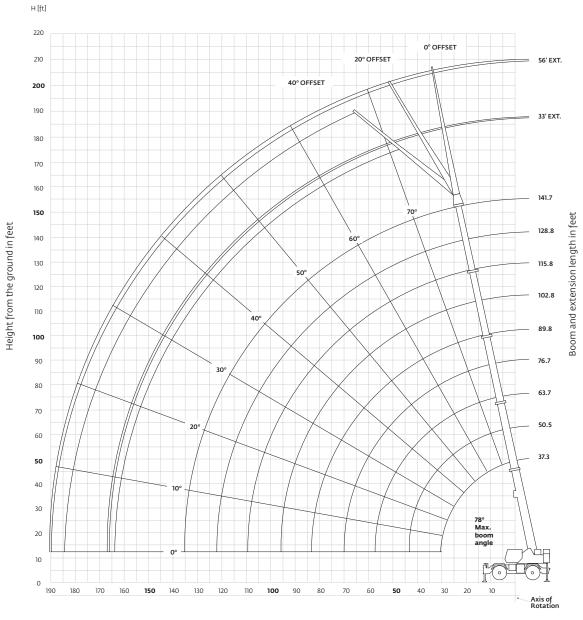
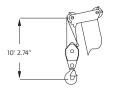


Working range

141.7 ft main boom 32 ft - 56 ft fixed offset swingaway



Operating radius in feet from axis of rotation



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

ERANE

8

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.



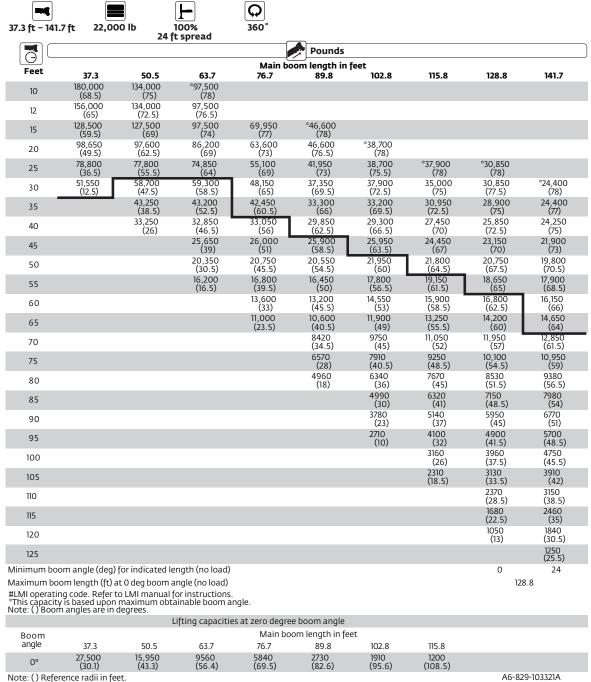
Mode A vs. Mode B

Mode A – inner-mid retracted									
	Main boom length in feet								
	37.3	50.4	63.4	76.4	89.4	102.4	115.4	141.7	
Boom sections	Boom sections: Percent extension								
Inner-mid	0	0	0	0	0	0	0	100	
Center-mid	0	50	100	100	100	100	100	100	
Outer-mid	0	0	0	25	50	75	100	100	
Fly	0	0	0	25	50	75	100	100	

			Mode	B – norma	al mode				
		Main boom length in feet							
	37.3	50.5	63.7	76.7	89.8	102.8	115.8	128.8	141.7
Boom sections	s:	Percent extension							
Inner-mid	0	50	75	75	100	100	100	100	100
Center-mid	0	0	25	75	100	100	100	100	100
Outer-mid	0	0	0	0	0	25	50	75	100
Fly	0	0	0	0	0	25	50	75	100



Load charts (Mode B)



Note. () Reference radii iii feet.

A0-029-103321A





Load charts

Bi-fold swingaway (fixed offsettable angles)



_					- Spica			
	Pounds							
		33 ft LENGTH	I	56 ft LENGTH				
Θ	0° OFFSET	20° OFFSET	40° OFFSET	0° OFFSET	20° OFFSET	40° OFFSET		
Feet	#0021	#0022	#0023	#0041	#0042	#0043		
40	13,700 (78)							
45	13,700 (76.5)	°13,000 (78)		7160 (78)				
50	13,700 (75)	12,950 (77.5)		7160 (77.5)				
55	13,700 (73)	12,600 (76)	*10,250 (78)	7160 (76)				
60	13,700 (71.5)	12,200 (74)	10,050 (77)	7160 (74.5)	°6400 (78)			
65	13,700 (69.5)	11,900 (72.5)	9900 (75)	7160 (73)	6250 (77.5)			
70	13,500 (68)	11,550 (70.5)	9750 (73)	7160 (71.5)	6110 (76)			
75	12,400 (66)	11,250 (68.5)	9610 (71)	7160 (70)	5980 (74.5)	°5110 (78)		
80	10,800 (64)	11,000 (67)	9480 (69)	7160 (68.5)	5850 (73)	5020 (77)		
85	9330 (62)	10,250 (65)	9370 (67)	7150 (66.5)	5730 (71.5)	4930 (75)		
90	8050 (60)	8900 (63)	8980 (65)	6960 (65)	5620 (69.5)	4850 (73.5)		
95	6920 (58)	7700 (61)	8530 (63)	6770 (63.5)	5510 (68)	4780 (71.5)		
100	5920 (56)	6630 (59)	7360 (61)	6590 (61.5)	5410 (66)	4710 (69.5)		
105	5030 (54)	5690 (56.5)	6310 (58.5)	6030 (60)	5310 (64.5)	4650 (68)		
110	4230 (52)	4830 (54.5)	5370 (56.5)	5200 (58)	5220 (62.5)	4600 (66)		
115	3510 (49.5)	4060 (52)	4520 (54)	4450 (56.5)	5110 (60.5)	4550 (64)		
120	2850 (47.5)	3360 (50)	3750 (51.5)	3770 (54.5)	4780 (59)	4500 (62)		
125	2250 (45)	2730 (47.5)	3040 (49)	3150 (52.5)	4080 (57)	4460 (60)		
130	1700 (42)	2150 (44.5)	2400 (46)	2580 (50.5)	3450 (55)	3970 (58)		
135	1200 (39.5)	1610 (42)		2060 (48.5)	2870 (53)	3330 (55.5)		
140		1120 (39)		1570 (46.5)	2330 (50.5)	2730 (53)		
145				1130 (44)	1830 (48.5)	2180 (50.5)		
150					1370 (46)	1670 (48)		
155						1200 (45)		
Minimum boom angle (°) for indicated length (no load)	38	38	40	43	44	44		
Maximum boom length (ft) at 0° boom angle (no load)		102.8			89.8			

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

NOTES:

- 1 All capacities above the hold 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 141.7 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.
- 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 (17.3 ft spread).

Grove RT890E

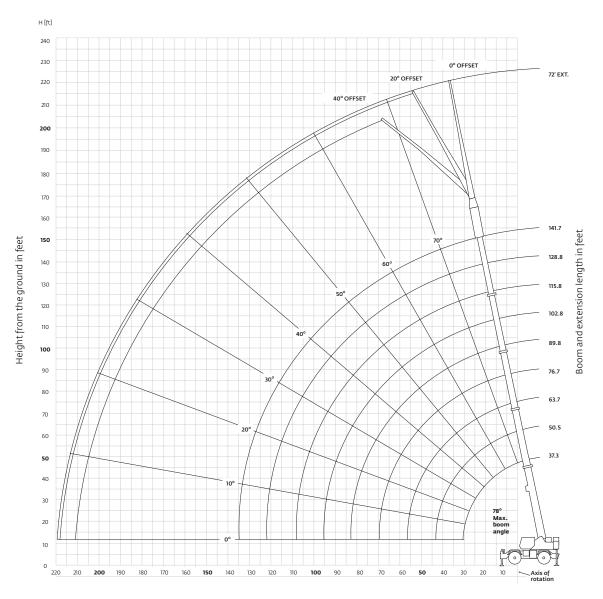
A6-829-103447

This capacity is based upon maximum boom angle



Working range

141.7 ft main boom and one 16 ft insert



Operating radius in feet from axis of rotation



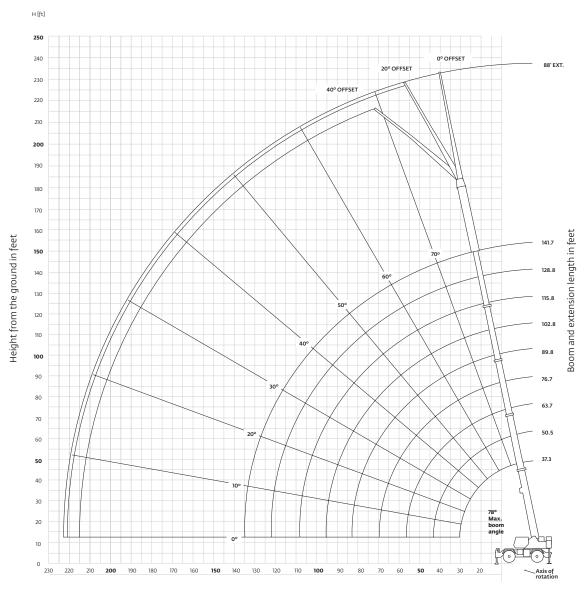
Dimensions are for largest Grove furnished hook block and headache ball, with anti-two block activated.





Working range

141.7 ft main boom and two 16 ft inserts



Operating radius in feet from axis of rotation



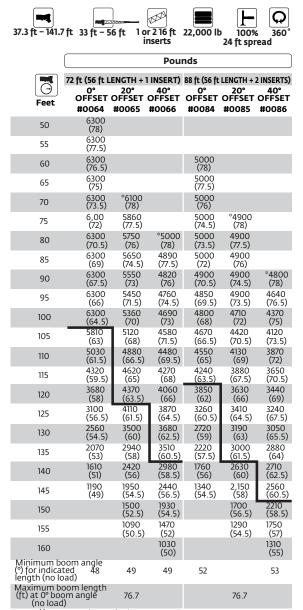
Dimensions are for largest Grove furnished hook block and headache ball, with anti-two block activated.





Load charts

Bi-fold swingaway with inserts (fixed angles)



NOTE: () Boom angles are in degrees. A6-829-103478 #LMI operating code. Refer to LMI manual for operating instructions. *This capacity is based upon maximum boom angle.

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 1-765
- The 56 ft extension length may be used for single line lifting service only.
- For main boom lengths less than 141.7 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.





Load charts (Mode A)

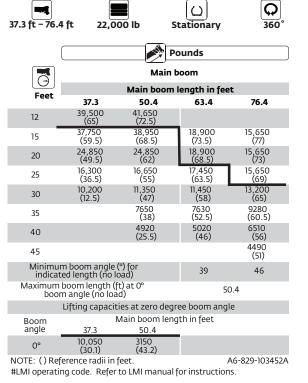
		F	Q					
37.3 ft - 141.7	ft 22,000 lb	100% 24 ft spre	ad 360°					
				PC	ounds			
Feet	37.3	50.4	63.4	76.4	89.4	102.4	115.4	141.7
10	180,000 (68.5)	134,000 (75)	*80,800 (78)					
12	156,000 (65)	134,000 (72.5)	80,800 (76.5)	*38,700 (78)				
15	128,500 (59.5)	129,000 (68.5)	80,800 (73.5)	38,700 (77)	*38,500 (78)			
20	98,650 (49.5)	98,950 (62)	70,950 (68.5)	38,700 (73)	38,500 (76.5)	*38,400 (78)		
25	78,800 (36.5)	79,150 (55)	62,300 (63.5)	38,700 (69)	38,500 (73)	38,400 (76)	24,400 (78)	
30	51,550 (12.5)	60,500 (47)	55,250 (58)	38,700 (65)	38,500 (69.5)	37,500 (73)	24,400 (76)	*24,400 (78)
35		45,150 (38)	44,900 (52.5)	38,700 (60.5)	36,750 (66)	33,150 (70)	24,400 (73.5)	24,400 (77)
40		35,250 (25.5)	34,700 (46)	36,750 (56)	32,750 (62)	29,550 (67)	24,400 (70.5)	24,250 (75)
45			27,600 (39)	29,450 (51)	29,400 (58.5)	26,500 (63.5)	24,400 (68)	21,900 (73)
50			22,400 (30)	24,000 (45.5)	25,650 (54.5)	23,950 (60.5)	22,050 (65)	19,800 (70.5)
55			18,250 (15.5)	19,850 (39.5)	21,350 (50)	21,750 (57)	20,000 (62)	17,900 (68.5)
60			, ,	16,600 (32.5)	17,950 (45.5)	18,900 (53.5)	18,250 (59)	16,150 (66)
65				13,850 (23)	15,200 (40)	16,150 (49.5)	16,700 (56)	14,650 (64)
70					12,950 (34.5)	13,850 (45.5)	14,800 (53)	12,850 (61.5)
75					11,000 (27.5)	11,950 (41)	12,900 (49.5)	10,950 (59)
80					9340 (17)	10,300 (36)	11,250 (45.5)	9380 (56.5)
85					()	8900 (30)	9830 (42)	7980 (54)
90						7640 (22.5)	8590 (37.5)	6770 (51)
95						6520	7510 (32.5)	5700 (48.5)
100						(0)	6520 (26.5)	4750 (45.5)
105							5640 (18.5)	3910 (42)
110							(10.5)	3150 (38.5)
115								2460 (35)
120								1840 (30.5)
125								1250 (25.5)
	n angle (deg) for ir							24
#LMI operating *This capacity is	n length (ft) at 0 d code. Refer to LM s based upon max angles are in degr	II manual for ins imum obtainab	tructions.					115.4
Lifting capacities at zero degree boom angle								
Boom angle	37.3	50.4	63.4	ain boom lengt 76.4	.n in jeet 89.4	102.4	115.4	
0°	27,500 (30.1)	17,300 (43.2)	11,050 (56.2)	8580 (69.2)	6700 (82.2)	5380 (95.2)	4280 (108.2)	_

Note: () Reference radii in feet.

6-829-103320A



Load charts (Mode A)



	=			44					
37.3 ft - 76.4	ft 22,00		ck and carry to 2.5 mph	Boom center over front					
			Pounds						
	Main boom								
G		Main boo	om length in f	eet					
Feet				70.4					
	37.3 41.600	50.4 41.700	63.4	76.4					
12	(65)	(72.5)							
15	41,600 (59.5)	41,700 (68.5)	22,400 (73.5)	15,650 (77)					
20	36,250 (49.5)	36,450 (62)	22,400 (68.5)	15,650 (73)					
25	27,600 (36.5)	28,250 (55)	22,400 (63.5)	15,650 (69)					
30	21,300 (12.5)	22,200 (47)	22,400 (58)	15,650 (65)					
35		17,500 (38)	17,950 (52.5)	15,650 (60.5)					
40		13,800 (25.5)	14,350 (46)	15,650 (56)					
45			11,000 (39)	12,500 (51)					
50			8360 (30)	9820 (45.5)					
55			6240 (15.5)	7690 (39.5)					
Minimum bo	oom angle (°) (no l			36					
Maximum b	oom length (f no l	t) at 0° boom oad)	n angle	63.4					
Lifting ca	apacities at ze	ero degree bo	oom angle						
Boom		∕lain boom le	J 1						
angle	37.3	50.4	63.4						
0°	21,150 (30.1)	11,600 (43.2)	5790 (56.2)						
_				A6-829-103453					

 $\left[\alpha \right]$

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

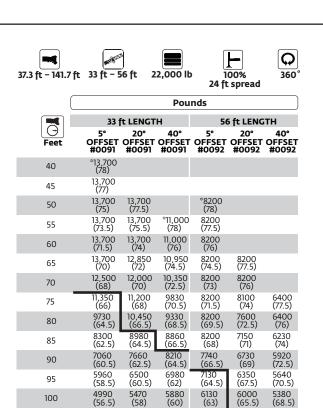
NOTES

- 1. Capacities are in pounds and do not exceed 75% of tipping loads as determined by test in accordance with SAE J765.
- $2. \ \ Capacities \ are \ applicable \ to \ machines \ equipped \ with \ 29.5x25 \ (34 \ ply) \ General \ tires \ at \ 76 \ psi \ cold \ inflation \ pressure.$
- 3. Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.
- 4. Capacities are applicable only with machine on firm level surface.
- 5. On rubber lifting with boom extensions not permitted.
- 6. 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.
- 7. Axle lockouts must be functioning when lifting on rubber.
- 8. 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.
- 9. Creep not over 200 ft of movement in any 30 minute period and not exceeding 1 mph



33 ft – 56 ft luffing bi-fold boom extension

(Mode B) (fixed offsettable angles)



NOTE: () Boom angles are in degrees.

4120

(54)

3340 (52)

2640 (49.5)

2000

105

110

115

120

125

130

135

140

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

Maximum boom length (ft) at 0° boom angle

4560

(56)

(51.5)

2320

(49)

1700 (46.5)

1140

(58)

4020

(53)

2510

(50.5)

1850 (47.5)

1250

(61)

(57.5)

3040

2440 (53.5)

1900

1390 (49.5)

48

(64)

5290 (62)

4490 (60)

3760

3100 (56.5)

2500

1940 (52)

1420 (50)

48

76.7

(67)

(61)

3710 (58.5)

3030

2390

(54)

1810

1270 (49)

47

A6-829-103522

#LMI operating code. Refer to LMI manual for operating instructions. *This capacity is based upon maximum boom angle.

NOTES:

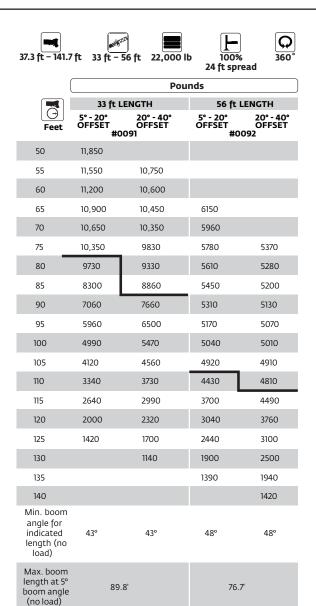
- 1. All capacities above the bold line are based on structural strength of boom extension and do not exceed 85% of tipping loads, in accordance
- 2. The 33 ft luffing folding boom extension may be used for single or double line lifting service. The 56 ft luffing folding boom extension may be used for single line lifting service only. WARNING: Lifting with the 33 ft extension base, with the 23 ft extension fly either erected or folded along side of extension base, is strictly prohibited.
- 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
- 4. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
- 5. Capacities listed are with outriggers properly extended and vertical jacks set only
- 6. For main boom lengths less than 141.7 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.
- When lifting over the main boom nose with 33 ft or 56 ft extension erected, the outriggers must be fully extended or 50% extended (17.3 ft





33 ft – 56 ft luffing bi-fold boom extension

(Mode B) (intermediate offsettable angles)



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

A6-829-103525A

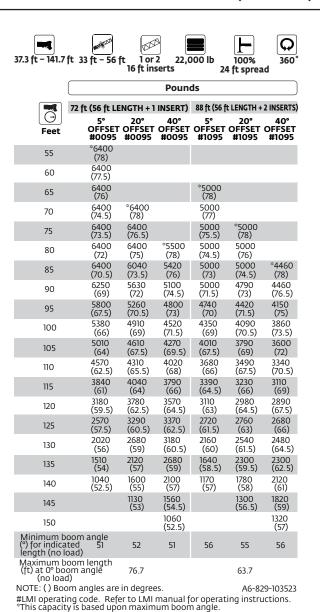
NOTES:

- 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 luffing folding boom extension may be used for single or double line lifting service. The 56 ft luffing folding boom extension may be used for single line lifting service only.
 WARNING: Lifting with the 33 ft extension base, with the 23 ft extension fly either erected or folded along side of extension base, is strictly prohibited.
- 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.
- 4. The loads for luffing depend on the angle of the main boom, angle of the boom extension and dynamic working pressure of the luffing cylinder for the boom extension.
- 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 (17.3 ft spread).

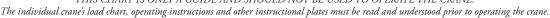




33 ft – 56 ft luffing bifold boom extension with inserts (Mode B) (intermediate offsettable angles)



- 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 56 ft luffing folding boom extension may be used for single line lifting service only.
- 3. 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.
- 4. WARNING: Lifting with the 33 ft extension base, with the 23 ft extension fly either erected or folded along side of extension base, or with either one or two 16 ft insert sections installed, is strictly prohibited.
- 5. For main boom lengths less than 141.7 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.
- 6. When lifting over the main boom nose with the 56 ft extension erected and inserts, the outriggers must be fully extended and vertical jacks set.





33 ft – 56 ft luffing bi-fold boom extension with inserts (Mode B) (intermediate offsettable angles)

37.3 ft - 141.7 f	t 33 ft - 56 ft	1 or 2 22,		00% 360°
		Poun	ds	
Feet	72 ft LENGTH (5° - 20° OFFSET #00	56 ft + 1 INSERT) 20° - 40° OFFSET 95	5° - 20°	20° - 40° OFFSET
70	6090			
75	5920		5000	
80	5750	5340	5000	
85	5600	5260	5000	4460
90	5460	5100	4790	4460
95	5260	4800	4420	4150
100	4910	4520	4090	3860
105	4610	4270	3790	3600
110	4310	4020	3490	3340
115	3840	3790	3230	3110
120	3180	3570	2980	2890
125	2570	3290	2720	2680
130	2020	2680	2160	2480
135	1510	2120	1640	2300
140	1040	1600	1170	1780
145		1130		1300
Min. boom angle for indicated length (no load)	52°	52°	56°	56°
Max. boom length at 5° boom angle (no load)	76.7'		63.7	7' A6-829-103526

- 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
- 2. The 56 ft luffing folding boom extension may be used for single line lifting service only WARNING: Lifting with the 33 ft extension base, with the 23 ft extension fly either erected or folded along side of extension base, or with either one or two 16 ft insert sections installed, is strictly prohibited.
- 3. 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.
- 4. The loads for luffing depend on the angle of the main boom, angle of the boom extension and dynamic working pressure of the luffing cylinder for the boom extension.
- 5. When lifting over the main boom nose with 56 ft extension erected and inserts, the outriggers must be fully extended and vertical jacks set only.

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

