



Grove Manitowoc National Crane Potain



Shuttlelift CD5515-2

Provisional Quick Reference

Capacity: 13,6 t (15 USt)

Boom: 12,5 m (41.0 ft) or 15,2 m (50 ft) main boom

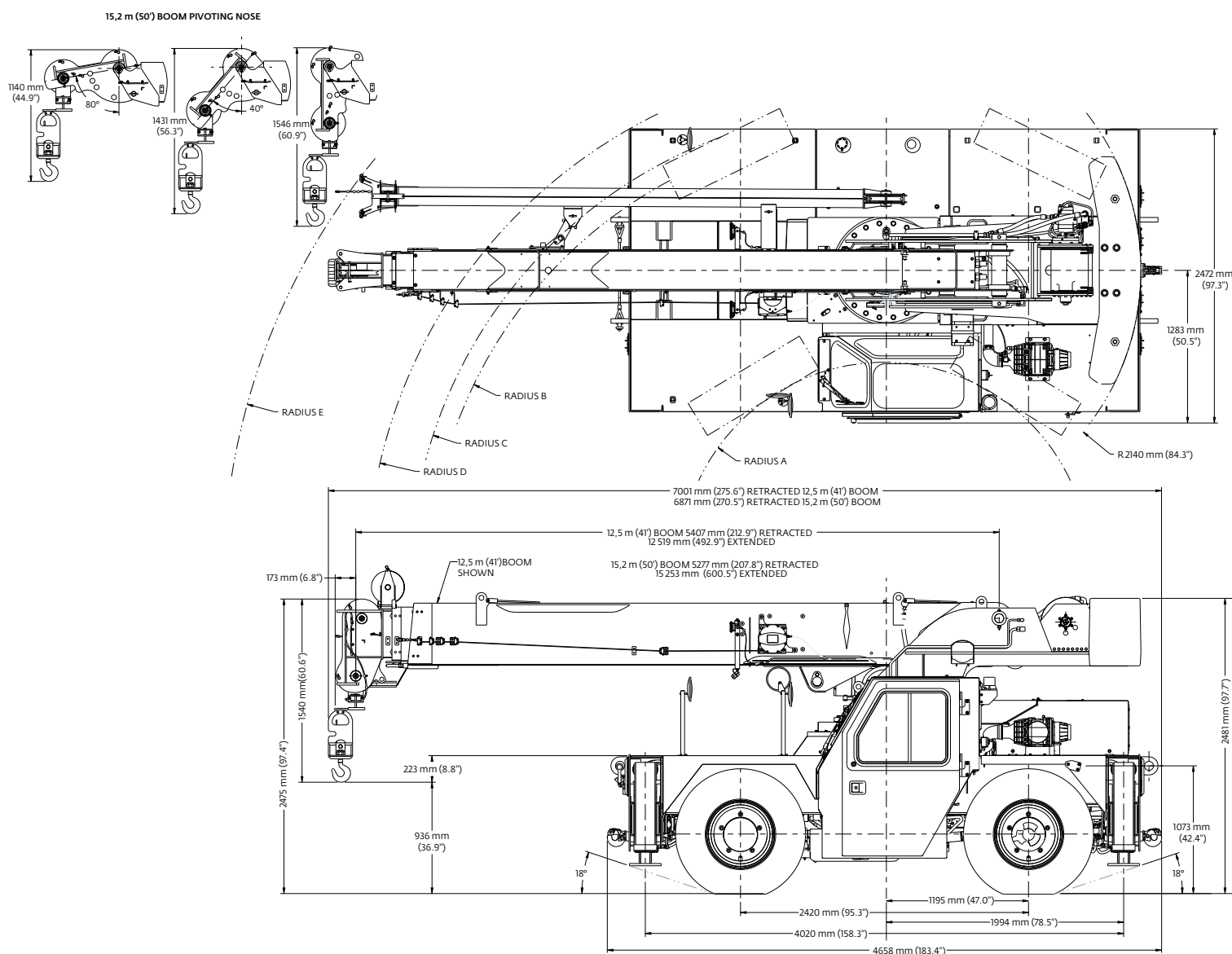
Max boom extension: 4,6 m (15 ft)

Max tip height: 23,1 m (46.6 ft)

FEATURES

- 4,6 m (15 ft) swingaway extension
- 9072 kg (20,000 lb) deck carrying capacity
- 100 hp Cummins 3.3 L four-cylinder diesel engine (Tier IV)

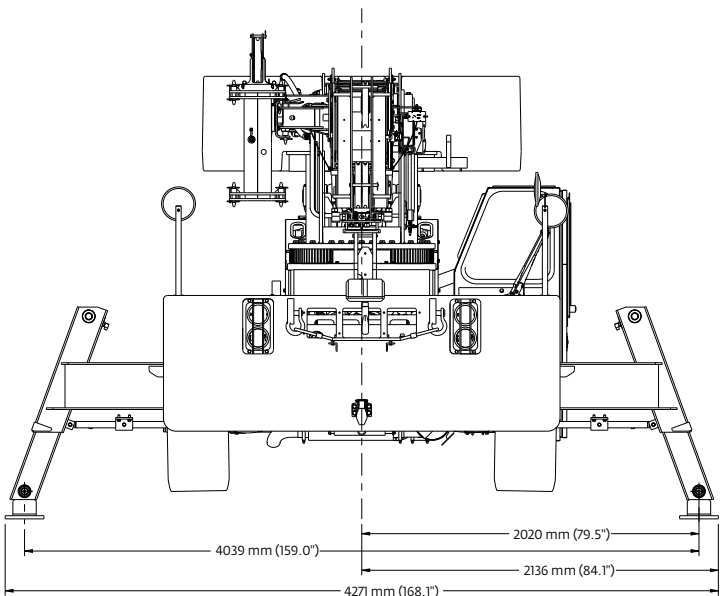
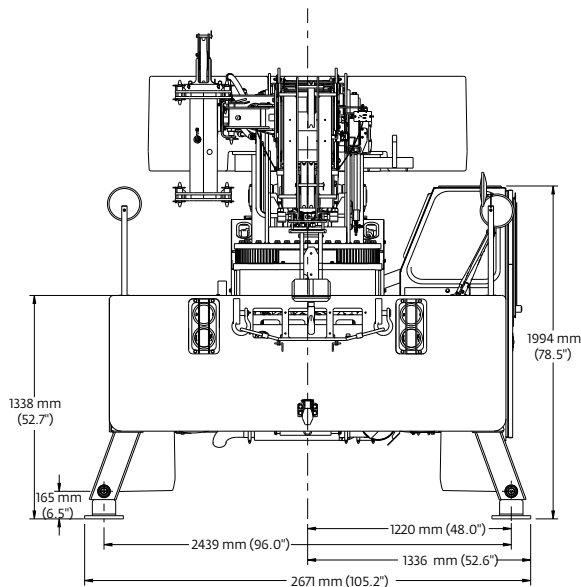
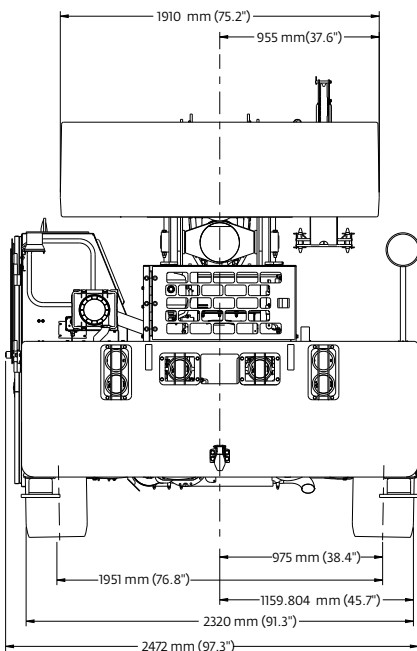
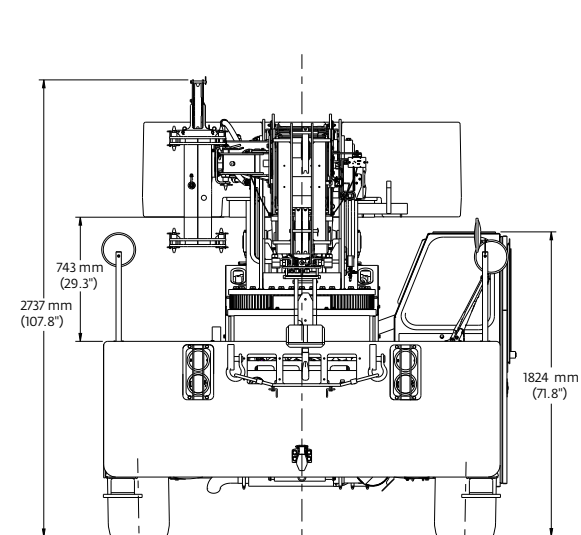
Dimensions



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



Dimensions



**Provisional load chart: 5,5 m -12,5 m (18 ft - 41 ft) boom (standard)**

PRELIMINARY LOAD CHART IN POUNDS
18 FT. - 41 FT. BOOM
WITH 1,500 LB. COUNTERWEIGHT
ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in feet	Main boom length in feet			
	17.7	26	34	41.1
6	30,000			
8	26,850	26,400		
10	21,750	21,000		
12	17,750	17,500	17,000	
14	15,000	14,900	14,000	13,350
16		12,250	12,400	12,450
18		11,000	11,200	11,350
20		9200	9550	9680
22		7400	8300	8450
24			7100	7340
26			6000	6450
28			5300	5730
30			4500	5120
32				4620
34				4180
36				3800

Boom angle	Main boom length in feet			
	17.7	26	34	41.1
0°	13,500	6900	4100	3480

Provisional load chart: 5,3 m -15,2 m (17,3 ft - 50 ft) boom (optional)

MAIN BOOM LOAD RATINGS ON OUTRIGGERS Extended and Down 360 or Retracted and Down Front/Rear								
Radius (ft)	17.3 ft BOOM		29 ft BOOM		40 ft BOOM		50 ft BOOM	
	Boom Angle (deg)	Rated Load (lb)	Boom Angle (deg)	Rated Load (lb)	Boom Angle (deg)	Rated Load (lb)	Boom Angle (deg)	Rated Load (lb)
6	64.5	30,000						
8	56.5	25,760						
10	47	21,270	67	16,950				
12	36	18,050	62.5	16,950				
14.2	0	13,100	57.5	15,520	67.5	15,520		
16			53	12,420	65	12,420		
18			47.5	10,990	61.5	10,990	68.5	10,990
20			41	9830	58	9800	66	9830
22			34	8600	54.5	8670	63	8700
24			25	7400	51	7490	60.5	7500
25.9			0	6480	47	6580	58	6620
28					42.5	5770	55	5800
30					38	5130	52	5160
32					32.5	4510	49	4620
34					25.5	4120	45.5	4160
36					16	3710	42	3710
36.9					0	3620	40.5	3590
38							38	3410
40							34	3040
42							29	2760
44							23	2410
46.9							0	2110



SUPERSTRUCTURE

Boom

5,5 m - 12,5 m (18 ft – 41 ft) three-section full power boom.
Maximum tip height: 14,3 m (46.6 ft).

*Optional main boom

5,4 m - 15,2 m (17.3 ft – 50 ft) four-section full power boom.
Maximum tip height: 16,8 m (55 ft).

*Optional boom extensions

15 ft fixed swingaway extension.
Maximum tip height: 23,1 m (76 ft).

Boom nose

Standard: two-sheave, quick reeve type, non-pivoting boom nose

With optional boom: two-sheave, quick reeve type with three- pinned pivoting (0°, +40°, and +80°) design to minimize head space requirements. Lowers head height 40,5 cm (1.33 ft) when nose is pivoted fully forward.

Boom elevation

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

Anti-two block device

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

Load Moment Indicator

A simple, effective, and easy to use load moment indicating system used in conjunction with the anti-two block system to assist the operator in efficient operation of the unit within the limits of the load chart. The display panel displays the max. load allowed, the actual hook load, length and angle of the boom, and load radius in Dot Matrix numerical values and provides a load utilization colored bar graph. Inputs by operator are maximum allowed load and parts of line. If non-permitted conditions are approached the L.M.I. will warn the operator with an audible alarm and a warning light and will lock out those functions that may aggravate the condition (hardwired system).

*Load Moment Indicator

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

Swing

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

Hydraulic system

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

Maximum output of: 155 LPM (41.0 GPM)

Maximum operating pressure: 276 bars (4000 p.s.i.)

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

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

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

Hoist specifications

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

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

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

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

Rope construction: 6 x 19 XXIPS / IWRC

Rope diameter: 14 mm (9/16 in)

Rope length: 97,5 m (320 ft)

CARRIER

Chassis

High strength alloy frame constructed with integral outrigger housings; front and rear lifting, tie-down, and towing lugs. 6.2 m² (66.3 sq. ft.) carrydeck size with 9072 kg (20,000 lb) deck only carrying capacity. Deck coated with anti-skid treatment.

Outriggers

Single stage hydraulic telescoping beam with oblique style jack cylinder on all four corners. Provides extended and down and retracted and down lifting capabilities. Integral holding valve on both beam and jack. Outrigger positioning indicator located in dash display.

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

Maximum outrigger pad load: TBA.

Outrigger controls

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

Engine (Tier IV)

Cummins QSB 3,3 L four cylinder / turbo-charged diesel rated at 75 kW (100 hp) at 2600 r.p.m. Includes standard 110V engine block heater and air intake “Grid” heater. Engine hourmeter located in dash display. Alternator: 120 amp. Maximum Torque: 414 Nm (305 ft/lb). Fuel requirements: Maximum of 15 ppm sulphur content Requires “Ultra Low” diesel fuel.

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

Engine (Tier III)

Cummins QSB 3.3L four cylinder / turbo-charged diesel rated at 74 kW (99 hp) at 2600 r.p.m. Includes std. 110V engine block heater and air intake “Grid” heater. Engine hourmeter located in dash display. Alternator: 90 amp. Maximum Torque: 415 Nm (306 ft/lb).

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

Fuel tank capacity

Steel with side impact plate.
Capacity: 151,4 L (40 gal).

Transmission

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

Operator's control station

Frame mounted, open air style control station with cab shell includes all crane functions and driving controls and equipped with overhead safety glass. Other standard equipment includes a suspension seat with seat belt, sight level bubble and 1,1 kg (2.5 lb) fire extinguisher, and tilt steering wheel. The dash panel will display the fuel level gauge, water temperature gauge, engine r.p.m., battery voltage, and hour meter. Indicator lights will display parking brake, low transmission pressure, low brake pressure, oscillating axle lock, outrigger position, headlights, work lights (if ordered), and hoist 3rd wrap (if ordered). Crane function indicator and turn signal indicators are also included. The load indicator display will be mounted on the top of the dash panel for direct line of sight for the operator.

*Operator's control station enclosed

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

Electrical system

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

Drive

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

Steering

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

Outside Turning Radius:

Two wheel steer: 6,2 m (20 ft 4.8 in)
Four wheel steer: 3,9 m (13 ft 1 in)

Suspension/Axles

Front: Drive / steer in both two-wheel drive and four-wheel drive
Rear: non-drive with steer in two-wheel drive, drive/steer in four-wheel drive.

Front axle is rigid mounted to frame. Rear axle offers 1.5° of oscillation.

Brakes

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

Tires

Tubeless type, semi-aggressive tread. 12.00 R20

Lights

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

Maximum speed

33,8 km/h (21.0 mph)

Gradeability (theoretical)

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

Gross vehicle weight (G.V.W.)

Open cab basic unit with Tier IV engine: 13 585 kg (29,590 lb)

Enclosed cab basic unit with Tier IV engine: 13 507 kg (29,777 lb)

Miscellaneous standard equipment

20 USt two-sheave low profile “galvanize coated” hook block with “quick reeve design”, back-up motion alarm, outrigger motion alarm, no-skid decking, front and rear lifting, towing, and tie-down lugs.

*Optional equipment

- Auxiliary lighting: Includes cab mounted amber flashing light and dual base boom mounted LED work lights
- Convenience package: Includes front and rear pintle hitch, dual rear view mirrors, head and tail light metal mesh grille covers.
- Enclosed cab package: Includes heater and defroster, cab dome light, all window glass, and two-piece split door.
- Four-wheel drive
- Below deck hydraulic tow winch with 4536 kg (10,000 lb) capacity.
- 4,5 m (15 ft) fixed boom extension
- Air conditioning (closed cab option required)
- Hoist third wrap indicator with hoist function cut-out
- Hoist drum rotation indicator
- 360° swing lock
- C.E. compliant package

*Denotes optional equipment

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.