

Specifications



Engine 544K Z-BAR / HIGH-LIFT / POWERLLEL™

Manufacturer and Model	John Deere PowerTech™ E 6068H
Non-Road Emission Standards	certified to EPA Tier 3 emissions
Cylinders	6
Valves Per Cylinder	2
Displacement	414 cu. in. (6.8 L)
Net Peak Power @ 1,900 rpm	167 hp (125 kW)
Net Peak Torque @ 1,600 rpm	496 lb.-ft. (673 Nm)
Net Torque Rise	38%
Fuel System (electronically controlled)	high-pressure common rail
Lubrication	full-flow spin-on filter and integral cooler
Aspiration	turbocharged, charge air cooled
Air Cleaner	under-hood, 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 (100-amp alternator optional)
Batteries (two 12 volt)	950 CCA (each)

Transmission

Type	countershaft-type PowerShift™	
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; quick-shift button on hydraulic lever	
Shift Modes	manual/auto (1st-D or 2nd-D); quick-shift button with two selectable modes: kick-down or kick-up/down; and three adjustable clutch-cutoff settings	
Travel Speeds (with 20.5 R 25 tires)	<i>Forward Maximum</i>	<i>Reverse Maximum</i>
Gear 1	4.5 mph (7.2 km/h)	4.5 mph (7.2 km/h)
Gear 2	7.4 mph (11.9 km/h)	7.8 mph (12.6 km/h)
Gear 3	14.2 mph (22.8 km/h)	15.0 mph (24.1 km/h)
Gear 4	22.2 mph (35.7 km/h)	N/A

Axles/Brakes

Final Drives	heavy-duty inboard-mounted planetary
Differentials	hydraulic locking front with conventional rear — standard; dual locking front and rear — optional
Rear Axle Oscillation, Stop to Stop (with 20.5 R 25 tires)	24 deg.
Brakes (conform to ISO 3450)	
Service Brakes	hydraulically actuated, inboard sun-shaft mounted, oil cooled, self adjusting, single disc
Parking Brake	automatic spring applied, hydraulically released, driveline mounted, oil cooled, multi disc

Tires

Choice of (with three-piece rims)*	Tread Width	Width Over Tires	Change In Vertical Height
20.5 R 25, 1 Star L-3	76.8 in. (1950 mm)	100.2 in. (2546 mm)	standard
20.5 R 25, 1 Star L-2	76.8 in. (1950 mm)	100.0 in. (2541 mm)	- 0.2 in. (- 5 mm)
20.5-25, 16 PR L-2	76.8 in. (1950 mm)	100.2 in. (2544 mm)	+ 0.1 in. (+ 3 mm)
20.5-25, 12 PR L-2	76.8 in. (1950 mm)	100.2 in. (2544 mm)	+ 0.1 in. (+ 3 mm)
20.5-25, 16 PR L-3	76.8 in. (1950 mm)	100.2 in. (2544 mm)	+ 0.4 in. (+ 9 mm)
600/65 R 25, 1 Star L-3T [§]	76.8 in. (1950 mm)	103.7 in. (2633 mm)	- 0.9 in. (- 22 mm)
23.1-26 Logger [†]	84.1 in. (2136 mm)	108.0 in. (2743 mm)	+ 3.1 in. (+ 80 mm)

*Based on Z-bar machine configuration; may change based on vehicle configuration, weight, or tire-pressure adjustments.

[§]CaCl₂ not recommended.

[†]Equipped with one-piece rims.

Refill Capacities (U.S.)

544K Z-BAR / HIGH-LIFT / POWERLLEL

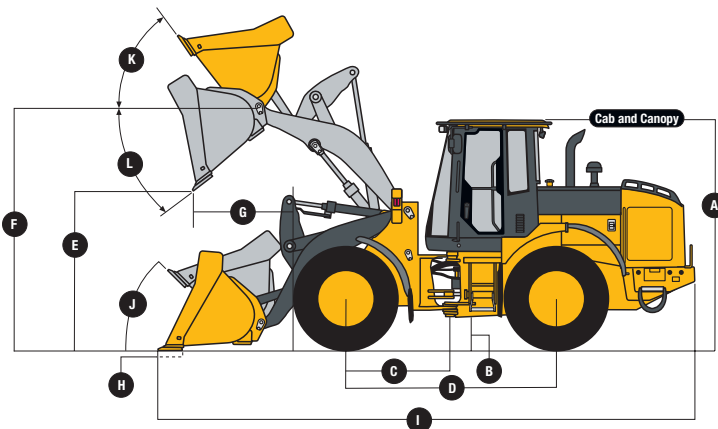
Fuel Tank (with ground-level fueling)	86 gal. (325 L)
Cooling System	24 qt. (23 L)
Engine Oil with Vertical Spin-On Filter	20 qt. (19 L)
Transmission Fluid with Vertical Filter	19.5 qt. (18.5 L)
Axle Oil (front and rear)	18 qt. (17 L)
Hydraulic Reservoir and Filters	24 gal. (91 L)
Park Brake Oil (wet disc)	10 oz. (0.3 L)

Hydraulic System/Steering

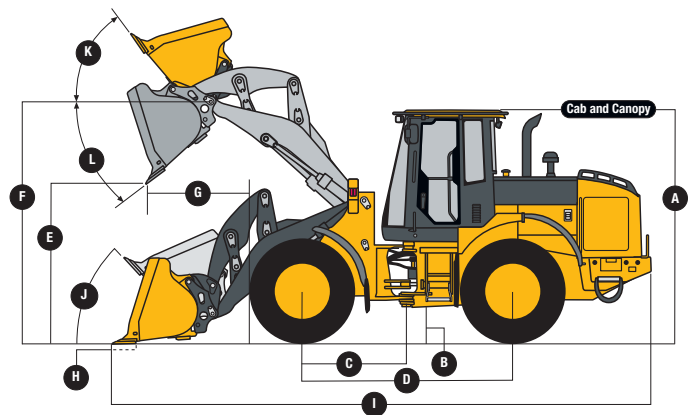
Pump (loader and steering)	variable-displacement, axial-piston pump; closed-center, pressure-compensating system		
Maximum Rated Flow @ 1,000 psi (6895 kPa) and 2,350 rpm	50 gpm (189 L/m)		
System Relief Pressure (loader and steering)	3,650 psi (25 166 kPa)		
Loader Controls	two-function valve, joystick control or fingertip controls, hydraulic-function enable/disable, optional third- and fourth-function valve with auxiliary lever		
Steering (conforms to ISO 5010)			
Type	power, fully hydraulic		
Articulation Angle	80-deg. arc (40 deg. each direction)		
Hydraulic Cycle Times	Z-Bar	High-Lift	Powerllel
Raise	5.8 sec.	5.8 sec.	5.6 sec.
Dump	1.2 sec.	1.2 sec.	1.2 sec.
Lower (float down)	3.2 sec.	3.2 sec.	2.5 sec.
Total	10.2 sec.	10.2 sec.	9.3 sec.
Turning Radius (measured to centerline of outside tire)	16 ft. 5 in. (5.00 m)		

Dimensions with Standard Configuration

	Z-Bar <i>3.0-cu.-yd. (2.3 m³) pin-on bucket</i>	High-Lift <i>3.0-cu.-yd. (2.3 m³) pin-on bucket</i>	Powerllel <i>3.0-cu.-yd. (2.3 m³) hook-on bucket with coupler</i>
A Height to Top of Cab and Canopy	10 ft. 8 in. (3.24 m)	10 ft. 8 in. (3.24 m)	10 ft. 8 in. (3.24 m)
B Ground Clearance	15.7 in. (0.40 m)	15.7 in. (0.40 m)	15.7 in. (0.40 m)
C Length from Centerline to Front Axle	4 ft. 9 in. (1.45 m)	4 ft. 9 in. (1.45 m)	4 ft. 9 in. (1.45 m)
D Wheelbase	9 ft. 7 in. (2.93 m)	9 ft. 7 in. (2.93 m)	9 ft. 7 in. (2.93 m)
E Dump Clearance	▲ (see page 31)	▲ (see page 31)	▲ (see page 32)
F Height to Hinge Pin, Fully Raised	12 ft. 6 in. (3.82 m)	13 ft. 8 in. (4.17 m)	12 ft. 8 in. (3.85 m)
G Dump Reach	▲▲ (see page 31)	▲▲ (see page 31)	▲▲ (see page 32)
H Maximum Digging Depth	3.72 in. (95 mm)	8.7 in. (221 mm)	5.0 in. (127 mm)
I Overall Length	▲▲▲ (see page 31)	▲▲▲ (see page 31)	▲▲▲ (see page 32)
J Maximum Rollback at Ground Level	42 deg.	41 deg.	42 deg.
K Maximum Rollback, Boom Fully Raised	55 deg.	50 deg.	51 deg.
L Maximum Bucket Angle, Fully Raised	49 deg.	46 deg.	50 deg.



544K Z-BAR AND HIGH-LIFT LOADERS

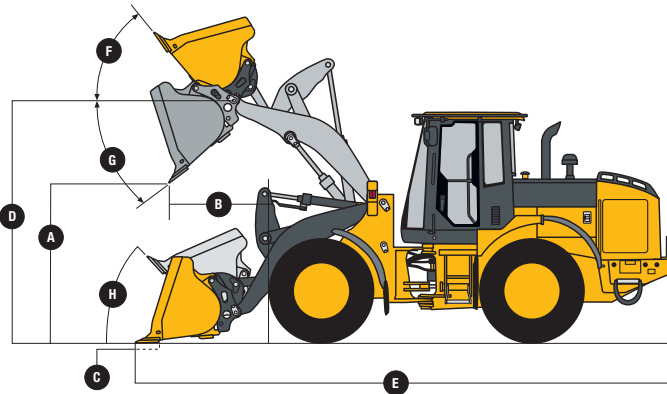


544K POWERLLEL LOADER

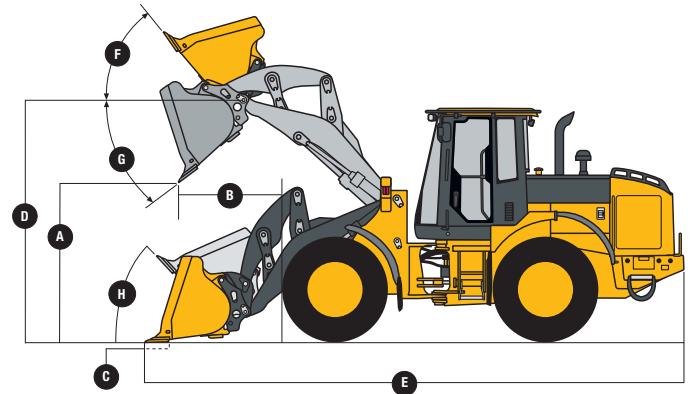
Dimensions with Quick-Coupler and Hook-On Bucket

544K Z-BAR / HIGH-LIFT / POWERLLEL

	Z-Bar	High-Lift	Powerllel
A Dump Clearance	▲ (see page 31)	▲ (see page 32)	▲ (see page 32)
B Dump Reach	▲▲ (see page 31)	▲▲ (see page 32)	▲▲ (see page 32)
C Maximum Digging Depth	5.4 in. (138 mm)	8.9 in. (227 mm)	5.0 in. (127 mm)
D Height to Hinge Pin, Fully Raised	12 ft. 6 in. (3.81 m)	13 ft. 7 in. (4.13 m)	12 ft. 8 in. (3.85 m)
E Overall Length	▲▲▲ (see page 31)	▲▲▲ (see page 32)	▲▲▲ (see page 32)
F Maximum Rollback, Boom Fully Raised	54 deg.	48 deg.	51 deg.
G Maximum Bucket Angle, Fully Raised	51 deg.	47 deg.	50 deg.
H Maximum Rollback at Ground Level	41 deg.	41 deg.	42 deg.



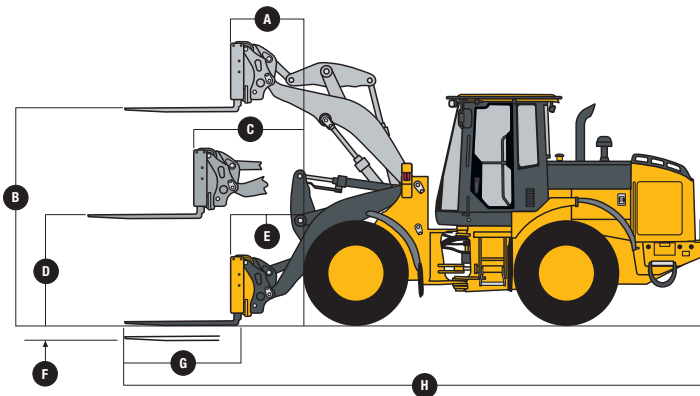
544K Z-BAR AND HIGH-LIFT LOADERS WITH QUICK-COUPLER AND HOOK-ON BUCKET



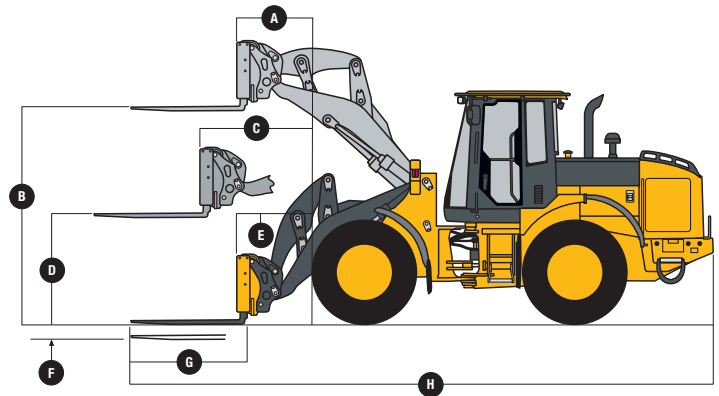
544K POWERLLEL LOADER WITH QUICK-COUPLER AND HOOK-ON BUCKET

Dimensions with Quick-Coupler and Hook-On Construction Fork

	Z-Bar	High-Lift	Powerllel
A Reach, Fully Raised	29.5 in. (0.75 m)	29.5 in. (0.75 m)	31 in. (0.79 m)
B Fork Height, Fully Raised	11 ft. 9 in. (3.59 m)	12 ft. 11 in. (3.94 m)	11 ft. 11 in. (3.64 m)
C Maximum Reach, Fork Level	5 ft. 1 in. (1.54 m)	5 ft. 11 in. (1.80 m)	5 ft. 4 in. (1.61 m)
D Maximum Reach, Fork Height	5 ft. 8 in. (1.72 m)	5 ft. 8 in. (1.72 m)	5 ft. 9 in. (1.75 m)
E Reach, Ground Level	3 ft. 2 in. (0.95 m)	4 ft. 3 in. (1.28 m)	3 ft. 3 in. (0.99 m)
F Depth Below Ground	0.5 in. (13 mm)	3.8 in. (96 mm)	0.04 in. (1 mm)
G Tine Length	▲ (see page 32)	▲ (see page 32)	▲ (see page 32)
H Overall Length	▲▲ (see page 32)	▲▲ (see page 32)	▲▲ (see page 32)



544K Z-BAR AND HIGH-LIFT LOADERS WITH QUICK-COUPLER AND HOOK-ON CONSTRUCTION FORK



544K POWERLLEL LOADER WITH QUICK-COUPLER AND HOOK-ON CONSTRUCTION FORK

544K Z-Bar with Pin-On-Type Bucket

Bucket Type/Size	General-Purpose with Bolt-On Edge	
	Narrow	Wide
Capacity, Heaped	3.0 cu. yd. (2.3 m ³)	3.0 cu. yd. (2.3 m ³)
Capacity, Struck	2.6 cu. yd. (2.0 m ³)	2.6 cu. yd. (2.0 m ³)
Bucket Weight	2,305 lb. (1046 kg)	2,267 lb. (1028 kg)
Bucket Width	8 ft. 4 in. (2.54 m)	8 ft. 10 in. (2.69 m)
Breakout Force	22,672 lb. (10 284 kg)	24,251 lb. (11 000 kg)
Tipping Load, Straight	24,021 lb. (10 896 kg)	24,201 lb. (10 977 kg)
Tipping Load, 40-Deg. Full Turn	20,799 lb. (9434 kg)	20,961 lb. (9508 kg)
Reach, 45-Deg. Dump, 7-ft. (2.13 m)		
Clearance	4 ft. 10 in. (1.46 m)	4 ft. 9 in. (1.44 m)
▲▲ Reach, 45-Deg. Dump, Full Height	3 ft. 3 in. (0.99 m)	3 ft. 1 in. (0.93 m)
▲ Dump Clearance, 45 Deg., Full Height	9 ft. 1 in. (2.76 m)	9 ft. 3 in. (2.82 m)
▲▲▲ Overall Length, Bucket on Ground	24 ft. 4 in. (7.43 m)	24 ft. 1 in. (7.34 m)
Loader Clearance Circle, Bucket Carry		
Position	38 ft. 3 in. (11.65 m)	38 ft. 5 in. (11.72 m)
Operating Weight	28,263 lb. (12 820 kg)	28,224 lb. (12 802 kg)

Loader operating information is based on machine with identified linkage and standard equipment, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 175-lb. (79 kg) operator. This information is affected by changes in tires, ballast, and different attachments.

544K High-Lift with Pin-On-Type Bucket

Bucket Type/Size	General-Purpose with Bolt-On Edge	
	Narrow	Wide
Capacity, Heaped	3.0 cu. yd. (2.3 m ³)	3.0 cu. yd. (2.3 m ³)
Capacity, Struck	2.6 cu. yd. (2.0 m ³)	2.6 cu. yd. (2.0 m ³)
Bucket Weight	2,305 lb. (1046 kg)	2,267 lb. (1029 kg)
Bucket Width	8 ft. 4 in. (2.54 m)	8 ft. 10 in. (2.69 m)
Breakout Force	20,940 lb. (9498 kg)	22,395 lb. (10 158 kg)
Tipping Load, Straight	20,480 lb. (9290 kg)	20,602 lb. (9345 kg)
Tipping Load, 40-Deg. Full Turn	17,678 lb. (8018 kg)	17,789 lb. (8069 kg)
Reach, 45-Deg. Dump, 7-ft. (2.13 m)		
Clearance	5 ft. 9 in. (1.76 m)	5 ft. 8 in. (1.73 m)
▲▲ Reach, 45-Deg. Dump, Full Height	3 ft. 3 in. (0.99 m)	3 ft. 1 in. (0.93 m)
▲ Dump Clearance, 45 Deg., Full Height	10 ft. 3 in. (3.11 m)	10 ft. 5 in. (3.17 m)
▲▲▲ Overall Length, Bucket on Ground	25 ft. 5 in. (7.75 m)	25 ft. 2 in. (7.67 m)
Loader Clearance Circle, Bucket Carry		
Position	39 ft. 3 in. (11.96 m)	39 ft. 6 in. (12.03 m)
Operating Weight	28,464 lb. (12 911 kg)	28,426 lb. (12 894 kg)

Loader operating information is based on machine with identified linkage and standard equipment, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 175-lb. (79 kg) operator. This information is affected by changes in tires, ballast, and different attachments.

544K Z-Bar with Quick-Coupler and Hook-On-Type Bucket

Bucket Type/Size	General-Purpose with Bolt-On Edge	
	Narrow	Wide
Capacity, Heaped	3.0 cu. yd. (2.3 m ³)	2.5 cu. yd. (1.9 m ³)
Capacity, Struck	2.6 cu. yd. (2.0 m ³)	2.1 cu. yd. (1.6 m ³)
Bucket Weight with Coupler	3,080 lb. (1397 kg)	2,853 lb. (1294 kg)
Bucket Width	8 ft. 10 in. (2.69 m)	8 ft. 4 in. (2.54 m)
Breakout Force	19,039 lb. (8636 kg)	18,938 lb. (8590 kg)
Tipping Load, Straight	21,429 lb. (9720 kg)	27,304 lb. (12 385 kg)
Tipping Load, 40-Deg. Full Turn	18,451 lb. (8369 kg)	24,302 lb. (11 023 kg)
Reach, 45-Deg. Dump, 7-ft. (2.13 m)		
Clearance	4 ft. 10 in. (1.46 m)	4 ft. 9 in. (1.44 m)
▲▲ Reach, 45-Deg. Dump, Full Height	3 ft. 5 in. (1.05 m)	3 ft. 3 in. (0.99 m)
▲ Dump Clearance, 45 Deg., Full Height	8 ft. 9 in. (2.66 m)	8 ft. 11 in. (2.72 m)
▲▲▲ Overall Length, Bucket on Ground	24 ft. 10 in. (7.57 m)	24 ft. 6 in. (7.48 m)
Loader Clearance Circle, Bucket Carry		
Position	39 ft. 0 in. (11.88 m)	38 ft. 4 in. (11.67 m)
Operating Weight	29,037 lb. (13 171 kg)	28,810 lb. (13 068 kg)

Loader operating information is based on machine with identified linkage and standard equipment, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 175-lb. (79 kg) operator. This information is affected by changes in tires, ballast, and different attachments.

544K High-Lift with Quick-Coupler and Hook-On-Type Bucket

Bucket Type/Size	General-Purpose with Bolt-On Edge	
Capacity, Heaped	3.0 cu. yd. (2.3 m ³)	2.5 cu. yd. (1.9 m ³)
Capacity, Struck	2.6 cu. yd. (2.0 m ³)	2.1 cu. yd. (1.6 m ³)
Bucket Weight with Coupler	3,099 lb. (1406 kg)	2,872 lb. (1303 kg)
Bucket Width	8 ft. 10 in. (2.69 m)	8 ft. 4 in. (2.54 m)
Breakout Force	17,558 lb. (7964 kg)	18,104 lb. (8212 kg)
Tipping Load, Straight	18,286 lb. (8295 kg)	18,699 lb. (8482 kg)
Tipping Load, 40-Deg. Full Turn	15,676 lb. (7110 kg)	16,065 lb. (7287 kg)
Reach, 45-Deg. Dump, 7-ft. (2.13 m)		
Clearance	5 ft. 10 in. (1.77 m)	5 ft. 10 in. (1.77 m)
▲▲ Reach, 45-Deg. Dump, Full Height	3 ft. 5 in. (1.05 m)	3 ft. 3 in. (0.99 m)
▲ Dump Clearance, 45 Deg., Full Height	9 ft. 10 in. (3.01 m)	10 ft. 1 in. (3.07 m)
▲▲▲ Overall Length, Bucket on Ground	25 ft. 11 in. (7.90 m)	25 ft. 7 in. (7.80 m)
Loader Clearance Circle, Bucket Carry		
Position	40 ft. 0 in. (12.19 m)	39 ft. 5 in. (12.00 m)
Operating Weight	29,258 lb. (13 271 kg)	29,030 lb. (13 168 kg)

Loader operating information is based on machine with identified linkage and standard equipment, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 175-lb. (79 kg) operator. This information is affected by changes in tires, ballast, and different attachments.

544K Powerllel with Quick-Coupler and Hook-On-Type Bucket

Bucket Type/Size	General-Purpose with Bolt-On Edge	
Capacity, Heaped	3.0 cu. yd. (2.3 m ³)	2.5 cu. yd. (1.9 m ³)
Capacity, Struck	2.6 cu. yd. (2.0 m ³)	2.1 cu. yd. (1.6 m ³)
Bucket Weight with Coupler	3,051 lb. (1384 kg)	2,824 lb. (1281 kg)
Bucket Width	8 ft. 10 in. (2.69 m)	8 ft. 4 in. (2.54 m)
Breakout Force	18,968 lb. (8604 kg)	19,684 lb. (8929 kg)
Tipping Load, Straight	19,382 lb. (8791 kg)	19,847 lb. (9002 kg)
Tipping Load, 40-Deg. Full Turn	16,654 lb. (7554 kg)	17,089 lb. (7751 kg)
Reach, 45-Deg. Dump, 7-ft. (2.13 m)		
Clearance	5 ft. 0 in. (1.51 m)	4 ft. 10 in. (1.48 m)
▲▲ Reach, 45-Deg. Dump, Full Height	3 ft. 7 in. (1.09 m)	3 ft. 4 in. (1.02 m)
▲ Dump Clearance, 45 Deg., Full Height	8 ft. 9 in. (2.68 m)	8 ft. 10 in. (2.70 m)
▲▲▲ Overall Length, Bucket on Ground	25 ft. 3 in. (7.69 m)	25 ft. 0 in. (7.63 m)
Loader Clearance Circle, Bucket Carry		
Position	39 ft. 8 in. (12.10 m)	39 ft. 2 in. (11.93 m)
Operating Weight	30,511 lb. (13 840 kg)	30,285 lb. (13 737 kg)

Loader operating information is based on machine with identified linkage and standard equipment, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 175-lb. (79 kg) operator. This information is affected by changes in tires, ballast, and different attachments.

Specifications with Quick-Coupler and Hook-On Construction Fork

	Z-Bar		High-Lift		Powerllel	
▲ Tine Length	48 in. (1.22 m)	60 in. (1.52 m)	48 in. (1.22 m)	60 in. (1.52 m)	48 in. (1.22 m)	60 in. (1.52 m)
▲▲ Overall Length	25 ft. 11 in. (7.89 m)	26 ft. 10 in. (8.19 m)	27 ft. 0 in. (8.22 m)	27 ft. 11 in. (8.52 m)	26 ft. 3 in. (7.99 m)	27 ft. 2 in. (8.29 m)
Tipping Load, Straight (fork level, load centered and positioned at 50% tine length)	16,821 lb. (7630 kg)	15,282 lb. (6932 kg)	15,139 lb. (6867 kg)	14,340 lb. (6504 kg)	15,913 lb. (7218 kg)	14,897 lb. (6757 kg)
Tipping Load, 40-Deg. Full Turn (fork level, load centered and positioned at 50% tine length)	14,568 lb. (6608 kg)	13,223 lb. (5998 kg)	13,076 lb. (5931 kg)	12,372 lb. (5612 kg)	13,766 lb. (6244 kg)	12,851 lb. (5829 kg)
Operating Weight	28,213 lb. (12 797 kg)	28,307 lb. (12 840 kg)	28,433 lb. (12 897 kg)	28,528 lb. (12 940 kg)	29,687 lb. (13 466 kg)	29,949 lb. (13 585 kg)

Loader operating information is based on machine with identified linkage and standard equipment, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 175-lb. (79 kg) operator. This information is affected by changes in tires, ballast, and different attachments.

Adjustments to Operating Weights and Tipping Loads with Buckets

Adjustments to operating weights and tipping loads are based on Z-bar machine and pin-on 3.0-cu.-yd. (2.3 m³) narrow general-purpose bucket with bolt-on cutting edge, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 175-lb. (79 kg) operator*

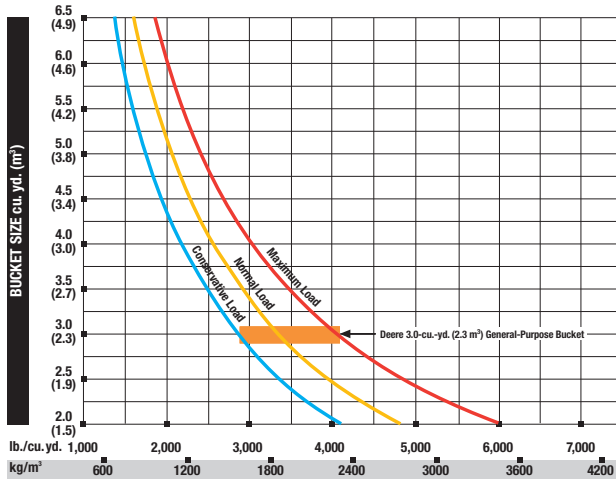
Add (+) or deduct (-) lb. (kg) as indicated for loaders with three-piece rims and	Operating Weight	Tipping Load, Straight	Tipping Load, 40-Deg. Full Turn, SAE
20.5 R 25, 1 Star L-3	0 lb. (0 kg)	0 lb. (0 kg)	0 lb. (0 kg)
20.5 R 25, 1 Star L-2	- 326 lb. (- 148 kg)	- 229 lb. (- 104 kg)	- 201 lb. (- 91 kg)
20.5-25, 16 PR L-2	- 714 lb. (- 324 kg)	- 500 lb. (- 227 kg)	- 441 lb. (- 200 kg)
20.5-25, 12 PR L-2	- 655 lb. (- 297 kg)	- 458 lb. (- 208 kg)	- 404 lb. (- 183 kg)
20.5-25, 16 PR L-3	- 503 lb. (- 228 kg)	- 352 lb. (- 160 kg)	- 309 lb. (- 140 kg)
600/65 R 25, 1 Star L-3 [†]	+ 63 lb. (+ 28 kg)	+ 43 lb. (+ 20 kg)	+ 37 lb. (+ 17 kg)
23.1-26 Logger [†]	- 22 lb. (- 10 kg)	- 15 lb. (- 7 kg)	- 15 lb. (- 7 kg)
CaCl ₂ in 20.5-25, L-3 rear tires	+ 1,817 lb. (+ 824 kg)	+ 2,543 lb. (+ 1154 kg)	+ 2,243 lb. (+ 1018 kg)
Rear cast bumper/counterweight (removed)	- 229 lb. (- 104 kg)	- 556 lb. (- 252 kg)	- 463 lb. (- 210 kg)

*May change based on vehicle configuration, weight, or tire-pressure adjustments.

[†]CaCl₂ not recommended.

[†]Equipped with one-piece rims.

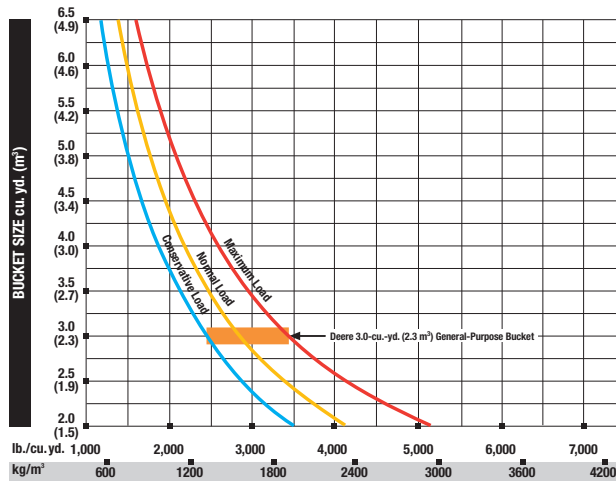
Bucket Selection Guides*



544K Z-BAR LOADER WITH PIN-ON BUCKET

MATERIAL (Loose weight)	lb./cu. yd.	kg/m³
Caliche	2,100	1,250
Cinders	1,000	590
Clay and gravel, dry	2,400	1,420
Clay and gravel, wet	2,600	1,540
Clay, dry	2,500	1,480
Clay, natural bed	2,800	1,660
Clay, wet	2,800	1,660
Coal, anthracite, broken	1,850	1,100
Coal, bituminous, broken	1,400	830
Earth, dry packed	2,550	1,510
Earth, loam	2,100	1,250
Earth, wet, excavated	2,700	1,600
Granite, broken or large crushed	2,800	1,660
Gravel, dry	2,550	1,510
Gravel, dry 1/2" to 2" (13 to 50 mm)	2,850	1,690
Gravel, pit run (graveled sand)	3,250	1,930
Gravel, wet 1/2" to 2" (13 to 50 mm)	3,400	2,020
Gypsum, crushed	2,700	1,600
Limestone, broken or crushed	2,600	1,540
Magnetite, iron ore	4,700	2,790
Phosphate rock	2,160	1,280
Pyrite, iron ore	4,350	2,580
Sand and gravel, dry	2,900	1,720
Sand and gravel, wet	3,400	2,020
Sand, dry	2,400	1,420
Sand, wet	3,100	1,840
Sandstone, broken	2,550	1,510
Shale	2,100	1,250
Slag, broken	2,950	1,750
Stone, crushed	2,700	1,600
Topsoil	1,600	950

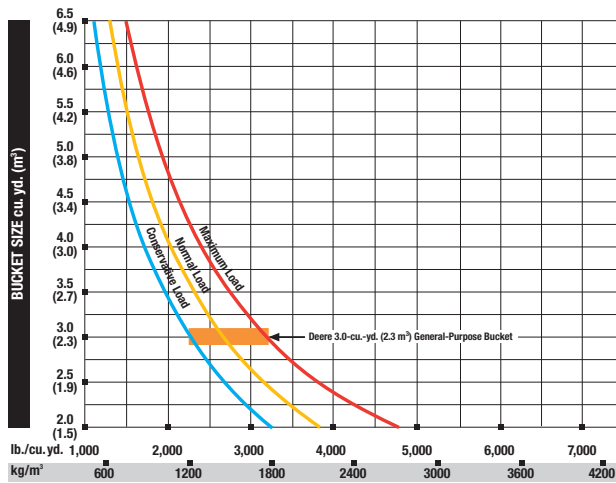
* This guide, representing bucket sizes not necessarily manufactured by Deere, will help you in selecting proper bucket size for material density, loader configuration, and operating conditions. Optimum bucket size is determined after adding or subtracting all tipping load changes due to optional equipment.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



544K HIGH-LIFT LOADER WITH PIN-ON BUCKET

MATERIAL (Loose weight)	lb./cu. yd.	kg/m³
Caliche	2,100	1,250
Cinders	1,000	590
Clay and gravel, dry	2,400	1,420
Clay and gravel, wet	2,600	1,540
Clay, dry	2,500	1,480
Clay, natural bed	2,800	1,660
Clay, wet	2,800	1,660
Coal, anthracite, broken	1,850	1,100
Coal, bituminous, broken	1,400	830
Earth, dry packed	2,550	1,510
Earth, loam	2,100	1,250
Earth, wet, excavated	2,700	1,600
Granite, broken or large crushed	2,800	1,660
Gravel, dry	2,550	1,510
Gravel, dry 1/2" to 2" (13 to 50 mm)	2,850	1,690
Gravel, pit run (graveled sand)	3,250	1,930
Gravel, wet 1/2" to 2" (13 to 50 mm)	3,400	2,020
Gypsum, crushed	2,700	1,600
Limestone, broken or crushed	2,600	1,540
Magnetite, iron ore	4,700	2,790
Phosphate rock	2,160	1,280
Pyrite, iron ore	4,350	2,580
Sand and gravel, dry	2,900	1,720
Sand and gravel, wet	3,400	2,020
Sand, dry	2,400	1,420
Sand, wet	3,100	1,840
Sandstone, broken	2,550	1,510
Shale	2,100	1,250
Slag, broken	2,950	1,750
Stone, crushed	2,700	1,600
Topsoil	1,600	950

* 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.



544K POWERLEEL LOADER WITH QUICK-COUPLER AND HOOK-ON BUCKET

MATERIAL (Loose weight)	lb./cu. yd.	kg/m³
Caliche	2,100	1,250
Cinders	1,000	590
Clay and gravel, dry	2,400	1,420
Clay and gravel, wet	2,600	1,540
Clay, dry	2,500	1,480
Clay, natural bed	2,800	1,660
Clay, wet	2,800	1,660
Coal, anthracite, broken	1,850	1,100
Coal, bituminous, broken	1,400	830
Earth, dry packed	2,550	1,510
Earth, loam	2,100	1,250
Earth, wet, excavated	2,700	1,600
Granite, broken or large crushed	2,800	1,660
Gravel, dry	2,550	1,510
Gravel, dry 1/2" to 2" (13 to 50 mm)	2,850	1,690
Gravel, pit run (graveled sand)	3,250	1,930
Gravel, wet 1/2" to 2" (13 to 50 mm)	3,400	2,020
Gypsum, crushed	2,700	1,600
Limestone, broken or crushed	2,600	1,540
Magnetite, iron ore	4,700	2,790
Phosphate rock	2,160	1,280
Pyrite, iron ore	4,350	2,580
Sand and gravel, dry	2,900	1,720
Sand and gravel, wet	3,400	2,020
Sand, dry	2,400	1,420
Sand, wet	3,100	1,840
Sandstone, broken	2,550	1,510
Shale	2,100	1,250
Slag, broken	2,950	1,750
Stone, crushed	2,700	1,600
Topsoil	1,600	950

* 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.