ENGINE PERFORMANCE

<table>
<thead>
<tr>
<th>HORSEPOWER</th>
<th>FUEL CONSUMPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>1100</td>
</tr>
<tr>
<td>450</td>
<td>1300</td>
</tr>
<tr>
<td>400</td>
<td>1500</td>
</tr>
<tr>
<td>350</td>
<td>1900</td>
</tr>
<tr>
<td></td>
<td>2100</td>
</tr>
<tr>
<td></td>
<td>2300</td>
</tr>
<tr>
<td></td>
<td>2500</td>
</tr>
</tbody>
</table>

Curves shown are for an engine complete with fuel system, water pump, lubricating pump, air cleaner, alternator, fan and muffler. Data shows performance observed at standard conditions of 29.38 in. of mercury barometric pressure (500 ft.) and 85°F air temperature.

FEATURES

- 4-wheel drive
- Choice of 5 self-leveling loader buckets
- Twin-turbine torque converter w/ Power-Shift transmission
- 4 speeds forward, 2 reverse
- Power steering, articulated frame
- 4-wheel, disk-type brakes and parking brake
- Inboard planetary final drives
- Single-lever control w/ automatic return-to-dig
- Brake-actuated transmission disconnect
- "No-Spin" front axle differential
- Vandal protection

May be equipped with:
- Backhoe
- Sideboom
### SPECIFICATIONS—JD544-A LOADER

(Specifications and design are subject to change without notice. Wherever applicable, specifications are in accordance with N.A.C.C. or A.M.A. (U.S. Tax) horsepower. Wherever applicable, specifications are in accordance with I.E.M.C. and SAE Standards. Except where otherwise noted, these specifications are based on a unit equipped with 17.5-25, 12-ply-rating, loader tread tires; 1-3/4 cu. yd. (1.34 m³) bucket, standard equipment, and 1,142 lb. (518 kg) of CaCl₂ solution in rear tires.)

**Horsepower (at 2,500 engine rpm):**

<table>
<thead>
<tr>
<th>Gross</th>
<th>104</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net</td>
<td>94</td>
</tr>
</tbody>
</table>

Net engine flywheel horsepower is for an engine equipped with fan, air cleaner, water pump, lubricating oil pump, fuel pump, alternator and muffler. The gross engine horsepower is without fan, gross and net flywheel horsepower ratings are under SAE standard conditions of 500-ft. altitude and 85°F. temperature and DIN 70 020 standard conditions of 760 mm Hg barometer (sea level) and 20°C. temperature.

**Engine:**

John Deere Diesel, vertical 6-cylinder, 4-stroke cycle

- Bore and stroke: 4.02 x 4.33 in. (102 x 110 mm)
- Piston displacement: 329 cu. in. (5392 cm³)
- Compression ratio: 16.7:1
- Governed speed range: 700-2,650 rpm
- Maximum torque @ 1,300 rpm: 240 lb-ft (33,18 kg-m)

**Transmission:**

- Twin-turbine torque converter with Power-Shift transmission (4 speeds forward, 2 reverse).
- Torque Multiplication Ratio: 5.1 to 1

**Differentials:**

- Front: "No-Spin" type
- Rear: Standard

**Drive Axes:**

Inboard-mounted planetary gears to each wheel. Front axle fixed. Rear axle oscillates 22 degrees total. 13.5 in. (343 mm) vertical travel at center of tire.

**Travel Speeds:**

<table>
<thead>
<tr>
<th></th>
<th>mph</th>
<th>km/h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low range:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st and 2nd turbine</td>
<td>0-3</td>
<td>0-4.8</td>
</tr>
<tr>
<td>2nd turbine</td>
<td>3-6.8</td>
<td>4.8-10.9</td>
</tr>
<tr>
<td>High range:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st and 2nd turbine</td>
<td>0-11.2</td>
<td>0-18</td>
</tr>
<tr>
<td>2nd turbine</td>
<td>11.2-23</td>
<td>18-37</td>
</tr>
<tr>
<td>Reverse:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st and 2nd turbine</td>
<td>0-4</td>
<td>0-6.4</td>
</tr>
<tr>
<td>2nd turbine</td>
<td>4-9.2</td>
<td>6.4-14.8</td>
</tr>
</tbody>
</table>

Shifting of turbines, within ranges, is automatic.

**Standard Equipment:**

- Adjustable cushioned seat
- Engine side shields
- Front fenders
- Gauges:
  - Transmission oil temperature
  - Transmission oil pressure
  - Fuel
  - Coolant temperature
  - Engine oil pressure
  - Ammeter
- Key-switch safety start
- Cigar lighter
- Parking brake warning light
- 55-amp. alternator
- Two 95-amp. batteries
- Transistorized voltage regulator
- Vandal protection
- Fuel filter
- Vertical muffler w/rain cap
- Head- and tail-lights
- Horn
- Rear bottom guard
- Hand grips
- Electric hour meter
- Automatic return-to-dig
- Side counterweights (1 set)
- Either starting aid
- Cab (includes roll-over protective structure and seat belt)

**Brakes:**

- Service: Power actuated, 4-wheel, inboard-mounted wet disk.
- Foot-operated by either right or left pedal
- Parking: 10 x 1.5-in. (254 x 38 mm) expanding shoe type on transmission output shaft. Adjustable, hand-operated, with warning light on dash.

**Steering:**

Full power steering. Frame articulated 80 degrees by two hydraulic cylinders. Turning radius of 13 ft. 10 in. (4.22 m). Vehicle clearance circle is 32 ft. (9.75 m).

**Hydraulic Systems:**

- Loader functions system: live, transmission-driven, vane-type pump delivers 42 gpm (159 lpm) at 2,500 engine rpm and 2,250 psi (158.2 kg/cm²) relief valve pressure setting.
- Control: Single-lever, double hydraulic system.
- Optional triple hydraulic system for fork or multi-purpose bucket.
- Steering and brake systems: engine-driven, eight-piston, variable-displacement-type pump delivers 26 gpm (106 lpm) at 2,500 engine rpm and 2,000 psi (140.8 kg/cm²).

**Tires:**

- 13-24, 10-ply-rating, grader tread
- 14-24, 12-ply-rating, grader tread
- 14-24, 12-ply-rating, rock grader tread
- 15.5-25, 10-ply-rating, loader tread
- 17.5-25, 12-ply-rating, loader tread
- 17.5-25, 12-ply-rating, loader rock tread

**Wheel Treads:**

- Front and rear (center-to-center): 70 in. (1.78 m)

**Capabilities:**

- U.S. | Liters
- Cooling system: 7.5 gal. | 28.4
- Fuel tank: 40 gal. | 151.4
- Crankcase and filter: 10 qt. | 9.5
- Transmission case and filters: 40 gal. | 151.4
- Front differential: 4.25 gal. | 16.1
- Rear differential: 4.75 gal. | 18.0
- Loader hydraulic sump: 12 gal. | 45.4

**Special Equipment:**

- Rear axle disconnect
- Work lights (front and rear)
- Lights (flashing and turning)
- Reverse warning system
- Triple hydraulic system
- Bucket teeth
- Heater
- Engine coolant heater
- Pre-cleaner
- Fixed drawbar
- Side counterweights (2nd set)
- Splash guards for fenders
- Backhoe
- Sideboom
- Front bottom guard
- Canopy (includes roll-over protective structure and seat belt)
- Log and Lumber fork
- Log and Pulpwood fork
- Attitude compensator
## JD544-A LOADER

### Operating Information: (approx.)

<table>
<thead>
<tr>
<th>OPERATING INFORMATION</th>
<th>Bucket Width</th>
<th>Bucket Weight</th>
<th>Breakout Force, J732B</th>
<th>Breakout Force, J732C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity, heaped, SAE</td>
<td>1-1/2 cu. yd. (1.15 m³)</td>
<td>2 cu. yd. (1.53 m³)</td>
<td>3 cu. yd. (2.29 m³)</td>
<td>1-1/2 cu. yd. (1.15 m³)</td>
</tr>
<tr>
<td>Capacity, struck, SAE</td>
<td>1.22 cu. yd. (0.93 m³)</td>
<td>1.42 cu. yd. (1.09 m³)</td>
<td>1.64 cu. yd. (1.25 m³)</td>
<td>2.49 cu. yd. (1.99 m³)</td>
</tr>
<tr>
<td>Bucket width</td>
<td>87.84 in. (2.23 m)</td>
<td>92.11 in. (2.33 m)</td>
<td>95.81 in. (2.43 m)</td>
<td>95.81 in. (2.43 m)</td>
</tr>
<tr>
<td>Bucket weight</td>
<td>1,275 lb. (578 kg)</td>
<td>1,440 lb. (653 kg)</td>
<td>1,530 lb. (694 kg)</td>
<td>1,650 lb. (744 kg)</td>
</tr>
<tr>
<td>Pivot point to cutting edge</td>
<td>1 ft. 7 in. (481 mm)</td>
<td>1 ft. 9 in. (534 mm)</td>
<td>1 ft. 10.33 in. (567 mm)</td>
<td>2 ft. 7.25 in. (794 mm)</td>
</tr>
<tr>
<td>Breakout force, J732B</td>
<td>30,075 lb. (13642 kg)</td>
<td>26,960 lb. (12229 kg)</td>
<td>25,475 lb. (11555 kg)</td>
<td>18,050 lb. (8188 kg)</td>
</tr>
<tr>
<td>SAE Standard using bucket hinge pin as pivot point 4 in. (102 mm) behind cutting edge</td>
<td>16,105 lb. (7305 kg)</td>
<td>14,875 lb. (6747 kg)</td>
<td>14,260 lb. (6468 kg)</td>
<td>15,850 lb. (7190 kg)</td>
</tr>
<tr>
<td>Tipping load, straight</td>
<td>13,345 lb. (6007 kg)</td>
<td>13,045 lb. (5917 kg)</td>
<td>12,985 lb. (5890 kg)</td>
<td>12,405 lb. (5627 kg)</td>
</tr>
<tr>
<td>Tipping load, 35-deg. turn</td>
<td>11,945 lb. (5418 kg)</td>
<td>11,765 lb. (5397 kg)</td>
<td>11,715 lb. (5314 kg)</td>
<td>10,810 lb. (4903 kg)</td>
</tr>
<tr>
<td>Tipping load, 40-deg. full turn, SAE</td>
<td>11,655 lb. (5202 kg)</td>
<td>11,360 lb. (5153 kg)</td>
<td>11,310 lb. (5131 kg)</td>
<td>10,445 lb. (4738 kg)</td>
</tr>
<tr>
<td>Loader operating weight</td>
<td>19,335 lb. (8770 kg)</td>
<td>19,500 lb. (8845 kg)</td>
<td>19,590 lb. (8866 kg)</td>
<td>19,920 lb. (9035 kg)</td>
</tr>
</tbody>
</table>

* SAE Standard J732B has been superseded by J732C and is included for reference only.

### Adjustments to operating weights and tipping loads (approx.):

<table>
<thead>
<tr>
<th>Add (+) or deduct (-) lb. (kg) as indicated for loader equipped with:</th>
<th>Loader Operating Weight</th>
<th>Tipping Load, 35-deg. turn</th>
<th>Tipping Load, 40-deg. full turn, SAE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roll-over protective structure w/ canopy</td>
<td>+700 lb. (318 kg)</td>
<td>+620 lb. (281 kg)</td>
<td>+570 lb. (259 kg)</td>
</tr>
<tr>
<td>Cab (includes roll-over protective structure)</td>
<td>+1,095 lb. (497 kg)</td>
<td>+970 lb. (440 kg)</td>
<td>+890 lb. (404 kg)</td>
</tr>
<tr>
<td>One additional set of side counter-weights (total of two sets)</td>
<td>+500 lb. (227 kg)</td>
<td>+960 lb. (445 kg)</td>
<td>+855 lb. (386 kg)</td>
</tr>
<tr>
<td>13-24, 10-ply-rating, grader tread tires w/796 lb. (361 kg) fluid in rear</td>
<td>-1,250 lb. (567 kg)</td>
<td>-1,040 lb. (472 kg)</td>
<td>-935 lb. (424 kg)</td>
</tr>
<tr>
<td>14-24, 12-ply-rating, grader tread tires w/884 lb. (401 kg) fluid in rear</td>
<td>-800 lb. (363 kg)</td>
<td>-685 lb. (311 kg)</td>
<td>-620 lb. (281 kg)</td>
</tr>
<tr>
<td>15.5-25, 10-ply-rating, loader tread tires w/896 lb. (406 kg) fluid in rear</td>
<td>-625 lb. (283 kg)</td>
<td>-565 lb. (256 kg)</td>
<td>-510 lb. (231 kg)</td>
</tr>
</tbody>
</table>
Dimensions: (approx.)

- CAB: 10 ft. 2 in. (3,10 m)
- CANOPY: 9 ft. 9 in. (2,97 m)
- 10 ft. 1 in. (3,07 m)
- 10 ft. 2 in. (3,10 m)
- 9 ft. 9 in. (2,97 m)
- 45°
- 2 ft. 9.5 in. (851 mm)
- 11 ft. 2 in. (3,40 m)
- 8 ft. 11 in. (2,72 m)
- 42°
- 1 ft. 2.5 in. (368 mm)
- 4 in. (102 mm)
- 94.5 in. (2,40 m)
- 19 ft. (5,79 m)