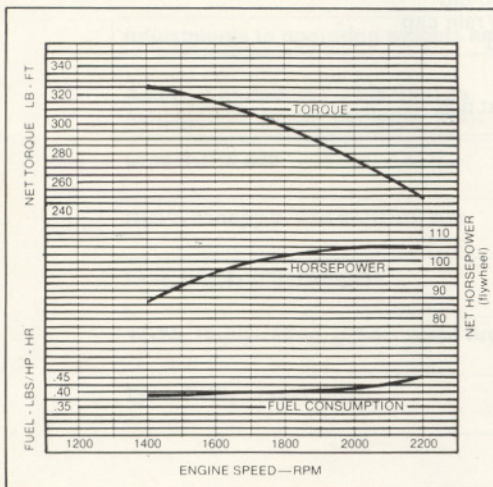




# JD544-B LOADER



## ENGINE PERFORMANCE



## FEATURES

- 105 SAE net hp (106.5 PS)
- 4-wheel drive
- 1½-, 1¾-, 2-, or 3-cu.-yd. buckets or 1¾-cu.-yd. multi-purpose bucket
- Twin-turbine torque converter with Power Shift transmission. 4 speeds forward, 2 reverse
- Power steering. Articulated frame
- 4-wheel power wet-disk brakes and parking brake
- Inboard planetary final drives
- Single-lever loader control w/automatic return to dig
- Brake-actuated transmission disconnect
- No-Spin front axle differential
- Vandal protection
- Roll-over protective structure (ROPS) w/cab and tinted safety glass

## ADD VERSATILITY WITH:

- Backhoe
- Sideboom

## JD544-B LOADER SPECIFICATIONS

(Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with ICED and SAE Standards. Except where otherwise noted, specifications are based on a machine equipped with all standard equipment, 17.5-25, 12-ply loader-tread tires with 1180 lbs (535.2 kg) CaCl<sub>2</sub> solution in rear tires, ROPS cab, side counterweights, full fuel tank, and 175 lb. (79.4 kg) operator.)

<b>Power (@ 2200 engine rpm):</b>	<b>SAE</b>	
Gross .....	115 hp (85.8 kW*)	
Net .....	105 hp (78.3 kW)	106.5 PS

Net engine flywheel power is for an engine equipped with fan, air cleaner, water pump, lubricating oil pump, fuel pump, alternator, and muffler. The gross engine power is without fan. Flywheel power ratings are under SAE standard conditions of 500-ft. altitude and 85°F. temperature, and DIN 70 020 conditions (non-corrected). No derating is required up to 10,000 ft. (3000 m) altitude.

\*In the international system of units (SI), power is expressed in kilowatts (kW).

**Engine:** John Deere turbocharged diesel, vertical 6-cylinder, 4-stroke cycle.  
 Bore and stroke ..... 4.19x5 in. (106.5x127 mm)  
 Piston displacement ..... 414 cu. in. (6784 cm<sup>3</sup>)  
 Compression ratio ..... 16.2 to 1  
 Maximum torque @ 1400 rpm ... 325 lb-ft (441 Nm) (44.9 kg-m)  
 NACC or AMA (U.S. Tax) horsepower ..... 42  
 Lubrication ..... Pressure system w/full-flow filter  
 Cooling ..... Pressurized w/thermostat and controlled bypass  
 Fan ..... Blower  
 Aspirated air cleaner w/restriction indicator ..... Dry  
 Electrical system ..... 12-volt w/alternator  
 Batteries (2 6 volt) ..... Reserve capacity: 420 minutes

### Torque Converter

Type ..... Twin-turbine  
 Torque Multiplication ..... 5.15 to 1

**Transmission** ..... Power Shift planetary

Forward Speeds	mph	km/h
1 .....	0-3	0-4.8
2 .....	3-7.7	4.8-12
3 .....	0-11.2	0-18
4 .....	11.2-25	18-40

Reverse Speeds	mph	km/h
1 .....	0-4	0-6.4
2 .....	4-10	6.4-16

Note: Shift from 1st to 2nd and 3rd to 4th is automatic.

### Differentials:

Front ..... No-Spin  
 Rear ..... Standard

**Drive Axles** ..... Inboard-mounted planetary gears to each wheel. Front axle fixed. Rear axle oscillates 22-degree total (13.5 inches (343 mm) vertical travel at center of tire).

### Brakes:

Service .. Power actuated, 4-wheel, inboard-mounted wet disk. Foot-operated by either right or left pedal.  
 Parking ..... 10x1.5 inch (254x38 mm) expanding shoe on transmission output shaft. Adjustable, hand-operated, with warning light and buzzer.

**Steering** ... Full power steering. Frame articulated 80 degrees by two hydraulic cylinders. Turning radius of 13 feet 10 inches (4.22 m).

### Hydraulic Systems:

Loader functions ..... Independent engine-driven vane pump delivers 44.5 gpm (168.4 l/min) at 600 psi (41.4 bar) (42.2 kg/cm<sup>2</sup>) and 2200 engine rpm. 2250-psi (155.1 bar) (158.2 kg/cm<sup>2</sup>) relief valve pressure setting.  
 Control ..... Single-lever for basic lumber fork. Dual-lever for fork with clamp. Triple hydraulic valve.  
 Steering and brakes ..... Engine-driven, 8 piston, variable-displacement pump delivers 26 gpm (98.4 l/min) at 2200 engine rpm and 2000 psi (137.9 bar) (140.6 kg/cm<sup>2</sup>). Maximum system pressure is 2400 psi (165.5 bar) (168.7 kg/cm<sup>2</sup>).

Hydraulic Cylinders:	Bore	Stroke
Boom, two .....	5.25 in. (133 mm)	22.26 in. (565 mm)
Bucket, one .....	5.25 in. (133 mm)	27.22 in. (691 mm)
Cylinder rods ..	Ground, heat-treated, chrome-plated, polished	
Boom and bucket cylinder rods .....	2.25 in. (57 mm) dia.	

### Tires:

14-24, 12-ply-rating, grader tread, G2  
 17.5-25, 12-ply rating, loader tread, L2  
 17.5-25, 16-ply-rating, loader tread, L2  
 17.5-25, 12-ply-rating, rock tread, L3

### Wheel Treads:

Front and rear ..... 70 in. (1.78 m)

Capacities	U.S.	Liters
Cooling system .....	32 qt.	30.3
Fuel tank .....	40 gal.	151.4
Crankcase .....	18 qt.	17.0
Crankcase, including filter .....	20 qt.	18.9
Transmission case and filters .....	39 qt.	36.9
Front differential: No-Spin .....	24 qt.	22.7
Rear differential .....	25 qt.	23.7
Loader hydraulic sump .....	48 qt.	45.4

### Additional Standard Equipment:

Adjustable cushioned seat  
 Engine side shields  
 Front fenders  
 Gauges:  
   Transmission oil temperature  
   Transmission oil pressure  
   Fuel  
   Coolant temperature  
   Engine oil pressure  
   Electric hourmeter  
   Voltmeter  
 Loader hydraulic system indicator  
 Key switch  
 Pushbutton safety start  
 Cigaret lighter  
 Parking brake warning light and buzzer  
 Transistorized voltage regulator  
 Vandal protection  
 Driving lights  
 Work lights  
 Flashing and turn signal lights  
 Horn  
 Fuel filter  
 Automatic return to dig  
 Vertical muffler w/rain cap  
 Rear bottom guard  
 Hand grips  
 Fixed drawbar  
 ROPS cab and seat belt  
 Heater  
 Antifreeze  
 Precleaner  
 Ether starting aid

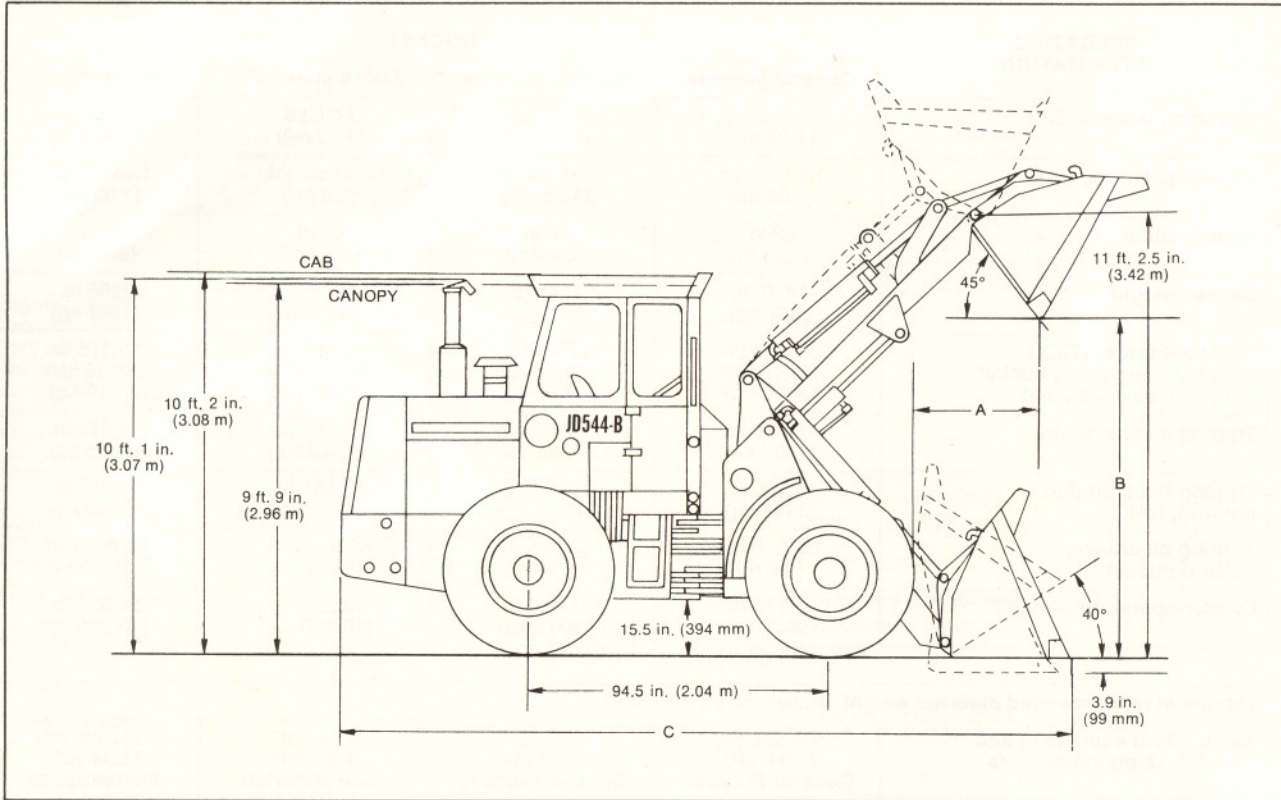
## JD544-B LOADER OPERATING INFORMATION

OPERATING INFORMATION	BUCKET			
	General purpose	General purpose	Loose materials	Multipurpose
Capacity, heaped, SAE	1¾ cu. yd. (1.34 m <sup>3</sup> )	2 cu. yd. (1.53 m <sup>3</sup> )	3 cu. yd. (2.29 m <sup>3</sup> )	1¾ cu. yd. (1.34 m <sup>3</sup> )
Capacity, struck, SAE	1.42 cu. yd. (1.09 m <sup>3</sup> )	1.64 cu. yd. (1.25 m <sup>3</sup> )	2.49 cu. yd. (1.9 m <sup>3</sup> )	1.34 cu. yd. (1.03 m <sup>3</sup> )
Bucket width	92 in. (2.34 m)	96 in. (2.44 m)	96 in. (2.44 m)	96 in. (2.44 m)
Bucket weight	1470 lb. (667 kg)	1545 lb. (701 kg)	1920 lb. (871 kg)	2265 lb. (1027 kg)
Breakout force, J732C SAE Standard using bucket hinge pin as pivot point	17,885 lb. (80.16 kN) (8113 kg)	17,250 lb. (77.32 kN) (7825 kg)	13,665 lb. (61.25 kN) (6198 kg)	15,475 lb. (69.36 kN) (7019 kg)
Tipping load, straight	16,395 lb. (7437 kg)	16,085 lb. (7296 kg)	15,760 lb. (7149 kg)	15,070 lb. (6836 kg)
Tipping load, 40-deg. full turn, SAE	14,200 lb. (6441 kg)	13,920 lb. (6314 kg)	13,585 lb. (6162 kg)	12,930 lb. (5865 kg)
Turning clearance, outside bucket	32 ft. 6 in. (9.9 m)	32 ft. 9 in. (9.98 m)	32 ft. 10 in. (10.02 m)	32 ft. 11 in. (10.05 m)
Loader operating weight	21,775 lb. (9877 kg)	21,850 lb. (9911 kg)	22,225 lb. (10 090 kg)	22,655 lb. (10 285 kg)

Maximum recommended material weight, lb. per cu. yd. (kg/m <sup>3</sup> )				
All standard equipment and 17.5-25, 12-ply-rating tires	1¾ cu. yd. (1.34 m <sup>3</sup> ) General Purpose	2 cu. yd. (1.53 m <sup>3</sup> ) General Purpose	3 cu. yd. (2.29 m <sup>3</sup> ) Loose Materials	1¾ cu. yd. (1.34 m <sup>3</sup> ) Multipurpose
Loader less cab or canopy	2825 (1676)	2420 (1436)	1565 (928)	2495 (1480)
Loader with canopy	2955 (1753)	2530 (1501)	1635 (970)	2620 (1554)
Loader with cab	3035 (1801)	2600 (1543)	1685 (1000)	2700 (1602)
Loader with cab and fluid	3375 (2002)	2895 (1718)	1880 (1115)	3030 (1798)
Loader with cab, fluid and side weights	3570 (2118)	3060 (1815)	1990 (1181)	3220 (1910)

Adjustments to operating weights and tipping loads:			
Add (+) or deduct (-) lb. (kg) as indicated for loader equipped with:	Loader Operating Weight	Tipping Load, Straight	Tipping Load, 40-deg. Full Turn, SAE
Less ROPS cab	- 950 lb. (431 kg)	- 850 lb. (386 kg)	- 785 lb. (356 kg)
ROPS canopy in lieu of ROPS cab	- 320 lb. (145 kg)	- 310 lb. (141 kg)	- 280 lb. (127 kg)
Less side counterweights	- 460 lb. (209 kg)	- 910 lb. (413 kg)	- 760 lb. (345 kg)
14-24, 12-ply-rating, grader tread tires	- 355 lb. (161 kg)	- 235 lb. (107 kg)	- 205 lb. (93 kg)
Less CaCl <sub>2</sub> in rear tires	- 1180 lb. (535 kg)	- 1535 lb. (696 kg)	- 1340 lb. (608 kg)

## JD544-B LOADER DIMENSIONS



### Special Equipment:

- Rear axle disconnect
- ROPS canopy and seat belt
- Instrument panel cover w/lock
- ROPS quiet cab
- Reverse warning alarm
- Triple loader hydraulic valve
- Bucket teeth
- Engine coolant heater
- Side counterweights
- Splash guard for fenders
- Front bottom guard
- License plate bracket
- Defroster fan
- Automatic boom height control
- SMV emblem
- Auxiliary cutting edges

BUCKET CAPACITIES	DIMENSIONS		
	A	B	C
<b>1¾ cu. yd. bucket</b>	34.7 in. (882 mm)	8 ft. 9.8 in. (2.69 m)	19 ft. 3 in. (5.85 m)
<b>2 cu. yd. bucket</b>	35.6 in. (904 mm)	8 ft. 8.9 in. (2.66 m)	19 ft. 4 in. (5.88 m)
<b>3 cu. yd. bucket</b>	42.2 in. (1070 mm)	8 ft. 2.3 in. (2.50 m)	20 ft. 2 in. (6.12 m)
<b>1¾ cu. yd. multipurpose</b>	38.0 in. (965 mm)	8 ft. 1.3 in. (2.46 m)	20 ft. 2 in. (6.15 m)