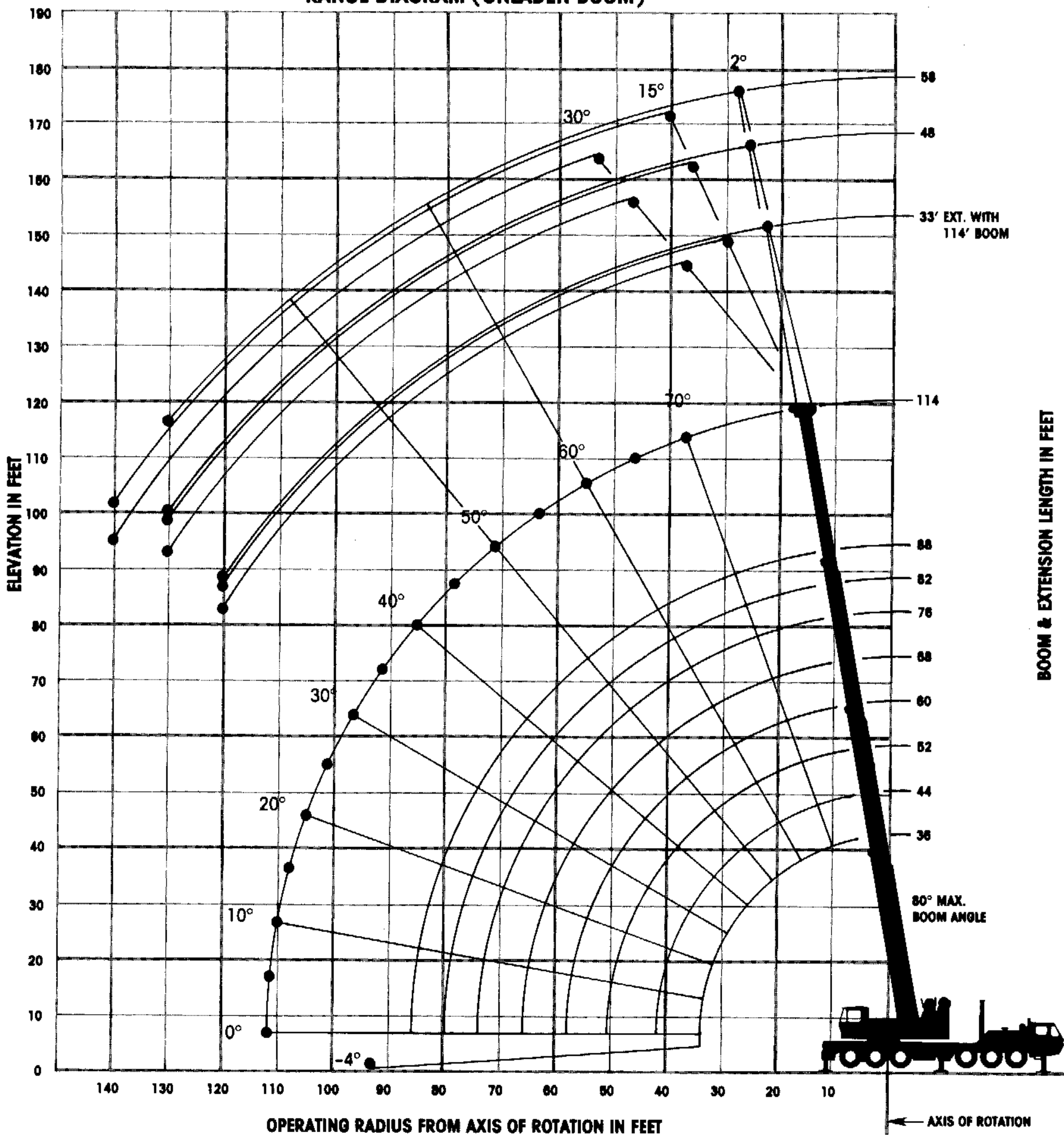




# TM890

85% Domestic/36 ft.-114 ft. Full Power Boom/12x6 Carrier

### RANGE DIAGRAM (UNLADEN BOOM)



**ON OUTRIGGERS FULLY EXTENDED - 360°  
FULL POWER BOOM**

Radius in Feet	Main Boom Length in Feet							
	36	49	62	75	88	101	114	
10	180,000 (69)							
12	160,000 (65.5)	103,000 (72.5)	83,000 (76)	78,000 (78.5)				
15	120,000 (60)	100,000 (68.5)	81,000 (73.5)	76,500 (76.5)	63,000 (79)			
20	93,000 (50.5)	90,000 (62)	79,000 (68.5)	68,000 (72.5)	59,400 (76)	54,000 (77.5)	50,000 (80)	
25	72,500 (39)	72,500 (55.5)	70,700 (63.5)	64,000 (68)	54,000 (72.5)	52,200 (74.5)	43,200 (78)	
30	58,000 (23.5)	58,000 (48)	58,000 (58)	50,000 (64)	44,100 (69)	43,200 (71.5)	36,000 (75)	
35		46,240 (39)	44,100 (52.5)	40,700 (59.5)	36,000 (65)	34,000 (68.5)	32,400 (72.5)	
40		36,530 (28.5)	36,530 (46)	35,000 (55)	30,000 (61.5)	29,000 (65.5)	27,000 (69.5)	
45		28,870 (11.5)	28,870 (39.5)	28,870 (50.5)	28,500 (57.5)	27,100 (62.5)	25,000 (67)	
50			23,380 (31.5)	23,380 (45)	23,380 (53.5)	23,380 (59)	21,000 (64)	
60				16,330 (33)	16,330 (44.5)	16,330 (52.5)	16,330 (58)	
70				11,980 (13)	11,980 (34.5)	11,980 (45)	11,980 (51.5)	
80					8,870 (19.5)	8,870 (36)	8,870 (44.5)	
90						6,640 (24)	6,640 (36)	
100							4,880 (26)	
110							3,660 (8)	
Minimum boom angle (deg.) at indicated boom length (no load)							0	
Maximum boom length (ft.) at 0 deg. boom angle (no load)							114	

Note: Boom angles are in degrees.

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**CAPACITIES FOR 33 FT. - 58 FT. TELE. EXTENSION (ON OUTRIGGERS - 360°)**

Radius in Feet	33 ft. EXTENSION						48 ft. EXTENSION						58 ft. EXTENSION					
	2° OFFSET		15° OFFSET		30° OFFSET		2° OFFSET		15° OFFSET		30° OFFSET		2° OFFSET		15° OFFSET		30° OFFSET	
	Boom Angle Ref.	Cap. lbs.	Boom Angle Ref.	Cap. lbs.	Boom Angle Ref.	Cap. lbs.	Boom Angle Ref.	Cap. lbs.	Boom Angle Ref.	Cap. lbs.	Boom Angle Ref.	Cap. lbs.	Boom Angle Ref.	Cap. lbs.	Boom Angle Ref.	Cap. lbs.	Boom Angle Ref.	Cap. lbs.
30	80.0	*29,600																
35	77.0	25,600	80.0	*19,200			80.0	*14,400					80.0	*9,200				
40	75.0	23,250	77.5	16,800	80.0	*13,800	77.0	13,700	80.0	*12,300			77.5	8,940				
45	73.0	21,150	75.5	15,150	78.0	12,900	75.0	13,200	78.5	11,750			76.0	8,770				
50	71.0	19,200	73.0	13,650	76.0	12,050	73.0	12,450	77.0	11,050	80.0	*8,600	74.0	8,590	80.0	*7,900		
60	66.5	15,650	69.0	11,150	71.5	10,100	69.5	10,600	73.0	9,590	76.5	8,200	70.5	8,170	75.0	7,590	80.0	*6,600
70	62.0	12,550	64.5	9,250	67.0	8,570	65.5	8,680	69.0	7,980	72.5	7,280	67.0	7,490	71.5	7,060	75.5	6,020
80	57.5	9,940	59.5	7,730	62.0	7,160	61.5	7,140	64.5	6,550	68.0	6,130	63.5	6,480	67.5	6,070	71.5	5,590
90	52.5	7,140	54.5	6,420	57.0	6,040	57.0	5,940	60.5	5,540	63.5	5,150	59.5	5,350	63.5	5,020	67.5	4,840
100	47.0	4,970	49.5	4,970	51.5	4,970	52.5	4,980	56.0	4,690	59.0	4,410	55.5	4,560	59.5	4,260	63.0	4,050
110	41.0	3,240	43.5	3,240	45.0	3,240	48.0	3,930	51.0	3,910	53.5	3,830	51.5	3,820	55.0	3,570	58.5	3,470
120	34.5	1,830	36.5	1,830	38.0	1,830	42.5	3,090	45.5	2,970	48.0	3,080	47.0	2,940	50.5	3,010	53.5	2,920
130							37.0	1,960	39.5	1,960	41.5	1,960	42.0	1,860	45.0	2,300	48.0	2,360
140															39.5	1,300	42.0	1,520

\*This capacity is based upon the maximum boom angle.

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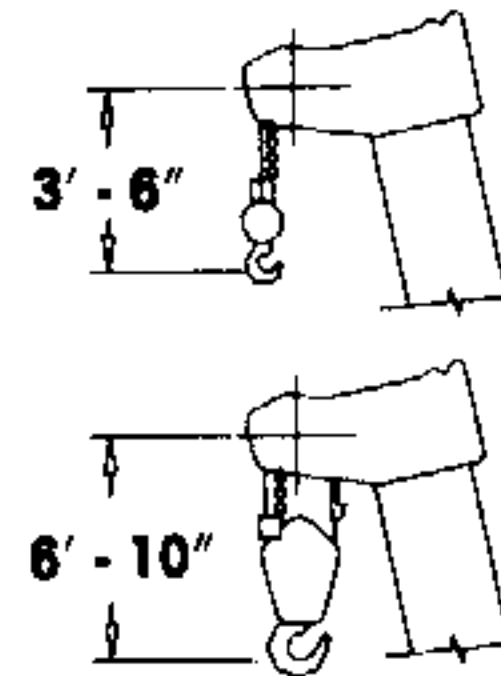
# NOTES FOR LIFTING CAPACITIES

## 33 FT. FIXED LENGTH EXTENSION (ON OUTRIGGERS - 360°)

Radius in Feet	2° OFFSET		15° OFFSET		30° OFFSET	
	Boom Angle (deg.)	Cap. lbs.	Boom Angle (deg.)	Cap. lbs.	Boom Angle (deg.)	Cap. lbs.
30	80	*29,600				
35	77	26,100	80	*19,700		
40	75	23,750	77.5	17,300	80	*14,300
45	73	21,650	75.5	15,650	78	13,400
50	71	19,700	73	14,150	76	12,550
60	66.5	16,150	69	11,650	71.5	10,600
70	62	<b>13,050</b>	64.5	9,790	67	9,110
80	57.5	10,700	59.5	8,270	62	7,700
90	52.5	7,920	54.5	6,960	57	6,580
100	47	5,750	49.5	<b>5,410</b>	51.5	<b>5,745</b>
110	41	4,020	43.5	4,020	45	4,020
120	34.5	2,610	36.5	2,610	38	2,610

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- 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% of the tipping load on rubber) as determined by SAE J765 OCT80 Crane Stability Test Code.
- This chart is intended as a guide only. The individual crane's load chart operating instructions and other instruction plates give details of the conditions under which the crane may be operated safely. ALL OF THESE INSTRUCTIONS MUST BE READ AND UNDERSTOOD PRIOR TO OPERATING THE CRANE.
- 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.
- Unless otherwise stated, capacities are with powered boom sections equally extended.
- When a load indicator is fitted certain capacities may be modified to compensate for indicator characteristics.



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

### WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES

33 FT. FIXED EXTENSION	
†Stowed -	630 lbs.
†Erected -	6,105 lbs.
33-58 FT. TELE. BOOM EXTENSION	
†Stowed -	868 lbs.
†Erected (ret.) -	9,095 lbs.
†Erected (ext.) -	12,518 lbs.

†Reduction of main boom capacities.

HOOKBLOCKS:	
90 Ton, 6 Sheave	2,030 lbs.
15 Ton, 1 Sheave	650 lbs.
Auxiliary Boom Head	230 lbs.
5 Ton Headache Ball	150 lbs.
7 1/2 Ton Headache Ball	300 lbs.
10 Ton Headache Ball	500 lbs.

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 MANUFACTURING COMPANY**

Shady Grove, Pennsylvania 17256-0021

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