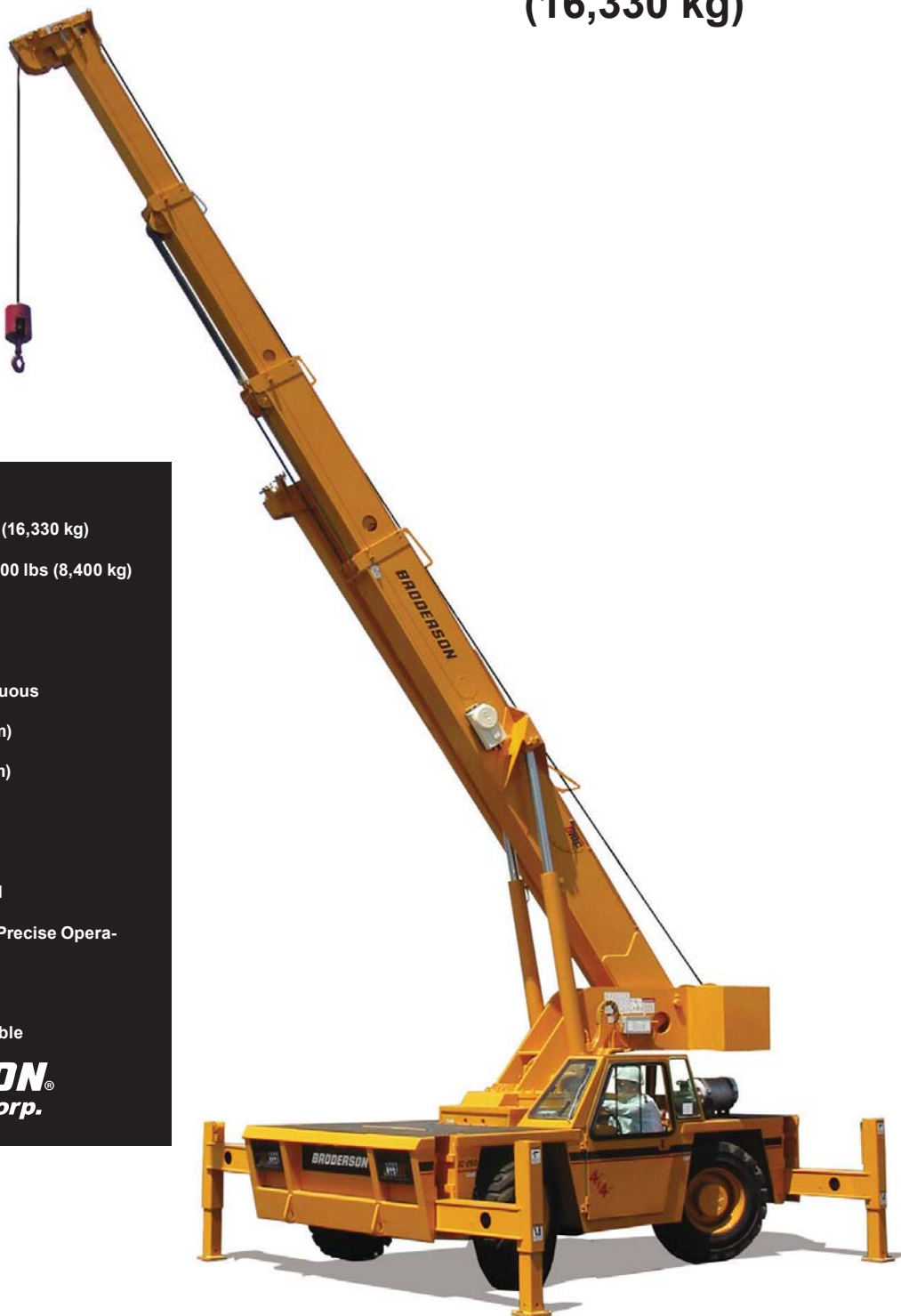


bmc
Tech Spec

IC-250-3D Industrial Crane

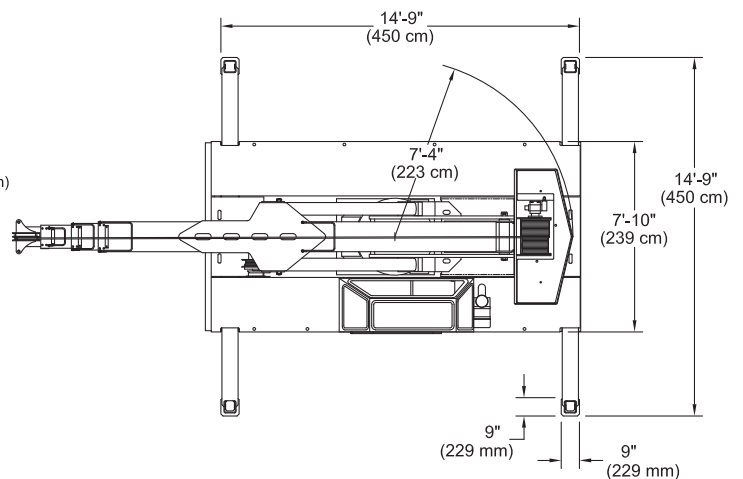
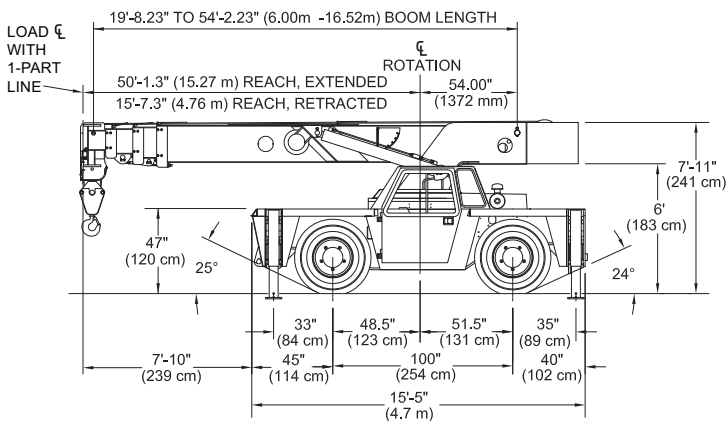
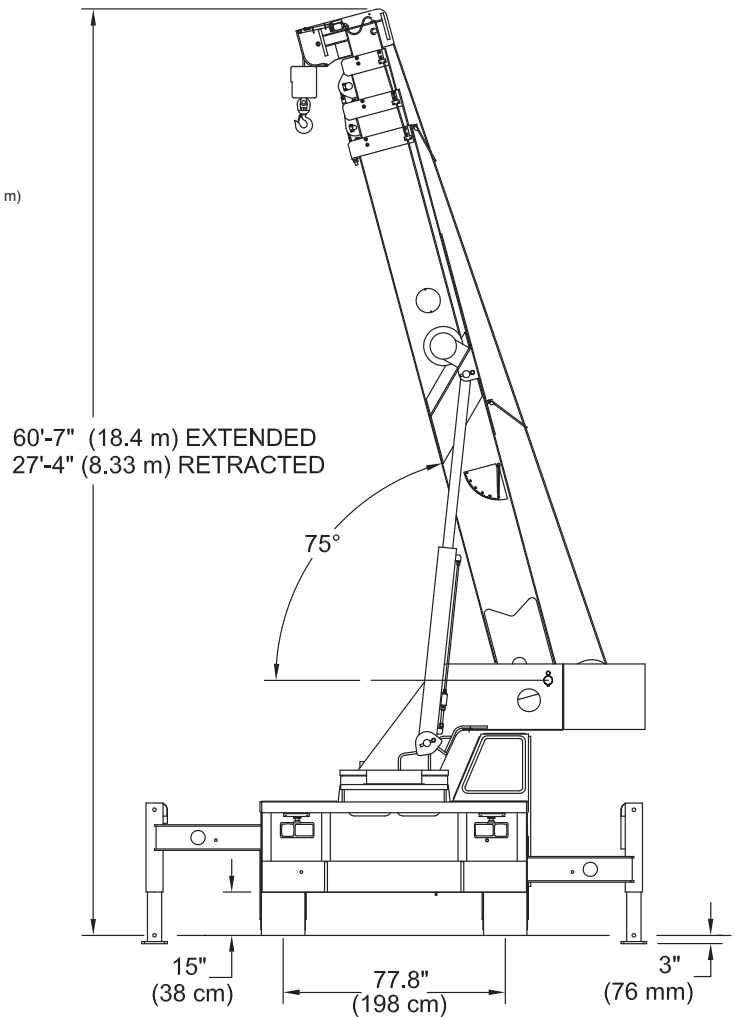
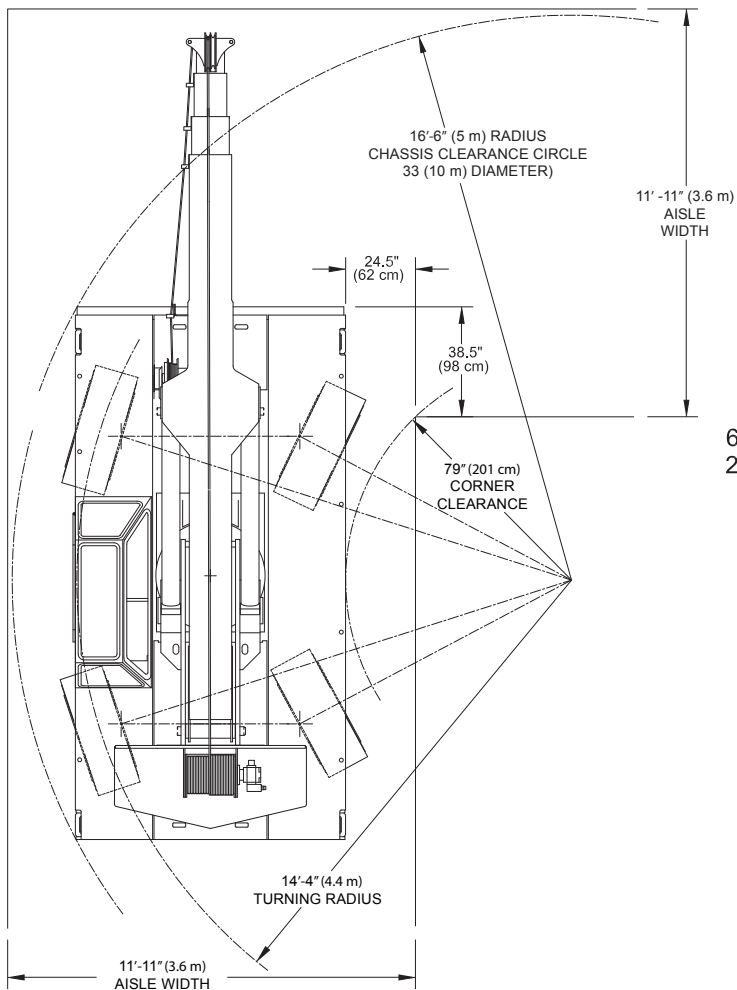
18-Ton Max. Capacity
(16,330 kg)



- Rated Capacity Limiter ... Standard
- Capacity on Outriggers ... 36,000 lbs (16,330 kg)
- Pick and Carry Capacity ... up to 18,500 lbs (8,400 kg)
- Height ... 7' 11" (2.41 m)
- Width ... 7' 10" (2.39 m)
- Boom Rotation ... 360 Degree Continuous
- Sheave Height ... up to 79' 6" (24.23 m)
- Horizontal Reach ... up to 70' (21.36 m)
- 4-Wheel Steer ... Standard
- 4-Wheel Drive ... Optional
- Powershift Transmission ... Standard
- Fully Hydraulic Controls for Smooth Precise Operations
- Independent Outrigger Controls
- Diesel or LPG Fueled Engines Available

BRODERSON®
Manufacturing Corp.

IC-250-3D



IC-250-3D

Specifications

GENERAL:

Boom Movement:	Rotation	Elevation	Extension*
	Continuous	0° to 75°	34.5" (10.52m)
Boom Speeds:	1.3 RPM	22sec	41sec
Weight:			
Total	37,700lbs (17100kg)		
Front Axle	17,100 (7800 kg)		
Rear Axle	20,600 (9300 kg)		
Gradeability:	64 percent (33°)		
Turning Radius:	14.3" (4.37m)		

ENGINE:

Make	Cummins	GM
Model	QSB3.3L Tier 4i	5.7 L V-8
Type	Turbocharged Diesel	LPG
No. Cyl.	4	8
Displacement	3.3L	5.7L
HP @ Gov. Speed	100 H.P. (75 kW)	135 H.P. (101 kW)
Fuel Tank Capacity	30 Gal (114 L)	Dual 43lb. (19.5 kW)

TRANSMISSION:

Powershift transmission with 4-speeds forward & reverse. Provides power shifts at any engine speed in any gear. All shifting is done with a single lever electrical control mounted on the steering column. Multiple-disc clutch packs operated by solenoid valves provide reverse, neutral, forward and speed selection. Equipped with torque converter and transmission oil cooler.

Gear Ratio

First	5.72:1	Third	1:77:1
Second	3.23:1	Fourth	1.00:1

AXLES:

Front Axle:

Planetary drive/steer front axle with 15.78 to 1.0 ratio. Differential equipped with "limited slip" feature. Front axle mounted rigidly to frame.

<u>Gear</u>	<u>Travel Speed</u>	<u>Drawbar & Pull*</u>
First	3	18,100lbs (8200 kg)
Second	5	10,600lbs (4800 kg)
Third	10	6,000lbs (2700 kg)
Fourth	18	3,200lbs (1450 kg)

*Drawbar pull is calculated for QSB3.3L Tier 4i Diesel Engine

Rear Axle:

Standard (2-Wheel Drive):

Steering axle with 1½° oscillation in either direction.

Optional (4-Wheel Drive):

Planetary drive/steer axle with 24.98 to 1.0 ratio. Differential is not "limited slip" in rear axle. 1½° oscillation in either direction. Axle ratio compatible with 4WD transmission rear output ratio to match front axle speed.

STEERING:

Hydraulic steering unit with two cylinders attached to each axle. Allows limited steering when engine is not running. A switch on the control panel is used to select rear-wheel steering or four-wheel (round) steering or crab steering.

BRAKES:

Service: Split-system, 4-wheel hydraulic-boosted multiple-plate wet disc brakes.

Parking: Hand lever actuated disc-type parking brake on transmission.

TIRES:

Standard - 385/65 D22.5, 16-ply high traction on/off road tread.

CHASSIS:

CARGO DECK:

80 Square feet (7.4 m2) of deck area. 17,000 lbs. (7,700 kg) capacity on deck when load is centered over or between axles.

Headlight & Taillight Grilles

Steel protective grilles for headlights & taillights. Easily removable for replacing bulbs.

OUTRIGGERS:

Four hydraulic out & down outriggers of box beam construction with direct-connected holding valves. Independent controls for each outrigger. Outrigger pad dimension 9" (23 cm) x 9" (23 cm)

ACCESSORY STORAGE BOX:

Storage box is 14" (35 cm) deep x 12½" (32 cm) long x 36 ½" (93 cm) wide, located in front cargo deck.

Lifting Rings

Lifting rings at each corner of cargo deck so sling can be attached for lifting crane.

OPERATOR COMPARTMENT:

Provides one-position access to all chassis and crane controls. Includes adjustable operator's seat, retracting seat belt, fire extinguisher, and bubble level.

ELECTRICAL:

12 Volt System

Lighting Package:

Consists of two 12V-lamps, with high and low beams for driving; tail, brake and turn signal lights and backup lights in rear; front turn signals and emergency flasher switch at operator's station.

Instrument Package

Fuel gauge and hourmeter which records hours only during actual engine operation. Also included are warning lights for low oil and transmission pressure, check engine, high coolant and transmission temperature, turn signals, high beams, hazard lights, parking brake and four-wheel drive.

Back-Up Alarm

Provides pulsating sound from 102 dB alarm when transmission is in reverse. Conforms to SAE J994B.

Outrigger Alarm System:

Two-tone alarm is activated when "outrigger down" or "outrigger out" controls are operated.

HYDRAULIC SYSTEM:

Tandem pump, direct-driven by engine, delivers 30 GPM (113L/min) at rated RPM. 54-gallon capacity.

BOOM ASSEMBLY:

Four-section boom assembly equipped with bearing pads, doubleacting hydraulic cylinder & chain system telescopes booms proportionally. Telescope & boom elevation cylinders equipped with cylinder-mounted holding valves. Boom angle indicator on each side of boom.

Boom Rotation:

Heavy-duty ball bearing rotation gear with external teeth. Rotation is powered by hydraulic motor & worm gear drive.

Boom Hoist:

Turret-mounted planetary gear hoist, is hydraulically powered to provide a bare-drum line pull of 12,000 lbs (5440 kg) and a speed of 100 fpm (30 m/min), includes 320 feet (97 m) of 9/16 inch (14 mm) wire rope, 170 pound (77 kg) downhaul weight, swivel hook, sheave block for 4-part line.

Anti-Two-Block Device:

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

Rated Capacity Limiter:

Warns operator of impending overload with audible & visual signals. Prevents overload by stopping boom functions that cause overloads.

IC-250-3D

Options

Listed below are brief descriptions of options available for this product.
Consult the IC-250-3D Engineering Spec for additional information.

MODEL:

IC-250-3D Industrial Crane

ENGINE OPTIONS:**Spark Arrester Muffler**

Installed in addition to std. muffler.

Engine Heater for LPG Engine

Engine coolant heater is installed to circulate warm water through engine, plugs into 120 volt AC.

AXLE & STEERING OPTIONS:**4-Wheel Steer & 2-Wheel Drive****4-Wheel Steer & 4-Wheel Drive**

TIRE OPTIONS:**Non-Marking Tires****Foam Filling of Tires****Spare Tire & Wheel**

CHASSIS OPTIONS:**Auxiliary Winch**

Mounted behind the front bumper, hydraulically driven with control in operator's console.

Pintle Hook:**Pintle Hook, Rear****Pintle Hook, Front****Rearview Mirrors**

One mounted on right-hand deck stake and one mounted on left-hand deck stake.

Outrigger Shoes

Steel outrigger shoes, 18" (46 cm) x 18" (46 cm) octagonal shape with storage posts on rear bumper.

OPERATOR COMPARTMENT OPTIONS:**Operator Guard**

Tubular steel weldment with heavy expanded steel mesh top section.

All Weather Cab

Rigid-mounted canopy section and removable hinged door. Includes heater, electric windshield wiper, one sliding glass window in the door & one in the right side of canopy. Defroster fan & dome light included.

Cab Heater Only

Heater with two-speed fan for units without All Weather Cab.

Windshield Washer

Includes reservoir, pump and nozzle.

Floor Mat

Vinyl mat with foam backing.

Operator Suspension Seat

Small suspension built in to provide additional operator comfort.

Deluxe seat upholstery springs provide additional operator comfort.

Noise Reduction Kit

Includes floor mat, control valve cover and side panels of foam backed vinyl for noise reduction.

Air Conditioning

Air Conditioner with R134A coolant.

ELECTRICAL OPTIONS:**Strobe Lights**

Two yellow strobe lights mounted on each side of turret weight box.

Boom Work Lights

One worklight mounted to boom to light boom tip, and one work light mounted to turret to light ground under boom tip.

Work Lights - Rear

Two work lights recessed in rear bumper.

BOOM ATTACHMENTS:**Boom Extension, 20 ft. (6.1 m) Offset**

Boom stowable. Boom extension is offsettable to 3 different positions; 0 degree (in line), 15 degree and 30 degree offset.

Sheave Block - Two Part Line**Searcher Hook:****Nose Mount**

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

BRODERSON®
Manufacturing Corp.

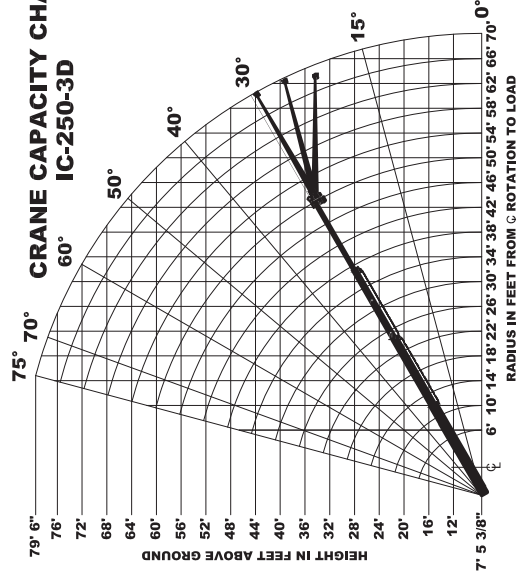
14741 West 106th Street
Lenexa, KS 66215 USA

Tel (913) 888-0606
Fax (913) 888-8431
www.bmccranes.com

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



CRANE CAPACITY CHART
IC-250-3D



LOAD RADIUS FEET	CAPACITIES ARE IN POUNDS AND APPLY TO OPERATION ON FIRM LEVEL SURFACE				
	MAIN BOOM		MAIN BOOM OR BOOM EXTENSION		
	ON RUBBER 360° ROTATION	OVER FRONT	OIR'S IN & DOWN 360° ROTATION	OIR'S IN & DOWN OIR'S OUT & DOWN 360° ROTATION	OIR'S OUT & DOWN 360° ROTATION
6	16400	18500	30000	35000	35000
8	13000	15000	25000	30400	30400
10	10800	12350	20500	25000	25000
12	9000	10300	17000	20500	20500
14	7550	9000	14500	17700	17700
16	6450	7800	12500	15200	15200
18	5600	6850	11000	13500	13500
20	4800	6100	9500	12100	12100
22	4150	5400	8200	10900	10900
24	3600	4650	7100	9850	9850
26	3100	4000	6100	8950	8950
28	2700	3500	5200	8200	8200
30	2350	3050	4400	7500	7500
32	2000	2650	3700	6850	6850
34	1700	2300	3100	6250	6250
36	1400	1950	2600	5650	5650
38	1200	1700	2200	5000	5000
40	1000	1450	1850	4400	4400
42	900	1300	1650	3900	3900
44	800	1150	1450	3400	3400
46	700	1000	1250	3000	3000
48	600	900	1100	2650	2650
50	500	800	950	2350	2350
52	450	750	850	2100	2100
54	400	700	750	1900	1900
56	350	650	650	1700	1700
58	300	600	550	1500	1500
60	250	550	450	1300	1300
62	200	500	350	1100	1100
64	150	450	250	950	950
66	100	400	150	800	800
68	50	350	50	650	650
70	50	350	50	600	600
BOOM EXTENSION - STRAIGHT OR OFFSET					
0°	15°	30°	40°	50°	60°
0°	2500	2000	1600	1300	1000
15°	2500	2000	1600	1300	1000
30°	2500	2000	1600	1300	1000
40°	2500	2000	1600	1300	1000
50°	2500	2000	1600	1300	1000
60°	2500	2000	1600	1300	1000
70°	2500	2000	1600	1300	1000

LOAD RADIUS IS THE HORIZONTAL DISTANCE FROM THE CENTER OF ROTATION OF THE UNLOADED CRANE TO THE VERTICAL LOAD LINE WITH THE LOAD APPLIED.

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. BOOM EXTENSION MAY ONLY CARRY LOADS WITH OUTRIGGERS DOWN.

CAPACITIES ON OUTRIGGERS OUT & DOWN ARE 85% OF TIPPING LOADS. CAPACITIES ON RUBBER ARE 75% OF TIPPING LOADS. CAPACITIES ON WHEELS ARE 75% OF TIPPING LOADS. CAPACITIES ON WHEELS BELOW SOLID LINE ARE LIMITED BY TIPPING. OTHER CAPACITIES ARE LIMITED BY STRUCTURAL OR HYDRAULIC CAPABILITY.

DECK CAPACITY 17000 LBS. WITH EMPTY BOOM RETRACTED OVER FRONT. DECK LOAD MUST BE CENTERED BEHIND FRONT AXLE. SPEED MUST BE LESS THAN 2 MPH. MAXIMUM TRAVEL 200 FT. IN 30 MINUTES ON SMOOTH PAVEMENT.

PICK AND CARRY WITH THE SHORTEST PRACTICAL BOOM, CENTERED OVER THE FRONT. OPERATE WITH THE BOOM AS CLOSE TO THE GROUND, PICK AND CARRY CAPACITIES ARE FOR SMOOTH LEVEL PAVED SURFACE.

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 DEDUCTS 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.

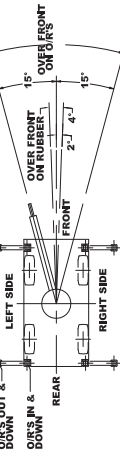
2. CHECK LEVEL OF HYDRAULIC OIL AND ENGINE OIL DAILY.

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. 6 X 36-EP-RRL-WRC WIRE ROPE (OR EQUIVALENT) WITH A MINIMUM BREAKING STRENGTH OF 31,500 LBS.

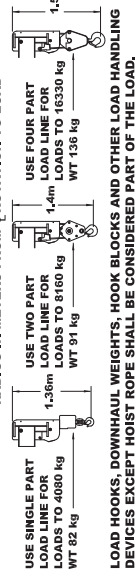
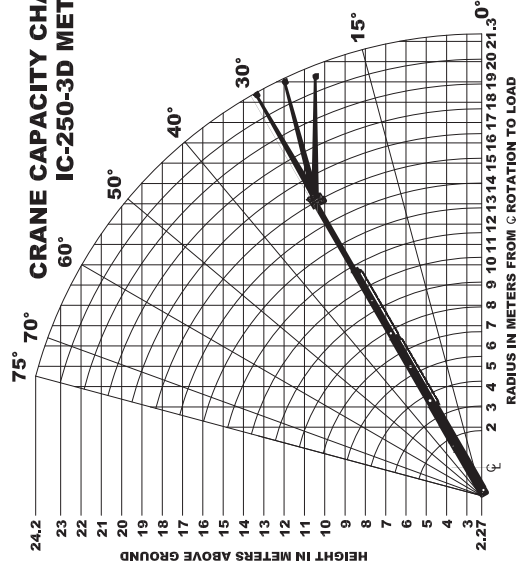
APPROVED TRESS. OTR 38E6SD22.5, 15 PLY - 120 PSI

TORQUE WHEEL NUTS TO 500 FT. LBS. (THESE CONDITIONS MUST BE MAINTAINED TO HANDLE RATED LOADS ON THIS CRANE)

MODEL NO.	SERIAL NO.	DATE OF MFR.
IC-250-3D		

BRODERSON MANUFACTURING CORP.
LENEXA, KANSAS
65400924

CRANE CAPACITY CHART
IC-250-3D METRIC



CAPACITIES ARE IN KILOGRAMS AND APPLY TO OPERATION ON FIRM LEVEL SURFACE									
LOAD RADIUS		MAIN BOOM		MAIN BOOM OR BOOM EXTENSION		MAIN BOOM OR BOOM EXTENSION		MAIN BOOM OR BOOM EXTENSION	
METERS	360° ROTATION	ON RUBBER	OVER FRONT	OIR'S IN & DOWN	OIR'S IN & DOWN	OIR'S IN & DOWN	OIR'S IN & DOWN	OIR'S IN & DOWN	OIR'S IN & DOWN
1.8	7440	8400	13600	13600	16330	16330	16330	16330	16330
2.0	6900	7880	12950	12950	15900	15900	15900	15900	15900
2.5	5790	6680	11120	11120	13540	13540	13540	13540	13540
3.0	4920	5680	9500	9500	11500	11500	11500	11500	11500
3.5	4280	4930	8250	8250	9770	9770	9770	9770	9770
4.0	3690	4350	7250	7250	8880	8880	8880	8880	8880
4.5	3210	3860	6400	6400	8130	8130	8130	8130	8130
5.0	2840	3440	5680	5680	7400	7400	7400	7400	7400
6.0	2230	2820	4500	4500	6220	6220	6220	6220	6220
7.0	1760	2280	3740	3740	5210	5210	5210	5210	5210
8.0	1380	1780	3000	3000	4410	4410	4410	4410	4410
9.0	1100	1430	2500	2500	3800	3800	3800	3800	3800
10.0	860	1130	2000	2000	3300	3300	3300	3300	3300
11.0	680	900	1600	1600	2800	2800	2800	2800	2800
12.0	540	720	1300	1300	2300	2300	2300	2300	2300
13.0	430	570	1050	1050	1900	1900	1900	1900	1900
14.0	350	460	850	850	1600	1600	1600	1600	1600
15.0	270	350	680	680	1300	1300	1300	1300	1300
16.0	210	280	540	540	1050	1050	1050	1050	1050
17.0	160	210	420	420	820	820	820	820	820
18.0	120	150	310	310	620	620	620	620	620
19.0	90	110	230	230	460	460	460	460	460
20.0	70	85	180	180	360	360	360	360	360
21.0	55	65	140	140	280	280	280	280	280
21.3	50	60	130	130	260	260	260	260	260
21.5	48	58	125	125	250	250	250	250	250
21.8	46	56	120	120	240	240	240	240	240
22.0	45	55	118	118	235	235	235	235	235
22.5	43	53	113	113	225	225	225	225	225
23.0	41	51	108	108	215	215	215	215	215
23.5	40	50	105	105	208	208	208	208	208
24.0	38	48	100	100	198	198	198	198	198
24.2	37	47	98	98	193	193	193	193	193
BOOM EXTENSION CAPACITIES: STRAIGHT OR OFFSET									
MAIN BOOM ANGLE									
0° 15° 30° 40° 50° 60° 70° 75°									
0°	1180	1250	1360	1540	1860	2310	2810	3170	3470
15°	1130	1180	1220	1310	1490	1950	2410	2760	3060
30°	1040	1090	1130	1220	1450	1810	2170	2520	2820

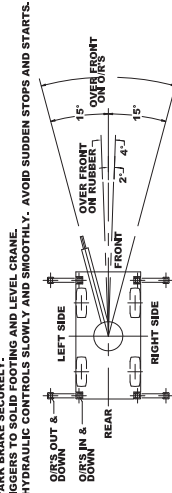
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EXCEEDING CAPACITY RATINGS OR APPLYING SIDE LOADS TO THE BOOM OR BOOM EXTENSION IS MISUSE, IS HAZARDOUS, AND Voids WARRANTY.
CAUTION: BOOM EXTENSION LOADS MUST NOT EXCEED MAIN BOOM CAPACITY. BOOM EXTENSION MAY ONLY CARRY LOADS WITH OUTRIGGERS DOWN.
CAPACITIES ON OUTRIGGERS OUT & DOWN ARE 85% OF TIPPING LOADS. CAPACITIES ON RUBBER ARE 75% OF TIPPING LOADS. CAPACITIES ON ROLLERS ARE 65% OF TIPPING LOADS. CAPACITIES ON SLEW BEYOND BOLD LINE ARE LIMITED BY TIPPING. OTHER CAPACITIES ARE LIMITED BY STRUCTURAL OR HYDRAULIC CAPABILITY.

DECK CAPACITY 7700kg WITH EMPTY BOOM RETRACTED OVER FRONT. DECK LOAD MUST BE CENTERED BEHIND FRONT AXLE. SPEED MUST BE LESS THAN 3.2 km/h. MAXIMUM TRAVEL 60 m IN 30 MINUTES ON SMOOTH PAVEMENT.
PICK AND CARRY WITH THE SHORTEST PRACTICAL BOOM, CENTERED OVER THE FRONT. OPERATE WITH THE BOOM AS CLOSE TO THE GROUND, PICK AND CARRY CAPACITIES ARE FOR SMOOTH LEVEL PAVED SURFACE.
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 220 kg WHEN STOWED ON BASE BOOM.
ENSURE ANTI-TWO-BLOCK SWITCH IS FUNCTIONAL AFTER DEPLOYING OR STOWING BOOM EXTENSION.
OPERATION:
1. READ 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.

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6. OPERATE ALL HYDRAULIC CONTROLS SLOWLY AND SMOOTHLY. AVOID SUDDEN STOPS AND STARTS.



THE LOAD HOIST LINE ON THIS UNIT MUST BE 14.3 mm DIA. & X 36-EP-RR-L-HWRC WIRE ROPE (OR EQUIVALENT) WITH A MINIMUM BREAKING STRENGTH OF 140 kN.
APPROVED TIRES: OTR 385/65R22.5, 16 PLY - 525 kPa
TORQUE WHEEL NUTS TO 680 Nm (THESE CONDITIONS MUST BE MAINTAINED TO HANDLE RATED LOADS ON THIS CRANE.)

MODEL NO.	SERIAL NO.	DATE OF MFR.
IC-250-3D		

BRODERSON MANUFACTURING CORP.
LENEXA, KANSAS
65400930