



# 624E

## LOADER



Model shown may include options

**SAE Net  
Horsepower**

135 hp  
(101 kW)

**Buckets  
Range to**

3.25 cu. yd.  
(2.5 m<sup>3</sup>)

**Operating  
Weights to**

28,332 lb.  
(12,851 kg)

## ENGINE

John Deere engineered and manufactured. Replaceable wet type cylinder liners provide superior heat dissipation, longer life. High strength alloy heads have replaceable valve inserts. The forged steel, 5-main bearing crankshaft is statically and dynamically balanced for smooth operation. Cast aluminum pistons provide good heat transfer and pistons are sprayed with cooling oil for longer life.

**Engine:** John Deere 6068T  
 Rated power @ 2200 rpm ..... 135 SAE net hp (101 kW)  
 ..... 141 SAE gross hp (105 kW)  
 Cylinders ..... 6  
 Displacement ..... 414 cu. in. (6.685 L)  
 Fuel consumption, typical ..... 2.6 to 4.8 gal/hr (9.8 to 18.2 L/h)  
 Maximum net torque at 1300 rpm ..... 420 lb-ft (570 Nm)  
 Air cleaner ..... dual stage dry type with restriction indicator  
 Electrical system ..... 12 volt with 65-amp alternator  
 Battery (one 12 volt)  
 25 amps at 80°F (27°C) ..... reserve capacity 160 min.  
 BCI group 27 cold cranking capacity  
 at 0°F (-18°C) ..... 625 amps

## TRANSMISSION

A full power shift torque-converter-type transmission provides four speeds forward and three reverse speeds. A single-stage, single phase torque converter and countershaft style power shift transmission are paired for smooth and modulated shifts.

### TRAVEL SPEEDS

Gear	Forward		Reverse	
	mph	(km/h)	mph	(km/h)
1	4.5	7.3	4.5	7.3
2	7.3	11.7	7.3	11.7
3	15.2	24.6	15.2	24.6
4	24.3	39.1		

## FINAL DRIVES

Large, heavy-duty, planetary final drive gears are mounted inboard where size is not restricted by wheel diameter. They distribute axle shock loads evenly over three gears and run in a cooling oil bath for long life and trouble-free service.

## DIFFERENTIALS

Conventional front and rear differentials are standard. John Deere's exclusive hydraulic differential lock is the superior traction alternative. It can be ordered on the front, with a conventional differential in the rear. Or you can order the hydraulic lock front and rear. In either case the operator is in complete control, engaging and disengaging the differential lock as needed. When engaged the affected wheels are 100 percent locked up; turning at the same speed, giving maximum traction for faster loading, pulling you through slippery spots. Differentials available:

Conventional front and rear ..... standard  
 Hydraulic lock front, conventional rear ..... optional  
 NoSPIN front, conventional rear ..... optional  
 Hydraulic lock front and rear ..... optional  
 Front axle disconnect ..... optional

## BRAKES

Hydraulic actuated, wet disk brakes are mounted inboard. They are bathed in cooling oil for long life, self-adjusting, self-equalizing, and require no periodic service. The foot-operated parking brake is an expanding shoe attached to the transmission output shaft. An optional front axle disconnect is available for loaders that might be driven long distances.

## STEERING

The steering system in the 624E provides low effort, smooth control at any engine rpm. High torque steering cylinder geometry and large cylinders permit full power steering at all speeds through the 80 degree steering arc (40 degrees each direction).

Turning radius ..... 16 ft. 9 in. (5.11 m)  
 (measured to centerline of outside tire)  
 Rear axle oscillation ..... 26 degrees, stop to stop  
 Vertical travel at center of tire ..... 34.5 in. (876 mm)

## HYDRAULICS

### Loader functions and steering:

A gear pump delivers 57 gpm (216 L/min) at 600 psi (4137 kPa) and 2200 engine rpm. The loader function relief valve pressure setting is 2800 psi (19 306 kPa). The maximum steering pressure is 2600 psi (17 927 kPa).

### Controls:

Dual hydraulic valves with one or two levers. An optional triple valve is available for forks and attachments.

### Brakes and pilot system:

The axial-piston pump delivers 8.1 gpm (31 L/min) at 600 psi (4137 kPa) and 2200 engine rpm. Maximum system pressure is 2300 psi (15 859 kPa).

### Loader operating cycle times at full throttle with rated load in the bucket:

Raise ..... 5.8 sec.  
 Dump ..... 1.7 sec.  
 Lower ..... 3.5 sec. (float)  
 ..... 4.3 sec. (power)

### Maximum lift capacity with 2.63 cu. yd. (2.0 m<sup>3</sup>) excavating bucket:

Maximum height ..... 13,395 lb. (6076 kg)  
 Ground level ..... 25,219 lb. (11 439 kg)

## TIRES

### Choice of:

17.5-25, 12 PR L2	20.5-25, 12 PR L2
17.5-25, 12 PR L3	20.5-25, 12 PR L3
17.5-25, Radial, One Star, L2 equivalent	20.5-25, Radial, One Star, L2 equivalent
17.5-25, Radial, One Star, L3 equivalent	20.5-25, Radial, One Star, L3 equivalent

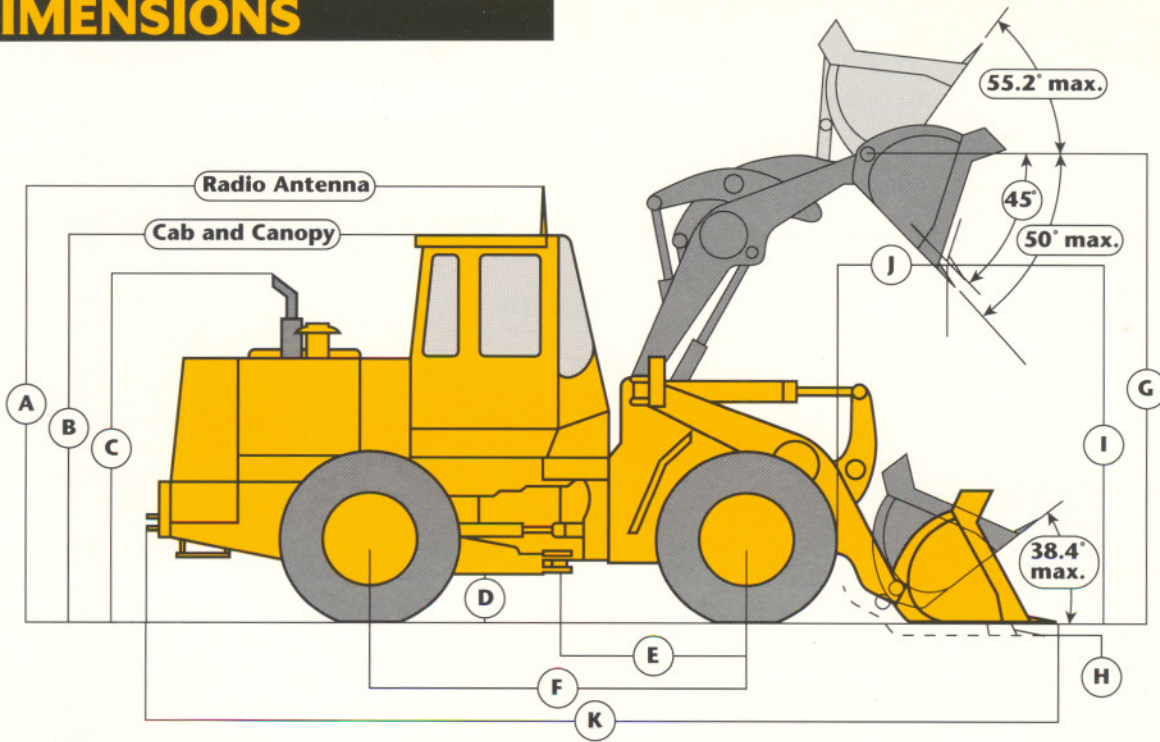
## CAPACITIES

	U.S.	
Fuel tank	55 gal.	(208 L)
Cooling system	26 qt.	(25 L)
Crankcase	18 qt.	(17 L)
Crankcase, including filter	20 qt.	(19 L)
Transmission case and filters	12 qt.	(11 L)
Front differential	24 qt.	(23 L)
Rear differential	17 qt.	(16 L)
Loader hydraulic sump	108 qt.	(102 L)

## OPERATING WEIGHT

See 624E Loader Operating Information and various charts.

# DIMENSIONS



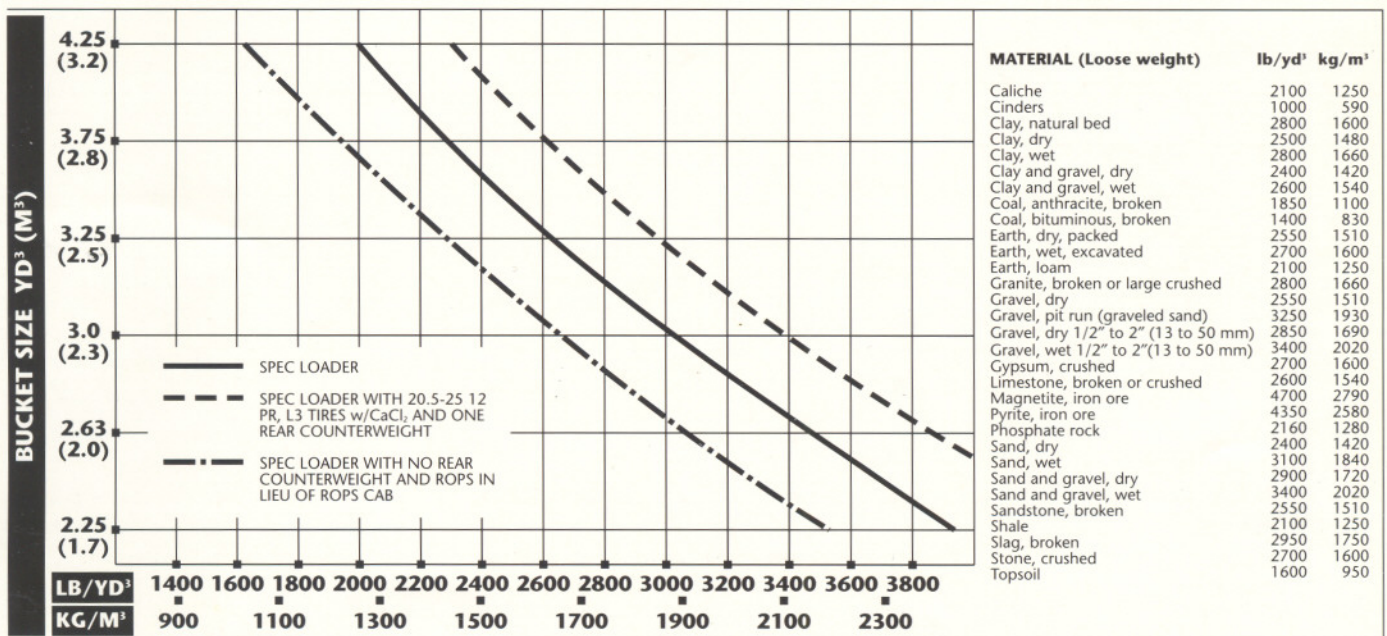
**Key:**

A Overall height	13 ft. 9 in. (4.18 m)
B Height to top of cab and canopy	10 ft. 8.9 in. (3.27 m)
C Height to top of exhaust	9 ft. 7.9 in. (2.94 m)
D Ground clearance	17.7 in. (450 mm)
E Length from centerline to front axle	59.65 in. (1510 mm)
F Wheelbase	119.3 in. (3030 mm)
G Height to hinge pin—fully raised	12 ft. 9.3 in. (3.89 m)
H Digging depth	1.61 in. (41 mm)
I Dump height	} See Operating Information
J Reach bucket fully raised	
K Overall length	

**TIRES**

Tread width	<b>17.5-25</b> 78.74 in. (2000 mm)	<b>20.5-25</b> 74.80 in. (1900 mm)
Width over tires	97.99 in. (2489 mm)	96.93 in. (2462 mm)
Change in vertical height	-2.36 in. (60 mm)	0

# BUCKET SELECTION GUIDE \*



\*This guide, representing bucket sizes not necessarily manufactured by Deere, will help in selecting the proper bucket size for material density and loader configuration. Optimum bucket size is determined after adding or subtracting all tipping load changes due to optional equipment.

## 624E LOADER OPERATING INFORMATION

OPERATING INFORMATION	Bucket Type/Size	Excavating	Excav. w/ Bolt-on Edge	Excav. w/Aux. Spillguard*	Excav. w/Edge + Spillguard*	Stockpiling	Stockpile. w/ Bolt-On Edge	Stockpile. w/ Aux. Spillguard*	Stockpile. w/Edge + Spillguard*	Multi-purpose**
Capacity, heaped SAE	cu. yd. m <sup>3</sup>	2.63 2.0	2.75 2.1	2.75 2.1	2.88 2.2	3.00 2.3	3.12 2.4	3.12 2.4	3.25 2.5	2.38 1.8
Capacity, struck, SAE	cu. yd. m <sup>3</sup>	2.25 1.7	2.38 1.8	2.50 1.9	2.63 2.0	2.63 2.0	2.63 2.0	2.88 2.2	3.00 2.3	2.00 1.5
Bucket width	in. m	101.77 2.58	101.77 2.58	101.77 2.58	101.77 2.58	101.77 2.58	101.77 2.58	101.77 2.58	101.77 2.58	101.77 2.58
Breakout force, SAE J732C	lb. kN	30,298 134.8	28,166 125.3	30,203 134.4	28,078 124.9	27,595 122.7	25,757 114.6	27,503 122.3	25,668 114.2	30,644 136.3
Tipping load, straight	lb. kg	21,350 9684	20,748 9411	20,926 9492	20,701 9390	21,034 9541	20,432 9268	20,984 9518	20,384 9246	19,866 9011
Tipping load, 40-deg. full turn, SAE	lb. kg	18,122 8220	17,555 7963	17,749 8051	17,505 7940	17,838 8091	17,271 7834	17,785 8067	17,218 7810	16,762 7603
Reach, 45 deg. dump, 7 ft. (2.13 m) clearance	in. mm	58.54 1487	58.70 1491	58.54 1487	58.70 1491	59.92 1522	60.0 1525	59.92 1522	60.0 1525	49.88 1267
Reach, 45 deg. dump, full height	in. mm	35.4 899	36.8 935	35.4 899	36.8 965	38.1 968	39.6 1005	38.1 968	39.6 1005	28.75 730
Dump clearance, 45 deg., full height	in. mm	115.6 2936	113.1 2873	115.6 2936	113.1 2873	112.8 2866	110.3 2803	112.8 2866	110.3 2803	111.7 2838
Overall length	ft.-in. m	24-1.4 7.35	24-4.8 7.44	24-1.4 7.35	24-4.8 7.44	24-5.5 7.46	24-9 7.54	24-5.5 7.46	24-9 7.54	24-3.7 7.38
Loader clearance circle, bucket carry position	ft.-in. m	39-1 11.91	39-3.1 11.97	39-1 11.91	39-3.1 11.97	39-3.5 11.98	39-5.6 12.03	39-3.5 11.98	39-5.6 12.03	39-2 11.94
Operating weight	lb. kg	27,567 12 504	27,935 12 671	27,688 12 559	38,056 12 726	27,681 12 556	28,049 12 723	27,802 12 611	28,171 12 778	28,332 12 851

\*Auxiliary spillguard is dealer installed. The spillguard is primarily intended to prevent spillage of loose material. However, it does increase bucket capacity which can be utilized in loose materials.

\*\* Allied equipment ordered through John Deere dealer.

Loader operating information is based on machine with all standard equipment 20.5-25, 12 PR L2 tires, one rear counterweight, ROPS cab, full fuel tank, 175-lb. (79 kg) operator. Operating information is affected by tire size, ballast and attachments. For selected items, add or subtract the following:

### Adjustments to operating weights and tipping load for 2.63 cu. yd. (2.0 m<sup>3</sup>) excavating bucket.

#### ADJUSTMENTS TO OPERATING WEIGHTS

Add (+) or deduct (-) lb. (kg) as indicated for loaders with:		Operating Weight	Tipping Load Straight	Tipping Load 40 Deg. Full Turn, SAE
17.5-25, 12 PR L2 tires w/o CaCl <sub>2</sub>	lb. kg	- 794 360	- 558 253	- 483 219
17.5-25, 12 PR L2 tires w/CaCl <sub>2</sub>	lb. kg	+ 386 175	+ 1100 499	+ 950 431
17.5-25, 12 PR L3 tires w/o CaCl <sub>2</sub>	lb. kg	- 661 300	- 465 211	- 403 183
17.5-25, 12 PR L3 tires w/CaCl <sub>2</sub>	lb. kg	+ 518 235	+ 1193 541	+ 1030 467
17.5-25, R25 One Star L2 equivalent tires w/o CaCl <sub>2</sub>	lb. kg	- 414 188	- 291 132	- 254 115
17.5-25, R25, One Star L2 equivalent tires w/CaCl <sub>2</sub>	lb. kg	+ 765 347	+ 1367 620	+ 1179 535
20.5-25, 12 PR L2 tires w/o CaCl <sub>2</sub>	lb. kg	+ 1820 826	+ 2560 1161	+ 2211 1003
20.5-25, 12 PR L3 tires w/o CaCl <sub>2</sub>	lb. kg	+ 291 132	+ 205 93	+ 176 80
20.5-25, 12 PR L3 tires w/CaCl <sub>2</sub>	lb. kg	+ 2112 958	+ 2765 1254	+ 2388 1083
20.5-25, R25 One Star L2 equivalent tires w/o CaCl <sub>2</sub>	lb. kg	+ 467 212	+ 328 149	+ 282 128
20.5-25, R25 One Star L2 equivalent tires w/CaCl <sub>2</sub>	lb. kg	+ 2288 1038	+ 2888 1310	+ 2493 1131
ROPS canopy in lieu of ROPS cab	lb. kg	- 320 145	- 299 136	- 241 109
Bucket teeth	lb. kg	+ 240 109	+ 280 127	+ 273 124
Deduct one rear counterweight	lb. kg	- 946 429	- 2125 964	- 1746 792
*Add second rear counterweight	lb. kg	+ 935 424	+ 2097 951	+ 1720 780

\*Not to be used with CaCl<sub>2</sub>