350D CRAWLER BULLDOZER
10,700 lb (5055 kg)
355D CRAWLER LOADER
12,400 lb (5625 kg)

Transport Height .......................................................7 ft 7 in. (2.31 m)
Transport Length ......................................................11 ft 3 in. (3.43 m)
Machine Width ..........................................................6 ft 8 in. (2.03 m)

ENGINE.............................................................................John Deere 300 Series
Number of Cylinders and Displacement ..............................3 cylinders, 179 cu in. (2.9 L)
Air Intake System ................................................................. Naturally aspirated
Bore and Stroke .................................................................. 4.19 x 4.33 in. (106.5 x 110 mm)
Net hp at 2500 rpm ..............................................................48 SAE hp (36 kW) DIN 36 kW
Maximum Torque at 1300 rpm .............................................126 lb-ft (170 N•m)
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. (0.38 mm)
   Exhaust ........................................................................ 0.018 in. (0.46 mm)
Oil Pressure at 2500 rpm ..................................................... 50 ± 15 psi (345 ± 105 kPa)
Static Injection Pump Timing ............................................... Timing lines aligned w/ flywheel located at TDC
Dynamic Injection Pump Timing at Rated Load rpm* .......... 16 + 0 - 1° BTDC
Speeds:
   Slow Idle....................................................................... 800 rpm
   Fast Idle....................................................................... 2650 rpm
   Rated Full Load ............................................................ 2500 rpm
Cylinder Pressure Hot (Min) .................................................. 350 psi (2415 kPa) cranking with injectors removed
Flywheel Teeth.................................................................142

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

TRANSMISSION
Model and Speeds ............................................................... Collar shift: 4 forward, 4 reverse
Lube Pressure at Fast Idle .................................................. 17—33 psi (120—230 kPa)
Reverser Pressure at 2650 rpm ........................................... 150 ± 10 psi (1030 ± 69 kPa)

HYDRAULIC SYSTEM—Open Center
Pump Size ........................................................................... 1.48 cu in. (24.3 cm³)
Flow (Min) new at 2250 psi 
   (15 515 kPa) and 2500 rpm......................................... 14.0 gpm (53 L/min)
Pump Size ........................................................................... 2.29 cu in. (37.5 cm³)
Flow (Min) new at 2250 psi 
   (15 515 kPa) and 2500 rpm......................................... 21.6 gpm (81.8 L/min)
RELIEF VALVE SETTINGS

System Relief Valves:
- Loader ................................................................. 2250 psi (15 515 kPa)
- Selector Valve ....................................................... 2000 psi (13 790 kPa)
- Bulldozer (6310) .................................................... 1750 psi (12 065 kPa)
- Bulldozer (6305) .................................................... 2250 psi (15 514 kPa)
- Winch at 1900 Engine rpm ...................................... 950—1050 psi (6550—7240 kPa)

Loader Circuit Relief Valves:
- Bucket Dump ......................................................... 1250 psi (8620 kPa)
- Bucket Rollback ..................................................... 2500 psi (17 240 kPa)
- Boom Lift ............................................................... 3100 psi (21 375 kPa)
- Auxiliary ................................................................. 2500 psi (17 240 kPa)

9250 Backhoe Circuit Relief Valves:
- Crowd ................................................................. 2500 psi (17 240 kPa)
- Swing Right ........................................................... 1800 psi (12 410 kPa)
- Swing Left ............................................................... 2375 psi (16 375 kPa)
- Boom Raise ............................................................ 2750 psi (18 960 kPa)
- Boom Lower .......................................................... 2500 psi (17 240 kPa)

9300 Backhoe Circuit Relief Valves:
- Crowd ................................................................. 2375 psi (16 375 kPa)
- Swing Right ........................................................... 2000 psi (13 790 kPa)
- Swing Left ............................................................... 2375 psi (16 375 kPa)
- Boom Raise ............................................................ 3500 psi (24 135 kPa)
- Boom Lower .......................................................... 2375 psi (16 375 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)

CYCLE TIMES

<table>
<thead>
<tr>
<th>Bulldozer</th>
<th>Minimum Seconds</th>
<th>Maximum Seconds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blade:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raise</td>
<td>3.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Lower (Power Down)</td>
<td>1.2</td>
<td>2.4</td>
</tr>
<tr>
<td>Tilt</td>
<td>0.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Angle</td>
<td>2.5</td>
<td>3.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Loader (Empty Bucket)</th>
<th>Minimum Seconds</th>
<th>Maximum Seconds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raise</td>
<td>6.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Lower (Float Down)</td>
<td>3.6</td>
<td>4.2</td>
</tr>
<tr>
<td>Lower (Power Down)</td>
<td>4.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Bucket:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dump (Boom at Full Height)</td>
<td>1.7</td>
<td>2.3</td>
</tr>
<tr>
<td>Rollback (From Bucket Level)</td>
<td>0.6</td>
<td>1.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Backhoes</th>
<th>Minimum Seconds</th>
<th>Maximum Seconds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucket:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dump (Cylinder Retract)</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Load (Cylinder Extend)</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>
LUBRICANTS
See front of this book for the codes [ ].

<table>
<thead>
<tr>
<th>CAPACITIES</th>
<th>U.S.</th>
<th>Imp.</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direction Reverse [C]</td>
<td>12 qt</td>
<td>10.0 qt</td>
<td>11.3 L</td>
</tr>
<tr>
<td>Engine:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooling System [N]</td>
<td>3.25 gal</td>
<td>2.7 gal</td>
<td>12.3 L</td>
</tr>
<tr>
<td>Crankcase w/ Filter [E]</td>
<td>9 qt</td>
<td>7.5 qt</td>
<td>8.5 L</td>
</tr>
<tr>
<td>Fuel Tank</td>
<td>22 gal</td>
<td>18.3 gal</td>
<td>83.0 L</td>
</tr>
<tr>
<td>Hydraulic System (Refill):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bulldozer [C]</td>
<td>6.4 gal</td>
<td>5.3 gal</td>
<td>24.5 L</td>
</tr>
<tr>
<td>Loader [C]</td>
<td>6.4 gal</td>
<td>5.3 gal</td>
<td>24.5 L</td>
</tr>
<tr>
<td>Steering Clutch and Final Drives [C]</td>
<td>10 gal</td>
<td>8.3 gal</td>
<td>38.0 L</td>
</tr>
</tbody>
</table>