GROVE

YB5500 Series



features

2 models ...

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

- 15 ft. (4.6m) offsettable swingaway extension
- 20,000 lb. (9 072kg) deck carrying capacity
- 101 bhp (75.3 kW) GM EFI dual fuel engine or 110 bhp (82.0 kW) Cummins diesel engine



contents **Features Specifications** YB5515 5 6 8 9 **Dimensions Working Range Load Chart Load Chart** YB5518 **Dimensions** Range Diagram **Load Chart** YB5515 (metric) Range Diagram **Range Diagram DIN/ISO Load Chart DIN/ISO Load Chart** YB5518 (metric) Range Diagram **DIN/ISO Load Chart**



Industrial Hydraulic Crane

features

2



 Single position oblique style outriggers (YB5515).

 -2-position beam / jack style outriggers (YB5518).



Standard:

• G.M. V-6 EFI 4.3 L Dual-Fuel engine rated @ 101 bhp (75.3kw) @ 2500 r.p.m.



Standard: Open air cab shell w/overhead safety

glass

Optional: Closed cab with hinged door, heater,

and defroster



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

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

YB5518

Optional: YB5515: Manual 4th main boom section

adds 11 ft. (3.4m) additional main boom

length



Standard: 4-wheel steer (YB5515)

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

electronic self-alignment (std. on

YB5518)





■® Boom

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

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

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

Maximum tip height: 56 ft. 2 in. (17.1m)



*Optional Boom

YB5515: Manual 4th main boom fly section Maximum tip height: 52 ft. 3 in. (15.9m)



*Boom Extension

15 ft. (3.6m) offsettable swingaway extension



Boom Nose

YB5515: 2 sheave non-pivoting boom nose

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



Boom Elevation

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

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

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



Anti-Two Block Device

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



Load Indicator

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



*Rated Capacity Limiter (RCL)

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

*Load Moment Indicator (LMI)

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



Ball bearing swing circle with 360° continuous rotation. Hydraulic driven worm gear and pinion.

Maximum speed: YB5515: 2.1 rpm YB5518: 2.5 rpm

Hydraulic System

4 section gear pump providing a system pressure of 3500 psi

Combined flow: 88.0 gpm (333.1 Lpm)

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

YB5518: Six section valve bank chassis mounted; operated via dash mounted, pilot pressure hydraulic joysticks.

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

40 gallon (151.4 L) hydraulic reservoir with sight level gauge and steel side plating to guard against side impact damage.

Hoist Specifications

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

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

Maximum hoist single line speed:

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

Maximum Permissible Single Line Pull:

YB5515: 7,500 lb (3 402kg)

(1/2" [12.7mm] EEIPS)

9,000 lb (4 082kg) YB5518

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

Rope Length:

(4-section boom)

YB55151 (3-section boom)

240 ft. (73.0m) 290 ft. (88.4m)

YB5518: 310 ft. (94.5m)

*Denotes optional equipment





specifications



Carrier

Frame

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

L-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.

YB5518: 2-stage hydraulic telescoping beam with oblique type jack on all four corners, provides extended and down and retracted and down lifting capacities. Integral holding valves on both beam and jack.

Uutrigger Controls

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

YB5518: Two switch operation mounted on dash panel. One 3position rocker switch to select all beams / jacks, left beams / jacks only, or right beams / jacks only. Separate 4- way toggle switch to activate beams out / in and jacks down / up. Level bubble indicator located inside operators compartment. *Independent outrigger controls available as an option.

Std. Engine

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

*Optional Engine

YB4415: Cummins 4B 3.3L turbo-charged diesel rated @ 85 bhp (63.4kW) @ 2500 rpm.

YB5518: Cummins QSB4.5L turbo-charged diesel rated @ 110 bhp (82.0kW) @ 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 and rear glass and sliding glass on the right side. Hinged full door with sliding glass.

Front windshield wiper and heater and defroster is included.

Fuel Tank Capacity

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



F Electrical System

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



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



YB5515: 2-wheel and 4-wheel (coordinated)

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

C Transmission

YB5515: Clark synchromesh 4-speeds forward and reverse.

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

385/65R 22.5 radial traction tread pneumatic.

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

Gradeability**

YB5515: 73%....no load

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

YB5518: 68%....no load

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

G.V.W.

YB5515: 26,300 lb (11 930kg) 3-section boom

26,750 lb (12 134kg) 4-section boom

30,000 lb (13 608kg) YB5518:

Miscellaneous Standard Equipment

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

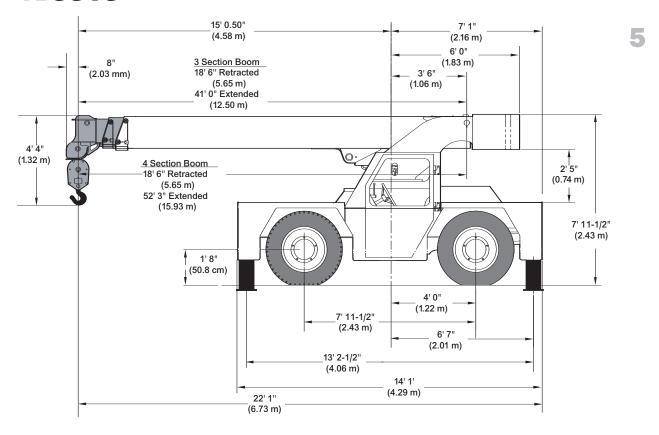
*Denotes Optional Equipment

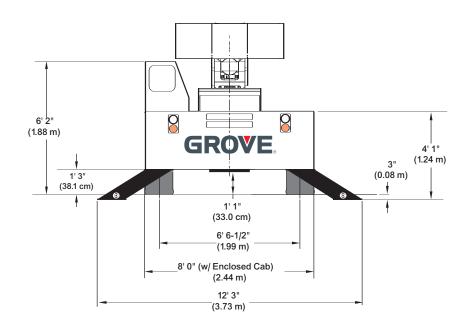
**Theoretical



dimensions

YB5515





3-SECTION BOOM

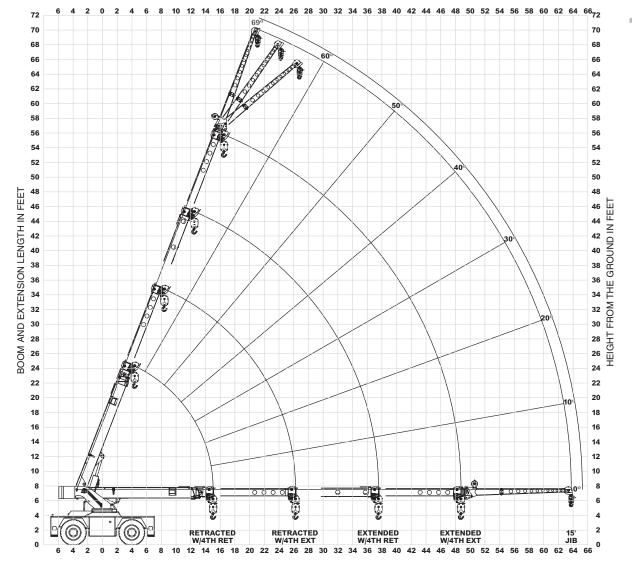


12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 BOOM AND EXTENSION LENGTH IN FEET IN FEET HEIGHT FROM THE GROUND 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 OPERATING RADIUS IN FEET FROM AXIS OF ROTATION



YB5515

4-SECTION BOOM



OPERATING RADIUS IN FEET FROM AXIS OF ROTATION

8

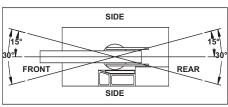
	RADIUS	ON OUTRIG	GERS (lbs)	ON RUB	BER (lbs)
	(ft)	F/R	360°	F/R	360°
	6.0	30000	30000	17000	17000
	8.0	26200	26200	13500	14600
	10.0	22300	22300	10700	10880
	12.0	18600	18600	8710	8100
	14.0	14800	14800	7210	6000
	15.0	13000	13000	6600	5250
_	16.0	12200	12200	6060	4760
MAIN BOOM	18.0	10800	10800	5120	3900
õ	20.0	9630	9180	4370	3190
z	22.0	8640	7480	3710	2660
₹	24.0	7790	6210	3070	2200
2	26.0	7040	5310	2620	1820
	28.0	6420	4740	2260	1530
	30.0	5700	4290	1990	1320
	32.0	5060	3920	1790	1160
	34.0	4510	3580	1610	1040
	36.0	4020	3260	1460	930
	37.5	3700	3060	1370	860
	40.0	3480	2860	1270	800
	42.0	3310	2700	1190	740
E E	44.0	3130	2560	1120	690
5	46.0	2960	2410	1040	640
	48.8	2710	2210	930	570
	52.5	2390	1940	790	480

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

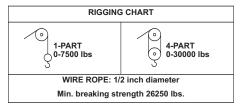
JIB CAPACITY IS LIMITED BY BOTH STRUCTURAL CAPACITY CHART AND MAIN CAPACITY CHART.

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

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



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



- 1) The rated loads are the maximum lifting capacities as determined by operating radius only. Any combination of boom lengths and angles may be used to obtain operating radius. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of vertical hoist line or tackle with load applied.
- 2) The rated loads shown on outriggers do not exceed 85% of actual tipping. The rated loads shown on rubber do not exceed 75% of actual tipping. These ratings are based on freely suspended loads with the crane leveled, standing on a firm, uniform supporting surface. Practical working loads depend on supporting surface, operating radius and other factors affecting stability. Hazardous suroundings, climatic conditions, experience of operator and proper training must be taken into account by the operator.
- The weights of all load handling devices, such as hooks, hook blocks, slings, etc., except the hoist rope, shall be considered as part of the load. See reduction chart.

- 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 16000 lbs.
 The maximum deck load only is 20000 lbs.
- Do not induce any external side loads to boom or iib.



YB5515 w/ 4-section boom

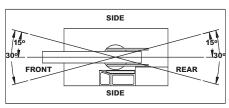
		4TH RET	RACTED		4TH EXTENDED					
RADIUS	ON OUTRIGGERS (lbs) ON RUBI			BER (lbs)	1	RADIUS	ON OUTRIGGERS (lbs)		ON RUBBER (lbs)	
(ft)	F/R	360°	F/R	360°	1	(ft)	F/R	360°	F/R	360°
6.0	30000	30000	17000	17000		6.0	-	-	-	-
8.0	26200	26200	13500	14600		8.0	11000	11000	11000	11000
10.0	22300	22300	10700	11000	1	10.0	10700	10700	10700	10700
12.0	18600	18600	8710	7650		12.0	9250	9250	9250	9250
14.0	14800	14800	7210	5480		14.0	8290	8390	7760	7500
15.0	13000	13000	6600	4890		15.0	8200	8200	7150	6080
16.0	12200	12200	6060	4500		16.0	8110	8110	6610	5510
18.0	10800	10600	4950	3750		18.0	7950	7950	5680	4500
20.0	9630	8630	3980	3080	_	20.0	7820	7820	4730	3560
22.0	8640	7350	3230	2460	5	22.0	7710	7710	3980	3000
24.0	7790	6460	2720	1990	BOOM	24.0	7630	7270	3410	2520
26.0	6800	5700	2360	1610	z	26.0	7100	6330	2940	2150
28.0	5820	5040	2100	1410	MAIN	28.0	6590	5420	2550	1840
30.0	5020	4420	1880	1220	-	30.0	5710	4760	2190	1580
32.0	4400	3950	1650	1070		32.0	5180	4080	1880	1360
34.0	3930	3570	1460	920		34.0	4680	3570	1600	1160
36.0	3510	3190	1280	770		36.0	4250	3190	1370	990
37.5	3210	2890	1180	680		37.5	3830	2970	1240	880
40.0	2950	2600	1070	610	1	40.0	3400	2700	1070	740
42.0	2760	2430	970	550	1	42.0	3150	2490	960	630
44.0	2590	2250	890	500		44.0	2890	2300	870	540
46.0	2430	2090	800	450	1\	46.0	2630	2130	790	470
48.8	2240	1850	680	380	Ι '	48.8	2320	1930	710	370
52.5	2030	1480	500	290	B	52.5	2070	1710	590	280
58.0	-	-	-	-	٦	58.0	1720	1380	420	170
63.8	-	-	-	-		63.8	1330	1020	230	60

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

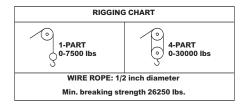
JIB CAPACITY IS LIMITED BY BOTH STRUCTURAL CAPACITY CHART AND MAIN CAPACITY CHART.

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

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



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



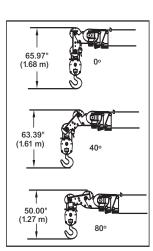
- 1) The rated loads are the maximum lifting capacities as determined by operating radius only. Any combination of boom lengths and angles may be used to obtain operating radius. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of vertical hoist line or tackle with load applied.
- 2) The rated loads shown on outriggers do not exceed 85% of actual tipping. The rated loads shown on rubber do not exceed 75% of actual tipping. These ratings are based on freely suspended loads with the crane leveled, standing on a firm, uniform supporting surface. Practical working loads depend on supporting surface, operating radius and other factors affecting stability. Hazardous suroundings, climatic conditions, experience of operator and proper training must be taken into account by the operator.
- The weights of all load handling devices, such as hooks, hook blocks, slings, etc., except the hoist rope, shall be considered as part of the load. See reduction chart.

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

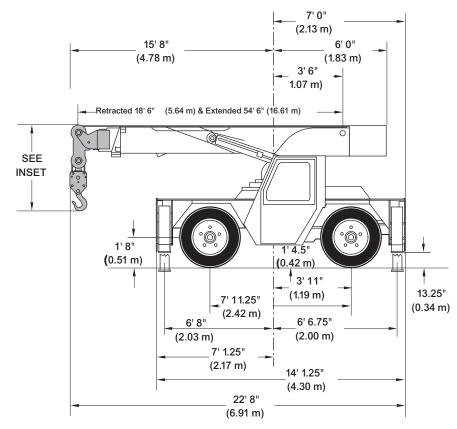
dimensions

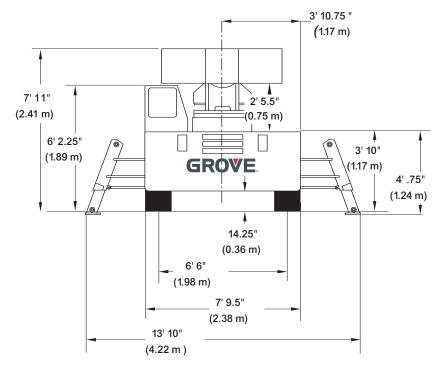
YB5518

10



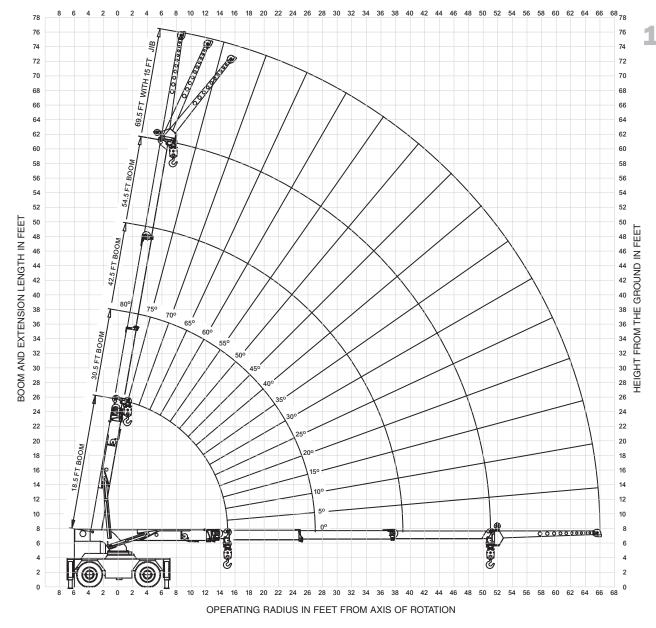
Dimensions are with the boom horizontal and the anti-two block bottomed.











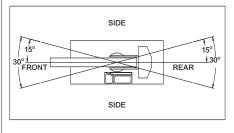
load chart

YB5518

12

	Exte	MAIN BOOM LOAD RATINGS ON OUTRIGGERS Extended and Down 360° or Retracted and Down Front/Rear						ear		MAIN I	
	18.5 ft	BOOM	30.5 ft	BOOM	42.5 ft	BOOM	54.5 ft	воом		Any Boor	n Length
Radius (ft)	Boom Angle (deg)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Radius (ft)	Front Rating (lbs)	360° Rating (lbs)
6 8 10 12 14 15.0 16 18 20 22 4 26 27.0 32 28 30 32 34 36 38 39.0 40 44 44	64 57 49 39 25 0 - - - - - - - - - - -	36000 24000 19500 16200 15000	75 71 67 63 58 56 53 48 43 37 29 18 0	24500 24500 24000 20000 16800 15500 114400 12500 7800 7800 7400	79 77 74 71 76 66 65 65 59 55 52 48 46 40 36 30 24 15 0	23700 23000 21500 19700 19700 15800 14600 12700 11200 9000 8100 7700 7700 7700 7700 4500 4500 4500 45	80 77 75 73 72 71 69 66 64 61 59 58 54 54 45 42 41 39 35 31	17400 15800 14000 14000 12600 12000 11400 10500 9600 8300 7700 6700 6700 6700 4300 4300 4300 4300 4300 3800 3800 3400	(II) 6 8 10 12 14 15.0 16 18 20 22 24 26 27.0 28 30 32 34 36 38 39.0 40 40 44 44	16000 11000 9100 9100 5600 5600 4800 3600 3150 2950 2450 2450 2450 2450 2450 2450 2450 24	10900 8700 7400 6400 5600 5300 4200 3500 2500 2200 2200 1900 1400 1200 1200 1200 1200 1200 1200 12
44	-		-	_		-	27	2900	46	950	525 425
48 51.0	-	-	-	-	-	-	21 0	2700 2400	48 51.0	850 700	300 200

RATING REDUCTIONS FOR LOAD								
HANDLIN	G DEVICES INSTAL	LED (Ibs)						
	FROM MAIN BOOM	FROM JIB						
MAIN BLOCK	230	NOT APPLICABLE						
HOOK & BALL	100	100						
JIB ST OWED	JIB ST OWED NO REDUCTION NOT APPLICABLE							
JIB DEPLOYED 700 NO REDUCTION								



		MAIN BOOM LOAD RATINGS ON OUTRIGGERS Retracted and Down 360°								
	18.5 ft	воом	30.5 ft	воом	42.5 ft	воом	54.5 ft BOOM			
Radius (ft)	Boom Angle (deg)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)	Boom Angle (deg)	Rated Load (lbs)		
6 8 10 12 14 15.0 16 18 20 22	64 57 49 39 25 0 -	36000 29000 16000 11400 8900 8000 - - -	75 71 67 63 58 56 53 48 43 37	24500 24500 22000 12900 9900 8900 8100 6800 5900 5000	79 77 74 71 68 66 65 62 59	23700 23000 20000 12800 10200 9300 8500 7200 6200 5200	80 77 75 73 72 71 69 66 64	17400 15800 13000 10600 9500 8500 7200 6100 5300		
24 26 27.0 28 30 32 34	- - - - -	- - - - -	29 18 0 - - -	4100 3600 3400 - - - -	52 48 46 44 40 36 30	4500 3800 3600 3300 2900 2500 2200	61 59 58 56 54 51 48	4500 3900 3600 3300 2800 2500 2200		
36 38 39.0 40 42 44 46 48	-	- - - - -		- - - - -	24 15 0 - -	2000 1800 1700 - - - -	45 42 41 39 35 31 27 21	2000 1800 1700 1600 1400 1300 1100 900		
51.0	-	-	-	-	-	-	0	700		

	15 FT JIB CA	PACITIES ON	EXTENDED	OUTRIGGERS	3
Main					
Boom	0 0	deg	15 c	deg	30 deg
Angle (deg)	To 42.5 ft Main Boom	To 54.5 ft Main Boom	To 42.5 ft Main Boom	To 54.5 ft Main Boom	Any Boom Length
80	-	-	5000	5000	3500
75	7500	-	4400	4400	3100
70 65	6100 5000	4600	3900 3500	3900 3500	2800 2550
60	4300	3800	3150	3150	2350
55	3800	3300	2850	2850	2200
50	3400	2900	2600	2600	2100
45	3050	2600	2400	2400	2000
40	2800	2400	2250	2250	1950
35 30	2600 2400	2150 1930	2150 2080	2050 1850	1900 1830
25	2300	1750	2050	1720	1030
20	2200	1600	2000	1590	
15	2100	1500	1950	1520	-
10	2050	1460	-	-	-
5	2020	1450	-	-	-
0	2000	1440	-	-	-

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

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

- The rated loads are the maximum lift capacities as determined by operating radius, boom length and boom angle. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before load ing, to the center of vertical hoist line or tackle with load applied.
- 2) The rated loads shown on outriggers do not exceed 85% of actual tipping. The rated loads shown on rubber do not exceed 75% of actual tipping. These ratings are based on freely suspended loads with the crane leveled, standing on a firm, uniform supporting surface. Practical working loads depend on supporting surface, operating radius and other factors affecting stability. Hazardous surroundings, climatic conditions, experience of personnel and proper handling must all be taken into account by the operator.
- The weights of all load handling devices, such as hooks, hook blocks, slings, etc., except the hoist rope, shall be considered as part of the load. See above.
- Ratings on outriggers are for either outriggers fully extended and down or fully retracted and down. Ratings for outriggers fully retracted and down will apply for any intermediate outrigger setting.
- 5) Ratings on rubber depend on tire capacity, co ndition of tires and proper inflation pressure (120 psi). Loads on rubber may be transported at a maximum speed of 2.5 mp h on a smooth hard level surface with boom retacted to the shortest length possible and centered over front. Do not use jib with crane on rubber.
- For operating radius not shown, use load rating of next larger radius.
- 7) The maximum combined total boom and deck load is 16,000 lbs. The maximum deck load only is 20,000 lbs.
- 8) Do not induce any external side loads to boom or jib.

MAXIMUM PERMISSIBLE SINGLE LINE PULL = 9000 lbs

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

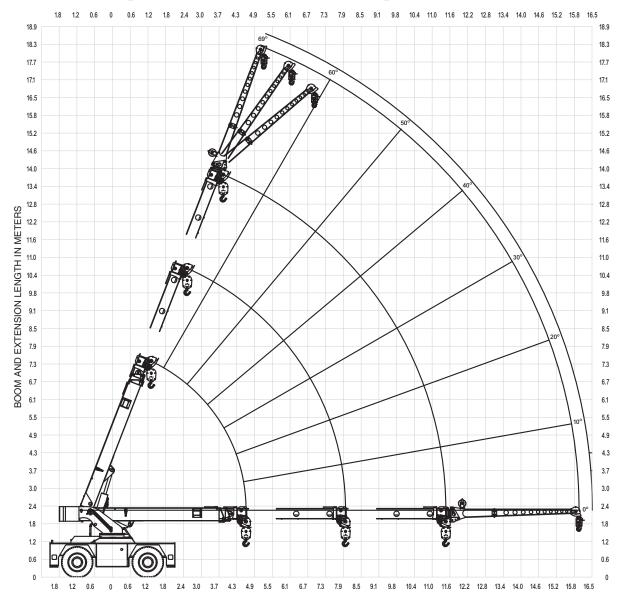
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.



ries

range diagram

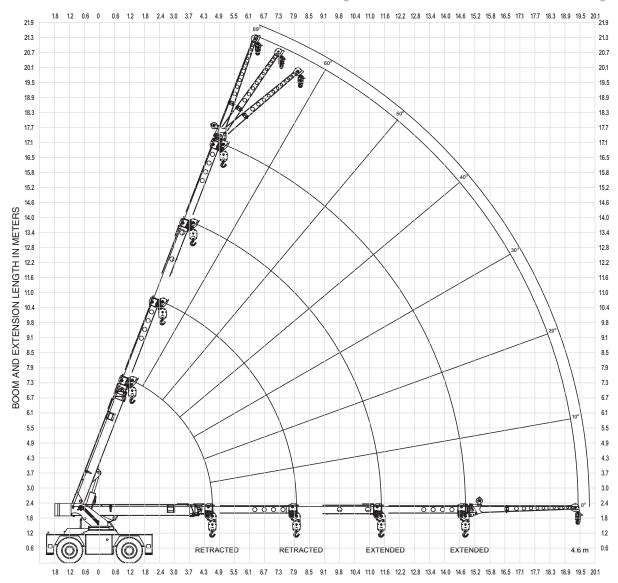
YB5515 (w/3-section boom)



OPERATING RADIUS IN METERS FROM AXIS OF ROTATION

YB5515 (w/4-section boom)

14



OPERATING RADIUS IN METERS FROM AXIS OF ROTATION



DIN/ISO load chart

YB5515 (w/3-section boom)

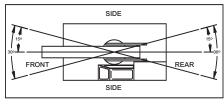
	RADIUS	ON OUTRIG	GERS (kg)	ON RUBE	BER (kg)
	(m)	F/R	360°	F/R	360°
	1.8	13610	13610	7710	7710
	2.4	11880	11880	6120	6620
	3.0	10120	10120	4850	4860
	3.7	8440	8440	3950	3600
	4.3	6710	6710	3270	2650
	4.6	5900	5900	2990	2310
	4.9	5540	5530	2750	2090
5	5.5	4900	4750	2320	1700
8	6.1	4370	3840	1940	1370
MAIN BOOM	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
믬	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)	0∞	15∞	30∞				
69	2720	1770	1270				
65	2270	1590	1160				
60	1950	1430	1070				
55	1720	1290	1000				
50	1540	1180	950				
45	1380	1090	910				
40	1270	1020	880				
35	1180	980	860				
30	1090	940	840				
25	1040	930	-				
20	1000	910	-				
15	950	880	-				
10	930	-	-				
5	920	-	-				
0	910	-	-				

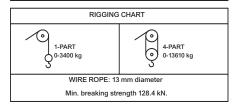
JIB CAPACITY IS LIMITED BY BOTH STRUCTURAL

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	100 kg	N/A					
HOOK & BALL	50 kg	50 kg					
JIB, STOWED	0 kg	N/A					
JIB, DEPLOYED	320 kg	0 kg					



- 1) The rated loads are the maximum lifting capacities as determined by operating radius only. Any combination of boom lengths and angles may be used to obtain operating radius. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of vertical hoist line or tackle with load applied.
- 2) The rated loads shown on outriggers do not exceed 80% of actual tipping. The rated loads shown on rubber do not exceed 75% of actual tipping. These ratings are based on freely suspended loads with the crane leveled, standing on a firm, uniform supporting surface. Practical working loads depend on supporting surface, operating radius and other factors affecting stability. Hazardous suroundings, climatic conditions, experience of operator and proper training must be taken into account by the operator.
- 3) The weights of all load handling devices, such as hooks, hook blocks, slings, etc., except the hoist rope, shall be considered as part of the load. See reduction chart.

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

16

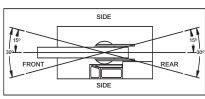
	4TH RETRACTED						4TH EXTENDED			
RADIUS	ON OUTRIGGERS (kg)		ON RUBBER (kg)		1	RADIUS	ON OUTRIGGERS (kg)		ON RUBBER (kg)	
(m)	F/R	360°	F/R	360°	1	(m)	F/R	360°	F/R	360°
1.8	13610	13610	7710	7710		1.8		-	-	-
2.4	11880	11880	6120	6120	l	2.4	5030	5030	5030	5030
3.0	10120	10120	4860	4890	1	3.0	4850	4850	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	BOOM	6.7	3500	3500	1720	1280
7.3	3320	2670	1150	820	8	7.3	3460	3020	1470	1060
7.9	2820	2340	990	650	MAIN	7.9	3180	2620	1250	890
8.5	2400	2060	870	560	ž	8.5	2730	2230	1080	750
9.1	2050	1800	770	470		9.1	2350	1950	910	630
9.8	1790	1600	670	400		9.8	2120	1660	770	530
10.4	1590	1440	580	340		10.4	1910	1440	640	450
11.0	1410	1270	500	270		11.0	1690	1270	540	370
11.4	1290	1150	450	230		11.4	1550	1180	480	320
12.2	1170	1020	400	190	1	12.2	1360	1070	400	250
12.8	1090	950	360	170	١\	12.8	1260	970	350	200
13.4	1020	880	320	150	١\	13.4	1150	890	310	160
14.0	950	810	280	120	I \	14.0	1040	820	280	130
14.9	870	700	230	90	\	14.9	900	740	240	90
16.0	780	550	150	50	粤	16.0	800	640	190	50
17.7	-	-	-	-	Ι.	17.7	650	500	110	0
19.4	-	-	-	-		19.4	480	350	20	0

MAIN	JIB STRUCTURAL CAPACITIES (kg)								
BOOM ANGLE	4TH	RETRACT	ED	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		-			

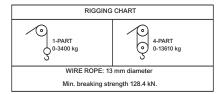
JIB CAPACITY IS LIMITED BY BOTH STRUCTURAL

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 MAIN BOOM 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					

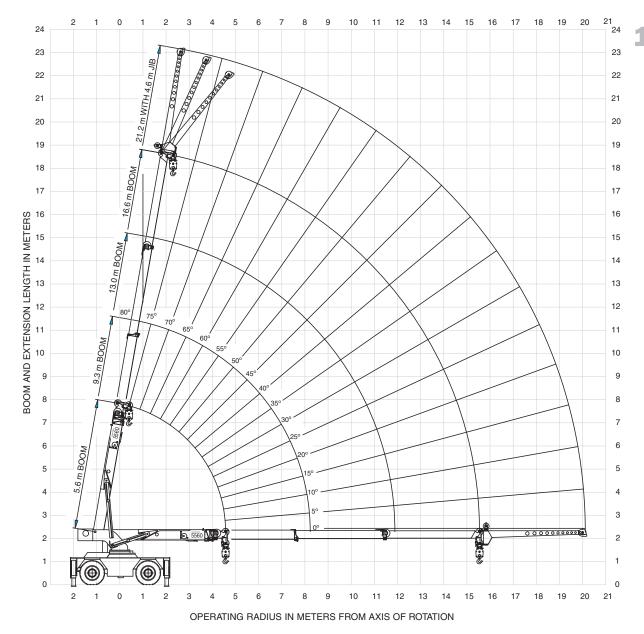


- The rated loads are the maximum lifting capacities as determined by operating radius only. Any combination of boom lengths and angles may be used to obtain operating radius. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, 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.
- 7) The maximum combined total boom and deck load is 7 260 kgs. The maximum deck load only is 9 070 kgs.
- 8) Do not induce any external side loads to boom or jib.

YB5500 Series

YB5518



DIN/ISO load chart

YB5518

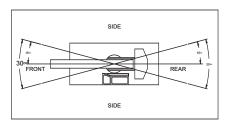
18

	MAIN BOOM LOAD RATINGS ON OUTRIGGERS Extended and Down 360° or Retracted and Down Front/							r
	5.6 m	воом	9.3 m BOOM		13.0 m BOOM		16.6 m BOOM	
Radius (m)	Boom Rated Angle Load (deg) (kgs)		Boom Angle (deg)	Rated Load (kgs)	Boom Angle (deg)	Rated Load (kgs)	Boom Angle (deg)	Rated Load (kgs)
1.8 2.4 3.0 3.7 4.3 4.6 4.9 5.5 6.1 6.7 7.3 7.9 8.2 8.5 9.1 11.0 11.0 11.0	64 57 48 38 25 0 - - - - - - -	16330 16330 14290 10900 8850 	75 71 67 63 58 56 53 48 36 29 18 0	10560 10430 10000 8880 7260 6640 6100 5220 4530 3980 3160 3040	79 76 74 71 68 66 65 59 55 52 48 44 40 36 30 24 15	8230 8000 7110 6280 5610 5330 5070 4620 4240 3920 3570 3260 3100 2625 2335 2050 1810 1630	- 80 77 75 73 72 71 68 64 61 59 58 56 54 51 48 45 42 40	5860 5800 5800 5530 4920 4660 4420 3670 3380 2910 2820 2750 2750 2580 2390 1725 1630
12.2	-	-	-	-	-	-	39	1540
12.8 13.4	[-	[-	[-	35 31	1390 1270
14.0	[[-	[-	26	1150
14.6	-	-	-	-	-	-	21	1045
15.5	-	-	-	-	-	-	0	930

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

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

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



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

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

		MAIN E		DAD RATIN tracted and			RS	
	5.6 m BOOM		9.3 m BOOM		13.0 m	BOOM	16.6 m BOOM	
Radius (m)	Boom Angle (deg)	Rated Load (kgs)	Boom Angle (deg)	Rated Load (kgs)	Boom Angle (deg)	Rated Load (kgs)	Boom Angle (deg)	Rated Load (kgs)
1.8	64	16330	75	10560	79	8230	-	-
2.4	57	9760	71	8450	76	7500	80	5850
3.0	48	6890	67	6250	74	5630	77	5130
3.7	38	5050	63	4860	71	4480	75	4180
4.3	25	3700	58	3910	68	3660	73	3420
4.6	0	3260	56	3530	66	3320	72	3140
4.9	_	_	53	3210	65	3070	71	2870
5.5	-	-	48	2700	62	2590	68	2440
6.1	-	-	43	2240	59	2200	66	2100
6.7	-	-	36	1890	55	1890	64	1810
7.3	-	-	29	1610	52	1630	61	1580
7.9	-	-	18	1390	48	1420	59	1380
8.2	-	-	0	1310	46	1320	58	1290
8.5	-	-	-	-	44	1220	56	1210
9.1	-	-	-	-	40	1050	54	1060
9.8	-	-	-	-	36	930	51	920
10.4	- 1	-	-	-	30	830	48	810
11.0	-	-	-	-	24	730	45	720
11.6	-	-	-	-	15	640	42	650
11.9	-	-	-	-	0	610	40	600
12.2	-	-	-	-	-	-	39	560
12.8	- 1	-	-	-	-	-	35	470
13.4	-	-	-	-	-	-	31	390
14.0	-	-	-	-	-	-	26	320
14.6	-	-	-	-	-	-	21	250
15.5	-	-	-	-	-	-	0	170

	4.6 m JIB CAPA	ACITIES ON EX	TENDED OUT	RIGGERS (kgs)					
Main	Jib Offset Angle								
Boom	0 (deg	15 c	deg	30 deg				
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	940	625	630				
25	1010	610	930	570	-				
20	930	565	910	535	-				
15	870	550	890	520	-				
10	840	535	-	-	-				
5	830	530	-	-	-				
0	825	530	-	-	-				

- The rated loads are the maximum lift capacities as determined by operating radius, boom length and boom angle. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of vertical hoist line or tackle with load applied.
- 2) The rated loads shown on outriggers do not exceed 80% of actual tipping. The rated loads shown on rubber do not exceed 75% of actual tipping. These ratings are based on freely suspended loads with the crane leveled, standing on a firm, uniform supporting surface. Practical working loads depend on supporting surface, operating radius and other factors affecting stability. Hazardous surroundings, climatic conditions, experience of personnel and proper handling must all be taken into account by the operator.
- The weights of all load handling devices, such as hooks, hook blocks, slings, etc., except the hoist rope, shall be considered as part of the load. See above.
- Ratings on outriggers are for either outriggers fully extended and down or fully retracted and down. Ratings for outriggers fully retracted and down will apply for any intermediate outrigger setting.
- 5) Ratings on rubber depend on tire capacity, condition of tires and proper inflation pressure (8.3 bar). Loads on rubber may be transported at a maximum speed of 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.
- For operating radius not shown, use load rating of next larger radius
- The maximum combined total boom and deck load is 7 264 kgs. The maximum deck load only is 9 080 kgs.
- 8) Do not induce any external side loads to boom or jib.

MAXIMUM PERMISSIBLE SINGLE LINE PULL = 4 080 kgs

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

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



notes

19



Regional Headquarters Americas

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

Shady Grove, Pennsylvania, USA

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

Europe, Middle East, Africa

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

Asia - Pacific

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

Singapore

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

Regional Offices

Americas

Brazil

Alphaville Tel: +55 11 4688 2716 Fax: +55 11 4191 1471

Mexico

Monterrey

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

Europe, Middle East, Africa Algeria

Hydra

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

Czeck Republic

Netvorice

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

France

Baudemont

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

Cera

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

Decines

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

Germany

Langenfeld

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

Hungary

Budapest Tel: +36 13 39 8

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

Italy

Parabiago

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

Netherlands

Breda

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

Poland

Warsaw

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

Portugal

Alfena

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

Lisbon

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

Russia

Moscow

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

U.A.E.

Dubai

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

U.K.

Middlesex

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

Sunderland

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

Asia - Pacific Australia

Melbourne

Tel: +61 3 9 336 1300 Fax: +61 3 9 336 1322

Sydney

Tel: +61 2 9 896 4433 Fax: +61 2 9 896 3122

China

Beijing

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

Xi'an

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

Korea

Seoul

Tel: +82 2 508 3361 Fax: +82 2 508 3365

Philippines

Makati City

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

Factories

U.S.A.

Manitowoc Shady Grove

Brazil

Alphaville

France

Charlieu La Clayette Moulins

India

Calcutta Puna

Italy Niella Tanaro

Germany

Wilhelmshaven Portugal

Fânzeres China

Zhangjiagang



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.



www.manitowoccranegroup.com