

550A CRAWLER DOZER

15,400 lb (5845 kg)

Transport Height.....	8 ft 4.9 in. (2.56 m)
Transport Length.....	11 ft 10 in. (3.61 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.....	Turbocharged
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) DIN 58.2 kW
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 ± 25 rpm
Fast Idle.....	2375—2400 rpm
Full Load Rating	2200 rpm
Turbo Boost Pressure (at Full Load).....	10—11 psi (69—76 kPa)
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 ± 170 kPa)
Transmission Main Pressure in Range at Fast Idle	255 ± 12 psi (1760 ± 83 kPa)

HYDRAULIC SYSTEM—Open-Center

Minimum Pump Flow at 2000 rpm
and 2000 psi (13 790 kPa):

Big Pump:

New	17.7 gpm (67 L/min)
Used	15.5 gpm (59 L/min)

Small Pump:

New	11.6 gpm (44 L/min)
Used	10 gpm (38 L/min)

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RELIEF VALVE SETTINGS— at Fast Idle

System Relief Valve:

6410 Dozer	1750 + 100 - 0 psi (12 065 + 690 - 0 kPa)
6405 or 6415 Dozer	2250 + 100 - 0 psi (15 515 + 690 - 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 (at Fast Idle)

Big Pump:

Blade Raise	1.8—2.3 sec
Blade Lower (Float Down)	2.0—2.4 sec
Blade Tilt	0.6—1.9 sec
Blade Angle	2.2—2.7 sec

Small Pump:

Blade Raise	2.3—2.9 sec
Blade Lower (Float Down)	2.0—2.4 sec
Blade Tilt	0.8—1.9 sec
Blade Angle	2.7—3.4 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	14.2 L
Hydraulic System [C]	9.5 gal	36 L
Hydraulic Reservoir [C]	6.0 gal	22.7 L
Transmission [C]	13.5 gal	51 L
Final Drive (Each) [C]	6.25 qt	5.9 L
Steering Clutch Housing (Each) [C]	28 qt	26.5 L