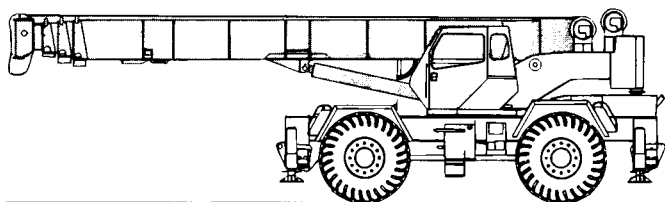


# **TEREX** **RT 400 SERIES**

rough terrain cranes  
specifications



## **STANDARD BOOM EQUIPMENT**

### **BOOM**

33-105 ft. (10.06-32.00 m), four section full power boom. Telescoping is fully synchronized with single lever control. High-strength, four plate construction with side plate holes providing reduced weight. Anti-friction slide pads. Single boom hoist cylinder.

### **BOOM HEAD**

Welded to fourth section of boom. Four or five load sheaves and two idler sheaves mounted on heavy duty, anti-friction bearings. Quick reeving boom head eliminates need to remove wedge and socket from rope. Provision made for side-stow jib mounting.

## **OPTIONAL BOOM EQUIPMENT**

### **JIBS**

33 ft. (10.06 m) side stow swing-on piece lattice type jib. Single sheave mounted on anti-friction bearing. Jib is offsettable at 0°, 15°, or 30°. Maximum tip height is 142 ft. (43.3 m).

33-58 ft. (10.06-17.68 m) side stow swing-on lattice type jib. Single sheave mounted on anti-friction bearing. Jib is extendible to 58 ft. (17.68 m) by means of a 25 ft. (7.62 m) manual pull-out tip section, roller supported for ease of extension. Jib is offsettable at 0°, 15°, or 30°. Maximum tip height is 167 ft. (50.9 m).

### **AUXILIARY BOOM HEAD**

Removable auxiliary boom head has single sheave mounted on anti-friction bearing. Removable pin-type rope guard for quick reeving. Installs on main boom peak only.

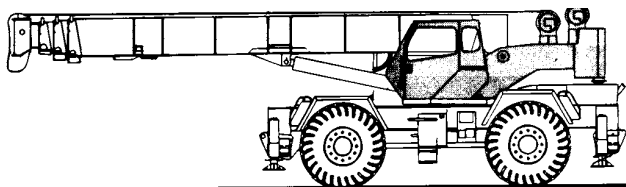
### **HOOK BLOCK**

Three, four or five sheaves and locking type hook latch. Quick reeving design does not require removal of wedge and socket from rope.

### **HOOK & BALL**

7.0 ton (6.3 mt) top swivel ball with hook and hook latch.





## STANDARD UPPERSTRUCTURE EQUIPMENT

### UPPERSTRUCTURE FRAME

All welded one-piece structure fabricated with high tensile strength alloy steel. Counterweight is bolted to frame.

### TURNTABLE CONNECTION

Swing bearing is single row, ball-type, with internal teeth. The swing gear is bolted to revolving upperstructure and to carrier frame.

### SWING

A hydraulic motor drives a double planetary reduction gear for precise and smooth swing function. Swing speed (no load) is 2.5 rpm.

### SWING BRAKE

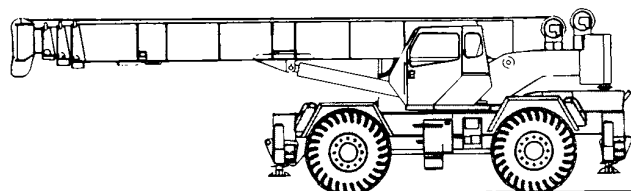
Heavy duty multiple disc swing brake is mechanically actuated from operator's cab by foot pedal. Brake may be locked on or used as a momentary brake. A separate 2-position mechanical house lock is also provided.

### RATED CAPACITY INDICATOR

Rated Capacity Indicator with visual and audible warning system and automatic function disconnects. Pictographic display includes: boom radius, boom angle, boom length, allowable load, actual load, and percentage of allowable load registered by bar graph. Operator settable alarms provided for swing angle, boom length, boom angle, tip height, and work area exclusion zone. Anti-two block system includes audio/visual warning and automatic function disconnects.

### OPERATOR'S CAB

Environmental cab with all steel construction, optimized visibility, tinted safety glass throughout, and rubber floor matting is mounted on vibration absorbing pads. The cab has a sliding door on the left side, framed sliding window on the right side, hinged tinted glass skylight and removable front windshield to provide



## STANDARD CARRIER EQUIPMENT

### CARRIER CHASSIS

Chassis is designed and built with four-wheel drive and four-wheel steer (4x4x4). Has box beam type construction with reinforcing cross members, a precision machined turntable mounting plate and integrally welded outrigger boxes. Decking has anti-skid surfaces, including tool storage compartment and access ladders left and right side and front and rear corners.

### AXLES AND SUSPENSION

Rear axle is a planetary drive/steer type with automatic oscillation lockouts that engage when the superstructure is swung 10° in either direction. Front axle is a planetary drive/steer type, rigid mounted to the frame for increased stability.

optimized visibility of the load open or closed. Acoustical foam padding insulates against sound and weather. The deluxe six-way adjustable operator's seat is equipped with a torsion bar suspension and includes head and arm rests.

### CONTROLS

All control levers and pedals are positioned for efficient operation. Hand-operated control levers include swing, boom telescope, boom hoist, single lever two-speed main winch, shift, vernier adjustable hand throttle and two position house lock. Switches include ignition, engine stop, steering mode, parking brake, and outrigger controls. Foot control pedals include swing brake, boom raise, boom lower, service brake and accelerator.

### INSTRUMENTATION AND ACCESSORIES

In-cab gauges include air pressure, bubble level, engine oil pressure, fuel, engine temperature, voltmeter, transmission temperature, and transmission oil pressure. Indicators include low air, high water temperature/low oil pressure/high transmission temperature audio/visual warning, low coolant audio/visual warning, hoist drum rotation indicator and Rated Capacity Indicator. Accessories include fire extinguisher; light package including headlights, tail lights, brake lights, directional signals, four-way hazard flashers, and back-up lights with audio pulsating back-up alarm; windshield and skylight washers/wipers; R.H. and L.H. rear view mirrors; dome light; dash lights; and seat belt.

### HYDRAULIC CONTROL VALVES

Valves are mounted on the upperstructure and are easily accessible. Valves include one four-spool main valve for boom hoist, telescope and main winch, one single-spool valve for swing. High pressure regeneration feature provides 2-speed boom extension. Quick disconnects are provided for quick attachment of pressure check gauges.

### OPTIONAL EQUIPMENT

Auxiliary Winch • 360° House Lock • Heater/Defroster • Air Conditioner • Tachometer • Work Lights • Revolving Amber Light • Independent Rear Wheel Steering • Roof Mounted Spotlight

### STEERING

Hydraulic four-wheel power steering for two-wheel, four-wheel, or crab steer is easily controlled by steering wheel.

Turning radius to center of outside tire.

|            |                   |                   |
|------------|-------------------|-------------------|
|            | 21.00 x 25        | 26.5 x 25         |
| Two-wheel  | 38' 0.6" (11.6 m) | 38' 4.2" (11.7 m) |
| Four-wheel | 20' 10.4" (6.4 m) | 21' 1.9" (6.5 m)  |

### TRANSMISSION

Full power-shift transmission with integral torque converter has neutral safety system, 6 speeds forward, and 3 speeds reverse. Automatic pulsating backup alarm.



## STANDARD CARRIER EQUIPMENT (continued)

### MULTI-POSITION OUT & DOWN OUTRIGGERS

Fully independent hydraulic outriggers may be utilized fully extended to 22 ft. (6.71 m), in their 1/2 extended position, or fully retracted. Easily removable floats, each with an area of 254 in<sup>2</sup> (1639 cm<sup>2</sup>), stow on the carrier frame. Complete controls and sight leveling bubble are located in the operator's cab.

### WHEELS & TIRES

Disc type wheels with full tapered bead seat rim. 150.50 in (3.82 m) wheelbase.

### TIRES

26.50x25, 26 P.R. (standard)  
21.00x25, 28 P.R. (optional)

## HYDRAULIC SYSTEM

### HYDRAULIC PUMPS

Three gear type pumps, one single and two in tandem, driven off the transmission. Combined system capability is 119 gpm (450 lpm). Includes pump disconnect.

#### Main and Auxiliary Winch Pump

59.5 gpm (225.2 lpm) @ 3,500 psi (246.1 kg/cm<sup>2</sup>)

#### Boom Hoist, Telescope Pump

38.5 gpm (145.7 lpm) @ 3,500 psi (246.1 kg/cm<sup>2</sup>)

#### Power Steering, Outrigger and Swing Pump

21 gpm (79.5 lpm) @ 2,500 psi (175 kg/cm<sup>2</sup>)

### SERVICE BRAKES

Air brakes on all four wheels; 20 1/4" x 4" (51.43x1010 cm) drum brakes.

### PARKING BRAKE

Front and rear axles equipped with spring-set, air-released emergency/parking chambers.

### OPTIONAL EQUIPMENT

Cold Weather Starting Aid • Immersion Heater • Rear Axle Centering Light • Pintle Hook • Clearance Lights • 24" (0.61 m) Aluminum Outrigger Floats • 31.5" (0.80 m) Stroke Jack Cylinders • Front Mounted Winch-20,000 lbs (9072 kg)

### FILTRATION

Full flow oil filtration system with bypass protection includes a removable 60 mesh (250 micron) suction screen-type filter and 5 micron replaceable return line filter.

### HYDRAULIC RESERVOIR

All steel, welded construction with internal baffles and diffuser. Provides easy access to filters and is equipped with an external sight level gauge. The hydraulic tank is pressurized to aid in keeping out contaminants and in reducing potential pump cavitation. Capacity is 114 gal (432 liters). Swing-away hydraulic oil cooler is standard.

## MAIN WINCH SPECIFICATIONS

Hydraulic winch with planetary reduction gearing provides 2-speed operation with equal speeds for power up and down. Winch is equipped with an integral automatic brake, tapered drum flanges, electronic drum rotation indicator, and drum roller.

### PERFORMANCE

Max. line speed (no load)

|             | LO-RANGE           | HI-RANGE            |
|-------------|--------------------|---------------------|
| First layer | 177 fpm (54 m/min) | 293 fpm (89 m/min)  |
| Fifth layer | 257 fpm (78 m/min) | 425 fpm (130 m/min) |

Max. line pull-first layer 15,000 lbs (6804 kg)

Permissible line pull 10,000 lbs (4536 kg)

### DRUM DIMENSIONS

10.62 in (270 mm) drum diameter  
20.9 in (531 mm) length  
19.8 in (503 mm) flange dia.  
Cable: 5/8 in. x 500 ft (15.9 mm x 152.4 m)  
Cable type: 6 x 19 IWRC-XIPS regular lay preformed

### DRUM CAPACITY

Max. Storage: 899 ft (274 m)  
7th layer not a working layer  
Max. Useable: 738 ft (225 m)\*

\* Based on min. flange height above top layer to comply with ANSI B30.5

### OPTIONAL AUX. WINCH

Hydraulic winch, power up and down, equal speed, planetary reduction with integral automatic brake, tapered drum flanges, electronic drum rotation indicator, and drum roller.

### STANDARD: Performance

Max. line speed (no load)

Fifth layer 338 fpm (103 m/min)

Max. line pull

First layer 10,100 lbs (4582 kg)

### Drum Dimensions

10.5 in (267 mm) drum diameter  
16.1 in (408 mm) length  
17.8 in (452 mm) flange diameter  
Cable: 1/2 in x 500 ft (12.7 mm x 152.4 m)  
Cable type: 6 x 19 IWRC-XIPS regular lay preformed.

### Drum Capacity

Max. storage: 815 ft (248 m).

### HI-TORQUE:

Same as low speed main winch.

**OPTIONAL AUXILIARY WINCH** – 9/16 in. (15.88 mm) rotation resistant compacted strand, 18 x 19 or 19 x 19. Minimum break strength 18.5 tons (16.6 mt).

### OPTIONAL HOIST LINE

**MAIN WINCH** – 5/8" (14.29 mm) rotation resistant, compacted strand, 16 x 19 or 19 x 19. Minimum break strength 22.7 tons (20.4 mt).

## ENGINE SPECIFICATIONS

| Make and Model    | Cummins 6BTA5.9                | Caterpillar 3116 DITA          |
|-------------------|--------------------------------|--------------------------------|
| Type              | 6 cylinder                     | 6 cylinder                     |
| Bore and Stroke   | 4.02 x 4.72 in (102x120 mm)    | 4.12 x 5.0 in (105x127 mm)     |
| Displacement      | 359 cu in (5.9 l)              | 402 cu in (6.6 l)              |
| Gross HP          | 174 hp (130 kw) @ 2500 rpm     | 175 hp (130 kw) @ 2400 rpm     |
| Gross Torque      | 455 lb•ft (617 N•m) @ 1500 rpm | 490 lb•ft (664 N•m) @ 1450 rpm |
| Aspiration        | turbocharged & aftercooled     | turbocharged & aftercooled     |
| Air Filter        | dry type                       | dry type                       |
| Electrical System | 12 volt                        | 12 volt                        |
| Alternator        | 102 amp                        | 115 amp                        |
| Battery           | (2) 12V-1600 CCA               | (2) 12V-1600 CCA               |
| Fuel Capacity     | 50 gal (189 l)                 | 50 gal (189 l)                 |

## PERFORMANCE (Cummins 6BTA5.9 Engine)

| Transmission Gear | Forward Drive | Maximum Speed         | Maximum Tractive Effort | Gradeability @ Stall |
|-------------------|---------------|-----------------------|-------------------------|----------------------|
| 1                 | 4-wheel       | 2.4 mph<br>3.9 km/h   | 60,538 lbs<br>27,460 kg | 127.6%               |
| 2                 | 4-wheel       | 4.2 mph<br>6.8 km/h   | 34,255 lbs<br>15,538 kg | 48.5%                |
| 3                 | 4-wheel       | 5.6 mph<br>9.0 km/h   | 26,061 lbs<br>11,821 kg | 34.7%                |
| 4                 | 2-wheel       | 9.8 mph<br>15.8 km/h  | 14,765 lbs<br>6697 kg   | 18.0%                |
| 5                 | 2-wheel       | 13.9 mph<br>22.4 km/h | 10,410 lbs<br>4722 kg   | 12.0%                |
| 6                 | 2-wheel       | 24.1 mph<br>38.8 km/h | 5,960 lbs<br>2703 kg    | 5.9%                 |

All performance data is based on a gross vehicle weight of 75,000 lbs (34,014 kg), 26.5x25 tires, 4x4 drive. Performance may vary due to engine performance. Gradeability data is theoretical and is limited by tire slip, stability, or engine oil pan design.

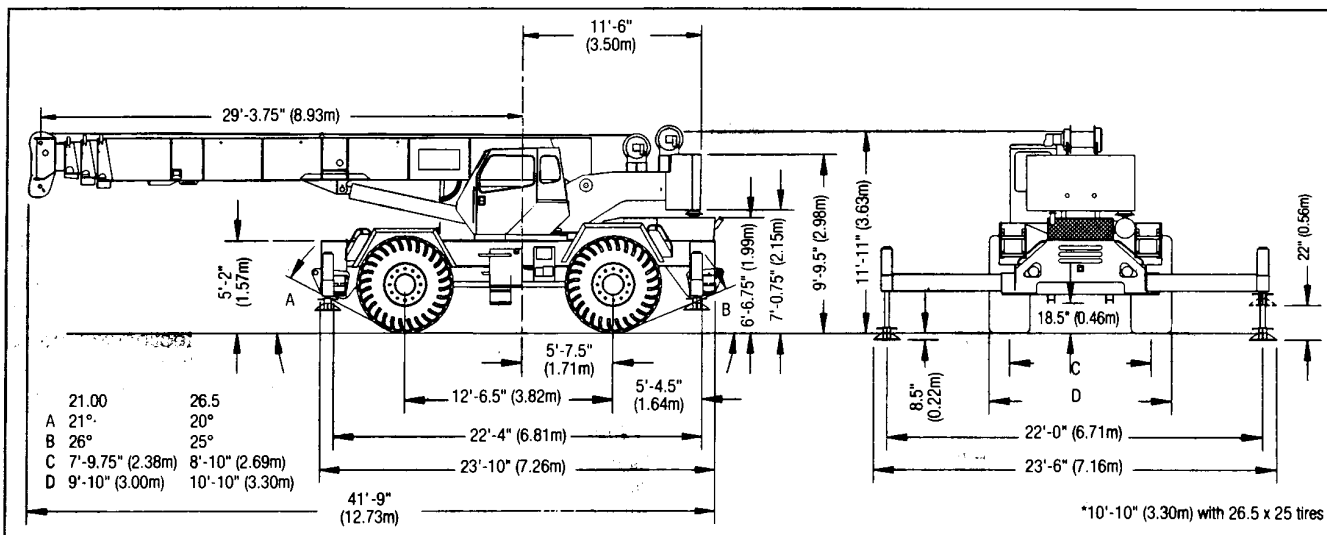


# GENERAL DIMENSIONS

**NOTES:**

- Dimensions given assume the boom is fully retracted in travel position and 26.50x25 tires.
- Minimum ground clearance under:
  - transmission - 25.25" (0.64m)
  - axle bowls - 22.25" (0.57m)
  - tie rods - 25.5" (0.65m)

\*\* The winch cable roller and drum rotation indicator increase the overall height by 4.50"



| WEIGHTS & AXLE LOADS  | GROSS WEIGHT<br>LBS. | UPPER FACING FRONT |        | GROSS WEIGHT<br>KG. | UPPER FACING FRONT |        |
|---|----------------------|--------------------|--------|---------------------|--------------------|--------|
|   |                      | FRONT              | REAR   |                     | FRONT              | REAR   |
| Basic Crane with 14,000 lb. (6349 kg) Counterweight and 26.5 x 25 26 PR Tires | 76,095               | 37,192             | 38,903 | 34 516              | 16 870             | 17 646 |
| <b>Add Options:</b>   |                      |                    |        |                     |                    |        |
| 33' (10.06 m) Swing-on jib (Stowed)   | + 1,705              | +2,850             | -1,145 | + 773               | + 1293             | - 520  |
| 33'-58" (10.06-17.68 m) Swing-On Jib (Stowed)                                 | + 2,545              | +4,000             | -1,455 | + 1154              | + 1814             | - 660  |
| Auxiliary Boom Head   | + 100                | + 285              | - 185  | + 45                | + 129              | - 84   |
| Caterpillar 3116 DITA Engine  | + 180                | - 15               | + 195  | + 82                | - 7                | + 195  |
| Aux. Winch, 1/2"x450' Wire Rope, Drum Roller                                  | - 65                 | + 15               | - 80   | - 29                | + 7                | - 22   |
| Hi-Torq Aux Winch 5/8"x500' Rope, Drum Roller                                 | + 298                | - 45               | + 343  | + 135               | - 20               | + 155  |
| 50T (45.3 mt) 6-Sheave Hook Block   | + 913                | +1,367             | - 454  | + 414               | + 620              | - 206  |
| 50T (45.3 mt) 5-Sheave Hook Block   | + 888                | +1,329             | - 441  | + 403               | + 603              | - 200  |
| 7.0T (6.3 mt) Hook and Ball (In tool box)                                     | + 240                | + 290              | - 50   | + 109               | + 130              | - 21   |
| <b>Pintle Hook:</b>   |                      |                    |        |                     |                    |        |
| Front   | + 45                 | + 60               | - 15   | + 20                | + 27               | - 7    |
| Rear  | + 45                 | - 25               | + 70   | + 20                | - 11               | + 31   |
| <b>Substitute:</b>  |                      |                    |        |                     |                    |        |
| 360° Mechanical House Lock  | + 85                 | - 38               | + 47   | + 39                | - 17               | + 22   |
| 21.00 x 25 26 PR Tires  | - 460                | - 230              | - 230  | - 208               | - 104              | - 104  |
| 5/8" x 500' of 18x19 class spin resistant wire rope                           | + 35                 | - 5                | + 40   | + 16                | - 2                | + 18   |

NOTE: Weights are for factory supplied equipment and are subject to 2% variation due to manufacturing tolerances. WE RESERVE THE RIGHT TO AMEND THESE SPECIFICATIONS AT ANY TIME WITHOUT NOTICE. THE ONLY WARRANTY APPLICABLE IS OUR STANDARD WRITTEN WARRANTY APPLICABLE TO THE PARTICULAR PRODUCT AND SALE. WE MAKE NO OTHER WARRANTY, EXPRESSED OR IMPLIED.

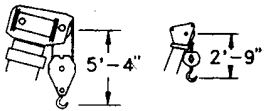
<http://www.terexlift.com>

**TEREX CRANES**  
Waverly, Iowa  
106 12th Street S.E. • Waverly, IA 50677-9466 USA  
(319) 352-3920 • FAX: (319) 352-5727

# TEREX RT 450

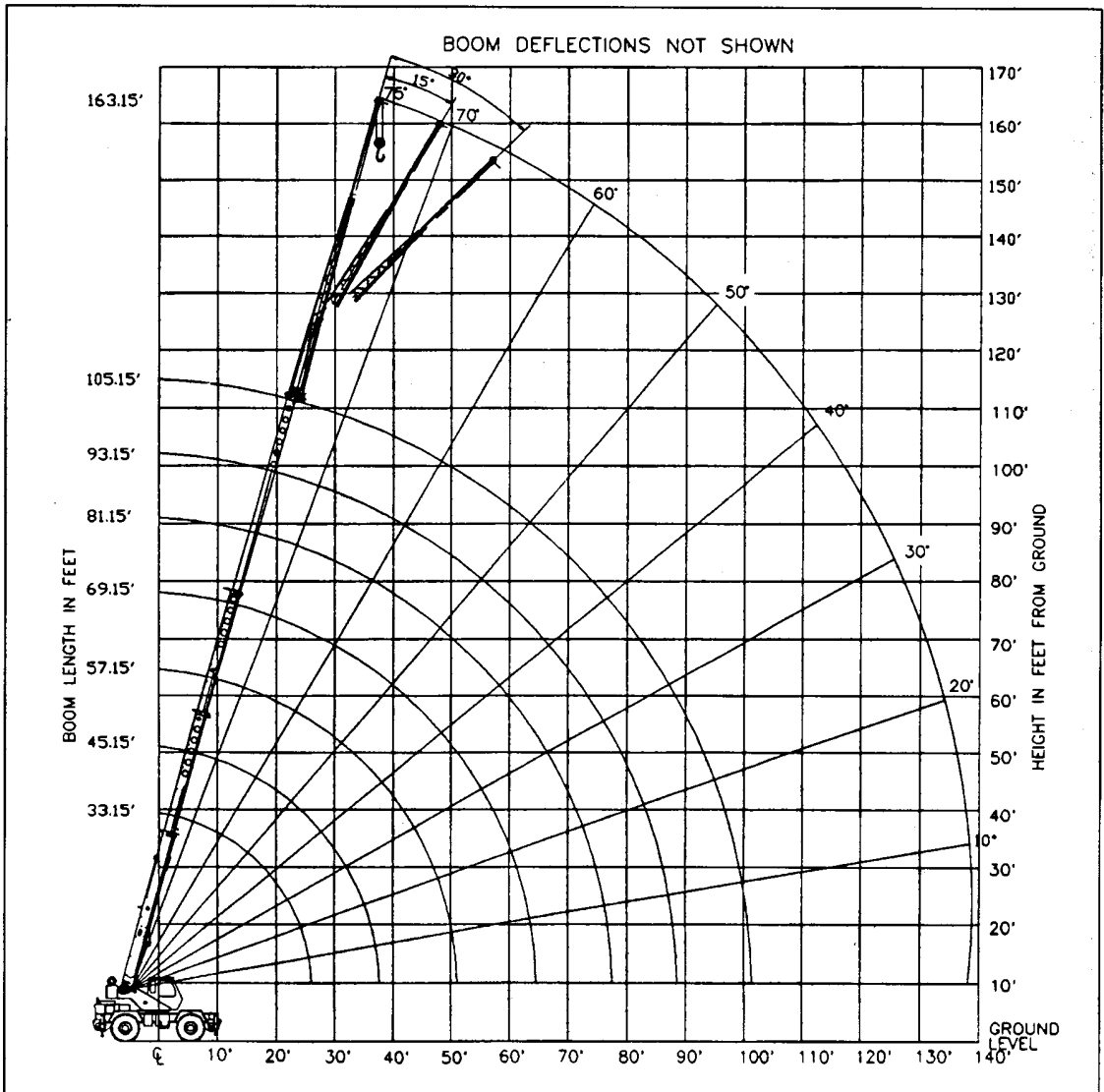
rough terrain crane  
50 ton capacity

range diagram & lifting capacities

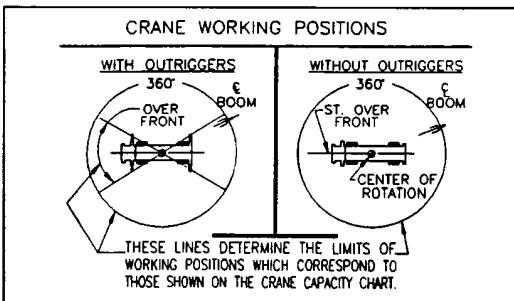


DIMENSIONS ARE FOR LARGEST FACTORY FURNISHED HOOK BLOCK AND HOOK & BALL, WITH ANTI-TWO BLOCK ACTIVATED

**Range Diagram (33' - 105' boom)**



**CRANE WORKING CONDITIONS**



**REDUCTION IN MAIN BOOM CAPACITY**

|                             |          |
|-----------------------------|----------|
| All Jibs in Stowed Position | 0 Lbs.   |
| Aux. Boom in Head Sheave    | 100 Lbs. |

**HOOK BLOCK WEIGHTS**

|                       |          |
|-----------------------|----------|
| Hook & Ball           | 239 Lbs. |
| Hook Block (4 Sheave) | 690 Lbs. |
| Hook Block (5 Sheave) | 888 Lbs. |
| Hook Block (6 Sheave) | 913 Lbs. |

# Lifting Capacities – Pounds (33’ – 105’ boom)

## MODEL RT 450

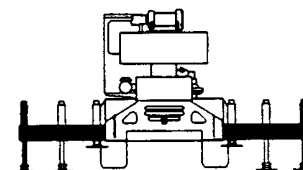
COUNTERWEIGHT:  
W/AUX. WINCH 13,100 LBS.  
W/O AUX. WINCH 14,200 LBS.  
BOOM LENGTH 33-105 FT.  
OUTRIGGER SPREAD 22 FT.

STABILITY PCT.  
ON OUTRIGGERS 85%  
ON TIRES 75%  
PCSA CLASS 10-176

**CAUTION:** Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change.

### ON OUTRIGGERS - FULLY EXTENDED

| LOAD RADIUS (FT) | BOOM LENGTH 33.15 FT |                        |           | BOOM LENGTH 45.15 FT |                        |           | BOOM LENGTH 57.15 FT |                        |           | LOAD RADIUS (FT) |
|------------------|----------------------|------------------------|-----------|----------------------|------------------------|-----------|----------------------|------------------------|-----------|------------------|
|                  | BOOM ANGLE (DEG)     | LOADED OVER FRONT (LB) | 360° (LB) | BOOM ANGLE (DEG)     | LOADED OVER FRONT (LB) | 360° (LB) | BOOM ANGLE (DEG)     | LOADED OVER FRONT (LB) | 360° (LB) |                  |
| 10               | 65.3                 | 100,000*               | 100,000*  | 72.2                 | 75,100*                | 75,100*   |                      |                        |           | 10               |
| 12               | 61.5                 | 76,200*                | 76,200*   | 69.5                 | 73,100*                | 73,100*   | 73.9                 | 59,700*                | 59,700*   | 12               |
| 15               | 55.4                 | 64,300*                | 62,500*   | 65.4                 | 61,800*                | 61,800*   | 70.8                 | 55,100*                | 55,100*   | 15               |
| 20               | 44.0                 | 46,300*                | 44,300*   | 58.1                 | 47,200*                | 45,200*   | 65.4                 | 47,700*                | 45,700*   | 20               |
| 25               | 29.6                 | 34,800*                | 33,300*   | 50.3                 | 35,800*                | 34,300*   | 59.7                 | 36,300*                | 34,800*   | 25               |
| 30               | **                   |                        |           | 41.5                 | 28,100*                | 27,000*   | 53.7                 | 28,700*                | 27,500*   | 30               |
| 35               |                      |                        |           | 30.7                 | 22,700*                | 21,700*   | 47.2                 | 23,200*                | 22,300*   | 35               |
| 40               |                      |                        |           | 13.9                 | 18,500*                | 17,700*   | 39.9                 | 19,100*                | 18,300*   | 40               |
| 45               |                      |                        |           | **                   |                        |           | 31.3                 | 15,900*                | 15,200*   | 45               |
| 50               |                      |                        |           |                      |                        |           | 19.6                 | 13,300*                | 12,700*   | 50               |
| 55               |                      |                        |           |                      |                        |           | **                   |                        |           | 55               |
| 60               |                      |                        |           |                      |                        |           |                      |                        |           | 60               |
| 65               |                      |                        |           |                      |                        |           |                      |                        |           | 65               |
| 70               |                      |                        |           |                      |                        |           |                      |                        |           | 70               |
| 75               |                      |                        |           |                      |                        |           |                      |                        |           | 75               |
| 80               |                      |                        |           |                      |                        |           |                      |                        |           | 80               |
| 85               |                      |                        |           |                      |                        |           |                      |                        |           | 85               |
| 90               |                      |                        |           |                      |                        |           |                      |                        |           | 90               |
| 95               |                      |                        |           |                      |                        |           |                      |                        |           | 95               |
| 100              |                      |                        |           |                      |                        |           |                      |                        |           | 100              |



**USE THESE CHARTS ONLY  
WHEN ALL OUTRIGGERS  
ARE FULLY EXTENDED**

### ON OUTRIGGERS - FULLY EXTENDED

| LOAD RADIUS (FT) | BOOM LENGTH 69.15 FT    |                |           | BOOM LENGTH 81.15 FT    |                |           | BOOM LENGTH 93.15 FT    |                |           | BOOM LENGTH 105.15 FT   |                |           | LOAD RADIUS (FT) |
|------------------|-------------------------|----------------|-----------|-------------------------|----------------|-----------|-------------------------|----------------|-----------|-------------------------|----------------|-----------|------------------|
|                  | LOADED BOOM ANGLE (DEG) | OVER REAR (LB) | 360° (LB) | LOADED BOOM ANGLE (DEG) | OVER REAR (LB) | 360° (LB) | LOADED BOOM ANGLE (DEG) | OVER REAR (LB) | 360° (LB) | LOADED BOOM ANGLE (DEG) | OVER REAR (LB) | 360° (LB) |                  |
| 10               |                         |                |           |                         |                |           |                         |                |           |                         |                |           | 10               |
| 12               |                         |                |           |                         |                |           |                         |                |           |                         |                |           | 12               |
| 15               | 74.2                    | 44,000*        | 44,000*   |                         |                |           |                         |                |           |                         |                |           | 15               |
| 20               | 69.8                    | 36,200*        | 36,200*   | 72.9                    | 33,500*        | 33,500*   |                         |                |           |                         |                |           | 20               |
| 25               | 65.4                    | 30,400*        | 30,400*   | 69.2                    | 28,400*        | 28,400*   | 72.0                    | 22,200*        | 22,200*   |                         |                |           | 25               |
| 30               | 60.7                    | 26,100*        | 26,100*   | 65.4                    | 24,300*        | 24,300*   | 68.7                    | 19,000*        | 19,000*   | 71.2                    | 15,100*        | 15,100*   | 30               |
| 35               | 55.8                    | 22,800*        | 22,600*   | 61.4                    | 21,100*        | 21,100*   | 65.4                    | 16,300*        | 16,300*   | 68.3                    | 13,400*        | 13,400*   | 35               |
| 40               | 50.7                    | 19,500*        | 18,700*   | 57.3                    | 18,700*        | 18,700*   | 61.9                    | 14,300*        | 14,300*   | 65.4                    | 12,000*        | 12,000*   | 40               |
| 45               | 45.1                    | 16,300*        | 15,600*   | 53.0                    | 16,500*        | 15,800*   | 58.4                    | 12,400*        | 12,400*   | 62.3                    | 10,800*        | 10,800*   | 45               |
| 50               | 38.9                    | 13,800*        | 13,100*   | 48.4                    | 14,000*        | 13,400*   | 54.7                    | 10,900*        | 10,900*   | 59.2                    | 9,600*         | 9,600*    | 50               |
| 55               | 31.7                    | 11,500         | 10,900    | 43.5                    | 11,700         | 11,000    | 50.8                    | 9,700*         | 9,700*    | 56.0                    | 8,600*         | 8,600*    | 55               |
| 60               | 22.6                    | 9,500          | 8,900     | 38.1                    | 9,700          | 9,100     | 46.7                    | 8,700*         | 8,700*    | 52.6                    | 7,600*         | 7,600*    | 60               |
| 65               |                         |                |           | 32.0                    | 8,100          | 7,600     | 42.4                    | 7,800*         | 7,700     | 49.1                    | 6,700*         | 6,700*    | 65               |
| 70               |                         |                |           | 24.5                    | 6,700          | 6,200     | 37.6                    | 6,900          | 6,400     | 45.4                    | 6,000*         | 6,000*    | 70               |
| 75               |                         |                |           | 13.7                    | 5,500          | 5,100     | 32.2                    | 5,700          | 5,300     | 41.4                    | 5,300*         | 5,300*    | 75               |
| 80               |                         |                |           | **                      |                |           | 25.8                    | 4,800          | 4,400     | 37.1                    | 4,700*         | 4,500     | 80               |
| 85               |                         |                |           |                         |                |           | 17.5                    | 3,900          | 3,500     | 32.3                    | 4,000          | 3,700     | 85               |
| 90               |                         |                |           |                         |                |           | **                      |                |           | 26.8                    | 3,300          | 2,900     | 90               |
| 95               |                         |                |           |                         |                |           |                         |                |           | 20.0                    | 2,600          | 2,300     | 95               |
| 100              |                         |                |           |                         |                |           |                         |                |           | 9.1                     | 2,000          | 1,700     | 100              |

### \*\* MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE

| BOOM LENGTH 33.15 FT |                 |           | BOOM LENGTH 45.15 FT |                 |           | BOOM LENGTH 57.15 FT |                 |           | BOOM LENGTH 69.15 FT |                 |           | BOOM LENGTH 81.15 FT |                 |           | BOOM LENGTH 93.15 FT |                 |           | BOOM LENGTH 105.15 FT |                 |           |
|----------------------|-----------------|-----------|----------------------|-----------------|-----------|----------------------|-----------------|-----------|----------------------|-----------------|-----------|----------------------|-----------------|-----------|----------------------|-----------------|-----------|-----------------------|-----------------|-----------|
| LOAD RADIUS (FT)     | OVER FRONT (LB) | 360° (LB) | LOAD RADIUS (FT)     | OVER FRONT (LB) | 360° (LB) | LOAD RADIUS (FT)     | OVER FRONT (LB) | 360° (LB) | LOAD RADIUS (FT)     | OVER FRONT (LB) | 360° (LB) | LOAD RADIUS (FT)     | OVER FRONT (LB) | 360° (LB) | LOAD RADIUS (FT)     | OVER FRONT (LB) | 360° (LB) | LOAD RADIUS (FT)      | OVER FRONT (LB) | 360° (LB) |
| 29.3                 | 17,100*         | 17,100*   | 41.3                 | 10,700*         | 10,700*   | 53.3                 | 6,900*          | 6,900*    | 65.3                 | 4,500*          | 4,500*    | 77.3                 | 2,700*          | 2,700*    | 89.3                 | 1,500*          | 1,500*    | 101.3                 | 500*            | 500*      |



# Lifting Capacities – Pounds (33’ – 105’ boom)

## MODEL RT 450

COUNTERWEIGHT:  
 W/AUX. WINCH 13,100 LBS.  
 W/O AUX. WINCH 14,200 LBS.  
 BOOM LENGTH 33-105 FT.  
 OUTRIGGER SPREAD 22 FT.

STABILITY PCT.  
 ON OUTRIGGERS 85%  
 ON TIRES 75%  
 PCSA CLASS 10-176

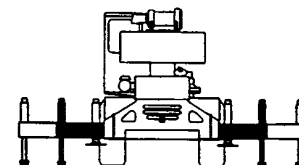
**CAUTION:** Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change.

### ON OUTRIGGERS - MID POSITION

| LOAD RADIUS (FT) | BOOM LENGTH 33.15 FT    |           | BOOM LENGTH 45.15 FT    |           | BOOM LENGTH 57.15 FT    |           | BOOM LENGTH 69.15 FT    |           | BOOM LENGTH 81.15 FT    |           | BOOM LENGTH 93.15 FT    |           | BOOM LENGTH 105.15 FT   |           | LOAD RADIUS (FT) |
|------------------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|------------------|
|                  | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) |                  |
| 10               | 65.3                    | 87,000*   | 72.2                    | 75,100*   |                         |           |                         |           |                         |           |                         |           |                         |           | 10               |
| 12               | 61.5                    | 70,900*   | 69.5                    | 71,800*   | 73.9                    | 59,700*   |                         |           |                         |           |                         |           |                         |           | 12               |
| 15               | 55.4                    | 54,800*   | 65.4                    | 55,700*   | 70.8                    | 55,100*   | 74.2                    | 44,000*   |                         |           |                         |           |                         |           | 15               |
| 20               | 44.0                    | 38,600*   | 58.1                    | 39,500*   | 65.4                    | 39,900*   | 68.8                    | 36,200*   | 72.9                    | 33,500*   |                         |           |                         |           | 20               |
| 25               | 29.6                    | 25,300    | 50.3                    | 26,400    | 59.7                    | 26,700    | 65.4                    | 26,900    | 69.2                    | 27,000    | 72.0                    | 22,200*   |                         |           | 25               |
| 30               | **                      |           | 41.5                    | 18,600    | 53.7                    | 19,000    | 60.7                    | 19,200    | 65.4                    | 19,300    | 68.7                    | 19,000*   | 71.2                    | 15,100*   | 30               |
| 35               |                         |           | 30.7                    | 13,500    | 47.2                    | 14,000    | 55.8                    | 14,200    | 61.4                    | 14,400    | 65.4                    | 14,400    | 68.3                    | 13,400*   | 35               |
| 40               |                         |           | 13.9                    | 9,800     | 39.9                    | 10,600    | 50.7                    | 10,800    | 57.3                    | 10,900    | 61.9                    | 11,000    | 65.4                    | 11,100    | 40               |
| 45               |                         |           | **                      |           | 31.3                    | 8,000     | 45.1                    | 8,300     | 53.0                    | 8,500     | 58.4                    | 8,500     | 62.3                    | 8,600     | 45               |
| 50               |                         |           |                         |           | 19.6                    | 5,900     | 38.9                    | 6,300     | 48.4                    | 6,600     | 54.7                    | 6,600     | 59.2                    | 6,700     | 50               |
| 55               |                         |           |                         |           | **                      |           | 31.7                    | 4,800     | 43.5                    | 5,000     | 50.8                    | 5,100     | 56.0                    | 5,200     | 55               |
| 60               |                         |           |                         |           |                         |           | 22.6                    | 3,500     | 38.1                    | 3,800     | 46.7                    | 3,900     | 52.6                    | 4,000     | 60               |
| 65               |                         |           |                         |           |                         |           | **                      |           | 32.0                    | 2,700     | 42.4                    | 2,900     | 49.1                    | 3,000     | 65               |
| 70               |                         |           |                         |           |                         |           |                         |           | 24.5                    | 1,800     | 37.6                    | 2,000     | 45.4                    | 2,100     | 70               |
| 75               |                         |           |                         |           |                         |           |                         |           |                         |           | 32.2                    | 1,300     | 41.4                    | 1,400     | 75               |

### \*\* MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE

| BOOM LENGTH 33.15 FT |           | BOOM LENGTH 45.15 FT |           | BOOM LENGTH 57.15 FT |           | BOOM LENGTH 69.15 FT |           | BOOM LENGTH 81.15 FT |           | BOOM LENGTH 93.15 FT |           | BOOM LENGTH 105.15 FT |           |
|----------------------|-----------|----------------------|-----------|----------------------|-----------|----------------------|-----------|----------------------|-----------|----------------------|-----------|-----------------------|-----------|
| LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)      | 360° (LB) |
| 29.3                 | 17,100*   | 41.3                 | 8,900     | 53.3                 | 4,700     | 65.3                 | 2,300     |                      |           |                      |           |                       |           |



**USE THESE CHARTS ONLY  
WHEN ALL OUTRIGGERS ARE  
PINNED IN MID POSITION**

# Lifting Capacities – Pounds (33’ – 105’ boom)

## MODEL RT 450

COUNTERWEIGHT: W/AUX. WINCH 13,100 LBS.  
 W/O AUX. WINCH 14,200 LBS.  
 BOOM LENGTH 33-105 FT.  
 OUTRIGGER SPREAD 22 FT.

STABILITY PCT. ON OUTRIGGERS 85%  
 ON TIRES 75%  
 PCSA CLASS 10-176

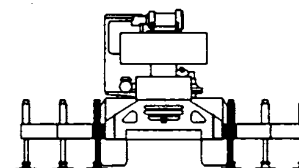
**CAUTION:** Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change.

### ON OUTRIGGERS - RETRACTED

| LOAD RADIUS (FT) | BOOM LENGTH 33.15 FT    |           | BOOM LENGTH 45.15 FT    |           | BOOM LENGTH 57.15 FT    |           | BOOM LENGTH 69.15 FT    |           | BOOM LENGTH 81.15 FT    |           | BOOM LENGTH 93.15 FT    |           | BOOM LENGTH 105.15 FT   |           | LOAD RADIUS (FT) |
|------------------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|------------------|
|                  | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) |                  |
| 10               | 65.3                    | 70,000    | 72.2                    | 70,700    |                         |           |                         |           |                         |           |                         |           |                         |           | 10               |
| 12               | 61.5                    | 48,900    | 69.5                    | 49,500    | 73.9                    | 49,800    |                         |           |                         |           |                         |           |                         |           | 12               |
| 15               | 55.4                    | 32,300    | 65.4                    | 33,000    | 70.8                    | 33,300    | 74.2                    | 33,400    |                         |           |                         |           |                         |           | 15               |
| 20               | 44.0                    | 18,700    | 58.1                    | 19,700    | 65.4                    | 20,000    | 69.8                    | 20,100    | 72.9                    | 20,200    |                         |           |                         |           | 20               |
| 25               | 29.6                    | 11,700    | 50.3                    | 12,700    | 59.7                    | 13,100    | 65.4                    | 13,300    | 69.2                    | 13,400    | 72.0                    | 13,500    |                         |           | 25               |
| 30               | **                      |           | 41.5                    | 8,400     | 53.7                    | 8,900     | 60.7                    | 9,200     | 65.4                    | 9,300     | 68.7                    | 9,300     | 71.2                    | 9,400     | 30               |
| 35               |                         |           | 30.7                    | 5,500     | 47.2                    | 6,000     | 55.8                    | 6,300     | 61.4                    | 6,500     | 65.4                    | 6,600     | 68.3                    | 6,600     | 35               |
| 40               |                         |           | 13.9                    | 3,300     | 39.9                    | 3,900     | 50.7                    | 4,300     | 57.3                    | 4,500     | 61.9                    | 4,600     | 65.4                    | 4,600     | 40               |
| 45               |                         |           | **                      |           | 7.9                     | 2,300     | 45.1                    | 2,700     | 53.0                    | 2,900     | 58.4                    | 3,000     | 62.3                    | 3,100     | 45               |
| 50               |                         |           |                         |           | 19.6                    | 1,100     | 38.9                    | 1,500     | 48.4                    | 1,700     | 54.7                    | 1,800     | 59.2                    | 1,900     | 50               |

### \*\* MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE

| BOOM LENGTH 33.15 FT |           | BOOM LENGTH 45.15 FT |           | BOOM LENGTH 57.15 FT |           | BOOM LENGTH 69.15 FT |           | BOOM LENGTH 81.15 FT |           | BOOM LENGTH 93.15 FT |           | BOOM LENGTH 105.15 FT |           |
|----------------------|-----------|----------------------|-----------|----------------------|-----------|----------------------|-----------|----------------------|-----------|----------------------|-----------|-----------------------|-----------|
| LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)      | 360° (LB) |
| 29.3                 | 7,500     | 41.3                 | 2,700     |                      |           |                      |           |                      |           |                      |           |                       |           |



**USE THESE CHARTS WHEN ALL OUTRIGGER BEAMS ARE NOT IN EITHER THE MID OR FULLY EXTENDED POSITION**



# Lifting Capacities – Pounds (33' – 105' boom)

## MODEL RT 450

COUNTERWEIGHT: W/AUX. WINCH 13,100 LBS.  
 W/O AUX. WINCH 14,200 LBS.  
 BOOM LENGTH 33-105 FT.  
 OUTRIGGER SPREAD 22 FT.

STABILITY PCT.  
 ON OUTRIGGERS 85%  
 ON TIRES 75%  
 PCSA CLASS 10-176

**CAUTION:** Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change.

### SIDE STOW JIB ON FULLY EXTENDED OUTRIGGERS

| LOADED BOOM ANGLE (DEG) | 33 FT OFFSETABLE JIB/NO PULL OUT INSTALLED |           |                        |           |                        |           | 33 FT OFFSETABLE JIB/PULL OUT RETRACTED |           |                        |           |                        |           | 58 FT OFFSETABLE JIB   |           |                        |           |                        |           | LOADED BOOM ANGLE (DEG) |
|-------------------------|--|-----------|------------------------|-----------|------------------------|-----------|---|-----------|------------------------|-----------|------------------------|-----------|------------------------|-----------|------------------------|-----------|------------------------|-----------|-------------------------|
|                         | 0° OFFSET                                  |           | 15° OFFSET             |           | 30° OFFSET             |           | 0° OFFSET                               |           | 15° OFFSET             |           | 30° OFFSET             |           | 0° OFFSET              |           | 15° OFFSET             |           | 30° OFFSET             |           |                         |
|                         | LOAD RADIUS (REF) (FT)                     | 360° (LB) | LOAD RADIUS (REF) (FT) | 360° (LB) | LOAD RADIUS (REF) (FT) | 360° (LB) | LOAD RADIUS (REF) (FT)                  | 360° (LB) | LOAD RADIUS (REF) (FT) | 360° (LB) | LOAD RADIUS (REF) (FT) | 360° (LB) | LOAD RADIUS (REF) (FT) | 360° (LB) | LOAD RADIUS (REF) (FT) | 360° (LB) | LOAD RADIUS (REF) (FT) | 360° (LB) |                         |
| 75                      | 38   | 9,100*    | 46                     | 7,300*    | 52                     | 6,100*    | 38                                      | 9,100*    | 46                     | 7,300*    | 52                     | 6,100*    | 50                     | 5,100*    | 64                     | 4,100*    | 75                     | 3,400*    | 75                      |
| 73                      | 43   | 7,800*    | 50                     | 6,700*    | 57                     | 5,600*    | 43                                      | 7,800*    | 50                     | 6,700*    | 57                     | 5,600*    | 55                     | 4,800*    | 69                     | 3,900*    | 79                     | 3,300*    | 73                      |
| 70                      | 50   | 7,600*    | 56                     | 6,400*    | 63                     | 5,500*    | 50                                      | 7,400*    | 56                     | 6,000*    | 63                     | 5,100*    | 63                     | 4,600*    | 76                     | 3,600*    | 86                     | 3,000*    | 70                      |
| 67                      | 57   | 7,400*    | 63                     | 6,000*    | 69                     | 5,200*    | 57                                      | 6,800*    | 63                     | 5,500*    | 69                     | 4,700*    | 71                     | 4,500*    | 83                     | 3,300*    | 92                     | 2,800*    | 67                      |
| 64                      | 63   | 6,400*    | 69                     | 5,300*    | 75                     | 4,700*    | 63                                      | 5,800*    | 69                     | 4,800*    | 75                     | 4,100*    | 78                     | 4,400*    | 90                     | 3,000*    | 98                     | 2,600*    | 64                      |
| 61                      | 70   | 5,600*    | 76                     | 4,800*    | 81                     | 4,200*    | 70                                      | 5,000*    | 76                     | 4,200*    | 81                     | 3,700*    | 86                     | 4,000*    | 97                     | 2,900*    | 104                    | 2,300*    | 61                      |
| 58                      | 76   | 5,000*    | 81                     | 4,300*    | 86                     | 3,800*    | 76                                      | 4,300*    | 81                     | 3,700*    | 86                     | 3,300*    | 93                     | 3,600*    | 103                    | 2,700*    | 110                    | 2,300*    | 58                      |
| 54                      | 83   | 4,300*    | 88                     | 3,800*    | 93                     | 3,400*    | 83                                      | 3,600*    | 88                     | 3,100*    | 93                     | 2,800*    | 102                    | 3,100*    | 111                    | 2,600*    | 117                    | 2,200*    | 54                      |
| 50                      | 90   | 3,800*    | 95                     | 3,300*    | 99                     | 3,100*    | 90                                      | 3,100*    | 95                     | 2,700*    | 99                     | 2,500*    | 110                    | 2,700*    | 118                    | 2,300*    | 123                    | 2,000*    | 50                      |
| 46                      | 97   | 3,300*    | 101                    | 2,900*    | 105                    | 2,700*    | 97                                      | 2,600*    | 101                    | 2,300*    | 105                    | 2,100*    | 117                    | 2,000     | 124                    | 1,900     | 128                    | 1,800*    | 46                      |
| 42                      | 103  | 2,900*    | 107                    | 2,700*    | 110                    | 2,500*    | 103                                     | 2,200*    | 107                    | 2,000*    | 110                    | 1,900*    | 123                    | 1,400     | 130                    | 1,300     | 133                    | 1,300     | 42                      |
| 38                      | 109  | 2,200     | 112                    | 2,000     | 115                    | 1,800     | 109                                     | 1,500     | 112                    | 1,400     | 115                    | 1,300     | 129                    | 1,100     |                        |           |                        |           | 38                      |
| 32                      | 117  | 1,500     | 116                    | 1,400     | 121                    | 1,400     |   |           |                        |           |                        |           |                        |           |                        |           |                        |           | 32                      |

**NOTES FOR JIB CAPACITIES**

- A. For all boom lengths less than the maximum with a jib erected, the rated loads are determined by boom angle only in the appropriate column.
- B. For boom angle not shown, use the capacity of the next lower boom angle.
- C. Listed radii are for extended main boom only.

### ON TIRES

| RADIUS (FT) | MAX BOOM LENGTH (FT) | 21:00 X 25-28PR |                     |              |                     | 26:5 x 25-26PR |                     |              |                     | RADIUS (FT) |
|-------------|----------------------|-----------------|---------------------|--------------|---------------------|----------------|---------------------|--------------|---------------------|-------------|
|             |                      | STATIONARY      |                     | PICK & CARRY |                     | STATIONARY     |                     | PICK & CARRY |                     |             |
|             |                      | 360°            | STRAIGHT OVER FRONT | 360°         | STRAIGHT OVER FRONT | 360°           | STRAIGHT OVER FRONT | 360°         | STRAIGHT OVER FRONT |             |
|             |                      | 360°            | STRAIGHT OVER FRONT | 360°         | STRAIGHT OVER FRONT | 360°           | STRAIGHT OVER FRONT | 360°         | STRAIGHT OVER FRONT |             |
| 10          | 33                   | 36,000          | 70,000*             | 53,100*      | 47,200*             | 39,500*        | 61,800*             | 47,200*      | 39,800*             | 10          |
| 12          | 33                   | 30,600          | 64,900*             | 49,400*      | 43,700*             | 32,100*        | 57,000*             | 43,300*      | 36,300*             | 12          |
| 15          | 33                   | 22,900          | 53,500              | 41,800*      | 35,900*             | 23,000         | 48,800*             | 36,600*      | 30,200*             | 15          |
| 20          | 45                   | 14,000          | 31,800              | 31,800       | 27,000*             | 14,700         | 33,200              | 27,500*      | 22,500*             | 20          |
| 25          | 45                   | 9,300           | 21,700              | 22,000       | 21,000              | 10,500         | 21,500              | 21,200       | 17,100*             | 25          |
| 30          | 45                   | 6,100           | 15,300              | 15,300       | 15,300              | 7,500          | 15,400              | 15,400       | 13,000*             | 30          |
| 35          | 45                   | 4,000           | 12,000              | 12,000       | 12,000              | 5,200          | 11,900              | 11,900       | 10,300*             | 35          |
| 40          | 57                   | 2,400           | 9,400               | 9,400        | 9,400               | 3,500          | 9,500               | 9,500        | 8,200*              | 40          |
| 45          | 57                   |                 | 7,400               | 7,400        | 7,400               | 2,000          | 7,600               | 7,600        | 6,500*              | 45          |
| 50          | 57                   |                 | 6,000               | 6,000        | 6,000               |                | 6,000               | 6,000        | 5,100*              | 50          |
| 55          | 69                   |                 | 4,700               | 4,700        | 4,700               |                | 4,700               | 4,700        | 4,000*              | 55          |
| 60          | 69                   |                 | 3,600               | 3,600        | 3,600               |                | 3,600               | 3,600        | 3,000*              | 60          |

**NOTES FOR ON TIRE CAPACITIES**

- A. For Pick and Carry operations, boom must be centered over the front of the crane with swing brake and lock engaged. Use minimum boom point height and keep load close to ground surface.
- B. The load should be restrained from swinging. NO ON TIRE OPERATION WITH JIB ERECTED.
- C. Without outriggers, never maneuver the boom beyond listed load radii for applicable tires to ensure stability.
- D. Creep speed is crane movement of less than 200 Ft. (61m) in a 30 minute period and not exceeding 1.0 mph(1.6 km/h).
- E. Refer to General Notes for additional information.

### MAXIMUM PERMISSIBLE HOIST LINE LOAD

| LINE PARTS  | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 10      |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| STD. HOIST  | 10,000 | 20,000 | 30,000 | 40,000 | 50,000 | 60,000 | 70,000 | 80,000 | 90,000 | 100,000 |
| AUX HOIST   | 9,080  | 18,160 | 27,240 | 36,320 | 45,400 | 54,480 | 65,560 | 70,000 | 81,270 | 90,000  |
| HOOK BLOCK  | 7,400  | 14,800 | 22,200 | 29,600 | 37,000 | 44,400 | 51,800 | 59,200 | 66,600 | 74,000  |
| WIRE ROPE: 5/8" ROTATION RESISTANT COMPACTED STRAND, 18X19<br>OR 19X19 MINIMUM BREAKING STRENGTH - 22.7 TONS<br>5/8" 6X19 OR 6X37 IWRC IPS PREFORMED RIGHT<br>REGULAR LAY MINIMUM BREAKING STRENGTH - 17.9 TONS |        |        |        |        |        |        |        |        |        |         |

### RECOMMENDED TIRE PRESSURE

| TIRE SIZE        | STATIONARY | CREEP  | 2 1/2 MPH | TRAVEL |
|------------------|------------|--------|-----------|--------|
| 21:00 X 25-28 PR | 85 PSI     | 85 PSI | 85 PSI    | 65 PSI |
| 26:50 X 25-26 PR | 65 PSI     | 65 PSI | 65 PSI    | 50 PSI |



## GENERAL NOTES

### GENERAL

1. Rated loads as shown on Lift Charts pertain to this machine as originally manufactured and equipped. Modifications to the machine or use of optional equipment other than that specified can result in a reduction of capacity.
2. Construction equipment can be hazardous if improperly operated or maintained. Operation and maintenance of this machine shall be in compliance with the information in the Operator's, Parts and Safety Manuals supplied with this machine. If these manuals are missing, order replacements from the manufacturer through your distributor.
3. These warnings do not constitute all of the operating conditions for the crane. The operator and job site supervision must read the OPERATORS MANUAL, CIMA SAFETY MANUAL, APPLICABLE OSHA REGULATIONS, AND SOCIETY OF MECHANICAL ENGINEERS (ASME) SAFETY STANDARDS FOR CRANES.
4. This crane and its load ratings are in accordance with POWER CRANE & SHOVEL ASSOCIATION, STANDARD NO. 4, SAE CRANE LOAD STABILITY TEST CODE J765A, SAE METHOD OF TEST FOR CRANE STRUCTURE J1063 AND APPLICABLE SAFETY CODE FOR CRANES, DERRICKS AND HOISTS, ASME/ANSI B30.5.

### DEFINITIONS

1. **LOAD RADIUS** – The horizontal distance from the axis of rotation before loading to the center of the vertical hoist line or tackle with a load applied.
2. **LOADED BOOM ANGLE** – It is the angle between the boom base section and the horizontal, after lifting the rated load at the rated radius. The boom angle before loading should be greater to account for deflections. The loaded boom angle combined with boom length give only an approximation of the operating radius.
3. **WORKING AREA** – Areas measured in a circular arc about the centerline of rotation as shown in the diagram.
4. **FREELY SUSPENDED LOAD** – Load hanging free with no direct external force applied except by the hoist rope.
5. **SIDE LOAD** – Horizontal force applied to the lifted load either on the ground or in the air.
6. **NO LOAD STABILITY LIMIT** – The stability limit radius shown on the range diagrams is the radius beyond which it is not permitted to position the boom, when the boom angle is less than the minimum shown on the applicable load chart, because the machine can overturn without any load.

### SET-UP

1. Crane load ratings are based on the crane being leveled and standing on a firm, uniform supporting surface.
2. Crane load ratings on outriggers are based on all outrigger beams being fully extended or in the case of partial extension ratings mechanically pinned in the appropriate position, and the tires free of the supporting surface.
3. Crane load ratings on tires depend on appropriate inflation pressure and the tire conditions. Caution must be exercised when increasing air pressures in tires. Consult Operator's Manual for precautions.
4. Use of jibs, lattice-type boom extensions, or fourth section pullouts extended is not permitted for pick and carry operations.
5. Consult appropriate section of the Operator's and Service Manual for more exact description of hoist line reeving.
6. The use of more parts of line than required by the load may result in having insufficient rope to allow the hook block to reach the ground.
7. Properly maintained wire rope is essential for safe crane operation. Consult Operator's Manual for proper maintenance and inspection requirements.

8. When spin-resistant wire rope is used, the allowable rope loading shall be the breaking strength divided by five (5), unless otherwise specified by the wire rope manufacturer.

### OPERATION

1. **CRANE LOAD RATINGS MUST NOT BE EXCEEDED. DO NOT ATTEMPT TO TIP THE CRANE TO DETERMINE ALLOWABLE LOADS.**
2. When either radius or boom length, or both, are between listed values, the smaller of the two listed load ratings shall be used.
3. Do not operate at longer radii than those listed on the applicable load rating chart (cross hatched areas shown on range diagrams).
4. The boom angles shown on the Capacity Chart give an approximation of the operating radius for a specified boom length. The boom angle, before loading, should be greater to account for boom deflection. It may be necessary to retract the boom if maximum boom angle is insufficient to maintain rated radius.
5. Power telescoping boom sections must be extended equally.
6. Rated loads include the weight of hook block, slings, and auxiliary lifting devices. Their weights shall be subtracted from the listed rated load to obtain the net load that can be lifted.  
When lifting over the jib the weight of any hook block, slings, and auxiliary lifting devices at the boom head must be added to the load.  
When jibs are erected but unused add two (2) times the weight of any hook block, slings, and auxiliary lifting devices at the jib head to the load.
7. Rated loads do not exceed 85% on outriggers or 75% on tires, of the tipping load as determined by SAE Crane Stability Test Code J765a. Rated loads for partially extended outriggers are determined from the formula, Rated Load = (Tipping Load – 0.1 X Tip Reaction) / 1.25. Structural strength ratings in chart are indicated with an asterisk (\*).
8. Rated loads are based on freely suspended loads. No attempt shall be made to drag a load horizontally on the ground in any direction.
9. The user shall operate at reduced ratings to allow for adverse job conditions, such as: Soft or uneven ground, out of level conditions, high winds, side loads, pendulum action, jerking or sudden stopping of loads, hazardous conditions, experience of personnel, two machine lifts, traveling with loads, electric wires, etc., (side pull on boom or jib is hazardous). Derating of the cranes lifting capacity is required when wind speed exceeds 20 MPH. The center of the lifted load must never be allowed to move more than 3\* feet off the center line of the base boom section due to the effects of wind, inertia, or any combination of the two.  
\*\*Use 2 feet off the center line of the base boom for a two section boom, 3 feet for a three section boom, or 4 feet for a four section boom.
10. The maximum load which can be telescoped is not definable, because of variations in loadings and crane maintenance, but it is permissible to attempt retraction and extension if load ratings are not exceeded.
11. Load ratings are dependent upon the crane being maintained according to manufacturer's specifications.
12. It is recommended that load handling devices, including hooks, and hook blocks, be kept away from boom head at all times.
13. **FOR TRUCK ONLY:** 360° capacities apply only to machines equipped with a front outrigger jack and all five (5) outrigger jacks properly set. If the front (5th) outrigger jack is not properly set, the work area is restricted to the over side and over rear areas as shown on the Crane Working Positions diagram. Use the 360° load ratings in the overside work areas.

WE RESERVE THE RIGHT TO AMEND THESE SPECIFICATIONS AT ANY TIME WITHOUT NOTICE. THE ONLY WARRANTY APPLICABLE IS OUR STANDARD WRITTEN WARRANTY APPLICABLE TO THE PARTICULAR PRODUCT AND SALE. WE MAKE NO OTHER WARRANTY, EXPRESSED OR IMPLIED.

<http://www.terexlift.com>

 **TEREX CRANES**

Waverly, Iowa

TEREX CRANES, INC.  
106 12th Street S.E. • Waverly, IA 50677-9466 USA  
(319) 352-3920 • FAX: (319) 352-5727



# Lifting Capacities – Pounds (33' – 105' boom)

## MODEL RT 450

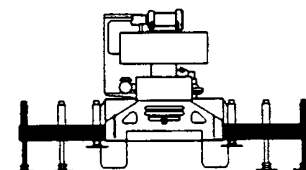
COUNTERWEIGHT:  
W/AUX. WINCH 13,100 LBS.  
W/O AUX. WINCH 14,200 LBS.  
BOOM LENGTH 33-105 FT.  
OUTRIGGER SPREAD 22 FT.

STABILITY PCT.  
ON OUTRIGGERS 85%  
ON TIRES 75%  
PCSA CLASS 10-176

**CAUTION:** Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change.

### ON OUTRIGGERS - FULLY EXTENDED

| LOAD RADIUS (FT) | BOOM LENGTH 33.15 FT |                        |           | BOOM LENGTH 45.15 FT |                        |           | BOOM LENGTH 57.15 FT |                        |           | LOAD RADIUS (FT) |
|------------------|----------------------|------------------------|-----------|----------------------|------------------------|-----------|----------------------|------------------------|-----------|------------------|
|                  | BOOM ANGLE (DEG)     | LOADED OVER FRONT (LB) | 360° (LB) | BOOM ANGLE (DEG)     | LOADED OVER FRONT (LB) | 360° (LB) | BOOM ANGLE (DEG)     | LOADED OVER FRONT (LB) | 360° (LB) |                  |
| 10               | 65.3                 | 100,000*               | 100,000*  | 72.2                 | 75,100*                | 75,100*   |                      |                        |           | 10               |
| 12               | 61.5                 | 76,200*                | 76,200*   | 69.5                 | 73,100*                | 73,100*   | 73.9                 | 59,700*                | 59,700*   | 12               |
| 15               | 55.4                 | 64,300*                | 62,500*   | 65.4                 | 61,800*                | 61,800*   | 70.8                 | 55,100*                | 55,100*   | 15               |
| 20               | 44.0                 | 46,300*                | 44,300*   | 58.1                 | 47,200*                | 45,200*   | 65.4                 | 47,700*                | 45,700*   | 20               |
| 25               | 29.6                 | 34,800*                | 33,300*   | 50.3                 | 35,800*                | 34,300*   | 59.7                 | 36,300*                | 34,800*   | 25               |
| 30               | **                   |                        |           | 41.5                 | 28,100*                | 27,000*   | 53.7                 | 28,700*                | 27,500*   | 30               |
| 35               |                      |                        |           | 30.7                 | 22,700*                | 21,700*   | 47.2                 | 23,200*                | 22,300*   | 35               |
| 40               |                      |                        |           | 13.9                 | 18,500*                | 17,700*   | 39.9                 | 19,100*                | 18,300*   | 40               |
| 45               |                      |                        |           | **                   |                        |           | 31.3                 | 15,900*                | 15,200*   | 45               |
| 50               |                      |                        |           |                      |                        |           | 19.6                 | 13,300*                | 12,700*   | 50               |
| 55               |                      |                        |           |                      |                        |           | **                   |                        |           | 55               |
| 60               |                      |                        |           |                      |                        |           |                      |                        |           | 60               |
| 65               |                      |                        |           |                      |                        |           |                      |                        |           | 65               |
| 70               |                      |                        |           |                      |                        |           |                      |                        |           | 70               |
| 75               |                      |                        |           |                      |                        |           |                      |                        |           | 75               |
| 80               |                      |                        |           |                      |                        |           |                      |                        |           | 80               |
| 85               |                      |                        |           |                      |                        |           |                      |                        |           | 85               |
| 90               |                      |                        |           |                      |                        |           |                      |                        |           | 90               |
| 95               |                      |                        |           |                      |                        |           |                      |                        |           | 95               |
| 100              |                      |                        |           |                      |                        |           |                      |                        |           | 100              |



**USE THESE CHARTS ONLY  
WHEN ALL OUTRIGGERS  
ARE FULLY EXTENDED**

### ON OUTRIGGERS - FULLY EXTENDED

| LOAD RADIUS (FT) | BOOM LENGTH 69.15 FT    |                |           | BOOM LENGTH 81.15 FT    |                |           | BOOM LENGTH 93.15 FT    |                |           | BOOM LENGTH 105.15 FT   |                |           | LOAD RADIUS (FT) |
|------------------|-------------------------|----------------|-----------|-------------------------|----------------|-----------|-------------------------|----------------|-----------|-------------------------|----------------|-----------|------------------|
|                  | LOADED BOOM ANGLE (DEG) | OVER REAR (LB) | 360° (LB) | LOADED BOOM ANGLE (DEG) | OVER REAR (LB) | 360° (LB) | LOADED BOOM ANGLE (DEG) | OVER REAR (LB) | 360° (LB) | LOADED BOOM ANGLE (DEG) | OVER REAR (LB) | 360° (LB) |                  |
| 10               |                         |                |           |                         |                |           |                         |                |           |                         |                |           | 10               |
| 12               |                         |                |           |                         |                |           |                         |                |           |                         |                |           | 12               |
| 15               | 74.2                    | 44,000*        | 44,000*   |                         |                |           |                         |                |           |                         |                |           | 15               |
| 20               | 69.8                    | 36,200*        | 36,200*   | 72.9                    | 33,500*        | 33,500*   |                         |                |           |                         |                |           | 20               |
| 25               | 65.4                    | 30,400*        | 30,400*   | 69.2                    | 28,400*        | 28,400*   | 72.0                    | 22,200*        | 22,200*   |                         |                |           | 25               |
| 30               | 60.7                    | 26,100*        | 26,100*   | 65.4                    | 24,300*        | 24,300*   | 68.7                    | 19,000*        | 19,000*   | 71.2                    | 15,100*        | 15,100*   | 30               |
| 35               | 55.8                    | 22,800*        | 22,600*   | 61.4                    | 21,100*        | 21,100*   | 65.4                    | 16,300*        | 16,300*   | 68.3                    | 13,400*        | 13,400*   | 35               |
| 40               | 50.7                    | 19,500*        | 18,700*   | 57.3                    | 18,700*        | 18,700*   | 61.9                    | 14,300*        | 14,300*   | 65.4                    | 12,000*        | 12,000*   | 40               |
| 45               | 45.1                    | 16,300*        | 15,600*   | 53.0                    | 16,500*        | 15,800*   | 58.4                    | 12,400*        | 12,400*   | 62.3                    | 10,800*        | 10,800*   | 45               |
| 50               | 38.9                    | 13,800*        | 13,100*   | 48.4                    | 14,000*        | 13,400*   | 54.7                    | 10,900*        | 10,900*   | 59.2                    | 9,600*         | 9,600*    | 50               |
| 55               | 31.7                    | 11,500         | 10,900    | 43.5                    | 11,700         | 11,000    | 50.8                    | 9,700*         | 9,700*    | 56.0                    | 8,600*         | 8,600*    | 55               |
| 60               | 22.6                    | 9,500          | 8,900     | 38.1                    | 9,700          | 9,100     | 46.7                    | 8,700*         | 8,700*    | 52.6                    | 7,600*         | 7,600*    | 60               |
| 65               |                         |                |           | 32.0                    | 8,100          | 7,600     | 42.4                    | 7,800*         | 7,700     | 49.1                    | 6,700*         | 6,700*    | 65               |
| 70               |                         |                |           | 24.5                    | 6,700          | 6,200     | 37.6                    | 6,900          | 6,400     | 45.4                    | 6,000*         | 6,000*    | 70               |
| 75               |                         |                |           | 13.7                    | 5,500          | 5,100     | 32.2                    | 5,700          | 5,300     | 41.4                    | 5,300*         | 5,300*    | 75               |
| 80               |                         |                |           | **                      |                |           | 25.8                    | 4,800          | 4,400     | 37.1                    | 4,700*         | 4,500     | 80               |
| 85               |                         |                |           |                         |                |           | 17.5                    | 3,900          | 3,500     | 32.3                    | 4,000          | 3,700     | 85               |
| 90               |                         |                |           |                         |                |           | **                      |                |           | 26.8                    | 3,300          | 2,900     | 90               |
| 95               |                         |                |           |                         |                |           |                         |                |           | 20.0                    | 2,600          | 2,300     | 95               |
| 100              |                         |                |           |                         |                |           |                         |                |           | 9.1                     | 2,000          | 1,700     | 100              |

### \*\* MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE

| BOOM LENGTH 33.15 FT |                 |           | BOOM LENGTH 45.15 FT |                 |           | BOOM LENGTH 57.15 FT |                 |           | BOOM LENGTH 69.15 FT |                 |           | BOOM LENGTH 81.15 FT |                 |           | BOOM LENGTH 93.15 FT |                 |           | BOOM LENGTH 105.15 FT |                 |           |
|----------------------|-----------------|-----------|----------------------|-----------------|-----------|----------------------|-----------------|-----------|----------------------|-----------------|-----------|----------------------|-----------------|-----------|----------------------|-----------------|-----------|-----------------------|-----------------|-----------|
| LOAD RADIUS (FT)     | OVER FRONT (LB) | 360° (LB) | LOAD RADIUS (FT)     | OVER FRONT (LB) | 360° (LB) | LOAD RADIUS (FT)     | OVER FRONT (LB) | 360° (LB) | LOAD RADIUS (FT)     | OVER FRONT (LB) | 360° (LB) | LOAD RADIUS (FT)     | OVER FRONT (LB) | 360° (LB) | LOAD RADIUS (FT)     | OVER FRONT (LB) | 360° (LB) | LOAD RADIUS (FT)      | OVER FRONT (LB) | 360° (LB) |
| 29.3                 | 17,100*         | 17,100*   | 41.3                 | 10,700*         | 10,700*   | 53.3                 | 6,900*          | 6,900*    | 65.3                 | 4,500*          | 4,500*    | 77.3                 | 2,700*          | 2,700*    | 89.3                 | 1,500*          | 1,500*    | 101.3                 | 500*            | 500*      |



# Lifting Capacities – Pounds (33’ – 105’ boom)

## MODEL RT 450

COUNTERWEIGHT:  
 W/AUX. WINCH 13,100 LBS.  
 W/O AUX. WINCH 14,200 LBS.  
 BOOM LENGTH 33-105 FT.  
 OUTRIGGER SPREAD 22 FT.

STABILITY PCT.  
 ON OUTRIGGERS 85%  
 ON TIRES 75%  
 PCSA CLASS 10-176

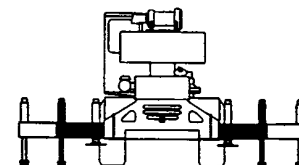
**⚠ CAUTION:** Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change.

### ON OUTRIGGERS - MID POSITION

| LOAD RADIUS (FT) | BOOM LENGTH 33.15 FT    |           | BOOM LENGTH 45.15 FT    |           | BOOM LENGTH 57.15 FT    |           | BOOM LENGTH 69.15 FT    |           | BOOM LENGTH 81.15 FT    |           | BOOM LENGTH 93.15 FT    |           | BOOM LENGTH 105.15 FT   |           | LOAD RADIUS (FT) |
|------------------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|------------------|
|                  | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) |                  |
| 10               | 65.3                    | 87,000*   | 72.2                    | 75,100*   |                         |           |                         |           |                         |           |                         |           |                         |           | 10               |
| 12               | 61.5                    | 70,900*   | 69.5                    | 71,800*   | 73.9                    | 59,700*   |                         |           |                         |           |                         |           |                         |           | 12               |
| 15               | 55.4                    | 54,800*   | 65.4                    | 55,700*   | 70.8                    | 55,100*   | 74.2                    | 44,000*   |                         |           |                         |           |                         |           | 15               |
| 20               | 44.0                    | 38,600*   | 58.1                    | 39,500*   | 65.4                    | 39,900*   | 68.8                    | 36,200*   | 72.9                    | 33,500*   |                         |           |                         |           | 20               |
| 25               | 29.6                    | 25,300    | 50.3                    | 26,400    | 59.7                    | 26,700    | 65.4                    | 26,900    | 69.2                    | 27,000    | 72.0                    | 22,200*   |                         |           | 25               |
| 30               | **                      |           | 41.5                    | 18,600    | 53.7                    | 19,000    | 60.7                    | 19,200    | 65.4                    | 19,300    | 68.7                    | 19,000*   | 71.2                    | 15,100*   | 30               |
| 35               |                         |           | 30.7                    | 13,500    | 47.2                    | 14,000    | 55.8                    | 14,200    | 61.4                    | 14,400    | 65.4                    | 14,400    | 68.3                    | 13,400*   | 35               |
| 40               |                         |           | 13.9                    | 9,800     | 39.9                    | 10,600    | 50.7                    | 10,800    | 57.3                    | 10,900    | 61.9                    | 11,000    | 65.4                    | 11,100    | 40               |
| 45               |                         |           | **                      |           | 31.3                    | 8,000     | 45.1                    | 8,300     | 53.0                    | 8,500     | 58.4                    | 8,500     | 62.3                    | 8,600     | 45               |
| 50               |                         |           |                         |           | 19.6                    | 5,900     | 38.9                    | 6,300     | 48.4                    | 6,600     | 54.7                    | 6,600     | 59.2                    | 6,700     | 50               |
| 55               |                         |           |                         |           | **                      |           | 31.7                    | 4,800     | 43.5                    | 5,000     | 50.8                    | 5,100     | 56.0                    | 5,200     | 55               |
| 60               |                         |           |                         |           |                         |           | 22.6                    | 3,500     | 38.1                    | 3,800     | 46.7                    | 3,900     | 52.6                    | 4,000     | 60               |
| 65               |                         |           |                         |           |                         |           | **                      |           | 32.0                    | 2,700     | 42.4                    | 2,900     | 49.1                    | 3,000     | 65               |
| 70               |                         |           |                         |           |                         |           |                         |           | 24.5                    | 1,800     | 37.6                    | 2,000     | 45.4                    | 2,100     | 70               |
| 75               |                         |           |                         |           |                         |           |                         |           |                         |           | 32.2                    | 1,300     | 41.4                    | 1,400     | 75               |

### \*\* MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE

| BOOM LENGTH 33.15 FT |           | BOOM LENGTH 45.15 FT |           | BOOM LENGTH 57.15 FT |           | BOOM LENGTH 69.15 FT |           | BOOM LENGTH 81.15 FT |           | BOOM LENGTH 93.15 FT |           | BOOM LENGTH 105.15 FT |           |
|----------------------|-----------|----------------------|-----------|----------------------|-----------|----------------------|-----------|----------------------|-----------|----------------------|-----------|-----------------------|-----------|
| LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)      | 360° (LB) |
| 29.3                 | 17,100*   | 41.3                 | 8,900     | 53.3                 | 4,700     | 65.3                 | 2,300     |                      |           |                      |           |                       |           |



**USE THESE CHARTS ONLY  
WHEN ALL OUTRIGGERS ARE  
PINNED IN MID POSITION**

# Lifting Capacities – Pounds (33’ – 105’ boom)

## MODEL RT 450

COUNTERWEIGHT: W/AUX. WINCH 13,100 LBS.  
 W/O AUX. WINCH 14,200 LBS.  
 BOOM LENGTH 33-105 FT.  
 OUTRIGGER SPREAD 22 FT.

STABILITY PCT. ON OUTRIGGERS 85%  
 ON TIRES 75%  
 PCSA CLASS 10-176

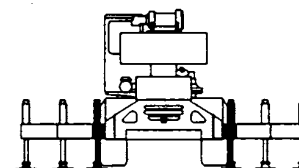
**CAUTION:** Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change.

### ON OUTRIGGERS - RETRACTED

| LOAD RADIUS (FT) | BOOM LENGTH 33.15 FT    |           | BOOM LENGTH 45.15 FT    |           | BOOM LENGTH 57.15 FT    |           | BOOM LENGTH 69.15 FT    |           | BOOM LENGTH 81.15 FT    |           | BOOM LENGTH 93.15 FT    |           | BOOM LENGTH 105.15 FT   |           | LOAD RADIUS (FT) |
|------------------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|-------------------------|-----------|------------------|
|                  | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) | LOADED BOOM ANGLE (DEG) | 360° (LB) |                  |
| 10               | 65.3                    | 70,000    | 72.2                    | 70,700    |                         |           |                         |           |                         |           |                         |           |                         |           | 10               |
| 12               | 61.5                    | 48,900    | 69.5                    | 49,500    | 73.9                    | 49,800    |                         |           |                         |           |                         |           |                         |           | 12               |
| 15               | 55.4                    | 32,300    | 65.4                    | 33,000    | 70.8                    | 33,300    | 74.2                    | 33,400    |                         |           |                         |           |                         |           | 15               |
| 20               | 44.0                    | 18,700    | 58.1                    | 19,700    | 65.4                    | 20,000    | 69.8                    | 20,100    | 72.9                    | 20,200    |                         |           |                         |           | 20               |
| 25               | 29.6                    | 11,700    | 50.3                    | 12,700    | 59.7                    | 13,100    | 65.4                    | 13,300    | 69.2                    | 13,400    | 72.0                    | 13,500    |                         |           | 25               |
| 30               | **                      |           | 41.5                    | 8,400     | 53.7                    | 8,900     | 60.7                    | 9,200     | 65.4                    | 9,300     | 68.7                    | 9,300     | 71.2                    | 9,400     | 30               |
| 35               |                         |           | 30.7                    | 5,500     | 47.2                    | 6,000     | 55.8                    | 6,300     | 61.4                    | 6,500     | 65.4                    | 6,600     | 68.3                    | 6,600     | 35               |
| 40               |                         |           | 13.9                    | 3,300     | 39.9                    | 3,900     | 50.7                    | 4,300     | 57.3                    | 4,500     | 61.9                    | 4,600     | 65.4                    | 4,600     | 40               |
| 45               |                         |           | **                      |           | 7.9                     | 2,300     | 45.1                    | 2,700     | 53.0                    | 2,900     | 58.4                    | 3,000     | 62.3                    | 3,100     | 45               |
| 50               |                         |           |                         |           | 19.6                    | 1,100     | 38.9                    | 1,500     | 48.4                    | 1,700     | 54.7                    | 1,800     | 59.2                    | 1,900     | 50               |

### \*\* MAXIMUM CAPACITY AT 0 DEGREE BOOM ANGLE

| BOOM LENGTH 33.15 FT |           | BOOM LENGTH 45.15 FT |           | BOOM LENGTH 57.15 FT |           | BOOM LENGTH 69.15 FT |           | BOOM LENGTH 81.15 FT |           | BOOM LENGTH 93.15 FT |           | BOOM LENGTH 105.15 FT |           |
|----------------------|-----------|----------------------|-----------|----------------------|-----------|----------------------|-----------|----------------------|-----------|----------------------|-----------|-----------------------|-----------|
| LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)     | 360° (LB) | LOAD RADIUS (FT)      | 360° (LB) |
| 29.3                 | 7,500     | 41.3                 | 2,700     |                      |           |                      |           |                      |           |                      |           |                       |           |



**USE THESE CHARTS WHEN ALL OUTRIGGER BEAMS ARE NOT IN EITHER THE MID OR FULLY EXTENDED POSITION**

# Lifting Capacities – Pounds (33' – 105' boom)

## MODEL RT 450

COUNTERWEIGHT:  
W/AUX. WINCH 13,100 LBS.  
W/O AUX. WINCH 14,200 LBS.  
BOOM LENGTH 33-105 FT.  
OUTRIGGER SPREAD 22 FT.

STABILITY PCT.  
ON OUTRIGGERS 85%  
ON TIRES 75%  
PCSA CLASS 10-176

**CAUTION:** Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change.

### SIDE STOW JIB ON FULLY EXTENDED OUTRIGGERS

| LOADED BOOM ANGLE (DEG) | 33 FT OFFSETABLE JIB/NO PULL OUT INSTALLED |           |                        |           |                        |           | 33 FT OFFSETABLE JIB/PULL OUT RETRACTED |           |                        |           |                        |           | 58 FT OFFSETABLE JIB   |           |                        |           |                        |           | LOADED BOOM ANGLE (DEG) |
|-------------------------|--|-----------|------------------------|-----------|------------------------|-----------|---|-----------|------------------------|-----------|------------------------|-----------|------------------------|-----------|------------------------|-----------|------------------------|-----------|-------------------------|
|                         | 0° OFFSET                                  |           | 15° OFFSET             |           | 30° OFFSET             |           | 0° OFFSET                               |           | 15° OFFSET             |           | 30° OFFSET             |           | 0° OFFSET              |           | 15° OFFSET             |           | 30° OFFSET             |           |                         |
|                         | LOAD RADIUS (REF) (FT)                     | 360° (LB) | LOAD RADIUS (REF) (FT) | 360° (LB) | LOAD RADIUS (REF) (FT) | 360° (LB) | LOAD RADIUS (REF) (FT)                  | 360° (LB) | LOAD RADIUS (REF) (FT) | 360° (LB) | LOAD RADIUS (REF) (FT) | 360° (LB) | LOAD RADIUS (REF) (FT) | 360° (LB) | LOAD RADIUS (REF) (FT) | 360° (LB) | LOAD RADIUS (REF) (FT) | 360° (LB) |                         |
| 75                      | 38   | 9,100*    | 46                     | 7,300*    | 52                     | 6,100*    | 38                                      | 9,100*    | 46                     | 7,300*    | 52                     | 6,100*    | 50                     | 5,100*    | 64                     | 4,100*    | 75                     | 3,400*    | 75                      |
| 73                      | 43   | 7,800*    | 50                     | 6,700*    | 57                     | 5,600*    | 43                                      | 7,800*    | 50                     | 6,700*    | 57                     | 5,600*    | 55                     | 4,800*    | 69                     | 3,900*    | 79                     | 3,300*    | 73                      |
| 70                      | 50   | 7,600*    | 56                     | 6,400*    | 63                     | 5,500*    | 50                                      | 7,400*    | 56                     | 6,000*    | 63                     | 5,100*    | 63                     | 4,600*    | 76                     | 3,600*    | 86                     | 3,000*    | 70                      |
| 67                      | 57   | 7,400*    | 63                     | 6,000*    | 69                     | 5,200*    | 57                                      | 6,800*    | 63                     | 5,500*    | 69                     | 4,700*    | 71                     | 4,500*    | 83                     | 3,300*    | 92                     | 2,800*    | 67                      |
| 64                      | 63   | 6,400*    | 69                     | 5,300*    | 75                     | 4,700*    | 63                                      | 5,800*    | 69                     | 4,800*    | 75                     | 4,100*    | 78                     | 4,400*    | 90                     | 3,000*    | 98                     | 2,600*    | 64                      |
| 61                      | 70   | 5,600*    | 76                     | 4,800*    | 81                     | 4,200*    | 70                                      | 5,000*    | 76                     | 4,200*    | 81                     | 3,700*    | 86                     | 4,000*    | 97                     | 2,900*    | 104                    | 2,300*    | 61                      |
| 58                      | 76   | 5,000*    | 81                     | 4,300*    | 86                     | 3,800*    | 76                                      | 4,300*    | 81                     | 3,700*    | 86                     | 3,300*    | 93                     | 3,600*    | 103                    | 2,700*    | 110                    | 2,300*    | 58                      |
| 54                      | 83   | 4,300*    | 88                     | 3,800*    | 93                     | 3,400*    | 83                                      | 3,600*    | 88                     | 3,100*    | 93                     | 2,800*    | 102                    | 3,100*    | 111                    | 2,600*    | 117                    | 2,200*    | 54                      |
| 50                      | 90   | 3,800*    | 95                     | 3,300*    | 99                     | 3,100*    | 90                                      | 3,100*    | 95                     | 2,700*    | 99                     | 2,500*    | 110                    | 2,700*    | 118                    | 2,300*    | 123                    | 2,000*    | 50                      |
| 46                      | 97   | 3,300*    | 101                    | 2,900*    | 105                    | 2,700*    | 97                                      | 2,600*    | 101                    | 2,300*    | 105                    | 2,100*    | 117                    | 2,000     | 124                    | 1,900     | 128                    | 1,800*    | 46                      |
| 42                      | 103  | 2,900*    | 107                    | 2,700*    | 110                    | 2,500*    | 103                                     | 2,200*    | 107                    | 2,000*    | 110                    | 1,900*    | 123                    | 1,400     | 130                    | 1,300     | 133                    | 1,300     | 42                      |
| 38                      | 109  | 2,200     | 112                    | 2,000     | 115                    | 1,800     | 109                                     | 1,500     | 112                    | 1,400     | 115                    | 1,300     | 129                    | 1,100     |                        |           |                        |           | 38                      |
| 32                      | 117  | 1,500     | 116                    | 1,400     | 121                    | 1,400     |   |           |                        |           |                        |           |                        |           |                        |           |                        |           | 32                      |

**NOTES FOR JIB CAPACITIES**

- A. For all boom lengths less than the maximum with a jib erected, the rated loads are determined by boom angle only in the appropriate column.
- B. For boom angle not shown, use the capacity of the next lower boom angle.
- C. Listed radii are for extended main boom only.

### ON TIRES

| RADIUS (FT) | MAX BOOM LENGTH (FT) | 21:00 X 25-28PR |                     |              |                     | 26:5 x 25-26PR |                     |              |                     | RADIUS (FT) |
|-------------|----------------------|-----------------|---------------------|--------------|---------------------|----------------|---------------------|--------------|---------------------|-------------|
|             |                      | STATIONARY      |                     | PICK & CARRY |                     | STATIONARY     |                     | PICK & CARRY |                     |             |
|             |                      | 360°            | STRAIGHT OVER FRONT | 360°         | STRAIGHT OVER FRONT | 360°           | STRAIGHT OVER FRONT | 360°         | STRAIGHT OVER FRONT |             |
|             |                      | 360°            | STRAIGHT OVER FRONT | 360°         | STRAIGHT OVER FRONT | 360°           | STRAIGHT OVER FRONT | 360°         | STRAIGHT OVER FRONT |             |
| 10          | 33                   | 36,000          | 70,000*             | 53,100*      | 47,200*             | 39,500*        | 61,800*             | 47,200*      | 39,800*             | 10          |
| 12          | 33                   | 30,600          | 64,900*             | 49,400*      | 43,700*             | 32,100*        | 57,000*             | 43,300*      | 36,300*             | 12          |
| 15          | 33                   | 22,900          | 53,500              | 41,800*      | 35,900*             | 23,000         | 48,800*             | 36,600*      | 30,200*             | 15          |
| 20          | 45                   | 14,000          | 31,800              | 31,800       | 27,000*             | 14,700         | 33,200              | 27,500*      | 22,500*             | 20          |
| 25          | 45                   | 9,300           | 21,700              | 22,000       | 21,000              | 10,500         | 21,500              | 21,200       | 17,100*             | 25          |
| 30          | 45                   | 6,100           | 15,300              | 15,300       | 15,300              | 7,500          | 15,400              | 15,400       | 13,000*             | 30          |
| 35          | 45                   | 4,000           | 12,000              | 12,000       | 12,000              | 5,200          | 11,900              | 11,900       | 10,300*             | 35          |
| 40          | 57                   | 2,400           | 9,400               | 9,400        | 9,400               | 3,500          | 9,500               | 9,500        | 8,200*              | 40          |
| 45          | 57                   |                 | 7,400               | 7,400        | 7,400               | 2,000          | 7,600               | 7,600        | 6,500*              | 45          |
| 50          | 57                   |                 | 6,000               | 6,000        | 6,000               |                | 6,000               | 6,000        | 5,100*              | 50          |
| 55          | 69                   |                 | 4,700               | 4,700        | 4,700               |                | 4,700               | 4,700        | 4,000*              | 55          |
| 60          | 69                   |                 | 3,600               | 3,600        | 3,600               |                | 3,600               | 3,600        | 3,000*              | 60          |

**NOTES FOR ON TIRE CAPACITIES**

- A. For Pick and Carry operations, boom must be centered over the front of the crane with swing brake and lock engaged. Use minimum boom point height and keep load close to ground surface.
- B. The load should be restrained from swinging. NO ON TIRE OPERATION WITH JIB ERECTED.
- C. Without outriggers, never maneuver the boom beyond listed load radii for applicable tires to ensure stability.
- D. Creep speed is crane movement of less than 200 Ft. (61m) in a 30 minute period and not exceeding 1.0 mph(1.6 km/h).
- E. Refer to General Notes for additional information.

### MAXIMUM PERMISSIBLE HOIST LINE LOAD

| LINE PARTS  | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 10      |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| STD. HOIST  | 10,000 | 20,000 | 30,000 | 40,000 | 50,000 | 60,000 | 70,000 | 80,000 | 90,000 | 100,000 |
| AUX HOIST   | 9,080  | 18,160 | 27,240 | 36,320 | 45,400 | 54,480 | 65,560 | 70,000 | 81,270 | 90,000  |
| HOOK BLOCK  | 7,400  | 14,800 | 22,200 | 29,600 | 37,000 | 44,400 | 51,800 | 59,200 | 66,600 | 74,000  |
| WIRE ROPE: 5/8" ROTATION RESISTANT COMPACTED STRAND, 18X19<br>OR 19X19 MINIMUM BREAKING STRENGTH - 22.7 TONS<br>5/8" 6X19 OR 6X37 IWRC IPS PREFORMED RIGHT<br>REGULAR LAY MINIMUM BREAKING STRENGTH - 17.9 TONS |        |        |        |        |        |        |        |        |        |         |

### RECOMMENDED TIRE PRESSURE

| TIRE SIZE        | STATIONARY | CREEP  | 2 1/2 MPH | TRAVEL |
|------------------|------------|--------|-----------|--------|
| 21:00 X 25-28 PR | 85 PSI     | 85 PSI | 85 PSI    | 65 PSI |
| 26:50 X 25-26 PR | 65 PSI     | 65 PSI | 65 PSI    | 50 PSI |



## GENERAL NOTES

### GENERAL

1. Rated loads as shown on Lift Charts pertain to this machine as originally manufactured and equipped. Modifications to the machine or use of optional equipment other than that specified can result in a reduction of capacity.
2. Construction equipment can be hazardous if improperly operated or maintained. Operation and maintenance of this machine shall be in compliance with the information in the Operator's, Parts and Safety Manuals supplied with this machine. If these manuals are missing, order replacements from the manufacturer through your distributor.
3. These warnings do not constitute all of the operating conditions for the crane. The operator and job site supervision must read the OPERATORS MANUAL, CIMA SAFETY MANUAL, APPLICABLE OSHA REGULATIONS, AND SOCIETY OF MECHANICAL ENGINEERS (ASME) SAFETY STANDARDS FOR CRANES.
4. This crane and its load ratings are in accordance with POWER CRANE & SHOVEL ASSOCIATION, STANDARD NO. 4, SAE CRANE LOAD STABILITY TEST CODE J765A, SAE METHOD OF TEST FOR CRANE STRUCTURE J1063 AND APPLICABLE SAFETY CODE FOR CRANES, DERRICKS AND HOISTS, ASME/ANSI B30.5.

### DEFINITIONS

1. **LOAD RADIUS** – The horizontal distance from the axis of rotation before loading to the center of the vertical hoist line or tackle with a load applied.
2. **LOADED BOOM ANGLE** – It is the angle between the boom base section and the horizontal, after lifting the rated load at the rated radius. The boom angle before loading should be greater to account for deflections. The loaded boom angle combined with boom length give only an approximation of the operating radius.
3. **WORKING AREA** – Areas measured in a circular arc about the centerline of rotation as shown in the diagram.
4. **FREELY SUSPENDED LOAD** – Load hanging free with no direct external force applied except by the hoist rope.
5. **SIDE LOAD** – Horizontal force applied to the lifted load either on the ground or in the air.
6. **NO LOAD STABILITY LIMIT** – The stability limit radius shown on the range diagrams is the radius beyond which it is not permitted to position the boom, when the boom angle is less than the minimum shown on the applicable load chart, because the machine can overturn without any load.

### SET-UP

1. Crane load ratings are based on the crane being leveled and standing on a firm, uniform supporting surface.
2. Crane load ratings on outriggers are based on all outrigger beams being fully extended or in the case of partial extension ratings mechanically pinned in the appropriate position, and the tires free of the supporting surface.
3. Crane load ratings on tires depend on appropriate inflation pressure and the tire conditions. Caution must be exercised when increasing air pressures in tires. Consult Operator's Manual for precautions.
4. Use of jibs, lattice-type boom extensions, or fourth section pullouts extended is not permitted for pick and carry operations.
5. Consult appropriate section of the Operator's and Service Manual for more exact description of hoist line reeving.
6. The use of more parts of line than required by the load may result in having insufficient rope to allow the hook block to reach the ground.
7. Properly maintained wire rope is essential for safe crane operation. Consult Operator's Manual for proper maintenance and inspection requirements.

8. When spin-resistant wire rope is used, the allowable rope loading shall be the breaking strength divided by five (5), unless otherwise specified by the wire rope manufacturer.

### OPERATION

1. **CRANE LOAD RATINGS MUST NOT BE EXCEEDED. DO NOT ATTEMPT TO TIP THE CRANE TO DETERMINE ALLOWABLE LOADS.**
2. When either radius or boom length, or both, are between listed values, the smaller of the two listed load ratings shall be used.
3. Do not operate at longer radii than those listed on the applicable load rating chart (cross hatched areas shown on range diagrams).
4. The boom angles shown on the Capacity Chart give an approximation of the operating radius for a specified boom length. The boom angle, before loading, should be greater to account for boom deflection. It may be necessary to retract the boom if maximum boom angle is insufficient to maintain rated radius.
5. Power telescoping boom sections must be extended equally.
6. Rated loads include the weight of hook block, slings, and auxiliary lifting devices. Their weights shall be subtracted from the listed rated load to obtain the net load that can be lifted.  
When lifting over the jib the weight of any hook block, slings, and auxiliary lifting devices at the boom head must be added to the load.  
When jibs are erected but unused add two (2) times the weight of any hook block, slings, and auxiliary lifting devices at the jib head to the load.
7. Rated loads do not exceed 85% on outriggers or 75% on tires, of the tipping load as determined by SAE Crane Stability Test Code J765a. Rated loads for partially extended outriggers are determined from the formula, Rated Load = (Tipping Load – 0.1 X Tip Reaction) / 1.25. Structural strength ratings in chart are indicated with an asterisk (\*).
8. Rated loads are based on freely suspended loads. No attempt shall be made to drag a load horizontally on the ground in any direction.
9. The user shall operate at reduced ratings to allow for adverse job conditions, such as: Soft or uneven ground, out of level conditions, high winds, side loads, pendulum action, jerking or sudden stopping of loads, hazardous conditions, experience of personnel, two machine lifts, traveling with loads, electric wires, etc., (side pull on boom or jib is hazardous). Derating of the cranes lifting capacity is required when wind speed exceeds 20 MPH. The center of the lifted load must never be allowed to move more than 3\* feet off the center line of the base boom section due to the effects of wind, inertia, or any combination of the two.  
\*\*Use 2 feet off the center line of the base boom for a two section boom, 3 feet for a three section boom, or 4 feet for a four section boom.
10. The maximum load which can be telescoped is not definable, because of variations in loadings and crane maintenance, but it is permissible to attempt retraction and extension if load ratings are not exceeded.
11. Load ratings are dependent upon the crane being maintained according to manufacturer's specifications.
12. It is recommended that load handling devices, including hooks, and hook blocks, be kept away from boom head at all times.
13. **FOR TRUCK ONLY:** 360° capacities apply only to machines equipped with a front outrigger jack and all five (5) outrigger jacks properly set. If the front (5th) outrigger jack is not properly set, the work area is restricted to the over side and over rear areas as shown on the Crane Working Positions diagram. Use the 360° load ratings in the overside work areas.

WE RESERVE THE RIGHT TO AMEND THESE SPECIFICATIONS AT ANY TIME WITHOUT NOTICE. THE ONLY WARRANTY APPLICABLE IS OUR STANDARD WRITTEN WARRANTY APPLICABLE TO THE PARTICULAR PRODUCT AND SALE. WE MAKE NO OTHER WARRANTY, EXPRESSED OR IMPLIED.

<http://www.terexlift.com>

 **TEREX CRANES**

Waverly, Iowa

TEREX CRANES, INC.  
106 12th Street S.E. • Waverly, IA 50677-9466 USA  
(319) 352-3920 • FAX: (319) 352-5727

