

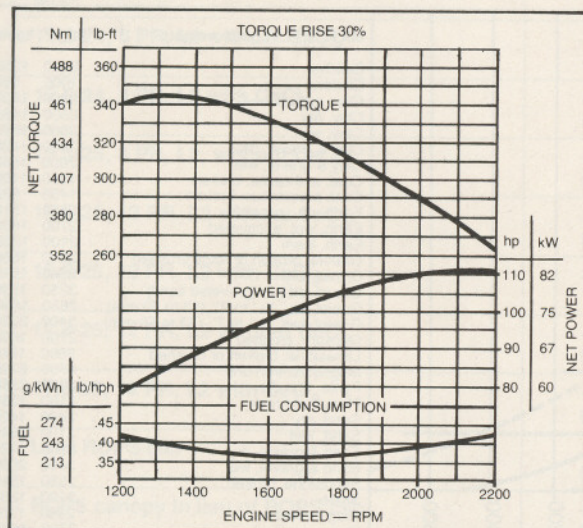


544C LOADER



Model shown may include options

ENGINE PERFORMANCE



Fuel consumption rate based on maximum power at each net torque requirement. Depending on operation variables, a typical duty cycle averages about one-half of maximum fuel usage.

FEATURES

110 SAE net hp (82 kW) John Deere turbocharged diesel engine

4-wheel drive

2, 2 $\frac{1}{4}$, or 3 cu. yd. (1.53, 1.72 or 2.29 m³) bucket or 1 $\frac{3}{4}$ cu. yd. (1.34 m³) multipurpose bucket

Twin-turbine torque converter with Power Shift transmission. 4 speeds forward, 2 reverse

Power steering. Articulated frame

4-wheel wet-disk power brakes and parking brake

Inboard planetary final drives

Single-lever loader control w/optional automatic return-to-dig and optional boom height control

Optional front-axle hydraulic differential lock or NoSPIN front differential

Optional vandal protection

Rollover protective structure (ROPS) with canopy. Meets criteria of SAE J394, SAE J1040A, and ISO 3471. Also meets FOPS (falling object protective structure) criteria SAE J231 and ISO 3449.

ADD VERSATILITY WITH:

Backhoe

Bucket teeth

Auxiliary skid shoes

Auxiliary spill guard

Auxiliary cutting edge

Side-dump bucket

Quik-Tatch adapters

Snowplows

Forks

Special buckets

544C LOADER SPECIFICATIONS

(Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with SAE Standards. Except where otherwise noted, specifications are based on a machine with all standard equipment, 17.5-25, 12 PR, L2 tires with 1180 lb. (535 kg) CaCl₂ solution in rear tires, ROPS cab, full fuel tank, and 175 lb. (79 kg) operator.)

Rated Power @2200 engine rpm:	SAE	DIN 70 020
Net	110 hp (82 kW)	82 kW
Gross	120 hp (90 kW)	

Net engine power is with standard equipment including air cleaner, exhaust system, alternator and cooling fan, at standard conditions per SAE J1349 and DIN 70 020, using No. 2-D fuel @35 API gravity. No derating is required up to 10,000 feet (3050 m) altitude. Gross power is without cooling fan.

Engine: John Deere 6-414T

Type	4-stroke cycle, turbocharged diesel
Bore and stroke	4.19 x 5.00 cu. in. (106.4 x 127 mm)
No. of cylinders	6
Displacement	414 cu. in. (6.785 L)
Maximum net torque @1300 rpm	342 lb-ft (464 Nm) (47.9 kg-m)
Cooling fan: w/air conditioner	Suction
w/o air conditioner	Blower
Air cleaner w/restriction indicator	Dry
Electrical system	12 volt w/42-amp alternator
Batteries (two 12-volt)	
25 amps at 80°F (27°C)	Reserve capacity: 160 min. each
BCI group 31 cold cranking capacity at 0°F (-18°C)	625 amp

Torque Converter:

Type	Twin-turbine
Torque multiplication	5.19 to 1

Transmission

Power Shift planetary

Forward Speeds:	mph	km/h
1	0-3.1	0-5.0
2	3.1-7.3	5.0-11.7
3	0-11.7	0-18.8
4	11.7-27.9	18.8-45.0

Reverse Speeds:	0-4.2	0-6.8
1		
2	4.2-9.9	6.8-16.0

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

Differentials - choice of:

Front and rear conventional
Front hydraulic differential lock and rear conventional
Front NoSPIN and rear conventional

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].

Steering: Full power steering. Frame articulated 80 degrees by two hydraulic cylinders.

Turning radius (measured to centerline of outside tire)	14 ft. 7 in. (4.44 m)
Cylinder size: Stroke	15.75 in. (400 mm)
Bore	3 in. (76 mm)
Rod diameter	1.5 in. (38 mm)

Brakes:

Service Power-actuated, 4-wheel inboard-mounted, wet disk. Foot-operated by either pedal.
Parking 10 x 1.5 in. (254 x 38 mm) expanding shoe on transmission output shaft, foot-operated. Includes transmission disconnect with warning light and buzzer.

Hydraulic Systems:

Loader functions Independent engine-driven gear-type pump delivers 45.8 gpm (2.9 L/s) at 600 psi (4137 kPa) (42.2 kg/cm²) and 2200 engine rpm. 2625 psi (18 099 kPa) (184.6 kg/cm²) relief valve pressure setting.

Control Single-lever, dual hydraulic valve. Optional triple hydraulic valve for fork or multipurpose bucket.

Steering and brakes: Engine-driven, 8-piston, variable-displacement pump delivers 20.6 gpm (1.30 L/s) at 1800 engine rpm and 2000 psi (13 790 kPa) (140.6 kg/cm²). Maximum system pressure is 2400 psi (16 548 kPa) (168.7 kg/cm²).

Loader hydraulic operating cycle times at full throttle:

Raise	6.1 sec.
Dump	1.8 sec.
Lowering: float	4.0 sec.
power	4.8 sec.

Maximum lift capacity with 2 cu. yd. (1.53 m³) general purpose bucket:

Maximum height	10,320 lb. (4685 kg)
Ground level	25,130 lb. (11 400 kg)

Hydraulic Cylinders:	Bore	Stroke
Boom, two	5.50 in. (140 mm)	24.3 in. (617 mm)
Bucket, one	5.50 in. (140 mm)	30.6 in. (777 mm)
Cylinder rods		Ground, heat-treated, chrome-nickel-plated, polished
Boom cylinder rods		2.50 in. (63.5 mm) dia.
Bucket cylinder rods		2.66 in. (67.5 mm) dia.

Tires — choice of:

14.00-24, 10 PR, grader tread, G2
17.5-25, 12 PR, loader tread, L2 w/or w/o valve stem protector
17.5-25, 12 PR, rock tread, L3
17.5-25 XRAT (L2 equivalent)
20.5-25, 12 PR, loader tread, L2

Capacities:	U.S.	Liters
Cooling system	27 qt.	26
Fuel tank	40 gal.	151.4
Crankcase	18 qt.	17
Crankcase, including filter	20 qt.	19
Transmission case and filters	39 qt.	37
Front differential	24 qt.	23
Rear differential	24 qt.	23
Loader hydraulic sump	56 qt.	53

Additional Standard Equipment:

Adjustable, cushioned, vinyl seat	Hand grips
Antifreeze	Horn
Articulation transport lock	Instrument panel warning lights:
Cigarette lighter	Hydraulic filter bypass
Differential, conventional	Parking brake
front and rear	Key switch
Engine sideshields	Lights, driving w/o guard
Fixed drawbar	Lights, flashing and turn signal
Fuel filter	Lights, stop and tail
Gauges:	Loader hydraulic system indicator
Coolant temperature	Muffler
Electric hourmeter	Precleaner
Engine oil pressure	Pushbutton start
Fuel	Rear bottom guard
Transmission oil pressure	Reverse warning alarm
Transmission oil temperature	ROPS, canopy w/seat belt
Voltmeter	Toolbox

Optional or Special Equipment:

Adjustable deluxe seat	Lockable instrument panel covers
Adjustable deluxe suspension cloth seat for cab	NoSPIN front differential
Adjustable deluxe suspension vinyl seat	Pest covers (for canopy or cab w/o heater)
Alternator, 62 amp	Rear axle disconnect
Automatic boom height control	Rear canopy shield
Automatic return to dig	For ROPS cab:
Auxiliary front bottom guard	Mirrors
Auxiliary cutting edges	Radio — AM
Auxiliary spill guard	Rear wiper and washer
Bucket teeth	Windshield washer
Emergency steering	ROPS cab w/heater/defroster, pressurizer, dome light, front wiper and 62-amp alternator
Engine coolant	ROPS cab w/o heater/defroster, pressurizer, but with dome light, front wiper and 42-amp alternator
Ether starting aid	ROPS cab w/air conditioner, heater/defroster, pressurizer, dome light, front wiper and 62-amp alternator
Floor mat	SMV emblem
Front fenders	Side counterweights
	3-in. (76 mm) seat belt
	Triple hydraulic valve for loader
	Transmission disconnect

544C LOADER OPERATING INFORMATION

OPERATING INFORMATION	Bucket Type			
	General Purpose	**General Purpose	Light Material	*Multipurpose
Capacity, heaped, SAE	2 cu. yd. (1.53 m ³)	2.25 cu. yd. (1.72 m ³)	3 cu. yd. (2.29 m ³)	1.75 cu. yd. (1.34 m ³)
Capacity, struck, SAE	1.64 cu. yd. (1.25 m ³)	1.78 cu. yd. (1.36 m ³)	2.53 cu. yd. (1.93 m ³)	1.4 cu. yd. (1.07 m ³)
Bucket width	96 in. (2.44 m)	101.75 in. (2.58 m)	104.24 in. (2.65 m)	94.5 in. (2.40 m)
Breakout force, SAE J732C	20,520 lb. (91 kN) (9310 kg)	17,790 lb. (79 kN) (8070 kg)	16,810 lb. (75 kN) (7630 kg)	18,440 lb. (82 kN) (8370 kg)
Tipping load, straight,	16,060 lb. (7285 kg)	15,330 lb. (6955 kg)	15,830 lb. (7180 kg)	15,180 lb. (6885 kg)
Tipping load, 40-deg. full turn, SAE	14,060 lb. (6380 kg)	13,400 lb. (6080 kg)	13,810 lb. (6265 kg)	13,150 lb. (5965 kg)
Tipping load, 35-deg. turn	14,520 lb. (6585 kg)	13,835 lb. (6275 kg)	14,270 lb. (6470 kg)	13,610 lb. (6175 kg)
Reach at 45-deg. dump, 7 ft. (2.13 m) clearance	56.49 in. (1435 mm)	57.1 in. (1450 mm)	58.76 in. (1492 mm)	53.65 in. (1363 mm)
Reach at 45-deg. dump, full height	35.22 in. (894 mm)	37.35 in. (949 mm)	39.76 in. (1010 mm)	35.96 in. (913 mm)
Dump clearance at 45-deg. dump, full height	114.0 in. (2896 mm)	110.9 in. (2817 mm)	109.6 in. (2784 mm)	109.2 in. (2774 mm)
Overall length	20 ft. 3.1 in. (6.18 m)	20 ft. 7.5 in. (6.29 m)	20 ft. 9.3 in. (6.33 m)	20 ft. 10 in. (6.35 m)
Loader clearance circle, bucket in carry position	34 ft. 4 in. (10.46 m)	34 ft. 11.9 in. (10.67 m)	35 ft. 4 in. (10.77 m)	34 ft. 8 in. (10.57 m)
Operating weight	22,620 lb. (10 260 kg)	22,690 lb. (10 290 kg)	23,030 lb. (10 450 kg)	23,830 lb. (10 810 kg)

*Includes first set counterweights, 460 lb. (210 kg).

**See your dealer for buckets meeting this operating information.

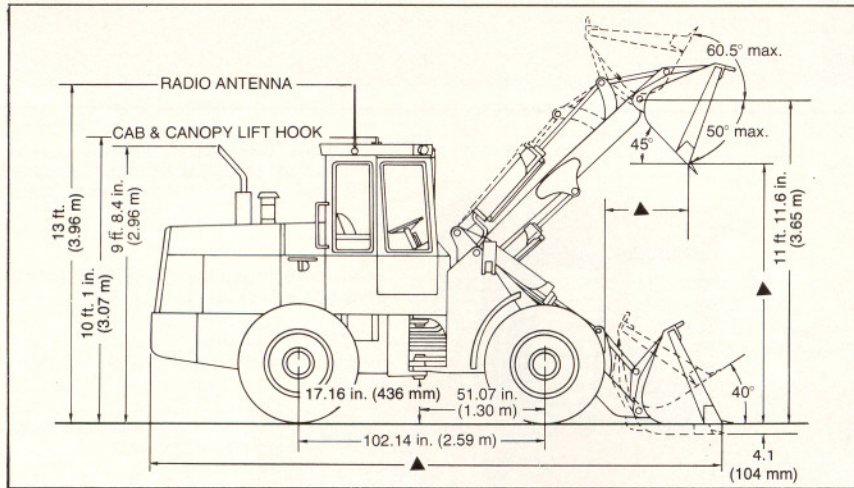
Loader operating information is based on machine with all standard equipment, 17.5-25, 12 PR, L2 tires with 1180 lb. (535 kg) of CaCl₂ solution in rear tires, ROPS cab, full fuel tank and 175 lb. (79 kg) operator. Operating information is affected by tire size, ballast and attachments. For selected items, add and/or subtract the following:

Adjustments to operating weights and tipping loads for general purpose buckets

Add (+) or deduct (–) lb. (kg) as indicated for loaders with:	Loader Operating Weight	Tipping Load Straight	Tipping Load 35° Turn	Tipping Load 40° Full Turn SAE
14.00-24, 10 PR, G2 without CaCl ₂	– 805 lb. (365 kg)	– 700 lb. (320 kg)	– 635 lb. (290 kg)	– 615 lb. (280 kg)
14.00-24, 10 PR, G2 without CaCl ₂	– 1755 lb. (800 kg)	– 1980 lb. (900 kg)	– 1800 lb. (815 kg)	– 1750 lb. (790 kg)
17.5-25, 12 PR, L2, without CaCl ₂	– 1180 lb. (535 kg)	– 1590 lb. (720 kg)	– 1450 lb. (650 kg)	– 1400 lb. (635 kg)
17.5-25, 12 PR, L3 with CaCl ₂	+ 185 lb. (80 kg)	+ 125 lb. (55 kg)	+ 115 lb. (50 kg)	+ 105 lb. (50 kg)
17.5-25, 12 PR, L3 without CaCl ₂	– 995 lb. (450 kg)	– 1460 lb. (660 kg)	– 1335 lb. (605 kg)	– 1295 lb. (590 kg)
20.5-25, 12 PR, L2 with CaCl ₂	+ 1130 lb. (515 kg)	+ 1195 lb. (540 kg)	+ 1085 lb. (490 kg)	+ 1050 lb. (480 kg)
20.5-25, 12 PR, L2 without CaCl ₂	– 690 lb. (310 kg)	– 1260 lb. (570 kg)	– 1145 lb. (520 kg)	– 1110 lb. (505 kg)
Less ROPS cab	– 715 lb. (325 kg)	– 655 lb. (300 kg)	– 625 lb. (280 kg)	– 615 lb. (280 kg)
ROPS canopy in lieu of ROPS cab	– 280 lb. (125 kg)	– 250 lb. (115 kg)	– 240 lb. (110 kg)	– 235 lb. (105 kg)
1st set side counterweights	+ 460 lb. (210 kg)	+ 920 lb. (415 kg)	+ 810 lb. (365 kg)	+ 775 lb. (350 kg)
*2nd set side counterweights	+ 420 lb. (190 kg)	+ 840 lb. (380 kg)	+ 740 lb. (335 kg)	+ 710 lb. (320 kg)

*Not to be used with 20.5-25, 12 PR, L2 tires with CaCl₂

544C LOADER DIMENSIONS

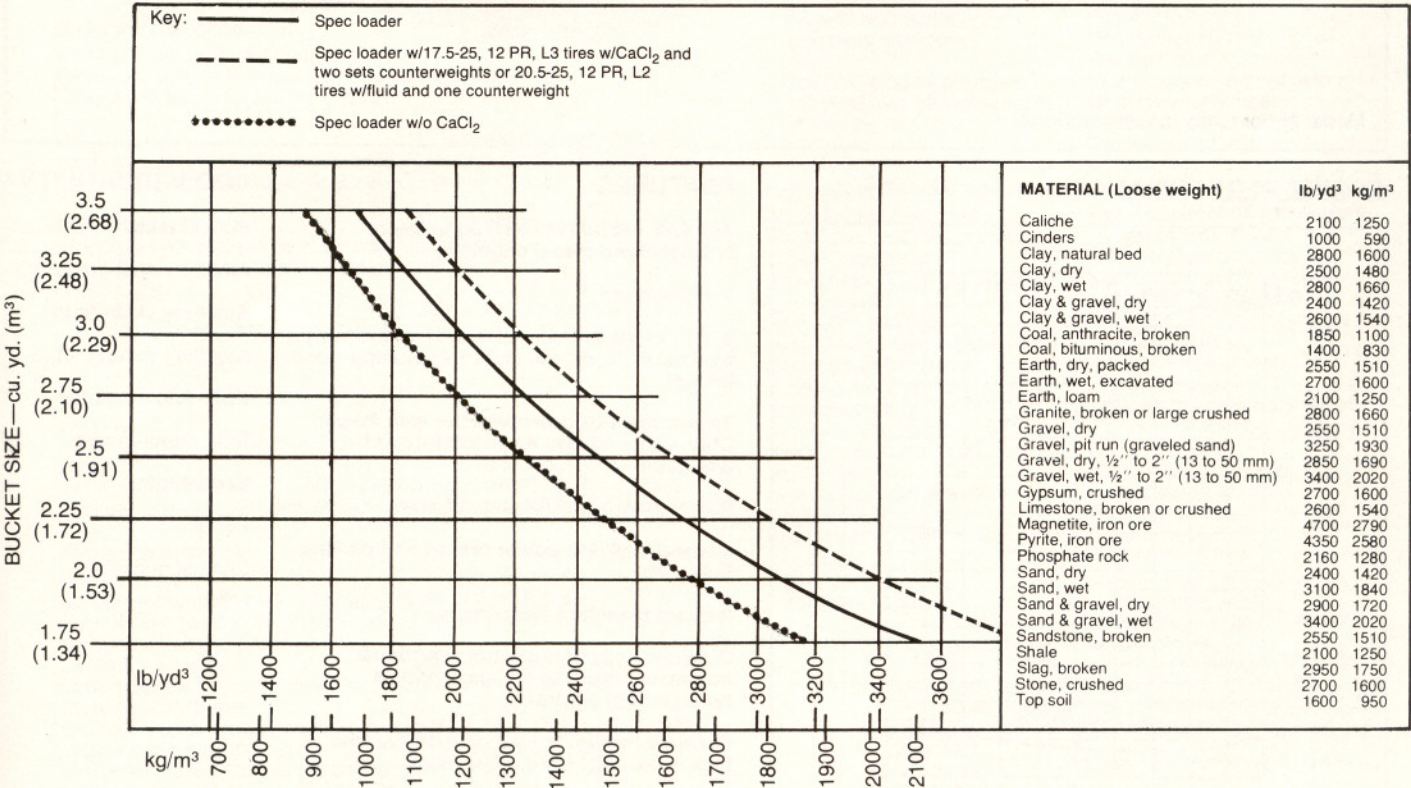


▲ SEE OPERATING INFORMATION

TIRES

	14.00-24	17.5-25	20.5-25
Tread width	70 in.	70 in.	80 in.
	(1778 mm)	(1778 mm)	(2032 mm)
Width over tires	85 in.	87.5 in.	100.5 in.
	(2159 mm)	(2223 mm)	(2553 mm)
Change in vertical height	-.31 in.	0	+2.6 in.
	(8 mm)		(66 mm)

544C BUCKET SELECTION GUIDE *



* This guide, representing buckets not necessarily manufactured by Deere, will help you in selecting proper bucket size for material density and loader configurations. However, specific bucket size should only be determined after adding or subtracting all the tipping load changes due to specifications.