

GCD20 Product Guide

ASME B30.5
Imperial 85%/Metric 85%



Features

- 18 t (20 USt) capacity
- 16,6 m (54.5 ft) four-section, four-plate, full-power boom
- 9,07 t (10 USt) deck carrying ability
- Exclusive pivoting boom nose

GROVE GCD20

The GCD20 is a 18 t (20 USt) capacity carrydeck crane, offering a four-section 16,6 m (54.5 ft) boom with standard two-wheel drive/ four wheel steer capability. It also has a three-position pivoting boom head for low head room clearance and out and down outriggers that can be setup in several modes depending on jobsite requirements.

Features

> Reach and capacity to get the job done

The 5,64 m – 16,61 m (18.5 ft – 54.5 ft) four-section boom can be enhanced with optional boom extensions. The 4,6 m (15 ft) fixed swingaway extension offers a maximum tip height of 23,1 m (76 ft) while the 4,6 m – 7,6 m (15 ft – 25 ft) telescopic extension provides a maximum tip height of 26,2 m (86 ft). Both extensions can be offset 0°, -15°, and -30° via the pivoting boom nose.

> Steering

The GCD20 comes standard with three steering modes: front (two-wheel), four-wheel coordinated, and four-wheel crab steer with electronic self alignment. Operators can choose between modes using a three-position rocker switch located on dash panel.

> Outriggers

The GCD20 outriggers are two-position (0% and 100%) beam/jack style with inverted jack cylinders and pivoting pad.

> Pivoting boom nose

Three-position mechanically offset (0°, 40°, and 80°), lowers boom nose head height by 40,5 cm (1.33 ft) when pivoted fully forward. Negative pivoting of 0°, 15°, and 30° allows boom extension offset capability.

> Operator cab

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



Jobsite benefits

> **Optimized productivity**

Hydraulic proportional joystick controls via load sensing piston pump hydraulics provide smooth and efficient operation. Optional RCL system with Work Area Definition System (WADS) and datalogger capability helps to improve operations.

> **Outstanding versatility and durability**

Split cab door with sliding glass window and tilt steering wheel for added operator comfort. Two-position out and down outriggers help to maximize load charts to meet space requirements. Full LED lighting package offers improved visibility and last longer than traditional light bulbs.

> **Piston pump hydraulics**

Provides excellent multi-function operation speeds.

> **Easy serviceability**

Large swing open access panel for easy serviceability.



Manitowoc Crane Care when you need it.
The assurance of the world's most advanced crane service and support to get you back to work fast.



Manitowoc Finance helps you get right to work generating profits for your business.
Financial tools that help you capitalize on opportunity with solutions that fit your needs.

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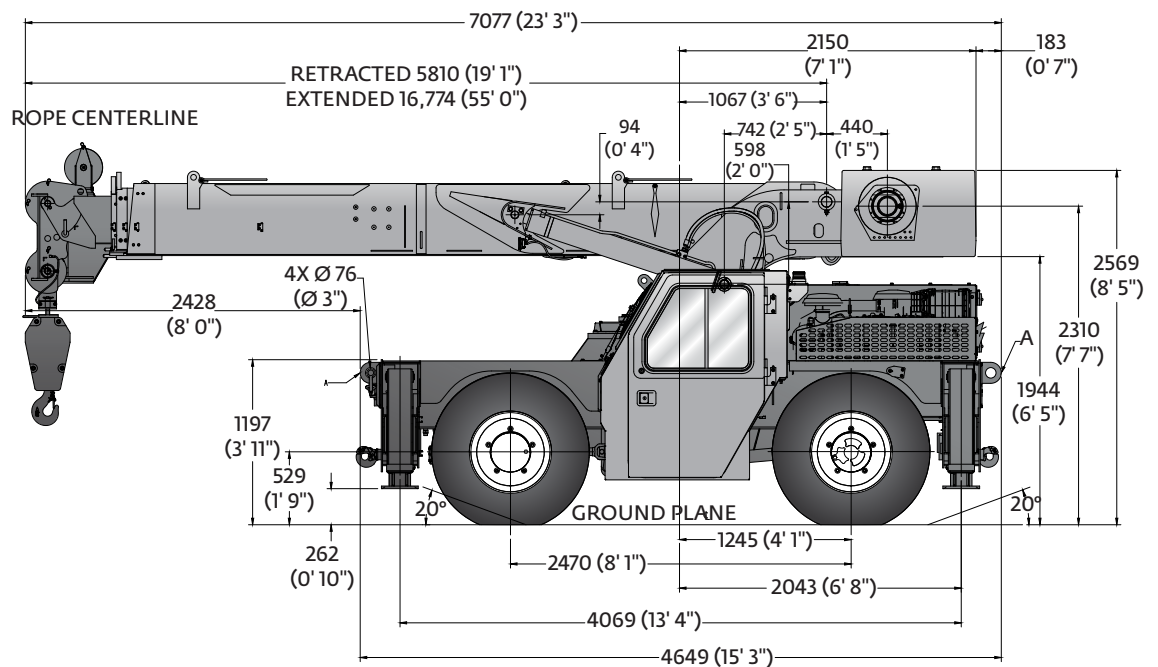
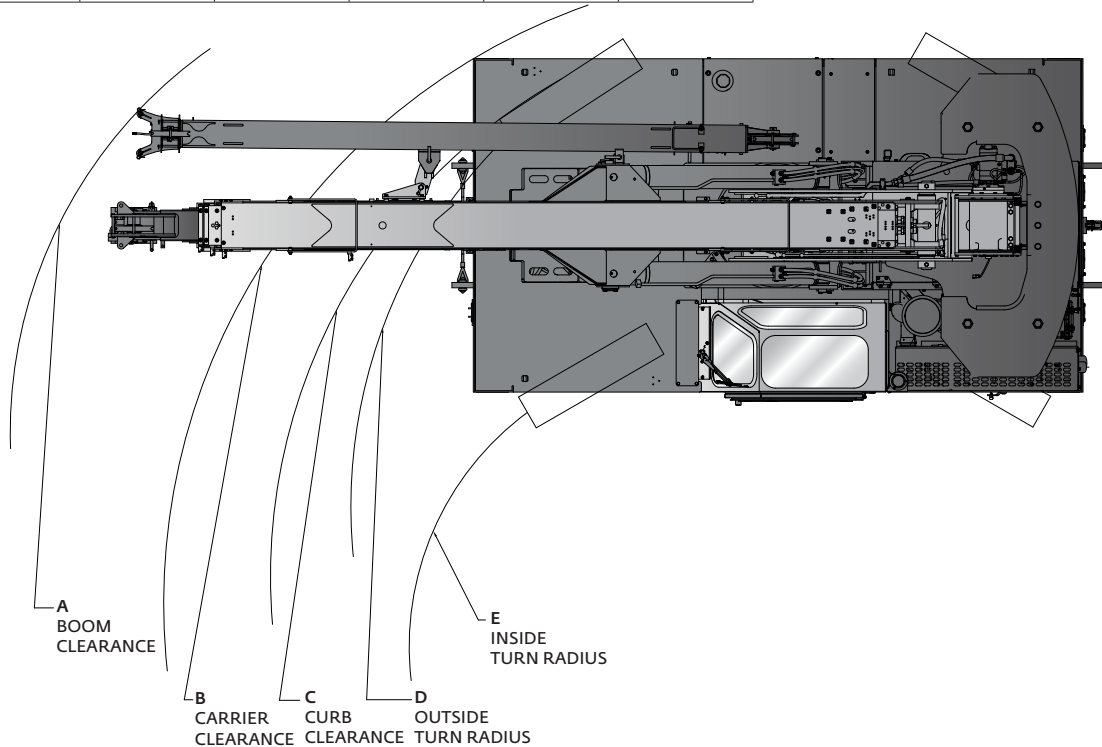
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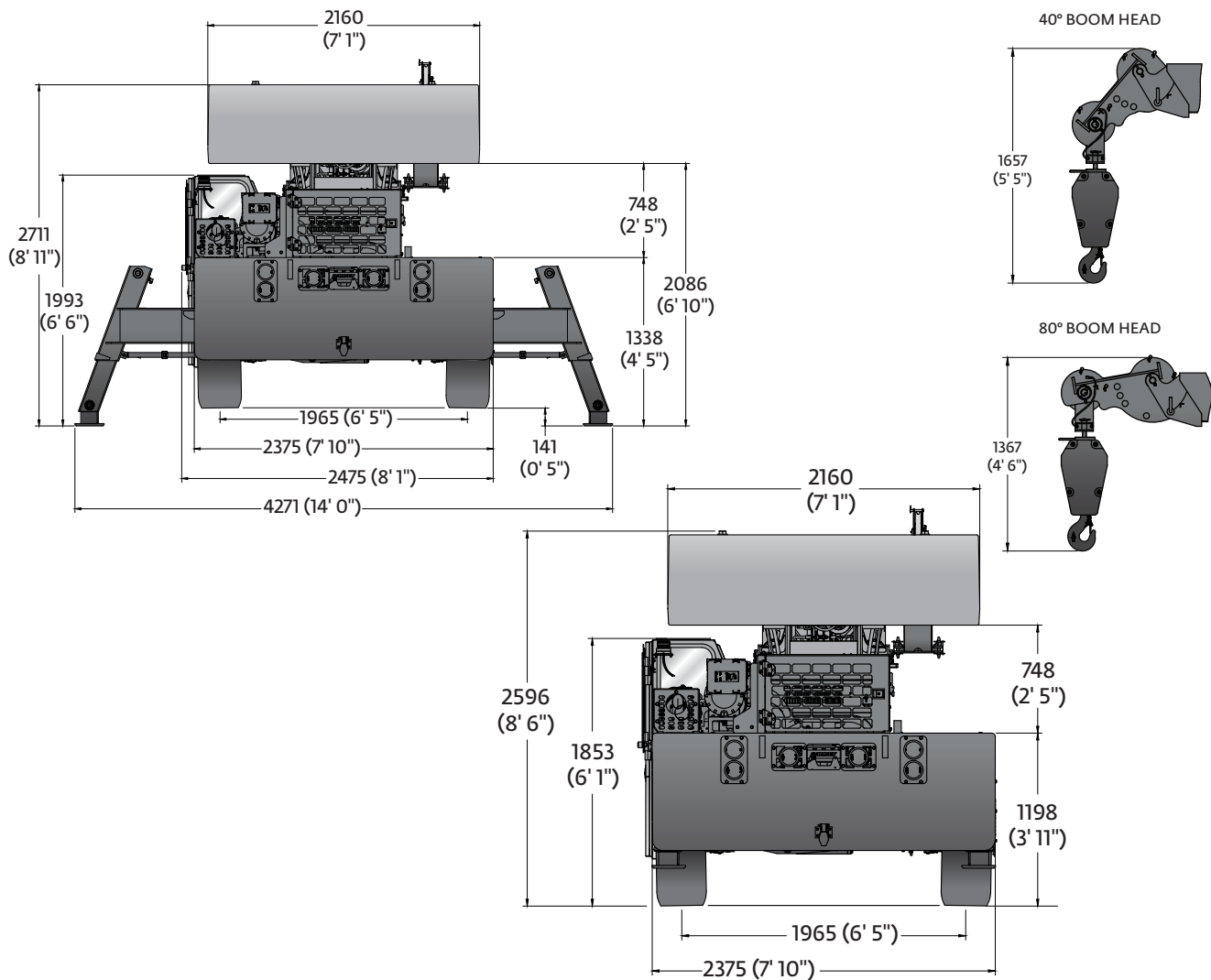
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Dimensions

Dimensions					
Tire Size	A	B	C	D	E
Two-wheel steer	7407 mm (291.6 in)	6675 mm (262.8 in)	6218 mm (244.8 in)	6058 mm (238.5 in)	3375 mm (133 in)
Four-wheel steer	5380 mm (212 in)	4481 mm (176 in)	3993 mm (157 in)	3841 mm (151 in)	1722 mm (68 in)



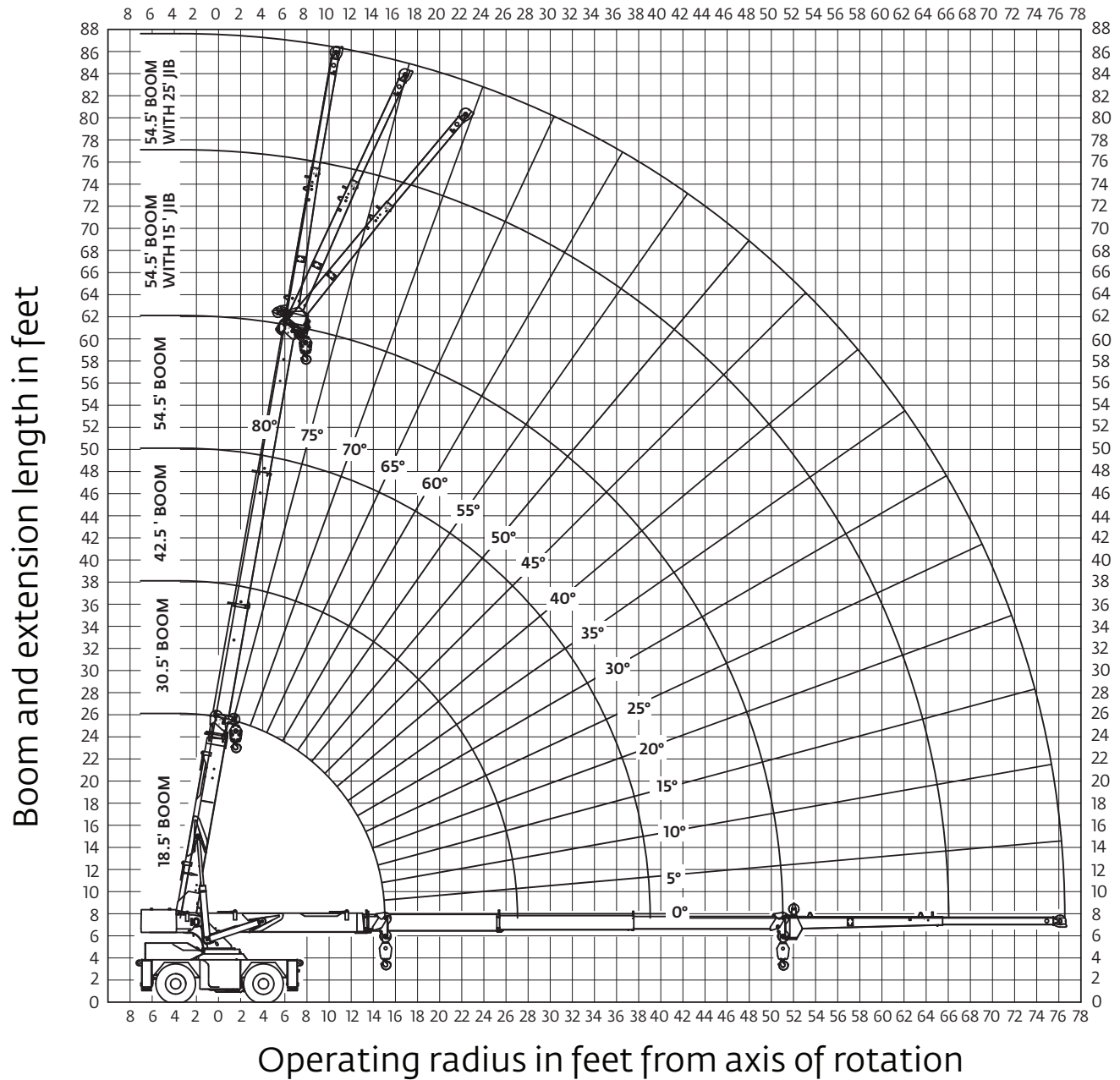
Dimensions and weights



Weights

	GVW		Front		Rear	
	kg	lb	kg	lb	kg	lb
Basic machine: Including 16,6 m (54.5 ft) main boom, main hoist with 97,5 m (320 ft) of wire rope, 18 t (20 USt) hook block, full counterweight, Tier IV engine	16 680	36,774	6236	13,747	10 445	23,027
Add: 4,6 m (15 ft) fixed swingaway extension and extension carrier brackets and downhaul weight	179	394	291	641	-112	-247
Crane weight	16 859	37,168	6527	14,388	10 333	22,780
Basic machine including 16,6 m (54.5 ft) main boom, main hoist with 97,5 m (320 ft) of wire rope, 18 t (20 USt) hook block, full counterweight, Tier IV engine	16 680	36,774	6236	13,747	10 445	23,027
Add: Enclosed cab, heater and glass	89	197	40	89	49	108
Crane weight	16 769	36,971	6276	13,836	10 494	23,135
Basic machine: Including 16,6 m (54.5 ft) main boom, main hoist with 97,5 m (320 ft) of wire rope, 18 t (20 USt) hook block, full counterweight, Tier IV engine	16 680	36,774	6236	13,747	10 445	23,027
Add: 4,6 m - 7,6 m (15 ft - 25 ft) telescopic swingaway extension and extension carrier brackets and downhaul weight	324	714	489	1079	-166	-365
Crane weight	17 004	37,488	6725	14,826	10 279	22,662

(BOOM DEFLECTION NOT SHOWN)



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.

Load chart

Imperial



18.5 ft - 54.5 ft



100% (360°)



0% (front/rear ±
15° defined arc)



Pounds

Radius in Feet	Main Boom Length in Feet			
	18.5	30.5	42.5	54.5
6	40,000 (65)	24,000 (75.5)		
8	33,850 (57.5)	24,000 (71.5)	23,650 (77.5)	
10	30,100 (49.5)	24,000 (67.5)	21,550 (75)	16,800 (79)
12	26,950 (39.5)	24,000 (63)	19,850 (72)	15,350 (77)
14	23,550 (25.5)	24,000 (58.5)	18,050 (69)	14,100 (74.5)
15	18,900 (0)	22,500 (56.5)	17,250 (67.5)	13,500 (73.5)
16		21,000 (54)	16,550 (66)	13,000 (72.5)
18		18,450 (49)	15,250 (63)	12,100 (70)
20		16,300 (43.5)	14,250 (60)	11,250 (68)
22		14,150 (37)	13,300 (56.5)	10,550 (65.5)
24		12,250 (29.5)	12,200 (53)	9940 (63)
26		10,700 (19)	10,750 (49.5)	9380 (60.5)
27		10,050 (0)	10,150 (47.5)	9120 (59.5)
28			9600 (45.5)	8880 (58)
30			8620 (41.5)	8430 (55.5)
32			7790 (37)	8020 (53)
34			7090 (31.5)	7300 (50)
36			6470 (25)	6680 (47)
38			5920 (16)	6130 (44)
39			5680 (0)	5890 (42.5)
40				5650 (40.5)
42				5230 (37)
44				4850 (33)
46				4500 (28.5)
48				4180 (23)
51				3760 (0)

NOTE: () Boom angles are in degrees.

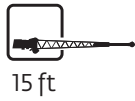
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Load chart

Imperial



Pounds

Main Boom Angle (°)	0° OFFSET		15° OFFSET		30° OFFSET
	To 42.5' boom length	To 54.5' boom length	To 42.5' boom length	To 54.5' boom length	Any boom length
75	9300	6500	7400	5650	3500
70	8550	6100	6950	4350	2800
65	7950	6100	6500	3800	2350
60	7400	5650	5350	3500	2150
55	6950	4350	4550	2800	1900
50	6500	3800	4050	2350	1750
45	5350	3500	3450	2150	1670
40	4550	2800	3300	1900	1550
35	4050	2350	3150	1750	
30	3450	2150	3000	1670	
25	3300	1900	2800	1550	
20	3150	1750			
15	3000	1670			
10	2800	1550			

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NOTES:

1. 15 ft boom extension may be used for single line lifting service only.
2. WARNING: Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.

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Load chart

Imperial



15 ft - 25 ft



100%



360°



Pounds

Main Boom Angle (°)	15 FT LENGTH					25 FT LENGTH				
	0° OFFSET		15° OFFSET		30° OFFSET	0° OFFSET		15° OFFSET		30° OFFSET
	To 42.5' boom length	To 54.5' boom length	To 42.5' boom length	To 54.5' boom length	Any boom length	To 42.5' boom length	To 54.5' boom length	To 42.5' boom length	To 54.5' boom length	Any boom length
80	8500	8550	5100	4770	3060	5830	5800	3710	3460	2200
75	6990	6650	4400	4100	2640	5120	4860	3190	2970	1890
70	5940	5580	3790	3540	2290	4330	4070	2740	2560	1630
65	5100	4770	3270	3060	1990	3710	3460	2350	2200	1410
60	4400	4100	2810	2640	1750	3190	2970	2020	1890	1230
55	3790	3540	2420	2290	1560	2740	2560	1730	1630	1090
50	3270	3060	2090	1990	1430	2350	2200	1480	1410	990
45	2810	2640	1830	1750	1370	2020	1890	1290	1230	950
40	2420	2290	1630	1560	1370	1730	1630	1140	1090	950
35	2090	1990	1490	1430	1280	1480	1410	1040	990	900
30	1830	1750	1440	1370	1250	1290	1230	1000	950	800
25	1630	1560	1440	1370		1140	1090	1000	950	
20	1490	1430	1440	1280		1040	990	900	900	
15	1440	1370	1250	1250		1000	950	800	800	
10	1440	1370				1000	950			
5	1440	1280				900	900			
0	1250	1250				800	800			

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NOTES:

1. 15 ft - 25 ft boom extension may be used for single line lifting service only.
2. WARNING: Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.

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Load chart

Imperial



Radius in Feet	Defined Arc 15° Over Front	Stationary 360°
6	16,000	15,500
8	14,100	13,550
10	11,250	10,800
12	9860	8880
14	8700	7420
15	8190	6800
16	7720	6350
18	6890	5890
20	6180	5070
22	5570	4370
24	4990	3760
26	4460	3250
27	4220	3010
28	4100	2810
30	3680	2690
32	3300	2580
34	2950	2130
36	2640	1890
38	2350	1650
39	2220	1540
40	2160	1420
42	2110	1300
44	1910	1170
46	1720	1030
48	1550	900
51	1310	730

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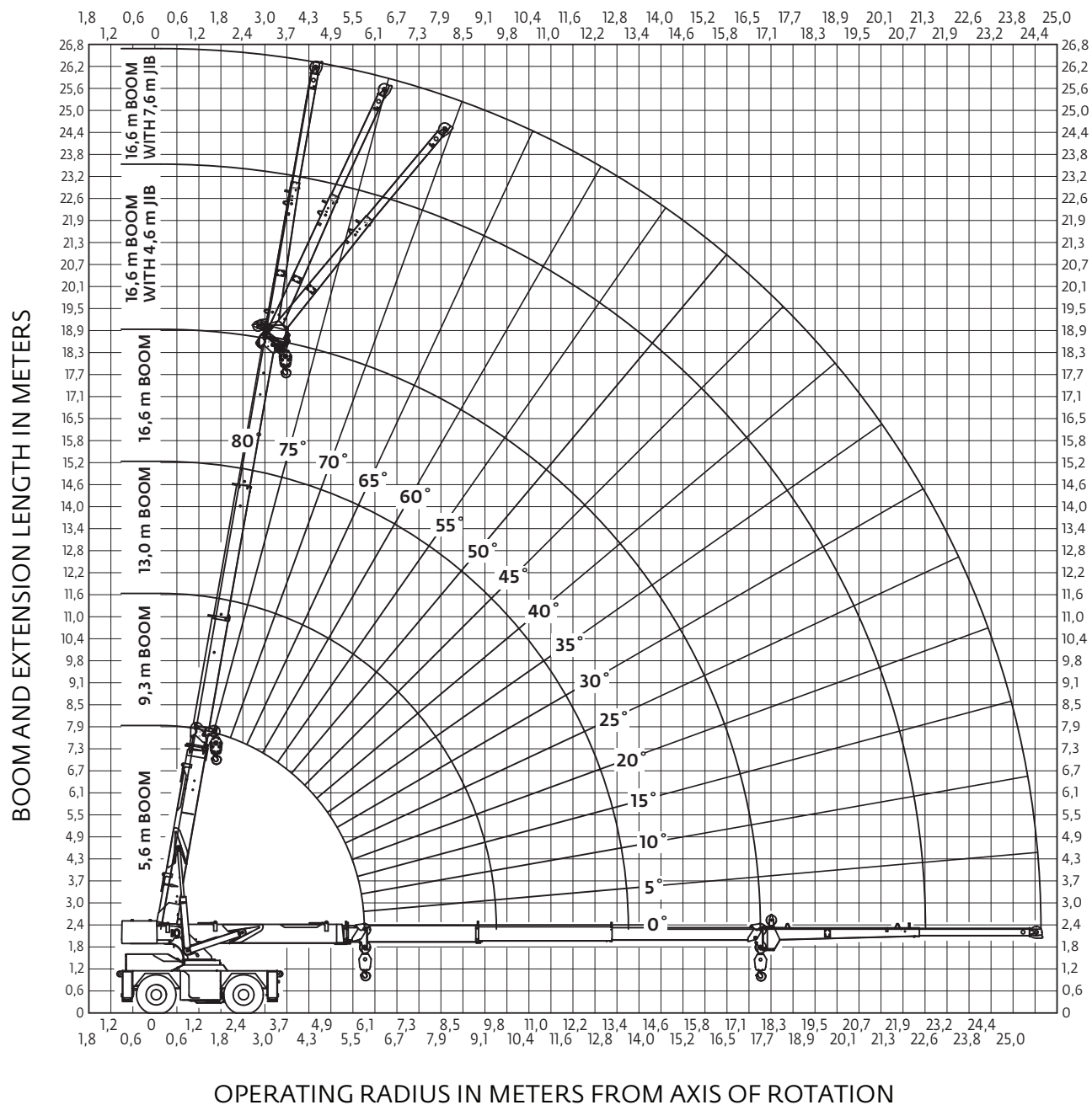
1. Capacities are in pounds and do not exceed 75% of tipping loads as determined by test in accordance with SAE J765.
2. Capacities are applicable to machines equipped with 12.00R20 at 130 psi cold inflation pressure.
3. Capacities are applicable only with machine on a smooth, level and firm surface.
4. Defined Arc - Over front includes 15° on either side of longitudinal centerline of machine.
5. All rubber lifting depends on proper tire inflation, capacity and condition. Capacities must be reduced for lower tire inflation pressures. Damaged tires are hazardous to safe operation of crane.
6. For pick and carry operation, the boom, using the shortest practical boom length, must be centered over front of machine. Maximum speed is 2.5 mph.
7. On rubber lifting with boom extension not permitted.

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Working range

Metric

(BOOM DEFLECTION NOT SHOWN)



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Load chart

Metric



 /
 


5,6 m - 16,6 m 100% (360°) / 0% (front/rear ± 15° defined arc)


 Pounds

Radius in meters	Main Boom Length in meters			
	5,6	9,3	13,0	16,6
2	18 000 (63)	10 875 (74,5)		
2,4	15 350 (58)	10 875 (71,5)	10 725 (78)	
3	13 650 (50)	10 875 (67,5)	9775 (75)	7620 (79)
3,7	12 200 (38,5)	10 875 (62,5)	9000 (71,5)	6960 (76,5)
4,3	10 375 (24,5)	10 875 (58,5)	8185 (69)	6395 (74,5)
4,6	8570 (0)	10 200 (56)	7820 (67,5)	6120 (73,5)
4,9		9525 (53,5)	7505 (66)	5895 (72,5)
5,5		8365 (49)	6915 (63)	5485 (70)
6,1		7390 (43,5)	6460 (60)	5100 (68)
6,7		6360 (37)	6030 (56,5)	4785 (65,5)
7,3		5560 (29,5)	5555 (53)	4505 (63)
7,9		4905 (19,5)	4905 (49,5)	4255 (61)
8,2		4610 (0)	4630 (47,5)	4135 (59,5)
8,5			4380 (46)	4025 (58,5)
9,1			3940 (41,5)	3820 (56)
9,8			3510 (36,5)	3625 (52,5)
10,4			3200 (31)	3300 (50)
11,0			2930 (25)	3020 (47)
11,6			2690 (15,5)	2780 (44)
11,9			2590 (0)	2670 (42,5)
12,2				2565 (40,5)
12,8				2370 (37)
13,4				2200 (33)
14,0				2045 (28,5)
14,6				1905 (23)
15,5				1715 (0)

NOTE: () Boom angles are in degrees. 80093261

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Load chart

Metric



4,6 m



100%



360°



Pounds

Main Boom Angle (°)	0° OFFSET		15° OFFSET		30° OFFSET
	To 13.0 m boom length	To 16.6 m boom length	To 13.0 m boom length	To 16.6 m boom length	Any boom length
75	4215	2945	3355	2560	1585
70	3875	2765	3150	1970	1270
65	3605	2765	2945	1720	1065
60	3355	2560	2425	1585	975
55	3150	1970	2060	1270	860
50	2945	1720	1835	1065	790
45	2425	1585	1565	975	760
40	2060	1270	1495	860	700
35	1835	1065	1425	790	
30	1565	975	1360	760	
25	1495	860	1270	700	
20	1425	790			
15	1360	760			
10	1270	700			

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NOTES:

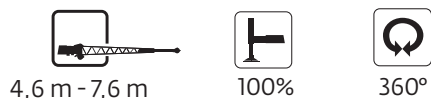
1. 4,6 m boom extension may be used for single line lifting service only.
2. WARNING: Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.

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Load chart

Metric



Pounds

Main Boom Angle (°)	4,6 m LENGTH					7,6 m LENGTH				
	0° OFFSET		15° OFFSET		30° OFFSET	0° OFFSET		15° OFFSET		30° OFFSET
	To 13,0 m boom length	To 16,6 m boom length	To 13,0 m boom length	To 16,6 m boom length	Any boom length	To 13,0 m boom length	To 16,6 m boom length	To 13,0 m boom length	To 16,6 m boom length	Any boom length
80	3855	3875	2310	2160	1385	2640	2630	1680	1565	995
75	3170	3015	1995	1860	1195	2320	2220	1445	1345	855
70	2690	2530	1715	1605	1035	1960	1845	1240	1160	735
65	2310	2160	1480	1385	900	1680	1565	1065	995	640
60	1995	1860	1275	1195	790	1445	1345	915	855	555
55	1715	1605	1095	1035	705	1240	1160	785	735	490
50	1480	1385	945	900	645	1065	995	670	640	445
45	1275	1195	830	790	620	915	855	585	555	430
40	1095	1035	735	705	620	785	735	515	490	430
35	945	900	675	645	580	670	640	470	445	405
30	830	790	650	620	565	585	555	450	430	360
25	735	705	650	620	---	515	490	450	430	---
20	675	645	650	580	---	470	445	405	405	---
15	650	620	565	565	---	450	430	360	360	---
10	650	620	---	---	---	450	430	---	---	---
5	650	580	---	---	---	405	405	---	---	---
0	565	565	---	---	---	360	360	---	---	---

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NOTES:

- 4,6 m - 7,6 m boom extension may be used for single line lifting service only.
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Load chart

Metric



5,6 m - 16,6 m



Stationary



Defined arc
over front



Stationary



360°



Pick & Carry



Over front



Pounds

Radius in meters	Defined Arc 15° Over Front	Stationary 360°
2,0	6965	6735
2,4	6395	6145
3,0	5100	4985
3,7	4470	4025
4,3	3945	3365
4,6	3715	3080
4,9	3500	2880
5,5	3125	2670
6,1	2800	2300
6,7	2525	1980
7,3	2260	1705
7,9	2020	1470
8,2	1910	1365
8,5	1860	1275
9,1	1665	1220
9,8	1495	1170
10,4	1335	965
11,0	1195	855
11,6	1065	745
11,9	1005	695
12,2	980	640
12,8	955	590
13,4	865	530
14,0	780	465
14,6	700	405
15,5	590	330

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2. Capacities are applicable to machines equipped with 12.00R20 at 130 psi cold inflation pressure.
3. Capacities are applicable only with machine on a smooth, level and firm surface.
4. Defined Arc - Over front includes 15° on either side of longitudinal centerline of machine.
5. All rubber lifting depends on proper tire inflation, capacity and condition. Capacities must be reduced for lower tire inflation pressures. Damaged tires are hazardous to safe operation of crane.
6. For pick and carry operation, the boom, using the shortest practical boom length, must be centered over front of machine. Maximum speed is 4,0 km/h.
7. On rubber lifting with boom extension not permitted.

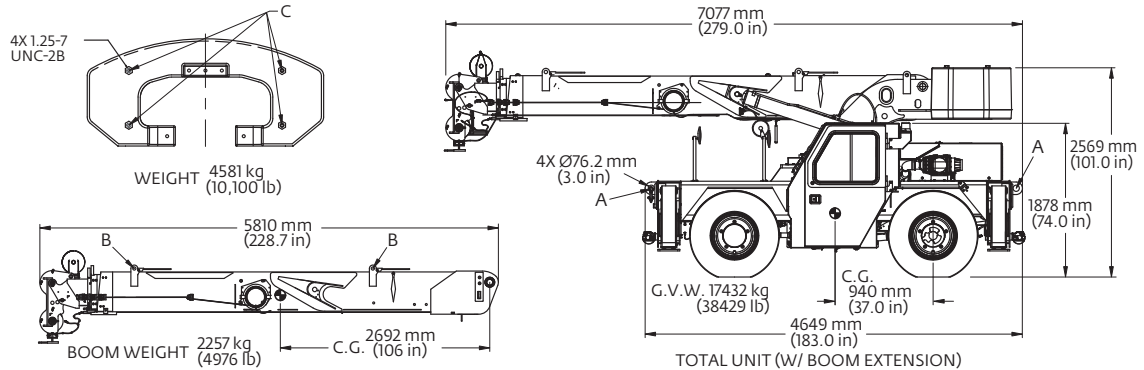
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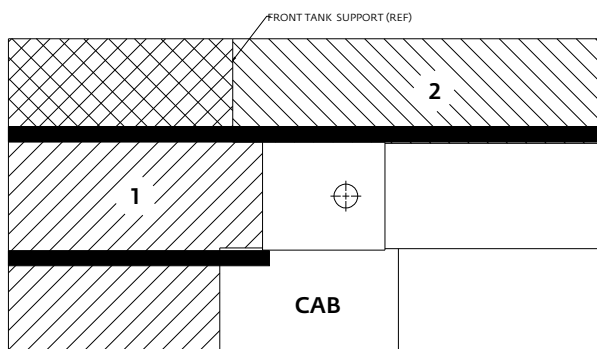
TRANSPORTATION AND LIFTING DATA

1. LIFTING OF ENTIRE CRANE OR MAJOR CRANE ASSEMBLIES MUST BE ACCOMPLISHED BY UTILIZING SPECIFIC FITTINGS INDICATED ON ADJACENT CHART. USE OF FITTINGS FOR PURPOSES OTHER THAN THOSE DESIGNATED ON CHART IS PROHIBITED. FITTING CAPACITIES ARE MAXIMUM ALLOWABLE LOADS PER INDIVIDUAL FITTING.
2. RIGGING PERSONNEL SHALL BE RESPONSIBLE FOR PROPER SELECTION AND PLACEMENT OF ALL SLINGS AND LOAD HANDLING DEVICES.
3. DIMENSIONS AND WEIGHTS SHOWN ARE ESTIMATED FOR LARGEST CONFIGURATION AVAILABLE. WEIGHTS DO NOT INCLUDE BOOM EXTENSION AND OR JIB, UNLESS OTHERWISE INDICATED.
4. RIGGING PERSONNEL SHALL VERIFY DIMENSIONS AS REQUIRED FOR CLEARANCE.
5. DO NOT USE COUNTERWEIGHT LIFT LOCATIONS OR BOOM SLING POINT FOR LIFTING OR TIE DOWN OF ENTIRE CRANE.
6. LIFTING OF THE COUNTERWEIGHT TO BE ACCOMPLISHED WITH A PROPERLY RATED 1 1/4 INCH EYEBOLT.

FITTING	NO. / UNIT				BOOM	CWT	CAPACITY-TONNES [TONS]				
		LIFT	TOW	TIE DOWN			LIFT	LIFT	TOW	TIE DOWN	
					FORE & AFT	SIDE				DOWN	
A	4	X	X	X			9.1 [10]	27.2 [30]	27.2 [30]	0.9 [1]	27.2 [30]
B	4				X		1.8 [2]				
C	4					X	0.9 [1]				



LOAD DISTRIBUTION FOR CARRYDECK



Maximum Allowable Uniformly Distributed Load

AREA 1
9071 kg (20,000 lb)

OR

AREA 2
4082 kg (9000 lb)

1. Maximum travel speed with any or all loads - 4.0 kmh (2.5 MPH)
2. Loads to be transported on smooth level firm surfaces only.
3. Boom must be retracted and in center forward position, and lowered as much as the load allows.
4. Pick and carry loads may be transported on either Deck Area 1 or Deck Area 2; combined loading of Deck Area 1 and Deck Area 2 not permitted.
5. Lifting is not permitted when carry deck is loaded except for loading and unloading carry deck.
6. The maximum pick and carry loads may be transported on deck area 1 provided the load is centered over the front axle and cribbed directly on the frame rails.

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Load handling

WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES

OFFSETTABLE EXTENSIONS	
*Stowed	N/A
*15 ft fixed ext. erected	700 lb
*15 ft tele. ext. erected	1400 lb
*25 ft tele ext. erected	1950 lb

*Reduction of main boom capacities

When lifting over swingaway and/or jib combinations, deduct total weight of all load handling devices reeved over main boom nose directly from swingaway or jib capacity.

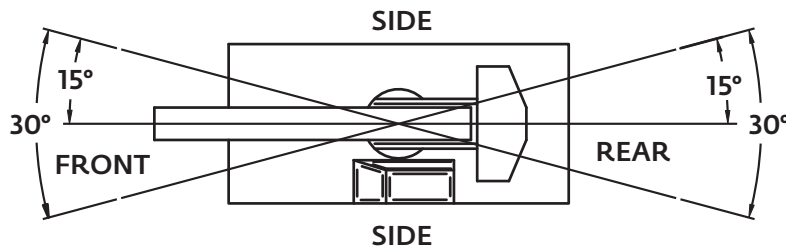
HOOK BLOCKS AND HEADACHE BALLS	
20 USt, two-sheave hook block	388 lb+
6.25 USt down haul weight	105 lb+

+Refer to rating plate for actual weight

NOTE: All load handling devices and boom attachments are considered part of the load and suitable allowances MUST BE MADE for their combined weights. Weights are for Shuttlelift furnished equipment.

TIRE INFLATION - BAR (PSI)		
SIZE (FRONT & REAR)	PLY RATING	LIFTING SERVICE, GENERAL TRAVEL & EXTENDED TRAVEL
		STATIC & 2.5 MPH
ADVANCE 12.00R20 GL073A	18	130

LIFTING AREA DIAGRAM



LINE PULLS AND REEVING INFORMATION

HOISTS	CABLE SPECS.	PERMISSIBLE LINE PULLS	NOMINAL CABLE LENGTH
Main	9/16" 6x19 class Bridon EEIPS (XXIPS) Min. breaking strength 37,000 lb	10,000 lb*	320 ft

The approximate weight of 9/16" wire rope is 0.59 lb/ft.

*With certain boom and hoist tackle combinations, the allowable line pull may be limited by hoist performance. Refer to hoist performance table for lift planning to ensure adequate hoist performance on drum rope layer required.

*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.*

Specifications

Superstructure



Boom

5,64 m – 16,61 m (18.5 ft – 54.5 ft) four-section full power boom.

Maximum tip height: 19,2 m (63 ft)



Optional boom extensions*

4,6 m (15 ft) fixed swingaway extension.

Maximum tip height: 23,1 m (76 ft)

4,6 m – 7,6 m (15 ft – 25 ft) telescopic swingaway extension.

Maximum tip height: 26,2 m (86 ft)

Both extensions can be offset 0°, -15°, and -30° via pivoting boom nose.



Boom nose

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

Two double acting hydraulic cylinders with integral holding valve. Elevation: 0° to 80°.



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.



Rated Capacity Limiter (RCL)

Full-color, graphical display of boom angle, boom length, boom radius, rated load, and calculated load. Allows for operator inputs to set the crane configuration. RCL system is hardwired and calculates load via pressure transducers in the lift cylinder. Display includes a color coded light bar and audible alarm with function cut-out if load exceeds the load chart parameters.

*Optional RCL system includes work area definition (WADS), and is datalogger capable.



Swing

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

Maximum speed: 2.5 rpm



Hydraulic system

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

Maximum output of: 155 LPM (41.0 GPM)

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

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

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

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. Deck carrying capacities of 9071 kg (20,000 lb) or 4082 kg (9000 lb). Deck coated with anti-skid treatment.



Outriggers

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

Outrigger positioning indicator located in dash display.

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

Maximum outrigger pad load: 15 468 kg (34,100 lb)/ 401 p.s.i.



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 QSF 3.8L Tier 4F four-cylinder/turbo-charged diesel rated at 97 kW (130 hp) at 2500 rpm. Includes standard 120V engine block heater and air intake “Grid” heater. Engine hour meter located in dash display.

Alternator: 135 amp. Maximum Torque: 488 Nm (360 ft/lb) at 1600 rpm.

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

NOTE: Tier IV required for sale in North America.



Engine (Tier III)

Cummins QSF 3.8L Tier III four-cylinder/turbo-charged diesel rated at 97 kW (130 hp) at 2500 rpm. Includes standard 120V engine block heater and air intake “Grid” heater. Engine hour meter located in dash display.

Alternator: 135 amp. Maximum Torque: 489 Nm (361 ft/lb) at 1600 rpm.

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

**Denotes optional equipment*

Specifications



Engine (Dual Fuel)

KEM 4.3L dual fuel engine, six-cylinder, LPG and gasoline (up to and including 10% Ethanol)

Gas: 69 kW (93 hp) at 2500 rpm with a maximum torque of 291 Nm (215 ft/lb) at 2200 rpm.

LP: 78 kW (105 hp) at 2500 rpm with a maximum torque of 298 NM (220 ft/lb) at 2400 rpm.

Includes standard 120V engine block heater. Engine hour meter located in dash display. Alternator: 145 amp. 2018 EPA and CARB certified.



Fuel tank capacity

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

Carrier



Transmission

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



Operators control station

Frame mounted, open air style control station with cab shell includes all crane functions and driving controls and equipped with overhead safety glass. Other standard equipment includes a suspension seat with seat belt, sight level bubble and 1,1 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, outrigger position, headlights, work lights (if ordered), and hoist 3rd wrap (if ordered). Crane function indicator and turn signal indicators are also included. The RCL display will be mounted on the top of the dash panel for direct line of sight for the operator.



*Operators control station enclosed

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



Steer

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: 6,05 m (19.84 ft)

Four wheel steer: 3,8 m (12.46 ft)



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



Light

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 (GVW)

Open cab: 16504 kg (36,386 lb) with Tier IV Final

Enclosed cab: 16 594 kg (36,583 lb) with Tier IV Final

Miscellaneous standard equipment

- Back-up motion alarm
- Outrigger motion alarm
- No-skid decking
- Front and rear lifting
- Towing
- Tie-down lugs
- Hoist third wrap indicator with hoist function cut-out
- Hoist drum rotation indicator

*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
- 4,6 m (15 ft) fixed boom extension
- 4,6 m – 7,6 m (15 ft – 25 ft) telescopic boom extension
- Air conditioning (closed cab option required)
- 360° swing lock

**Denotes optional equipment*

Symbols glossary



Axles



Counterweight



Grade



Outriggers



Boom



Drive



Heavy duty jib



Radius



Boom elevation



Electrical system



Hoist



Rotation



Boom extension



Engine



Hookblock



Speed



Boom length



Extension



Hydraulic system



Steering



Boom nose



Frame



Lights



Suspension



Brakes



Fuel tank capacity



Oil



Swing



Cab



Gear



Outrigger controls



Tires



Transmission

Notes

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