



# ALL TERRAIN CRANE 50 TONS

GROVE AT700B

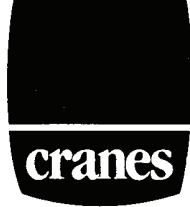
**BOOM LENGTHS:**  
35 TO 110 FT

**JIB LENGTHS:**  
32 TO 56 FT

**JIB OFFSETS:**  
0 - 15 - 30



# NOTES:

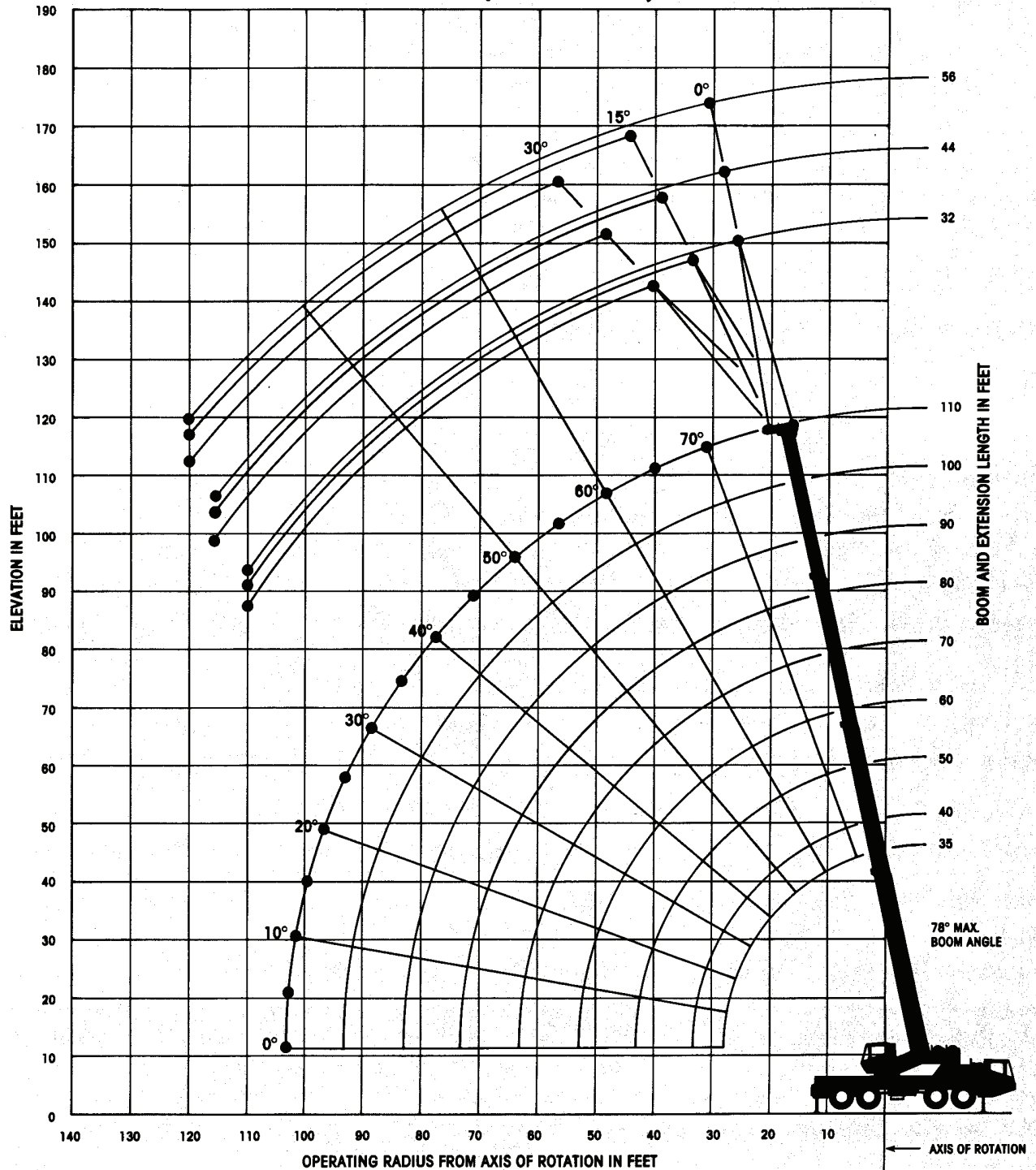


**GROVE**<sup>®</sup>  
worldwide

# AT700B

All-terrain hydraulic crane/85% Domestic

**RANGE DIAGRAM (UNLADEN BOOM)**



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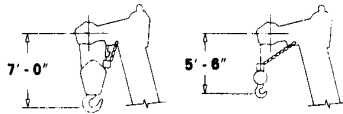
**32 FT. FIXED LENGTH BOOM EXTENSION  
ON OUTRIGGERS - 360°**

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)	6,700 (73.5)	5,690 (76)	6,490 (77.5)	5,060 (75.5)		5,250 (75.5)		
50	6,740 (69.5)	6,470 (71.5)	5,440 (73.5)	6,140 (72)	4,840 (76.5)	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)	4,740 (72)	3,740 (76)	
60	5,590 (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 (65)	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)	54,800 (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 (57)	15,050 (61.5)	14,150 (65.5)	13,300 (69.5)	12,000 (73.5)	
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)	5,940 (48.5)	
75							4,930 (27.5)	5,270 (38)	5,300 (45)	
80							4,100 (18)	4,420 (32.5)	4,700 (40.5)	
85								3,700 (26)	3,970 (36)	
90								3,060 (17)	3,330 (31)	
95									2,760 (25)	
100									2,260 (16)	
										0
										110

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

Maximum boom length (ft.) of 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.

**HOOBLOCKS:**

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



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# 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."**

- 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.
- 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.
- Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.
- 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.
- 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.
- For outrigger operation, ALL outriggers shall be fully extended with tires raised free of ground before raising the boom or lifting loads.
- Tires shall be inflated to the recommended pressure before lifting on rubber.
- Defined Arc  $\pm 6^\circ$  on either side of longitudinal centerline of machine.
- With boom extension in working position and main boom length greater than 80 ft., boom angle must not be less than  $35^\circ$ , 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.



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FORM NO. LC-A700B-110 E.P. DOMESTIC 290-7.5M-FB PRINTED IN U.S.A.

## 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 (64)	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)	5,240 (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.

A6-829-009607A

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



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