**550B CRAWLER DOZER**

Transport Height ....................................................... 8 ft 4.9 in. (2.59 m)
Transport Length ...................................................... 12 ft 10 in. (3.9 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: 200 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
- Flywheel Teeth: 115

**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**

- Pump Flow for Big Pump, Minimum at 2000 rpm and 2000 psi (13 790 kPa):
  - New: 17.8 gpm (67.2 L/min)
  - Used: 14.9 gpm (56.7 L/min)
- Pump Flow for Small Pump, Minimum at 2000 rpm and 2000 psi (13 790 kPa):
  - New: 13.2 gpm (49.9 L/min)
  - Used: 10.4 gpm (39.4 L/min)

*Note: For latest information, see Dealer Technical Assistance Center (DTAC) Solution K000413.*
RELIEF VALVE SETTINGS (At Fast Idle)

System Relief Valve:
Dozer............................................................................ 2250 + 200 - 0 psi (15 515 + 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 (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

Big 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

<table>
<thead>
<tr>
<th>Fuel Tank</th>
<th>U.S. (36 gal)</th>
<th>Metric (136 L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling System [N]</td>
<td>5 gal</td>
<td>19 L</td>
</tr>
</tbody>
</table>

Engine Crankcase w/ Filter [E]:
Engine (S.N. —137161) ................................................... 15 qt 14 L
Engine (S.N. 137162— ) .................................................... 13 qt 12 L

Hydraulic System [C]
6405 ................................................................. 9.5 gal 36 L
6410, 6415 .......................................................... 8.5 gal 32.2 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] ....................... 3.5 gal 13.2 L