

Grove YB4411

Quick Reference

Capacity: 10 t (10.5 USt)

Boom: 4,2 m - 10,0 m (13 ft 10 in - 32 ft 10 in) main boom

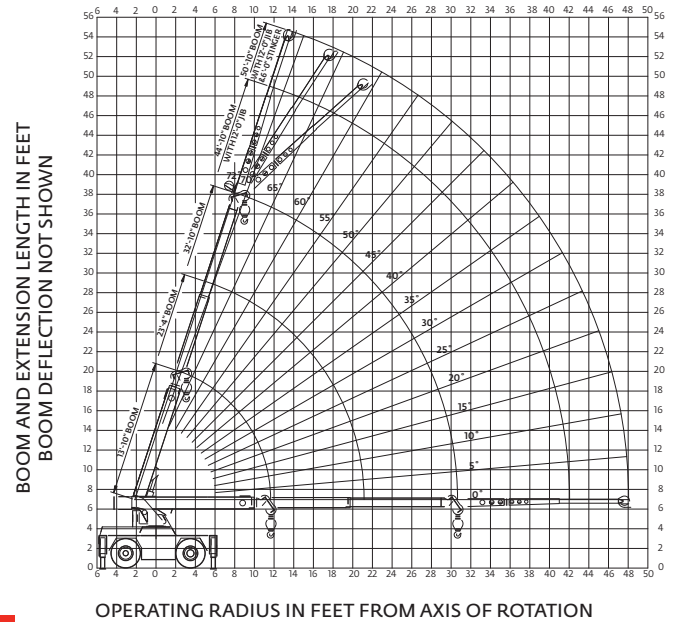
Max jib: 3,6 m (12 ft)

Max tip height: 11,6 m (38 ft 2 in)

FEATURES

- 9,5 t (10.5 USt) three-section boom
- 3,6 m (12 ft) fixed extension
- 63,4 kW (85 bhp) Cummins diesel engine or 59,6 kW (80 bhp) GM EFI dual fuel engine
- Exclusive pivoting boom nose
- Two-wheel, four-wheel and crab steering with self alignment

Working range



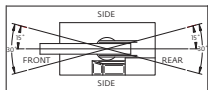
Load chart

RADIUS (ft)	ON OUTRIGGERS (lb)				ON RUBBER (lb)		MAIN BOOM ANGLE (deg)	JIB STRUCTURAL CAPACITIES (lb)					
	EXTENDED 360° RETRACTED F/R		RETRACTED 360°		F/R	360°		12 ft JIB			18 ft JIB		
	BOOM RETRACTED	BOOM EXTENDED	BOOM RETRACTED	BOOM EXTENDED	ANY BOOM	ANY BOOM		0° OFFSET	15° OFFSET	30° OFFSET	0° OFFSET	15° OFFSET	30° OFFSET
4.0	21,000	15,000	19,625	13,975	11,500	11,500	72	7500	5100	3500	4000	3300	2300
5.0	18,000	14,700	16,800	13,700	11,500	9400	70	7000	4800	3400	3750	3100	2200
6.0	15,700	14,400	13,400	13,400	10,000	7800	65	5700	4100	3100	3200	2700	2000
8.0	12,200	12,200	8700	8700	7600	5600	60	4500	3500	2800	2800	2400	1850
10.0	10,200	10,200	6150	6150	5175	3875	55	3500	3000	2550	2450	2150	1700
12.0	8400	8400	4550	4550	3850	2875	50	2800	2500	2200	2150	1950	1600
14.0	-	7100	-	4425	3400	2250	45	2300	2200	2000	1900	1750	1500
16.0	-	6000	-	2775	2400	1800	40	2000	1900	1800	1700	1600	1400
18.0	-	5000	-	2300	1975	1475	35	1775	1675	1600	1525	1450	1350
20.0	-	4300	-	1825	1650	1200	30	1600	1500	1400	1400	1300	1300
22.0	-	3700	-	1550	1400	1000	25	1450	1400	-	1275	1200	-
24.0	-	3300	-	1275	1200	850	20	1350	1350	-	1175	1125	-
26.0	-	2900	-	1075	1025	700	15	1300	1300	-	1100	1100	-
28.0	-	2600	-	950	875	600	10	1275	-	-	1050	-	-
31.0	-	2300	-	800	700	450	5	1225	-	-	1025	-	-
34.0	-	1975	-	650	600	350	0	1200	-	-	1000	-	-
36.0	-	1775	-	550	500	275							
38.0	-	1575	-	450	400	200							
40.0	-	1425	-	350	300	125							
42.0	-	1300	-	250	200	-							
44.0	-	1200	-	200	150	-							
46.0	-	1100	-	175	-	-							
48.0	-	1000	-	150	-	-							

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.



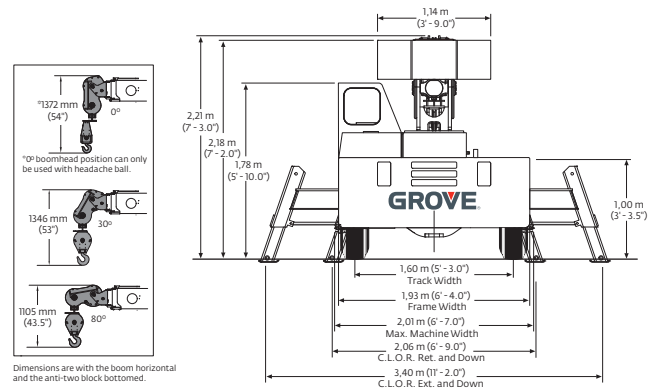
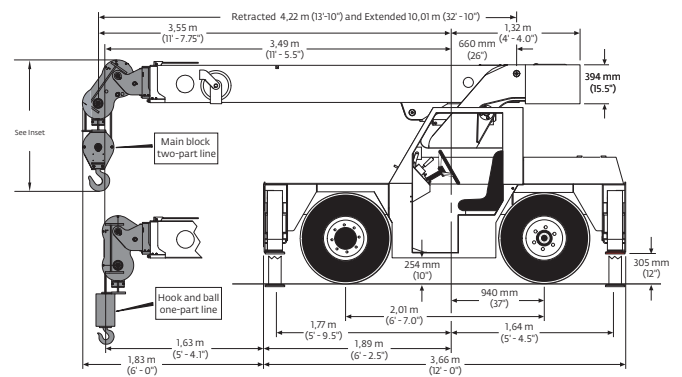
REDUCTION CHART		
	FROM MAIN BOOM RATINGS	FROM JIB RATINGS
MAIN BLOCK	140 lb	N/A
HOOK & BALL	100 lb	100 lbs
JIB, STOWED	0 lb	N/A
JIB, DEPLOYED	450 lb	0 lb

RIGGING CHART	
	1-PART 0-10,000 lb
	2-PART 0-21,000 lb

WIRE ROPE: 9/16 inch diameter
 Min. breaking strength 36,750 lb

- The rated loads are the maximum lift capacities as determined by operating radius, boom extension and boom angle. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of vertical hoist line or tackle with load applied.
- The rated loads shown on outriggers do not exceed 85% of actual tipping. The rated loads shown on rubber do not exceed 75% of actual tipping. Retracted outrigger rated loads meet ASME B30.5-2004. 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.
- 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 for either outriggers fully extended and down or fully retracted and down. Ratings for outriggers fully retracted and down will apply for any intermediate outriggers setting.
- Ratings on rubber depend on tire capacity, condition of tires and proper inflation pressure (125 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.
- For operating radius not shown, use load rating of next larger radius.
- The maximum combined total boom and deck load is 12,000 lb. The maximum deck load only is 14,000 lb.
- Do not induce any external side loads to boom or jib.

Dimensions



SUPERSTRUCTURE

Boom

4,2 m – 10,0 m (13 ft 10 in – 32 ft 10 in) three-section full power boom.

Maximum tip height: 11,6 m (38 ft 2 in)

*Boom extension

3,6 m (12 ft) offsettable extension
3,6 m - 5,4 m (12 ft-18 ft) telescopic offsettable extension

Boom nose

Single sheave, three-position (0°, +30°, +80°) pivoting boom nose for minimizing head space requirements. Lowers head height. 0,26 m (10.5 in) when nose is pivoted fully forward.

Boom elevation

Single double acting hydraulic cylinder with integral holding valve. Elevation: 0° to 72°.

Anti-Two block system

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 (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.

(wireless system)

*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.

(wireless system)

*Load Moment Indicator

Digital display of boom angle, boom length, boom radius, capacity, and allows for operator in-put to set the limits based on load chart. Displays color coded light bar and audible

alarm with function cutout if load exceeds entered parameters.

(hardwired system)

Swing

Ball bearing swing circle with 360° continuous rotation.

Hydraulic driven worm gear and pinion.

Maximum speed: 2.05 rpm

Hydraulic system

Variable displacement piston pump and piggyback gear pump.

Combined flow: 107,9Lpm (28.5 gpm)

Maximum system operating pressure: 3600 psi

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.

89 L (23.5 gal) hydraulic reservoir with sight level gauge and steel side plating to guard against side impact damage.

Hoist

Piston motor drive with spring applied/hydraulic released brake.

Drum Diameter:

0,27 m (10.63 in)

Maximum Single Line Pull:

6350 kg (14,000 lb)

Maximum Single Line Speed:

36,6 m/min (120 fpm)

Maximum Permissible Single Line Pull:

4536 kg (10,000 lb) (14,0mm [9/16 inch] EEIPS)

Rope Length :

36,6 m (120 ft)

CARRIER

Frame

High strength alloy steel constructed with integral outrigger housings; front and rear lifting, towing, and tie-down lugs. 42 ft.³ carrydeck size with 7711 kg (17,000 lb) carrying capacity
Deck coated with anti-skid treatment

Outriggers

YB4411: Hydraulic telescoping beam with oblique type jack provides extended and down and retracted and down lifting capacities. Integral holding valves on both beam and jack.

Padsize YB4400 Series: 18 cm x 20 cm (7.4 in x 7.8 in)

Maximum outrigger pad load: 387 psi

Outrigger controls

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)

Cummins QSB 3.3 L turbo-charged diesel rated at 63,4 kW (85 bhp) at 2600 rpm. Supplied with 110 V engine block heater and air intake grid heater.

*Optional engine

G.M. 3.0 L EFI dual fuel (gasoline / L.P.) rated at 59,6 kW (80 bhp) at 2600 rpm.

Operator's 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 and provides warning for A2B and exceeded load capacity.

*Operator's control station enclosed

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

Front windshield wiper, heater and defroster is included.

Fuel tank capacity

70 L (18.5 gallon) all steel construction with steel side plate to guard against side impact.

Electrical system

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

Jump start connections
63 amp alternator.

Drive

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

Steer

Two-wheel, four-wheel, and crab steer with electronic self alignment.

Outside turning radius:

Two w/s: 4,88 m (16 ft)

Four w/s: 3,17 m (10 ft 5 in)

Transmission

Powershift -four- gears forward and four gears in reverse. Stalk mounted shifter on left side of steering column.

Axles

Front: Carraro planetary drive/steer with internal multi-wet-disc brakes and limited slip differential.

Rear: Fabricated non-drive steer with disc brakes

Tires

10.00 x 15 16PR 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: Rigid mounted to frame

Lights

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

Maximum speed

35,6 km/h (22 mph)

Gradeability (theoretical)

68%....no load

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

Gross vehicle weight

7947 kg (17,520 lb)

Miscellaneous standard equipment

Single sheave, "Quick Reeve" style hookblock: 10 t (10.5 USt), back up alarm

**Denotes optional equipment.*