

555A CRAWLER LOADER

18,400 lb (7700 kg)

Transport Height.....	8 ft 5.9 in. (2.59 m)
Transport Length.....	13 ft 10 in. (4.23 m)
Machine Width	8 ft (2.44 m)

ENGINE.....John Deere 300 Series

Number of Cylinders and Displacement	4 cylinders, 276 cu in. (4.5 L)
Air Intake System.....	Turbocharger
Bore and Stroke	4.19 x 5.00 in. (106 x 127 mm)
Compression Ratio	16.2 to 1
Net hp at 2200 rpm.....	78 SAE hp (58.2 kW) SAE
Maximum Torque at 1300 rpm.....	250 lb-ft (339 N•m) (34.6 kgm)
Nozzle Opening Pressure:	
New	3700 ± 50 psi (25 510 ± 345 kPa)
Used	3500 ± 50 psi (24 135 ± 345 kPa)
Valve Clearance (Cold):	
Intake	0.014 in. (0.36 mm)
Exhaust	0.018 in. (0.46 mm)
Injection Pump Timing	2 ± 1° advance at slow idle
Dynamic Injection Pump Timing at Rated Load rpm*	16 + 0 - 1° BTDC
Speeds:	
Slow Idle	800 ± rpm
Fast Idle.....	2375—2400 rpm
Full Load Rating	2200 rpm
Turbo Boost Pressure.....	10—11 psi (69—76 kPa) at 2200 rpm
Cylinder Pressure (Min).....	350 psi (2415 kPa)
Electrical System	12 V with battery disconnect switch
Cooling System Pressure	10 psi (69 kPa)
Flywheel Teeth.....	115

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

TRANSMISSION

Model and Speeds.....	Powershift: 3 forward, 3 reverse
Cooler Flow in Range (Min).....	15 gpm (57 L/min)
Transmission Pump Flow at Fast Idle:	
New	28 gpm (106 L/min)
Used	22 gpm (83 L/min)
Lube Pressure (Steering Clutches Engaged)	30 psi (207 kPa)
Converter-Out Pressure in Range at Fast Idle	85 ± 25 psi (585 ± 175 kPa)
Transmission Main Pressure in Range at Fast Idle	255 ± 12 psi (1760 ± 83 kPa)

HYDRAULIC SYSTEM—Open-Center

Pump Flow (Min) at 2000 rpm, 2000 psi (13 790 kPa):	
New	21.7 gpm (82 L/min)
Used	18.5 gpm (70 L/min)

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RELIEF VALVE SETTINGS (At Fast Idle)

System Relief Valve:

Loader 2500 + 200 - 0 psi (17 240 + 1380 - 0 kPa)

Loader Circuit Relief Valves:

Bucket Dump 1500 + 200 - 0 psi (10 345 + 1380 - 0 kPa)

Bucket Roll-Back 2750 + 200 - 0 psi (18 960 + 1380 - 0 kPa)

Multi-Purpose Bucket Clam 2500 + 200 - 0 psi (17 240 + 1380 - 0 kPa)

Boom Raise 3300 + 200 - 0 psi (22 755 + 1380 - 0 kPa)

9300 Backhoe Circuit Relief Valve:

Crowd 2375 psi (16 375 kPa)

Swing Right 2000 psi (13 790 kPa)

Swing Left 2000 psi (13 790 kPa)

Boom Raise 3500 psi (24 135 kPa)

Boom Lower 2375 psi (16 375 kPa)

9550 Backhoe Circuit Relief Valve:

Crowd 2500 psi (17 240 kPa)

Swing Right 2375 psi (16 375 kPa)

Swing Left 2375 psi (16 375 kPa)

Boom Raise 2750 psi (18 960 kPa)

Boom Lower 2500 psi (17 240 kPa)

CYCLE TIMES

Big Pump:

Loader Boom Raise 6.6—7.1 sec

Bucket Fast Dump (Boom Fully Raised) 1.6—2.3 sec

Bucket Rollback 2.4—3.5 sec

Boom Lower (Float) 3.6—4.2 sec

Small Pump:

Loader Boom Raise 6.2—7.1 sec

Bucket Fast Dump (Boom Fully Raised) 1.8—2.3 sec

Bucket Rollback 2.6—3.5 sec

Boom Lower (Float) 3.1—4.3 sec

LUBRICANTS

See front of this book for the codes [].

CAPACITIES

U.S.

Metric

Fuel Tank 36 gal

136 L

Cooling System [N] 5 gal

19 L

Engine Lubrication [E] 15 qt

14 L

Hydraulic System [C] 13 gal

49 L

Hydraulic Reservoir [C] 7 gal

27 L

Transmission [C] 13.5 gal

51 L

Final Drive (Each) [C] 6.25 qt

5.91 L

Steering Clutch Housing (Each) [C] 28 qt

26.5