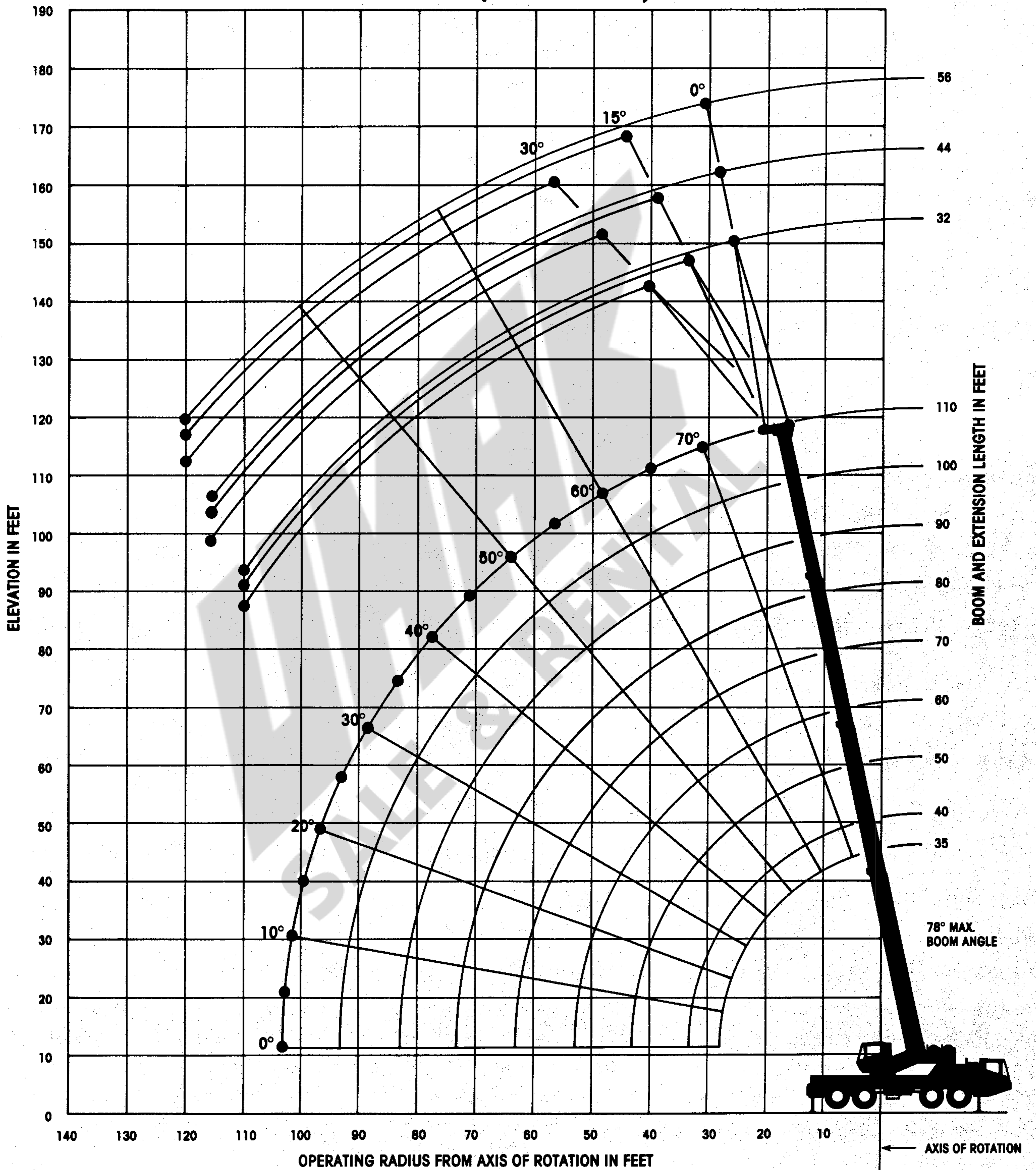


GROVE[®]
worldwide

AT700B

All-terrain hydraulic crane/85% Domestic

RANGE DIAGRAM (UNLADEN BOOM)



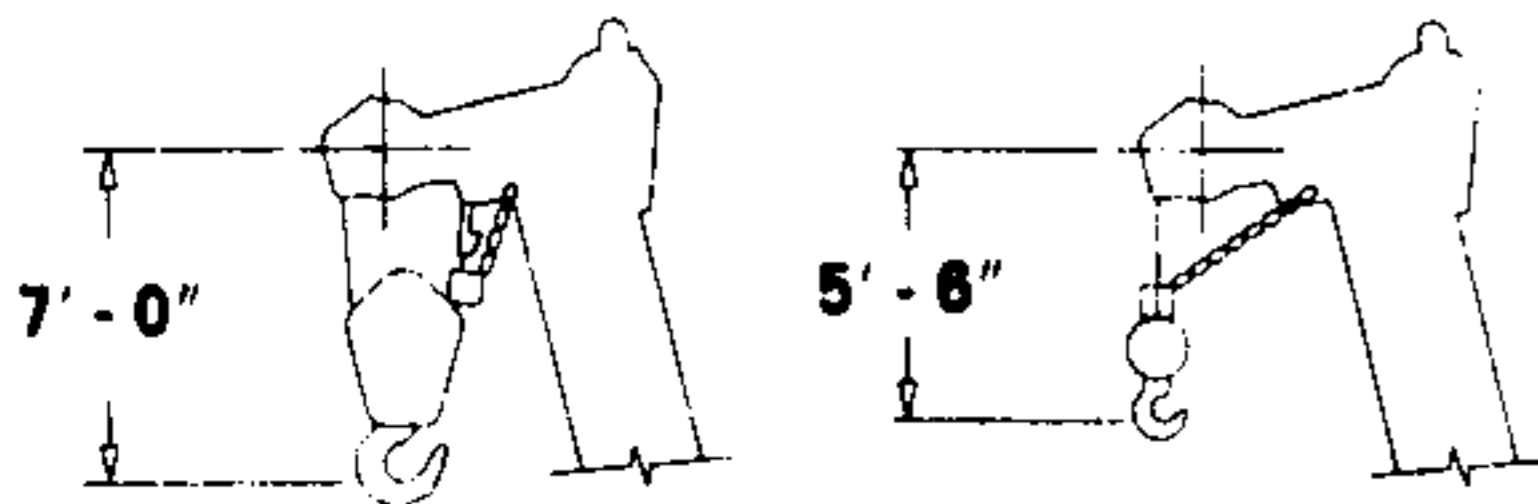
**32 FT. FIXED LENGTH BOOM EXTENSION
ON OUTRIGGERS - 360°**

Radius in Feet	0° OFFSET	15° OFFSET	30° OFFSET
30	9,880 (78)		
35	9,090 (76)	7,880 (78)	
40	8,380 (74)	7,450 (75.5)	6,180 (78)
45	7,720 (71.5)	7,140 (73.5)	6,070 (76)
50	7,120 (69.5)	6,850 (71.5)	5,820 (73.5)
55	6,570 (67)	6,590 (69)	5,590 (71.5)
60	5,880 (65)	6,350 (67)	5,390 (69)
65	5,230 (62.5)	5,660 (64.5)	5,200 (67)
70	4,650 (60)	5,050 (62)	5,030 (64.5)
75	4,120 (57.5)	4,490 (59.5)	4,800 (62)
80	3,640 (55)	3,980 (57)	4,260 (59.5)
85	3,190 (52.5)	3,500 (54.5)	3,760 (57)
90	2,790 (49.5)	3,070 (52)	3,300 (54)
95	2,410 (47)	2,670 (49)	2,870 (51)
100	2,070 (43.5)	2,300 (46)	2,480 (48)
105	1,750 (40.5)	1,960 (42.5)	2,110 (45)
110	1,450 (37)	1,630 (39)	1,760 (41.5)

A6-829-009600A

NOTE: () Boom angles are in degrees.

*This capacity is based upon the maximum boom angle.



DIMENSIONS ARE FOR LARGEST GROVE FURNISHED HOOK BLOCK AND HEADACHE BALL WITH ANTI-TWO BLOCK ACTIVATED.

**32 FT.-56 FT. TELE. BOOM EXTENSION
ON OUTRIGGERS - 360°**

Radius in Feet	32 ft. LENGTH			44 ft. LENGTH			56 ft. LENGTH		
	0° OFFSET	15° OFFSET	30° OFFSET	0° OFFSET	15° OFFSET	30° OFFSET	0° OFFSET	15° OFFSET	30° OFFSET
30	9,500 (78)								
35	8,710 (76)	7,500 (78)		7,320 (77.5)					
40	8,000 (74)	7,070 (75.5)	5,800 (78)	6,880 (75.5)			5,560 (77)		
45	7,340 (71.5)	6,760 (73.5)	5,690 (76)	6,490 (74)	5,060 (77.5)		5,250 (75.5)		
50	6,740 (69.5)	6,470 (71.5)	5,440 (73.5)	6,140 (72)	4,840 (75.5)	3,770 (78)	4,970 (73.5)	3,900 (78)	
55	6,190 (67)	6,210 (69)	5,210 (71.5)	5,820 (69.5)	4,650 (73.5)	3,600 (76)	4,710 (72)	3,740 (76)	
60	5,500 (65)	5,970 (67)	5,010 (69)	5,530 (67.5)	4,460 (71.5)	3,450 (74)	4,480 (70)	3,600 (74.5)	2,650 (78)
65	4,850 (62.5)	5,280 (64.5)	4,820 (67)	5,220 (65.5)	4,300 (69.5)	3,320 (72)	4,270 (68)	3,410 (72.5)	2,540 (76)
70	4,270 (60)	4,670 (62)	4,650 (64.5)	4,640 (63.5)	4,140 (67.5)	3,190 (70)	4,070 (66.5)	3,220 (70.5)	2,430 (74)
75	3,740 (57.5)	4,110 (59.5)	4,420 (62)	4,110 (61.5)	3,940 (66)	3,070 (67.5)	3,890 (64.5)	3,050 (68.5)	2,340 (72.5)
80	3,260 (55)	3,600 (57)	3,880 (59.5)	3,640 (59)	3,750 (63)	2,970 (65.5)	3,720 (62.5)	2,890 (66.5)	2,250 (70)
85	2,810 (52.5)	3,120 (54.5)	3,380 (57)	3,200 (57)	3,570 (61)	2,870 (63)	3,530 (60.5)	2,750 (64.5)	2,170 (68)
90	2,410 (49.5)	2,690 (52)	2,920 (54)	2,800 (54.5)	3,190 (58.5)	2,780 (60.5)	3,130 (58.5)	2,620 (62.5)	2,100 (66)
95	2,030 (47)	2,290 (49)	2,490 (51)	2,430 (52)	2,790 (56)	2,700 (58)	2,760 (56.5)	2,500 (60.5)	2,030 (64)
100	1,690 (43.5)	1,920 (46)	2,100 (48)	2,080 (49.5)	2,420 (53.5)	2,630 (55.5)	2,420 (54.5)	2,390 (58.5)	1,970 (61.5)
105	1,370 (40.5)	1,580 (42.5)	1,730 (45)	1,770 (47)	2,070 (51)	2,320 (52.5)	2,110 (52)	2,290 (56)	1,910 (59.5)
110	1,070 (37)	1,250 (39)	1,380 (41.5)	1,470 (44)	1,750 (48.5)	1,970 (50)	1,820 (49.5)	2,180 (54)	1,860 (57)
115				1,200 (41)	1,450 (45.5)	1,640 (46.5)	1,540 (47.5)	1,880 (51.5)	1,810 (54)
120							1,290 (48)	1,600 (48.5)	1,670 (51.5)

NOTE: () Boom angles are in degrees.

*This capacity is based upon maximum boom angle.

A6-829-009539A

**RATED LIFTING CAPACITIES (POUNDS)
35 FT.-110 FT. 4-SECTION BOOM
ON OUTRIGGERS FULLY EXTENDED - 360°**

Radius in Feet	Main Boom Length in Feet								
	35	40	50	60	70	80	90	100	110
9	@100,000 (67.5)								
9	90,000 (67.5)								
10	80,000 (66)	68,000 (69.5)	58,150 (74)						
12	67,400 (62)	63,800 (66)	55,450 (71.5)	44,600 (75)					
15	56,500 (56)	54,500 (61)	48,050 (67.5)	42,250 (71.5)	35,600 (74.5)	33,000 (77)			
20	44,000 (44.5)	43,000 (52)	39,400 (61)	33,600 (66.5)	30,500 (70.5)	28,000 (73.5)	25,500 (75.5)	23,300 (77.5)	
25	33,500 (28.5)	33,000 (41.5)	32,400 (54)	27,750 (61)	25,200 (66)	23,800 (69.5)	22,000 (72)	20,400 (74.5)	18,500 (76)
30		26,500 (27)	26,500 (46)	23,350 (55)	21,100 (61)	20,400 (65.5)	19,300 (68.5)	17,550 (71.5)	15,750 (73.5)
35			21,500 (36.5)	20,000 (49)	18,050 (56)	17,400 (61.5)	16,400 (65)	15,200 (68)	13,650 (70.5)
40			16,650 (24)	16,150 (41.5)	15,650 (50.5)	15,050 (57)	14,150 (61.5)	13,300 (65)	12,000 (68)
45				12,700 (33)	13,600 (45)	13,200 (52.5)	12,350 (57.5)	11,550 (61.5)	10,600 (65)
50				10,100 (21.5)	10,950 (38.5)	11,600 (47.5)	10,850 (53.5)	10,100 (58.5)	9,500 (62)
55					8,840 (31)	9,520 (42)	9,630 (49.5)	8,950 (54.5)	8,470 (58.5)
60					7,140 (20)	7,820 (36)	8,410 (45)	7,950 (51)	7,500 (55.5)
65						6,430 (29)	7,040 (40)	7,080 (47)	6,670 (52)
70							5,270 (19)	5,900 (34)	6,250 (42.5)
75								4,930 (27.5)	5,270 (38)
80								4,100 (18)	4,420 (32.5)
85									3,700 (26)
90									3,060 (17)
95									2,760 (25)
100									2,260 (16)

Minimum boom angle (deg.) for indicated length (no load)

Maximum boom length (ft.) at 0 deg. boom angle (no load)

Note: () Boom angles are in degrees.

*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

@Max. lifting capacity of 100,000 lbs. over rear only within defined arc of 6° either side of centerline.

A6-829-009962

**WEIGHT REDUCTIONS FOR
LOAD HANDLING DEVICES**

32 FT.-56 FT. TELE	
†Stowed -	876 lbs.
†Erected (retracted) -	6,368 lbs.
†Erected (extended) -	8,460 lbs.

32 FT. FIXED OFFSETTABLE	
†Stowed -	693 lbs.
†Erected	4,250 lbs.

†Reduction of main boom capacities.

HOOKBLOCKS:	
45 Ton.	1,095 lbs.
15 Ton.	380 lbs.
Auxiliary Boom Head	143 lbs.
10 Ton Headache Ball	560 lbs.
7 1/2 Ton Headache Ball	338 lbs.

NO LOAD STABILITY ON RUBBER

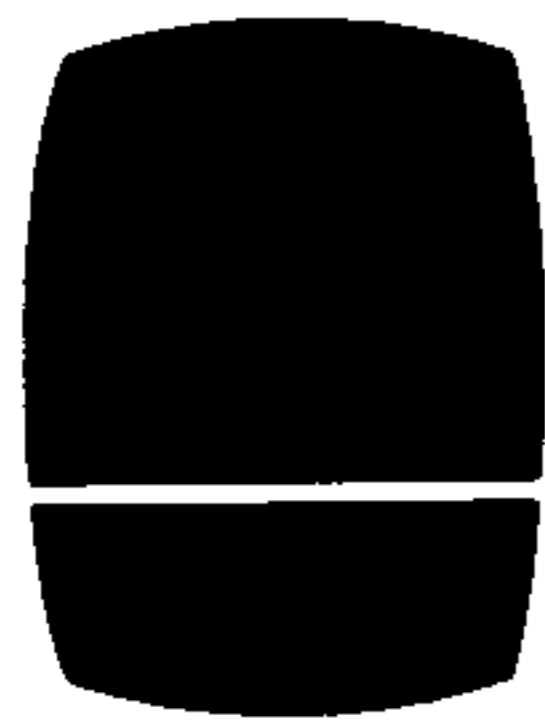
No Load Stability Data		Main Boom 110 ft.
Rear (No Load)	Min. boom angle (deg.) for indicated length	9
	Max. boom length (ft.) at 0 deg. boom angle	100
360 Deg. (No Load)	Min. boom angle (deg.) for indicated length	57
	Max. boom length (ft.) at 0 deg. boom angle	50

NOTES FOR LIFTING CAPACITIES

“WARNING: THIS CHART IS ONLY A GUIDE. The Notes below are for illustration only and should not be relied upon to operate the crane. The individual crane's load chart, operating instructions and other instruction plates must be read and understood prior to operating the crane.”

1. All rated loads have been tested to and meet minimum requirements of SAE J1063 OCT80 - Cantilevered Boom Crane Structures - Method of Test, and do not exceed 85% of the tipping load on outriggers (75% on rubber) as determined by SAE J765 OCT80 Crane Stability Test Code.
2. Capacities given do not include the weight of hookblocks, slings, auxiliary lifting equipment and load handling devices. Their weights MUST be added to the load to be lifted. When more than minimum required reeving is used, the additional rope weight shall be considered part of the load.
3. Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.
4. All capacities are for crane on firm, level surface. It may be necessary to have structural supports under the outrigger floats or tires to spread the load to a larger bearing surface.
5. When either boom length or radius or both are between values listed, the smallest load shown at either the next larger radius or boom length shall be used.
6. For outrigger operation, ALL outriggers shall be fully extended with tires raised free of ground before raising the boom or lifting loads.
7. Tires shall be inflated to the recommended pressure before lifting on rubber.
8. Defined Arc $\pm 6^\circ$ on either side of longitudinal centerline of machine.
9. With boom extension in working position and main boom length greater than 80 ft., boom angle must not be less than 35° , since loss of stability will occur causing a tipping condition.

Constant improvement and engineering progress makes it necessary that we reserve the right to make specification, equipment, and price changes without notice. Illustrations shown may include optional equipment and accessories and may not include all standard equipment.



GROVE
worldwide

Grove Worldwide - World Headquarters
1565 Buchanan Trail East
Shady Grove, Pennsylvania 17256
Phone: (717) 597-8121
Telex: 1842308 Fax: (717) 597-4062

Grove North America
P.O. Box 21, Shady Grove, Pennsylvania 17256
Western Hemisphere, Asia/Pacific
Phone: (717) 597-8121
Telex: 1842308 Fax: (717) 597-4062

Grove Europe, Crown Works
Sunderland SR4 6TT, England
Europe, Africa, Middle East, Near East
Phone: (091) 565-6281
Telex: 53484 CRANES G Fax: (091) 564-0442

RATED LIFTING CAPACITIES (POUNDS) ON RUBBER (PICK & CARRY - BOOM CENTERED OVER REAR) 16.00R21 AND 17.5R25 TIRES

Radius in Feet	Main Boom Length in Feet						
	35	40	50	*60	70	80	90
10	45,500 (66)	45,500 (69.5)					
12	39,400 (62.5)	39,400 (66.5)	39,400 (71.5)				
15	32,450 (56.5)	32,450 (61.5)	32,450 (67.5)				
20	24,550 (45)	24,550 (52.5)	24,550 (61)	24,550 (66.5)			
25	19,250 (29.5)	19,250 (42)	19,250 (54)	19,250 (61)	17,200 (65.5)	10,050 (69)	5,180 (71.5)
30		14,900 (28)	14,900 (46.5)	14,900 (55)	14,900 (61)	10,050 (65)	5,180 (68)
35			11,450 (37)	11,450 (49)	11,450 (56)	10,050 (61)	5,180 (64.5)
40			9,230 (24)	9,230 (41.5)	9,230 (50.5)	9,230 (57)	5,180 (61)
45				7,630 (33)	7,630 (45)	7,630 (52.5)	5,180 (57.5)
50				5,960 (21.5)	6,440 (38.5)	6,440 (47.5)	5,180 (53.5)
55					5,240 (30.5)	5,520 (42.5)	5,180 (49)
60					4,170 (20)	4,560 (36.5)	4,560 (44.5)
65						3,580 (29)	3,580 (39.5)
70						2,570 (19)	2,570 (34)
75							1,530 (27.5)

A6-829-009608A

ON RUBBER (STATIONARY - DEFINED ARC OVER REAR)

Radius in Feet	Main Boom Length in Feet						
	35	40	50	*60	70	80	90
10	40,000 (66)	40,000 (69.5)					
12	32,150 (62.5)	32,150 (66.5)					
15	24,900 (56.5)	24,900 (61.5)	24,900 (67.5)				
20	18,200 (45)	18,200 (52.5)	18,200 (61)	18,200 (66.5)	11,700 (70)	8,310 (73)	
25	14,350 (29.5)	14,350 (42)	14,350 (54)	14,350 (61)	11,700 (65.5)	8,310 (69)	
30		11,600 (28)	11,600 (46.5)	11,600 (55)	11,600 (61)	8,310 (65)	
35			9,220 (37)	9,220 (49)	9,220 (56)	8,310 (61)	
40			7,400 (24)	7,400 (41.5)	7,400 (50.5)	7,400 (57)	5,180 (61)
45				5,970 (33)	5,970 (45)	5,970 (52.5)	5,180 (57.5)
50				4,810 (21.5)	4,810 (38.5)	4,810 (47.5)	4,810 (53.5)
55					3,650 (30.5)	3,650 (42.5)	3,650 (49)
60					2,630 (20)	2,630 (36.5)	2,630 (44.5)
65						1,920 (29)	1,920 (39.5)
70						1,400 (19)	1,400 (34)
75							1,000 (27.5)

A6-829-009606A

ON RUBBER (STATIONARY - 360°)

Radius in Feet	Main Boom Length in Feet			
	35	40	50	*60
10	31,650 (66)	31,650 (69.5)		
12	21,350 (62.5)	21,350 (66.5)		
15	14,300 (56.5)	14,300 (61.5)	14,300 (67.5)	
20	9,220 (45)	9,220 (52.5)	9,220 (61)	9,220 (66.5)
25	6,760 (29.5)	6,760 (42)	6,760 (54)	6,760 (61)
30		4,260 (28)	4,260 (46.5)	4,260 (55)
35			2,150 (37)	2,150 (49)
40			1,060 (24)	1,060 (41.5)

Note: () Boom angles are in degrees.

*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

A6-829-009607A



GROVE
worldwide



AT700B Series

All-Terrain Hydraulic Crane Specifications

Superstructure specifications

Boom	35 ft. to 110 ft. (10.6m - 33.5m) four section trapezoidal full power boom. Telescoping is sequenced-synchronized with single lever control. Telescopic sections slide on replaceable Nylatron wear pads. Maximum Tip Height: 118 ft. (35.9m).
Telescopic Swingaway Extension	32 ft. to 44 ft. or 56 ft. (9.8m to 13.4m or 17.1m) telescopic lattice swingaway extension with integral offset mechanism, offsettable at 0°, 15° or 30°. Stows alongside base boom section when not in use. Maximum Tip Height - 173 ft. (52.7m).
Optional Fixed Swingaway Extension	32 ft. (9.8m) lattice swingaway boom extension with integral offset mechanism, offsettable at 0°, 15°, or 30°. Stows alongside base boom section when not in use. Maximum Tip Height - 149 ft. (45.4m).
Boom Nose	Four sheaves mounted on heavy duty tapered roller bearings with removable pin-type rope guards. *Optional removable auxiliary boom nose with removable pin type rope guard.
Boom Elevation	One double acting hydraulic cylinder with integral holding valve provides elevation from -3° to 78°.
Load Moment & Anti-Two Block System	Standard load moment and anti-two block system with audio-visual warning and control lever lockout to alert operator of impending two-block condition. Electronic display of boom angle, length, radius, tip height, relative load moment, maximum permissible load and load indication is provided.
Cab	Full vision, all steel fabricated with accoustical lining and tinted safety glass throughout. Deluxe seat incorporates armrest mounted hydraulic joystick controls. Dash panel incorporates gauges for all engine functions. Front steer indicator and rear steer lock indicator. Other standard features include: telescoping tilt steering wheel, sliding side and rear windows, electric windshield wash/wipe, circulating air fan, opening skylight with electric skylight wiper, fire extinguisher, seat belt, and ashtray and complete driving controls.
Swing	Ball bearing swing circle with 360° continuous rotation. Grove planetary glide-swing with foot applied multi-disc wet brake. Spring applied hydraulically released parking brake and plunger type, 2 position, mechanical house lock operated from cab. Maximum speed: 2.5 RPM.
Counterweight	Integral with superstructure.

HYDRAULIC SYSTEM

Pumps	6 section, combined capacity 193 G.P.M. (730 lpm) driven by carrier engine through P.T.O. Standard pump disconnect for travel.
Valves	Precision four way double acting pilot operated control valves, 3 individual valve banks permit simultaneous control of multiple crane functions.
Filter	Return line type, full flow with bypass protection and service indicator. Replaceable cartridge with micron filtration rating of 5/12/16.
Reservoir	218 gallon (825 L) with spin-on breather filter, external sight gauge, oil temperature gauge, clean out access, strap mounted to frame.
Oil Cooler	Remote mounted with thermostatically controlled electric motor driven fan.
Pressure Check Panel	System pressure test panel with quick release type fittings.

HOIST SPECIFICATIONS

Power up and down equal speed, planetary reduction with automatic spring applied multi-disc brake. Electronic hoist drum rotation indicator.

		Main and *Auxiliary Hoist Grove HO30D-16	
Make/Model		High Range	Low Range
Maximum single line speed	Bottom layer	470 FPM (143m/min)	235 FPM (72m/min)
	Intermediate layer	510 FPM (155m/min)	255 FPM (78m/min)
	Top layer	560 FPM (171m/min)	280 FPM (85m/min)
Maximum single line pull	Bottom layer	7,818 lbs. (3546 kg)	15,636 lbs. (7092 kg)
	Intermediate layer	6,832 lbs. (3099 kg)	13,664 lbs. (6198 kg)
	Top layer	5,986 lbs. (2715 kg)	11,972 lbs. (5430 kg)
Maximum permissible single line pull		12,920 lbs. (5860 kg)	
w/5:1 Strength Factor		3/4 in. (19mm) 18x19 class	
Maximum rope stowage		508 ft. (155m) 3/4 in. (19mm)	
		Note: 500 ft. (152.4m) length of wire rope supplied with basic standard unit.	

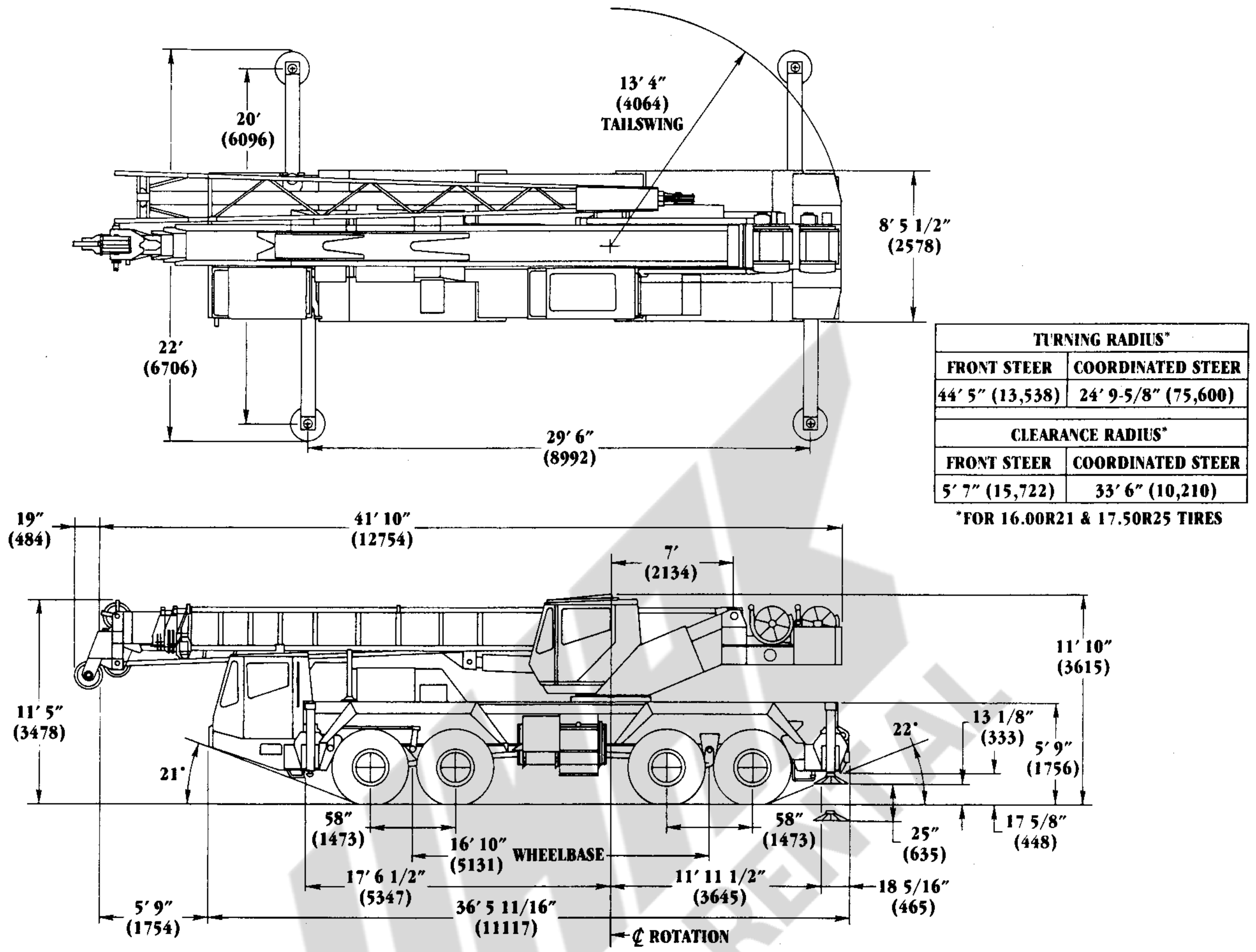
*Denotes optional equipment.

Carrier specifications

Frame	High strength alloy steel all welded parallel box section design with integral outrigger housings and front/rear lifting, towing and tie down lugs.	Optional Tires	17.5x25 radials.
Outrigger System	Hydraulic single stage double box telescopic beam and 'inverted' jack outriggers with integral holding valves. Quick release type outrigger floats, 24" (610mm) diameter.	Suspension	Hydrogas front and rear, hydraulic lockout and automatic leveling system operated from cab.
Outrigger Controls	Located in the superstructure cab on front dash panel and both sides of carrier requires two hand operation. Crane level indicator (sight bubble) adjacent.	Lights	Full lighting package including turn indicators, head, tail, brake and hazard warning lights.
Engine	Cummins LTA10-C325 six cylinder turbo charged and aftercooled diesel - 10 L (611 cu. in.), 325 bhp (242 kw) (Gross) @ 2,100 RPM. Maximum torque 975 ft. lbs. (1450.8 kg/m) @ 1,300 RPM.	Cab	One man design, all steel fabricated with acoustical lining and tinted safety glass throughout. Deluxe fabric covered fully adjustable seat. Complete driving controls and engine instrumentation including tilt telescope steering wheel, tachometer, speedometer, voltmeter, water temp. oil pressure, transmission temp., fuel level, dual air pressure gauges with A/V warning, engine high temp./low oil pressure A/V warning, suspension controls, and rear steering control. Other standard items include hot water heater/defroster, electric windshield wash/wipe, fire extinguisher, seat belt and door and window locks.
Fuel Tank Capacity	(1) 100 gallons (379 L)	Maximum Speed	55 MPH (90 kph)
Electrical System	Two 12 volt - maintenance free batteries, 1050 CCA each. 12 volt lighting/24 volt starting.	Maximum Gradeability	50% (Theoretical based on 80,000 lb. (36,000 kg) GVW).
Drive	8 x 8	Gross Vehicle Weight	Basic Standard Machine: G.V.W. 81,000 lbs. (36,740 kgs).
Steering	Fully independent power steering: Front: Mechanical with hydraulic power assist controlled by steering wheel. (dual circuit). Rear: Full hydraulic hand lever controlled provides infinite variations of 4 main steering modes - front only, rear only, crab and coordinated. Mechanically locked for highway travel.	Miscellaneous Standard Equipment	Full width steel fenders, dual rear view mirrors, electronic back-up alarm, light package, sling/tool box, pump disconnect, engine distress A/V warning, tire inflation kit, worklights, air cleaner restriction indicator.
Transmission	Powershift with 12 forward and 6 reverse speeds. Engine mounted torque converter with lockup for highway travel. Front axle disconnect for 8x4 travel.	Optional Equipment	* Auxiliary hoist * 360° rotating beacon * Cab spotlight * Engine block heater * Hookblocks * Spare wheel assembly and stowage rack * Tool kit * Pintle hook rear
Axles	Front: (2) Drive-steer with differential and planetary reduction hubs and differential locks. Rear: (2) Drive-steer with differential and planetary reduction hubs and differential locks.	*Denotes optional equipment.	
Brakes	Dual line air system operating on all wheels. Spring-applied, air released. Parking brake acting on rear axles. Air dryer. Jacobs engine brake.		
Tires	16.00R21-22PR on/off highway radials front and rear.		

Dimensions

AT700B Series



GROVE
worldwide

Grove Worldwide - World Headquarters
1565 Buchanan Trail East
Shady Grove, Pennsylvania 17256
Phone: (717) 597-8121 Telex: 1842308 Fax: (717) 597-4062

Grove North America
P.O. Box 21, Shady Grove, Pennsylvania 17256
Western Hemisphere, Asia/Pacific
Phone: (717) 597-8121 Telex: 1842308 Fax: (717) 597-4062

Grove Europe*
Sunderland, England SR4 6TT
Europe, Africa, Middle East, Near East
Phone: (091) 565-6281 Telex: 53484 CRANES G Fax: (091) 564-0442

* Grove Coles Limited, Registered in England, Number 1845128. Registered office, Crown Works, Pallion, Sunderland, Tyne & Wear, England SR4 6TT.

Constant improvement and engineering progress make it necessary that we reserve the right to make specification, equipment, and price changes without notice. Illustrations shown may include optional equipment and accessories and may not include all standard equipment.

Distributed by: