

300B LOADER AND BACKHOE LOADER

6,232 lb (2826 kg)

Transport Height.....7 ft 8 in. (2.31 m)
Transport Length.....15 ft 4.2 in. (4.8 m)
Machine Width6 ft 8 in. (2.03 m)

ENGINE.....John Deere 300 Series

Number of Cylinders and Displacement:

Gasoline3 cylinders, 152 cu in. (2.5 L)

Diesel3 cylinders, 164 cu in. (2.7 L)

Air Intake System.....Naturally aspirated

Bore and Stroke3.86 x 4.33 in. (98 x 110 mm) or
4.02 x 4.33 in. (102 x 110 mm)

Net hp at 2500 rpm43 SAE h.p. (32.1 kW) DIN 33.7 kW

Maximum Torque at 1300 rpm110 lb-ft (149 N•m)

Nozzle Opening Pressure:

New3200 ± 50 psi (22 060 ± 345 kPa)

Used3000 ± 50 psi (20 680 ± 345 kPa)

Valve Clearance (Cold):

Intake0.014 in. (0.36 mm)

Exhaust:

Diesel.....0.018 in. (0.46 mm)

Gasoline0.022 in. (0.56 mm)

Oil Pressure at 2500 rpm50 ± 15 psi (345 ± 105 kPa)

Static Injection Pump TimingTiming lines aligned w/ flywheel located at TDC

Dynamic Injection Pump Timing at Rated Full Load*16 + 0 - 1° BTDC

Speeds:

Slow Idle:

Diesel.....800 ± 25 rpm

Gasoline600 rpm

Fast Idle, Throttle Lever:

Diesel.....2675—2400 rpm

Gasoline2680 rpm

Fast Idle, Accelerator Pedal:

Diesel.....2775 ± 25 rpm

Gasoline2275 ± 25 rpm

Full Load Rating2500 rpm

Cylinder Pressure Hot (Min):

Diesel350 psi (2415 kPa) cranking w/ injectors removed

Gasoline120 psi (830 kPa)

Flywheel Teeth.....142

*Note: *For latest information, see Dealer Technical Assistance Center (DTAC) Solution K000413.*

TRANSMISSION

Model and Speeds.....Collar shift w/ hydraulic reverser:
8 forward, 8 reverse

Pump Flow (Min).....7.0 gpm (0.44 L/s) used at 150 psi
(1035 kPa) and 2500 rpm

Reverser System Pressure.....155—165 psi (1070—1140 kPa)

Lube Pressure8—10 psi (55—69 kPa) (clutch pedal depressed)

Clutch Operating Pressure155—165 psi (1070—1140 kPa)

Filter Relief Pressure50 psi (345 kPa) differential

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HYDRAULIC SYSTEM

Pump Size	3.01 cu in. (49.3 cm ³)
Standby Pressure	2300—2400 psi (15 860—16 550 kPa)
Charge Pressure at 2200 rpm	30—130 psi (207—897 kPa)
Accumulator Charge Pressure	475—525 psi (3275—3620 kPa)
Surge Relief Pressure	150 psi (1035 kPa)
Filter Relief Pressure	50 psi (345 kPa) differential
Pump Flow (Min):	
New	20.6 gpm (1.3 L/s) at 2000 psi (13 790 kPa) and 1800 rpm
Used	19.5 gpm (1.2 L/s) at 1750 psi (12 065 kPa) and 2000 rpm
Priority Valve Setting	1750—1850 psi (12 065—12 755 kPa)
Cooler Bypass Valve (S.N. —282490):	
Relieves to Lubrication at	70 psi (485 kPa)
Relieves to Sump at	100 psi 9690 kPa)
Cooler Bypass Valve (S.N. 282491—):	
Relieves to Lubrication at	120 psi (830 kPa)
Relieves to Sump at	130 psi (895 kPa)

RELIEF VALVE SETTINGS

Loader Circuit Relief Valve:	
Bucket Rollback	2750 psi (18 960 kPa)
Bucket Dump	1500 psi (10 345 kPa)
9250 Backhoe Circuit Relief Valve:	
Boom Raise	2750 psi (18 960 kPa)
Crowd and Boom Lower	2500 psi (17 240 kPa)
Swing Right	1875 psi (12 930 kPa)
Swing Left	2375 psi (16 375 kPa)
9250A Backhoe Circuit Relief Valve:	
Boom Raise	3500 psi (24 135 kPa)
Crowd and Boom Lower	2375 psi (16 375 kPa)
Swing Right	2375 psi (16 375 kPa)
Swing Left	2375 psi (16 375 kPa)

CYCLE TIMES (Fast Idle and Hot Oil)

Loader:	
Boom Down (Float)	4.0 sec
Bucket Dump	2.3 sec
Boom Up	4.7 sec

LUBRICANTS

See front of this book for the codes [].

CAPACITIES

	U.S.	Imp.	Metric
Engine:			
Cooling System [N]	3 gal	2.5 gal	11.4 L
Crankcase w/ Filter [E]	9 qt	7.5 qt	8.5 L
Transmission and Hydraulic System (Refill) [C]	8.5 gal	7.1 gal	32.0 L
Loader Hydraulic System [C]	2.5 gal	2.1 gal	9.5 L
Fuel Tank	19.5 gal	16.3 gal	73.8 L

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TIRE PRESSURE (Cold Inflation)

Tire Size	Type	Rating	Normal Pressure
Front:			
11L-15	F3	8 ply	40 psi (275 kPa)
7.50/8.00-16	F3	10 ply	56 psi (385 kPa)
Rear:			
14.9-24	R3, R4	6 ply	22 psi (150 kPa)
17.5L-24	R4	8 ply	22 psi 9150 kPa)