

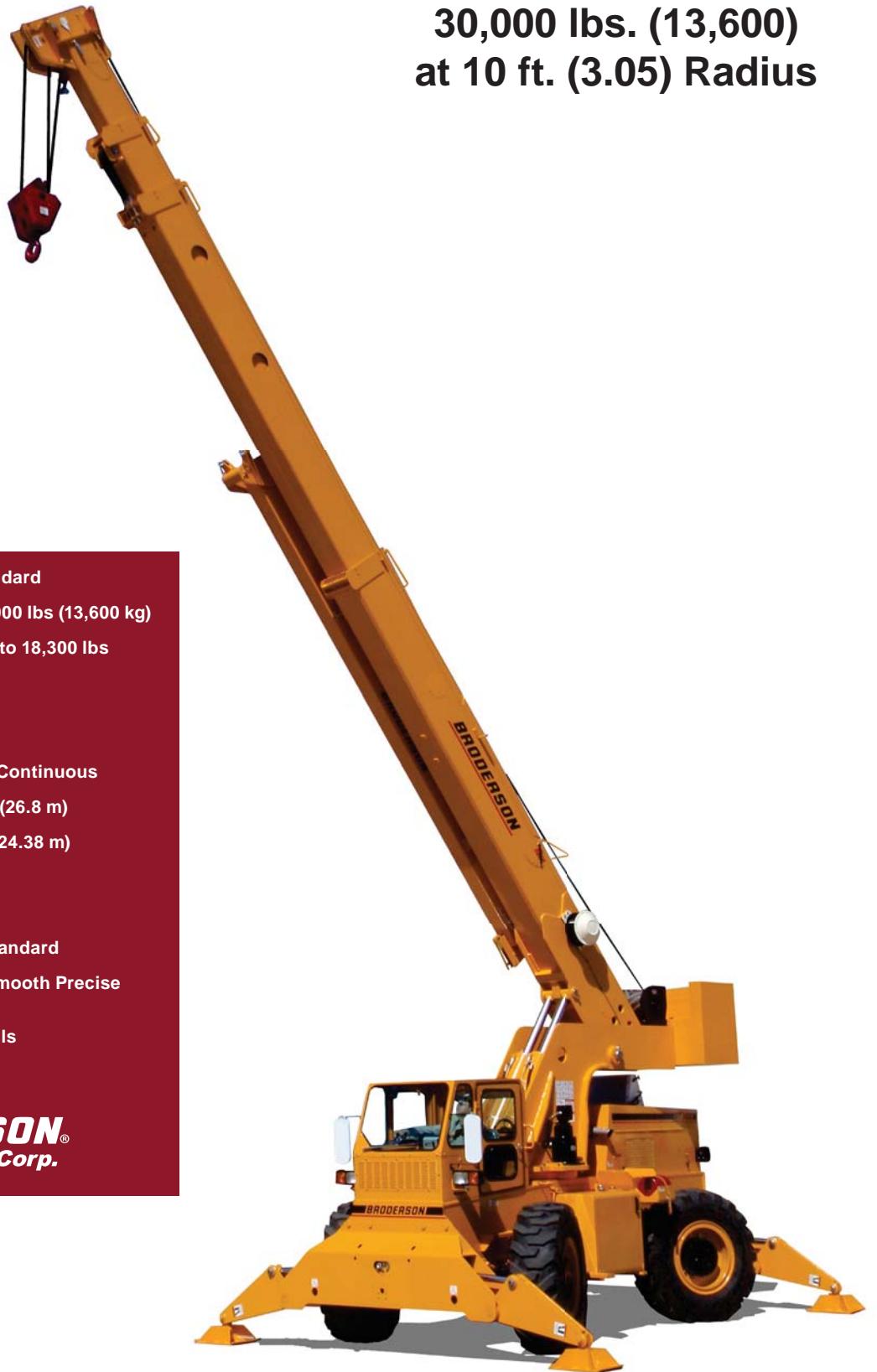


bmc
Tech Spec

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

BRODERSON
Manufacturing Corp.



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 (10010 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:

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.



RT-300-2G

Options

Listed below are brief descriptions of options available for this product.
Consult the RT-300-G Engineering Spec for additional information.

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®.

BRODERSON®

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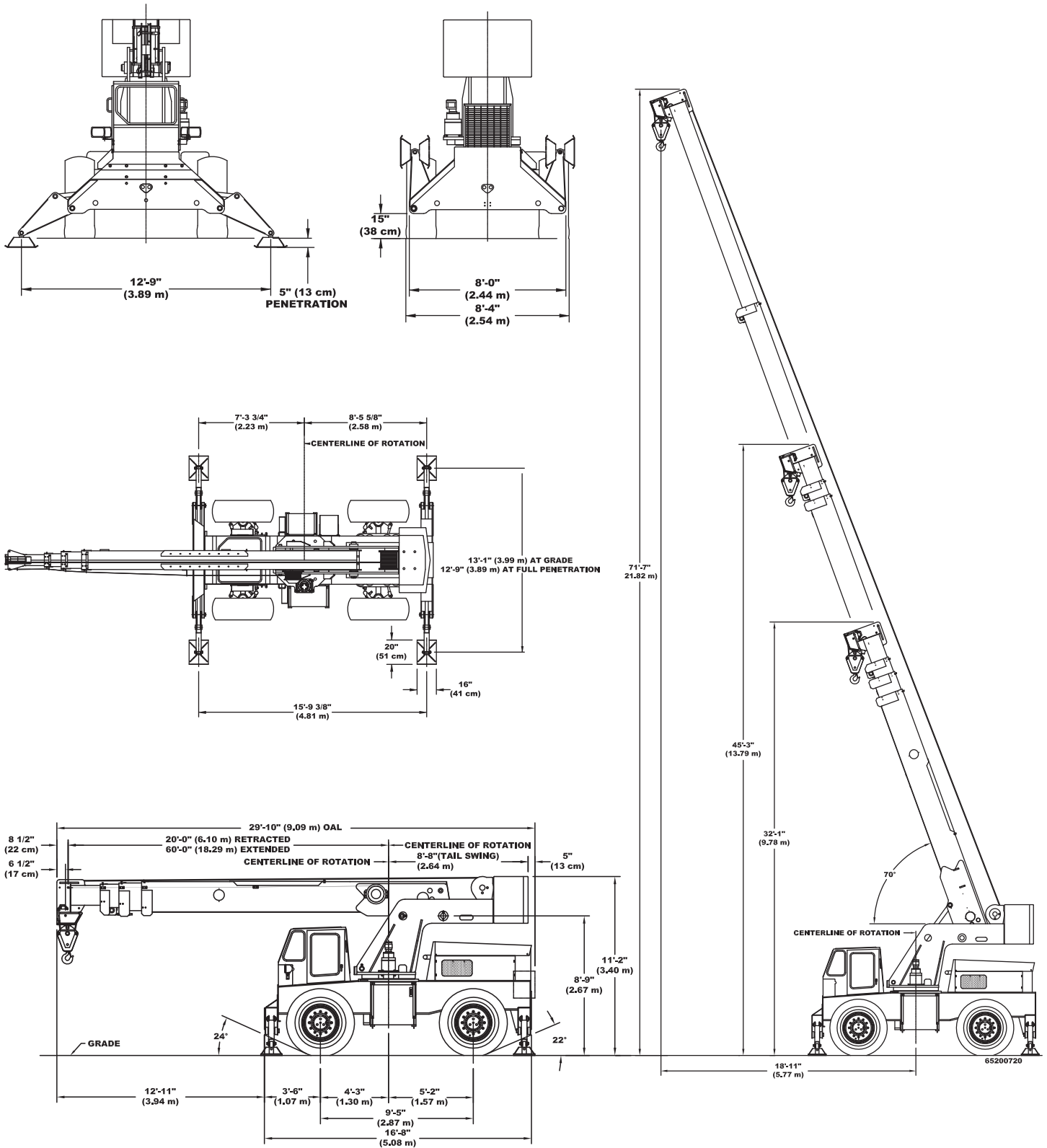
Dimensions and values shown are
for reference purposes only.

Specifications subject to change.





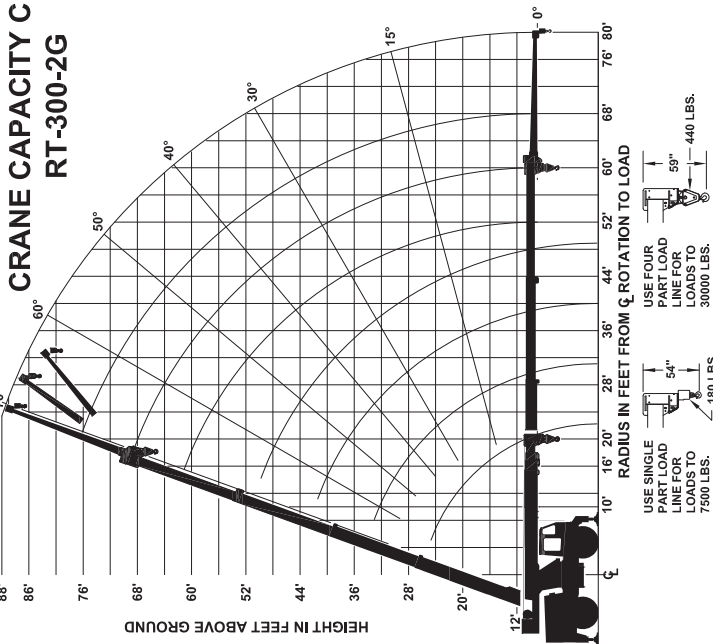
RT-300-2G





bmc® Load Chart

RT-300-2G Rough Terrain Crane



LOAD RADIUS FEET	CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE UNLOADED CRANE TO THE VERTICAL LOAD LINE WITH THE LOAD APPLIED.		CAPACITIES ON RUBBER ARE 85% OF TIPPING LOADS. CAPACITIES ON RUBBER ARE 75% OF TIPPING LOADS. CAPACITIES BELOW BOLD LINES ARE LIMITED BY TIPPING. OTHER CAPACITIES ARE LIMITED BY STRUCTURAL OR HYDRAULIC CAPACITY.	
	ON RUBBER	ON OUTRIGGERS	ON RUBBER	ON OUTRIGGERS
10	18300	30000	26300	30000
12	13500	28500	22500	28500
14	10400	25900	17600	25900
16	8300	19500	14000	22500
18	6700	16900	11400	19500
20	5500	14200	9400	17000
22	4500	12100	7900	15000
24	3700	10500	6800	13300
26	3100	9100	5700	11900
28	2500	7900	4800	10600
30	2000	6900	4200	9600
32	1600	6300	3600	8600
34	1400	5700	3200	8000
36	1200	5200	2900	7500
38	900	4800	2600	6900
40	800	4400	2400	6500
44	600	4100	1900	5600
48	---	3500	1600	4900
52	---	3100	1300	4200
56	---	2700	1000	3700
60	---	2300	800	3200
64	---	1950	---	2300
68	---	1750	---	2300
72	---	1500	---	2250
76	---	1300	---	1950
80	---	1000	---	1600

BOOM EXTENSION	20-FOOT BOOM EXTENSION CAPACITIES	
	MAIN BOOM ANGLE	20-FOOT BOOM EXTENSION CAPACITIES
0°	15°	3000
	30°	2700
15°	30°	3100
	40°	2600
30°	40°	2400
	50°	2300
45°	50°	2100
	60°	1900
60°	60°	1700
	70°	1500

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 RUBBER ARE 85% OF TIPPING LOADS. CAPACITIES ON RUBBER ARE 75% OF TIPPING LOADS. CAPACITIES BELOW BOLD 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 3 MPH.

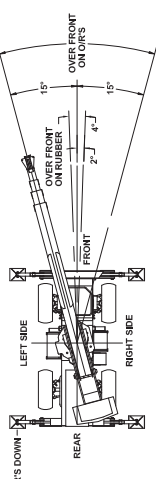
THE BOOMS ON THIS UNIT ARE ALL STEEL AND HAVE NO LINE VOLTAGE RATING - NO ELECTRICAL INSULATION VALUE.

MAXIMUM HYDRAULIC PRESSURE: 3000 PSI

BOOM EXTENSION DUCT: 500 LBS WHEN STOWED ON BASE BOOM.

ENSURE ANTI-TWO-BLOCK SWITCH IS FUNCTIONAL AFTER DEPLOYING OR STOWING BOOM EXTENSION.

- OPERATION:
1. READ AND UNDERSTAND OPERATION MANUAL BEFORE OPERATING CRANE.
 2. CHECK LEVEL OF HYDRAULIC OIL AND ENGINE OIL DAILY.
 3. CHECK UNIT FOR VISIBLE DEFECTS AND LOOSE PARTS.
 4. SET VEHICLE PARK BRAKE SECURELY.
 5. EXTEND OUTRIGGERS TO SOLID FOOTING AND LEVEL CRANE.
 6. OPERATE ALL HYDRAULIC CONTROLS SLOWLY AND SMOOTHLY. AVOID SUDDEN STOPS AND STARTS.



THE LOAD HOIST LINE ON THIS UNIT MUST BE 9/16" DIA. 6X36-EIP-RR-L-IMRC WIRE ROPE (OR EQUIVALENT) WITH A MINIMUM BREAKING STRENGTH OF 33,600 LBS.

APPROVED TIRES: 17.5-25 20 PR - 100 PSI

TORQUE WHEEL NUTS TO 475 FT. LBS. (THESE CONDITIONS MUST BE MAINTAINED TO HANDLE RATED LOADS ON THIS CRANE.)

MODEL NO. SERIAL NO. DATE OF MFR.

RT-300-2G

BRODERSON MANUFACTURING CORP.
LENEXA, KANSAS

65400936

DO NOT POSITION BOOM AT LOAD RADII WHERE NO LOAD CAPACITIES ARE SHOWN.

EXCEEDING CAPACITY RATINGS OR APPLYING SIDE LOADS TO THE BOOM OR BOOM EXTENSION IS MISUSE, IS HAZARDOUS, AND Voids WARRANTY.

CAUTION: BOOM EXTENSION LOADS MUST NOT EXCEED MAIN BOOM CAPACITY. DO NOT PICK AND CARRY WITH LOADS ON BOOM EXTENSION.

View thousands of Crane Specifications on FreeCraneSpecs.com

bmc®

Load Chart

RT-300-2G

Rough Terrain Crane

CRANE CAPACITY CHART RT-300-2G METRIC

USE SINGLE PART LOADS TO 3400 kg
USE FOUR PART LOADS TO 13600 kg

LOAD HOOKS, DOWNHAUL WEIGHTS, HOOK BLOCKS AND OTHER LOAD HANDLING DEVICES SHALL BE CONSIDERED PART OF THE LOAD EXCEPT FOR HOIST ROPE.

LOAD RADIUS METERS	CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE UNLOADED CRANE TO THE VERTICAL LOAD LINE WITH THE LOAD APPLIED.	
	ON RUBBER	ON OUTRIGGERS
3.05	8300	13600
3.5	6540	13160
4	5310	12260
4.5	4320	11160
5	3600	9920
5.5	3020	8820
6	2570	7850
7	1850	5930
8	1370	4680
9	960	3700
10	690	3020
11	540	2570
12	370	2230
13	300	1960
13.41	270	1860
14	270	1720
15	1530	680
16	1360	570
17	1230	460
18	1080	360
18.29	1040	360
19	940	360
20	840	360
22	670	360
24	500	360
24.38	450	360
24.38	450	720

BOOM EXTENSION ANGLE	6.1 METER BOOM EXTENSION CAPACITIES						
	0°	15°	30°	40°	50°	60°	70°
0°	1040	1090	1220	1400	1680	2170	2810
15°	---	1040	1090	1160	1310	1540	1860
30°	---	---	1040	1090	1130	1220	1400

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 BOLD 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/h.

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 DEDUCT: 230 kg WHEN STOWED ON BASE BOOM

ENSURE ANTI-TWO-BLOCK SWITCH IS FUNCTIONAL AFTER DEPLOYING OR STOWING BOOM EXTENSION.

OPERATION:

1. READ AND UNDERSTAND OPERATION MANUAL BEFORE OPERATING CRANE.
2. CHECK LEVEL OF HYDRAULIC OIL AND ENGINE OIL DAILY.
3. CHECK UNIT FOR VISIBLE DEFECTS AND LOOSE PARTS.
4. SET VEHICLE PARK BRAKE SECURELY.
5. EXTEND OUTRIGGERS TO SOLID FOOTING AND LEVEL CRANE.
6. OPERATE ALL HYDRAULIC CONTROLS SLOWLY AND SMOOTHLY. AVOID SUDDEN STOPS AND STARTS.

THE LOAD HOIST LINE ON THIS UNIT MUST BE 14 mm DIA. 6X36-EIP-PRL-IMRC WIRE ROPE (OR EQUIVALENT) WITH A MINIMUM BREAKING STRENGTH OF 149 kN.

APPROVED TIRES: 17.5-25 20 PR - 690 KPa

TORQUE WHEEL NUTS TO 845 Nm (THESE CONDITIONS MUST BE MAINTAINED TO HANDLE RATED LOADS ON THIS CRANE).

MODEL NO. **RT-300-2G** SERIAL NO. _____ DATE OF MFR. _____

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LENEXA, KANSAS 65400942