

850C CRAWLER DOZER	40,043 lb (18 160 kg)
850C LPG CRAWLER DOZER	42,691 lb (19 361 kg)

Transport Height.....10 ft 4 in. (3.44 m)
Transport Length.....17 ft 8 in. (5.94 m)
Machine Width10 ft 8 in. (3.56 m)

ENGINE.....John Deere 400 Series (PIN —822867)

Number of Cylinders and Displacement6 cylinders, 466 cu in. (7.6 L)

Air Intake System.....Turbocharged

Bore and Stroke4.56 x 4.75 in. (116 x 121 mm)

Net hp at 1800 rpm.....180 SAE hp (134 kW)

Maximum Torque at 1300 rpm.....578 lb·ft (784 N·m)

Nozzle Opening Pressure:

New4200 psi (29 000 kPa)

Used3800 psi (26 200 kPa)

Valve Clearance (Cold):

Intake0.015 in. (0.38 mm)

Exhaust0.020 in. (0.051 mm)

Oil Pressure.....40—55 psi (280—380 kPa)

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

Speeds:

Slow Idle:

At Injection Pump

and Decelerator900 + 25 - 0 rpm

Lever Steer, Engine

Speed Control Lever100—150 rpm above decelerator slow idle

Pedal Steer, Engine

Speed Control Lever1000 + 25 - 0 rpm

Fast Idle2250 + 25 - 0 rpm

Rated Full Load2100 rpm

Cylinder Pressure Hot (Min)345—405 psi (2380—2790 kPa)
 cranking with injectors removed

Turbo Boost Pressure at Rated Full Load14—17 psi (96—117 kPa)

Number of Flywheel Teeth129

ENGINE.....John Deere 8.1 L PowerTech**(PIN 822868—)**

Number of Cylinders and Displacement	6 cylinders, 494 cu in. (8.1 L)
Air Intake System.....	Turbocharged
Bore and Stroke	4.56 x 4.75 in. (116 x 121 mm)
Net hp at 1800 rpm.....	185 hp (138 kW)
Maximum Torque at 1400 rpm.....	599 lb·ft (812 N·m)
Nozzle Opening Pressure:	
New	4200 psi (29 000 kPa)
Used	3800 psi (26 200 kPa)
Valve Clearance (Cold):	
Intake	0.018 ± 0.002 in. (0.46 ± 0.05 mm)
Exhaust	0.028 ± 0.002 in. (0.71 ± 0.05 mm)
Oil Pressure.....	40—58 psi (280—400 kPa)
Static Injection Pump Timing	Timing lines aligned with flywheel located at TDC (top dead center)
Dynamic Injection Pump Timing at Rated Load rpm*	4.7 + 0 - 1° BTDC
Dynamic Timing (BTDC) Turbocharged.....	4.7 + 0 - 1°
Speeds:	
Slow and Fast Idle.....	850C (S.N. 822868—) uses electronic fuel injection, so a mechanical speed adjustment is not necessary. To set slow and fast idle, an engine calibration is performed, see Technical Manual, Calibrate Engine Controller, Section 9015, Group 20.
Rated Full Load	2100 rpm
Cylinder Pressure Hot (Min)	345—405 psi (2380—2790 kPa) cranking with injectors removed
Turbo Boost Pressure at Rated Full Load	14—17 psi (96—117 kPa)
Number of Flywheel Teeth.....	129

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

TRANSMISSION

Model and Speeds	Hydrostatic; variable speed, forward and reverse
High Pressure Relief.....	6400 ± 6800 psi (44 128—46 886 kPa)
Maximum Engine rpm Pulldown	1800—1850 rpm

HYDRAULIC SYSTEM—Open-Center

Main System Relief at Fast Idle	2250 + 200 - 0 psi (15 510 + 1379 - 0 kPa)
Pump Flow (Min) Used, at 2000 rpm and 2000 psi (13 700 kPa)	35.3 gpm (134 L/min)

RELIEF VALVE SETTINGS

Auxiliary	2500 psi (17 240 kPa)
Circuit Relief Valve at Slow Idle: Blade:	
Raise	2500 psi (17 240 kPa)
Lower	1250 psi (8 620 kPa)
System Relief Valve at Fast Idle, Bulldozer	2250 + 200 - 0 psi (15 510 + 1379 - 0 kPa)

LUBRICANTS

See front of this book for the codes [].

CAPACITIES	U.S.	Metric
Engine:		
Cooling System [N]	9 gal	34 L
Crankcase w/ Filter:		
(S.N. —822867) [E]	30 qt	28.5 L
(S.N. 822868—) [E]	27 qt	25.5 L
Final Drive (Each Side):		
Inner [C or J]	4 gal	15 L
Inner 850C LGP [C or J]	6.75 gal	25.6 L
Outer [C or J]	3.25 gal	12 L
Fuel Tank	92 gal	348 L
Hydraulic System [U or E].....	21 gal	81 L
Hydrostatic Reservoir [U or E]	27 gal	103 L