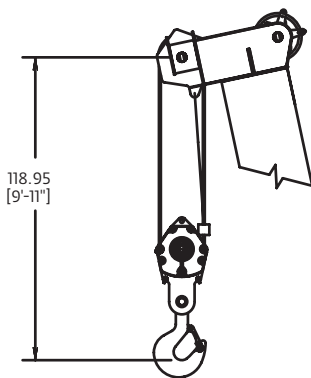
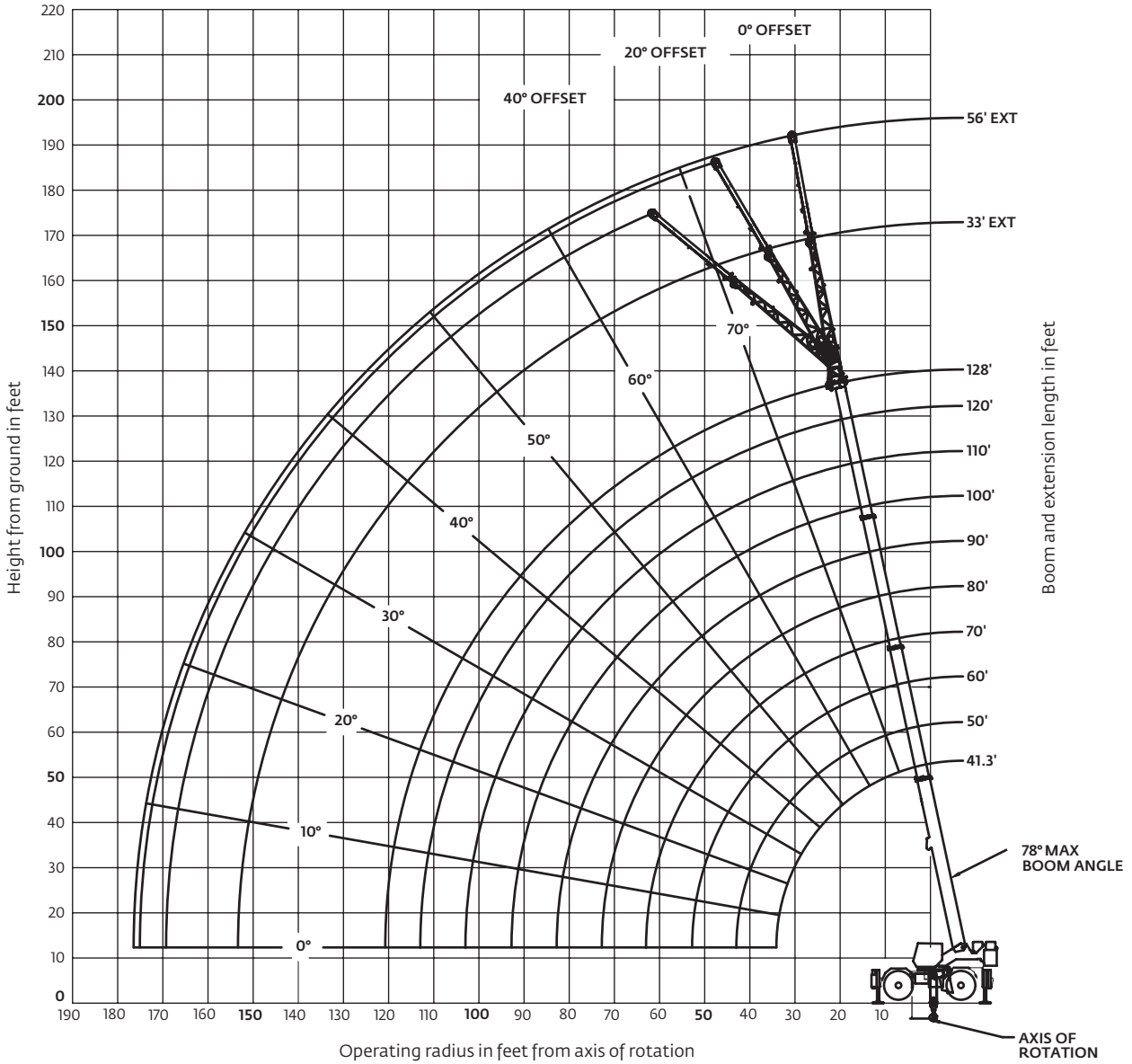




LIFTING CHARTS - Rough Terrain Cranes

GROVE MODEL RT880E - 80 TON CAPACITY

Working range diagram with bi-fold extension



Dimensions are for largest Grove furnished hookblock and overhaul ball, with anti-two block activated.

STERLING CRANE



LIFTING CHARTS - Rough Terrain Cranes

GROVE MODEL RT880E - 80 TON CAPACITY

41.3 ft - 128 ft
 18,000 lb
 100%
24 ft spread
 360°

RT880E load chart

Feet	Main boom length in feet										
	41.3	50	60	**70	80	90	100	110	120	128	
10	++160,000 (71)	124,000 (74.5)	105,500 (77.5)								
12	+150,000 (67.5)	124,000 (72)	105,500 (75.5)	59,500 (78)							
15	130,000 (63)	124,000 (68.5)	104,000 (72.5)	59,500 (75.5)	42,100 (78)	*42,000 (78)					
20	100,000 (54.5)	99,850 (62)	85,900 (67.5)	59,500 (71)	42,100 (74)	42,000 (76)	*39,650 (78)	*31,950 (78)			
25	80,550 (44.5)	80,250 (55)	72,550 (62)	57,050 (66.5)	42,100 (70)	42,000 (73)	39,650 (75)	31,950 (77)	*25,750 (78)	*22,000 (78)	
30	59,050 (31.5)	58,150 (47)	57,850 (56)	49,300 (62)	42,100 (66)	39,050 (69.5)	36,150 (72)	31,950 (74)	25,750 (76)	22,000 (77)	
35		43,250 (37.5)	43,000 (49.5)	42,600 (57)	38,150 (62)	34,100 (66)	31,350 (68.5)	29,300 (71.5)	25,750 (73.5)	22,000 (74.5)	
40		33,600 (24.5)	33,400 (42.5)	32,950 (52)	33,750 (58)	30,050 (62)	27,500 (65.5)	25,650 (68.5)	23,900 (71)	22,000 (72.5)	
45			26,600 (34)	26,200 (46)	27,400 (53)	26,750 (58.5)	24,400 (62)	22,700 (65.5)	21,450 (68)	20,650 (70)	
50	See Note 16		21,600 (22)	21,150 (39.5)	22,450 (48.5)	23,250 (54.5)	21,850 (59)	20,250 (62.5)	19,100 (65.5)	18,350 (67.5)	
55				17,250 (31.5)	18,650 (43)	19,400 (50)	19,700 (55)	18,200 (59.5)	17,100 (63)	16,400 (65)	
60				14,200 (21)	15,600 (37)	16,400 (45.5)	17,050 (51.5)	16,450 (56)	15,450 (60)	14,750 (62.5)	
65					13,100 (29.5)	13,850 (40.5)	14,550 (47.5)	14,950 (53)	14,000 (57)	13,350 (59.5)	
70					11,050 (19)	11,800 (34.5)	12,450 (43)	12,900 (49.5)	12,700 (54)	12,150 (57)	
75						10,000 (28)	10,700 (38.5)	11,200 (45.5)	11,600 (51)	11,050 (54)	
80						8540 (18)	9170 (33)	9670 (41.5)	10,150 (47.5)	10,100 (51)	
85							7860 (26.5)	8360 (37)	8850 (44)	9180 (48)	
90							6710 (17.5)	7210 (32)	7700 (40)	8050 (44.5)	
95								6200 (25.5)	6700 (35.5)	7050 (41)	
100								5310 (17)	5800 (30.5)	6160 (37)	
105									5010 (25)	5360 (32.5)	
110									4290 (16.5)	4640 (27.5)	
115										4000 (21.5)	
120										3410 (10.5)	

Minimum boom angle (°) for indicated length (no load) 9

Maximum boom length (ft) at 0° boom angle (no load) 120

#LMI operating code. Refer to LMI manual for instructions.

*This capacity is based upon maximum obtainable boom angle.

Note: () Boom angles are in degrees.

+9 parts line required to lift this capacity (using aux. boom nose). Refer to Operator's & Safety Handbook for reeving diagram.

++ 10 parts line required to lift this capacity (using aux. boom nose). Refer to Operator's & Safety Handbook for reeving diagram.

Lifting capacities at zero degree boom angle

Boom angle	Main boom length in feet									
	41.3	50	60	**70	80	90	100	110	120	128
0°	20,750 (34.1)	15,150 (42.8)	10,500 (52.8)	6700 (63)	5100 (72.8)	3900 (82.8)	2900 (92.8)	2000 (102.8)	1300 (112.8)	

Note: () Reference radii in feet.

80001982

**This boom length is with inner-mid fully extended and outer-mid & fly fully retracted.

NOTES:

- All capacities above the bold line are based on structural strength of boom extension and do not exceed 85% of tipping loads, in accordance with SAE J-765.
- The 33 ft extension length may be used with single or double part line lifting service. The 56 ft extension length may be used for single line lifting service only.
- For main boom lengths less than 128 ft with the boom extension erected, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is set up. For boom angles not shown, use the rating of the next lower boom angle.
- WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
- Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
- Capacities listed are with outriggers properly extended and vertical jacks set only.
- When lifting over the main boom nose with 33 ft or 56 ft extension erected, the outriggers must be fully extended or 50% extended (17 ft 4 in spread).



LIFTING CHARTS - Rough Terrain Cranes

GROVE MODEL RT880E - 80 TON CAPACITY

RT880E load chart

		Pounds					
		33 ft LENGTH			56 ft LENGTH		
Feet	0°	20°	40°	0°	20°	40°	
	OFFSET #0021	OFFSET #0022	OFFSET #0023	OFFSET #0041	OFFSET #0042	OFFSET #0043	
35	11,900 (78)						
40	11,900 (77)			6060 (78)			
45	11,900 (75.5)	*11,900 (78)		6060 (77.5)			
50	11,900 (73.5)	10,600 (76.5)	*9790 (78)	6060 (76)			
55	11,900 (71.5)	9770 (74.5)	8470 (77)	6060 (74.5)			
60	11,000 (69.5)	9020 (72.5)	7920 (75)	6060 (72.5)	*6060 (78)		
65	10,000 (67.5)	8360 (70.5)	7430 (73)	6060 (71)	5900 (76.5)		
70	9190 (65.5)	7780 (68.5)	6980 (71)	6060 (69.5)	5730 (75)	*5060 (78)	
75	8460 (63.5)	7260 (66.5)	6580 (69)	6060 (67.5)	5330 (73)	4640 (77)	
80	7820 (61.5)	6790 (64.5)	6210 (66.5)	6040 (66)	4980 (71.5)	4370 (75.5)	
85	7250 (59.5)	6370 (62)	5870 (64.5)	5570 (64)	4650 (69.5)	4120 (73.5)	
90	6740 (57)	5990 (60)	5560 (62)	5150 (62.5)	4360 (67.5)	3890 (71.5)	
95	6290 (55)	5640 (57.5)	5280 (60)	4780 (60.5)	4090 (66)	3680 (69.5)	
100	5880 (52.5)	5320 (55.5)	5020 (57.5)	4440 (58.5)	3840 (64)	3480 (67.5)	
105	5510 (50)	5030 (53)	4770 (55)	4130 (56.5)	3610 (62)	3300 (65.5)	
110	5170 (47.5)	4760 (50.5)	4550 (52)	3850 (54.5)	3400 (60)	3130 (63.5)	
115	4830 (45)	4510 (47.5)	4340 (49.5)	3590 (52.5)	3200 (58)	2970 (61)	
120	4230 (42)	4280 (45)	4150 (46.5)	3360 (50.5)	3020 (55.5)	2820 (59)	
125	3690 (39)	3960 (41.5)		3140 (48)	2840 (53.5)	2680 (56.5)	
130	3200 (36)	3430 (38.5)		2940 (46)	2690 (51)	2540 (54)	
135	2740 (32)	2930 (35)		2760 (43.5)	2540 (48.5)	2420 (51.5)	
140	2320 (28)	2480 (30.5)		2590 (41)	2400 (46)	2300 (48.5)	
145	1940 (23)			2430 (38.5)	2270 (43.5)		
150	1580 (16.5)			2070 (35.5)	2140 (40.5)		
155				1730 (32.5)	2030 (37)		
160				1420 (29)	1710 (33.5)		
165				1120 (24.5)			
Minimum boom angle (°) for indicated length (no load)	15	28	44	23	31	46	
Maximum boom length (ft) at 0° boom angle (no load)		110			110		

NOTES:

1. All capacities above the bold line are based on structural strength of boom extension and do not exceed 85% of tipping loads, in accordance with SAE J-765.
2. The 33 ft extension length may be used with single or double part line lifting service. The 56 ft extension length may be used for single line lifting service only.
3. For main boom lengths less than 128 ft with the boom extension erected, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is set up. For boom angles not shown, use the rating of the next lower boom angle.
4. **WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
5. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
6. Capacities listed are with outriggers properly extended and vertical jacks set only.
7. When lifting over the main boom nose with 33 ft or 56 ft extension erected, the outriggers must be fully extended or 50% extended (17 ft 4 in spread).

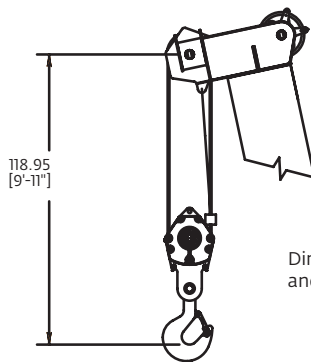
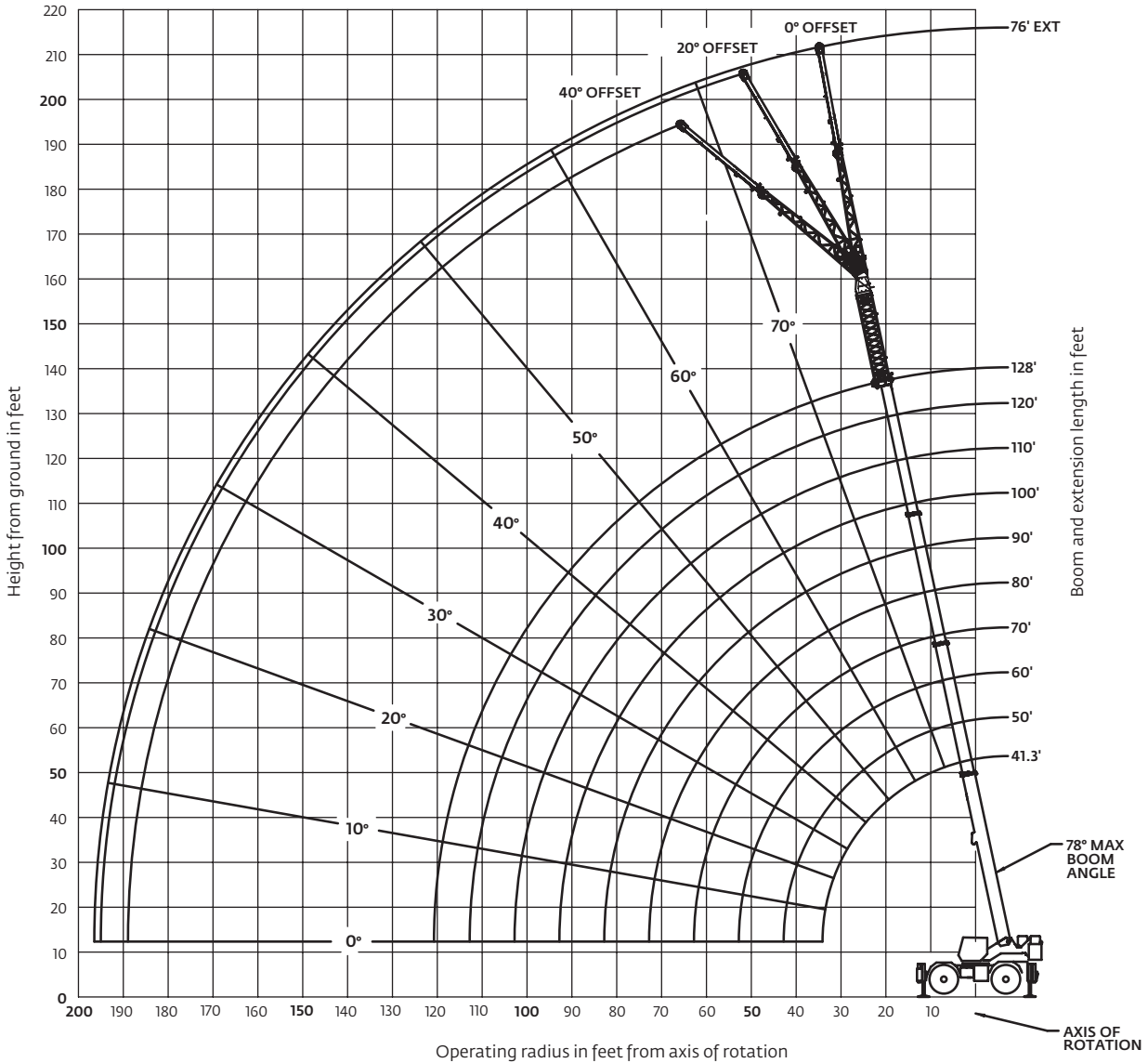
NOTE: () Boom angles are in degrees. A6-829-103653
 #LMI operating code. Refer to LMI manual for operating instructions.
 *This capacity is based upon maximum boom angle.



LIFTING CHARTS - Rough Terrain Cranes

GROVE MODEL RT880E - 80 TON CAPACITY

Working range diagram with bi-fold extension and one insert



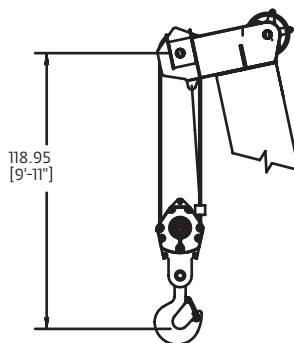
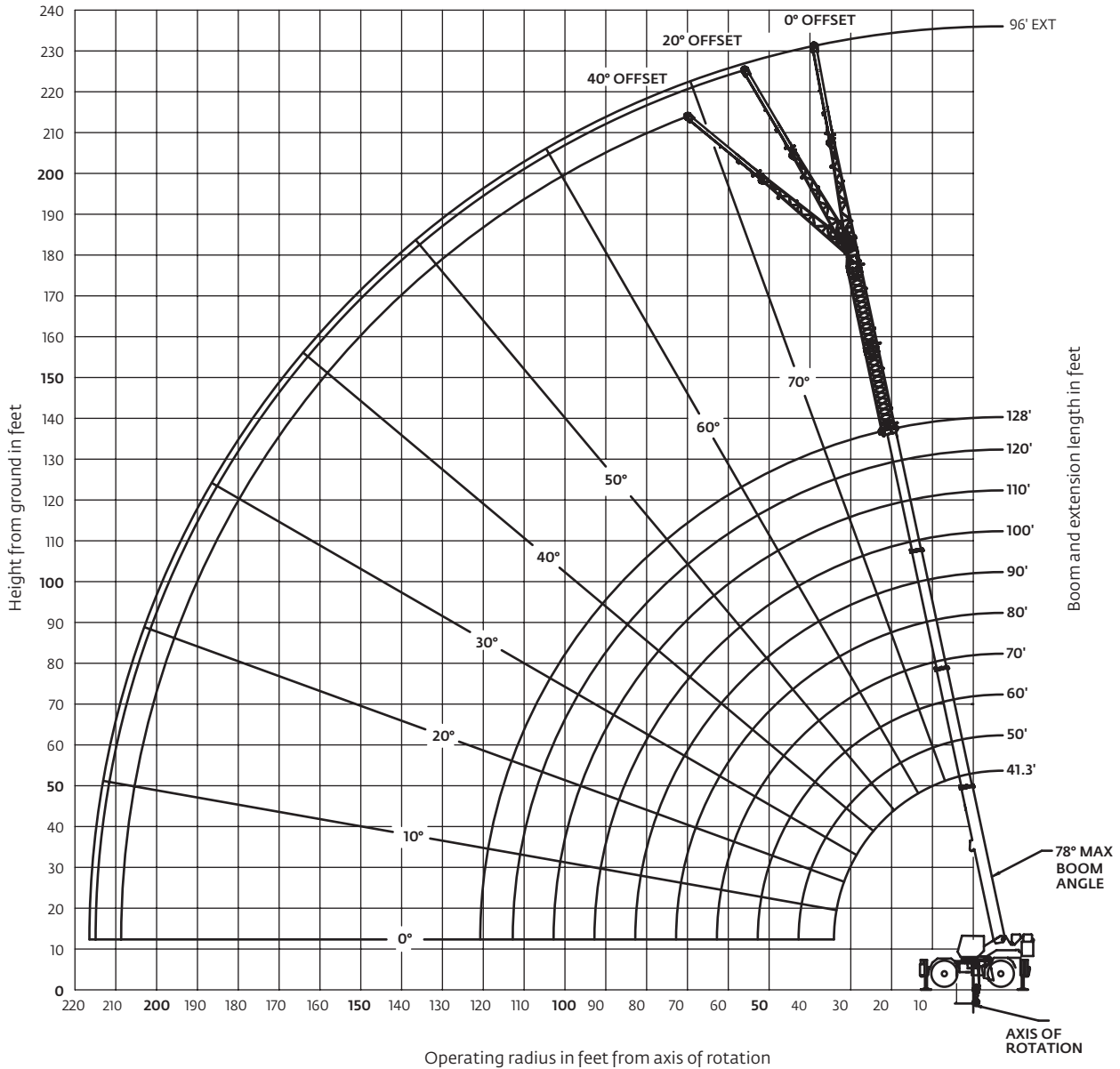
Dimensions are for largest Grove furnished hookblock and overhaul ball, with anti-two block activated.



LIFTING CHARTS - Rough Terrain Cranes

GROVE MODEL RT880E - 80 TON CAPACITY

Working range diagram with bi-fold extension and two inserts



Dimensions are for largest Grove furnished hookblock and overhaul ball, with anti-two block activated.



LIFTING CHARTS - Rough Terrain Cranes

GROVE MODEL RT880E - 80 TON CAPACITY

RT880E load chart



Feet	76 ft (56 ft LENGTH + 1 INSERT)			96 ft (56 ft LENGTH + 2 INSERTS)		
	0°	20°	40°	0°	20°	40°
	OFFSET #0084	OFFSET #0085	OFFSET #0086	OFFSET #0084	OFFSET #0085	OFFSET #0086
50	4850 (78)					
55	4850 (77.5)			3520 (78)		
60	4850 (76)			3520 (77.5)		
65	4850 (74.5)	*5290 (78)		3520 (76.5)		
70	4850 (73)	4860 (77.5)		3520 (75)		
75	4850 (71.5)	4470 (76)		3520 (73.5)	3740 (78)	
80	4730 (70)	4110 (74.5)	*4050 (78)	3520 (72.5)	3420 (76.5)	
85	4310 (68.5)	3790 (73)	3500 (76.5)	3300 (71)	3100 (75)	*3250 (78)
90	3940 (67)	3500 (71)	3260 (75)	2970 (69.5)	2820 (73.5)	2720 (77)
95	3610 (65.5)	3240 (69.5)	3030 (73)	2660 (68)	2560 (72)	2490 (75.5)
100	3310 (64)	3000 (68)	2830 (71.5)	2390 (66.5)	2320 (71)	2270 (74)
105	3040 (62)	2770 (66)	2630 (69.5)	2140 (65)	2100 (69.5)	2070 (72)
110	2790 (60.5)	2570 (64.5)	2450 (68)	1920 (63.5)	1900 (68)	1890 (70.5)
115	2560 (58.5)	2370 (62.5)	2280 (66)	1710 (62)	1710 (66.5)	1710 (69)
120	2350 (57)	2200 (61)	2120 (64)	1520 (60.5)	1540 (64.5)	1550 (67.5)
125	2160 (55)	2030 (59)	1970 (62)	1350 (59)	1380 (63)	1390 (66)
130	1990 (53)	1880 (57)	1830 (60)	1190 (57.5)	1230 (61.5)	1250 (64)
135	1820 (51.5)	1730 (55)	1700 (58)	1040 (56)	1080 (60)	1110 (62.5)
140	1670 (49.5)	1590 (53)	1570 (56)			
145	1530 (47)	1470 (51)	1450 (53.5)			
150	1400 (45)	1340 (49)	1340 (51.5)			
155	1270 (43)	1230 (46.5)	1230 (48.5)			
160	1160 (40.5)	1120 (44)	1130 (46)			
165	1050 (38)	1020 (41.5)				
Minimum boom angle (°) for indicated length (no load)	36	40	44	54	58	60

Maximum boom length (ft) at 0° boom angle (no load)

70

60

NOTES:

- All capacities above the bold line are based on structural strength of boom extension and do not exceed 85% of tipping loads, in accordance with SAE J-765.
- The 56 ft boom extension length may be used for single line lifting service only.
- For main boom lengths less than 128 ft with the boom extension erected, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is set up. For boom angles not shown, use rating of the next lower boom angle.
- WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
- Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
- When lifting over the main boom nose with 56 ft extension erected and inserts, the outriggers must be fully extended and vertical jacks set.

NOTE: () Boom angles are in degrees. A6-829-103655
 #LMI operating code. Refer to LMI manual for operating instructions.
 *This capacity is based upon maximum boom angle.
 RT875E - S/N 223983



LIFTING CHARTS - Rough Terrain Cranes

GROVE MODEL RT880E - 80 TON CAPACITY

RT880E load charts

41.3 ft - 90 ft
 18,000 lb
 Stationary
 360°

Pounds						
#9005						
Feet	Main boom length in feet					
	41.3	50	60	70	80	90
12	49,200 (67.5)	40,750 (72)				
15	39,150 (63)	35,700 (68.5)				
20	24,200 (54.5)	24,350 (62)	22,800 (67.5)	22,000 (71)		
25	16,200 (44.5)	16,200 (55)	15,600 (62)	15,950 (66.5)	15,850 (70)	
30	11,250 (31.5)	11,250 (47)	10,950 (56)	10,650 (62)	11,600 (66)	12,150 (69.5)
35		7900 (37.5)	7690 (49.5)	7270 (57)	8420 (62)	8820 (66)
40		5490 (24.5)	5280 (42.5)	4880 (52)	6020 (58)	6330 (62)
45			3430 (34)	3110 (46)	4130 (53)	4480 (58.5)
50			1350 (22)	1740 (39.5)	2610 (48.5)	3040 (54.5)
55					1360 (43)	1070 (50)
Minimum boom angle (°) for indicated length (no load)			21	38.5	42	49
Maximum boom length (ft) at 0° boom angle (no load)					50	

#LMI operating code. Refer to LMI manual for instructions.
 Note: () Boom angles are in degrees.
 *This boom length is with inner-mid fully extended and outer-mid and fly fully retracted.

Lifting capacities at zero degree boom angle		
Boom angle	Main boom length in feet	
	41.3	50
0°	8340 (34.1)	4400 (42.8)

Note: () Reference radii in feet. A6-829-0103649A

41.3 ft - 90 ft
 18,000 lb
 Pick & carry Up to 2.5 mph
 Boom centered over front

Pounds						
#9006						
Feet	Main boom length in feet					
	41.3	50	60	70	80	90
12	59,450 (67.5)	49,400 (72)				
15	49,650 (63)	49,400 (68.5)				
20	38,100 (54.5)	37,800 (62)	36,850 (67.5)	29,750 (71)		
25	30,000 (44.5)	29,700 (55)	29,200 (62)	29,700 (66.5)		
30	24,100 (31.5)	23,750 (47)	23,500 (56)	23,850 (62)	24,450 (66)	
35		18,000 (37.5)	17,900 (49.5)	18,150 (57)	19,000 (62)	19,900 (66)
40		13,650 (24.5)	13,700 (42.5)	13,750 (52)	14,700 (58)	15,500 (62)
45			9400 (34)	9290 (46)	11,500 (53)	12,300 (58.5)
50			7420 (22)	7200 (39.5)	8220 (48.5)	8960 (54.5)
55				5450 (31.5)	6510 (43)	7220 (50)
60				3970 (21)	5060 (37)	5740 (45.5)
65					3810 (29.5)	4460 (40.5)
70					2720 (19)	3350 (34.5)
75						2380 (28)
80						1520 (18)
Minimum boom angle (°) for indicated length (no load)						0
Maximum boom length (ft) at 0° boom angle (no load)						90

#LMI operating code. Refer to LMI manual for instructions.
 Note: () Boom angles are in degrees.

Lifting capacities at zero degree boom angle						
Boom angle	Main boom length in feet					
	41.3	50	60	70	80	90
0°	19,400 (34.1)	10,250 (42.8)	6460 (52.8)	3170 (63)	2170 (72.8)	1080 (82.8)

Note: () Reference radii in feet. A6-829-0103650
 *This boom length is with inner-mid fully extended and outer-mid and fly fully retracted.

NOTES:

- Capacities are in pounds and do not exceed 75% of tipping loads as determined by test in accordance with SAE J765.
- Capacities are applicable to machines equipped with 29.6 x 25 (34 ply) General tires at 76 psi cold inflation pressure.
- Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.
- Capacities are applicable only with machine on firm level surface.
- On rubber lifting with boom extensions not permitted.
- For pick and carry operation, boom must be centered over front of machine, mechanical swing lock engaged and load restrained from swinging. When handling loads in the structural range with capacities close to maximum ratings, travel should be reduced to creep speeds.
- Axle lockouts must be functioning when lifting on rubber.
- All lifting depends on proper tire inflation, capacity and condition. Capacities must be reduced for lower tire inflation pressures. See lifting capacity chart for tire used. Damaged tires are hazardous to safe operation of crane.
- Creep - Not over 200 ft of movement in any 30 minute period and not exceeding 1 mph.



LIFTING CHARTS - Rough Terrain Cranes

GROVE MODEL RT880E - 80 TON CAPACITY

Load handling

Weight reductions for load handling devices

33 ft - 56 ft FOLDING BOOM EXTENSION

*33 ft Extension (Erected) -	3700 lb
*56 ft Extension (Erected) -	7830 lb
*76 ft (1 insert Erected) -	10,350 lb
*96 ft (2 inserts Erected) -	13,300 lb

*Reduction of main boom capacities
(no deduct required for stowed boom extension)

When lifting over swingaway and/or jib combinations, deduct total weight of all load handling devices reeved over main boom nose directly from swingaway or jib capacity.

AUXILIARY BOOM NOSE	136 lb
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HOOK BLOCK AND OVERHAUL BALL:

80 USt, 5 Sheave	1319 lb +
40 USt, 3 Sheave	1200 lb +
10 USt, Overhaul Ball	568 lb +

+ Refer to rating plate for actual weight.

NOTE: All load handling devices and boom attachments are considered part of the load and suitable allowances MUST BE MADE for their combined weights. Weights are for Grove furnished equipment.

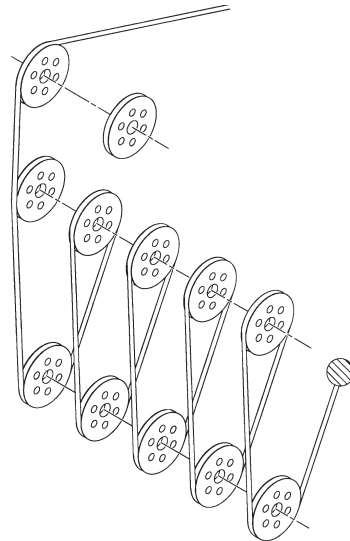
Line pulls and reeving information

Hoists	Cable specs	Permissible line pulls	Nominal cable length
Main	19 mm (3/4 IN) 6x37 Class, EIPS, IWRC Special Flexible	16,800 lb	600 ft
	Min. Breaking Str. 58,800 lb		
Main & Aux.	19 mm (3/4) Flex-X 35 Rotation Resistant (non-rotating)	16,800 lb	607 ft
	Min. Breaking Strength 85,800 lb.		

The approximate weight of 3/4 in wire rope is 1.5 lb/ft

Boom section vs. section extension percentages

Boom sections:	Main boom length in feet										
	41.3	50	60	70	80	90	100	110	120	128	
	Percent extension										
Inner-mid	0	30	65	100	100	100	100	100	100	100	100
Outer-mid	0	0	0	0	17	34	52	69	86	100	
Fly	0	0	0	0	17	34	52	69	86	100	



Hoist performance

Wire rope layer	Hoist line pulls Two speed hoist		Drum rope capacity (ft) 15 in drum	
	Low Available lb°	High Available lb°	Layer	Total
1	20,250	9610	101	101
2	18,490	8770	110	211
3	17,010	8070	120	331
4	15,750	7470	129	460
5	14,660	6960	139	599

*Max. lifting capacity: 6x37 or 35x7 class = 16,800 lb

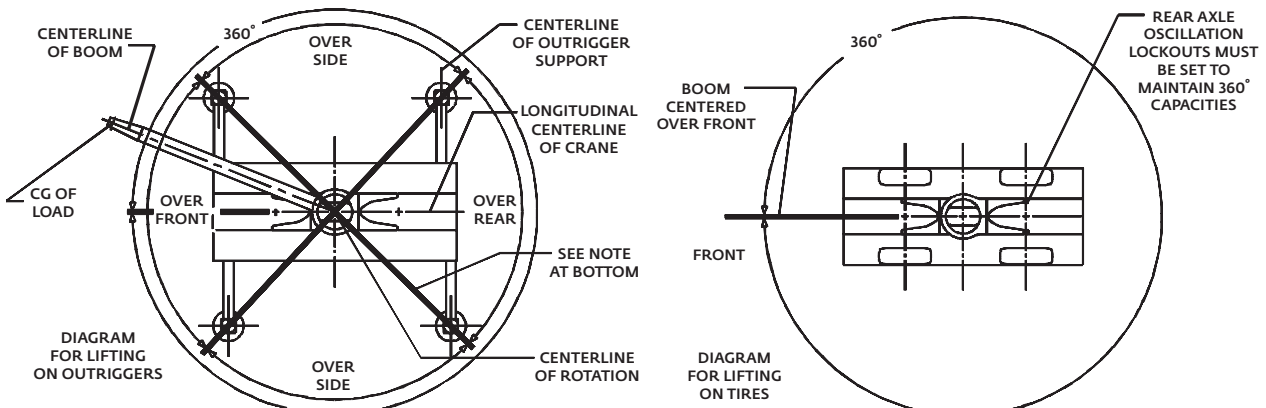
Installation and removal of counterweight and auxiliary hoist

Rated lifting capacities in pounds on outriggers fully extended - 360°

Radius in feet	LMI Code #0801 Main boom length 41.3 ft*
10	24,000
12	24,000
15	24,000
20	24,000
25	24,000
30	24,000

*The boom must be fully retracted.

Working area diagram



Bold lines determine the limiting position of any load for operation within working areas indicated.