

## **RT-400-A** **Rough Terrain Crane**

The RT-400 provides the low-height “stair step” entry and exit of a cab down rough terrain crane. Its 20 US ton lifting capacity can accommodate lifts historically made by older 15 US ton capacity units while not exceeding 75% of the RT-400-A’s rated capacity. The RT-400-A’s pilot-controlled hydraulic design provides the “feel” and precision of direct mechanical to hydraulic level controls while moving the noise and heat of control valves outside the cab operator environment.

- Tier 4 final compliant
- Comfortable arm rest mounted control levers
- Spacious, comfortable cab

### **Capacity**

40,000 lbs. (18,143 kg)

### **Sheave Height**

98' (30 m)  
(with boom extension)

### **Horizontal Reach**

85' (26 m)  
(with boom extension)

### **Height**

11' 2" (3.4 m)

### **Width**

8' 5" (2.6 m)





CONSULT THE RT-400-A ENGINEERING SPEC FOR ADDITIONAL INFORMATION.

**Main Features**

**RATED CAPACITY LIMITER**  
Standard

**CAPACITY ON OUTRIGGERS**  
40,000 lbs. (18,143 kg)

**PICK AND CARRY CAPACITY**  
up to 26,300 lbs. (11,955 kg)

**HEIGHT**  
11' 2" (3.4 m)

**WIDTH**  
8' 5" (2.6 m)

**BOOM ROTATION**  
360° Continuous

**SHEAVE HEIGHT**  
up to 98' (30 m)

**HORIZONTAL REACH**  
up to 85' (26 m)

**FOUR-WHEEL STEER**  
Standard

**FOUR-WHEEL DRIVE**  
Standard

**POWERSHIFT TRANSMISSION**  
Standard

**FULLY HYDRAULIC CONTROLS FOR  
SMOOTH, PRECISE OPERATIONS**

**INDEPENDENT OUTRIGGER  
CONTROLS**

**TIER 4 FINAL DIESEL ENGINE**  
Standard

**MODEL**  
RT-400-A Rough Terrain Crane

**TIRE OPTIONS**  
*Spare Tire & Wheel*  
17.5 x 25, 20-Ply Tire

**CHASSIS OPTIONS**  
*Auxiliary Front Winch*  
Planetary gear winch mounted beneath chassis frame, with push-button control on the operator console.  
*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.

**ELECTRICAL OPTIONS**  
*Strobe Lights*  
Yellow LED strobe light mounted on each side of counterweight for high visibility.  
*Boom Work Lights*  
One LED work light mounted to boom to light boom tip and one work light mounted to turret to light ground under boom tip.

**OPERATOR COMPARTMENT -  
STANDARD**  
*Window Wiper - Top Window*  
12-volt electric wiper on front and top window.  
*Air Conditioning*  
Integrally designed air conditioning system.  
*Spacious Operator's Cab*  
Arm rest mounted crane function levers, sliding driver's side door, retractable sunshade

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

Broderson Cranes are designed and built to ISO 9001:2008 certified standards and have a market leading reputation for quality and reliability. Broderson Cranes are engineered for operating efficiency and are easy to operate and maintain.

An extensive network of full-service dealers offer parts and service support by factory-trained technicians.

For additional options or special equipment not listed, please consult your dealer salesperson or contact Broderson Manufacturing Corp.

# RT-400-A

## SPECIFICATIONS

	ROTATION	ELEVATION	EXTENSION
Boom Movement	Continuous	0° to 75°	47' (14.3m)
Boom Speeds	2.23 RPM	28 sec	57 sec

### GENERAL

Weight Total	51,900 lbs. (23,500 kg.)
Front Axle	30,000 lbs. (13,600 kg.)
Rear Axle	21,900 lbs. (9,900 kg.)
Drawbar Pull	33,500 lbs. (15,100 kg.)
Gradeability	70% (34°)
Turning Radius	4-Wheel Steer: (Min.)
	Outside Tire C/L Radius: 14' 5" (4.4 m) Vehicle Clearance Circle (Radius): 17' 2" (5.23 m)

### ENGINE

Make	Cummins
Model	QSB4.5L (Tier 4 Final)
Type	Turbo Diesel, Charge Air Cooled
C.I.D.	4.5L
Max Torque	460 ft. lbs. (624 Nm) @ 1500 RPM
HP @ Gov. Speed	163 HP (122 kW) @ 2600 RPM
Fuel Tank Capacity	70 gal. (265L)

### TRANSMISSION

**6-SPEED POWERSHIFT (2 RANGE, 3 SPEEDS/RANGE) FORWARD AND REVERSE**, Oil Cooler and Oil Filter. Operator interface to shift and and disconnect front axle for 2-wheel drive operation.

### AXLES

**DANA FRONT & REAR AXLES**  
Gear Ratio: 19.333 : 1

### BRAKES

**Service:** 4-wheel hydraulic internal wet disc brakes

**Parking:** Internal wet disc, spring-applied/hydraulically released integral to rear axle.

### STEERING

Hydraulic steering unit with one cylinder attached to each axle. Allows limited steering when engine is not running. Push-button control is used to select front-wheel steering, 4-wheel steering or crab steering. Electronic sensors and control module sense wheels are centered after 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

Spacious, comfortable operator's cab with arm rest mounted pilot control levers. Equipped with driver's side sliding door. Heater, defroster, front and top windshield wiper and sliding sun shade. Integrally designed air conditioning is standard.

### ELECTRICAL (12-VOLT SYSTEM)

#### DASH DISPLAY

In-dash LCD screen shows engine RPM, coolant temperature, voltage, fuel level, oil pressure, DEF level and engine hours. Display also shows engine fault codes, control system faults, engine warnings, engine shutdown indication and diagnostic information.

#### LIGHTING KIT

Includes LED headlights with LED turn signal lights. Taillights with LED brake & turn signal lights. LED Back-up lights, and emergency flashers.

#### OUTRIGGER ALARM SYSTEM

102 dB alarm with alternating two-tone sound is activated when "outrigger down" controls are activated.

### HYDRAULIC

Precise, easy to maintain pilot hydraulic control system with dual redundant piston pumps delivering 103 GPM (390L/min) combined flow to support full multi-function demand. Large 160-gallon (605L) provides passive hydraulic oil cooling without additional oil cooler.

### BOOM ASSEMBLY

Four-section high strength steel construction with lubricant-filled 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. Single hydraulic cylinder controls boom elevation. Lift cylinder equipped with mounted holding valves.

#### BOOM ROTATION

Heavy-duty ball bearing with external teeth rotation gear. Rotation is by hydraulic motor and worm gear drive. Hydraulic centerpost and electric slip rings allow continuous rotation.

#### BOOM HOIST

Turret Mounted / Hydraulic Powered  
Bare Drum Line Pull: 13,800 lbs (6520 kg)  
Wire Rope: 425 ft (130 m) of 5/8 in (16 mm) dia  
Line Speed: 144 FPM (43.9 m/min)

#### 4-PART-LINE SHEAVE BLOCK:

Double sheave block for four-part-line requirement. Downhaul weight and hook included - Standard.

#### ANTI-TWO-BLOCK DEVICE:

Prevents damage to hoist rope and/or machine components from accidentally pulling load hook against boom tip.

#### BRODERSON® RATED CAPACITY LIMITER:

Warns 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.