

Grove YB5500 Series

Product Guide



- 16,6 m (54 ft 6 in) outreach
- 4,6 m (15 ft) offsettable swingaway extension
- 9072 kg (20,000 lb) deck carrying capacity
- Available with diesel or dual fuel engine

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.

Contents

Features	2
Specifications	4
YB5515 dimensions	7
YB5515 three-section boom working range	8
YB5515 four-section boom working range	9
YB5515 three-section boom load chart	10
YB5515 four-section boom load chart	11
YB5518 dimensions	12
YB5518 range diagram	13
YB5518 load chart	14
YB5515 three-section boom DIN/ISO range diagram	15
YB5515 four-section boom DIN/ISO range diagram	16
YB5515 three-section boom DIN/ISO load chart	17
YB5515 four-section boom DIN/ISO load chart	18
YB5518 DIN/ISO range diagram	19
YB5518 DIN/ISO load chart	20
Symbols glossary	21
Notes	22

Specifications

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.

Specifications

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.

Specifications

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

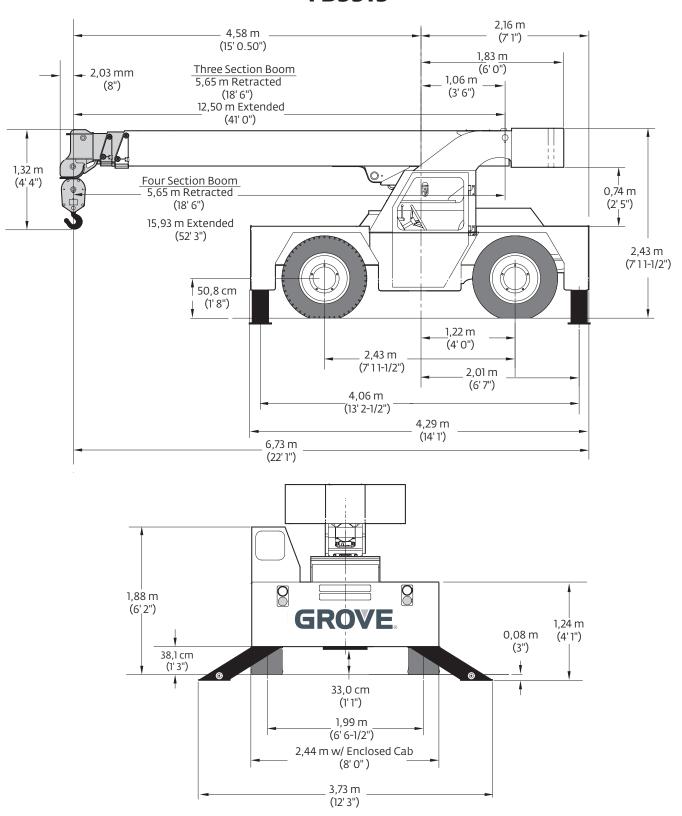
Two sheave, "Quick Reeve" style hookblock; YB5515: 13,6 t (15.0 USt); YB5518: 16,3 t (18.0 USt).

Back-up alarm

Lifting and tie down lugs Outrigger motion alarm

Dimensions

YB5515

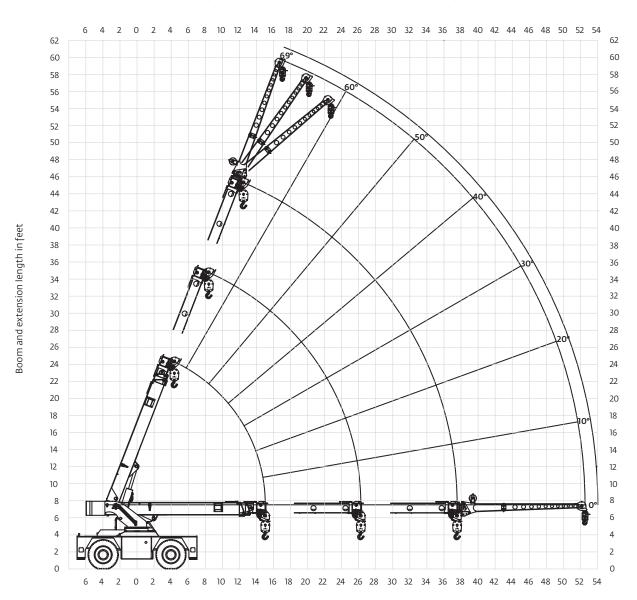


THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

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

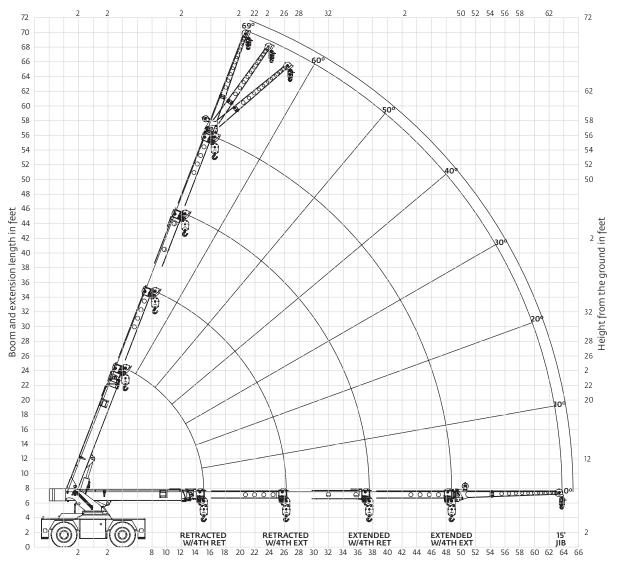
Range diagram

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)

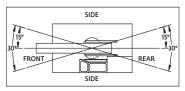
	RADIUS	ON OUTRIGGERS (Ib)		ON RUB	BER (Ib)
	(ft)	F/R	360°	F/R	360°
		30,000	30,000	17,	17,
		26,200	,	13,500	14,600
	1.	22,300	,	10,	10,880
	12.	18,600	18,600	10	8100
	14.	14,800	14,800	7210	6000
	15.	13,000	13,000	6600	5250
5	16.	12,200	12,200	6060	4760
MAIN BOOM	18.	10,800	10,800	5120	3900
BC		9630	9180	4370	3190
Z		8640	7480	3710	2660
₹		7790	6210	3070	2200
_		7040	5310	2620	1820
		6420	4740	2260	1530
	3.	5700	4290	1990	1320
	32.	5060	3920	1790	1160
	34.	4510	3580	1610	1040
	36.	4020	3260	1460	930
	3 5	3700	3060	1370	860
		3480	2860	1270	800
		3310	2700	1190	740
m		3130	2560	1120	690
₽		2960	2410	1040	640
		2710	2210	930	570
	52.5	2390	1940		

•				
MAIN	A ACITIES (Ib)			
()		15	3	
65	5000 4300	3900 3500 3150	255 2350	
55 50	3800 3400	2850	2100	
45	3050		2100	
35		2250 2150	1950 1900	
3		2130	1850	
25	2300	2050	:	
15	2100	1950		
10	2050	-	-	
5		-	-	

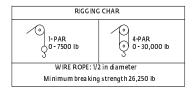
JIB CAPACITY IS LIMITED BY BOTH STRUCTURAL CAPACITY CHART AND MAIN CAPACITY CHART.

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						
	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.

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)

		4TH RET	RACTED	RACTED				4TH EX	TENDED	
RADIUS	ON OUTRIGGERS (Ib) ON RUBBER		BER (lb)	INDI		ON OUTRI	GGERS (Ib)	ON RUB	BER (lb)	
(ft)	F/R	360°	F/R	360°		(ft)	F/R	360°	F/R	360°
6.0	30,000	30,000	17,000	17,000		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	≥	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	M	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	ı	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	Λ	40.0	3400	2700	1070	740
42.0	2760	2430	970	550	١\	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	-	-	-	-		58.0	1720	1380	420	170
63.8	-	-	-	-	$oxed{oxed}$	63.8	1330	1020	230	60

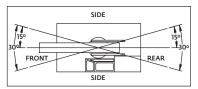
MAIN	JI	JIB STRUCTURAL CAPACITIES (Ib)						
BOOM ANGLE	4TH	RETRAC	TED	ED 4TH EXTENDED				
(deg)	0°	15°	30°	0°	15°	30°		
69	6000	3900	2800	5180	3900	2800		
65	5000	3500	2550	4970	3500	2550		
60	4300	3150	2350	4300	3150	2350		
55	3800	2850	2200	3800	2850	2200		
50	3400	2600	2100	3400	2600	2100		
45	3050	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:

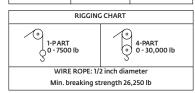
JIB CAPACITY IS LIMITED BY BOTH STRUCTURAL CAPACITY CHART AND MAIN CAPACITY CHART.

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				



. 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.

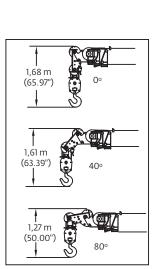
1302395YB

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

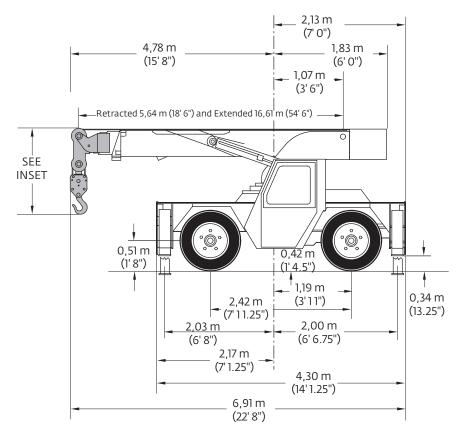
The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

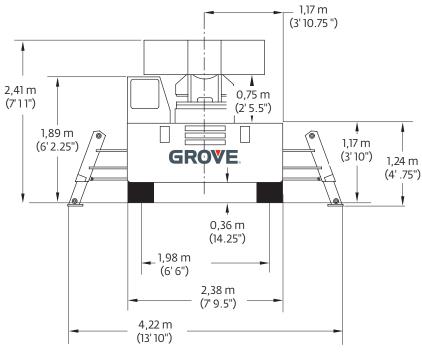
Dimensions

YB5518



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



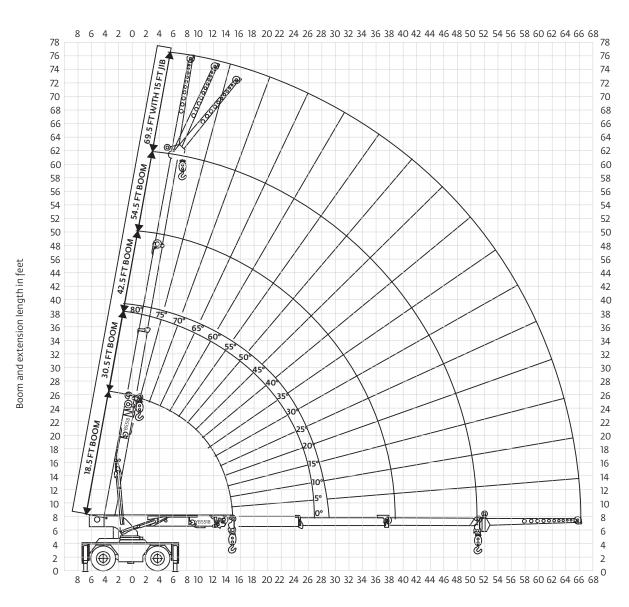


THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

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

Range diagram

YB5518



Operating radius in feet from axis of rotation

Height from the ground in feet

Load chart

YB5518

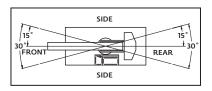
	MAIN BOOM LOAD RATINGS ON OUTIGGERS Extended and Down 360° or Retracted and Down Front/Rear							
	18.5 ft	ВООМ	30.5 ft BOOM		42.5 ft BOOM		54.5 ft BOOM	
	Boom	Rated	Boom	Rated	Boom	Rated	Boom	
Radius		Load	Angle	Load	Angle	Load	Angle	Load
(ft)	(deg)	(lb)	(deg)	(lb)	(deg)	(lb)	(deg)	(lb)
6	64	36,000	75	24,500	79	23,700	-	-
8	57	31,500	71	24,500	77	23,000	80	17,400
10	49	24,000	67	24,000		21,500	77	15,800
12	39	19,500	63	20,000		19,700	75	14,000
14	25	16,200	58	16,800	68	17,000	73	12,600
15.0	0	15,000	56	15,500	66	15,800	72	12,000
16	-	-	53	14,400	65	14,600	71	11,400
18	-	-	48	12,500	62	12,700	69	10,500
20	-	-	43	11,000	49	11,200	66	9600
22	-	-	37	9800	55	10,000	64	8900
24	-	-	29	8700	52	9000	61	8300
26	- 1	-	18	7800	48	8100	59	7700
27.0	- 1	-	0	7400	6	7700	58	7500
28	- 1	-	-	-	44	7300	56	7200
30	- 1	-	_	-	40	6500	54	6700
32 34	-	-			36 30	5700 5100	51 48	6000 5400
36	-	-			24	4500	45	4800
38					15	4000	42	4300
39.0		_	_	_	6	3900	41	4000
40	-		_		-	3300	39	3800
42	l - I	_	_	_	l - I	_	35	3400
44	_	_	-	-	-	_	31	3100
46	-	_	-	-	-	_	27	2900
48	-	-	-	-	-	-	21	2700
51.0	-	-	-	-	-	-	ō.	2400

	MAIN BOOM ON RUBBER				
	Any Boom Length				
	Front	360°			
Radius (ft)	Rating (lb)	Rating (lb)			
6	, ,,	, , ,			
8	16,000 13,000	10,900 8700			
10	11,000	7400			
12	9100	6400			
14 15.0	7800 7100	5600 5300			
16	6500	4900			
18	5600	4200			
20	4800	3500			
22 24	4200 3600	3000 2500			
26	3150	2200			
27.0	2950	2050			
28	2800	1900			
30 32	2450 2100	1650 1400			
32 34	1900	1200			
36	1750	1000			
38	1525	850			
39.0 40	1450 1350	775 725			
40 42	1150	625			
44	1050	525			
46	950	425			
48 51.0	850 700	300 200			
51.0	/00	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 Angle (deg) Boom Rated Rated Boom Rated Rated Load (lb) Load (lbs Load (lb) Load (lb) Radiu (ft) Angle (deg) Angle (deg) Angle (deg) 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 16,000 11,400 12,800 10,200 9300 13,000 10,600 8900 8000 8900 8500 7200 6100 5300 4500 8100 6800 5900 5000 8500 7200 6200 5200 4500 3800 3600 3300 2900 2500 2200 1900 1700 1600 4100 3900 3600 3300 2800 2500 2200 2000 1800 3600 3400 1700 1/00 1600 1400 1200 1000 900 700 51.0
- 15 FT JIB CAPACITIES ON EXTENDED OUTRIGGERS Jib Offset Angle Mair Boon 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 5000 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.

80016678

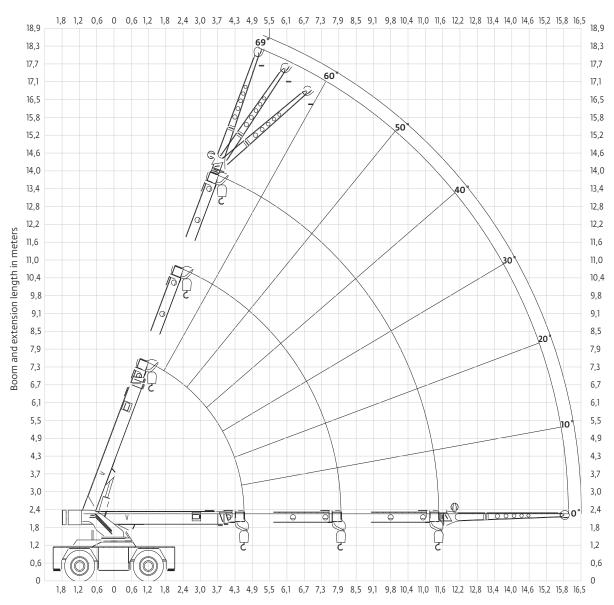
MAXIMUM PERMISSIBLE SINGLE LINE PULL = 9000 LB

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)

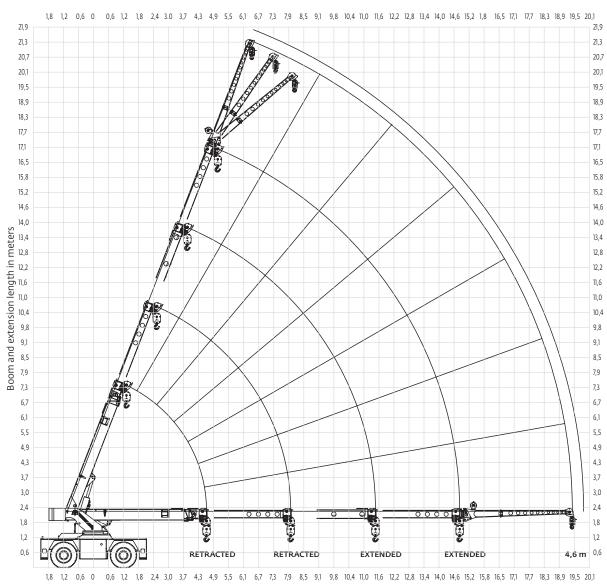


Operating radius in meters from axis of rotation

Height from the ground in meters

DIN/ISO range diagram

YB5515 (four-section boom)



Operating radius in meters from axis of rotation

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
≥	4,9	5540	5530	2750	2090
MAIN BOOM	5,5	4900	4750	2320	1700
B	6,1	4370	3840	1940	1370
Z	6,7	3920	3120	1610	1130
₹	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

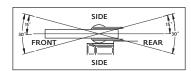
MAIN BOOM ANGLE	JIB STRUCTURAL CAPACITIES (kg)			
(deg)	o°	15°	30°	
69	2720	1770	1270	
65	2270	1590	1160	
60	1950	1430	1070	
55	1720	1290	1000	
50	1540	1180	950	
45	1380	1090	910	
40	1270	1020	880	
35	1180	980	860	
30	1090	940	840	
25	1040	930	-	
20	1000	910	-	
15	950	880	-	
10	930	-	-	
5	920	-	-	
0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

NOTES:

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

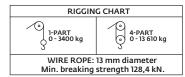
SHADED AREAS ARE GOVERNED BY STRUCTURAL STRENGTH, DO NOT RELY ON TIPPING.

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



REDUCTION CHART

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.

1302539YB

DIN/ISO load chart

YB5515 (four-section boom)

		4TH RET	RACTED					4TH EXT	TENDED	
RADIUS	ON OUTRI	IGGERS (kg) ON RU		ON RUBBER (kg)				GGERS (kg)	ON RUB	BER (kg)
(m)	F/R	360°	F/R	360°	1	(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	<u></u>	16,0	800	640	190	50
17,7	-	-	-	-	_	17,7	650	500	110	0
19,4	-	-	-	-		19,4	480	350	20	0

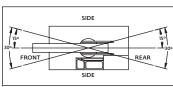
MAIN	JIB STRUCTURAL CAPACITIES (kg)							
BOOM ANGLE	4TH	RETRAC	TED	4TH EXTENDED				
(deg)	0°	15°	30°	0°	15°	30°		
69	2720	1770	1270	2350	1770	1270		
65	2270	1590	1160	2250	1590	1160		
60	1950	1430	1070	1950	1430	1070		
55	1720	1290	1000	1720	1290	1000		
50	1540	1180	950	1540	1180	950		
45	1380	1090	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:

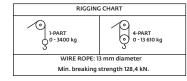
JIB CAPACITY IS LIMITED BY BOTH STRUCTURAL CAPACITY CHART AND MAIN CAPACITY CHART.

SHADED AREAS ARE GOVERNED BY STRUCTURAL 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			

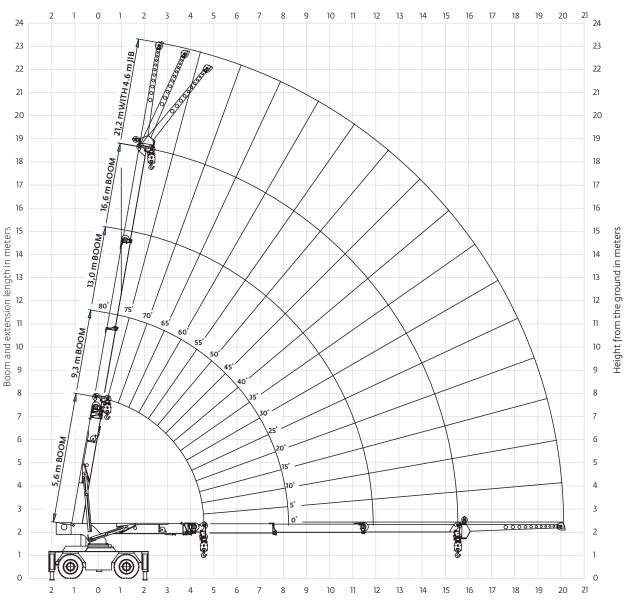


- The rated loads are the maximum lifting capacities as determined by operating radius only. Any combination of boom lengths and angles may be used to obtain operating radius. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, 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 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 OUTRIGGERS							
	Extended and Down 360° or Ro							
	5,6 m	воом	9,3 m BOOM		13,0 m BOOM		16,6 m BOOM	
Radius	Boom Angle	Rated Load	Boom Angle	Rated Load	Boom Angle	Rated Load	Boom Angle	Rated Load
(m)	(deg)	(kg)	(deg)	(kg)	(deg)	(kg)	(deg)	(kg)
1,8	64	16 330	75	10 560	79	8230	-	-
2,4	57	14 290	71	10 430	76	8000	80	5860
3,0	48	10 900	67	10 000	74	7110	77	5800
3,7	38	8850	63	8880	71	6280	75	5530
4,3	25	7120	58	7260	68	5610	73	4920
4,6	0	6390	56	6640	66	5330	72	4660
4,9	-	-	53	6100	65	5070	71	4420
5,5	-	-	48	5220	62	4620	68	4020
6,1	-	-	43	4530	59	4240	66	3670
6,7	-	-	36	3980	55	3920	64	3380
7,3	-	-	29	3530	52	3570	61	3130
7,9	-	-	18	3160	48	3260	59	2910
8,2	-	-	0	3040	46	3100	58	2820
8,5	-	-	-	-	44	2960	56	2750
9,1	-	-	-	-	40	2625	54	2580
9,8	-	-	-	-	36	2335	51	2390
10,4	-	-	-	-	30	2050	48	2170
11,0	-	-	-	-	24	1810	45	1930
11,6	-	-	-	-	15	1630	42	1725
11,9	-	-	-	-	0	1550	40	1630
12,2	-	-	-	-	-	-	39	1540
12,8	-	-	-	-	-	-	35	1390
13,4	-	-	-	-	-	-	31	1270
14,0	-	-	-	-	-	-	26	1150
14,6	-	-	-	-	-	-	21	1045
15,5	-	-	-	-	-		0	930

	MAIN BOOM				
	ON RUBBER				
	Any Boor	n 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			

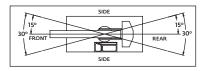
Note: For 360° rating on rubber, rear axle locks must be in place.

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 HANDLING DEVICES INSTALLED (kg)					
FROM MAIN BOOM FROM JIB					
MAIN BLOCK	NOT APPLICABLE				
HOOK & BALL	43				
JIB STOWED	NOT APPLICABLE				
JIB DEPLOYED	318	NO REDUCTION			

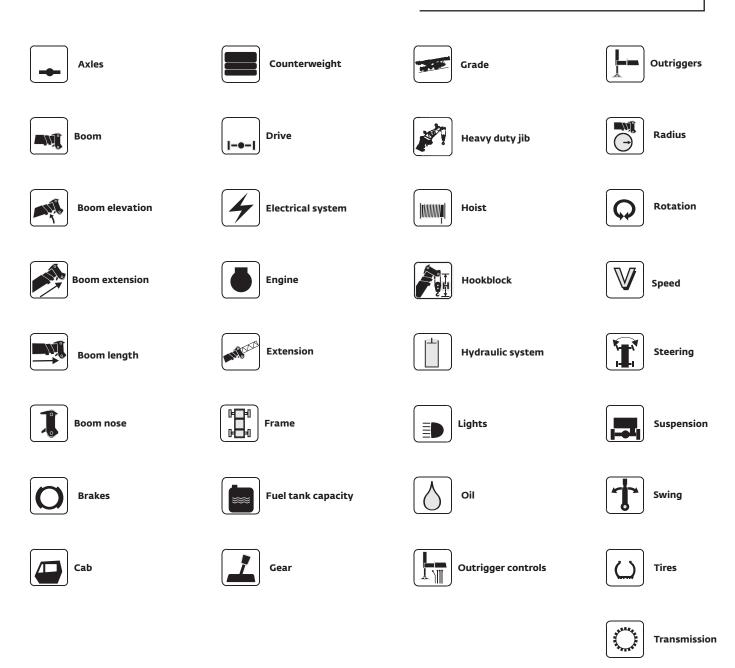
	4,6 m JIB CAPACITIES ON EXTENDED OUTRIGGERS (kg)						
Main		Jib Offset Angle					
Boom	()°	1.	15°			
Angle (deg)	To 13,0 m Main Boom	To 16,6 m Main Boom	To 13,0 m Main Boom	To 16,6 m Main Boom	Any Boom Length		
80	-	-	2270	2270	1590		
75	3450	-	2000	2000	1410		
70	2770	-	1770	1770	1270		
65	2270	2090	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	680 610	940	625 570	630		
25	1010 930		930 910		_		
20 15	930 870	565 550	890	535 520	_		
10	870 840	535	090	320	1 [
5	830	530	_	_	_		
ő	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 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

Notes

Notes

Grove YB5500 Series 23



Regional Headquarters

Manitowoc - Americas Manitowoc, Wisconsin, USA

Tel: +1 920 684 6621 Fax: +1 920 683 6277

Shady Grove, Pennsylvania, USA

Tel: +17175978121 Fax: +17175974062 Manitowoc - Europe, Middle East & Africa

Ecully, France

Tel: +33 (0)4 72 18 20 20 Fax: +33 (0)472182000 **Manitowoc - Asia Pacific**

Shanghai, China Tel: +86 21 6457 0066 Fax: +86 21 6457 4955

Regional Offices

Americas Brazil Baltar Alphaville Lisbon Mexico Russia Monterrey Moscow Chile U.A.E. Santiago Dubai

Europe, Middle East

& Africa Algeria Hydra

Czech Republic Netvorice France Baudemont Cerqy Decines Germany Langenfeld Hungary

Budapest Italy Parabiago Netherlands Breda

Poland Warsaw Portugal

U.K. Gawcott

Asia - Pacific Australia Brisbane Melbourne

Sydney

China Beijing Xi'an India Hyderabad Pune Korea Seoul

Makati City Singapore

Philippines

Factories

Brazil Alphaville China TaiAn Zhangjiagang

France Charlieu La Clayette Moulins

Germany Wilhelmshaven

India Pune Italy Niella Tanaro Portugal Baltar Fânzeres Slovakia Saris **USA** Manitowoc

Port Washington Shady Grove

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.

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.