

450 CRAWLER BULLDOZER

10,590 lb (4 804 kg) (Gasoline)
15,630 lb (7 091 kg) (Diesel)

Transport Height.....6 ft 4 in. (1.9 m)

Transport Length

Tractor.....9 ft 1.25 in. (2.8 m)

Loader.....14 ft 3 in. (4.3 m)

Machine Width.....5 ft 5 in. (1.7 m)

ENGINE.....John Deere 300 Series

Number of Cylinders and Displacement:

Gasoline.....4 cylinders, 180 cu in. (2.9 L)

Diesel.....4 cylinders, 202 cu in. (3.3 L)

Air Intake System.....Naturally aspirated or turbocharged

Bore and Stroke:

Gasoline.....3.86 x 3.86 cu in. (98 x 98 mm)

Diesel.....3.86 x 4.33 cu in. (98 x 110 mm)

Net hp at 2500 rpm.....57 SAE hp (42.5 kW) DIN 42 kW

Maximum Torque at 1300 rpm.....145 lb-ft (196 N•m)

Nozzle Opening Pressure:

New.....2750—2850 psi (18 961—19 650 kPa)

Used.....2550—2650 psi (17 582—18 271 kPa)

Valve Clearance (Cold):

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

Exhaust.....0.018 in. (0.46 mm)

Oil Pressure at Fast Idle.....50 ± 15 psi (345 ± 105 kPa)

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

Dynamic Injector Pump Timing at Rated Load rpm*.....16 + 0 - 1° BTDC

Slow Idle Speeds:

Gasoline (S.N. —15905).....375 rpm

Gasoline (S.N. 15906—).....600 rpm

Diesel.....800 rpm

Fast Idle Speeds:

Gasoline.....2770 ± 20 rpm

Diesel.....2675—2700 rpm

Rated Full Load Speed.....2500 rpm

Cylinder Pressure Hot (Min).....350 psi (2415 kPa) cranking with injectors removed

Turbo Boost Pressure at Rated Full Load.....7—8.5 psi (48—59 kPa)

Flywheel Teeth.....142

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

TRANSMISSION

Model and Speeds.....HLR: 4 speed ranges with high,
low and reverse speeds

Lube Pressure.....50—70 psi (344—482 kPa)

HLR Pressure.....140—150 psi (965—1034 kPa)

HYDRAULIC SYSTEM—Open-Center

Pump Size	1.48 cu in. (24.3 cm ³)
Pump Flow (Min) at 2250 psi (15 515 kPa) and 2500 rpm ..	14.0 gpm (53 L/min) new
Pump Size	2.29 cu in. (37.5 cm ³)
Pump Flow (Min) at 2250 psi (15 515 kPa) and 2500 rpm ..	21.6 gpm (81.8 L/min) new
Pump Size (Loader).....	2.77 cu in. (45.4 cm ³)
Pump Flow (Min) at 2250 psi (15 515 kPa) and 2500 rpm ..	26.1 gpm (98.8 L/min)

RELIEF VALVE SETTINGS

System Relief Valve:

Loader	2250 psi (15 515 kPa)
Selector Valve.....	2000 psi (13 790 kPa) with backhoe

Bulldozer:

6405 and 6410	1750 psi (12 065 kPa)
6415	2250 psi (15 515 kPa)

Winch Relief Valve at 1900 engine rpm..... 950—1050 psi (6550—7240 kPa)

Loader Circuit Relief Valves:

Bucket Dump:

(S.N. —206828)	1000 psi (6895 kPa)
(S.N. 206829—)	1250 psi (8620 kPa)

Bucket Rollback..... 2500 psi (17 240 kPa)

Boom Lift:

(S.N. —206828)	2500 psi (17 240 kPa)
(S.N. 206829—)	3100 psi (21 375 kPa)

Auxiliary..... 2500 psi (17 240 kPa)

9250 Backhoe Circuit Relief Valves:

Crowd	2500 psi (17 240 kPa)
Swing Right	1750 psi (12 100 kPa)
Swing Left.....	2375 psi (16 400 kPa)
Boom Raise	2750 psi (19 000 kPa)
Boom Lower	2500 psi (17 200 kPa)

9300 Backhoe Circuit Relief Valves:

Crowd	2375 psi (16 400 kPa)
Swing Right	2000 psi (13 800 kPa)
Swing Left.....	2000 psi (13 800 kPa)
Boom Raise	3500 psi (24 100 kPa)
Boom Lower	2375 psi (16 400 kPa)

9550 Backhoe Circuit Relief Valves:

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)

LUBRICANTS

See front of this book for the codes [].

CAPACITIES

	U.S.	Imp.	Metric
Bulldozer Hydraulic System (Refill) [C].....	6.4 gal	5.3 gal	24.2 L
Engine:			
Cooling System [N]	4 gal	3.3 gal	15.1 L
Crankcase w/ Filter [E].....	9 qt	7.5 qt	8.5 L
Final Drive (Each) [C]	6.25 qt	5.2 qt	5.9 L
Fuel Tank	31 gal	25.8 gal	117.3 L
Loader Hydraulic System (Refill) [C].....	7 gal	5.8 gal	26.5 L
Transmission [C].....	8 gal	6.7 gal	30.3 L