

RT-400-B

Rough Terrain Industrial Crane

The RT-400-B is a self-propelled cab down rough terrain crane designed for lifting and material handling and features 4-wheel steer and 4-wheel drive. It is designed to be used in applications where the easy “stair step” entry and exit of a cab down rough terrain crane is desired. The 20 US ton lifting capacity and the 72’ 6” telescopic boom provides superior lifting capacity and reach envelope to other units in cab-down rough terrain category. The RT-400-B incorporates an Electro-Hydraulic controls and configurable control modes to provide superior controllability during crane function movement.

- US EPA Tier 4 final/
Euromot Stage V compliant.
- Air Conditioning & Heating
- Spacious, comfortable cab

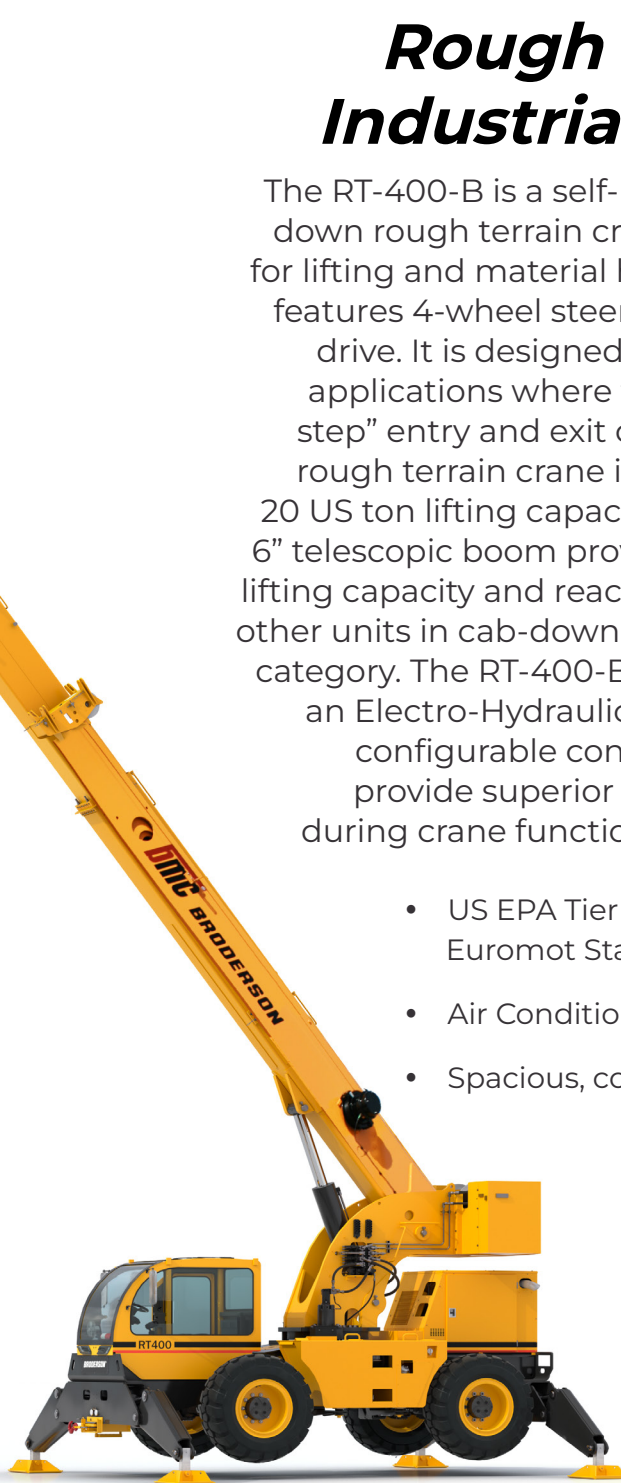
Capacity
40,000 lbs. (18,143 kg)

Sheave Height
90’ 1” (30.2m)
(with boom extension)

Horizontal Reach
89’ 6” (27.3 m)
(with boom extension)

Height
11’ 2” (3.4 m)

Width
8’ 6” (2.6 m)



BMC[®] BRODERSON[®]
Manufacturing Corp.

www.Broderson.com

RT-400-B SPECIFICATIONS

GENERAL

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

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°)
	4-Wheel Steer: (Min.)
Turning Radius	Outside Tire C/L Radius: 14' 5" (4.4 m) Vehicle Clearance Circle (Radius): 17' 2" (5.23

EXPORT ONLY

Make	Cummins	Cummins
Model	QSF3.8L (Tier 4 Final)	QSF3.8L Tier 4
Type	Turbo Diesel, Charge Air Cooled	Diesel, Turbo charged, Air Cooled
C.I.D.	3.8L	3.8L
Max Torque	460 ft. lbs. (620Nm) @1500 RPM	459 ft. lbs. (620 Nm) @ 1500 RPM
HP @ Gov. Speed	163 HP (122 kW) @ 2600	160 HP (119 kW) @ 2500 RPM
Fuel Tank	70 gal. (265L)	17.6 gal. (66.6L)
Emissions	U.S. EPA T4F/EU Stage V	EU Stage 2

ENGINE

TRANSMISSION

AXLES

BRAKES

STEERING

TIRES

CHASSIS

Dana 13.5 T Powershift transmission with 2 ranges and 3 speeds in FORWARD and REVERSE, Oil Cooler and Oil Filter. The transmission includes a front axle disconnect for 2-wheel drive. Maximum Speed Forward and Reverse: 22.3 mph (36 km/h)

DANA FRONT & REAR AXLES

Gear Ratio: 19.333 : 1, Rigid mounted, 30% limited slip differential

Service: 4-wheel hydraulic internal wet disc brakes

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

Hydraulic steering unit with a 4 inch (10.1cm) bore cylinder attached to each axle. Allows limited steering when engine is not running. Push button operator interface to select between 4 steer modes: front-wheel, 4-wheel, rear-wheel, or crab.

Standard:

17.5 x 25, 20-ply rating, mud lug, bi-directional.

OUTRIGGERS

Four independently controlled outriggers of swing-down design. Hydraulic cylinders are equipped with integral holding valves. Outrigger pad dimensions: 19in x 25in (480)mm x 64mm)

OPERATOR COMPARTMENT

Spacious, comfortable operator's cab with suspension seat, seat belt, tilting steering column, and arm rest mounted pilot control levers. Equipped with driver's side sliding door. Air conditioning, heater, defroster, front and top windshield wiper and sliding sun shade. Integrally designed air conditioning is standard.

DASH DISPLAY

In-dash LCD screen shows engine RPM, 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 one emergency flasher.

OUTRIGGER ALARM SYSTEM

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

ELECTRICAL (12-VOLT SYSTEM)

HYDRAULIC

Load sensing hydraulic control system with dual redundant piston pumps delivering 95 GPM (360L/min) combined flow to support full multi-function demand. 20 micron pressure filtration and 10 micron return filtration Large 110-gallon (416L) equipped with 10-micron breather filter on top and oil level gauge on side.

Four-section high strength steel construction. Single, telescopic hydraulic cylinders, equipped with wire rope and sheave system that extends and retracts the second, third, and fourth stages. The telescope cylinder and the boom elevation cylinder are equipped with cylinder-mounted holding valves. Boom angle indicator is provided on the left side of the boom

BOOM ROTATION

Heavy-duty ball bearing with external teeth rotation gear. Rotation is by hydraulic motor and planetary drive with integral spring applied, hydraulic released brake. Rotation gearbox may be adjusted as wear occurs, to minimize backlash.

BOOM HOIST

Turret Mounted / Hydraulic Powered
Bare Drum Line Pull: 13,800 lbs (6520 kg) (first layer)
Wire Rope: 425 ft (130 m) of 5/8 in (16 mm) dia
Line Speed: 209 FPM (63.7 m/min)
Grooved drum, cable follower and 3rd wrap indicator.

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 sheave block or downhaul weight against boom tip.

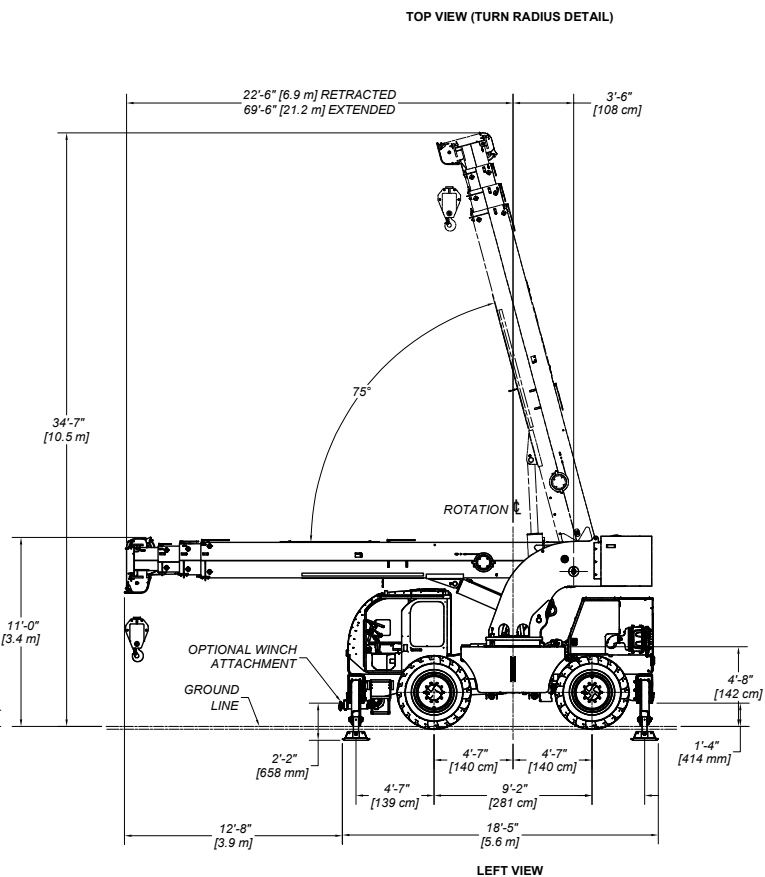
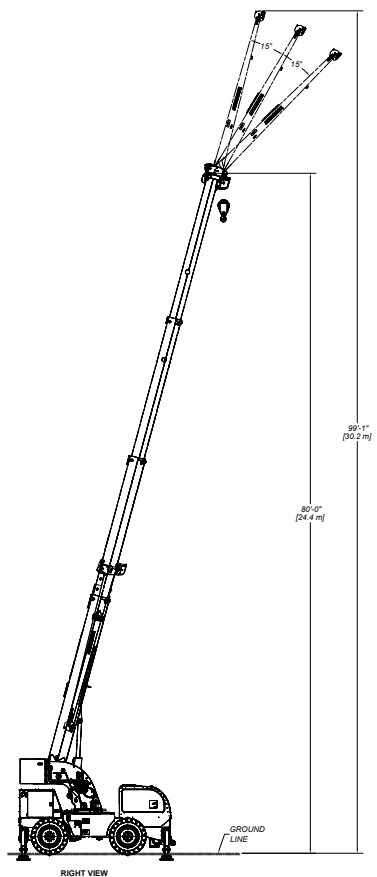
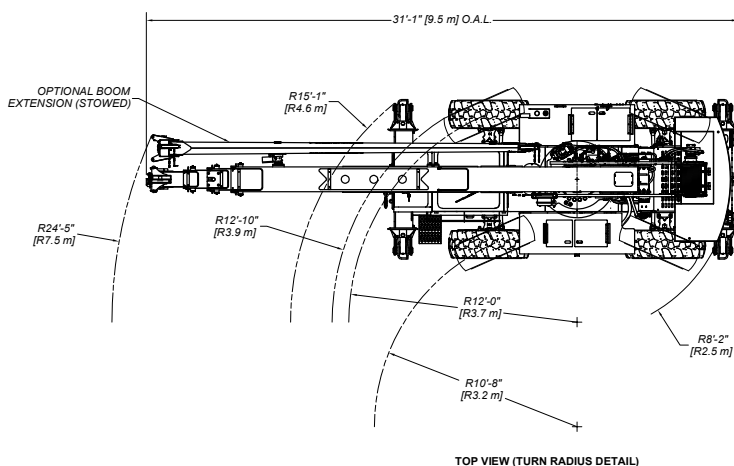
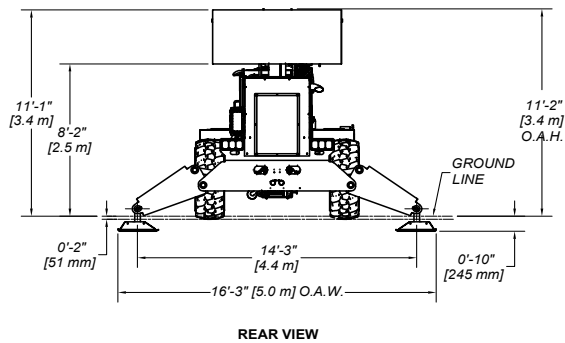
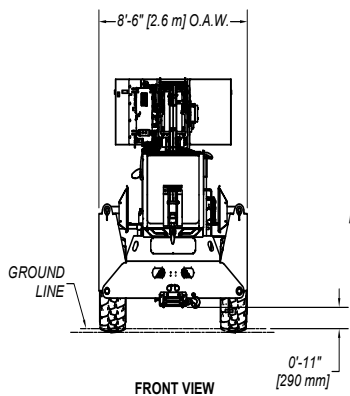
BRODERSON® RATED CAPACITY LIMITER:

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. bOperator configurable working range limits. Real time display of outrigger ground bearing pressure.

BOOM ASSEMBLY

RT-400-B

SPECIFICATIONS





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' 3" (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

**ELECTRONIC CONTROLS FOR
SMOOTH, PRECISE OPERATIONS**

**INDEPENDENT OUTRIGGER
CONTROLS**

TIER 4 FINAL DIESEL ENGINE
Standard

Additional Features

TIRE OPTIONS

Spare Tire & Wheel
17.5 x 25, 20-Ply Tire

CHASSIS OPTIONS

Auxiliary Front Winch

Planetary gear winch with manual free spool drum disconnect, mounted beneath chassis frame, with push-button control on the operator console.

Pintle Hook, Front

Pintle hook mounted on the front outrigger housing, 30,000lb capacity.

Pintle Hook, Rear

Pintle hook mounted on the rear outrigger housing, 30,000lb capacity.

ELECTRICAL OPTIONS

Strobe Lights

Two amber LED strobe light mounted on each side of counterweight for high visibility.

Boom Work Lights

Two 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.

MAIN HOIST:

Hydraulic powered 2-speed (12 VDC solenoid at motor for speed selection) planetary gear hoist with spring set, hydraulically released brake and load holding valve. Grooved drum, spring applied cable follower and 3rd wrap indicator. Maximum bare drum line pull of 13,792 lbs and maximum line speed of 297 ft/min (5th layer).

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

BroderSON Cranes are manufactured to ISO 9001:2015 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.

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



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Dimensions and
values shown are for
reference purposes only.
Specifications subject to
change.



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