SHOP MANUAL

CASE/INTERNATIONAL

MODELS
385—485—585—685—885

Engine serial number is stamped on right side of engine crankcase on all models. Tractor model and serial number are stamped on a plate attached to right side of front axle support. Transmission serial number is stamped on a plate attached to the right rear side of rear main frame. Model and serial number plate for front drive axle is located on left rear of axle housing.

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DUAL DIMENSIONS

This service manual provides specifications in both the U.S. Customary and Metric (SI) system of measurements. The first specification is given in the measuring system used during manufacture, while the second specification (given in parenthesis) is the converted measurement. (For instance, a specification of "0.011 inch (0.279 mm)" would indicate that the equipment was manufactured using the U.S. system of measurement and the metric equivalent of 0.011 inch is 0.279 mm.

CONDENSED SERVICE DATA

	385 Diesel	485 Diesel	585 Diesel	685 Diesel	885 Diesel
GENERAL					
Engine Make	Case/International				
Engine Model	D-155	D-179	D-206	D-239	D-268
Number of Cylinders	3	3	4	4	4
Bore	3.875 in. (98.4 mm)	3.875 in. (98.4 mm)	3.875 in. (98.4 mm)	3.875 in. (98.4 mm)	3.937 in. (100.0 mm)
Stroke	4.37 in. (111.1 mm)	5.06 in. (128.5 mm)	4.37 in. (111.1 mm)	5.06 in. (128.5 mm)	5.51 in. (140.0 mm)
Displacement	155 cu. in. (2.54 L)	179 cu. in. (2.93 L)	206 cu. in. (3.38 L)	239 cu. in. (3.92 L)	268 cu. in. (4.39 L)
Main Bearings, Number of	4	4	5	5	5
Cylinder Sleeves	Wet	Wet	Wet	Wet	Wet
Forward Speeds, Number of	8 (1)	8 (1)	8 (1)	8 (1)	8 (1)
Alternator/Starter Make	Lucas and Bosch				
Battery Ground	Negative				

(1) Sixteen forward speeds, if equipped with Two-Speed Power Shift.

CONDENSED SERVICE DATA (CONT.)

	385 Diesel	485 Diesel	585 Diesel	685 Diesel	885 Diesel
TUNE-UP					
Compression Pressure	315-340 psi (2) (2172-2344 kPa)				
Firing Order	1-3-2	1-3-2		1-3-4-2	
Valve Tappet Gap (Hot), Intake and Exhaust	0.012 in. (0.304 mm)				
Valve Face Angle	45°				
Valve Seat Angle	44°				
Injection Pump Make	Robert Bosch				
Injection Pump Timing	See Paragraph 61.				
Engine Low Idle — Rpm	725-750				
Engine High Idle — Rpm (No Load)	2340	2480	2590	2705	2650
Engine Full Load — Rpm	2200	2180	2300	2300	2400

(2) Approximate psi (kPa), at sea level, at cranking speed.

SIZES-CLEARANCES-CAPACITIES

Crankshaft Main Journal Diameter	3.1484-3.1492 in. (79.97-79.99 mm)				
Crankpin Diameter	2.5185-2.5193 in. (63.97-63.99 mm)				
Camshaft Journal Diameter	2.2823-2.2835 in. (57.97-58.00 mm)				
Piston Pin Diameter	1.4172-1.4174 in. (35.997-36.002 mm)				
Valve Stem Diameter, Intake	0.3920-0.3924 in. (9.957-9.967 mm)				
Exhaust	0.3912-0.3915 in. (9.936-9.945 mm)				
Main Bearing Diametral Clearance	0.0028-0.0055 in. (0.071-0.140 mm)				
Rod Bearing Diametral Clearance	0.002-0.004 in. (0.051-0.102 mm)				
Piston Skirt Diametral Clearance	0.0035-0.0050 in. (0.09-0.13 mm)				
Crankshaft End Play	0.006-0.009 in. (0.152-0.229 mm)				
Camshaft Bearing Diametral Clearance	0.0009-0.0033 in. (0.023-0.084 mm)				
Camshaft End Play	0.004-0.018 in. (0.10-0.45 mm)				
Cooling System Capacity	3.0 U.S. gal. (11.4 L)			3.6 U.S. gal. (13.7L)	
Crankcase Oil (With Filter)	8 U.S. qts. (7.5 L)			10 U.S. qts. (9.5 L)	

CONDENSED SERVICE DATA (CONT.)

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SIZES-CLEARANCES-CAPACITIES (CONT.)					
Transmission, Differential and Hydraulics, Capacity			36 U.S. qts. (3) (34 L)		
Oil Type			Hy-Tran Plus		
Front Drive Axle Capacity			4.75 U.S. qts. (4.5 L)		
Oil Type			SAE 90 EP		
Front Drive Axle Hub (Each Side)			0.8 U.S. qt. (0.75 L)		
Oil Type			SAE 90 EP		

(3) If equipped with front drive axle, add 2.6 U.S. qts. (2.5 L).

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