**ENGINE**

John Deere-engineered and manufactured diesel engine with high-efficiency turbocharger. Replaceable wet-type cylinder liners help ensure superior heat dissipation. High-strength-alloy cylinder heads include replaceable valve seat inserts. Cast aluminum pistons reduce rod bearing loads and provide vital heat transfer; pistons are sprayed with cooling oil to increase engine life.

**Engine:** John Deere 6059T
- Rated power at 2200 rpm: 115 SAE net hp (86 kW)
- Cylinders: 6
- Displacement: 359 cu. in. (5,884 L)
- Fuel consumption, typical: 2.2 to 3.5 gal/hr (8.3 to 13.3 L/h)
- Max. net torque rise: 30% at 1350 rpm
- Air cleaner: Dual stage dry type with restriction indicator
- Electrical system: 12-volt with 95-amp alternator
- Battery: 12-volt, 25 amps at 80°F (27°C)
- BCI group: 31 cold cranking capacity

**TRANSMISSION**

The direct-drive power shift transmission is engineered and manufactured by John Deere specifically for skidders, providing eight speeds in forward, four speeds in reverse. The transmission charge pump is externally mounted for easy servicing.

**TRAVEL SPEEDS**

At 2200 engine rpm, no tire slip, with 28L-26 tires
- Forward: 1.5-16.6 mph (2.4-26.7 km/h)
- Reverse: 2.1-6.0 mph (3.4-9.6 km/h)

**AXLES**

Heavy-duty, inboard-mounted planetary-type gears distribute shock loads evenly. Hydraulically-applied differential lock is standard equipment in both front and rear axles. Differential can either be locked for exceptional traction or unlocked for easy maneuvering with less tire wear.

**BRAKES**

Hydraulic, annular-style wet-disk brakes are mounted inboard on both axes as standard equipment. Completely sealed and running in a cooling oil bath, they are self-adjusting, self-equalizing and need no periodic service. A spring-applied, hydraulically-released wet multi-disk parking brake is mounted on the transmission, and is automatically applied when the engine is off. This brake can be manually applied by placing the transmission control lever in the park position.

**STEERING**

The load- and speed-sensing power steering system delivers quick response and power for easy maneuvering in the woods. 90 degrees of frame articulation (45 degrees each direction) provide exceptional maneuverability.

**HYDRAULICS**

The quick, responsive and powerful hydraulic system features an axial-piston, pressure-compensated pump and closed-center design. The hydraulic system is separate from the transmission, enhancing the overall reliability of both systems.

- Pump flow at 2200 rpm: 27 gpm (102 L/min.)
- 3000 psi (20 684 kPa)

**TIRES**

25.1-26, 10 PR LS2
28L-26, 12 PR LS2

**WINCH**

The John Deere-engineered and manufactured direct-drive 4000 Winch includes wet multi-disk clutch and spring-applied, hydraulically-released brake. The adjustable free-spool feature and low-friction drum seals increase ease of operation. All winch functions are controlled by a single conveniently-located lever.

**CAPACITIES**

- Fuel tank: 41.5 gal. (157 L)
- Cooling system: 26 qt. (24.6 L)
- Engine lubrication, including filter: 20 qt. (18.9 L)
- Transmission: 7.75 gal. (29.3 L)
- Front differential: 4.5 gal. (17 L)
- Rear differential: 4.5 gal. (17 L)
- Winch: 9.5 gal. (35.2 L)
- Hydraulic reservoir capacity: 8 gal. (30.3 L)

**OPERATING WEIGHT**

54BE with standard equipment: 22,801 lb. (10 342 kg)
DIMENSIONS

Sideview dimensions are for skidder equipped with 28L-26, 12 PR LS2 tires.

Key:
A Overall height ................................................. .9 ft. 10.5 in. (3.01 m)
B Maximum blade lift above ground ............................... 3 ft. 11.6 in. (1.21 m)
C Maximum blade dig below ground .................................. 11.3 in. (287 mm)
D Front axle to front of machine ................................. 59.3 in. (1507 mm)
E Front axle to blade cutting edge arc ....................... .83.2 in. (2113 mm)
F Front axle to articulation joint ............................... 62 in. (1575 mm)
G Wheelbase ....................................................... 115 in. (2920 mm)
H Height of grapple from ground level .................. 2 ft. 10 in. (864 mm)
I Reach of grapple at ground level ...................... 5 ft. 5.6 in. (1.7 m)
J Reach of grapple at full reach .............................. 7 ft. 1 in. (2.16 m)
K Maximum height of boom ........................................ 9 ft. 10 in. (5.0 m)
L Below ground reach of grapple at full reach ........ 34 in. (864 mm)
M Overall length ................................................. 20 ft. 9 in. (6.33 m)

<table>
<thead>
<tr>
<th>Tire Size</th>
<th>N Ground Clearance</th>
<th>O Wheel Tread</th>
<th>P Overall Width</th>
<th>Turning Radius (Over Tires)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.1-26</td>
<td>19.6 in. (498 mm)</td>
<td>7 ft. 3 in.</td>
<td>9 ft. 2 in. (2.79 m)</td>
<td>17 ft. 11 in. (5.474 m)</td>
</tr>
<tr>
<td>28L-26</td>
<td>20.2 in. (514 mm)</td>
<td>7 ft. 6 in.</td>
<td>9 ft. 10 in. (3.0 m)</td>
<td>18 ft. 1 in. (5.512 m)</td>
</tr>
<tr>
<td>23.1-26 (narrow gauge)</td>
<td>19.6 in. (498 mm)</td>
<td>6 ft. 8.9 in. (2.06 m)</td>
<td>8 ft. 8 in. (2.64 m)</td>
<td>17 ft. 6 in. (5.398 m)</td>
</tr>
<tr>
<td>28L-26 (narrow gauge)</td>
<td>20.2 in. (514 mm)</td>
<td>7 ft. 2 in. (2.18 m)</td>
<td>9 ft. 6 in. (2.90 m)</td>
<td>17 ft. 6 in. (5.460 m)</td>
</tr>
</tbody>
</table>

* Not shown on diagram.
**ADDITIONAL STANDARD EQUIPMENT**

**Power Train:**
- Differential lock in front and rear axles
- Direct-drive power shift transmission
- Heavy-duty axles
- Inboard-mounted wet-disk brakes in front and rear axles
- Wet multi-disk park brake

**Engine:**
- 95-amp alternator
- Battery with 925 cold cranking amps
- Heavy-duty starter
- High-capacity air cleaner with unloading valve
- Low restriction muffler

**Operator’s Station:**
- Canopy with ROPS with doors and full screen protection
- Electric hourmeter
- Engine coolant temperature gauge
- Fire extinguisher
- Foot throttle
- Fuel gauge
- Fuel water separator
- Full function monitor instrumentation with audible warning alarm for:
  - Air filter restriction
  - Alternator voltage
  - Engine coolant temperature

**Engine oil pressure**
- Hydraulic filter restriction
- Hydraulic oil temperature
- Park brake
- Transmission oil pressure
- Transmission oil temperature
- Transmission filter restriction
- Rearview mirror
- Retractable seat belts with anti-cinching mechanism
- Reverse warning alarm
- Steering wheel with power steering
- Suspension seat with weight and backrest angle adjustment and two-position armrests

**Frames:**
- Articulation locking bar, self-storing
- Frame clean-out and service access openings
- Lockable engine side shields
- Log arch with two-position adjustable roller
- Sacking blade, 86 in. (2184 mm) wide with replaceable cutting edge

**Grapple:**
- Adjustable grapple oscillation damper
- Continuous pressure grapple tong close circuit

**OPTIONAL OR SPECIAL EQUIPMENT**

**135-amp alternator**
- Blade extensions, 15 in. (381 mm) each side
- Cab with air conditioning, 40,000 Btu heater and pressurizer

**Cab:**
- Cab with polycarbonate windows and front windshield wiper and washers
- Deliming grate
- Deluxe seat with fabric covering and adjustable lumbar support
- Ether starting aid

**Hand throttle**
- Heater, 40,000 Btu/hr (11.7 kW)
- John Deere 4000 Winch with 8-in. (203 mm) drum
- John Deere 4000 Slow Speed Winch with 8-in. (203 mm) drum

**John Deere 4000 Winch with 10-in. (254 mm) drum**
- Light package, quad
- Light package, duo-quad
- Narrow gauge wheels
- Secondary steering system
- Two batteries