

450D CRAWLER BULLDOZER

14,400 lb (5355 kg)

Transport Height.....	8 ft 4.9 in. (2.5 m)
Transport Length.....	12 ft 10 in. (3.61 m)
Machine Width.....	7.5 ft (2.29 m)

ENGINE.....John Deere 300 Series

Number of Cylinders and Displacement.....	4 cylinders, 219 cu in. (3.6 L)
Air Intake System.....	Turbocharged
Bore and Stroke.....	4.02 x 4.33 in. (102 x 110 mm)
Compression Ratio.....	16.8 to 1
Net hp at 2500 rpm.....	67 SAE hp (50 kW) DIN 50 kW
Maximum Torque at 1400 rpm.....	190 lb-ft (258 N•m) (26.3 kgm)
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. (0.036 mm)
Exhaust.....	0.018 in. (0.046 mm)
Oil Pressure at Fast Idle.....	50 ± 15 psi (345 ± 105 kPa)
Injection Pump Timing.....	4° advance at slow idle
Dynamic Injection Pump Timing at Rated Load rpm*.....	16 + 0 - 1° BTDC
Speeds:	
Slow Idle.....	800 ± 25 rpm
Fast Idle.....	2675 —2700 rpm
Rated Full Load.....	2500 rpm
Turbo Boost Pressure at Full Rated Load.....	7—8.5 psi (48—59 kPa)
Cylinder Pressure (Min).....	350 psi (2415 kPa)
Electrical System.....	12 volt with battery disconnect switch
Cooling System Pressure.....	10 psi (69 kPa)
Flywheel Teeth.....	142

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

TRANSMISSION

Model and Speeds.....	HLR: 4 speed with high, low and reverse ranges
Oil Cooler Bypass Pressure.....	90 ± 10 psi (620 ± 69 kPa)
Lube Relief Pressure.....	65 ± 7 psi (450 ± 48 kPa)
HLR System Pressure.....	175 ± 10 psi (1210 ± 69 kPa)

HYDRAULIC SYSTEM—Open Center

Pump Flow (Big Pump) at 2000 rpm, 2000 psi (13 790 kPa):	
New.....	17.1 gpm (65 L/min)
Used.....	14.7 gpm (56 L/min)
Pump Flow (Small Pump) at 2000 rpm, 2000 psi (13 790 kPa):	
New.....	11.6 gpm (44 L/min)
Used.....	9.6 gpm (36 L/min)

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RELIEF VALVE SETTINGS

System Relief Valve:

Dozer:

6410	1750 + 100 - 0 psi (12 065 + 690 - 0 kPa)
6405, 6415	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	2550 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	Small Pump
Blade:		
Raise.....	1.8—2.3 sec	2.3—2.9 sec
Lower (Float Down).....	2.0—2.4 sec	2.0—2.4 sec
Tilt	0.6—1.9 sec	0.8—1.9 sec
Angle.....	2.2—2.7 sec	2.7—3.4 sec

LUBRICANTS

See front of this book for the codes [].

CAPACITIES

	U.S.	Metric
Engine:		
Cooling System [N]	4 gal	15.1 L
Lubrication [E]	9 qt	8.5 L
Final Drive (Each) [C]	6.25 qt	5.9 L
Fuel Tank	31 gal	117.3 L
Hydraulic:		
System [C]	9.5 gal	36.0 L
Reservoir [C]	6 gal	22.7 L
Steering Clutch Housing (Each) [C]	28 qt	26.5 L
Transmission [C]	8 gal	30.3 L