features
- 75 ton (68 mt) capacity
- 41 ft-128 ft (12.6 m-39.0 m) 4 section, full power boom
- 33 ft-56 ft (10.0 m-17.0 m) offsettable lattice swingaway extension
- 20 ft (6.1 m) or 40 ft (12.2 m) extension inserts
- Grove MEGAFORM™ boom
- 18,000 lb (8,165 kg) hydraulic removable counterweight
- 275 bhp (205 kW) Tier III Cummins diesel engine
features

- The Grove MEGAFORM™ boom shape eliminates weight and increases capacity compared to conventional shapes.

- For improved operator comfort and visibility of the boom load the cab can be tilted up to 20˚.

- Max. tip height of 232 ft. (70.6 m) w/56 ft. (17.0 m) bi-fold and (2) 20 ft. (6.1 m) inserts.

- Electronically controlled Cummins diesel engine provides plenty of power at the jobsite.
**Specifications**

**Superstructure**

- **Boom**
  41 ft. - 128 ft. (12.6 m - 39.0 m) four-section, sequenced synchronized full power boom. Maximum tip height: 138 ft. (41.9 m).

- **Lattice Extension**
  33 ft.-56 ft. (10.0 m-17 m) offsettable bifold lattice swingaway extension. Offsets 0˚, 20˚, and 40˚. Stows alongside base boom section. Maximum tip height: 192 ft. (58.6 m).

- ***Optional Lattice Extension Inserts**
  (2) x 20 ft. (6.1 m) lattice extension inserts. Installs between the boom nose and bifold extension, non-stowable. Maximum tip height: 232 ft. (70.6 m).

- **Boom Nose**
  Four nylatron sheaves mounted on heavy-duty tapered roller bearings with removable pin-type rope guards. Quick-reeving type boom nose. Removable auxiliary boom nose with removable pin type rope guard.

- **Boom Elevation**
  One double-acting hydraulic cylinder with integral holding valve provides elevation from -3° to +78°.

- **Load Moment & Anti-Two Block System**
  Standard “Graphic Display” load moment and anti-two block system with audio-visual warning and control lever lockout. These systems provide electronic display of boom angle, length, radius, tip height, relative load moment, maximum permissible load, load indication and warning of impending two-block condition. The standard Work Area Definition System allows the operator to pre-select and define safe working areas. If the crane approaches the pre-set limits, audio-visual warnings aid the operator in avoiding job-site obstructions.

- **Cab**
  Full-vision, all-steel fabricated with acoustical lining and tinted safety glass throughout. Cab tilts to +20 degrees. Deluxe seat incorporates armrest-mounted hydraulic single-axis controllers. Dash panel incorporates gauges for all engine functions. Other standard features include: hot water heater, cab circulating air fan, sliding side and rear windows, sliding skylight with electric wiper and sunscreen, electric windshield wash/wipe, fire extinguisher and seat belt.

**Swing**

Two speed, planetary swing drive with foot-applied multi-disc wet brake. Spring applied, hydraulically-released swing brake. Single position mechanical house lock, operated from cab. Maximum speed: 2.0 RPM.

**Counterweight**

18,000 lbs. (8 165 kg). Hydraulically installed and removed.

**Hydraulic System**

Two main pumps ([1] piston and [1] gear) with a combined capacity of 133 GPM (503 LPM).
Maximum operating pressure: 4000 psi (277.7 bar).
Three section pressure compensated valve bank. Return line type filter with full flow by-pass protection and service indicator.
Replaceable cartridge with micron filtration rating of 5/12/16. 263 gallon (995 L) hyd. reservoir. Carrier mounted oil cooler with thermostatically controlled hydraulic motor driven fan/air to oil.
System pressure test ports.

**Hoist Specifications (HP30-19G)**

**Main and Auxiliary Hoist**

Planetary reduction with automatic spring applied multi-disc wet brake. Electronic hoist drum rotation indicators and hoist drum cable followers.
Maximum Single Line Pull:
- 1st layers: 20,250 lb. (9 185 kg)
- 3rd layer: 17,010 lb. (7 715 kg)
- 5th layer: 14,660 lb. (6 650 kg)

Maximum Permissible Line Pull:
- 16,800 lb. (7 620 kg) with 6 x 37 class rope
- 16,800 lb. (7 620 kg) with 35 x 7 class rope

Maximum Single Line Speed: 514 FPM (156 m/min)
Rope Construction:
- 6 x 36 EIPS IWRC, Special Flexible
- 35 x 7 Flex-X, Rotation Resistant

Rope Diameter: 3/4“ (19 mm)

Rope Length:
- Main Hoist: 600 ft. (182.8 m)
- Auxiliary Hoist: 600 ft. (182.8 m)

Maximum Rope Stowage: 841 ft. (256 m)

*Denotes optional equipment
specifications

**Carrier RT875E**

### Chassis
Box section frame fabricated from high-strength, low alloy steel. Front/rear towing and tie down lugs.

### Outrigger System
Four hydraulic telescoping single-stage double box beam outriggers with inverted jacks and integral holding valves. Three position setting, 0%, 50% and fully extended. All steel fabricated, quick-release type round outrigger floats, 30.5 in. (775 mm) diameter. Maximum outrigger pad load: 125,000 lb. (56 700 kg).

### Outrigger Controls
Controls and crane level indicator located in cab.

### Engine (Tier III)
Cummins QSB 6.7L diesel, six cylinders, 275 bhp (205 kW) (Gross) @ 2,500 rpm. Maximum torque: 728 ft. lbs. (987 Nm) @ 1,500 RPM.

### Fuel Tank Capacity
72 gallons (273 L)

### Transmission
Full rangeshift with 6 forward and 6 reverse speeds. Front axle disconnect for 4 x 2 travel.

### Electrical System

### Drive
4 x 4

### Steering
Fully independent power steering:
- Front: Full hydraulic, steering wheel controlled.
- Rear: Full hydraulic, switch controlled.
Provides infinite variations of 4 main steering modes: front only, rear only, crab and coordinated.
- Rear steer indicator.
- Turning radius - 25 ft.

### Axles
- Front: Drive/steer with differential and planetary reduction hubs rigid-mounted to frame.
- Rear: Drive/steer with differential and planetary reduction hubs pivot-mounted to frame.

### Oscillation Lockouts
Automatic full hydraulic lockouts on rear axle permits 10 in. (25.4 cm) oscillation only with boom centered over the front.

### Brakes
Full hydraulic split circuit brakes operating on all wheels. Spring-applied, hydraulically released parking brake mounted on front axle.

### Tires
Std. 29.5 x 25 - 34 bias ply, General.

### Lights
Full lighting including turn indicators, head, tail, brake and hazard warning lights.

### Maximum Speed
22 MPH (35 kph).

### Gradeability (Theoretical)
75% (Based on 108,158 lb. [49 060 kg] GVW) 29.5 x 25 tires, 128 ft. (39.0 m) boom, plus 56 ft. (17.0 m) swingaway, 18,000 lb. (8 165 kg) counterweight, 75T hookblock and 10T headache ball).

### Miscellaneous Standard Equipment
- Full width steel fenders, full length aluminum decking, dual rear view mirrors, hookblock tiedown, electronic back-up alarm, light package, front stowage well, tachometer/hourmeter, rear wheel position indicator, 36,000 BTU hot water cab heater, hoist mirrors, engine distress A/V warning system, front/rear tie down and two lugs, coolant sight level indicator.

### Optional Equipment
- *Auxiliary Lighting Package (includes cab mounted amber flashing light, hoist mounted work light, and dual base boom mounted floodlights.)*
- *LMI light bar (in cab)*
- *Air Conditioning (28,500 BTU)*
- *360 degree NYC style mechanical swinglock*
- *Rear Pintle hook*
- *Cab controlled cross axle differential locks, (front and rear)*
- *PAT data logger*
- *Rubber mat for stowage trough*

*Denotes optional equipment*
**Weights**

<table>
<thead>
<tr>
<th></th>
<th>GFW</th>
<th>Front</th>
<th>Rear</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RT875E Basic Machine</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic Machine including 128 ft. main boom, main and aux. hoist with 600 ft. of rope, 56' (17 m) bifold swingaway, full counterweight, 10T headache ball, and 75T hookblock:</td>
<td>108,158</td>
<td>49,060</td>
<td>53,888</td>
</tr>
<tr>
<td><strong>Remove</strong> counterweight and aux. hoist, 56' (17 m) bifold.</td>
<td>87,917</td>
<td>39,879</td>
<td>63,520</td>
</tr>
<tr>
<td><strong>Remove</strong> counterweight, aux. hoist, and 56' (17 m) bifold swingaway.</td>
<td>85,285</td>
<td>38,685</td>
<td>58,725</td>
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</tbody>
</table>

Note: Reference dimensions in mm [inches]
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

Dimensions are for largest Grove furnished hookblock and overhaul ball, with anti-two block activated.
NOTES:
1. All capacities above the bold line are based on structural strength of boom extension and do not exceed 85% of tipping loads, in accordance with SAE J-765.
2. The 33 ft. extension length may be used with single or double part line lifting service. The 56 ft. extension length may be used for single line lifting service only.
3. For main boom lengths less than 128 ft, with the boom extension erected, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is set up. For boom angles not shown, use the rating of the next lower boom angle.
4. WARNING. Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
5. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
6. Capacities listed are with outriggers properly extended and vertical jacks set only.
7. When lifting over the main boom nose with 33 ft. or 56 ft. extension erected, the outriggers must be fully extended or 50% extended (17 ft. 4 in. spread).

This chart is only a guide and should not be used to operate the crane. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.
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### RT875E load chart

#### Lifting Capacities at Zero Degree Boom Angle

<table>
<thead>
<tr>
<th>Feet</th>
<th>Pounds</th>
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<tbody>
<tr>
<td>41.3</td>
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<tr>
<td>50</td>
<td>50</td>
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<tr>
<td>60</td>
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<tr>
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</table>

<table>
<thead>
<tr>
<th>Feet</th>
<th>41.3</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
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<td>18,000</td>
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<td>41.3</td>
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<tr>
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<td>85,000</td>
</tr>
<tr>
<td>80</td>
<td>128,000</td>
<td>128,000</td>
</tr>
</tbody>
</table>

**NOTES:**

1. Capacities are in pounds and do not exceed 75% of lifting loads as determined by test in accordance with SAE J765.

2. Capacities are applicable to machines equipped with 20.8x25 (34 ply) General tires at 70 psi cold inflation pressure.

3. Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.

4. Capacities are applicable only with machine on firm level surface.

5. On rubber lifting with boom extensions not permitted.

6. For pick and carry operation, boom must be centered over front of machine, mechanical swing lock engaged and load restrained from swinging. When handling loads in the structural range with capacities close to maximum ratings, travel should be reduced to creep speeds.

7. Axle lockouts must be functioning when lifting on rubber.

8. All lifting depends on proper tire inflation, capacity and condition. Capacities must be reduced for lower tire inflation pressures. See lifting capacity chart for tire used. Damaged tires are hazardous to safe operation of crane.

9. Creep – Not over 200 ft. of movement in any 30 minute period and not exceeding 1 mph.

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### Lifting Capacities at Zero Degree Boom Angle

#### Footnotes:

1. Capacities are in pounds and do not exceed 75% of lifting loads as determined by test in accordance with SAE J765.

2. Capacities are applicable to machines equipped with 20.8x25 (34 ply) General tires at 70 psi cold inflation pressure.

3. Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.

4. Capacities are applicable only with machine on firm level surface.

5. On rubber lifting with boom extensions not permitted.

6. For pick and carry operation, boom must be centered over front of machine, mechanical swing lock engaged and load restrained from swinging. When handling loads in the structural range with capacities close to maximum ratings, travel should be reduced to creep speeds.

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9. Creep – Not over 200 ft. of movement in any 30 minute period and not exceeding 1 mph.
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Constant improvement and engineering progress make it necessary that we reserve the right to make specification, equipment, and price changes without notice. Illustrations shown may include optional equipment and accessories, and may not include all standard equipment.