RT-300-2G
Rough Terrain Crane

30,000 lbs. (13,600) at 10 ft. (3.05) Radius

- Rated Capacity Limiter ... Standard
- Capacity on Outriggers ... 30,000 lbs (13,600 kg)
- Pick and Carry Capacity ... up to 18,300 lbs (8,300 kg)
- Height ... 11’ 2” (3.4 m)
- Width ... 8’ 4” (2.54 m)
- Boom Rotation ... 360 Degree Continuous
- Sheave Height ... up to 87’ 11” (26.8 m)
- Horizontal Reach ... up to 80’ (24.38 m)
- 4-Wheel Steer ... Standard
- 4-Wheel Drive ... Standard
- Powershift Transmission ... Standard
- Fully Hydraulic Controls for Smooth Precise Operations
- Independent Outrigger Controls
- Diesel Engine... Standard
RT-300-2G
Specifications

GENERAL:

Weight
Total 44,800 pounds (20,320 kg)
Front Axle 23,730 pounds (10,310 kg)
Rear Axle 22,070 pounds (10,010 kg)

Angle of Approach 24 degrees
Angle of Departure 22 degrees
Gradeability 70% grade (35 degrees)

Turning Radius: 4-Wheel Steer: (Min.)
Outside Tire C/L Radius 15’ 7” (4.75 m)
Vehicle Clearance Circle (Dia.) 35’ 2” (10.72 m)

Drawbar Pull 30,000 pounds (13,600 kg)
Road Speed 23 miles per hour (37 km/h)

ENGINE:

Make Cummins
Model QSB4.5L Tier 4i
Type Turbo Diesel, Charge Air Cooled
C.I.D. 4.5L

Max. Torque 468 ft lbs (635 Nm) @ 1500 rpm
Rated HP 163 hp (125 kW) @ 2500 rpm
Fuel Tank 50 Gallon (190L) Capacity

TRANSMISSION:

6-Speed Powershift with Torque Converter, Oil Cooler and Oil Filter

AXLES:

Front and Rear Axles: Gear Ratio 16.42:1

BRAKES:

Service - 4-Wheel Hydraulic Disc Brakes
Parking - Disc-type spring-applied and hydraulically-released

STEERING:

Hydraulic steering unit with two 3.5 inch (8.9 cm) cylinders attached to each axle. Allows limited steering when engine is not running. A switch on the control panel is used to select front-wheel steering, 4-wheel steering or crab steering. Electronic sensors and control box automatically align the steering when a new mode is selected.

TIRES:

Standard - 17.5 x 25, 20-ply rating, Mud Lug.

CHASSIS:

Outriggers:
Four independently controlled outriggers of swing-down design. Hydraulic cylinders are equipped with direct connected holding valves.

OPERATOR COMPARTMENT:

Operator control station provides one-position access to all chassis and crane controls.

All Weather Cab:
Consists of rigid-mounted canopy section and two removable hinged doors with safety glass. Includes heater with two-speed fan, 12-volt power outlet and defroster fan.

ELECTRICAL SYSTEM:

12-VOLT DC SYSTEM

Instrument Group:
Fuel, transmission oil temperature, voltmeter, engine oil pressure, water & hydraulic oil temperature gauges, & hourmeter.

Lighting Kit
Includes dual-beam headlights with turn signal lights. Taillights with brake & turn signal light. Back-up lights.

Outrigger Alarm System:
102 dB alarm with alternating two-tone sound is activated when "outrigger down".

HYDRAULIC SYSTEM:

Triple gear pump, mounted on and driven by the main transmission, delivers 14, 28 and 40 gpm (53, 106 and 151 L/min) at 3,000 psi (207 bar) and 2,500 rpm engine speed. Hydraulic oil tank capacity of 70 gallons (265L).

BOOM ASSEMBLY:

Boom Movement
Boom Speeds
Rotation Continuous 3.5 RPM
Elevation 0-70 Degrees 22 Seconds
Extension 40 ft (12.19 m) 25 Seconds

Boom Assembly:
Boom assembly equipped with bearing pads. Double-acting hydraulic cylinders, equipped with a holding valve, extend & retract the second and third boom sections. Double runs of high strength leaf chain extend & retract the fourth section. Boom angle indicator included on left side of boom. Twin, double-acting hydraulic cylinders control the boom elevation & are equipped with direct-connected holding valves.

Boom Rotation:
Heavy-duty ball bearing with external teeth rotation gear. Rotation is by hydraulic motor and compound planetary gear drive. A spring-applied hydraulically released brake and an over-running load valve are provided. Hydraulic centerpost and electric slip rings allow continuous rotation.

Boom Hoist:

Turret Mounted
Hydraulic Powered
Bare Drum Line Pull 13,100 lbs (5,940 kg)
Wire Rope 350 ft (107 m) of 9/16 in (14 mm) dia
Line Speed:
Bare Drum 185 fpm (56 m/min)
Full Drum 240 fpm (73 m/min)

4-Part-Line Sheave Block:
Double sheave block for four-part-line requirement. Downhaul weight and hook also included.

Anti-Two-Block Device:
Prevents damage to hoist rope and/or machine components from accidentally pulling load hook against boom tip.

Rated Capacity Limiter:
Warms operator of impending overload with audible & visual signals. In the event of overload, stops boom functions that increase overloads. Displays boom length, angle, load radius, load & capacity.
TIRE OPTIONS:
Spare Wheel & Tire:
17.5 x 25, 20-Ply Tire

CHASSIS OPTIONS:
Fenders:
Four bolt on steel fenders over tires

Auxiliary Front Winch:
Planetary gear winch mounted on front outrigger frame, with single-lever control on the operator console. Operator Guard required.

Lifting Eyes
Lifting eyes on corners of the chassis and the turntable so slings can be attached for lifting crane.

Towing Eyes
Consists of four eyes, two on the front and two on the rear for towing.

Pintle Hook, Front
Pintle hook mounted on the front outrigger housing, 24-ton capacity.

Pintle Hook, Rear
Pintle hook mounted on the rear outrigger housing, 24-ton capacity.

OPERATOR COMPARTMENT OPTIONS:
Window Wiper - Top Window
12-volt electric wiper on top window operated with its own switch.

Operator Guard
Tubular steel weldment with heavy expanded steel mesh top & grille front section

Operator Suspension Seats
Seats Inc. - Cloth
Full-suspension with adjustments for height, tilt, fore/aft, operator weight with armrest adjustment.

Seats Inc. - Vinyl
Full-suspension with adjustments for height, tilt, fore/aft, operator weight with armrest adjustment.

Floor Mat
Vinyl mat with foam backing

Air Conditioning
Air Conditioning with R134 coolant.

ELECTRICAL OPTIONS:
Strobe Light
Yellow strobe light mounted on top of engine hood for high visibility.

Boom Work Lights
One halogen work light mounted to boom to light boom tip and one work light mounted to turret to light ground under boom tip.

BOOM ATTACHMENT OPTIONS:
20-Ft Offsettable Boom Extension. Boom stowable. Offsets include 0 (in-line), 15 or 30 degree

Should you require an option or special equipment not listed please consult your dealer salesperson or BMC®.
## Load Chart

### RT-300-2G Rough Terrain Crane

#### Crane Capacity Chart

**RT-300-2G Metric**

<table>
<thead>
<tr>
<th>Crane Capacity Chart</th>
<th>Capacities for Operation on Firm Level Surface</th>
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</thead>
<tbody>
<tr>
<td>Load Radius in Meters from Center to Load</td>
<td>Load on Main Boom or Extension Capacity in Kilograms</td>
</tr>
<tr>
<td>3.5</td>
<td>3.0</td>
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**Boon Extension Capacities**

- **50° Main Boom Angle**
- **Capacities for 20°, 30°, 40°, 50°, 60°, 70°**

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**Load Radius is the Horizontal Distance from the Center of Rotation of the Unloaded Crane to the Vertical Load Line with the Load Applied.**

**Capacities on Outriggers are 85% of Tipping Loads. Capacities on Rubber are 75% of Tipping Loads. Capacities Below Solid Lines are Limited by Tipping. Other Capacities are Limited by Structural or Hydraulic Capacity.**

**Pick and Carry with the Shortest Practical Boom, Centered Over the Front. Operate with Boom As Low as Possible, With the Load Close to the Ground. Pick and Carry Capacities are for Smooth, Level Paved Surface. For Unpaved Surface Reduce Capacity by at Least 25%. Speed Must Be Less Than 5 km.**

**The Booms on This Unit Are All Steel and Have No Line Voltage Rating - No Electrical Insulation Value.**

**Maximum Hydraulic Pressure: 207 bar**

**Boom Extension Ductile: 230 kg When Stowed on Base Boom.**

**Ensure Anti-Twist Block Switch Is Functional After Deploying or Stowing Boom Extension.**

**Operation:**
- Read and Understand Operation Manual Before Operating Crane.
- Check Level of Hydraulic Oil and Engine Oil Daily.
- Check Unit for Visible Defects and Loose Parts.
- Set Vehicle Park Brakes Securily.
- Extend Outriggers to Solid Footing and Level Crane.
- Operate All Hydraulic Controls Slowly and Smoothly. Avoid Sudden Stops and Starts.

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**Brodersten Manufacturing Corp.**

**Lenexa, Kansas**

**Model No.**

**Serial No.**

**Date of Mfr.**

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**The Load Hoist Line on This Unit Must Be 14 mm Dia. 6x7 Strand Wire Rope or Equivalent With a Minimum Breaking Strength of 145 kN, Approved Tolerance: ±7.5-20% - 809 kPa.**

**Torque Wheel Nuts to 645 Nm (These Conditions Must Be Maintained to Handle Rated Loads on This Crane).**