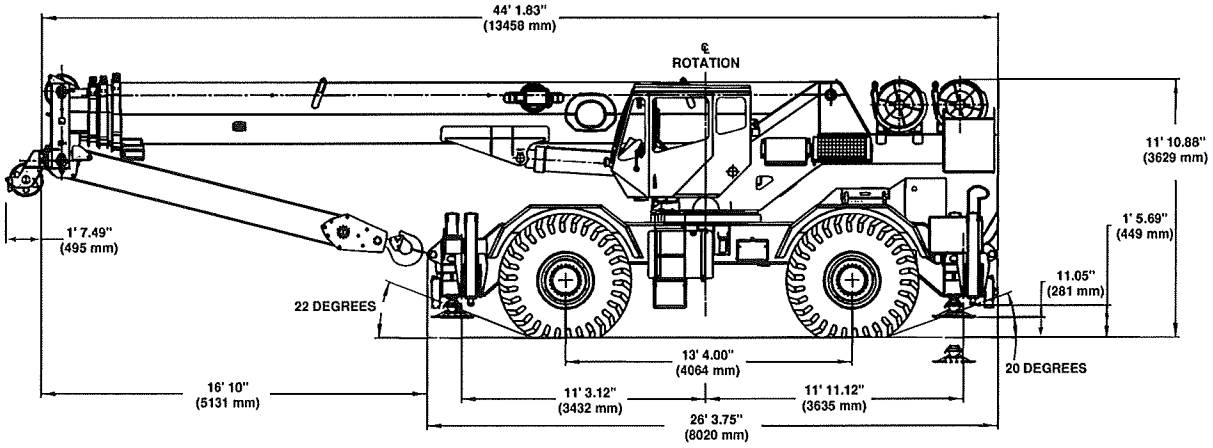
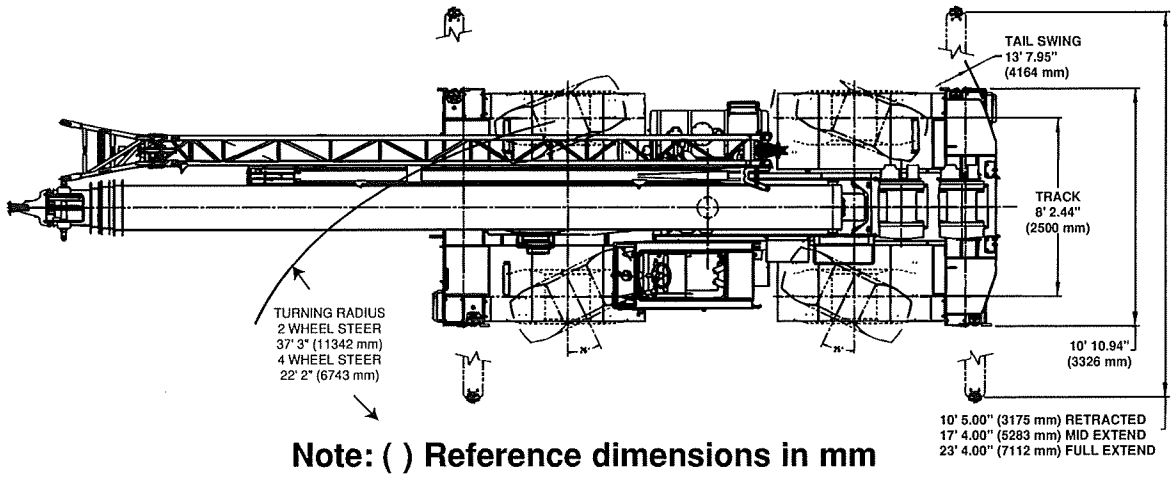
Dimensions



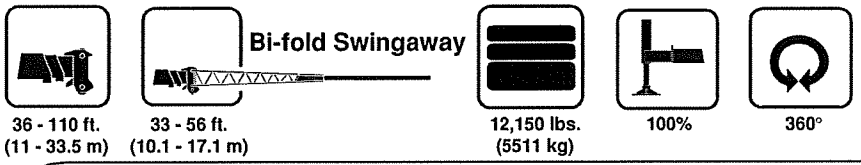


Note: ( ) Reference dimensions in mm

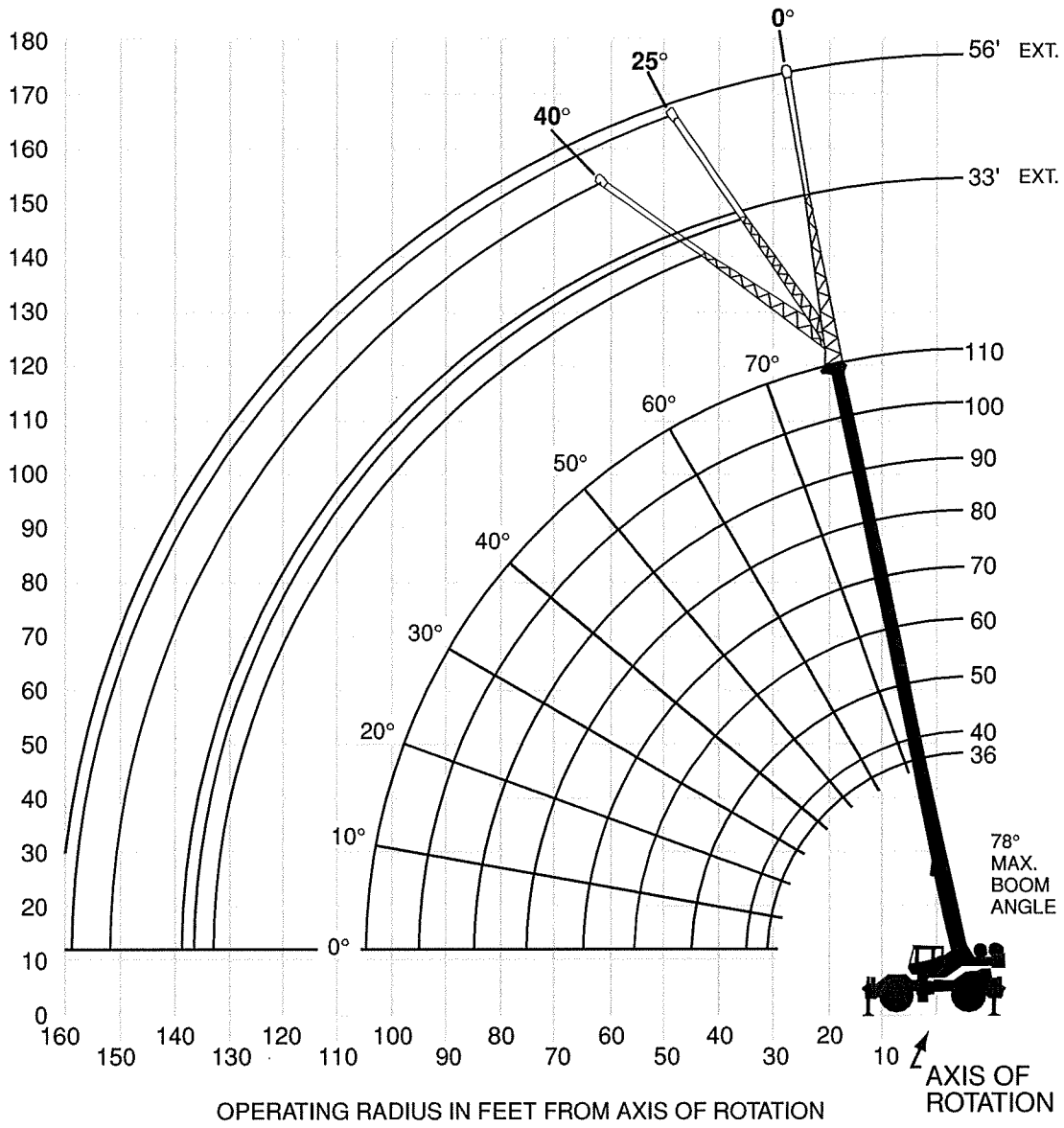
Weights

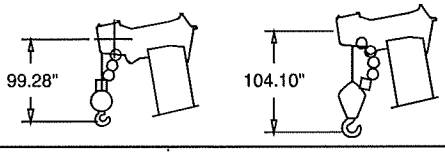
	GVW		Front		Rear	
	lbs	kg	lbs	kg	lbs	kg
RT760E Basic Machine	83,683	37,959	40,130	18,203	43,553	19,756
ADD: 33 - 56 ft Bi-fold swingaway	2,340	1,061	3,686	1,672	-1,346	-611
ADD: 33 ft swingaway	1,640	744	2,880	1,306	-1,240	-562
ADD: Aux Hoist w/rope	625	284	-230	-104	855	388
ADD: Aux boom nose	130	59	374	170	-244	-111
ADD: 60 ton (55mt) 5-sheave block (stowed in trough)	1,250	567	1,250	567	0	0
ADD: 50 ton (45mt) 3-sheave block (stowed in trough)	1,000	454	1,000	454	0	0
ADD: 8.3 ton (7.5mt) headache ball (hanging from aux nose)	347	157	565	256	-218	-99
Remove: counterweight	-12,150	-5,511	4,784	2,170	-16,934	-7,681

Working Range



36 - 110 ft. (11 - 33.5 m) | 33 - 56 ft. (10.1 - 17.1 m) | 12,150 lbs. (5511 kg) | 100% | 360°





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

RT760E MAIN BOOM RATED LIFTING CAPACITIES IN POUNDS
36 FT. - 110 FT. BOOM
ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	#0001								
	Main Boom Length in Feet								
	36	40	50	**60	70	80	90	100	110
10	120,000 (69)	84,400 (72)	80,200 (76)	*62,500 (78)					
12	100,000 (65.5)	84,400 (68.5)	80,200 (73.5)	62,500 (77)	*36,800 (78)				
15	85,400 (59.5)	82,700 (63.5)	80,200 (70)	61,000 (74)	36,800 (76.5)	*36,800 (78)	*31,000 (78)		
20	65,700 (49)	65,000 (55)	64,300 (63.5)	50,650 (69)	36,800 (72)	36,800 (75)	31,000 (77)	*29,100 (78)	*24,000 (78)
25	52,800 (36)	52,450 (45)	51,850 (56.5)	41,800 (63.5)	36,800 (68)	34,000 (71)	30,000 (73.5)	27,000 (76)	24,000 (77.5)
30		42,150 (31.5)	39,600 (48.5)	38,000 (57.5)	33,400 (63)	29,000 (67)	25,300 (70.5)	24,200 (72.5)	22,000 (75)
35			31,750 (40)	29,750 (51.5)	28,700 (58)	25,000 (63)	22,200 (67)	21,750 (69.5)	20,000 (72)
40			24,450 (28)	24,750 (45)	23,600 (53)	22,000 (59)	20,200 (63)	19,000 (66.5)	18,500 (69)
45				19,750 (37)	19,700 (47.5)	18,800 (54.5)	17,800 (59.5)	17,300 (63)	17,300 (66.5)
50				16,000 (26.5)	16,750 (41)	16,500 (49.5)	16,000 (55.5)	16,000 (60)	16,000 (63.5)
55					13,650 (33.5)	14,300 (44.5)	14,100 (51)	14,100 (56.5)	14,100 (60)
60					11,150 (24)	12,000 (38.5)	12,200 (47)	12,200 (52.5)	12,200 (57)
65						10,100 (31.5)	10,800 (42)	10,600 (48.5)	10,600 (53.5)
70						8,480 (22.5)	9,410 (36.5)	9,000 (44.5)	9,000 (50)
75							8,100 (30)	7,800 (40)	7,800 (46.5)
80							6,920 (21.5)	6,600 (34.5)	6,600 (42.5)
85								5,800 (28.5)	5,800 (38)
90								5,000 (20.5)	5,000 (33)
95									4,440 (27.5)
100									3,880 (19.5)
Minimum boom angle (°) for indicated length (no load)									0
Maximum boom length (ft.) at 0° boom angle (no load)									110

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

Lifting Capacities at Zero Degree Boom Angle On Outriggers Fully Extended - 360°									
Boom Angle	Main Boom Length in Feet								
	36	40	50	**60	70	80	90	100	110
0°	29,050 (29.8)	24,450 (34.2)	17,050 (44.2)	11,950 (54.6)	9,400 (64.2)	7,310 (74.2)	6,050 (84.2)	4,660 (94.2)	3,350 (104.2)

NOTE: ( ) Reference radii in feet. A6-829-101070
** Boom length is with inner-mid fully extended and outer-mid & fly fully retracted.

RT700E SERIES 33 FT. - 56 FT. BI-FOLD SWINGAWAY BOOM EXTENSION ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	33 ft. LENGTH			56 ft. LENGTH		
	0° OFFSET	25° OFFSET	45° OFFSET	0° OFFSET	25° OFFSET	45° OFFSET
	#0021	#0022	#0023	#0041	#0042	#0043
30	11,650 (77.5)					
35	11,650 (75.5)			*6,700 (78)		
40	10,850 (73.5)	*8,500 (78)		6,700 (76.5)		
45	10,000 (71.5)	8,500 (76.5)	*5,000 (78)	6,500 (74.5)		
50	9,430 (69.5)	8,500 (74)	5,000 (76.5)	6,400 (73)		
55	8,780 (67.5)	7,850 (72)	5,000 (74.5)	6,300 (71.5)	*5,100 (78)	
60	8,130 (65)	7,200 (70)	5,000 (72)	6,200 (69.5)	5,100 (77)	
65	7,620 (63)	6,750 (67.5)	4,850 (70)	5,850 (67.5)	5,100 (75)	*3,000 (78)
70	7,110 (61)	6,300 (65)	4,700 (67.5)	5,500 (66)	5,100 (73)	3,000 (77)
75	6,700 (58.5)	5,950 (63)	4,600 (65)	5,200 (64)	4,800 (71)	3,000 (75)
80	6,300 (56)	5,600 (60.5)	4,500 (62.5)	4,900 (62)	4,500 (69)	3,000 (72.5)
85	5,880 (53.5)	5,250 (58)	4,450 (59.5)	4,600 (60)	4,100 (67)	2,800 (70.5)
90	5,460 (51)	4,900 (55)	4,400 (57)	4,300 (58.5)	3,700 (65)	2,600 (68.5)
95	4,880 (48.5)	4,650 (52.5)	4,190 (54)	4,000 (56)	3,450 (62.5)	2,450 (66)
100	4,300 (45.5)	4,400 (49.5)	3,980 (51)	3,700 (54)	3,200 (60.5)	2,300 (63.5)
105	3,830 (42.5)	4,020 (46.5)	3,720 (47.5)	3,450 (52)	3,050 (58)	2,150 (61)
110	3,360 (39.5)	3,650 (43)		3,200 (49.5)	2,900 (55.5)	2,000 (58.5)
115	2,880 (36)	3,150 (39.5)		2,950 (47.5)	2,750 (53)	1,940 (55.5)
120	2,400 (32)	2,650 (35)		2,700 (45)	2,600 (50.5)	1,890 (53)
125	1,970 (27.5)	2,200 (30.5)		2,400 (42)	2,370 (47.5)	1,840 (49.5)
130	1,550 (22)			2,100 (39.5)	2,150 (44.5)	
135				1,850 (36.5)	1,950 (41.5)	
140				1,600 (33)	1,750 (37.5)	
145				1,350 (29.5)	1,450 (33.5)	
150				1,100 (25)		
Minimum boom angle (°) for indicated length (no load)	21	25	45	25	28	45
Maximum boom length (ft.) at 0° boom angle (no load)	100			90		

NOTE: ( ) Boom angles are in degrees. A6-829-101043

#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 with SAE J765.
2. 33 ft. and 56 ft. boom extension lengths may be used for single line lifting service.
3. Radii listed are for a fully extended boom with the boom extension erected. For main boom lengths less than fully extended, 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 configured. 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.
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 fully extended and vertical jacks set only.

ON RUBBER CAPACITIES

STATIONARY CAPACITIES
360°

Radius in Feet	#9005				
	Main Boom Length in Feet				
	36	40	50	*60	70
10	45,300 (69)	39,700 (72)			
12	41,750 (65.5)	39,700 (68.5)	29,600 (73.5)		
15	29,350 (59.5)	26,450 (63.5)	26,450 (70)	26,450 (74)	
20	17,800 (49)	17,650 (55)	17,050 (63.5)	16,250 (69)	16,250 (72)
25	11,750 (36)	11,700 (45)	11,350 (56.5)	10,850 (63.5)	10,850 (68)
30		8,040 (31.5)	7,820 (48.5)	7,470 (57.5)	7,470 (63)
35			5,400 (40)	5,120 (51.5)	5,120 (58)
40			3,660 (28)	3,200 (45)	3,430 (53)
45				1,000 (37)	2,150 (47.5)
50					1,150 (41.0)

Lifting Capacities at Zero Degree Boom Angle On Rubber - Stationary 360

Boom Angle	Main Boom Length in Feet				
	36	40	50		
0°	8,180 (29.7)	5,890 (34.2)	2,170 (44.2)		

Note: ( ) Reference radii in feet. A6-829-101048

#LMI operating code. Refer to LMI manual for instructions.
*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

STATIONARY CAPACITIES
DEFINED ARC OVER FRONT (See Note pg. 10)

Radius in Feet	#9005				
	Main Boom Length in Feet				
	36	40	50	*60	70
10	45,300 (69)	42,850 (72)	29,600 (76)		
12	43,650 (65.5)	41,350 (68.5)	29,600 (73.5)		
15	38,300 (59.5)	36,300 (63.5)	29,600 (70)	20,900 (74)	17,300 (76.5)
20	31,150 (49)	29,550 (55)	25,900 (63.5)	20,900 (69)	17,300 (72)
25	24,100 (36)	24,150 (45)	21,800 (56.5)	18,800 (63.5)	17,300 (68)
30		17,400 (31.5)	17,200 (48.5)	15,300 (57.5)	15,300 (63)
35			12,800 (40)	12,500 (51.5)	11,000 (58)
40			9,720 (28)	9,390 (45)	9,390 (53)
45				7,090 (37)	7,090 (47.5)
50				5,310 (26.5)	5,310 (41)
55					3,870 (33.5)
60					3,170 (24)

Lifting Capacities at Zero Degree Boom Angle On Rubber - Defined Arc Over Front

Boom Angle	Main Boom Length in Feet				
	36	40	50	*60	70
0°	17,600 (29.7)	13,600 (34.2)	7,750 (44.2)	4,010 (54.6)	2,670 (64.2)

Note: ( ) Reference radii in feet. A6-829-101047

#LMI operating code. Refer to LMI manual for instructions.
*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

ON RUBBER CAPACITIES (cont'd.)

PICK & CARRY CAPACITIES (UP TO 2.5 MPH) - BOOM CENTERED OVER FRONT (See note 7)

Radius in Feet	#9006				
	Main Boom Length in Feet				
	36	40	50	*60	70
10	42,500 (69)	37,600 (72)	30,700 (76)		
12	42,500 (65.5)	37,600 (68.5)	30,700 (73.5)	23,450 (77)	
15	37,600 (59.5)	37,600 (63.5)	30,700 (70)	19,700 (74)	16,250 (76.5)
20	32,950 (49)	32,900 (55)	30,700 (63.5)	19,700 (69)	16,250 (72)
25	24,100 (36)	24,150 (45)	23,850 (56.5)	19,700 (63.5)	16,250 (68)
30		17,400 (31.5)	17,200 (48.5)	16,800 (57.5)	16,250 (63)
35			12,800 (40)	12,500 (51.5)	12,500 (58)
40			9,720 (28)	9,390 (45)	9,390 (53)
45				7,090 (37)	7,090 (47.5)
50				5,310 (26.5)	5,310 (41)
55					3,870 (33.5)
60					3,090 (24)

Lifting Capacities at Zero Degree Boom Angle On Rubber - Pick & Carry					
Boom Angle	Main Boom Length in Feet				
	36	40	50	*60	70
0°	17,600 (29.7)	13,600 (34.2)	7,750 (44.2)	4,010 (54.6)	2,670 (64.2)

Note: ( ) Reference radii in feet. A6-829-101049

#LMI operating code. Refer to LMI manual for instructions.
*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

NOTES TO ALL RUBBER CAPACITY CHARTS:

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 (28 ply) tires at 65 psi cold inflation pressure.
3. Defined Arc - Over front includes 6° on either side of longitudinal centerline of machine (ref. drawing C6-829-003529).
4. Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.
5. Capacities are applicable only with machine on firm level surface.
6. On rubber lifting with boom extensions not permitted.
7. 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.
8. Axle lockouts must be functioning when lifting on rubber.
9. 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.
10. Creep - not over 200 ft. of movement in any 30 minute period and not exceeding 1 mph.

WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES

33 FT. - 56 FT. FOLDING BOOM EXTENSION	
*33 ft. Extension (Erected) -	5,080 lb.
*56 ft. Extension (Erected) -	11,330 lb.

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

AUXILIARY BOOM NOSE	137 lb.
HOOKBLOCKS and HEADACHE BALLS:	
60 Ton, 5 Sheave	1250 lb.+
50 Ton, 4 Sheave	1000 lb.+
50 Ton, 3 Sheave*	1000 lb.+
8.3 Ton Headache Ball (non-swivel)	350 lb.+
8.3 Ton Headache Ball (swivel)*	370 lb.+

* DO NOT use with 18x19 class of rope.
+Refer to rating plate for actual weight.

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.

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.

WORKING AREA DIAGRAM

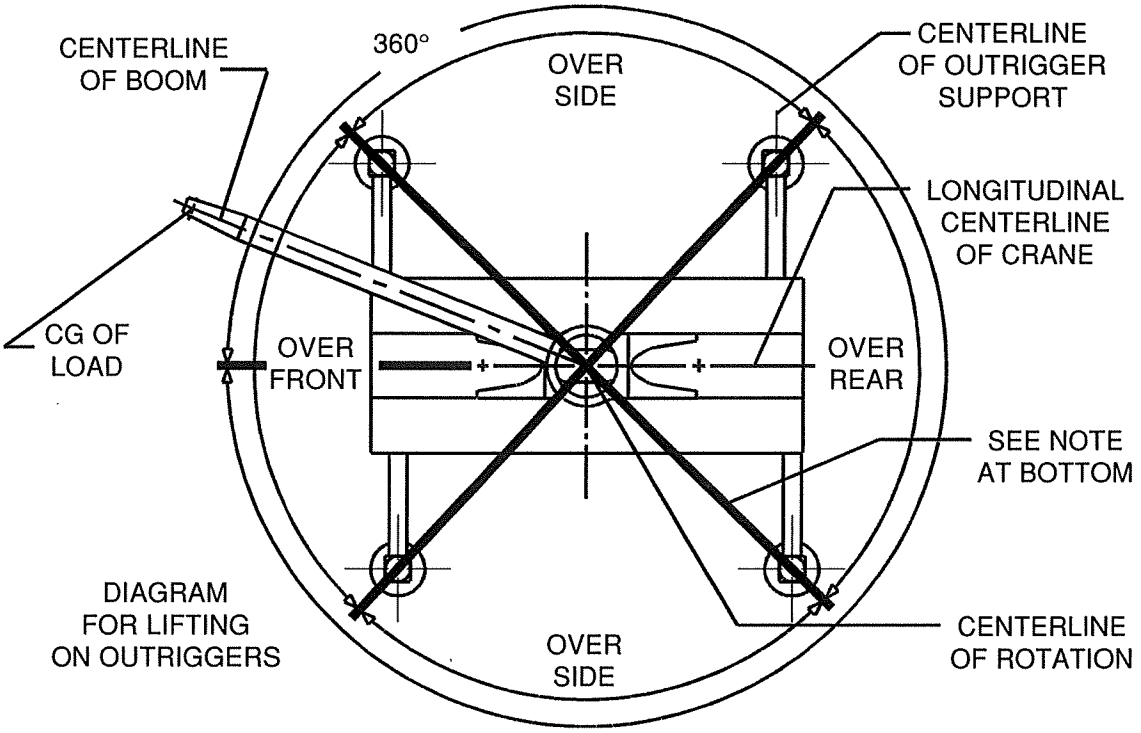


DIAGRAM FOR LIFTING ON OUTRIGGERS

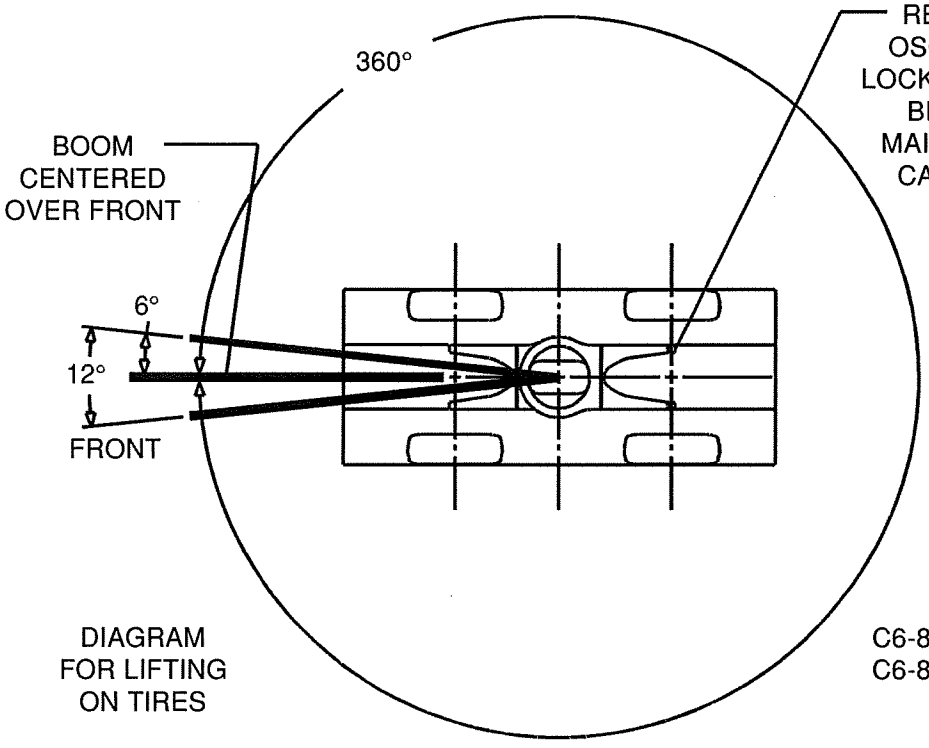


DIAGRAM FOR LIFTING ON TIRES

C6-829-003529
C6-829-001159

BOLD LINES DETERMINE THE LIMITING POSITION OF ANY LOAD FOR OPERATION WITHIN WORKING AREAS INDICATED