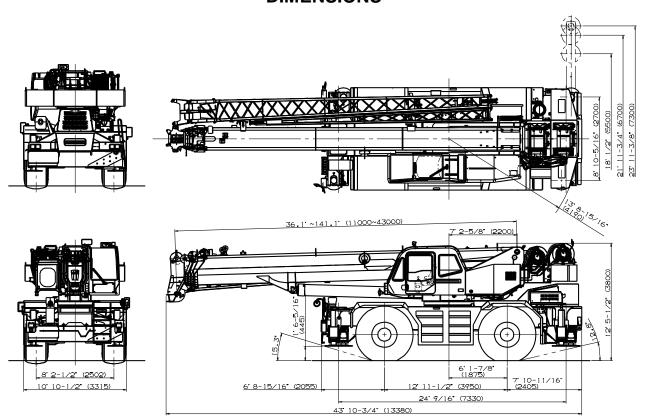


# **GR-750XL-2**

75 Ton Capacity (68.0 Metric Tons)

## **HYDRAULIC ROUGH TERRAIN CRANE**

## **DIMENSIONS**



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

## GENERAL DIMENSIONS (29.5 X 25 Tires)

	Feet	Meters
Turning radius		
4 wheel steer	22'3-3/4"	6.8
2 wheel steer	39' 1/2"	11.9
Tail swing of counterweight	13' 8-15/16"	4.19

## **CRANE SPECIFICATIONS**

#### **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 cylinder 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 wit holding valve. Elevation -1. $\ell^{\circ}$ ~80.3°, combination controls for hand or foot operation. Boom angle indicator. Automatic speed reduction and soft stop function. Boom raising speed 2 $\ell^{\circ}$  to 60° in 46 seconds.

JIB - two stage bi-fold lattice type, 3.°, 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 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 ou 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 tur table at 2.4mir<sup>-1</sup>{rpm}. Equipped with manually locked/release swing brake. A 360° positive swing lock for pick and carry and trave 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 thydraulic 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"(0.599n 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 16,700 lbs (7,580kg). Maximum permissible line pull wire strength:15,600 lbs (7,085kg).

AUXILIARY HOIST - Variable speed type with grooved drum drive 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"(0.599n 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 16,700 lbs (7,580kg). Maximum permissible line pull wire strength:15,600 lbs (7,085kg).

WIRE ROPE - Warrington seal wire, extra improved plow steepreformed, independent wire rope core, right regular lay. 3/4"(19 mm) 6X31 class

#### **HOOK BLOCKS**

75 ton (68.0 metric ton) - 7 sheaves with swivel hook and safety latch. 6.2 ton (5.6 metric ton) - Weighted hook 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 pressur with integral pressure relief valves

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

FILTRATION - BETA10=10 return filter, full flow with bypas: 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 hoist, boom telescoping, auxiliary hoist and main hoist. Control lever stands can change neutral positions and tilt for easy access to cab. 3 way adjustab operator's seat with high back, headrest and armrest. Engine throttle knob. Foot operated controls: boom elevatin 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/disengag 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, tachomete 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 Soft 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 / auxiliarly 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 and 3rd/4th/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-wε selected type by manual switch, 4x2 front drive, 4x4 front and rear drive.

FRAME - High tensile steel, all welded mono-box constructio

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

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

TRAVEL SPEED - 22 mph (36 km/h)

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

STEERING- Hydraulic power steering controlled by steerin 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: Pive mounted with hydraulic lockout device.

BRAKE SYSTEMS - Service: Air over hydraulic disc brakes o all 4 wheels. Parking/Emergency: Spring applied-air release brake acting on input shaft of front axle. Auxiliary: Electropneumatic 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
within 10' 10-1/2" (3.315 m) overall width with floats. Outrigger
jack floats are attached thus eliminating the need of manuall
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' 10-5/16"(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)

Fin and tube core, thermostat controlled

Suction type, 6-blade, 23.6 (600) dia.

### **ENGINE**

Model Mitsubishi 6M60-TLA3B Type Direct injection diese No. of cylinders Combustion 4 cycle, turbo charged and after cooled BoreXStroke, in.(mm) 4.646 X 4.528 (118X115) Displacement, cu. in (liters) 460 (7.54) Air inlet heater 24 volt preheat Air cleaner Dry type, replaceable elemen Oil filter Full flow with replaceable element Fuel filter Full flow with replaceable elemen-Fuel tank, gal.(liters) 79.2 (300), right side of carrier Cooling Liquid pressurized, recirculating by-pass

Starting 24 volt 24 volt system, negative ground Charging 2-120 amp. Hour Batterv Compressor, air, CFM(I /min) 29 CFM (830) at 2,600rpm Horsepower (kW) Gross 267 (200) at 2,600rpm Torque, Max. ft-lb (kgm) 579 (80) at 1,400rpm Capacity, gal.(liters) 3.4 (13) Cooling water Lubrication 3.4-4.0 (13-15) 79.2 (300) Fuel

Radiator Fan, in.(mm)

## STANDARD EQUIPMENT

- 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
- Mitsubishi 6M60-TLA3B turbo charged after cooled engine (267HP) 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 drver
- 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 with swivel
- 75 ton (68.0 metric ton) 7 sheave with swivel hook 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
- Telecommunications terminal (HELLO-NET Owner's Site)
- Fuel consumption monitor

## **OPTIONAL EQUIPMENT**

## HOISTING PERFORMANCE

### LINE SPEEDS AND PULLS

	Main or	auxiliary hois	t - 15-3/4" (0.4	4m) drum
Layer	Line s	peeds <sup>1</sup>		pulls able <sup>2</sup>
	F.P.M	m/min	Lbs.	kgf
1st	358	109	16,700	7,580
2nd	387	118	15,300	6,920
3rd	417	127	14,000	6,370
4th	446	136	13,000	5,900
5th	475	144	12,100	5,500
6th	504	153	11,300	5,140
7th <sup>3</sup>	533	162	10,600	4,830

<sup>\*</sup> Maximum permissible line pull may be affected by wire rope strength. Wire rope strength (6x31 class) = 15,600lbs(7,085kg)

### DRUM WIRE ROPE CAPACITIES

Wire	Main ar	nd auxiliary o	drum groove	d lagging
rope		3/4" (19mr	n) wire rope	
layer	Rope p	er layer	Total w	rire rope
layei	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**

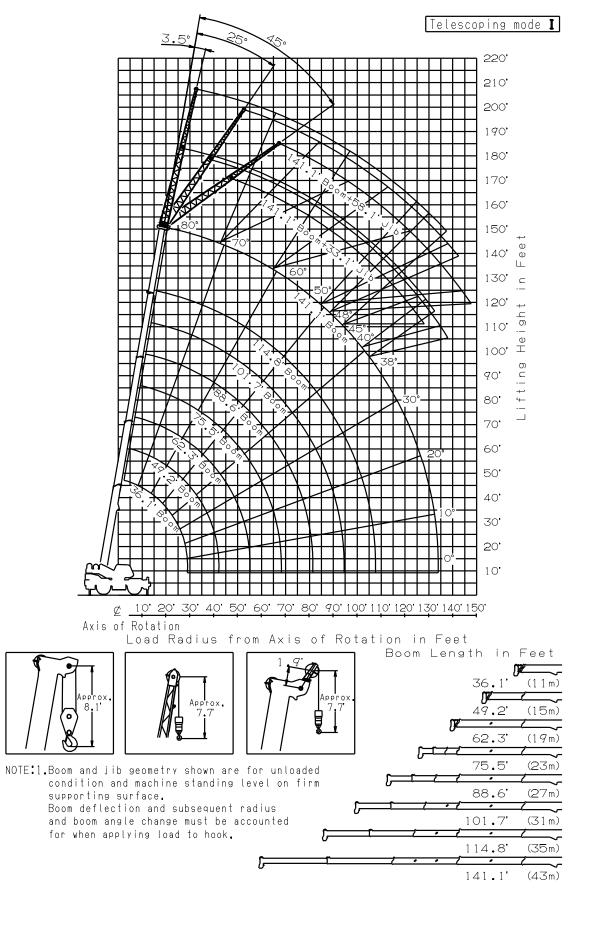
	Inch	mm
Root diamete	15-3/4"	400
Length	23-9/16"	599
Flange diamete	27-3/8"	695

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

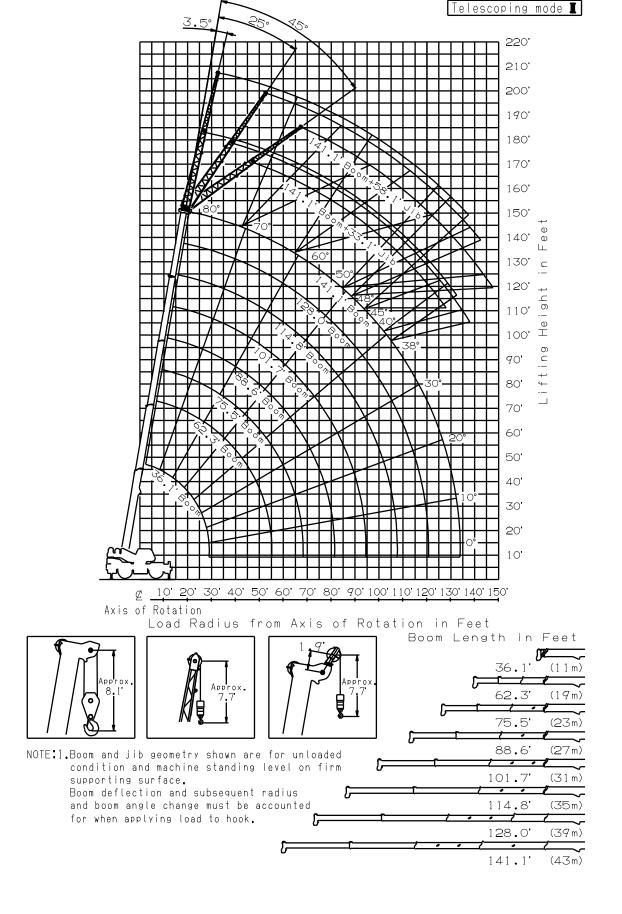
<sup>&</sup>lt;sup>2</sup> Developed by machinery with each layer of wire rope, but not based on rope strength or other limitation in machinery or equipment.

Seventh layer of wire rope are not recommended for hoisting operations.

## **GR-750XL WORKING RANGE CHART**



## **GR-750XL WORKING RANGE CHART**



							0	N OUT	RI	GGER	S F	ULLY	EX.	TENDE	Đ	23' 11-	3/8	3"(7.3m	) S	PREA	D							
												36	0°	ROTA <sup>-</sup>	TIO	N												
A		36.1'		49.2'		62.3'	(19	m)		75.5'	(23)	n)		88.6'	(27r	n)		101.7'	(31	m)		114.8'	(35	im)	1	28.0'	1	41.1'
В	С	(11m)	С	(15m)	С		O		С		С		С		С		C		С		С		С		С	(39m)	С	(43m)
8'	72	######	77	90,000																								
10'	68	######	75	90,000	79	70,500	78	44,100																				
12'	64							44,100																				
15'	59	98,000					_	,																				
20'	48	75,600			_		_		_	-	_				-		_		$\overline{}$									
25'	33	60,000					_	,	_	-	_	,			-		_		$\overline{}$	,	_	,			$\overline{}$			
30'																		31,500										
35'								,										30,600		,								,
40'			21	26,100			_		_				-		_		_	27,700	_		-		_		_		_	
45'							_		_		_						_	22,800					_				_	
50'						_	_	20,500										18,700		,								,
55'					13	11,100	11	14,000										15,500	$\overline{}$		_		_		$\overline{}$		_	_
60'									31		_		_	12,500			_		_		_		_	12,700	_		-	13,900
65'									22	9,700	22	13,000	-		-		_	11,000	_		_		_		_		_	
70'													34			11,500	_		_	11,600	_		_	10,600	_	10,900		10,300
75'													26			10,100			_	10,300	_	8,400	_	9,700	_	9,500	_	8,800
80'													15	6,300	18	9,000						7,200	_	9,000		8,300	_	7,700
85'																	29	5,800		8,000		6,200	_	8,100	_	7,200	_	6,600
90'																	21	5,000	21	7,200		5,300	_	7,200		6,300	_	5,700
95'																					31	4,500	_	6,400		5,600	_	4,900
100'																					25	3,900	_	5,800		4,900		4,300
105'																					16	3,300	16	5,200		4,300		3,700
110'																									27	3,800		3,100
115'																									21	3,300		2,600
120'																									8	2,900		2,200
125'																											24	1,800
130'																											17	1,500
135'																												
140'																												
D												T-1-		0		- (0()												
T-1-	1	Те												ng cond	ition	s (%)												
Tele. mode		I, II	I 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		50		100		
3rd boom		0		0		0		33		16		50		33		66		50		83		66		100		100		100
4th boom		0		0		0		33		16		50		33		66		50		83		66		100		100		100
Top boom		0		0		0		33		16		50		33		66		50		83		66		100		100		100

				LIFTI	NG	CAPA	Cľ	TIES A	ΤZ	ZERO [	DE	GREE	ВО	IA MO	١G١	LE ON	Ol	JTRIG	GE	RS FU	LL\	/ EXT	ΞNI	DED				
									23	3' 11-3	/8"(	(7.3m)	SP	READ		360° F	<u> 0</u>	TATIO	N									
	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 \	B (11m) B (15m) B B B B B B B B B (39m) B (43m)																											
0	2	8.9' 26,000	42.0	16,800	55.4	10,800	55.4	13,700	68.6	7,900	68.6	10,100	81.7	6,000	81.7	8,400	94.2	4,400	94.5	6,600	107.0	3,100	107.0	4,600	119.8	2,900	132.5	1,100
Tele		I, II		I		I		П		I		П		I		II		I		II		I		П		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.

Boom length in feet	36.1'	36.1' to 49.2'	49.2' t	o 62.3'	62.3' to 141.1'	Single top
(meters)	(11m)	(11m to 15m)	(15m t	o 19m)	(19m to 43m)	Jib
Telescoping mode	I, II	I	I	II	I, II	I, II
Number of parts of line	14	8	6	4	4	1

			ON	OUTRIG	GERS F	ULLY EX	TEND	ED 23' 1	1-3/8"(7.	.3m) SPRE	AD			
						360°	ROTA	TION						
	14	11.1' (43.0	m) Boo	m + 33.2' (	(10.1m)	Jib			1.	41.1' (43.0	m) Booi	m + 58.1' (	(17.7m)	Jib
С		offset		offset		offset		С		offset		offset		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		80	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		79	47.2'	5,700	69.2'	5,000		3,800
78	42.0'	9,300	54.8'	8,200	61.0'	7,100		78	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		77	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		76	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		75	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		73	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		70	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		68	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		65	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		63	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		60	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		58	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		55	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		53	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		50	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		48	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		45	147.3'	1,000				
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	OUTRIG	GERS F	ULLY EX	ΓEND	ED 23' 1	1-3/8"(7.	3m) SPRE	AD			
						360°	ROTA	TION						
	128.0'(3	9.0m) Boom	(telescor	oing modeII)	+ 33.2' (	10.1m) Jib			128.0'(39	9.0m) Boom	(telescor	oing modeII)	+ 58.1' (	17.7m) Jib
С		offset		offset		offset		С		offset		offset		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		80	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		79	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		78	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		77	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		76	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		75	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		73	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		70	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		68	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		65	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		63	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		60	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		58	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		55	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		53	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		50	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		48	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		45	137.5'	2,400	149.3'	2,000	149.9'	1,900
43	120.4'	3,300	126.0'	3,100				43	141.4'	2,100	152.6'	1,800		
40	125.0'	2,900	130.2'	2,700				40	147.0'	1,700	156.8'	1,500		
38	128.3'	2,600	132.9'	2,400				38	150.3'	1,500	159.4'	1,300		
35	132.5'	2,300	136.5'	2,100				35	155.2'	1,200	162.7'	1,100		
33	135.5'	2,100	138.8'	1,900				33	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	OUTRIG	GERS F	ULLY EX	TEND	ED 23' 1	1-3/8"(7.	3m) SPRE	EAD			
						360°	ROTA	TION	`	ĺ				
	114.8'(3	5m) Boom(	telescopi	ng mode I)	+ 33.2' (	10.1m) Jib			114.8'(3	5m)Boom(t	elescopii	ng mode I)	+ 58.1' (1	7.7m) Jib
С	3.5°	offset	25°	offset	45°	offset		С	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		80	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		79	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		78	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		77	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		76	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		75	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		73	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		70	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		68	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		65	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		63	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		60	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		58	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		55	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		53	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		50	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		48	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		45	126.3'	2,700	137.5'	2,300	137.5'	2,100
43	109.3'	3,700	114.8'	3,400				43	129.9'	2,300	140.4'	2,000		
40	113.8'	3,200	119.1'	3,000				40	135.2'	1,900	144.7'	1,700		
38	116.8'	2,900	121.4'	2,700				38	138.5'	1,700	147.0'	1,500		
35	121.1'	2,500	125.0'	2,300				35	142.7'	1,400	150.6'	1,200		
33	123.4'	2,300	127.0'	2,100				33	145.7'	1,200	152.9'	1,100		
30	127.0'	2,000	129.9'	1,900				30	149.6'	1,000				
25	132.2'	1,600	133.9'	1,500										
20	136.2'	1,300												
15	139.1'	1,100						8						

							(	ON OU	ITR	IGGEF	RS	MID E	ΧT	ENDE	2 (	1' 11-3	/4"	(6.7m)	SP	READ								
												36	0°	ROTAT	ГІС	N												
_ A	١	36.1'	49.	.2'		62.3'	(19	m)		75.5'	(231	n)		88.6'	(27r	n)		101.7'	(31	m)		114.8	(35	im)	1	128.0'	1	41.1'
В	С	(11m)	<b>C</b> (1	15m)	С		С		С		С		С		С		С		С		С		С		С	(39m)	С	(43m)
8'	72	######	77 90	0,000																								
10'	68	######		,		70,500																						
12'	64	######		,				44,100		,																		
15'	58																											
20'	48	72,700																										
25'	33	54,300						,			$\overline{}$						_		$\overline{}$	-	_				_	,		
30'				,				,				,														22,000		
35'				,				,		,																20,300		18,500
40'			22 20				_						$\overline{}$				_		$\overline{}$		_		_		_	18,700	_	
45'					_		_			,		,		,						,						17,500		-
50'					28	,		,		,										,						16,300		
55'					11	9,100	10	13,400	-				$\overline{}$				_		$\overline{}$		_		_		_	13,600	_	
60'									31		_	11,800	-			12,100	_				_					11,500	-	10,800
65'									21	6,700	21	10,100				10,400	_	<u> </u>	-	10,600	-			10,700		9,800	_	9,000
70'										34	6,200		8,900	_		_		-	7,100		9,200	_	8,400	_	7,600			
75'													26	5,000		7,700				7,900		5,900		8,000	_	7,200	_	6,400
80'													15	4,000	15	6,700				6,900		4,900	_	7,000	_	6,200	_	5,400
85'																	29	3,700	-	6,000	-	4,100	_	6,100	_	5,300	_	4,500
90'																	21	2,900	21	5,200	-	3,300	_	5,300	_	4,500	_	3,800
95'																					31	2,600		4,600	_	3,800	_	3,100
100'																					24	2,000	_	4,000	_	3,200		2,500
105'																					15	1,500	15	3,500		2,700	_	2,000
110'			_																						27	2,200	38	1,500
115'	<u> </u>																								20	1,800		
120'	-				_																				8	1,500		
125'					_																							
130'					_																							
135'					_																							
140'														0														00
D												Tala		0	4ie -	a (0/)												33
Tale													юри	ng condi	tion	s (%)												
Tele. mode		I, II	I			I		II		I		II		I		II		I		II		I		II		II		I, II
2nd boom	+	0 50 100 0 1					100		0		100		0		100		0		100		0		50		100			
3rd boon	n						16		50		33		66		50		83		66		100		100		100			
4th boon	1	0	0	)		0		33		16		50		33		66		50		83		66		100		100		100
Top boon	+	0	0			0		33		16		50		33		66		50		83		66		100		100		100

				LIFT	INC	G CAP	AC	ITIES	ΑT	ZERO	D	EGREE	В	OOM A	N/	GLE O	N C	OUTRIC	3G	ERS M	IID	EXTE	ND	ED			
									2	1' 11-3	/4"	(6.7m)	SP	READ		360° F	30	TATIO	V								
\ A	A 36.1' 49.2' 62.3' (19m) 75.5' (23m) 88.6' (27m) 101.7' (31m) 114.8' (35m) 128.0'																										
c \	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 B B B B B B B B																										
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	119.8	1,500	-
Tele. mode		I, II		I		I		П		I		II		I		II		I		II		I		П		П	

- 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.

Boom length in feet (meters)	36.1' (11m)	36.1' to 49.2' (11m to 15m)		o 62.3' o 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

			0	N OUTRIC	GERS	MID EXT	ENDE	D 21' 11-	-3/4"(6.7	m) SPRE	AD.			
						360°	ROTA	TION						
	1.	41.1' (43.0	m) Boo	m + 33.2'	(10.1m)	Jib			1.	41.1' (43.0	m) Boo	m + 58.1'	(17.7m)	Jib
С		offset		offset		offset		С		offset		offset		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		80	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		79	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		78	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		77	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		76	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		75	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		73	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		70	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		68	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		65	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		63	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		60	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		58	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		55	122.0'	1,300	136.2'	1,000	139.4'	900
53	108.9'	2,000	116.8'	1,800	118.4'	1,600		53	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								

			0	N OUTRIC	GERS	MID EXT	ENDE	D 21' 11	-3/4"(6.7	m) SPRE	AD			
						360°	ROTA	TION						
	128.0'(3	9.0m) Boom	(telescop	oing modeII)	+ 33.2' (	10.1m) Jib			128.0'(3	9.0m) Boom	n(telesco	oing modeII)	+ 58.1' (	17.7m) Jib
С		offset		offset		offset		С		offset		offset		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		80	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		79	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		78	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		77	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		76	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		75	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		73	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		70	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		68	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		65	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		63	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		60	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		58	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		55	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		53	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		50	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		48	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		45	136.2'	1,000	147.3'	900		
43	119.1'	1,800	125.0'	1,700				43	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										

			0	N OUTDIO	CERS	MID EYT	ENIDE	D 21' 11.	-3/4"(6.7	m) SPRE	\D			
			O	N OOTKIC	JOLINO			TION	-3/4 (0.7	III) OI IXEA	ער			
	114.8'(3	5m) Boom(	telescopi	ing mode I)	+ 33.2' (				114.8'(3	5m)Boom(t	elescopii	ng mode I)	+ 58.1' (1	7.7m) Jib
С		offset		offset	45°	offset		С		offset		offset		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		80	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		79	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		78	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		77	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		76	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		75	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		73	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		70	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		68	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		65	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		63	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		60	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		58	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		55	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		53	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		50	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		48	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		45	125.0'	1,200	136.5'	1,000	137.5'	900
43	108.6'	2,000	114.2'	1,800			•	43	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 C	UT	RIGGI	ER	S MID	EX	TENDE	ΞD	18' 1/2	2"(5	5.5m) S	PR	EAD								
												36	0°	ROTA <sup>-</sup>	ГІС	N	·	,										
A		36.1'		49.2'		62.3'	(19	m)		75.5'	(231		Ĭ	88.6'	_			101.7'	(31	m)		114.8	(35	im)	1	28.0'	1	41.1'
в	С	(11m)	С	(15m)	С		С		С		С		С		С		С		С		С		С		С	(39m)	С	(43m)
8'	72	######	77	90,000																								
10'	68			90,000			_																					
12'	64							44,100																				
15'	58	87,000	68	86,500	73		_		_				_															
20'	48			60,000														36,600										
25'	33	38,700																32,400										
30'								,		,						,		29,200								,		,
35'			_				_											21,900										
40'	<u> </u>		21	14,200	_		_	18,200	_		_		_				_	17,000	_		_		_		_		-	17,200
45'					-		_	14,600	-				_				_	13,300									_	
50'					29		_	11,800	_				_		_		_	10,600					_	13,300		12,400	_	11,700
55'					12	5,600	11	9,700	_			10,300	_		_	10,600	_		_	10,900				11,100		10,300		9,600
60'	<u> </u>								31	5,300		8,600	_	6,200	_	8,900	_	6,800	_	9,200	_	7,200		9,300		8,500	_	7,800
65'									22	3,900	21	7,200	_	4,800	_	7,500	_	<u> </u>	-	7,700	-	5,800		7,900		7,100	_	6,400
70'													34	3,600	_	6,300	_			6,500		4,700		6,700		5,900		5,200
75'													26	2,700	_	5,300	_	3,200	_	5,500		3,700		5,700		4,900	_	4,200
80'	<u> </u>												15	1,900	15	4,500		2,400		4,700	-	2,800	_	4,800		4,000	_	3,400
85'																	28	1,700	-	3,900	-	2,100	_	4,100		3,300	_	2,600
90'																			21	3,300	36	1,500	_	3,400	-	2,600	_	2,000
95'	<u> </u>																						30	2,900		2,100	47	1,400
100'	<u> </u>																						24	2,400	36	1,600		
105'																							15	2,000			$\dashv$	
110'	<u> </u>																											
115' 120'																												
120'																												
130'																											$\dashv$	
135'																												
140'																												
D D								0										21		0		24		0		32		45
								0				Teleso	igos	ng condi	tion	s (%)	_	<u>- 1</u>		3			_	0		UL.		.0
Tele.						-							Jopi			`		-										
mode		I, II		I		I		П		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		50		100
3rd boom		0		0		0		33		16		50		33		66		50		83		66		100		100		100
4th boom		0		0		0		33		16		50		33		66		50		83		66		100		100		100
Top boom		0		0		0		33		16		50		33		66		50		83		66		100		100		100

					LIFT	IN(	G CAP	AC	ITIES	ΑT	ZERO	DE	GREE	В	OOM A	N	GLE OI	N C	UTRIC	GGI	ERS M	IID	EXTE	NDI	ED		
										•	18' 1/2'	'(5.	5m) S	PR	EAD	3	60° R(	TC	ATION								
	<b>A</b>	A 36.1' 49.2' 62.3' (19m) 75.5' (23m) 88.6' (27m) 101.7' (31m) 114.8' (35m)																									
С		B (11m) B (15m) B B B B B B B																									
	0	28.9	25,800	42.3	12,600	55.4	5,500	55.4	9,700	71.9	3,100	68.6	6,400	81.7	1,800	81.7	4,200			94.5	2,900			107.0	1,300		
	ele.		I, II		I		I		II		I		II		I		II				II				II		
m	ode		,																								

- 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.

Boom length in feet	36.1'	36.1' to 49.2'		o 62.3'	62.3' to 141.1'	Single top
(meters)	(11m)	(11m to 15m)	(15m t	o 19m)	(19m to 43m)	Jib
Telescoping mode	I, II	I	I	П	I, II	I, II
Number of parts of line	14	8	6	4	4	1

_														
				ON OUTR	IGGER	S MID EX	TEND	ED 18' 1	/2"(5.5m	n) SPREAI	)			
						360°	ROTA	TION						
	1-	41.1' (43.0	m) Boo	m + 33.2'	(10.1m)	Jib			1	41.1' (43.0	m) Boo	m + 58.1'	(17.7m)	Jib
С	3.5°	offset	25°	offset	45°	offset		С	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		80	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		79	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		78	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		77	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		76	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		75	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		73	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		70	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		68	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		65	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		63	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		60	107.0'	1,100				
58	96.1'	1,600	105.0'	1,400	107.6'	1,300								
55	103.0'	900												

				ON OUTR	RIGGER	S MID EX	TEND	ED 18' 1	/2"(5.5m	) SPREAD	)			
						360°	ROTA	TION						
	128.0'(3	9.0m) Boom	n(telescor	oing modeII	) + 33.2'	10.1m) Jib			128.0'(3	9.0m) Boom	(telesco	oing modeII)	+ 58.1' (	17.7m) Jib
С		offset		offset		offset		С		offset		offset		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		80	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		79	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		78	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		77	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		76	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		75	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		73	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		70	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		68	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		65	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		63	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		60	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		58	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		55	112.2'	1,300	126.3'	1,000		
53	98.8'	2,100	106.6'	1,800	109.3'	1,700		53	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 OUTR	IGGER:	S MID EX	TEND	ED 18' 1	/2"(5.5m	n) SPREAD	)			
						360°	ROTA	TION						
	114.8'(3	5m) Boom(	telescopi	ing mode I)	+ 33.2' (	10.1m) Jib			114.8'(3	35m)Boom(t	elescopii	ng mode I)	+ 58.1' (1	7.7m) Jib
С		offset		offset		offset		С		offset		offset		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		80	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		79	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		78	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		77	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		76	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		75	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		73	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		70	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		68	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		65	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		63	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		60	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		58	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		55	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		53	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 OU	ITR	IGGE	RS	MIN E	XT	ENDE	8 C	' 10-5/ <i>*</i>	16"	(2.7m)	SP	READ								
												36	0°	ROTA	ГІС	N												
A		36.1'		49.2'		62.3'	(19	m)		75.5'	(231			88.6'				101.7'	(31	m)		114.8'	(35	im)	1	28.0'	1	41.1'
в	С	(11m)	С	(15m)	С		С		С		С		С		С		С		С		С		С		С	(39m)	С	(43m)
8'	72	######	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	79	44,100																
15'	58	37,100																										
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	78	23,500	78	26,300								
25'	32	14,000	54	13,300	63		_						_				_											
30'			46	8,600	58		58	12,300	64																	12,700		11,900
35'			35	5,400		,	51	-,		6,300				7,200			_	,		10,100				10,300		9,400		8,700
40'			21	3,100	45	2,600	45	6,600	_	4,000		7,200	61	4,900		7,600	_	5,400	_		_	5,800	_	7,900	_	7,100	_	6,300
45'							37	4,800	50	2,200	50	5,400		3,100		5,700	_			6,000	66	4,100		6,100	-	5,300	_	4,600
50'							28	3,400			44	3,900	53	1,700	_	4,300	59	2,300		4,600		2,700		4,700	_	3,900	_	3,200
55'							11	2,300			38	2,800			49	3,200			55	3,400	60	1,600		3,600		2,800	67	2,100
60'											31	1,900			44	2,200			52	2,500			57	2,600	61	1,900		
65'															38	1,500			48	1,700			54	1,900				
70'																												
75'																												
80'																												
85'																												
90'																											_	
95'																											_	
100'																												
105'																												
110'																											$\blacksquare$	
115'																												
120'																												
125'																												
130'																											$\dashv$	
135'																											$\dashv$	
140'						20				45		24		50		22		50		4.4		F0		F4		50		CF
D		0				38	_	0	_	45		21	L .	52	tic	33		58		44		58		51		59		65
Tolo												reieso	:opi	ng condi	uon	IS (%)												
Tele. mode		I, II		I		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		50		100
3rd boom		0		0		0		33		16		50		33		66		50		83		66		100		100		100
4th boom		0		0		0		33		16		50		33		66		50		83		66		100		100		100
Top boom		0		0		0		33		16		50		33		66		50		83		66		100		100		100

				LIFT	INC	CAP	AC	ITIES	AT ZERO	DEGREI	BOOM A	NGLE O	N OUTRI	GERS N	IIN EXTE	NDED	
									8' 10-5/	16"(2.7m)	SPREAD	360° F	OTATION	١			
	A 36.1' 49.2' 62.3' (19m)																
c	B (11m) B (15m) B																
0	1	28.9' 9,900	42.0'	2,000			55.4	2,200									
Tele		I, II		I				П									

- 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.

Boom length in feet	36.1'	36.1' to 49.2'		o 62.3'	62.3' to 141.1'	Single top	
(meters)	(11m)	(11m to 15m)	(15m t	o 19m)	(19m to 43m)	Jib	
Telescoping mode	I, II	I	I	П	I, II	I, II	
Number of parts of line	14	8	6	4	4	1	

# WARNING AND OPERATING INSTRUCTIONS FOR LIFTING CAPACITIES

#### **GENERAL**

- 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.
- 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.
- The operator and other personnel associated with this machine shall fully acquaint themselves with the latest American National Standards Institute (ANSI) safety standards for cranes.

#### **SET UP**

- 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.
- For outrigger operation, outriggers shall be properly extended with tires free of supporting surface before operating crane.

#### **OPERATION**

- Rated lifting capacities have been tested to and meet minimum requirements of SAE J1063-Cantilevered Boom Crane Structures Method of Test.
- 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.
- 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.
- 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)
- Rated lifting capacities at load radius shall not be exceeded. Do not tip the crane to determine allowable loads.
- Do not operate at boom lengths, radii, or boom angle, where no capacities are shown. Crane may overturn without any load on the hook.

- 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.
- When making lifts at a load radius not shown, use the next longer radius to determine allowable capacity.
- 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 MOMEN 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.
- 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.
- 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 with 33.2' (10.1m) jib, rated lifting capacities are determined by loaded boom angle only in the column headed "141.1' (43.0m) boom + 33.2' (10.1m) jib". For boom length with 58.1' (17.7 m) jib, rated lifting capacities are determined by loaded boom angle only in the column headed "141.1' (43.0m) boom + 58.1' (17.7m) jib". For angles not shown, use the next lower loaded boom angle to determine allowable capacity.
- 21. When lifting a load by using jib (aux. winch) 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.

## **DEFINITIONS**

- 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.
- 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.
- Freely Suspended Load: Load hanging free with no direct external force applied except by the hoist line.
- Side Load: Horizontal side force applied to the lifted load either on the ground or in the air.

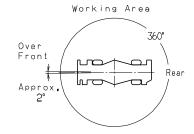
	ON RUBBER																	
A	A Stationary										Creep							
			Ove	er Front			360° Rotation						Over Front					
	36.1' 62.3'			32.3'	88.6'		3	36.1'		62.3'		88.6'	36.1'		62.3'		88.6'	
В	С	(11m)	С	(19m)	С	(27m)	С	(11m)	С	(19m)	С	(27m)	С	(11m)	С	(19m)	С	(27m)
10'	68	65,000					68	41,000					68	51,000				
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							
								Telescopi	ng cor	nditions (%	)							
Tele. mode		I, II		II		II I, II		II			II	I, II		II		II		
2nd boom				0		0	0		0		0		0					
3rd boom					0 33			66		0		33		66				
4th boom					0		33		66	0		33		66				
Top boom	boom 0 33 66			0		33		66	0 33		33		66					

LIFTING CAPACITIES AT ZERO DEGREE BOOM ANGLE ON RUBBER OPERATION																		
\ /	Α	Stationary										Creep						
		Over Front						360° Rotation					Over Front					
		36.1' 62.3' 88.6'				8.6'	36.1'					36.1' 62.3'				8.6'		
C \	V	В	(11m)	В	(19m)	В	(27m)	В	(11m)			В	(11m)	В	(19m)	В	(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	36.1'	36.1' to 88.6'	Single top
(meters)	(11m)	(11m to 27m)	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.
- 5. Tires shall be inflated to correct air pressure.

•		to control an procedure.
	Tires	Air Pressure
	29.5-25 22PR	60 psi (4.2 kgf/cm2)
	29.5-25 28PR	64 psi (4.5 kgf/cm2)

- Over front operation shall be performed within two degrees in front of chassis.
- 7. On rubber lifting with "jib" is not permitted. Maximum permissible boom length is 88.6 ft. (27.0m).
- 8. 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.
- 10. Do not operate the crane while carrying the load.
- 11. Creep is motion for crane not to travel more than 200 ft. (60 m) in any 30 minute period and to travel at the speed of less than 1 mph
- 12. For creep operation, choose the drive mode and proper gear according to the road or working condition.

# WARNING AND OPERATING INSTRUCTIONS FOR USING THE LOAD MOMENT INDICATOR (AML-C)

- 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.

- 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.
- (2) For creep operation.
  - 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.
- A swing does not automatically stop even if the crane becomes overloaded.
- 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.
- 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 mach	nine	97,620	49,650	47,970	44,280	22,520	21,760	
	6.2ton(5.6metric ton) hook ball	-330	-470	140	-150	-213	64	
	2. 75ton(68metric ton) hook block	-1,300	-2,310	1,010	-590	-1,048	458	
	3. Top jib	-740	-805	65	-336	-364	29	
Remove:	4. Base jib	-1,910	-3,270	1,360	-867	-1,483	616	
	Auxiliary lifting sheave	-110	-300	190	-50	-137	87	
	Removable Counterweihgt	-12,500	5,510	-18,010	-5,670	2,498	-8,168	
	(with Auxiliary Hoist&wire)							

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