GROVE

TMS75

80 TON CAPACITY
36 ft. - 146 ft. BOOM

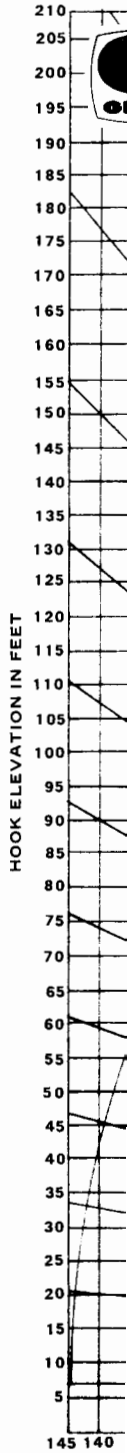
(FULL POWER)
8x4 and 12x6 CARRIER
PCSA CLASS 12-365

RATED LIFTING CAPACITIES IN POUNDS

ON OUTRIGGERS FULLY EXTENDED OVER SIDE & REAR
(360° W/FIFTH FRONT OUTRIGGER JACK)

Radius in Feet	Boom Length in Feet							32 ft. Ext. & 114 ft.
	*36	49	62	75	88	101	114	**146
12	160,000 (65)	103,000 (72)	83,000 (76)	78,000 (78.5)				
15	120,000 (60)	100,000 (68.5)	81,000 (73)	76,500 (76)	63,000 (79)			
20	93,000 (50)	90,000 (62)	79,000 (68)	68,000 (72)	59,400 (75.5)	54,000 (77)	50,000 (79.5)	
25	72,500 (38.5)	72,500 (55)	70,700 (63)	64,000 (68)	54,000 (72)	52,200 (74)	43,200 (77.5)	30,000 (79.5)
30	58,000 (23)	58,000 (47.5)	58,000 (58)	50,000 (64)	44,100 (68.5)	43,200 (71.5)	36,000 (75)	27,950 (78.5)
35		46,240 (39)	44,100 (52)	40,700 (59.5)	36,000 (65)	34,000 (68.5)	32,400 (72)	25,900 (76.5)
40		36,530 (28.5)	36,530 (46)	35,000 (55)	30,000 (61.5)	29,000 (65.5)	27,000 (69.5)	23,800 (74.5)
45		28,870 (11)	28,870 (39)	28,870 (50)	28,500 (57.5)	27,100 (62)	25,000 (66.5)	21,700 (72.5)
50			23,380 (31)	23,380 (45)	23,380 (53.5)	23,380 (59)	21,000 (63.5)	19,450 (70.5)
60				16,330 (33)	16,330 (44.5)	16,330 (52)	16,330 (57.5)	15,250 (66)
70				11,980 (13)	11,980 (34)	11,980 (44.5)	11,980 (51)	13,000 (61.5)
80					8,870 (19.5)	8,870 (35.5)	8,870 (44)	11,300 (57)
90						6,640 (24)	6,640 (36)	8,830 (52)
100							4,880 (26)	6,650 (46.5)
110							3,660 (8)	4,950 (40.5)
120								3,400 (34)
130								2,200 (25.5)
140								1,310 (12.5)
142.5								1,110 (0)

NOTE: Boom angles are in degrees. A6-829-002687-002836A-002689B

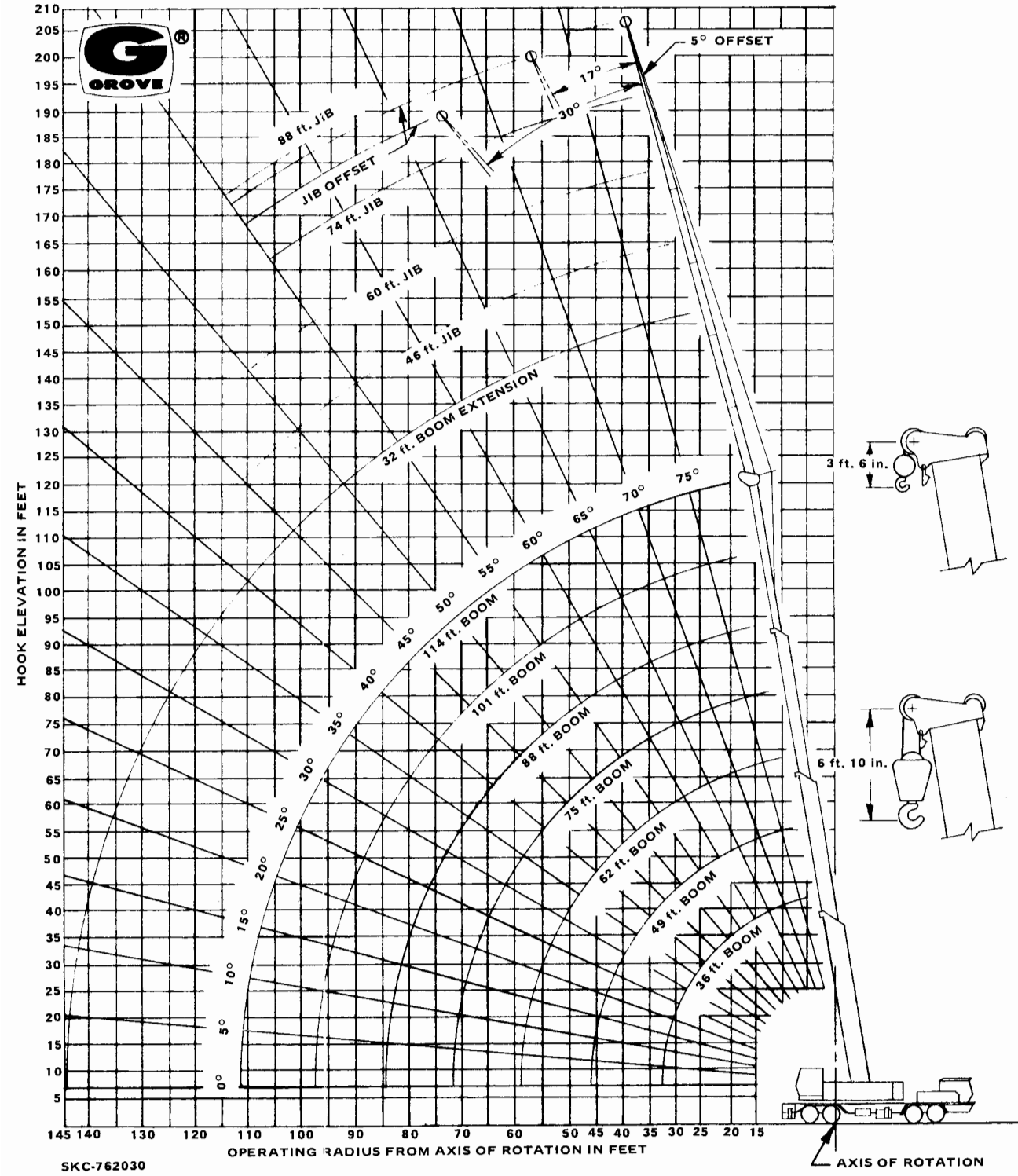


LIFTING CAPACITY NOTES:

1. Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation. Capacities do not exceed 85% of tipping loads with counterweight fully extended as determined by test in accordance with SAE J-765.
*2. Capacities for the 36 ft. boom length shall be lifted with boom fully retracted. If boom is not fully retracted, capacities shall not exceed those shown for the 49 ft. boom length.
3. Radii less than 30 ft. or 9 meters not recommended when lifting over front of machine.
4. Capacities listed are with fully extended outriggers and front jack cylinder extended according to proper procedure.
**5. For boom lengths less than 146 ft. & 32 ft. boom ext. erected, the rated loads are determined by boom angle only in the column headed by 146 ft. boom. For boom angles not shown, use rating of next lower boom angle. For this load column, the 32 ft. boom extension operational mode is to be selected on the Krueger L.M.I. CAUTION: The Krueger L.M.I. rating will apply for full boom extension only.
6. Boom angle is the included angle between horizontal and the longitudinal axis of the boom base section after lifting rated load.

A6-829-002835B SKC-76

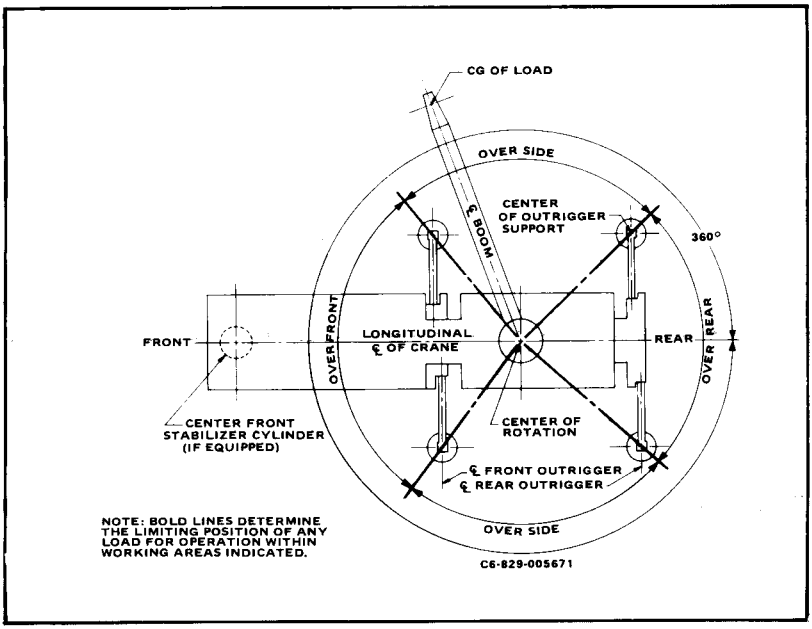
RANGE DIAGRAM



SKC-762030

1. Do not exceed any rated lifting capacity. Rated lifting capacities are based on freely suspended loads with the machine leveled and standing on a firm supporting surface. Ratings with outriggers are based on outriggers being extended to their maximum position and tires raised free of crane weight before extending the boom or lifting loads.
2. Practical working loads for each particular job shall be established by the user depending on operating condition to include: the supporting surface, wind and other factors affecting stability, hazardous surroundings, experience of personnel, handling of load, etc. No attempt must be made to move a load horizontally on the ground in any direction.
3. Operating radius is the horizontal distance from the axis of rotation before loading to the centerline of the vertical hoist line or tackle with loads applied.
4. "On Rubber" lifting (if permitted) depends on proper tire inflation, capacity and condition. "On Rubber" loads may be transported at a maximum vehicle speed of 2.5 mi/hr (4 Km/hr) on a firm and level surface under conditions specified.
5. Jibs may be used for lifting crane service only. Jib capacities are based on structural strength of jib or main boom and on main boom angle.
6. Operation is not intended or approved for any conditions outside of those shown hereon. Handling of personnel from the boom is not authorized except with equipment furnished and installed by Grove Manufacturing Company.
7. For clamshell or concrete bucket operation, weight of bucket and load must not exceed 80% of rated lifting capacities.
8. Power-telescoping boom sections must be extended equally at all times. Long cantilever booms can create a tipping condition when in extended and lowered position.
9. The maximum load which may be telescoped is limited by hydraulic pressure, boom angle, boom lubrication, etc. It is safe to attempt to telescope any load within the limits of rated lifting capacity chart.
10. With certain boom and hoist tackle combinations, maximum capacities may not be obtainable with standard cable lengths.
11. With certain boom and load combinations, raising of load with boom lift cylinders may not be possible. Operational safety is not affected by this condition.
12. Keep load handling devices a minimum of 12 inches (30 cm) below boom head when lowering or extending boom.
13. If actual boom length and/or radius is between values listed, use lifting capacity for the next longer rated length and/or radius.
14. All load handling devices and boom attachments are considered part of the load and suitable allowances must be made for their combined weights.
15. Operation of this equipment in excess of rating charts or disregard of the instructions is hazardous and voids the warranty and manufacturer's liability.

LIFTING AREA DIAGRAM



JIB CAPACITIES
With Two Part Line Only
ON OUTRIGGERS FULLY EXTENDED OVER SIDE & REAR
(360° W/FIFTH FRONT OUTRIGGER JACK)

Loaded Main Boom Angle	46 ft. JIB CAPACITIES						60 ft. JIB CAPACITIES						74 ft. JIB CAPACITIES						88 ft. JIB CAPACITIES					
	5° OFFSET		17° OFFSET		30° OFFSET		5° OFFSET		17° OFFSET		30° OFFSET		5° OFFSET		17° OFFSET		30° OFFSET		5° OFFSET		17° OFFSET		30° OFFSET	
	Ref.* Rad.	Load lbs.**	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.	Ref. Rad.	Load lbs.
80	35.5	16,500	44	12,800	53	7,360	40	12,250	53	9,020	64	4,980	46.5	9,380	60	6,420	77	3,250	47	7,390	62.5	4,450	83	2,050
77.5	42	15,650	50.5	12,250	59	6,960	46.5	11,450	58.5	8,550	68.5	4,660	53	8,660	66	6,010	81	3,010	55.5	6,680	71.5	4,010	89	1,850
75	49	14,900	57	11,320	64.5	6,600	53	10,800	64	7,910	73	4,380	59.5	8,030	72.5	5,640	85	2,800	64	6,050	81	3,610	95.5	1,680
72.5	55.5	14,250	63.5	10,540	70.5	6,290	61	10,200	71	7,370	80	4,140	66.5	7,470	79.5	5,210	92	2,610	73	5,500	89	3,260	103	1,530
70	62	12,610	70	9,860	76.5	6,010	69	9,680	78.5	6,900	87.5	3,920	73.5	6,960	87	4,800	99	2,440	81.5	4,950	97	2,930	110.5	1,390
67.5	68	10,280	75.5	9,120	82	5,770	75.5	8,530	85	6,500	93	3,730	81.5	6,500	94	4,450	106	2,300	90.5	4,460	104.5	2,640	118	1,280
65	74	8,470	81	7,620	87	5,560	81.5	6,970	92	6,140	99	3,570	89	5,920	101	4,140	112.5	2,170	99	4,020	111.5	2,370	125.5	1,170
62.5	80	7,020	86.5	6,390	93	5,370	88	5,720	97.5	5,100	105	3,420	97	4,800	108.5	3,880	118	2,060	106	3,620	118	2,140	130	1,080
60	86	5,850	92	5,370	98.5	5,070	94.5	4,690	103.5	4,230	111	3,290	104.5	3,890	116	3,080	123.5	1,890	113	3,260	124.5	1,570		
55	96	4,060	102	3,780	108	3,620	107	3,110	115	2,840	121	2,050	115	2,480	126.5	1,180			125	1,260				
50	105.5	2,780	112.5	2,620	116.5	2,530	117.5	1,970	125.5	1,200														
45	116	1,830	121	1,700	124.5	1,350																		

A6-829-004605A

* Reference Radius (Feet) refers to fully extended boom and appropriate jib length.
** Capacities at loaded main boom angle.

WARNING: The Krueger LMI will not compensate for reeving/rigging accessories on the main boom nose or auxiliary boom nose when programmed to monitor the jib. Remove all reeving/rigging accessories from main boom when using jib.

JIB CAPACITY NOTES

1. All capacities are based on structural strength of jib and do not exceed 85% of tipping loads with counterweight fully extended as determined by test in accordance with SAE-765.
2. 46', 60', 74' & 88' (14.0, 18.3, 22.6, & 26.8 Meter) jibs may be used for two-part line lifting crane service only.
3. Rated load is based on loaded main boom angle.
4. WARNING: Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with every jib occurs rapidly and without advance warning.
5. Rated load is based on loaded main boom angle with reference to horizontal, regardless of main boom length. (Ref. radius in feet (meters) is for fully extended 114 ft. (34.8m) boom length only. The Krueger L.M.I. System will give an accurate radius indication for this condition only.)
6. 46 FT. (14.0 METER) JIB WARNING: With 46' (14.0m) jib in working position, the boom angle must not be less than 45° (over side and rear [360° w/front outrigger jack]), or 60° (over front) since loss of stability will occur causing a tipping condition.
   60 FT. (18.3 METER) JIB WARNING: With 60' (18.3m) jib in working position, the boom angle must not be less than 50° (over side and rear [360° w/front outrigger jack]), or 62.5° (over front) since loss of stability will occur causing a tipping condition.
   74 FT. (22.6 METER) JIB WARNING: With 74' (22.6m) jib working position, the boom angle must not be less than 55° (over side and rear [360° w/front outrigger jack]), or 65° (over front) since loss of stability will occur causing a tipping condition.
   88 FT. (26.8 METER) JIB WARNING: With 88' (26.8m) jib in working position, the boom angle must not be less than 55° (over side and rear [360° w/front outrigger jack]), or 67.5° (over front) since loss of stability will occur causing a tipping condition.

JIB ERECTION NOTES:

A. Maximum total length of main boom for purpose of erecting jib, over rear or over side, below 30° main boom angle is:
- 46' (14.0m) Jib — 103 Ft. (31.4 Meters)
- 60' (18.3m) Jib — 95 Ft. (29.0 Meters)
- 74' (22.6m) Jib — 86 Ft. (26.2 Meters)
- 88' (26.8m) Jib — 77 Ft. (23.5 Meters)

B. WARNING: Do not attempt to erect jibs over front of machine.

WEIGHT REDUCTION FOR LOAD HANDLING DEVICES

32 ft. BOOM EXTENSON WITH 36 - 114 ft. BOOM	
†STOWED -	365 lbs.
†ERECTED -	2,455 lbs.

36 - 114 ft. BOOM WITH	
†46 ft. JIB -	8,828 lbs.
†60 ft. JIB -	12,962 lbs.
†74 ft. JIB -	17,868 lbs.
†88 ft. JIB -	23,548 lbs.

HOOK BLOCK	
80 Ton, 6 Sheave . .	1,615 lbs.
15 Ton, 1 Sheave . .	650 lbs.
Auxiliary Boom Head .	230 lbs.
5 Ton Headache Ball .	150 lbs.
7½ Ton Headache Ball .	300 lbs.
10 Ton Headache Ball .	500 lbs.

NOTE: All Load Handling Devices and Boom Attachments are Considered Part of the Load and Suitable Allowances MUST BE MADE for Their Combined Weight.
Weights are for Grove furnished equipment.

†Reduction of main boom capacities

GROVE®
GROVE MANUFACTURING COMPANY
Division of Kidde, Inc.
KIDDE
Box 21, Shady Grove, Pennsylvania 17256
Phone: (717) 597-8121 Telex: 842308 Cable: GROVE MFG

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