



# AT880

All-terrain hydraulic crane

- Capacity 70 tonnes (77 tons)
- Maximum on-board tip height 58 metres (190 ft)
- 8 x 6 wheel drive with eight wheel steer
- Maximum speed 70 kph (43.5 mph)
- Optional \*telescopic Swingaway 9.8 – 13.4 – 17.1 metres (32 ft – 44 ft – 56 ft). Offsettable at 0°, 15° or 30°



# Superstructure specifications

<b>Boom</b>	12.10 to 38.00 m (39 ft 8 in to 124 ft 8 in) four-section, Trapezoidal boom including remote controlled aerial pinned section. Telescopic sections slide on adjustable and replaceable Nylatron pads. Maximum tip height 41 m (134 ft 6 in).
<b>Optional *Non telescopic offsettable Swingaway extension</b>	9.80 m (32 ft) lattice Swingaway boom extension, offsettable at 0°, 15° or 30°. Stows alongside boom when not in use. Maximum tip height 50 m (164 ft).
<b>Telescopic offsettable Swingaway extension</b>	9.8 to 13.4 or 17.1 m (32 to 44 or 61 ft) Swingaway boom extension with a rectangular roller mounted section extending from within the 9.8 m (32 ft) lattice extension. Offsettable at 0°, 15° or 30°. Stows alongside boom when not in use. Maximum tip height 58 m (190 ft).
<b>Boom nose</b>	Six sheaves, mounted on heavy duty tapered roller bearings, with removable pin-type rope guards.
<b>Auxiliary boom nose</b>	Pin mounted, removable auxiliary boom nose for single line lifting.
<b>Boom elevation</b>	Twin double-acting hydraulic cylinders with integral holding valves provide elevation from -4° to +80°.
<b>Load moment indicator and anti-two block system</b>	Audio-visual type warning with control lever lockout.
<b>Cab</b>	Acoustically treated, fully enclosed with safety glass, hinged skylight with electric wiper, windscreen wiper, horn, heater, air circulation fan, crane level indicator, lockable sliding door, instrumentation, pilot type crane controls and travel controls.
<b>Swing</b>	Ball bearing swing circle with 360° continuous rotation. Planetary gearbox with free swing and foot applied multi-disc brake. Spring-applied hydraulically released park brake. Plunger-type two position house lock operated from cab. Maximum speed 1.9 rpm.
<b>Counterweight</b>	Fixed position counterweight, part permanently mounted to rear of superstructure with additional pin mounted counterweight stowable on crane carrier, giving a total of 2000 kg (5291 lb). Additional *3500 kg (7937 lb) counterweight to give a total of 5500 kg (13,228 lb). Additional *5900 kg (13,228 lb) counterweight to give a total of 11,400 kg (26,456 lb).

## HYDRAULIC SYSTEM

<b>Pumps</b>	Four main gear pumps, combined capacity 625 litres/minute (165 US gallons/minute). Maximum pressure 207 kg/cm <sup>2</sup> (3000 PSI).
<b>Valves</b>	Precision, four-way, double-acting, pilot-operated control valves with four individual valve banks, permit simultaneous control of multiple crane functions.
<b>Filter</b>	Pressure line type filter with by-pass protection and filter service indicator. Replaceable 10 micron rated cartridge.
<b>Reservoir</b>	626 litres (165 US gallons) capacity, with internal baffles, clean out access and external oil level gauge.
<b>Oil cooler</b>	Thermostatically controlled, electric motor driven fan.
<b>Pressure check panel</b>	System pressure test panel with quick-release couplings.

## HOIST SPECIFICATIONS

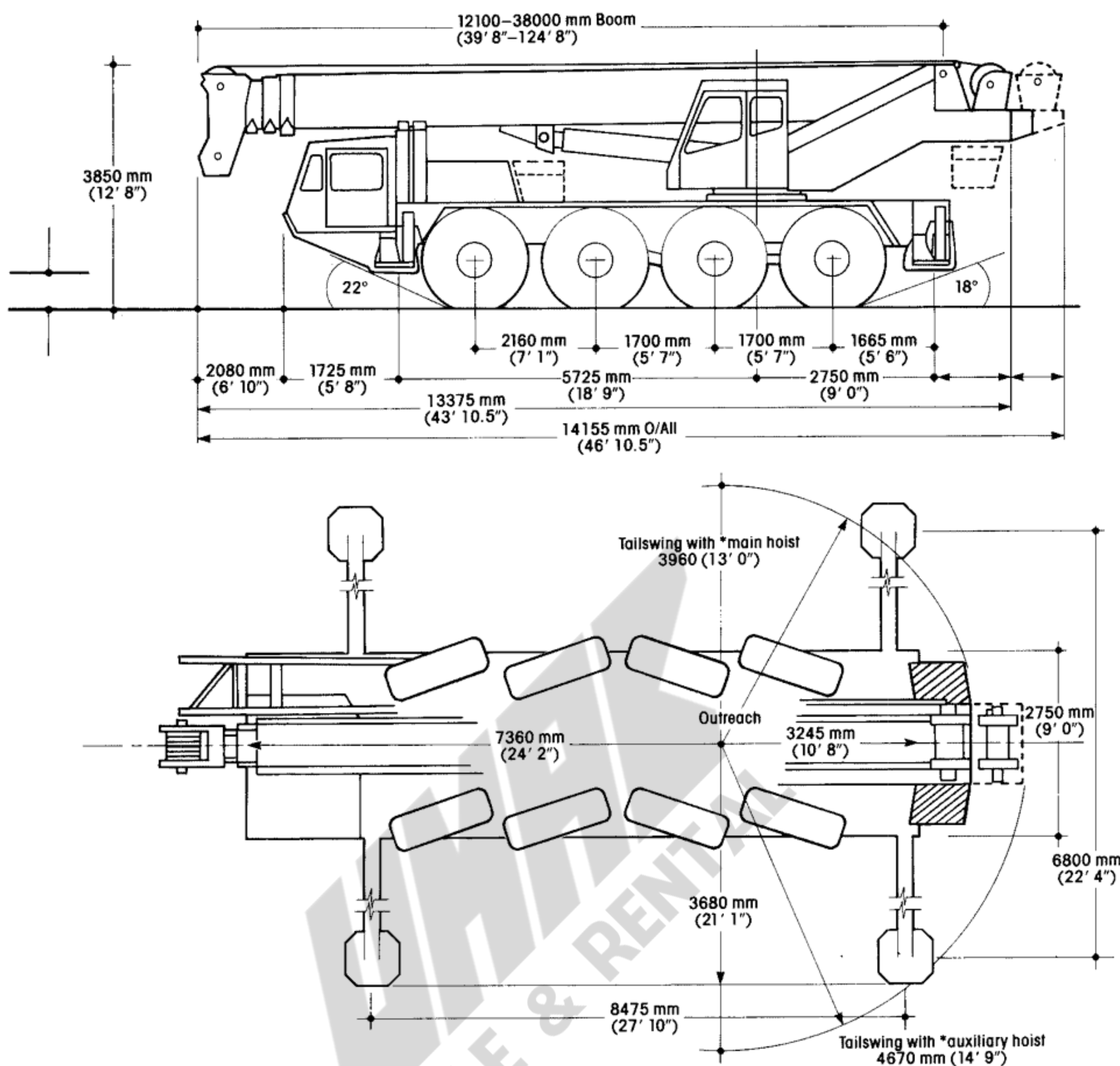
	Power up and down, equal speed, planetary reduction with integral automatic spring-applied, multi-disc brake. Electronic hoist drum rotation indicator.		
	<b>Main hoist High Range</b>	<b>Low Range</b>	<b>*Auxiliary hoist Single Range</b>
<b>Maximum single line speed</b>			
Bottom layer	142 m/min (466 fpm)	71 m/min (233 fpm)	106 m/min (348 fpm)
Intermediate layer	153 m/min (502 fpm)	76 m/min (250 fpm)	113 m/min (371 fpm)
Top layer	164 m/min (538 fpm)	82 m/min (269 fpm)	120 m/min (394 fpm)
<b>Maximum single line pull</b>			
Bottom layer	3742 kg (8232 lb)	7484 kg (16,465 lb)	4149 kg (9128 lb)
Intermediate layer	3472 kg (7638 lb)	6945 kg (15,279 lb)	3910 kg (8602 lb)
Top layer	3239 kg (7126 lb)	6478 kg (14,252 lb)	3690 kg (8118 lb)
<b>Maximum permissible line pull</b>	5200 kg (11,465 lb)		3100 kg (6835 lb)
<b>Maximum rope stowage</b>	210 m x 19 mm (666 ft x 3/4 in)		214 m x 14 mm (682 ft x 9/16 in)
<b>Standard rope supplied</b>	230 m x 19 mm (590 ft x 3/4 in)		175 m x 14 mm (574 ft x 9/16 in)

\*Indicates optional item.

# Carrier specifications

<b>Frame</b>	High-strength alloy steel, all welded box section design with integral outrigger housings and incorporating towing/tie down bracket. 2.75 m (9 ft) overall width, with 16.00 tyres.	<b>Lights</b>	Full lighting system including head, tail, stop, reverse, fog, hazard warning and directional indicators.
<b>Outrigger system</b>	Hydraulic telescopic beam and jack outriggers with integral holding valves. Quick-release outrigger floats.	<b>Cab</b>	Safety glass throughout, acoustically treated, two man, left-hand drive, windscreen wipers and washers, heater and demister, mirrors, full instrumentation and travel controls. Tachograph.
<b>Outrigger controls</b>	Located in the superstructure cab and on both sides of the carrier frame. Push-button electric controls requiring two-handed operation for safety. Crane level indicator adjacent to each set of controls.	<b>Maximum speed</b>	70 kph (43.5 mph).
<b>Engine</b>	Deutz BF8L513, eight-cylinder turbocharged air-cooled diesel. 12.8 litres, 243 kw (326 bhp) at 2300 rpm. Maximum torque 1170 Nm (863 lb ft) at 1500 rpm.	<b>Gross vehicle weight and axle loads</b>	1) Machine to basic specification, plus telescopic Swingaway, hookblock and 2000 kg (4408 lb) counterweight. Axle 1: 11,000 kg (24,255 lb) Axle 2: 11,000 kg (24,255 lb) Axle 3: 11,000 kg (24,255 lb) Axle 4: 11,000 kg (24,255 lb) GVW: 44,000 kg (97,020 lb)  2) Machine to basic specification, plus telescopic Swingaway, spare wheel, multi fall hookblock and 5,500 kg (12,122 lb) of counterweight. Axle 1: 12,000 kg (26,455 lb) Axle 2: 12,000 kg (26,455 lb) Axle 3: 12,000 kg (26,455 lb) Axle 4: 12,000 kg (26,455 lb) GVW: 48,000 kg (105,820 lb)  3) Machine to basic specification, plus telescopic Swingaway, spare wheel, multi fall hookblock and 11,400 kg (25,132 lb) of counterweight. Axle 1: 13,500 kg (29,754 lb) Axle 2: 13,500 kg (29,754 lb) Axle 3: 13,500 kg (29,754 lb) Axle 4: 13,500 kg (29,754 lb) GVW: 54,000 kg (119,016 lb)
<b>Fuel tank capacity</b>	365 litres (96 US gallons).		
<b>Electrical system</b>	24 v (including starting).		
<b>Drive</b>	8 x 6.		
<b>Steering</b>	Power assisted, semi integral type front axle steering, with transmission driven emergency power steering. Fully independent hydraulic steering on rear axles providing eight-wheel co-ordinated, or eight-wheel crab-steering modes. Automatic steering reversal system to ensure correct control regardless of superstructure position.		
<b>Transmission</b>	Remote mounted powershift transmission with twelve forward and six reverse speeds. Integral torque converter with automatic lock-up for highway travel.		
<b>Axles</b>	1: Drive-Steer 2: Steer 3: Drive-Steer 4: Drive-Steer All drive axles have planetary hub reduction and cross differential locks.	<b>Optional *equipment</b>	<b>Superstructure</b> *Auxiliary hoist *Spotlight *Rotating beacon *Hookblocks  <b>Carrier</b> *Spare wheel assembly and mounting *Rotating beacons *20.5 x 25 tyres (2.9 m max O/A width) *Transmission retarder
<b>Suspension</b>	Integral hydrogas suspension all round. Hydraulic lockout and automatic levelling system operated from cab.		
<b>Brakes</b>	Dual-line air system operating on all wheels. Spring-applied air-released park brake acting on axles three and four. Engine exhaust brake.		
<b>Tyres</b>	16.00 x 25 on-off highway radials all round. Tyre inflation kit.		

*\*Indicates optional item.*



Dimensions refer to machine with standard tyres

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Grove Coles Limited, Registered in England, No 1845128. Registered Office, Crown Works, Sunderland, England SR4 6TT.

# RATED LIFTING CAPACITIES (POUNDS) 14,330 LBS COUNTERWEIGHT

## 40 FT - 125 FT 4-SECTION BOOM ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in feet	Main boom length in feet (fourth section fully retracted)							Fourth section fully extended
	40	45	55	65	75	85	96	
10	155000	89000	88400	84300				
12	115500	89000	88400	78800	70600			
15	94000	89000	81000	72300	62900	57600	36300	
20	71800	71800	69500	60200	53900	48400	36300	30800
25	55000	54900	54800	53800	46700	41000	36300	30800
30		43500	43400	43400	41100	36300	33100	27600
35		33200	33100	33000	33000	31600	28900	24800
40			26000	25900	25900	25900	25800	22400
50				16900	16900	16800	16800	17400
60					11300	11200	11200	13400
70						7500	7400	9500
80							4800	6800
90								4800
100								3200
110								2000

### 40 FT - 55 FT MAIN BOOM ON RUBBER CAPACITIES OVER REAR ONLY

Radius in feet	Up to 1 mph	Up to 3 mph
10	37400	29100
12	29300	25500
15	21400	21200
20	13700	13700
25	9200	9200
30	6200	6200
35	4100	4100
40	2600	2600

### 32 FT FIXED LENGTH BOOM EXTENSION ON OUTRIGGERS - 360°

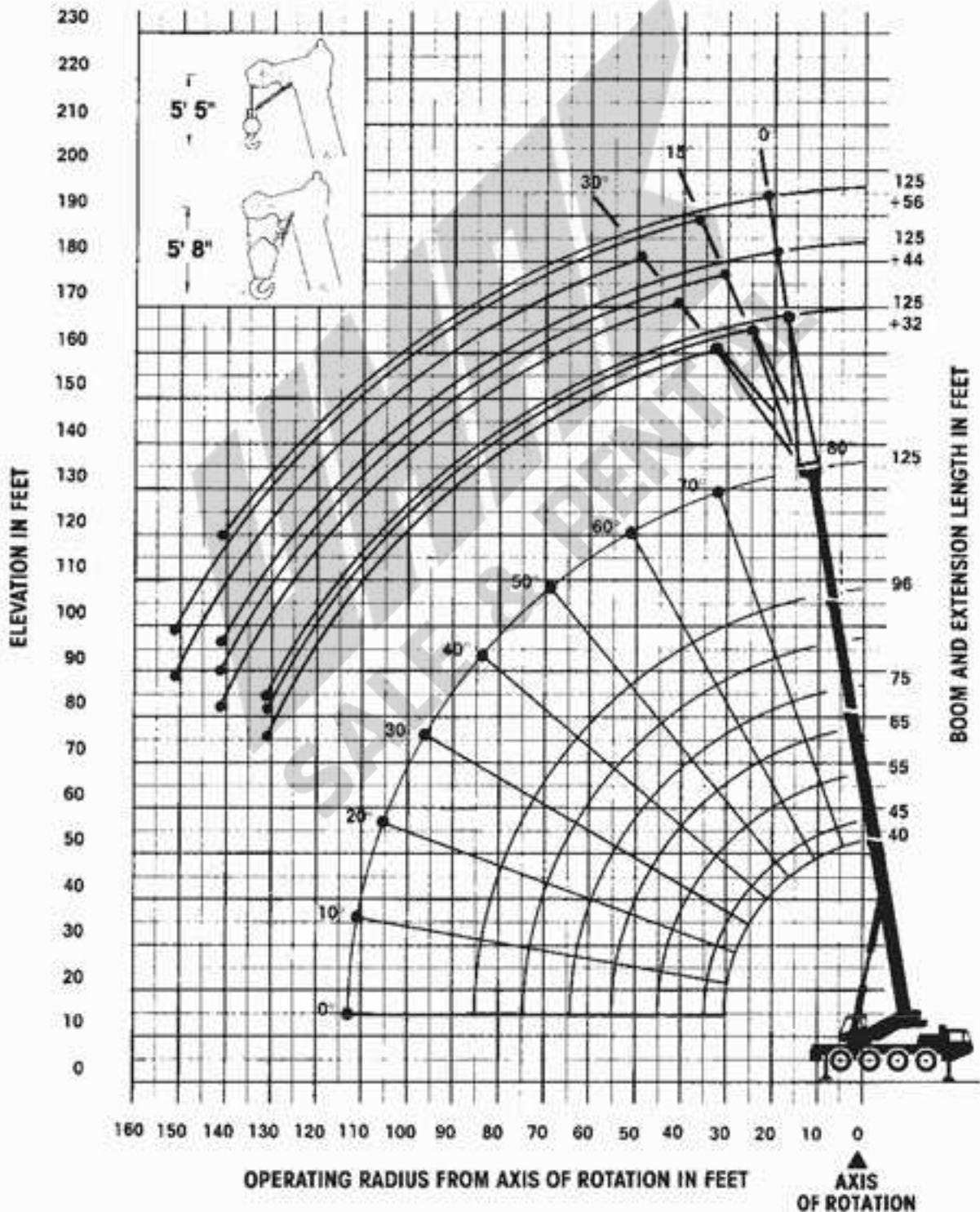
Radius in feet	32ft Swingaway		
	0° Offset	15° Offset	30° Offset
25	18900		
30	18700	16200	
35	18500	15400	
40	18200	14700	11700
45	17900	14000	11300
50	16900	13400	11000
55	15700	12900	10600
60	14000	12400	10300
65	11800	11900	10100
70	10000	10900	9800
80	7200	7900	8500
90	5100	5700	6100
100	3500	3900	4300
110	2200	2600	2800
120		1400	1600



**GROVE**<sup>®</sup>  
worldwide

**AT880**  
85% Domestic/40ft-125ft boom

RANGE DIAGRAM (UNLADEN BOOM)



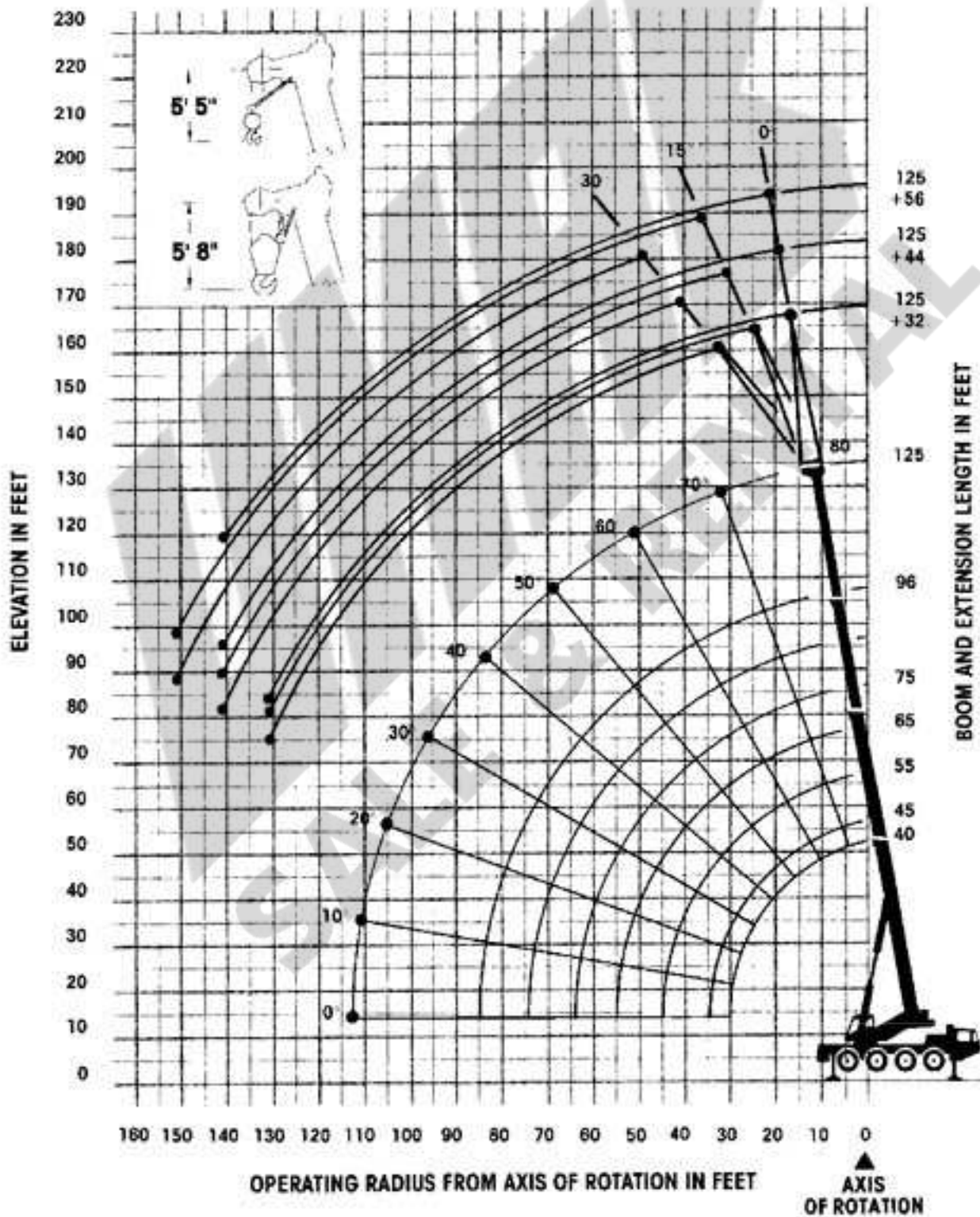


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# AT880

85% DOMESTIC/40FT-125FT BOOM

RANGE DIAGRAM (UNLADEN BOOM)



# RATED LIFTING CAPACITIES (POUNDS) 26,900 LBS COUNTERWEIGHT

## 40 FT - 125 FT 4-SECTION BOOM ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in feet	Main boom length in feet (fourth section retracted)							Fourth section fully extended
	40	45	55	65	75	85	96	
10	160000	89000	88400	84300				
12	115500	89000	88400	78800	70600			
15	98400	89000	81000	72300	62900	57600	36300	
20	76600	76600	69500	60200	53900	48400	36300	30800
25	61000	61000	59100	53800	46700	41000	36300	30800
30		48600	48600	46400	41100	36300	33100	27600
35		39400	39400	39400	35600	31600	28900	24800
40			32900	32900	32000	28200	25900	22400
50				22200	22300	22300	20500	17400
60					15700	15700	15700	13800
70						11300	11400	11300
80							8200	8500
90								7400
100								5900
110								4300

## 40 FT - 65 FT MAIN BOOM ON RUBBER CAPACITIES OVER REAR ONLY

Radius in feet	Up to 1 mph	Up to 3 mph
10	46700	29100
12	37000	25500
15	27500	21200
20	18200	15800
25	12700	11800
30	9200	8800
35	6600	6400
40	4800	4500
50	2200	

## 32 FT FIXED LENGTH BOOM EXTENSION ON OUTRIGGERS - 360°

Radius in feet	32ft Swingaway		
	0° Offset	15° Offset	30° Offset
25	20600		
30	19900	16200	
35	19700	15400	
40	19100	14700	11700
45	18000	14000	11300
50	16900	13400	11000
55	15700	12900	10600
60	14300	12400	10300
65	13000	11900	10100
70	12000	11400	9800
80	10500	10400	9300
90	8100	8600	8600
100	6000	6500	6900
110	4300	4700	5000
120	3100	3400	3500
130	2000	2200	2300

## 32 FT - 56 FT TELE BOOM EXTENSION ON OUTRIGGERS - 360°

Radius in feet	32ft Swingaway			44ft Swingaway			56ft Swingaway		
	0° Offset	15° Offset	30° Offset	0° Offset	15° Offset	30° Offset	0° Offset	15° Offset	30° Offset
25	20000								
30	19300	15600		14800					
35	19100	14800		13400			10800		
40	18500	14100	11100	12300	10500	7900 @	10700		
45	17400	13400	10700	11600	10000	47'0"	10400	8100	
50	16300	12800	10400	11100	9500	7700	9800	7700	
55	15100	12300	10000	10700	9100	7400	9300	7300	6000
60	13700	11800	9700	10300	8700	7200	8800	7000	5600
65	12400	11300	9500	10000	8400	6900	8300	6700	5500
70	11400	10800	9200	9700	8000	6800	7900	6500	5300
80	9600	9800	8700	8900	7500	6400	7200	6000	5100
90	7000	7500	8000	8100	7000	6100	6600	5600	4800
100	5100	5700	5900	6500	6500	5900	6100	5200	4600
110	3600	3900	4200	4800	5300	5600	5600	5000	4400
120	2400	2500	2700	3600	4000	4300	3900	4700	4200
130	1400	1400	1500	2500	2600	2700	2800	3400	4000
140				1600	1600	1600	1800	2600	2700
150								1700	1700



# RATED LIFTING CAPACITIES (POUNDS) 23,800 LBS COUNTERWEIGHT

## 40 FT - 125 FT 4-SECTION BOOM ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in feet	Main boom length in feet (fourth section retracted)							Fourth section fully extended
	40	45	55	65	75	85	96	
10	160000	89000	88400	84300				
12	115500	89000	88400	78800	70600			
15	97600	89000	81000	72300	62900	57600	36300	
20	75900	75900	69500	60200	53900	48400	36300	30800
25	59700	59700	59100	53800	46700	41000	36300	30800
30		47500	47500	46400	41100	36300	33100	27600
35		38700	38700	38700	35600	31600	28900	24800
40			31400	31400	31400	28200	25900	22400
50				21000	21000	21000	20500	17400
60					14800	14800	14800	13800
70						10500	10500	11300
80							7400	8500
90								7100
100								5300
110								3800

## 40 FT - 65 FT MAIN BOOM ON RUBBER CAPACITIES OVER REAR ONLY

Radius in feet	Up to 1 mph	Up to 3 mph
10	45400	29100
12	35500	25500
15	26150	21200
20	16900	15800
25	11800	11800
30	8500	8500
35	6000	6000
40	4300	4300
45	2800	2800

## 32 FT FIXED LENGTH BOOM EXTENSION ON OUTRIGGERS - 360°

Radius in feet	32ft Swingaway		
	0° Offset	15° Offset	30° Offset
25	20600		
30	19900	16200	
35	19700	15400	
40	19100	14700	11700
45	18000	14000	11300
50	16900	13400	11000
55	15700	12900	10600
60	14300	12400	10300
65	13000	11900	10100
70	12000	11400	9800
80	9800	10400	9300
90	7100	8000	8600
100	5200	5900	6200
110	3700	4100	4300
120	2500	2900	3000
130	1500	1700	1800

## 32 FT - 56 FT TELE BOOM EXTENSION ON OUTRIGGERS - 360°

Radius in feet	32ft Swingaway			44ft Swingaway			56ft Swingaway		
	0° Offset	15° Offset	30° Offset	0° Offset	15° Offset	30° Offset	0° Offset	15° Offset	30° Offset
25	20000								
30	19300	15600		14800					
35	19100	14800		13400			10800		
40	18500	14100	11100	12300	10500	7900 @	10700		
45	17400	13400	10700	11600	10000	47'0"	10400	8100	
50	16300	12800	10400	11100	9500	7700	9800	7700	
55	15100	12300	10000	10700	9100	7400	9300	7300	6000
60	13700	11800	9700	10300	8700	7200	8800	7000	5600
65	12400	11300	9500	10000	8400	6900	8300	6700	5500
70	11400	10800	9200	9700	8000	6800	7900	6500	5300
80	9100	9800	8700	8900	7500	6400	7200	6000	5100
90	6400	7300	7800	7700	7000	6100	6600	5600	4800
100	4800	5000	5800	5630	5800	5900	6100	5200	4600
110	3100	3300	3700	3780	4300	5110	4900	4650	4400
120	1900	2100	2300	2360	2920	3850	3360	3880	3950
130				1190	1750	2200	2100	2940	3250



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All-terrain hydraulic crane

- Capacity 70 tonnes (77 tons)
- Maximum on-board tip height 58 metres (190 ft)
- 8 x 6 wheel drive with eight wheel steer
- Maximum speed 70 kph (43.5 mph)
- Optional \*telescopic Swingaway 9.8 – 13.4 – 17.1 metres (32 ft – 44 ft – 56 ft). Offsettable at 0°, 15° or 30°



# RATED LIFTING CAPACITIES (POUNDS) ZERO COUNTERWEIGHT

## 40 FT - 125 FT 4-SECTION BOOM ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in feet	Main boom length in feet (fourth section fully retracted)							Fourth section fully extended
	40	45	55	65	75	85	98	
10	145000	89000	88400	84300				
12	115500	89000	88400	78800	70600			
15	91400	89000	81000	72300	62900	57600	36300	
20	65300	65300	65300	60200	53900	48400	36300	30800
25	47000	47200	47200	47300	46700	41000	36300	30800
30		33300	33400	33400	33400	33500	33100	27600
35		24000	24300	24400	24400	24500	24500	24800
40			18200	18200	18300	18300	18300	20900
50				10700	10700	10600	10600	13100
60					6300	6300	6300	8500
70						3400	3400	5500
80							1300	3400
90								1700

## 40 FT - 45 FT MAIN BOOM ON RUBBER CAPACITIES OVER REAR ONLY

Radius in feet	Up to 1 mph	Up to 3 mph
10	26700	26700
12	20500	20500
15	14500	14500
20	8600	8600
25	5100	5100
30	2800	2800

## 32 FT FIXED LENGTH BOOM EXTENSION ON OUTRIGGERS - 360°

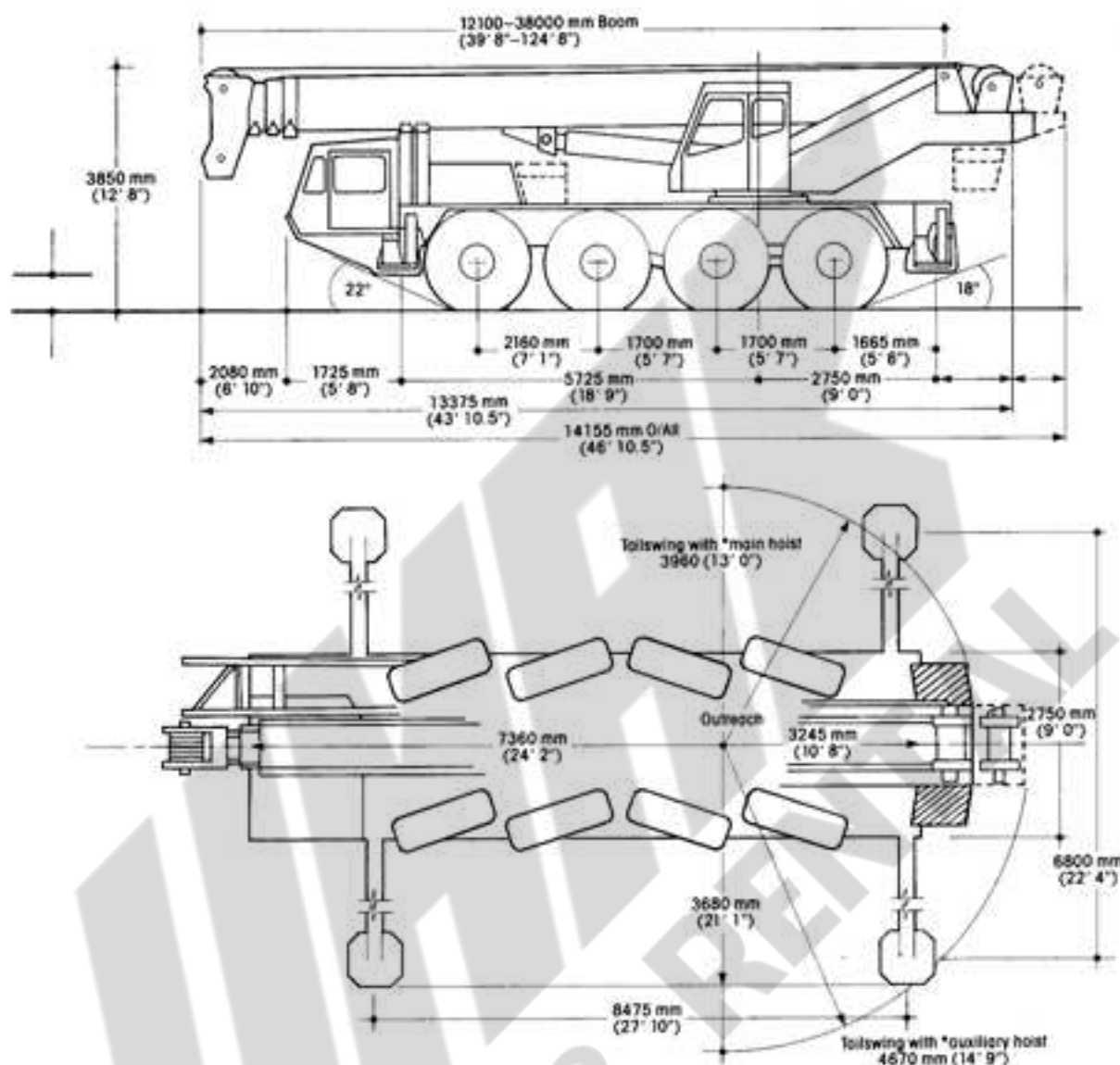
Radius in feet	32ft Swingaway		
	0' Offset	15' Offset	30' Offset
25	18400		
30	17700	16200	
35	17400	15400	
40	17000	14700	11700
45	15800	14000	11300
50	13400	13400	11000
55	10800	12100	10600
60	8800	9800	10300
65	7100	8000	8900
70	5700	6600	7300
80	3500	4200	4800
90	1900	2500	2900
100		1100	1400

## WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES

Hookblocks		
80 Tons, 7 sheave		2535 lbs
35 Tons, 4 sheave		1036 lbs
20 Tons, 1 sheave		529 lbs
5 Tons, Headache ball		220 lbs
32ft Swingaway		
Stowed		772 lbs
Erected		3968 lbs
32ft - 56ft Telescopic Swingaway		
Stowed		1323 lbs
Erected (retracted)		5952 lbs
Erected (extended)		7395 lbs
Auxiliary boom nose		220 lbs

## 32 FT - 56 FT TELE BOOM EXTENSION ON OUTRIGGERS - 360°

Radius in feet	32ft Swingaway			44ft Swingaway			56ft Swingaway		
	0' Offset	15' Offset	30' Offset	0' Offset	15' Offset	30' Offset	0' Offset	15' Offset	30' Offset
25	17800								
30	17100	15600		14800					
35	16800	14800		13400			10800		
40	16400	14100	11100	12300	10500	7900 @	10700		
45	15200	13400	10700	11600	10000	47' 0"	10400	8100	
50	12900	12800	10400	11100	9500	7700	9800	7700	
55	10300	11600	10000	10700	9100	7400	9300	7300	6000
60	8300	9400	9700	9300	8700	7200	8800	7000	5800
65	6800	7600	8400	7600	8400	6900	8300	6700	5500
70	5200	6100	6800	6200	7500	6800	6900	6500	5300
80	2800	3500	4100	4000	5100	5800	4500	6000	5100
90	1200	1700	2200	2300	3200	3600	2800	4100	4800
100					1800	2200	1500	2500	3300
110								1300	2000



Dimensions refer to machine with standard tyres

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