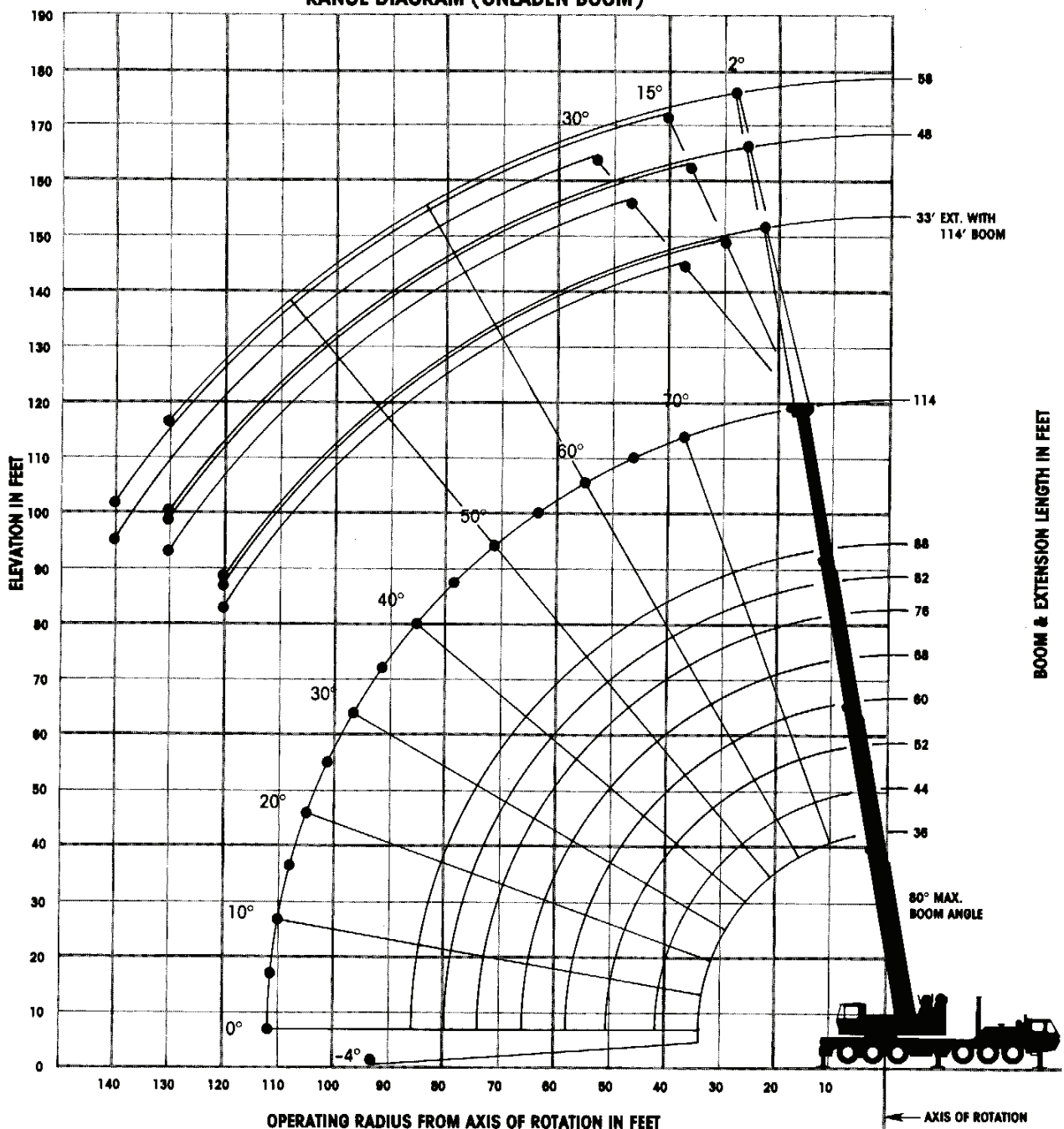




# TM890

85% Domestic/36 ft.-114 ft. Full Power Boom/12x6 Carrier

**RANGE DIAGRAM (UNLADEN BOOM)**



### ON OUTRIGGERS FULLY EXTENDED - 360° FULL POWER BOOM

| Radius in Feet                                               | Main Boom Length in Feet |                   |                  |                  |                  |                  |                  |
|--------------------------------------------------------------|--------------------------|-------------------|------------------|------------------|------------------|------------------|------------------|
|                                                              | 36                       | 49                | 62               | 75               | 88               | 101              | 114              |
| 10                                                           | 180,000<br>(69)          |                   |                  |                  |                  |                  |                  |
| 12                                                           | 160,000<br>(65.5)        | 103,000<br>(72.5) | 83,000<br>(76)   | 78,000<br>(78.5) |                  |                  |                  |
| 15                                                           | 120,000<br>(60)          | 100,000<br>(68.5) | 81,000<br>(73.5) | 76,500<br>(76.5) | 63,000<br>(79)   |                  |                  |
| 20                                                           | 93,000<br>(50.5)         | 90,000<br>(62)    | 79,000<br>(68.5) | 68,000<br>(72.5) | 59,400<br>(76)   | 54,000<br>(77.5) | 50,000<br>(80)   |
| 25                                                           | 72,500<br>(39)           | 72,500<br>(55.5)  | 70,700<br>(63.5) | 64,000<br>(68)   | 54,000<br>(72.5) | 52,200<br>(74.5) | 43,200<br>(78)   |
| 30                                                           | 58,000<br>(23.5)         | 58,000<br>(48)    | 58,000<br>(58)   | 50,000<br>(64)   | 44,100<br>(69)   | 43,200<br>(71.5) | 36,000<br>(75)   |
| 35                                                           |                          | 46,240<br>(39)    | 44,100<br>(52.5) | 40,700<br>(59.5) | 36,000<br>(65)   | 34,000<br>(68.5) | 32,400<br>(72.5) |
| 40                                                           |                          | 36,530<br>(28.5)  | 36,530<br>(46)   | 35,000<br>(55)   | 30,000<br>(61.5) | 29,000<br>(65.5) | 27,000<br>(69.5) |
| 45                                                           |                          | 28,870<br>(11.5)  | 28,870<br>(39.5) | 28,870<br>(50.5) | 28,500<br>(57.5) | 27,100<br>(62.5) | 25,000<br>(67)   |
| 50                                                           |                          |                   | 23,380<br>(31.5) | 23,380<br>(45)   | 23,380<br>(53.5) | 23,380<br>(59)   | 21,000<br>(64)   |
| 60                                                           |                          |                   |                  | 16,330<br>(33)   | 16,330<br>(44.5) | 16,330<br>(52.5) | 16,330<br>(58)   |
| 70                                                           |                          |                   |                  | 11,980<br>(13)   | 11,980<br>(34.5) | 11,980<br>(45)   | 11,980<br>(51.5) |
| 80                                                           |                          |                   |                  |                  | 8,870<br>(19.5)  | 8,870<br>(36)    | 8,870<br>(44.5)  |
| 90                                                           |                          |                   |                  |                  |                  | 6,640<br>(24)    | 6,640<br>(36)    |
| 100                                                          |                          |                   |                  |                  |                  |                  | 4,880<br>(26)    |
| 110                                                          |                          |                   |                  |                  |                  |                  | 3,660<br>(8)     |
| Minimum boom angle (deg.) at indicated boom length (no load) |                          |                   |                  |                  |                  |                  | 0                |
| Maximum boom length (ft.) at 0 deg. boom angle (no load)     |                          |                   |                  |                  |                  |                  | 114              |

Note: Boom angles are in degrees.

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### CAPACITIES FOR 33 FT. - 58 FT. TELE. EXTENSION (ON OUTRIGGERS - 360°)

| Radius in Feet | 33 ft. EXTENSION |           |                 |           |                 |           | 48 ft. EXTENSION |           |                 |           |                 |           | 58 ft. EXTENSION |           |                 |           |                 |           |
|----------------|------------------|-----------|-----------------|-----------|-----------------|-----------|------------------|-----------|-----------------|-----------|-----------------|-----------|------------------|-----------|-----------------|-----------|-----------------|-----------|
|                | 2° OFFSET        |           | 15° OFFSET      |           | 30° OFFSET      |           | 2° OFFSET        |           | 15° OFFSET      |           | 30° OFFSET      |           | 2° OFFSET        |           | 15° OFFSET      |           | 30° OFFSET      |           |
|                | Boom Angle Ref.  | Cap. lbs. | Boom Angle Ref. | Cap. lbs. | Boom Angle Ref. | Cap. lbs. | Boom Angle Ref.  | Cap. lbs. | Boom Angle Ref. | Cap. lbs. | Boom Angle Ref. | Cap. lbs. | Boom Angle Ref.  | Cap. lbs. | Boom Angle Ref. | Cap. lbs. | Boom Angle Ref. | Cap. lbs. |
| 30             | 80.0             | *29,600   |                 |           |                 |           |                  |           |                 |           |                 |           |                  |           |                 |           |                 |           |
| 35             | 77.0             | 25,600    | 80.0            | *19,200   |                 |           | 80.0             | *14,400   |                 |           |                 |           | 80.0             | *9,200    |                 |           |                 |           |
| 40             | 75.0             | 23,250    | 77.5            | 16,800    | 80.0            | *13,800   | 77.0             | 13,700    | 80.0            | *12,300   |                 |           | 77.5             | 8,940     |                 |           |                 |           |
| 45             | 73.0             | 21,150    | 75.5            | 15,150    | 78.0            | 12,900    | 75.0             | 13,200    | 78.5            | 11,750    |                 |           | 76.0             | 8,770     |                 |           |                 |           |
| 50             | 71.0             | 19,200    | 73.0            | 13,650    | 76.0            | 12,050    | 73.0             | 12,450    | 77.0            | 11,050    | 80.0            | *8,600    | 74.0             | 8,590     | 80.0            | *7,900    |                 |           |
| 60             | 66.5             | 15,650    | 69.0            | 11,150    | 71.5            | 10,100    | 69.5             | 10,600    | 73.0            | 9,590     | 76.5            | 8,200     | 70.5             | 8,170     | 75.0            | 7,590     | 80.0            | *6,600    |
| 70             | 62.0             | 12,550    | 64.5            | 9,250     | 67.0            | 8,570     | 65.5             | 8,680     | 69.0            | 7,980     | 72.5            | 7,280     | 67.0             | 7,490     | 71.5            | 7,060     | 75.5            | 6,020     |
| 80             | 57.5             | 9,940     | 59.5            | 7,730     | 62.0            | 7,160     | 61.5             | 7,140     | 64.5            | 6,550     | 68.0            | 6,130     | 63.5             | 6,480     | 67.5            | 6,070     | 71.5            | 5,590     |
| 90             | 52.5             | 7,140     | 54.5            | 6,420     | 57.0            | 6,040     | 57.0             | 5,940     | 60.5            | 5,540     | 63.5            | 5,150     | 59.5             | 5,350     | 63.5            | 5,020     | 67.5            | 4,840     |
| 100            | 47.0             | 4,970     | 49.5            | 4,970     | 51.5            | 4,970     | 52.5             | 4,980     | 56.0            | 4,690     | 59.0            | 4,410     | 55.5             | 4,560     | 59.5            | 4,260     | 63.0            | 4,050     |
| 110            | 41.0             | 3,240     | 43.5            | 3,240     | 45.0            | 3,240     | 48.0             | 3,930     | 51.0            | 3,910     | 53.5            | 3,830     | 51.5             | 3,820     | 55.0            | 3,570     | 58.5            | 3,470     |
| 120            | 34.5             | 1,830     | 36.5            | 1,830     | 38.0            | 1,830     | 42.5             | 3,090     | 45.5            | 2,970     | 48.0            | 3,080     | 47.0             | 2,940     | 50.5            | 3,010     | 53.5            | 2,920     |
| 130            |                  |           |                 |           |                 |           | 37.0             | 1,960     | 39.5            | 1,960     | 41.5            | 1,960     | 42.0             | 1,860     | 45.0            | 2,300     | 48.0            | 2,360     |
| 140            |                  |           |                 |           |                 |           |                  |           |                 |           |                 |           |                  |           | 39.5            | 1,300     | 42.0            | 1,520     |

\*This capacity is based upon the maximum boom angle.

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# NOTES FOR LIFTING CAPACITIES

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 (75% of the tipping load on rubber) as determined by SAE J765 OCT80 Crane Stability Test Code.
2. This chart is intended as a guide only. The individual crane's load chart operating instructions and other instruction plates give details of the conditions under which the crane may be operated safely. ALL OF THESE INSTRUCTIONS MUST BE READ AND UNDERSTOOD PRIOR TO OPERATING THE CRANE.
3. 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.
4. Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.
5. 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.
6. 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.
7. For outrigger operation, ALL outriggers shall be fully extended with tires raised free of ground before raising the boom or lifting loads.
8. Tires shall be inflated to the recommended pressure before lifting on rubber.
9. Unless otherwise stated, capacities are with powered boom sections equally extended.
10. When a load indicator is fitted certain capacities may be modified to compensate for indicator characteristics.

## Bigge Crane and Rigging Co.

10700 Bigge Avenue  
San Leandro, CA 94577  
Phone: (888) 337-BIGGE or (510) 638-8100  
Fax: (510) 639-4053  
Email: info@bigge.com  
Web site: www.bigge.com

Constant improvement and engineering progress makes 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.

## GROVE MANUFACTURING COMPANY

Shady Grove, Pennsylvania 17256-0021

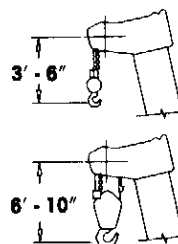
FORM NO.: LCTM890F.P.(12x6)

DATE: 588-10M  
PRINTED IN U.S.A

## 33 FT. FIXED LENGTH EXTENSION (ON OUTRIGGERS - 360°)

| Radius<br>in Feet | 2° OFFSET               |           | 15° OFFSET              |           | 30° OFFSET              |           |
|-------------------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|
|                   | Boom<br>Angle<br>(deg.) | Cap. lbs. | Boom<br>Angle<br>(deg.) | Cap. lbs. | Boom<br>Angle<br>(deg.) | Cap. lbs. |
| 30                | 80                      | *29,600   |                         |           |                         |           |
| 35                | 77                      | 26,100    | 80                      | *19,700   |                         |           |
| 40                | 75                      | 23,750    | 77.5                    | 17,300    | 80                      | *14,300   |
| 45                | 73                      | 21,650    | 75.5                    | 15,650    | 78                      | 13,400    |
| 50                | 71                      | 19,700    | 73                      | 14,150    | 76                      | 12,550    |
| 60                | 66.5                    | 16,150    | 69                      | 11,650    | 71.5                    | 10,600    |
| 70                | 62                      | 13,050    | 64.5                    | 9,790     | 67                      | 9,110     |
| 80                | 57.5                    | 10,700    | 59.5                    | 8,270     | 62                      | 7,700     |
| 90                | 52.5                    | 7,920     | 54.5                    | 6,960     | 57                      | 6,580     |
| 100               | 47                      | 5,750     | 49.5                    | 5,410     | 51.5                    | 5,745     |
| 110               | 41                      | 4,020     | 43.5                    | 4,020     | 45                      | 4,020     |
| 120               | 34.5                    | 2,610     | 36.5                    | 2,610     | 38                      | 2,610     |

A6-829-008796A



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

## WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES

| 33 FT. FIXED EXTENSION         |             |
|--------------------------------|-------------|
| †Stowed -                      | 630 lbs.    |
| †Erected -                     | 6,105 lbs.  |
| 33-58 FT. TELE. BOOM EXTENSION |             |
| †Stowed -                      | 868 lbs.    |
| †Erected (ret.) -              | 9,095 lbs.  |
| †Erected (ext.) -              | 12,518 lbs. |

†Reduction of main boom capacities.

| HOOKBLOCKS:             |            |
|-------------------------|------------|
| 90 Ton, 6 Sheave        | 2,030 lbs. |
| 15 Ton, 1 Sheave        | 650 lbs.   |
| Auxiliary Boom Head     | 230 lbs.   |
| 5 Ton Headache Ball     | 150 lbs.   |
| 7 1/2 Ton Headache Ball | 300 lbs.   |
| 10 Ton Headache Ball    | 500 lbs.   |