features

- 30 ton (30 mt) capacity
- 29-95 ft. (8.8-29 m) 4-section full power boom
- 26-45 ft. (7.9-13.7 m) telescopic swingaway extension
- Max main boom tip height of 102.5 ft. (31.2 m)
- “E” Series cab
- Max overall tip height 146 ft. (44.5 m)
- One double-acting telescoping cylinder
- 3 position outriggers, max spread 20 ft. (6.1 m)
- Cummins QSB 5.9L diesel, 6 cyl., turbocharged engine
Fixed length or tele-swingaway boom extension options provide 26 ft. (7.9 m) or 26-45 ft. (7.9-13.7 m) of additional height that can offset to 0° & 30°. Max RT530E tip height with the tele extension is 146 ft. (44.5 m) and also provides a max working radius of 120 ft. (36.6 m). Optional full-length decking is also available.

The boom on the RT530E is a 29-95 ft. (8.8-29 m) four-section full power boom with a maximum tip height of 102.5 ft. (31.2 m). This synchronized boom uses a single lever joystick control to extend boom sections equally.

Features common to the Grove “E” Series cab include:
- hot water heater/defroster
- single axis joystick controllers
- sliding skylight and adjustable sunscreen
- engine instrumentation
- full acoustical lining

The PAT i-Flex 5 graphic display LMI includes a work area definition system which allows the operator to define a preferred working area.

A quick reeve boom nose and swingaway alignment device help operators put the RT530E to work quickly.

The boom on the RT530E is a 29-95 ft. (8.8-29 m) four-section full power boom with a maximum tip height of 102.5 ft. (31.2 m). This synchronized boom uses a single lever joystick control to extend boom sections equally.
**Superstructure**

### Boom

- 29 ft. - 95 ft. (8.8 m - 29 m) four-section, full power boom. Maximum tip height: 102.5 ft. (31.2 m).
- **Optional Fixed Swingaway Extension**
  - 26 ft. (7.92 m) offsettable swingaway extension. Offsettable at 0° and 30°. Stows alongside base boom section. Maximum tip height: 127.6 ft. (38.9 m).
- **Optional Telescopic Swingaway Extension**
  - 26 ft. - 45 ft. (7.92 m - 13.7 m) telescoping offsettable swingaway extension. Offsettable at 0° and 30°. Stows alongside base boom section. Maximum tip height: 146 ft. (44.5 m).

### Boom Nose

Three metallic sheaves mounted on heavy duty tapered roller bearings with removable pin-type rope guards. Quick reeve type boom nose. *Optional 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 +76°.

### 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. 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, electric windshield wash/wipe, fire extinguisher, seat belt, and sunscreen.

### Swing

Planetary swing with foot applied multi-disc brake. Spring applied, hydraulically released swing brake and plunger-type, one position, mechanical house lock operated from cab. *Optional 360° mechanical swing lock. Maximum speed: 2.8 RPM.*

---

**Specifications**

### Counterweight

- 8,400 lbs. (3,810 kg) pinned to superstructure.

### Hydraulic System

Three main gear pumps with a combined capacity of 100 GPM (381 L/min).
- Maximum operating pressure: 3,500 PSI (26.2 MPa).
- Two individual valve banks.
- Return line type filter with full flow by-pass protection and service indicator. Replaceable cartridge with micron filtration rating of 5/12/16.
- 90 gallon (341 L) reservoir.
- Integral oil cooler.
- System pressure test ports.

### HOIST SPECIFICATIONS

#### Main and Auxiliary Hoist

**Model HP15B-17G**
  - Maximum Single Line Pull: 11,640 lbs. (5,280 kg)
  - Maximum Single Line Speed: 445 FPM (136 m/min)
  - Maximum Permissible Line Pull: w/standard 6 x 37 class rope: 11,640 lbs. (5,280 kg) w/optional 35 x 7 class rope: 11,640 lbs. (5,280 kg)
  - Rope Diameter: 5/8 in. (16 mm)
  - Rope Length: 450 ft. (137 m)
  - Rope Type: 6 x 37 class EIPS IWRC
    - *Optional 35 x 7 class rotation resistant
  - Maximum Rope Stowage: 750 ft. (228 m)

*Denotes optional equipment*
specifications

**Carrier**

**Chassis**
Box section frame fabricated from high-strength, low alloy steel. Integral outrigger housings and 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. All steel fabricated quick release type outrigger floats, 16.5 in. (419 mm) square. Maximum outrigger pad load: 48,900 lbs. (22 498 kg)

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

**Engine**
Cummins QSB 5.9L diesel, six cylinders, turbo-charged, 155 bhp (116 kW) (Gross) @ 2,500 RPM.
Maximum torque: 440 ft. lbs. (597 Nm) @ 1,500 RPM.

**Fuel Tank Capacity**
58 gallons (220 L)

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

**Electrical System**
Two 12 V - maintenance free batteries. 12 V starting and lighting, battery disconnect switch.

**Brakes**
Full hydraulic split circuit disc-type brakes operating on all wheels. Spring-applied, hydraulically released transmission-mounted parking brake.

**Tires**
20.5 x 25-24PR bias earthmover type.
*16.00 x 25-28PR bias earthmover type.

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

**Maximum Speed**
24 MPH (39 km/h)

**Gradeability (Theoretical)**
70% (Based on 58,000 [26 309 kg] GVW) 20.5 x 25 tires, pumps engaged, 95 ft. (29 m) boom, and tele-swingaway.

**Miscellaneous Standard Equipment**
Full width steel fenders, dual rear view mirrors, hookblock tiedown, electronic back-up alarm, light package, front stowage well, tachometer, rear wheel position indicator, hot water heater, hoist mirrors, engine distress A/V warning system. Auxiliary hoist control valve arrangement (less hoist). Cold start aid and immersion type engine block heater, 120 V, 1500 watt.

**Optional Equipment**
* AUXILIARY HOIST PACKAGE (includes Model HP15B-17G auxiliary hoist with electronic hoist drum rotation indicator, hoist drum cable follower, 450 ft. (137 m) of 5/8 in. (16 mm) 35 x 12 class wire rope and auxiliary single shear boom nose.
* AIR CONDITIONING PACKAGE (includes hydraulic driven air conditioning).
* AUXILIARY LIGHTING PACKAGE (includes cab mounted, 360° rotation spotlight, cab mounted amber flashing light, and dual base boom mounted floodlights).
* CONVENIENCE PACKAGE (includes in cab LMI lightbar).
* Pintle hook - rear
* Full length aluminum decking
* CE mark conformance
* 15 ton 2 sheave hookblock
* Cab-controlled cross axle differential locks (front & rear)
* 360 degree NYC style positive swinglock
* PAT Datalogger

*Denotes optional equipment
# RT530E Dimensions

### Notes:
1. All dimensions are for reference only.
2. Boom elevation is -3° to +76°.
3. Dims. shown based on 20.5 x 25 tires. Add 1.36 [34.5] for 16.0 x 25 tires.

### Weights

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Rear</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GVW</strong></td>
<td>lb.</td>
<td>kg</td>
</tr>
<tr>
<td>RT530E Basic Machine</td>
<td>54,483</td>
<td>24,713</td>
</tr>
<tr>
<td>ADD: 26 - 45 ft Tele swingaway</td>
<td>1,790</td>
<td>812</td>
</tr>
<tr>
<td>ADD: 26 ft swingaway</td>
<td>1,300</td>
<td>590</td>
</tr>
<tr>
<td>ADD: Auxiliary Hoist cable</td>
<td>339</td>
<td>154</td>
</tr>
<tr>
<td>ADD: Auxiliary boom nose</td>
<td>142</td>
<td>64</td>
</tr>
<tr>
<td>ADD: 30 ton (28mt) 3-sheave hook-block (stowed)</td>
<td>580</td>
<td>263</td>
</tr>
<tr>
<td>ADD: 7.5 ton (6.8mt) headache ball (stowed)</td>
<td>369</td>
<td>167</td>
</tr>
<tr>
<td>Remove: counterweight</td>
<td>-8,400</td>
<td>-3,810</td>
</tr>
</tbody>
</table>

### Notes:
- Reference dimensions in mm
Working range – 95 ft. Main Boom + 26-45 ft. extension

Dimensions are for largest Grove furnished hook block and headache ball, with anti-two block activated.

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.
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.
RT530E load chart

BOOM EXTENSION CAPACITY NOTES:
1. All capacities above the bold line are based on structural strength of boom extension.
2. 26 ft. and 45 ft. boom extension lengths may be used for single line lifting service.
3. Rads listed are for a fully extended boom with the boom extension erected. For main boom lengths less than fully extended, 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 configured. For boom angles not shown, use the rating of the next lower boom angle.
4. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
5. Capacities listed are with outriggers fully extended and vertical jacks set only.

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.

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.

GROVE
RT530E load charts

**NOTES TO ALL RUBBER CAPACITY CHARTS:**

1. Capacities are in pounds and do not exceed 75% of tipping loads as determined by test in accordance with SAE J766.
2. Capacities are applicable to machines equipped with 20.5x25 (24 ply) tires at 75 psi cold inflation pressure, and 16.00x25 (28 ply) tires at 100 psi cold inflation pressure.
3. Defined Arc - Over front includes 6° on either side of longitudinal centerline of machine (ref. drawing C6-829-03329).
4. Capacities appearing above the bold line are based on structural strength and tipping loads in the structural range with capacities close to maximum ratings, travel should be reduced to creep speeds.
5. Capacities are applicable only with machine on firm level surface.
6. On rubber lifting with boom extensions not permitted.
7. 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.
8. Axle lockouts must be functioning when lifting on rubber.
9. 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.
10. Creep - Not over 200 ft. of movement in any 30 minute period and not exceeding 1 mph.

**RT530E**

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.
### Load Charts

<table>
<thead>
<tr>
<th>Foot</th>
<th>Main Boom Length in Feet</th>
<th><strong>#031</strong></th>
<th><strong>#032</strong></th>
<th><strong>#041</strong></th>
<th><strong>#042</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>10,900</td>
<td>10,900</td>
<td>10,900</td>
<td>10,900</td>
<td>10,900</td>
</tr>
<tr>
<td>12</td>
<td>5,800</td>
<td>5,800</td>
<td>5,800</td>
<td>5,800</td>
<td>5,800</td>
</tr>
<tr>
<td>15</td>
<td>5,600</td>
<td>5,600</td>
<td>5,600</td>
<td>5,600</td>
<td>5,600</td>
</tr>
<tr>
<td>20</td>
<td>5,200</td>
<td>5,200</td>
<td>5,200</td>
<td>5,200</td>
<td>5,200</td>
</tr>
<tr>
<td>25</td>
<td>5,200</td>
<td>5,200</td>
<td>5,200</td>
<td>5,200</td>
<td>5,200</td>
</tr>
<tr>
<td>30</td>
<td>4,800</td>
<td>4,800</td>
<td>4,800</td>
<td>4,800</td>
<td>4,800</td>
</tr>
<tr>
<td>35</td>
<td>4,500</td>
<td>4,500</td>
<td>4,500</td>
<td>4,500</td>
<td>4,500</td>
</tr>
<tr>
<td>40</td>
<td>4,350</td>
<td>4,350</td>
<td>4,350</td>
<td>4,350</td>
<td>4,350</td>
</tr>
<tr>
<td>45</td>
<td>4,150</td>
<td>4,150</td>
<td>4,150</td>
<td>4,150</td>
<td>4,150</td>
</tr>
</tbody>
</table>

**NOTE:** Reference radii in feet.

---

### Boom Extension Capacity Notes:

1. All capacities above the bold line are based on structural strength of boom extension.
2. 26 ft. and 45 ft. boom extension lengths may be used for single line lifting service.
3. Radii listed are for a fully extended boom with the boom extension erected. For main boom lengths less than fully extended, the rated loads are determined by boom angle.
4. Use only the column which corresponds to the boom extension length and offset for which the machine is configured. For boom angles not shown, use the rating of the next lower boom angle.
5. Capacities listed are with outriggers properly extended and vertical jacks set only.
When lifting over swingaway and/or jib combinations, deduct total weight of all load handling devices reeved over main boom nose directly from swingaway or jib capacity.

NOTE: All load handling devices and boom attachments are considered part of the load and suitable allowances MUST BE MADE for their combined weights. Weights are for Grove furnished equipment.

<table>
<thead>
<tr>
<th>Weight Reductions for Load Handling Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>26 ft. Offsettable Boom Extension</td>
</tr>
<tr>
<td>Pounds</td>
</tr>
<tr>
<td>Erected –</td>
</tr>
<tr>
<td>2,960</td>
</tr>
<tr>
<td>26 ft.-45 ft. Tele. Boom Extension</td>
</tr>
<tr>
<td>Pounds</td>
</tr>
<tr>
<td>Erected (Retracted) –</td>
</tr>
<tr>
<td>4,220</td>
</tr>
<tr>
<td>Erected (Extended) –</td>
</tr>
<tr>
<td>5,780</td>
</tr>
</tbody>
</table>

*Reduction of main boom capacities

Auxiliary Boom Nose Pounds
142

Hookblocks and Headache Balls Pounds

| 30 Ton, 3 Sheave | 580 + |
| 15 Ton, 2 Sheave | 425 + |
| 7.5 Ton Overhaul Ball | 354 + |
| 7.5 Ton Headache Ball | 338 + |

*Refer to rating plate for actual weight.

When lifting over swingaway and/or jib combinations, deduct total weight of all load handling devices reeved over main boom nose directly from swingaway or jib capacity.

NOTE: All load handling devices and boom attachments are considered part of the load and suitable allowances MUST BE MADE for their combined weights. Weights are for Grove furnished equipment.

**Line Pulls and Reeving Information**

<table>
<thead>
<tr>
<th>Layer</th>
<th>Available lb.*</th>
<th>Line Pulls</th>
<th>Cable Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11,640</td>
<td>77</td>
<td>77</td>
</tr>
<tr>
<td>2</td>
<td>10,480</td>
<td>85</td>
<td>162</td>
</tr>
<tr>
<td>3</td>
<td>9,530</td>
<td>94</td>
<td>256</td>
</tr>
<tr>
<td>4</td>
<td>8,730</td>
<td>102</td>
<td>358</td>
</tr>
<tr>
<td>5</td>
<td>8,060</td>
<td>111</td>
<td>469</td>
</tr>
<tr>
<td>6</td>
<td>7,490</td>
<td>119</td>
<td>588</td>
</tr>
</tbody>
</table>

*Max. lifting capacity: 6x37 class = 11,640 lb.
35x7 class = 11,640 lb.

**Hoist Performance**

<table>
<thead>
<tr>
<th>Wire Rope Layer</th>
<th>Hoist Line Pulls Cap</th>
<th>Drum Rope Capacity (ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11,640</td>
<td>77</td>
</tr>
<tr>
<td>2</td>
<td>10,480</td>
<td>85</td>
</tr>
<tr>
<td>3</td>
<td>9,530</td>
<td>94</td>
</tr>
<tr>
<td>4</td>
<td>8,730</td>
<td>102</td>
</tr>
<tr>
<td>5</td>
<td>8,060</td>
<td>111</td>
</tr>
<tr>
<td>6</td>
<td>7,490</td>
<td>119</td>
</tr>
</tbody>
</table>

**Working Area Diagram**

**Diagram of Working Area**

Bold lines determine the limiting position of any load for operation within working areas indicated.

**NOTE**

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.