



MANTIS
CRANES

GTC-500

50 Ton Telescopic Boom Crawler Crane

SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

GENERAL DATA

CRANE CAPACITY	50 ton at 10 feet (50t at 2.5m)
BOOM	4-section 36' 1" – 113' 10" (11.0 m – 34.7 m)
DIMENSION	
Overall Length	43' 0" (13.2 m)
Overall Width (tracks extended)	17' 1" (5.20 m)
Overall Width (tracks retracted, std cwt)	11' 5" (3.48 m)
Overall Height (working)	12' 1" (3.69 m)
MASS	
Gross Vehicle Mass (Standard Equipment Package)	103,900lb (47,128 kg)
Maximum Counterweight	Standard CWT = 17,400 lb (7893 kg) Optional Heavy CWT = 28,200lb (12791kg)
PERFORMANCE	
Travel Speed	0.8 mph (1.3 km/hr)/ 1.8 mph (2.9 km/hr)
Gradeability	85%

CRANE SPECIFICATION

MODEL	CAPACITY
GTC-500	50 ton at 10 feet (50t at 2.5m)

BOOM

4-section full power telescoping boom with 2 extension modes. System consists of two double acting hydraulic cylinders with load holding valves and extension and retraction cables.

- Retracted Length: 36' 1" (11.0m)
- Extended Length: 113' 10" (34.7 m) • Extension Time: 114s
- Elevating Angles: -1.5° to 80.5° • Elevating Time: 70 s
- Max Lifting Height: 111' 1" (33.9 m)
- Boom Head: Six, 14.7 inch (373 mm) diameter main sheaves on heavy-duty roller bearings. Two, 14.7 inch (373 mm) diameter lead in sheaves on heavy-duty roller bearings. Designed for quick reeving of head and load block.

AUXILIARY BOOM HEAD

Quick reeve, single sheave mounted on a heavy-duty roller bearing. Allows single part reeving.

COUNTERWEIGHT

2 piece Standard counterweight design. Two upper counterweight configurations

- Standard Configuration = 17,400lb (7893 kg)
- Optional Heavy Configuration = 28,200lb (12,791 kg)

WINCHES

Planetary geared two-speed winch includes a hydraulic motor, multi-disc internal brake and counterbalance valve. Drum rotation indicator is included

- Main Winch
 - o Rope Diameter and Length: 5/8 in x 615 ft (16mm x 187m)
 - o Single line pull: 13,311lb (59.2 kN) (first layer)
 - o Single line speed: 347 ft/min (105.8 m/min) (4th layer)
- Auxiliary Winch
 - o Rope Diameter and Length: 5/8 in x 350 ft (16mm x 107m)
 - o Single line pull: 13,311lb (59.2 kN) (first layer)
 - o Single line speed: 347 ft/min (105.8 m/min) (4th layer)

TRAVEL

Each side frame contains a two-speed track drive with hydraulic axial piston motor and parking brake. Travel system provides skid steering and counter rotation.

- Travel speed - Low: 0.8 mph (1.3 km/hr) High: 1.8 mph (2.9 km/hr)
- Gradeability (unladen): 85%
- Unladen Ground Pressure: 9.3 psi (0.65 kg/cm2)

SWING

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°

- Swing Speed: 0 - 2.0 rpm
- Swing Parking Brake: Spring applied failsafe brake with hydraulic release that is controlled from the operators cab
- Swing Service Brake: Hydraulically applied, controlled through foot actuated pedal
- House Lock System
 - o 2-position house lock (boom over front or rear). Actuated from the operator's cab.

LOAD MOMENT INDICATOR

TADANO AML-C Rated Capacity Limiter and Anti-Two Block system

- OPTI-WIDTH™ - OPTIMAL lifting performance at any track WIDTH
- Control function shutdown. Audible and visual warnings
- 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.
- Anti-two block weight allows quick reeving of hook block
- Operator configurable working range limits with automatic soft stop.

GTC-500

50 Ton Telescopic Boom Crawler Crane

SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

FRAME

The frame is an all-steel, welded structure, precision machined to accept attachment of the boom and swing components.

OPERATORS CAB

Fully-enclosed, air conditioned all-steel modular cab with lockable sliding door, acoustical lining, anti-slip floor and tinted safety glass.

- Cab tilts 20°.
- Rear view, winch view and right side view video cameras
- Three remote control work lights.
- Vent window in the rear of the cab.
- 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 disable 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.

ENGINE

- Make/ Model: Cummins QSB6.7
- Type: 6 Cylinder, Water cooled, 4 Cycle
- Aspiration: Turbocharged and Aftercooled
- Max. Output: 260 hp (194 kW) @ 2200 RPM
- Max Torque: 730 Lb-ft (990 Nm) @ 1500 RPM
- Piston Disp: 6.7 L
- Emission Cert: U.S. EPA Tier 4f, Euromot Stage IV
- Alternator: 70 amp

ELECTRICAL SYSTEM

24 VDC

FUEL SYSTEM

- Capacity: 85 gallon (321 liter)
- 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 twelve bottom sealed rollers on each track frame Idler: Oil filled, self lubricating with spring type tensioner
- Track Shoes: 31.5 inch (800 mm), 3-bar semi grouser

HYDRAULIC SYSTEM

- Hydraulic Pumps: Two high pressure, variable axial piston pumps with load sense and power limiting control for crane functions. One gear pump for cooling loop.
- Directional Valves: Multiple pressure and flow compensated valves with integrated relief valves controlled by electrical signals.
- Pump output: 154 gpm (582 l/min) @ 2200 RPM engine speed. 5,000 psi (345 bar) maximum pressure
- Reservoir: 185 gallon (700 liter) capacity, filler/ breather, sight gauge, cleanout, and sump drain.
- Filtration: Three 5 micron, full flow tank mounted return filters with electrical clogging indicator. Two 2 micron pilot oil in-line pressure filters
- Diagnostic Ports: Provided for system, load sense, and pilot pressure

BI-FOLD JIB

- Main jib
 - o Total Length: 28.9 ft (8.8m)
 - o Offset Angles: 5°, 25° & 45°
 - o Max. Lifting Height: 140.7 ft (42.9 m)
- Fly jib
 - o Total Length: 49.9 ft (15.2m)
 - o Offset Angles: 5°, 25° & 45°
 - o Max. Lifting Height: 161.0 ft (49.1m)

OPTIONAL EQUIPMENT

- Hook blocks
 - o 55 ton (50t) quick reeve hook block – Six, 16.1 in (410mm) steel sheaves, swivel hook and safety latch
 - o 33 ton (30t) – Three, 16.1 in (410mm) steel sheaves, swivel hook and safety latch
- Overhaul ball – 7.7 ton (7t) with swivel hook & safety latch
- 360 degree house lock. Actuated from the operator's cab.
- Track Shoes: 35.4 inch (900 mm) 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 (23 l/min) and 10 gpm (45 l/min) at 2,500 PSI (176 bar) through a 50 foot (15.2m) twin hose reel with quick disconnect fittings to operate open center tools.
- High Flow Tool Circuit: Provides 45 gpm (170 l/min) at 4800 PSI (330 bar)
- 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 in x 72 in (0.9m x 1.8m), all steel, welded, two person platform with maximum capacity of 750 lbs (340 kg).
- Full function Radio remote control package.
- Anemometer: boom mounted wireless anemometer with cab display.
- Automatic Central lubrication system.

GTC-500

50 Ton Telescopic Boom Crawler Crane

SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

WINCH PERFORMANCE AND MACHINE WEIGHTS

MAIN WINCH AND AUXILIARY WINCH PERFORMANCE						
Wire Rope: 16 mm diameter rotation resistant. Line pulls are not based on wire rope strength.						
Rope Layer	Max Line Pull (lb)	High Line Speed (ft/min)	Normal Line Speed (ft/min)	Pitch Diameter (in)	Layer (ft)	Total (ft)
1	13,310	276.2	203.7	13.3	98.9	98.9
2	12,262	299.9	221.2	14.6	107.3	206.2
3	11,366	323.5	238.6	15.9	115.8	322.0
4	10,593	347.1	256.0	17.2	124.3	446.3
5	9,918	370.7	273.4	18.5	132.7	579.0
6	9,324	394.4	290.9	19.8	141.2	720.2

MACHINE WEIGHTS	LB	KG
Standard Crane with 4 section - 113' 10" boom, 17,400 lb (7,893 kg) standard counterweight, 2 winches with wire rope, and 31.5" 3-bar semi-grouser track shoes	100,310	45,500
OPTIONAL EQUIPMENT	LB	KG
Bi-fold Jib Base section - 28.9 ft (8.8m)	1,351	613
Bi-fold Jib Tip section - 21.0 ft (6.4m)	518	235
55 ton (50t) hook block - 6 sheaves	1,500	680
33 ton (30t) hook block - 3 sheaves	798	362
7.7 ton (7t) Overhaul ball	220	100
Optional Track Shoes: 35.4 inch (900 mm) 3-bar semi grouser - additional weight	900	408
Optional Heavy Counterweight - 28,200 lb (12,971 kg) - additional weight	10,800	4,899

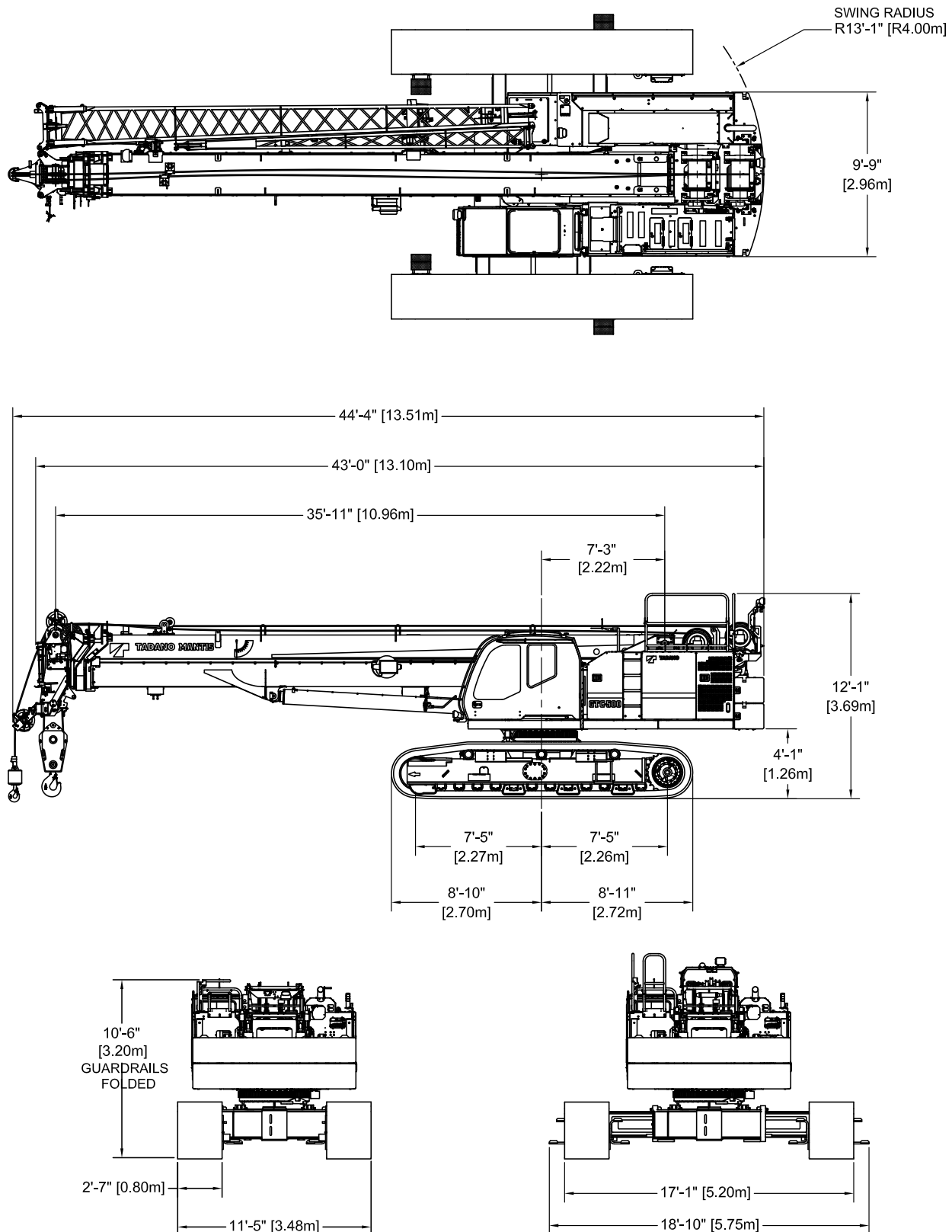


GTC-500

50 Ton Telescopic Boom Crawler Crane

SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

OVERALL CRANE DIMENSIONS

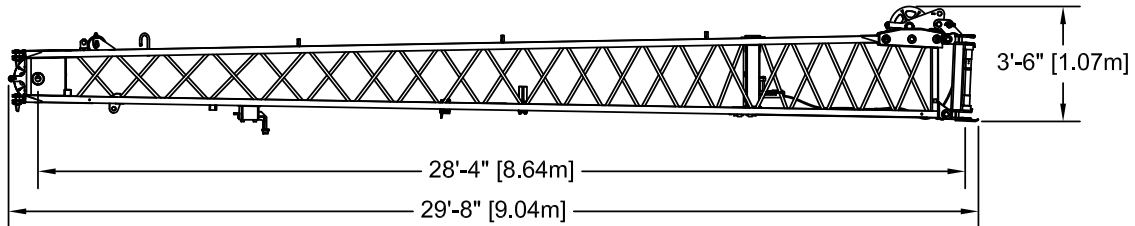


GTC-500

50 Ton Telescopic Boom Crawler Crane

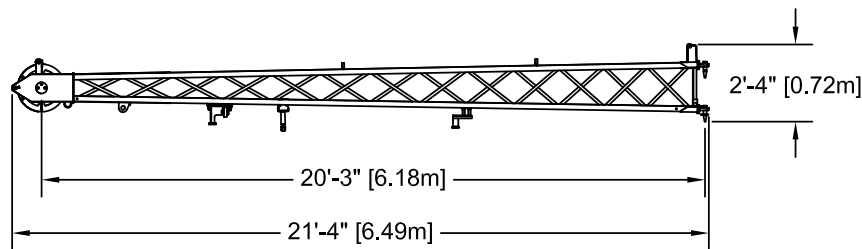
SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

TRANSPORT DIMENSIONS, JIB AND CWT DIMENSIONS



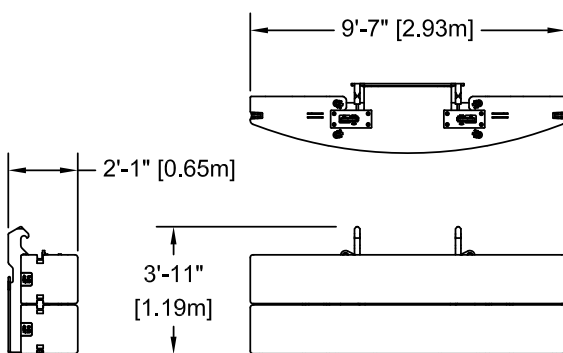
28.9ft (8.8m) BASE JIB

WEIGHT: 1351 lb (613 kg)



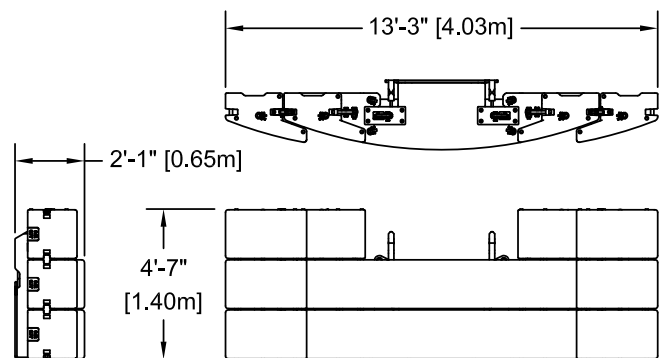
21.0ft (6.4m) JIB POINT

WEIGHT: 1351 lb (613 kg)



STANDARD COUNTERWEIGHT

WEIGHT: 17,400 lb (7893 kg)



HEAVY COUNTERWEIGHT (OPTIONAL)

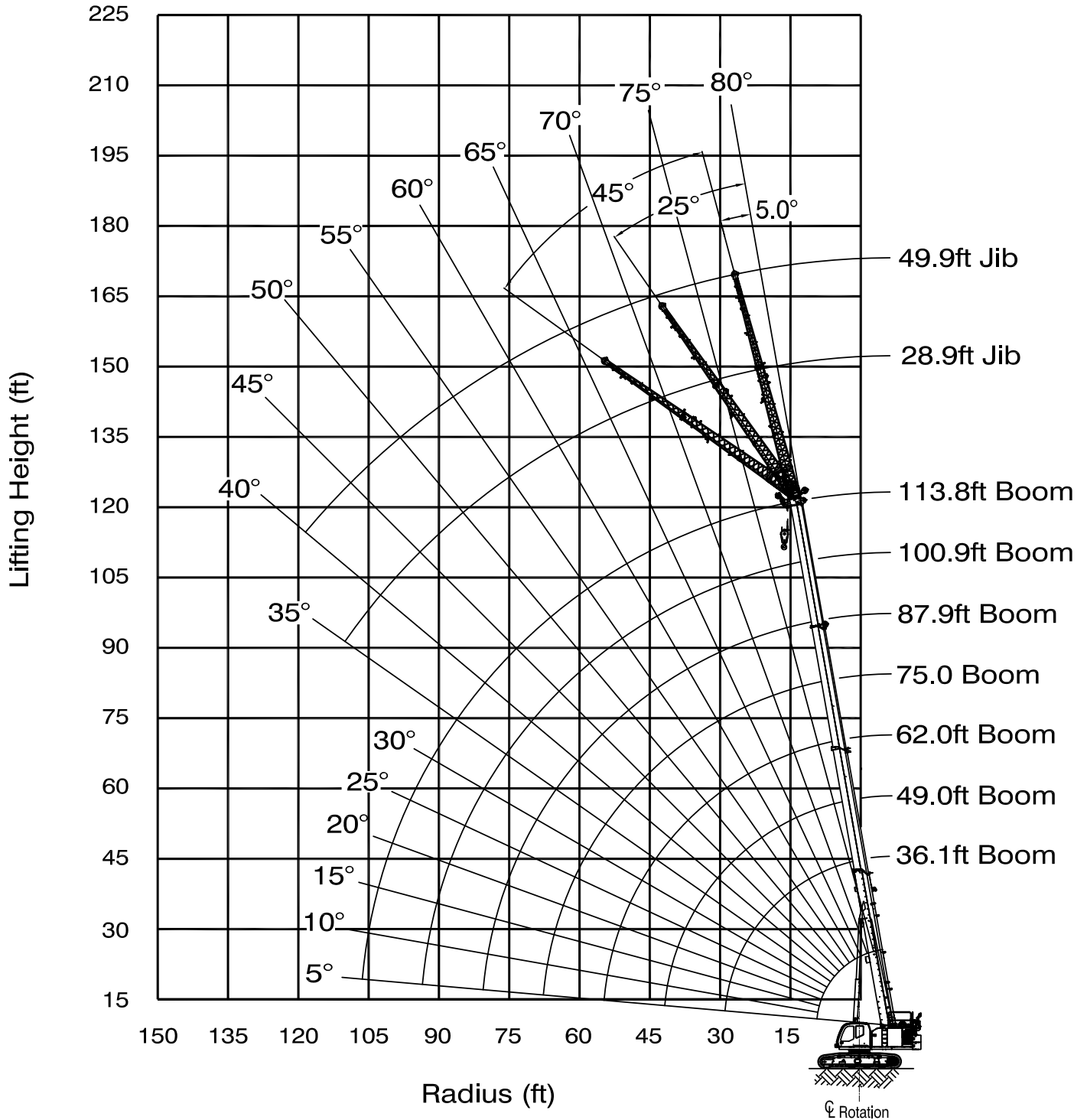
WEIGHT: 28,200 lb (12,791 kg)

GTC-500

50 Ton Telescopic Boom Crawler Crane

SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

RANGE DIAGRAM



GTC-500

50 Ton Telescopic Boom Crawler Crane

SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

LOAD CHARTS

ALL LOADS IN lb x 1000

**MAIN BOOM with TRACKS FULLY EXTENDED - 360°
UP to 1.5° SLOPE****17,400 lb COUNTERWEIGHT**

Radius (ft)	MAIN BOOM LENGTH (ft)						Radius (ft)
	36.1	49.0	62.0	75.0	87.9	100.9	
10	101.4	97.1	82.1	55.1			10
12	91.4	87.3	75.0	40.0	40.0		12
15	78.9	74.0	66.1	40.0	36.5	36.5	15
20	50.1	47.1	44.8	40.0	36.4	34.6	20
25	35.5	35.7	35.5	32.1	32.3	31.7	25
30		27.2	27.2	27.1	24.5	24.6	30
35		21.5	21.6	21.7	19.4	19.5	35
40		17.7	17.8	17.9	15.7	16.8	40
45			14.9	15.0	13.8	14.1	45
50			12.7	12.8	12.5	11.9	50
55				11.0	11.1	10.2	55
60				9.6	9.7	8.7	60
65				8.4	8.5	7.4	65
70					7.4	6.3	70
75					6.5	5.4	75
80					5.8	4.7	80
85						4.0	85
90						3.4	90
95							95
100							100
105							105
Parts of Line	12	10	8	6	4	4	Parts of Line

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



GTC-500

50 Ton Telescopic Boom Crawler Crane

SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

LOAD CHARTS

ALL LOADS IN lb x 1000

MAIN BOOM with TRACKS FULLY EXTENDED - 360° UP to 1.5° SLOPE 28,200 lb COUNTERWEIGHT								
Radius (ft)	MAIN BOOM LENGTH (ft)							Radius (ft)
	36.1	49.0	62.0	75.0	87.9	100.9	113.8	
10	101.4	97.1	82.1	55.1				10
12	91.4	87.3	75.0	40.0	40.0			12
15	79.4	75.8	66.1	40.0	36.5	36.5		15
20	62.1	58.8	54.6	40.0	36.4	34.6	29.7	20
25	44.0	41.5	39.8	39.6	35.0	31.7	25.9	25
30		33.8	33.6	30.6	30.3	27.6	23.0	30
35		27.0	27.0	24.8	24.6	24.2	20.5	35
40		22.4	22.4	22.4	20.2	20.3	18.5	40
45			18.9	19.0	16.8	17.0	16.9	45
50			16.3	16.4	14.3	14.5	14.6	50
55				14.2	12.2	12.9	12.6	55
60				12.5	10.5	11.7	10.9	60
65				11.2	9.7	10.3	9.6	65
70					9.0	9.1	8.4	70
75					8.4	8.1	7.3	75
80					7.9	7.2	6.3	80
85						6.3	5.5	85
90						5.6	4.7	90
95							4.1	95
100							3.5	100
105							3.1	105
Parts of Line	12	10	8	6	4	4	4	Parts of Line

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



GTC-500

50 Ton Telescopic Boom Crawler Crane

SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

LOAD CHARTS

ALL LOADS IN lb x 1000

MAIN BOOM with TRACKS FULLY EXTENDED - 360° UP to 4° SLOPE 17,400 lb COUNTERWEIGHT								
Radius (ft)	MAIN BOOM LENGTH (ft)							Radius (ft)
	36.1	49.0	62.0	75.0	87.9	100.9	113.8	
10	101.4	97.1	52.7	40.7				10
12	88.8	77.1	52.7	40.0	32.6			12
15	65.1	57.5	51.8	40.0	32.6	28.7		15
20	43.8	40.3	38.8	34.6	32.6	24.8	20.9	20
25	32.3	31.0	29.8	28.7	25.2	24.0	20.9	25
30		24.3	23.5	22.9	19.9	19.4	18.9	30
35		19.7	19.2	18.7	16.0	16.8	15.5	35
40		16.6	16.0	15.7	14.4	14.0	12.9	40
45			13.6	13.4	13.0	11.9	10.8	45
50			11.8	11.6	11.3	10.1	9.0	50
55				10.1	9.9	8.6	7.6	55
60				8.8	8.6	7.4	6.4	60
65				7.8	7.6	6.3	5.3	65
70					6.7	5.4	4.5	70
75					5.9	4.7	3.7	75
80					5.4	4.0	3.0	80
85						3.5	2.5	85
90						3.0	2.0	90
95							1.5	95
100							*	100
105							*	105
Parts of Line	12	10	8	6	4	4	4	Parts of Line

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



GTC-500

50 Ton Telescopic Boom Crawler Crane

SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

LOAD CHARTS**ALL LOADS IN lb x 1000**

MAIN BOOM with TRACKS RETRACTED - OVER FRONT								
UP to 1.5° SLOPE								
17,400 lb COUNTERWEIGHT								
Radius (ft)	MAIN BOOM LENGTH (ft)							Radius (ft)
	36.1	49.0	62.0	75.0	87.9	100.9	113.8	
10	101.4	97.1	82.1	55.1				10
12	91.4	87.3	75.0	40.0	40.0			12
15	79.4	75.8	66.1	40.0	36.5	36.5		15
20	51.9	48.9	46.6	40.0	36.4	34.6	29.7	20
25	36.4	36.6	36.4	33.0	33.1	31.7	25.9	25
30		27.8	27.8	27.6	25.2	25.2	23.0	30
35		22.1	22.2	22.3	19.9	20.0	20.0	35
40		18.1	18.2	18.3	16.1	17.1	16.4	40
45			15.3	15.4	13.8	14.4	13.6	45
50			13.0	13.1	12.5	12.3	11.5	50
55				11.4	11.4	10.5	9.8	55
60				9.9	9.9	9.1	8.4	60
65				8.7	8.7	7.9	7.2	65
70					7.7	6.9	6.2	70
75					6.9	6.0	5.4	75
80					6.2	5.3	4.7	80
85						4.7	4.0	85
90						4.1	3.5	90
95							2.9	95
100							2.4	100
105							2.0	105
Parts of Line	12	10	8	6	4	4	4	Parts of Line

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



GTC-500

50 Ton Telescopic Boom Crawler Crane

SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

LOAD CHARTS

ALL LOADS IN lb x 1000

**MAIN BOOM with TRACKS FULLY EXTENDED - 360°
UP to 1.5° SLOPE****0 lb COUNTERWEIGHT**

Radius (ft)	MAIN BOOM LENGTH (ft)							Radius (ft)
	36.1	49.0	62.0	75.0	87.9	100.9	113.8	
10	101.4	93.0	82.1	55.1				10
12	71.8	66.0	61.4	40.0	40.0			12
15	48.3	44.6	41.8	40.0	36.5	36.5		15
20	29.5	30.4	30.5	30.4	26.5	27.2	24.2	20
25	20.1	21.2	21.5	21.6	21.5	20.0	17.9	25
30		15.6	16.0	16.2	16.2	14.9	13.6	30
35		11.8	12.2	12.6	12.6	11.4	10.4	35
40		9.1	9.6	9.9	10.0	8.9	7.9	40
45			7.6	7.9	8.0	6.9	6.0	45
50			6.0	6.3	6.5	5.4	4.6	50
55				5.1	5.2	4.2	3.4	55
60				4.1	4.2	3.2	2.4	60
65				3.3	3.4	2.4	1.6	65
70					2.7	1.7	*	70
75					2.1	*	*	75
80					1.7	*	*	80
85						*	*	85
90						*	*	90
95							*	95
100							*	100
105							*	105
Parts of Line	12	10	8	6	4	4	4	Parts of Line

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



GTC-500

50 Ton Telescopic Boom Crawler Crane

SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

LOAD CHARTS

ALL LOADS IN lb x 1000

MAIN BOOM with TRACKS RETRACTED - OVER SIDE UP to 1.5° SLOPE 17,400 lb COUNTERWEIGHT								
Radius (ft)	MAIN BOOM LENGTH (ft)							Radius (ft)
	36.1	49.0	62.0	75.0	87.9	100.9	113.8	
10	86.3	79.8	71.3	0.0				10
12	64.3	60.0	56.4	40.0	34.7			12
15	45.8	43.0	40.8	40.0	36.5	35.7		15
20	29.9	30.3	30.1	29.9	26.9	26.8	24.2	20
25	21.5	22.1	22.2	22.2	22.0	20.5	18.5	25
30		16.9	17.1	17.2	17.2	16.1	14.6	30
35		13.4	13.6	13.8	13.8	12.8	11.7	35
40		10.9	11.1	11.3	11.3	10.4	9.5	40
45			9.2	9.4	9.4	8.6	7.7	45
50			7.7	7.9	7.9	7.1	6.3	50
55				6.7	6.7	6.0	5.2	55
60				5.7	5.8	5.0	4.3	60
65				4.9	4.9	4.2	3.5	65
70					4.3	3.5	2.8	70
75					3.7	2.9	2.1	75
80					3.2	2.2	*	80
85						1.7	*	85
90						*	*	90
95							*	95
100							*	100
105							*	105
Parts of Line	12	10	8	6	4	4	4	Parts of Line

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



GTC-500

50 Ton Telescopic Boom Crawler Crane

SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

LOAD CHARTS

ALL LOADS IN lb x 1000

**28.9 ft Jib with TRACKS FULLY EXTENDED - 360°
UP to 1.5° SLOPE****17,400 lb COUNTERWEIGHT**

Radius (ft)	MAIN BOOM LENGTH (ft)															Radius (ft)
	36.1			62.0			87.9			100.9			113.8			
	5°	25°	45°	5°	25°	45°	5°	25°	45°	5°	25°	45°	5°	25°	45°	
10	10.9															10
12	10.9															12
15	10.9			10.9												15
20	10.8	7.8		10.9			10.9									20
25	9.3	7.0		10.9	7.7		10.9			10.9						25
30	8.2	6.3	5.1	10.4	7.2	5.4	10.9	7.6		10.9			10.9			30
35	7.3	5.7	4.7	9.4	6.7	5.1	10.8	7.2		10.9	7.4		10.9			35
40	6.4	5.2	4.5	8.6	6.2	4.9	10.0	6.8	5.1	10.6	7.0	5.2	10.8	7.1		40
45	5.7	4.8	4.3	7.9	5.8	4.7	9.2	6.4	4.9	9.6	6.7	5.0	9.9	6.9	5.1	45
50	5.1	4.5	4.3	7.2	5.4	4.5	8.3	6.1	4.8	8.8	6.3	4.9	9.0	6.5	4.9	50
55	4.7	4.3		6.5	5.1	4.4	7.5	5.8	4.6	8.0	6.0	4.7	8.3	6.2	4.8	55
60				6.0	4.9	4.3	6.9	5.5	4.5	7.4	5.7	4.6	7.7	6.0	4.7	60
65				5.6	4.6	4.2	6.3	5.2	4.4	6.8	5.5	4.5	6.6	5.7	4.6	65
70				5.2	4.5		5.8	5.0	4.3	6.3	5.3	4.4	5.5	5.5	4.5	70
75				4.9	4.3		5.3	4.8	4.3	5.3	5.1	4.3	4.5	5.3	4.4	75
80				4.6	4.3		4.9	4.7	4.2	4.5	4.9	4.3	3.7	4.4	4.3	80
85							4.5	4.5	4.2	3.8	4.3	4.2	3.0	3.6	4.0	85
90							4.1	4.2		3.1	3.6	3.8	2.3	2.9	3.2	90
95							3.5	3.7		2.6	3.0	3.2	1.8	2.2	2.6	95
100							3.0	3.2		2.1	2.4		1.3	1.7	1.9	100
105							2.5	2.6		1.6	1.9		0.8	1.2	1.3	105
110							2.1			1.2	1.4		0.4	0.7		110
115										0.8	0.9		*	0.3		115
120										0.5			*	*		120
125													*	*		125
130													*			130
135													*			135
Parts of Line	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Parts of Line

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



GTC-500

50 Ton Telescopic Boom Crawler Crane

SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

LOAD CHARTS

ALL LOADS IN lb x 1000

49.9 ft Jib with TRACKS FULLY EXTENDED - 360°**UP to 1.5° SLOPE****17,400 lb COUNTERWEIGHT**

Radius (ft)	MAIN BOOM LENGTH (ft)															Radius (ft)
	36.1			62.0			87.9			100.9			113.8			
	5°	25°	45°	5°	25°	45°	5°	25°	45°	5°	25°	45°	5°	25°	45°	
10																10
12																12
15	8.7															15
20	7.8			7.9												20
25	6.6			7.9												25
30	5.6			7.0			7.2			7.0						30
35	4.8	3.6		6.1			7.0			7.0			6.7			35
40	4.2	3.2		5.4	3.6		6.3			6.7			6.7			40
45	3.7	3.0	2.4	4.8	3.3		5.7	3.5		6.1	3.6		6.3			45
50	3.3	2.7	2.3	4.3	3.1	2.4	5.2	3.3		5.5	3.4		5.8	3.5		50
55	3.0	2.5	2.2	3.9	2.9	2.3	4.7	3.1	2.4	5.1	3.3		5.4	3.3		55
60	2.7	2.3	2.1	3.6	2.7	2.2	4.3	3.0	2.3	4.7	3.1	2.3	5.0	3.2		60
65	2.5	2.2	2.0	3.3	2.6	2.1	4.0	2.8	2.2	4.3	2.9	2.3	4.6	3.0	2.3	65
70	2.3	2.1	2.0	3.0	2.4	2.1	3.7	2.7	2.2	4.0	2.8	2.2	4.3	2.9	2.2	70
75	2.1	2.0		2.8	2.3	2.0	3.5	2.6	2.1	3.7	2.7	2.1	4.0	2.8	2.2	75
80	2.0			2.6	2.2	2.0	3.2	2.4	2.1	3.5	2.6	2.1	3.8	2.7	2.1	80
85				2.5	2.1	1.9	3.0	2.4	2.0	3.3	2.5	2.1	3.5	2.6	2.1	85
90				2.3	2.1	1.9	2.9	2.3	2.0	3.1	2.4	2.0	3.2	2.5	2.0	90
95				2.2	2.0		2.7	2.2	1.9	3.0	2.3	2.0	2.6	2.4	2.0	95
100				2.1	2.0		2.6	2.1	1.9	2.8	2.2	1.9	2.1	2.3	2.0	100
105				2.0			2.4	2.1	1.9	2.4	2.2	1.9	1.6	2.2	1.9	105
110							2.3	2.0	1.9	2.0	2.1	1.9	1.2	1.9	1.9	110
115							2.2	2.0		1.6	2.1	1.9	0.8	1.4	1.8	115
120							2.1	2.0		1.2	1.6	1.8	0.5	1.0	1.3	120
125							1.8	1.9		0.9	1.2		*	0.6	0.9	125
130							1.5			0.6	0.9		*	0.3	0.4	130
135										0.3	0.5		*	*		135
140										*			*	*		140
145													*	*		145
150													*	*		150
155													*			155
Parts of Line	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Parts of Line

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



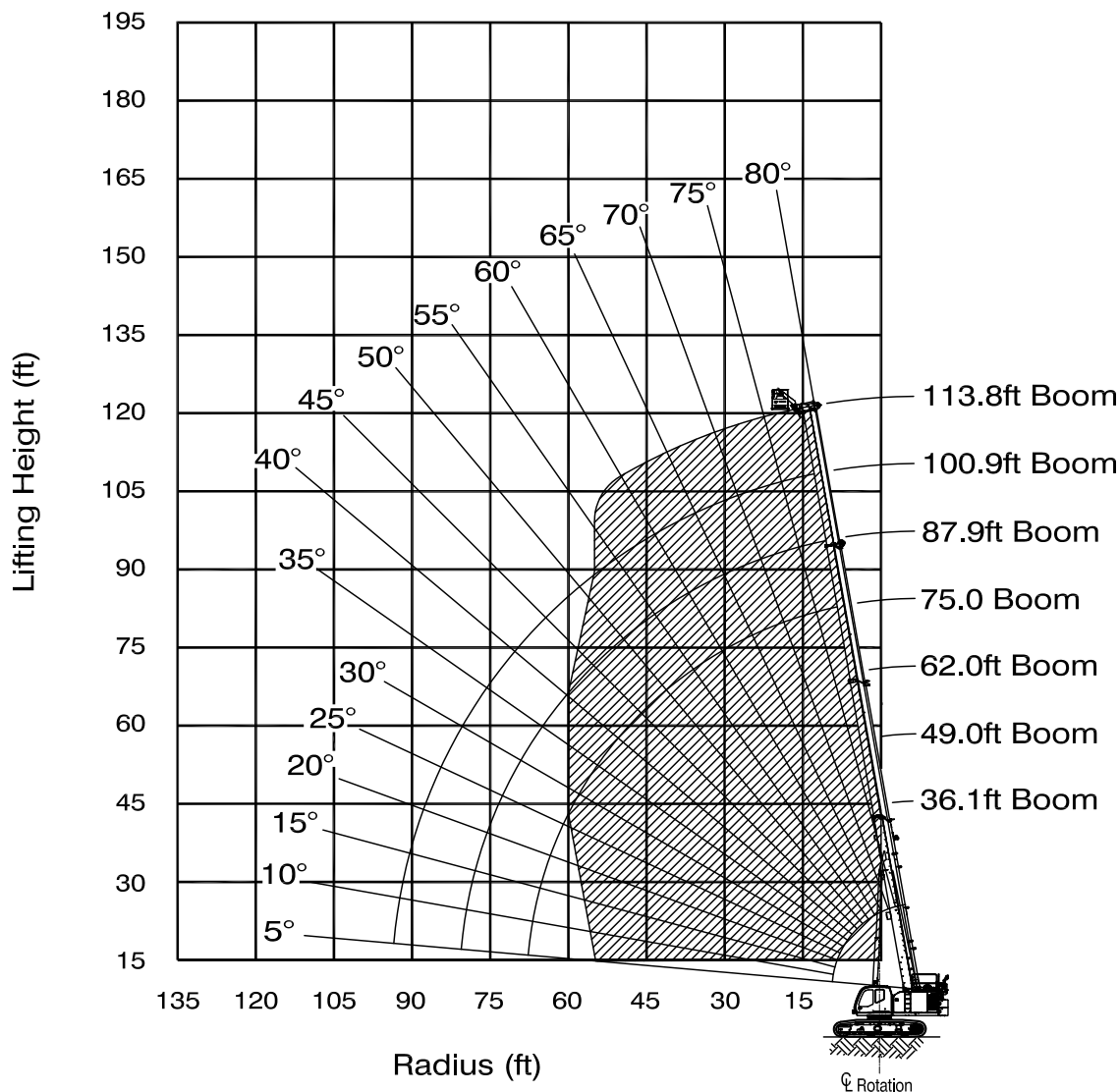
GTC-500

50 Ton Telescopic Boom Crawler Crane

SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

WP750 WORK PLATFORM ON MAIN BOOM RANGE CHART FOR MANTIS MODEL GTC-500

as originally manufactured and equipped by Tadano Mantis Corporation



Shaded Area is Allowable Operating Range

Limits of operation:

Maximum load capacity = 750 lb

Maximum radius when mounted on main boom = 60 ft

Maximum 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.

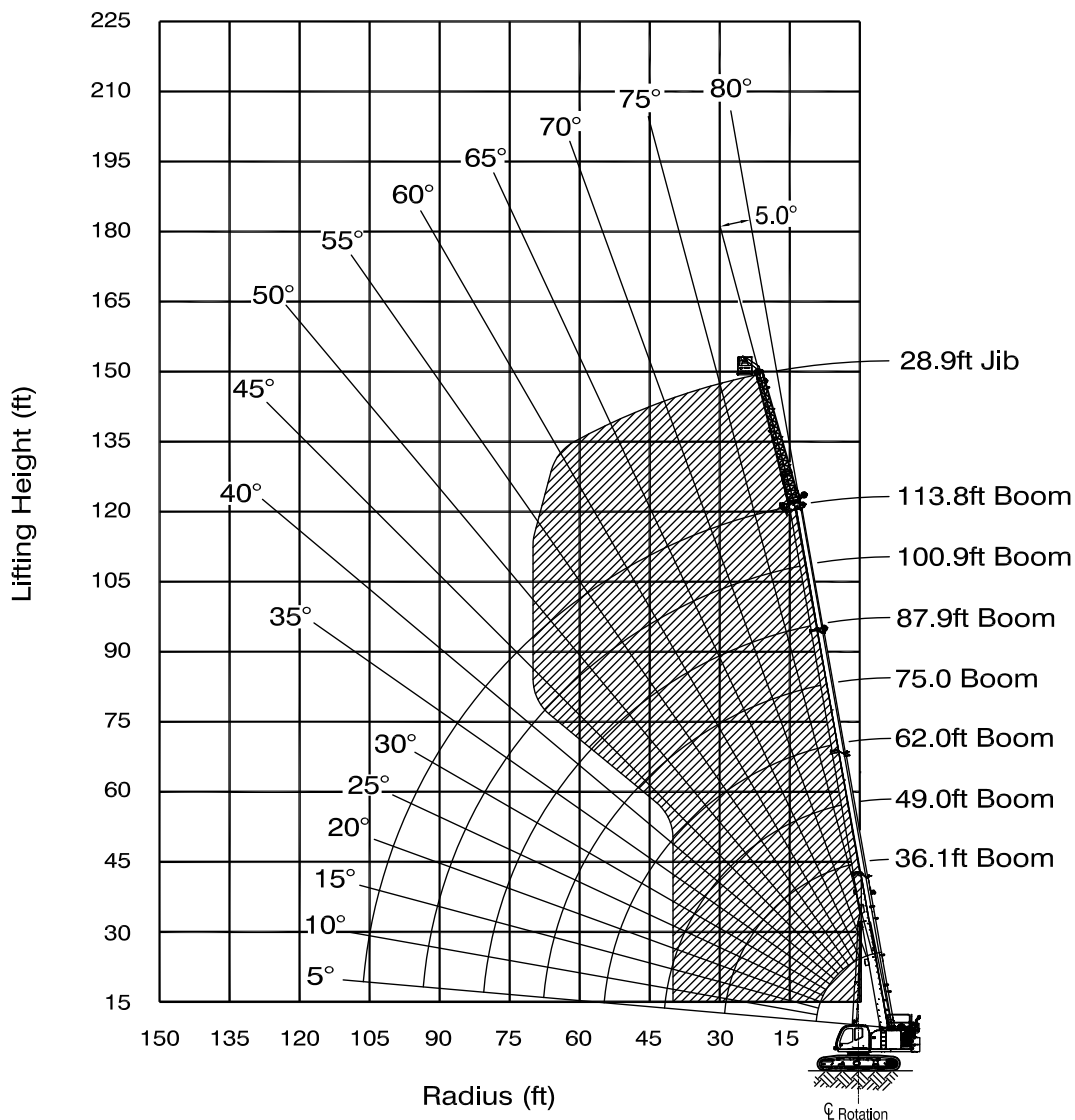
GTC-500

50 Ton Telescopic Boom Crawler Crane

SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

WP750 WORK PLATFORM ON MAIN JIB RANGE CHART FOR MANTIS MODEL GTC-500

as originally manufactured and equipped by Tadano Mantis Corporation



Shaded Area is Allowable Operating Range

Limits of operation:

Maximum load capacity = 750 lb

Maximum jib offset = 5 degrees

Maximum radius when mounted on jib boom = 70 ft

Maximum 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.

GTC-500

50 Ton Telescopic Boom Crawler Crane

SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

PLEASE READ, UNDERSTAND, AND FOLLOW THE MANUALS FURNISHED WITH THE CRANE AS WELL AS THE CAPACITY LIMITATIONS AND GENERAL CONDITIONS LISTED BELOW PRIOR TO OPERATION OF THE CRANE. FAILURE TO DO SO MAY RESULT IN AN ACCIDENT.

Performance of this TADANO MANTIS crane as manufactured by Tadano Mantis Corporation applies only to machines as originally equipped by the manufacturer and in a properly maintained condition. Capacities given are maximum covered by the manufacturer's warranty and are based on a freely suspended load with NO allowance for factors as out-of-level operation (beyond the limits specified on the charts), supporting surface conditions, hazardous surroundings, experience of personnel, etc. The operator shall establish practical working loads based on prevailing operating conditions, such as, but not limited to the above.

The crane meets the requirements of ASME B30.5. Structure and Stability have been tested in accordance with SAE J1063 and SAE J765, respectively.

Maximum admissible wind velocity for working with telescopic boom and jibs is 20 mph. Consult TADANO MANTIS for ratings at higher wind speeds.

Side pull on boom is extremely dangerous and must be avoided.

DO NOT exceed manufacturers maximum specified reeving.

Boom angle/boom length relationships given are an approximation of the resulted load radius, which should be an accurate measurement. Boom height dimensions are measured from ground to center of lower boom head sheave.

It is permissible to attempt 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.

It is permissible to travel with loads within the rated capacity of the crane. Travel speeds should be greatly reduced to reflect terrain limitations and minimize dynamic loads applied to the crane structure.

Lifting capacities are shown in lbs x 1000.

The weight of load handling devices such as hook blocks, slings, etc., must be considered as part of the load and must be deducted from the lifting capacities.

The lifting capacities for the telescopic boom apply to a crane with no jibs or other optional equipment stowed or mounted on the crane.

The working radius is the horizontal distance from the center of rotation to the center of the freely suspended, non-oscillating load.

Lifting capacities are for reference only. Load charts supplied with the crane should be used for lift planning.

The above remarks are for basic information only and the operator's manual must be consulted before operating this crane. All data and performances refer to the standard crane. The addition of optional and other non-standard equipment may affect the performance of the crane.

Load moment indicating and anti-two block systems are operator aids and must never be used in lieu of job site lift planning calculations by the operator which must take into account ground conditions, weather and all other environmental factors prevailing at the time of the lift. Specifications are subject to change at any time without prior notice. Illustrations and photographs may show optional equipment. Supersedes all previous issues.



SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

SPECIFICATION SHEET NO. TMC-DI-734-23 07/19

TADANO MANTIS CORPORATION

1705 Columbia Avenue • Franklin, TN 37064 USA • Toll-Free: 1-800-272-3325 • Fax: 615-790-6803 • mantiscranes.com

TADANO Ltd., International Division

4-12, Kamezawa 2-chome,
Sumida-Ku, Tokyo 130-0014, Japan

Tel: +81 3 3621 7750

Fax: +81 3 3621 7785

E-mail: info@tadano.com

www.tadano.com

SPECIFICATION SHEET NO. TMC-DI-734-23 07/19