ENGINE

John Deere engineered and manufactured 6-cylinder diesel engine. Replaceable wet-type cylinder liners help ensure superior heat dissipation, longer engine life. High-strength alloy heads include replaceable valve seat inserts. The forged steel, 7-main bearing crankshaft is statically and dynamically balanced for smooth operation. Cast aluminum pistons reduce rod bearing loads and provide vital heat transfer; pistons are sprayed with cooling oil for longer life.

Engine: John Deere 6068T
Rated power at 2100 rpm.......................... 140 SAE net hp (104 kW)
......................................................................... 148 SAE gross hp (110 kW)
Turbocharger .......................................................... standard
Cylinders ....................................................................... 6
Displacement .......................................................... 414 cu. in. (6.785 L)
Fuel consumption, typical...................... 3.8 to 5.5 gal/hr (14.4 to 20.8 L/h)
Maximum net torque at 1300 rpm ........... 420 lb-ft (570 Nm)
Lubrication .......................................................... pressure system with full-flow filters
Air cleaner ............................................................ dry type with restriction indicator
Electrical system .................................................. 24-volt with 40-amp alternator
Cooling fan .......................................................... blower

STEERING

Steering is done hydrostatically by varying track speed and/or direction. Depressing a pedal slows or varies the speed of the track, all the way to a stop if desired. Continuing to depress the pedal will cause the track to reverse for counterrotation. Hydrostatic steering eliminates the need for steering clutches and steering brakes, as well as the need for cross-steering when working on steep slopes.

HYDRAULICS

System .......................................................... open center
Pump .......................................................... vane
Flow at 2100 rpm .............................................. 38 gpm (144 L/min)

TRACKS

7-roller, 101-in. (2565 mm) track frame with front and rear track guides and sprocket guard. DuraTrax™ undercarriage features deep-heat-treated, sealed and lubricated track links and through-hardened sealed and lubricated rollers for maximum wear resistance.

Grouser .......................................................... 22 in. (560 mm)
Shoes, each side .................................................. 45
Ground contact area with 22-in. (560 mm) shoes .................................................. 4444 sq. in. (28680 cm²)
Ground pressure .............................................. 7.1 psi (49 kPa)
Ground clearance, minimum .................. 14 in. (356 mm)
Length of track on ground .................. 10 1/2 in. (2565 mm)
Track gauge, standard .......................... 200.7/4 in. (1180 mm)
Oscillation .......................................................... 11.5 in. (292 mm)
Carrier rollers each side .................. 2
Adjustment .......................................................... hydraulic

CAPACITIES

Fuel tank .......................................................... 73 gal. (276.3 L)
Cooling system .................................................. 7 gal. (26.5 L)
Crankcase .......................................................... 18 qt. (17 L)
Crankcase, including filter .................. 20 qt. (19 L)
Splitter drive ....................................................... 1.5 gal. (5.7 L)
Final drive each: 1st reduction ........... 8.5 gal. (32.2 L)
2nd reduction .................................................. 3.5 gal. (13.2 L)
Hydraulic system .................................................. 33 gal. (125 L)
Hydrostatic drives .............................................. 33 gal. (125 L)

OPERATING WEIGHT

750B Long-Track .............................................. 31,530 lb. (14 300 kg)

TRANSMISSION

Automatic, dual-path, hydrostatic drive provides infinitely variable speeds to 6.5 mph (10.5 km/h). The transmission’s load sensing feature automatically adjusts speed and power to match changing load conditions. Each track is powered by a variable displacement piston pump and motor combination. The speed and direction of each track can be individually controlled.

TRAVEL SPEEDS

Forward and reverse......................... infinite to 6.5 mph (0 to 10.5 km/h)

FINAL DRIVES

Double-reduction, planetary final drives transfer torque loads over three gear sets instead of one. The final drives are mounted independently of the track frames to isolate them from shock loads for increased life and reliability.

BRAKES

Hydrostatic (dynamic) braking stops the crawler when the transmission control lever is moved to neutral. Wet, multi-disk parking brakes are automatically applied when the engine stops, or can be operator-applied by engaging the center brake pedal.
DIMENSIONS*

* Drawing based on 750B Long-Track w/Semi U

<table>
<thead>
<tr>
<th>Blade Capacity per SAE J1255</th>
<th>A Blade Lift Height</th>
<th>B Blade Height</th>
<th>C Digging Depth</th>
<th>D Overall Length (Tractor with Blade)</th>
<th>E Overall Width** (Tractor with Blade)</th>
<th>F Maximum Tilt</th>
<th>Total Operating Weight (Tractor with Blade)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blade</td>
<td>in. (mm)</td>
<td>in. (mm)</td>
<td>in. (mm)</td>
<td>in. (mm)</td>
<td>in. (mm)</td>
<td>lb. (kg)</td>
<td>lb. (kg)</td>
</tr>
<tr>
<td>Straight</td>
<td>2.93 2.24</td>
<td>42.2 1072</td>
<td>38 965</td>
<td>20.2 513</td>
<td>198 5024</td>
<td>125 3175</td>
<td>15.5 394</td>
</tr>
<tr>
<td>Semi U</td>
<td>4.33 3.31</td>
<td>42.2 1072</td>
<td>43.3 1100</td>
<td>20.2 513</td>
<td>207 5263</td>
<td>126 3200</td>
<td>15.5 394</td>
</tr>
<tr>
<td>Angle</td>
<td>5.37 2.58</td>
<td>59.5 998</td>
<td>38.4 975</td>
<td>25.8 604</td>
<td>200 5090</td>
<td>154 3912</td>
<td>12.75 324</td>
</tr>
<tr>
<td>All Hydraulic</td>
<td>3.18 2.43</td>
<td>36 914</td>
<td>40 1016</td>
<td>30 762</td>
<td>210 5345</td>
<td>126 3210</td>
<td>14.25 362</td>
</tr>
</tbody>
</table>

**Includes cupped end bit
HYDROSTATIC DRIVETRAIN

Dual-path hydrostatic drive provides many advantages over mechanical crawler drivetrains in the areas of machine performance and reliability.

Live power turns. Both tracks remain fully powered during turns. This affords greater maneuverability with larger loads and less ground disturbance. This feature also provides improved capability for working on soft ground, as well as the ability to counterbalance blade-couper loads when beaching, ditching or backfilling.

Counterrotation. Separate control allows the two transmissions to be driven in opposite directions, permitting spot turns with excellent maneuverability. Quick blade position changes can be made.

Infinite speed selection. Infinitely variable ground speeds, from 0 to 6.5 mph (0–10.5 km/h), allow precise matching of machine speed to your application. Ground speed can be reduced without slowing engine rpm, so hydraulic power remains high and response time remains fast.

Automatic load sensing. As a load increases and engine rpm lessens, the transmission automatically reduces ground speed to match load changes. This feature works at all throttle settings, providing full drawbar pull even at reduced engine speed.

Dynamic braking. Positive speed reduction is provided on slopes. When shifted to neutral, oil flow between the pump and motor is blocked. The crawler stops without use of the service brakes.

Efficiency. Overall, hydrostatic drive is more efficient in delivering horsepower to the tracks than systems that use torque converters. The greatest efficiency advantages are in the 1.5 to 3.5 mph (2.4 to 5.6 km/h) range, the man work speed range of a crawler dozer.

Simplicity. Hydrostatic drive design uses, on the average, 150 fewer parts than the design of an ordinary drive system. Fewer parts mean increased reliability. Some of our hydrostatic drive crawlers have accumulated more than 35,000 hours of use without any major transmission repairs.

FORESTRY APPLICATION

The 750B Long-Track Dozer® can be equipped for forestry applications with the addition of limb risers and screens for the rollover protective structure.

DRAWBAR PULL

Drawbar pull
At 1.2 mph (1.9 km/h) ...........................................50,800 lb. (157 kN)
At 2.0 mph (3.2 km/h) ...........................................19,100 lb. (85 kN)