

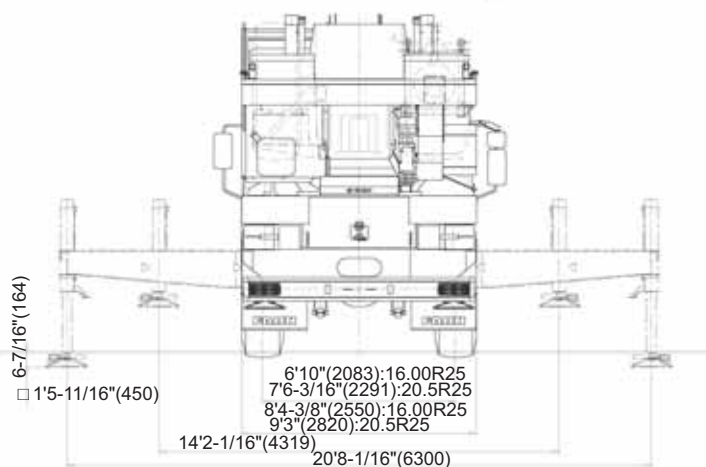
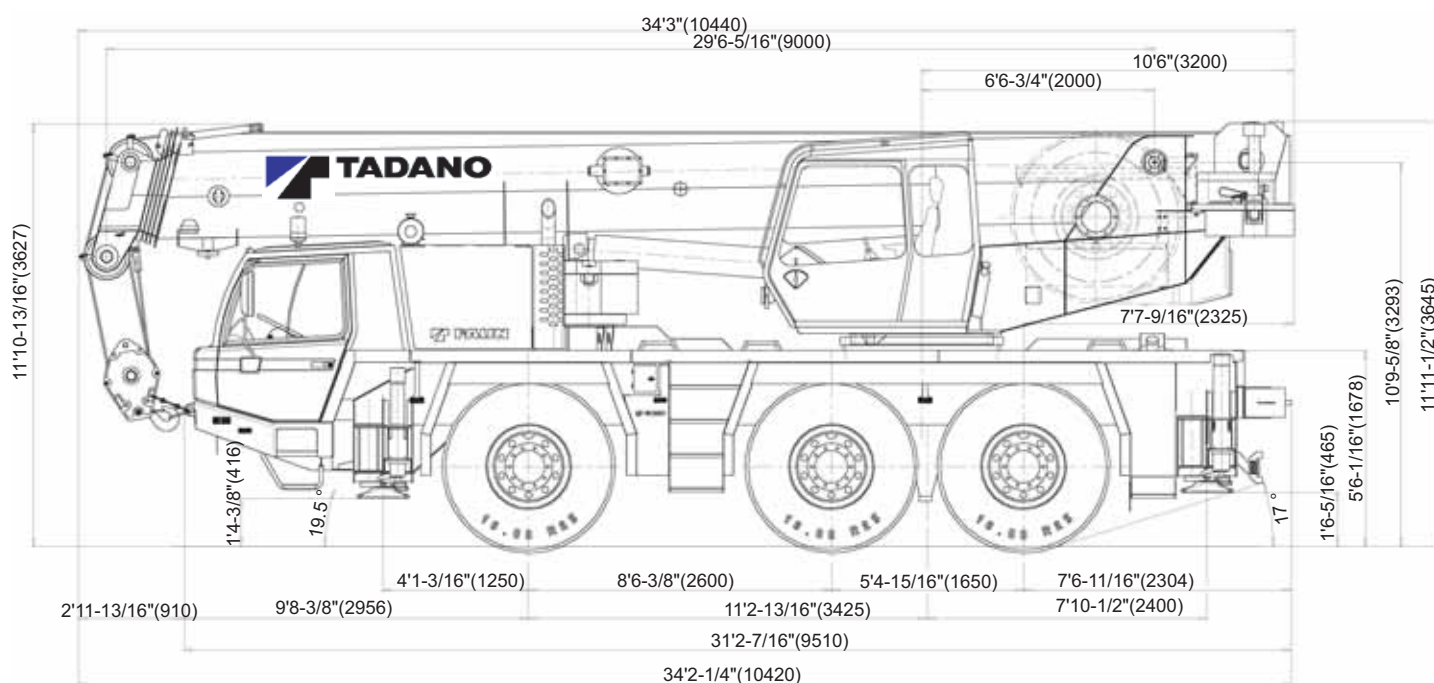


ATF-500XL-1

50 Ton Capacity (45.4 Metric Tons)

ALL TERRAIN CRANE

DIMENSIONS



TURNING RADIUS

Steering	Front wheel (6x4)	All wheel (6x6)
Carrier inside	18' 6-7/16" (5.65m)	15' 9" (4.8m)
Over carrier	31' 10-11/16"(9.72m)	28' 8-1/2" (8.75m)
Over boom	31' 7-15/16" (9.65m)	28' 2-9/16" (8.6m)
Over boom extension	33' 5-9/16" (10.2m)	30' 4-9/16" (9.26m)
Wheel truck radius	27' 2-12/16" (8.3m)	24' 2-9/16" (7.38m)

Specifications are subject to change without notice.



1. CRANE CARRIER

1.1 FRAME

FAUN purpose built, 3 axle, box-type, torsion resistant, welded construction made of high tensile steel with integrated outrigger housings. Equipped with front and rear fenders, front and rear towing and tie-down lugs and towing connections and access ladders.

1.2 OUTRIGGERS

Four point, fully hydraulic, double telescopic outriggers with horizontal and vertical motions are independently controlled by electro-magnetic valves. Push button controls with level gauges on both sides of carrier and in super-structure cab. Vertical cylinders with integral holding valves. Large sized floats can be stored on vertical cylinders or on carrier for road travel. Outrigger base: length 23' 2-3/8" (7.07m), width 20' 8-1/16"(6.3m) Mid. extension 14' 1-1/4" (4.3m).

1.3 CARRIER ENGINE

Mercedes Benz 6 cylinder water-cooled diesel engine, model OM 926 LA (EUROMOT2,EPA), with hydrostatically driven fan and thermostatically controlled cooler. Displacement 439.37 in³, Rating 326 hp at 2,300 rpm: Torque 958.83 ft-lbs at 1,200 rpm.

1.4 TRANSMISSION

ZF AS-Tronic, type 12AS2302, with electro-pneumatically controlled dry clutch and fully automatic control system, 12 forward speeds and 2 reverse gears. Gear ratios Forward: 12.33 / 9.59 / 7.44 / 5.78 / 4.57 / 3.55 / 2.70 / 2.10 / 1.63 / 1.27 / 1.00 / 0.78 Reverse: 11.41 / 8.88

1.5 DRIVE

6×4 for on-road: 1st and 3rd axle are driven
6×6 for off-road: 1st, 2nd and 3rd axle are driven

1.6 AXLES

1st axle : steered, driven with transverse differential lock, reduction : 9.31
2nd axle : steered, driven with transverse and longitudinal differential locks, reduction : 9.24
3rd axle : steered, driven with transverse differential lock, reduction : 9.31
All steering knuckle bearings designed for minimum maintenance (yearly inspection).

1.7 SUSPENSION

Hydro-pneumatic, lockable with level adjustment. All axles have longitudinal and transverse trailing arms. With leveling adjustment and locked cylinders, the chassis can be tilted laterally and longitudinally by push buttons in the carrier cab which adjust the stroke of each individual suspension cylinder.

Cylinder stroke: - 4" (- 102mm)
+4" (+ 102mm)

1.8 BRAKE SYSTEM

Service brake : Dual circuit compressed air system with ABS and air-dryer.
Parking brake : Spring loaded type, acting on 1st and 2nd axles.
Auxiliary brake : Engine exhaust brake and constant throttle engine brake system.
Eddy-current brake(OPTIONAL)

1.9 WHEELS

(6)11.00-25 steel disc wheels with (6) 20.5R25 or 16.00R25 on / off-road profile tires and mud flaps.
Carrier width: 9' 3 (2.82m) with 20.5R25 tires
8' 4-1/2" (2.55m) with 16.00R25 tires

1.10 STEERING SYSTEM

ZF semi block dual circuit hydraulic steering, Mechanical steering of the 1st axle with hydraulic booster and a emergency steering pump is flange-mounted to the 2nd axle.
Rear axles steering mechanically locked in "centered" position. At slow speeds, 2nd axle can also be hydraulically steered together with the front axles. All bearings are designed for minimum maintenance.

1.11 POWER TRAIN

Axles, suspension cylinders and drive-shafts with cross-geared flanges virtually maintenance-free.

1.12 FUEL TANK CAPACITY

79.25 gal (300 l) filler cap lockable.

1.13 CARRIER CAB

Two man full width cab of composite structure (steel sheet metal and fiber glass), windshield of laminated safety glass with windshield wiper and washer, sliding side windows of hardened safety glass. Driver and co-driver seats adjustable and air-suspended with integrated 3 point safety belts and headrests. 2 rear-view mirrors (electrically adjustable), 1 wide angle mirror and additional curb mirror, all mirrors heated, Radio with cassette and connections for wireless. Engine dependent warm-water heater with defroster nozzles for windshield and cab floor. Instrumentation includes speedometer, odometer, tachograph, rpm counter with hour meter, fuel level gauge, air pressure gauge and engine warning lamp. Air conditioner

1.14 ELECTRICAL SYSTEM

24 volt DC system with 100 ampere 3-phase generator, and two 12 volt, 170 Ah batteries.
Front lighting includes 2 main head lights, 2 high beam lights, 2 directional indicators and 2 parking lights.
Rear lighting includes 2 rear combi panels each with directional indicator, parking light, brake light, fog light, reversing light and license plate light.
Side lighting includes 2 front directional indicators and reflectors on carrier.
Other equipment includes hazard warning light system, cab light, instrument panel light, signal horn and amber rotating beacon on cab roof.
Lighting according to EEC regulations.



1.15 TOOLS AND ACCESSORIES

Special tool set, hazard warning triangle, hazard falshing lamp, fire extinguisher and first aid kit.

1.16 PAINTING

Standard TADANO colors

1.17 DIMENSIONS

Overall width : 9' 3" (2.82m) with 20.5R25 tires
8'4-1/2" (2.55m) with16.00R25 tires
Overall height : 11'10-1/2" (3.62m)
In travel condition, the overall height can be adjusted $\pm$ 4"
Overall length : 36' 8-3/4" (11.195m) with Aux. winch
34' 3" (10.44m) without Aux. winch
Carrier length : 30' 1-13/16" (9.19m)
Wheel base : 8' 6-3/8" + 5' 4-15/16" (2.66m + 1.65m)
Tail swing : 12' 4-11/16" (3.77m) with Aux. winch
10' 6" (3.2m) without Aux. winch

1.18 CARRIER OPTIONAL EQUIPMENT

- 1. Eddy current brake (retarder)
- 2. Pneumatic and electrical quick disconnect connectors

2. TRAVEL PERFORMANCE (according to DIN 70020)

Max. travel speed : 49.7 mph
Max. gradeability : 56.4 %

Gear	16.00R25 / 20.5R25 tires, GVW 7,937 lb	
	Travelling speed (mph)	Gradabilities (%)
1st	0 - 3.5	56.4
2nd	4.6	40.9
3rd	5.9	30.4
4th	7.6	22.8
5th	9.7	17.5
6th	12.4	13.2
7th	16.3	9.6
8th	21.1	7.1
9th	27.0	5.2
10th	34.8	3.7
11th	44.1	2.6
12th	49.7	1.7
1st Rev.	3.9	50.9
2nd Rev.	5.0	37.3

The gradeability is based on theoretical values and depends on ground conditions and the coefficient of friction.



3. SUPERSTRUCTURE

3.1 SUPERSTRUCTURE FRAME

Connected to carrier by a single-race ball bearing slewing ring with external gearing providing 360°continuous rotation.

3.2 HYDRAULIC SYSTEM

Four circuit diesel hydraulic system with 1 axial piston variable displacement (hydraulically controlled) with cumulative control for telescoping, derricking and hoisting plus 1 triple gear pump for swing,steerring, outriggers and pilot controls.
Hydraulic oil cooler.

3.4 HYDRAULIC CONTROLS

2 joy-stick levers and 4 three-way hydraulically operated valves for independent simultaneous operation of all crane motions with stepless speed control.

3.5 TELESCOPIC BOOM

Five section box type construction of high tensile, fine grained steel, consisting of 1 base section and 4 telescopic sections. The boom is extended by means of 1 double acting single stage cylinder, 1 double acting two stage cylinder and a rope crowed extension sytem. All telescope sections can be extended and retracted fully automatic and telescoping section 1 is locked in the preselected working position. All telescope sections are extendable under partial load.
Total retracted length : 29' 6-5/16" (9.0m)
Total extended length : 111' 6-9/16" (34.0m)
Max. sheave height : 121' 4-11/16" (37.0m)
Telescoping speed out : 75 sec.

3.6 TELESCOPIC BOOM EXTENSION

Swing around lattice type boom extension 28.54'(8.7m) / 49.87'(15.2m), offsets 5°/ 20°/ 40°with anti-two block system.

3.7 AUXILIARY LIFTING SHEAVE (SINGLE TOP)(OPTIONAL)

Single sheave mounted to main boom head for single line operation (stowable). Equipped with anti-two block system .

3.8 BOOM HOIST

1 double acting hydraulic cylinder with integral holding valve.
Boom elevation : 1° to +80°
Boom elevation speed : 45 sec. normal speed /
25 sec. high speed (only derricking up)

3.9 MAIN WINCH

Axial piston constant displacement motor, grooved hoist drum, integral planetary gear, automatic hydraulically controlled spring-loaded multiple disc brake and integral free wheeling (no sagging of load by hoisting). Winch drive assembly connected to open hydraulic system. Wire rope with "Superstop" easy reeving system. Lower limit switch and drum turn indicator.
Drum diameter : 13.98" (355mm)
Rope diameter : 0.63" (16mm)
Rope length : 558' (170m)
Max. line pull 1st layer : 12,364 lbs. (55 kN)
Max. line speed 4th layer : 393.7 ft/min (120m/min)

3.10 AUXILIARY WINCH(OPTIONAL)

Axial piston constant displacement motor, grooved hoist drum, integral planetary gear, automatic hydraulically controlled spring-loaded multiple disc brake and integral free wheeling (no sagging of load by hoisting). Winch drive assembly connected to open hydraulic system. Wire rope with "Superstop" easy reeving system. Lower limit switch and drum turn indicator.
Drum diameter : 13.98" (355mm)
Rope diameter : 0.63" (16mm)
Rope length : 492' (150m)
Max. line pull 1st layer : 12,364 lbs. (55 kN)
Max. line speed 4th layer : 393.7 ft/min (120m/min)

3.11 SLEWING GEAR

Constant displacement motor with two stage planetary gear, a foot actuated service brake and a parking brake. Slewing speed infinitely variable: 0 - 2.5 rpm

3.12 COUNTERWEIGHT

Total 18,739 lbs, divisible, assembled and disassembled by hydraulic cylinders controlled from crane cab.
Tail swing : 12' 4-11/16" (3.77m) with Aux. winch
10' 6" (3.2m) without Aux. winch

3.13 SUPERSTRUCTURE CAB

Spacious comfortable panoramic cab with sliding door, extra-large tinted glass windows, electrical fold-out front window with windshield washer and wiper, fixed cab roof window with armoured glass and washer/wiper, sun visor, cab light, adjustable hydraulically cushioned seat with headrest, signal horn, radio with cassette, and connection for wireless (12 volt).
Engine-independent hot air heater with defroster nozzles for windshield and cab floor.
Ergonomically positioned control elements and instrumentation for crane operation.
Travel controls for steering and driving in 1st forward and reverse gear only.
Outrigger controls and level from superstructure cab.
Air conditioner.

3.14 ELECTRICAL SYSTEM

24 volt system with 1 rotating beacon on right-hand side of main winch,2 working lights on cab front flap,1 working light on boom base section and 2 side lights on boom head.

3.15 SAFETY DEVICES

Electronic load moment device (PAT DS350 G-C) with interpolation and automatic overload shut-off, hoist limit switch with shut-off, overload warning and load moment gauge.
Digital display of boom angle, boom length, sheave height, working radius, hook load and further information.
Working area limitaion for lifting height, load radius and boom angle.
Safety valves against pipe and hose rupture, holding valves on hydraulic cylinders.

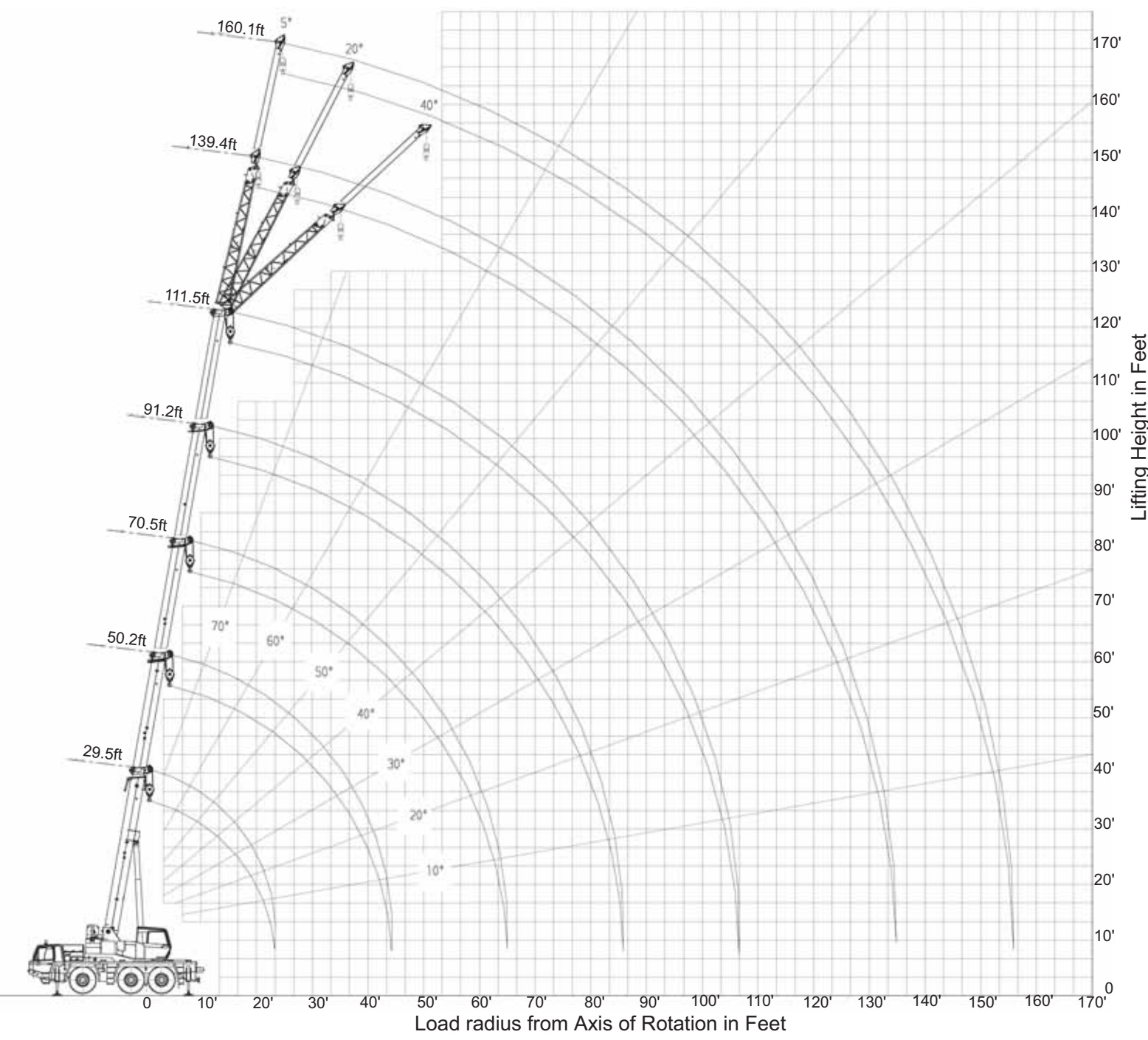
3.16 SUPERSTRUCTURE EQUIPMENT

6.6 ton headache ball

3.17 SUPERSTRUCTURE OPTIONAL EQUIPMENT

1. Auxiliary winch
2. 32 ton hook block, 3 sheaves hook
3. Single Top

ATF-500XL-1 WORKING RANGE CHART



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



ATF-500XL-1 TADANO-Load rating chart

Counterweight 18,739 lbs

Work. Radius (ft)	Lifting capacities in 1,000 lbs according per SAE J765 on telescopic boom On outriggers, 360° working area Outrigger base 20.67 ft																				Work. Radius (ft)		
	Boom length (ft)																						
	29.5	40.0	40.0	50.2	50.2	50.2	60.4	70.5	70.5	70.5	80.7	80.7	91.2	91.2	101.4	101.4	111.5						
	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°					
9	63	100.0																		9			
10	61	100.0	69	63.1	69	59.5	74	34.0	74	59.5	74	59.5								10			
12	56	89.7	66	63.1	66	59.5	71	34.0	71	59.5	71	59.5	75	34.0						12			
14	51	80.3	62	63.1	62	59.5	69	34.0	69	59.5	69	59.5	73	34.0	75	34.0				14			
16	45	72.3	59	60.1	59	59.5	66	34.0	66	59.5	66	58.5	70	34.0	74	34.0	74	46.0	74	29.1	16		
18	38	64.4	55	53.8	55	54.6	64	34.0	64	54.2	64	52.9	69	34.0	73	34.0	73	43.4	73	28.6	18		
20	30	56.2	51	47.5	51	48.6	61	34.0	61	47.8	61	46.6	67	33.8	71	34.0	71	40.6	71	27.9	20		
25			41	35.8	41	36.9	54	33.4	54	36.1	54	35.0	61	30.7	66	32.5	66	34.2	66	24.7	25		
30			27	27.4	27	28.6	46	30.0	46	27.8	46	26.9	55	27.7	62	29.4	62	27.3	62	21.3	30		
35							37	23.7	37	21.7	37	20.6	49	23.6	57	23.5	57	21.0	57	18.7	35		
40							25	19.1	25	17.3	25	16.2	42	19.7	51	19.0	51	16.8	51	16.5	40		
45													34	16.5	46	15.8	46	13.6	46	14.9	45		
50													21	14.0	39	13.3	39	11.1	39	13.2	50		
55													31	11.3	31	9.1	31	11.8	43	10.0	55		
60													22	9.6	22	7.4	22	10.6	37	8.3	60		
65															30	6.8	30	7.5	41	7.8	65		
70															20	5.6	20	6.2			70		
75																			35	7.1	75		
80															29	6.5	29	6.3	44	6.8	80		
85															21	6.0	21	4.4	34	6.0	85		
90																			28	5.1	90		
95																			19	4.6	95		
100																					21	2.7	100
Telescoping sequence %																							
Tel. 1	0	50	0	0	50	100	0	50	100	0	100	100	0	100	50	100	100	100	Tel. 1				
Tel. 2	0	0	50	33	50	0	50	50	100	67	100	50	100	100	100	100	100	100	Tel. 2				
Tel. 3	0	0	0	33	0	0	50	50	0	67	25	50	100	50	100	75	100	100	Tel. 3				
Tel. 4	0	0	0	33	0	0	50	50	0	67	25	50	100	50	100	75	100	100	Tel. 4				
Code	XXX	110	810	210	110	010	210	110	010	210	010	310	210	010	110	010	010	010	Code				

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

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Counterweight 7,716 lbs

Work. Radius (ft)	Lifting capacities in 1,000 lbs according per SAE J765 on telescopic boom On outriggers, 360° working area Outrigger base 20.67 ft																				Work. Radius (ft)			
	Boom length (ft)																							
	29.5	40.0	40.0	50.2	50.2	50.2	60.4	70.5	70.5	70.5	80.7	80.7	91.2	91.2	101.4	101.4	111.5							
	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°						
9	63	100.0																		9				
10	61	92.6	69	63.1	69	59.5	74	34.0	74	59.5	74	59.5								10				
12	56	76.8	66	63.1	66	59.5	71	34.0	71	59.5	71	59.5	75	34.0						12				
14	51	65.2	62	61.4	62	59.5	69	34.0	69	59.5	69	59.2	73	34.0	75	34.0	75	47.7	75	29.1	14			
16	45	56.3	59	55.0	59	59.5	66	34.0	66	55.0	66	53.9	70	34.0	74	34.0	74	46.0	74	29.1	16			
18	38	49.8	55	48.4	55	49.8	64	34.0	64	48.7	64	47.4	69	34.0	73	34.0	73	43.4	73	28.6	18			
20	30	43.7	51	42.2	51	43.7	61	34.0	61	42.6	61	41.3	67	33.8	71	34.0	71	40.2	71	27.9	20			
25			41	28.2	41	29.6	54	30.5	54	28.7	54	27.5	61	30.1	66	30.4	66	27.9	66	24.7	25			
30			27	20.2	27	21.5	46	22.8	46	20.7	46	19.6	55	23.3	62	22.6	62	20.0	62	21.3	30			
35							37	18.0	37	16.1	37	15.0	49	18.3	57	17.6	57	15.2	57	18.3	35			
40							25	14.3	25	12.3	25	11.2	42	14.7	51	14.0	51	11.8	51	14.7	40			
45													34	12.0	46	11.5	46	9.1	46	12.2	45			
50													21	10.0	39	9.5	39	7.1	39	10.3	50			
55													31	7.9	31	7.9	31	5.5	31	8.7	55			
60													22	6.6	22	6.6	22	4.2	22	7.2	60			
65															30	3.9	30	4.5	41	6.5	65			
70															20	2.8	20	3.4			70			
75																29	4.6	29	2.5	39	4.3	75		
80																21	3.8	21	1.8	34	3.6	80		
85																			28	2.9	28	1.8	85	
90																			19	2.4	19	1.3	90	
95																						27	1.2	95
100																						33	1.2	100
Telescoping sequence %																								
Tel. 1	0	50	0	0	50	100	0	50	50	100	0	100	100	0	100	50	100	100	100	Tel. 1				
Tel. 2	0	0	50	33	50	0	50	50	100	67	100	50	100	100	100	100	100	100	100	Tel. 2				
Tel. 3	0	0	0	33	0	0	50	50	0	67	25	50	100	50	100	75	100	100	100	Tel. 3				
Tel. 4	0	0	0	33	0	0	50	50	0	67	25	50	100	50	100	75	100	100	100	Tel. 4				
Code	XXX	160	860	260	160	060	260	160	060	260	060	360	260	060	160	060	060	060	060	Code				

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Counterweight 4,409 lbs

Work. Radius (ft)	Lifting capacities in 1,000 lbs according per SAE J765 on telescopic boom On outriggers, 360° working area Outrigger base 20.67 ft																				Work. Radius (ft)															
	Boom length (ft)																																			
	29.5	40.0	40.0	50.2	50.2	50.2	60.4	70.5	70.5	70.5	80.7	80.7	91.2	91.2	101.4	101.4	111.5																			
9	63	99.0																			9															
10	61	88.5	69	63.1	69	59.5	74	34.0	74	59.5	74	59.5									10															
12	56	73.5	66	63.1	66	59.5	71	34.0	71	59.5	71	59.5	75	34.0							12															
14	51	62.2	62	60.0	62	59.1	69	34.0	69	58.5	69	57.8	73	34.0	75	34.0	75	47.7	75	29.1	14															
16	45	54.0	59	52.5	59	53.8	66	34.0	66	52.7	66	51.6	70	34.0	74	34.0	74	46.0	74	29.1	76	34.0	76	34.0						16						
18	38	46.8	55	45.4	55	46.7	64	34.0	64	45.7	64	44.4	69	34.0	73	34.0	73	42.3	73	28.6	75	34.0	75	34.0	77	21.8	77	34.0				18				
20	30	39.9	51	38.5	51	39.9	61	33.8	61	39.0	61	37.4	67	33.8	71	33.8	71	37.9	71	27.9	74	33.6	74	33.7	76	21.7	76	33.6	78	21.8	78	26.7		20		
25			41	25.6	41	27.1	54	28.5	54	26.2	54	24.9	61	28.5	66	28.2	66	25.4	66	24.7	70	26.5	70	27.2	73	20.3	73	26.9	75	21.4	75	25.2	77	21.6	25	
30			27	18.2	27	19.6	46	20.9	46	18.7	46	17.6	55	21.3	62	20.7	62	18.0	62	20.4	67	18.9	67	19.6	70	17.6	70	19.6	72	19.7	72	20.2	74	19.3	30	
35							37	16.2	37	14.1	37	12.9	49	16.5	57	15.9	57	13.4	57	16.8	62	14.3	62	15.0	66	15.3	66	14.9	69	16.5	69	15.4	72	15.9	35	
40							25	12.8	25	11.1	25	9.8	42	13.2	51	12.5	51	10.1	51	13.4	57	11.1	57	11.6	63	13.0	63	11.8	66	13.4	66	12.1	69	12.5	40	
45													34	10.8	46	10.3	46	7.7	46	11.0	53	8.6	53	9.4	59	11.3	59	9.5	63	11.0	63	9.9	66	10.1	45	
50													21	9.0	39	8.4	39	5.9	39	9.2	48	6.7	48	7.5	54	9.5	54	7.5	59	9.1	59	8.0	63	8.3	50	
55													31	6.7	31	4.3	31	7.7	43	5.1	43	5.9	50	7.9	50	5.9	55	7.5	55	6.4	60	6.7	55			
60													22	5.2	22	2.8	22	6.4	37	4.0	37	4.6	46	6.6	46	4.4	52	6.2	52	5.1	56	5.3	60			
65																																				
70																																				
75																																				
80																																				
85																																				
90																																				
95																																				
100																																				
Telescoping sequence %																																				
Tel. 1	0	50	0	0	50	100	0	50	50	100	0	100	100	0	100	50	100	100	0	100	Tel. 1															
Tel. 2	0	0	50	33	50	0	50	50	100	67	100	50	100	100	100	100	100	100	100	100	Tel. 2															
Tel. 3	0	0	0	33	0	0	50	50	0	67	25	50	100	50	100	75	100	100	75	100	Tel. 3															
Tel. 4	0	0	0	33	0	0	50	50	0	67	25	50	100	50	100	75	100	100	75	100	Tel. 4															
Code	XXX	150	850	250	150	050	250	150	050	250	050	350	250	050	150	050	050	050	050	050	Code															

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99707789034



Counterweight 18,739 lbs

Work. Radius (ft)	Lifting capacities in 1,000 lbs according per SAE J765 on telescopic boom On outriggers, 360° working area Outrigger base 14.11 ft																				Work. Radius (ft)
	Boom length (ft)																				
	29.5	40.0	40.0	50.2	50.2	50.2	60.4	70.5	70.5	70.5	80.7	80.7	91.2	91.2	101.4	101.4	111.5				
9	63	100.0																		9	
10	61	94.1	69	63.1	69	59.5	74	34.0	74	59.5	74	59.5								10	
12	56	82.9	66	63.1	66	59.5	71	34.0	71	59.5	71	59.5	75	34.0						12	
14	51	70.0	62	61.5	62	59.5	69	34.0	69	59.5	69	59.5	73	34.0						14	
16	45	55.1	59	53.0	59	54.2	66	34.0	66	53.4	66	52.0	70	34.0	74	34.0	74	46.0	74	29.1	16
18	38	45.1	55	43.5	55	45.2	64	34.0	64	44.2	64	42.5	69	34.0	73	34.0	73	28.6	75	34.0	18
20	30	36.6	51	35.1	51	36.6	61	33.6	61	35.7	61	34.2	67	33.6	71	33.5	71	34.9	71	27.9	20
25			41	23.6	41	25.0	54	26.5	54	24.2	54	22.9	61	27.0	66	26.1	66	23.3	66	24.7	25
30			27	17.0	27	18.1	46	19.6	46	17.4	46	16.3	55	19.8	62	19.2	62	16.5	62	20.1	30
35							37	15.1	37	13.2	37	12.0	49	15.4	57	14.8	57	12.4	57	15.6	35
40							25	12.0	25	10.0	25	9.1	42	12.5	51	11.8	51	9.4	51	12.7	40
45															34	10.1	46	9.5	46	7.2	45
50															21	8.3	39	7.8	39	5.6	50
55															31	6.4	31	4.3	31	7.1	55
60															22	5.0	22	3.1	22	6.0	60
65																					65
70															30	2.8	30	3.4	41	5.2	70
75															20	2.1	20	2.7	35	4.3	75
80																			29	3.7	80
85															21	3.2	21	1.4	34	2.7	85
90																			28	2.2	90
95																			19	1.7	95
100																			33	1.1	100
Telescoping sequence %																					
Tel. 1	0	50	0	0	50	100	0	50	50	100	0	100	100	0	100	50	100	100	100	100	Tel. 1
Tel. 2	0	0	50	33	50	0	50	50	100	67	100	50	100	100	100	100	100	100	100	100	Tel. 2
Tel. 3	0	0	0	33	0	0	50	50	0	67	25	50	100	50	100	75	100	75	100	100	Tel. 3
Tel. 4	0	0	0	33	0	0	50	50	0	67	25	50	100	50	100	100	75	100	75	100	Tel. 4
Code	XXX	111	811	211	111	011	211	111	011	211	011	311	211	011	111	011	011	011	011	011	Code

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

99707789031

Counterweight 7,716 lbs

Work. Radius (ft)	Lifting capacities in 1,000 lbs according per SAE J765 on telescopic boom On outriggers, 360° working area Outrigger base 14.11 ft																				Work. Radius (ft)
	Boom length (ft)																				
	29.5	40.0	40.0	50.2	50.2	50.2	60.4	70.5	70.5	70.5	80.7	80.7	91.2	91.2	101.4	101.4	111.5				
9	63	99.0																		9	
10	61	91.3	69	63.1	69	59.5	74	34.0	74	59.5	71	58.6	75	34.0						10	
12	56	73.3	66	61.5	66	59.5	71	34.0	71	59.5	71	58.6	75	34.0						12	
14	51	52.8	62	50.9	62	52.6	69	34.0	69	51.9	69	49.6	73	34.0						14	
16	45	39.8	59	38.2	59	40.0	66	34.0	66	38.9	66	37.1	70	34.0	74	34.0	74	37.8	74	29.1	16
18	38	32.2	55	30.8	55	32.5	64	31.3	64	31.5	64	29.8	69	31.5	73	31.1	73	30.4	73	28.6	18
20	30	25.8	51	24.5	51	26.0	61	27.8	61	25.2	61	23.6	67	28.2	71	27.3	71	24.1	71	27.4	20
25			41	15.9	41	17.3	54	19.8	54	16.4	54	15.1	61	19.2	66	18.4	66	15.6	66	19.4	25
30			27	10.9	27	12.0	46	13.5	46	11.3	46	10.2	55	13.8	62	13.1	62	10.5	62	14.0	30
35							37	10.1	37	8.1	37	7.0	49	10.5	57	9.8	57	7.4	57	10.7	35
40							25	7.9	25	5.9	25	4.8	42	8.2	51	7.5	51	5.3	51	8.4	40
45													34	6.5	46	5.8	46	3.6	46	6.7	45
50													21	5.1	39	4.6	39	2.4	39	5.3	50
55													31	3.5	31	1.2	31	4.1	43	2.0	55
60													22	2.5			22	3.1	37	1.2	60
65																					65
70																					70
75																					75
80																					80
85																					85
90																					90
95																					95
100																					100
Telescoping sequence %																					
Tel. 1	0	50	0	0	50	100	0	50	50	100	0	100	100	0	100	50	100	100	100	Tel. 1	
Tel. 2	0	0	50	33	50	0	50	50	100	67	100	50	100	100	100	100	100	100	100	Tel. 2	
Tel. 3	0	0	0	33	0	0	50	50	0	67	25	50	100	50	100	75	100	100	100	Tel. 3	
Tel. 4	0	0	0	33	0	0	50	50	0	67	25	50	100	50	100	75	100	100	100	Tel. 4	
Code	XXX	160	860	260	160	060	260	160	060	260	060	360	260	060	160	060	060	060	060	Code	

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

99707789033



Counterweight 18,739 lbs

Working Radius (ft)	Lifting capacities in 1,000 lbs according per SAE J765 on fly jib 28.5 ft / 49.6 ft On outriggers, 360° working area Outrigger base 20.67 ft													Working Radius (ft)			
	Boom length 29.5 ft to 101.4 ft			Boom length 29.5 ft to 101.4 ft			Boom length 101.4 ft to 111.5 ft			Boom length 29.5 ft to 111.5 ft							
	Fly jib 28.5 ft offset			Fly jib 28.5 ft offset			Fly jib 28.5 ft offset			Fly jib 49.9 ft offset							
	5°	20°	40°	5°	20°	40°	5°	20°	40°	5°	20°	40°					
	°	°	°	°	°	°	°	°	°	°	°	°					
25	79	14.6				79	15.1				79	13.7				25	
30	78	13.6				78	14.5				77	12.9				30	
35	75	12.2	78	10.5			75	13.7	78	10.5			77			35	
40	73	10.5	76	9.7	79	7.1	73	12.7	76	9.7	79	7.1	75	11.4	77	9.7	40
45	70	9.4	73	9.1	76	6.9	70	11.3	73	9.1	76	6.9	72	10.1	75	9.2	45
50	69	8.4	71	8.3	74	6.6	69	10.1	71	8.6	74	6.6	70	9.3	73	8.7	50
55	66	7.6	68	7.6	71	6.4	66	9.2	68	8.1	71	6.4	68	8.1	71	8.0	55
60	63	6.8	66	6.9	68	6.1	63	8.5	66	7.7	68	6.1	66	7.3	69	7.3	60
65	60	6.1	63	6.3	65	6.0	60	7.7	63	7.3	65	6.0	63	6.6	66	6.6	65
70	58	5.7	60	5.8	63	5.7	58	6.7	60	6.9	63	5.9	61	6.1	63	6.1	70
75	55	5.2	57	5.3	60	5.3	55	5.8	57	6.2	60	5.7	59	5.6	61	5.6	75
80	52	4.7	54	4.9	57	4.9	52	4.9	54	5.2	57	5.4	56	5.0	58	5.1	80
85	49	4.3	51	4.5	53	4.5	49	4.1	51	4.3	53	4.7	53	4.3	55	4.6	85
90	46	4.0	48	4.1	50	4.1	46	3.4	48	3.7	50	3.9	50	3.6	53	3.9	90
95	43	3.6	45	3.7	46	3.8	43	2.8	45	3.0	46	3.2	47	2.9	50	3.2	95
100	39	3.1	41	3.2	42	3.3	39	2.3	41	2.5	42	2.5	44	2.4	46	2.6	100
110	29	2.2	31	2.2	32	2.1	29	1.4	31	1.5	32	1.4	37	1.5	39	1.6	110
120	18	1.2	18	1.2													120
130																	130
140																	140
Telescoping sequence %																	
Tel. 1	50			100			100			100				Tel. 1			
Tel. 2	100			100			100			100				Tel. 2			
Tel. 3	100			75			100			100				Tel. 3			
Tel. 4	100			75			100			100				Tel. 4			
Code	410	411	412	510	511	512	510	511	512	610	611	612	Code				

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.
99707789038

Counterweight 7,716 lbs

Working Radius (ft)	Lifting capacities in 1,000 lbs according per SAE J765 on fly jib 28.5 ft / 49.6 ft On outriggers, 360° working area Outrigger base 20.67 ft														Working Radius (ft)		
	Boom length 29.5 ft to 101.4 ft			Boom length 29.5 ft to 101.4 ft			Boom length 101.4 ft to 111.5 ft			Boom length 29.5 ft to 111.5 ft							
	Fly jib 28.5 ft offset			Fly jib 28.5 ft offset			Fly jib 28.5 ft offset			Fly jib 49.9 ft offset							
	5°	20°	40°	5°	20°	40°	5°	20°	40°	5°	20°	40°					
	°	°	°	°	°	°	°	°	°	°	°	°					
25	79	14.6				79	15.1									25	
30	78	13.6				78	14.5				79	13.7				30	
35	75	12.2	78	10.5		75	13.7	78	10.5		77	12.9				35	
40	73	10.5	76	9.7	79	7.1	73	12.7	76	9.7	79	7.1	75	11.4	77	9.7	40
45	70	9.4	73	9.1	76	6.9	70	11.3	73	9.1	76	6.9	72	10.1	75	9.2	45
50	69	8.4	71	8.3	74	6.6	69	9.5	71	8.6	74	6.6	70	9.0	73	8.7	50
55	66	7.6	68	7.6	71	6.4	66	7.8	68	7.9	71	6.4	68	7.9	71	8.0	55
60	63	6.8	66	6.9	68	6.1	63	6.3	66	6.9	68	6.1	66	6.6	69	7.1	60
65	60	5.9	63	6.3	65	6.0	60	5.1	63	5.7	65	6.0	63	5.3	66	5.9	65
70	58	5.0	60	5.4	63	5.5	58	4.2	60	4.6	63	5.1	61	4.4	63	4.8	70
75	55	4.2	57	4.5	60	4.8	55	3.3	57	3.7	60	4.1	59	3.5	61	3.9	75
80	52	3.5	54	3.7	57	4.0	52	2.6	54	2.9	57	3.2	56	2.7	58	3.1	80
85	49	2.8	51	3.0	53	3.3	49	1.9	51	2.2	53	2.5	53	2.1	55	2.5	85
90	46	2.3	48	2.4	50	2.7	46	1.4	48	1.7	50	1.8	50	1.5	53	1.9	90
95	43	1.8	45	1.9	46	2.1					46	1.1			50	1.3	95
100	39	1.3	41	1.4	42	1.5									50	1.3	100
110																	110
120																52	120
130																	130
140																	140
Telescoping sequence %																	
Tel. 1	50			100			100			100			100			Tel. 1	
Tel. 2	100			100			100			100			100			Tel. 2	
Tel. 3	100			75			100			100			100			Tel. 3	
Tel. 4	100			75			100			100			100			Tel. 4	
Code	460	461	462	560	561	562	560	561	562	660	661	662	Code				

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.
99707789040



Counterweight 4,409 lbs

Working Radius (ft)	Lifting capacities in 1,000 lbs according per SAE J765 on fly jib 28.5 ft / 49.6 ft On outriggers, 360° working area Outrigger base 20.67 ft													Working Radius (ft)											
	Boom length 29.5 ft to 101.4 ft			Boom length 29.5 ft to 101.4 ft			Boom length 101.4 ft to 111.5 ft			Boom length 29.5 ft to 111.5 ft															
	Fly jib 28.5 ft offset			Fly jib 28.5 ft offset			Fly jib 28.5 ft offset			Fly jib 49.9 ft offset															
	5°	20°	40°	5°	20°	40°	5°	20°	40°	5°	20°	40°													
25	79	14.6				79	15.1								25										
30	78	13.6	80	11.2		78	14.5	80	11.2						30										
35	75	12.2	78	10.5		75	13.7	78	10.5						35										
40	73	10.5	76	9.7	79	7.1	73	12.6	76	9.7	79	7.1	75	11.4	77	80	7.1	78	6.9			40			
45	70	9.4	73	9.1	76	6.9	70	10.3	73	9.1	76	6.9	72	10.1	75	9.2	77	6.9	76	6.8	80		45		
50	69	8.4	71	8.3	74	6.6	69	8.3	71	8.3	74	6.6	70	8.4	73	8.6	75	6.6	74	6.5	79	6.4	50		
55	66	7.3	68	7.5	71	6.4	66	6.6	68	7.2	71	6.4	68	6.8	71	7.5	73	6.4	72	6.2	77	5.8	55		
60	63	6.1	66	6.5	68	6.1	63	5.4	66	5.9	68	6.0	66	5.4	69	6.0	71	6.1	71	5.9	75	5.4	79	4.30	60
65	60	5.0	63	5.4	65	5.9	60	4.2	63	4.8	65	5.2	63	4.2	66	4.8	68	5.4	69	5.4	73	5.1	77	4.1	65
70	58	4.0	60	4.5	63	4.9	58	3.3	60	3.8	63	4.1	61	3.5	63	3.8	66	4.3	67	4.5	71	4.9	75	3.9	70
75	55	3.2	57	3.7	60	4.0	55	2.5	57	2.9	60	3.2	59	2.8	61	3.0	63	3.4	65	3.7	69	4.4	73	3.8	75
80	52	2.5	54	2.9	57	3.2	52	1.8	54	2.1	57	2.5	56	2.0	58	2.3	60	2.7	63	3.0	66	3.7	70	3.7	80
85	49	2.0	51	2.2	53	2.5	49	1.2	51	1.5	53	1.7	53	1.3	55	1.7	58	2.0	61	2.5	64	2.9	68	3.5	85
90	46	1.4	48	1.7	50	1.9			48	1.0	50	1.0			53	1.2	54	1.4	59	1.9	63	2.4	66	2.9	90
95	43	1.0	45	1.2	46	1.3													57	1.3	60	1.8	64	2.3	95
100																					57	1.3	61	1.7	100
110																									110
120																									120
130																									130
140																									140
Telescoping sequence %																									
Tel. 1	50						100			100						Tel. 1									
Tel. 2	100						100			100						Tel. 2									
Tel. 3	100						75			100						Tel. 3									
Tel. 4	100						75			100						Tel. 4									
Code	450	451	452	550	551	552	550	551	552	650	651	652	Code												

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.
99707789042



Counterweight 18,739 lbs

Working Radius (ft)	Lifting capacities in 1,000 lbs according per SAE J765 on fly jib 28.5 ft / 49.6 ft On outriggers, 360° working area Outrigger base 14.11 ft																Working Radius (ft)									
	Boom length 29.5 ft to 101.4 ft						Boom length 29.5 ft to 101.4 ft						Boom length 101.4 ft to 111.5 ft					Boom length 29.5 ft to 111.5 ft								
	Fly jib 28.5 ft offset						Fly jib 28.5 ft offset						Fly jib 28.5 ft offset					Fly jib 49.9 ft offset								
	°	5°	°	20°	°	40°	°	5°	°	20°	°	40°	°	5°	°	20°		°	40°	°	5°	°	20°	°	40°	
25	79	14.6					79	15.1																	25	
30	78	13.6					78	14.5					79	13.7											30	
35	75	12.2	78	10.5			75	13.7	78	10.5			77	12.9											35	
40	73	10.5	76	9.7	79	7.1	73	11.9	76	9.7	79	7.1	75	11.4	77	9.7				78	6.9				40	
45	70	9.3	73	9.1	76	6.9	70	9.6	73	9.1	76	6.9	72	9.6	75	9.2	77	6.9	76	6.8					45	
50	69	8.2	71	8.3	74	6.6	69	7.7	71	8.0	74	6.6	70	7.9	73	8.2	75	6.6	74	6.5	79	6.1			50	
55	66	7.0	68	7.3	71	6.4	66	6.2	68	6.8	71	6.4	68	6.4	71	6.9	73	6.4	72	6.2	77	5.8			55	
60	63	5.8	66	6.2	68	6.1	63	5.0	66	5.5	68	6.0	66	5.1	69	5.7	71	6.1	71	5.8	75	5.4			60	
65	60	4.8	63	5.1	65	5.5	60	4.0	63	4.4	65	4.9	63	4.1	66	4.6	68	5.1	69	5.1	73	5.1	77	4.1	65	
70	58	3.9	60	4.2	63	4.6	58	3.1	60	3.6	63	3.9	61	3.3	63	3.7	66	4.2	67	4.3	71	4.8	75	3.9	70	
75	55	3.1	57	3.5	60	3.8	55	2.4	57	2.8	60	3.1	59	2.6	61	2.9	63	3.3	65	3.6	69	4.2	73	3.8	75	
80	52	2.5	54	2.8	57	3.0	52	1.7	54	2.2	57	2.4	56	1.9	58	2.3	60	2.6	63	2.9	66	3.5	70	3.7	80	
85	49	2.0	51	2.2	53	2.5	49	1.2	51	1.6	53	1.8	53	1.4	55	1.7	58	1.9	61	2.4	64	2.9	68	3.4	85	
90	46	1.5	48	1.7	50	1.9			48	1.1	50	1.2			53	1.2	54	1.4	59	1.8	63	2.3	66	2.9	90	
95	43	1.1	45	1.3	46	1.3													57	1.4	60	1.8	64	2.3	95	
100																			54	1.1	57	1.4			100	
110																							50	1.0	110	
120																									120	
130																									130	
140																									140	
Telescoping sequence %																										
Tel. 1	50						100						100						100						Tel. 1	
Tel. 2	100						100						100						100						Tel. 2	
Tel. 3	100						75						100						100						Tel. 3	
Tel. 4	100						75						100						100						Tel. 4	
Code	413	414	415	513	514	515	513	514	515	513	514	515	613	614	615	Code										

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.
99707789039

Counterweight 7,716 lbs

Working Radius (ft)	Lifting capacities in 1,000 lbs according per SAE J765 on fly jib 28.5 ft / 49.6 ft On outriggers, 360° working area Outrigger base 14.11 ft															Working Radius (ft)								
	Boom length 29.5 ft to 101.4 ft					Boom length 29.5 ft to 101.4 ft					Boom length 101.4 ft to 111.5 ft				Boom length 29.5 ft to 111.5 ft									
	Fly jib 28.5 ft offset					Fly jib 28.5 ft offset					Fly jib 28.5 ft offset				Fly jib 49.9 ft offset									
	5° ∠	20° ∠	40° ∠	5° ∠	20° ∠	40° ∠	5° ∠	20° ∠	40° ∠	5° ∠	20° ∠	40° ∠	5° ∠	20° ∠	40° ∠									
25	79	14.6				79	15.1										25							
30	78	13.5				78	11.6						79	13.4				30						
35	75	10.9	78	10.5			75	10.0	78	10.3			77	10.1				35						
40	73	8.5	76	9.2	79	7.1	73	7.6	76	8.5	79	7.1	75	7.7	77	8.6		40						
45	70	6.6	73	7.3	76	6.9	70	5.7	73	6.5	76	6.9	72	5.9	75	6.6	77	6.9	45					
50	69	5.2	71	5.8	74	6.1	69	4.3	71	5.0	74	5.7	70	4.4	73	5.1	75	5.7	50					
55	66	4.0	68	4.5	71	5.0	66	3.1	68	3.8	71	4.4	68	3.3	71	3.9	73	4.5	55					
60	63	3.0	66	3.5	68	3.9	63	2.2	66	2.7	68	3.2	66	2.4	69	2.8	71	3.5	60					
65	60	2.2	63	2.6	65	3.0	60	1.4	63	1.9	65	2.3	63	1.5	66	2.0	68	2.5	65					
70	58	1.6	60	1.9	63	2.3			60	1.2	63	1.6			63	1.4	66	1.8	70					
75			57	1.4	60	1.7													75					
80					57	1.1											65	1.4	69	2.0	73	2.7	75	
85																	66	1.4			70	2.1	80	
90																					68	1.6	85	
95																					66	1.1	90	
100																								95
110																								100
120																								110
130																								120
140																								130
140																								140
Telescoping sequence %																								
Tel. 1	50					100					100					Tel. 1								
Tel. 2	100					100					100					Tel. 2								
Tel. 3	100					75					100					Tel. 3								
Tel. 4	100					75					100					Tel. 4								
Code	463	464	465	563	564	565	563	564	565	663	664	665	Code											

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.
99707789041



Counterweight 18,739 lbs.

Work. Radius (ft)	Lifting capacities in 1,000 lbs. according per SAE J765 on telescopic boom for rigging counterweight On outriggers, 360° working area On tire, over rear												Work. Radius (ft)
	Boom length (ft)												
	29.5				50.2				60.4				
	°	**			°	**			°	**			
	∠				∠				∠				
10	61	36.0			74	27.0			75	26.0			10
12	56	29.4			71	26.0			75	26.0			12
14	51	23.2			69	24.3			73	24.5			14
16	45	18.3			66	20.3			70	20.6			16
18	38	15.2			64	16.9			69	17.2			18
20	30	12.5			61	14.0			67	14.2			20
25					54	9.8			61	10.0			25
30					46	7.1			55	7.3			30
35					37	5.6			49	5.8			35
40					25	4.5			42	4.7			40
45									34	3.7			45
50									21	3.0			50
Telescoping sequence %													
Tel. 1	0				0				0				Tel. 1
Tel. 2	0				33				50				Tel. 2
Tel. 3	0				33				50				Tel. 3
Tel. 4	0				33				50				Tel.4
Code	216				216				216				Code

** Over rear with superstructure pin engaged.

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

99707789035

Counterweight 7,716 lbs.

Work. Radius (ft)	Lifting capacities in 1,000 lbs. according per SAE J765 on telescopic boom for rigging counterweight On outriggers, 360° working area On tire, over rear												Work. Radius (ft)
	Boom length (ft)												
	29.5				50.2				60.4				
	°	**			°	**			°	**			
	∠				∠				∠				
10	61	36.3			74	27.0			75	24.6			10
12	56	23.4			71	23.0			75	24.6			12
14	51	17.5			69	18.5			73	18.7			14
16	45	13.7			66	14.4			70	14.6			16
18	38	11.2			64	11.8			69	12.1			18
20	30	9.0			61	9.7			67	9.9			20
25					54	6.3			61	6.5			25
30					46	4.3			55	4.5			30
35					37	3.2			49	3.4			35
40					25	2.1			42	2.4			40
45									34	1.9			45
50									21	1.4			50
Telescoping sequence %													
Tel. 1	0				0				0				Tel. 1
Tel. 2	0				0				0				Tel. 2
Tel. 3	0				0				0				Tel. 3
Tel. 4	0				50				100				Tel.4
Code	216				216				216				Code

** Over rear with superstructure pin engaged.

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

99707789036

Counterweight 4,409 lbs.

Work. Radius (ft)	Lifting capacities in 1,000 lbs. according per SAE J765 on telescopic boom for rigging counterweight On outriggers, 360° working area On tire, over rear/360°												Work. Radius (ft)
	Boom length (ft)												
	29.5			50.2			60.4						
	°	**	360°	°	**	360°	°	**	360°	°	**	360°	
	∠			∠			∠			∠			
10	61	29.3	24.9	74	26.8	26.1							10
12	56	21.1	18.9	71	21.5	20.8	75	22.0	21.1				12
14	51	15.8	14.2	69	16.9	15.9	73	17.2	16.3				14
16	45	12.1	11.1	66	13.1	12.5	70	13.4	12.9				16
18	38	9.9	9.0	64	10.7	10.3	69	11.1	10.6				18
20	30	7.9	7.1	61	8.8	8.4	67	9.0	8.6				20
25				54	5.9	5.3	61	6.1	5.7				25
30				46	3.7	3.4	55	3.9	3.6				30
35				37	2.5	2.0	49	2.7	2.2				35
40				25	1.6		42	1.8	1.2				40
45							34	1.3					45
Telescoping sequence %													
Tel. 1	0			0			0						Tel. 1
Tel. 2	0			0			0						Tel. 2
Tel. 3	0			0			0						Tel. 3
Tel. 4	0			50			100						Tel.4
Code	216			216			216						Code

** Over rear with superstructure pin engaged.

Operation and maintenance of this machine must be in compliance with the information provided in the "Operation and Maintenance Manual" supplied with this machine.

99707789037



WARNING AND OPERATING INSTRUCTIONS FOR LIFTING CAPACITIES

GENERAL

1. Total rated loads shown on the TADANO LOAD RATING CHART apply only to the machine as originally manufactured and normally equipped by TADANO. Modifications to the machine or use of optional equipment other than that specified can result in a reduction of capacity.
2. Construction equipment can be dangerous if improperly operated or maintained. Operation and maintenance of this machine must be in compliance with the information in the operation, safety and maintenance manual supplied with the machine. If this manual is missing, order replacement through the distributor.
3. The operator and other personnel associated with this machine shall fully acquaint themselves with the latest applicable American National Standards Institute (ANSI) safety standards for cranes.

SET UP

1. Total rated loads shown on the TADANO LOAD RATING 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 to spread the load to a larger bearing surface.
2. For on outrigger operation, outriggers shall be extended to the dimension according to the TADANO LOAD RATING CHART and secured by pins with tires free of supporting surface, before operating crane.
3. If counterweight is moved down from stop during crane operation (indicator "counterweight center" goes out), all crane movements are switched off. Counterweight must raised again to its stop.

OPERATION

1. Total rated loads with outriggers fully extended do not exceed 85% of the tipping loads. Total rated loads with outriggers half extended are determined from the formula:
total rated load = (tipping load -0.1 tip reaction) / 1.25
2. The crane's structural steelwork is in accordance with DIN 15018, part 3. Design and construction of the crane comply with DIN 15018, part 2 and with F.E.M. regulations.
3. Total rated loads above the bold lines in the TADANO LOAD RATING CHART are based on crane strength and those below the bold lines on crane stability.
4. Total rated loads include the weight of main hook block, auxiliary hook ball, sling and other auxiliary lifting devices and all their weights shall be subtracted from the listed capacities to obtain the net load to be lifted.

Hookball/ Hookblock(ton)	6.6	13.8	35.3						55.1		
No. of parts of line	1	2	3	4	5	6	7	8	10	12	
Max. lifting capacity (ton)	4.8	9.7	14	19.4	24.2	29	34	39	48.5	50	
Weight (lbs.)	330	375	661						1,323		

5. Total rated loads 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, operating speeds, side loads, etc. Side pull on boom or jib is extremely dangerous.
6. Total rated loads do not account for wind on lifted load or boom. Total rated loads and boom length shall be appropriately reduced, when wind velocity is above 22 mph (32 ft/sec.).
7. Total rated loads at load radius shall not be exceeded. Do not tip the crane to determine allowable loads.
8. Do not operate at boom lengths beyond radii or boom angles where no capacities are shown. Crane may overturn without any load on the hook.
9. Slewing of the superstructure on tires is admissible only when the crane is equipped with 4,409 lbs counterweight at maximum.

10. The lifting capacity ratings specified in the TADANO LOAD RATING CHART apply to the telescopic boom without extendible fly jib fixed in transport position or working position. If the extendible fly jib is secured to the telescopic boom in transport position or working position, the lifting capacities of the telescopic boom are reduced by the values specified below. The weight of the extendible fly jib(2,000 lbs) is detected in terms of a load, and the load moment limiter will shut off earlier.

28.5 ft / 49.9 ft extendible fly jib,
mounted in transport position ; 660 lbs

28.5 ft extendible fly jib,
mounted to the boom head ; 1,980 lbs

49.9 ft extendible fly jib,
mounted to the boom head ; 3,100 lbs

11. When making lifts at a load radius not shown, use the next longer radius to determine allowable capacity.
12. Load per part line should not exceed 10,000 lbs. for the main winch and for the auxiliary winch.
13. Loaded boom angles are approximate. The boom angle before loading should be greater to account for deflection.
14. Extension or retraction of the telescopic boom with loads may be attempted within the limits of the TADANO LOAD RATING CHART. The ability to telescope loads is limited by hydraulic pressure, boom angle, boom length, crane maintenance, etc.
15. When erecting or stowing the extendible fly jib, be sure to retain it by hand or by other means to prevent its free movement.
16. Use the Anti-Two Block (OVERWIND CUTOFF) disable switch when erecting or stowing the extendible fly jib and stowing the hook block. While the switch is pushed, the hoist will not stop, even when an overwind condition occurs.
17. The working radius specified in the TADANO LOAD RATING CHARTS for the extendible fly jib apply only if the telescopic boom is extended according to the TADANO LOAD RATING CHARTS. If one or more elements of the telescopic boom are retracted partially or completely, the specified boom angles will be decisive in determining total rated lifting capacities.
18. When lifting a load by using the extendible fly jib (auxiliary hoist) and telescopic boom (main hoist) simultaneously, do the following:
 - A) Select the correct program for the load moment device in accordance with jib length, jib offset angle, counterweight and outrigger base.
 - B) Before starting the operation, make sure that the weight of the load is within the total rated load for the extendible fly jib.
19. Safe Load Indicator (S.L.I.)
Before working with the telescopic boom or extendible fly jib, make sure that the S.L.I. code is set according to the desired telescoping sequence while the telescopic boom is completely retracted. A change of the telescoping sequence is not permissible when the boom has been partially or fully extended. In order to change the S.L.I. code number, the boom must be fully retracted.



20. Working with Single Top
- Operation with the single top is allowed with the main winch and the auxiliary winch (2nd winch). The maximum allowed capacity is limited by the selected S.L.I. code für main boom operation according to existing counterweight and outrigger base at one side and by the single line pull which is limited by hydraulic pressure at the other side.
- For operations with the single top mounted, use the TADANO LOAD RATING CHART for the telescopic boom in accordance with existing counterweight and outrigger base to find the total rated lifting capacity and also select the correct S.L.I. code for the telescopic boom in accordance with the existing counterweight and outrigger base. Find the total rated lifting capacity based on boom length and working radius. From that value, subtract 1,100 lbs and the weights of all lifting equipment used including hook block, sling and other auxiliary lifting devices. The result (<total rated lifting capacity> - <1,100 lbs> - <lifting equipment>) is the total rated lifting capacity for a single top lift.

DEFINITIONS

1. Working 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.
The deflection of the boom due to its deadweight and the rated load are taken into account.
2. Loaded Boom Angle: The angle between the boom base section and the horizontal, after lifting the total rated load at the working 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.

Safe Load Indicator (PAT DS 350 G-C)

The Safe Load Indicator (PAT DS 350 G-C) is intended as an aid to the operator. Under no condition should it be relied upon to replace use of Load Rating Charts and Operating Instructions. Sole reliance upon the Safe Load Indicator Aids in place of good operating practice can cause an accident. The operator must exercise caution to assure safety.

ON TIRE OPERATION

1. Total rated lifting capacities on tires are in pounds and do not exceed 75% of tipping loads as determined by test in accordance with SAE J-765.
2. Total rated lifting capacities shown in TADANO LOAD RATING CHART are based on the condition that the crane is set on firm level supporting surfaces with suspension let down to block. Those above the bold lines are based on tire capacity and those below the bold lines on crane stability. They are based on actual load radius increased by tire deformation and boom deflection.
3. Total rated lifting capacities are based on proper tire inflation, capacity and condition. Damaged tires are hazardous to safe operation of the crane.
4. Tires shall be inflated to correct air pressure, acc. to tire size at center:

16.00R25	130 psi (9kgf/cm²)
20.5R25	100 psi (7kgf/cm²)
5. On tire lifting with "extendible fly jib" is not permitted.
6. When making a lift on the tires, set the parking brake.
7. Travelling with the load is permitted only if the following condition exist:

Crane carrier is set on firm level supporting surface; tires inflated to specified pressure; boom must be centered over the rear of the carrier; superstructure swing lock pin engaged; slewing brake engaged; maximum boom length is not exceed 60.0 ft; lifted load kept as close to the ground as possible and fastened to the chassis to prevent the lifted load from swinging or oscillating; travel slowly with a creeping speed not to exceed 0.9 mph; and especially avoid any abrupt steering accelerating or braking.
8. Do not operate the crane while carrying the load

ATF-500XL-1 Axle weight distribution chart

	GVW	Axle 1	Axle 2	Axle 3
Base machine with 16.00R25 tires, 4,409 lbs counterweight	61,685	19,015	21766	20904
Add:				
1. 6.0 ton hook ball in storage at carrier rear	333	-183	258	258
2. 28.5 ft/ 49.9 ft extendibly fly jib	2,099	1821	139	139
3. 1,323 lbs counterweight at carrier deck	1,359	1157	101	101
4. 1,984 lbs counterweight at carrier deck	1,993	1689	152	152
5. 4,409 lbs counterweight at upper	4,797	-3607	4004	4400
6. 6,614 lbs counterweight at carrier deck	6,633	5615	509	509
Options:				
1. 20.5R25 tires in lieu of 16.00R25	1,071	357	357	357
2. Auxiliary winch with cable	1,755	-1561	1658	1658
3. Auxiliary boom point sheave (single top)	201	403	-101	-101
4. Eddy-current brake at 3rd axle	355	0	0	355
5. 32.0 ton hook block at front bumper	662	1314	-326	-326

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