



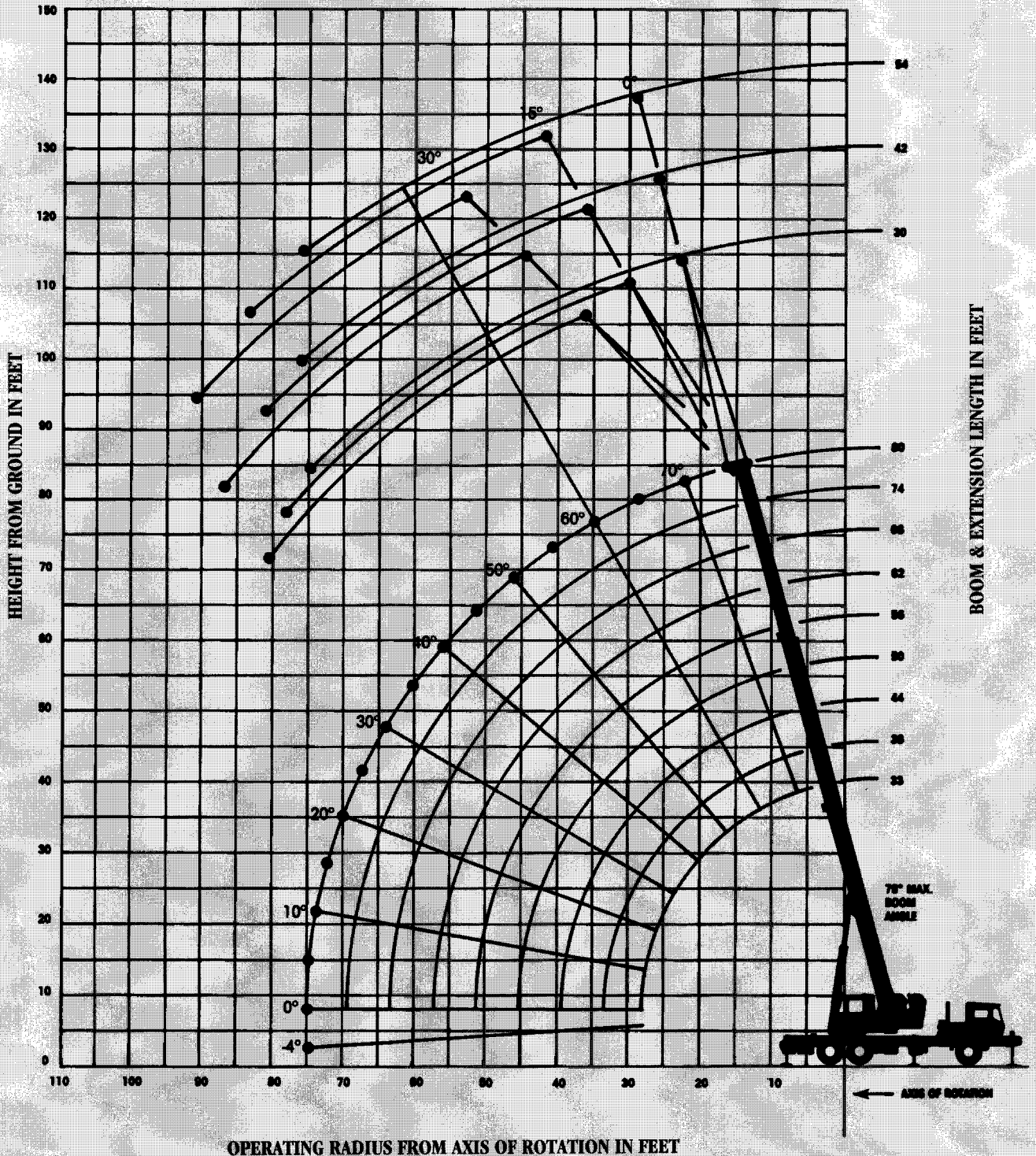
GROVE[®]
CRANE

A GROVE WORLDWIDE COMPANY

TMS250C

Carrier mounted hydraulic crane /85% Domestic
33 ft. - 84 ft. full power boom

WORKING RANGE DIAGRAM
(BOOM DEFLECTION NOT SHOWN)



DOMESTIC 85% LIFTING CAPACITIES (POUNDS) ON OUTRIGGERS FULLY EXTENDED

MAIN BOOM - 360°

| Radius in Feet | #0001 or #01 | | | | | | | | |
|--|--------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | Main Boom Length in Feet | | | | | | | | |
| | 33 | 38 | 44 | 50 | 56 | 62 | 68 | 74 | 80 |
| 10 | 70,000 (64.5) | 52,000 (68) | 51,000 (71) | | | | | | |
| 12 | 52,500 (60.5) | 52,000 (64.5) | 51,000 (68.5) | 44,900 (71.5) | 40,500 (73.5) | | | | |
| 15 | 42,000 (54) | 42,000 (59.5) | 42,000 (64) | 40,200 (67.5) | 36,000 (70.5) | 31,000 (72.5) | 26,000 (74.5) | | |
| 20 | 30,000 (42.5) | 30,000 (50) | 30,000 (56.5) | 30,000 (61) | 30,000 (64.5) | 24,500 (67.5) | 23,000 (70) | 21,500 (72) | 20,000 (73.5) |
| 25 | 20,480 (26.5) | 20,480 (39) | 20,480 (48) | 20,480 (54.5) | 20,480 (59) | 20,480 (62.5) | 19,750 (65.5) | 18,200 (67.5) | 17,700 (69.5) |
| 30 | | 14,070 (24.5) | 14,070 (38.5) | 14,070 (47) | 14,070 (52.5) | 14,070 (57) | 14,070 (60.5) | 14,070 (63.5) | 14,070 (65.5) |
| 35 | | | 10,240 (26) | 10,240 (38) | 10,240 (46) | 10,240 (51) | 10,240 (55.5) | 10,240 (59) | 10,240 (61.5) |
| 40 | | | | 8,100 (27.5) | 8,100 (38) | 8,100 (45) | 8,100 (50) | 8,100 (54) | 8,100 (57.5) |
| 45 | | | | | 6,420 (28.5) | 6,420 (37.5) | 6,420 (44) | 6,420 (49) | 6,420 (53) |
| 50 | | | | | 4,970 (13) | 4,970 (29) | 4,970 (37.5) | 4,970 (43.5) | 4,970 (48) |
| 55 | | | | | | 3,810 (16.5) | 3,810 (29.5) | 3,810 (37.5) | 3,810 (43) |
| 60 | | | | | | | 2,980 (19) | 2,980 (30.5) | 2,980 (37.5) |
| 65 | | | | | | | | 2,250 (21) | 2,250 (30.5) |
| 70 | | | | | | | | | 1,750 (22.5) |
| Minimum boom angle (degrees) for indicated boom length (no load) | | | | | | | | | 0 |
| Maximum boom length (feet) at 0° boom angle (no load) | | | | | | | | | 80 |

Note: () Boom angles are in degrees.
#LMI operating code. Two or four digit code depends on LMI system. Refer to LMI manual for instructions.

A6-829-007646 & 007587

MAIN BOOM - OVER REAR

| Radius in Feet | #0001 or #01 | | | | | | | | |
|--|--------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | Main Boom Length in Feet | | | | | | | | |
| | 33 | 38 | 44 | 50 | 56 | 62 | 68 | 74 | 80 |
| 10 | 70,000 (64.5) | 52,000 (68) | 51,000 (71) | | | | | | |
| 12 | 52,500 (60.5) | 52,000 (64.5) | 51,000 (68.5) | 44,900 (71.5) | 40,500 (73.5) | | | | |
| 15 | 42,000 (54) | 42,000 (59.5) | 42,000 (64) | 40,200 (67.5) | 36,000 (70.5) | 31,000 (72.5) | 26,000 (74.5) | | |
| 20 | 30,000 (42.5) | 30,000 (50) | 30,000 (56.5) | 30,000 (61) | 30,000 (64.5) | 24,500 (67.5) | 23,000 (70) | 21,500 (72) | 20,000 (73.5) |
| 25 | 22,700 (26.5) | 22,700 (39) | 22,700 (48) | 22,700 (54.5) | 22,700 (59) | 20,800 (62.5) | 19,750 (65.5) | 18,200 (67.5) | 17,700 (69.5) |
| 30 | | 17,800 (24.5) | 17,800 (38.5) | 17,800 (47) | 17,800 (52.5) | 17,400 (57) | 16,650 (60.5) | 15,800 (63.5) | 14,950 (65.5) |
| 35 | | | 14,400 (26) | 14,400 (38) | 14,400 (46) | 14,400 (51) | 14,200 (55.5) | 13,700 (59) | 12,900 (61.5) |
| 40 | | | | 11,620 (27.5) | 11,620 (38) | 11,620 (45) | 11,620 (50) | 11,620 (54) | 11,400 (57.5) |
| 45 | | | | | 9,490 (28.5) | 9,490 (37.5) | 9,490 (44) | 9,490 (49) | 9,490 (53) |
| 50 | | | | | 7,940 (13) | 7,940 (29) | 7,940 (37.5) | 7,940 (43.5) | 7,940 (48) |
| 55 | | | | | | 6,720 (16.5) | 6,720 (29.5) | 6,720 (37.5) | 6,720 (43) |
| 60 | | | | | | | 5,860 (19) | 5,860 (30.5) | 5,860 (37.5) |
| 65 | | | | | | | | 4,920 (21) | 4,920 (30.5) |
| 70 | | | | | | | | | 4,270 (22.5) |
| Minimum boom angle (degrees) for indicated boom length (no load) | | | | | | | | | 0 |
| Maximum boom length (feet) at 0° boom angle (no load) | | | | | | | | | 80 |

Note: () Boom angles are in degrees.
#LMI operating code. Two or four digit code depends on LMI system. Refer to LMI manual for instructions.

A6-829-007634 & 007587

**30 FT. FIXED LENGTH EXTENSION
(ON OUTRIGGERS FULLY EXTENDED- 360°)**

NOTES FOR LIFTING CAPACITIES

WARNING: THIS CHART IS ONLY A GUIDE. The Notes below are for illustration only and should not be relied upon to operate the crane. The individual crane's load chart, operating instructions and other instruction plates must be read and understood prior to operating the crane.

1. 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 as determined by SAE J765 OCT 80 Crane Stability Test Code.
2. 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.
3. Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.
4. 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.
5. 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.
6. Tires shall be inflated to the recommended pressure before lifting on rubber.
7. For outrigger operation, ALL outriggers shall be fully extended with tires raised free of ground before raising the boom or lifting loads.

Constant improvement and engineering progress make 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.



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FORM NO.: LC-TMS250C 85% DOM. P/N: 3-347 895-5M PRINTED IN U.S.A.

| Main Boom Angle (deg.) | #0051 or #51 | | #0052 or #52 | | #0053 or #53 | |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 0° OFFSET | | 15° OFFSET | | 30° OFFSET | |
| | Rad. Ref. (ft.) | Capacity (lbs.) | Rad. Ref. (ft.) | Capacity (lbs.) | Rad. Ref. (ft.) | Capacity (lbs.) |
| 75 | 26.7 | 10,350 | 32.8 | 7,660 | 38.8 | 5,310 |
| 70 | 35.7 | 8,790 | 41.6 | 6,530 | 47.2 | 4,850 |
| 65 | 44.4 | 7,080 | 49.9 | 5,550 | 55.2 | 4,470 |
| 60 | 52.7 | 5,890 | 57.8 | 4,810 | 62.7 | 3,980 |
| 55 | 60.7 | 4,380 | 65.3 | 3,570 | 69.7 | 2,930 |
| 50 | 68.1 | 3,180 | 72.2 | 2,610 | 76.1 | 2,160 |
| 45 | 75.0 | 2,310 | 78.6 | 1,910 | 81.9 | 1,570 |
| 40 | 81.2 | 1,660 | 84.3 | 1,370 | 87.1 | 1,130 |

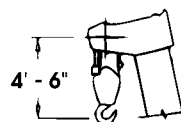
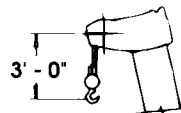
#LMI operating code. Refer to LMI manual for instructions. A6-829-007684A

**30 FT. FIXED LENGTH EXTENSION
(ON OUTRIGGERS FULLY EXTENDED- OVER REAR)**

| Main Boom Angle (deg.) | #0051 or #51 | | #0052 or #52 | | #0053 or #53 | |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 0° OFFSET | | 15° OFFSET | | 30° OFFSET | |
| | Rad. Ref. (ft.) | Capacity (lbs.) | Rad. Ref. (ft.) | Capacity (lbs.) | Rad. Ref. (ft.) | Capacity (lbs.) |
| 75 | 26.7 | 10,350 | 32.8 | 7,650 | 38.8 | 5,300 |
| 70 | 35.7 | 8,780 | 41.6 | 6,520 | 47.2 | 4,840 |
| 65 | 44.4 | 7,070 | 49.9 | 5,540 | 55.2 | 4,460 |
| 60 | 52.7 | 5,880 | 57.8 | 4,800 | 62.7 | 4,160 |
| 55 | 60.7 | 4,920 | 65.3 | 4,220 | 69.7 | 3,830 |
| 50 | 68.1 | 4,130 | 72.2 | 3,670 | 76.1 | 3,440 |
| 45 | 75.0 | 3,530 | 78.6 | 3,190 | 81.9 | 3,030 |
| 40 | 81.2 | 3,050 | 84.3 | 2,810 | 87.1 | 2,550 |
| 35 | 86.9 | 2,580 | 89.3 | 2,330 | 91.6 | 2,120 |
| 30 | 91.9 | 2,100 | 93.7 | 1,930 | | |
| 25 | 96.2 | 1,730 | 97.3 | 1,630 | | |
| 20 | 99.7 | 1,450 | 100.1 | 1,420 | | |
| 15 | 102.3 | 1,260 | | | | |
| 10 | 104.2 | 1,120 | | | | |

#LMI operating code. Two or four digit code depends on LMI system. A6-829-009407 Refer to LMI manual for instructions.

WARNING FOR 30 FT. BOOM EXTENSION: For main boom length greater than 62 ft. with 30 ft. fixed length boom extension in working position, the boom angle must be less than 37° since loss of stability will occur causing a tipping condition. The boom angle is not restricted for main boom length equal to or less than 62 ft. This warning applies for boom extension erection purposes also.



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

30 FT. - 54 FT. TELE. EXTENSION ON OUTRIGGERS FULLY EXTENDED - 360°

| Main Boom Angle (deg.) | 30 ft. LENGTH | | | 42 ft. LENGTH | | | 54 ft. LENGTH | | |
|------------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | #0021 or #21 | #0022 or #22 | #0023 or #23 | #0031 or #31 | #0032 or #32 | #0033 or #33 | #0041 or #41 | #0042 or #42 | #0043 or #43 |
| | 0° OFFSET | 15° OFFSET | 30° OFFSET | 0° OFFSET | 15° OFFSET | 30° OFFSET | 0° OFFSET | 15° OFFSET | 30° OFFSET |
| 75 | 10,000 (26.7) | 7,300 (32.8) | 4,950 (38.8) | 7,700 (30.9) | 5,090 (39.3) | 3,750 (48.2) | 6,150 (35.1) | 3,750 (46.0) | 2,690 (57.2) |
| 70 | 8,430 (35.7) | 6,170 (41.6) | 4,490 (47.2) | 6,950 (40.8) | 4,610 (48.8) | 3,460 (57.1) | 5,340 (46.0) | 3,300 (56.4) | 2,480 (66.7) |
| 65 | 6,720 (44.4) | 5,190 (49.9) | 4,110 (55.2) | 5,280 (50.3) | 3,900 (58.1) | 3,230 (65.6) | 4,380 (56.5) | 2,970 (66.3) | 2,320 (75.6) |
| 60 | 5,530 (52.7) | 4,430 (57.8) | 3,510 (62.7) | 4,350 (59.5) | 3,360 (66.7) | 2,470 (73.6) | 3,470 (66.5) | 2,620 (75.7) | 1,910 (83.9) |
| 55 | 3,870 (60.7) | 3,080 (65.3) | 2,450 (69.7) | 3,180 (68.3) | 2,310 (74.9) | 1,660 (80.9) | 2,730 (76.1) | 1,850 (84.6) | 1,260 (91.6) |
| 50 | 2,670 (68.1) | 2,110 (72.2) | 1,660 (76.1) | 2,130 (76.4) | 1,510 (82.5) | 1,050 (87.7) | | | |
| 45 | 1,780 (75.0) | 1,400 (78.6) | 1,070 (81.9) | | | | | | |

Note: () Reference radii are in feet.
 #LMI operating code. Two or four digit code depends on LMI system.
 Refer to LMI manual for instructions.

A6-829-007677A

30 FT. - 54 FT. TELE. EXTENSION ON OUTRIGGERS FULLY EXTENDED - OVER REAR

| Main Boom Angle (deg.) | 30 ft. LENGTH | | | 42 ft. LENGTH | | | 54 ft. LENGTH | | |
|------------------------|------------------|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | #0021 or #21 | #0022 or #22 | #0023 or #23 | #0031 or #31 | #0032 or #32 | #0033 or #33 | #0041 or #41 | #0042 or #42 | #0043 or #43 |
| | 0° OFFSET | 15° OFFSET | 30° OFFSET | 0° OFFSET | 15° OFFSET | 30° OFFSET | 0° OFFSET | 15° OFFSET | 30° OFFSET |
| 75 | 10,000 (26.7) | 7,300 (32.8) | 4,950 (38.8) | 7,700 (30.9) | 5,090 (39.3) | 3,750 (48.2) | 6,150 (35.1) | 3,750 (46.0) | 2,690 (57.2) |
| 70 | 8,430 (35.7) | 6,170 (41.6) | 4,490 (47.2) | 6,950 (40.8) | 4,610 (48.8) | 3,460 (57.1) | 5,340 (46.0) | 3,300 (56.4) | 2,480 (66.7) |
| 65 | 6,720 (44.4) | 5,190 (49.9) | 4,110 (55.2) | 5,280 (50.3) | 3,900 (58.1) | 3,230 (65.6) | 4,380 (56.5) | 2,970 (66.3) | 2,320 (75.6) |
| 60 | 5,530 (52.7) | 4,450 (57.8) | 3,810 (62.7) | 4,350 (59.5) | 3,360 (66.7) | 2,890 (73.6) | 3,470 (66.5) | 2,620 (75.7) | 2,190 (83.9) |
| 55 | 4,570 (60.7) | 3,870 (65.3) | 3,480 (69.7) | 3,660 (68.3) | 2,940 (74.9) | 2,600 (80.9) | 2,920 (76.1) | 2,290 (84.6) | 2,000 (91.6) |
| 50 | 3,780 (68.1) | 3,320 (72.2) | 3,090 (76.1) | 3,100 (76.4) | 2,610 (82.5) | 2,360 (87.7) | 2,510 (85.0) | 2,030 (92.7) | 1,820 (98.6) |
| 45 | 3,180 (75.0) | 2,840 (78.6) | 2,600 (81.9) | 2,600 (84.0) | 2,270 (89.4) | 1,990 (93.7) | 2,140 (93.3) | 1,820 (100.2) | 1,670 (104.7) |
| 40 | 2,680 (81.2) | 2,330 (84.3) | 2,040 (87.1) | 2,210 (90.9) | 1,850 (95.7) | 1,610 (99.0) | 1,820 (101.0) | 1,540 (106.8) | 1,330 (110.2) |
| 35 | 2,050 (86.9) | 1,810 (89.3) | 1,600 (91.6) | 1,740 (97.2) | 1,480 (101.1) | 1,330 (103.5) | 1,480 (107.7) | 1,180 (112.6) | 1,070 (114.6) |
| 30 | 1,570 (91.9) | 1,410 (93.7) | | 1,380 (102.7) | 1,190 (105.7) | | 1,110 (113.7) | | |
| 25 | 1,200 (96.2) | 1,100 (97.3) | | 1,100 (107.3) | | | | | |

Note: () Reference radii are in feet.
 #LMI operating code. Two or four digit code depends on LMI system.
 Refer to LMI manual for instructions.

A6-829-009408A

*** WARNING FOR 30 FT. BOOM EXTENSION:** For main boom length greater than 56 ft. with 30 ft. tele. boom extension in working position, the boom angle must not be less than 45° since loss of stability will occur causing a tipping condition. The boom angle is not restricted for main boom length equal to or less than 56 ft.

*** WARNING FOR 42 FT. BOOM EXTENSION:** For main boom length greater than 50 ft. with 42 ft. tele. boom extension in working position, the boom angle must not be less than 49° since loss of stability will occur causing a tipping condition. The boom angle is not restricted for main boom length equal to or less than 50 ft.

*** WARNING FOR 54 FT. BOOM EXTENSION:** For main boom length greater than 44 ft. with 54 ft. tele. boom extension in working position, the boom angle must not be less than 53° since loss of stability will occur causing a tipping condition. The boom angle is not restricted for main boom length equal to or less than 44 ft.

*** This warning applies for boom extension erection purposes also.**

LINE PULLS AND REEVING INFORMATION

WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES

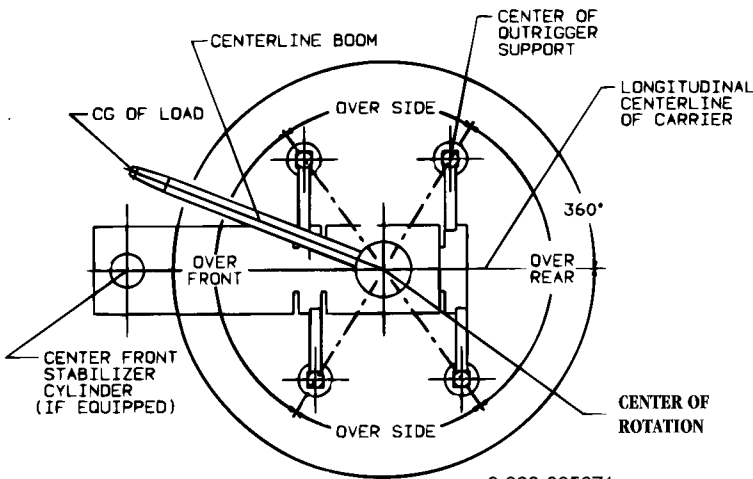
| HOISTS | CABLE SPECS. | PERMISSIBLE LINE PULLS |
|-------------------------|--|------------------------|
| MAIN & AUX. Model 15 | 5/8" (16 mm) 18x19 Class or 35x7 Rotation Resistant Min. Breaking Str. 45,400 lbs. | 8,496 lbs. |
| MAIN & AUX. Model 15 | 5/8" (16 mm) 6x37 Class EIPS, IWRC Special Flexible Min. Breaking Str. 41,200 lbs. | 8,496 lbs. |
| AUXILIARY Model 15 | 1/2" (13 mm) 18x19 Class or 35x7 Rotation Resistant Min. Breaking Str. 29,200 lbs. | 5,840 lbs. |

| 30 ft. BOOM EXTENSION | |
|--------------------------------------|------------|
| *Stowed - | 397 lbs. |
| *Erected - | 3,220 lbs. |
| 30 ft. - 54 ft. TELE. BOOM EXTENSION | |
| *Stowed - | 572 lbs. |
| *Erected (Retracted) - | 4,950 lbs. |
| *Erected (Extended) - | 6,627 lbs. |
| *Reduction of main boom capacities | |

| AUXILIARY BOOM HEAD | 110 lbs. |
|--------------------------------|-----------|
| HOOKBLOCKS and HEADACHE BALLS: | |
| 35 Ton, 4 Sheave | 600 lbs.+ |
| 12 Ton, 1 Sheave | 360 lbs.+ |
| 5 Ton Headache Ball | 172 lbs.+ |
| 7 1/2 Ton Headache Ball | 338 lbs.+ |

AREA OF OPERATION

+Refer to rating plate for actual weight



ZERO DEGREE BOOM ANGLE CHARTS - 360°

| Lifting Capacities on Outriggers - 360 degrees at Zero Degree Boom Angle | | | | | | | | | |
|--|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Boom Angle | Main Boom Length in Feet | | | | | | | | |
| | 33 | 38 | 44 | 50 | 56 | 62 | 68 | 74 | 80 |
| 0° | 10,700 (28.3) | 8,720 (33.2) | 6,910 (39.2) | 5,540 (45.2) | 4,460 (51.2) | 3,410 (57.2) | 2,480 (63.2) | 1,810 (69.2) | 1,370 (75.2) |

() Reference Radii are in Feet.

A6-829-009656

| Lifting Capacities on Outriggers - Over Rear at Zero Degree Boom Angle | | | | | | | | | |
|--|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Boom Angle | Main Boom Length in Feet | | | | | | | | |
| | 33 | 38 | 44 | 50 | 56 | 62 | 68 | 74 | 80 |
| 0° | 10,700 (28.3) | 8,720 (33.2) | 6,910 (39.2) | 5,540 (45.2) | 4,460 (51.2) | 3,600 (57.2) | 2,880 (63.2) | 2,280 (69.2) | 1,770 (75.2) |

() Reference Radii are in Feet.

A6-829-009657