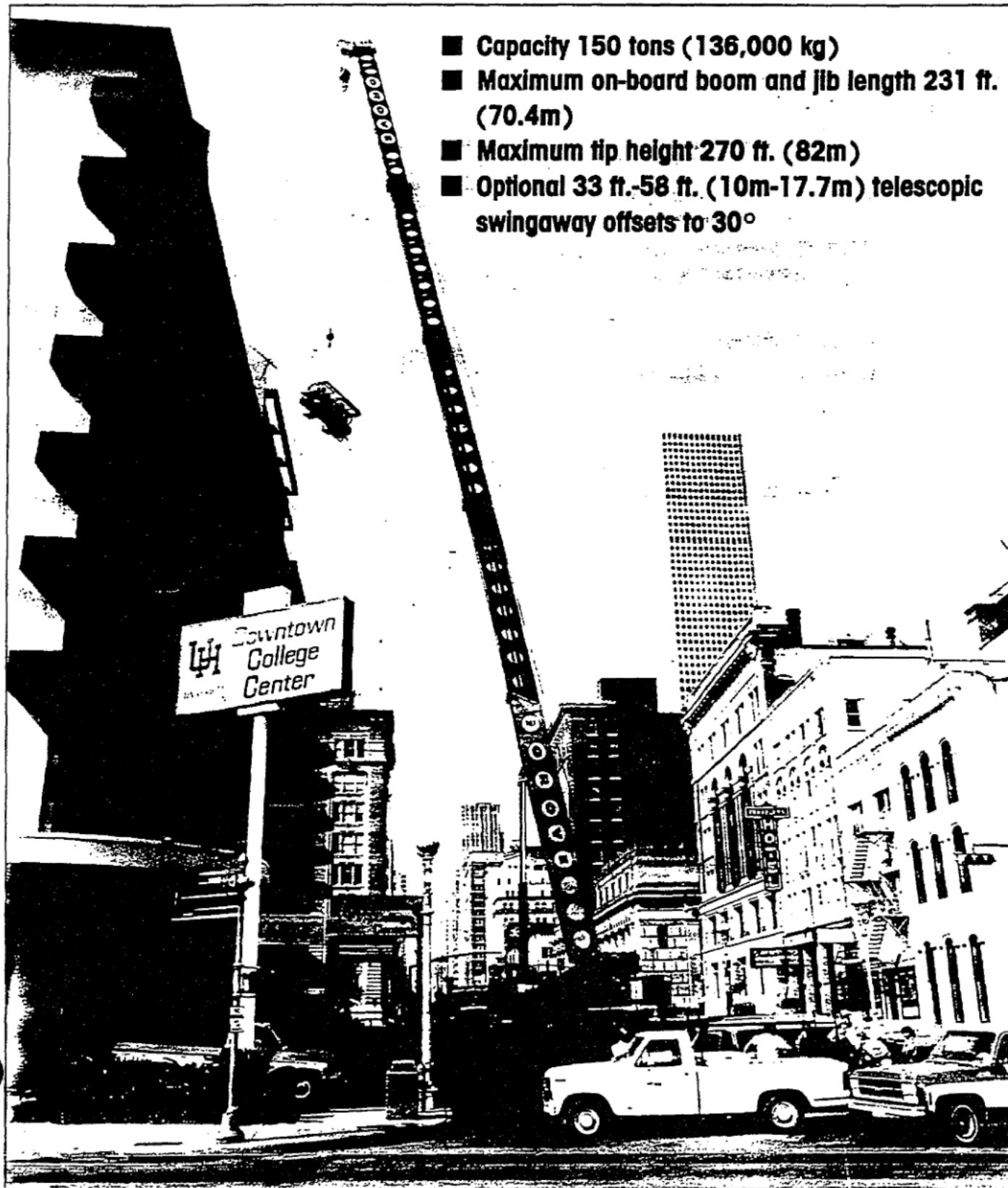




# TM1500

Truck-mounted hydraulic crane

- Capacity 150 tons (136,000 kg)
- Maximum on-board boom and jib length 231 ft. (70.4m)
- Maximum tip height 270 ft. (82m)
- Optional 33 ft.-58 ft. (10m-17.7m) telescopic swingaway offsets to 30°

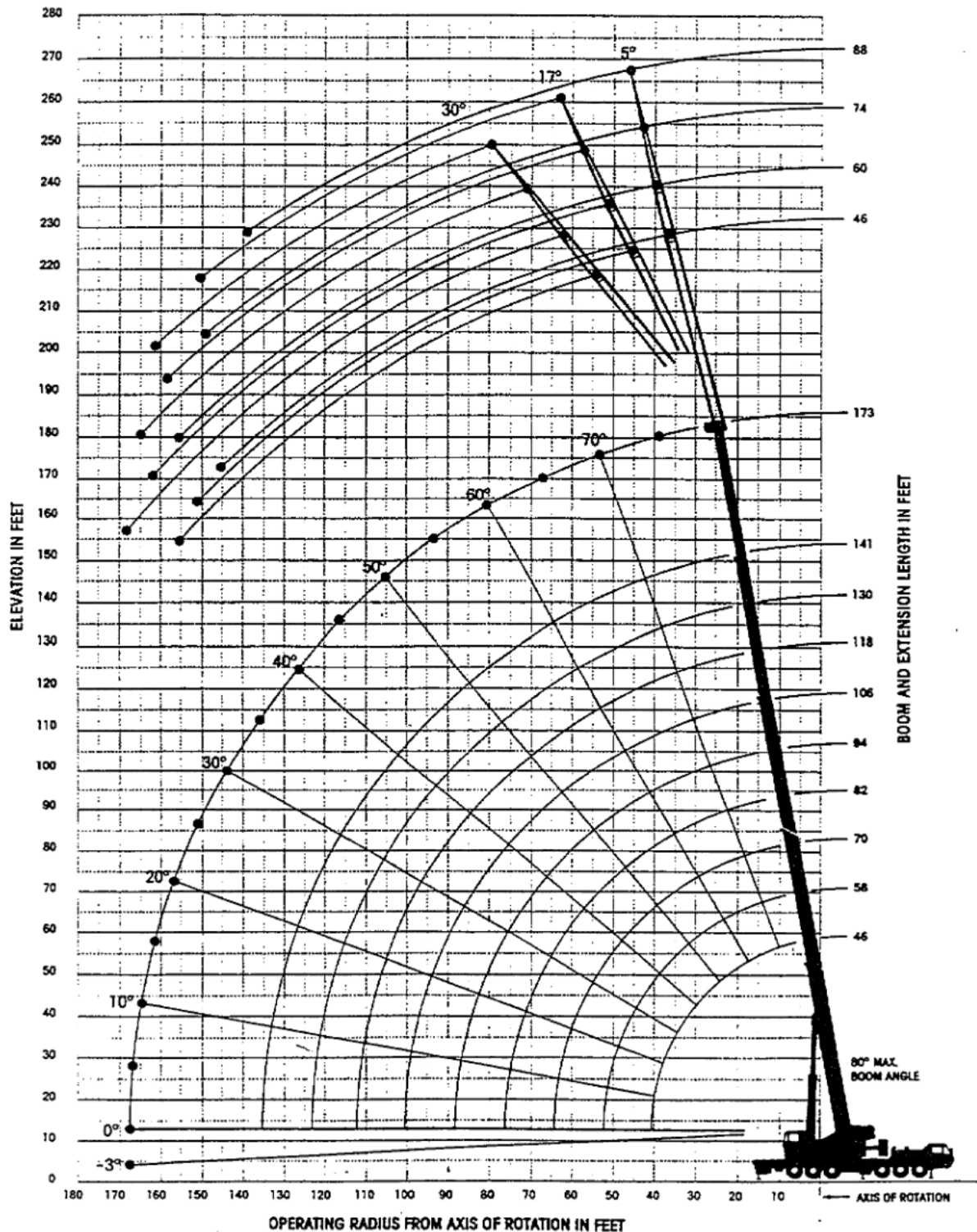


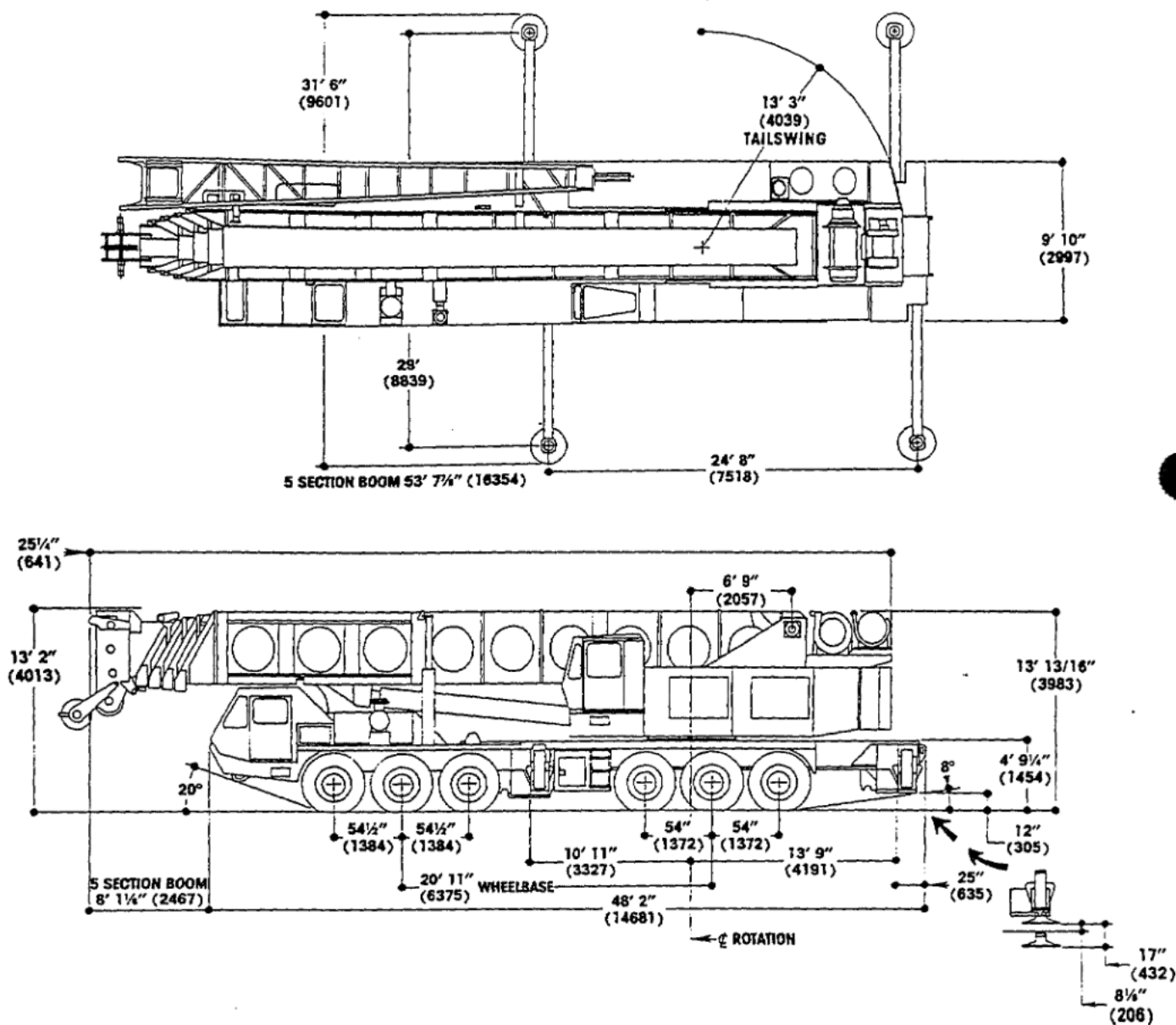


# TM1500

85% Domestic/173 ft. Aerial Power Pinned Boom & 88 ft. Fixed Offset Jib

RANGE DIAGRAM (UNLADEN BOOM)





Distributed By

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.

North and South America, Far East, Australasia

**GROVE MANUFACTURING COMPANY**

Box 21 • Shady Grove • Pennsylvania 17256  
(717) 597-8121 • telex: 842308 • fax: (717) 597-4062

Europe, Africa, Middle East, Indian Sub-continent

**GROVE COLES LTD.**

Telford Rd. • Bicester • Oxfordshire OX6 0TZ  
(0869) 246800 • telex: 837447 • fax: 0869-246965

# Carrier specifications

|                           |                                                                                                                                                                                                                                          |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Frame</b>              | High strength alloy steel all welded box-type construction with integral outrigger housings and front/rear lifting, towing and tie down lugs.                                                                                            |
| <b>Outrigger System</b>   | Hydraulic double stage double box telescopic beam and jack outriggers with integral holding valves. All steel fabricated quick release type outrigger floats 30.5 in. (775mm) diameter. Standard fifth front stabilizer for 360° duties. |
| <b>Outrigger Controls</b> | Located in the superstructure cab and on both sides of the carrier frame. Push button controls requiring two-handed operation for safety. Crane level indicator (sight bubble) adjacent to each set of controls.                         |
| <b>Engine</b>             | GM8V-92TA, eight cylinder turbo-charged water cooled diesel, 736 cu. in. (12.1 L), 430 hp (321 kw) (Gross) @ 2100 RPM. Maximum net torque 1123 ft. lbs. (169 kg/m) @ 1400 RPM.                                                           |
| <b>Fuel Tank Capacity</b> | (1) 100 gallons (378.5 L)                                                                                                                                                                                                                |
| <b>Electrical System</b>  | Four 12 volt - maintenance free batteries, 24 volt starting.                                                                                                                                                                             |
| <b>Drive</b>              | 12 x 6                                                                                                                                                                                                                                   |
| <b>Steering</b>           | Front axle steering, cam and lever type with hydraulic assist.                                                                                                                                                                           |
| <b>Transmission</b>       | Fuller Roadranger, 9 speeds forward, 2 reverse.                                                                                                                                                                                          |
| <b>Axes</b>               | Front: (3) Rockwell tubular steering FL951, 100 in. (2540mm) track.<br>Rear: (3) Rockwell EPRC 1735 planetary drive, 85 in. (2159mm) track.                                                                                              |
| <b>Suspension</b>         | Front axles (3) spring mounted tridem. Rear axles (3) solid mount tridem with equalizing beams.                                                                                                                                          |
| <b>Tires</b>              | Michelin 14:00x20-22PR (G-20X) radial ply tires front and rear.                                                                                                                                                                          |
| <b>Brakes</b>             | Full air on all wheels. Air dryer provided to preclude moisture accumulation. Spring set emergency brake on all rear axles with emergency release.                                                                                       |
| <b>Lights</b>             | Full lighting including head, tail, braking, reversing, directional and hazard warning lights.                                                                                                                                           |

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Cab</b> | Two man design, all steel fabricated with acoustical lining and tinted safety glass throughout. Deluxe fabric covered fully adjustable seat. Complete driving controls and engine instrumentation including tachometer, speedometer, voltmeter, water temp. oil pressure, fuel level, air pressure gauge with A/V warning. Other standard items include hot water heater/defroster, electric windshield wash/wipe, fire extinguisher, seat belt and door and window locks. |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                              |                                                                                                                                        |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Maximum Speed</b>                         | 42.1 MPH (67.3 kph)                                                                                                                    |
| <b>BASIC STANDARD MACHINE</b>                |                                                                                                                                        |
| <b>Gross Vehicle Weight &amp; Axle Loads</b> | Front: 57,341 lbs. (26,010 kgs)<br>Rear: 134,796 lbs. (61,143 kgs)<br>G.V.W.: 192,137 lbs. (87,153 kgs)                                |
| <b>Miscellaneous Standard Equipment</b>      | Dual rear view mirrors, hookblock stowage trough, electronic back-up alarm, light package, Jacobs engine brake and tire inflation kit. |
| <b>Optional Equipment</b>                    | Immersion engine block heater, engine low oil pressure/high water temperature, audio visual warning.                                   |

†Patented Grove feature or patent pending.  
\*Denotes optional equipment.

# Superstructure specifications

|                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                      | 46 ft. to 173 ft. (14m - 53m) five section Trapezoidal† full power boom. Each boom section has individually controlled telescope sections supported on graphite impregnated nylon wear pads. Maximum tip height: 182 ft. (55m).                                                                                                                                                                                                                  |
| <b>Swingaway Extension</b>                           | 33 ft. (10.1m) lattice swingaway boom extension stows alongside base boom section when not in use, offsettable at 2°, 15° or 30°. Maximum tip height: 215 ft. (66m).                                                                                                                                                                                                                                                                             |
| <b>*Optional Telescopic Swingaway</b>                | 33 ft. to 58 ft. (10m-18m) telescopic lattice swingaway extension with offset links, offsettable at 2°, 15° or 30°. Stows alongside base boom when not in use. Maximum tip height: 240 ft. (73m).                                                                                                                                                                                                                                                |
| <b>*Optional Jib Extension</b>                       | 60 ft. (18m) or 88 ft. (27m) fixed offset jib. Also available are 60 ft. and 88 ft. power luffing jibs. Maximum tip height: 270 ft. (82m).                                                                                                                                                                                                                                                                                                       |
| <b>Boom Nose</b>                                     | Eight sheaves mounted on heavy duty tapered roller bearings with removable pin-type rope guards. Standard removable auxiliary boom nose with removable pin type rope guard.                                                                                                                                                                                                                                                                      |
| <b>Boom Elevation</b>                                | Dual double acting hydraulic cylinders with integral holding valve provides elevation from -3° to 80°.                                                                                                                                                                                                                                                                                                                                           |
| <b>Load Moment &amp; Anti-Two Block System w/LMI</b> | Audio-visual (light/buzzer) warning system and control lever lockout with electronic display of: boom angle, length, radius, boom tip height, relative load moment, rated load and actual load indication.                                                                                                                                                                                                                                       |
| <b>Cab</b>                                           | Full vision, all steel fabricated with acoustical lining and tinted safety glass throughout. Dash panel incorporates gauges for all engine functions. Other standard features include: hinged skylight, sliding left side door and sliding right side window, electric windshield wash-wipe, circulating air fan, heater and defroster, swing horn, fire extinguisher, seat belt. *Optional items: electric skylight wiper and air conditioning. |
| <b>Swing</b>                                         | Roller bearing swing circle with 360° continuous rotation. Grove planetary "glide swing" with foot actuated disc brake, spring applied hydraulically released park brake and 360° position positive turntable lock. Combination controls provided for hand or foot operation. Swing speed 1.9 RPM.                                                                                                                                               |

|                      |                                                                                                                                                                                                                      |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Counterweight</b> | Turntable mounted, power installed and removed, hydraulically extended to working position and retracted to stowed or travel position. 15,700 lbs. (7122 kg) with aux. hoist; 17,100 lbs. (7746 kg) with main hoist. |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|               |                                                                                                                                                                          |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Engine</b> | GM8.2L eight cylinder turbo-charged water cooled diesel. 500 cu. in. (8.2 L), 205 hp (153 kw) (Gross) @ 3000 RPM. Maximum net torque: 383 ft. lbs. (53 kg/m) @ 1700 RPM. |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## HYDRAULIC SYSTEM

|                   |                                                                                                                                       |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>Pumps</b>      | Six main gear pumps powered by superstructure engine. Manual pump disconnect. Combined capacity 349 GPM (1321 lpm).                   |
| <b>Valves</b>     | Precision four way double acting control valves, 6 individual valve banks permit simultaneous control of multiple crane functions.    |
| <b>Filter</b>     | Return line type, full flow with by-pass protection and filter by-pass indicator, replaceable cartridge, 25 micron filtration rating. |
| <b>Reservoir</b>  | 420 gallons (1590 L) with spin-on breather filter, external sight gauge, clean out access, strap mounted to frame.                    |
| <b>Oil Cooler</b> | Full flow, fin and tube, oil to air.                                                                                                  |

## HOIST SPECIFICATIONS

Series parallel circuitry and two motors provide both high line pull and speed ranges. Power up and down, equal speed, planetary reduction with integral automatic brake and electronic hoist drum rotation indicator.

| Make/Model                                                 |                    | Main Hoist Germatic Model 44-26(H) and Grove Aux. Hoist H030B-26(H) |                                               |
|------------------------------------------------------------|--------------------|---------------------------------------------------------------------|-----------------------------------------------|
|                                                            |                    | Main                                                                | Auxiliary                                     |
| <b>Maximum single line speed</b>                           | Bottom layer       | 314 FPM<br>(96m/min)                                                | 454 FPM<br>(138m/min)                         |
|                                                            | Intermediate layer | 366 FPM<br>(112m/min)                                               | 528 FPM<br>(161m/min)                         |
|                                                            | Top layer          | 419 FPM<br>(128m/min)                                               | 601 FPM<br>(183m/min)                         |
| <b>Maximum single line pull</b>                            | Bottom layer       | 24,900 lbs.<br>(11295 kg)                                           | 16,322 lbs.<br>(7404 kg)                      |
|                                                            | Intermediate layer | 21,327 lbs.<br>(9674 kg)                                            | 14,056 lbs.<br>(6376 kg)                      |
|                                                            | Top layer          | 18,650 lbs.<br>(8460 kg)                                            | 12,344 lbs.<br>(5599 kg)                      |
| <b>Maximum permissible line pull w/5:1 strength factor</b> |                    | 22,760 lbs.<br>(10324 kg)                                           | 12,920 lbs.<br>(5,861 kg)                     |
| <b>Maximum rope stowage</b>                                |                    | 950 ft. of 1" dia. rope<br>(290m of 25.4mm)                         | 830 ft. of 3/4" dia. rope<br>(253m of 19.1mm) |

† Patented Grove feature or patent pending.  
\* Denotes optional equipment.

# BOOM

## 46 FT. TO 173 FT. AERIAL POWER PINNED BOOM CAPACITIES ON OUTRIGGERS FULLY EXTENDED - 360°

| Radius<br>in Feet                                        | Main Boom Length in Feet (Power Pinned Ry Retracted) |                   |                   |                   |                   |                  |                  |                  |                  | Power Pin.<br>Ry Ext.<br>& 141 ft. |
|----------------------------------------------------------|------------------------------------------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|------------------------------------|
|                                                          | 46                                                   | 58                | 70                | 82                | 94                | 106              | 118              | 130              | 141              |                                    |
| 10                                                       | 300,000<br>(74.5)                                    |                   |                   |                   |                   |                  |                  |                  |                  |                                    |
| 12                                                       | 280,000<br>(72)                                      | 143,500<br>(76)   | 142,000<br>(79)   |                   |                   |                  |                  |                  |                  |                                    |
| 15                                                       | 235,000<br>(67.5)                                    | 143,500<br>(72.5) | 141,500<br>(76.5) | 130,000<br>(78.5) |                   |                  |                  |                  |                  |                                    |
| 20                                                       | 173,500<br>(60.5)                                    | 143,500<br>(67.5) | 123,500<br>(72)   | 112,000<br>(75)   | 102,000<br>(77.5) | 90,300<br>(79.5) |                  |                  |                  |                                    |
| 25                                                       | 135,500<br>(52)                                      | 131,500<br>(61.5) | 110,500<br>(67.5) | 98,650<br>(71)    | 89,250<br>(74)    | 78,550<br>(76.5) | 73,700<br>(78.5) | 69,300<br>(80)   |                  |                                    |
| 30                                                       | 106,000<br>(43)                                      | 106,000<br>(55.5) | 98,000<br>(63)    | 88,350<br>(67.5)  | 78,750<br>(71)    | 69,250<br>(73.5) | 65,100<br>(76)   | 61,000<br>(77.5) | 60,000<br>(79.5) |                                    |
| 35                                                       | 84,700<br>(30.5)                                     | 84,700<br>(49)    | 84,700<br>(58)    | 80,150<br>(63.5)  | 69,000<br>(67.5)  | 60,750<br>(70.5) | 57,150<br>(73)   | 54,000<br>(75.5) | 52,150<br>(77.5) |                                    |
| 40                                                       |                                                      | 70,500<br>(41)    | 70,500<br>(52.5)  | 70,500<br>(59.5)  | 61,300<br>(64)    | 54,000<br>(67.5) | 50,600<br>(70.5) | 48,300<br>(73)   | 45,850<br>(75)   | 38,000<br>(79)                     |
| 45                                                       |                                                      | 57,250<br>(32)    | 57,250<br>(47)    | 57,250<br>(55)    | 55,000<br>(60.5)  | 48,500<br>(64.5) | 45,200<br>(68)   | 43,050<br>(71)   | 40,400<br>(73)   | 35,750<br>(77)                     |
| 50                                                       |                                                      | 46,550<br>(17.5)  | 46,550<br>(40.5)  | 46,550<br>(50.5)  | 46,550<br>(57)    | 43,050<br>(61.5) | 40,700<br>(65)   | 38,250<br>(68.5) | 35,750<br>(71)   | 32,100<br>(75.5)                   |
| 60                                                       |                                                      |                   | 32,000<br>(22.5)  | 32,000<br>(39.5)  | 32,000<br>(48.5)  | 32,000<br>(55)   | 32,000<br>(59.5) | 30,750<br>(63.5) | 28,500<br>(66.5) | 26,350<br>(72)                     |
| 70                                                       |                                                      |                   |                   | 22,550<br>(25)    | 22,550<br>(39.5)  | 22,550<br>(47.5) | 22,550<br>(53)   | 22,550<br>(58)   | 22,550<br>(61.5) | 22,000<br>(68.5)                   |
| 80                                                       |                                                      |                   |                   |                   | 15,900<br>(27)    | 15,900<br>(39)   | 15,900<br>(46.5) | 15,900<br>(52.5) | 15,900<br>(56.5) | 18,500<br>(64.5)                   |
| 90                                                       |                                                      |                   |                   |                   |                   | 11,000<br>(28)   | 11,000<br>(38.5) | 11,000<br>(46.5) | 11,000<br>(51.5) | 15,250<br>(60.5)                   |
| 100                                                      |                                                      |                   |                   |                   |                   |                  | 7,260<br>(29)    | 7,260<br>(39)    | 7,260<br>(45.5)  | 11,750<br>(56.5)                   |
| 110                                                      |                                                      |                   |                   |                   |                   |                  | 4,260<br>(12.5)  | 4,260<br>(30.5)  | 4,260<br>(39)    | 8,520<br>(52)                      |
| 120                                                      |                                                      |                   |                   |                   |                   |                  |                  | 1,830<br>(17.5)  | 1,830<br>(31)    | 5,850<br>(47.5)                    |
| 130                                                      |                                                      |                   |                   |                   |                   |                  |                  |                  |                  | 3,610<br>(42.5)                    |
| 140                                                      |                                                      |                   |                   |                   |                   |                  |                  |                  |                  | 1,710<br>(36.5)                    |
| Minimum boom angle (deg.) for indicated length (no load) |                                                      |                   |                   |                   |                   |                  |                  |                  |                  | 20                                 |
| Maximum boom length (ft.) at 0 deg. boom angle (no load) |                                                      |                   |                   |                   |                   |                  |                  |                  |                  | 133                                |

NOTE: Boom angles are in degrees.

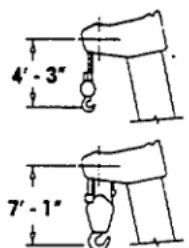
A6-829-007136 & -007143

## CAPACITIES FOR 33 FT. FIXED LENGTH EXTENSION ON OUTRIGGERS - 360°

| Main<br>Boom<br>Angle<br>(Deg.) | 2° OFFSET          |              | 15° OFFSET         |              | 30° OFFSET         |              |
|---------------------------------|--------------------|--------------|--------------------|--------------|--------------------|--------------|
|                                 | Rad.<br>Ref. (ft.) | Cap.<br>lbs. | Rad.<br>Ref. (ft.) | Cap.<br>lbs. | Rad.<br>Ref. (ft.) | Cap.<br>lbs. |
| 80                              | 39.1               | 22,850       | 45.9               | 20,200       | 52.0               | 14,750       |
| 75                              | 56.6               | 17,400       | 63.0               | 16,100       | 68.7               | 12,750       |
| 70                              | 73.7               | 14,000       | 79.6               | 12,950       | 84.8               | 10,700       |
| 65                              | 90.2               | 11,850       | 95.5               | 10,750       | 100.3              | 9,210        |
| 60                              | 106.0              | 10,750       | 110.8              | 9,140        | 115.0              | 8,050        |
| 55                              | 121.1              | 7,240        | 125.2              | 6,160        | 128.8              | 5,320        |
| 50                              | 135.2              | 4,330        | 138.6              | 3,700        | 141.8              | 3,150        |

A6-829-008157

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



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

| Main<br>Boom<br>Angle<br>(Deg.) | 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       |              |
|                                 | Rad.<br>Ref. ft. | Cap.<br>lbs. | Rad.<br>Ref. ft. | Cap.<br>lbs. | Rad.<br>Ref. ft. | Cap.<br>lbs. | Rad.<br>Ref. ft. | Cap.<br>lbs. | Rad.<br>Ref. ft. | Cap.<br>lbs. | Rad.<br>Ref. ft. | Cap.<br>lbs. | Rad.<br>Ref. ft. | Cap.<br>lbs. | Rad.<br>Ref. ft. | Cap.<br>lbs. | Rad.<br>Ref. ft. | Cap.<br>lbs. |
| 80                              | 39.1             | 22,300       | 45.9             | 19,650       | 52.0             | 14,200       | 43.9             | 14,800       | 55.9             | 12,700       | 65.0             | 9,040        | 45.1             | 9,600        | 59.1             | 8,300        | 69.6             | 7,000        |
| 75                              | 56.6             | 16,850       | 63.0             | 15,550       | 68.7             | 12,200       | 62.5             | 13,700       | 73.4             | 10,900       | 81.8             | 8,320        | 65.0             | 9,150        | 77.9             | 7,950        | 87.8             | 6,440        |
| 70                              | 73.7             | 13,450       | 79.6             | 12,400       | 84.8             | 10,150       | 80.7             | 11,600       | 90.3             | 8,840        | 97.9             | 7,110        | 84.4             | 8,550        | 96.2             | 7,200        | 105.5            | 5,760        |
| 65                              | 90.2             | 11,300       | 95.5             | 10,200       | 100.3            | 8,670        | 98.2             | 9,230        | 106.7            | 7,330        | 113.3            | 6,120        | 103.2            | 7,630        | 113.8            | 6,000        | 122.3            | 4,970        |
| 60                              | 106.0            | 10,200       | 110.8            | 8,600        | 115.0            | 7,450        | 115.1            | 7,550        | 122.1            | 6,210        | 127.9            | 5,340        | 121.2            | 6,260        | 130.5            | 5,100        | 138.2            | 4,360        |
| 55                              | 121.1            | 6,440        | 125.2            | 5,370        | 128.8            | 4,540        | 131.1            | 5,200        | 136.7            | 3,860        | 141.5            | 2,950        | 138.2            | 4,650        | 146.2            | 3,265        | 153.1            | 2,380        |
| 50                              | 135.2            | 3,520        | 138.6            | 2,910        | 141.8            | 2,360        | 146.1            | 2,580        | 150.2            | 1,790        |                  |              | 154.3            | 2,235        |                  |              |                  |              |

A6-829-007158

### CAPACITIES FOR 46 FT. - 88 FT. FIXED OFFSET JIBS ON OUTRIGGERS - 360°

| Main Boom Angle (Deg.) | 46 FT. JIB       |             |                 |           |                 |           | 60 FT. JIB      |           |                 |           |                 |           |
|------------------------|------------------|-------------|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|
|                        | 5° OFFSET        |             | 17° OFFSET      |           | 30° OFFSET      |           | 5° OFFSET       |           | 17° OFFSET      |           | 30° OFFSET      |           |
|                        | Rad. Ref. (ft.)* | Cap. lbs.** | Rad. Ref. (ft.) | Cap. lbs. | Rad. Ref. (ft.) | Cap. lbs. | Rad. Ref. (ft.) | Cap. lbs. | Rad. Ref. (ft.) | Cap. lbs. | Rad. Ref. (ft.) | Cap. lbs. |
| 80                     | 44.4             | 14,900      | 52.4            | 12,600    | 59.8            | 8,120     | 47.1            | 12,500    | 58.6            | 8,530     | 68.7            | 5,350     |
| 77.5                   | 53.7             | 14,450      | 61.6            | 11,650    | 68.8            | 7,750     | 57.1            | 11,650    | 68.2            | 7,850     | 78.1            | 5,070     |
| 75                     | 62.9             | 14,000      | 70.6            | 10,850    | 77.6            | 7,410     | 67.0            | 10,800    | 77.9            | 7,260     | 87.3            | 4,830     |
| 72.5                   | 72.0             | 13,600      | 79.5            | 10,150    | 86.2            | 7,120     | 76.8            | 10,000    | 87.2            | 6,760     | 96.5            | 4,610     |
| 70                     | 81.0             | 12,470      | 88.3            | 9,550     | 94.8            | 6,860     | 86.5            | 9,230     | 96.5            | 6,330     | 105.3           | 4,420     |
| 67.5                   | 89.8             | 11,250      | 96.9            | 8,980     | 103.2           | 6,630     | 96.0            | 8,500     | 105.6           | 5,950     | 114.2           | 4,250     |
| 65                     | 98.4             | 8,850       | 105.3           | 7,940     | 113.2           | 6,430     | 105.2           | 7,850     | 114.5           | 5,620     | 122.7           | 4,100     |
| 62.5                   | 106.9            | 6,900       | 113.5           | 6,550     | 119.2           | 6,210     | 114.3           | 6,430     | 123.2           | 5,270     | 130.9           | 3,970     |
| 60                     | 115.1            | 5,370       | 121.5           | 5,080     | 126.9           | 4,800     | 123.2           | 5,010     | 131.6           | 4,500     | 138.9           | 3,850     |
| 55                     | 131.0            | 3,050       | 136.8           | 2,870     | 141.6           | 2,700     | 140.2           | 2,980     | 147.7           | 2,670     | 154.1           | 2,370     |
| 50                     | 145.9            | 1,550       | 151.1           | 1,460     | 155.2           | 1,370     | 156.2           | 1,430     | 162.7           | 1,260     | 168.2           | 1,100     |

| Main Boom Angle (Deg.) | 74 FT. JIB      |           |                 |           |                 |           | 88 FT. JIB       |             |                 |           |                 |           |
|------------------------|-----------------|-----------|-----------------|-----------|-----------------|-----------|------------------|-------------|-----------------|-----------|-----------------|-----------|
|                        | 5° OFFSET       |           | 17° OFFSET      |           | 30° OFFSET      |           | 5° OFFSET        |             | 17° OFFSET      |           | 30° OFFSET      |           |
|                        | Rad. Ref. (ft.) | Cap. lbs. | Rad. Ref. (ft.) | Cap. lbs. | Rad. Ref. (ft.) | Cap. lbs. | Rad. Ref. (ft.)* | Cap. lbs.** | Rad. Ref. (ft.) | Cap. lbs. | Rad. Ref. (ft.) | Cap. lbs. |
| 80                     | 50.8            | 9,470     | 64.3            | 6,000     | 78.0            | 3,530     | 52.9             | 7,300       | 70.1            | 3,970     | 86.0            | 2,330     |
| 77.5                   | 61.2            | 8,790     | 74.6            | 5,470     | 87.8            | 3,310     | 64.1             | 6,580       | 80.9            | 3,590     | 96.2            | 2,060     |
| 75                     | 71.6            | 7,980     | 84.7            | 5,020     | 97.3            | 3,120     | 75.2             | 5,950       | 91.5            | 3,260     | 106.3           | 1,820     |
| 72.5                   | 81.9            | 7,280     | 94.7            | 4,630     | 106.8           | 2,950     | 86.1             | 5,380       | 102.0           | 2,980     | 116.2           | 1,610     |
| 70                     | 92.0            | 6,610     | 104.3           | 4,290     | 116.0           | 2,800     | 96.9             | 4,800       | 112.2           | 2,740     | 126.0           | 1,450     |
| 67.5                   | 101.9           | 6,030     | 114.0           | 4,000     | 124.9           | 2,660     | 107.5            | 4,300       | 122.2           | 2,530     | 135.3           | 1,330     |
| 65                     | 111.6           | 5,500     | 123.3           | 3,740     | 133.7           | 2,540     | 117.9            | 3,870       | 132.1           | 2,340     | 144.6           | 1,220     |
| 62.5                   | 121.1           | 5,040     | 132.5           | 3,510     | 142.1           | 2,440     | 128.0            | 3,510       | 141.7           | 2,180     | 153.5           | 1,150     |
| 60                     | 130.2           | 4,050     | 141.2           | 3,260     | 150.2           | 2,350     | 138.0            | 2,870       | 150.9           | 1,970     | 162.1           | 1,080     |
| 55                     | 148.1           | 2,020     | 158.2           | 1,810     | 165.8           | 1,600     |                  |             |                 |           |                 |           |

\*Reference radius refers to fully extended boom and appropriate jib length.

\*\*Capacities at loaded main boom angle.

NOTE: Jib lifting capacities with auxiliary hoist only (3/4 in. wire rope).

A6-829-007220

### WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES

| 46 ft. - 173 ft. Boom with |             |
|----------------------------|-------------|
| *46 ft. Jib Erected -      | 9,613 lbs.  |
| *60 ft. Jib Erected -      | 14,571 lbs. |
| *74 ft. Jib Erected -      | 20,443 lbs. |
| *88 ft. Jib Erected -      | 27,199 lbs. |

\*Reduction of main boom capacities

#### HOOKBLOCKS:

|                      |            |
|----------------------|------------|
| 30 Ton, 1 Sheave     | 1,022 lbs. |
| 150 Ton, 8 Sheave    | 5,254 lbs. |
| Auxiliary Boom Head  | 261 lbs.   |
| 10 Ton Headache Ball | 560 lbs.   |
| 15 Ton Headache Ball | 803 lbs.   |

# NOTES FOR LIFTING CAPACITIES

1. All capacities above the bold line are based on structural strength of jib.
2. 46', 60', 74' & 88' jibs may be used for two-part line lifting crane 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. Rated load is based on loaded main boom angle with reference to horizontal, regardless of main boom length. (Ref. radius in ft. is for fully extended boom and power pinned fly extended 173 ft. boom length only.)
5. Capacities listed are with fully extended outriggers and front jack cylinder extended according to proper procedure.
6. 46 FT. JIB WARNING: With 46 ft. jib in working position, the boom angle must not be less than 50° since loss of stability will occur causing a tipping condition.  
60 FT. JIB WARNING: With 60 ft. jib in working position, the boom angle must not be less than 50° since loss of stability will occur causing a tipping condition.  
74 FT. JIB WARNING: With 74 ft. jib in working position, the boom angle must not be less than 55° since loss of stability will occur causing a tipping condition.  
88 FT. JIB WARNING: With 88 ft. jib in working position, the boom angle must not be less than 60° since loss of stability will occur causing a tipping condition.
7. JIB ERECTION NOTES:  
A. Maximum total length of main boom for purpose of erecting jib, over rear or side, below 30° main boom angle is:  
46 ft. Jib - 136 ft.  
60 ft. Jib - 129 ft.  
74 ft. Jib - 122 ft.  
88 ft. Jib - 115 ft.  
B. **WARNING:** Do not attempt to erect jib over front of machine, unless boom is fully retracted (power pinned fly extended).

**"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 OCT80 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. For outrigger operation, ALL outriggers shall be fully extended with tires raised free of ground before raising the boom or lifting loads.
7. Unless otherwise stated, capacities are with powered boom sections equally extended.

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.

North and South America, U.S.S.R., Far East, Australasia

## GROVE MANUFACTURING COMPANY

Box 21 ■ Shady Grove ■ Pennsylvania 17256  
(717) 597-8121 ■ telex: 842308 ■ fax: (717) 597-4062

Europe, Africa, Middle East, Indian Sub-continent

## GROVE

Sunderland ■ SR4 6TT ■ England  
(091) 565 6281 ■ telex: 53506 CRANES G ■ fax: (091) 564 0442

FORM NO.: LCTM1500P.P. 1289-5M-FB PRINTED IN U.S.A.