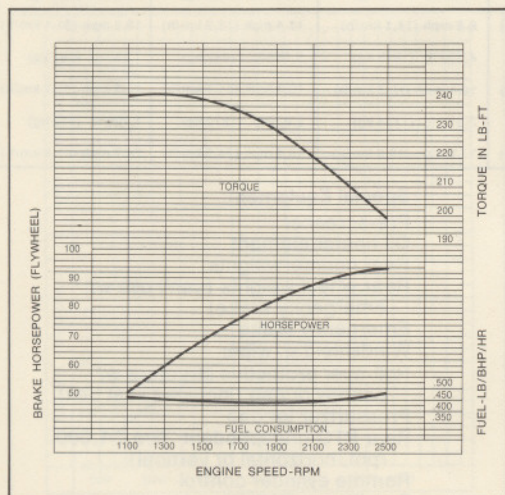




JD544-A LOADER



ENGINE PERFORMANCE



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 IEMC 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):	SAE	DIN
Gross	104	
Net	94	99.9 PS

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 to 1
 Governed speed range 700-2,650 rpm
 Maximum torque @ 1,300 rpm 240 lb-ft (33,18 kg-m)
 N.A.C.C. or A.M.A. (U.S. Tax) horsepower 38.6
 Lubrication Pressure system with full-flow filter
 Cooling Pressurized with thermostat and fixed by-pass
 Fan Blower-type
 Air Cleaner Dry-type, dual-element with restriction indicator
 Electrical and starting system 12-volt with alternator

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 Axles:

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:

	mph	km/h
Forward:		
Low range: 1st and 2nd turbine	0-3	0-4.8
2nd turbine	3-6.8	4.8-10.9
High range: 1st and 2nd turbine	0-11.2	0-18
2nd turbine	11.2-23	18-37
Reverse: 1st and 2nd turbine	0-4	0-6.4
2nd turbine	4-9.2	6.4-14.8

Shifting of turbines, within ranges, is automatic.

Standard Equipment:

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

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 28 gpm (106 lpm) at 2,500 engine rpm and 2,000 psi (140,6 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)

Capacities:

	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	9.75 gal.	36.9
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
 Altitude compensator

JD544-A LOADER

Operating Information: (approx.)

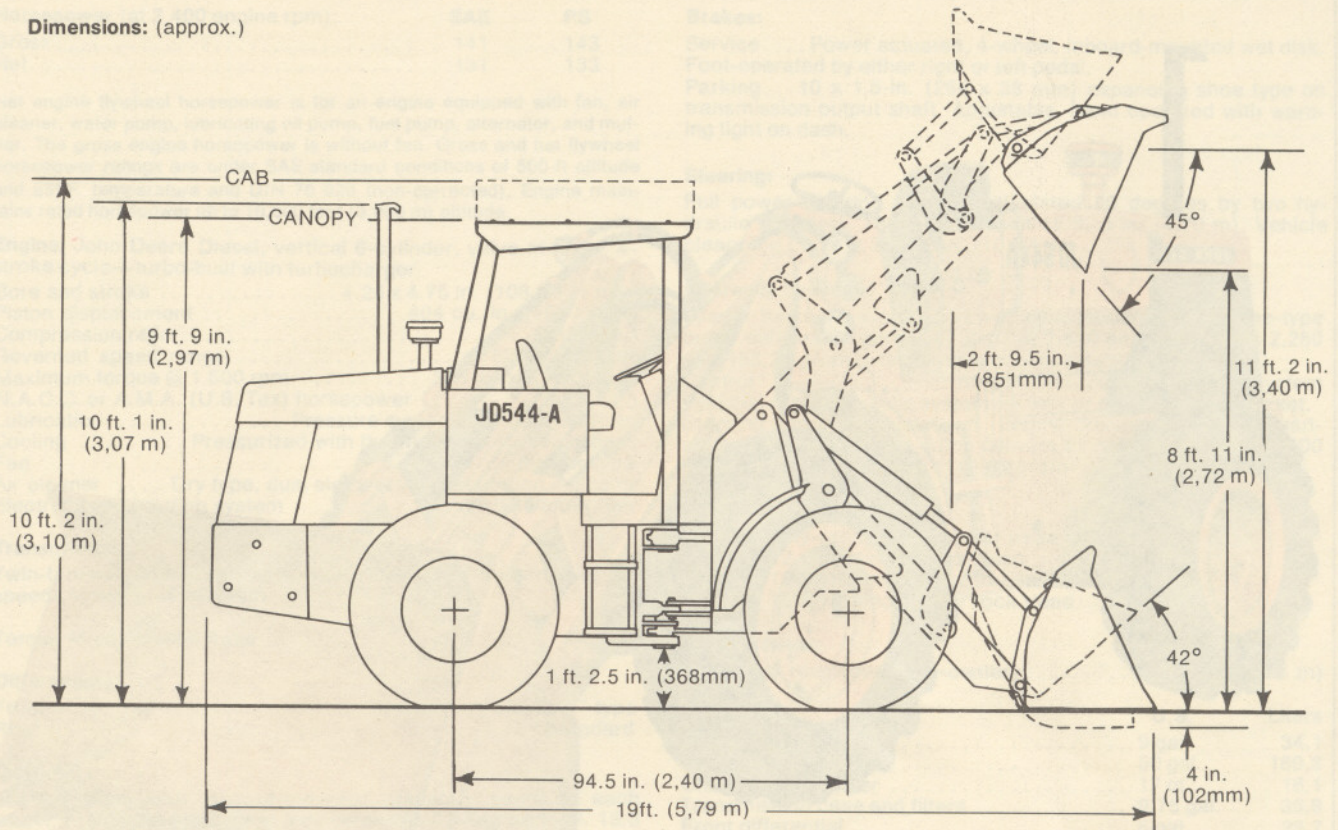
OPERATING INFORMATION	BUCKET				
	General purpose	General purpose	Loose materials	Light materials	Multi-purpose
Capacity, heaped, SAE	1-1/2 cu. yd. (1,15 m ³)	1-3/4 cu. yd. (1,34 m ³)	2 cu. yd. (1,53 m ³)	3 cu. yd. (2,29 m ³)	1-1/2 cu. yd. (1,15 m ³)
Capacity, struck, SAE	1.22 cu. yd. (0,93 m ³)	1.42 cu. yd. (1,09 m ³)	1.64 cu. yd. (1,25 m ³)	2.49 cu. yd. (1,90 m ³)	1.15 cu. yd. (0,88 m ³)
Bucket width	87.84 in. (2,23 m)	92.11 in. (2,33 m)	95.81 in. (2,43 m)	95.81 in. (2,43 m)	96 in. (2,44 m)
Bucket weight	1,275 lb. (578 kg)	1,440 lb. (653 kg)	1,530 lb. (694 kg)	1,860 lb. (844 kg)	2,145 lb. (975 kg)
*Breakout force, J732B SAE Standard Pivot point to cutting edge	30,075 lb. (13642 kg) 1 ft. 7 in. (481 mm)	26,960 lb. (12229 kg) 1 ft. 9.07 in. (534 mm)	25,475 lb. (11555 kg) 1 ft. 10.33 in. (567 mm)	18,050 lb. (8188 kg) 2 ft. 7.25 in. (794 mm)	25,000 lb. (11340 kg) 1 ft. 10.4 in. (569 mm)
Breakout force, J732C SAE Standard using bucket hinge pin as pivot point 4 in. (102 mm) behind cutting edge	16,105 lb. (7305 kg)	14,875 lb. (6747 kg)	14,260 lb. (6468 kg)	10,650 lb. (4831 kg)	15,850 lb. (7190 kg)
Tipping load, straight	13,245 lb. (6007 kg)	13,045 lb. (5917 kg)	12,985 lb. (5890 kg)	12,405 lb. (5627 kg)	11,980 lb. (5434 kg)
Tipping load, 35-deg. turn	11,945 lb. (5418 kg)	11,765 lb. (5337 kg)	11,715 lb. (5314 kg)	11,190 lb. (5076 kg)	10,810 lb. (4903 kg)
Tipping load, 40-deg. full turn, SAE	11,535 lb. (5232 kg)	11,360 lb. (5153 kg)	11,310 lb. (5131 kg)	10,800 lb. (4899 kg)	10,445 lb. (4738 kg)
Loader operating weight	19,335 lb. (8770 kg)	19,500 lb. (8845 kg)	19,590 lb. (8886 kg)	19,920 lb. (9035 kg)	20,205 lb. (9165 kg)

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

Adjustments to operating weights and tipping loads (approx.):				
Add (+) or deduct (−) lb. (kg) as indicated for loader equipped with:	Loader Operating Weight	Tipping Load, Straight	Tipping Load, 35-deg. turn	Tipping Load, 40-deg. full turn, SAE
Roll-over protective structure w/ canopy	+700 lb. (318 kg)	+620 lb. (281 kg)	+580 lb. (263 kg)	+570 lb. (259 kg)
Cab (includes roll-over protective structure)	+1,095 lb. (497 kg)	+970 lb. (440 kg)	+915 lb. (415 kg)	+890 lb. (404 kg)
One additional set of side counter-weights (total of two sets)	+500 lb. (227 kg)	+980 lb. (445 kg)	+855 lb. (388 kg)	+815 lb. (370 kg)
13-24, 10-ply-rating, grader tread tires w/796 lb. (361 kg) fluid in rear	−1,250 lb. (567 kg)	−1,040 lb. (472 kg)	−935 lb. (424 kg)	−910 lb. (413 kg)
14-24, 12-ply-rating, grader tread tires w/884 lb. (401 kg) fluid in rear	−800 lb. (363 kg)	−685 lb. (311 kg)	−620 lb. (281 kg)	−600 lb. (272 kg)
15.5-25, 10-ply-rating, loader tread tires w/896 lb. (406 kg) fluid in rear	−625 lb. (283 kg)	−565 lb. (256 kg)	−510 lb. (231 kg)	−495 lb. (225 kg)

JD544-A LOADER

Dimensions: (approx.)



FEATURES

4-wheel drive

Choice of 4 soil-lifting loader buckets

Twin-turbo in-line diesel engine

Power-shift transmission

4 speeds forward, 2 reverse

Power steering, articulated frame

4-wheel disk-type brakes

Independent front-wheel drive

Single-lever control w/automatic return-to-dig

Block-actuated transmission disconnect

"No-Spin" front axle differential

Vandal protection

ENGINE PERFORMANCE

