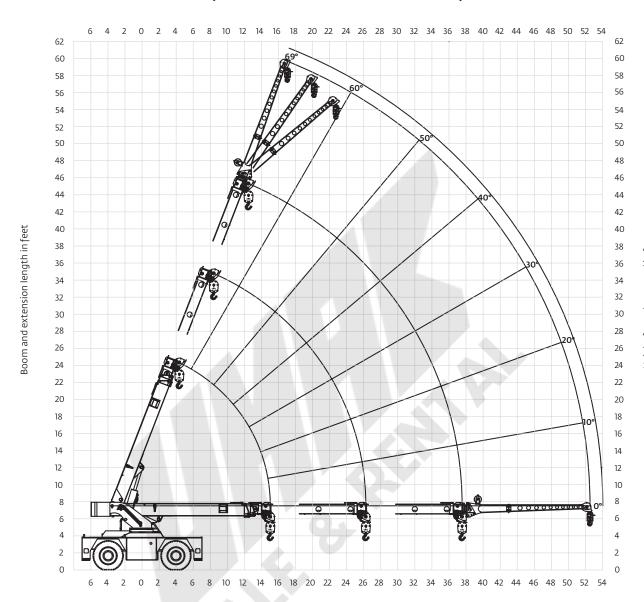


THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

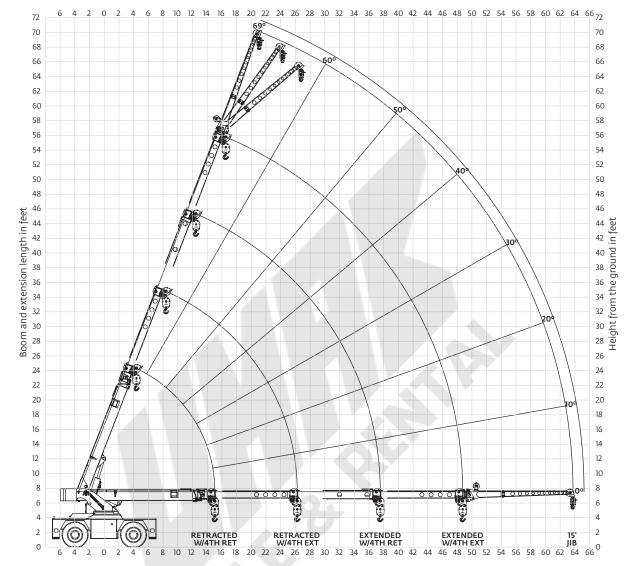
Range diagram

YB5515 (three-section boom)



Operating radius in feet from axis of rotation

YB5515 (four-section boom)



Operating radus in feet from axis of rotation

Load chart

YB5515 (three-section boom)

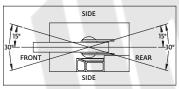
	RADIUS	ON OUTRI	GGERS (lb)	ON RUB	BER (lb)
	(ft)	F/R	360°	F/R	360°
	6.0	30,000	30,000	17,000	17,000
	8.0	26,200	26,200	13,500	14,600
	10.0	22,300	22,300	10,700	10,880
	12.0	18,600	18,600	8710	8100
	14.0	14,800	14,800	7210	6000
	15.0	13,000	13,000	6600	5250
5	16.0	12,200	12,200	6060	4760
MAIN BOOM	18.0	10,800	10,800	5120	3900
B 8	20.0	9630	9180	4370	3190
Z	22.0	8640	7480	3710	2660
₹	24.0	7790	6210	3070	2200
_	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
_	44.0	3130	2560	1120	690
E	46.0	2960	2410	1040	640
	48.8	2710	2210	930	570
	52.5	2390	1940	790	480

•							
MAIN	JIB STRUCTURAL						
BOOM ANGLE	CAPACITIES (Ib)						
(deg)	o°	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	-	-				
•	•						

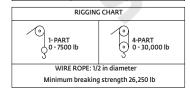
NOTES:
JIB CAPACITY IS LIMITED BY BOTH STRUCTURAL CAPACITY CHART AND MAIN CAPACITY CHART.

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.



I	REDUCTION CHART					
1	FROM FROM JIB RATINGS					
MAIN BLOCK	210 lb	N/A				
HOOK & BALL	100 lb	100 lb				
JIB, STOWED	0 lb	N/A				
JIB, DEPLOYED	700 lb	0 lb				



- 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.
- 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 (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.
- 6) For operating radius not shown, use load rating of next larger radius.
- 7) The maximum combined total boom and deck load is 16,000 lb. The maximum deck load only is 20,000 lb.
- 8) Do not induce any external side loads to boom or jib.

1302442YB

YB5515 (four-section boom)

		ATURET	RACTED					ATH EV	TENDED	
		41H KEI	RACTED					41111	LEINDED	
RADIUS	ON OUTRI	GGERS (Ib)	ON RUB	ON RUBBER (Ib)		RADIUS	ON OUTRI	GGERS (Ib)	ON RUB	BER (lb)
(ft)	F/R	360°	F/R	360°	1	(ft)	F/R	360°	F/R	360°
6.0	30,000	30,000	17,000	17,000	Г	6.0	-	-	-	-
8.0	26,200	26,200	13,500	14,600		8.0	11,000	11,000	11,000	11,000
10.0	22,300	22,300	10,700	11.000		10.0	10,700	10,700	10,700	10,700
12.0	18,600	18,600	8710	7650		12.0	9250	9250	9250	9250
14.0	14,800	14,800	7210	5480		14.0	8290	8390	7760	7500
15.0	13.000	13.000	6600	4890		15.0	8200	8200	7150	6080
16.0	12,200	12,200	6060	4500		16.0	8110	8110	6610	5510
18.0	10,800	10,600	4950	3750		18.0	7950	7950	5680	4500
20.0	9630	8630	3980	3080	5	20.0	7820	7820	4730	3560
22.0	8640	7350	3230	2460	BOOM	22.0	7710	7710	3980	3000
24.0	7790	6460	2720	1990	18	24.0	7630	7270	3410	2520
26.0	6800	5700	2360	1610	MAIN	26.0	7100	6330	2940	2150
28.0	5820	5040	2100	1410	l≨	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	١	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	ВE	52.5	2070	1710	590	280
58.0	-	-	-	-	=	58.0	1720	1380	420	170
63.8	-	-	-	-		63.8	1330	1020	230	60

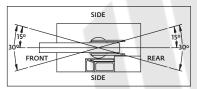
MAIN	JI	JIB STRUCTURAL CAPACITIES (Ib)							
BOOM ANGLE	4TH	RETRAC	TED	4TH	EXTEN	DED			
(deg)	0°	15°	30°	0°	15°	30°			
69	6000	3900	2800	5180	3900	2800			
65	5000	3500	2550	4970	3500	2550			
60	4300	3150	2350	4300	3150	2350			
55	3800	2850	2200	3800	2850	2200			
50	3400	2600	2100	3400	2600	2100			
45	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	-	-			

NOTES:

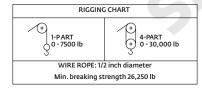
JIB CAPACITY IS LIMITED BY BOTH STRUCTURAL CAPACITY CHART AND MAIN CAPACITY CHART.

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 MAIN BOOM RATINGS	FROM JIB RATINGS					
MAIN BLOCK	210 lb	N/A					
HOOK & BALL	100 lb	100 lb					
JIB, STOWED	0 lb	N/A					
JIB, DEPLOYED	700 lb	0 lb					



- 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.

- 4) 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.
- 6) For operating radius not shown, use load rating of next larger radius.
- The maximum combined total boom and deck load is 16,000 lb.
 The maximum deck load only is 20,000 lb.
- 8) Do not induce any external side loads to boom or jib.

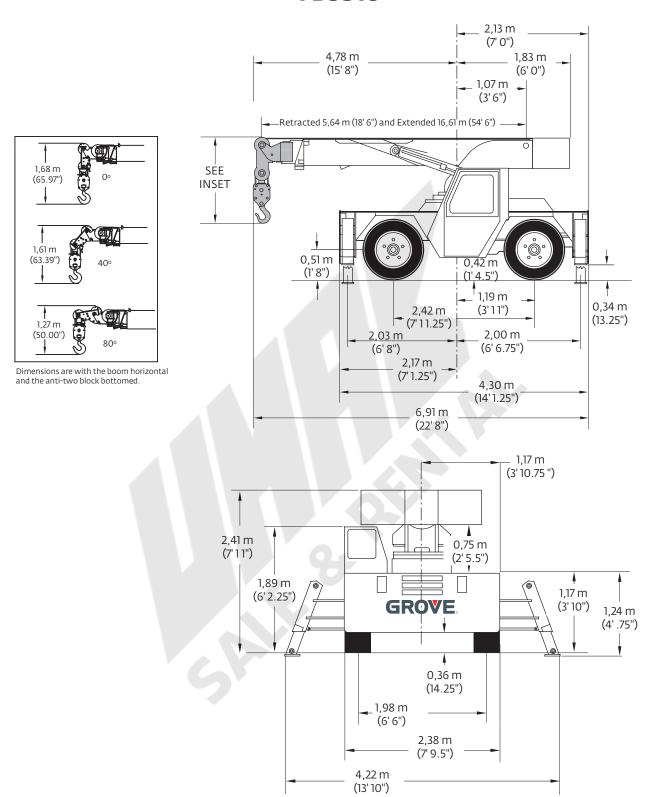
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THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

Dimensions

YB5518

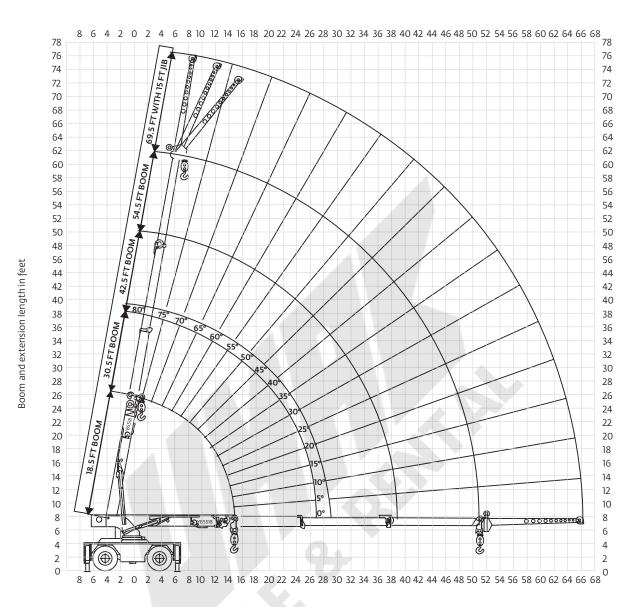


THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

Range diagram

YB5518



Operating radius in feet from axis of rotation

Height from the ground in feet

Load chart

YB5518

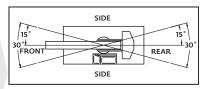
	MAIN BOOM LOAD RATINGS ON OUTIGGERS Extended and Down 360° or Retracted and Down Front/Rear							
	-	18.5 ft BOOM 30.5 ft BOOM 42.5 ft BOOM 54.				ВООМ		
Radius (ft)	Boom Angle (deg)	Rated Load (lb)	Boom Angle (deg)		Boom Angle (deg)		Boom Angle (deg)	
6 8 10 12 14 15.0 16 18 20 22 24 26 27.0 28 30 32 34 36 38 39.0 40	64 49 39 25 0 - - - - -	36,000 31,500 24,000 19,500 16,200 15,000	75 71 67 63 58 56 53 48 43 37 29 18 0	24,500 24,500 24,000 20,000 16,800 15,500 11,4000 12,500 11,000 8700 7800 7400	79 77 74 71 68 66 65 62 49 55 52 48 6 44 40 36 30 24 15 0	23,700 23,000 21,500 19,700 17,000 15,800 14,600 10,000 9000 8100 7700 7700 7700 7700 5100 4500 4500 3900	- 80 77 75 73 72 71 69 66 64 61 59 58 54 54 45 42 41 39	-17,400 15,800 14,000 12,600 12,600 12,000 11,400 9600 8300 7700 6700 6700 6700 4300 4300 4300 4300
42	-	-	-	-	-	-	35	3400
44 46	-	-	-	-	-	-	31 27	3100 2900
46	[-		21	2700
51.0	-	-	-	-	-	-	0	2400

	MAIN BOOM ON RUBBER					
	Any Boom Length					
Radius	Front Rating	360° Rating				
(ft)	(lb)	(lb)				
6 8	16,000 13,000	10,900 8700				
10	11,000	7400				
12 14	9100 7800	6400 5600				
15.0	7100	5300				
16 18	6500 5600	4900 4200				
20	4800	3500				
22	4200	3000				
24 26	3600 3150	2500 2200				
27.0	2950	2050				
28 30	2800 2450	1900 1650				
32	2100	1400				
34 36	1900 1750	1200 1000				
38	1525	850				
39.0 40	1450 1350	775 725				
42	1150	625				
44 46	1050 950	525 425				
48	850	300				
51.0	700	200				

NOTES:
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.



RATING REDUCTIONS FOR LOAD HANDLING DEVICES INSTALLED (Ib)							
FROM MAIN BOOM FROM JIB							
MAIN BLOCK	230	NOT APPLICABLE					
HOOK & BALL 100 100							
JIB STOWED NO REDUCTION NOT APPLICABLE							
JIB DEPLOYED	700	NO REDUCTION					

- MAIN BOOM LOAD RATINGS ON OUTRIGGERS Retracted and Down 360 18.5 ft BOOM 30.5 ft BOOM 42.5 ft BOOM 54.5 ft BOOM Boom Rated Rated Boom Rated Boom Rated Load (lb) Load (lbs Load (lb) Angle (deg) Load (lb) Radiu (ft) Angle (deg) Angle (deg) Angle (deg) 23,700 23,000 20,000 12,800 10,200 75 71 67 63 58 56 53 48 43 37 29 18 0 79 77 74 71 68 66 65 62 49 55 52 48 6 44 40 36 30 24 15 0 6 8 10 12 14 15.0 16 18 20 22 24 26 27.0 32 34 36 38 39.0 40 42 44 44 48 64 57 49 39 25 0 80 77 75 73 72 71 69 66 64 61 59 58 56 54 42 41 39 35 31 27 0 16,000 11,400 13,000 10,600 8900 8000 8900 9300 8100 6800 5900 5000 8500 7200 6200 8500 7200 6100 5300 5200 4100 4500 3800 3600 3300 2900 2500 2200 1900 1700 1600 4500 3900 3600 3300 2800 2500 2200 1800 1700 1600 1200 1000 900 700 3600 3400 51.0
- 15 FT JIB CAPACITIES ON EXTENDED OUTRIGGERS Jib Offset Angle Mair Boon 30° Angle (deg) To 54.5 ft Main Boom To 42.5 ft Main To 54.5 ft Main To 42.5 ft Main 80 75 70 65 60 55 50 45 40 35 30 25 20 15 0 7500 6100 5000 4300 3800 3400 2800 2600 2400 2300 2200 2100 2050 4600 3800 3300 2900 2600 2400 1930 1850 1830 1750 1720 1600 1500 1460 1450 1440 1590 1520

- 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 otriggers do not exceed 85% of actual tipping. The rated loads shown on rubber do not exceed 75% of actual tipping. Retracted outrigger rated loads meet ASME B30.5-2004. These ratings are based on freely uniform supporting surface. Practical working loads depend on stability. Hazardous surroundings, climatic conditions, experience 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 (120 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
- 6) For operating radius not shown, use load rating of next larger
- 7) The maximum combined total boom and deck load is 16,000 lb the maximum deck load only is 20,000 lb.
- 8) Do not induce any external side loads to boom or jib.

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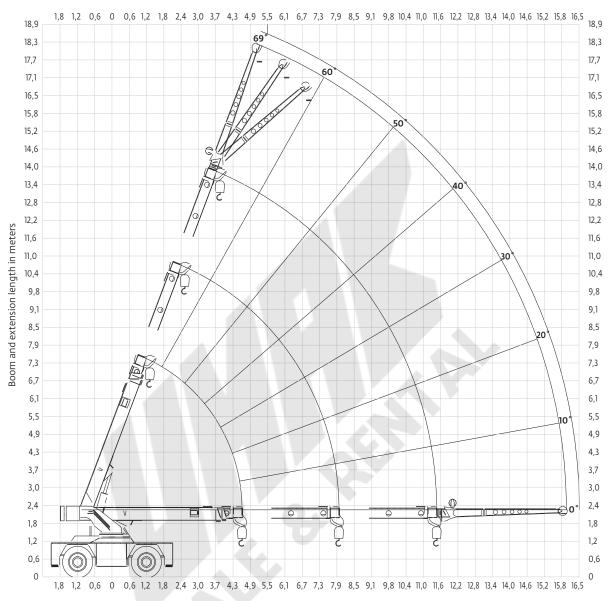
MAXIMUM PERMISSIBLE SINGLE LINE PULL = 9000 LB

WIRE ROPE: 13 mm Diameter 8 X 25 Galvanized Minimum required breaking strength = 37,200 lb

Height from the ground in meters

DIN/ISO range diagram

YB5515 (three-section boom)

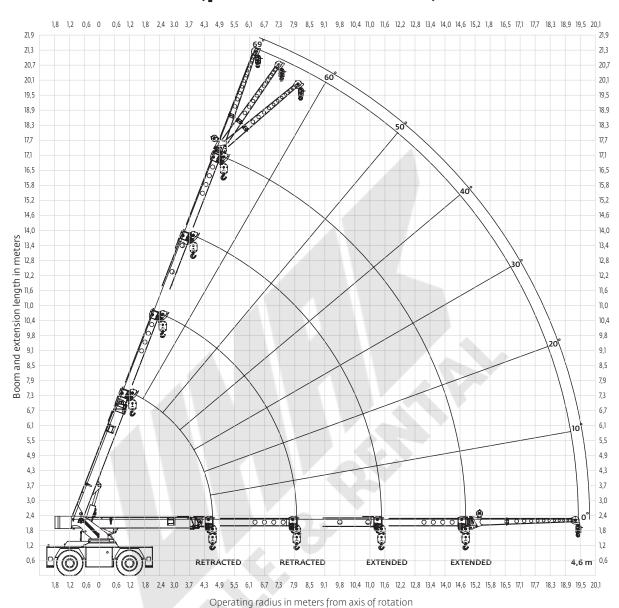


Operating radius in meters from axis of rotation

Height from the ground in meters

DIN/ISO range diagram

YB5515 (four-section boom)



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 (three-section boom)

	RADIUS	ON OUTRI	GGERS (kg)	ON RUB	BER (kg)
	(m)	F/R	360°	F/R	360°
	1,8	13 610	13 610	7710	7710
	2,4	11 880	11 880	6120	6620
	3,0	10 120	10 120	4850	4860
	3,7	8440	8440	3950	3600
	4,3	6710	6710	3270	2650
	4,6	5900	5900	2990	2310
Σ	4,9	5540	5530	2750	2090
0	5,5	4900	4750	2320	1700
B	6,1	4370	3840	1940	1370
Z	6,7	3920	3120	1610	1130
MAIN BOOM	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
	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

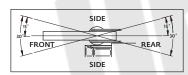
MAIN BOOM ANGLE	JIB STRUCTURAL CAPACITIES (kg)			
(deg)	o°	15°	30°	
69	2720	1770	1270	
65	2270	1590	1160	
60	1950	1430	1070	
55	1720	1290	1000	
50	1540	1180	950	
45	1380	1090	910	
40	1270	1020	880	
35	1180	980	860	
30	1090	940	840	
25	1040	930	-	
20	1000	910	-	
15	950	880	-	
10	930	-	-	
5	920	-	-	
0	910	-	-	

NOTES:

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

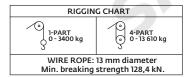
SHADED AREAS ARE GOVERNED BY STRUCTURAL STRENGTH, DO NOT RELY ON TIPPING.

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



REDUCTION CHAR

REDUCTION CHART								
	FROM MAIN BOOM RATINGS	FROM JIB 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 surroundings, climatic conditions, experience of personnel and proper training 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 reduction chart.

4) Ratings on outrigggers 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 boom retracted to the shortest length possible and centered over front.

6) For operating radius not shown, use load rating of next larger radius.

7) The maximum combined total boom and deck load is 7260 kg. The maximum deck load only is 9070 kg.

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

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DIN/ISO load chart

YB5515 (four-section boom)

		4TH RET	RACTED			4TH EXTENDED				
RADIUS	ON OUTRIGGERS (kg)		ON RUBBER (kg)			RADIUS	ON OUTRIGGERS (kg)		ON RUBBER (kg)	
(m)	F/R	360°	F/R	360°		(m)	F/R	360°	F/R	360°
1,8	13 610	13 610	7710	7710		1,8	-	-	-	-
2,4	11 880	11 880	6120	6120		2,4	5030	5030	5030	5030
3,0	10 120	10 120	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	ő	6,7	3500	3500	1720	1280
7,3	3320	2670	1150	820	MAIN BOOM	7,3	3460	3020	1470	1060
7,9	2820	2340	990	650	I₹	7,9	3180	2620	1250	890
8,5	2400	2060	870	560	≥	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	\	12,8	1260	970	350	200
13,4	1020	880	320	150	\	13,4	1150	890	310	160
14,0	950	810	280	120	\	14,0	1040	820	280	130
14,9	870	700	230	90	\	14,9	900	740	240	90
16,0	780	550	150	50	8	16,0	800	640	190	50
17,7	-	-	-	-	<u> </u>	17,7	650	500	110	0
19,4	-	-	-	-		19,4	480	350	20	0

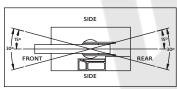
MAIN	JIB STRUCTURAL CAPACITIES (kg)								
BOOM ANGLE	4TH	RETRACTED		4TH EXTENDED					
(deg)	0°	15°	30°	0°	15°	30°			
69	2720	1770	1270	2350	1770	1270			
65	2270	1590	1160	2250	1590	1160			
60	1950	1430	1070	1950	1430	1070			
55	1720	1290	1000	1720	1290	1000			
50	1540	1180	950	1540	1180	950			
45	1380	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	-			
15	950	880	-	950	880	-			
10	930	-	-	930	-	-			
5	920	-	-	920	-	-			
0	910	-	-	910	-	-			

NOTES:

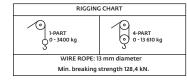
JIB CAPACITY IS LIMITED BY BOTH STRUCTURAL CAPACITY CHART AND MAIN CAPACITY CHART.

SHADED AREAS ARE GOVERNED BY STRUCTURAL S TRENGTH, 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 MAIN BOOM RATINGS	FROM JIB 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					

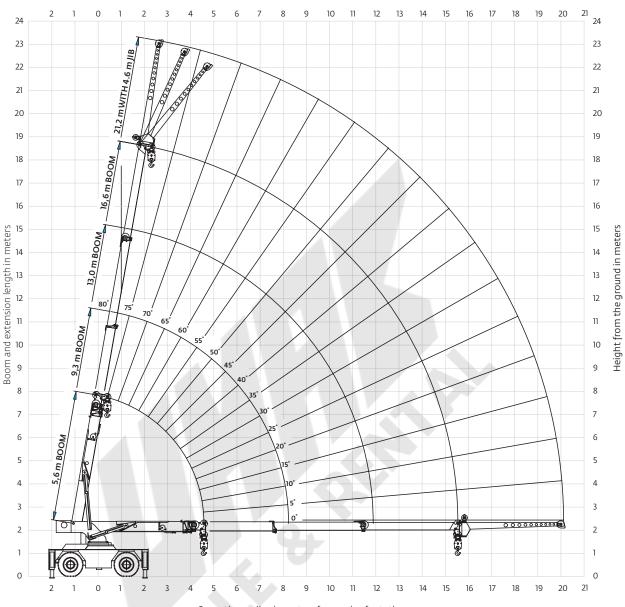


- The rated loads are the maximum lifting capacities as determined by operating radius only. Any combination of boom lengths and angles may be used to obtain operating radius. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, 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 7260 kg.
 The maximum deck load only is 9070 kg.
- 8) Do not induce any external side loads to boom or jib.

DIN/ISO range diagram

YB5518



Operating radius in meters from axis of rotation

DIN/ISO load chart

YB5518

	MAIN BOOM LOAD RATINGS ON OUTRI Extended and Down 360° or Retracted and Dow							
	5,6 m	воом	9,3 m	воом	13,0 m BOOM		16,6 m BOOM	
Radius (m)	Boom Angle (deg)	Rated Load (kg)	Boom Angle (deg)	Rated Load (kg)	Boom Angle (deg)	Rated Load (kg)	Boom Angle (deg)	Rated Load (kg)
1,8 2,4 3,0 3,7 4,6 4,9 5,5 6,1 7,3 7,9 8,2 8,1 9,8	64 57 48 38 25 0 - - - - -	16 330 14 290 10 900 8850 7120 6390 - - - - -	75 71 67 63 58 56 53 48 43 36 29 18 0	10 560 10 430 10 000 8880 7260 6640 6100 5220 4530 3980 3160 3040	79 76 74 71 68 66 65 62 59 55 52 48 46 44 40 36	8230 8000 7110 6280 5610 5330 5070 4620 4240 3920 3570 3260 3100 2960 2625 2335	- 80 77 75 73 72 71 68 66 64 61 59 58 56 54 51	5860 5800 5530 4920 4660 4420 3670 3380 3130 2910 2820 2750 2580 2390
10,4	-	-	-	-	30	2050	48	2170
11,0 11.6	-	-	-	-	24 15	1810 1630	45 42	1930 1725
11,9	-	-	-	-	0	1550	40	1630
12,2	-	-	-	-	-	-	39	1540
12,8	-	-	-	-	-	-	35	1390
13,4	-	-	-	-	_	-	31 26	1270 1150
14,0 14,6			[-	_	26	1045
15,5	-	-	-	-	-	-	0	930

	MAIN BOOM						
	ON RUBBER						
	Any Boom Length						
	Front	360°					
Radius	Rating	Rating					
(m)	(kg)	(kg)					
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° rating							

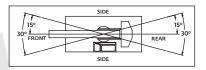
Note: For 360° rating on rubber, rear axle locks must be in place.

NOTES:

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.



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

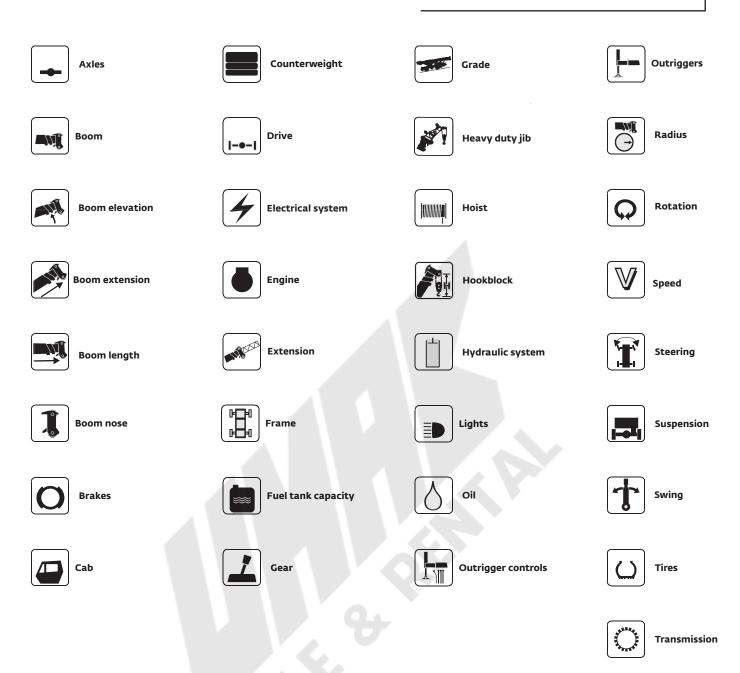
- MAIN BOOM LOAD RATINGS ON OUTRIGGERS Retracted and Down 360° 9,3 m BOOM 16,6 m BOOM 13,0 m BOOM Boom Angle (deg) Boom Angle (deg) Angle (deg) Load (kg) Angle (deg) (kg) Load (kg) Load (kg) 16 330 9760 6890 5050 8230 7500 5630 4480 3660 64 57 48 38 25 0 1,8 2,4 3,0 3,7 4,6 4,9 5,5 6,1 7,9 8,2 8,5 9,1 11,0 11,0 11,9 12,2 13,4 14,0 10 560 79 76 74 71 68 66 65 62 59 55 52 48 40 36 30 24 15 0 75 71 67 63 58 56 53 48 43 36 29 18 0 5850 5130 4180 3420 80 77 75 73 72 71 68 66 64 61 59 58 56 54 51 48 45 40 39 35 31 26 21 0 6250 4860 3910 3700 3530 3210 2700 2240 3320 3070 2590 2200 3140 2870 2440 2100 3260 1890 1630 1420 1320 1220 1050 930 1810 1580 1380 1290 1890 1610 1390 1310 1210 1060 920 810 720 650 600 560 830 730 640 610 470 390 320 250 170
- 4,6 m JIB CAPACITIES ON EXTENDED OUTRIGGERS (kg) Jib Offset Angle Main Boom Angle (deg) To 13,0 m Main Boom To 16,6 m Main Boom Any Boom Length 3450 2770 2270 1950 1730 1540 2000 1770 1590 1430 1290 1180 2000 1770 1590 1420 1260 1410 1270 1160 1070 1000 75 70 65 60 55 50 45 40 35 30 25 20 15 0 2090 1730 1460 1225 1100 940 800 700 625 570 535 520 1380 1270 1180 1090 1020 850 780 760 980 940 700 1090 680 630 1010 930 870 840 930 910 890 610 565 550 535 530 530

- 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.
- 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, 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 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.
- 7) The maximum combined total boom and deck load is 7264 kg. The maximum deck load only is 9080 kg.
- 8) Do not induce any external side loads to boom or jib.

MAXIMUM PERMISSIBLE SINGLE LINE PULL = 4080 kg

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

Symbols glossary



Grove YB5500 Series 21





Grove YB5500 Series 23



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