

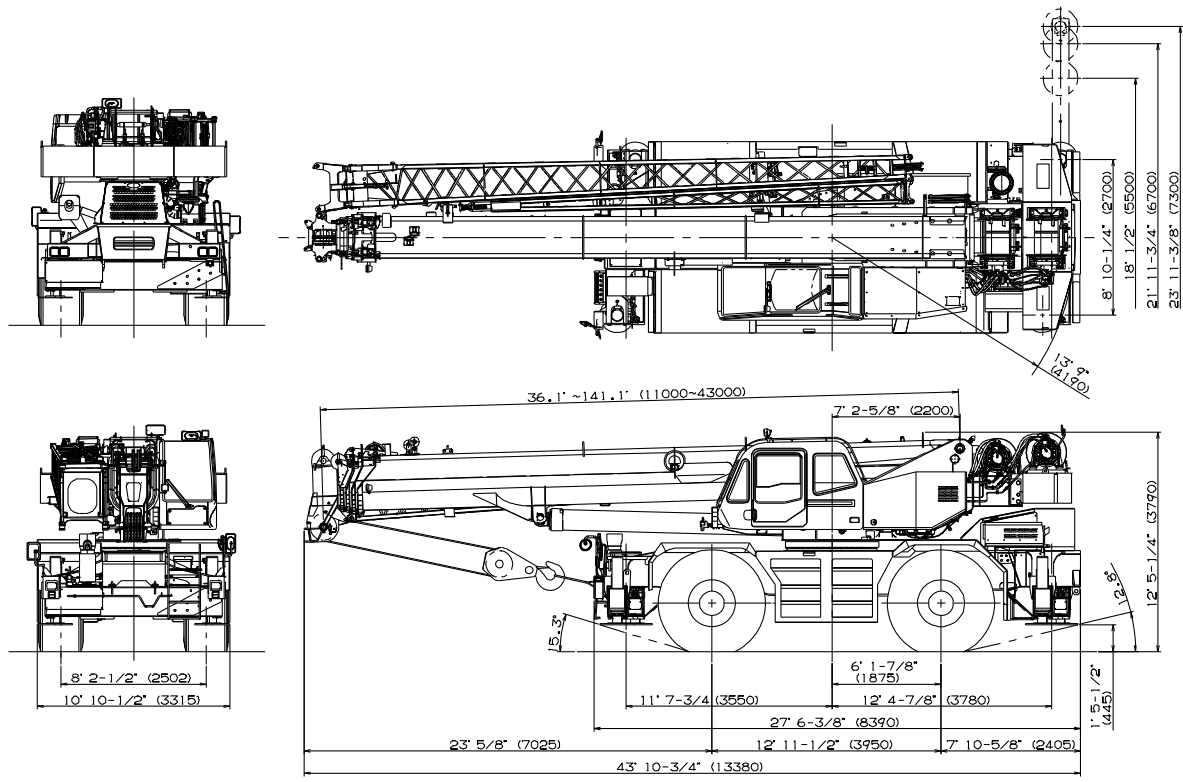


# GR-750XL-2

75 Ton Capacity (68 Metric Tons)

HYDRAULIC ROUGH TERRAIN CRANE

### DIMENSIONS



Note : Dimension is with boom angle at -1.6 degree.

### GENERAL DIMENSIONS (29.5 - 25 Tires)

	Feet	Meters
Turning radius		
4 wheel steer	22' 4"	6.8
2 wheel steer	39' 1"	11.9
Tail swing of counterweight	13' 9"	4.19

Specifications are subject to change without notice.



## BOOM

Five section full power synchronized telescoping boom, 36.1'~141.1' (11.0m~43.0m), of round box construction with six sheaves, 17-5/16" (0.44m) root diameter, at boom head. The synchronization system consists of two telescope cylinders, an extension cable and retraction cable. Hydraulic cylinder fitted with holding valve. Two easily removable wire rope guards, rope dead end provided on both sides of boom head. Boom telescope sections are supported by wear pads both vertically and horizontally. Extension speed 105' in 128 seconds.

**BOOM ELEVATION** - By a double acting hydraulic cylinder with holding valve. Elevation -1.6°~80.3°, combination controls for hand or foot operation. Boom angle indicator. Automatic speed reduction and soft stop function. Boom raising speed 20° to 60° in 46 sec.

**JIB** - Two stage bi-fold lattice type with 3.5°, 25° or 45° offset (tilt type). Single sheave, 15-5/8" (0.396m) root diameter, at the head of both jib sections. Stored alongside base boom section. Jib length is 33.2' (10.1m) or 58.1' (17.7m). Assistant cylinders for mounting and stowing, controlled at right side of superstructure. Self stowing jib mounting pins.

## AUXILIARY LIFTING SHEAVE (SINGLE TOP)

Single sheave, 15-5/8" (0.396m) root diameter. Mounted to main boom head for single line work (stowable).

**ANTI-TWO BLOCK** - Pendant type over-winding cut out device with audio-visual (FAILURE lamp/BUZZER) warning system.

## SWING

Hydraulic axial piston motor through planetary swing speed reducer. Continuous 360° full circle swing on ball bearing turn table at 2.4min<sup>-1</sup> {rpm}. Equipped with manually locked/released swing brake. A 360° positive swing lock for pick and carry and travel modes, manually engaged in cab. Twin swing system: Free swing or lock swing controlled by selector switch on front console.

## HOIST

**MAIN HOIST** - Variable speed type with grooved drum driven by hydraulic axial piston motor through speed reducer. Power load lowering and raising. Equipped with automatic brake (neutral brake) and counterbalance valve. Controlled independently of auxiliary hoist. Equipped with cable follower and drum rotation indicator.

**DRUM** - Grooved 15-3/4" (0.40m) root diameter x 23-9/16" (0.599m) wide. Wire rope: 771' of 3/4" diameter rope (235m of 19mm). Drum capacity: 1,074' (327.5m) 7 layers. Maximum single line pull: 1st layer 15,200 lbs (6,880kg). Maximum permissible line pull wire strength: 15,600 lbs (7,085kg).

**AUXILIARY HOIST** - Variable speed type with grooved drum driven by hydraulic axial piston motor through speed reducer. Power load lowering and raising. Equipped with automatic brake (neutral brake) and counterbalance valve. Controlled independently of main hoist. Equipped with cable follower and drum rotation indicator.

**DRUM** - Grooved 15-3/4" (0.40m) root diameter x 23-9/16" (0.559m) wide. Wire rope: 436' of 3/4" diameter rope (133m of 19mm). Drum capacity: 1,074' (327.5m) 7 layers. Maximum single line pull: 1st layer 15,200 lbs (6,880kg). Maximum permissible line pull wire strength: 15,600 lbs (7,085kg).

**WIRE ROPE** - Warrington seal wire, extra improved plow steel, preformed, independent wire rope core, right regular lay. 3/4" (19 mm) 6x31 class

## HOOK BLOCKS

75 ton (68 metric ton) - 7 sheaves with swivel hook block and safety latch. 6.2 ton (5.6 metric ton) - Weighted hook ball with swivel and safety latch.

## HYDRAULIC SYSTEM

**PUMPS** - Two variable piston pumps for crane functions. Tandem gear pump for steering, swing and optional equipment. Powered by carrier engine. Pump disconnect for crane is engaged/disengaged by rotary switch from operator's cab.

**CONTROL VALVES** - Multiple valves actuated by pilot pressure with integral pressure relief valves.

**RESERVOIR** - 222 gallon (840 lit.) capacity. External sight level gauge.

**FILTRATION** - BETA10=10 return filter, full flow with bypass protection, located inside of hydraulic reservoir. Accessible for easy replacement.

**OIL COOLER** - Air cooled fan type.

## CAB AND CONTROLS

Both crane and drive operations can be performed from one cab mounted on rotating superstructure.

Left side, 1 man type, steel construction with sliding door access and safety glass windows opening at side. Door window is powered control. Windshield glass window and roof glass window are shatter-resistant. Tilt-telescoping steering wheel. Adjustable control lever stands for swing, boom elevating, boom telescoping, auxiliary hoist and main hoist. Control lever stands can change neutral positions and tilt for easy access to cab. 3 way adjustable operator's seat with high back, headrest and armrest. Engine throttle knob. Foot operated controls: boom elevating, boom telescoping, service brake and engine throttle. Hot water cab heater and air conditioning.

Dash-mounted engine start/stop, monitor lamps, cigarette lighter, drive selector switch, parking brake switch, steering mode select switch, power window switch, pump engaged/disengaged switch, swing brake switch, telescoping/auxiliary hoist select switch, outrigger controls, free swing / lock swing selector switch, eco mode switch and ashtray.

Instruments - Torque converter oil temperature, engine water temperature, air pressure, fuel, speedometer, tachometer, hour meter and odometer / tripmeter. Hydraulic oil pressure is monitored and displayed on the AML-C display panel.



Tadano electronic LOAD MOMENT INDICATOR system (AML-C) including:

- Control lever lockout function
- Boom position indicator
- Outrigger state indicator
- Boom angle / boom length / jib offset angle / jib length / load radius / rated lifting capacities / actual loads read out
- Ratio of actual load moment to rated load moment indication
- Automatic Speed Reduction and Slow Stop function on boom elevation and swing
- Working condition register switch
- Load radius / boom angle / tip height / swing range preset function
- External warning lamp
- Tare function
- Fuel consumption monitor
- Main hoist / auxiliary hoist select
- Drum rotation indicator (audible and visible type) main and auxiliary hoist

TADANO AML-C monitors outrigger extended length and automatically programs the corresponding "RATED LIFTING CAPACITIES" table

Operator's right hand console includes transmission gear selector and sight level bubble. Upper console includes working light switch, roof washer and wiper switch emergency outrigger set up key switch, jib equipped/removed select switch, eco mode switch, boom emergency telescoping switch (2nd / 3rd, 4th and top) and air conditioning control switch. Swing lock lever.

NOTE: Each crane motion speed is based on unladen conditions.

## CARRIER SPECIFICATIONS

**TYPE** - Rear engine, left hand steering, driving axle 2-way selected type by manual switch, 4x2 front drive, 4x4 front and rear drive.

**FRAME** - High tensile steel, all welded mono-box construction.

**TRANSMISSION** - Electronically controlled full automatic transmission. Torque converter driving full powershift with driving axle selector. 6 forward and 2 reverse speeds, constant mesh.

- 3 speeds - high range - 2 wheel drive; 4 wheel drive
- 3 speeds - low range - 4 wheel drive

**TRAVEL SPEED** - 22 mph (36 km/h)

**AXLE** - Front: Full floating type, steering and driving axle with planetary reduction. Rear: Full floating type, steering and driving axle with planetary reduction and non-spin rear differential.

**STEERING** - Hydraulic power steering controlled by steering wheel. Four steering modes available: 2 wheel front, 2 wheel rear, 4 wheel coordinated and 4 wheel crab .

**SUSPENSION** - Front: Rigid mounted to frame. Rear: Pivot mounted with hydraulic lockout device.

**BRAKE SYSTEMS** - Service: Air over hydraulic disc brakes on all 4 wheels. Parking/Emergency: Spring applied-air released brake acting on input shaft of front axle. Auxiliary: Electro-pneumatic operated exhaust brake.

**TIRES** - 29.5-25 22PR(OR) or 29.5-25 28PR(OR)

**OUTRIGGERS** - Four hydraulic, beam and jack outriggers. Vertical jack cylinders equipped with integral holding valve. Each outrigger beam and jack is controlled independently from cab. Beams extend to 23' 11-3/8" (7.3 m) center-line and retract to within 10' 10-1/2" (3.315 m) overall width with floats. Outrigger jack floats are attached thus eliminating the need of manually attaching and detaching them. Controls and sight bubble located in superstructure cab. Four outrigger extension lengths are provided with corresponding "RATED LIFTING CAPACITIES" for crane duty in confined areas.

- Min. Extension 8' 10-1/4" (2.7m) center to center
- Mid. Extension 18' 1/2" (5.5m) center to center
- Mid. Extension 21' 11-3/4" (6.7m) center to center
- Max. Extension 23' 11-3/8" (7.3m) center to center
- Float size(Diameter) 1' 11- 5/8" (0.6m)

### ENGINE

Model	Cummins QSB6.7 [Tier 4]
Type	Direct injection diesel
No. of cylinders	6
Combustion	4 cycle, turbo charged and after cooled
BoreXStroke, in.(mm)	4.212 x 4.882 (107 x 124)
Displacement, cu. in (liters)	409 (6.700)
Air inlet heater	24 volt preheat
Air cleaner	Dry type, replaceable element
Oil filter	Full flow with replaceable element
Fuel filter	Full flow with replaceable element
Fuel tank, gal.(liters)	79.2 (300), right side of carrier
Cooling	Liquid pressurized, recirculating by-pass

Radiator	Fin and tube core, thermostat controlled
Fan, in.(mm)	Suction type, 9-blade, 28 (711) dia.
Starting	24 volt
Charging	24 volt system, negative ground
Battery	2-120 amp. Hour
Compressor, air, CFM(l /min)	17.0 CFM (481) at 2,400rpm
Horsepower (kW)	Gross 260 (194) at 2,500rpm
Torque, Max. ft-lb (Nm)	622 (843) at 1,600rpm
Capacity, gal.(liters)	
Cooling water	2.7 (10)
Lubrication	4.0 (15)
Fuel	79.2 (300)



- Five section full power partially synchronized boom 36.1'~141.1' (11.0 m~43.0 m)
- 33.2' or 58.1' (10.1 m or 17.7 m) bi-fold lattice jib (tilt type) with 3.5°, 25° or 45° pinned offsets and self storing pins.
- Auxiliary lifting sheave (single top) stowable
- Variable speed main hoist with grooved drum, cable follower and 771' of 3/4" cable.
- Variable speed auxiliary hoist with grooved drum, cable follower and 436' of 3/4" cable.
- Drum rotation indicator (audible, visible and thumper type) main and auxiliary hoist
- Anti-Two block device (overwind cutout)
- Boom angle indicator
- Tadano electronic load moment indicator system (AML-C)
- Outrigger extension length detector
- Electronic crane monitoring system
- Tadano twin swing system and 360° positive swing lock
- Self centering finger control levers with pilot control
- Control pedals for boom elevating and boom telescoping
- 3 way adjustable cloth seat with armrests, high back and seat belt
- Tilt-telescoping steering wheel
- Tinted safety glass and sun visor
- Front windshield wiper and washer
- Roof window wiper and washer
- Power window (cab door)
- Rear view mirrors (right and left side)
- Mirror for main and auxiliary hoists
- Cigarette lighter and ashtray
- Cab floor mat
- Pump disconnect in operator's cab
- Hydraulic oil cooler
- Hot water cab heater and air conditioner
- Positive control
- Quick reeving type bi-fold jib
- Work lights
- Independently controlled outriggers
- Four outrigger extension positions
- Self-storing outrigger pads
- Cummins QSB6.7 turbo charged after cooled engine (260HP) with exhaust brake
- Electronic controlled automatic transmission driven by torque converter
- 4 X 4 X 4 drive/steer
- Non-spin rear differential
- Automatic rear axle oscillation lockout system
- 29.5-25 22PR(OR) tires or 29.5-25 28PR(OR) tires
- Disc brakes
- Fenders
- Air dryer
- Water separator with filter (high filtration)
- Engine over-run alarm
- Back-up alarm
- Low oil pressure/high water temp. warning device (visual)
- Rear steer centering light
- Air cleaner dust indicator
- Full instrumentation package
- Complete highway light package
- Tool storage compartment
- Tire inflation kit
- 24 volt electric system
- 6.2 ton (5.6 metric ton) hook ball with swivel
- 75 ton (68 metric ton) - 7 sheaves with swivel hook block and safety latch for 3/4"(19mm) wire rope
- Towing hooks-Front and rear
- Lifting eyes
- Hook block tie down (front bumper)
- Weighted hook storage compartment
- Halogen head lamp
- Telematics (machine data logging and monitoring system) with HELLO-NET via internet
- Fuel consumption monitor
- Eco mode system

## HOISTING PERFORMANCE

### LINE SPEEDS AND PULLS

Layer	Main or auxiliary hoist - 15'-3/4" (0.4m) drum			
	Line speeds <sup>1</sup>		Line pulls Available <sup>2</sup>	
	F.P.M.	m/min	Lbs.	kgf
1st	358	109	15,200	6,880
2nd	387	118	13,900	6,310
3rd	417	127	12,800	5,820
4th	446	136	11,900	5,410
5th	475	144	11,100	5,050
6th	504	153	10,400	4,730
7th <sup>3</sup>	533	162	9,800	4,460

<sup>1</sup> Line speeds based only on hook block, not loaded.

<sup>2</sup> Developed by machinery with each layer of wire rope, but not based on rope strength or other limitation in machinery or equipment.

<sup>3</sup> Seventh layer of wire rope are not recommended for hoisting operations.

### DRUM WIRE ROPE CAPACITIES

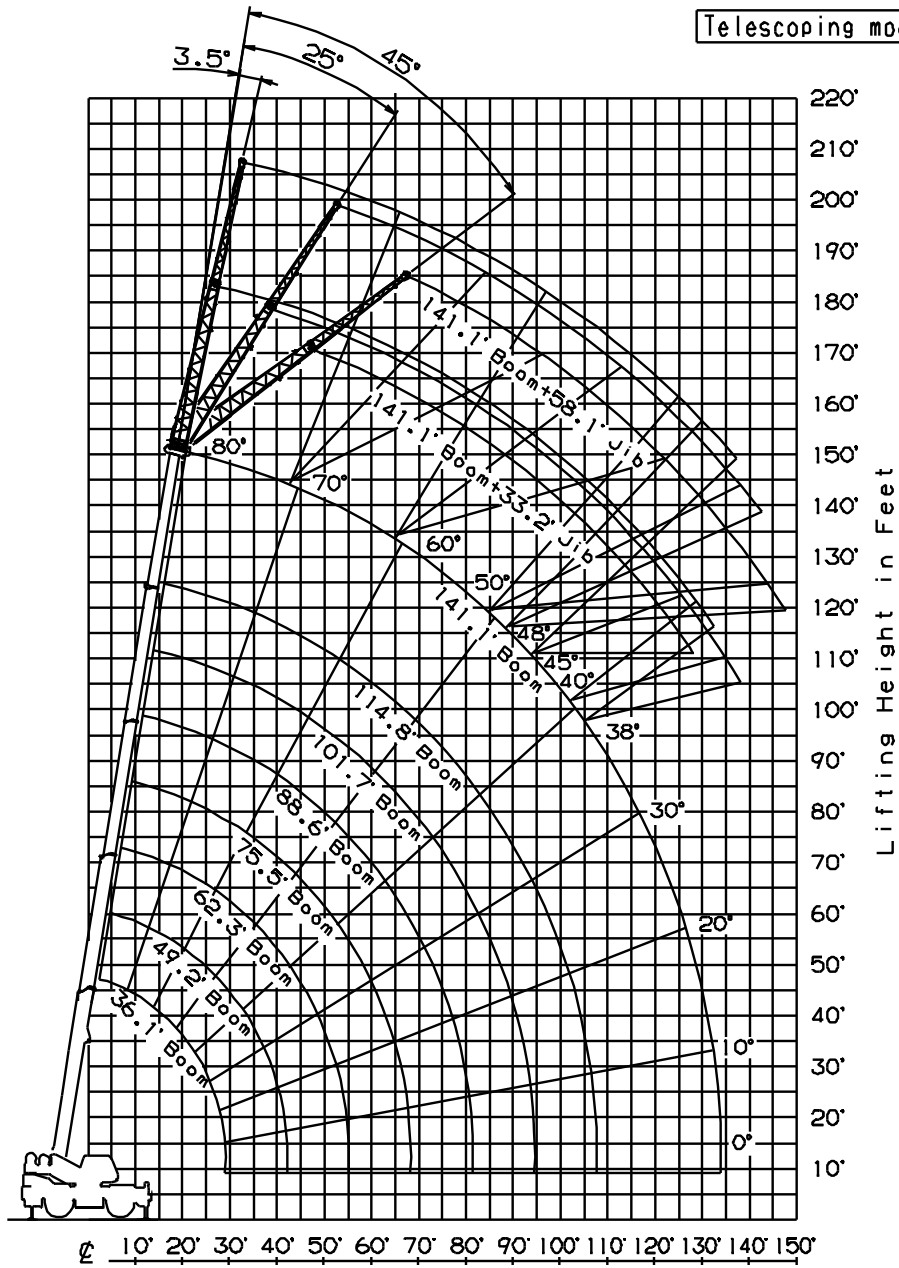
Wire rope layer	Main and auxiliary drum grooved lagging 3/4" (19mm) wire rope			
	Rope per layer		Total wire rope	
	Feet	Meters	Feet	Meters
1	123.3	37.6	123.3	37.6
2	133.5	40.7	256.8	78.3
3	143.3	43.7	400.2	122.0
4	153.5	46.8	553.8	168.8
5	163.3	49.8	717.1	218.6
6	173.8	53.0	891.0	271.6
7	183.3	55.9	1074.4	327.5

### DRUM DIMENSIONS

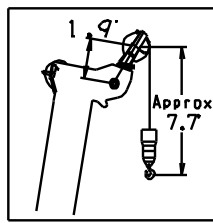
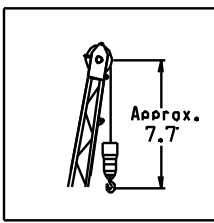
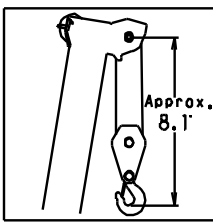
	Inch	mm
Root diameter	15-3/4"	400
Length	23-9/16"	599
Flange diameter	27-3/8"	695



Telescoping mode I



Axis of Rotation  
Load Radius from Axis of Rotation in Feet



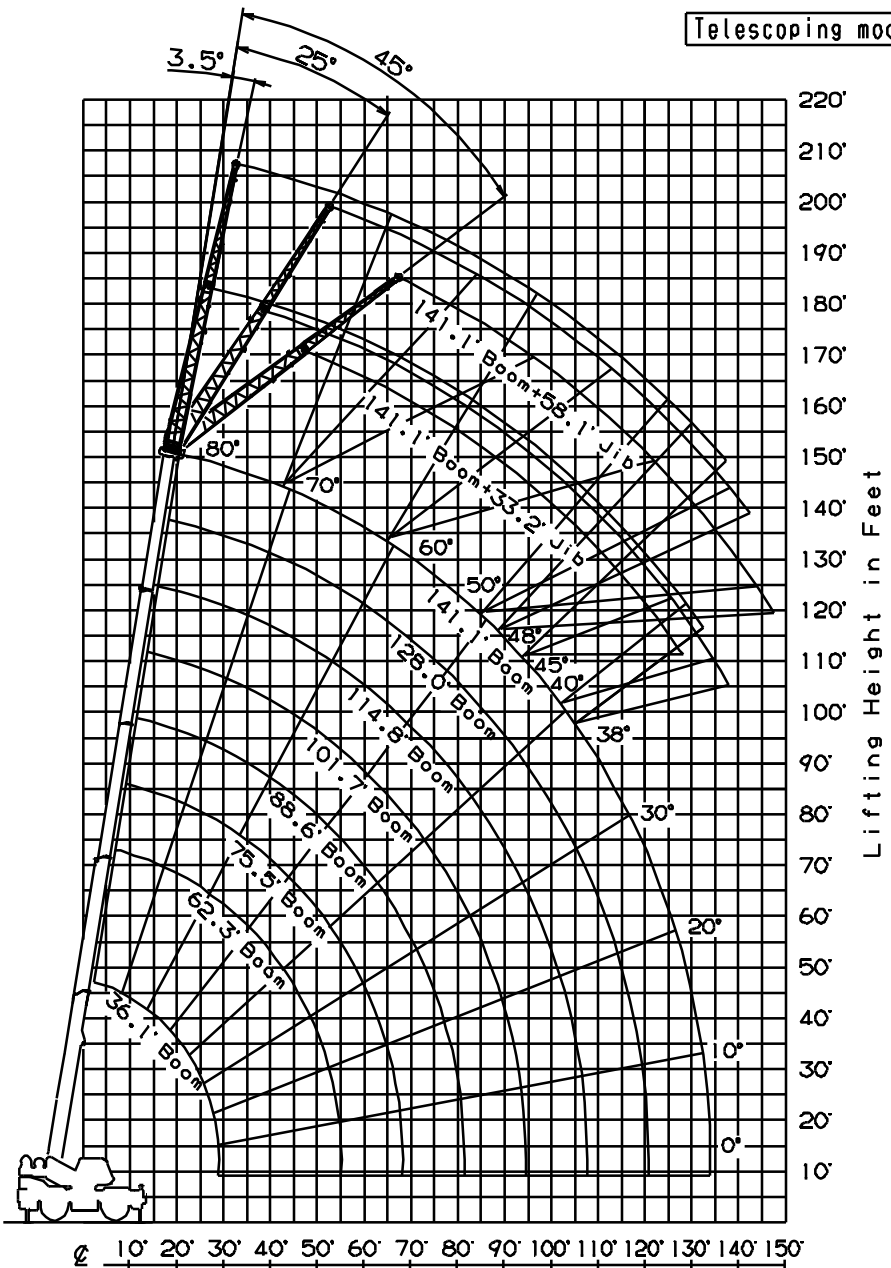
NOTE: 1. Boom and jib geometry shown are for unloaded condition and machine standing level on firm supporting surface. Boom deflection and subsequent radius and boom angle change must be accounted for when applying load to hook.

Boom Length in Feet

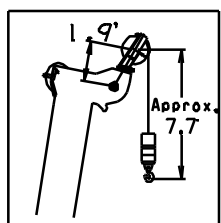
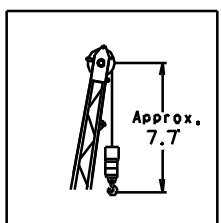
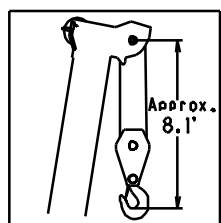
36.1'	(11m)
49.2'	(15m)
62.3'	(19m)
75.5'	(23m)
88.6'	(27m)
101.7'	(31m)
114.8'	(35m)
141.1'	(43m)



Telescoping mode I



Axis of Rotation  
Load Radius from Axis of Rotation in Feet



Boom Length in Feet

- 36.1' (11m)
- 62.3' (19m)
- 75.5' (23m)
- 88.6' (27m)
- 101.7' (31m)
- 114.8' (35m)
- 128.0' (39m)
- 141.1' (43m)

NOTE: 1. Boom and jib geometry shown are for unloaded condition and machine standing level on firm supporting surface.  
Boom deflection and subsequent radius and boom angle change must be accounted for when applying load to hook.





ON OUTRIGGERS FULLY EXTENDED 23' 11-3/8"(7.3m) SPREAD																	
360° ROTATION																	
B \ A	36.1'		49.2'		62.3' (19m)		75.5' (23m)		88.6' (27m)		101.7' (31m)		114.8' (35m)		128.0'	141.1'	
	C	(11m)	C	(15m)	C	C	C	C	C	C	C	C	C	C	C (39m)	C (43m)	
8'	72	150,000	77	90,000													
10'	68	132,300	75	90,000	79	70,500	78	44,100									
12'	64	117,100	72	90,000	77	70,500	76	44,100	79	44,100	79	44,100					
15'	59	98,000	68	90,000	73	70,500	73	44,100	77	44,100	79	44,100	79	37,500			
20'	48	75,600	62	75,100	69	69,600	69	44,100	73	44,100	73	44,100	76	42,400	76	37,100	
25'	33	60,000	54	59,400	64	59,100	63	44,100	69	44,100	69	43,300	73	39,100	73	32,600	
30'			46	45,900	59	45,000	58	44,100	65	44,100	65	37,200	70	38,800	69	29,500	
35'			36	33,900	52	32,900	52	38,300	60	34,600	60	32,400	66	34,700	66	25,900	
40'			21	26,100	45	25,300	45	30,200	55	26,800	55	28,500	62	27,700	62	23,100	
45'					38	19,900	38	24,600	50	21,300	50	24,800	58	22,200	58	20,900	
50'					29	15,900	28	20,500	45	17,300	45	20,700	54	18,100	54	19,000	
55'					13	11,100	11	14,000	38	14,200	38	17,500	49	15,000	49	17,400	
60'								31	11,700	31	15,000	45	12,500	45	15,200	53	13,100
65'								22	9,700	22	13,000	40	10,500	40	13,200	49	11,000
70'												34	8,900	34	11,500	45	9,400
75'												26	7,500	26	10,100	40	8,000
80'												15	6,300	18	9,000	35	6,800
85'																29	5,800
90'																21	5,000
95'																	
100'																31	4,500
105'																25	3,900
110'																16	3,300
115'																	
120'																27	3,800
125'																8	2,900
130'																	
D	0																
Telescoping conditions (%)																	
Tele. mode	I, II	I	I	II	I	II	I	II	I	II	I	II	I	II	I, II		
2nd boom	0	50	100	0	100	0	100	0	100	0	100	0	100	0	100		
3rd boom	0	0	0	33	16	50	33	66	50	83	66	100	100	100	100		
4th boom	0	0	0	33	16	50	33	66	50	83	66	100	100	100	100		
Top boom	0	0	0	33	16	50	33	66	50	83	66	100	100	100	100		

LIFTING CAPACITIES AT ZERO DEGREE BOOM ANGLE ON OUTRIGGERS FULLY EXTENDED																
23' 11-3/8"(7.3m) SPREAD 360° ROTATION																
C \ A	36.1'		49.2'		62.3' (19m)		75.5' (23m)		88.6' (27m)		101.7' (31m)		114.8' (35m)		128.0'	141.1'
	B	(11m)	B	(15m)	B	B	B	B	B	B	B	B	B	B	B (39m)	B (43m)
0	28.9'	26,000	42.0'	16,800	55.4'	10,800	55.4'	13,700	68.0'	7,900	68.6'	10,100	81.7'	6,000	81.7'	8,400
Tele. mode	I, II	I	I	II	I	II	I	II	I	II	I	II	I	II	II	I, II

- A : Boom length in feet
- B : Load radius in feet
- C : Loaded boom angle (°)
- D : Minimum boom angle (°) for indicated length (no load)

NOTE: The lifting capacity data stored in the LOAD MOMENT INDICATOR (AML-C) is based on the standard number of parts of line listed in the chart. Standard number of parts of line for each boom length should be according to the following table.

Boom length in feet (meters)	36.1' (11m)	36.1' to 49.2' (11m to 15m)	49.2' to 62.3' (15m to 19m)	62.3' to 141.1' (19m to 43m)	Single top Jib
Telescoping mode	I, II	I	I II	I, II	I, II
Number of parts of line	14	8	6	4	1



## GR-750XL RATED LIFTING CAPACITIES (IN POUNDS)

ON OUTRIGGERS FULLY EXTENDED 23' 11-3/8"(7.3m) SPREAD													
360° ROTATION													
C	141.1' (43.0m) Boom + 33.2' (10.1m) Jib						141.1' (43.0m) Boom + 58.1' (17.7m) Jib						
	3.5° offset		25° offset		45° offset		3.5° offset		25° offset		45° offset		
	R	W	R	W	R	W	R	W	R	W	R	W	
80	35.1'	9,300	48.6'	8,800	55.4'	7,500	43.0'	5,700	65.6'	5,200	76.8'	3,900	
79	38.7'	9,300	51.8'	8,500	58.4'	7,300	47.2'	5,700	69.2'	5,000	80.1'	3,800	
78	42.0'	9,300	54.8'	8,200	61.0'	7,100	51.2'	5,700	72.5'	4,900	83.3'	3,700	
77	45.3'	9,300	58.1'	8,000	64.3'	6,900	55.1'	5,700	75.8'	4,700	86.0'	3,700	
76	48.9'	9,300	61.0'	7,800	66.9'	6,700	58.7'	5,700	79.1'	4,600	89.2'	3,600	
75	52.5'	9,300	64.0'	7,500	69.9'	6,600	62.7'	5,700	82.3'	4,400	92.2'	3,500	
73	59.1'	9,100	69.9'	7,200	75.1'	6,300	70.2'	5,700	88.9'	4,100	97.8'	3,400	
70	67.9'	8,200	78.4'	6,700	83.3'	5,900	81.4'	5,600	98.8'	3,800	106.0'	3,200	
68	73.8'	7,800	84.0'	6,400	87.6'	5,700	87.9'	5,300	105.0'	3,600	111.2'	3,000	
65	83.7'	7,200	91.9'	6,000	95.1'	5,400	97.1'	4,700	113.2'	3,300	118.8'	2,900	
63	87.3'	6,700	96.8'	5,800	99.7'	5,200	103.0'	4,400	118.8'	3,200	123.7'	2,800	
60	94.5'	5,800	103.7'	5,200	106.3'	4,900	111.9'	3,900	127.0'	3,000	130.9'	2,600	
58	99.4'	5,100	107.9'	4,600	110.6'	4,300	116.8'	3,500	131.9'	2,800	135.2'	2,600	
55	106.3'	4,100	114.2'	3,800	116.1'	3,500	124.3'	2,800	138.5'	2,300	141.1'	2,100	
53	110.6'	3,600	118.1'	3,300	119.8'	3,100	129.3'	2,300	142.7'	1,900	144.7'	1,700	
50	116.8'	2,900	124.0'	2,700	125.0'	2,600	136.2'	1,800	148.6'	1,400	149.9'	1,300	
48	120.7'	2,500	127.6'	2,300	128.3'	2,200	140.7'	1,400	152.6'	1,200	153.2'	1,100	
45	126.6'	2,000	132.5'	1,900	133.2'	1,800							
43	130.2'	1,700	135.8'	1,600									
40	135.5'	1,300	140.7'	1,200									
38	139.1'	1,100	143.7'	1,000									

ON OUTRIGGERS FULLY EXTENDED 23' 11-3/8"(7.3m) SPREAD													
360° ROTATION													
C	128.0'(39.0m) Boom(telescoping mode I) + 33.2' (10.1m) Jib						128.0'(39.0m) Boom(telescoping mode II) + 58.1' (17.7m) Jib						
	3.5° offset		25° offset		45° offset		3.5° offset		25° offset		45° offset		
	R	W	R	W	R	W	R	W	R	W	R	W	
80	30.8'	10,100	44.0'	9,500	51.5'	7,700	38.7'	6,200	60.7'	5,500	72.5'	4,100	
79	34.1'	10,100	46.9'	9,200	54.1'	7,500	42.7'	6,200	64.0'	5,300	75.1'	3,900	
78	37.4'	10,100	49.5'	8,900	56.8'	7,300	45.9'	6,200	67.3'	5,100	78.1'	3,900	
77	40.4'	10,100	52.5'	8,600	59.4'	7,200	49.9'	6,200	70.2'	4,900	80.7'	3,800	
76	43.3'	10,100	55.1'	8,400	61.7'	7,000	53.5'	6,200	73.5'	4,800	83.3'	3,700	
75	46.6'	10,100	58.1'	8,200	64.0'	6,800	56.8'	6,200	76.1'	4,600	86.0'	3,600	
73	52.5'	10,000	63.3'	7,700	68.9'	6,500	64.3'	6,200	82.3'	4,300	91.2'	3,400	
70	60.7'	9,100	70.9'	7,100	76.4'	6,100	74.1'	6,000	91.2'	3,900	98.8'	3,200	
68	65.9'	8,600	76.1'	6,800	80.7'	5,800	80.1'	5,500	96.5'	3,700	103.7'	3,100	
65	73.8'	7,900	83.3'	6,300	87.3'	5,500	88.6'	4,900	104.7'	3,400	110.6'	2,900	
63	78.7'	7,600	87.9'	6,000	91.5'	5,300	94.2'	4,600	109.6'	3,300	115.8'	2,800	
60	86.3'	6,700	94.5'	5,600	97.8'	5,000	102.7'	4,100	117.1'	3,000	122.7'	2,700	
58	90.6'	6,200	99.1'	5,400	101.7'	4,900	107.6'	3,900	122.4'	2,900	127.3'	2,600	
55	97.1'	5,500	105.3'	4,900	107.6'	4,700	115.5'	3,500	129.3'	2,800	133.5'	2,500	
53	101.4'	5,100	108.9'	4,700	110.9'	4,500	120.4'	3,400	133.9'	2,600	137.5'	2,400	
50	107.6'	4,700	114.8'	4,300	116.1'	4,100	127.3'	3,100	140.4'	2,500	143.0'	2,400	
48	111.5'	4,300	118.1'	3,900	119.1'	3,800	131.6'	2,800	144.4'	2,400	146.3'	2,300	
45	116.8'	3,700	123.0'	3,400	123.4'	3,300	137.5'	2,400	149.3'	2,000	149.9'	1,900	
43	120.4'	3,300	126.0'	3,100			141.4'	2,100	152.6'	1,800			
40	125.0'	2,900	130.2'	2,700			147.0'	1,700	156.8'	1,500			
38	128.3'	2,600	132.9'	2,400			150.3'	1,500	159.4'	1,300			
35	132.5'	2,300	136.5'	2,100			155.2'	1,200	162.7'	1,100			
33	135.5'	2,100	138.8'	1,900			158.1'	1,100	165.0'	900			
30	139.1'	1,800	142.1'	1,700									
25	144.4'	1,500	146.3'	1,400									
20	148.6'	1,200											
15	151.6'	1,000											

ON OUTRIGGERS FULLY EXTENDED 23' 11-3/8"(7.3m) SPREAD													
360° ROTATION													
C	114.8'(35m) Boom(telescoping mode I) + 33.2' (10.1m) Jib						114.8'(35m) Boom(telescoping mode I) + 58.1' (17.7m) Jib						
	3.5° offset		25° offset		45° offset		3.5° offset		25° offset		45° offset		
	R	W	R	W	R	W	R	W	R	W	R	W	
80	28.2'	12,300	40.4'	11,300	47.6'	8,700	35.1'	7,100	56.8'	6,200	68.9'	4,500	
79	30.8'	12,300	42.7'	10,400	49.5'	8,300	38.4'	7,100	59.4'	5,600	71.2'	4,200	
78	33.8'	12,300	45.6'	10,400	52.2'	8,300	41.7'	7,100	62.7'	5,600	73.8'	4,200	
77	36.7'	12,300	48.2'	10,400	54.8'	8,200	44.9'	7,100	65.6'	5,600	76.8'	4,200	
76	39.7'	12,300	50.5'	10,100	56.8'	8,000	48.2'	7,100	68.6'	5,500	79.1'	4,200	
75	42.3'	12,300	53.1'	9,900	59.1'	7,800	51.2'	7,100	71.2'	5,400	81.7'	4,100	
73	47.6'	12,300	58.1'	9,300	63.6'	7,600	57.7'	7,100	76.8'	5,000	86.3'	4,000	
70	55.1'	11,400	65.0'	8,600	70.2'	7,200	67.3'	7,100	84.6'	4,700	93.2'	3,800	
68	60.0'	10,800	69.6'	8,200	74.1'	6,900	72.8'	6,800	89.9'	4,500	97.8'	3,600	
65	67.3'	10,100	76.1'	7,700	80.4'	6,600	81.0'	6,100	97.8'	4,200	104.0'	3,500	
63	71.9'	9,600	80.4'	7,300	84.3'	6,400	86.0'	5,700	102.0'	4,000	108.3'	3,400	
60	78.4'	9,000	86.6'	6,900	89.9'	6,200	93.5'	5,200	108.9'	3,800	114.2'	3,300	
58	82.3'	8,300	90.6'	6,700	93.5'	6,000	98.4'	4,900	113.5'	3,600	117.8'	3,200	
55	88.3'	7,000	95.8'	6,200	98.8'	5,800	106.0'	4,500	119.8'	3,400	123.0'	3,100	
53	92.2'	6,300	99.4'	5,600	101.7'	5,300	110.2'	4,300	123.7'	3,400	126.3'	3,100	
50	97.4'	5,300	104.7'	4,800	106.3'	4,600	116.5'	3,600	129.3'	3,100	130.9'	2,800	
48	101.0'	4,800	107.6'	4,300	108.9'	4,200	120.4'	3,200	132.5'	2,700	133.5'	2,500	
45	106.0'	4,100	112.2'	3,700	113.2'	3,600	126.3'	2,700	137.5'	2,300	137.5'	2,100	
43	109.3'	3,700	114.8'	3,400			129.9'	2,300	140.4'	2,000			
40	113.8'	3,200	119.1'	3,000			135.2'	1,900	144.7'	1,700			
38	116.8'	2,900	121.4'	2,700			138.5'	1,700	147.0'	1,500			
35	121.1'	2,500	125.0'	2,300			142.7'	1,400	150.6'	1,200			
33	123.4'	2,300	127.0'	2,100			145.7'	1,200	152.9'	1,100			
30	127.0'	2,000	129.9'	1,900			149.6'	1,000					
25	132.2'	1,600	133.9'	1,500									
20	136.2'	1,300											
15	139.1'	1,100											

C : Loaded boom angle (°)  
R : Load radius in feet  
W : Rated lifting capacity in pounds





ON OUTRIGGERS MID EXTENDED 21' 11-3/4"(6.7m) SPREAD																	
360° ROTATION																	
B \ A	36.1'		49.2'		62.3' (19m)		75.5' (23m)		88.6' (27m)		101.7' (31m)		114.8' (35m)		128.0'	141.1'	
	C	(11m)	C	(15m)	C	C	C	C	C	C	C	C	C	C	C (39m)	C (43m)	
8'	72	150,000	77	90,000													
10'	68	130,000	75	90,000	79	70,500	78	44,100									
12'	64	113,600	72	90,000	77	70,500	76	44,100	79	44,100	79	44,100					
15'	58	94,800	68	90,000	73	70,500	73	44,100	77	44,100	77	44,100	79	44,100	79	37,500	
20'	48	72,700	62	72,200	69	69,600	69	44,100	73	44,100	73	44,100	76	42,400	76	37,100	
25'	33	54,300	55	52,700	64	51,700	63	44,100	69	44,100	69	43,300	73	39,100	73	32,600	
30'			47	36,200	58	35,300	58	40,900	65	37,100	65	37,200	70	38,100	69	29,500	
35'			36	26,500	52	25,700	52	30,800	60	27,300	60	31,300	66	28,200	66	25,900	
40'			22	20,100	45	19,500	45	24,300	55	20,900	55	24,800	62	21,800	62	23,100	
45'					38	15,000	37	19,600	50	16,400	50	20,100	58	17,300	58	20,400	
50'					28	11,700	27	16,100	45	13,100	45	16,600	54	13,900	54	16,900	
55'					11	9,100	10	13,400	38	10,500	38	14,000	49	11,400	49	14,300	
60'								31	8,400	31	11,800	45	9,300	45	12,100	52	9,800
65'								21	6,700	21	10,100	39	7,600	39	10,400	49	8,100
70'										34	6,200	34	8,900	45	6,700	45	9,100
75'										26	5,000	26	7,700	40	5,600	40	7,900
80'										15	4,000	15	6,700	35	4,500	35	6,900
85'													29	3,700	29	6,000	
90'													21	2,900	21	5,200	
95'														31	2,600	30	4,600
100'														24	2,000	24	4,000
105'														15	1,500	15	3,500
110'																27	2,200
115'																20	1,800
120'																8	1,500
<b>D</b>	0															33	
Telescoping conditions (%)																	
Tele. mode	I, II	I	I	II	I	II	I	II	I	II	I	II	I	II	I, II		
2nd boom	0	50	100	0	100	0	100	0	100	0	100	0	100	0	100		
3rd boom	0	0	0	33	16	50	33	66	50	83	66	100	100	100	100		
4th boom	0	0	0	33	16	50	33	66	50	83	66	100	100	100	100		
Top boom	0	0	0	33	16	50	33	66	50	83	66	100	100	100	100		

LIFTING CAPACITIES AT ZERO DEGREE BOOM ANGLE ON OUTRIGGERS MID EXTENDED																										
21' 11-3/4"(6.7m) SPREAD 360° ROTATION																										
C \ A	36.1'		49.2'		62.3' (19m)		75.5' (23m)		88.6' (27m)		101.7' (31m)		114.8' (35m)		128.0'											
	B	(11m)	B	(15m)	B	B	B	B	B	B	B	B	B	B	B (39m)											
0	28.9'	26,000	42.3'	16,100	55.4'	9,000	55.1'	13,200	68.6'	5,700	68.6'	9,000	81.7'	3,700	81.7'	6,400	94.5'	2,400	94.2'	4,600	107.0'	1,300	107.0'	3,100	119.6'	1,500
Tele. mode	I, II	I	I	II	I	II	I	II	I	II	I	II	I	II	II											

- A : Boom length in feet
- B : Load radius in feet
- C : Loaded boom angle (°)
- D : Minimum boom angle (°) for indicated length (no load)

NOTE: The lifting capacity data stored in the LOAD MOMENT INDICATOR (AML-C) is based on the standard number of parts of line listed in the chart. Standard number of parts of line for each boom length should be according to the following table.

Boom length in feet (meters)	36.1' (11m)	36.1' to 49.2' (11m to 15m)	49.2' to 62.3' (15m to 19m)	62.3' to 141.1' (19m to 43m)	Single top Jib
Telescoping mode	I, II	I	I II	I, II	I, II
Number of parts of line	14	8	6 4	4	1



ON OUTRIGGERS MID EXTENDED 21' 11-3/4"(6.7m) SPREAD													
360° ROTATION													
C	141.1' (43.0m) Boom + 33.2' (10.1m) Jib						141.1' (43.0m) Boom + 58.1' (17.7m) Jib						
	3.5° offset		25° offset		45° offset		3.5° offset		25° offset		45° offset		
	R	W	R	W	R	W	R	W	R	W	R	W	
80	35.1'	9,300	48.6'	8,800	55.4'	7,500	43.0'	5,700	65.6'	5,200	76.8'	3,900	
79	38.7'	9,300	51.8'	8,500	58.4'	7,300	47.2'	5,700	69.2'	5,000	80.1'	3,800	
78	42.0'	9,300	54.8'	8,200	61.0'	7,100	51.2'	5,700	72.5'	4,900	83.3'	3,700	
77	45.3'	9,300	58.1'	8,000	64.3'	6,900	55.1'	5,700	75.8'	4,700	86.0'	3,700	
76	48.9'	9,300	61.0'	7,800	66.9'	6,700	58.7'	5,700	79.1'	4,600	89.2'	3,600	
75	52.5'	9,300	64.0'	7,500	69.9'	6,600	62.7'	5,700	82.3'	4,400	92.2'	3,500	
73	59.1'	9,100	69.9'	7,200	75.1'	6,300	70.2'	5,700	88.9'	4,100	97.8'	3,400	
70	67.9'	8,200	78.4'	6,700	83.3'	5,900	81.4'	5,600	98.8'	3,800	106.0'	3,200	
68	73.8'	7,800	84.0'	6,400	87.6'	5,700	87.9'	5,300	105.0'	3,600	111.2'	3,000	
65	81.4'	6,100	90.9'	5,200	94.5'	4,800	96.1'	4,100	112.5'	3,200	118.4'	2,800	
63	86.0'	5,200	95.5'	4,500	98.8'	4,100	101.4'	3,400	117.8'	2,600	123.0'	2,300	
60	93.2'	4,000	102.0'	3,500	105.0'	3,200	109.3'	2,500	125.0'	1,900	129.3'	1,700	
58	97.8'	3,300	106.3'	2,900	108.9'	2,700	113.2'	2,000	129.3'	1,500	133.5'	1,300	
55	104.7'	2,500	112.5'	2,200	114.8'	2,000	122.0'	1,300	136.2'	1,000	139.4'	900	
53	108.9'	2,000	116.8'	1,800	118.4'	1,600	126.6'	900					
50	115.2'	1,400	122.7'	1,200	123.7'	1,100							
48	119.4'	1,100	126.3'	900	127.3'	900							

ON OUTRIGGERS MID EXTENDED 21' 11-3/4"(6.7m) SPREAD													
360° ROTATION													
C	128.0'(39.0m) Boom(telescoping modeII) + 33.2' (10.1m) Jib						128.0'(39.0m) Boom(telescoping modeII) + 58.1' (17.7m) Jib						
	3.5° offset		25° offset		45° offset		3.5° offset		25° offset		45° offset		
	R	W	R	W	R	W	R	W	R	W	R	W	
80	30.8'	10,100	44.0'	9,500	51.5'	7,700	38.7'	6,200	60.7'	5,500	72.5'	4,100	
79	34.1'	10,100	46.9'	9,200	54.1'	7,500	42.7'	6,200	64.0'	5,300	75.1'	3,900	
78	37.4'	10,100	49.5'	8,900	56.8'	7,300	45.9'	6,200	67.3'	5,100	78.1'	3,900	
77	40.4'	10,100	52.5'	8,600	59.4'	7,200	49.9'	6,200	70.2'	4,900	80.7'	3,800	
76	43.3'	10,100	55.1'	8,400	61.7'	7,000	53.5'	6,200	73.5'	4,800	83.3'	3,700	
75	46.6'	10,100	58.1'	8,200	64.0'	6,800	56.8'	6,200	76.1'	4,600	86.0'	3,600	
73	52.5'	10,000	63.3'	7,700	68.9'	6,500	64.3'	6,200	82.3'	4,300	91.2'	3,400	
70	60.7'	9,100	70.9'	7,100	76.4'	6,100	74.1'	6,000	91.2'	3,900	98.8'	3,200	
68	65.9'	8,600	76.1'	6,800	80.7'	5,800	80.1'	5,500	96.5'	3,700	103.7'	3,100	
65	73.8'	7,900	83.3'	6,300	87.3'	5,500	88.6'	4,900	104.7'	3,400	110.6'	2,900	
63	79.1'	7,400	87.9'	6,000	91.5'	5,300	94.2'	4,600	109.6'	3,300	115.8'	2,800	
60	85.6'	6,000	94.5'	5,200	97.8'	4,900	102.7'	4,100	117.1'	3,000	122.7'	2,700	
58	89.9'	5,200	98.4'	4,600	101.4'	4,300	107.3'	3,500	122.4'	2,800	127.3'	2,500	
55	96.5'	4,300	104.3'	3,800	107.0'	3,600	114.2'	2,800	128.6'	2,200	132.9'	2,000	
53	100.4'	3,700	107.9'	3,300	110.6'	3,200	119.1'	2,300	132.5'	1,900	136.2'	1,700	
50	106.3'	3,000	113.5'	2,700	115.5'	2,600	125.7'	1,800	138.5'	1,400	141.1'	1,300	
48	110.2'	2,600	116.8'	2,400	118.4'	2,300	129.9'	1,500	142.1'	1,200	143.7'	1,100	
45	115.5'	2,100	121.7'	1,900	123.0'	1,800	136.2'	1,000	147.3'	900			
43	119.1'	1,800	125.0'	1,700			140.1'	900					
40	124.3'	1,400	129.6'	1,300									
38	127.3'	1,200	132.2'	1,100									
35	131.9'	900	136.2'	900									

ON OUTRIGGERS MID EXTENDED 21' 11-3/4"(6.7m) SPREAD													
360° ROTATION													
C	114.8'(35m) Boom(telescoping mode I) + 33.2' (10.1m) Jib						114.8'(35m) Boom(telescoping mode I) + 58.1' (17.7m) Jib						
	3.5° offset		25° offset		45° offset		3.5° offset		25° offset		45° offset		
	R	W	R	W	R	W	R	W	R	W	R	W	
80	28.2'	12,300	40.4'	11,300	47.6'	8,700	35.1'	7,100	56.8'	6,200	68.9'	4,500	
79	30.8'	12,300	42.7'	10,400	49.5'	8,300	38.4'	7,100	59.4'	5,600	71.2'	4,200	
78	33.8'	12,300	45.6'	10,400	52.2'	8,300	41.7'	7,100	62.7'	5,600	73.8'	4,200	
77	36.7'	12,300	48.2'	10,400	54.8'	8,200	44.9'	7,100	65.6'	5,600	76.8'	4,200	
76	39.7'	12,300	50.5'	10,100	56.8'	8,000	48.2'	7,100	68.6'	5,500	79.1'	4,200	
75	42.3'	12,300	53.1'	9,900	59.1'	7,800	51.2'	7,100	71.2'	5,400	81.7'	4,100	
73	47.6'	12,300	58.1'	9,300	63.6'	7,600	57.7'	7,100	76.8'	5,000	86.3'	4,000	
70	55.1'	11,400	65.0'	8,600	70.2'	7,200	67.3'	7,100	84.6'	4,700	93.2'	3,800	
68	60.0'	10,800	69.6'	8,200	74.1'	6,900	72.8'	6,800	89.9'	4,500	97.8'	3,600	
65	66.9'	9,800	76.1'	7,700	80.4'	6,600	81.0'	6,100	97.8'	4,200	104.0'	3,500	
63	71.2'	8,500	80.4'	7,100	84.3'	6,400	86.0'	5,700	102.0'	4,000	108.3'	3,400	
60	77.4'	6,800	86.0'	5,900	89.6'	5,400	93.2'	4,700	108.9'	3,700	114.2'	3,300	
58	81.4'	6,000	89.6'	5,200	92.8'	4,800	97.8'	4,000	112.9'	3,200	117.5'	2,800	
55	87.3'	4,900	95.1'	4,200	98.1'	4,000	104.3'	3,200	119.1'	2,500	122.7'	2,300	
53	90.9'	4,200	98.8'	3,700	101.0'	3,500	108.6'	2,700	122.7'	2,200	126.0'	1,900	
50	96.5'	3,400	103.7'	3,000	105.6'	2,900	114.8'	2,100	128.3'	1,700	130.2'	1,500	
48	100.1'	3,000	107.0'	2,600	108.3'	2,500	119.1'	1,700	131.6'	1,400	133.5'	1,200	
45	105.3'	2,400	111.5'	2,100	112.5'	2,000	125.0'	1,200	136.5'	1,000	137.5'	900	
43	108.6'	2,000	114.2'	1,800			128.6'	900					
40	113.2'	1,600	118.4'	1,400									
38	116.1'	1,300	121.1'	1,200									
35	120.4'	1,000	124.3'	1,000									

C :Loaded boom angle (°)  
R :Load radius in feet  
W :Rated lifting capacity in pounds



ON OUTRIGGERS MID EXTENDED 18' 1/2"(5.5m) SPREAD																												
360° ROTATION																												
B \ A	36.1'		49.2'		62.3' (19m)			75.5' (23m)			88.6' (27m)		101.7' (31m)		114.8' (35m)		128.0'	141.1'										
	C	(11m)	C	(15m)	C	C	C	C	C	C	C	C	C	C	C	C	C	(39m)	(43m)									
8'	72	150,000	77	90,000																								
10'	68	121,200	75	90,000	79	70,500	78	44,100																				
12'	64	105,100	72	90,000	77	70,500	76	44,100	79	44,100	79	44,100																
15'	58	87,000	68	86,500	73	70,500	73	44,100	77	44,100	77	44,100	79	44,100	79	37,500												
20'	48	61,000	62	60,000	69	59,200	69	44,100	73	44,100	73	44,100	76	42,400	76	37,100	78	36,600	78	31,700								
25'	33	38,700	54	37,800	64	37,300	63	42,900	69	39,100	69	43,300	73	39,100	73	32,600	76	32,400	76	28,100	78	28,500	78	24,600	79	22,000		
30'			46	26,200	58	25,700	58	30,800	65	27,500	65	31,500	69	28,500	69	29,500	73	29,200	73	25,200	75	26,300	75	22,200	77	22,000	79	19,800
35'			35	19,000	52	18,500	52	23,300	60	20,200	60	24,000	66	21,200	66	24,400	70	21,900	70	23,500	73	22,300	73	20,100	75	20,300	77	18,500
40'			21	14,200	45	13,700	45	18,200	55	15,300	55	18,900	62	16,300	62	19,300	66	17,000	66	19,600	70	17,400	70	18,700	73	18,700	75	17,200
45'					38	10,200	38	14,600	50	11,700	50	15,200	58	12,700	58	15,600	63	13,300	63	15,900	67	13,800	67	16,100	70	15,200	73	14,200
50'					29	7,600	28	11,800	45	9,100	45	12,400	54	10,000	54	12,800	60	10,600	60	13,100	64	11,100	64	13,300	68	12,400	71	11,700
55'					12	5,600	11	9,700	38	7,000	38	10,300	49	7,800	49	10,600	56	8,500	56	10,900	61	9,000	61	11,100	65	10,300	68	9,600
60'									31	5,300	31	8,600	45	6,200	44	8,900	52	6,800	52	9,200	58	7,200	58	9,300	62	8,500	66	7,800
65'									22	3,900	21	7,200	39	4,800	39	7,500	48	5,400	48	7,700	55	5,800	55	7,900	60	7,100	63	6,400
70'													34	3,600	34	6,300	45	4,200	45	6,500	52	4,700	52	6,700	57	5,900	61	5,200
75'													26	2,700	25	5,300	39	3,200	39	5,500	48	3,700	48	5,700	54	4,900	58	4,200
80'													15	1,900	15	4,500	34	2,400	34	4,700	44	2,800	44	4,800	50	4,000	56	3,400
85'																	28	1,700	29	3,900	40	2,100	40	4,100	47	3,300	53	2,600
90'																		21	3,300	36	1,500	36	3,400	44	2,600	50	2,000	
95'																					30	2,900	40	2,100	47	1,400		
100'																							24	2,400	36	1,600		
105'																							15	2,000				
<b>D</b>	0										21	0	24	0	32	45												
Telescoping conditions (%)																												
Tele. mode	I, II	I	I	II	I	II	I	II	I	II	I	II	I	II	II	I, II												
2nd boom	0	50	100	0	100	0	100	0	100	0	100	0	100	0	50	100												
3rd boom	0	0	0	33	16	50	33	66	50	83	66	100	100	100	100	100												
4th boom	0	0	0	33	16	50	33	66	50	83	66	100	100	100	100	100												
Top boom	0	0	0	33	16	50	33	66	50	83	66	100	100	100	100	100												

LIFTING CAPACITIES AT ZERO DEGREE BOOM ANGLE ON OUTRIGGERS MID EXTENDED																												
18' 1/2"(5.5m) SPREAD 360° ROTATION																												
C \ A	36.1'		49.2'		62.3' (19m)			75.5' (23m)			88.6' (27m)		101.7'		114.8'													
	B	(11m)	B	(15m)	B	B	B	B	B	B	B	B	B	(31m)	B	(35m)												
0	28.9'	25,800	42.3'	12,600	55.4'	5,500	55.4'	9,700	71.9'	3,100	88.6'	6,400	81.7'	1,800	81.7'	4,200												
Tele. mode	I, II	I	I	II	I	II	I	II	I	II	I	II	II	II	II													

- A** : Boom length in feet
- B** : Load radius in feet
- C** : Loaded boom angle (°)
- D** : Minimum boom angle (°) for indicated length (no load)

NOTE: The lifting capacity data stored in the LOAD MOMENT INDICATOR (AML-C) is based on the standard number of parts of line listed in the chart.  
 Standard number of parts of line for each boom length should be according to the following table.

Boom length in feet (meters)	36.1' (11m)	36.1' to 49.2' (11m to 15m)	49.2' to 62.3' (15m to 19m)	62.3' to 141.1' (19m to 43m)	Single top Jib
Telescoping mode	I, II	I	I   II	I, II	I, II
Number of parts of line	14	8	6   4	4	1



ON OUTRIGGERS MID EXTENDED 18' 1/2"(5.5m) SPREAD													
360° ROTATION													
C	141.1' (43.0m) Boom + 33.2' (10.1m) Jib						141.1' (43.0m) Boom + 58.1' (17.7m) Jib						
	3.5° offset		25° offset		45° offset		3.5° offset		25° offset		45° offset		
	R	W	R	W	R	W	R	W	R	W	R	W	
80	35.1'	9,300	48.6'	8,800	55.4'	7,500	43.0'	5,700	65.6'	5,200	76.8'	3,900	
79	38.7'	9,300	51.8'	8,500	58.4'	7,300	47.2'	5,700	69.2'	5,000	80.1'	3,800	
78	42.0'	9,300	54.8'	8,200	61.0'	7,100	51.2'	5,700	72.5'	4,900	83.3'	3,700	
77	45.3'	9,300	58.1'	8,000	64.3'	6,900	55.1'	5,700	75.8'	4,700	86.0'	3,700	
76	48.9'	9,300	61.0'	7,800	66.9'	6,700	58.7'	5,700	79.1'	4,600	89.2'	3,600	
75	52.5'	9,300	64.0'	7,500	69.9'	6,600	62.7'	5,700	82.3'	4,400	92.2'	3,500	
73	58.4'	8,300	69.6'	6,900	74.8'	6,200	69.9'	5,400	88.9'	4,100	97.8'	3,400	
70	66.3'	6,200	76.8'	5,300	81.7'	4,800	78.7'	3,900	96.8'	3,000	105.3'	2,700	
68	71.5'	5,100	81.7'	4,400	86.3'	4,100	84.3'	3,100	102.0'	2,400	109.6'	2,200	
65	79.1'	3,800	90.9'	3,300	92.8'	3,000	92.5'	2,100	109.6'	1,600	116.5'	1,500	
63	84.0'	3,000	93.5'	2,700	97.1'	2,400	98.1'	1,500	114.8'	1,100	121.4'	1,100	
60	91.5'	2,100	100.4'	1,900	103.7'	1,700	107.0'	1,100					
58	96.1'	1,600	105.0'	1,400	107.6'	1,300							
55	103.0'	900											

ON OUTRIGGERS MID EXTENDED 18' 1/2"(5.5m) SPREAD													
360° ROTATION													
C	128.0'(39.0m) Boom(telescoping mode I) + 33.2' (10.1m) Jib						128.0'(39.0m) Boom(telescoping mode I) + 58.1' (17.7m) Jib						
	3.5° offset		25° offset		45° offset		3.5° offset		25° offset		45° offset		
	R	W	R	W	R	W	R	W	R	W	R	W	
80	30.8'	10,100	44.0'	9,500	51.5'	7,700	38.7'	6,200	60.7'	5,500	72.5'	4,100	
79	34.1'	10,100	46.9'	9,200	54.1'	7,500	42.7'	6,200	64.0'	5,300	75.1'	3,900	
78	37.4'	10,100	49.5'	8,900	56.8'	7,300	45.9'	6,200	67.3'	5,100	78.1'	3,900	
77	40.4'	10,100	52.5'	8,600	59.4'	7,200	49.9'	6,200	70.2'	4,900	80.7'	3,800	
76	43.3'	10,100	55.1'	8,400	61.7'	7,000	53.5'	6,200	73.5'	4,800	83.3'	3,700	
75	46.6'	10,100	58.1'	8,200	64.0'	6,800	56.8'	6,200	76.1'	4,600	86.0'	3,600	
73	52.5'	10,000	63.3'	7,700	68.9'	6,500	64.3'	6,200	82.3'	4,300	91.2'	3,400	
70	60.7'	9,100	70.9'	7,100	76.4'	6,100	74.1'	6,000	91.2'	3,900	98.8'	3,200	
68	65.6'	7,700	75.8'	6,400	80.7'	5,800	79.4'	5,100	96.5'	3,700	103.7'	3,100	
65	72.5'	6,000	82.3'	5,100	86.6'	4,700	87.6'	3,900	104.0'	3,100	110.2'	2,700	
63	77.1'	5,100	86.6'	4,400	90.6'	4,000	92.5'	3,300	108.6'	2,600	114.8'	2,200	
60	84.0'	4,000	92.8'	3,400	96.5'	3,200	100.1'	2,400	115.2'	1,900	121.1'	1,700	
58	88.3'	3,300	96.8'	2,900	100.4'	2,700	105.0'	2,000	119.8'	1,500	125.0'	1,300	
55	94.8'	2,500	102.7'	2,200	106.0'	2,100	112.2'	1,300	126.3'	1,000			
53	98.8'	2,100	106.6'	1,800	109.3'	1,700	117.1'	1,000					
50	105.0'	1,500	112.2'	1,300	114.2'	1,200							
48	108.9'	1,200	115.8'	1,000	117.5'	900							

ON OUTRIGGERS MID EXTENDED 18' 1/2"(5.5m) SPREAD													
360° ROTATION													
C	114.8'(35m) Boom(telescoping mode I) + 33.2' (10.1m) Jib						114.8'(35m) Boom(telescoping mode I) + 58.1' (17.7m) Jib						
	3.5° offset		25° offset		45° offset		3.5° offset		25° offset		45° offset		
	R	W	R	W	R	W	R	W	R	W	R	W	
80	28.2'	12,300	40.4'	11,300	47.6'	8,700	35.1'	7,100	56.8'	6,200	68.9'	4,500	
79	30.8'	12,300	42.7'	10,400	49.5'	8,300	38.4'	7,100	59.4'	5,600	71.2'	4,200	
78	33.8'	12,300	45.6'	10,400	52.2'	8,300	41.7'	7,100	62.7'	5,600	73.8'	4,200	
77	36.7'	12,300	48.2'	10,400	54.8'	8,200	44.9'	7,100	65.6'	5,600	76.8'	4,200	
76	39.7'	12,300	50.5'	10,100	56.8'	8,000	48.2'	7,100	68.6'	5,500	79.1'	4,200	
75	42.3'	12,300	53.1'	9,900	59.1'	7,800	51.2'	7,100	71.2'	5,400	81.7'	4,100	
73	47.6'	12,300	58.1'	9,300	63.6'	7,600	57.7'	7,100	76.8'	5,000	86.3'	4,000	
70	55.4'	10,700	65.0'	8,500	70.2'	7,200	67.3'	7,100	84.6'	4,700	93.2'	3,800	
68	59.4'	9,000	69.2'	7,300	74.1'	6,500	72.2'	6,000	89.9'	4,500	97.8'	3,600	
65	65.9'	6,900	75.1'	5,800	79.4'	5,200	79.4'	4,700	96.5'	3,500	103.3'	3,000	
63	69.9'	5,900	79.1'	4,900	83.3'	4,500	84.3'	3,900	100.7'	2,900	107.3'	2,500	
60	76.4'	4,500	85.0'	3,900	88.6'	3,500	91.2'	2,900	107.3'	2,200	113.2'	1,900	
58	80.4'	3,800	88.6'	3,300	92.2'	3,000	96.1'	2,300	111.5'	1,800	116.8'	1,500	
55	86.3'	2,900	94.2'	2,500	97.1'	2,300	103.0'	1,600	117.5'	1,200	122.0'	1,000	
53	89.9'	2,400	97.8'	2,100	100.4'	1,900	107.3'	1,200					
50	95.5'	1,700	102.7'	1,500	105.0'	1,400							
48	99.1'	1,300	106.0'	1,100	107.9'	1,100							

C :Loaded boom angle (°)  
R :Load radius in feet  
W :Rated lifting capacity in pounds



ON OUTRIGGERS MIN EXTENDED 8' 10-5/16"(2.7m) SPREAD																										
360° ROTATION																										
B \ A	36.1'		49.2'		62.3' (19m)		75.5' (23m)		88.6' (27m)		101.7' (31m)		114.8' (35m)		128.0'	141.1'										
	C	(11m)	C	(15m)	C	C	C	C	C	C	C	C	C	C	C (39m)	C (43m)										
8'	72	128,500	77	90,000																						
10'	68	79,000	74	77,300	79	70,500	78	44,100																		
12'	64	55,700	72	54,200	76	53,200	76	44,100	79	44,100																
15'	58	37,100	68	36,000	73	35,200	73	40,700	77	36,900	77	41,300	79	38,000	79	37,500										
20'	47	21,800	61	21,100	69	20,400	68	25,200	73	21,900	73	25,700	76	22,800	76	26,100										
25'	32	14,000	54	13,300	63	12,900	63	17,300	69	14,200	69	17,800	72	15,100	72	18,100										
30'			46	8,600	58	8,100	58	12,300	64	9,600	64	12,900	69	10,400	69	13,200										
35'			35	5,400	51	4,900	51	9,000	59	6,300	59	9,600	65	7,200	65	9,900										
40'			21	3,100	45	2,600	45	6,600	55	4,000	55	7,200	61	4,900	61	7,600										
45'							37	4,800	50	2,200	50	5,400	58	3,100	57	5,700										
50'							28	3,400			44	3,900	53	1,700	53	4,300										
55'							11	2,300			38	2,800		49	3,200	55	3,400									
60'										31	1,900		44	2,200		52	2,500									
65'												38	1,500		48	1,700	54	1,900								
<b>D</b>	0		38		0		45		21		52		33		58		44		58		51		59		65	
Telescoping conditions (%)																										
Tele. mode	I, II		I		I		II		I		II		I		II		I		II		II		I, II			
2nd boom	0		50		100		0		100		0		100		0		100		0		50		100			
3rd boom	0		0		0		33		16		50		33		66		50		83		66		100			
4th boom	0		0		0		33		16		50		33		66		50		83		66		100			
Top boom	0		0		0		33		16		50		33		66		50		83		66		100			

LIFTING CAPACITIES AT ZERO DEGREE BOOM ANGLE ON OUTRIGGERS MIN EXTENDED														
8' 10-5/16"(2.7m)SPREAD 360° ROTATION														
C \ A	36.1'		49.2'		62.3'									
	B	(11m)	B	(15m)	B	(19m)								
0	28.9°	9,900	42.0°	2,000	55.4°	2,200								
Tele. mode	I, II		I		II									

- A** : Boom length in feet
- B** : Load radius in feet
- C** : Loaded boom angle (°)
- D** : Minimum boom angle (°) for indicated length (no load)

NOTE: The lifting capacity data stored in the LOAD MOMENT INDICATOR (AML-C) is based on the standard number of parts of line listed in the chart. Standard number of parts of line for each boom length should be according to the following table.

Boom length in feet (meters)	36.1' (11m)	36.1' to 49.2' (11m to 15m)	49.2' to 62.3' (15m to 19m)	62.3' to 141.1' (19m to 43m)	Single top Jib
Telescoping mode	I, II	I	I    II	I, II	I, II
Number of parts of line	14	8	6    4	4	1



## GENERAL

1. RATED LIFTING CAPACITIES apply only to the machine as originally manufactured and normally equipped by TADANO LTD. Modifications to the machine or use of optional equipment other than that specified can result in a reduction of capacity.
2. Hydraulic cranes can be hazardous if improperly operated or maintained. Operation and maintenance of this machine must be in compliance with information in the **Operation and Maintenance Manual** supplied with the crane. If this manual is missing, order a replacement through the distributor.
3. The operator and other personnel associated with this machine shall fully acquaint themselves with the latest applicable ASME B30.5 safety standards for cranes as mentioned in OSHA CFR29 part 1926.

## SET UP

1. Rated lifting capacities on the load chart are the maximum allowable crane capacities. They are based on the machine standing level on firm supporting surface under ideal job conditions. Depending on the nature of the supporting surface, it may be necessary to have structural supports under the outrigger floats or tires to spread the loads to a larger surface.
2. For outrigger operation, outriggers shall be properly extended with tires free of supporting surface before operating crane.

## OPERATION

1. Rated lifting capacities have been tested to and meet minimum requirements of SAE J1063-Cantilevered Boom Crane Structures Method of Test.
2. Rated lifting capacities do not exceed 85 % of the tipping load on outriggers fully extended as determined by SAE J765-Crane Stability Test Code.  
Rated lifting capacities for partially extended outriggers are determined from the formula, Rated Lifting Capacities = (Tipping Load - 0.1 x Tip Reaction) / 1.25.
3. Rated lifting capacities above bold lines in the chart are based on crane strength and those below, on its stability. They are based on actual load radius increased by boom deflection.
4. The weight of handling device such as hook blocks, slings, etc., must be considered as part of the load and must be deducted from the lifting capacities.
5. Rated lifting capacities are based on freely suspended loads and make no allowance for such factors as the effect of wind, sudden stopping of loads, supporting surface conditions, inflation of tires, operating speeds, side loads, etc. Side pull on the boom or jib is extremely dangerous. Such action can damage the boom, jib or swing mechanism, and lead to overturning the crane.
6. Rated lifting capacities do not account for wind on lifted load or boom. We recommend against working under the condition that the load is out of control due to a strong wind. During boom lift, consider that the rated lifting capacity is reduced by 50% when the wind speed is 20mph(9m/s) to 27mph(12m/s); reduced by 70% when the wind speed is 27mph(12m/s) to 31mph(14m/s). If the wind speed is 31mph(14m/s) or over, stop operation. During jib lift, stop operation if the wind speed is 20mph(9m/s).
7. Rated lifting capacities at load radius shall not be exceeded. Do not tip the crane to determine allowable loads.
8. Do not operate at boom lengths, radii, or boom angle, where no capacities are shown. Crane may overturn without any load on the hook.
9. When boom length is between values listed, refer to the rated lifting capacities of the next longer and next shorter booms for the same radius. The lesser of the two rated lifting capacities shall be used.
10. When making lifts at a load radius not shown, use the next longer radius to determine allowable capacity.

11. Load per line should not exceed 12,300 lbs. (5,600kg) for main hoist and auxiliary hoist.
12. Check the actual number of parts of line with LOAD MOMENT INDICATOR (AML-C) before operation. Maximum lifting capacity is restricted by the number of parts of line of LOAD MOMENT INDICATOR (AML-C). Limited capacity is as determined from the formula, Single line pull for main hoist 12,300 lbs. (5,600kg) x number of parts of line.
13. The boom angle before loading should be greater to account for deflection. For rated lifting capacities, the loaded boom angle and the load radius is for reference only.
14. The 36.1' (11.0m) boom length capacities are based on boom fully retracted. If not fully retracted [less than 49' (15.0m) boom length], use the rated lifting capacities for the 49' (15.0m) boom length.
15. Extension or retraction of the boom with loads may be attempted within the limits of the RATED LIFTING CAPACITIES. The ability to telescope loads is limited by hydraulic pressure, boom angle, boom length, crane maintenance, etc.
16. For lifting capacity of single top, reduce the rated lifting capacities of relevant boom according to a weight reductions for auxiliary load handling equipment. Capacities of single top shall not exceed 12,300 lbs. (5,600kg) including main hook.
17. When base jib or top jib or both jib removing, jib state switch select removed.
18. When erecting and stowing jib, be sure to retain it by hand or by other means to prevent its free movement.
19. Use "ANTI-TWO BLOCK" disable switch when erecting and stowing jib and when stowing hook block. While the switch is pushed, the hoist does not stop, even when overwind condition occurs.
20. For boom length 141.1' (43.0m) or less and 114.8' (35.0m) or longer with jib, rated lifting capacities are determined by loaded boom angle only in the column headed "141.1' (43.0m)boom+jib". For boom length 114.8' (35.0m) or less with jib, rated lifting capacities are determined by loaded boom angle only in the column headed "114.8' (35.0m)boom+jib". For angles not shown, use the next lower loaded boom angle to determine allowable capacity.(Telescoping MODE I)  
For boom length 141.1' (43.0m) or less and 128.0' (39.0m) or longer with jib, rated lifting capacities are determined by loaded boom angle only in the column headed "141.1' (43.0m)boom+jib". For boom length 128.0' (39.0m) or less with jib, rated lifting capacities are determined by loaded boom angle only in the column headed "128.0'(39.0m)boom+jib". For angles not shown, use the next lower loaded boom angle to determine allowable capacity.(Telescoping MODE II)
21. When lifting a load by using jib (aux. hoist) and boom (main hoist) simultaneously, do the following:
  - Enter the operation status as jib operation, not as boom operation.
  - Before starting operation, make sure that mass of load is within rated lifting capacity for jib.
22. Before telescoping the boom, set the telescoping mode selector switch to MODE I or MODE II with the boom fully retracted. A change of the telescoping mode is not permissible when the boom has been partially or fully extended.
23. Crane operation is prohibited without full counterweight 12,500lbs. (5.7 ton) installed. Outriggers shall be extended 23' 11 3/8" (7.3m) spread when installing or removing counterweight.

## DEFINITIONS

1. Load Radius: Horizontal distance from a projection of the axis of rotation to supporting surface before loading to the center of the vertical hoist line or tackle with load applied.
2. Loaded Boom Angle: The angle between the boom base section and the horizontal, after lifting the rated lifting capacity at the load radius.
3. Working Area: Area measured in a circular arc about the centerline of rotation.
4. Freely Suspended Load: Load hanging free with no direct external force applied except by the hoist line.
5. Side Load: Horizontal side force applied to the lifted load either on the ground or in the air.





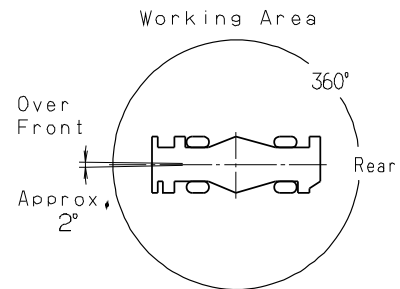
A	Stationary						Creep											
	Over Front			360° Rotation			Over Front			360° Rotation								
	36.1'	62.3'	88.6'	36.1'	62.3'	88.6'	36.1'	62.3'	88.6'	36.1'	62.3'	88.6'						
B	C (11m)	C (19m)	C (27m)	C (11m)	C (19m)	C (27m)	C (11m)	C (19m)	C (27m)	C (11m)	C (19m)	C (27m)						
10'	68	65,000					68	41,000					68	51,000				
12'	64	60,000					64	29,000					64	44,000				
15'	59	50,000	73	35,000			58	20,000	73	22,000			58	36,000	73	35,000		
20'	48	34,000	69	35,000			47	12,000	68	14,000	72	10,000	48	27,000	68	28,000		
25'	32	23,000	63	25,000	73	22,000	33	7,500	63	9,500	69	7,000	32	21,000	63	22,000	73	22,000
30'			58	18,000	69	19,000			58	6,500	65	5,000			58	17,000	69	18,000
35'			51	14,000	65	15,000			51	4,500	61	3,500			52	13,000	65	14,000
40'			45	11,000	62	12,000			46	3,000	57	2,300			45	10,000	61	11,000
45'			38	8,000	58	9,500									37	7,500	57	9,000
50'			28	6,000	54	7,500									28	5,500	53	7,000
55'			11	4,500	49	6,000									11	4,000	49	5,500
60'					44	5,000											44	4,500
65'					39	4,000											39	3,500
70'					33	3,000											33	2,500
D	0			0			37			54			0					
Telescoping conditions (%)																		
Tele. mode	I, II	II	II	I, II	II	II	I, II	II	II	I, II	II	II	I, II	II	II			
2nd boom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3rd boom	0	33	66	0	33	66	0	33	66	0	33	66	0	33	66			
4th boom	0	33	66	0	33	66	0	33	66	0	33	66	0	33	66			
Top boom	0	33	66	0	33	66	0	33	66	0	33	66	0	33	66			

LIFTING CAPACITIES AT ZERO DEGREE BOOM ANGLE ON RUBBER OPERATION																
A	Stationary						Creep									
	Over Front			360° Rotation			Over Front			360° Rotation						
	36.1'	62.3'	88.6'	36.1'	62.3'	88.6'	36.1'	62.3'	88.6'	36.1'	62.3'	88.6'				
C	B (11m)	B (19m)	B (27m)	B (11m)	B (19m)	B (27m)	B (11m)	B (19m)	B (27m)	B (11m)	B (19m)	B (27m)				
0	28.9'	17,600	55.4'	4,400	81.7'	700	28.9'	5,100		28.9'	17,200	55.4'	4,000	81.7'	700	

- A : Boom length in feet
- B : Load radius in feet
- C : Loaded boom angle (°)
- D : Minimum boom angle (°) for indicated length (no load)

NOTE: The lifting capacity data stored in the LOAD MOMENT INDICATOR (AML-C) is based on the standard number of parts of line listed in the chart. Standard number of parts of line for rubber operation should be according to the following table.

Boom length in feet (meters)	36.1' (11m)	36.1' to 88.6' (11m to 27m)	Single top Jib
Number of parts of line	6	4	1



## WARNING AND OPERATING INSTRUCTIONS FOR ON RUBBER LIFTING CAPACITIES

- Rated lifting capacities on rubber are in pounds and do not exceed 75 % of tipping loads as determined by SAE J765-Crane Stability Test Code.
- Rated lifting capacities shown in the chart are based on condition that crane is set on firm level surfaces with axle oscillation lockout applied. Those above bold lines are based on tire capacity and those below, on crane stability. They are based on actual load radius increased by tire deformation and boom deflection.
- If the axle oscillation lockout cylinders contain air, the axle will not be locked completely and rated lifting capacities may not be obtainable. Bleed the cylinders according to the operation safety and maintenance manual.
- Rated lifting capacities are based on proper tire inflation, capacity and condition. Damaged tires are hazardous to safe operation of crane.
- Tires shall be inflated to correct air pressure.
- Over front operation shall be performed within two degrees in front of chassis.
- On rubber lifting with "jib" is not permitted. Maximum permissible boom length is 88.6 ft. (27.0m).
- When making lift on rubber stationary, set parking brake.
- For creep operation, boom must be centered over front of machine, swing lock engaged, and load restrained from swinging. Travel slowly and keep the lifted load as close to the ground as possible, and especially avoid any abrupt steering, accelerating or braking.
- Do not operate the crane while carrying the load.
- Creep is motion for crane not to travel more than 200' (60 m) in any 30 minute period and to travel at the speed of less than 1 mph (1.6km/h).
- For creep operation, choose the drive mode and proper gear according to the road or working condition.

Tires	Air Pressure
29.5-25 22PR	60 psi (420 kPa)
29.5-25 28PR	64 psi (450 kPa)



1. When operating crane on outriggers:
    - Set P.T.O. switch to "ON".
    - Press the outrigger mode select key to register for the outrigger operation. Press the register key, then the outrigger mode indicative symbol changes from flashing to a solid light.
    - Press the lift mode select key to select the lift status that corresponds to the actual boom configuration. Each time the lift mode select key is pressed, the status changes. Press the register key to register the lift status, then the lift indicative symbol changes from flashing to a solid light.
    - when mounting and stowing jib, select the jib set status. (the jib state indicative symbol will be flashing.)
  2. When operating crane on rubber:
    - Set P.T.O. switch to "ON".
    - Press the outrigger mode select key. The on-tire mode indicative symbol comes on. Each time the outrigger mode select key is pressed the status changes. Select the creep operation, the on-tire mode indicative symbol flicker.
    - Press the lift mode select key to register the boom or single top lift.
- However, pay attention to the following.
- (1) For stationary operation.
    - The front capacities are attainable only when the over front position symbol comes on. When the boom is more than 2 degrees from centered over front of chassis, 360° capacities are in effect.
  - (2) For creep operation.
    - When a load is lifted in the front position and then swung to the side area, make sure the value of the LOAD MOMENT INDICATOR(AML-C) is below the 360° lifting capacity.
    - The creep capacities are attainable only when boom is in the straight forward position of chassis and the over front position symbol is on. If boom is not in the straight forward position of chassis, never lift load.
3. A swing does not automatically stop even if the crane becomes overloaded.
  4. During crane operation, make sure that the displays on front panel are in accordance with actual operating conditions.
  5. The displayed values of LOAD MOMENT INDICATOR (AML-C) are based on freely suspended loads and make no allowance for such factors as the effect of wind, sudden stopping of loads, supporting surface conditions, inflation of tire, operating speed, side loads, etc. For safe operation, it is recommended when extending and lowering boom or swinging, lifting loads shall be appropriately reduced.
  6. LOAD MOMENT INDICATOR (AML-C) is intended as an aid to the operator. Under no condition should it be relied upon to replace use of capacity charts and operating instruction. Sole reliance upon LOAD MOMENT INDICATOR (AML-C) aids in place of good operating practice can cause an accident. The operator must exercise caution to assure safety.

## GR-750XL Axle weight distribution chart

	Pounds			Kilograms			
	GVW	Front	Rear	GVW	Front	Rear	
Base machine	97,620	49,650	47,970	44,280	22,520	21,760	
Remove:	1. 6.2ton (5.6metric ton) hook ball	-330	-470	140	-150	-214	64
	2. 75ton (68metric ton) hook block	-1,300	-2,310	1,010	-590	-1,048	458
	3. Top jib	-740	-805	65	-336	-365	29
	4. Base jib	-1,910	-3,270	1,360	-867	-1,483	616
	5. Auxiliary lifting sheave	-110	-300	190	-50	-137	87
	6. Counterweight (with Auxiliary hoist & wire rope)	-12,500	5,510	-18,010	-5,670	2,498	-8,168
Add:	75 ton (68metric ton) hook block (1,600lbs)	1,600	2,840	-1,240	726	1,290	-564

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