

401C LOADER AND BACKHOE LOADER

6,807 lb (3087 kg)

Transport Height.....	8 ft 3 in. (2.51 m)
Transport Length.....	14 ft 9.25 in. (4.5 m)
Machine Width.....	6 ft 7 in. (2.01 m)

ENGINE.....John Deere 300 Series

Number of Cylinders and Displacement:

Gasoline 4 cylinders, 219 cu in. (3.6 L)

Diesel 4 cylinders, 219 cu in. (3.6 L)

Air Intake System..... Naturally aspirated

Bore and Stroke..... 4.02 x 4.33 in. (102 x 110 mm)

Net hp at 2500 rpm..... 62 SAE hp (46.2 kW) DIN 48.5 kW

Maximum Torque at 1300 rpm..... 160 lb-ft (217 N•m)

Nozzle Opening Pressure:

New 3200 ± 50 psi (22 065 ± 345 kPa)

Used 3000 ± 50 psi (20 685 ± 345 kPa)

Valve Clearance (Cold):

Intake..... 0.014 in. (0.36 mm)

Exhaust:

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

Gasoline 0.022 in. (0.56 mm)

Oil Pressure at 2500 rpm..... 50 ± 15 psi (340 ± 100 kPa)

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

Dynamic Injection Pump Timing at Rated Load rpm* 17 + 0 - 1° BTDC

Speeds:

Slow Idle:

Diesel..... 800 ± 25 rpm

Gasoline 600 rpm

Fast Idle, Throttle Lever:

Diesel..... 2675—2700 rpm

Gasoline 2680 rpm

Fast Idle, Accelerator Pedal:

Diesel..... 2800 rpm

Gasoline 2800 rpm

Rated Full Load 2500 rpm

Cylinder Pressure Hot (Min):

Diesel 350 psi (2415 kPa) cranking with injectors removed

Gasoline 120 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) Used, at

150 psi (1035 kPa) and 2500 rpm 7.0 gpm (0.44 L/s)

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

Lube Pressure (Clutch Pedal Depressed) 8—10 psi (55—69 kPa)

Clutch Operating Pressure 155—165 psi (1070—1140 kPa)

Filter Relief Pressure 50 psi (345 kPa) differential

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HYDRAULIC SYSTEM—Close-Center

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 (1030 kPa)
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.....	1250—1850 psi (8 620—12 755 kPa)
Filter Relief Pressure	50 psi (345 kPa) differential
Cooler Bypass Valve:	
(S.N. —282490):	
Relieves to Lubrication at	70 psi (485 kPa)
Relieves to Sump at	100 psi (690 kPa)
(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)
Auxiliary Section	2500 psi (17 240 kPa)
9250 Backhoe Circuit Relief Valve:	
Crowd and Boom Lower	2500 psi (17 240 kPa)
Swing Right	1875 psi (12 930 kPa)
Swing Left.....	2375 psi (16 375 kPa)
Boom Raise	2750 psi (18 960 kPa)
9250A Backhoe Circuit Relief Valve:	
Crowd and Boom Lower	2375 psi (16 375 kPa)
Swing Right	2375 psi (16 375 kPa)
Swing Left.....	2375 psi (16 375 kPa)
Boom Raise	3500 psi (24 135 kPa)

CYCLE TIMES (At Fast Idle and Hot Oil)

Loader:	
Boom Up	4.7 sec
Boom Down	4.0 sec
Bucket Dump	2.3 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
Fuel Tank	19.5 gal	16.3 gal	73.8 L
Transmission and Hydraulic System (Refill) [C]	8.5 gal	7.1 gal	32.0 L

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TIRE PRESSURE (Cold Inflation)

Tire Size	Type	Rating	Normal Pressure
Front:			
7.50/8.00-16	F3	10 ply	56 psi (385 kPa)
11L-15	F3	8 ply	40 psi (280 kPa)
Rear:			
16.9-24	R1	6 ply	16 psi (110 kPa)
16.9-24	R4	8 ply	22 psi (150 kPa)
19.5L-24	R4	8 ply	20 psi (140 kPa)