



**JOHN DEERE**

125-180 NET HORSEPOWER

**J**

**LOADERS**

444J | 544J | 624J



**Z-BAR  
LINKAGE**

# Specifications

## Engine 444J

Type	John Deere PowerTech™ 4045H; certified to EPA Tier 2 emissions
Cylinders	4
Valves Per Cylinder	2
Displacement	276 cu. in. (4.5 L)
Net Peak Power	125 hp (90 kW) @ 2,000 rpm
Net Rated Power	115 hp (82 kW) @ 2,200 rpm
Net Peak Torque	375 lb.-ft. (505 Nm) @ 1,400 rpm
Net Torque Rise	37%
Net Power Bulge	10%
Fuel System	electronically controlled rotary pump-line-nozzle
Lube System	full-flow spin-on filter and integral cooler
Aspiration	turbocharged, charge air cooled
Air Cleaner	dual element dry type, restriction indicator in cab monitor for service
Fan Drive	hydraulically driven, proportionally controlled, fan aft of coolers
Electrical System	24 volt with 80-amp alternator
Batteries (two 12 volt)	950 CCA

## Transmission

Type	countershaft-type power shift	
Torque Converter	single stage, single phase	
Shift Control	electronically modulated, adaptive, load and speed dependent	
Operator Interface	steering-column or joystick-mounted F-N-R and gear-select lever, kick-down button on hydraulic lever	
Shift Modes	auto/manual, auto to 1st or 2nd, kick down or kick up/down, three clutch cutoff settings adjustable on switch pad	
Travel Speeds*	<i>Forward</i>	<i>Reverse</i>
Gear 1	4.5 mph (7.2 km/h)	4.7 mph (7.5 km/h)
Gear 2	7.7 mph (12.4 km/h)	8.1 mph (13.1 km/h)
Gear 3	14.9 mph (24.0 km/h)	15.7 mph (25.3 km/h)
Gear 4	23.4 mph (37.7 km/h)	

\*Equipped with 17.5-25 tires.

## Axles/Brakes

Final Drives	heavy-duty mid-board planetary
Differentials	hydraulic locking front, conventional rear — standard; dual locking front and rear — optional
Rear Axle Oscillation, Stop to Stop*	24 deg.
Brakes (conform to SAE J1473, ISO3450)	
Service Brakes	hydraulically actuated, mid-board, self adjusting, wet multi-disc
Parking Brake	automatic spring applied, hydraulically released, oil cooled, multi-disc

\*Equipped with 17.5-25 tires.

## Tires

Choice of (with three-piece rims)	Tread Width	Width Over Tires	Change In Vertical Height
17.5R25 L-3	74.8 in. (1900 mm)	92.3 in. (2345 mm)	0 in. (0 mm)
17.5R25 L-2	74.8 in. (1900 mm)	92.9 in. (2359 mm)	- 0.5 in. (- 13 mm)
17.5-25 L-2*	74.8 in. (1900 mm)	92.9 in. (2359 mm)	- 0.4 in. (- 10 mm)
17.5-25 L-2	74.8 in. (1900 mm)	92.8 in. (2357 mm)	- 0.4 in. (- 10 mm)
17.5-25 L-3	74.8 in. (1900 mm)	92.8 in. (2357 mm)	- 0.3 in. (- 8 mm)
20.5R25 L-2	76.8 in. (1950 mm)	97.7 in. (2482 mm)	+ 2.8 in. (+ 70 mm)
20.5-25 L-2	76.8 in. (1950 mm)	98.6 in. (2504 mm)	+ 2.6 in. (+ 67 mm)
550/65R25 L-3	76.8 in. (1950 mm)	100.2 in. (2544 mm)	+ 1.8 in. (+ 47 mm)

\*Equipped with one-piece rims.

## Refill Capacities (U.S.)

Fuel Tank (with ground-level fueling)	65 gal. (246 L)
Cooling System	22 qt. (21 L)
Engine Lubrication, Including Full-Flow Spin-	
On Filter	18.5 qt. (17.5 L)
Powershift Transmission, Including Filter	19.5 qt. (18.5 L)

**Refill Capacities (U.S.) (continued)**

**444J**

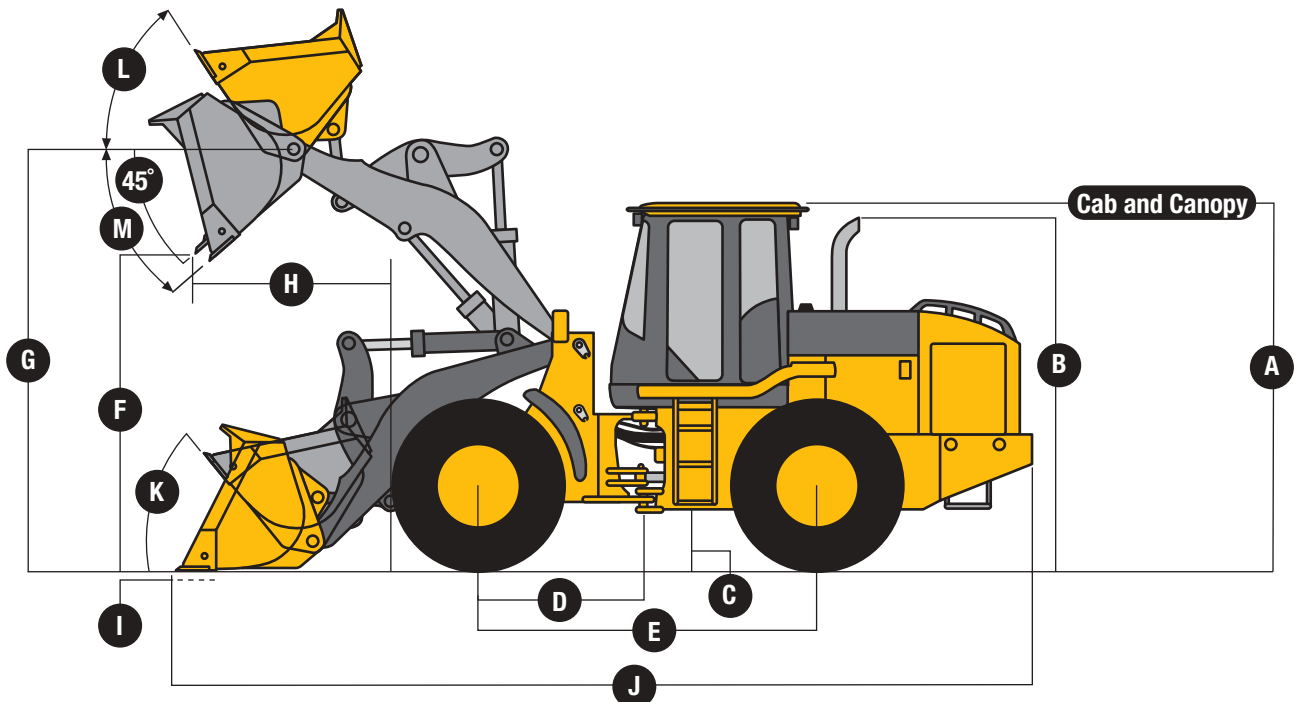
Differential (each axle)	
Front	18 qt. (17 L)
Rear	18 qt. (17 L)
Loader Hydraulic Reservoir and Filters	25.5 gal. (96.5 L)
Wet-Disc Parking Brake	10 oz. (0.3 L)

**Hydraulic System/Steering**

Pump (loader and steering)	variable-displacement, axial-piston pump; closed-center, pressure-compensating system
Maximum Flow @ 2,350 rpm	37 gpm (140 L/m) @ 1,000 psi (6895 kPa)
Pressure	loader and steering relief 3,600 psi (24 850 kPa)
Loader Controls	two-function valve; single- or dual-lever controls; control lever lockout feature; optional third- and fourth-function valve with auxiliary lever
Steering (conforms to SAE J1511)	
Type	power, fully hydraulic
Pressure	3,600 psi (24 850 kPa) relief
Articulation Angle	80-deg. arc (40 deg. each direction)
Hydraulic Cycle Times	<i>Standard Z-Bar</i>
Raise	5.6 sec.
Dump	1.0 sec.
Lower	2.4 sec. (float down) / 3.4 sec. (power down)
Total	9.0 sec.
	<i>High-Lift Z-Bar</i>
	5.6 sec.
	1.7 sec.
	2.4 sec. (float down) / 3.4 sec. (power down)
	9.7 sec.
Maximum Lift Capacity (with 2.0-cu.-yd. [1.5 m <sup>3</sup> ] bucket with bolt-on edge)	
Lift at Ground Level	22,403 lb. (10 160 kg)
Lift at Maximum Height	10,719 lb. (4861 kg)
Turning Radius (measured to centerline of outside tire)	15 ft. 5 in. (4703 mm)

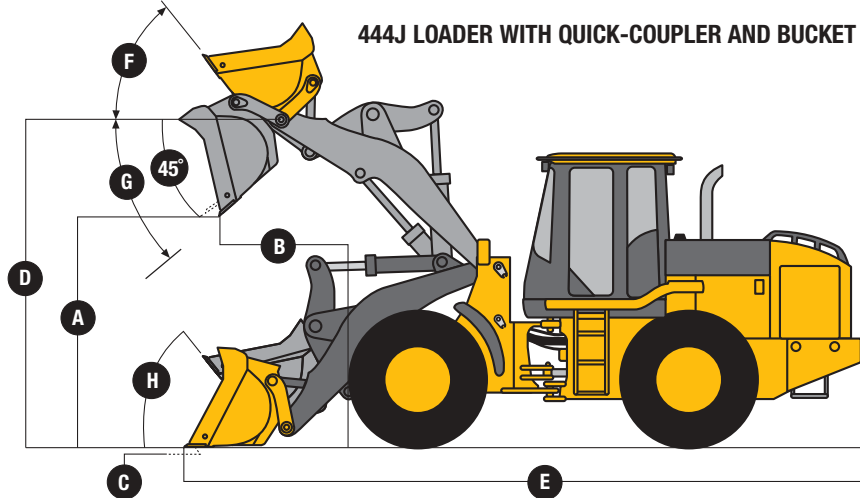
**Dimensions with Pin-On Bucket**

	<i>Standard Z-Bar</i>	<i>High-Lift Z-Bar</i>
<b>A</b> Height to Top of Cab and Canopy	10 ft. 4.2 in. (3154 mm)	10 ft. 4.2 in. (3154 mm)
<b>B</b> Height to Top of Exhaust	10 ft. 3.6 in. (3140 mm)	10 ft. 3.6 in. (3140 mm)
<b>C</b> Ground Clearance	15.6 in. (395.5 mm)	15.6 in. (395.5 mm)
<b>D</b> Length from Centerline to Front Axle	54.1 in. (1375 mm)	54.1 in. (1375 mm)
<b>E</b> Wheelbase	108.3 in. (2750 mm)	108.3 in. (2750 mm)
<b>F</b> Dump Clearance	(see page 17)	(see page 18)
<b>G</b> Height to Hinge Pin, Fully Raised	11 ft. 10 in. (3597 mm)	13 ft. 0 in. (3975 mm)
<b>H</b> Dump Reach	(see page 17)	(see page 18)
<b>I</b> Maximum Digging Depth	3.4 in. (85 mm)	4.1 in. (105 mm)
<b>J</b> Overall Length	(see page 17)	(see page 18)
<b>K</b> Maximum Rollback at Ground Level	39 deg.	39.5 deg.
<b>L</b> Maximum Rollback, Boom Fully Raised	55 deg.	55 deg.
<b>M</b> Maximum Bucket Angle, Fully Raised	50 deg.	50 deg.



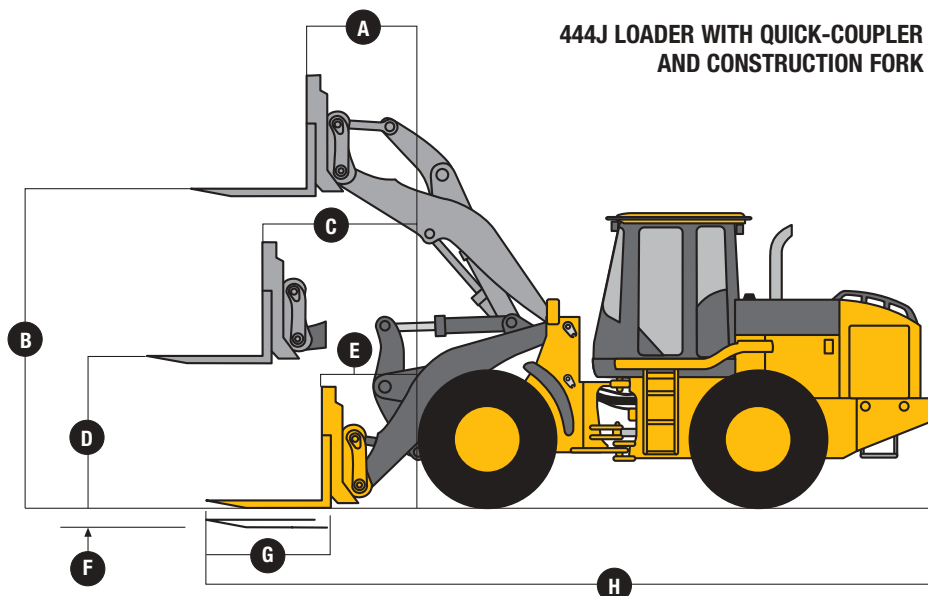
**Dimensions with Quick-Coupler and Bucket**

	444J Standard Z-Bar	High-Lift Z-Bar
A Dump Clearance	(see page 17)	(see page 18)
B Dump Reach	(see page 17)	(see page 18)
C Maximum Digging Depth	3.9 in. (99 mm)	4.7 in. (119 mm)
D Height to Hinge Pin, Fully Raised	11 ft. 10 in. (3597 mm)	13 ft. 0 in. (3975 mm)
E Overall Length	(see page 17)	(see page 18)
F Maximum Rollback, Boom Fully Raised	57 deg.	48 deg.
G Maximum Bucket Discharge Angle, Fully Raised	54 deg.	49 deg.
H Maximum Rollback at Ground Level	38 deg.	38 deg.



**Dimensions with Quick-Coupler and Construction Fork**

	444J Standard Z-Bar	High-Lift Z-Bar
A Reach, Fully Raised	2 ft. 10 in. (874 mm)	2 ft. 11 in. (880 mm)
B Fork Height, Fully Raised	11 ft. 0 in. (3356 mm)	12 ft. 2 in. (3713 mm)
C Maximum Reach, Fork Level	5 ft. 2 in. (1585 mm)	6 ft. 1 in. (1851 mm)
D Fork Height, Maximum Reach	5 ft. 4 in. (1624 mm)	5 ft. 4 in. (1624 mm)
E Reach, Ground Level	3 ft. 2 in. (974 mm)	4 ft. 4 in. (1316 mm)
F Depth Below Ground	4 in. (100 mm)	4 in. (100 mm)
G Tine Length	(see page 18)	(see page 19)
H Overall Length	(see page 18)	(see page 19)



**Standard Z-Bar Information  
with Pin-On-Type Bucket**

**444J**

Bucket Type/Size	General Purpose w/Bolt-On Edge	General Purpose w/Bolt-On Edge	General Purpose w/Teeth and Segments
Capacity, Heaped SAE . . . . .	2.5 cu. yd. (1.9 m <sup>3</sup> )	2.0 cu. yd. (1.5 m <sup>3</sup> )	2.0 cu. yd. (1.5 m <sup>3</sup> )
Capacity, Struck SAE . . . . .	2.1 cu. yd. (1.6 m <sup>3</sup> )	1.6 cu. yd. (1.2 m <sup>3</sup> )	1.6 cu. yd. (1.2 m <sup>3</sup> )
Bucket Weight . . . . .	1,973 lb. (895 kg)	1,827 lb. (829 kg)	1,940 lb. (880 kg)
Bucket Width . . . . .	100.4 in. (2550 mm)	100.4 in. (2550 mm)	100.4 in. (2550 mm)
Breakout Force, SAE J732C . . . . .	18,104 lb. (8212 kg)	20,531 lb. (9313 kg)	18,437 lb. (8363 kg)
Tipping Load, Straight . . . . .	18,340 lb. (8319 kg)	18,719 lb. (8491 kg)	18,613 lb. (8443 kg)
Tipping Load, 40-Degree Full Turn, SAE . . . . .	15,639 lb. (7094 kg)	15,983 lb. (7250 kg)	15,880 lb. (7203 kg)
Reach, 45-Degree Dump, 7-ft. (2.13 m)			
Clearance . . . . .	56.1 in. (1478 mm)	54.6 in. (1388 mm)	56.4 in. (1433 mm)
Reach, 45-Degree Dump, Full Height . . . . .	40.3 in. (1024 mm)	37.2 in. (945 mm)	40.3 in. (1023 mm)
Dump Clearance, 45 Degree, Full Height . . . . .	105.3 in. (2674 mm)	108.0 in. (2752 mm)	105.8 in. (2688 mm)
Overall Length, Bucket on Ground . . . . .	22 ft. 2 in. (6752 mm)	21 ft. 9 in. (6633 mm)	22 ft. 1 in. (6734 mm)
Loader Clearance Circle, Bucket In Carry			
Position . . . . .	36 ft. 3 in. (11 053 mm)	36 ft. 0 in. (10 972 mm)	36 ft. 2 in. (11 029 mm)
Operating Weight . . . . .	22,645 lb. (10 272 kg)	22,500 lb. (10 206 kg)	22,612 lb. (10 257 kg)

*Loader operating information is based on machine with standard equipment; cab; rear cast bumper/counterweight; 20.5R25 tires; ROPS cab; 175-lb. (79 kg) operator; and full fuel tank. This information is affected by tire size, ballast, and different attachments.*

**Adjustments to Operating Weights for Standard Z-Bar with Pin-On-Type Buckets or Quick-Coupler and Hook-On-Type Buckets**

**Adjustments to operating weights and tipping loads for 2.5-cu.-yd. (1.9 m<sup>3</sup>) general-purpose bucket with bolt-on cutting edge**

Add (+) or deduct (-) lb. (kg) as indicated for

loaders with three-piece rims and	Operating Weight	Tipping Load, Straight	Tipping Load, 40-Degree Full Turn, SAE
17.5R25 L-3 tires . . . . .	0 lb. (0 kg)	0 lb. (0 kg)	0 lb. (0 kg)
17.5R25 L-2 tires . . . . .	- 228 lb. (- 104 kg)	- 150 lb. (- 68 kg)	- 131 lb. (- 60 kg)
17.5-25 L-2 tires* . . . . .	- 544 lb. (- 247 kg)	- 357 lb. (- 162 kg)	- 310 lb. (- 140 kg)
17.5-25 L-2 tires . . . . .	- 496 lb. (- 225 kg)	- 325 lb. (- 148 kg)	- 284 lb. (- 129 kg)
17.5-25 L-3 tires . . . . .	- 460 lb. (- 209 kg)	- 302 lb. (- 137 kg)	- 262 lb. (- 119 kg)
20.5R25 L-2 tires** . . . . .	+ 412 lb. (+ 187 kg)	+ 270 lb. (+ 123 kg)	+ 235 lb. (+ 107 kg)
20.5-25 L-2 tires** . . . . .	+ 92 lb. (+ 42 kg)	+ 61 lb. (+ 28 kg)	+ 53 lb. (+ 24 kg)
550/65R25 L-3 tires** . . . . .	+ 1,316 lb. (+ 598 kg)	+ 863 lb. (+ 392 kg)	+ 752 lb. (+ 341 kg)
CaCl <sub>2</sub> in 17.5-25 rear tires** . . . . .	+ 1,179 lb. (+ 535 kg)	+ 1,546 lb. (+ 701 kg)	+ 1,344 lb. (+ 610 kg)
Optional rear cast bumper/counterweight (removed) . . . . .	N/A	N/A	N/A

\*Equipped with one-piece rims.  
\*\*CaCl<sub>2</sub> not recommended with 20.5R25, 20.5-25, and 550/65R25 tires.

**Standard Z-Bar Information with Quick-Coupler and Bucket**

Bucket Type/Size	General Purpose w/Bolt-On Edge	General Purpose w/Bolt-On Edge
Capacity, Heaped SAE . . . . .	2.5 cu. yd. (1.9 m <sup>3</sup> )	2.0 cu. yd. (1.5 m <sup>3</sup> )
Capacity, Struck SAE . . . . .	2.1 cu. yd. (1.6 m <sup>3</sup> )	1.6 cu. yd. (1.2 m <sup>3</sup> )
Bucket Weight with Coupler . . . . .	2,806 lb. (1273 kg)	2,643 lb. (1199 kg)
Bucket Width . . . . .	100.4 in. (2550 mm)	100.4 in. (2550 mm)
Breakout Force, SAE J732C . . . . .	14,762 lb. (6696 kg)	15,765 lb. (7151 kg)
Tipping Load, Straight . . . . .	17,108 lb. (7760 kg)	17,310 lb. (7852 kg)
Tipping Load, 40-Degree Full Turn, SAE . . . . .	14,296 lb. (6485 kg)	14,680 lb. (6659 kg)
Reach, 45-Degree Dump, 7-ft. (2.13 m)		
Clearance . . . . .	58.5 in. (1485 mm)	57.5 in. (1461 mm)
Reach, 45-Degree Dump, Full Height . . . . .	45.7 in. (1160 mm)	43.8 in. (1112 mm)
Dump Clearance, 45 Degree, Full Height . . . . .	100.0 in. (2542 mm)	101.6 in. (2581 mm)
Overall Length, Bucket on Ground . . . . .	22 ft. 10 in. (6955 mm)	22 ft. 7 in. (6887 mm)
Loader Clearance Circle, Bucket In Carry		
Position . . . . .	36 ft. 9 in. (11 192 mm)	36 ft. 6 in. (11 134 mm)
Operating Weight . . . . .	23,481 lb. (10 651 kg)	23,316 lb. (10 576 kg)

*Loader operating information is based on machine with standard equipment; cab; rear cast bumper/counterweight; 20.5R25 tires; ROPS cab; 175-lb. (79 kg) operator; and full fuel tank. This information is affected by tire size, ballast, and different attachments.*



## Standard Z-Bar Information with

### Quick-Coupler and Construction Fork 444J

Tine Length	48 in. (1220 mm)	60 in. (1525 mm)
Overall Length	24 ft. 4 in. (7407 mm)	25 ft. 4 in. (7710 mm)
Tipping Load, Straight (fork level, load centered forward 24 in. [610 mm] on 48-in. [1220 mm] tine and 30 in. [762 mm] on 60-in. [1525 mm] tine)	11,449 lb. (5193 kg)	10,759 lb. (4880 kg)
Tipping Load, 40-Degree Full Turn (fork level, load centered forward 24 in. [610 mm] on 48-in. [1220 mm] and 30 in. [762 mm] on 60-in. tine [1525 mm] tine)	9,739 lb. (4418 kg)	9,136 lb. (4144 kg)
Operating Weight	22,626 lb. (10 261 kg)	22,727 lb. (10 307 kg)

## High-Lift Z-Bar Information with Pin-On-Type Bucket

	General Purpose w/Bolt-On Edge	General Purpose w/Bolt-On Edge
Bucket Type/Size		
Capacity, Heaped SAE	2.5 cu. yd. (1.9 m <sup>3</sup> )	2.0 cu. yd. (1.5 m <sup>3</sup> )
Capacity, Struck SAE	2.1 cu. yd. (1.6 m <sup>3</sup> )	1.6 cu. yd. (1.2 m <sup>3</sup> )
Bucket Weight	1,973 lb. (895 kg)	1,827 lb. (829 kg)
Bucket Width	100.4 in. (2550 mm)	100.4 in. (2550 mm)
Breakout Force, SAE J732C	16,655 lb. (7555 kg)	18,946 lb. (8594 kg)
Tipping Load, Straight	14,995 lb. (6802 kg)	15,346 lb. (6961 kg)
Tipping Load, 40-Degree Full Turn, SAE	12,736 lb. (5777 kg)	13,055 lb. (5922 kg)
Reach, 45-Degree Dump, 7-ft. (2.13 m)		
Clearance	69.3 in. (1759 mm)	67.6 in. (1715 mm)
Reach, 45-Degree Dump, Full Height	41.3 in. (1050 mm)	38.3 in. (972 mm)
Dump Clearance, 45 Degree, Full Height	120.1 in. (3052 mm)	123.3 in. (3130 mm)
Overall Length, Bucket on Ground	23 ft. 5 in. (7133 mm)	23 ft. 0 in. (7015 mm)
Loader Clearance Circle, Bucket In Carry		
Position	37 ft. 5 in. (11 401 mm)	37 ft. 1 in. (11 306 mm)
Operating Weight	22,877 lb. (10 377 kg)	22,731 lb. (10 311 kg)

Loader operating information is based on machine with standard equipment; cab; rear cast bumper/counterweight; 20.5R25 tires; ROPS cab; 175-lb. (79 kg) operator; and full fuel tank. This information is affected by tire size, ballast, and different attachments.

## Adjustments to Operating Weights for High-Lift Z-Bar with Pin-On-Type Buckets or Quick-Coupler and Hook-On-Type Buckets

### Adjustments to operating weights and tipping loads for 2.5-cu.-yd. (1.9 m<sup>3</sup>) general-purpose bucket with bolt-on cutting edge

Add (+) or deduct (-) lb. (kg) as indicated for

loaders with three-piece rims and	Operating Weight	Tipping Load, Straight	Tipping Load, 40-Degree Full Turn, SAE
17.5R25 L-3 tires	0 lb. (0 kg)	0 lb. (0 kg)	0 lb. (0 kg)
17.5R25 L-2 tires	- 228 lb. (- 104 kg)	- 131 lb. (- 60 kg)	- 112 lb. (- 51 kg)
17.5-25 L-2 tires*	- 544 lb. (- 247 kg)	- 313 lb. (- 142 kg)	- 267 lb. (- 121 kg)
17.5-25 L-2 tires	- 496 lb. (- 225 kg)	- 285 lb. (- 129 kg)	- 243 lb. (- 110 kg)
17.5-25 L-3 tires	- 460 lb. (- 209 kg)	- 265 lb. (- 120 kg)	- 225 lb. (- 102 kg)
20.5R25 L-2 tires**	+ 412 lb. (+ 187 kg)	+ 237 lb. (+ 108 kg)	+ 202 lb. (+ 92 kg)
20.5-25 L-2 tires**	+ 92 lb. (+ 42 kg)	+ 53 lb. (+ 24 kg)	+ 45 lb. (+ 21 kg)
550/65R25 L-3 tires**	+ 1,316 lb. (+ 598 kg)	+ 757 lb. (+ 344 kg)	+ 645 lb. (+ 293 kg)
CaCl <sub>2</sub> in 17.5-25 rear tires**	+ 1,179 lb. (+ 535 kg)	+ 1,356 lb. (+ 615 kg)	+ 1,155 lb. (+ 524 kg)
Optional rear cast bumper/counterweight (removed)	N/A	N/A	N/A

\*Equipped with one-piece rims.

\*\*CaCl<sub>2</sub> not recommended with 20.5R25, 20.5-25, and 550/65R25 tires.

## High-Lift Z-Bar Information with Quick-Coupler and Bucket

444J

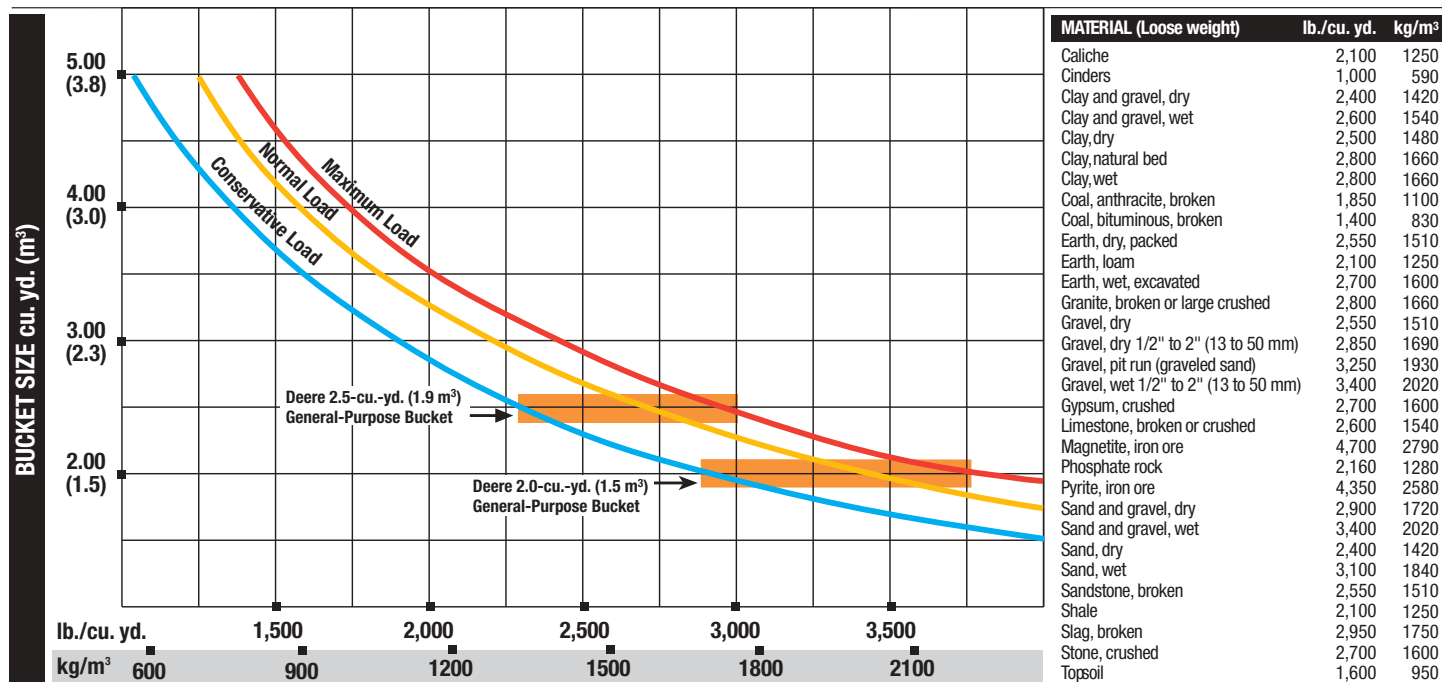
Bucket Type/Size	General Purpose w/Bolt-On Edge	General Purpose w/Bolt-On Edge
Capacity, Heaped SAE	2.5 cu. yd. (1.9 m <sup>3</sup> )	2.0 cu. yd. (1.5 m <sup>3</sup> )
Capacity, Struck SAE	2.1 cu. yd. (1.6 m <sup>3</sup> )	1.6 cu. yd. (1.2 m <sup>3</sup> )
Bucket Weight with Coupler	2,806 lb. (1273 kg)	2,643 lb. (1199 kg)
Bucket Width	100.4 in. (2550 mm)	100.4 in. (2550 mm)
Breakout Force, SAE J732C	13,552 lb. (6146 kg)	14,502 lb. (6577 kg)
Tipping Load, Straight	13,717 lb. (6221 kg)	14,094 lb. (6392 kg)
Tipping Load, 40-Degree Full Turn, SAE	11,545 lb. (5236 kg)	11,889 lb. (5392 kg)
Reach, 45-Degree Dump, 7-ft. (2.13 m)		
Clearance	71.5 in. (1817 mm)	70.9 in. (1801 mm)
Reach, 45-Degree Dump, Full Height	46.4 in. (1179 mm)	44.8 in. (1139 mm)
Dump Clearance, 45 Degree, Full Height	114.7 in. (2914 mm)	116.5 in. (2959 mm)
Overall Length, Bucket on Ground	24 ft. 1 in. (7333 mm)	23 ft. 10 in. (7267 mm)
Loader Clearance Circle, Bucket In Carry		
Position	37 ft. 11 in. (11 553 mm)	37 ft. 8 in. (11 486 mm)
Operating Weight	23,717 lb. (10 756 kg)	23,951 lb. (10 682 kg)

Loader operating information is based on machine with standard equipment; cab; rear cast bumper/counterweight; 20.5R25 tires; ROPS cab; 175-lb. (79 kg) operator; and full fuel tank. This information is affected by tire size, ballast, and different attachments.

## High-Lift Z-Bar Information with Quick-Coupler and Construction Fork

Tine Length	48 in. (1220 mm)	60 in. (1525 mm)
Overall Length	25 ft. 5 in. (7749 mm)	26 ft. 5 in. (8052 mm)
Tipping Load, Straight (fork level, load centered forward 24 in. [610 mm] on 48-in. [1220 mm] tine and 30 in. [762 mm] on 60-in. [1525 mm] tine)	11,674 lb. (5295 kg)	10,950 lb. (4967 kg)
Tipping Load, 40-Degree Full Turn (fork level, load centered forward 24 in. [610 mm] on 48-in. [1220 mm] tine and 30 in. [762 mm] on 60-in. [1525 mm] tine)	9,898 lb. (4490 kg)	9,267 lb. (4203 kg)
Operating Weight	22,857 lb. (10 366 kg)	22,959 lb. (10 412 kg)

## Standard Z-Bar Pin-On Bucket Selection Guide\*



\* This guide, representing bucket sizes not necessarily manufactured by Deere, will help you in selecting proper bucket size for material density, loader configuration, and operating conditions. Optimum bucket size is determined after adding or subtracting all tipping load changes due to optional equipment. The "conservative load" line on this guide is recommended when operating in conditions such as soft ground and unlevel surfaces. The "maximum load" condition on this guide is sometimes utilized when operating on firm ground and level surfaces.