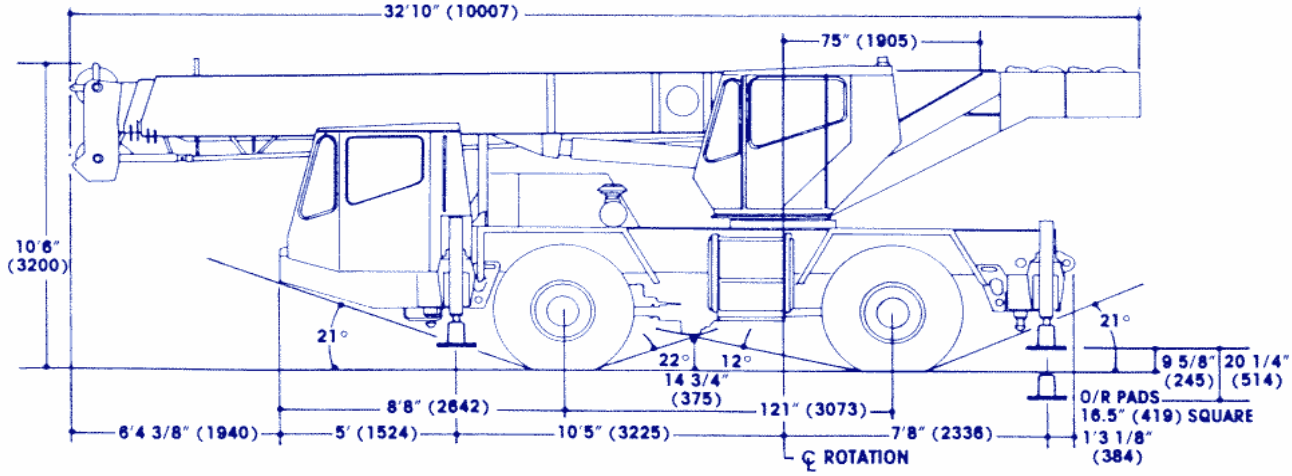
GWIL INDUSTRIES

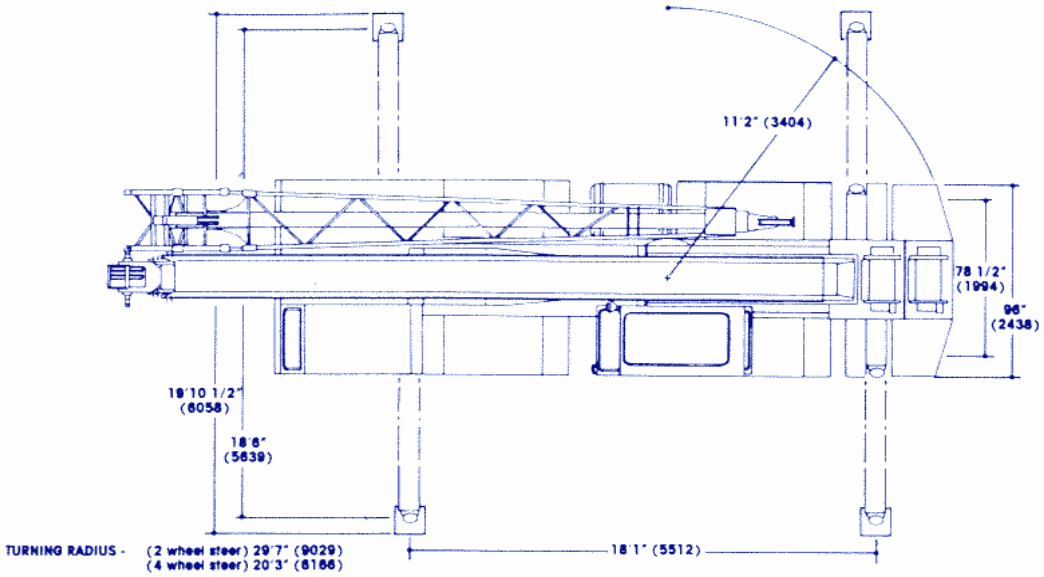
Crane Service Division

AT422

General Specifications

113 FEET BOOM AND JIB — 22 TON





TURNING RADIUS - (2 wheel steer) 29'7" (9029)
(4 wheel steer) 20'3" (6166)

GROVE

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AXLE WEIGHT DISTRIBUTION CHART

		BASIC STANDARD MACHINE
Gross Vehicle Weight & Axle Loads	Front	17,950 lbs. (8,140 kgs)
	Rear	19,830 lbs. (8,995 kgs)
	G.V.W.	37,780 lbs. (17,135 kgs)

HOIST SPECIFICATIONS

Maximum single line speed (Ft./Min./(M/Min.)	Bottom layer	210 FPM (65 m/min)
	Intermediate layer	245 FPM (75 m/min)
	Top layer	265 FPM (81 m/min)
Maximum single line pull (Lbs, Kgs)	Bottom layer	8,100 lbs. (3,675 kg)
	Intermediate layer	7,400 lbs. (3,355 kg)
	Top layer	6,350 lbs. (2,880 kg)
Maximum permissible line pull 5:1 F.O.S.		8,100 lbs. (3,675 kg)
Maximum Rope Stowage	360 ft. (110m) of 5/8" (16mm). Note: 360 ft. (110m) length of 5/8 in. (16mm) diameter DYFORM 18 HSLR wire rope supplied with basic standard unit.	

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Lifting Capacities

ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	Main Boom Length in Feet					25 ft. Ext. & 70 ft.
	27	40	50	60	70	95
8	44,000 (64)	43,650 (73)	42,450 (76.5)			
9	41,000 (61.5)	41,000 (71.5)	39,850 (75.5)			
10	40,000 (59)	38,000 (70)	37,550 (74)			
12	31,450 (54)	31,450 (66.5)	31,450 (71.5)	31,450 (75.5)		
15	24,300 (45)	24,300 (61.5)	24,300 (68)	24,300 (72)	22,000 (76.5)	
20	18,000 (23)	17,650 (52.5)	17,650 (61.5)	17,650 (67)	17,650 (72)	12,500 (78)
25		13,300 (42)	13,300 (54.5)	13,300 (61.5)	13,300 (67)	10,750 (74.5)
30		10,400 (28.5)	10,400 (46.5)	10,400 (55.5)	10,400 (62.5)	9,810 (71)
35			8,580 (37.5)	8,580 (49.5)	8,580 (57.5)	8,930 (67.5)
40			7,000 (25)	7,000 (42.5)	7,000 (52)	8,090 (64)
45				5,840 (34)	5,840 (46)	6,720 (60.5)
50				4,800 (23.5)	4,800 (39.5)	5,490 (57)
55					3,900 (31.5)	4,520 (52.5)
60					3,200 (21.5)	3,740 (48.5)
65						3,100 (44)
70						2,560 (39)
75						2,090 (33.5)
80						1,700 (27)
85						1,350 (18.5)
Minimum boom angle (deg.) for indicated length (no load)					0	0
Maximum boom length (ft.) at 0 deg. boom angle (no load)					70	95

Note: Boom angles are in degrees.

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CAPACITIES FOR 25 FT. - 43 FT. TELE. OFFSETTABLE EXTENSION (ON OUTRIGGERS - 360°)

Radius in Feet	25 ft. LENGTH						34 ft. LENGTH						43 ft. LENGTH					
	0° OFFSET		15° OFFSET		30° OFFSET		0° OFFSET		15° OFFSET		30° OFFSET		0° OFFSET		15° OFFSET		30° OFFSET	
	Boom Angle Ref. (Deg.)	Cap. lbs.	Boom Angle Ref. (Deg.)	Cap. lbs.	Boom Angle Ref. (Deg.)	Cap. lbs.	Boom Angle Ref. (Deg.)	Cap. lbs.	Boom Angle Ref. (Deg.)	Cap. lbs.	Boom Angle Ref. (Deg.)	Cap. lbs.	Boom Angle Ref. (Deg.)	Cap. lbs.	Boom Angle Ref. (Deg.)	Cap. lbs.	Boom Angle Ref. (Deg.)	Cap. lbs.
20	78.0	*12,500					78.0	*8,500					78.0	*5,000				
25	75.0	10,750	78.0	7,500			77.0	8,030					77.5	4,750				
30	71.5	9,810	74.5	6,870	78.0	*5,500	74.0	7,170	78.0	*5,500			75.0	4,360				
35	68.0	8,930	71.0	6,330	74.5	5,110	71.0	6,390	75.5	4,910	78.0	*3,600	72.0	4,020	78.0	3,000		
40	64.5	7,860	67.5	5,860	71.0	4,770	68.0	5,680	72.5	4,540	76.0	3,290	69.5	3,710	75.5	2,800	78.0	*2,300
45	61.0	6,220	64.0	5,450	67.5	4,490	65.0	5,040	69.0	4,180	72.5	2,930	66.5	3,420	72.5	2,650	76.5	2,210
50	57.0	4,960	60.0	4,960	63.5	4,260	61.5	4,590	66.0	3,840	69.5	2,650	64.0	3,170	70.0	2,510	73.5	2,160
55	53.0	3,970	56.0	3,970	59.5	3,970	58.5	4,200	62.5	3,510	66.0	2,430	61.0	2,940	67.0	2,400	70.5	2,100
60	49.0	3,170	52.0	3,170	55.5	3,170	55.0	3,520	59.0	3,200	62.0	2,250	58.0	2,730	64.0	2,300	67.0	2,030
65	44.0	2,510	47.0	2,510	50.5	2,510	51.0	2,910	55.5	2,900	58.5	2,100	54.5	2,540	60.5	2,210	63.5	1,970
70	39.5	1,960	42.5	1,960	45.5	1,960	47.5	2,390	51.5	2,390	54.0	1,970	51.5	2,360	57.5	2,130	60.0	1,890
75	33.5	1,480	36.5	1,480	40.0	1,480	43.0	1,960	47.0	1,960	49.5	1,850	48.0	2,140	54.0	2,060	56.5	1,820
80	27.0	1,080	30.0	1,080	32.5	1,080	38.5	1,580	42.5	1,580	44.5	1,580	44.0	2,010	50.0	2,000	52.0	1,730
85							33.0	1,250	37.0	1,250	39.0	1,250	40.0	1,670	46.0	1,670	48.0	1,640
90													35.5	1,370	41.5	1,370	42.5	1,370
95													30.5	1,100	36.5	1,100		

*This capacity is based upon maximum boom angle.

A6-829-008810

"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 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 ±6° on either side of longitudinal centerline of machine.
9. With tele boom extension in working position and main boom length greater than 70 ft., boom angle must not be less than 30°, since loss of stability will occur causing a tipping condition.

WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES

25 ft. FIXED EXTENSION	
†Stowed -	293 lbs.
†Erected -	1,563 lbs.

25 ft.-43 ft. TELE. BOOM EXTENSION	
†Stowed -	535 lbs.
†Erected (ret.) -	3,906 lbs.
†Erected (ext.) -	4,995 lbs.

†Reduction of main boom capacities.

HOOKBLOCKS:	
22 Ton, 3 Sheave	499 lbs.
15 Ton, 2 Sheave	462 lbs.
12 Ton, 1 Sheave	360 lbs.
5 Ton Headache Ball	172 lbs.
Auxiliary Boom Head	145 lbs.

GWIL INDUSTRIES

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AT422

ON RUBBER CAPACITIES

ON RUBBER CAPACITIES
75% TIPPING 16.00R20 TIRES
PICK & CARRY (BOOM CENTERED OVER REAR)

Radius in Feet	Main Boom Length in Feet				
	27	40	50	60	70
8	24,100 (64)	24,100 (73)			
9	22,200 (61.5)	22,200 (71.5)	21,800 (75.5)		
10	20,550 (59)	20,550 (70)	20,250 (74)		
12	17,700 (54)	17,700 (66.5)	17,700 (71.5)	12,550 (75.5)	
15	12,850 (45)	12,850 (61.5)	12,850 (68)	10,300 (72)	9,530 (76.5)
20	7,680 (23)	7,680 (52.5)	7,680 (61.5)	7,670 (67)	7,050 (72)
25		5,230 (42)	5,230 (54.5)	5,230 (61.5)	5,230 (67)
30		3,780 (28.5)	3,780 (46.5)	3,780 (55.5)	3,780 (62.5)
35			2,790 (37.5)	2,790 (49.5)	2,790 (57.5)
40			2,070 (25)	2,070 (42.5)	2,070 (52)
45				1,520 (34)	1,520 (46)
50				1,090 (23.5)	1,090 (39.5)

Note ( ) Boom angles are in degrees.

A6-829-008925

STATIONARY - DEFINED ARC OVER REAR

Radius in Feet	Main Boom Length in Feet				
	27	40	50	60	70
8	27,500 (64)	24,100 (73)			
9	24,400 (61.5)	21,300 (71.5)	19,400 (75.5)		
10	22,100 (59)	19,000 (70)	17,450 (74)		
12	18,800 (54)	15,500 (66.5)	14,400 (71.5)	13,400 (75.5)	
15	12,850 (45)	11,850 (61.5)	11,150 (68)	10,500 (72)	9,920 (76.5)
20	7,680 (23)	7,680 (52.5)	7,680 (61.5)	7,410 (67)	7,060 (72)
25		5,230 (42)	5,230 (54.5)	5,230 (61.5)	5,200 (67)
30		3,780 (28.5)	3,780 (46.5)	3,780 (55.5)	3,780 (62.5)
35			2,790 (37.5)	2,790 (49.5)	2,790 (57.5)
40			2,070 (25)	2,070 (42.5)	2,070 (52)
45				1,520 (34)	1,520 (46)
50				1,090 (23.5)	1,090 (39.5)

A6-829-008924A & -008923A

STATIONARY - 360°

Radius in Feet	Main Boom Length in Feet				
	27	40	50	60	70
8	22,550 (64)	22,550 (73)			
9	19,500 (61.5)	19,500 (71.5)	18,000 (75.5)		
10	17,100 (59)	17,100 (70)	16,300 (74)		
12	13,400 (54)	13,400 (66.5)	13,400 (71.5)	12,550 (75.5)	
15	8,930 (45)	8,930 (61.5)	8,930 (68)	8,930 (72)	7,620 (76.5)
20	5,030 (23)	5,030 (52.5)	5,030 (61.5)	5,030 (67)	5,030 (72)
25		3,230 (42)	3,230 (54.5)	3,230 (61.5)	3,230 (67)
30		2,180 (28.5)	2,180 (46.5)	2,180 (55.5)	2,180 (62.5)
35			1,460 (37.5)	1,460 (49.5)	1,460 (57.5)
40			940 (25)	940 (42.5)	940 (52)

NO LOAD STABILITY ON RUBBER

	No Load Stability Data	MainBoom 70 ft.
Rear	Min. boom angle (deg.) for indicated length	26
(No load)	Max. boom length (ft.) at 0 deg. boom angle	60
360 Deg.	Min. boom angle (deg.) for indicated length	44
(No load)	Max. boom length (ft.) at 0 deg. boom angle	50

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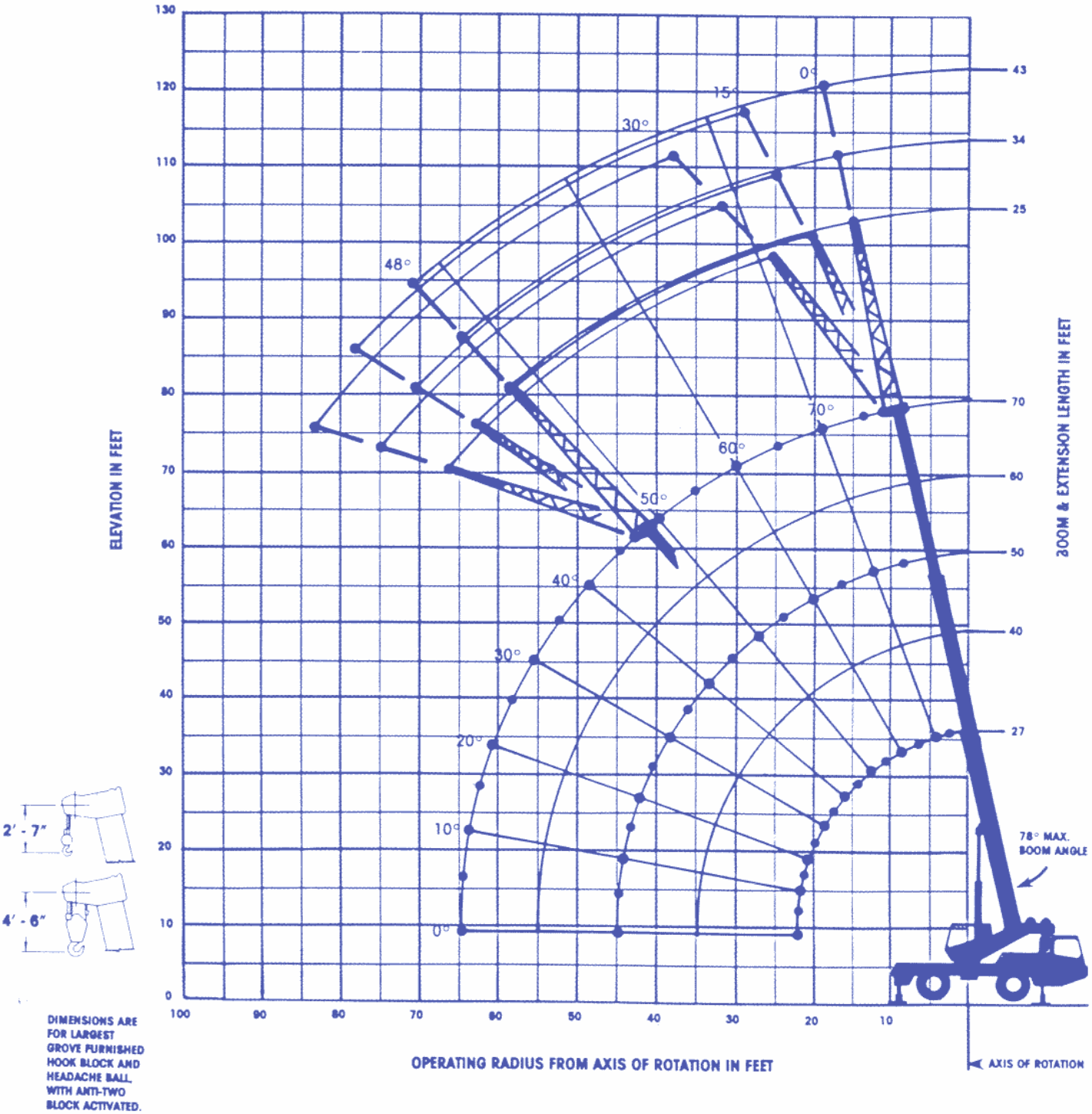
RANGE DIAGRAM



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