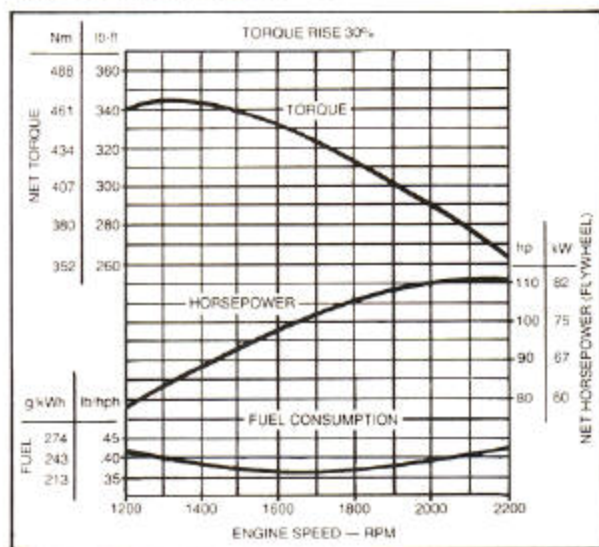




544C LOADER



ENGINE PERFORMANCE



Fuel consumption rate based on maximum horsepower 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)

4-wheel drive

2- or 3-cu.-yd. (1.53 or 2.29 m³) buckets or 1¼-cu.-yd. (1.34 m³) multi-purpose 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/automatic return to dig

Brake-actuated transmission disconnect

Optional front-axle hydraulic differential lock

Vandal protection

Roll-over protective structure (ROPS) w/cab and tinted safety glass

ADD VERSATILITY WITH:

Backhoe

Bucket teeth

Auxiliary spill guard

Auxiliary cutting edge

Side-dump bucket

Quik-Tatch adapters

Snowplows

Forks

Special buckets

544C LOADER SPECIFICATIONS

(Specifications and details 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) CaCl₂ solution in rear tires, ROPS cab, full fuel tank, and 175 lb (79.4 kg) operator.)

Power (@ 2200 engine rpm):	SAE	DIN
Gross	120 hp (89.5 kW)	
Net	110 hp (82 kW)	111.5

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.

Engine: John Deere turbocharged diesel, 6-cylinder, 4-stroke cycle.	
Bore and stroke	4.19 x 5 in. (106.5 x 127 mm)
Piston displacement	414 cu. in. (6.785 L)
Compression ratio	16.2 to 1
Maximum torque @ 1300 rpm	342 lb-ft (464 Nm) (47.9 kg-m)
Torque rise	30 percent
NACC or AMA (U.S. Tax) horsepower	42
Lubrication	Pressure system w/full-flow filter
Cooling	Pressurized w/thermostat and controlled bypass
Fan: w/air conditioner	Suction
w/o air conditioner	Blower
Aspirated air cleaner w/restriction indicator	Dry
Electrical system	12-volt w/alternator
Batteries (2-12 volt)	
25 amps at 80°F (27°C)	Reserve capacity: 170 min. ea.
Alternator	62 amps

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	3.1-7.9	5.0-11.9
3	0-11.9	0-19.2
4	11.9-26.8	19.2-43.1

Reverse Speeds	mph	km/h
1	0-4.2	0-6.8
2	4.2-10.1	6.8-16.3

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

Differentials:	
Front and rear	Standard
Front hydraulic differential lock	Optional

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 pedal.	Left pedal also disconnects transmission.
Parking	10 x 1.5 inch (254 x 38 mm) expanding shoe on transmission output shaft, foot-operated. Includes transmission disconnect. Warning light on instrument panel. Warning buzzer.

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)

Hydraulic Systems:	
Loader functions	Independent engine-driven gear-type pump delivers 49.76 gpm (3.14 L/s) at 600 psi (4137 kPa) (42.2 kg/cm ²) and 2200 engine rpm.
	2625 psi (18 099 kPa) (184.6 kg/cm ²) 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 (1.3 L/s) at 1800 engine rpm and 2000 psi (13 790 kPa) (140.6 kg/cm ²).
	Maximum system pressure is 2400 psi (16 548 kPa) (168.7 kg/cm ²).
	Loader hydraulic operating cycle times at full throttle:
Raise	5.6 sec.
Dump	1.8 sec.
Lowering: float	4.5 sec.
power	4.0 sec.

Maximum lift capacity w/standard operating equipment:	
Maximum height	10,325 lb. (4683 kg)
Ground level	25,130 lb. (11 399 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-plated, polished	
Boom cylinder rods	2.50 in. (63.5 mm) dia.	
Bucket cylinder rod	2.66 in. (67.5 mm) dia.	

Tires:	
14-24, 12-ply rating, grader tread, G2	
17.5-25, 12-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.	Imp.	Liters
Cooling system	27 qt.	22.5 qt.	25.5
Fuel tank	40 gal.	33.3 gal.	151.4
Crankcase	18 qt.	15.0 qt.	17.0
Crankcase, including filter	20 qt.	16.7 qt.	18.9
Transmission case and filters	39 qt.	32.5 qt.	36.9
Front differential	24 qt.	20.0 qt.	22.7
Rear differential	25 qt.	20.8 qt.	23.7
Loader hydraulic sump	56 qt.	46.6 qt.	53.0

Additional Standard Equipment:	
Turbocharged w/aspirated air cleaner	Transistorized voltage regulator
Adjustable cushioned seat	Horn
Seat belt	Fuel filter
Engine side shields w/locks	Automatic return to dig
Front fenders	Rear bottom guard
Gauges:	Hand grips
Transmission oil temperature	Fixed drawbar
Transmission oil pressure	Antifreeze
Fuel	Precleaner
Coolant temperature	Ether starting aid
Engine oil pressure	Transmission disconnect
Electric hourmeter	ROPS cab:
Voltmeter	Heater/defroster or heater/defroster and pressurizer
Instrument panel warning lights:	Front and rear windshield wipers
Parking brake	Windshield washer
Hydraulic filter bypass	Dome light
Loader hydraulic system indicator	Low-maintenance batteries
Key switch	Articulation transport lock
Pushbutton safety start	
Cigaret lighter	
Driving lights	
Work lights, front flood, rear combination tail and brake lights	
Flashing and turn signal lights	

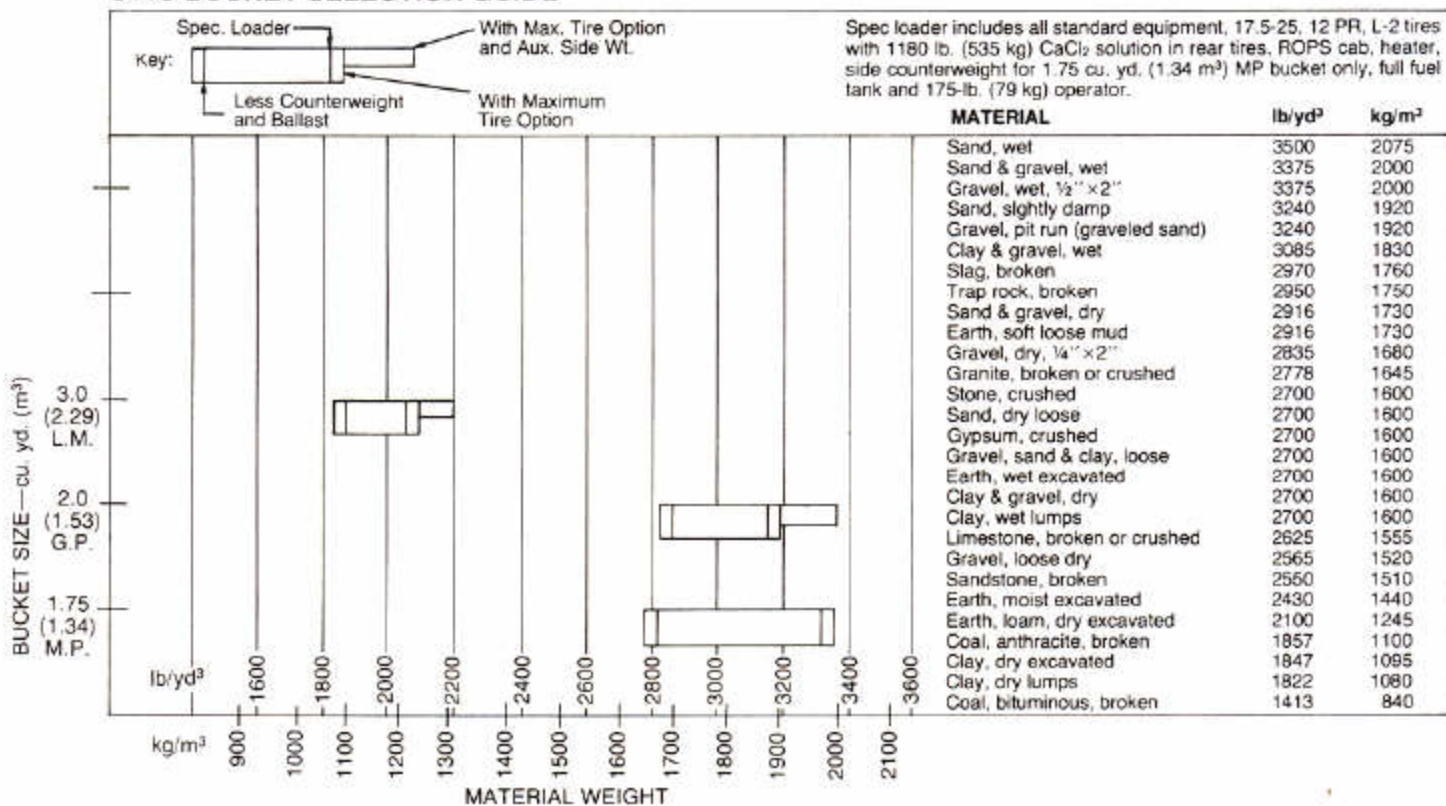
Special Equipment:	
Rear axle disconnect	
ROPS canopy, seat belt and instrument panel covers w/locks	
Heater for canopy	
Adjustable suspension seat, vinyl or cloth covered	
Reverse warning alarm	
Triple loader hydraulic valve	
Hydraulic front differential lock	
Bucket teeth	
Engine coolant heater	
Side counterweights	
Auxiliary bottom guards	
License plate bracket	
Automatic boom height control	
SMV emblem	
Auxiliary cutting edges	
Auxiliary spill guard	
For ROPS cab:	
Air conditioner	
Radio—AM	
Mirrors	
Emergency steering	

544C LOADER OPERATING INFORMATION

OPERATING INFORMATION	BUCKET		
	General Purpose	Loose Materials	Multipurpose
Capacity, heaped, SAE	2 cu. yd. (1.53 m ³)	3 cu. yd. (2.29 m ³)	1¾ cu. yd. (1.34 m ³)
Capacity, struck, SAE	1.64 cu. yd. (1.25 m ³)	2.52 cu. yd. (1.93 m ³)	1.4 cu. yd. (1.07 m ³)
Bucket width	96 in. (2.44 m)	104.24 in. (2.65 m)	94.5 in. (2.40 m)
Bucket weight	1625 lb. (737 kg)	2040 lb. (925 kg)	2320 lb. (1052 kg)
Breakout force, J732C SAE Standard using bucket hinge pin as pivot point	20,525 lb. (91.29 kN) (9310 kg)	16,815 lb. (74.79 kN) (7627 kg)	18,445 lb. (82.04 kN) (8367 kg)
Tipping load, straight	16,390 lb. (7435 kg)	16,170 lb. (7335 kg)	15,155 lb. (6874 kg)
*Tipping load, 40-deg. full turn, SAE	14,380 lb. (6522 kg)	14,135 lb. (6412 kg)	13,185 lb. (5981 kg)
Tipping load, 35-deg. turn	14,840 lb. (6731 kg)	14,598 lb. (6622 kg)	13,635 lb. (6185 kg)
Circle diameter or turning clearance outside the bucket	34 ft. 4 in. (10.47 m)	35 ft. 4 in. (10.71 m)	34 ft. 8 in. (10.57 m)
Loader operating weight	22,765 lb. (10 326 kg)	23,175 lb. (10 512 kg)	23,970 lb. (10 813 kg)

*SAE operating load specification for wheel loaders will not exceed 50% of the SAE full turn tipping load.

544C BUCKET SELECTION GUIDE

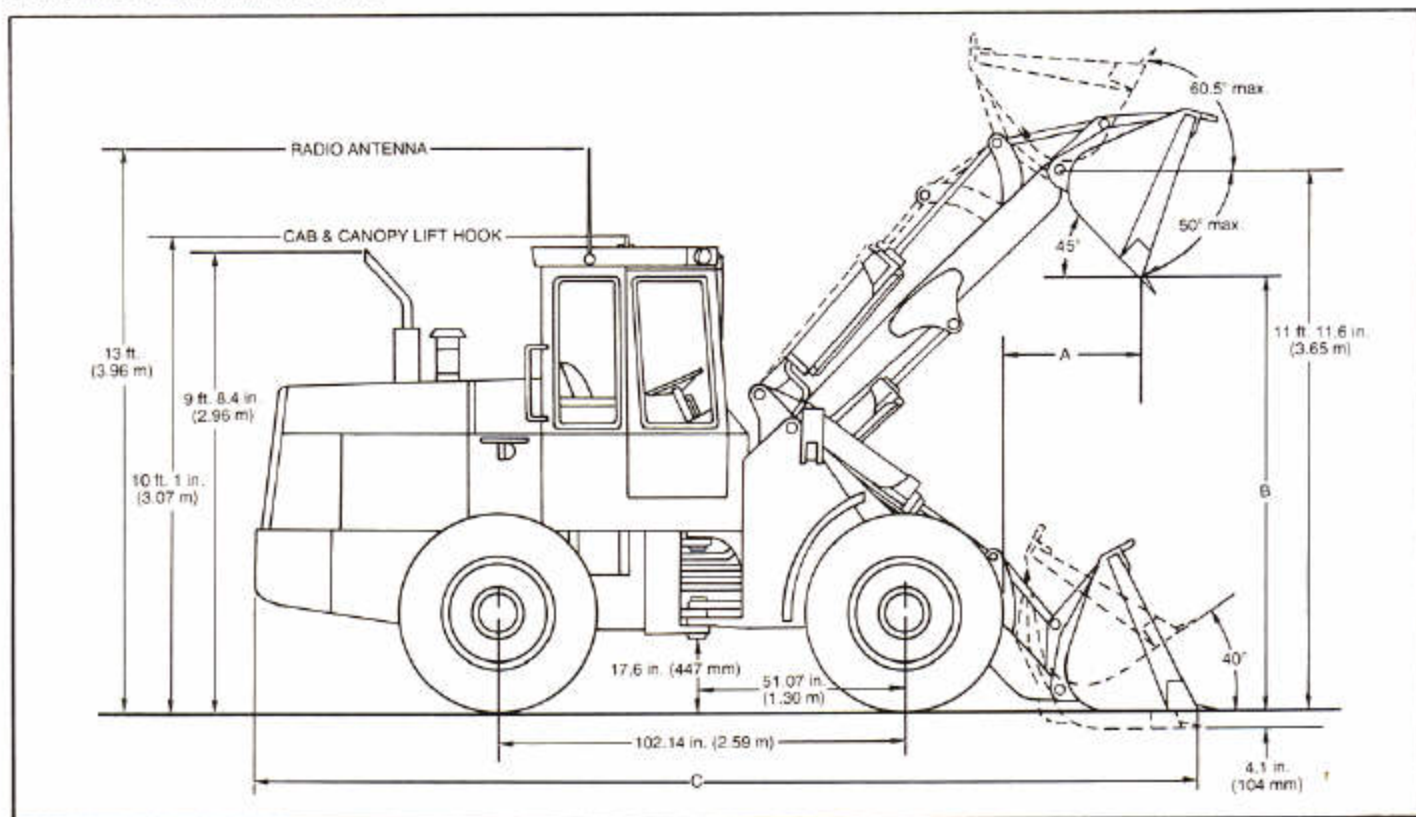


Maximum recommended material weight, lb. per cu. yd. (kg/m ³)	2 cu. yd. (1.53 m ³)		
	General Purpose	Loose Materials	Multipurpose
All standard equipment and 17.5-25, 12-ply-rating tires	3030 (1798)	1985 (1178)	3165 (1878)
Loader less cab or canopy	3110 (1845)	2040 (1210)	3258 (1933)
Loader with cab, fluid and w/o side weights	3165 (1878)	2075 (1231)	3105 (1842)
Loader with cab, fluid and side weights	3335 (1979)	2185 (1296)	3315 (1967)

544C LOADER OPERATING INFORMATION

Adjustment operating weights and tipping loads for General Purpose Bucket:			
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	-715 lb. (324 kg)	-655 lb. (297 kg)	-615 lb. (279 kg)
ROPS canopy in lieu of ROPS cab	-275 lb. (125 kg)	-250 lb. (113 kg)	-235 lb. (106 kg)
1 set of side counterweights	+460 lb. (209 kg)	+920 lb. (417 kg)	+775 lb. (351 kg)
14-24, 12-ply-rating, grader tread tires, w/CaCl ₂	-585 lb. (265 kg)	-550 lb. (249 kg)	-485 lb. (220 kg)
Less CaCl ₂ in rear tires	-1180 lb. (535 kg)	-1590 lb. (721 kg)	-1405 lb. (637 kg)
Bucket teeth	+125 lb. (57 kg)	-173 lb. (78 kg)	-173 lb. (78 kg)
Air conditioning	+72 lb. (33 kg)	+128 lb. (58 kg)	+109 lb. (49 kg)
Auxiliary cutting edge	+200 lb. (91 kg)	-256 lb. (116 kg)	-256 lb. (116 kg)
Emergency steering	+51 lb. (23 kg)	+61 lb. (28 kg)	+55 lb. (25 kg)
Auxiliary spill guard	+90 lb. (41 kg)	-63 lb. (285 kg)	-63 lb. (28 kg)

544C LOADER DIMENSIONS



BUCKET CAPACITIES	DIMENSIONS		
	A	B	C
2 cu. yd. (1.53 m ³) bucket	35.22 in. (894 mm)	9 ft. 6 in. (2.90 m)	20 ft. 3.1 in. (6.17 m)
3 cu. yd. (2.29 m ³) bucket	39.6 in. (1006 mm)	9 ft. 1.6 in. (2.78 m)	20 ft. 9.3 in. (6.33 m)
1¼ cu. yd. (1.34 m ³) multipurpose	35.96 in. (913 mm) @ 44° max.	9 ft. 1.2 in. (2.77 m) @ 44° max.	20 ft. 10 in. (6.35 m)

