



# **GTC-900** 90 Ton Telescopic Boom Crawler Crane

# **GENERAL DATA**

CRANE CAPACITY	90 ton at 10 feet (81.6t at 3.0m)
BOOM	5-section, 37' 8" – 141' 1"
DIMENSION	(11.5 m – 43.0 m)
Overall Length	45' 11" (14.00 m)
Overall Width (tracks extended)	17'10" (5.42 m)
Overall Width (tracks retracted)	11' 9" (3.59 m)
Overall Width (tracks removed)	9' 8" (2.95 m)
Overall Height (working)	13' 1" (3.97 m)
MASS	
Gross Vehicle Mass (Standard Equipment Package)	180,171 lb (81,724 kg)
Maximum Counterweight	Upper = 45,000 lb (20,411 kg) Carbody = 20,000 lb (9,070 kg)
PERFORMANCE	
Travel Speed	0.7 mph (1.1 km/hr)/ 2.1 mph (3.4 km/hr)
Gradeability	78%

# CRANE SPECIFICATION

MODEL GTC-900

- CAPACITY 90 ton at 10 feet (81.6t at 3.0m)

BOOM

5-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: 37' 8" (11.5m)
- Extended Length: 141' 1" (43.0 m)
   Extension Time: 161 s
- Elevating Angles: -1.5° to 81.5° Elevating Time: 83 s
- Max Lifting Height: 138' (42.1m)
- Boom Head: Six, 19.5 inch (495 mm) diameter cast nylon main sheaves on heavy-duty roller bearings. Two, 17.5" (445 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 17.5 inch (445 mm) diameter high-strength sheave mounted on a heavy-duty roller bearing. Allows single part reeving.

#### SPECIFICATION SHEET NO. TMC-DI-734-09-03/20

#### COUNTERWEIGHT

6 piece counterweight design. Three upper counterweight configurations

- "A" Configuration = 15,000lb (6,804 kg)
- "A+" Configuration = 22,500lb (10,206 kg)
- "B" Configuration = 30,000lb (13,608 kg)
- "C" Configuration = 45,000lb (20,411 kg)
- Two carbody counterweights, 10,000lb (4535 kg) each

### WINCHES

Planetary geared two-speed winch includes a hydraulic motor, multidisc internal brake and counterbalance valve. Drum rotation indicator is included (complete winch performance specs on Page 3)

- Main Winch
  - o Rope Diameter and Length: 3/4 in x 695 ft (19mm x 212m)
  - o Single line pull: 19,830 lb (88.2 kN)(first layer)
  - o Single line speed: 368 ft/min (112.2 m/min)(4th layer)
- Auxiliary Winch
  - o Rope Diameter and Length: 3/4 in x 480 ft (19mm x 146m)
  - o Single line pull: 19,830 lb (88.2 kN)(first layer)
  - o Single line speed: 368 ft/min (112.2 m/min)(4th layer)

### TRAVEL

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.

- Travel speed Low: 0.7 mph (1.1 km/hr) High: 2.1 mph (3.4 km/hr)
- Gradeability (unladen): 78%
- Unladen Ground Pressure: 11.8 psi (0.81 kg/cm<sup>2</sup>)

### 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 2.2 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

### 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, partsof-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.

o 4-position house lock (boom over front, rear or either side). Actuated from the operator's cab.

### 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.
- 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 B6.7
- Type: 6 Cylinder, Water cooled, 4 Cycle
- Aspiration: Turbocharged and Aftercooled
- Max.Output: 310 hp (231 kW) @ 2200 RPM
- Max Torque: 950 Lb-ft (1288 N-m) @ 1500 RPM
- Piston Disp: 6.7 L
- Emission Cert: U.S. EPA Tier 4f, Euromot Stage V
- 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: Two top and thirteen bottom sealed rollers on each track frame Idler: Oil filled, self lubricating with spring type tensioner
- Track Shoes: 35.4 inch (900 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 axial piston pump for swing function. 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: 227 gallon (861 liter) capacity, spin-on 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

#### **OPTIONAL EQUIPMENT**

- Jibs
  - o Heavy lift jib
    - Total Length: 8.2ft (2.5 m)
       Offset Angles: 3.5° & 30°
    - Max. Lifting Height: 148.6 ft (45.3 m)

o Main jib

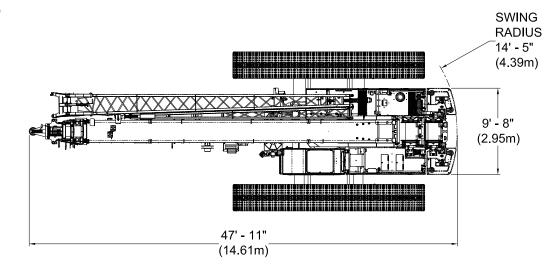
- Total Length: 33.1 ft (10.1m) Offset Angles: 3.5°, 25° & 45° • Max. Lifting Height: 173.6 ft (52.9 m)
- o Fly jib
  - Total Length: 58.1ft (17.7m) Offset Angles: 3.5°, 25° & 45°
  - Max. Lifting Height: 198.0ft (60.4 m)
- · Hook blocks
  - 90 ton (81.6t) quick reeve hook block Six, 19.5 in (495mm) steel sheaves, swivel hook and safety latch
  - 55 ton (50t) quick reeve hook block three, 19.5 in (495mm) steel sheaves, swivel hook and safety latch
  - 22 ton (20t) quick reeve hook block one, 19.5 in (495mm) steel sheave, swivel hook and safety latch
- · Overhaul ball 8.8 ton (8t) with swivel hook & safety latch
- 360 degree house lock. Actuated from the operator's cab.
- Track Shoes: 31.5 inch (800 mm) steel flat or 3-bar semi grouser shoes. 35.4 inch (900 mm) steel flat shoes
- 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)
- Carbody Jack System: Includes carbody mounted jacks, valves, electric control pendant, and auto-level raise system.
- 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).
- Radio control package.
- Anemometer: boom mounted wireless anemometer with cab display.
- Automatic central lubrication system.

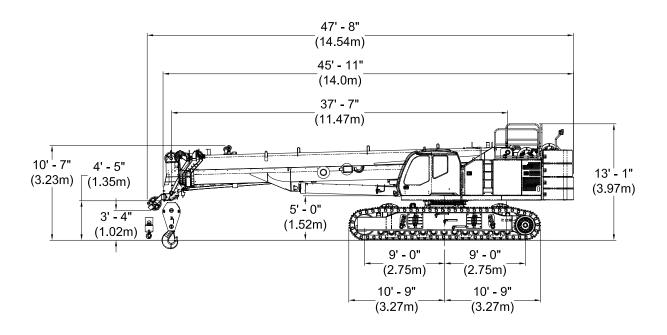
2

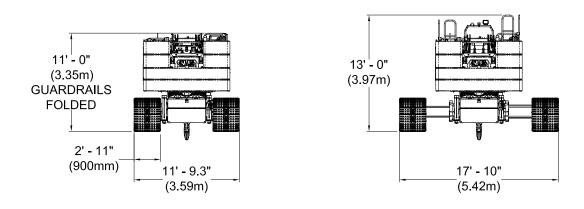
	MAIN W	INCH AND A	<b>JXILIARY WI</b>	NCH PERFO	RMANCE								
Wire F	Wire Rope: 3/4 in diameter rotation resistant. Line pulls are not based on wire rope strength.												
	Max Line Pull High Line Normal Line												
Rope Layer	Rope Layer(lb)Speed (ft/min)Speed (ft/min)Pitch Dia (in)Layer (ft)Total (ft)												
1	19,828	290.3	172.5	15.0	112.2	112.2							
2	17,962	316.2	187.9	16.6	122.3	234.5							
3	16,411	342.1	203.7	18.2	132.2	366.7							
4	15,107	368.0	219.1	19.7	142.4	509.1							
5	14,006	394.3	234.5	21.3	152.2	661.2							
6	13,039	420.2	249.9	22.9	162.4	823.6							

MACHINE WEIGHTS	LB	KG
<b>Standard Crane</b> with 5 section - 141.1 ft boom, full counterweight, 2 winches with wire rope, auxiliary nose sheave and 35.4 inch 3-bar semi grouser track shoes,	175,066	79,409
<b>Standard Crane</b> with 5 section - 141.1 ft boom, auxiliary winch with wire rope and 35.4 inch 3-bar semi grouser track shoes (Counterweight removed)	110,066	49,925
<b>Standard Crane</b> with auxiliary winch with wire rope (Counterweight and track frames removed)	76,221	34,573
OPTIONAL EQUIPMENT	LB	KG
Heavy Lift Jib - 8.2 ft (2.5m)	972	441
Jib Base - 33.1 ft (10.1 m)	2,030	921
Jib Tip - 24.7 ft (7.5m)	750	340
Auxiliary Nose Sheave	105	48
90 ton (81.6t) hook block - six sheave	1,442	654
55 ton (50t) hook block - three sheave	1,395	633
22 ton (20t) hook block - one sheave	655	297
8.8 ton (8t) Overhaul Ball	295	134
Carbody Jacks	3,774	1,712
Track Frame with 900mm 3-bar semi-grouser track shoe	19,140	8,682
Track Frame with 800mm flat steel track shoe	18,980	8,609

# DIMENSIONS







# TRANSPORT DIMENSIONS

#### Transport Plan (no carbody jacks)

Item	We	ight	Dims		Trailer	
	Lbs	Kg	(L x W x H)	1	2	3
Crane (with 2 winches, Boom, wire rope, aux nose sheave)	110,066	49,925	44' 11" x 11' 6" x 11' 0"	Х		
Counterweight A - 1 piece	15,000	6,804	9' 8" x 3' 5" x 3' 8"		Х	
Counterweight B - 1 piece	15,000	6,804	9' 8" x 3' 8"" x 1' 6""		Х	
Counterweight C - 1 piece	3,750	1,701	3' 0" x 3' 3" x 1' 6"			Х
Counterweight C - 1 piece	3,750	1,701	3' 0" x 3' 3" x 1' 6"			Х
Counterweight C - 1 piece	3,750	1,701	3' 0" x 3' 3" x 1' 6"			Х
Counterweight C - 1 piece	3,750	1,701	3' 0" x 3' 3" x 1' 6"		Х	
Counterweight - Carbody - 1 piece	10,000	4,536	3' 2" x 4' 3" x 2' 8"		Х	
Counterweight - Carbody - 1 piece	10,000	4,536	3' 2" x 4' 3" x 2' 8"			Х
Jib base section	2,030	921	34' 8" x 4' 10" x 3' 0"			Х
Jib point	750	340	25' 9" x 2' 5" x 2' 5"			Х
Hook Block - 90 USton	1,385	628	5' 2" x 2' 0" x 1' 6"			Х
Headache Ball - 8.8 USton	440	200	2' 5" x 0' 11" x 0' 11"			Х
Miscellaneous Items (Crate)	500	227	4' 0" x 3' 0" x 3' 0"			Х
Total Net Weight on Trailer (Lbs)				110066	43750	26355

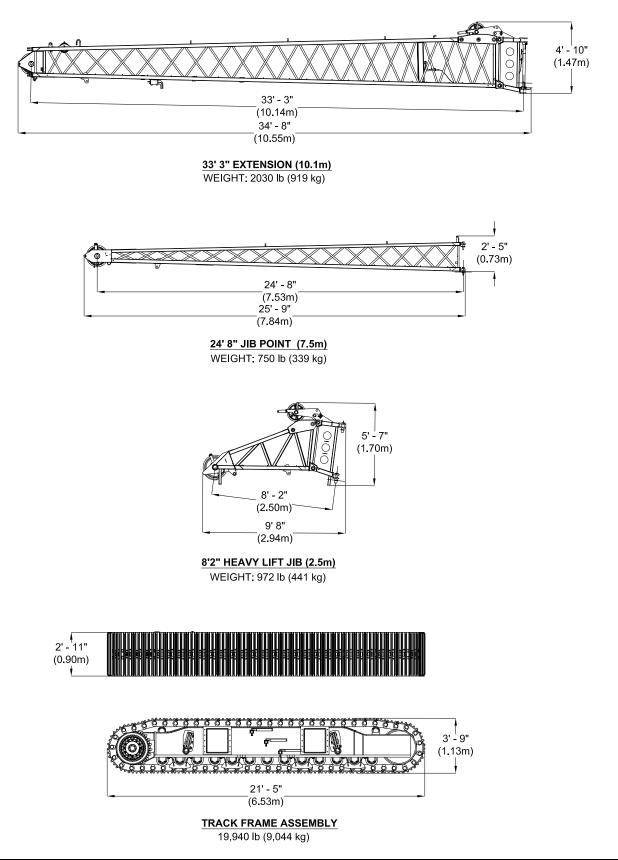
#### Transport Plan (with carbody jacks - tracks removed - 3 trailers)

Item	We	ight	Dims		Trailer	
	Lbs	Kg	(L x W x H)	1	2	3
Crane (with 2 winches, Boom, wire rope, aux nose sheave, <b>Tracks</b> removed)	75,359	34,182	44' 11" x 9' 8" x 10' 1"	х		
Left Track Frame	19,325	8,766	2' 11" x 3' 0" x 3' 9"		Х	
Right Track Frame	19,475	8,834	2' 11" x 3' 0" x 3' 9"			Х
Counterweight A	15,000	6,804	9' 8" x 3' 5" x 3' 8"		Х	
Counterweight B - 1 piece	15,000	6,804	9' 8" x 3' 8"" x 1' 6""			Х
Counterweight C - 1 piece	3,750	1,701	3' 0" x 3' 3" x 1' 6"			Х
Counterweight C - 1 piece	3,750	1,701	3' 0" x 3' 3" x 1' 6"		Х	
Counterweight C - 1 piece	3,750	1,701	3' 0" x 3' 3" x 1' 6"			Х
Counterweight C - 1 piece	3,750	1,701	3' 0" x 3' 3" x 1' 6"		Х	
Counterweight - Carbody - 1 piece	10,000	4,536	3' 2" x 4' 3" x 2' 8"	Х		
Counterweight - Carbody - 1 piece	10,000	4,536	3' 2" x 4' 3" x 2' 8"	Х		
Jib base section	2,030	921	34' 8" x 4' 10" x 3' 0"			Х
Jib point	750	340	25' 9" x 2' 5" x 2' 5"		Х	
Hook Block - 90 USton	1,385	628	5' 2" x 2' 0" x 1' 6"		Х	
Headache Ball - 8.8 USton	440	200	2' 5" x 0' 11" x 0' 11"			Х
Miscellaneous Items (Crate)	500	227	4' 0" x 3' 0" x 3' 0"			Х
Total Net Weight on Trailer (Lbs)				95359	43960	44945

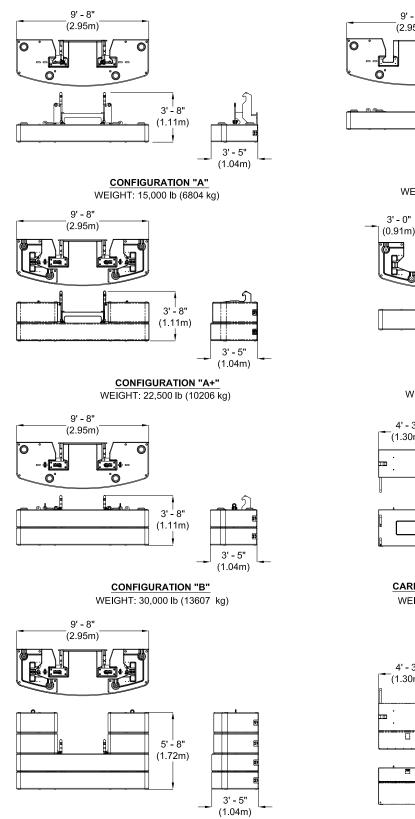
#### Transport Plan (with carbody jacks - tracks removed - 4 trailers)

Item	We	ight	Dims		Tra	iler	
	Lbs	Kg	(L x W x H)	1	2	3	4
Crane (with 2 winches, Boom, wire rope, aux nose sheave, Tracks	75.050	34,182	44' 11" x 9' 8" x 10' 1"	х			
removed)	75,359	34,102	44 II X 9 8 X 10 I	^			
Left Track Frame	19,325	8,766	2' 11" x 3' 0" x 3' 9"		Х		
Right Track Frame	19,475	8,834	2' 11" x 3' 0" x 3' 9"			Х	
Counterweight A	15,000	6,804	9' 8" x 3' 5" x 3' 8"		Х		
Counterweight B - 1 piece	15,000	6,804	9' 8" x 3' 8"" x 1' 6""			Х	
Counterweight C - 1 piece	3,750	1,701	3' 0" x 3' 3" x 1' 6"			Х	
Counterweight C - 1 piece	3,750	1,701	3' 0" x 3' 3" x 1' 6"		Х		
Counterweight C - 1 piece	3,750	1,701	3' 0" x 3' 3" x 1' 6"			Х	
Counterweight C - 1 piece	3,750	1,701	3' 0" x 3' 3" x 1' 6"		Х		
Counterweight - Carbody - 1 piece	10,000	4,536	3' 2" x 4' 3" x 2' 8"				Х
Counterweight - Carbody - 1 piece	10,000	4,536	3' 2" x 4' 3" x 2' 8"				Х
Jib base section	2,030	921	34' 8" x 4' 10" x 3' 0"			Х	
Jib point	750	340	25' 9" x 2' 5" x 2' 5"		Х		
Hook Block - 90 USton	1,385	628	5' 2" x 2' 0" x 1' 6"		Х		
Headache Ball - 8.8 USton	440	200	2' 5" x 0' 11" x 0' 11"			Х	
Miscellaneous Items (Crate)	500	227	4' 0" x 3' 0" x 3' 0"			Х	
Total Net Weight on Trailer (Lbs)				75359	43960	44945	20000

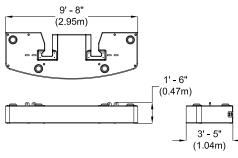
# **TRANSPORT DIMENSIONS**



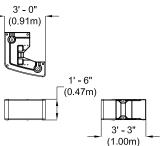
# TRANSPORT DIMENSIONS



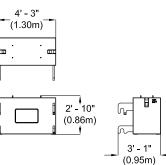
CONFIGURATION "C" WEIGHT: 45,000 lb (20411 kg)



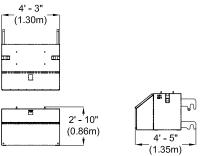
CWT "B" SECTION WEIGHT: 15,000 lb (6804 kg)



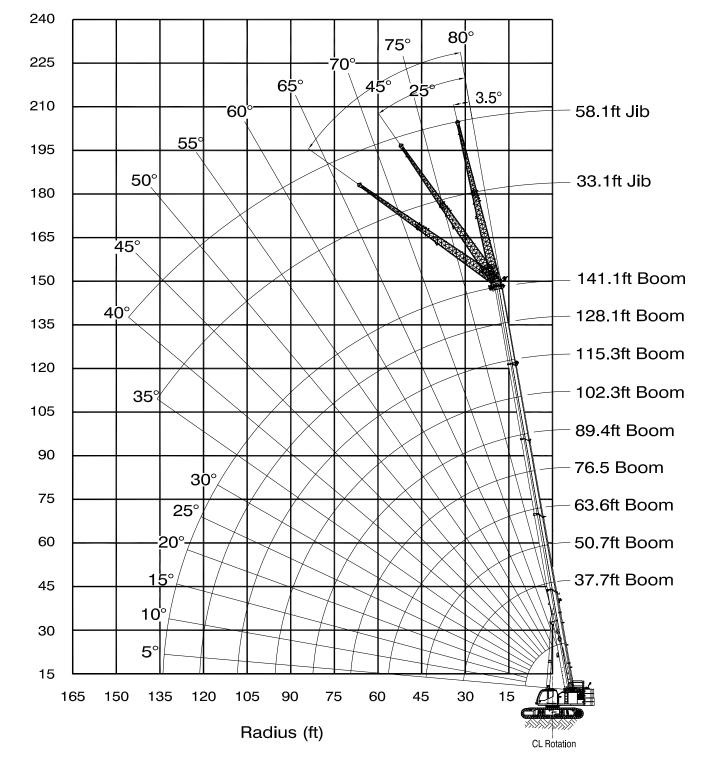
<u>CWT "C" SECTION</u> 4 PIECES WEIGHT: 3750 lb (1700 kg)



CARBODY COUNTERWEIGHT WEIGHT: 10,000 lb (4535 kg)



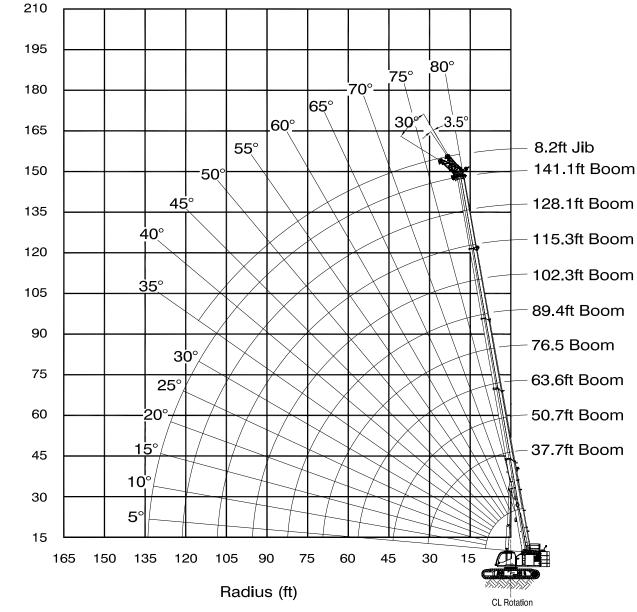
REAR CARBODY COUNTERWEIGHT with TOOLBOX WEIGHT: 10,175 lb (4615 kg)



# WORKING RANGE DIAGRAM

Lifting Height (ft)





# Lifting Height (ft)

LOADS IN Ib x 1000

	Γ	MAIN B	00M w	vith TR	ACKS FI	JLLY EX	TENDE	D - 360	)°				
				UP TO	<b>) 0.5</b> ° S	LOPE							
	45,000 lb MAIN COUNTERWEIGHT AND 20,000 lb CARBODY COUNTERWEIGHT												
RADIUS			ſ	MAIN BO	DOM LEI	NGTH (ft	t)			RADIUS			
(ft)	37.7	50.7	63.6	76.5	89.4	102.3	115.3	128.1	141.1	(ft)			
10.0	180.0	111.6	98.6	96.1						10.0			
12.0	160.6	111.6	97.2	96.1						12.0			
15.0	140.3	111.6	95.5	76.9	75.5	32.1				15.0			
20.0	113.8	110.2	81.7	69.5	61.7	37.2	37.2			20.0			
25.0	79.1	76.5	68.9	58.4	51.8	37.2	36.3	34.8	28.8	25.0			
30.0	59.9	57.4	55.8	50.1	44.4	37.2	36.2	34.4	28.8	30.0			
35.0		45.2	43.8	43.6	38.5	35.5	33.5	31.8	27.1	35.0			
40.0		37.4	36.2	35.7	33.8	31.2	29.5	28.2	24.7	40.0			
45.0			34.8	29.5	29.5	27.7	26.3	25.1	22.7	45.0			
50.0			30.0	24.9	24.9	24.8	23.6	22.5	20.5	50.0			
55.0			26.2	22.9	21.2	22.2	21.3	20.3	18.5	55.0			
60.0				21.4	18.2	19.2	19.2	18.5	16.9	60.0			
65.0				20.2	15.8	16.8	17.4	16.8	15.4	65.0			
70.0					13.7	14.7	15.3	15.3	14.1	70.0			
75.0					12.0	12.9	13.5	14.0	12.9	75.0			
80.0					10.6	11.4	12.1	13.2	11.9	80.0			
85.0						10.3	11.4	12.5	11.0	85.0			
90.0						9.7	10.8	11.3	10.1	90.0			
95.0						9.2	10.3	10.2	9.3	95.0			
100.0							9.8	9.3	8.6	100.0			
105.0							9.3	8.5	7.7	105.0			
110.0								7.7	7.0	110.0			
115.0								7.0	6.3	115.0			
120.0								6.5	5.7	120.0			
125.0									5.1	125.0			
130.0									4.6	130.0			
135.0										135.0			
PARTS OF LINE	12	8	8	6	6	4	4	4	2	PARTS OF LINE			

LOADS IN Ib x 1000

		MAIN	BOOM	with TR	ACKS FL	JLLY EXT	rended	- 360°		
				UP	to 4° SL	OPE				
		45,000 lb N	AIN COUN	TERWEIGH	T AND 20,0	00 lb CARBO	DDY COUNT	ERWEIGHT		
RADIUS			Ν	<b>JAIN BO</b>	DOM LEI	NGTH (f	t)			RADIUS
(ft)	37.7	50.7	63.6	76.5	89.4	102.3	115.3	128.1	141.1	(ft)
10.0	145.4	110.5	77.1	59.6						10.0
12.0	133.7	110.5	77.1	59.6						12.0
15.0	104.5	95.5	77.1	59.6	46.9	32.1				15.0
20.0	74.8	65.9	72.1	59.2	46.9	36.9	31.0			20.0
25.0	57.3	48.4	55.2	50.9	43.8	36.9	31.0	26.0	18.0	25.0
30.0	45.4	37.4	43.4	43.2	38.3	34.3	31.0	26.0	18.0	30.0
35.0		32.1	36.2	35.2	33.8	30.4	28.1	26.0	18.0	35.0
40.0		25.8	34.7	29.3	28.3	27.2	25.2	23.5	18.0	40.0
45.0			29.7	25.2	24.0	24.3	22.7	21.2	18.0	45.0
50.0			25.7	23.5	20.5	20.9	20.6	19.3	17.3	50.0
55.0			22.5	22.0	17.7	18.2	18.4	17.7	15.8	55.0
60.0				20.6	15.0	16.0	16.1	16.2	14.5	60.0
65.0				18.4	12.7	14.1	14.3	14.6	13.4	65.0
70.0					11.0	12.1	12.9	13.8	12.4	70.0
75.0					10.3	11.1	12.1	12.8	11.4	75.0
80.0					9.8	10.5	11.5	11.6	10.6	80.0
85.0						9.9	10.9	10.6	9.6	85.0
90.0						9.5	10.4	9.6	8.7	90.0
95.0						9.2	9.5	8.6	7.8	95.0
100.0							8.6	7.7	7.0	100.0
105.0							7.7	6.8	6.1	105.0
110.0								6.0	5.3	110.0
115.0								5.3	4.6	115.0
120.0								4.6	3.9	120.0
125.0									3.3	125.0
130.0									2.7	130.0
PARTS OF LINE	12	8	8	6	6	4	4	4	2	PARTS OF LINE

LOADS IN Ib x 1000

IV	IAIN B	00M w	ith TR				VER TH	E FROM	NT/REA	R
				UP TO	D 0.5° S	LOPE				
	45,000	Ib MAIN	COUNTER	RWEIGHT	AND 20,	000 lb CA	RBODY CO	OUNTERV	VEIGHT	_
RADIUS			ſ	MAIN BO	DOM LEI	NGTH (ft	:)			RADIUS
(ft)	37.7	50.7	63.6	76.5	89.4	102.3	115.3	128.1	141.1	(ft)
10.0	180.0	111.6	98.6	96.1						10.0
12.0	160.6	111.6	97.2	96.1						12.0
15.0	140.3	111.6	95.5	76.9	75.5	32.1				15.0
20.0	114.7	110.2	81.7	69.5	61.7	37.2	37.2			20.0
25.0	90.5	88.8	68.9	58.4	51.8	37.2	36.3	34.8	28.8	25.0
30.0	65.5	67.9	59.3	50.1	44.4	37.2	36.2	34.4	28.8	30.0
35.0		53.2	51.6	43.6	38.5	35.5	33.5	31.8	27.1	35.0
40.0		43.2	41.7	38.4	33.8	31.2	29.5	28.2	24.7	40.0
45.0			36.2	34.1	29.9	27.7	26.3	25.1	22.7	45.0
50.0			34.6	29.3	26.7	24.8	23.6	22.5	20.5	50.0
55.0			30.3	25.1	24.0	22.3	21.3	20.3	18.5	55.0
60.0				21.6	21.6	20.2	19.2	18.5	16.9	60.0
65.0				20.2	18.8	18.3	17.5	16.8	15.4	65.0
70.0					16.5	16.7	16.0	15.3	14.1	70.0
75.0					14.6	15.3	14.6	14.1	12.9	75.0
80.0					12.9	13.7	13.4	13.2	11.9	80.0
85.0						12.2	12.3	12.5	11.0	85.0
90.0						11.0	11.4	11.8	10.1	90.0
95.0						9.9	10.4	11.2	9.3	95.0
100.0							9.8	10.7	8.6	100.0
105.0							9.3	10.2	8.0	105.0
110.0								9.3	7.4	110.0
115.0								8.6	6.9	115.0
120.0								7.9	6.4	120.0
125.0									5.9	125.0
130.0									5.5	130.0
135.0										135.0
PARTS OF	12	8	8	6	6	4	4	4	2	PARTS OF
LINE		-	-	÷	-	•	•	•	_	LINE

LOADS IN Ib x 1000

	Ν		OM wit	h TRACK	(S FULLY	' RETRA	CTED - C	OVER SI	DE	
				UP t	o 1.5° SI	LOPE				
		45,000 lb N	AIN COUN	TERWEIGH	T AND 20,0	00 lb CARBO	DDY COUNT	ERWEIGHT		
RADIUS			Ν	<b>/AIN BC</b>	DOM LEI	NGTH (f	t)			RADIUS
(ft)	37.7	50.7	63.6	76.5	89.4	102.3	115.3	128.1	141.1	(ft)
10.0	*	*	*	*						10.0
12.0	*	*	*	*						12.0
15.0	*	*	*	*	*	*	*			15.0
20.0	62.6	59.2	*	*	*	*	*			20.0
25.0	46.2	43.3	41.2	40.8	*	*	*	34.8	28.8	25.0
30.0	36.2	36.9	36.2	33.6	31.0	31.7	31.9	31.1	28.2	30.0
35.0		29.9	30.3	30.4	24.7	25.4	25.7	25.7	25.4	35.0
40.0		25.0	25.4	25.5	20.0	20.8	21.6	22.8	21.5	40.0
45.0			21.6	21.8	17.1	18.3	19.7	19.5	18.3	45.0
50.0			18.7	18.9	15.5	16.7	17.8	16.7	15.8	50.0
55.0			16.4	16.5	14.2	15.3	15.5	14.5	13.6	55.0
60.0				14.6	13.1	14.2	13.6	12.6	11.8	60.0
65.0				13.0	12.1	12.5	12.0	11.0	10.2	65.0
70.0					11.2	11.2	10.6	9.7	8.9	70.0
75.0					10.5	10.0	9.5	8.6	7.8	75.0
80.0					9.6	8.9	8.5	7.5	6.8	80.0
85.0						8.1	7.6	6.7	5.9	85.0
90.0						7.3	6.8	5.9	5.1	90.0
95.0						6.7	6.1	5.2	4.4	95.0
100.0							5.5	4.6	3.6	100.0
105.0							5.0	4.0	3.0	105.0
110.0								3.4	2.4	110.0
115.0								2.8	1.8	115.0
120.0								2.4	*	120.0
125.0									*	125.0
130.0									*	130.0
PARTS OF	12	8	8	6	6	4	4	4	2	PARTS OF
LINE		-	-	-	-	-	-		_	LINE

LOADS IN Ib x 1000

	Ν	AIN B	00M w	/ith TR/	ACKS F	ULLY EX	<b>(TENDE</b>	D - 360	)°	
				UP TO	0.5° S	LOPE				
	0 N	ΛΑΙΝ COL	JNTERWE	IGHT ANI	20,000	lb CARBO	DY COUN	TERWEIG	6HT	
RADIUS			ſ	MAIN BO	OM LEI	NGTH (ft	:)			RADIUS
(ft)	37.7	50.7	63.6	76.5	89.4	102.3	115.3	128.1	141.1	(ft)
10.0	180.0	111.6	98.6	96.1						10.0
12.0	153.1	111.6	97.2	96.1						12.0
15.0	103.9	99.5	93.6	76.9	75.5	32.1				15.0
20.0	59.0	56.2	54.1	54.1	51.3	37.2	37.2			20.0
25.0	39.7	37.5	36.2	36.1	35.9	35.7	34.9	33.8	28.8	25.0
30.0	29.1	30.9	31.8	32.3	25.9	26.8	27.9	27.9	25.5	30.0
35.0		23.9	24.8	25.4	22.0	23.3	24.5	22.3	20.3	35.0
40.0		19.2	20.0	20.5	19.6	20.4	19.8	18.2	16.4	40.0
45.0			16.5	17.0	17.3	16.8	16.3	15.0	13.4	45.0
50.0			13.8	14.3	14.6	14.2	13.6	12.6	11.1	50.0
55.0			11.7	12.1	12.5	12.0	11.5	10.6	9.2	55.0
60.0				10.4	10.7	10.3	9.8	8.9	7.6	60.0
65.0				9.0	9.3	8.8	8.4	7.5	6.3	65.0
70.0					8.1	7.6	7.2	6.3	5.1	70.0
75.0					7.1	6.6	6.2	5.3	4.2	75.0
80.0					6.3	5.7	5.3	4.4	3.3	80.0
85.0						5.0	4.5	3.5	*	85.0
90.0						4.3	3.9	2.7	*	90.0
95.0						3.8	3.2	*	*	95.0
100.0							2.5	*	*	100.0
105.0							2.0	*	*	105.0
110.0								*	*	110.0
115.0								*	*	115.0
120.0								*	*	120.0
125.0									*	125.0
130.0									*	130.0
135.0										135.0
PARTS OF	12	8	8	6	6	4	4	4	2	PARTS OF
LINE	12	o	Ö	0	0	+	+	+	۷.	LINE

LOADS IN Ib x 1000

		8.2	2 ft JIB					DED - 36	5 <b>0°</b>					
	UP TO 0.5° SLOPE 45,000 lb MAIN COUNTERWEIGHT AND 20,000 lb CARBODY COUNTERWEIGHT													
RADIUS				MAII	N BOOM	1 LENGT	H (ft)				RADIUS			
(ft)	37	7.7	10	2.3	11	5.3	12	8.1	14	1.1	(ft)			
	3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         30°         3.5°         30°         3.5°         30°         30°         3.5°         30°         3.5°         30°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         30°         3.5°         30°         3.5°         30°         3.5°         30°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°         30°         3.5°<													
10	47.8	36.8									10			
12	45.8	35.8									12			
15	43.3	34.7									15			
20	39.9	33.2	29.7	28.1							20			
25	37.4	32.3	26.9	25.8	28.0	26.6	28.2				25			
30	35.7	32.2	23.4	22.6	24.6	23.5	25.5	24.2	23.3		30			
35	35.1	32.2	20.6	20.0	21.8	21.0	22.9	21.8	23.3	22.4	35			
40			18.4	17.9	19.6	19.0	20.6	19.8	21.4	20.4	40			
45			16.5	16.1	17.7	17.2	18.8	18.1	19.6	18.8	45			
50			14.9	14.7	16.1	15.7	17.2	16.6	18.0	17.3	50			
55			13.6	13.4	14.8	14.5	15.8	15.4	16.6	16.1	55			
60			12.4	12.3	13.6	13.3	14.6	14.2	15.4	15.0	60			
65			11.4	11.3	12.6	12.4	13.5	13.2	14.3	14.0	65			
70			10.6	10.5	11.7	11.5	12.6	12.4	13.0	13.1	70			
75			9.8	9.7	10.8	10.7	11.8	11.6	11.9	12.0	75			
80			9.1	9.0	10.1	10.0	11.0	10.9	10.9	11.0	80			
85			8.5	8.4	9.5	9.4	10.4	10.2	10.0	10.1	85			
90			7.9	7.9	8.9	8.8	9.7	9.7	9.1	9.2	90			
95			7.4		8.4	8.3	9.2	9.1	8.4	8.4	95			
100			7.0		7.9	7.9	8.7	8.6	7.7	7.8	100			
105					7.5		7.9	8.0	7.1	7.1	105			
110					7.1		7.1	7.2	6.4	6.5	110			
115					6.8		6.5	6.5	5.7	5.8	115			
120							5.8		5.1	5.1	120			
125							5.3		4.4	4.5	125			
130									3.8		130			
135									3.2		135			
140									2.7		140			
PARTS OF LINE	4	4	2	2	2	2	2	2	2	2	PARTS OF LINE			

LOADS IN Ib x 1000

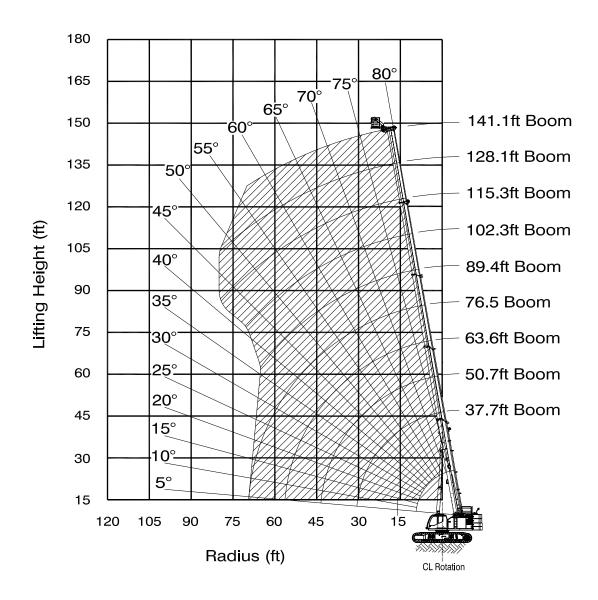
33.1 ft JIB with TRACKS FULLY EXTENDED - 360° UP TO 0.5° SLOPE																
						U	P TO	0.5°	<b>SLO</b>	PE						
	4	5,000	lb MA		UNTE	RWEI	GHT A	ND 20	0,000	lb CAF	RBOD	r cou	NTER	WEIGH	IT	
RADIUS		MAIN BOOM LENGTH (ft) RADIUS														
(ft)		37.7	_		102.3			115.3			128.1	_		141.1	_	(ft)
(11)	3.5°	25°	45°	3.5°	25°	45°	3.5°	25°	45°	3.5°	25°	45°	3.5°	25°	45°	(11)
10	14.5															10
12	14.5															12
15	14.5															15
20	14.5															20
25	14.5	14.5		14.5												25
30	14.5	14.3	11.9	14.5			14.5									30
35	14.5	13.2	11.2	14.5	14.5		14.5			14.5			13.5			35
40	14.5	12.2	10.7	14.5	14.5		14.5	14.5		14.5			13.5			40
45	13.7	11.4	10.2	14.5	13.7	11.1	14.5	13.7		14.5	13.5		13.5			45
50	12.5	10.8	9.9	13.5	12.7	10.8	13.8	12.7	10.9	14.0	12.7	10.9	13.5	12.5		50
55	11.6	10.3	9.8	12.4	11.7	10.5	12.8	11.8	10.6	13.0	11.9	10.7	13.0	11.8	10.7	55
60	10.8	10.0		11.4	10.8	10.3	11.8	11.0	10.3	12.1	11.1	10.4	12.1	11.1	10.3	60
65				10.6	10.1	9.9	11.0	10.3	10.0	11.3	10.4	10.0	11.3	10.4	9.9	65
70				9.9	9.4	9.2	10.3	9.7	9.4	10.6	9.9	9.5	10.6	9.9	9.4	70
75				9.2	8.8	8.7	9.6	9.1	8.9	9.9	9.3	9.0	10.0	9.3	8.9	75
80				8.6	8.3	8.2	9.0	8.6	8.4	9.3	8.8	8.5	9.5	8.8	8.5	80
85				8.0	7.8	7.7	8.5	8.1	8.0	8.8	8.3	8.1	8.9	8.4	8.1	85
90				7.6	7.4	7.3	8.0	7.7	7.5	8.3	7.9	7.7	8.5	8.0	7.8	90
95				7.1	6.9	6.9	7.6	7.3	7.2	7.9	7.5	7.4	8.1	7.6	7.4	95
100				6.7	6.6	6.5	7.2	6.9	6.8	7.5	7.2	7.0	7.7	7.3	7.1	100
105				6.3	6.2		6.8	6.6	6.5	7.1	6.8	6.7	7.3	7.0	6.8	105
110				6.0	5.9		6.5	6.3	6.2	6.8	6.5	6.4	7.0	6.7	6.5	110
115				5.7	5.6		6.1	6.0	6.0	6.5	6.3	6.2	6.7	6.4	6.3	115
120				5.4	5.4		5.9	5.7		6.2	6.0	5.9	6.1	6.1	6.0	120
125				5.2			5.6	5.5		5.9	5.8	5.7	5.6	5.9	5.8	125
130							5.4	5.3		5.7	5.6		5.0	5.4	5.6	130
135							5.2	5.1		5.3	5.3		4.5	4.9	5.0	135
140							5.0			4.8	5.0		4.0	4.4		140
PARTS OF LINE	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	PARTS OF LINE

LOADS IN Ib x 1000

58.1 ft JIB with TRACKS EXTENDED - 360° UP TO 0.5° SLOPE 45,000 lb MAIN COUNTERWEIGHT AND 20,000 lb CARBODY COUNTERWEIGHT																
	45	5,000	lb MA	IN CO	UNTE	RWEI	GHT A	ND 20	,000 l	b CAR	BODY		NTERV	VEIGH	Τ	
RADIUS						MAIN	N BOO		ENGT	'H (ft)	)					RADIUS
(ft)		37.7			102.3			115.3			128.1			141.1	_	(ft)
	3.5°	25°	45°	3.5°	25°	45°	3.5°	25°	45°	3.5°	25°	45°	3.5°	25°	45°	
10																10
12																12
15	9.9															15
20	9.9															20
25	9.9															25
30	9.9			7.5												30
35	9.1	8.1		7.5			7.2			6.9						35
40	8.3	7.6		7.5			7.2			6.9			6.7			40
45	7.6	7.1		7.5			7.2			6.9			6.7			45
50	7.1	6.7	5.7	7.5	7.5		7.2	7.2		6.9			6.7			50
55	6.6	6.2	5.4	7.5	7.3		7.2	7.2		6.9	6.9		6.7			55
60	6.1	5.8	5.2	7.5	7.0	5.6	7.2	7.1		6.9	6.9		6.7	6.7		60
65	5.8	5.4	4.9	7.5	6.8	5.4	7.2	6.9	5.4	6.9	6.9		6.7	6.7		65
70	5.4	5.1	4.7	7.4	6.5	5.2	7.2	6.6	5.3	6.9	6.7	5.3	6.7	6.7		70
75	5.2	4.8	4.6	7.1	6.2	5.1	7.2	6.4	5.2	6.9	6.5	5.2	6.7	6.6	5.2	75
80	4.9	4.7		6.8	6.0	5.0	6.9	6.1	5.0	6.9	6.2	5.0	6.7	6.3	5.1	80
85				6.5	5.7	4.8	6.7	5.9	4.9	6.9	6.0	4.9	6.7	6.1	5.0	85
90				6.1	5.5	4.7	6.4	5.7	4.8	6.6	5.8	4.8	6.7	5.9	4.8	90
95				5.8	5.3	4.6	6.0	5.5	4.7	6.3	5.6	4.7	6.4	5.7	4.8	95
100				5.4	5.2	4.5	5.7	5.3	4.6	5.9	5.4	4.6	6.0	5.6	4.7	100
105				5.1	5.0	4.5	5.4	5.1	4.5	5.6	5.3	4.5	5.8	5.4	4.6	105
110				4.8	4.7	4.4	5.1	5.0	4.4	5.4	5.1	4.5	5.5	5.2	4.5	110
115				4.6	4.5	4.3	4.9	4.7	4.3	5.1	4.9	4.4	5.2	4.9	4.4	115
120				4.3	4.3	4.3	4.6	4.5	4.3	4.8	4.7	4.3	5.0	4.7	4.3	120
125				4.1	4.1	4.1	4.4	4.3	4.2	4.6	4.5	4.3	4.8	4.5	4.3	125
130				3.9	3.9		4.2	4.1	4.1	4.4	4.3	4.2	4.5	4.3	4.2	130
135				3.7	3.7		4.0	3.9	3.9	4.2	4.1	4.0	4.4	4.2	4.1	135
140				3.5	3.5		3.8	3.7		4.0	3.9	3.9	4.2	4.0	3.9	140
145				3.4			3.7	3.6		3.9	3.7	3.7	3.7	3.8	3.8	145
150							3.4	3.3		3.6	3.5		2.9	3.4	3.5	150
155										3.0	3.2		2.1	2.5	3.3	155
160													1.5	1.7		160
165													0.9			165
PARTS OF LINE	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	PARTS OF LINE

# WP750 WORK PLATFORM ON MAIN BOOM RANGE CHART FOR MANTIS MODEL GTC-900

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 = 80 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 <u>not</u> allowed.

WARNING: Travelling the crane with person(s) in the Work Platform is not allowed.

# WP750 WORK PLATFORM ON MAIN JIB RANGE CHART FOR MANTIS MODEL GTC-900

as originally manufactured and equipped by Tadano Mantis Corporation 240 225 80 75 70°\_ 210 65° 45° 5 60° 3.5° 195 33.1ft Jib 180 55 氳 50 Lifting Height (ft) 165 141.1ft Boom 150 45° 128.1ft Boom 135 115.3ft Boom 40° 120 102.3ft Boom 105 -35° 89.4ft Boom 90 <sup>-</sup>30° 76.5 Boom 75 '25° 63.6ft Boom 60 ·20° 50.7ft Boom 15° 37.7ft Boom 45 10° 30 5° 15 135 15 120 105 90 75 60 45 30 Radius (ft) CL Rotation Shaded Area is Allowable Operating Range Limits of operation: Maximum load capacity = 750 lb Maximum radius when mounted on jib = 100 ft

Maximum occupancy = 2 persons

#### Notes:

1. It is permissible to leave the jib section stowed on the boom while operating with Work Platform mounted to the 33.1 ft (10.1m) jib.

2. The hook block(s) must be removed when using the Work Platform

WARNING: Lifting a load during Work Platform operation is <u>not</u> allowed.

WARNING: Travelling the crane with person(s) in the Work Platform is not allowed.

PLEASE READ, UNDERSTAND, AND FOLLOW THE MANUALS FURNISHED WITH THE CRANE AS WELL AS THE CAPACITY LIMITA-TIONS AND GENERAL CONDITIONS LISTED BELOW PRIOR TO OPERATI ON 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.

# NOTES

1	1			1	1											

# NOTES


# NOTES


# 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