



# GR-1300XL-4

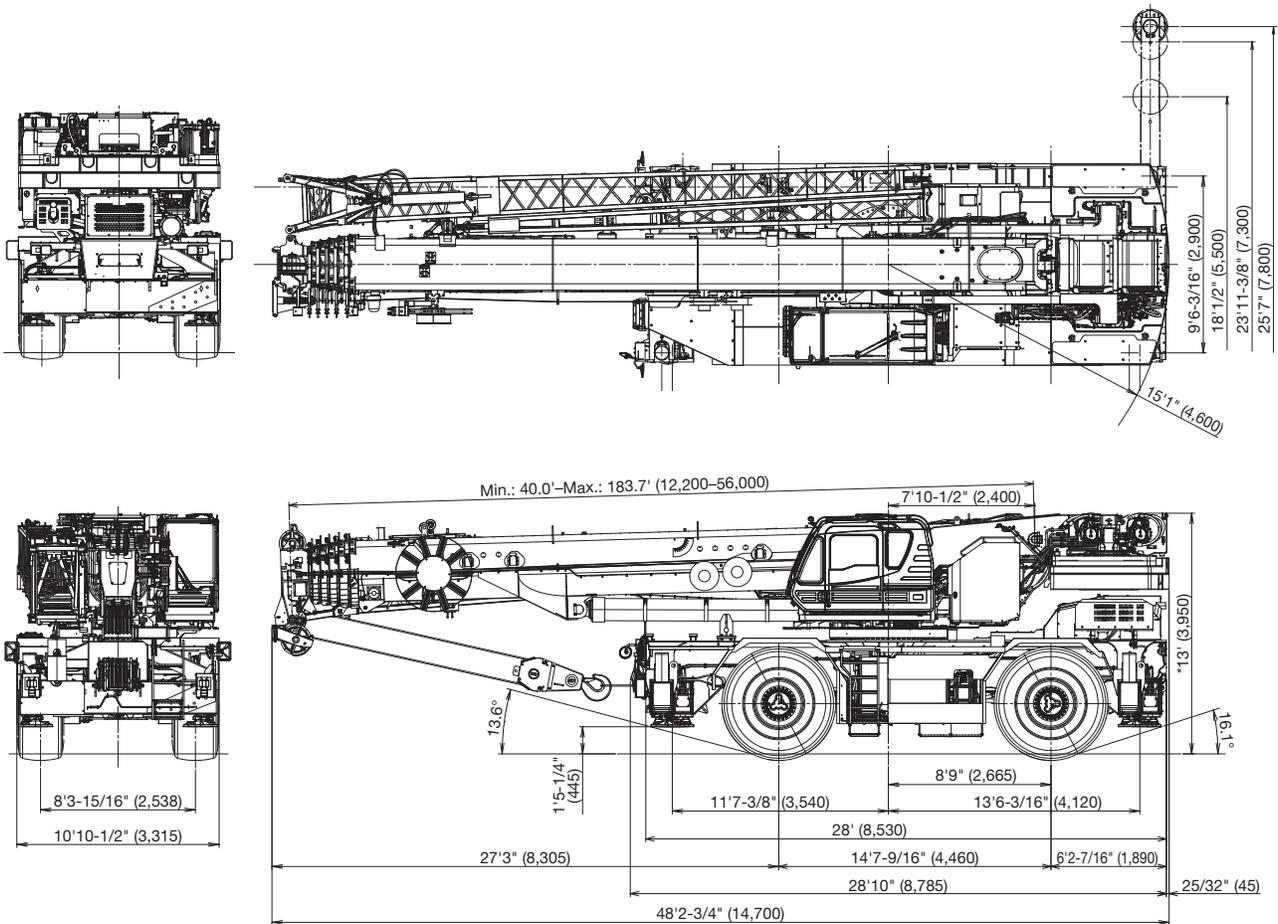
(Left-hand drive)

130 Ton (118.0 Metric Ton) Capacity

Form NO. GR-1300-4-00101/US-02

## HYDRAULIC ROUGH TERRAIN CRANE

### DIMENSIONS



Note: Dimension is with boom angle at -1.5 degree.  
( ) Reference dimensions in mm.

### GENERAL DIMENSIONS

	Feet	Meters
Turning radius		
4 wheel steer	24' 7"	7.5
2 wheel steer	44'	13.4

	Feet	Meters
Overall length	approx. 48' 2-3/4"	14.700
Overall width	approx. 10' 10-1/2"	3.315
*Overall height	approx. 13'	3.950

\*When installed fall protection system on boom: 13' 2-5/8" (4,080)

# CRANE SPECIFICATIONS

## BOOM

6 section boom, single cylinder telescoping with pinning system, 40.0'–183.7' (12.2 m–56.0 m), of round box construction with 7 sheaves, 15-3/4" (0.400 m) root diameter, at boom head. 2 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 143.7' in 410 seconds.

**BOOM ELEVATION** - By a double acting hydraulic cylinder with holding valve. Elevation -1.5°–81.5°, combination controls for hand or foot operation. Boom angle indicator. Automatic speed reduction and slow stop function. Boom raising speed 20° to 60° in 28 seconds.

**JIB** - 2 stage bi-fold lattice jib with 5°–40° hydraulic offset. Single sheave, 17-5/16" (0.440 m) root diameter, at the head of both jib sections. Stored alongside base boom section. Jib length is 33.8' (10.3 m) or 59.1' (18.0 m). Assistant cylinders for mounting and stowing, controlled at right side of superstructure. Self stowing jib mounting pins.

**AUXILIARY LIFTING SHEAVE (SINGLE TOP)**  
Single sheave, 17-5/16" (0.440 m) root diameter. Mounted to main boom head for single line work (storable).

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

## SLEWING

Hydraulic axial piston motor through planetary slewing speed reducer. Continuous 360° full circle slewing on ball bearing turn table at 1.3 min<sup>-1</sup> {rpm}. Equipped with manually locked/released slewing brake. A 360° positive slewing lock for pick and carry and travel modes, manually engaged in cab. Twin slewing system: Free slewing or lock slewing controlled by selector switch on front console.

## WINCH

**MAIN WINCH** - 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 winch. Equipped with cable follower and drum rotation indicator.

**DRUM** - Grooved 15" (0.382 m) root diameter x 29-1/4" (0.742 m) wide. Wire rope: 1050' of 3/4" diameter rope (320 m of 19 mm). Drum capacity: 1293' (394 m) 7 layers. Maximum single line pull: 1st layer 21,800 lbs (9,900 kg). Maximum permissible line pull wire strength: 15,900 lbs (7,200 kg)

**AUXILIARY WINCH** - 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 winch. Equipped with cable follower and drum rotation indicator.

**DRUM** - Grooved 15" (0.382 m) root diameter x 29-1/4" (0.742 m) wide. Wire rope: 738' of 3/4" diameter rope (225 m of 19 mm). Drum capacity: 1293' (394 m) 7 layers. Maximum single line pull: 1st layer 21,800 lbs (9,900 kg). Maximum permissible line pull wire strength: 15,900 lbs (7,200 kg)

**WIRE ROPE** - Non-rotating 3/4" (19 mm) 7x35 class. Breaking Strength 79,400 lbs (36,000 kg)

## HOOK BLOCKS

100 ton (90.7 metric ton) - 7 sheaves with swivel hook block and safety latch.  
7.9 ton (7.2 metric ton) - Weighted hook with swivel and safety latch.

## COUNTERWEIGHT

Self-removable counterweight.....43,500 lbs (19,800 kg)

## HYDRAULIC SYSTEM

**PUMPS** - 2 variable piston pumps for crane functions. Tandem gear pump for steering, slewing and other hydraulic systems. 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** - 210 gallon (795 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.

20° tilt, 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 slewing, boom elevating, boom telescoping, auxiliary winch and main winch. 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 Instrument panel, Multi Function Display, Starter switch (engine start/stop), 12 V power outlet, USB port, drive selector switch, parking brake switch, steering mode select switch, power window switch, pump engaged/disengaged switch, slewing brake switch, telescoping/auxiliary winch select switch, outrigger controls, free slewing/lock slewing selector switch, air conditioning control switch.

Instruments panel - Torque converter oil temperature, engine water temperature, air pressure, fuel, speedometer, tachometer, hour meter and odometer/tripmeter.

Multi Function Display - DEF level gauge, Fuel consumption monitor.

Tadano electronic LOAD MOMENT INDICATOR system (AML-E2) including:

- Control lever lockout function with audible and visual pre-warning
- Number of parts of line
- Boom position indicator
- Outrigger state indicator
- Slewing angle
- Boom angle / boom length / jib offset angle / jib length / load radius / rated lifting capacities / actual loads read out
- Potential lifting height
- Ratio of actual load moment to rated load moment indication
- Automatic Speed reduction and slow stop function on boom elevation and slewing
- Working condition register switch
- Load radius / boom angle / tip height / slewing range preset function
- External warning lamp
- Tare function
- Main Hydraulic oil pressure
- Fuel consumption monitor

- Main winch / auxiliary winch select
- Drum rotation indicator (audible and visible type) main and auxiliary winch
- On rubber indicator

TADANO AML-E2 monitors outrigger extended length and automatically programs the corresponding "RATED LIFTING CAPACITIES" table.

Operator's right hand console includes transmission gear selector, slewing lock lever and sight level bubble.

Upper console includes, roof washer and wiper switch, emergency outrigger set up key switch, jib equipped / removed select switch, high speed winch (main / aux) switch, Cab tilt switch, Pump disconnect enable switch and boom emergency.

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, 4 x 2 front drive, 4 x 4 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. 5 forward and 2 reverse speeds, constant mesh.

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

**TRAVEL SPEED** - 12 mph (19 km/h)

**GRADEABILITY (tanθ)** - 57% (at stall),

\* Machine should be operated within the limit of engine crankcase design (30°: Cummins B6.7)

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

**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.

### ENGINE

Model	Cummins B6.7
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)	408 (6.7)
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

**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** - 29.5R25☆☆ (OR) Air pressure: 94 psi (650 kPa)  
or  
29.5-25 38PR (OR) Air pressure: 87 psi (600 kPa)

**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 25' 7" (7.8 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 9' 6-3/16" (2.9 m) center to center
- Mid. Extension 18' 1/2" (5.5 m) center to center
- Mid. Extension 23' 11-3/8" (7.3 m) center to center
- Max. Extension 25' 7" (7.8 m) center to center

Float size (Diameter) 1' 10- 1/2" (0.57 m)

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 2,400 rpm
Output, Max. HP (kW)	Gross 280 (209) at 2,200 rpm
Torque, Max. ft-lb (Nm)	850 (1,152) at 1,500 rpm
Capacity, gal. (liters)	
Cooling water	2.7 (10)
Lubrication	4.0 (15)
Fuel	79.2 (300)
DEF/AdBlue	15.0 (57)

# STANDARD EQUIPMENT

- 6 section extended boom by single telescoping cylinder 40.0'-183.7' (12.2 m-56.0 m)
- 33.8' or 59.1' (10.3 m or 18.0 m) bi-fold lattice jib, offset angle (5-40°) by tilt cylinder.
- Quick reeving type bi-fold jib
- Anti-Two block device (overwind cutout)
- Winch drum camera with light
- LED work lights
- Variable speed main winch with grooved drum, cable follower, drum rotation indicator (audible, visible and thumper type) and 1050' of 3/4" cable.
- Variable speed auxiliary winch with grooved drum, cable follower, drum rotation indicator (audible, visible and thumper type) and 738' of 3/4" cable.
- Auxiliary lifting sheave (single top) stowable
- 2-speed winch
- 100 ton (90.7 metric ton) hook block - 7 sheaves with swivel hook and safety latch for 3/4" (19 mm) wire rope
- 7.9 ton (7.2 metric ton) hook with swivel
- Tadano twin slewing system and 360° positive slewing lock
- Positive control
- Hydraulic oil cooler
- 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)
- 12V power outlet
- Ashtray
- Cab floor mat
- Pump disconnect in operator's cab
- Air conditioner (hot water heater and cooler)
- Full instrumentation package
- Self centering finger control levers with pilot control
- Control pedals for boom elevating and boom telescoping
- Low oil pressure / high water temp. warning device (visual)
- Air cleaner dust indicator
- Cup holder
- Battery disconnect
- USB port
- 20° tilt cab
- Emergency steering system
- Tadano electronic load moment indicator system (AML-E2)
- Boom angle indicator
- Outrigger extension length detector
- Electronic crane monitoring system
- Rear view camera
- Right front view camera
- Fenders
- Air dryer
- Complete highway light package
- Towing hooks-Front and rear
- Hook block tie down (front bumper)
- Weighted hook storage compartment
- Halogen head lamp
- Independently controlled outriggers
- Four outrigger extension positions
- Self-storing outrigger pads
- Electronic controlled automatic transmission driven by torque converter
- 4 X 4 X 4 drive / steer
- Automatic rear axle oscillation lockout system
- 29.5R25☆☆ tires
- 29.5-25 38PR tires
- Disc brakes
- Water separator with filter (high filtration)
- Back-up alarm
- 24 volt electric system
- Tool storage compartment
- Tire inflation kit
- Cummins B6.7 turbo charged after cooled engine (280 HP) with exhaust brake
- Engine over-run alarm
- Lifting eyes
- Telematics (machine data logging and monitoring system) with HELLO-NET via internet (availability depends on countries)
- Fuel consumption monitor
- Eco mode system
- Self-removable counterweight
- Radiator cover
- Clearance sonar (Rear side)
- Automatic pump disconnect
- Over unwinding prevention
- Boom and jib mounted aircraft warning light
- Wind speed indicator

# OPTIONAL EQUIPMENT

- Fall protection system on boom

# HOISTING PERFORMANCE

## LINE SPEEDS AND PULLS

Layer	Main or auxiliary winch - 15" (0.382 m) drum					
	Line speeds <sup>1</sup>				Line pulls Available <sup>2</sup>	
	Low		High		Low	
	F.P.M	m/min	F.P.M	m/min	Lbs.	kgf
1st	253	77	354	108	21,800	9,900
2nd	276	84	384	117	19,900	9,010
3rd	299	91	413	126	18,200	8,270
4th	318	97	446	136	16,800	7,640
5th	341	104	476	145	15,600	7,090
6th	361	110	505	154	14,600	6,620
7th <sup>3</sup>	384	117	535	163	13,700	6,210

- Maximum permissible line pull wire strength. 15,900 lbs (7,200 kg) with 7 x 35 class rope.

<sup>1</sup> Line speed 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 limitations in machinery or equipment.  
<sup>3</sup> Seventh layer of wire rope are not recommended for hoisting operations.

## DRUM WIRE ROPE CAPACITIES

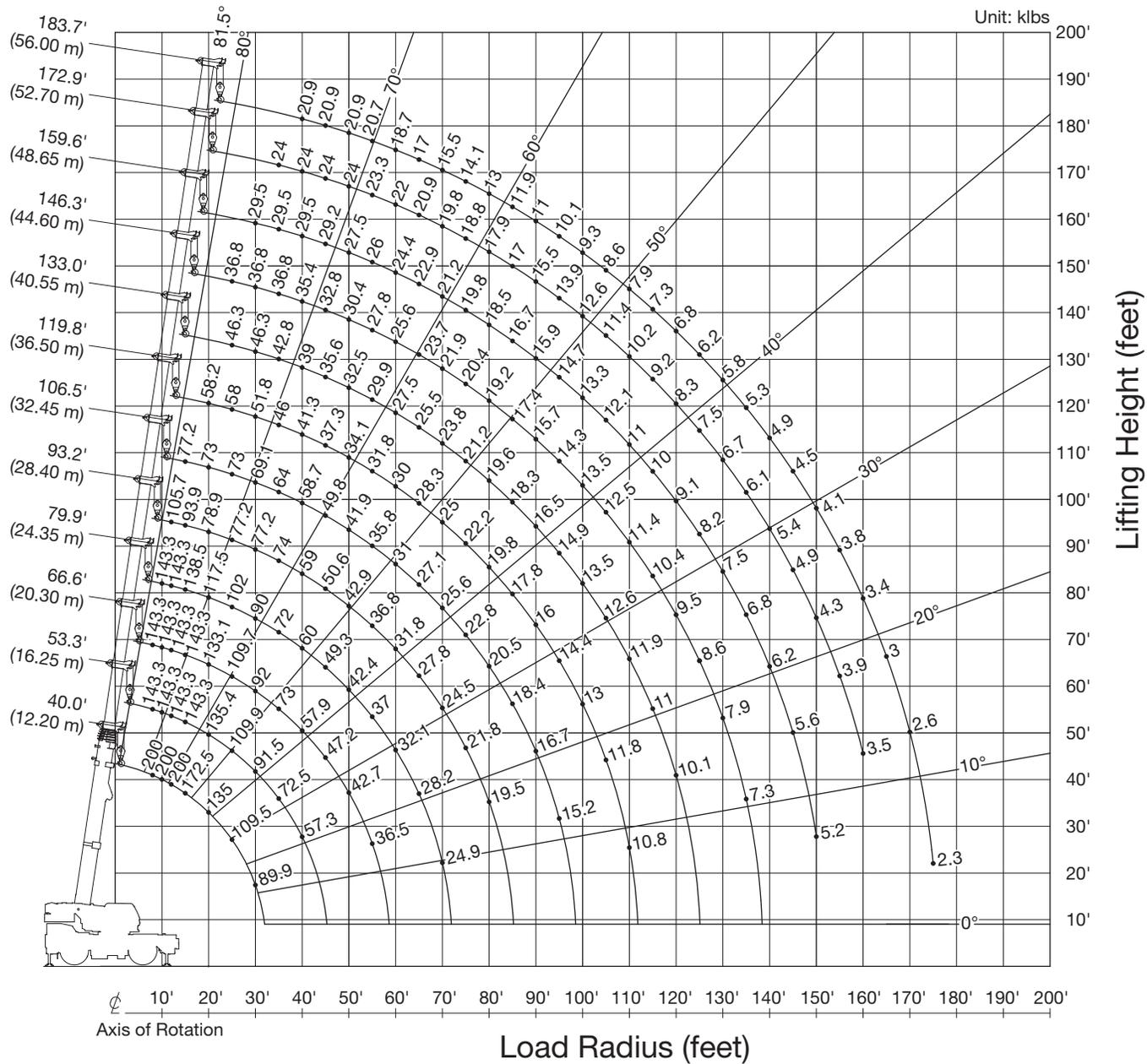
Wire rope layer	Main and auxiliary drum grooved lagging			
	3/4" (19 mm) wire rope			
	Rope per layer		Total wire rope	
	Feet	Meter	Feet	Meter
1	147.0	44.8	147.0	44.8
2	159.4	48.6	306.4	93.4
3	172.2	52.5	478.7	145.9
4	184.7	56.3	663.4	202.2
5	197.2	60.1	860.6	262.3
6	209.6	63.9	1070.2	326.2
7	222.1	67.7	1292.3	393.9

## DRUM DIMENSIONS (Main and auxiliary)

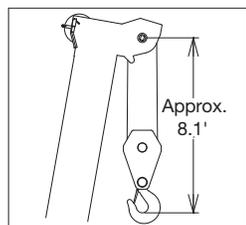
	Inch	mm
Root diameter	15	382
Length	29-1/4	742
Flange diameter	26-5/8	677

# GR-1300XL-4 WORKING RANGE CHART

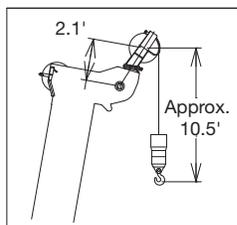
360° ROTATION



**BOOM**



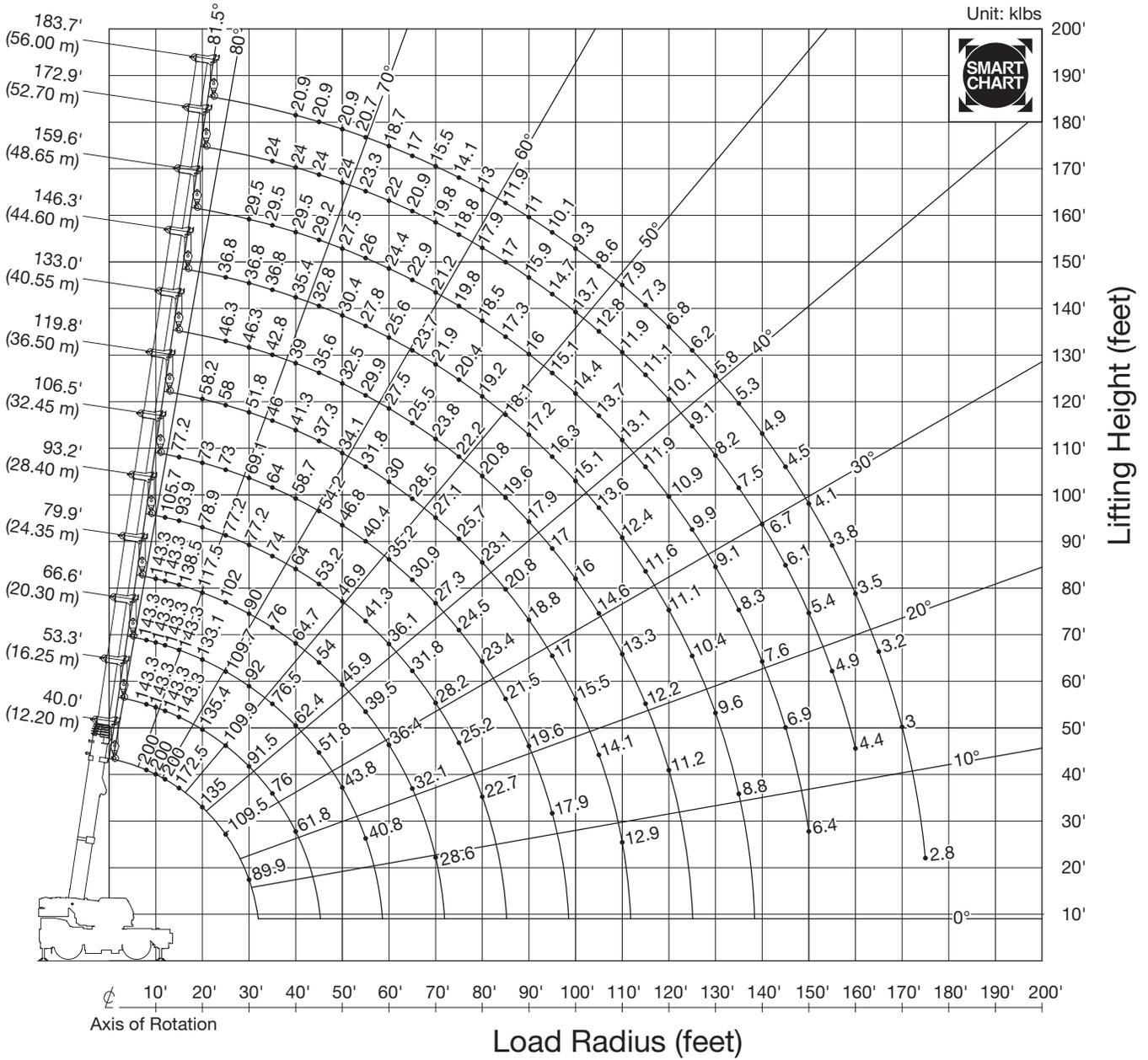
**SINGLE TOP**



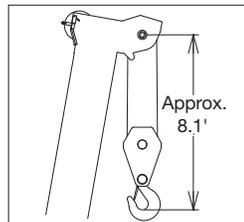
NOTE: Boom geometry shown are for unloaded condition and machine standing level on firm supporting surface. Boom deflection and subsequent radius and boom angle change must be accounted for when applying load to hook.

# GR-1300XL-4 WORKING RANGE CHART

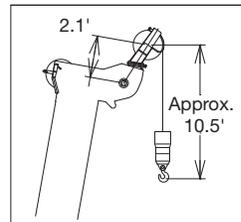
## SMART CHART



### BOOM



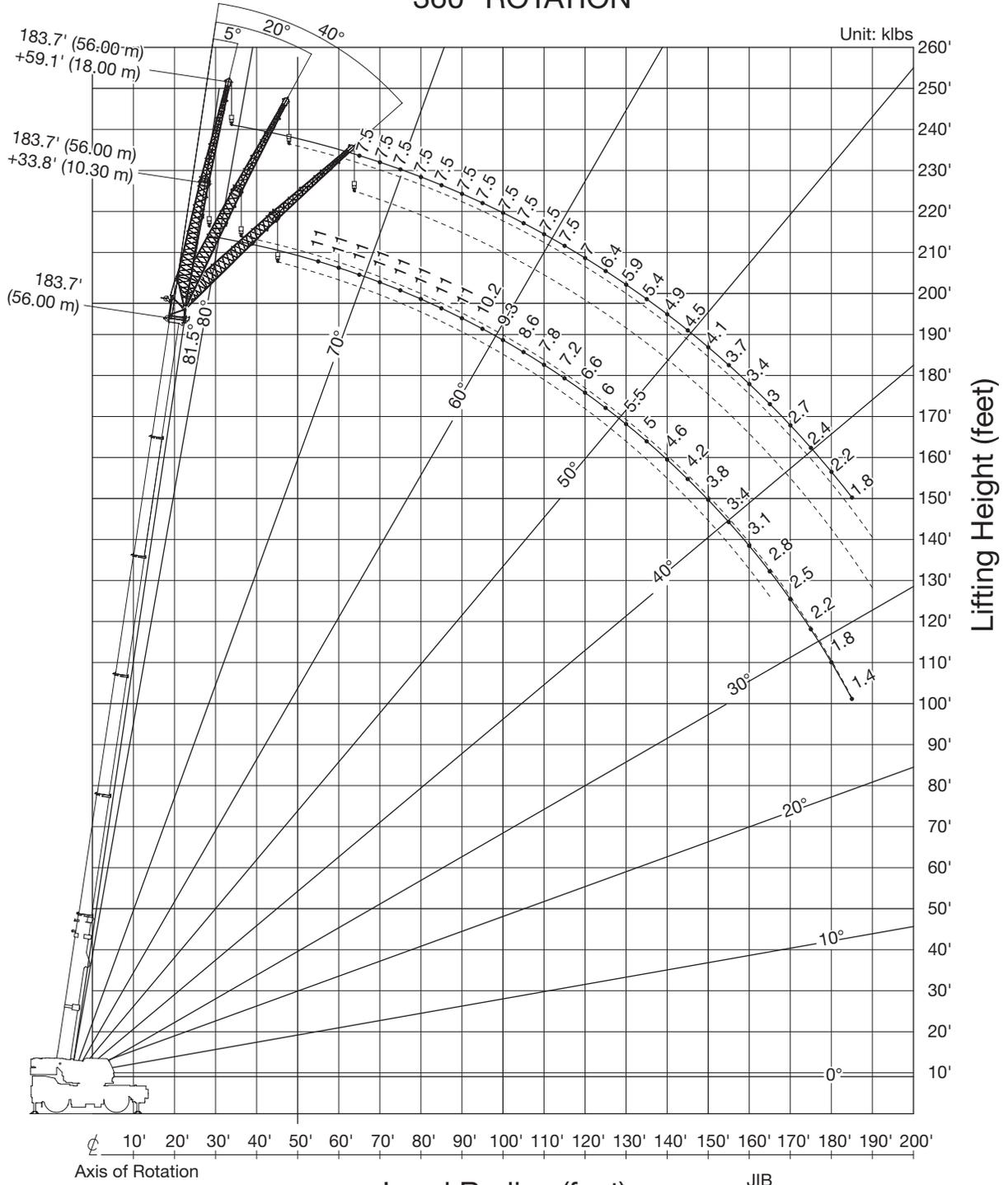
### SINGLE TOP



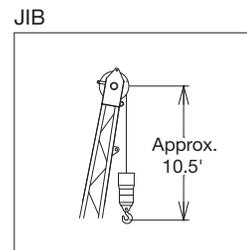
NOTE: Boom geometry shown are for unloaded condition and machine standing level on firm supporting surface. Boom deflection and subsequent radius and boom angle change must be accounted for when applying load to hook.

# GR-1300XL-4 WORKING RANGE CHART

360° ROTATION

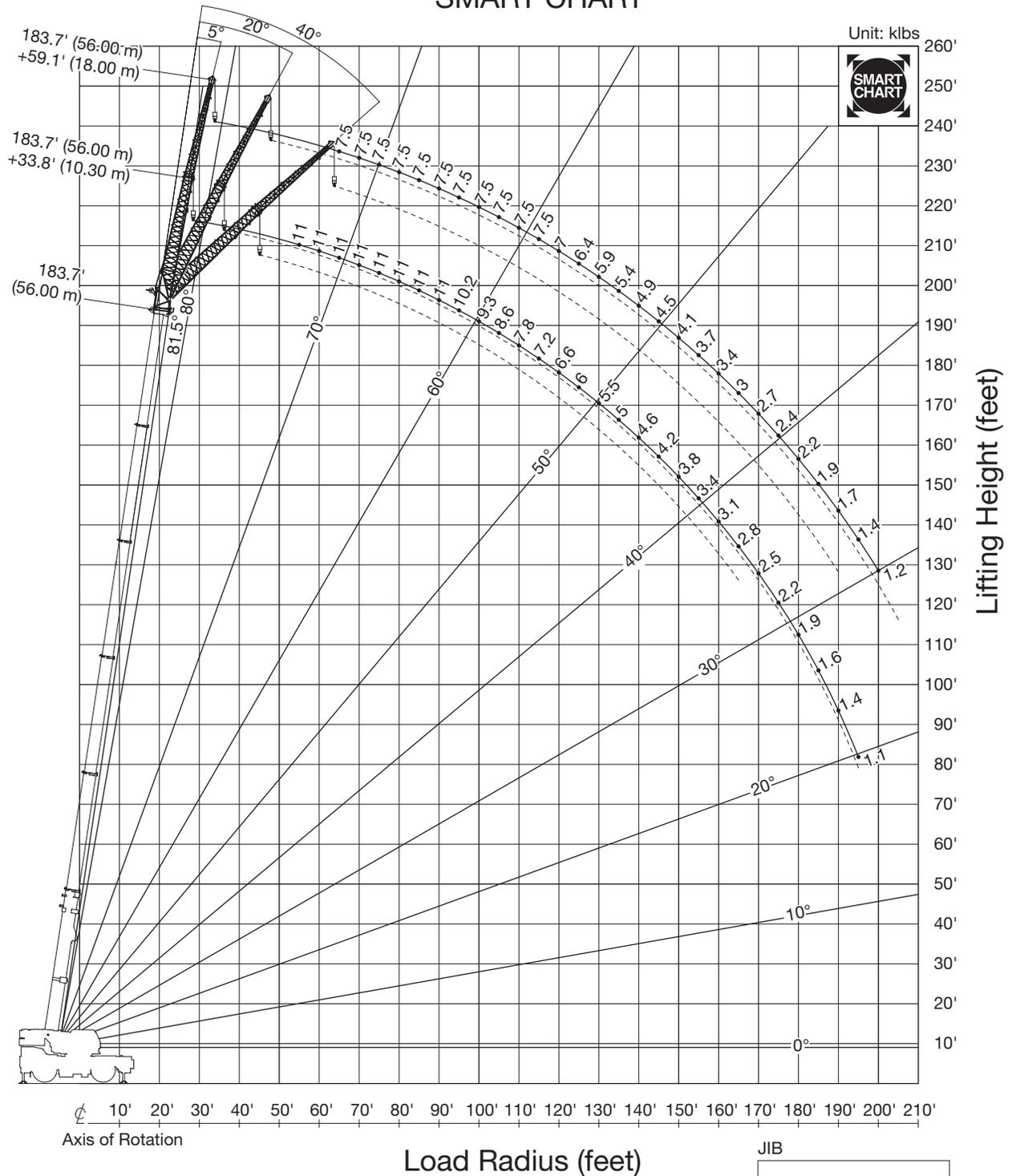


NOTE: Jib geometry shown are for unloaded condition and machine standing level on firm supporting surface. Boom deflection and subsequent radius and boom angle change must be accounted for when applying load to hook.



# GR-1300XL-4 WORKING RANGE CHART

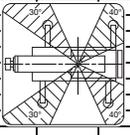
## SMART CHART





# GR-1300XL-4 RATED LIFTING CAPACITIES (IN POUNDS)

		COUNTERWEIGHT 43,500 lbs (19.8 t) ON OUTRIGGERS FULLY EXTENDED 25' 7" (7.8 m) SPREAD																					
		SMART CHART																					
A	B	1	2	9	10	1	2	9	10	1	2	10	11	1	2	10	11	1	2	11	3		
D	C	40.0'	40.0'	53.3'	66.6'	79.9'	93.2'	106.5'															
		(12.2 m)	(12.2 m)	(16.3 m)	(20.3 m)	(24.4 m)	(28.4 m)	(32.5 m)															
8'		260,000	200,000	77,200	143,300	143,300	77,200	77,200	143,300	143,300	70,200	77,200	143,300	77,200									
10'		244,400	200,000	77,200	143,300	143,300	77,000	77,200	143,300	143,300	65,800	77,200	143,300	65,800	77,200	143,300	77,200	55,100	77,200	105,700	77,200		
12'		220,900	200,000	77,200	143,300	143,300	71,800	77,200	143,300	143,300	59,900	77,200	138,500	77,200	50,400	77,200	93,900	77,200	50,400	77,200	93,900	77,200	
15'		192,800	172,500	77,200	143,300	143,300	65,000	77,200	143,300	143,300	59,900	77,200	138,500	77,200	50,400	77,200	93,900	77,200	50,400	77,200	93,900	77,200	
20'		143,700	135,000	77,200	135,400	124,400	56,000	77,200	133,100	123,400	51,800	77,200	117,500	77,200	43,700	77,200	78,900	77,200	44,400	73,000	72,700	54,200	
25'		111,400	109,500	72,700	109,900	108,400	49,200	68,900	109,700	107,700	45,500	70,500	102,000	77,200	38,400	74,800	67,900	77,200	39,600	73,000	62,600	48,900	
30'		89,900	89,900	65,600	90,500	91,500	43,800	61,600	90,200	92,000	40,500	62,300	90,000	77,200	34,100	67,100	59,400	77,200	35,600	69,100	54,800	44,500	
35'				60,000	74,800	76,000	39,300	55,600	74,500	76,500	36,400	55,700	76,000	71,500	30,500	60,500	52,700	74,000	32,300	64,000	48,600	40,700	
40'				55,800	60,500	61,800	35,600	50,800	60,200	62,400	33,000	50,400	61,700	64,700	27,600	55,200	47,300	64,000	29,500	58,700	43,600	37,600	
45'							32,700	46,800	49,700	51,800	30,200	46,000	51,100	54,000	25,200	50,600	42,800	53,200	27,100	54,200	39,400	34,900	
50'							30,200	43,500	41,700	43,800	27,800	42,400	43,100	45,900	23,100	46,900	39,100	45,200	25,100	46,800	35,900	32,500	
55'							28,300	40,800	35,500	37,600	25,800	39,300	36,900	39,500	21,300	41,300	35,900	38,800	23,200	40,400	33,000	30,500	
60'											24,100	36,400	31,800	34,400	19,800	36,100	31,000	33,600	21,500	35,200	30,400	28,700	
65'											22,700	32,100	27,700	30,200	18,500	31,800	26,800	29,400	20,000	30,900	28,200	27,100	
70'											21,600	28,600	24,300	26,700	17,300	28,200	23,300	25,800	18,700	27,300	24,800	25,700	
75'															16,300	25,200	20,400	22,900	17,500	24,300	21,900	24,500	
80'															15,500	22,700	17,900	20,300	16,500	21,700	19,300	23,400	
85'																			15,600	19,500	17,100	21,500	
90'																			14,800	17,500	15,100	19,600	
95'																			14,200	15,900	13,500	17,900	
100'																							
105'																							
110'																							
115'																							
120'																							
125'																							
130'																							
135'																							
140'																							
145'																							
150'																							
155'																							
160'																							
165'																							
170'																							
175'																							
E		77,800	71,000	67,500	70,500	59,700	69,900	65,000	68,600	59,700	68,300	66,100	65,300	55,100	66,400	66,100	62,800		50,100	63,700	62,800	59,700	
F		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	
Telescoping condition (%)																							
Tele.1		0	0	0	0	0	0	46	0	0	46	0	0	0	0	92	46		0	46	92	0	
Tele.2		0	0	46	0	0	0	46	46	0	0	46	46	0	46	46	46		0	46	46	46	
Tele.3		0	0	0	46	0	0	0	46	0	46	46	46	0	46	46	46		46	46	46	46	
Tele.4		0	0	0	0	0	46	0	0	46	46	0	46	92	46	0	46	92	46	46	46	46	
Tele.5		0	46	0	0	92	46	0	0	92	46	0	0	92	46	0	0	92	46	0	92	46	0
G		20	14	6	10	10	6	6	10	10	6	6	10	6	4	6	8	6	4	6	6	6	



		COUNTERWEIGHT 43,500 lbs (19.8 t) ON OUTRIGGERS FULLY EXTENDED 25' 7" (7.8 m) SPREAD																											
		SMART CHART																											
A	B	1	2	3	1	4	5	3	1	6	7	1	8	9	16	18	8	20	21	19	6	22	7	10	24	11	25		
D	C	119.8'	133.0'	146.3'	159.6'	172.9'	183.7'																						
		(36.5 m)	(40.6 m)	(44.6 m)	(48.7 m)	(52.7 m)	(56.0 m)																						
8'																													
10'																													
12'																													
15'																													
20'		43,200	58,200	51,800																									
25'		39,100	58,000	48,900	36,400	39,200	46,300	43,900	30,900	36,800	34,200																		
30'		35,400	51,800	45,000	35,500	36,300	46,300	43,900	30,900	36,800	34,200	27,100	29,500																
35'		31,400	46,000	41,500	32,800	33,600	42,800	41,600	30,900	36,800	34,200	27,100	29,500	24,000															
40'		28,200	41,300	38,600	29,800	31,200	38,700	39,000	29,100	35,400	32,000	27,100	29,500	24,000	20,900														
45'		25,500	37,300	36,000	27,200	29,000	35,000	35,600	27,000	32,800	29,800	26,700	29,200	24,000	20,900														
50'		23,300	34,100	33,800	24,900	27,200	31,900	32,500	25,100	30,400	27,800	25,100	27,500	24,000	20,900														
55'		21,400	31,300	31,800	23,000	25,500	29,200	29,900	23,400	27,800	26,000	23,600	26,000	23,300	20,700														
60'		19,800	28,800	30,000	21,300	24,100	26,900	27,500	21,800	25,600	24,400	22,200	24,400	22,000	18,700														
65'		18,300	26,700	28,500	19,900	22,800	24,900																						

# GR-1300XL-4 RATED LIFTING CAPACITIES (IN POUNDS)

COUNTERWEIGHT 43,500 lbs (19.8 t) ON OUTRIGGERS FULLY EXTENDED 25' 7" (7.8 m) SPREAD 360° ROTATION						
B	183.7' (56.0 m) + 33.8' (10.3 m) Hydraulic offset jib			172.9' (52.7 m) + 33.8' (10.3 m) Hydraulic offset jib		
	5° Offset	20° Offset	40° Offset	5° Offset	20° Offset	40° Offset
25'						
30'						
35'						
40'						
45'						
50'				12,300		
55'	11,000	11,000		12,300	12,300	
60'	11,000	11,000		12,300	12,300	
65'	11,000	11,000	11,000	12,300	12,300	12,300
70'	11,000	11,000	11,000	12,300	12,300	12,300
75'	11,000	11,000	11,000	12,300	12,300	12,300
80'	11,000	11,000	11,000	12,300	12,300	12,100
85'	11,000	11,000	11,000	12,300	12,200	11,700
90'	11,000	11,000	10,800	12,300	11,700	11,200
95'	10,200	10,600	10,400	11,900	11,300	10,900
100'	9,300	9,700	10,100	11,500	10,900	10,500
105'	8,600	8,900	9,300	11,100	10,500	10,100
110'	7,800	8,200	8,600	10,400	10,200	9,800
115'	7,200	7,500	7,900	9,400	9,800	9,500
120'	6,600	6,900	7,200	8,600	9,000	9,200
125'	6,000	6,400	6,700	7,800	8,200	8,600
130'	5,500	5,800	6,100	7,100	7,500	7,900
135'	5,000	5,400	5,600	6,400	6,800	7,100
140'	4,600	4,900	5,100	5,800	6,100	6,500
145'	4,200	4,500	4,700	5,200	5,500	5,800
150'	3,800	4,100	4,300	4,700	5,000	5,200
155'	3,400	3,700	3,900	4,100	4,400	4,700
160'	3,100	3,300	3,500	3,600	3,900	4,100
165'	2,800	3,000	3,100	3,200	3,400	
170'	2,500	2,600		2,800	3,000	
175'	2,200	2,400		2,400	2,600	
180'	1,800	2,000		2,000	2,200	
185'	1,400	1,600		1,600	1,800	
190'				1,300		
195'				1,000		
200'						
205'						

COUNTERWEIGHT 43,500 lbs (19.8t) ON OUTRIGGERS FULLY EXTENDED 25' 7" (7.8 m) SPREAD 360° ROTATION						
B	159.6' (48.7 m) + 33.8' (10.3 m) Hydraulic offset jib			106.5' (32.5 m) + 33.8' (10.3 m) Hydraulic offset jib		
	5° Offset	20° Offset	40° Offset	5° Offset	20° Offset	40° Offset
25'				29,500		
30'				29,500	24,000	
35'				28,800	22,400	
40'				27,500	21,100	15,900
45'	14,800			26,300	19,900	15,300
50'	14,800	14,800		24,900	18,800	14,800
55'	14,800	14,800		23,200	17,900	14,300
60'	14,800	14,800	14,500	21,700	17,000	13,800
65'	14,800	14,800	14,100	20,400	16,300	13,400
70'	14,800	14,800	13,700	19,300	15,600	13,100
75'	14,800	14,800	13,400	18,300	15,000	12,700
80'	14,800	14,700	13,100	17,400	14,500	12,400
85'	14,700	14,100	12,800	16,600	14,000	12,100
90'	14,000	13,600	12,500	15,600	13,500	11,900
95'	13,300	13,100	12,200	14,200	13,100	11,700
100'	12,200	12,500	12,000	12,900	12,700	11,500
105'	11,100	11,700	11,800	11,800	12,200	11,400
110'	10,000	10,600	11,100	10,700	11,100	
115'	9,100	9,600	10,100	9,800	10,100	
120'	8,200	8,700	9,100	9,000	9,200	
125'	7,400	7,900	8,300	8,200	8,400	
130'	6,700	7,100	7,500	7,500		
135'	6,100	6,400	6,700			
140'	5,400	5,800	6,100			
145'	4,800	5,200	5,400			
150'	4,300	4,600	4,800			
155'	3,700	4,000				
160'	3,300	3,500				
165'	2,800	3,000				
170'	2,400	2,600				
175'	2,000	2,100				
180'	1,700					
185'	1,300					
190'						
195'						
200'						
205'						

B :Load radius (feet)

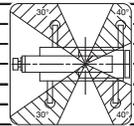
# GR-1300XL-4 RATED LIFTING CAPACITIES (IN POUNDS)



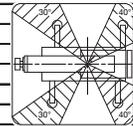
COUNTERWEIGHT 43,500 lbs (19.8 t)  
ON OUTRIGGERS FULLY EXTENDED 25' 7" (7.8 m) SPREAD

SMART CHART

B	183.7' (56.0 m) + 33.8' (10.3 m) Hydraulic offset jib		
	5° Offset	20° Offset	40° Offset
25'			
30'			
35'			
40'			
45'			
50'			
55'	11,000	11,000	
60'	11,000	11,000	
65'	11,000	11,000	11,000
70'	11,000	11,000	11,000
75'	11,000	11,000	11,000
80'	11,000	11,000	11,000
85'	11,000	11,000	11,000
90'	11,000	11,000	10,800
95'	10,200	10,600	10,400
100'	9,300	9,700	10,100
105'	8,600	8,900	9,300
110'	7,800	8,200	8,600
115'	7,200	7,500	7,900
120'	6,600	6,900	7,200
125'	6,000	6,400	6,700
130'	5,500	5,800	6,100
135'	5,000	5,400	5,600
140'	4,600	4,900	5,100
145'	4,200	4,500	4,700
150'	3,800	4,100	4,300
155'	3,400	3,700	3,900
160'	3,100	3,300	3,500
165'	2,800	3,000	3,100
170'	2,500	2,600	
175'	2,200	2,400	
180'	1,900	2,100	
185'	1,600	1,800	
190'	1,400	1,500	
195'	1,100	1,300	
200'			
205'			



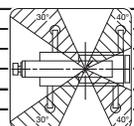
B	172.9' (52.7 m) + 33.8' (10.3 m) Hydraulic offset jib		
	5° Offset	20° Offset	40° Offset
25'			
30'			
35'			
40'			
45'			
50'			
55'	12,300		
60'	12,300	12,300	
65'	12,300	12,300	12,300
70'	12,300	12,300	12,300
75'	12,300	12,300	12,300
80'	12,300	12,300	12,100
85'	12,300	12,200	11,700
90'	12,300	11,700	11,200
95'	11,900	11,300	10,900
100'	11,500	10,900	10,500
105'	11,100	10,500	10,100
110'	10,400	10,200	9,800
115'	9,400	9,800	9,500
120'	8,600	9,000	9,200
125'	7,800	8,200	8,600
130'	7,100	7,500	7,900
135'	6,400	6,800	7,100
140'	5,800	6,100	6,500
145'	5,200	5,500	5,800
150'	4,700	5,000	5,200
155'	4,200	4,500	4,700
160'	3,700	4,000	4,200
165'	3,300	3,500	
170'	2,900	3,100	
175'	2,500	2,700	
180'	2,200	2,300	
185'	1,900	2,000	
190'	1,500		
195'	1,300		
200'			
205'			



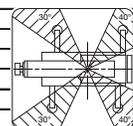
COUNTERWEIGHT 43,500 lbs (19.8 t)  
ON OUTRIGGERS FULLY EXTENDED 25' 7" (7.8 m) SPREAD

SMART CHART

B	159.6' (48.7 m) + 33.8' (10.3 m) Hydraulic offset jib		
	5° Offset	20° Offset	40° Offset
25'			
30'			
35'			
40'			
45'	14,800		
50'	14,800	14,800	
55'	14,800	14,800	
60'	14,800	14,800	14,500
65'	14,800	14,800	14,100
70'	14,800	14,800	13,700
75'	14,800	14,800	13,400
80'	14,800	14,700	13,100
85'	14,700	14,100	12,800
90'	14,000	13,600	12,500
95'	13,300	13,100	12,200
100'	12,200	12,500	12,000
105'	11,100	11,700	11,800
110'	10,000	10,600	11,100
115'	9,100	9,600	10,100
120'	8,200	8,700	9,100
125'	7,400	7,900	8,300
130'	6,700	7,100	7,500
135'	6,100	6,400	6,700
140'	5,400	5,800	6,100
145'	4,900	5,200	5,400
150'	4,400	4,600	4,800
155'	3,900	4,100	
160'	3,400	3,600	
165'	3,000	3,200	
170'	2,600	2,700	
175'	2,200	2,300	
180'	1,900		
185'	1,600		
190'			
195'			
200'			
205'			



B	106.5' (32.5 m) + 33.8' (10.3 m) Hydraulic offset jib		
	5° Offset	20° Offset	40° Offset
25'	29,500		
30'	29,500	24,000	
35'	28,800	22,400	
40'	27,500	21,100	15,900
45'	26,300	19,900	15,300
50'	24,900	18,800	14,800
55'	23,200	17,900	14,300
60'	21,700	17,000	13,800
65'	20,400	16,300	13,400
70'	19,300	15,600	13,100
75'	18,300	15,000	12,700
80'	17,400	14,500	12,400
85'	16,600	14,000	12,100
90'	15,600	13,500	11,900
95'	14,200	13,100	11,700
100'	12,900	12,700	11,500
105'	11,800	12,200	11,400
110'	10,700	11,100	
115'	9,800	10,100	
120'	9,000	9,200	
125'	8,200	8,400	
130'	7,500		
135'			
140'			
145'			
150'			
155'			
160'			
165'			
170'			
175'			
180'			
185'			
190'			
195'			
200'			
205'			



B : Load radius (feet)

# GR-1300XL-4 RATED LIFTING CAPACITIES (IN POUNDS)

COUNTERWEIGHT 43,500 lbs (19.8 t) ON OUTRIGGERS FULLY EXTENDED 25' 7" (7.8 m) SPREAD 360° ROTATION						
B	183.7' (56.0 m) + 59.1' (18.0 m) Hydraulic offset jib			172.9' (52.7 m) + 59.1' (18.0 m) Hydraulic offset jib		
	5° Offset	20° Offset	40° Offset	5° Offset	20° Offset	40° Offset
25'						
30'						
35'						
40'						
45'						
50'						
55'				7,900		
60'	7,500			7,900		
65'	7,500			7,900		
70'	7,500			7,900	7,900	
75'	7,500	7,500		7,900	7,900	
80'	7,500	7,500		7,900	7,900	
85'	7,500	7,500		7,900	7,900	7,100
90'	7,500	7,500	6,800	7,900	7,900	6,900
95'	7,500	7,500	6,700	7,900	7,900	6,800
100'	7,500	7,500	6,600	7,900	7,700	6,700
105'	7,500	7,400	6,500	7,900	7,600	6,500
110'	7,500	7,300	6,300	7,900	7,400	6,400
115'	7,500	7,100	6,200	7,900	7,200	6,300
120'	7,000	7,000	6,200	7,900	7,100	6,200
125'	6,400	6,800	6,000	7,700	6,900	6,000
130'	5,900	6,500	5,900	7,400	6,800	5,900
135'	5,400	6,000	5,800	7,000	6,600	5,800
140'	4,900	5,500	5,700	6,300	6,500	5,700
145'	4,500	5,000	5,500	5,700	6,400	5,600
150'	4,100	4,600	5,000	5,200	5,900	5,600
155'	3,700	4,200	4,600	4,600	5,300	5,500
160'	3,400	3,800	4,200	4,100	4,800	5,300
165'	3,000	3,500	3,800	3,700	4,300	4,800
170'	2,700	3,100	3,500	3,300	3,800	4,300
175'	2,400	2,800	3,100	2,900	3,400	3,800
180'	2,200	2,500	2,800	2,500	2,900	3,300
185'	1,800	2,200	2,500	2,100	2,500	2,900
190'		1,900	2,200	1,800	2,200	
195'				1,500	1,800	
200'					1,500	
205'						

COUNTERWEIGHT 43,500 lbs (19.8 t) ON OUTRIGGERS FULLY EXTENDED 25' 7" (7.8 m) SPREAD 360° ROTATION						
B	159.6' (48.7 m) + 59.1' (18.0 m) Hydraulic offset jib			106.5' (32.5 m) + 59.1' (18.0 m) Hydraulic offset jib		
	5° Offset	20° Offset	40° Offset	5° Offset	20° Offset	40° Offset
25'						
30'				12,600		
35'				12,600		
40'				12,600		
45'				12,600	11,900	
50'	9,000			12,600	11,400	
55'	9,000			12,600	11,000	
60'	9,000			12,600	10,500	8,200
65'	9,000	9,000		12,200	10,000	7,900
70'	9,000	9,000		11,700	9,500	7,700
75'	9,000	9,000		11,200	9,100	7,400
80'	9,000	8,900	7,300	10,800	8,800	7,200
85'	9,000	8,600	7,200	10,300	8,400	7,000
90'	9,000	8,400	7,000	9,800	8,100	6,800
95'	9,000	8,200	6,800	9,400	7,800	6,700
100'	9,000	8,000	6,700	9,000	7,600	6,500
105'	9,000	7,800	6,500	8,600	7,300	6,400
110'	9,000	7,600	6,400	8,200	7,100	6,200
115'	8,700	7,400	6,300	7,900	6,900	6,100
120'	8,500	7,200	6,200	7,600	6,700	6,000
125'	8,200	7,100	6,100	7,400	6,500	6,000
130'	7,500	6,900	6,000	7,100	6,400	5,900
135'	6,800	6,700	5,800	6,900	6,200	
140'	6,200	6,600	5,800	6,700	6,100	
145'	5,600	6,200	5,700	6,500	6,000	
150'	5,100	5,600	5,600	6,200	6,000	
155'	4,500	5,100	5,500	5,700		
160'	4,000	4,600	5,000			
165'	3,600	4,100	4,500			
170'	3,100	3,600	3,900			
175'	2,700	3,100	3,400			
180'	2,400	2,700				
185'	2,000	2,300				
190'	1,700	1,900				
195'	1,300	1,600				
200'						
205'						

B :Load radius (feet)

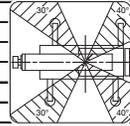
# GR-1300XL-4 RATED LIFTING CAPACITIES (IN POUNDS)



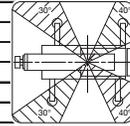
COUNTERWEIGHT 43,500 lbs (19.8 t)  
ON OUTRIGGERS FULLY EXTENDED 25' 7" (7.8 m) SPREAD

SMART CHART

B	183.7' (56.0 m) + 59.1' (18.0 m) Hydraulic offset jib		
	5° Offset	20° Offset	40° Offset
25'			
30'			
35'			
40'			
45'			
50'			
55'			
60'	7,500		
65'	7,500		
70'	7,500		
75'	7,500	7,500	
80'	7,500	7,500	
85'	7,500	7,500	
90'	7,500	7,500	6,800
95'	7,500	7,500	6,700
100'	7,500	7,500	6,600
105'	7,500	7,400	6,500
110'	7,500	7,300	6,300
115'	7,500	7,100	6,200
120'	7,000	7,000	6,200
125'	6,400	6,800	6,000
130'	5,900	6,500	5,900
135'	5,400	6,000	5,800
140'	4,900	5,500	5,700
145'	4,500	5,000	5,500
150'	4,100	4,600	5,000
155'	3,700	4,200	4,600
160'	3,400	3,800	4,200
165'	3,000	3,500	3,800
170'	2,700	3,100	3,500
175'	2,400	2,800	3,100
180'	2,200	2,500	2,800
185'	1,900	2,200	2,500
190'	1,700	2,000	2,200
195'	1,400	1,700	
200'	1,200	1,400	
205'		1,200	



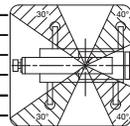
B	172.9' (52.7 m) + 59.1' (18.0 m) Hydraulic offset jib		
	5° Offset	20° Offset	40° Offset
25'			
30'			
35'			
40'			
45'			
50'			
55'			
60'	7,900		
65'	7,900		
70'	7,900		
75'	7,900	7,900	
80'	7,900	7,900	
85'	7,900	7,900	7,100
90'	7,900	7,900	6,900
95'	7,900	7,900	6,800
100'	7,900	7,900	6,700
105'	7,900	7,600	6,500
110'	7,900	7,400	6,400
115'	7,900	7,200	6,300
120'	7,900	7,100	6,200
125'	7,700	6,900	6,000
130'	7,400	6,800	5,900
135'	7,000	6,600	5,800
140'	6,400	6,500	5,700
145'	5,800	6,400	5,600
150'	5,300	5,900	5,600
155'	4,800	5,300	5,500
160'	4,300	4,800	5,300
165'	3,900	4,400	4,800
170'	3,500	3,900	4,300
175'	3,100	3,500	3,800
180'	2,800	3,100	3,400
185'	2,400	2,700	3,000
190'	2,100	2,400	
195'	1,800	2,100	
200'	1,500	1,700	
205'	1,200	1,400	



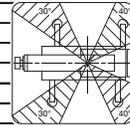
COUNTERWEIGHT 43,500 lbs (19.8 t)  
ON OUTRIGGERS FULLY EXTENDED 25' 7" (7.8 m) SPREAD

SMART CHART

B	159.6' (48.7 m) + 59.1' (18.0 m) Hydraulic offset jib		
	5° Offset	20° Offset	40° Offset
25'			
30'			
35'			
40'			
45'			
50'	9,000		
55'	9,000		
60'	9,000		
65'	9,000	9,000	
70'	9,000	9,000	
75'	9,000	9,000	
80'	9,000	8,900	7,300
85'	9,000	8,600	7,200
90'	9,000	8,400	7,000
95'	9,000	8,200	6,800
100'	9,000	8,000	6,700
105'	9,000	7,800	6,500
110'	9,000	7,600	6,400
115'	8,700	7,400	6,300
120'	8,500	7,200	6,200
125'	8,200	7,100	6,100
130'	7,500	6,900	6,000
135'	6,800	6,700	5,800
140'	6,200	6,600	5,800
145'	5,600	6,200	5,700
150'	5,100	5,600	5,600
155'	4,600	5,100	5,500
160'	4,100	4,600	5,000
165'	3,700	4,100	4,500
170'	3,300	3,700	4,000
175'	2,900	3,200	3,500
180'	2,500	2,800	
185'	2,200	2,500	
190'	1,900	2,100	
195'	1,600	1,800	
200'	1,300	1,400	
205'	1,000		



B	106.5' (32.5 m) + 59.1' (18.0 m) Hydraulic offset jib		
	5° Offset	20° Offset	40° Offset
25'			
30'	12,600		
35'	12,600		
40'	12,600		
45'	12,600	11,900	
50'	12,600	11,400	
55'	12,600	11,000	
60'	12,600	10,500	8,200
65'	12,200	10,000	7,900
70'	11,700	9,500	7,700
75'	11,200	9,100	7,400
80'	10,800	8,800	7,200
85'	10,300	8,400	7,000
90'	9,800	8,100	6,800
95'	9,400	7,800	6,700
100'	9,000	7,600	6,500
105'	8,600	7,300	6,400
110'	8,200	7,100	6,200
115'	7,900	6,900	6,100
120'	7,600	6,700	6,000
125'	7,400	6,500	6,000
130'	7,100	6,400	5,900
135'	6,900	6,200	
140'	6,700	6,100	
145'	6,500	6,000	
150'	6,200	6,000	
155'	5,700		



B : Load radius (feet)

# WARNING AND OPERATING INSTRUCTIONS

## NOTES FOR LIFTING CAPACITIES

### 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 supported 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 American National Standards Institute (ANSI) safety standards for cranes.

### SET UP

1. Rated lifting capacities on the chart are the maximum allowable crane capacities and 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 bearing 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 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 boom or jib is extremely dangerous. Such action can damage the boom, jib or slewing mechanism, and lead to overturning of 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 20 mph (9 m/s) to 27 mph (12 m/s) ; reduced by 70% when the wind speed is 27 mph (12 m/s) to 31 mph (14 m/s). If the wind speed is 31 mph (14 m/s) or over, stop operation. During jib lift, stop operation if the wind speed is 20mph (9 m/s) or over.
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 15,900 lbs. (7,200 kg) for main winch and auxiliary winch.
12. Check the actual number of parts of line with LOAD MOMENT INDICATOR (AML-E2) before operation. Maximum lifting capacity is restricted by the number of parts of line of LOAD MOMENT INDICATOR (AML-E2). Limited capacity is as determined from the formula, Single line pull for main winch 15,900 lbs. (7,200 kg) 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. The 40.0' (12.2 m) boom length capacities are based on boom fully retracted.
14. Maximum capacity without boom pin is shown in the chart.
15. Do not operate extension or retraction of the boom with loads. The ability to telescope loads is limited by hydraulic pressure, boom angle, boom length, crane maintenance, etc.
16. For lifting capacity of single top, deduct the weight of the load handling equipment from the rated lifting capacity of the boom. For the lifting capacity of single top, the net capacity shall not exceed 15,900 lbs. (7,200 kg) including the main boom hook mass attached to the boom.
17. When the base jib or top jib or both jibs are dismantled, set the jib state switch to the DISMOUNTED position.
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-TWOBLOCK" 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. When lifting a load by using jib (aux. winch) and boom (main winch) 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.
21. Crane operation is prohibited without full counterweight 43,500 lbs. (19.8 ton) mounted. Outriggers shall be extended 25'7" (7.8 m) spread when mounting or dismantling removable counterweight.

### DEFINITIONS

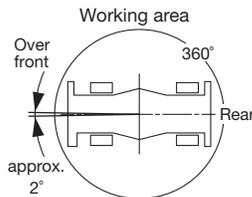
1. Load Radius: Horizontal distance from a projection of the axis of rotation to supporting surface before loading to the center of the vertical hoist line or tackle with load applied.
2. Loaded Boom Angle: The angle between the boom base section and the horizontal, after lifting the rated lifting capacity 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.

# GR-1300XL-4 RATED LIFTING CAPACITIES (IN POUNDS)

COUNTERWEIGHT 43,500 lbs (19.8 t) ON RUBBER STATIONARY					
Over Front					
A	1	1	1	1	
B	1	2	3	4	5
C \ D	40.0' (12.2 m)	53.3' (16.3 m)	66.6' (20.3 m)	79.9' (24.4 m)	93.2' (28.4 m)
8'	66,000	66,000	66,000		
10'	66,000	66,000	66,000	66,000	
12'	66,000	66,000	66,000	62,000	51,300
15'	58,100	60,300	61,200	56,800	47,300
20'	44,800	47,100	48,300	49,400	41,400
25'	35,400	37,900	39,300	40,400	36,500
30'	28,400	31,000	32,400	33,600	32,500
35'		25,700	27,100	28,500	28,500
40'		21,500	23,000	24,300	24,400
45'			19,600	20,900	21,100
50'			16,800	18,100	18,300
55'			14,200	15,500	15,600
60'				13,300	13,400
65'				11,400	11,600
70'				9,900	10,100
75'					8,800
80'					7,700
F	0	0	0	0	0
Telescoping condition (%)					
Tele.1	0	0	0	0	0
Tele.2	0	0	0	0	0
Tele.3	0	0	0	0	0
Tele.4	0	0	0	46	92
Tele.5	0	46	92	92	92
G	6	6	6	6	4

360° Rotation					
A	1	1	1	1	1
B	1	2	3	4	5
C \ D	40.0' (12.2 m)	53.3' (16.3 m)	66.6' (20.3 m)	79.9' (24.4 m)	93.2' (28.4 m)
8'					
10'					
12'					
15'					
20'					
25'	22,000				
30'	16,100	19,100			
35'		14,300	15,900		
40'		10,900	12,400		
45'			9,700	11,000	11,200
50'			7,600	8,900	9,100
55'				7,200	7,400
60'				5,800	6,000
65'					4,800
70'					3,800
75'					
80'					
F	0	0	30	34	36
Telescoping condition (%)					
Tele.1	0	0	0	0	0
Tele.2	0	0	0	0	0
Tele.3	0	0	0	0	0
Tele.4	0	0	0	46	92
Tele.5	0	46	92	92	92
G	4	4	4	4	4

COUNTERWEIGHT 43,500 lbs (19.8 t) ON RUBBER CREEP					
Over Front					
A	1	1	1	1	
B	1	2	3	4	5
C \ D	40.0' (12.2 m)	53.3' (16.3 m)	66.6' (20.3 m)	79.9' (24.4 m)	93.2' (28.4 m)
8'	55,000	55,000	55,000		
10'	55,000	55,000	55,000	55,000	
12'	49,400	51,600	52,900	54,000	51,300
15'	41,000	43,300	44,700	45,800	46,000
20'	30,700	33,100	34,500	35,800	36,000
25'	23,500	26,000	27,500	28,800	29,000
30'	18,200	20,700	22,200	23,500	23,800
35'		16,600	18,100	19,500	19,700
40'		13,400	14,900	16,300	16,500
45'			12,300	13,700	13,900
50'			10,100	11,500	11,700
55'			8,300	9,700	9,900
60'				8,100	8,400
65'				6,800	7,000
70'				5,700	5,900
75'					4,900
80'					4,000
F	0	0	0	0	0
Telescoping condition (%)					
Tele.1	0	0	0	0	0
Tele.2	0	0	0	0	0
Tele.3	0	0	0	0	0
Tele.4	0	0	0	46	92
Tele.5	0	46	92	92	92
G	4	4	4	4	4

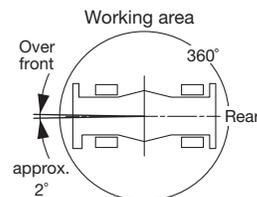


- A: Boom block
  - B: Boom number
  - C: Boom length in feet
  - D: Load radius in feet
  - F: Minimum boom angle (°) for indicator length (no load)
  - G: Number of parts of line
- NOTE: The lifting capacity data stored in the LOAD MOMENT INDICATOR (AML-E2) is based on the standard number of parts of line listed in the chart.

# GR-1300XL-4 RATED LIFTING CAPACITIES (IN POUNDS)

WITHOUT COUNTERWEIGHT ON RUBBER STATIONARY											
Over Front						360° Rotation					
A	1	1	1	1	1	A	1	1	1	1	
B	1	2	3	4	5	B	1	2	3	4	5
D \ C	40.0'	53.3'	66.6'	79.9'	93.2'	D \ C	40.0'	53.3'	66.6'	79.9'	93.2'
	(12.2 m)	(16.3 m)	(20.3 m)	(24.4 m)	(28.4 m)		(12.2 m)	(16.3 m)	(20.3 m)	(24.4 m)	(28.4 m)
8'	44,000	44,000	44,000			33,000	33,000	33,000			
10'	44,000	44,000	44,000	44,000		33,000	33,000	33,000	33,000		
12'	41,900	44,000	44,000	44,000	44,000	27,000	30,900	33,000	33,000	33,000	
15'	34,400	36,700	37,700	38,800	38,900	16,400	19,800	22,000	23,700	24,100	
20'	25,300	27,700	29,000	30,100	30,200	7,200	10,200	12,100	13,700	14,100	
25'	15,600	19,000	20,900	22,700	23,100	2,200	5,200	6,900	8,400	8,800	
30'	9,400	12,600	14,400	16,100	16,400		2,000	3,700	5,100	5,400	
35'		8,400	10,200	11,700	12,100				2,900	3,200	
40'		5,500	7,200	8,700	9,000						
45'			5,000	6,400	6,700						
50'			3,300	4,700	5,000						
55'				3,300	3,600						
60'				2,200	2,400						
F	0	28	30	31	44	F	37	47	58	59	64
Telescoping condition (%)						Telescoping condition (%)					
Tele.1	0	0	0	0	0	Tele.1	0	0	0	0	0
Tele.2	0	0	0	0	0	Tele.2	0	0	0	0	0
Tele.3	0	0	0	0	0	Tele.3	0	0	0	0	0
Tele.4	0	0	0	46	92	Tele.4	0	0	0	46	92
Tele.5	0	46	92	92	92	Tele.5	0	46	92	92	92
G	4	4	4	4	4	G	4	4	4	4	4

WITHOUT COUNTERWEIGHT ON RUBBER CREEP										
Over Front										
A	1	1	1	1	1					
B	1	2	3	4	5					
D \ C	40.0'	53.3'	66.6'	79.9'	93.2'					
	(12.2 m)	(16.3 m)	(20.3 m)	(24.4 m)	(28.4 m)					
8'	44,000	44,000	44,000							
10'	44,000	44,000	44,000	44,000						
12'	41,900	44,000	44,000	44,000	44,000					
15'	34,400	36,700	37,700	38,800	38,900					
20'	25,300	27,700	29,000	30,100	30,200					
25'	15,600	19,000	20,900	22,700	23,100					
30'	9,400	12,600	14,400	16,100	16,400					
35'		8,400	10,200	11,700	12,100					
40'		5,500	7,200	8,700	9,000					
45'			5,000	6,400	6,700					
50'			3,300	4,700	5,000					
55'				3,300	3,600					
60'				2,200	2,400					
F	0	28	30	31	44					
Telescoping condition (%)										
Tele.1	0	0	0	0	0					
Tele.2	0	0	0	0	0					
Tele.3	0	0	0	0	0					
Tele.4	0	0	0	46	92					
Tele.5	0	46	92	92	92					
G	4	4	4	4	4					



- A: Boom block
  - B: Boom number
  - C: Boom length in feet
  - D: Load radius in feet
  - F: Minimum boom angle (°) for indicator length (no load)
  - G: Number of parts of line
- NOTE: The lifting capacity data stored in the LOAD MOMENT INDICATOR (AML-E2) is based on the standard number of parts of line listed in the chart.

# WARNING AND OPERATING INSTRUCTIONS

## NOTES 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 suspension-lock applied. They are based on actual load radius increased by tire deformation and boom deflection.
- If the suspension-lock 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 2° in front of chassis.
- On-rubber lifting with "jib" is not permitted. Maximum permissible boom length is 93.2 ft. (28.4 m).
- When making lift on-rubber stationary, set parking brake.
- For creep operation, boom must be centered over front of machine, slewing lock engaged, and load restrained from slewing. 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 ft. (60 m) in any 30 minute period and to travel at the speed of less than 1 mph (1.6 km/h).
- For creep operation, choose the drive mode and proper gear according to the road or working condition.

Tires	Air Pressure
29.5-25 ☆☆	94 psi. (650 kPa)
29.5-25 38PR	87 psi. (600 kPa)

## NOTES FOR LOAD MOMENT INDICATOR (AML-E2)

- Set AML select keys in accordance with the actually operating crane conditions and don't fail to make sure, before crane operation, that the displays on front panel are correct.
- When operating crane on outriggers:
  - Set "P.T.O." switch to "ON".
  - Press the outrigger state select key to register for the outrigger operation. If the display agrees with the actual state, press the set key to register. After the completion of the registration, the display returns to the crane operation status.
  - Press the lift state select key to register the lift state to be used (single top/jib/boom).
  - Each time the lift state select key is pressed, the display changes. If the display agrees with the actual state, press the set key to register. After the completion of the registration, the display returns to the crane operation status.
  - When erecting and stowing jib, select the status of jib set (Jib state indicative symbol lights up).
- When operating crane on-rubber:
  - Set "P.T.O." switch to "ON".
  - Press the outrigger state select key to register for the on-rubber operation. Each time the outrigger state select key is pressed, the display changes. Select the creep operation, the on-rubber state indicator symbol lights up.
  - Press the lift state select key to register the lift state. However, pay attention to the following.
    - For stationary operation.
      - The front capacities are attainable only when the over front position symbol comes on. When the boom is more than 2° from centered over front of chassis, 360° capacities are in effect.
      - When a load is lifted in the front position and then slewed to the side area, make sure the value of the LOAD MOMENT INDICATOR (AML-E2) is below the 360° lifting capacity.
    - 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.
- This machine is equipped with an automatic slewing stopping device. (For the details, see Operation and Maintenance Manual.) But, operate very carefully because the automatic slewing stop does not work in the following cases.
  - During on-rubber operation.
  - When the "P.T.O." switch is set to "OVERRIDE" and the "OVERRIDE" key switch outside the cab is on.
- During crane operation, make sure that the displays on front panel are in accordance with actual operating conditions.
- The displayed values of LOAD MOMENT INDICATOR (AML-E2) 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 slewing, lifting loads shall be appropriately reduced.
- LOAD MOMENT INDICATOR (AML-E2) 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-E2) aids in place of good operating practice can cause an accident. The operator must exercise caution to assure safety.
- The lifting capacity differs depending on the outrigger extension width and slewing position.
 

Work with the capacity corresponding to the outrigger extension width and slewing position.

For the relationship among the outrigger extension width, slewing position and lifting capacities, refer to the working area charts

## GR-1300XL-4 AXLE WEIGHT DISTRIBUTION CHART

	Pounds			Kilograms		
	GVW	Front	Rear	GVW	Front	Rear
Base machine	158,100	79,100	79,000	71,700	35,860	35,840
Remove:						
1) 100t [90.7 metric ton] hook block	-1,800	-3,280	1,480	-820	-1,490	670
2) 7.9t [7.2 metric ton] hook block	-370	-550	180	-170	-250	80
3) JIB	-3,370	-5,920	2,550	-1,530	-2,690	1,160
4) Counterweight 43,500 lbs (19,800 Kg)	-43,500	9,300	-52,800	-19,750	4,200	-23,950
5) Auxiliary Winch & wire rope	-2,600	740	-3,340	-1,200	330	-1,530



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**TADANO LTD.** (International Sales Division)

4-12, Kamezawa 2-chome, Sumida-ku,  
Tokyo 130-0014, JAPAN  
PHONE: 81-3-3621-7750  
FAX: 81-3-3621-7785  
[www.tadano.com](http://www.tadano.com)

**TADANO AMERICA CORPORATION**

4242 West Greens Road.  
Houston, Texas, 77066 U.S.A.  
PHONE: (281) 869-0030  
FAX: (281) 869-0040  
<http://www.tadanoamerica.com>