

GTC-350

35 US TON MAX. CRANE CAPACITY



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Key

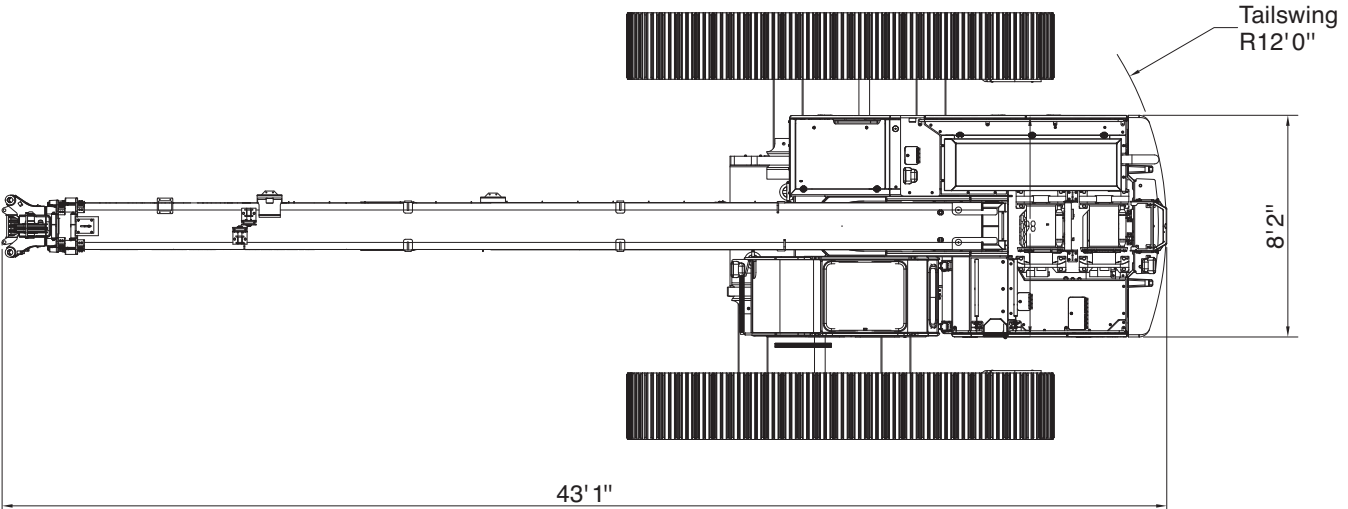
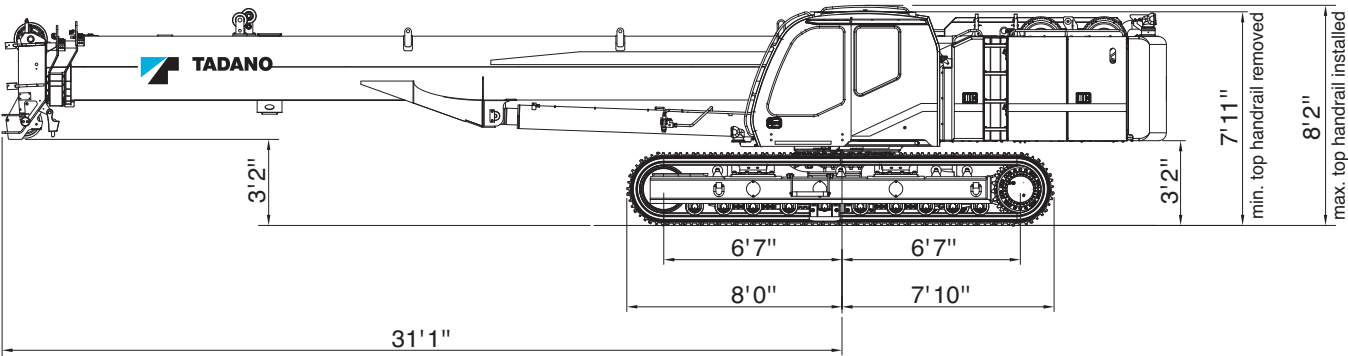
	Counterweight		Jib offset angle
	Radius		Max. line pull
	Main boom		Rope length
	Extendable jib		Rope
	Carbody counterweight		Hook block
	Overall width		Number of lines
	Roll / list angle		Assembly weight
	Total weight		Transport variant
	Hook block		Wire rope layer
	Overhaul ball		Total wire rope
	Travel speed		Winch layer diameter
	Gradeability		Wind speed in mph
	Working speeds		

SPECIFICATIONS



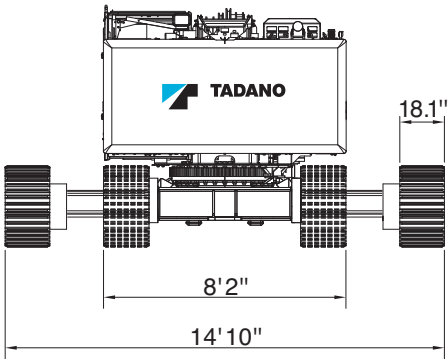
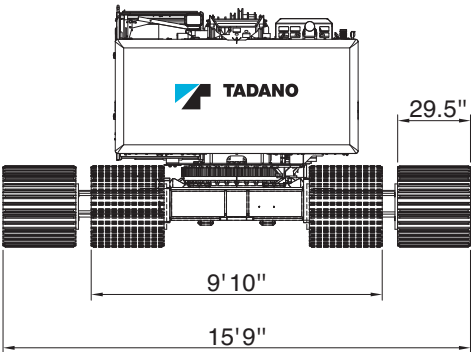
Specifications

Vehicle dimensions



Specifications

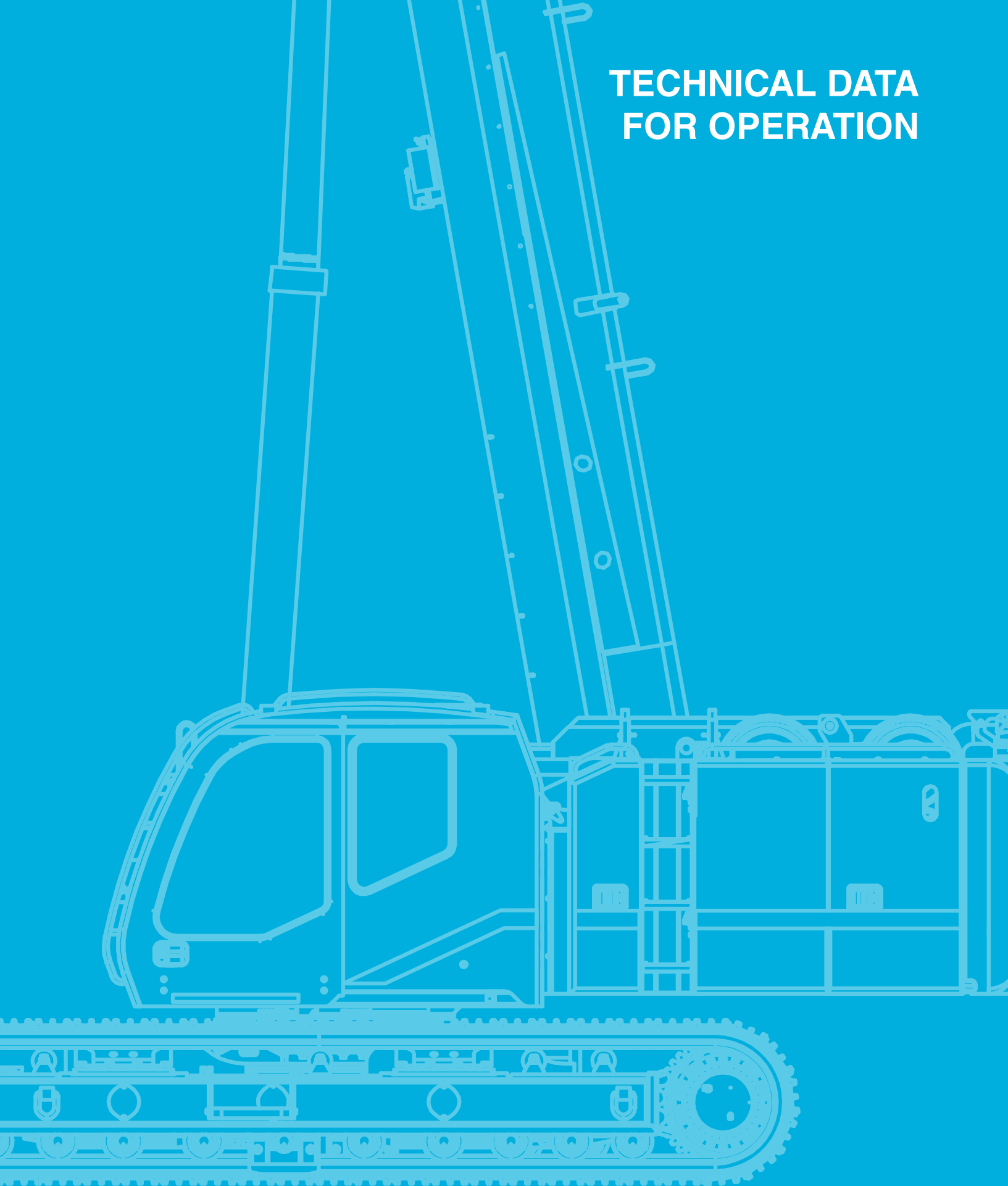
Vehicle dimensions



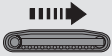
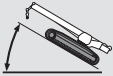
General dimensions	
Overall length	43' 1"
Overall width (tracks extended)	15' 9"
Overall width (tracks retracted)	9' 10"
Overall height (working)	8' 2"

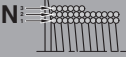


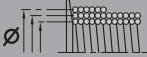

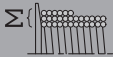
Notes

TECHNICAL DATA FOR OPERATION



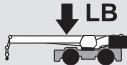




Operation

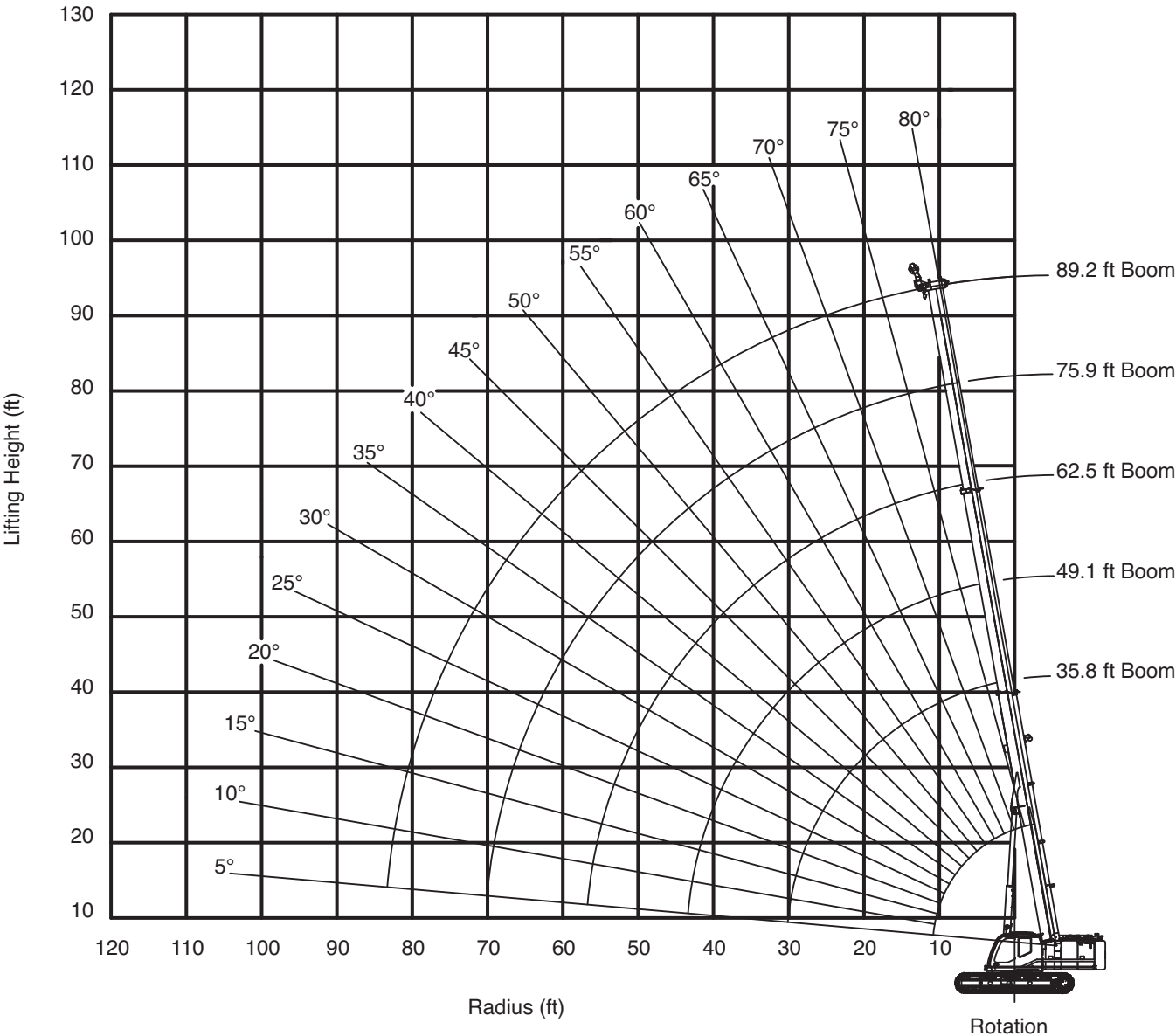
Speeds and gradeability			
	1.4 mph / 2.4 mph		74 %

Main winch and auxiliary winch performance					
					
1	13,310.9 lb	203.7 ft/min.	13.3 in.	98.8 ft	98.8 ft
2	12,252.1 lb	221.1 ft/min.	14.6 in.	107.6 ft	206.4 ft
3	11,375.3 lb	238.5 ft/min.	15.9 in.	115.8 ft	322.2 ft
4	10,588.5 lb	256.2 ft/min.	17.2 in.	124.0 ft	446.2 ft
5	9,914.1 lb	273.6 ft/min.	18.5 in.	132.9 ft	579.1 ft
6	9,329.6 lb	291.0 ft/min.	19.8 in.	141.0 ft	720.1 ft










Wire Rope: 16 mm diameter rotation resistant. Line pulls are not based on wire rope strength.

Operation

Machine weights		
	Standard equipment package	71,500 lb
	Fixed	12,500 lb
Standard Crane with 3 section – 89' 3" boom, 12,500 lb counterweight, 1 winch with wire rope, bi-fold jib and 29.5 inch 3-bar semi grouser track shoes		
Optional Equipment		
Extendable jib: 23' 6" to 42'		1,390 lb
Auxiliary nose sheave		98 lb
Auxiliary winch with 300' wire rope		1,149 lb
 35 ton	 4	779 lb
 4.4 ton		250 lb
Auger ready package		440 lb
Complete auger package		1,500 lb












Tracks fully extended – 360° – Up to 0.5° slope

 12,500 lb		 15' 9"		 0.5°		 20 mph		360°	ASME B30.5
		35.8 ft	49.1 ft	62.5 ft	75.9 ft	89.2 ft			
ft	1,000 lb						ft		
8	70.5	48.8	48.8	-	-	-	8		
10	70.5	48.7	48.7	-	-	-	10		
12	70.5	48.7	46.9	34.2	-	-	12		
15	49.9	48.7	46.5	33.2	23.8	-	15		
20	30.3	30.4	30.2	28.4	23.5	-	20		
25	21.3	21.4	21.4	21.4	20.1	-	25		
30	16.1	16.2	16.2	16.3	16.2	-	30		
35	-	12.8	12.8	12.9	12.8	-	35		
40	-	10.4	10.4	10.5	10.5	-	40		
45	-	-	8.7	8.8	8.7	-	45		
50	-	-	7.3	7.4	7.4	-	50		
55	-	-	6.3	6.3	6.3	-	55		
60	-	-	-	5.4	5.4	-	60		
65	-	-	-	4.7	4.7	-	65		
70	-	-	-	4.1	4.1	-	70		
75	-	-	-	-	3.6	-	75		
80	-	-	-	-	3.2	-	80		
	8	6	6	4	4				










Load chart data is for reference, load charts supplied in the crane cab shall be used for lift planning.

Tracks fully extended – 360° – Up to 4° slope

 12,500 lb		 15' 9"		 4°		 20 mph		360°	ASME B30.5
		35.8 ft	49.1 ft	62.5 ft	75.9 ft	89.2 ft			
ft	1,000 lb						ft		
8	64.2	44.1	36.0	-	-	-	8		
10	62.6	44.1	36.0	-	-	-	10		
12	51.3	44.1	36.0	24.7	-	-	12		
15	38.3	34.9	32.1	24.7	20.4	-	15		
20	25.5	23.9	22.4	21.2	19.3	-	20		
25	18.9	17.8	16.9	16.1	15.4	-	25		
30	15.2	14.0	13.3	12.9	12.3	-	30		
35	-	11.4	10.9	10.5	10.1	-	35		
40	-	9.6	9.1	8.8	8.4	-	40		
45	-	-	7.7	7.4	7.2	-	45		
50	-	-	6.6	6.4	6.2	-	50		
55	-	-	5.9	5.5	5.3	-	55		
60	-	-	-	4.9	4.6	-	60		
65	-	-	-	4.3	4.1	-	65		
70	-	-	-	3.9	3.6	-	70		
75	-	-	-	-	3.2	-	75		
80	-	-	-	-	2.9	-	80		
	8	6	6	4	4				










Load chart data is for reference, load charts supplied in the crane cab shall be used for lift planning.

Tracks fully retracted – over front / rear – Up to 0.5° slope

 12,500 lb		 9' 10"		 0.5°		 20 mph		ASME B30.5	
		35.8 ft	49.1 ft	62.5 ft	75.9 ft	89.2 ft			
ft				1,000 lb			ft		
8		70.5	48.8	48.8	-	-	8		
10		70.5	48.7	48.7	-	-	10		
12		70.5	48.7	46.9	34.2	-	12		
15		49.9	48.7	46.5	33.2	23.8	15		
20		30.3	30.4	30.2	28.4	23.5	20		
25		21.3	21.4	21.4	21.4	20.1	25		
30		16.1	16.2	16.2	16.3	16.2	30		
35		-	12.8	12.8	12.9	12.8	35		
40		-	10.4	10.4	10.5	10.5	40		
45		-	-	8.7	8.8	8.7	45		
50		-	-	7.3	7.4	7.4	50		
55		-	-	6.3	6.3	6.3	55		
60		-	-	-	5.4	5.4	60		
65		-	-	-	4.7	4.7	65		
70		-	-	-	4.1	4.1	70		
75		-	-	-	-	3.6	75		
80		-	-	-	-	3.2	80		
		8	6	6	4	4			

Load chart data is for reference, load charts supplied in the crane cab shall be used for lift planning.

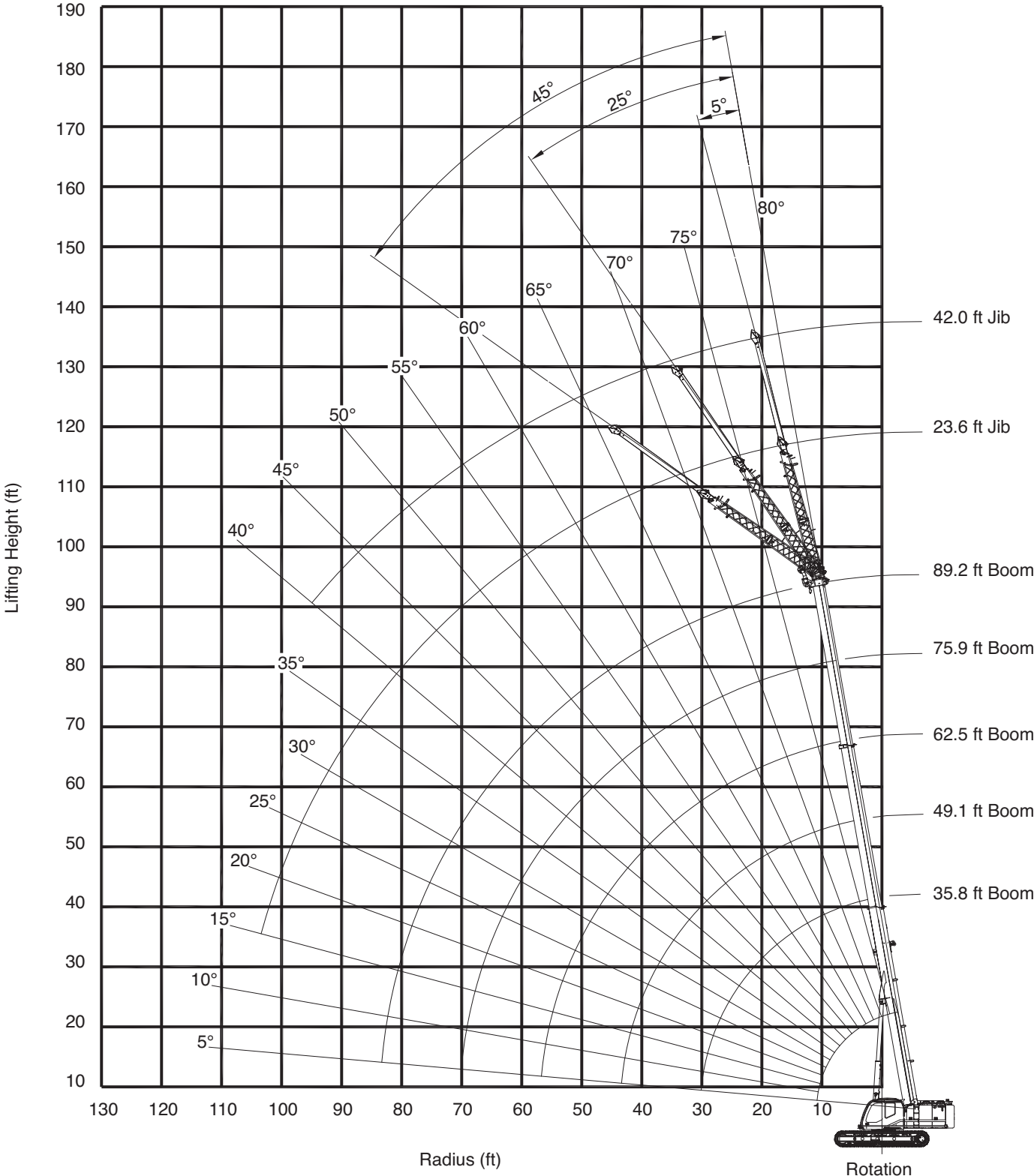
Tracks fully retracted – over side – Up to 1.5° slope

 12,500 lb		 9' 10"		 1.5°		 20 mph		ASME B30.5	
		35.8 ft	49.1 ft	62.5 ft	75.9 ft	89.2 ft			
ft				1,000 lb			ft		
8		*	*	*	-	-	8		
10		*	*	*	-	-	10		
12		*	*	*	*	-	12		
15		*	*	*	*	*	15		
20		14.5	14.4	14.1	*	*	20		
25		10.5	10.5	10.4	10.3	10.1	25		
30		8.1	8.0	7.9	7.9	7.8	30		
35		-	6.3	6.3	6.2	6.2	35		
40		-	5.1	5.0	5.0	5.0	40		
45		-	-	4.1	4.1	4.0	45		
50		-	-	3.3	3.3	3.3	50		
55		-	-	2.8	2.7	2.7	55		
60		-	-	-	2.2	2.2	60		
65		-	-	-	1.8	1.8	65		
70		-	-	-	1.5	1.3	70		
75		-	-	-	-	1.0	75		
80		-	-	-	-	*	80		
		8	6	6	4	4			

Load chart data is for reference, load charts supplied in the crane cab shall be used for lift planning.

An asterisk (*) on the chart indicates positions without rated loads. These areas are susceptible to instability in either the forward or backward direction. Even without a load, the boom should not be positioned in these configurations of the load chart to avoid tipping.

Notes













EJ

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Load chart data is for reference, load charts supplied in the crane cab shall be used for lift planning.

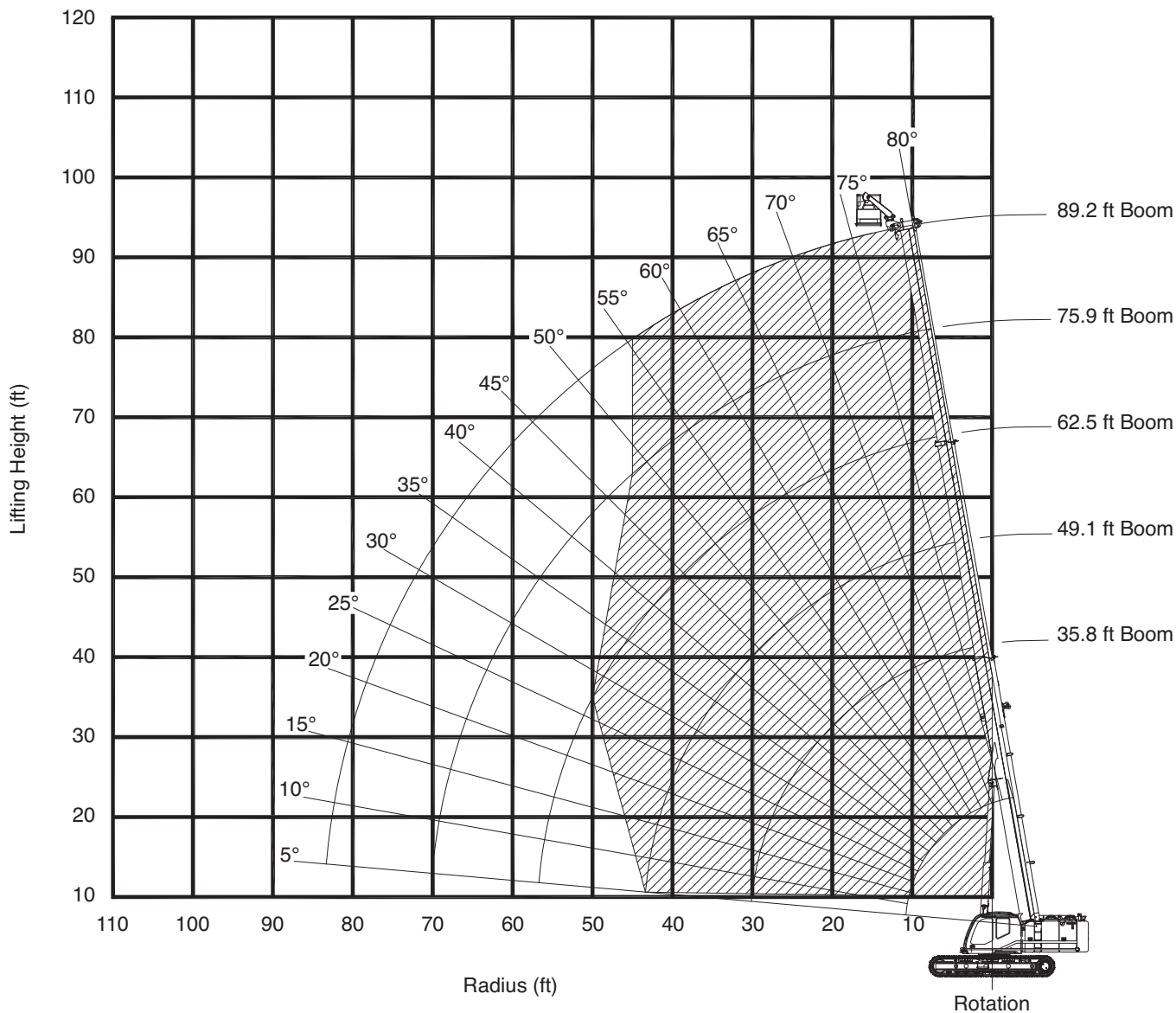
Tracks fully extended – 360° – Up to 0.5° slope – Extendable jib

 12,500 lb				 15'9"			 0.5°			 42.0 ft			 20 mph			360°			ASME B30.5		
		35.8 ft			49.1 ft			62.5 ft			75.9 ft			89.2 ft							
		5°	25°	45°	5°	25°	45°	5°	25°	45°	5°	25°	45°	5°	25°	45°					
1,000 lb																					
ft																	ft				
12		6.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12				
15		5.2	-	-	5.6	-	-	-	-	-	-	-	-	-	-	-	15				
20		4.2	-	-	4.7	-	-	5.0	-	-	4.7	-	-	-	-	-	20				
25		3.5	2.6	-	3.9	-	-	4.3	-	-	4.5	-	-	4.1	-	-	25				
30		3.0	2.3	-	3.4	2.4	-	3.7	2.4	-	3.9	-	-	4.0	-	-	30				
35		2.7	2.1	-	3.0	2.2	-	3.3	2.3	-	3.5	2.3	-	3.7	-	-	35				
40		2.4	1.9	1.6	2.7	2.0	1.7	3.0	2.1	-	3.2	2.2	-	3.4	2.2	-	40				
45		2.1	1.8	1.5	2.4	1.9	1.6	2.7	2.0	1.6	2.9	2.0	1.6	3.1	2.1	-	45				
50		1.9	1.7	1.5	2.2	1.8	1.5	2.4	1.9	1.5	2.6	1.9	1.6	2.8	2.0	1.6	50				
55		1.8	1.5	1.4	2.0	1.7	1.5	2.2	1.7	1.5	2.4	1.8	1.5	2.6	1.9	1.5	55				
60		1.6	1.5	1.4	1.9	1.6	1.4	2.1	1.7	1.5	2.3	1.7	1.5	2.4	1.8	1.5	60				
65		1.5	1.4	-	1.7	1.5	1.4	1.9	1.6	1.4	2.1	1.7	1.4	2.3	1.7	1.4	65				
70		1.4	1.4	-	1.6	1.4	1.4	1.8	1.5	1.4	2.0	1.6	1.4	2.1	1.6	1.4	70				
75		-	-	-	1.5	1.4	-	1.7	1.5	1.4	1.9	1.5	1.4	2.0	1.6	1.4	75				
80		-	-	-	1.5	1.4	-	1.6	1.4	1.3	1.8	1.5	1.3	1.9	1.5	1.3	80				
85		-	-	-	1.4	-	-	1.5	1.4	-	1.7	1.4	1.3	1.8	1.5	1.3	85				
90		-	-	-	-	-	-	1.5	1.3	-	1.6	1.4	1.3	1.7	1.4	1.3	90				
95		-	-	-	-	-	-	1.4	-	-	1.5	1.3	-	1.7	1.4	1.3	95				
100		-	-	-	-	-	-	-	-	-	1.5	1.3	-	1.6	1.3	1.3	100				
105		-	-	-	-	-	-	-	-	-	1.4	1.3	-	1.5	1.3	-	105				
110		-	-	-	-	-	-	-	-	-	1.4	-	-	1.5	1.3	-	110				
115		-	-	-	-	-	-	-	-	-	-	-	-	1.3	1.3	-	115				
120		-	-	-	-	-	-	-	-	-	-	-	-	1.1	1.1	-	120				
125		-	-	-	-	-	-	-	-	-	-	-	-	0.9	-	-	125				
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					

Load chart data is for reference, load charts supplied in the crane cab shall be used for lift planning.

Notes

WP750 Work platform



Shaded area is allowable operating range!

Limits of operation:

Max. load capacity = 750 lb · Max. radius when mounted on main boom = 50 ft · Max. occupancy = 2 persons

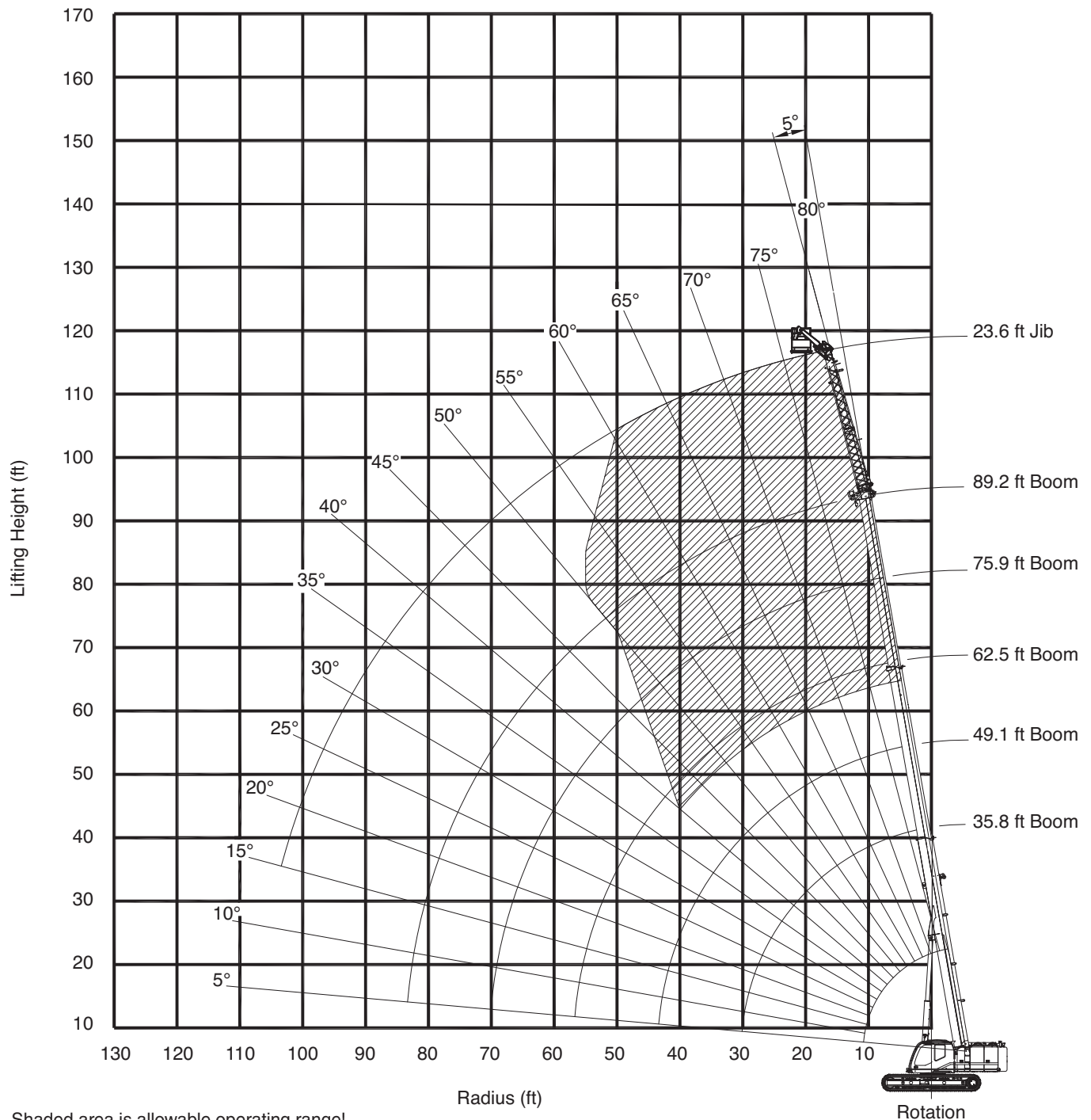
Notes:

1. It is permissible to leave the jibs stowed on the boom while operating with work platform mounted to the main boom.
2. The hook block(s) must be removed when using the work platform.

WARNING: Lifting a load during work platform operation is **not** allowed.

WARNING: Travelling the crane with person(s) in the work platform is **not** allowed.

WP750 Work platform



Notes to Lifting Capacity

Definitions and Explanations

- Load capacity values in these charts are stated in lb x 1000.
- All ratings are for 360° of rotation unless otherwise specified on the chart.
- Load radius is defined as the horizontal distance from the axis of rotation (with no load) to the center of the lifting device after load is applied in feet (ft).
- Boom height dimensions are measured from ground to center of lower boom head sheave in feet (ft).
- Boom angle / boom length relationships given are an approximation of the resulting load radius, which should be an accurate measurement.
- Boom angle is the included angle between the longitudinal axis of the boom base section and the horizontal axis, after lifting load. The boom angle before lifting should be slightly greater than desired to account for boom deflection.
- Boom positions without rated loads in the charts are prohibited. These areas are indicated by an “*” and are susceptible to instability either in the forward direction or the backwards direction.
- It is acceptable to telescope boom with a load within the limits of rated capacities. However, boom angle, system hydraulic pressure, and/or boom lubrication may affect operation.
- Deduct the weight of the hook block, hook/ball, slings, spreader bar, or other suspended equipment from the listed rated capacities. This includes lifting accessories stowed on the boom such as jib, extension, and auger.
- Unless otherwise noted, travelling in low speed is allowed for all rated loads- reduce travel speed to minimize dynamic effects on the crane from swinging load, side loading, etc.
- This crane as originally manufactured meets the requirements of ASME B30.5 2014. Structure and stability have been tested in accordance with SAE J1063 and SAE J765.

Note

Data published herein is intended as a guide only and shall not be construed to warrant applicability for lifting purposes. Crane operation is subject to the computer charts and operation manual both supplied with the crane.

TECHNICAL DESCRIPTION



Technical Description

Crane specifications

Boom	<p>3-section full power telescoping boom. System consists of one double acting hydraulic cylinder with load holding valves and extension and retraction cables.</p> <p>Retracted length: 35' 10"</p> <p>Extended length: 89' 3" Extension time: 82 s</p> <p>Elevating angles: -1.5° to 80.0° Elevating time: 56 s</p> <p>Max. lifting height: 86' 9"</p> <p>Boom head: Five cast nylon and one steel 14.7 inch diameter main sheaves on heavy-duty roller bearings.</p>
Auxiliary boom head	<p>Quick reeve, single 14.7 inch diameter high-strength, cast sheave mounted on a heavy-duty roller bearing. Allows single part reeving.</p>
Counterweight	<p>1 piece integrated counterweight design.</p> <p>Fixed configuration = 12,500 lb.</p>
Winches	<p>Planetary geared single-speed winch includes a hydraulic motor, multidisc internal brake and counterbalance valve. Drum rotation indicator is included (complete winch performance specs on page 10).</p> <p>Main winch:</p> <p>Rope diameter and length: 0.625 in. x 500 ft</p> <p>Single line pull: 13,311 lb – first layer</p> <p>Single line speed: 256 ft/min – 4th layer</p> <p>Auxiliary winch (optional):</p> <p>Rope diameter and length: 0.625 in. x 300 ft</p> <p>Single line pull: 13,311 lb – first layer</p> <p>Single line speed: 256 ft/min – 4th layer</p>
Travel	<p>Each side frame contains a pilot controlled, two-speed track drive with hydraulic axial piston motor and parking brake. Travel system provides skid steering and counter rotation.</p> <p>Travel speed: 1.4 mph / 2.4 mph</p> <p>Gradeability (unladen): 74%</p> <p>Unladen ground pressure: 7.6 psi</p>
Swing	<p>Gear motor driving a planetary gear reducer with a shaft mounted pinion, external gear shear ball slew bearing bolted to the superstructure and the carbody allows the superstructure to rotate 360°.</p> <p>Swing speed: 0 - 2.2 rpm.</p> <p>Swing parking brake: Spring applied failsafe brake with hydraulic release that is controlled from the operators cab.</p> <p>Swing service brake: Hydraulically applied, controlled through foot actuated pedal.</p> <p>House lock system: 2-position house lock (boom over front or rear). Actuated from the operator's cab.</p>
Load moment indicator	<p>TADANO AML-C rated capacity limiter and anti-two block system:</p> <p>OPTI-WIDTH™ – OPTIMAL lifting performance at any track WIDTH.</p> <p>Control function shutdown. Audible and visual warnings.</p> <p>LCD screen provides a continuous display of working boom length, boom angle, working load radius, tip height, swing position, parts-of-line (operator set), machine track configuration, relative load moment, maximum permissible load and actual load.</p> <p>Anti-two block weight allows quick reeving of hook block.</p> <p>Operator configurable working range limits with automatic soft stop.</p>
Frame	<p>The frame is an all-steel, welded structure, precision machined to accept attachment of the boom and swing components.</p>
Operators cab	<p>Fully-enclosed, air conditioned all-steel modular cab with lockable sliding door, acoustical lining, anti-slip floor and tinted safety glass.</p> <p>Rear view, winch view and right side view video cameras. Three remote control work lights. Grab bars and steps are located for easy access to the cab. Defroster, heater, circulating fan. 2-speed windshield wiper, top glass wiper. Six-way adjustable fabric seat with headrest, seat belt. Dome light. Dry-chemical fire extinguisher. Four-way electronic armrest mounted joysticks control swing, main winch, auxiliary winch, boom hoist and boom extend. Foot pedals control the travel and swing service brake functions. Swing brake pedal is hydraulic. Selectable modes for fine control and travel. Travel function can be operated by foot pedals or joystick. Seat termination switch immediately disables all hydraulic functions as the operator rises from the seat. Functions can also be disabled by switch on console. Dash instrumentation: tachometer, hour meter, fuel gauge, and DEF level gauge. Indicators are provided for crane level, swing position, load moment, drum rotation, air filter restriction, engine oil temperature and pressure, hydraulic oil temperature and level, and hydraulic and air filter restriction, and low voltage.</p>

Technical Description

Crane specifications

Engine	Make/Model: Cummins QSB4.5 · Type: 4 cylinder, water cooled, 4 cycle · Aspiration: turbocharged and aftercooled · Max. output: 173 HP (129 kW)@2200 rpm · Max. torque: 520 lb-ft (705 Nm)@1500 rpm · Piston disp: 4.5 l · Emission Cert: U.S. EPA Tier 4f, Euromot Stage V.		
Electrical system	24 VDC.		
Fuel system	Capacity: 75 gallons. Filtration: Inline fuel/water separator and engine mounted fuel filter.		
Side frames	Two welded steel side frames are paired with a track group. The side frames extend and retract hydraulically and are controlled from the cab. Track rollers: Three top and ten bottom sealed rollers on each track frame Idler: Oil filled, self lubricating with spring type tensioner. Track shoes: 29.5 inch, 3-bar semi grouser.		
Hydraulic system	Hydraulic pumps: One high pressure, variable axial piston pump with load sense and power limiting control for crane functions. One gear pump for cooling function. Directional valves: Multiple pressure and flow compensated valves with integrated relief valves controlled by electrical signals. Pump output: 110 gpm@2200 rpm engine speed. 5,000 psi maximum pressure. Reservoir: 119 gallons capacity, filler/breather, sight gauge, cleanout, and sump drain. Filtration: Three 5-micron, full flow, tank-mounted return filters with electrical clogging indicator. 3-micron pilot oil in-line pressure filter. Diagnostic ports: Provided for system, load sense, and pilot pressure.		
Extendable jib	Main jib: Total length: 23' 6" Max. lifting height: 109' 8" Offset angles: 5°, 25° and 45° Fly jib: Total length: 42' 0" Max. lifting height: 127' 6" Offset angles: 5°, 25° and 45°		
Hook block	35 ton block – four sheaves, lockable swivel hook and safety latch.		
Telematics	Machine data logging and monitoring system with HELLO-NET via Internet.		

Optional equipment

Overhaul ball	4.4 ton with swivel hook and safety latch.
360° house lock	Actuated from the operator's cab.
Track shoes	18 inch, 3-bar semi grouser.
Auger	Hydraulic auger boom package includes auger motor, hoses, fasteners, and stowage bracket assembly mounted to the 2nd stage section of boom for variable radius drilling.
Tool circuit	Provides 5 gpm and 10 gpm@2,500 psi through a 50 ft twin hose reel with quick disconnect fittings to operate open center tools.
Controlled free fall hoists	Winches are available in controlled free fall configurations.
Cold weather packages	Cold weather options are available for operation to -40°C (consult factory for application support).
Work platform	Model WP750 – 36 inch x 72 inch, all steel, welded, two person platform with maximum capacity of 750 lb.
Full function radio remote control package	
Boom mounted anemometer with cab display	
Automatic central lubrication system	

Notes

Notes

tac.sales@tadano.com
www.tadanoamericas.com

Tadano PanAmerican Operations
4242 W Greens Road, Houston, TX 77066
Phone: +1 (281) 869-0030



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