



TADANO

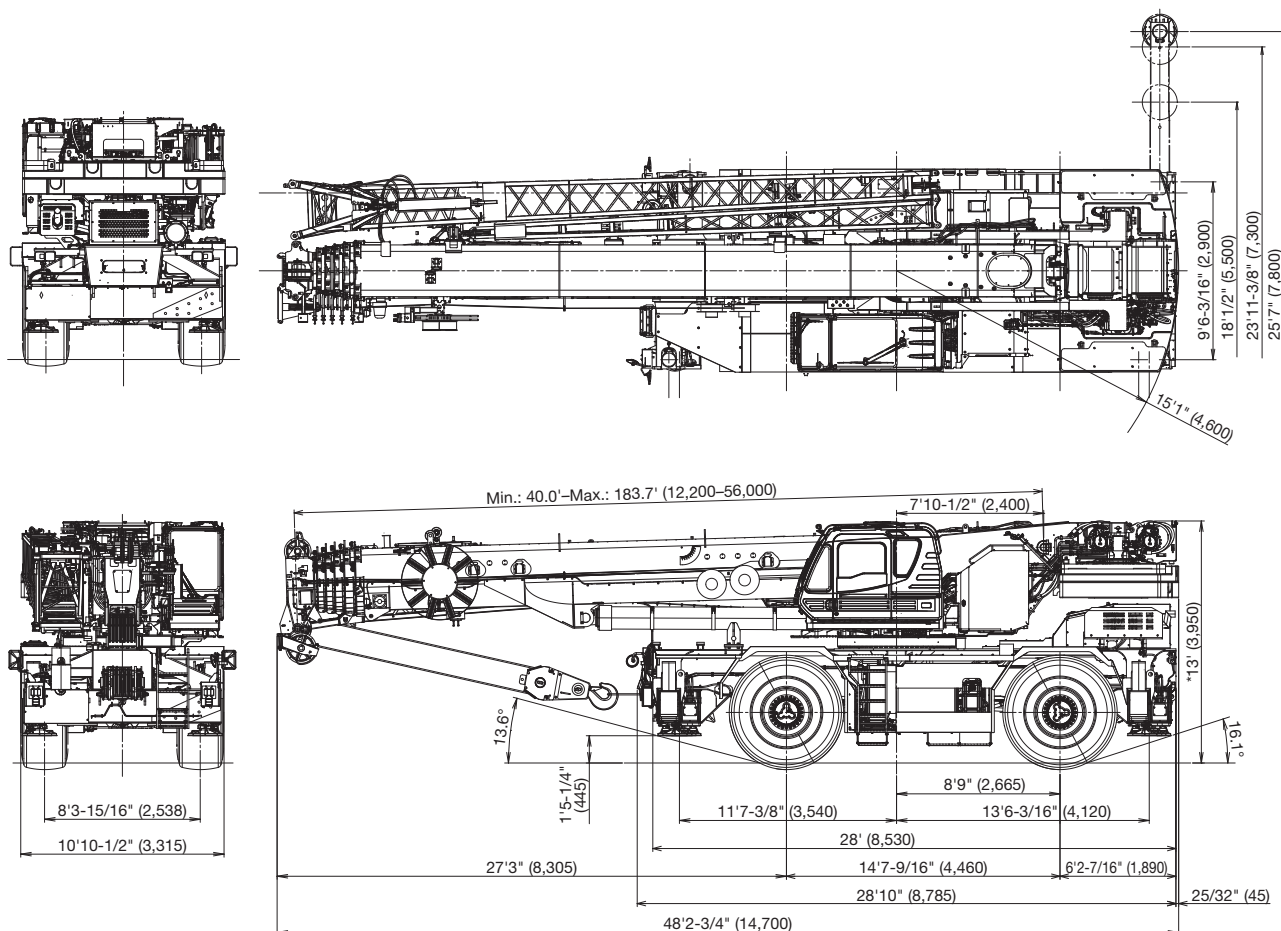
GR-1300XL-4

130 Ton (118.0 Metric Ton) Capacity

Form NO. GR-1300-4-00101/US-01

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⁻¹ {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 (tan θ) - 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 ¹				Line pulls Available ²	
	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 ³	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.

¹ Line speed based only on hook block, not loaded.

² Developed by machinery with each layer of wire rope, but not based on rope strength or other limitations in machinery or equipment.

³ 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

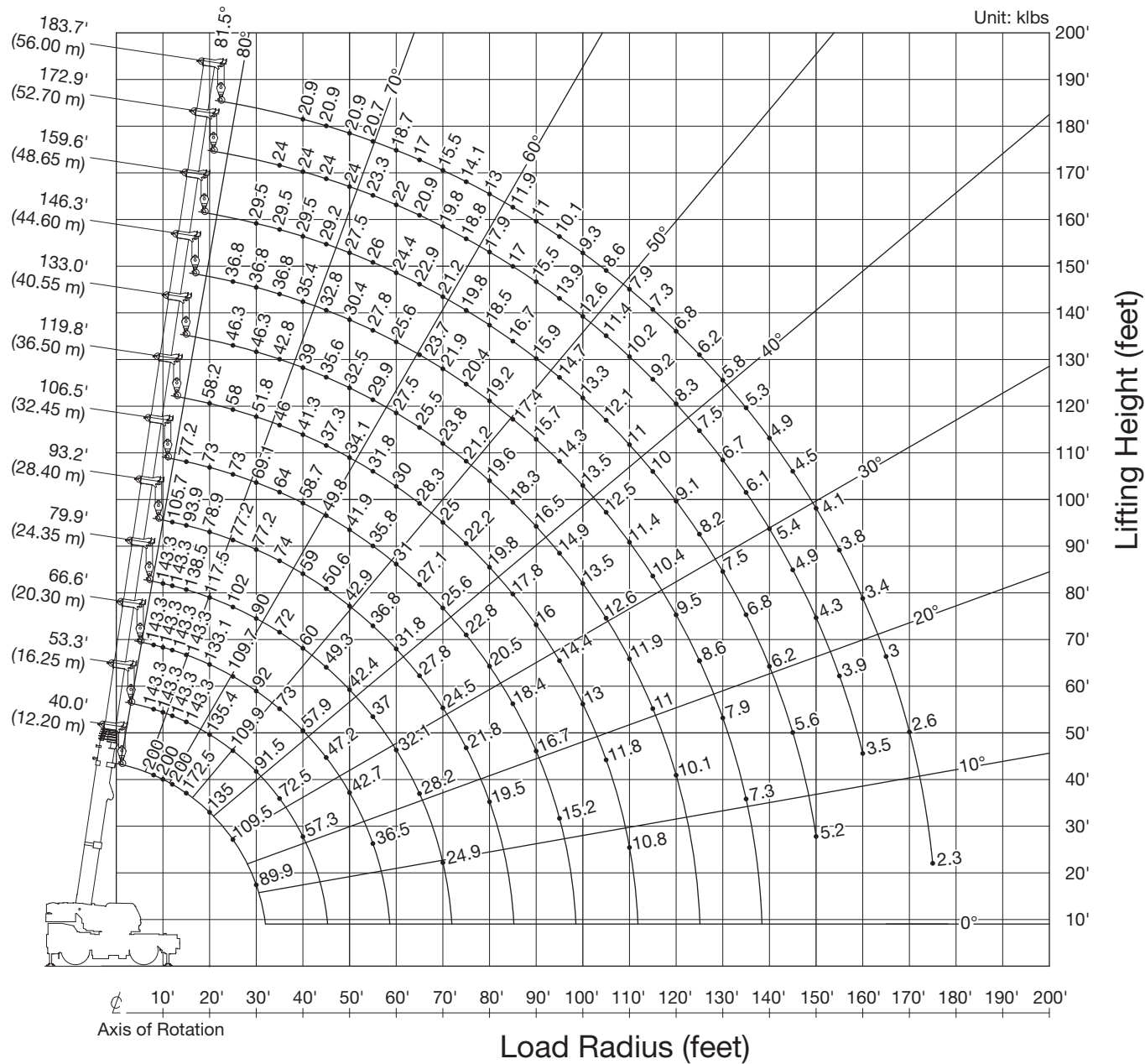
DRUM DIMENSIONS (Main and auxiliary)

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

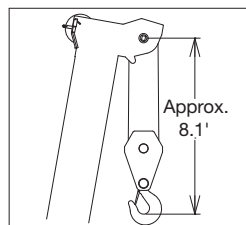


GR-1300XL-4 WORKING RANGE CHART

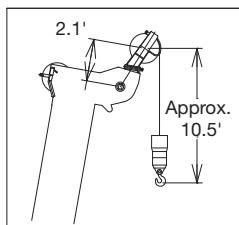
360° ROTATION



BOOM



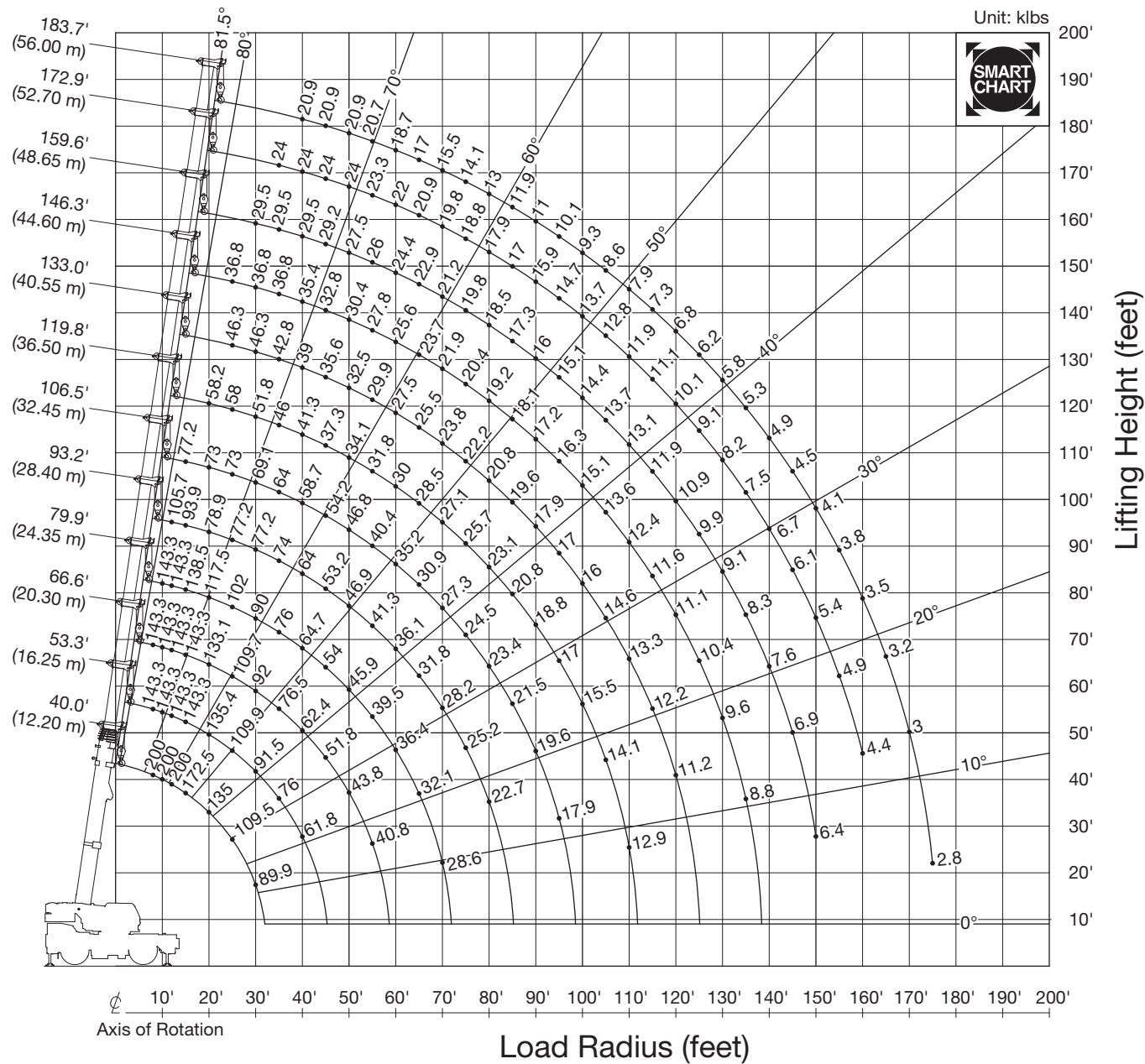
SINGLE TOP



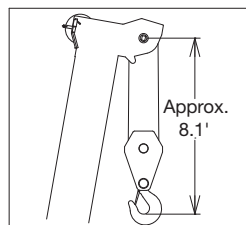
NOTE: Boom geometry shown are for unloaded condition and machine standing level on firm supporting surface.
Boom deflection and subsequent radius and boom angle change must be accounted for when applying load to hook.

GR-1300XL-4 WORKING RANGE CHART

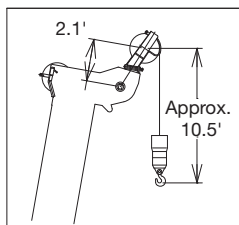
SMART CHART



BOOM

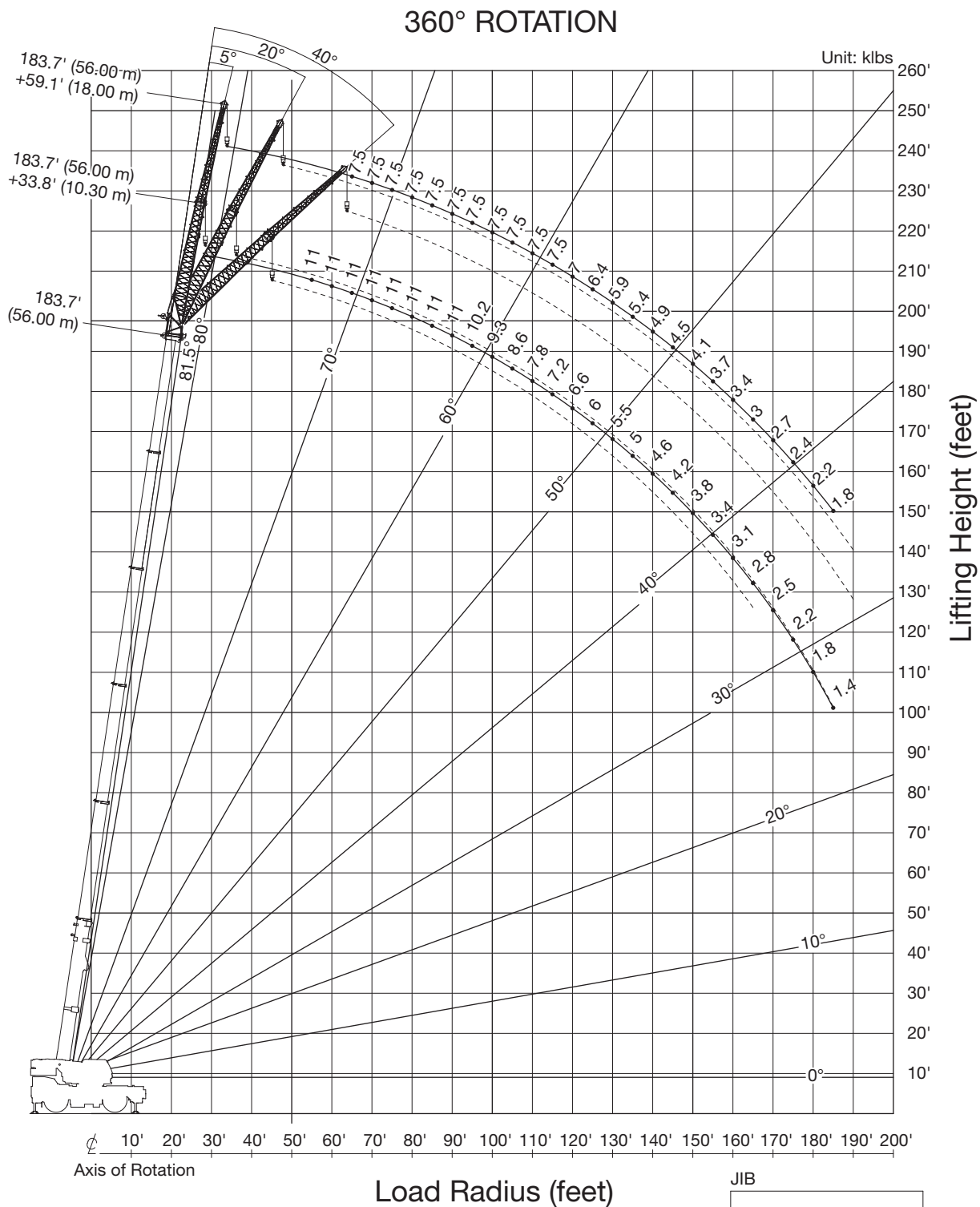


SINGLE TOP



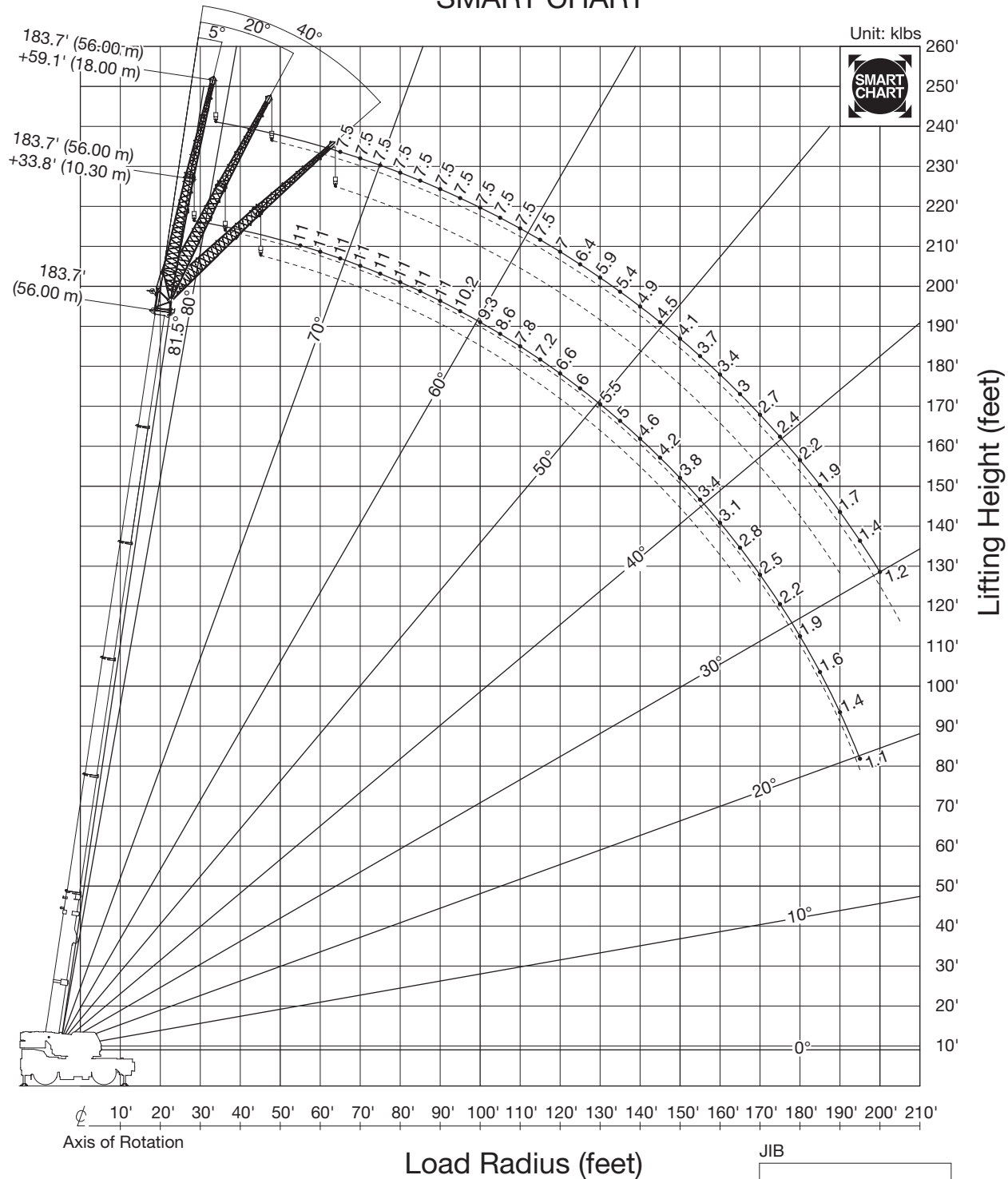
NOTE: Boom geometry shown are for unloaded condition and machine standing level on firm supporting surface.
Boom deflection and subsequent radius and boom angle change must be accounted for when applying load to hook.

GR-1300XL-4 WORKING RANGE CHART



GR-1300XL-4 WORKING RANGE CHART

SMART CHART



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 RATED LIFTING CAPACITIES (IN POUNDS)

COUNTERWEIGHT 43,500 lbs (19.8 t) ON OUTRIGGERS FULLY EXTENDED 25' 7" (7.8 m) SPREAD 360° ROTATION																							
A	1		1	9	10	1	2	9	10	1	2	10	11	1	2	10	11	1	2	11	3		
B	1		2	26	28	3	12	27	29	4	13	30	32	5	14	31	33	6	15	34	17		
D	C	*40.0' (12.2 m)	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)				106.5' (32.5 m)						
	8'	260,000	200,000	77,200	143,300	143,300	77,200	77,200	143,300	143,300			143,300	77,200									
10'		244,400	200,000	77,200	143,300	143,300	77,000	77,200	143,300	143,300	70,200	77,200	143,300	77,200									
12'		220,900	200,000	77,200	143,300	143,300	71,800	77,200	143,300	143,300	65,800	77,200	143,300	77,200	55,100	77,200	105,700	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	50,100	73,000	77,200	60,200	
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	71,200	72,500	39,300	55,600	70,800	73,000	36,400	55,700	72,000	71,500	30,500	60,500	52,700	74,000	32,300	64,000	48,600	40,700	
40'				55,800	56,100	57,300		35,600	50,800	55,800	57,900	33,000	50,400	57,100	60,000	27,600	55,200	47,300	59,000	29,500	58,700	43,600	37,600
45'								32,700	46,800	45,200	47,200	30,200	46,000	46,500	49,300	25,200	50,600	42,800	48,300	27,100	49,600	39,400	34,900
50'								30,200	42,700	37,400	39,300	27,800	42,400	38,700	41,300	23,100	42,900	37,900	40,500	25,100	41,900	35,900	32,500
55'								28,300	36,500	31,500	33,300	25,800	37,000	32,700	35,100	21,300	36,800	31,900	34,500	23,200	35,800	33,000	30,500
60'												24,100	32,100	27,900	30,300	19,800	31,800	27,100	29,600	21,500	31,000	28,600	28,700
65'												22,700	28,200	24,100	26,300	18,500	27,800	23,300	25,600	20,000	27,000	24,700	27,100
70'												21,600	24,900	21,000	23,100	17,300	24,500	20,100	22,400	18,700	23,700	21,500	25,600
75'																16,300	21,800	17,400	19,700	17,500	21,000	18,800	22,800
80'																15,500	19,500	15,200	17,400	16,500	18,600	16,400	20,500
85'																				15,600	16,600	14,500	18,400
90'																				14,800	14,900	12,700	16,700
95'																				14,200	13,400	11,300	15,200
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	68,300	0	0	0	66,400	0	62,800	0	0	0	59,700	0
Telescoping condition (%)																							
Tele.1		0		0	0	0	0	0	46	0	0	0	46	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	
Tele.5		0		46	0	0	92	46	0	0	92	46	0	0	92	46	0	0	92	46	0	92	
G	20	14	6	10	10	6	6	10	10	6	6	10	6	4	6	8	6	6	4	6	6	6	

COUNTERWEIGHT 43,500 lbs (19.8 t) ON OUTRIGGERS FULLY EXTENDED 25' 7" (7.8 m) SPREAD 360° ROTATION															
A	1	2	3	1	4	5	3	1	6	7	1	7	1	8	
B	7	16	18	8	20	21	19	9	22	23	10	24	11	25	
D	C	119.8' (36.5 m)			133.0' (40.6 m)			146.3' (44.6 m)			159.6' (48.7 m)		172.9' (52.7 m)	183.7' (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	38,000	29,100	35,400	32,000	27,100	29,500	24,000	
	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	
	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	
	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	
	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	
	65'	18,300	26,300	28,300	19,900	22,800	24,900	25,500	20,400	23,700	22,900	20,900	22,900	20,900	
	70'	17,000	23,000	25,000	18,600	21,600	22,900	23,800	19,200	21,900	21,500	19,700	21,200	19,800	
	75'	15,900	20,200	22,200	17,400	20,500	20,200	21,200	18,000	20,400	20,300	18,600	19,800	18,800	
	80'	14,900	17,900	19,800	16,400	19,600	17,900	18,900	17,000	18,200	19,200	17,600	18,500	17,900	
	85'	14,100	15,900	17,800	15,500	18,300	15,800	16,800	16,000	16,100	17,400	16,700	16,600	17,000	
	90'	13,300	14,100	16,000	14,600	16,500	14,100	15,100	15,100	14,400	15,700	15,900	14,900	15,500	
	95'	12,500	12,500	14,400	13,900	14,900	12,500	13,500	14,300	12,800	14,100	14,700	13,300	13,900	
	100'	11,900	11,200	13,000	13,200	13,500	11,100	12,100	13,500	11,400	12,700	13,300	11,900	12,600	
	105'	11,300	10,000	11,800	12,600	12,300	9,900	10,900	12,500	10,200	11,500	12,100	10,700	11,400	
	110'	10,800	8,900	10,800	11,900	11,200	8,800	9,800	11,400	9,100	10,300	11,000	9,600	10,200	
	115'				11,000	10,200	7,800	8,800	10,400	8,100	9,300	10,000	8,600	9,200	
	120'				10,100	9,300	7,000	7,900	9,500	7,200	8,500	9,100	7,700	8,300	
	125'								8,600	6,400	7,700	8,200	6,900	7,500	
	130'								7,900	5,700	6,900	7,500	6,200	6,700	
	135'								7,300	5,100	6,300	6,800	5,500	6,100	
	140'											6,200	4,900	5,400	
	145'											5,600	4,300	4,900	
	150'											5,200	3,900	4,300	
	155'													3,900	
	160'													3,500	
	165'													3,000	
	170'													2,600	
	175'													2,300	
E	43,200	58,200	51,800	36,400	39,200	46,300	43,900	30,900	36,800	0	34,200	0	27,100	29,500	
F	0	0	0	0	0	0	0	0	0	0	0	13	13	13	
Telescoping condition (%)															
Tele.1	0	92	46	0	46	92	92	0	92	46	46	92	92	100	
Tele.2	0	46	46	46	46	92	46	92	92	92	92	92	92	100	
Tele.3	92	46	46	46	92	46	46	92	92	92	92	92	92	100	
Tele.4	92	46	46	46	92	92	46	92	46	92	92	92	92	100	
Tele.5	92	46	92	92	92	46	92	92	46	46	92	46	92	100	
G	4	4	4	4	4	4	4	4	4	4	4	4	4	4	

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
C	D	1	2	9	10	1	2	9	10	1	2	10	11	1	2	10	11
8'	10'	12'	15'	20'	25'	30'	35'	40'	45'	50'	55'	60'	65'	70'	75'	80'	85'
90'	95'	100'	105'	110'	115'	120'	125'	130'	135'	140'	145'	150'	155'	160'	165'	170'	175'
E	F	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
Tele.1	Tele.2	Tele.3	Tele.4	Tele.5	G	20	14	6	10	10	6	6	10	10	6	6	10

		COUNTERWEIGHT 43,500 lbs (19.8 t) ON OUTRIGGERS FULLY EXTENDED 25' 7" (7.8 m) SPREAD															
		SMART CHART															
A	B	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
C	D	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
8'	10'	12'	15'	20'	25'	30'	35'	40'	45'	50'	55'	60'	65'	70'	75'	80'	85'
90'	95'	100'	105'	110'	115'	120'	125'	130'	135'	140'	145'	150'	155'	160'	165'	170'	175'
E	F	43,200	58,200	51,800	36,400	39,200	46,300	43,900	30,900	36,800	34,200	27,100	29,500	24,000	20,900	20,700	18,700
Tele.1	Tele.2	Tele.3	Tele.4	Tele.5	G	4	4	4	4	4	4	4	4	4	4	4	4

*Over front with special equipment

A : Boom block C : Boom length in feet E : Maximum capacity without boom pin G : Number of parts of line
B : Boom number D : Load radius in feet F : Minimum boom angle (°) for indicator length (no load)

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)


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				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'							
55'	11,000	11,000			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		4,200	4,500	4,700
160'	3,100	3,300	3,500		3,700	4,000	4,200
165'	2,800	3,000	3,100		3,300	3,500	
170'	2,500	2,600			2,900	3,100	
175'	2,200	2,400			2,500	2,700	
180'	1,900	2,100			2,200	2,300	
185'	1,600	1,800			1,900	2,000	
190'	1,400	1,500			1,500		
195'	1,100	1,300			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				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'	4,900	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 : 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					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			6,400	6,500	5,700	
145'	4,500	5,000	5,500			5,800	6,400	5,600	
150'	4,100	4,600	5,000			5,300	5,900	5,600	
155'	3,700	4,200	4,600			4,800	5,300	5,500	
160'	3,400	3,800	4,200			4,300	4,800	5,300	
165'	3,000	3,500	3,800			3,900	4,400	4,800	
170'	2,700	3,100	3,500			3,500	3,900	4,300	
175'	2,400	2,800	3,100			3,100	3,500	3,800	
180'	2,200	2,500	2,800			2,800	3,100	3,400	
185'	1,900	2,200	2,500			2,400	2,700	3,000	
190'	1,700	2,000	2,200			2,100	2,400		
195'	1,400	1,700				1,800	2,100		
200'	1,200	1,400				1,500	1,700		
205'		1,200				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					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'	4,600	5,100	5,500			5,700			
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 :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 20 mph (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

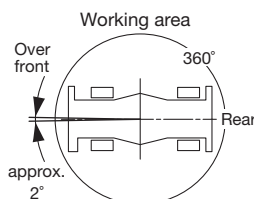
1. Load Radius: Horizontal distance from a projection of the axis of rotation to supporting surface before loading to the center of the vertical hoist line or tackle with load applied.
2. Loaded Boom Angle: The angle between the boom base section and the horizontal, after lifting the rated lifting capacity 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						360° Rotation					
A	1	1	1	1	1	A	1	1	1	1	1
B	1	2	3	4	5	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)	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			8'					
10'	66,000	66,000	66,000	66,000		10'					
12'	66,000	66,000	66,000	62,000	51,300	12'					
15'	58,100	60,300	61,200	56,800	47,300	15'					
20'	44,800	47,100	48,300	49,400	41,400	20'					
25'	35,400	37,900	39,300	40,400	36,500	25'	22,000				
30'	28,400	31,000	32,400	33,600	32,500	30'	16,100	19,100			
35'		25,700	27,100	28,500	28,500	35'		14,300	15,900		
40'		21,500	23,000	24,300	24,400	40'		10,900	12,400		
45'			19,600	20,900	21,100	45'			9,700	11,000	11,200
50'			16,800	18,100	18,300	50'			7,600	8,900	9,100
55'			14,200	15,500	15,600	55'				7,200	7,400
60'				13,300	13,400	60'				5,800	6,000
65'				11,400	11,600	65'					4,800
70'				9,900	10,100	70'					3,800
75'					8,800	75'					
80'					7,700	80'					
F	0	0	0	0	0	F	0	0	30	34	36
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	6	6	6	6	4	G	4	4	4	4	4

COUNTERWEIGHT 43,500 lbs (19.8 t) ON RUBBER CREEP					
Over Front					
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'	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



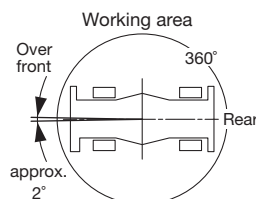
- A: Boom block
 B: Boom number
 C: Boom length in feet
 D: Load radius in feet
 F: Minimum boom angle (°) for indicator length (no load)
 G: Number of parts of line

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	1
B	1	2	3	4	5	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)	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'	44,000	44,000	44,000			8'	33,000	33,000	33,000		
10'	44,000	44,000	44,000	44,000		10'	33,000	33,000	33,000	33,000	
12'	41,900	44,000	44,000	44,000	44,000	12'	27,000	30,900	33,000	33,000	33,000
15'	34,400	36,700	37,700	38,800	38,900	15'	16,400	19,800	22,000	23,700	24,100
20'	25,300	27,700	29,000	30,100	30,200	20'	7,200	10,200	12,100	13,700	14,100
25'	15,600	19,000	20,900	22,700	23,100	25'	2,200	5,200	6,900	8,400	8,800
30'	9,400	12,600	14,400	16,100	16,400	30'		2,000	3,700	5,100	5,400
35'		8,400	10,200	11,700	12,100	35'				2,900	3,200
40'		5,500	7,200	8,700	9,000	40'					
45'			5,000	6,400	6,700	45'					
50'			3,300	4,700	5,000	50'					
55'				3,300	3,600	55'					
60'				2,200	2,400	60'					
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
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'	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

[illegible]

**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>

Form No. GR-1300-4-00101/US-01