IC-250-3D Industrial Crane

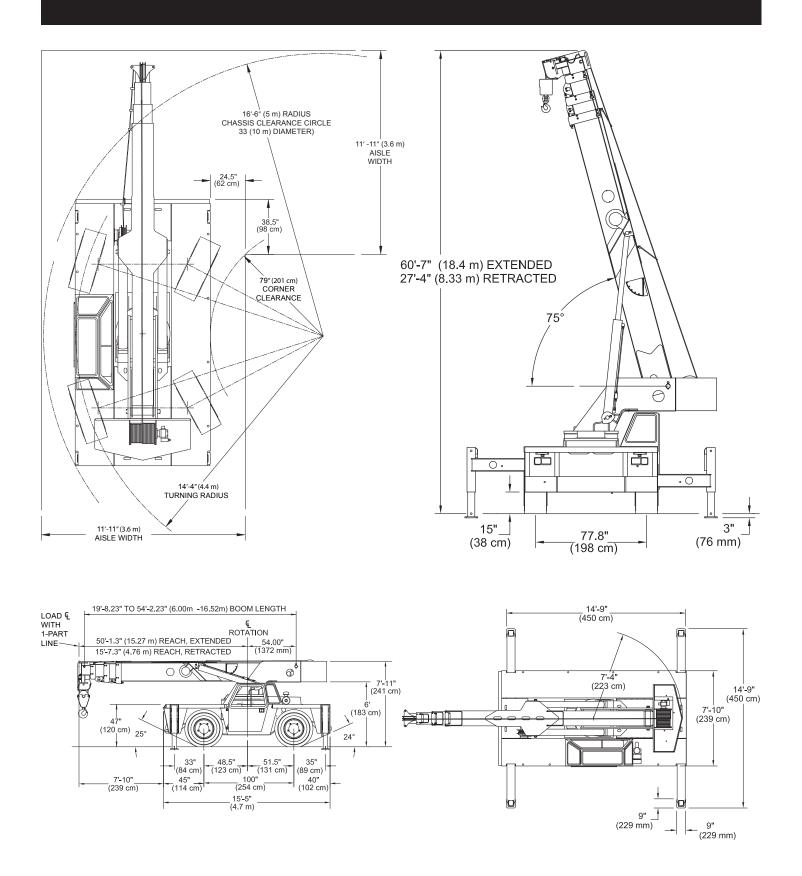
18-Ton Max. Capacity (16,330 kg)

- 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:

Extension* **Boom Movement:** Rotation Elevation Continuous 0° to 75° 34.5" (10.52m) 1.3 RPM 22sec **Boom Speeds:** 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:

INCINE.		
Make	Cummins	GM
Model	QSB3.3L Tier 4i	5.7 L V-8
Туре	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>	Travel Speed	<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°.

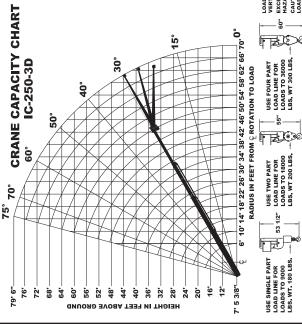
BRODERSON®

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.







	S N
LBS, WT 300 LBS, —	LOAD HOOKS, DOWNHAUL WEIGHTS, HOOK BLOCKS AND OTHER LOAD HANDLING DEVICES EXCEPT HOIST ROPE SHALL BE CONSIDERED PART OF THE LOAD.
- 52	P P
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53 1/2" LOAD LINE FOR LINE FOR LOADS TO 18000 LES, WT 200 LBS, —	HOOK BLC
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	VEIG PE S
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80 L	OKS
NT S	D HO
LOAD LINE FOR LOADS TO 9000 LBS, WT, 180 LBS,	LOA

- 1	CAPACITIES	S ARE IN	CAPACITIES ARE IN POUNDS AND APPLY TO OPERATION ON FIRM LEVEL SURFACE	PPLY TO	PERATIO	N ON FIRM LEVE	IL SURFACE
LOAD		MAIN BOOM	Moc		MAIN BOO	MAIN BOOM OR BOOM EXTENSION	TENSION
RADIUS	ON RUBBER	BER	ON RUBBER	O/R'S IN & DOWN	-	J/R'S IN & DOWN	O/R'S IN & DOWN O/R'S OUT & DOW
FEET	360° ROTATION	NOIL	OVER FRONT	360° ROTATION		OVER FRONT	360° ROTATION
9	16400		18500	30000	00	36000	36000
8	13000		15000	25000	00	30400	30400
10	10800		12350	20300	00	25000	25000
12	0006		10450	15500	00	20800	20800
14	7550		0006	11500	00	18700	18700
16	6450		7800	0006	00	16700	16700
18	2600		6850	7500	00	14900	14900
20	4800		6100	6400	00	13500	13500
22	4150		5400	5500	90	12100	12100
24	3600		4650	4800	00	10900	10900
56	3100		4000	4100	9	9850	9850
28	2700		3500	3500	00	8950	8950
30	2350		3050	3050	20	8200	8200
32	2000		2650	2650	20	7500	7500
34	1750		2300	2300	00	7150	2000
38	1300		1750	1750	20	5950	5650
42	900		1400	1300	00	2000	4700
46	009		1100	1000	00	4250	4000
20	350		900	700	0	3650	3400
54							3550
28				-	1		3100
62							2700
99				-			2350
70					1		2100
Воом			BOOM EXTENSION - STRAIGHT OR OFFSET	NOISN - S.	TRAIGHT (OR OFFSET	
DEESET			MA	MAIN BOOM ANGLE	ANGLE		
ANGLE	.0	15°	30.	40.	.09	.09	70° 75°
.0	2600	2750	3000	3400	4100	5100	6200 7000
15.		2500	2600	2700	2900	3300	4300 4800
30.			2300	2400	2500	2700	3200 3400

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 UNTRIGGERS OVEN.
CAPACITIES ON UNTRIGGERS OUT & DOWN ARE 85%, OF TIPPING LOADS. CAPACITIES ON RUBBER ARE 75%, OF TIPPING CAPACITIES ON TUBBER SELVE & DOWN OUTRIGGERS ARE 125% THAN 85%, OF TIPPING LOADS. CAPACITIES BELOW BOLD LINE ARE LIMITED BY TIPPING LOADS. CAPACITIES BELOW BOLD LINE ARE LIMITED BY TIPPING. OTHER CAPACITIES ARE LISTED.

DECK CAPACITY 17000 LBS, WITH EMPTY BOOM RETRACTED OVER FRONT. DECK LOAD MUST BE CENTREDE BHIND FRONT XALE, SPEED MUST BE LESS THAN 2 MPH. MAXIMUM TRAVEL 200 FT. IN 30 MINUTES ON SMOOTH FAVEMENT.

PICK AND CARRY WITH THE SAROPETS TRACTICAL BOOM, CENTERED OVER THE FRONT. OPERATE WITH BOOM AS LOW SHOWS THE AND CARRY CAPACITIES ARE FOR SMOOTH, LEVEL PAVED SURFACE.
THE BOOMS ON THIS UNIT ARE ALL STEEL AND HAVE NO LINE VOLTAGE RATINO - NO ELECTRICAL INSULATION VALUE.

BOOM EXTENSION DEDUCT: 500 LBS, WHEN STOWED ON BASE BOOM.

MAXIMUM HYDRAULIC PRESSURE 3000 PSI.

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

O-TEMATION INTERPRETAND OPERATION MANUAL BEFORE OPERATING CRANE.
2. CHECK LEVEL OF HYDRAULJO OIL AND ENGINE OIL DAILY.
3. CHECK UNIT FOR VISIBLE DEFECTS AND LOOSE PARTS.
4. SET VEHICLE PARK BRAKE SECURELY.
5. EXTRAD OUTRIGERS YO SOLD FOOTHAGE AND ENGLY OF THE SET SET SET OF THE OUTRIGERS YO SOLD FOOTHAGE AND SMOOTHLY. AVOID SUDDEN STOPS AND STARTS.
6. OPERATE ALL HYDRAULIC CONTROLS SLOWLY AND SMOOTHLY. AVOID SUDDEN STOPS AND STARTS.

OVER FRONT ON O/R'S OVER FRONT 2° 4°] LEFT SIDE H 1 O/R'S OUT &-DOWN O/R'S IN & — DOWN

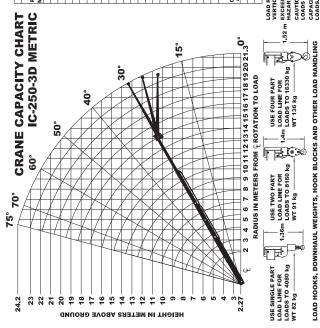
APPROVED TIRESI OTR 385/65D22.5, 16 PLY - 120 PSI TORGUE WHEL INTS TO 500 FT, LBS. (THESE CONDITIONS MUST BE MAINTAINED TO HANDLE RATED LOADS NO THIS CRANE).

THE LOAD HOIST LINE ON THIS UNIT MUST BE 9/16" DIA, 6 X 36-EIP-RRL-IWRC WIRE ROPE (OR EQUIVALENT) WITH A MINIMUM BREAKING STRENGTH OF 31,500 LBS.

DATE OF MFR. SERIAL NO. MODEL NO.

BRODERSON MANUFACTURING CORP. 65400924 **LENEXA, KANSAS** IC-250-3D





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

CAPACITIES ARE IN KILOGRAMS AND APPLY TO OPERATION ON FIRM LEVEL SURFACE	MAIN BOOM OR BOOM EXTENSION	I RUBBER O/R'S IN & DOWN O/R'S IN & DOWN O/R'S OUT & DOWN	ER FRONT 360" ROTATION OVER FRONT 360" ROTATION	8400 13600 16330 16330	7880 12950 15600 15600	6680 11120 13540 13540	5680 9370 11530 11530	4930 7590 9770 9770	4350 5940 8890 8890	3860 4690 8130 8130	3440 3920 7400 7400	2820 2970 6220 6220	2280 2340 5210 5210	1780 1820 4410 4410	1430 1420 3800 3800	1130 1130 3330 3300	900 900 2960 2850	730 710 2540 2400	610 560 2210 2080	500 450 1930 1820	420 340 1700 1590	410 310 1650 1540	1610	1520	1360	1080	620	BOOM EXTENSION CAPACITIES STRAIGHT OR OFFSET	MAIN BOOM ANGLE	30° 40° 50° 60° 70° 75°	1360 1540 1860 2310 2810 3170	
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TO OPER	MAIN	IN & DOW	ROTATIO	3600	2950	1120	9370	7590	5940	4690	3920	2970	2340	1820	1420	1130	900	710	560	450	340	310	-	1		-			M ANGLI	20	186	4240
APPLY		O/R'S	360	_																								N CAPAC	AIN BOO	40°	1540	4220
GRAMS AND	M	ON RUBBER	OVER FRONT	8400	7880	0899	5680	4930	4350	3860	3440	2820	2280	1780	1430	1130	900	730	610	200	420	410		1		1		M EXTENSIO	Σ	30.	1360	4400
RE IN KILO	MAIN BOOM		_																									BOO		15°	1250	4430
ACITIES A		ON RUBBER	360° ROTATION	7440	0069	5790	4970	4280	3690	3210	2840	2230	1760	1380	1100	860	680	520	380	270	190	160		1		1				.0	1180	
CAP	LOAD	RADIUS	METERS	1.8	2.0	2,5	3.0	3,5	4.0	4.5	5.0	0.9	7.0	8,0	0.6	10.0	11.0	12.0	13.0	14.0	15,0	15,2	16.0	17.0	18.0	20.0	21.3	BOOM	EXT	ANGLE	.0	940

PICK AND CARRY WITH THE SAROPTEST PRACTICAL BOOM, CENTERED OVER THE FRONT, OPERATE WITH BOOM AS LOW SHOWS THE PROBLE WITH THE LOAD 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.

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

BOOM EXTENSION DEDUCT: 220 kg WHEN STOWED ON BASE BOOM.

MAXIMUM HYDRAULIC PRESSURE 207 BAR

DECK CAPACITY 7700kg WITH EMPTY BOOM RETRACTED OVER FRONT. DECK LOAD MUST BE CENTERED ENGING TRACEL 60 m IN 3.2 kmh. MAXIMUM TRAVEL 60 m IN 3.0 MINUTES OR SHOOTH PAVEMENT.

LOAD RADIUS IS THE HORIZONTAL DISTANCE FROM THE CENTER OF ROTATION OF THE UNLOADED CRANE TO THE PROFILED. 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 UNTRIGGERS OUT & DOWN ARE 85% OF TIPPING LOADS. CAPACITIES ON RUBBER ARE 75% OF TIPPING CAPACITIES ON SUBBER ARE 75% OF TIPPING CAPACITIES ON THE SECUPPING CAPACITIES ON THE SECUPPING TH

BRODERSON MANUFACTURING CORP.

LENEXA, KANSAS

65400930

APPROVED TIRES, OTR 385/65D22,5, 16 PLY - 825 kPa TORGOUE WHEL INITS TO 680 Nm (THESE CONDITIONS MUST BE MAINTAINED TO HANDLE RATED LOADS ON THIS (SARME.) OPERATION

2. CHECK LIFELO, OF THE ALL ALL ALL OPERATION MANUAL BEFORE OPERATING CRANE.
2. CHECK LIFELO F PTORBALL COLL AND WENGER OF DAILY.
2. CHECK UNIT OF WISHIEL DEFECTS AND LOOSE PARTS.
4. SET WHICLE PARK BRACK BECURELY.
5. EXTEND OUTRIGGERS TO SOLID FOOTING AND LEVEL CRANE.
6. OPERATE ALL HYDRAULIC CONTROLS SLOWLY AND SMOOTHLY. AVOID SUDDEN STORS AND STARTS. THE LOAD HOIST LINE ON THIS UNIT MUST BE 14,3 mm DIA, 6 X 36-EIP-RRL-IWRC WIRE ROPE (OR EQUIVALENT) WITH A MINIMUM BREAKING STRENGTH OF 140 kN. DATE OF MFR. OVER FROMT ON O/R'S OVER FRONT 2° 4° SERIAL NO. 1 5 RIGHT SIDE LEFT SIDE þ 0 IC-250-3D MODEL NO. O/R'S OUT & --REAR O/R'S IN & — DOWN