

• 9,07 t (10 USt) deck carrying capacity

• Exclusive pivoting boom nose





Features



The 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 CD5520 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 CD5520 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

New operator control layout with tilt/ telescoping steering wheel. Automotive style dash panel gauges and indicator lights.

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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.



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.



*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.



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)

Specifications

Carrier



Chassis

High strength alloy frame constructed with integral outrigger housings; front and rear lifting, tie-down, and towing lugs. 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: 15 876 kg (35,000 lb).



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 75kW (100 hp) at 2600 rpm. Includes standard 110V engine block heater and air intake "Grid" heater. Engine hourmeter located in dash display. Alternator: 120 amp. Maximum Torque: 414Nm (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 74kW (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: 151,4L (40 gal).



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, 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.



*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 $0^{\circ}F$.

I-●-I Drive

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

Specifications

Carrier continued



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: 6,2 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.)

16 220 kg (35,758 lb) basic unit with Tier IV engine.

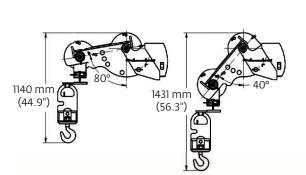
Miscellaneous standard equipment

18 t (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.

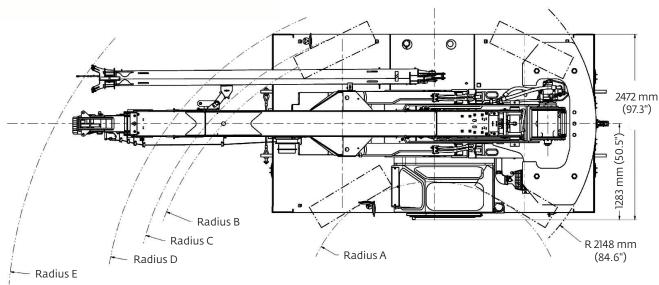
*Optional equipment

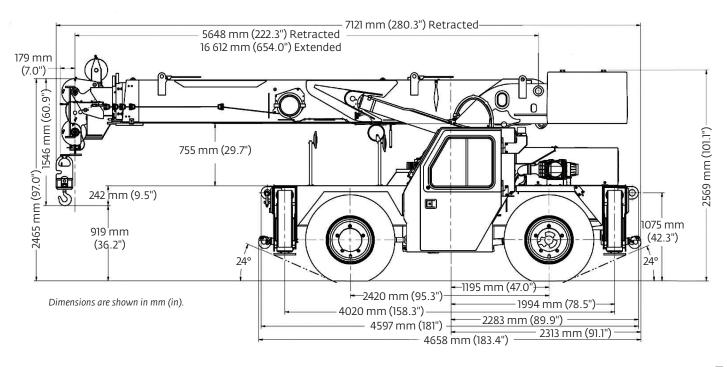
- Auxiliary Lighting: Includes cab mounted amber flashing light and dual base boom mounted LED work lights.
- Convenience Package: Includes front and rear pintle hitch, dual rear view mirrors, head and tail light metal mesh grille covers.
- Enclosed Cab Package: Includes heater and defroster, cab dome 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
- 4.5 m 7.6 m (15 ft 25 ft) telescopic boom
- Air conditioning (closed cab option required) Hoist third wrap indicator with hoist function
- Hoist drum rotation indicator
- 360° swing lock
- C.E. compliant package

Dimensions

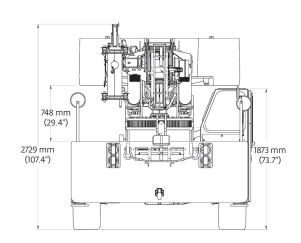


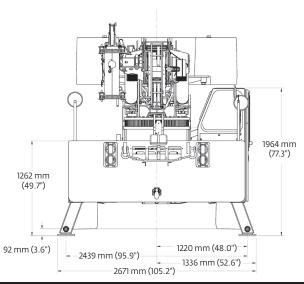
Dimensions					
	Α	В	С	D	E
Two-wheel steer	3375 mm	6058 mm	6218 mm	6675 mm	7407 mm
	(11 ft 1 in)	(19 ft 10.5 in)	(20 ft 4.8 in)	(21 ft 10.8 in)	(24 ft 3.6 in)
Four-wheel steer	1722 mm	3841 mm	3993 mm	4481 mm	5380 mm
	(5 ft 8 in)	(12 ft 7 in)	(13 ft 1 in)	(14 ft 8 in)	(171 ft 8 in)

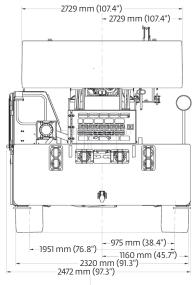


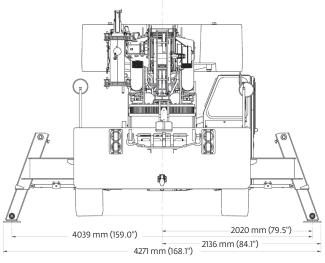


Dimensions and weights





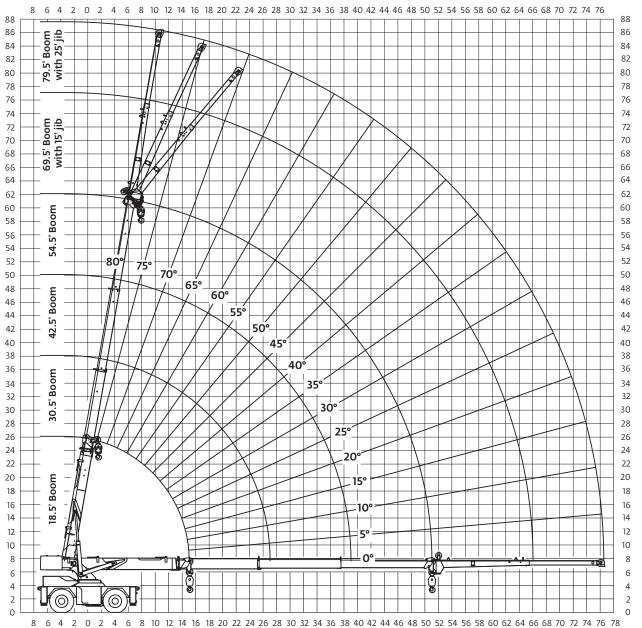




Weights						
	G\	/W	Fro	ont	Rear	
	kg	lb	kg	lb	kg	lb
Basic machine: Including 16,6 m (54.5 ft) main boom, main hoist with 97,5 m (320 ft) of wire rope, 18 t (20 USt) hook block, full counterweight, Tier IV engine	16 220	35,758	6203	13,675	10 017	22,083
Add: 4,6 m (15 ft) fixed swingaway extension and extension carrier brackets and downhaul weight	199	438	323	713	-125	-275
Crane weight	16 419	36,196	6526	14,387	9893	21,809
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	16 220	35,758	6203	13,675	10 017	22,083
Add: Enclosed cab, heater and glass	84,8	187	37,1	82	47,6	105
Crane weight	16 305	35,945	6240	13,757	10 064	22,188
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	16 220	35,758	6203	13,675	10 017	22,083
Add: 4,6 m - 7,6 m (15 ft - 25 ft) telescopic swingaway extension and extension carrier brackets and downhaul weight	344	758	522	1151	-178	-393
Crane weight	16 564	36,516	6725	14,826	9839	21,690

Height from the ground in feet

Range diagram



Operating radius in feet from axis of rotation

Load chart

	MAIN BOOM LOAD RATINGS ON OUTRIGGERS Extended and Down 360° or Retracted and Down Front/Rear								
	18.5 ft	ВООМ	30.5 ft	воом	42.5 ft	ВООМ	54.5 ft BOOM		
Radius (ft)	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	65	40000	75.5	24000	-	-	_	-	
8	57.5	33850	71.5	24000	77.5	23650	_	_	
10	49.5	30100	67.5	24000	75	21 550	79	16800	
12	39.5	26950	63	24000	72	19850	77	15350	
14	25.5	23550	58.5	24000	69	18050	74.5	141 00	
15	0	18 900	56.5	22500	67.5	17250	73.5	13500	
16	_	-	54	21 000	66	16550	72.5	13000	
18	-	-	49	18450	63	15250	70	121 00	
20	_	_	43.5	16300	60	14250	68	11 250	
22	_	_	37	141 50	56.5	13300	65.5	10550	
24	_	_	29.5	12250	53	12200	63	9940	
26	_	_	19	107 00	49.5	10750	60.5	9380	
27	_	_	0	10050	47.5	101 50	59.5	91 20	
28	_	_	_	_	45.5	9600	58	8880	
30	_	_	_	_	41 .5	8620	55.5	8430	
32	_	_	_	_	37	7790	53	8020	
34	_	_	_	_	31.5	7090	50	73 00	
36	_	_	_	_	25	6470	47	6680	
38	_	-	_	_	16	5920	44	61 3 0	
39	-	-	_	_	0	5680	42.5	5890	
40	_	-	_	_	_	_	40.5	5650	
42	_	_	_	_	_	_	37	5230	
44	_	_	-	_	_	_	_33_	4850	
46	_	_	_	_	_	_	28.5	4500	
48	_	_	-	_	_	_	23	4180	
51		I –		_	_	I –	0	3760	

	Retracted and Down 360°							
	18.5 ft	воом	30.5 ft	воом	DOM 54.5 ft BOOM			
Radius (ft)	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 8 10 12 14 15 16 18 20 22 24 26 27 28 30 32 34 36 38 39 40 42	65 57.5 49.5 39.5 25.5 0 - - - - - - - - - - -	40000 33850 24800 17900 13750 12200 	75.5 71.5 67.5 63 58.5 56.5 54 49 43.5 37 29.5 19 0	24000 24000 22950 17950 14500 13000 11750 9780 8250 7040 6070 5270 4930	-77.5 75 72 69 67.5 66 63 60 56.5 53 49.5 47.5 41.5 37 31.5 25 16	23650 211 00 16750 13750 12600 11 500 9590 81 50 7030 61 20 5380 5050 4750 4230 3780 3380 3040 2740 2600	- 79 77 74.5 73.5 72.5 70 68 65.5 63 60.5 59.5 58 55.5 53 50 47 44 42.5 40.5 37	
44 46	_	_	_	_	_	_	33 28.5	2240 2030
48 51	-	_ _	_ _	_	_ _	_ _	23 0	1840 1580

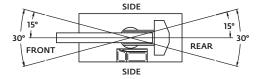
MAIN BOOM LOAD RATINGS ON OUTRIGGERS

- 1) 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 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 training must all be taken into account by the operator.
- 3) The weights of all load handling devices such as hooks, hook blocks, slings, etc., except the hoist rope, shall be considered part of the load. See above.
- 4) 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 12.00R20 tire capacity, condition of tires and proper inflation pressure (130 psi). Loads on rubber may be transported at a maximum seed of 2.5 mph on a smooth, hard, level surface with boom retracted to the shortest length possible and centered over front. For 360° ratings on rubber, rear axle oscillation locks must be in place. Do not use jib with crane on rubber.
- 6) For operating radius not shown, use load rating of next larger radius.
- 7) The maximum deck load only is 20,000 lb. Combined boom and deck loads are not permitted on rubber.
- 8) Do not induce any external side loads to boom or jib.

NOTES:

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.



Load chart

	15 FT JIB CAPACITIES ON EXTENDED OUTRIGGERS								
Main	Jib Offset Angle								
Boom	0 d	leg	15	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	-	-	_	-	_				
75 70 65 60 55 50 45 40 35 30	9300 8550 7950 7400 6950 6500 5350 4550 4050 3450 3300	6500 61 00 61 00 5650 4350 3800 3500 2800 2350 21 50	7400 6950 6500 5350 4550 4050 3450 3000 3150 3000 2800	5650 4350 3800 3500 2800 2350 2150 1900 1750 1670	3500 2800 2350 2150 1900 1750 1670 1550				
20	31 50	1750	-	-	-				
15 10	3000 2800	167 0 155 0	_	_	_				
5	28 00 –	- 05661	_	_	_				
Ö	_	_	_	-	_				

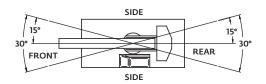
	15 FT - 25 FT JIB CAPACITIES ON EXTENDED OUTRIGGERS									
		15	FT Leng	th			25 FT Length			
Main		J ib	Offset Ar	ngle			J il	Offset A	\ngle	
Boom	0 0	leg	15 c	deg	30 deg	0 d	eg	15 (deg	30 deg
Angle (deg)	To 42.5 ft Main Boom	To 54.5 ft Main Boom	To 42.5 ft Main Boom	To 54.5 ft Main Boom	Any Boom Length	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	8500	8550	51 00	4770	3060	5830	5800	3710	3460	2200
75	6990	6650	4400	41 00	2640	5120	4860	3190	2970	1890
70	5940	5580	3790	3540	2290	4330	4070	2740	2560	1630
65	51 00	4770	3270	3060	1990	3710	3460	2350	2200	141 0
60	4400	41 00	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	141 0	990
45	2810	2640	1830	1750	1370	2020	1890	1290	1230	950
40	2420	2290	1630	1560	1370	1730	1630	11 40	1090	950
35	2090	1990	1490	1430	1280	1480	141 0	1040	990	900
30	1830	1750	1440	1370	1250	1290	1230	1000	950	800
25	1630	1560	1440	1370	-	11 40	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	1280	-	-	-	800	800	-	-	-

М	MAIN BOOM ON RUBBER								
	Any Boom Length								
Radius (ft)	Front Rating (lb)	360° Rating (lb)							
6 8 10 12 14 15 16 18 20 22 24 26 27 28 30 32 34 36 38 39 40 42 44 46 48 51	16000 14100 11250 9860 8700 8190 7720 6890 6180 5570 4990 4460 4220 4100 3680 3300 2950 2640 2350 2220 2160 2110 1910 1750 1350	15500 13550 10800 8880 7420 6800 6350 5890 5070 4370 3760 3250 3010 2810 2690 2580 2130 1890 1650 1540 1420 1300 1170 1030 900 730							

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.

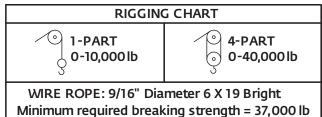


- 1) The rated loads are the maximum lift capacities as determined by operating radius, boom length and boom angle. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of vertical hoist line or tackle with load applied.
- 2) The rated loads shown on outriggers do not exceed 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 training must all be taken into account by the operator.
- 3) The weights of all load handling devices such as hooks, hook blocks, slings, etc., except the hoist rope, shall be considered part of the load. See above.

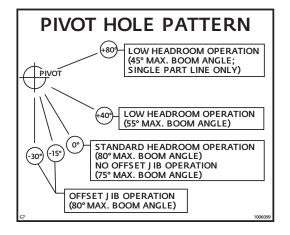
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- 5) Ratings on rubber depend on 12.00R20 tire capacity, condition of tires and proper inflation pressure (130 psi). Loads on rubber may be transported at a maximum seed of 2.5 mph on a smooth, hard, level surface with boom retracted to the shortest length possible and centered over front. For 360° ratings on rubber, rear axle oscillation locks must be in place. Do not use jib with crane on rubber.
- 6) For operating radius not shown, use load rating of next larger radius.
- 7) The maximum deck load only is 20,000 lb. Combined boom and deck loads are not permitted on rubber.
- 8) Do not induce any external side loads to boom or jib.

Rigging chart

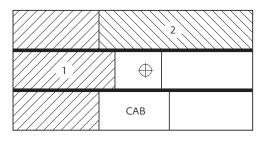
CD5520



MAXIMUM PERMISSIBLE SINGLE LINE PULL = 10,000 lb



LOAD DISTRIBUTION CHART



Maximum Allowable Uniformly Distributed Load

AREA 1 4,01 m² (43.2 sq.ft.) 5985 kg (13,195 lb) AREA 2

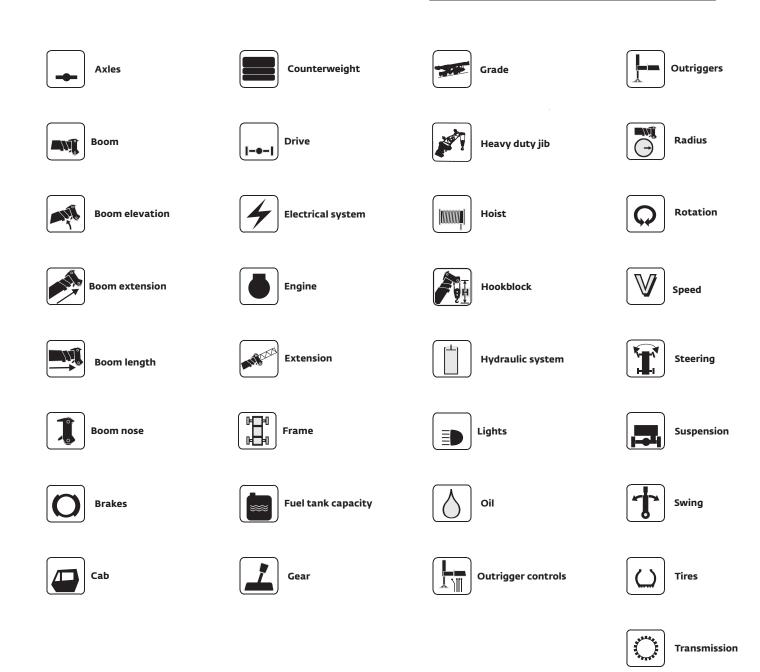
2,15 m²(23.1 sq.ft.) 3087 kg (6805 lb)

TOTAL 6,16 m² (66.3 sq.ft.) 9072 kg (20,000 lb)

- 1. Maximum travel speed with any or all loads 4,0 km/h (2.5 MPH)
- 2. Loads to be transported on smooth level firm surfaces only.
- 3. Boom must be retracted and in center forward position. 4. Any combination or total of areas 1 and 2 may be used.
- 5. Lifting is not permitted when carry deck is loaded except for loading and unloading carry deck.
- 6. Rated pick and carry loads may be transported on deck area 1 provided the load is cribbed directly on the frame rails.

Rating reductions for load handling devices installed kg (lb)								
From main boom From jib								
Main block	161 kg (356 lb)*	Not applicable						
Hook and ball	48 kg (105 lb)*	48 kg (105 lb)						
Jib stowed	No reduction	Not applicable						
4,6 m (15 ft) jib deployed	317 kg (700 lb)	No reduction						
4,6 m - 7,6 m (15 ft - 25 ft) jib deployed 544 kg (1200 lb) No reduction								
Refer to rating plate for actual weight								

Symbols glossary



Shuttlelift CD5520

Notes

Notes

Shuttlelift CD5520 15



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