

444 / 524 / 544 / 624 / 644 / 724

**P**

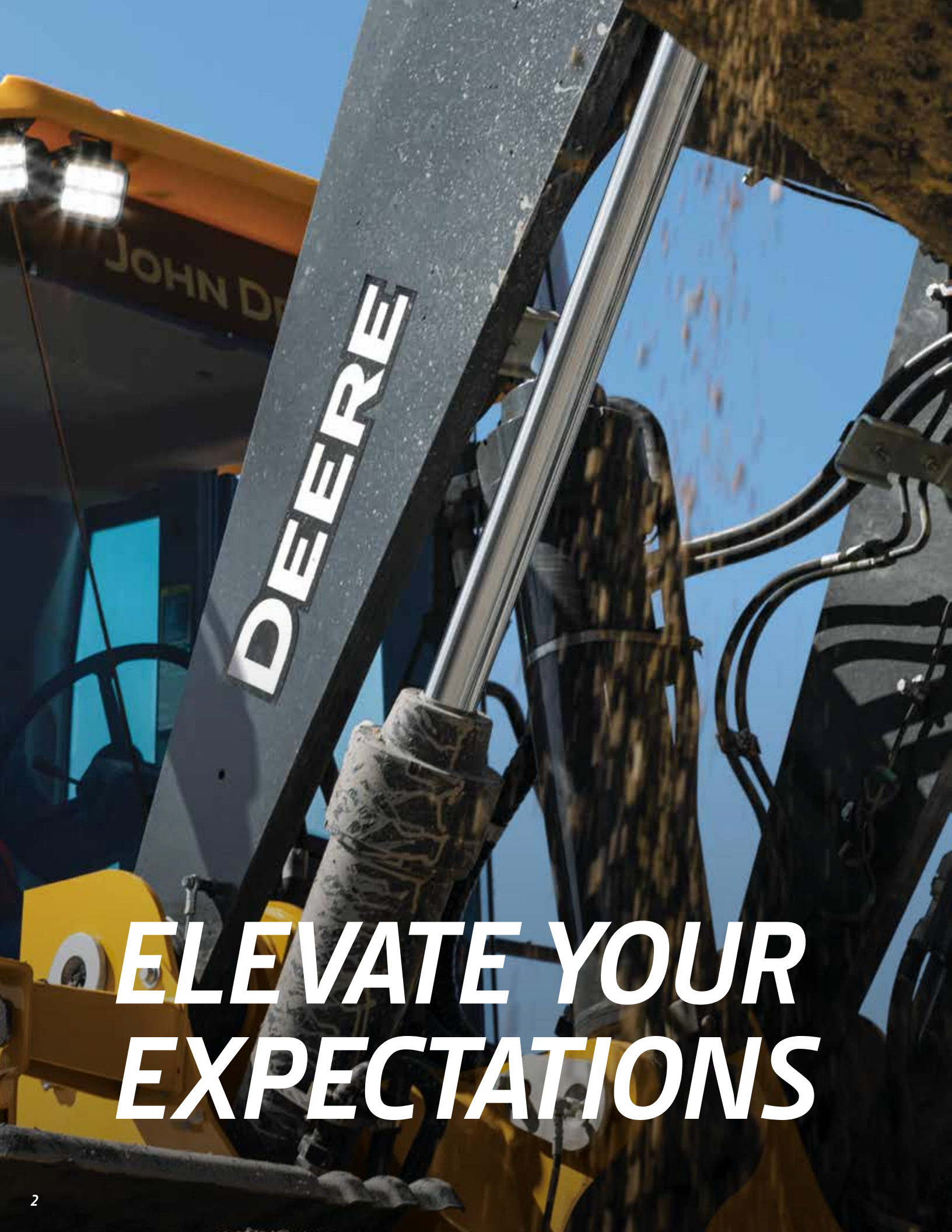


**WHEEL LOADERS**



**JOHN DEERE**





***ELEVATE YOUR  
EXPECTATIONS***



# ABOVE AND BEYOND

## INTRODUCING THE P-TIER WHEEL LOADERS

When your material-handling application needs a heavy-duty lift, add a P-Tier Wheel Loader to your lineup. Combining convenient front-end features with near-parallel lift, spacious operator stations including customizable ergonomic electrohydraulic (EH) controls, and streamlined electrical and hydraulic routing, these versatile and productive mid-size models are designed to help you take your operation to the next level.



### INTUITIVE CONTROLS

#### Take control

Operators can easily control up to six functions without letting go of the ergonomically designed joystick. Two industry-exclusive multifunction buttons can each be programmed to handle any of up to 10 functions selected through the monitor, including bucket vibrate and EH Precision mode.

#### The bucket list

A wide selection of enhanced production buckets with integrated spill guards, curved side cutters, and impressive rollback delivers elevated bucket-fill performance and material retention compared to earlier offerings.

#### Remote diagnostics and support

To maximize uptime and lower costs, JDLink™ telematics provides machine location, utilization data, and alerts to help you maximize productivity and efficiency. JDLink also enables John Deere Connected Support™. Dealers use Expert Alerts based on data from thousands of connected machines to proactively address conditions that may otherwise likely lead to downtime. Your dealer can also monitor machine health and leverage remote diagnostics and programming capability to further diagnose problems and even update machine software without a time-consuming trip to the jobsite.\*

\*Availability varies by region. Options not available in every country.

#### At the forefront

Featuring bucket and linkage designs that improve load leveling, material retention, and visibility, these loaders yield more productivity and performance than previous models.

#### It's easy to see

Large seven-inch in-cab display with easy-on-the-eyes clarity enables intuitive push-button access to key info. Standard rearview camera displays the activity behind the machine on the color LCD screen.

#### On your side

All daily service points including fuel refill are conveniently grouped at ground level on the left side of the machine for easy access. Routing of electrical wire harnesses and hydraulic hoses has been streamlined.

### FIND YOUR FIT

-  **LEADING EDGE**  
Premium edge with innovative technology
-  **EXCEPTIONAL PERFORMANCE**  
Advanced features and performance
-  **RUGGED AND RELIABLE**  
Proven capabilities and value







# 444

*P-TIER WHEEL LOADER*



**VERSATILE BUCKET +  
LINKAGE DESIGNS**





# ***DREAM IT***

## ***AND DO IT.***

Agility and capability combine with performance and reliability to help keep you productive all day long. With a 444 P-Tier Wheel Loader in your fleet, you might as well consider it done.

### **Fork in the road**

Available in 48-, 60-, and 72-inch lengths, improved shaft-style forks enable better visibility to the fork tips compared to previous models.

### **Have a seat**

Spacious and comfortable cab features extra legroom, an improved HVAC system, additional storage, and a more adjustable seat than earlier models.

### **Z-Bar linkage**

Lift path on Z-Bar linkage is near parallel. Better load-leveling capability compared to K-Series models minimizes load rollback, reduces material spillage, and requires fewer manual adjustments. Cross-tube and boom geometry of the Z-Bar linkage has been streamlined to provide a better view to the front attachment.





# OVERACHIEVERS

*ASPIRE TO GO HIGHER.*

With handy front-end features and plenty of productivity-boosting enhancements over previous models, our 524, 544, and 624 P-Tier Wheel Loaders redefine expectations about the heights a utility loader can reach.

## Get carried away

Tool Carrier configuration on the 524 and 624 enables a clear view of the coupler and forks, making it easier to quickly move pipes, logs, and pallets.

## Pretty big plus

High-Lift Plus configuration provides an additional 24 inches of hinge-pin height over standard lift height and 12 inches over the High-Lift model. All three lift heights feature near-parallel lift.

## Fitting in

Improved visibility to the work tool helps reduce spillage as well as cycle and tool-changeover times. It also helps minimize machine damage when working on crowded jobsites or up against walls.







**524 544 624**

*P-TIER WHEEL LOADERS*

**3" MORE LEGROOM**  
THAN K-SERIES CABS





# 644 724

*P-TIER WHEEL LOADERS*



**2 INDUSTRY-EXCLUSIVE  
MULTIFUNCTION BUTTONS**





# **GET AHEAD**

## **MOVING FORWARD.**

Designed to elevate your productivity, the 644 and 724 P-Tier Wheel Loaders help you put your best foot forward.

### **Reach your potential**

Three additional inches of hinge-pin height on the 724 over the 724K provides more clearance for dumping into high feeders, hoppers, trucks, and wagons.

### **Smooth operator**

Seat-mounted right-hand joystick features two programmable multi-function buttons and electrohydraulic (EH) controls that are more intuitive to operate compared to our K-Series controls.

### **In the office**

Roomy cab boasts three more inches of legroom than earlier models. Joystick controls, foot pedals, and sealed-switch module are all ergonomically placed for optimal comfort and convenience.



**EASY-TO-USE  
ELECTROHYDRAULIC  
CONTROLS**





## 444 P-TIER WHEEL LOADER SPECIFICATIONS

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

Engine		444 P-TIER Z-BAR / HIGH-LIFT	
Manufacturer and Model	John Deere PowerTech™ PSS 4045	Gross Peak Torque (ISO 9249)	550 Nm (405 lb.-ft.) at 1,400 rpm
Non-Road Emission Standard	EPA Final Tier 4/EU Stage V	Net Torque Rise	34%
Cylinders	4	Fuel System (electronically controlled)	High-pressure common rail
Valves Per Cylinder	4	Lubrication	Full-flow spin-on filter and integral cooler
Displacement	4.5 L (276 cu. in.)	Aspiration	Turbocharged, charge air cooled
Net Peak Power (ISO 9249)	92 kW (124 hp) at 2,100 rpm	Air Cleaner	Under-hood, dual-element dry type, restriction indicator in cab monitor for service
Gross Peak Power (ISO 9249)	103 kW (138 hp) at 1,800 rpm		
Net Peak Torque (ISO 9249)	532 Nm (392 lb.-ft.) at 1,400 rpm		
Cooling			
Fan Drive	Hydraulically driven, proportionally controlled, fan aft of coolers		
Electrical			
Electrical System	24 volt with 100-amp alternator (140-amp alternator optional)		
Batteries (2 – 12 volt)	950 CCA (each)		
Transmission System			
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; kick-down button on hydraulic lever		
Shift Modes	Manual/auto (1st-D or 2nd-D); Quick-Shift button with 2 selectable modes: kick-down or kick-up/down; and 4 clutch cutoff settings		
Maximum Travel Speeds (with 17.5 R 25 tires)			
Range 1	Forward 7.5 km/h (4.6 mph)	Reverse 7.9 km/h (4.9 mph)	
Range 2	12.3 km/h (7.6 mph)	13.0 km/h (8.1 mph)	
Range 3	23.4 km/h (14.5 mph)	24.6 km/h (15.3 mph)	
Range 4	35.3 km/h (21.9 mph)	N/A	
Axles/Brakes			
Final Drives	Heavy-duty mid-board planetary		
Differentials	Hydraulic locking front with conventional rear – standard; dual locking front and rear – optional		
Rear Axle Oscillation, Stop to Stop (with 17.5 R 25 tires)	24 deg. (12 deg. each direction)		
Brakes (conform to ISO 3450)			
Service	Outboard, forced oil cooled, multi disc		
Parking	Automatic spring applied, hydraulically released, driveline mounted, sealed wet multi disc		
Tires/Wheels (see page 13 for complete tire adjustments)			
	Tread Width	Width Over Tires	
Michelin 17.5 R 25, 1 Star L-3	1900 mm (74.8 in.)	2415 mm (95.1 in.)	
Serviceability			
Refill Capacities			
Fuel Tank (with lockable cap)	220 L (60 gal.)	Transmission Reservoir With Vertical Filter	18.5 L (19.5 qt.)
Diesel Exhaust Fluid (DEF)	15.6 L (16.5 qt.)	Axle Oil Without Coolers (front and rear, each)	22 L (23 qt.)
Cooling System	24 L (25 qt.)	Hydraulic Reservoir and Filter	82.1 L (21.7 gal.)
Engine Oil With Vertical Spin-On Filter	14.5 L (15.3 qt.)	Park Brake Oil (wet disc)	0.35 L (12 oz.)
Hydraulic System/Steering			
Pump (loader and steering)	Variable-displacement, axial-piston pump; closed-center, pressure-compensating system		
Maximum Rated Flow at 6895 kPa (1,000 psi) and 2,350 rpm	136 L/m (36 gpm)		
System Relief Pressure (loader and steering)	24 821 kPa (3,600 psi)		
Loader Controls	2-function valve; joystick control or fingertip controls; hydraulic-function enable/disable; optional 3rd-function valve with roller or auxiliary lever and 4th-function valve with dual roller		
Steering (conforms to ISO 5010)			
Type	Power, fully hydraulic		
Articulation Angle	80-deg. arc (40 deg. each direction)		
Turning Radius (measured to centerline of outside tire)	4.74 m (15 ft. 7 in.)		



## 444 P-TIER WHEEL LOADER SPECIFICATIONS

# 444

# P

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### Hydraulic System/Steering (continued)

### 444 P-TIER Z-BAR / HIGH-LIFT

#### Hydraulic Cycle Times

Raise	5.8 sec.
Dump	1.4 sec.
Lower (power down)	4.0 sec.
Total	11.2 sec.

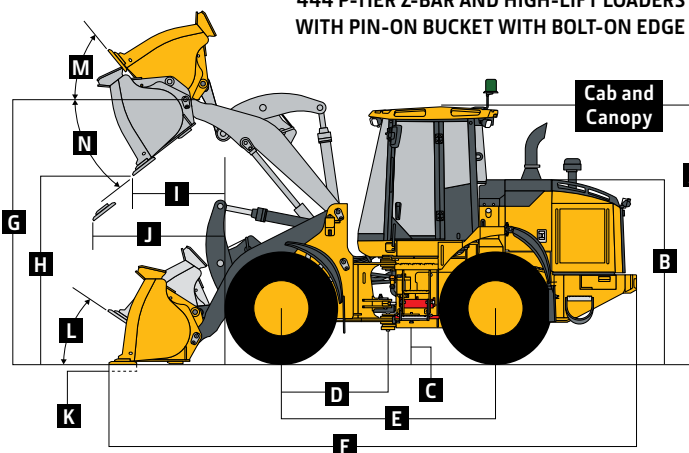
### Bucket Capacity Range

#### Bucket Type

Pin-On	1.9 m <sup>3</sup> (2.5 cu. yd.)
Coupler	1.9–3.4 m <sup>3</sup> (2.5–4.5 cu. yd.)

### Dimensions and Specifications With Pin-On Bucket With Bolt-On Edge

### 444 P-TIER Z-BAR AND HIGH-LIFT LOADERS WITH PIN-ON BUCKET WITH BOLT-ON EDGE



	Z-Bar	High-Lift
<b>Dimensions With Bucket With Bolt-On Edge (illustration above right)</b>	<i>1.9-m<sup>3</sup> (2.5 cu. yd.) general-purpose</i>	<i>1.9-m<sup>3</sup> (2.5 cu. yd.) general-purpose</i>
A Height to Top of Cab and Canopy	3.19 m (10 ft. 6 in.)	3.19 m (10 ft. 6 in.)
B Hood Height	2.24 m (7 ft. 4 in.)	2.24 m (7 ft. 4 in.)
C Ground Clearance	305 mm (12 in.)	305 mm (12 in.)
D Length From Centerline to Front Axle	1.38 m (4 ft. 6 in.)	1.38 m (4 ft. 6 in.)
E Wheelbase	2.76 m (9 ft. 1 in.)	2.76 m (9 ft. 1 in.)
F Overall Length, Bucket on Ground	6.93 m (22 ft. 9 in.)	7.32 m (24 ft. 0 in.)
G Height to Hinge Pin, Fully Raised	3.56 m (11 ft. 8 in.)	3.96 m (13 ft. 0 in.)
H Dump Clearance, 45 deg., Full Height	2.56 m (8 ft. 5 in.)	2.96 m (9 ft. 9 in.)
I Reach, 45-deg. Dump, Full Height	0.94 m (3 ft. 1 in.)	0.95 m (3 ft. 2 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.29 m (4 ft. 3 in.)	1.64 m (5 ft. 5 in.)
K Maximum Digging Depth	191 mm (7.5 in.)	250 mm (9.8 in.)
L Maximum Rollback at Ground Level	42 deg.	44 deg.
M Maximum Rollback, Boom Fully Raised	60 deg.	60 deg.
N Maximum Bucket Dump Angle, Fully Raised	48 deg.	45 deg.
Loader Clearance Circle, Bucket Carry Position	10.96 m (36 ft. 0 in.)	11.30 m (37 ft. 1 in.)
<b>Specifications With Bucket With Bolt-On Edge</b>		
Capacity, Heaped	1.9 m <sup>3</sup> (2.5 cu. yd.)	1.9 m <sup>3</sup> (2.5 cu. yd.)
Capacity, Struck	1.5 m <sup>3</sup> (2.0 cu. yd.)	1.5 m <sup>3</sup> (2.0 cu. yd.)
Bucket Weight With Bolt-On Cutting Edge	945 kg (2,082 lb.)	979 kg (2,158 lb.)
Bucket Width	2.55 m (8 ft. 4 in.)	2.55 m (8 ft. 4 in.)
Breakout Force	8841 kg (19,491 lb.)	8812 kg (19,428 lb.)
Tipping Load, Straight, No Tire Deflection	8884 kg (19,586 lb.)	7538 kg (16,618 lb.)
Tipping Load, Straight, With Tire Deflection	8400 kg (18,519 lb.)	7167 kg (15,801 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	7732 kg (17,047 lb.)	6525 kg (14,386 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	7149 kg (15,761 lb.)	6072 kg (13,386 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, No Tire Deflection (conforms to ISO 14397-1)*	3866 kg (8,523 lb.)	3263 kg (7,193 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1)*	3575 kg (7,880 lb.)	3036 kg (6,693 lb.)
Operating Weight	11 709 kg (25,814 lb.)	11 846 kg (26,116 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSS 4045 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments.

\*Rated operating capacity based on Deere attachments only.

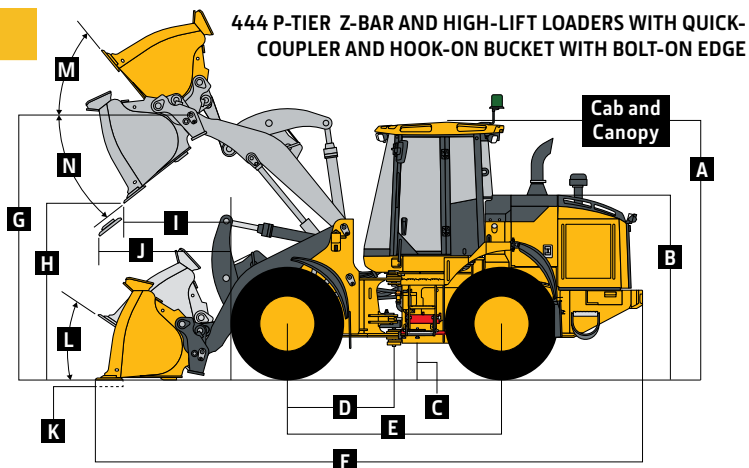


# 444 P TIER

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## Dimensions and Specifications With Hi-Vis Coupler and Hook-On Bucket With Bolt-On Edge

### 444 P-TIER Z-BAR / HIGH-LIFT



	Z-Bar	Z-Bar	High-Lift	High-Lift
	1.9-m <sup>3</sup> (2.5 cu. yd.)	3.1-m <sup>3</sup> (4.0 cu. yd.)	1.9-m <sup>3</sup> (2.5 cu. yd.)	3.1-m <sup>3</sup> (4.0 cu. yd.)
	general-purpose	light-material	general-purpose	light-material
A Height to Top of Cab and Canopy	3.19 m (10 ft. 6 in.)	3.19 m (10 ft. 6 in.)	3.19 m (10 ft. 6 in.)	3.19 m (10 ft. 6 in.)
B Hood Height	2.24 m (7 ft. 4 in.)	2.24 m (7 ft. 4 in.)	2.24 m (7 ft. 4 in.)	2.24 m (7 ft. 4 in.)
C Ground Clearance	305 mm (12 in.)	305 mm (12 in.)	305 mm (12 in.)	305 mm (12 in.)
D Length From Centerline to Front Axle	1.38 m (4 ft. 6 in.)	1.38 m (4 ft. 6 in.)	1.38 m (4 ft. 6 in.)	1.38 m (4 ft. 6 in.)
E Wheelbase	2.76 m (9 ft. 1 in.)	2.76 m (9 ft. 1 in.)	2.76 m (9 ft. 1 in.)	2.76 m (9 ft. 1 in.)
F Overall Length, Bucket on Ground	7.07 m (23 ft. 2 in.)	7.30 m (23 ft. 11 in.)	7.47 m (24 ft. 6 in.)	7.69 m (25 ft. 3 in.)
G Height to Hinge Pin, Fully Raised	3.56 m (11 ft. 8 in.)	3.56 m (11 ft. 8 in.)	3.96 m (13 ft. 0 in.)	3.96 m (13 ft. 0 in.)
H Dump Clearance, 45 deg., Full Height	2.48 m (8 ft. 2 in.)	2.33 m (7 ft. 8 in.)	2.88 m (9 ft. 5 in.)	2.73 m (9 ft. 0 in.)
I Reach, 45-deg. Dump, Full Height	1.09 m (3 ft. 7 in.)	1.25 m (4 ft. 1 in.)	1.10 m (3 ft. 7 in.)	1.26 m (4 ft. 2 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.38 m (4 ft. 6 in.)	1.43 m (4 ft. 8 in.)	1.74 m (5 ft. 9 in.)	1.81 m (5 ft. 11 in.)
K Maximum Digging Depth	161 mm (6.3 in.)	172 mm (6.8 in.)	220 mm (8.7 in.)	231 mm (9.1 in.)
L Maximum Rollback at Ground Level	42 deg.	42 deg.	44 deg.	44 deg.
M Maximum Rollback, Boom Fully Raised	60 deg.	60 deg.	60 deg.	60 deg.
N Maximum Bucket Dump Angle, Fully Raised	48 deg.	48 deg.	45 deg.	45 deg.
Loader Clearance Circle, Bucket Carry Position	10.98 m (36 ft. 1 in.)	11.38 m (37 ft. 4 in.)	11.28 m (37 ft. 0 in.)	11.66 m (38 ft. 3 in.)
<b>Specifications With Bucket With Bolt-On Edge</b>				
Capacity, Heaped	1.9 m <sup>3</sup> (2.5 cu. yd.)	3.1 m <sup>3</sup> (4.0 cu. yd.)	1.9 m <sup>3</sup> (2.5 cu. yd.)	3.1 m <sup>3</sup> (4.0 cu. yd.)
Capacity, Struck	1.5 m <sup>3</sup> (2.0 cu. yd.)	2.6 m <sup>3</sup> (3.4 cu. yd.)	1.5 m <sup>3</sup> (2.0 cu. yd.)	2.6 m <sup>3</sup> (3.4 cu. yd.)
Bucket Weight With Bolt-On Cutting Edge	945 kg (2,082 lb.)	1233 kg (2,719 lb.)	945 kg (2,082 lb.)	1233 kg (2,719 lb.)
Bucket Width	2.55 m (8 ft. 4 in.)	2.90 m (9 ft. 6 in.)	2.55 m (8 ft. 4 in.)	2.90 m (9 ft. 6 in.)
Breakout Force	7394 kg (16,301 lb.)	5999 kg (13,225 lb.)	7369 kg (16,246 lb.)	5977 kg (13,177 lb.)
Tipping Load, Straight, No Tire Deflection	8214 kg (18,109 lb.)	7758 kg (17,103 lb.)	6954 kg (15,332 lb.)	6528 kg (14,391 lb.)
Tipping Load, Straight, With Tire Deflection	7740 kg (17,064 lb.)	7266 kg (16,019 lb.)	6591 kg (14,531 lb.)	6147 kg (13,552 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	7106 kg (15,666 lb.)	6663 kg (14,689 lb.)	5975 kg (13,173 lb.)	5558 kg (12,254 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	6534 kg (14,405 lb.)	6069 kg (13,380 lb.)	5529 kg (12,189 lb.)	5082 kg (11,204 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, No Tire Deflection (conforms to ISO 14397-1)*	3553 kg (7,833 lb.)	3331 kg (7,344 lb.)	2988 kg (6,586 lb.)	2779 kg (6,127 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1)*	3267 kg (7,202 lb.)	3035 kg (6,690 lb.)	2765 kg (6,095 lb.)	2541 kg (5,602 lb.)
Operating Weight	12 083 kg (26,639 lb.)	12 414 kg (27,368 lb.)	12 220 kg (26,941 lb.)	12 551 kg (27,670 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSS 4045 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments.

\*Rated operating capacity based on Deere attachments only.

## Dimensions and Specifications With Hi-Vis Coupler and Construction Forks

	Z-Bar	Z-Bar	High-Lift	High-Lift
	1.22-m (48 in.) tine length	1.52-m (60 in.) tine length	1.22-m (48 in.) tine length	1.52-m (60 in.) tine length
A Height to Top of Cab and Canopy	3.19 m (10 ft. 6 in.)	3.19 m (10 ft. 6 in.)	3.19 m (10 ft. 6 in.)	3.19 m (10 ft. 6 in.)
B Hood Height	2.24 m (7 ft. 4 in.)	2.24 m (7 ft. 4 in.)	2.24 m (7 ft. 4 in.)	2.24 m (7 ft. 4 in.)
C Ground Clearance	305 mm (12 in.)	305 mm (12 in.)	305 mm (12 in.)	305 mm (12 in.)
D Length From Centerline to Front Axle	1.38 m (4 ft. 6 in.)	1.38 m (4 ft. 6 in.)	1.38 m (4 ft. 6 in.)	1.38 m (4 ft. 6 in.)
E Wheelbase	2.76 m (9 ft. 1 in.)	2.76 m (9 ft. 1 in.)	2.76 m (9 ft. 1 in.)	2.76 m (9 ft. 1 in.)
F Overall Length, Forks on Ground	7.57 m (24 ft. 10 in.)	7.88 m (25 ft. 10 in.)	7.97 m (26 ft. 2 in.)	8.28 m (27 ft. 2 in.)
G Height to Hinge Pin, Fully Raised	3.56 m (11 ft. 8 in.)	3.56 m (11 ft. 8 in.)	3.96 m (13 ft. 0 in.)	3.96 m (13 ft. 0 in.)
H Reach, Fully Raised	890 mm (35 in.)	890 mm (35 in.)	900 mm (35 in.)	900 mm (35 in.)
I Fork Height, Fully Raised	3.23 m (10 ft. 7 in.)	3.23 m (10 ft. 7 in.)	3.63 m (11 ft. 11 in.)	3.63 m (11 ft. 11 in.)
J Maximum Reach, Fork Level	1.61 m (5 ft. 3 in.)	1.61 m (5 ft. 3 in.)	1.91 m (6 ft. 3 in.)	1.91 m (6 ft. 3 in.)
K Fork Height, Maximum Reach	1.50 m (4 ft. 11 in.)	1.50 m (4 ft. 11 in.)	1.51 m (4 ft. 11 in.)	1.51 m (4 ft. 11 in.)
L Reach, Ground Level	1.11 m (3 ft. 8 in.)	1.11 m (3 ft. 8 in.)	1.48 m (4 ft. 10 in.)	1.48 m (4 ft. 10 in.)
M Depth Below Ground	160 mm (6 in.)	160 mm (6 in.)	220 mm (9 in.)	220 mm (9 in.)
N Tine Length	1.22 m (48 in.)	1.52 m (60 in.)	1.22 m (48 in.)	1.52 m (60 in.)
O Load Position, 50% Tine Length	610 mm (24 in.)	760 mm (30 in.)	610 mm (24 in.)	760 mm (30 in.)

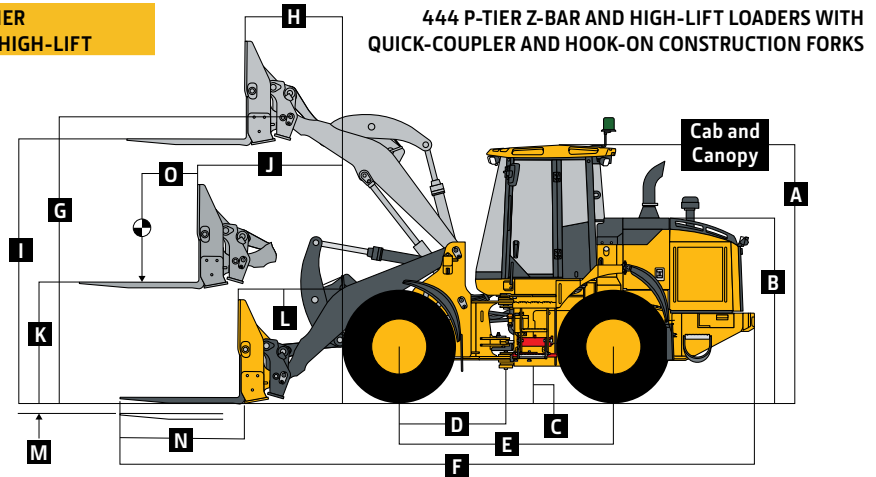


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# 444 P TIER

## Dimensions and Specifications With Hi-Vis Coupler and Construction Forks (continued)

## 444 P-TIER Z-BAR / HIGH-LIFT



## 444 P-TIER Z-BAR AND HIGH-LIFT LOADERS WITH QUICK-COUPLER AND HOOK-ON CONSTRUCTION FORKS

### Specifications With Forks (illustration above right)

	Z-Bar	Z-Bar	High-Lift	High-Lift
Tipping Load, Straight, No Tire Deflection	5905 kg (13,018 lb.)	5541 kg (12,216 lb.)	5192 kg (11,446 lb.)	4888 kg (10,777 lb.)
Tipping Load, Straight, With Tire Deflection	5727 kg (12,626 lb.)	5376 kg (11,852 lb.)	5037 kg (11,105 lb.)	4743 kg (10,457 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	5107 kg (11,259 lb.)	4783 kg (10,545 lb.)	4461 kg (9,835 lb.)	4191 kg (9,238 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	4884 kg (10,767 lb.)	4575 kg (10,086 lb.)	4266 kg (9,405 lb.)	3996 kg (8,810 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1 and SAE J1197)*	2442 kg (5,384 lb.)	2288 kg (5,043 lb.)	2133 kg (4,702 lb.)	1998 kg (4,405 lb.)
Rated Operating Load, Rough Terrain, 60% Full-Turn Tipping Load, With Tire Deflection (conforms to EN474-3)*	2930 kg (6,460 lb.)	2745 kg (6,052 lb.)	2560 kg (5,643 lb.)	2398 kg (5,286 lb.)
Rated Operating Load, Firm and Level Ground, 80% Full-Turn Tipping Load, With Tire Deflection (conforms to EN474-3)*	3907 kg (8,614 lb.)	3660 kg (8,069 lb.)	3413 kg (7,524 lb.)	3197 kg (7,048 lb.)
Operating Weight	11 979 kg (26,409 lb.)	12 039 kg (26,542 lb.)	12 116 kg (26,711 lb.)	12 176 kg (26,844 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSS 4045 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments.

\*Rated operating capacity based on Deere attachments only.

### Adjustments to Operating Weights and Tipping Loads With Buckets

Adjustments to operating weights, tipping loads, and tires are based on Z-Bar machine with pin-on 1.9-m<sup>3</sup> (2.5 cu. yd.) 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 79-kg (175 lb.) operator\*

Add (+) or deduct (–) kg (lb.) as indicated for loaders with 3-piece rims	Operating Weight	Tipping Load, Straight	Tipping Load, 40-deg. Full Turn	Tread Width	Width Over Tires	Vertical Height
Michelin 17.5 R 25, 1 Star L-3 XHA2	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 mm (0 in.)	0 mm (0 in.)	0 mm (0 in.)
Michelin 17.5 R 25, 1 Star L-2	–61 kg (–135 lb.)	–42 kg (–93 lb.)	–37 kg (–82 lb.)	0 mm (0 in.)	0 mm (0 in.)	+23 mm (+0.9 in.)
Bridgestone 17.5 R 25, 1 Star L-2	–9 kg (–21 lb.)	–6 kg (–14 lb.)	–6 kg (–13 lb.)	0 mm (0 in.)	–20 mm (–0.8 in.)	+35 mm (+1.4 in.)
Titan 17.5 R 25, 1 Star L-2	–7 kg (–16 lb.)	–5 kg (–11 lb.)	–5 kg (–10 lb.)	0 mm (0 in.)	–14 mm (–0.6 in.)	+35 mm (+1.4 in.)
Firestone 17.5-25, 12 PR L-3	–159 kg (–351 lb.)	–110 kg (–242 lb.)	–97 kg (–214 lb.)	0 mm (0 in.)	–2 mm (–0.1 in.)	+45 mm (+1.8 in.)
Firestone 17.5-25, 12 PR L-2	–151 kg (–334 lb.)	–104 kg (–230 lb.)	–92 kg (–203 lb.)	0 mm (0 in.)	–2 mm (–0.1 in.)	+47 mm (+1.9 in.)
Titan 20.5-25, 12 PR L-2 <sup>5</sup>	+121 kg (+266 lb.)	+83 kg (+183 lb.)	+73 kg (+162 lb.)	+50 mm (+2 in.)	+127 mm (+5.0 in.)	+105 mm (+4.1 in.)
Michelin 20.5 R 25, 1 Star L-2 <sup>5</sup>	+229 kg (+504 lb.)	+158 kg (+347 lb.)	+139 kg (+307 lb.)	+50 mm (+2 in.)	+123 mm (+4.8 in.)	+96 mm (+3.8 in.)
Bridgestone 20.5 R 25, 1 Star L-2 <sup>5</sup>	+321 kg (+707 lb.)	+221 kg (+487 lb.)	+195 kg (+430 lb.)	+50 mm (+2 in.)	+122 mm (+4.8 in.)	+97 mm (+3.8 in.)
Titan 20.5 R 25, 1 Star L-2 <sup>5</sup>	+519 kg (+1,143 lb.)	+357 kg (+788 lb.)	+315 kg (+695 lb.)	+50 mm (+2 in.)	+112 mm (+4.4 in.)	+97 mm (+3.8 in.)
Michelin 20.5 R 25 L2 Sno-Plus <sup>6</sup>	+284 kg (+626 lb.)	+196 kg (+432 lb.)	+173 kg (+381 lb.)	+52 mm (+2 in.)	+127 mm (+5.0 in.)	+90 mm (+3.5 in.)
CaCl <sub>2</sub> in 17.5-25 Rear Tires, 75% Fill	+606 kg (+1,337 lb.)	+836 kg (+1,843 lb.)	+738 kg (+1,626 lb.)	N/A	N/A	N/A

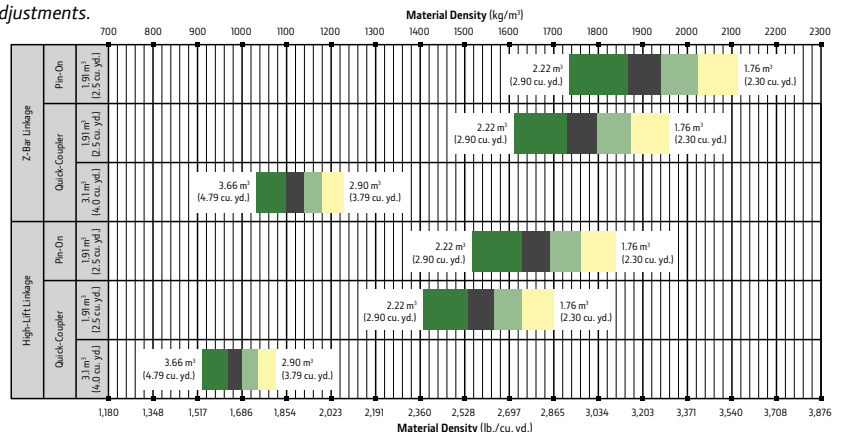
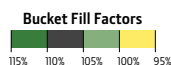
\*May change based on vehicle configuration, weight, or tire-pressure adjustments.

<sup>5</sup>CaCl<sub>2</sub> not recommended.

<sup>6</sup>Requires 8-deg. rear axle stops.

### Bucket Selection Guides

LOOSE MATERIALS	kg/m <sup>3</sup>	lb./cu. yd.	LOOSE MATERIALS	kg/m <sup>3</sup>	lb./cu. yd.
Chips, pulpwood	288	486	Limestone, coarse, sized	1570	2,646
Cinders (coal, ashes, clinkers)	673	1,134	Limestone, mixed sizes	1682	2,835
Clay and gravel, dry	1602	2,700	Limestone, pulverized or crushed	1362	2,295
Clay, compact, solid	1746	2,943	Sand, damp	2083	3,510
Clay, dry in lump loose	1009	1,701	Sand, dry	1762	2,970
Clay, excavated in water	1282	2,160	Sand, voids, full of water	2083	3,510
Coal, anthracite, broken, loose	865	1,458	Sandstone, quarried	1314	2,214
Coal, bituminous, moderately wet	801	1,350	Shale, broken crushed	1362	2,295
Earth, common loam, dry	1218	2,052	Slag, furnace granulated	1955	3,294
Earth, mud, packed	1843	3,105	Stone or gravel, 37.5 to 87.5-mm (1.5 to 3.5") size	1442	2,430
Granite, broken	1538	2,592	Stone or gravel, 18.75-mm (0.75") size	1602	2,700
Gypsum	2275	3,834			







While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

Engine			
Manufacturer and Model	John Deere PowerTech™ PVS 6068	Gross Peak Torque (ISO 9249)	713 Nm (526 ft.-lb.) at 1,400 rpm
Non-Road Emission Standard	EPA Final Tier 4/EU Stage V	Net Torque Rise	60%
Cylinders	6	Fuel System (electronically controlled)	High-pressure common rail
Valves Per Cylinder	4	Lubrication	Full-flow spin-on filter and integral cooler
Displacement	6.8 L (414 cu. in.)	Aspiration	Turbocharged, charge air cooled
Net Peak Power (ISO 9249)	113 kW (152 hp) at 1,800 rpm	Air Cleaner	Under-hood, dual-element dry type, restriction indicator in cab monitor for service
Gross Peak Power (ISO 9249)	120 kW (161 hp) at 1,800 rpm		
Net Peak Torque (ISO 9249)	683 Nm (504 lb.-ft.) at 1,100 rpm		
Cooling			
Fan Drive	Hydraulically driven, proportionally controlled, fan aft of coolers		
Electrical			
Electrical System	24 volt with 100-amp alternator (optional 130-amp alternator)		
Batteries (2 – 12 volt)	950 CCA (each)		
Transmission System			
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 2 selectable modes: kick-down or kick-up/down; and 4 clutch cutoff settings		
	Standard 5-Speed		
Maximum Travel Speeds (with 20.5 R 25 tires)	Forward	Reverse	
Range 1	5.6 km/h (3.5 mph)	5.9 km/h (3.6 mph)	
Range 2	11.0 km/h (6.8 mph)	11.6 km/h (7.2 mph)	
Range 3	17.0 km/h (10.6 mph)	27.0 km/h (16.8 mph)	
Range 4	25.6 km/h (15.9 mph)	N/A	
Range 5	40.0 km/h (24.8 mph)	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. (12 deg. each direction)		
Brakes (conform to ISO 3450)			
Service	Hydraulically actuated, spring-retracted, self-adjusting inboard sun-shaft mounted, oil cooled, single disc		
Parking	Automatic spring applied, hydraulically released, driveline mounted, sealed wet multi disc		
Tires/Wheels (see page 18 for complete tire adjustments)			
	Tread Width	Width Over Tires	
Michelin 20.5 R 25, 1 Star L-3 XHA2	1952 mm (76.8 in.)	2546 mm (100.2 in.)	
Serviceability			
Refill Capacities			
Fuel Tank (with lockable cap)	220 L (58 gal.)	Axle Oil (each)	
Cooling System	29.9 L (31.6 qt.)	Front	16.6 L (17.5 qt.)
Diesel Exhaust Fluid (DEF)	15.6 L (16.5 qt.)	Rear	18 L (19 qt.)
Engine Oil With Vertical Spin-On Filter	19.5 L (20.6 qt.)	Hydraulic Reservoir and Filter	82.1 L (21.7 gal.)
Transmission Reservoir With Vertical Filter	21 L (22.2 qt.)	Park Brake Oil (wet disc)	0.3 L (10 oz.)
Hydraulic System/Steering			
Pump (loader and steering)	Variable-displacement, axial-piston pump; closed-center, pressure-compensating system		
Maximum Rated Flow at 6895 kPa (1,000 psi) and 2,200 rpm	178 L/m (47 gpm)		
System Relief Pressure (loader and steering)	24 994 kPa (3,625 psi)		
Loader Controls	2-function valve, joystick control or fingertip controls, hydraulic-function enable/disable, optional 3rd- and 4th-function valve with auxiliary lever		
Steering (conforms to ISO 5010)	Steering-column-mounted, twist-grip shift lever; Quick-Shift button on hydraulic lever		
Type	Power, fully hydraulic		
Articulation Angle	80-deg. arc (40 deg. each direction)		
Turning Radius (measured to centerline of outside tire)	5.0 m (16 ft. 5 in.)		



## 524 P-TIER WHEEL LOADER SPECIFICATIONS

# 524

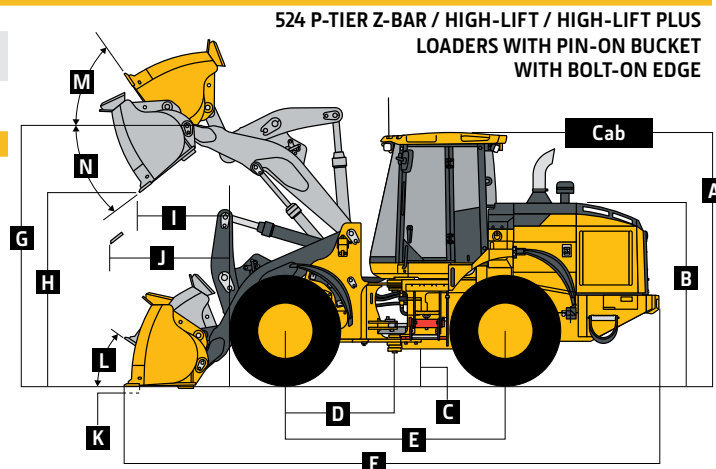
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Hydraulic System/Steering (continued)	524 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS / TOOL CARRIER	
Hydraulic Cycle Times	Z-Bar / High-Lift / High-Lift Plus	Tool Carrier
Raise	6.1 sec.	5.8 sec.
Dump	2.0 sec.	2.2 sec.
Lower (power down)	4.0 sec.	3.5 sec.
Total	12.1 sec.	11.5 sec.

Bucket Capacity Range		
Bucket Type		
Pin-On	2.1–2.5 m <sup>3</sup> (2.75–3.25 cu. yd.)	
Coupler	1.9–3.4 m <sup>3</sup> (2.5–4.5 cu. yd.)	

### Dimensions and Specifications With Pin-On Bucket With Bolt-On Edge



	Z-Bar	Z-Bar	High-Lift	High-Lift Plus
	2.1-m <sup>3</sup> (2.75 cu. yd.)	2.3-m <sup>3</sup> (3.0 cu. yd.)	2.1-m <sup>3</sup> (2.75 cu. yd.)	2.1-m <sup>3</sup> (2.75 cu. yd.)
Dimensions With Bucket With Bolt-On Edge (illustration above right)	general purpose	general purpose	general purpose	general purpose
A Height to Top of Cab	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)
B Hood Height	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)
C Ground Clearance	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)
D Length From Centerline to Front Axle	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)
E Wheelbase	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)
F Overall Length, Bucket on Ground	7.37 m (24 ft. 2 in.)	7.45 m (24 ft. 5 in.)	7.80 m (25 ft. 7 in.)	8.10 m (26 ft. 7 in.)
G Height to Hinge Pin, Fully Raised	3.81 m (12 ft. 6 in.)	3.81 m (12 ft. 6 in.)	4.17 m (13 ft. 8 in.)	4.42 m (14 ft. 6 in.)
H Dump Clearance, 45 deg., Full Height	2.78 m (9 ft. 1 in.)	2.72 m (8 ft. 11 in.)	3.14 m (10 ft. 4 in.)	3.39 m (11 ft. 1 in.)
I Reach, 45-deg. Dump, Full Height	0.99 m (3 ft. 3 in.)	1.04 m (3 ft. 5 in.)	1.09 m (3 ft. 7 in.)	1.12 m (3 ft. 8 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.44 m (4 ft. 9 in.)	1.47 m (4 ft. 10 in.)	1.81 m (5 ft. 11 in.)	2.03 m (6 ft. 8 in.)
K Maximum Digging Depth	102 mm (4.0 in.)	108 mm (4.3 in.)	193 mm (7.6 in.)	198 mm (7.8 in.)
L Maximum Rollback at Ground Level	44 deg.	44 deg.	48 deg.	49 deg.
M Maximum Rollback, Boom Fully Raised	60 deg.	60 deg.	60 deg.	61 deg.
N Maximum Bucket Dump Angle, Fully Raised	50 deg.	50 deg.	46 deg.	45 deg.
Loader Clearance Circle, Bucket Carry Position	11.40 m (37 ft. 5 in.)	11.42 m (37 ft. 6 in.)	11.68 m (38 ft. 4 in.)	12.08 m (39 ft. 7 in.)

Specifications With Bucket With Bolt-On Edge				
Capacity, Heaped	2.1 m <sup>3</sup> (2.75 cu. yd.)	2.3 m <sup>3</sup> (3.0 cu. yd.)	2.1 m <sup>3</sup> (2.75 cu. yd.)	2.1 m <sup>3</sup> (2.75 cu. yd.)
Capacity, Struck	1.7 m <sup>3</sup> (2.26 cu. yd.)	1.9 m <sup>3</sup> (2.53 cu. yd.)	1.7 m <sup>3</sup> (2.26 cu. yd.)	1.7 m <sup>3</sup> (2.26 cu. yd.)
Bucket Weight With Bolt-On Cutting Edge	1056 kg (2,327 lb.)	1095 kg (2,415 lb.)	1056 kg (2,327 lb.)	1056 kg (2,327 lb.)
Bucket Width	2.55 m (8 ft. 4 in.)	2.55 m (8 ft. 4 in.)	2.55 m (8 ft. 4 in.)	2.55 m (8 ft. 4 in.)
Breakout Force	11 070 kg (24,406 lb.)	10 285 kg (22,674 lb.)	10 952 kg (24,145 lb.)	11 059 kg (24,381 lb.)
Tipping Load, Straight, No Tire Deflection	10 297 kg (22,702 lb.)	10 172 kg (22,426 lb.)	8667 kg (19,107 lb.)	7967 kg (17,564 lb.)
Tipping Load, Straight, With Tire Deflection	9753 kg (21,502 lb.)	9630 kg (21,230 lb.)	8253 kg (18,195 lb.)	7614 kg (16,786 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	8955 kg (19,742 lb.)	8840 kg (19,489 lb.)	7496 kg (16,526 lb.)	6860 kg (15,123 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	8259 kg (18,208 lb.)	8145 kg (17,957 lb.)	6963 kg (15,351 lb.)	6390 kg (14,088 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, No Tire Deflection (conforms to ISO 14397-1)*	4477 kg (9,871 lb.)	4420 kg (9,745 lb.)	3748 kg (8,263 lb.)	3430 kg (7,562 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1)*	4130 kg (9,104 lb.)	4073 kg (8,978 lb.)	3482 kg (7,675 lb.)	3195 kg (7,044 lb.)
Operating Weight	13 123 kg (28,931 lb.)	13 163 kg (29,018 lb.)	13 341 kg (29,412 lb.)	13 457 kg (29,667 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PVS 6068 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments.

\*Rated operating capacity based on Deere attachments only.

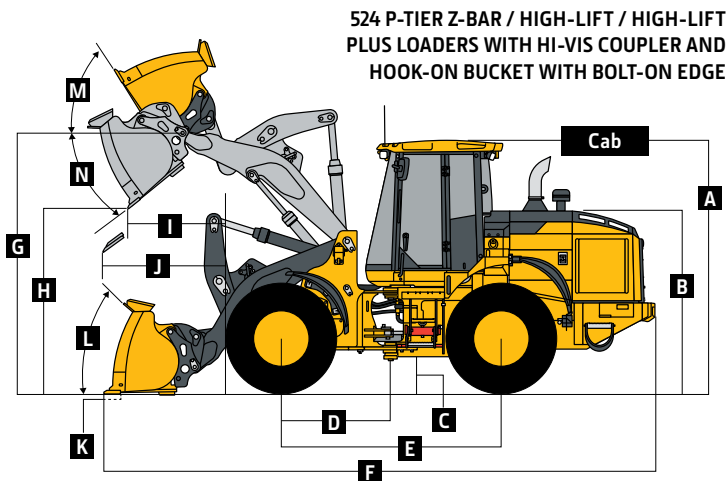


# 524 P TIER

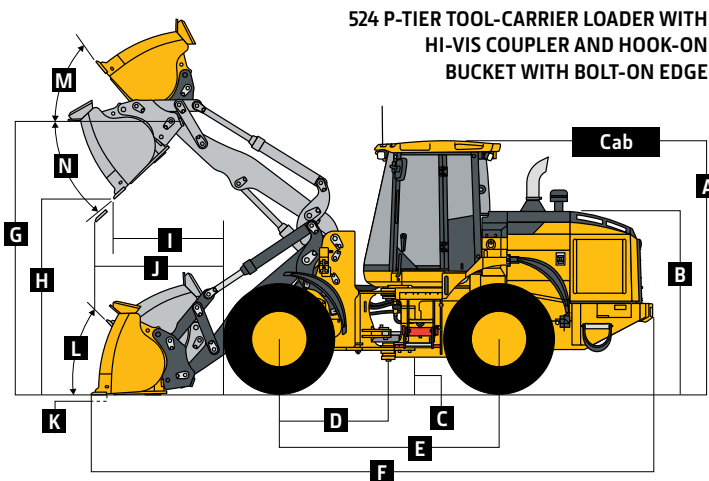
While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

## Dimensions and Specifications With Hi-Vis Coupler and Hook-On Bucket With Bolt-On Edge

### 524 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS / TOOL CARRIER



524 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT  
PLUS LOADERS WITH HI-VIS COUPLER AND  
HOOK-ON BUCKET WITH BOLT-ON EDGE



524 P-TIER TOOL-CARRIER LOADER WITH  
HI-VIS COUPLER AND HOOK-ON  
BUCKET WITH BOLT-ON EDGE

	Z-Bar	Z-Bar	High-Lift	High-Lift	High-Lift Plus	High-Lift Plus	Tool Carrier	Tool Carrier
	2.1-m <sup>3</sup> (2.75 cu. yd.)	3.1-m <sup>3</sup> (4.0 cu. yd.)	2.1-m <sup>3</sup> (2.75 cu. yd.)	3.1-m <sup>3</sup> (4.0 cu. yd.)	1.9-m <sup>3</sup> (2.5 cu. yd.)	3.1-m <sup>3</sup> (4.0 cu. yd.)	2.1-m <sup>3</sup> (2.75 cu. yd.)	3.1-m <sup>3</sup> (4.0 cu. yd.)
	general	light material	general	light material	general	light material	general	light material
<b>Dimensions With Bucket With Bolt-On Edge (illustrations above)</b>								
<b>A</b> Height to Top of Cab	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)
<b>B</b> Hood Height	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)
<b>C</b> Ground Clearance	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)
<b>D</b> Length From Centerline to Front Axle	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)
<b>E</b> Wheelbase	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)
<b>F</b> Overall Length, Bucket on Ground	7.52 m (24 ft. 8 in.)	7.65 m (25 ft. 1 in.)	7.95 m (26 ft. 1 in.)	8.08 m (26 ft. 6 in.)	8.15 m (26 ft. 9 in.)	8.37 m (27 ft. 6 in.)	7.77 m (25 ft. 6 in.)	7.80 m (25 ft. 7 in.)
<b>G</b> Height to Hinge Pin, Fully Raised	3.81 m (12 ft. 6 in.)	3.81 m (12 ft. 6 in.)	4.17 m (13 ft. 8 in.)	4.17 m (13 ft. 8 in.)	4.42 m (14 ft. 6 in.)	4.42 m (14 ft. 6 in.)	3.89 m (12 ft. 9 in.)	3.89 m (12 ft. 9 in.)
<b>H</b> Dump Clearance, 45 deg., Full Height	2.68 m (8 ft. 10 in.)	2.60 m (8 ft. 6 in.)	3.04 m (10 ft. 0 in.)	2.96 m (9 ft. 9 in.)	3.35 m (11 ft. 0 in.)	3.21 m (10 ft. 6 in.)	2.79 m (9 ft. 2 in.)	2.70 m (8 ft. 10 in.)
<b>I</b> Reach, 45-deg. Dump, Full Height	1.09 m (3 ft. 7 in.)	1.19 m (3 ft. 11 in.)	1.19 m (3 ft. 11 in.)	1.29 m (4 ft. 3 in.)	1.17 m (3 ft. 10 in.)	1.33 m (4 ft. 4 in.)	1.34 m (4 ft. 5 in.)	1.44 m (4 ft. 9 in.)
<b>J</b> Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.50 m (4 ft. 11 in.)	1.55 m (5 ft. 1 in.)	1.87 m (6 ft. 2 in.)	1.92 m (6 ft. 4 in.)	2.06 m (6 ft. 9 in.)	2.16 m (7 ft. 1 in.)	1.81 m (5 ft. 11 in.)	1.86 m (6 ft. 1 in.)
<b>K</b> Maximum Digging Depth	108 mm (4.2 in.)	111 mm (4.4 in.)	199 mm (7.8 in.)	202 mm (8.0 in.)	196 mm (7.7 in.)	207 mm (8.1 in.)	100 mm (3.9 in.)	102 mm (4.0 in.)
<b>L</b> Maximum Rollback at Ground Level	44 deg.	44 deg.	48 deg.	48 deg.	49 deg.	49 deg.	50 deg.	50 deg.
<b>M</b> Maximum Rollback, Boom Fully Raised	60 deg.	60 deg.	60 deg.	60 deg.	61 deg.	61 deg.	55 deg.	55 deg.
<b>N</b> Maximum Bucket Dump Angle, Fully Raised	50 deg.	50 deg.	46 deg.	46 deg.	45 deg.	45 deg.	46 deg.	46 deg.
Loader Clearance Circle, Bucket Carry Position	11.44 m (37 ft. 7 in.)	11.80 m (38 ft. 9 in.)	11.78 m (38 ft. 8 in.)	12.22 m (40 ft. 1 in.)	12.02 m (39 ft. 6 in.)	12.54 m (41 ft. 2 in.)	11.24 m (36 ft. 11 in.)	12.04 m (39 ft. 6 in.)
<b>Specifications With Bucket With Bolt-On Edge</b>								
Capacity, Heaped	2.1 m <sup>3</sup> (2.75 cu. yd.)	3.1 m <sup>3</sup> (4.0 cu. yd.)	2.1 m <sup>3</sup> (2.75 cu. yd.)	3.1 m <sup>3</sup> (4.0 cu. yd.)	1.9 m <sup>3</sup> (2.5 cu. yd.)	3.1 m <sup>3</sup> (4.0 cu. yd.)	2.1 m <sup>3</sup> (2.75 cu. yd.)	3.1 m <sup>3</sup> (4.0 cu. yd.)
Capacity, Struck	1.7 m <sup>3</sup> (2.26 cu. yd.)	2.6 m <sup>3</sup> (3.4 cu. yd.)	1.7 m <sup>3</sup> (2.26 cu. yd.)	2.6 m <sup>3</sup> (3.4 cu. yd.)	1.5 m <sup>3</sup> (1.96 cu. yd.)	2.6 m <sup>3</sup> (3.4 cu. yd.)	1.7 m <sup>3</sup> (2.26 cu. yd.)	2.6 m <sup>3</sup> (3.4 cu. yd.)
Bucket Weight With Bolt-On Cutting Edge	1454 kg (3,205 lb.)	1683 kg (3,711 lb.)	1454 kg (3,205 lb.)	1683 kg (3,711 lb.)	1385 kg (3,052 lb.)	1683 kg (3,711 lb.)	1437 kg (3,167 lb.)	1656 kg (3,651 lb.)
Bucket Width	2.55 m (8 ft. 4 in.)	2.89 m (9 ft. 6 in.)	2.55 m (8 ft. 4 in.)	2.89 m (9 ft. 6 in.)	2.55 m (8 ft. 4 in.)	2.89 m (9 ft. 6 in.)	2.55 m (8 ft. 4 in.)	2.89 m (9 ft. 6 in.)
Breakout Force	9604 kg (21,173 lb.)	8569 kg (18,891 lb.)	9500 kg (20,945 lb.)	8475 kg (18,684 lb.)	10 383 kg (22,891 lb.)	8559 kg (18,870 lb.)	10 660 kg (23,501 lb.)	9109 kg (20,081 lb.)
Tipping Load, Straight, No Tire Deflection	9483 kg (20,906 lb.)	9168 kg (20,212 lb.)	7969 kg (17,568 lb.)	7672 kg (16,913 lb.)	7436 kg (16,394 lb.)	7032 kg (15,504 lb.)	8691 kg (19,160 lb.)	8385 kg (18,486 lb.)
Tipping Load, Straight, With Tire Deflection	8967 kg (19,769 lb.)	8637 kg (19,041 lb.)	7575 kg (16,700 lb.)	7260 kg (16,006 lb.)	7092 kg (15,635 lb.)	6672 kg (14,709 lb.)	8259 kg (18,208 lb.)	7938 kg (17,500 lb.)

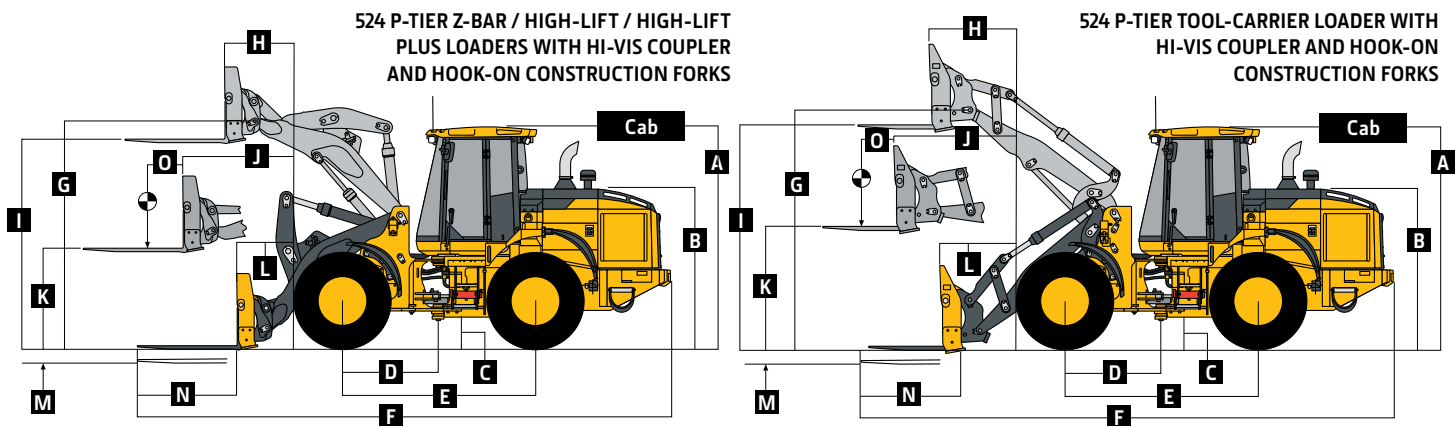
## Dimensions and Specifications With Hi-Vis Coupler and Hook-On Bucket (continued)

	524 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS / TOOL CARRIER							
	Z-Bar	Z-Bar	High-Lift	High-Lift	High-Lift Plus	High-Lift Plus	Tool Carrier	Tool Carrier
	2.1-m <sup>3</sup> (2.75 cu. yd.)	3.1-m <sup>3</sup> (4.0 cu. yd.)	2.1-m <sup>3</sup> (2.75 cu. yd.)	3.1-m <sup>3</sup> (4.0 cu. yd.)	1.9-m <sup>3</sup> (2.5 cu. yd.)	3.1-m <sup>3</sup> (4.0 cu. yd.)	2.1-m <sup>3</sup> (2.75 cu. yd.)	3.1-m <sup>3</sup> (4.0 cu. yd.)
Specifications With Bucket With Bolt-On Edge (continued) (illustrations at left)	general purpose	light material	general purpose	light material	general purpose	light material	general purpose	light material
Tipping Load, 40-deg. Full Turn, No Tire Deflection	8199 kg (18,075 lb.)	7888 kg (17,391 lb.)	6841 kg (15,082 lb.)	6548 kg (14,436 lb.)	6360 kg (14,021 lb.)	5965 kg (13,150 lb.)	7503 kg (16,541 lb.)	7203 kg (15,880 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	7539 kg (16,621 lb.)	7206 kg (15,886 lb.)	6327 kg (13,949 lb.)	6033 kg (13,300 lb.)	5919 kg (13,049 lb.)	5493 kg (12,110 lb.)	6936 kg (15,291 lb.)	6633 kg (14,623 lb.)
Rated Operating Load, 50% Full-Turn	4099 kg	3944 kg	3421 kg	3274 kg	3180 kg	2982 kg	3752 kg	3602 kg
Tipping Load, No Tire Deflection (conforms to ISO 14397-1)*	(9,037 lb.)	(8,695 lb.)	(7,541 lb.)	(7,218 lb.)	(7,011 lb.)	(6,575 lb.)	(8,271 lb.)	(7,940 lb.)
Rated Operating Load, 50% Full-Turn	3770 kg	3603 kg	3164 kg	3017 kg	2960 kg	2747 kg	3468 kg	3317 kg
Tipping Load, With Tire Deflection (conforms to ISO 14397-1)*	(8,310 lb.)	(7,943 lb.)	(6,974 lb.)	(6,650 lb.)	(6,525 lb.)	(6,055 lb.)	(7,646 lb.)	(7,312 lb.)
Operating Weight	13 541 kg (29,853 lb.)	13 770 kg (30,359 lb.)	13 760 kg (30,335 lb.)	13 989 kg (30,841 lb.)	13 806 kg (30,438 lb.)	14 105 kg (31,097 lb.)	13 390 kg (29,520 lb.)	13 610 kg (30,004 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PVS 6068 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments.

\*Rated operating capacity based on Deere attachments only.

## Dimensions and Specifications With Hi-Vis Coupler and Hook-On Construction Forks



	Z-Bar	Z-Bar	High-Lift	High-Lift	High-Lift Plus	High-Lift Plus	Tool Carrier	Tool Carrier
	1.22-m (48 in.)	1.52-m (60 in.)	1.22-m (48 in.)	1.52-m (60 in.)	1.22-m (48 in.)	1.52-m (60 in.)	1.22-m (48 in.)	1.52-m (60 in.)
Dimensions With Forks (illustrations above)	tine length	tine length	tine length	tine length	tine length	tine length	tine length	tine length
A Height to Top of Cab	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)
B Hood Height	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)
C Ground Clearance	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)
D Length From Centerline to Front Axle	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)
E Wheelbase	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)
F Overall Length, Forks on Ground	7.94 m (26 ft. 1 in.)	8.24 m (27 ft. 1 in.)	8.37 m (27 ft. 6 in.)	8.68 m (28 ft. 6 in.)	8.67 m (28 ft. 5 in.)	8.97 m (29 ft. 5 in.)	8.13 m (26 ft. 8 in.)	8.44 m (27 ft. 8 in.)
G Height to Hinge Pin, Fully Raised	3.81 m (12 ft. 6 in.)	3.81 m (12 ft. 6 in.)	4.17 m (13 ft. 8 in.)	4.17 m (13 ft. 8 in.)	4.42 m (14 ft. 6 in.)	4.42 m (14 ft. 6 in.)	3.89 m (12 ft. 9 in.)	3.89 m (12 ft. 9 in.)
H Reach, Fully Raised	0.82 m (32 in.)	0.82 m (32 in.)	0.92 m (3 ft. 0 in.)	0.92 m (3 ft. 0 in.)	0.96 m (3 ft. 2 in.)	0.96 m (3 ft. 2 in.)	1.08 m (3 ft. 7 in.)	1.08 m (3 ft. 7 in.)
I Fork Height, Fully Raised	3.48 m (11 ft. 5 in.)	3.48 m (11 ft. 5 in.)	3.84 m (12 ft. 7 in.)	3.84 m (12 ft. 7 in.)	4.09 m (13 ft. 5 in.)	4.09 m (13 ft. 5 in.)	3.66 m (12 ft. 0 in.)	3.66 m (12 ft. 0 in.)
J Maximum Reach, Fork Level	1.56 m (5 ft. 1 in.)	1.56 m (5 ft. 1 in.)	1.89 m (6 ft. 2 in.)	1.89 m (6 ft. 2 in.)	2.10 m (6 ft. 11 in.)	2.10 m (6 ft. 11 in.)	1.81 m (5 ft. 11 in.)	1.81 m (5 ft. 11 in.)
K Fork Height, Maximum Reach	1.65 m (5 ft. 5 in.)	1.65 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.83 m (6 ft. 0 in.)	1.83 m (6 ft. 0 in.)
L Reach, Ground Level	0.99 m (3 ft. 3 in.)	0.99 m (3 ft. 3 in.)	1.40 m (4 ft. 7 in.)	1.40 m (4 ft. 7 in.)	1.65 m (5 ft. 5 in.)	1.65 m (5 ft. 5 in.)	1.17 m (3 ft. 10 in.)	1.17 m (3 ft. 10 in.)
M Depth Below Ground	99 mm (4 in.)	99 mm (4 in.)	189 mm (7 in.)	189 mm (7 in.)	195 mm (8 in.)	195 mm (8 in.)	154 mm (6 in.)	154 mm (6 in.)
N Tine Length	1.22 m (48 in.)	1.52 m (60 in.)	1.22 m (48 in.)	1.52 m (60 in.)	1.22 m (48 in.)	1.52 m (60 in.)	1.22 m (48 in.)	1.52 m (60 in.)
O Load Position, 50% Tine Length	0.61 m (24 in.)	0.76 m (30 in.)	0.61 m (24 in.)	0.76 m (30 in.)	0.61 m (24 in.)	0.76 m (30 in.)	0.61 m (24 in.)	0.76 m (30 in.)



### Dimensions and Specifications With Hi-Vis Coupler and Hook-On

#### Construction Forks (continued)

#### 524 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS / TOOL CARRIER

	Z-Bar	Z-Bar	High-Lift	High-Lift	High-Lift Plus	High-Lift Plus	Tool Carrier	Tool Carrier
	1.22-m (48 in.)	1.52-m (60 in.)	1.22-m (48 in.)	1.52-m (60 in.)	1.22-m (48 in.)	1.52-m (60 in.)	1.22-m (48 in.)	1.52-m (60 in.)
Specifications With Forks (illustrations on previous page)	tine length	tine length	tine length	tine length	tine length	tine length	tine length	tine length
Tipping Load, Straight, No Tire Deflection	6990 kg (15,411 lb.)	6574 kg (14,494 lb.)	6101 kg (13,451 lb.)	5760 kg (12,698 lb.)	5701 kg (12,569 lb.)	5393 kg (11,889 lb.)	6504 kg (14,339 lb.)	6135 kg (13,525 lb.)
Tipping Load, Straight, With Tire Deflection	6801 kg (14,994 lb.)	6393 kg (14,094 lb.)	5943 kg (13,102 lb.)	5616 kg (12,381 lb.)	5538 kg (12,209 lb.)	5250 kg (11,574 lb.)	6333 kg (13,962 lb.)	5976 kg (13,175 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	6050 kg (13,338 lb.)	5681 kg (12,524 lb.)	5246 kg (11,566 lb.)	4943 kg (10,898 lb.)	4877 kg (10,752 lb.)	4604 kg (10,149 lb.)	5619 kg (12,388 lb.)	5289 kg (11,660 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	5796 kg (12,778 lb.)	5442 kg (11,998 lb.)	5013 kg (11,052 lb.)	4728 kg (10,423 lb.)	4674 kg (10,304 lb.)	4401 kg (9,703 lb.)	5385 kg (11,872 lb.)	5085 kg (11,210 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1 and SAE J1197)*	2898 kg (6,389 lb.)	2721 kg (5,999 lb.)	2507 kg (5,526 lb.)	2364 kg (5,212 lb.)	2337 kg (5,152 lb.)	2201 kg (4,851 lb.)	2693 kg (5,936 lb.)	2543 kg (5,605 lb.)
Rated Operating Load, Rough Terrain, 60% Full-Turn Tipping Load, With Tire Deflection (conforms to EN474-3)*	3478 kg (7,667 lb.)	3265 kg (7,199 lb.)	3008 kg (6,631 lb.)	2837 kg (6,254 lb.)	2804 kg (6,183 lb.)	2641 kg (5,822 lb.)	3231 kg (7,123 lb.)	3051 kg (6,726 lb.)
Rated Operating Load, Firm and Level Ground, 80% Full-Turn Tipping Load, With Tire Deflection (conforms to EN474-3)*	4637 kg (10,222 lb.)	4354 kg (9,598 lb.)	4010 kg (8,841 lb.)	3782 kg (8,339 lb.)	3739 kg (8,244 lb.)	3521 kg (7,762 lb.)	4308 kg (9,498 lb.)	4068 kg (8,968 lb.)
Operating Weight	13 366 kg (29,468 lb.)	13 427 kg (29,601 lb.)	13 585 kg (29,950 lb.)	13 646 kg (30,084 lb.)	13 701 kg (30,206 lb.)	13 762 kg (30,339 lb.)	13 206 kg (29,114 lb.)	13 266 kg (29,246 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PVS 6068 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments.

\*Rated operating capacity based on Deere attachments only.

#### Adjustments to Operating Weights and Tipping Loads With Buckets

Adjustments to operating weights, tipping loads, and tires are based on Z-Bar machine with pin-on 2.1-m<sup>3</sup> (2.75 cu. yd.) 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 79-kg (175 lb.) operator\*

Add (+) or deduct (-) kg (lb.) as indicated	Operating Weight	Tipping Load, Straight	Tipping Load, 40-deg. Full Turn	Tread Width	Width Over Tires	Vertical Height
for loaders with 3-piece rims						
Michelin 20.5 R 25, 1 Star L-3 XHA2	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 mm (0 in.)	0 mm (0 in.)	0 mm (0 in.)
Bridgestone 20.5 R 25, 1 Star L-3 VJT	+4 kg (+9 lb.)	+3 kg (+6 lb.)	+3 kg (+6 lb.)	0 mm (0 in.)	+2 mm (+0.1 in.)	-41 mm (-1.6 in.)
Titan 20.5 R 25, 1 Star L-3 STL3	+11 kg (+23 lb.)	+8 kg (+17 lb.)	+7 kg (+15 lb.)	0 mm (0 in.)	-7 mm (-0.3 in.)	-5 mm (-0.2 in.)
Michelin 20.5 R 25, 1 Star L-2 XTLA	-152 kg (-335 lb.)	-109 kg (-241 lb.)	-96 kg (-212 lb.)	0 mm (0 in.)	+4 mm (+0.2 in.)	-11 mm (-0.4 in.)
Bridgestone 20.5 R 25, 1 Star L-2 VUT	-65 kg (-144 lb.)	-47 kg (-104 lb.)	-41 kg (-91 lb.)	0 mm (0 in.)	+3 mm (+0.1 in.)	-10 mm (-0.4 in.)
Titan 20.5 R 25, 1 Star L-2 TGD2	-85 kg (-188 lb.)	-61 kg (-135 lb.)	-54 kg (-119 lb.)	0 mm (0 in.)	-7 mm (-0.3 in.)	-10 mm (-0.4 in.)
Titan 20.5-25, 16 PR L-2	-245 kg (-541 lb.)	-176 kg (-389 lb.)	-155 kg (-343 lb.)	0 mm (0 in.)	+8 mm (+0.3 in.)	-2 mm (-0.1 in.)
Firestone 20.5-25, 16 PR L-2 SGG LD	-280 kg (-617 lb.)	-201 kg (-443 lb.)	-177 kg (-391 lb.)	0 mm (0 in.)	+5 mm (+0.2 in.)	-1 mm (0 in.)
Titan 20.5-25, 12 PR L-2	-266 kg (-587 lb.)	-191 kg (-422 lb.)	-169 kg (-372 lb.)	0 mm (0 in.)	+8 mm (+0.3 in.)	-2 mm (-0.1 in.)
Firestone 20.5-25, 16 PR L-3 SRG LD	-276 kg (-608 lb.)	-198 kg (-437 lb.)	-175 kg (-385 lb.)	0 mm (0 in.)	+8 mm (+0.3 in.)	+3 mm (+0.1 in.)
Michelin 20.5 R 25, 1 Star L2 SNO-PLUS	-96 kg (-212 lb.)	-69 kg (-152 lb.)	-61 kg (-134 lb.)	0 mm (0 in.)	+6 mm (+0.2 in.)	-16 mm (-0.6 in.)
Michelin 620/75R26 MegaXbib <sup>EB</sup>	-189 kg (-417 lb.)	-136 kg (-300 lb.)	-120 kg (-264 lb.)	+187 mm (+7.4 in.)	+247 mm (+9.7 in.)	+23 mm (+0.9 in.)
CaCl <sub>2</sub> in 20.5-25, L-3 Rear Tires, 75% Fill	+825 kg (+1,820 lb.)	+1185 kg (+2,613 lb.)	+1045 kg (+2,304 lb.)	N/A	N/A	N/A

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

<sup>E</sup>Equipped with 1-piece rims.

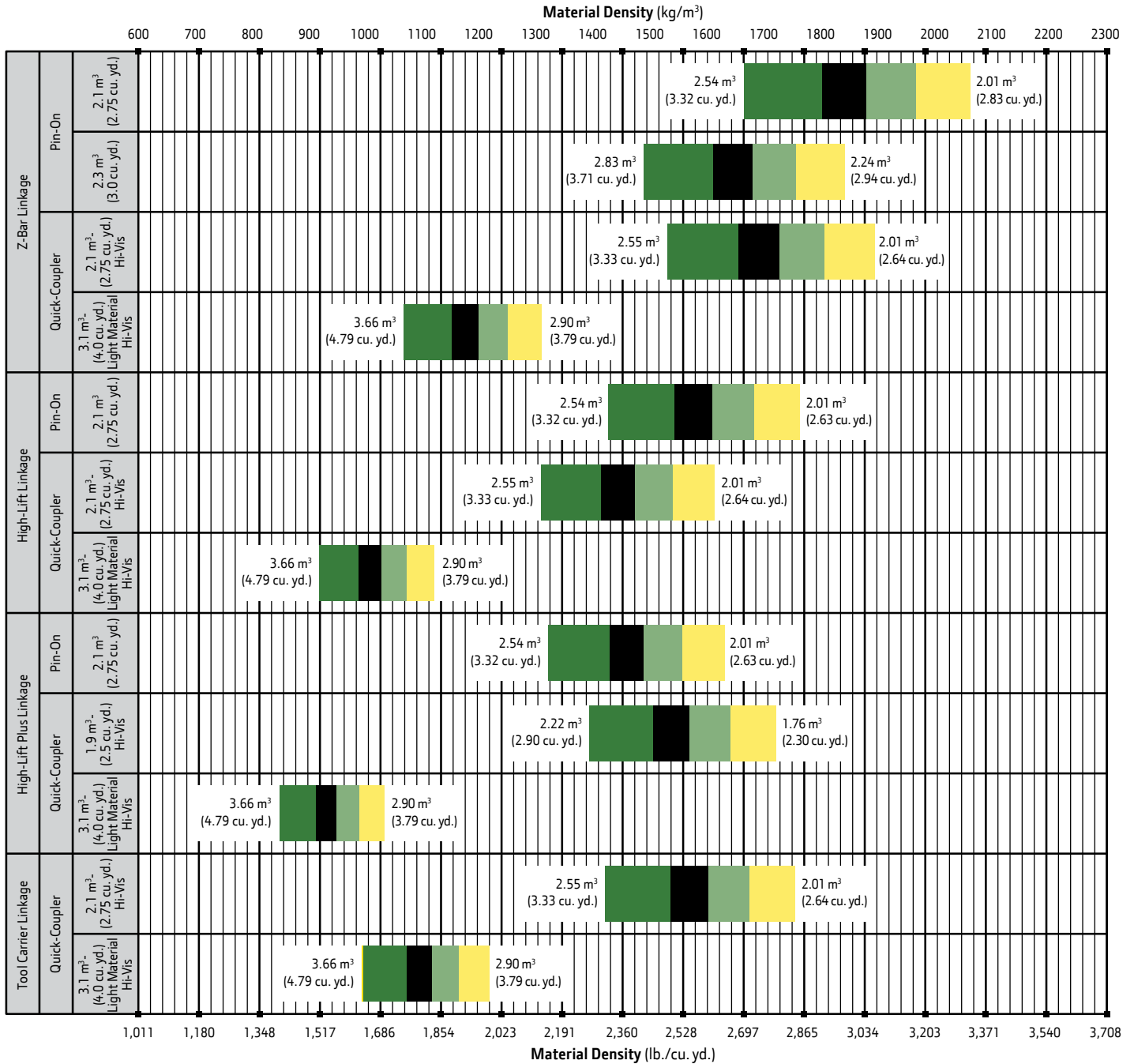
<sup>B</sup>Requires 8-deg. rear axle stops.

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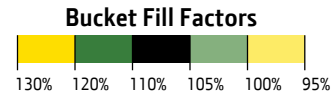
# 524 P TIER

## Bucket Selection Guides

## 524 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS / TOOL CARRIER



LOOSE MATERIALS			LOOSE MATERIALS		
	kg/m³	lb./cu. yd.		kg/m³	lb./cu. yd.
Chips, pulpwood	288	486	Limestone, coarse, sized	1570	2,646
Cinders (coal, ashes, clinkers)	673	1,134	Limestone, mixed sizes	1682	2,835
Clay and gravel, dry	1602	2,700	Limestone, pulverized or crushed	1362	2,295
Clay, compact, solid	1746	2,943	Sand, damp	2083	3,510
Clay, dry in lump loose	1009	1,701	Sand, dry	1762	2,970
Clay, excavated in water	1282	2,160	Sand, voids, full of water	2083	3,510
Coal, anthracite, broken, loose	865	1,458	Sandstone, quarried	1314	2,214
Coal, bituminous, moderately wet	801	1,350	Shale, broken crushed	1362	2,295
Earth, common loam, dry	1218	2,052	Slag, furnace granulated	1955	3,294
Earth, mud, packed	1843	3,105	Stone or gravel, 37.5 to 87.5-mm		
Granite, broken	1538	2,592	(1.5 to 3.5 in.) size	1442	2,430
Gypsum	2275	3,834	Stone or gravel, 18.75-mm (0.75 in.) size	1602	2,700





## 544 P-TIER WHEEL LOADER SPECIFICATIONS

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

Engine		544 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS		
Manufacturer and Model	John Deere PowerTech™ PVS 6068	Gross Peak Torque (ISO 9249)	770 Nm (568 ft.-lb.) at 1,600 rpm	
Non-Road Emission Standard	EPA Final Tier 4/EU Stage V	Net Torque Rise	47%	
Cylinders	6	Fuel System (electronically controlled)	High-pressure common rail	
Valves Per Cylinder	4	Lubrication	Full-flow spin-on filter and integral cooler	
Displacement	6.8 L (414 cu. in.)	Aspiration	Turbocharged, charge air cooled	
Net Peak Power (ISO 9249)	123 kW (166 hp) at 1,700 rpm	Air Cleaner	Under-hood, dual-element dry type, restriction indicator in cab monitor for service	
Gross Peak Power (ISO 9249)	130 kW (174 hp) at 1,700 rpm			
Net Peak Torque (ISO 9249)	740 Nm (546 lb.-ft.) at 1,100 rpm			
Cooling				
Fan Drive	Hydraulically driven, proportionally controlled, fan aft of coolers			
Electrical				
Electrical System	24 volt with 100-amp alternator (optional 130-amp alternator)			
Batteries (2 – 12 volt)	950 CCA (each)			
Transmission System				
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; kick-down button on hydraulic lever			
Shift Modes	Manual/auto (1st-D or 2nd-D); Quick-Shift button with 2 selectable modes: kick-down or kick-up/down; and 4 clutch cutoff settings			
	Standard 5-Speed With Lockup Torque Converter		Optional 5-Speed Without Lockup Torque Converter	
Maximum Travel Speeds (with 20.5 R 25 tires)	Forward	Reverse	Forward	Reverse
Range 1	6.1 km/h (3.7 mph)	5.9 km/h (3.6 mph)	5.6 km/h (3.5 mph)	6.0 km/h (3.7 mph)
Range 2	12.0 km/h (7.4 mph)	12.7 km/h (7.8 mph)	11.2 km/h (7.0 mph)	11.9 km/h (7.3 mph)
Range 3	18.6 km/h (11.5 mph)	29.4 km/h (18.3 mph)	17.4 km/h (10.8 mph)	27.6 km/h (17.1 mph)
Range 4	27.9 km/h (17.3 mph)	N/A	26.2 km/h (16.2 mph)	N/A
Range 5	40.0 km/h (24.8 mph)	N/A	40.0 km/h (24.8 mph)	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. (12 deg. each direction)			
Brakes (conform to ISO 3450)				
Service	Hydraulically actuated, spring-retracted, self-adjusting inboard sun-shaft mounted, oil cooled, single disc			
Parking	Automatic spring applied, hydraulically released, driveline mounted, sealed wet multi disc			
Tires/Wheels (see page 24 for complete tire adjustments)				
	Tread Width	Width Over Tires		
Michelin 20.5 R 25, 1 Star L-3 XHA2	1950 mm (76.8 in.)	2546 mm (100.2 in.)		
Serviceability				
Refill Capacities				
Fuel Tank (with lockable cap)	298 L (79 gal.)	Axle Oil (each)		
Cooling System	29.9 L (31.6 qt.)	Front	16.6 L (17.5 qt.)	
Diesel Exhaust Fluid (DEF)	15.6 L (16.5 qt.)	Rear	18 L (19 qt.)	
Engine Oil With Vertical Spin-On Filter	19.5 L (20.6 qt.)	Hydraulic Reservoir and Filter	82.1 L (21.7 gal.)	
Transmission Reservoir With Vertical Filter	21 L (22.2 qt.)	Park Brake Oil (wet disc)	0.3 L (10 oz.)	
Hydraulic System/Steering				
Pump (loader and steering)	Variable-displacement, axial-piston pump; closed-center, pressure-compensating system			
Maximum Rated Flow at 6895 kPa (1,000 psi) and 2,200 rpm	220 L/m (58 gpm)			
System Relief Pressure (loader and steering)	25 166 kPa (3,650 psi)			
Loader Controls	2-function valve, joystick control or fingertip controls, hydraulic-function enable/disable, optional 3rd- and 4th-function valve with auxiliary lever			
Steering (conforms to ISO 5010)	Steering-column-mounted, twist-grip shift lever; Quick-Shift button on hydraulic lever			
Type	Power, fully hydraulic			
Articulation Angle	80-deg. arc (40 deg. each direction)			
Turning Radius (measured to centerline of outside tire)	5.0 m (16 ft. 5 in.)			

## 544 P-TIER WHEEL LOADER SPECIFICATIONS

# 544

# P

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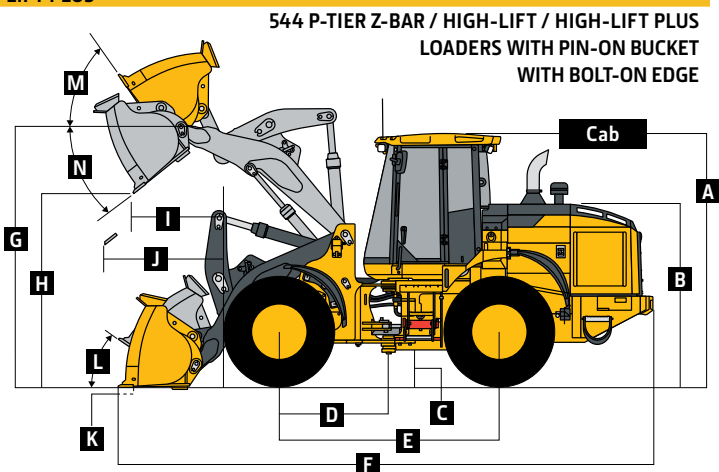
### Hydraulic System/Steering (continued) 544 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS

Hydraulic Cycle Times	Z-Bar / High-Lift / High-Lift Plus
Raise	5.5 sec.
Dump	2.2 sec.
Lower (power down)	3.5 sec.
Total	11.2 sec.

### Bucket Capacity Range

Bucket Type	
Pin-On	2.1–2.5 m <sup>3</sup> (2.75–3.25 cu. yd.)
Coupler	1.9–4.0 m <sup>3</sup> (2.5–5.25 cu. yd.)

### Dimensions and Specifications With Pin-On Bucket With Bolt-On Edge



	Z-Bar	Z-Bar	High-Lift	High-Lift	High-Lift Plus	High-Lift Plus
Dimensions With Bucket With Bolt-On Edge (illustration above right)	2.3-m <sup>3</sup> (3.0 cu. yd.)	2.5-m <sup>3</sup> (3.25 cu. yd.)	2.1-m <sup>3</sup> (2.75 cu. yd.)	2.3-m <sup>3</sup> (3.0 cu. yd.)	2.1-m <sup>3</sup> (2.75 cu. yd.)	2.3-m <sup>3</sup> (3.0 cu. yd.)
A Height to Top of Cab	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)
B Hood Height	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)
C Ground Clearance	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)
D Length From Centerline to Front Axle	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)
E Wheelbase	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)
F Overall Length, Bucket on Ground	7.49 m (24 ft. 7 in.)	7.49 m (24 ft. 7 in.)	7.80 m (25 ft. 7 in.)	7.88 m (25 ft. 10 in.)	8.17 m (26 ft. 10 in.)	8.25 m (27 ft. 1 in.)
G Height to Hinge Pin, Fully Raised	3.89 m (12 ft. 9 in.)	3.89 m (12 ft. 9 in.)	4.17 m (13 ft. 8 in.)	4.17 m (13 ft. 8 in.)	4.49 m (14 ft. 9 in.)	4.49 m (14 ft. 9 in.)
H Dump Clearance, 45-deg., Full Height	2.80 m (9 ft. 2 in.)	2.80 m (9 ft. 2 in.)	3.14 m (10 ft. 4 in.)	3.09 m (10 ft. 2 in.)	3.47 m (11 ft. 4 in.)	3.41 m (11 ft. 2 in.)
I Reach, 45-deg. Dump, Full Height	1.01 m (3 ft. 4 in.)	1.01 m (3 ft. 4 in.)	1.09 m (3 ft. 7 in.)	1.14 m (3 ft. 9 in.)	1.13 m (3 ft. 8 in.)	1.19 m (3 ft. 11 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.51 m (4 ft. 11 in.)	1.51 m (4 ft. 11 in.)	1.81 m (5 ft. 11 in.)	1.84 m (6 ft. 0 in.)	2.10 m (6 ft. 11 in.)	2.14 m (7 ft. 0 in.)
K Maximum Digging Depth	0.1 m (4 in.)	0.1 m (4 in.)	0.19 m (8 in.)	0.2 m (8 in.)	0.2 m (8 in.)	0.2 m (8 in.)
L Maximum Rollback at Ground Level	44 deg.	44 deg.	48 deg.	48 deg.	49 deg.	49 deg.
M Maximum Rollback, Boom Fully Raised	60 deg.	60 deg.	60 deg.	60 deg.	61 deg.	61 deg.
N Maximum Bucket Dump Angle, Fully Raised	48 deg.	48 deg.	46 deg.	46 deg.	45 deg.	45 deg.
Loader Clearance Circle, Bucket Carry Position	11.46 m (37 ft. 7 in.)	11.58 m (38 ft. 0 in.)	11.68 m (38 ft. 4 in.)	11.70 m (38 ft. 5 in.)	12.16 m (39 ft. 11 in.)	12.20 m (40 ft. 0 in.)

### Specifications With Bucket With Bolt-On Edge

Capacity, Heaped	2.3 m <sup>3</sup> (3.0 cu. yd.)	2.5 m <sup>3</sup> (3.25 cu. yd.)	2.1 m <sup>3</sup> (2.75 cu. yd.)	2.3 m <sup>3</sup> (3.0 cu. yd.)	2.1 m <sup>3</sup> (2.75 cu. yd.)	2.3 m <sup>3</sup> (3.0 cu. yd.)
Capacity, Struck	1.9 m <sup>3</sup> (2.5 cu. yd.)	2.1 m <sup>3</sup> (2.7 cu. yd.)	1.7 m <sup>3</sup> (2.3 cu. yd.)	1.9 m <sup>3</sup> (2.5 cu. yd.)	1.7 m <sup>3</sup> (2.3 cu. yd.)	1.9 m <sup>3</sup> (2.5 cu. yd.)
Bucket Weight With Bolt-On Cutting Edge	1095 kg (2,415 lb.)	1131 kg (2,493 lb.)	1056 kg (2,327 lb.)	1095 kg (2,415 lb.)	1056 kg (2,327 lb.)	1095 kg (2,415 lb.)
Bucket Width	2.54 m (8 ft. 4 in.)	2.68 m (8 ft. 10 in.)	2.55 m (8 ft. 4 in.)	2.54 m (8 ft. 4 in.)	2.55 m (8 ft. 4 in.)	2.54 m (8 ft. 4 in.)
Breakout Force	13 166 kg (29,026 lb.)	13 145 kg (28,979 lb.)	13 983 kg (30,827 lb.)	13 005 kg (28,672 lb.)	14 138 kg (31,168 lb.)	13 149 kg (28,988 lb.)
Tipping Load, Straight, No Tire Deflection	11 139 kg (24,557 lb.)	11 097 kg (24,464 lb.)	9699 kg (21,384 lb.)	9591 kg (21,145 lb.)	8630 kg (19,026 lb.)	8537 kg (18,820 lb.)
Tipping Load, Straight, With Tire Deflection	10 533 kg (23,221 lb.)	10 491 kg (23,129 lb.)	9231 kg (20,351 lb.)	9120 kg (20,106 lb.)	8244 kg (18,175 lb.)	8145 kg (17,957 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	9653 kg (21,281 lb.)	9612 kg (21,190 lb.)	8374 kg (18,460 lb.)	8274 kg (18,241 lb.)	7410 kg (16,336 lb.)	7323 kg (16,145 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	8865 kg (19,544 lb.)	8823 kg (19,451 lb.)	7755 kg (17,097 lb.)	7650 kg (16,865 lb.)	6891 kg (15,192 lb.)	6807 kg (15,007 lb.)
Rated Operating Load, 50% Full-Turn	4827 kg (10,641 lb.)	4806 kg (10,595 lb.)	4187 kg (9,230 lb.)	4137 kg (9,120 lb.)	3705 kg (8,168 lb.)	3662 kg (8,073 lb.)
Tipping Load, No Tire Deflection (conforms to ISO 14397-1)*						
Rated Operating Load, 50% Full-Turn	4433 kg (9,772 lb.)	4412 kg (9,726 lb.)	3878 kg (8,548 lb.)	3825 kg (8,433 lb.)	3446 kg (7,596 lb.)	3404 kg (7,503 lb.)
Tipping Load, With Tire Deflection (conforms to ISO 14397-1)*						
Operating Weight	13 844 kg (30,520 lb.)	13 879 kg (30,598 lb.)	13 992 kg (30,847 lb.)	14 032 kg (30,935 lb.)	14 178 kg (31,257 lb.)	14 218 kg (31,345 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PVS 6068 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments.

\*Rated operating capacity based on Deere attachments only.



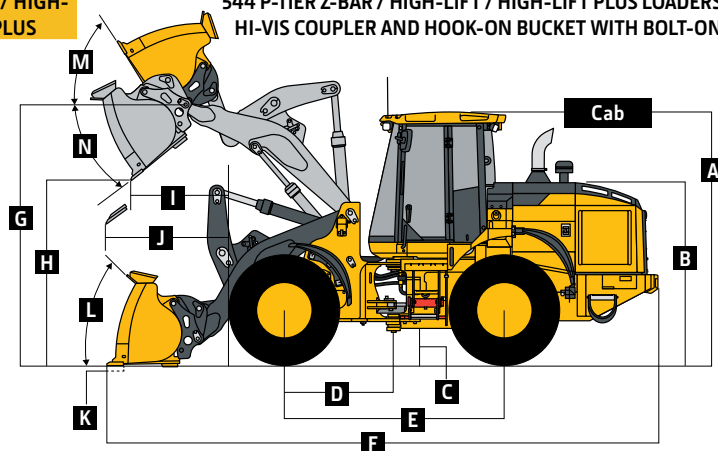
# 544 P TIER

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

## Dimensions and Specifications With Hi-Vis Coupler and Hook-On Bucket With Bolt-On Edge

## 544 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS

## 544 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS LOADERS WITH HI-VIS COUPLER AND HOOK-ON BUCKET WITH BOLT-ON EDGE



	Z-Bar 2.3-m <sup>3</sup> (3.0 cu. yd.)	Z-Bar 2.5-m <sup>3</sup> (3.25 cu. yd.)	Z-Bar 3.4-m <sup>3</sup> (4.5 cu. yd.)	High-Lift 2.1-m <sup>3</sup> (2.75 cu. yd.)	High-Lift 2.3-m <sup>3</sup> (3.0 cu. yd.)	High-Lift 3.1-m <sup>3</sup> (4.0 cu. yd.)	High-Lift Plus 1.9-m <sup>3</sup> (2.5 cu. yd.)	High-Lift Plus 3.1-m <sup>3</sup> (4.0 cu. yd.)
<b>Dimensions With Bucket With Bolt-On Edge (illustration above right)</b>	<i>general purpose</i>	<i>general purpose</i>	<i>light material</i>	<i>general purpose</i>	<i>general purpose</i>	<i>light material</i>	<i>general purpose</i>	<i>light material</i>
<b>A</b> Height to Top of Cab	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)
<b>B</b> Hood Height	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)
<b>C</b> Ground Clearance	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)
<b>D</b> Length From Centerline to Front Axle	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)
<b>E</b> Wheelbase	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)
<b>F</b> Overall Length, Bucket on Ground	7.56 m (24 ft. 10 in.)	7.64 m (25 ft. 1 in.)	7.83 m (25 ft. 8 in.)	7.95 m (26 ft. 1 in.)	7.95 m (26 ft. 1 in.)	8.08 m (26 ft. 6 in.)	8.23 m (27 ft. 0 in.)	8.45 m (27 ft. 9 in.)
<b>G</b> Height to Hinge Pin, Fully Raised	3.89 m (12 ft. 9 in.)	3.89 m (12 ft. 9 in.)	3.89 m (12 ft. 9 in.)	4.17 m (13 ft. 8 in.)	4.17 m (13 ft. 8 in.)	4.17 m (13 ft. 8 in.)	4.49 m (14 ft. 9 in.)	4.49 m (14 ft. 9 in.)
<b>H</b> Dump Clearance, 45 deg., Full Height	2.76 m (9 ft. 1 in.)	2.70 m (8 ft. 10 in.)	2.58 m (8 ft. 6 in.)	3.04 m (10 ft. 0 in.)	3.04 m (10 ft. 0 in.)	2.96 m (9 ft. 9 in.)	3.43 m (11 ft. 3 in.)	3.28 m (10 ft. 9 in.)
<b>I</b> Reach, 45-deg. Dump, Full Height	1.06 m (3 ft. 6 in.)	1.12 m (3 ft. 8 in.)	1.23 m (4 ft. 1 in.)	1.19 m (3 ft. 11 in.)	1.19 m (3 ft. 11 in.)	1.29 m (4 ft. 3 in.)	1.17 m (3 ft. 10 in.)	1.33 m (4 ft. 5 in.)
<b>J</b> Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.54 m (5 ft. 1 in.)	1.56 m (5 ft. 1 in.)	1.62 m (5 ft. 4 in.)	1.87 m (6 ft. 2 in.)	1.87 m (6 ft. 2 in.)	1.92 m (6 ft. 4 in.)	2.13 m (7 ft. 0 in.)	2.23 m (7 ft. 4 in.)
<b>K</b> Maximum Digging Depth	0.1 m (4 in.)	0.11 m (4 in.)	0.11 m (5 in.)	0.2 m (8 in.)	0.2 m (8 in.)	0.2 m (8 in.)	0.2 m (8 in.)	0.21 m (8 in.)
<b>L</b> Maximum Rollback at Ground Level	44 deg.	44 deg.	44 deg.	48 deg.	48 deg.	48 deg.	49 deg.	49 deg.
<b>M</b> Maximum Rollback, Boom Fully Raised	60 deg.	60 deg.	60 deg.	60 deg.	60 deg.	60 deg.	61 deg.	61 deg.
<b>N</b> Maximum Bucket Dump Angle, Fully Raised	48 deg.	48 deg.	48 deg.	46 deg.	46 deg.	46 deg.	45 deg.	45 deg.
Loader Clearance Circle, Bucket	11.60 m (38 ft. 1 in.)	11.60 m (38 ft. 0 in.)	11.88 m (39 ft. 0 in.)	11.78 m (38 ft. 8 in.)	11.86 m (38 ft. 11 in.)	12.22 m (40 ft. 1 in.)	12.12 m (39 ft. 9 in.)	12.62 m (41 ft. 5 in.)
Carry Position								
<b>Specifications With Bucket With Bolt-On Edge</b>								
Capacity, Heaped	2.3 m <sup>3</sup> (3.0 cu. yd.)	2.5 m <sup>3</sup> (3.25 cu. yd.)	3.4 m <sup>3</sup> (4.5 cu. yd.)	2.1 m <sup>3</sup> (2.75 cu. yd.)	2.3 m <sup>3</sup> (3.0 cu. yd.)	3.1 m <sup>3</sup> (4.0 cu. yd.)	1.9 m <sup>3</sup> (2.5 cu. yd.)	3.1 m <sup>3</sup> (4.0 cu. yd.)
Capacity, Struck	1.9 m <sup>3</sup> (2.4 cu. yd.)	2.1 m <sup>3</sup> (2.7 cu. yd.)	2.9 m <sup>3</sup> (3.8 cu. yd.)	1.9 m <sup>3</sup> (2.4 cu. yd.)	1.9 m <sup>3</sup> (2.4 cu. yd.)	2.5 m <sup>3</sup> (3.3 cu. yd.)	1.6 m <sup>3</sup> (2.1 cu. yd.)	2.5 m <sup>3</sup> (3.3 cu. yd.)
Bucket Weight With Bolt-On Cutting Edge	1489 kg (3,283 lb.)	1537 kg (3,388 lb.)	1747 kg (3,850 lb.)	1454 kg (3,205 lb.)	1489 kg (3,283 lb.)	1683 kg (3,711 lb.)	1385 kg (3,052 lb.)	1683 kg (3,711 lb.)
Bucket Width	2.68 m (8 ft. 10 in.)	2.68 m (8 ft. 10 in.)	2.89 m (9 ft. 6 in.)	2.55 m (8 ft. 4 in.)	2.68 m (8 ft. 10 in.)	2.89 m (9 ft. 6 in.)	2.55 m (8 ft. 4 in.)	2.89 m (9 ft. 6 in.)
Breakout Force	12 307 kg (27,131 lb.)	11 539 kg (25,439 lb.)	10 013 kg (22,074 lb.)	12 179 kg (26,849 lb.)	12 155 kg (26,797 lb.)	10 907 kg (24,045 lb.)	13 305 kg (29,333 lb.)	11 028 kg (24,313 lb.)

## Dimensions and Specifications With Hi-Vis Coupler and Hook-On Bucket With Bolt-On Edge (continued)

### 544 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS

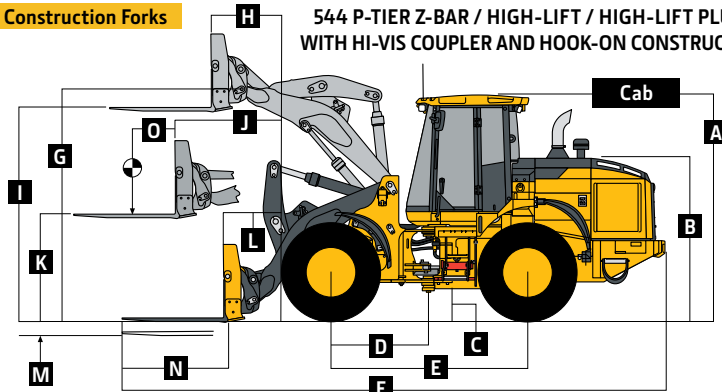
	Z-Bar 2.3-m <sup>3</sup> (3.0 cu. yd.)	Z-Bar 2.5-m <sup>3</sup> (3.25 cu. yd.)	Z-Bar 3.4-m <sup>3</sup> (4.5 cu. yd.)	High-Lift 2.1-m <sup>3</sup> (2.75 cu. yd.)	High-Lift 2.3-m <sup>3</sup> (3.0 cu. yd.)	High-Lift 3.1-m <sup>3</sup> (4.0 cu. yd.)	High-Lift Plus 1.9-m <sup>3</sup> (2.5 cu. yd.)	High-Lift Plus 3.1-m <sup>3</sup> (4.0 cu. yd.)
<b>Specifications With Bucket With Bolt-On Edge (continued) (illustration at left)</b>	<i>general purpose</i>	<i>general purpose</i>	<i>light material</i>	<i>general purpose</i>	<i>general purpose</i>	<i>light material</i>	<i>general purpose</i>	<i>light material</i>
Tipping Load, Straight, No Tire Deflection	10 362 kg (22,844 lb.)	10 250 kg (22,597 lb.)	9912 kg (21,853 lb.)	8963 kg (19,759 lb.)	8910 kg (19,642 lb.)	8663 kg (19,099 lb.)	8085 kg (17,825 lb.)	7679 kg (16,614 lb.)
Tipping Load, Straight, With Tire Deflection	9789 kg (21,581 lb.)	9675 kg (21,330 lb.)	9321 kg (20,549 lb.)	8508 kg (18,757 lb.)	8460 kg (18,651 lb.)	8199 kg (18,076 lb.)	7713 kg (17,004 lb.)	7290 kg (15,774 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	8931 kg (19,690 lb.)	8827 kg (19,459 lb.)	8499 kg (18,736 lb.)	7686 kg (16,945 lb.)	7635 kg (16,833 lb.)	7390 kg (16,293 lb.)	6899 kg (15,209 lb.)	6501 kg (14,040 lb.)
Tipping Load, 40-deg. Full Turn, with Tire Deflection	8181 kg (18,036 lb.)	8073 kg (17,798 lb.)	7731 kg (17,044 lb.)	7083 kg (15,615 lb.)	7035 kg (15,510 lb.)	6771 kg (14,927 lb.)	6393 kg (14,094 lb.)	5988 kg (12,884 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, No Tire Deflection (conforms to ISO 14397-1)*	4466 kg (9,845 lb.)	4413 kg (9,730 lb.)	4249 kg (9,368 lb.)	3843 kg (8,473 lb.)	3818 kg (8,417 lb.)	3695 kg (8,146 lb.)	3449 kg (7,604 lb.)	3251 kg (7,020 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1)*	4091 kg (9,018 lb.)	4037 kg (8,899 lb.)	3866 kg (8,522 lb.)	3542 kg (7,808 lb.)	3518 kg (7,755 lb.)	3386 kg (7,464 lb.)	3197 kg (7,047 lb.)	2994 kg (6,442 lb.)
Operating Weight	14 258 kg (31,433 lb.)	14 305 kg (31,538 lb.)	14 515 kg (32,000 lb.)	14 411 kg (31,771 lb.)	14 446 kg (31,849 lb.)	14 641 kg (32,277 lb.)	14 528 kg (32,029 lb.)	14 827 kg (32,827 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PVS 6068 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments.

\*Rated operating capacity based on Deere attachments only.

## Dimensions and Specifications With Hi-Vis Coupler and Hook-On Construction Forks

### 544 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS LOADERS WITH HI-VIS COUPLER AND HOOK-ON CONSTRUCTION FORKS



<b>Dimensions With Forks (illustration above right)</b>	Z-Bar 1.52-m (60 in.) tine length	Z-Bar 1.83-m (72 in.) tine length	High-Lift 1.52-m (60 in.) tine length	High-Lift 1.83-m (72 in.) tine length	High-Lift Plus 1.52-m (60 in.) tine length	High-Lift Plus 1.83-m (72 in.) tine length
<b>A</b> Height to Top of Cab	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)
<b>B</b> Hood Height	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)	2.375 m (7 ft. 9 in.)
<b>C</b> Ground Clearance	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)	0.40 m (15.7 in.)
<b>D</b> Length From Centerline to Front Axle	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)
<b>E</b> Wheelbase	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)
<b>F</b> Overall Length, Forks on Ground	8.29 m (27 ft. 2 in.)	8.59 m (28 ft. 2 in.)	8.68 m (28 ft. 6 in.)	8.98 m (29 ft. 6 in.)	9.04 m (29 ft. 8 in.)	9.35 m (30 ft. 8 in.)
<b>G</b> Height to Hinge Pin, Fully Raised	3.89 m (12 ft. 9 in.)	3.89 m (12 ft. 9 in.)	4.17 m (13 ft. 8 in.)	4.17 m (13 ft. 8 in.)	4.49 m (14 ft. 9 in.)	4.49 m (14 ft. 9 in.)
<b>H</b> Reach, Fully Raised	0.80 m (31 in.)	0.80 m (31 in.)	0.92 m (3 ft. 0 in.)	0.92 m (3 ft. 0 in.)	0.97 m (3 ft. 2 in.)	0.97 m (3 ft. 2 in.)
<b>I</b> Fork Height, Fully Raised	3.56 m (11 ft. 8 in.)	3.56 m (11 ft. 8 in.)	3.84 m (12 ft. 7 in.)	3.84 m (12 ft. 7 in.)	4.16 m (13 ft. 8 in.)	4.16 m (13 ft. 8 in.)
<b>J</b> Maximum Reach, Fork Level	1.59 m (5 ft. 3 in.)	1.59 m (5 ft. 3 in.)	1.89 m (6 ft. 2 in.)	1.89 m (6 ft. 2 in.)	2.16 m (7 ft. 1 in.)	2.16 m (7 ft. 1 in.)
<b>K</b> Fork Height, Maximum Reach	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)
<b>L</b> Reach, Ground Level	1.03 m (3 ft. 5 in.)	1.03 m (3 ft. 5 in.)	1.40 m (4 ft. 7 in.)	1.40 m (4 ft. 7 in.)	1.72 m (5 ft. 8 in.)	1.72 m (5 ft. 8 in.)
<b>M</b> Depth Below Ground	91 mm (4 in.)	91 mm (4 in.)	190 mm (7 in.)	190 mm (7 in.)	195 mm (8 in.)	195 mm (8 in.)
<b>N</b> Tine Length	1.52 m (60 in.)	1.83 m (72 in.)	1.52 m (60 in.)	1.83 m (72 in.)	1.52 m (60 in.)	1.83 m (72 in.)
<b>O</b> Load Position, 50% Tine Length	0.76 m (30 in.)	0.91 m (3 ft. 0 in.)	0.76 m (30 in.)	0.91 m (3 ft. 0 in.)	0.76 m (30 in.)	0.91 m (3 ft. 0 in.)



Dimensions and Specifications With Hi-Vis Coupler and Hook-On Construction Forks (continued)						
	544 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS					
Specifications With Forks (illustration on previous page)	Z-Bar 1.52-m (60 in.) tine length	Z-Bar 1.83-m (72 in.) tine length	High-Lift 1.52-m (60 in.) tine length	High-Lift 1.83-m (72 in.) tine length	High-Lift Plus 1.52-m (60 in.) tine length	High-Lift Plus 1.83-m (72 in.) tine length
Tipping Load, Straight, No Tire Deflection	7263 kg (16,013 lb.)	6852 kg (15,107 lb.)	6480 kg (14,287 lb.)	6132 kg (13,520 lb.)	5909 kg (13,027 lb.)	5604 kg (12,355 lb.)
Tipping Load, Straight, With Tire Deflection	7068 kg (15,582 lb.)	6669 kg (14,703 lb.)	6309 kg (13,909 lb.)	5973 kg (13,168 lb.)	5751 kg (12,679 lb.)	5451 kg (12,017 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	6261 kg (13,804 lb.)	5897 kg (13,001 lb.)	5556 kg (12,249 lb.)	5248 kg (11,569 lb.)	5033 kg (11,096 lb.)	4763 kg (10,501 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	5991 kg (13,208 lb.)	5649 kg (12,454 lb.)	5319 kg (11,726 lb.)	5031 kg (11,091 lb.)	4830 kg (10,648 lb.)	4566 kg (10,066 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1 and SAE J1197)*	2996 kg (6,604 lb.)	2825 kg (6,227 lb.)	2660 kg (5,863 lb.)	2516 kg (5,546 lb.)	2415 kg (5,324 lb.)	2283 kg (5,033 lb.)
Rated Operating Load, Rough Terrain, 60% Full-Turn Tipping Load, With Tire Deflection (conforms to EN474-3)*	3595 kg (7,925 lb.)	3389 kg (7,472 lb.)	3191 kg (7,036 lb.)	3019 kg (6,655 lb.)	2898 kg (6,389 lb.)	2740 kg (6,040 lb.)
Rated Operating Load, Firm and Level Ground, 80% Full-Turn Tipping Load, With Tire Deflection (conforms to EN474-3)*	4793 kg (10,566 lb.)	4519 kg (9,963 lb.)	4255 kg (9,381 lb.)	4025 kg (8,873 lb.)	3864 kg (8,519 lb.)	3653 kg (8,053 lb.)
Operating Weight	14 108 kg (31,103 lb.)	14 168 kg (31,236 lb.)	14 297 kg (31,520 lb.)	14 357 kg (31,652 lb.)	14 483 kg (31,930 lb.)	14 544 kg (32,063 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PVS 6068 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments.

\*Rated operating capacity based on Deere attachments only.

## Adjustments to Operating Weights and Tipping Loads With Buckets

Adjustments to operating weights, tipping loads, and tires are based on Z-Bar machine with pin-on 2.3-m<sup>3</sup> (3.0 cu. yd.) 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 79-kg (175 lb.) operator\*

Add (+) or deduct (–) kg (lb.) as indicated		Tipping Load,		Tipping Load,	Tread Width	Width Over Tires	Vertical Height
for loaders with 3-piece rims		Straight	40-deg. Full Turn	40-deg. Full Turn			
Operating Weight							
Michelin 20.5 R 25, 1 Star L-3 XHA2	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 mm (0 in.)	0 mm (0 in.)	0 mm (0 in.)
Bridgestone 20.5 R 25, 1 Star L-3 VJT	+4 kg (+9 lb.)	+3 kg (+6 lb.)	+2 kg (+5 lb.)	+2 kg (+5 lb.)	0 mm (0 in.)	+2 mm (+0.1 in.)	–41 mm (–1.6 in.)
Titan 20.5 R 25, 1 Star L-3 STL3	+11 kg (+23 lb.)	+7 kg (+16 lb.)	+7 kg (+14 lb.)	+7 kg (+14 lb.)	0 mm (0 in.)	–7 mm (–0.3 in.)	–5 mm (–0.2 in.)
Michelin 20.5 R 25, 1 Star L-2 XTLA	–152 kg (–335 lb.)	–107 kg (–235 lb.)	–94 kg (–207 lb.)	–94 kg (–207 lb.)	0 mm (0 in.)	+4 mm (+0.2 in.)	–11 mm (–0.4 in.)
Bridgestone 20.5 R 25, 1 Star L-2 VUT	–65 kg (–144 lb.)	–46 kg (–101 lb.)	–40 kg (–89 lb.)	–40 kg (–89 lb.)	0 mm (0 in.)	+3 mm (+0.1 in.)	–10 mm (–0.4 in.)
Titan 20.5 R 25, 1 Star L-2 TGD2	–85 kg (–188 lb.)	–60 kg (–132 lb.)	–53 kg (–116 lb.)	–53 kg (–116 lb.)	0 mm (0 in.)	–7 mm (–0.3 in.)	–10 mm (–0.4 in.)
Titan 20.5-25, 16 PR L-2	–245 kg (–541 lb.)	–172 kg (–379 lb.)	–152 kg (–335 lb.)	–152 kg (–335 lb.)	0 mm (0 in.)	+8 mm (+0.3 in.)	–2 mm (–0.1 in.)
Firestone 20.5-25, 16 PR L-2 SGG LD	–280 kg (–617 lb.)	–196 kg (–433 lb.)	–173 kg (–382 lb.)	–173 kg (–382 lb.)	0 mm (0 in.)	+5 mm (+0.2 in.)	–1 mm (0 in.)
Titan 20.5-25, 12 PR L-2	–266 kg (–587 lb.)	–187 kg (–412 lb.)	–165 kg (–363 lb.)	–165 kg (–363 lb.)	0 mm (0 in.)	+8 mm (+0.3 in.)	–2 mm (–0.1 in.)
Firestone 20.5-25, 16 PR L-3 SRG LD	–276 kg (–608 lb.)	–194 kg (–427 lb.)	–171 kg (–376 lb.)	–171 kg (–376 lb.)	0 mm (0 in.)	+8 mm (+0.3 in.)	+3 mm (+0.1 in.)
Michelin 20.5 R 25, 1 Star L2 SNO-PLUS	–96 kg (–212 lb.)	–67 kg (–148 lb.)	–59 kg (–131 lb.)	–59 kg (–131 lb.)	0 mm (0 in.)	+6 mm (+0.2 in.)	–16 mm (–0.6 in.)
Michelin 620/75R26 MegaXbib <sup>EB</sup>	–189 kg (–417 lb.)	–133 kg (–293 lb.)	–117 kg (–258 lb.)	–117 kg (–258 lb.)	+187 mm (+7.4 in.)	+247 mm (+9.7 in.)	+23 mm (+0.9 in.)
Michelin 750/65R26 MegaXbib <sup>EB</sup>	+55 kg (+121 lb.)	+38 kg (+85 lb.)	+34 kg (+75 lb.)	+34 kg (+75 lb.)	+322 mm (+12.7 in.)	+521 mm (+20.5 in.)	+36 mm (+1.4 in.)
CaCl <sub>2</sub> in 20.5-25, L-3 Rear Tires, 75% Fill	+825 kg (+1,820 lb.)	+1157 kg (+2,551 lb.)	+1020 kg (+2,250 lb.)	+1020 kg (+2,250 lb.)	N/A	N/A	N/A

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

<sup>E</sup>Equipped with 1-piece rims.

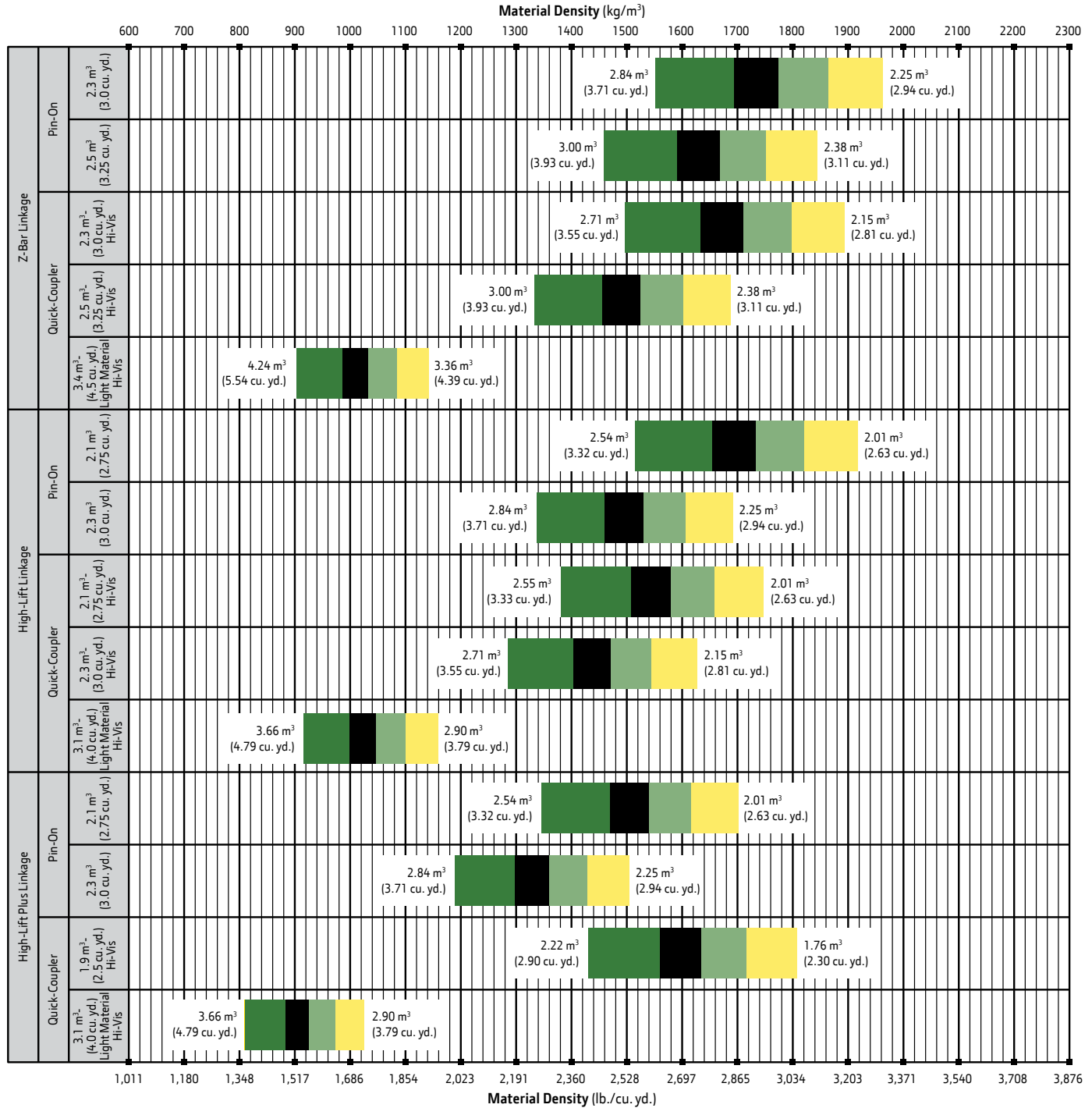
<sup>B</sup>Requires 8-deg. rear axle stops.

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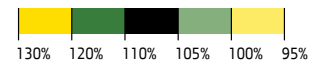
# 544 P TIER

## Bucket Selection Guides

## 544 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS



### Bucket Fill Factors



LOOSE MATERIALS			LOOSE MATERIALS		
	kg/m³	lb./cu. yd.		kg/m³	lb./cu. yd.
Chips, pulpwood	288	486	Limestone, coarse, sized	1570	2,646
Cinders (coal, ashes, clinkers)	673	1,134	Limestone, mixed sizes	1682	2,835
Clay and gravel, dry	1602	2,700	Limestone, pulverized or crushed	1362	2,295
Clay, compact, solid	1746	2,943	Sand, damp	2083	3,510
Clay, dry in lump loose	1009	1,701	Sand, dry	1762	2,970
Clay, excavated in water	1282	2,160	Sand, voids, full of water	2083	3,510
Coal, anthracite, broken, loose	865	1,458	Sandstone, quarried	1314	2,214
Coal, bituminous, moderately wet	801	1,350	Shale, broken crushed	1362	2,295
Earth, common loam, dry	1218	2,052	Slag, furnace granulated	1955	3,294
Earth, mud, packed	1843	3,105	Stone or gravel, 37.5 to 87.5-mm (1.5 to 3.5 in.) size	1442	2,430
Granite, broken	1538	2,592	Stone or gravel, 18.75-mm (0.75 in.) size	1602	2,700
Gypsum	2275	3,834			





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Engine				
624 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS / TOOL CARRIER				
Manufacturer and Model	John Deere PowerTech™ PVS 6068	Gross Peak Torque (ISO 9249)	923 Nm (681 ft.-lb.) at 1,500 rpm	
Non-Road Emission Standard	EPA Final Tier 4/EU Stage V	Net Torque Rise	58% standard	
Cylinders	6	Fuel System (electronically controlled)	High-pressure common rail	
Valves Per Cylinder	4	Lubrication	Full-flow spin-on filter and integral cooler	
Displacement	6.8 L (414 cu. in.)	Aspiration	Turbocharged, charge air cooled	
Net Peak Power (ISO 9249)	143 kW (192 hp) at 1,600 rpm	Air Cleaner	Under-hood, dual-element dry type, restriction indicator in cab monitor for service	
Gross Peak Power (ISO 9249)	152 kW (203 hp) at 1,600 rpm			
Net Peak Torque (ISO 9249)	874 Nm (644 lb.-ft.) at 1,300 rpm			
Cooling				
Fan Drive	Hydraulically driven, proportionally controlled, fan aft of coolers			
Electrical				
Electrical System	24 volt with 130-amp alternator			
Batteries (2 – 12 volt)	950 CCA (each)			
Transmission System				
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; kick-down button on hydraulic lever			
Shift Modes	Manual/auto (1st–D or 2nd–D); Quick-Shift button with 2 selectable modes: kick-down or kick-up/down; and 4 clutch cutoff settings			
	Standard 5-Speed With Lockup Torque Converter		Optional 5-Speed Without Lockup Torque Converter	
Maximum Travel Speeds (with 20.5 R 25 tires)	Forward	Reverse	Forward	Reverse
Range 1	7.0 km/h (4.3 mph)	6.6 km/h (4.1 mph)	6.3 km/h (3.9 mph)	6.7 km/h (4.1 mph)
Range 2	12.1 km/h (7.5 mph)	12.8 km/h (7.9 mph)	11.4 km/h (7.0 mph)	12.0 km/h (7.4 mph)
Range 3	18.7 km/h (11.6 mph)	30.7 km/h (19.0 mph)	17.5 km/h (10.8 mph)	28.7 km/h (17.8 mph)
Range 4	29.1 km/h (18.1 mph)	N/A	27.2 km/h (16.9 mph)	N/A
Range 5	40.0 km/h (24.8 mph)	N/A	40.0 km/h (24.8 mph)	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. (12 deg. each direction)			
Brakes (conform to ISO 3450)				
Service	Hydraulically actuated, spring-retracted, self-adjusting inboard sun-shaft mounted, oil cooled, single disc			
Parking	Automatic spring applied, hydraulically released, driveline mounted, oil-cooled, multi disc			
Tires/Wheels (see page 30 for complete tire adjustments)				
	Tread Width		Width Over Tires	
Michelin 20.5 R 25, 1 Star L-3 XHA2	2053 mm (80.8 in.)		2657 mm (104.6 in.)	
Serviceability				
Refill Capacities				
Fuel Tank (with lockable cap)	299 L (79 gal.)	Axle Oil (each)		
Cooling System	36.5 L (38.6 qt.)	Front	22 L (23 qt.)	
Diesel Exhaust Fluid (DEF)	15.6 L (16.5 qt.)	Rear	17 L (18 qt.)	
Engine Oil With Vertical Spin-On Filter	19.5 L (20.6 qt.)	Hydraulic Reservoir and Filter	102.8 L (27.2 gal.)	
Transmission Reservoir With Vertical Filter	27 L (28.5 qt.)	Park Brake Oil (wet disc)	0.3 L (10 oz.)	
Hydraulic System/Steering				
Pump (loader and steering)	Variable-displacement, axial-piston pump; closed-center, pressure-compensating system			
Maximum Rated Flow at 6895 kPa (1,000 psi) and 2,200 rpm	261 L/m (69 gpm)			
System Relief Pressure (loader and steering)	24 821 kPa (3,675 psi)			
Loader Controls	2-function valve, joystick control or fingertip controls, hydraulic-function enable/disable, optional 3rd- and 4th-function valve with auxiliary lever			
Steering (conforms to ISO 5010)	Steering-column-mounted, twist-grip shift lever; Quick-Shift button on hydraulic lever			
Type	Power, fully hydraulic			
Articulation Angle	80-deg. arc (40 deg. each direction)			
Turning Radius (measured to centerline of outside tire)	5.27 m (17 ft. 4 in.)			

## 624 P-TIER WHEEL LOADER SPECIFICATIONS

# 624

# P

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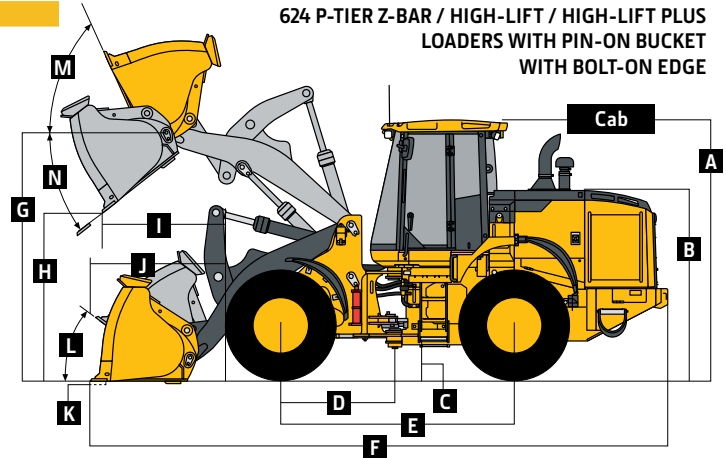
### Hydraulic System/Steering (continued) 624 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS / TOOL CARRIER

Hydraulic Cycle Times	Z-Bar / High-Lift / High-Lift Plus	Tool Carrier
Raise	5.5 sec.	5.8 sec.
Dump	2.0 sec.	2.5 sec.
Lower (power down)	4.0 sec.	4.0 sec.
Total	11.5 sec.	12.3 sec.

### Bucket Capacity Range

Bucket Type	
Pin-On	2.7–2.9 m <sup>3</sup> (3.5–3.75 cu. yd.)
Coupler	1.9–4.0 m <sup>3</sup> (2.5–5.25 cu. yd.)

### Dimensions and Specifications With Pin-On Bucket With Bolt-On Edge



624 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS  
LOADERS WITH PIN-ON BUCKET  
WITH BOLT-ON EDGE

	Z-Bar	Z-Bar	High-Lift	High-Lift	High-Lift Plus	High-Lift Plus
Dimensions With Bucket With Bolt-On Edge (illustration above right)	2.7-m <sup>3</sup> (3.5 cu. yd.) general purpose	2.9-m <sup>3</sup> (3.75 cu. yd.) general purpose	2.7-m <sup>3</sup> (3.5 cu. yd.) general purpose	2.9-m <sup>3</sup> (3.75 cu. yd.) general purpose	2.7-m <sup>3</sup> (3.5 cu. yd.) general purpose	2.9-m <sup>3</sup> (3.75 cu. yd.) general purpose
A Height to Top of Cab	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)
B Hood Height	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)
C Ground Clearance	384 mm (15.1 in.)	384 mm (15.1 in.)	384 mm (15.1 in.)	384 mm (15.1 in.)	384 mm (15.1 in.)	384 mm (15.1 in.)
D Length From Centerline to Front Axle	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)
E Wheelbase	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)
F Overall Length, Bucket on Ground	7.76 m (25 ft. 6 in.)	7.83 m (25 ft. 8 in.)	8.22 m (27 ft. 0 in.)	8.22 m (27 ft. 0 in.)	8.52 m (27 ft. 11 in.)	8.58 m (28 ft. 2 in.)
G Height to Hinge Pin, Fully Raised	3.96 m (13 ft. 0 in.)	3.96 m (13 ft. 0 in.)	4.32 m (14 ft. 2 in.)	4.32 m (14 ft. 2 in.)	4.57 m (15 ft. 0 in.)	4.57 m (15 ft. 0 in.)
H Dump Clearance, 45 deg., Full Height	2.84 m (9 ft. 4 in.)	2.80 m (9 ft. 2 in.)	3.20 m (10 ft. 6 in.)	3.16 m (10 ft. 4 in.)	3.46 m (11 ft. 4 in.)	3.41 m (11 ft. 2 in.)
I Reach, 45-deg. Dump, Full Height	1.07 m (3 ft. 6 in.)	1.12 m (3 ft. 8 in.)	1.21 m (4 ft. 0 in.)	1.25 m (4 ft. 1 in.)	1.22 m (4 ft. 0 in.)	1.27 m (4 ft. 2 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.59 m (5 ft. 2 in.)	1.61 m (5 ft. 3 in.)	1.98 m (6 ft. 6 in.)	2.00 m (6 ft. 7 in.)	2.20 m (7 ft. 2 in.)	2.22 m (7 ft. 3 in.)
K Maximum Digging Depth	0.10 m (4 in.)	0.11 m (4 in.)	0.20 m (8 in.)	0.21 m (8 in.)	0.20 m (8 in.)	0.20 m (8 in.)
L Maximum Rollback at Ground Level	44 deg.	44 deg.	48 deg.	48 deg.	49 deg.	49 deg.
M Maximum Rollback, Boom Fully Raised	60 deg.	60 deg.	60 deg.	60 deg.	60 deg.	60 deg.
N Maximum Bucket Dump Angle, Fully Raised	48 deg.	48 deg.	46 deg.	46 deg.	45 deg.	45 deg.
Loader Clearance Circle, Bucket Carry Position	12.02 m (39 ft. 5 in.)	12.04 m (39 ft. 6 in.)	12.32 m (40 ft. 5 in.)	12.5 m (41 ft. 0 in.)	12.66 m (41 ft. 6 in.)	12.78 m (41 ft. 11 in.)
Specifications With Bucket With Bolt-On Edge						
Capacity, Heaped	2.7 m <sup>3</sup> (3.5 cu. yd.)	2.9 m <sup>3</sup> (3.75 cu. yd.)	2.7 m <sup>3</sup> (3.5 cu. yd.)	2.9 m <sup>3</sup> (3.75 cu. yd.)	2.7 m <sup>3</sup> (3.5 cu. yd.)	2.9 m <sup>3</sup> (3.75 cu. yd.)
Capacity, Struck	2.2 m <sup>3</sup> (2.9 cu. yd.)	2.4 m <sup>3</sup> (3.1 cu. yd.)	2.2 m <sup>3</sup> (2.9 cu. yd.)	2.4 m <sup>3</sup> (3.1 cu. yd.)	2.2 m <sup>3</sup> (2.9 cu. yd.)	2.4 m <sup>3</sup> (3.1 cu. yd.)
Bucket Weight With Bolt-On Cutting Edge	1196 kg (2,637 lb.)	1239 kg (2,732 lb.)	1196 kg (2,637 lb.)	1239 kg (2,732 lb.)	1196 kg (2,637 lb.)	1239 kg (2,732 lb.)
Bucket Width	2.69 m (8 ft. 10 in.)	2.69 m (8 ft. 10 in.)	2.69 m (8 ft. 10 in.)	2.69 m (8 ft. 10 in.)	2.69 m (8 ft. 10 in.)	2.69 m (8 ft. 10 in.)
Breakout Force	13 605 kg (29,994 lb.)	12 929 kg (28,503 lb.)	13 443 kg (29,638 lb.)	12 774 kg (28,163 lb.)	13 510 kg (29,785 lb.)	12 839 kg (28,304 lb.)
Tipping Load, Straight, No Tire Deflection	13 205 kg (29,113 lb.)	13 116 kg (28,915 lb.)	11 132 kg (24,541 lb.)	11 060 kg (24,383 lb.)	10 297 kg (22,701 lb.)	10 231 kg (22,555 lb.)
Tipping Load, Straight, With Tire Deflection	12 435 kg (27,414 lb.)	12 345 kg (27,216 lb.)	10 563 kg (23,287 lb.)	10 488 kg (23,122 lb.)	9792 kg (21,588 lb.)	9723 kg (21,436 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	11 439 kg (25,218 lb.)	11 359 kg (25,042 lb.)	9595 kg (21,153 lb.)	9530 kg (21,010 lb.)	8837 kg (19,483 lb.)	8778 kg (19,351 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	10 425 kg (22,983 lb.)	10 338 kg (22,791 lb.)	8820 kg (19,445 lb.)	8754 kg (19,299 lb.)	8145 kg (17,957 lb.)	8091 kg (17,838 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, No Tire Deflection (conforms to ISO 14397-1)*	5719 kg (12,609 lb.)	5680 kg (12,521 lb.)	4797 kg (10,576 lb.)	4765 kg (10,505 lb.)	4419 kg (9,741 lb.)	4389 kg (9,676 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1)*	5213 kg (11,492 lb.)	5169 kg (11,396 lb.)	4410 kg (9,722 lb.)	4377 kg (9,650 lb.)	4073 kg (8,978 lb.)	4046 kg (8,919 lb.)
Operating Weight	15 747 kg (34,715 lb.)	15 790 kg (34,810 lb.)	15 953 kg (35,171 lb.)	15 996 kg (35,266 lb.)	16 195 kg (35,703 lb.)	16 238 kg (35,798 lb.)
Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PVS 6068 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments, and assumes no tire deflection per the standard ISO 14397-1 section 5.						

\*Rated operating capacity based on Deere attachments only.



# 624 P TIER

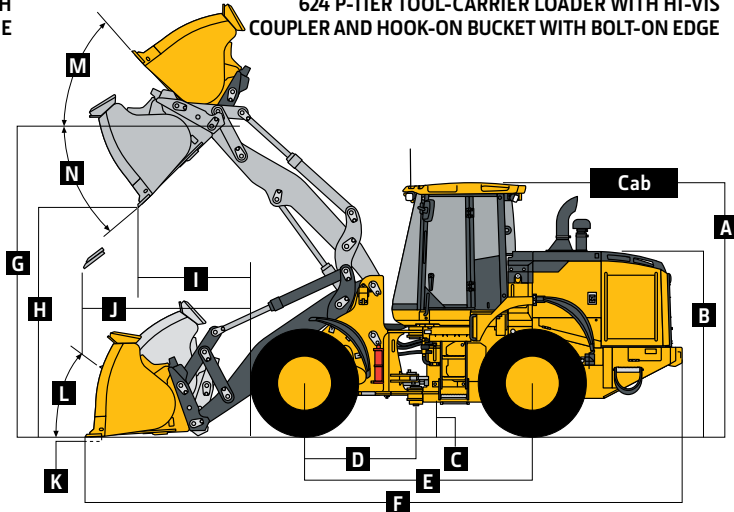
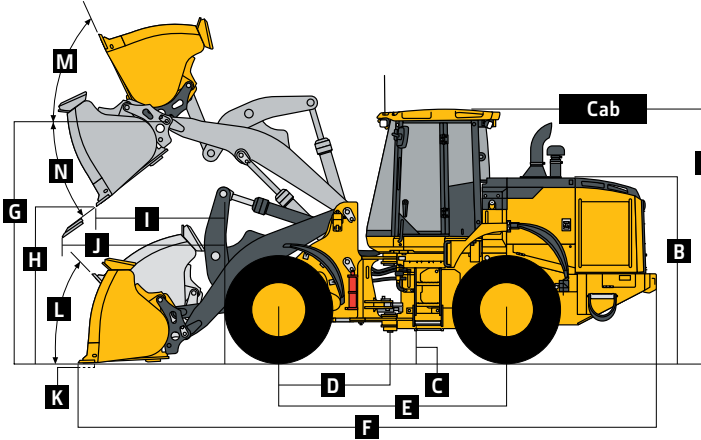
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## Dimensions and Specifications With Hi-Vis Coupler and Hook-On Bucket With Bolt-On Edge

### 624 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS / TOOL CARRIER

#### 624 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS LOADERS WITH HI-VIS COUPLER AND HOOK-ON BUCKET WITH BOLT-ON EDGE

#### 624 P-TIER TOOL-CARRIER LOADER WITH HI-VIS COUPLER AND HOOK-ON BUCKET WITH BOLT-ON EDGE



	Z-Bar 2.7-m <sup>3</sup> (3.5 cu. yd.)	Z-Bar 4.0-m <sup>3</sup> (5.25 cu. yd.)	High-Lift 2.5-m <sup>3</sup> (3.25 cu. yd.)	High-Lift 3.4-m <sup>3</sup> (4.5 cu. yd.)	High-Lift Plus 2.3-m <sup>3</sup> (3.0 cu. yd.)	High-Lift Plus 3.1-m <sup>3</sup> (4.0 cu. yd.)	Tool Carrier 2.7-m <sup>3</sup> (3.5 cu. yd.)	Tool Carrier 3.4-m <sup>3</sup> (4.5 cu. yd.)
<b>Dimensions With Bucket With Bolt-On Edge (illustrations above)</b>								
<b>A</b> Height to Top of Cab	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)
<b>B</b> Hood Height	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)
<b>C</b> Ground Clearance	384 mm (15.1 in.)	384 mm (15.1 in.)	384 mm (15.1 in.)	384 mm (15.1 in.)	384 mm (15.1 in.)	384 mm (15.1 in.)	384 mm (15.1 in.)	384 mm (15.1 in.)
<b>D</b> Length From Centerline to Front Axle	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)
<b>E</b> Wheelbase	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)
<b>F</b> Overall Length, Bucket on Ground	7.89 m (25 ft. 11 in.)	8.04 m (26 ft. 5 in.)	8.31 m (27 ft. 3 in.)	8.50 m (27 ft. 11 in.)	8.53 m (28 ft. 0 in.)	8.66 m (28 ft. 5 in.)	7.99 m (26 ft. 2 in.)	8.13 m (26 ft. 8 in.)
<b>G</b> Height to Hinge Pin, Fully Raised	3.96 m (13 ft. 0 in.)	3.96 m (13 ft. 0 in.)	4.32 m (14 ft. 2 in.)	4.32 m (14 ft. 2 in.)	4.57 m (15 ft. 0 in.)	4.57 m (15 ft. 0 in.)	4.00 m (13 ft. 1 in.)	4.00 m (13 ft. 1 in.)
<b>H</b> Dump Clearance, 45 deg., Full Height	2.76 m (9 ft. 1 in.)	2.66 m (8 ft. 9 in.)	3.15 m (10 ft. 4 in.)	3.02 m (9 ft. 11 in.)	3.45 m (11 ft. 4 in.)	3.37 m (11 ft. 1 in.)	2.74 m (9 ft. 0 in.)	2.64 m (8 ft. 8 in.)
<b>I</b> Reach, 45-deg. Dump, Full Height	1.17 m (3 ft. 10 in.)	1.28 m (4 ft. 2 in.)	1.28 m (4 ft. 2 in.)	1.42 m (4 ft. 8 in.)	1.24 m (4 ft. 1 in.)	1.34 m (4 ft. 5 in.)	1.39 m (4 ft. 7 in.)	1.51 m (4 ft. 11 in.)
<b>J</b> Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.64 m (5 ft. 5 in.)	1.69 m (5 ft. 7 in.)	2.03 m (6 ft. 8 in.)	2.10 m (6 ft. 11 in.)	2.21 m (7 ft. 3 in.)	2.27 m (7 ft. 6 in.)	1.83 m (6 ft. 0 in.)	1.89 m (6 ft. 2 in.)
<b>K</b> Maximum Digging Depth	0.10 m (4 in.)	0.11 m (4 in.)	0.20 m (8 in.)	0.21 m (8 in.)	0.19 m (7 in.)	0.19 m (7 in.)	0.13 m (5 in.)	0.13 m (5 in.)
<b>L</b> Maximum Rollback at Ground Level	44 deg.	44 deg.	48 deg.	48 deg.	49 deg.	49 deg.	52 deg.	52 deg.
<b>M</b> Maximum Rollback, Boom Fully Raised	60 deg.	60 deg.	60 deg.	60 deg.	60 deg.	60 deg.	57 deg.	57 deg.
<b>N</b> Maximum Bucket Dump Angle, Fully Raised	48 deg.	48 deg.	46 deg.	45 deg.	45 deg.	45 deg.	50 deg.	50 deg.
Loader Clearance Circle, Bucket Carry Position	12.06 m (39 ft. 7 in.)	12.44 m (40 ft. 10 in.)	12.34 m (40 ft. 6 in.)	12.80 m (42 ft. 0 in.)	12.76 m (41 ft. 11 in.)	13.00 m (42 ft. 8 in.)	12.24 m (40 ft. 2 in.)	12.5 m (41 ft. 0 in.)
<b>Specifications With Bucket With Bolt-On Edge</b>								
Capacity, Heaped	2.7 m <sup>3</sup> (3.5 cu. yd.)	4.0 m <sup>3</sup> (5.25 cu. yd.)	2.5 m <sup>3</sup> (3.25 cu. yd.)	3.4 m <sup>3</sup> (4.5 cu. yd.)	2.3 m <sup>3</sup> (3.0 cu. yd.)	3.1 m <sup>3</sup> (4.0 cu. yd.)	2.7 m <sup>3</sup> (3.5 cu. yd.)	3.4 m <sup>3</sup> (4.5 cu. yd.)
Capacity, Struck	2.17 m <sup>3</sup> (2.8 cu. yd.)	3.46 m <sup>3</sup> (4.53 cu. yd.)	2.1 m <sup>3</sup> (2.7 cu. yd.)	2.9 m <sup>3</sup> (3.8 cu. yd.)	1.9 m <sup>3</sup> (2.4 cu. yd.)	2.6 m <sup>3</sup> (3.4 cu. yd.)	1.9 m <sup>3</sup> (2.4 cu. yd.)	2.9 m <sup>3</sup> (3.8 cu. yd.)
Bucket Weight With Bolt-On Cutting Edge	1655 kg (3,649 lb.)	1925 kg (4,245 lb.)	1633 kg (3,601 lb.)	1843 kg (4,063 lb.)	1586 kg (3,496 lb.)	1780 kg (3,924 lb.)	1437 kg (3,167 lb.)	1626 kg (3,584 lb.)
Bucket Width	2.68 m (8 ft. 10 in.)	3.05 m (10 ft. 0 in.)	2.69 m (8 ft. 10 in.)	2.89 m (9 ft. 6 in.)	2.69 m (8 ft. 10 in.)	2.89 m (9 ft. 6 in.)	2.68 m (8 ft. 10 in.)	2.89 m (9 ft. 6 in.)
Breakout Force	12 161 kg (26,810 lb.)	10 789 kg (23,785 lb.)	13 052 kg (28,776 lb.)	10 709 kg (23,610 lb.)	13 266 kg (29,246 lb.)	11 874 kg (26,310 lb.)	11 477 kg (25,302 lb.)	10 290 kg (22,686 lb.)
Tipping Load, Straight, No Tire Deflection	12 357 kg (27,242 lb.)	11 990 kg (26,434 lb.)	10 624 kg (23,422 lb.)	10 177 kg (22,437 lb.)	9779 kg (21,559 lb.)	9547 kg (20,701 lb.)	11 577 kg (25,523 lb.)	11 544 kg (25,450 lb.)
Tipping Load, Straight, With Tire Deflection	11 613 kg (25,602 lb.)	11 220 kg (24,736 lb.)	10 074 kg (22,209 lb.)	9600 kg (21,164 lb.)	9294 kg (20,490 lb.)	9042 kg (19,577 lb.)	10 920 kg (24,074 lb.)	10 854 kg (23,929 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	10 652 kg (23,483 lb.)	10 292 kg (22,690 lb.)	9130 kg (20,127 lb.)	8690 kg (19,158 lb.)	8348 kg (18,405 lb.)	8120 kg (17,581 lb.)	9993 kg (22,031 lb.)	9939 kg (21,912 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	9663 kg (21,303 lb.)	9273 kg (20,443 lb.)	8385 kg (18,486 lb.)	7911 kg (17,441 lb.)	7686 kg (16,945 lb.)	7437 kg (16,032 lb.)	9108 kg (20,080 lb.)	9006 kg (19,855 lb.)

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

## 624 P TIER

### Dimensions and Specifications With Hi-Vis Coupler and Hook-On

#### Bucket With Bolt-On Edge (continued) 624 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS / TOOL CARRIER

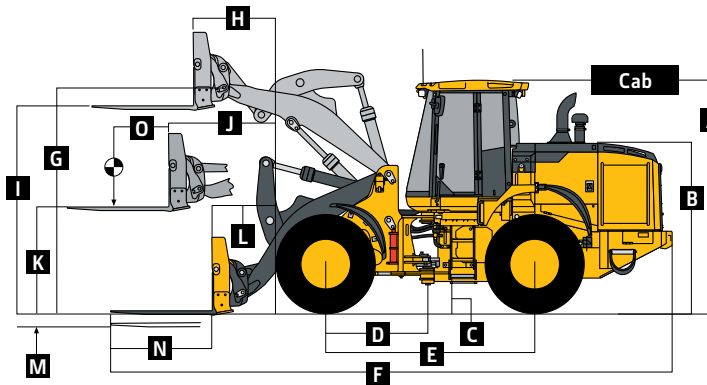
	Z-Bar 2.7-m <sup>3</sup> (3.5 cu. yd.)	Z-Bar 4.0-m <sup>3</sup> (5.25 cu. yd.)	High-Lift 2.5-m <sup>3</sup> (3.25 cu. yd.)	High-Lift 3.4-m <sup>3</sup> (4.5 cu. yd.)	High-Lift Plus 2.3-m <sup>3</sup> (3.0 cu. yd.)	High-Lift Plus 3.1-m <sup>3</sup> (4.0 cu. yd.)	Tool Carrier 2.7-m <sup>3</sup> (3.5 cu. yd.)	Tool Carrier 3.4-m <sup>3</sup> (4.5 cu. yd.)
<b>Specifications With Bucket With Bolt-On Edge (continued) (illustrations at left)</b>	general purpose	general purpose	general purpose	general purpose	general purpose	general purpose	general purpose	general purpose
Rated Operating Load, 50% Full-Turn Tipping Load, No Tire Deflection (conforms to ISO 14397-1)*	5326 kg (11,742 lb.)	5146 kg (11,345 lb.)	4565 kg (10,064 lb.)	4345 kg (9,579 lb.)	4174 kg (9,203 lb.)	4060 kg (8,790 lb.)	4997 kg (11,015 lb.)	4970 kg (10,956 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1)*	4832 kg (10,652 lb.)	4637 kg (10,222 lb.)	4193 kg (9,243 lb.)	3956 kg (8,720 lb.)	3843 kg (8,472 lb.)	3719 kg (8,016 lb.)	4554 kg (10,040 lb.)	4503 kg (9,927 lb.)
Operating Weight	16 225 kg (35,769 lb.)	16 495 kg (36,365 lb.)	16 410 kg (36,178 lb.)	16 620 kg (36,641 lb.)	16 605 kg (36,607 lb.)	16 799 kg (37,174 lb.)	15 939 kg (35,140 lb.)	16 128 kg (35,556 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PVS 6068 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments, and assumes no tire deflection per the standard ISO 14397-1 section 5.

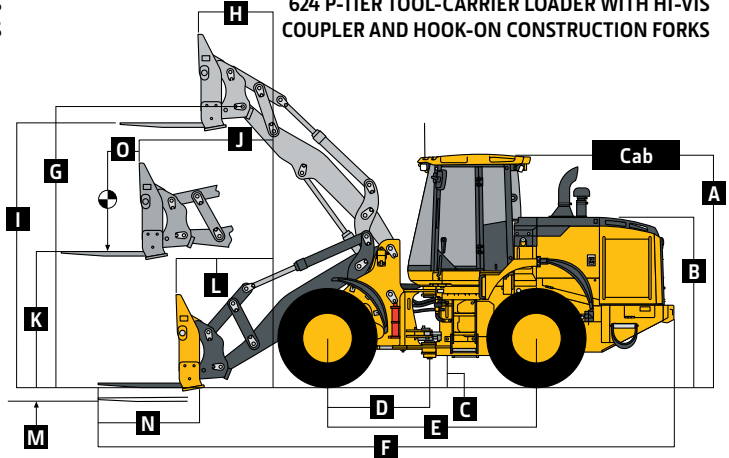
\*Rated operating capacity based on Deere attachments only.

### Dimensions and Specifications With Hi-Vis Coupler and Hook-On Construction Forks

#### 624 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS LOADERS WITH HI-VIS COUPLER AND HOOK-ON CONSTRUCTION FORKS



#### 624 P-TIER TOOL-CARRIER LOADER WITH HI-VIS COUPLER AND HOOK-ON CONSTRUCTION FORKS



	Z-Bar 1.52-m (60 in.)	Z-Bar 1.83-m (72 in.)	High-Lift 1.52-m (60 in.)	High-Lift 1.83-m (72 in.)	High-Lift Plus 1.52-m (60 in.)	High-Lift Plus 1.83-m (72 in.)	Tool Carrier 1.52-m (60 in.)	Tool Carrier 1.83-m (72 in.)
<b>Dimensions With Forks (illustrations above)</b>	tine length	tine length	tine length	tine length	tine length	tine length	tine length	tine length
<b>A</b> Height to Top of Cab	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)
<b>B</b> Hood Height	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)	2.46 m (8 ft. 1 in.)
<b>C</b> Ground Clearance	384 mm (15.1 in.)	384 mm (15.1 in.)	384 mm (15.1 in.)	384 mm (15.1 in.)	384 mm (15.1 in.)	384 mm (15.1 in.)	384 mm (15.1 in.)	384 mm (15.1 in.)
<b>D</b> Length From Centerline to Front Axle	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)	1.52 m (5 ft. 0 in.)
<b>E</b> Wheelbase	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)	3.09 m (10 ft. 1 in.)
<b>F</b> Overall Length, Forks on Ground	8.50 m (27 ft. 11 in.)	8.80 m (28 ft. 11 in.)	8.96 m (29 ft. 5 in.)	9.26 m (30 ft. 5 in.)	9.25 m (30 ft. 4 in.)	9.56 m (31 ft. 4 in.)	8.63 m (28 ft. 4 in.)	8.94 m (29 ft. 4 in.)
<b>G</b> Height to Hinge Pin, Fully Raised	3.96 m (13 ft. 0 in.)	3.96 m (13 ft. 0 in.)	4.32 m (14 ft. 2 in.)	4.32 m (14 ft. 2 in.)	4.57 m (15 ft. 0 in.)	4.57 m (15 ft. 0 in.)	4.00 m (13 ft. 1 in.)	4.00 m (13 ft. 1 in.)
<b>H</b> Reach, Fully Raised	0.81 m (32 in.)	0.81 m (32 in.)	0.95 m (3 ft. 1 in.)	0.95 m (3 ft. 1 in.)	0.96 m (3 ft. 2 in.)	0.96 m (3 ft. 2 in.)	1.05 m (3 ft. 5 in.)	1.05 m (3 ft. 5 in.)
<b>I</b> Fork Height, Fully Raised	3.64 m (11 ft. 11 in.)	3.64 m (11 ft. 11 in.)	4.00 m (13 ft. 2 in.)	4.00 m (13 ft. 2 in.)	4.25 m (13 ft. 11 in.)	4.25 m (13 ft. 11 in.)	3.72 m (12 ft. 2 in.)	3.72 m (12 ft. 2 in.)
<b>J</b> Maximum Reach, Fork Level	1.62 m (5 ft. 4 in.)	1.62 m (5 ft. 4 in.)	1.98 m (6 ft. 6 in.)	1.98 m (6 ft. 6 in.)	2.18 m (7 ft. 2 in.)	2.18 m (7 ft. 2 in.)	1.80 m (5 ft. 11 in.)	1.80 m (5 ft. 11 in.)
<b>K</b> Fork Height, Maximum Reach	1.69 m (5 ft. 7 in.)	1.69 m (5 ft. 7 in.)	1.69 m (5 ft. 7 in.)	1.69 m (5 ft. 7 in.)	1.69 m (5 ft. 7 in.)	1.69 m (5 ft. 7 in.)	1.80 m (5 ft. 11 in.)	1.80 m (5 ft. 11 in.)
<b>L</b> Reach, Ground Level	1.06 m (3 ft. 6 in.)	1.06 m (3 ft. 6 in.)	1.49 m (4 ft. 11 in.)	1.49 m (4 ft. 11 in.)	1.73 m (5 ft. 8 in.)	1.73 m (5 ft. 8 in.)	1.21 m (4 ft. 0 in.)	1.21 m (4 ft. 0 in.)
<b>M</b> Depth Below Ground	77 mm (3 in.)	77 mm (3 in.)	181 mm (7 in.)	181 mm (7 in.)	173 mm (7 in.)	173 mm (7 in.)	173 mm (7 in.)	173 mm (7 in.)
<b>N</b> Tine Length	1.52 m (60 in.)	1.83 m (72 in.)	1.52 m (60 in.)	1.83 m (72 in.)	1.52 m (60 in.)	1.83 m (72 in.)	1.52 m (60 in.)	1.83 m (72 in.)
<b>O</b> Load Position, 50% Tine Length	0.76 m (30 in.)	0.91 m (3 ft. 0 in.)	0.76 m (30 in.)	0.91 m (3 ft. 0 in.)	0.76 m (30 in.)	0.91 m (3 ft. 0 in.)	0.76 m (30 in.)	0.91 m (3 ft. 0 in.)



Dimensions and Specifications With Hi-Vis Coupler and Hook-On Construction Forks (continued)								
624 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS / TOOL CARRIER								
Specifications With Forks (illustrations on previous page)	Z-Bar 1.52-m (60 in.) tine length	Z-Bar 1.83-m (72 in.) tine length	High-Lift 1.52-m (60 in.) tine length	High-Lift 1.83-m (72 in.) tine length	High-Lift Plus 1.52-m (60 in.) tine length	High-Lift Plus 1.83-m (72 in.) tine length	Tool Carrier 1.52-m (60 in.) tine length	Tool Carrier 1.83-m (72 in.) tine length
Tipping Load, Straight, No Tire Deflection	8808 kg (19,418 lb.)	8328 kg (18,360 lb.)	7736 kg (17,054 lb.)	7342 kg (16,186 lb.)	7296 kg (16,085 lb.)	6937 kg (15,293 lb.)	8505 kg (18,750 lb.)	8061 kg (17,771 lb.)
Tipping Load, Straight, With Tire Deflection	8553 kg (18,856 lb.)	8091 kg (17,838 lb.)	7515 kg (16,568 lb.)	7134 kg (15,728 lb.)	7104 kg (15,662 lb.)	6759 kg (14,901 lb.)	8283 kg (18,261 lb.)	7851 kg (17,308 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	7602 kg (16,760 lb.)	7178 kg (15,825 lb.)	6639 kg (14,636 lb.)	6291 kg (13,869 lb.)	6232 kg (13,739 lb.)	5915 kg (13,041 lb.)	7350 kg (16,204 lb.)	6957 kg (15,338 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	7251 kg (15,986 lb.)	6858 kg (15,119 lb.)	6330 kg (13,955 lb.)	6006 kg (13,241 lb.)	5946 kg (13,109 lb.)	5643 kg (12,441 lb.)	7023 kg (15,483 lb.)	6648 kg (14,656 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1 and SAE J1197)*	3626 kg (7,993 lb.)	3429 kg (7,560 lb.)	3165 kg (6,978 lb.)	3003 kg (6,620 lb.)	2973 kg (6,554 lb.)	2822 kg (6,220 lb.)	3512 kg (7,742 lb.)	3324 kg (7,328 lb.)
Rated Operating Load, Rough Terrain, 60% Full-Turn Tipping Load, With Tire Deflection (conforms to EN474-3)*	4351 kg (9,591 lb.)	4115 kg (9,072 lb.)	3798 kg (8,373 lb.)	3604 kg (7,945 lb.)	3568 kg (7,865 lb.)	3386 kg (7,464 lb.)	4214 kg (9,290 lb.)	3989 kg (8,794 lb.)
Rated Operating Load, Firm and Level Ground, 80% Full-Turn Tipping Load, With Tire Deflection (conforms to EN474-3)*	5801 kg (12,789 lb.)	5486 kg (12,095 lb.)	5064 kg (11,164 lb.)	4805 kg (10,593 lb.)	4757 kg (10,487 lb.)	4514 kg (9,953 lb.)	5618 kg (12,386 lb.)	5318 kg (11,725 lb.)
Operating Weight	16 005 kg (35,286 lb.)	16 066 kg (35,420 lb.)	16 213 kg (35,744 lb.)	16 272 kg (35,875 lb.)	16 454 kg (36,274 lb.)	16 516 kg (36,412 lb.)	15 721 kg (34,659 lb.)	15 807 kg (34,849 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PVS 6068 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments.

\*Rated operating capacity based on Deere attachments only.

#### Adjustments to Operating Weights and Tipping Loads With Buckets

Adjustments to operating weights, tipping loads, and tires are based on Z-Bar machine with pin-on 2.7-m<sup>3</sup> (3.5 cu. yd.) 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 79-kg (175 lb.) operator\*

Add (+) or deduct (–) kg (lb.) as indicated for loaders with 3-piece rims	Operating Weight	Tipping Load, Straight	Tipping Load, 40-deg. Full Turn	Tread Width	Width Over Tires	Vertical Height
Michelin 20.5 R 25, 1 Star L-3 XHA2	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 mm (0 in.)	0 mm (0 in.)	0 mm (0 in.)
Bridgestone 20.5 R 25, 1 Star L-3 VJT	+4 kg (+9 lb.)	+3 kg (+6 lb.)	+3 kg (+6 lb.)	0 mm (0 in.)	+3 mm (+0.1 in.)	–41 mm (–1.6 in.)
Titan 20.5 R 25, 1 Star L-3 STL3	+8 kg (+19 lb.)	+6 kg (+13 lb.)	+5 kg (+13 lb.)	0 mm (0 in.)	–6 mm (–0.2 in.)	–7 mm (–0.3 in.)
Michelin 20.5 R 25, 1 Star L-2 XTLA	–152 kg (–335 lb.)	–110 kg (–242 lb.)	–97 kg (–214 lb.)	0 mm (0 in.)	+5 mm (+0.2 in.)	–10 mm (–0.4 in.)
Bridgestone 20.5 R 25, 1 Star L-2 VUT	–68 kg (–149 lb.)	–49 kg (–108 lb.)	–43 kg (–95 lb.)	0 mm (0 in.)	+4 mm (+0.2 in.)	–10 mm (–0.4 in.)
Titan 20.5 R 25, 1 Star L-2 TGD2	–116 kg (–255 lb.)	–84 kg (–184 lb.)	–74 kg (–162 lb.)	0 mm (0 in.)	–6 mm (–0.2 in.)	–10 mm (–0.4 in.)
Firestone 20.5-25, 16 PR L-3 SRG Bias	–276 kg (–608 lb.)	–200 kg (–440 lb.)	–176 kg (–388 lb.)	0 mm (0 in.)	+9 mm (+0.4 in.)	+6 mm (+0.2 in.)
Titan 20.5-25, 16 PR L-2 Bias	–232 kg (–511 lb.)	+168 kg (+370 lb.)	–148 kg (–326 lb.)	0 mm (0 in.)	+9 mm (+0.4 in.)	–1 mm (0 in.)
Firestone 20.5-25, 16 PR L-2 SGG Bias	–280 kg (–617 lb.)	–203 kg (–446 lb.)	–178 kg (–393 lb.)	0 mm (0 in.)	+6 mm (+0.2 in.)	+2 mm (+0.1 in.)
Michelin 600/65 R 25, 1 Star L-3T XLD <sup>§</sup>	+16 kg (+36 lb.)	+12 kg (+26 lb.)	+10 kg (+23 lb.)	0 mm (0 in.)	+95 mm (+3.7 in.)	–31 mm (–1.2 in.)
Michelin 20.5 R 25, L2T XSNO-PLUS	–96 kg (–212 lb.)	–69 kg (–153 lb.)	–61 kg (–135 lb.)	0 mm (0 in.)	+7 mm (+0.3 in.)	–33 mm (–1.3 in.)
Michelin 620/75R26 MegaXbib <sup>£</sup>	–207 kg (–457 lb.)	–150 kg (–331 lb.)	–132 kg (–291 lb.)	+86 mm (+3.4 in.)	+147 mm (+5.8 in.)	+23 mm (+0.9 in.)
Michelin 750/65R26 MegaXbib <sup>£</sup>	+37 kg (+81 lb.)	+27 kg (+58 lb.)	+23 kg (+51 lb.)	+222 mm (+8.7 in.)	+422 mm (+16.6 in.)	+36 mm (+1.4 in.)
CaCl <sub>2</sub> in 20.5-25, L-3 Rear Tires, 75% Fill	+825 kg (+1,820 lb.)	+1193 kg (+2,631 lb.)	+1051 kg (+2,318 lb.)	N/A	N/A	N/A

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

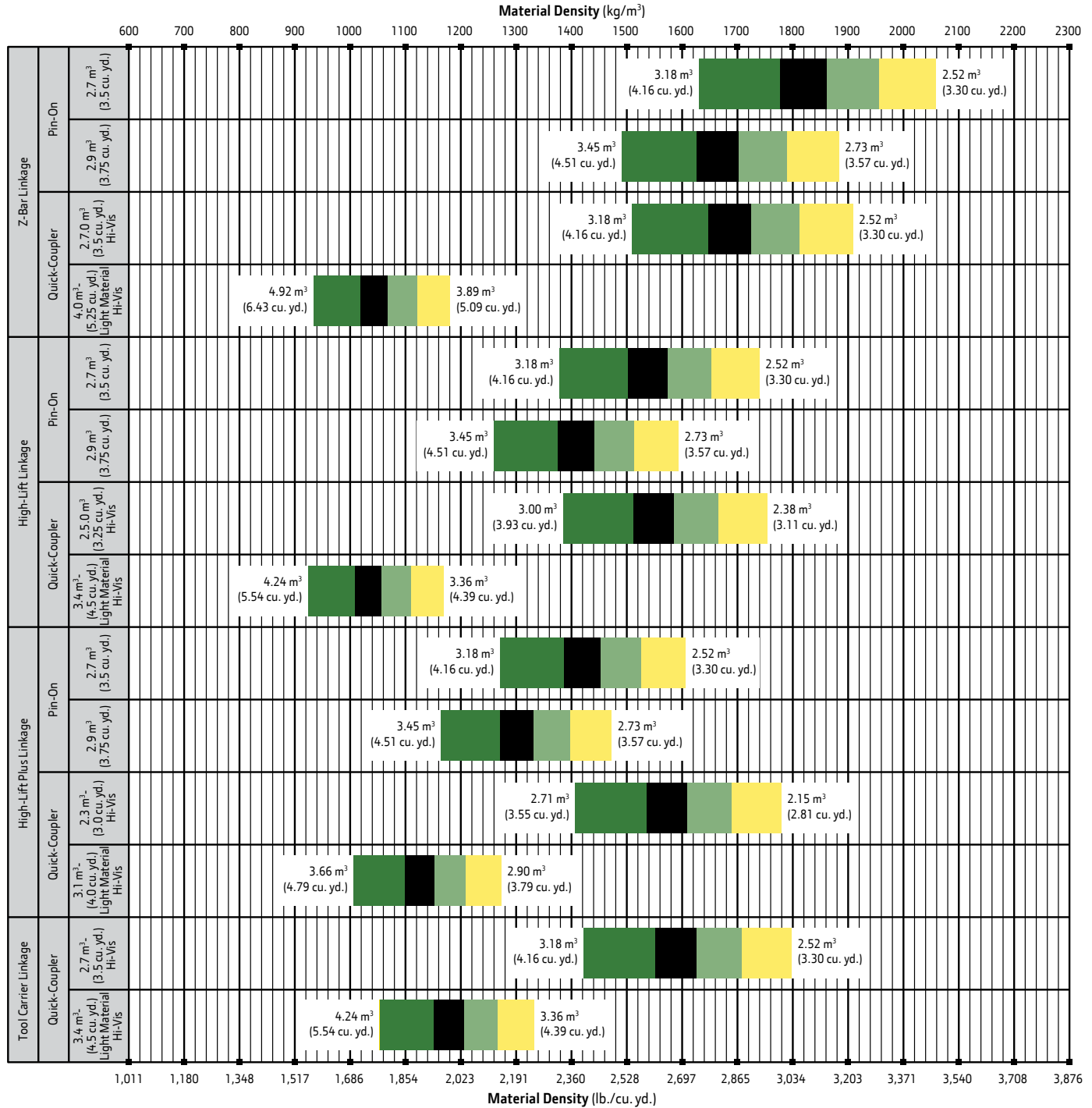
<sup>§</sup>CaCl<sub>2</sub> not recommended.

<sup>£</sup>Equipped with 1-piece rims.

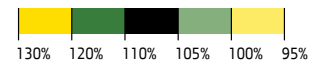
<sup>§</sup>Requires 8-deg. rear axle stops.

## Bucket Selection Guides

## 624 P-TIER Z-BAR / HIGH-LIFT / HIGH-LIFT PLUS / TOOL CARRIER



### Bucket Fill Factors



LOOSE MATERIALS		kg/m³	lb./cu. yd.	LOOSE MATERIALS		kg/m³	lb./cu. yd.
Chips, pulpwood	288	486	Limestone, coarse, sized	1570	2,646		
Cinders (coal, ashes, clinkers)	673	1,134	Limestone, mixed sizes	1682	2,835		
Clay and gravel, dry	1602	2,700	Limestone, pulverized or crushed	1362	2,295		
Clay, compact, solid	1746	2,943	Sand, damp	2083	3,510		
Clay, dry in lump loose	1009	1,701	Sand, dry	1762	2,970		
Clay, excavated in water	1282	2,160	Sand, voids, full of water	2083	3,510		
Coal, anthracite, broken, loose	865	1,458	Sandstone, quarried	1314	2,214		
Coal, bituminous, moderately wet	801	1,350	Shale, broken crushed	1362	2,295		
Earth, common loam, dry	1218	2,052	Slag, furnace granulated	1955	3,294		
Earth, mud, packed	1843	3,105	Stone or gravel, 37.5 to 87.5-mm (1.5 to 3.5 in.) size	1442	2,430		
Granite, broken	1538	2,592	Stone or gravel, 18.75-mm (0.75 in.) size	1602	2,700		
Gypsum	2275	3,834					



## 644 P-TIER WHEEL LOADER SPECIFICATIONS

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

Engine		644 P-TIER Z-BAR / HIGH-LIFT		
Manufacturer and Model	John Deere PowerTech™ PSS 6068	Gross Peak Torque (ISO 9249)	1100 Nm (811 lb.-ft.) at 1,400 rpm	
Non-Road Emission Standard	EPA Final Tier 4/EU Stage V	Net Torque Rise	58%	
Cylinders	6	Fuel System (electronically controlled)	High-pressure common rail	
Valves Per Cylinder	4	Lubrication	Full-flow spin-on filter and integral cooler	
Displacement	6.8 L (415 cu. in.)	Aspiration	Series turbocharged, charge air cooled	
Net Peak Power (ISO 9249)	186 kW (249 hp) at 1,800 rpm	Air Cleaner	Under-hood, dual-element dry type, restriction indicator in cab monitor for service	
Gross Peak Power (ISO 9249)	194 kW (260 hp) at 1,800 rpm			
Net Peak Torque (ISO 9249)	1061 Nm (783 lb.-ft.) at 1,400 rpm			
Cooling				
Fan Drive	Hydraulically driven, proportionally controlled, fan aft of coolers			
Electrical				
Electrical System	24 volt with 100-amp alternator (140-amp alternator optional)			
Batteries (2 – 12 volt)	950 CCA (each)			
Transmission System				
Type	Countershaft-type PowerShift™			
Torque Converter	Single stage, single phase			
Motor/Generator	N/A			
Inverter	N/A			
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 2 selectable modes: kick-down or kick-up/down; and 4 clutch cutoff settings			
	Standard 5-Speed With Lockup Torque Converter		Optional 4-Speed	
Maximum Travel Speeds (with 23.5 R 25 tires)	Forward	Reverse	Forward	Reverse
Range 1	7.1 km/h (4.4 mph)	7.5 km/h (4.7 mph)	7.2 km/h (4.5 mph)	7.6 km/h (4.7 mph)
Range 2	12.1 km/h (7.5 mph)	12.8 km/h (8.0 mph)	11.9 km/h (7.4 mph)	12.5 km/h (7.8 mph)
Range 3	20.5 km/h (12.7 mph)	26.1 km/h (16.2 mph)	22.9 km/h (14.2 mph)	24.0 km/h (14.9 mph)
Range 4	24.7 km/h (15.3 mph)	N/A	35.2 km/h (21.9 mph)	N/A
Range 5	40.0 km/h (24.9 mph)	N/A	N/A	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 23.5 R 25 tires)	26 deg. (13 deg. each direction)			
Brakes (conform to ISO 3450)				
Service	Hydraulically actuated, inboard sun-shaft mounted, oil cooled, self adjusting, single disc			
Parking	Automatic spring applied, hydraulically released, driveline mounted, oil cooled, multi disc			
Tires/Wheels (see page 35 for complete tire adjustments)				
	Tread Width	Width Over Tires		
Michelin 23.5 R 25, 1 Star L-3	2170 mm (85.4 in.)	2875 mm (113.2 in.)		
Serviceability				
Refill Capacities				
Fuel Tank (with lockable cap)	350 L (92.6 gal.)	Transmission Reservoir With Vertical Filter	23 L (24.3 qt.)	
Diesel Exhaust Fluid (DEF)	18.5 L (19.5 qt.)	Axle Oil (front and rear, each)	22 L (23 qt.)	
Cooling System	44 L (47 qt.)	Hydraulic Reservoir and Filter	105.2 L (27.8 gal.)	
Inverter	N/A	Park Brake Oil (wet disc)	0.65 L (22 oz.)	
Engine Oil With Vertical Spin-On Filter	27 L (28.5 qt.)			
Hydraulic System/Steering				
Pump (loader and steering)	Variable-displacement, axial-piston pump; closed-center, pressure-compensating system			
Maximum Rated Flow at 6895 kPa (1,000 psi) and 2,250 rpm	310 L/m (82 gpm)			
System Relief Pressure (loader and steering)	25 166 kPa (3,650 psi)			
Loader Controls	2-function valve; joystick control or fingertip controls; hydraulic-function enable/disable; optional 3rd- and 4th-function valve with auxiliary lever			
Steering (conforms to ISO 5010)				
Type	Power, fully hydraulic			
Articulation Angle	80-deg. arc (40 deg. each direction)			
Turning Radius (measured to centerline of outside tire)	5.64 m (18 ft. 6 in.)			

## 644 P-TIER WHEEL LOADER SPECIFICATIONS

# 644

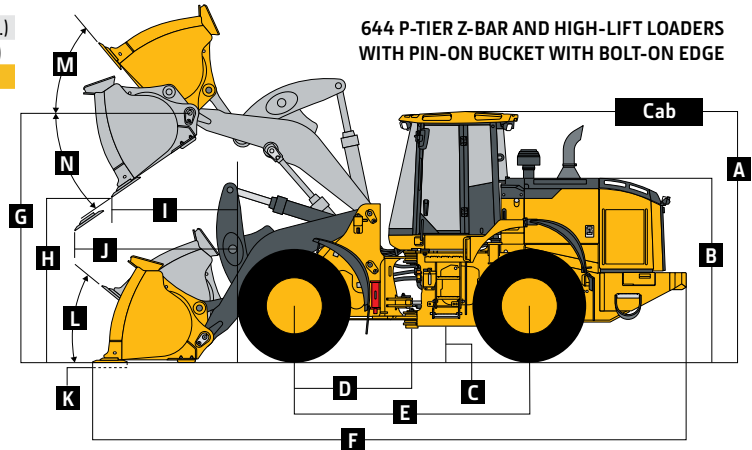
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Hydraulic System/Steering <i>(continued)</i>		
644 P-TIER Z-BAR / HIGH-LIFT		
Hydraulic Cycle Times	Z-Bar	High-Lift
Raise	5.3 sec.	5.3 sec.
Dump	1.4 sec.	1.4 sec.
Lower (power down)	3.8 sec.	4.0 sec.
Total	10.5 sec.	10.7 sec.

Bucket Capacity Range		
Bucket Type		
Pin-On	3.2–3.6 m <sup>3</sup> (4.25–4.75 cu. yd.)	
Coupler	3.1–3.6 m <sup>3</sup> (4.0–4.75 cu. yd.)	

### Dimensions and Specifications With Pin-On Bucket With Bolt-On Edge



	Z-Bar	Z-Bar	High-Lift
<b>Dimensions With Bucket With Bolt-On Edge <i>(illustration above right)</i></b>			
A Height to Top of Cab	3.2-m <sup>3</sup> (4.25 cu. yd.) general-purpose	3.4-m <sup>3</sup> (4.5 cu. yd.) general-purpose	3.2-m <sup>3</sup> (4.25 cu. yd.) general-purpose
B Hood Height	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
C Ground Clearance	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)
D Length From Centerline to Front Axle	386 mm (15.2 in.)	386 mm (15.2 in.)	386 mm (15.2 in.)
E Wheelbase	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)
F Overall Length, Bucket on Ground	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)
G Height to Hinge Pin, Fully Raised	8.33 m (27 ft. 4 in.)	8.38 m (27 ft. 6 in.)	8.72 m (28 ft. 7 in.)
H Dump Clearance, 45 deg., Full Height	4.09 m (13 ft. 5 in.)	4.09 m (13 ft. 5 in.)	4.50 m (14 ft. 9 in.)
I Reach, 45-deg. Dump, Full Height	2.87 m (9 ft. 5 in.)	2.83 m (9 ft. 4 in.)	3.28 m (10 ft. 9 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.06 m (3 ft. 6 in.)	1.09 m (3 ft. 7 in.)	1.17 m (3 ft. 10 in.)
K Maximum Digging Depth	1.61 m (5 ft. 3 in.)	1.62 m (5 ft. 4 in.)	2.02 m (6 ft. 8 in.)
L Maximum Rollback at Ground Level	125 mm (5 in.)	129 mm (5 in.)	262 mm (10 in.)
M Maximum Rollback, Boom Fully Raised	45 deg.	45 deg.	45 deg.
N Maximum Bucket Dump Angle, Fully Raised	59 deg.	59 deg.	60 deg.
Loader Clearance Circle, Bucket Carry Position	48 deg.	48 deg.	45 deg.
	13.0 m (42 ft. 8 in.)	13.0 m (42 ft. 9 in.)	13.3 m (43 ft. 9 in.)
<b>Specifications With Bucket With Bolt-On Edge</b>			
Capacity, Heaped	3.3 m <sup>3</sup> (4.25 cu. yd.)	3.4 m <sup>3</sup> (4.50 cu. yd.)	3.3 m <sup>3</sup> (4.26 cu. yd.)
Capacity, Struck	2.7 m <sup>3</sup> (3.47 cu. yd.)	2.8 m <sup>3</sup> (3.68 cu. yd.)	2.7 m <sup>3</sup> (3.48 cu. yd.)
Bucket Weight With Bolt-On Cutting Edge	1844 kg (4,066 lb.)	1880 kg (4,145 lb.)	1695 kg (3,737 lb.)
Bucket Width	3.04 m (10 ft. 0 in.)	3.04 m (10 ft. 0 in.)	3.04 m (10 ft. 0 in.)
Breakout Force	15 574 kg (34,334 lb.)	15 002 kg (33,074 lb.)	15 568 kg (34,321 lb.)
Tipping Load, Straight, No Tire Deflection	15 005 kg (33,079 lb.)	14 891 kg (32,829 lb.)	12 413 kg (27,367 lb.)
Tipping Load, Straight, With Tire Deflection	14 067 kg (31,012 lb.)	13 956 kg (30,768 lb.)	11 718 kg (25,834 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	12 987 kg (28,631 lb.)	12 882 kg (28,401 lb.)	10 677 kg (23,540 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	11 826 kg (26,072 lb.)	11 721 kg (25,840 lb.)	9795 kg (21,594 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, No Tire Deflection (conforms to ISO 14397-1)*	6493 kg (14,315 lb.)	6441 kg (14,200 lb.)	5339 kg (11,770 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1)*	5913 kg (13,036 lb.)	5861 kg (12,920 lb.)	4898 kg (10,797 lb.)
Operating Weight	18 709 kg (41,246 lb.)	18 744 kg (41,324 lb.)	18 894 kg (41,653 lb.)

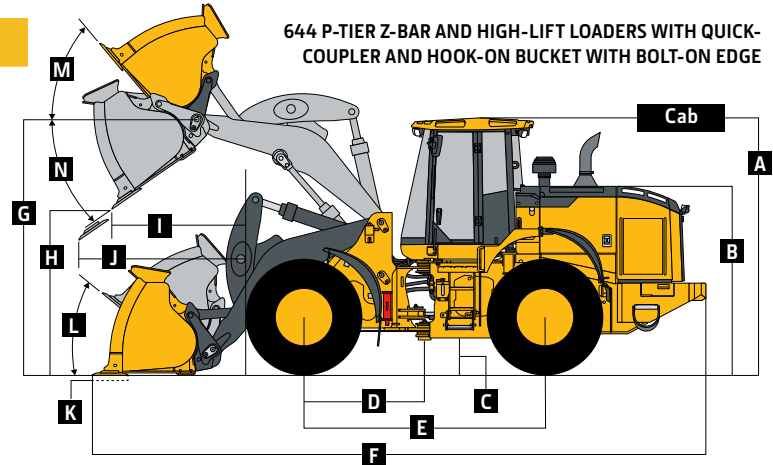
Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSS 6068 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes affected by changes in tires, ballast, and different attachments, and assumes no tire deflection per the standard ISO 14397-1 section 5.

\*Rated operating capacity based on Deere attachments only.

# 644 P TIER

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

## Dimensions and Specifications With Hi-Vis Coupler and Hook-On Bucket With Bolt-On Edge 644 P-TIER Z-BAR / HIGH-LIFT



	Z-Bar	Z-Bar	High-Lift	High-Lift
<b>Dimensions With Bucket With Bolt-On Edge (illustration above right)</b>	3.1-m <sup>3</sup> (4.0 cu. yd.)	3.2-m <sup>3</sup> (4.25 cu. yd.)	3.1-m <sup>3</sup> (4.0 cu. yd.)	3.2-m <sup>3</sup> (4.25 cu. yd.)
A Height to Top of Cab	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
B Hood Height	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)
C Ground Clearance	386 mm (15.2 in.)	386 mm (15.2 in.)	386 mm (15.2 in.)	386 mm (15.2 in.)
D Length From Centerline to Front Axle	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)
E Wheelbase	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)
F Overall Length, Bucket on Ground	8.38 m (27 ft. 6 in.)	8.43 m (27 ft. 8 in.)	8.77 m (28 ft. 9 in.)	8.82 m (28 ft. 11 in.)
G Height to Hinge Pin, Fully Raised	4.09 m (13 ft. 5 in.)	4.09 m (13 ft. 5 in.)	4.50 m (14 ft. 9 in.)	4.50 m (14 ft. 9 in.)
H Dump Clearance, 45 deg., Full Height	2.84 m (9 ft. 4 in.)	2.81 m (9 ft. 2 in.)	3.25 m (10 ft. 8 in.)	3.22 m (10 ft. 7 in.)
I Reach, 45-deg. Dump, Full Height	1.10 m (3 ft. 7 in.)	1.13 m (3 ft. 8 in.)	1.21 m (4 ft. 0 in.)	1.24 m (4 ft. 1 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.63 m (5 ft. 4 in.)	1.64 m (5 ft. 5 in.)	2.05 m (6 ft. 9 in.)	2.06 m (6 ft. 9 in.)
K Maximum Digging Depth	125 mm (5 in.)	129 mm (5 in.)	262 mm (10 in.)	266 mm (10 in.)
L Maximum Rollback at Ground Level	45 deg.	45 deg.	45 deg.	45 deg.
M Maximum Rollback, Boom Fully Raised	59 deg.	59 deg.	60 deg.	60 deg.
N Maximum Bucket Dump Angle, Fully Raised	48 deg.	48 deg.	45 deg.	45 deg.
Loader Clearance Circle, Bucket Carry Position	13.0 m (42 ft. 9 in.)	13.0 m (42 ft. 9 in.)	13.5 m (44 ft. 3 in.)	13.5 m (44 ft. 4 in.)
<b>Specifications With Bucket With Bolt-On Edge</b>				
Capacity, Heaped	3.30 m <sup>3</sup> (4.25 cu. yd.)	3.40 m <sup>3</sup> (4.50 cu. yd.)	3.07 m <sup>3</sup> (4.02 cu. yd.)	3.26 m <sup>3</sup> (4.26 cu. yd.)
Capacity, Struck	2.70 m <sup>3</sup> (3.47 cu. yd.)	2.80 m <sup>3</sup> (3.68 cu. yd.)	2.51 m <sup>3</sup> (3.28 cu. yd.)	2.66 m <sup>3</sup> (3.48 cu. yd.)
Bucket Weight With Bolt-On Cutting Edge	1844 kg (4,066 lb.)	1880 kg (4,145 lb.)	1639 kg (3,613 lb.)	1695 kg (3,737 lb.)
Bucket Width	3.04 m (10 ft. 0 in.)	3.04 m (10 ft. 0 in.)	3.04 m (10 ft. 0 in.)	3.04 m (10 ft. 0 in.)
Breakout Force	14 907 kg (32,865 lb.)	14 419 kg (31,789 lb.)	13 987 kg (30,385 lb.)	13 569 kg (29,914 lb.)
Tipping Load, Straight, No Tire Deflection	14 246 kg (31,407 lb.)	14 141 kg (31,174 lb.)	11 431 kg (25,202 lb.)	11 381 kg (25,091 lb.)
Tipping Load, Straight, With Tire Deflection	13 347 kg (29,425 lb.)	13 242 kg (29,194 lb.)	10 770 kg (23,744 lb.)	10 719 kg (23,631 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	12 279 kg (27,071 lb.)	12 181 kg (26,854 lb.)	9764 kg (21,526 lb.)	9718 kg (21,426 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	11 163 kg (24,610 lb.)	11 061 kg (24,385 lb.)	8919 kg (19,663 lb.)	8871 kg (19,557 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, No Tire Deflection (conforms to ISO 14397-1)*	6140 kg (13,536 lb.)	6090 kg (13,427 lb.)	4882 kg (10,763 lb.)	4859 kg (10,713 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1)*	5582 kg (12,305 lb.)	5531 kg (12,193 lb.)	4460 kg (9,832 lb.)	4436 kg (9,779 lb.)
Operating Weight	19 134 kg (42,182 lb.)	19 190 kg (42,307 lb.)	19 449 kg (42,877 lb.)	19 465 kg (42,913 lb.)
Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSS 6068 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments, and assumes no tire deflection per the standard ISO 14397-1 section 5.				

\*Rated operating capacity based on Deere attachments only.

## Dimensions and Specifications With Hi-Vis Coupler and Construction Forks

	Z-Bar	Z-Bar	High-Lift	High-Lift
<b>Dimensions With Forks (illustration at top of next page)</b>	1.52-m (60 in.) tine length	1.83-m (72 in.) tine length	1.52-m (60 in.) tine length	1.83-m (72 in.) tine length
A Height to Top of Cab	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
B Hood Height	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)
C Ground Clearance	386 mm (15.2 in.)	386 mm (15.2 in.)	386 mm (15.2 in.)	386 mm (15.2 in.)
D Length From Centerline to Front Axle	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)
E Wheelbase	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)
F Overall Length, Forks on Ground	9.01 m (29 ft. 7 in.)	9.32 m (30 ft. 7 in.)	9.41 m (30 ft. 10 in.)	9.71 m (31 ft. 10 in.)
G Height to Hinge Pin, Fully Raised	4.09 m (13 ft. 5 in.)	4.09 m (13 ft. 5 in.)	4.50 m (14 ft. 9 in.)	4.50 m (14 ft. 9 in.)
H Reach, Fully Raised	820 mm (32 in.)	820 mm (32 in.)	930 mm (3 ft. 1 in.)	930 mm (3 ft. 1 in.)
I Fork Height, Fully Raised	3.78 m (12 ft. 5 in.)	3.78 m (12 ft. 5 in.)	4.19 m (13 ft. 9 in.)	4.19 m (13 ft. 9 in.)
J Maximum Reach, Fork Level	1.70 m (5 ft. 7 in.)	1.70 m (5 ft. 7 in.)	2.05 m (6 ft. 9 in.)	2.05 m (6 ft. 9 in.)
K Fork Height, Maximum Reach	1.70 m (5 ft. 7 in.)	1.70 m (5 ft. 7 in.)	1.74 m (5 ft. 9 in.)	1.74 m (5 ft. 9 in.)
L Reach, Ground Level	1.16 m (3 ft. 10 in.)	1.16 m (3 ft. 10 in.)	1.56 m (5 ft. 1 in.)	1.56 m (5 ft. 1 in.)
M Depth Below Ground	90 mm (3 in.)	90 mm (3 in.)	220 mm (9 in.)	220 mm (9 in.)
N Tine Length	1.52 m (60 in.)	1.83 m (72 in.)	1.52 m (60 in.)	1.83 m (72 in.)
O Load Position, 50% Tine Length	760 mm (30 in.)	910 mm (36 in.)	760 mm (30 in.)	910 mm (36 in.)



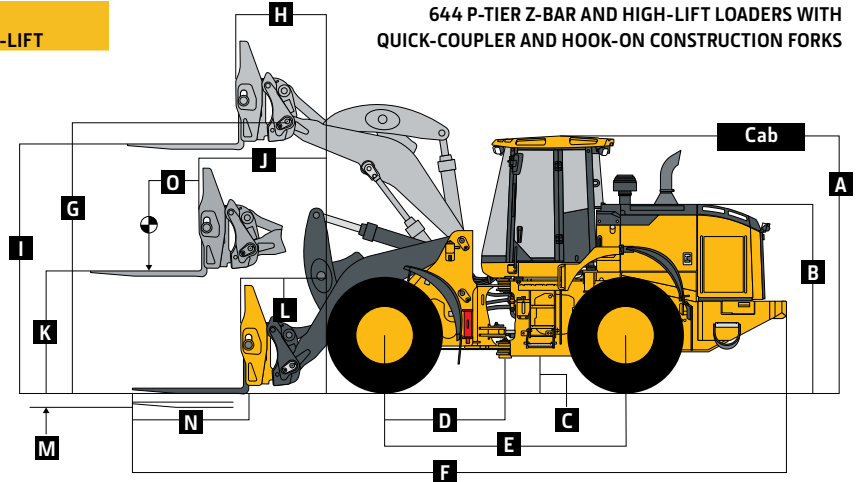
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# 644 P TIER

## Dimensions and Specifications With Hi-Vis Coupler and Construction Forks (continued)

## 644 P-TIER Z-BAR / HIGH-LIFT

## 644 P-TIER Z-BAR AND HIGH-LIFT LOADERS WITH QUICK-COUPLER AND HOOK-ON CONSTRUCTION FORKS



	Z-Bar	Z-Bar	High-Lift	High-Lift
<b>Specifications With Forks (illustration above right)</b>				
Tipping Load, Straight, No Tire Deflection	9950 kg (21,935 lb.)	9436 kg (20,803 lb.)	8637 kg (19,042 lb.)	8220 kg (18,121 lb.)
Tipping Load, Straight, With Tire Deflection	9666 kg (21,310 lb.)	9171 kg (20,219 lb.)	8394 kg (18,506 lb.)	7989 kg (17,613 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	8610 kg (18,981 lb.)	8156 kg (17,981 lb.)	7429 kg (16,379 lb.)	7060 kg (15,565 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	8232 kg (18,148 lb.)	7803 kg (17,203 lb.)	7092 kg (15,635 lb.)	6744 kg (14,868 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1 and SAE J1197)*	4116 kg (9,074 lb.)	3902 kg (8,601 lb.)	3546 kg (7,818 lb.)	3372 kg (7,434 lb.)
Rated Operating Load, Rough Terrain, 60% Full-Turn Tipping Load, With Tire Deflection (conforms to EN474-3)*	4939 kg (10,889 lb.)	4682 kg (10,322 lb.)	4255 kg (9,381 lb.)	4046 kg (8,921 lb.)
Rated Operating Load, Firm and Level Ground, 80% Full-Turn Tipping Load, With Tire Deflection (conforms to EN474-3)*	6586 kg (14,519 lb.)	6242 kg (13,762 lb.)	5674 kg (12,508 lb.)	5395 kg (11,894 lb.)
Operating Weight	18 603 kg (41,011 lb.)	18 663 kg (41,144 lb.)	18 787 kg (41,419 lb.)	18 847 kg (41,552 lb.)
Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSS 6068 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments, and assumes no tire deflection per the standard ISO 14397-1 section 5.				

\*Rated operating capacity based on Deere attachments only.

### Adjustments to Operating Weights and Tipping Loads With Buckets

Adjustments to operating weights, tipping loads, and tires are based on Z-Bar machine with pin-on 3.2-m<sup>3</sup> (4.25 cu. yd.) 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 79-kg (175 lb.) operator\*

Add (+) or deduct (–) kg (lb.) as indicated for loaders with 3-piece rims	Operating Weight	Tipping Load, Straight	Tipping Load, 40-deg. Full Turn	Tread Width	Width Over Tires	Vertical Height
Standard Z-Bar With Torque Converter Transmission	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	N/A	N/A	N/A
Michelin 23.5 R 25, 1 Star L-3	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 mm (0 in.)	0 mm (0 in.)	0 mm (0 in.)
Bridgestone 23.5 R 25, 1 Star L-3	+101 kg (+223 lb.)	+771 kg (+170 lb.)	+68 kg (+150 lb.)	–3 mm (–0.1 in.)	+15 mm (+0.6 in.)	+39 mm (+1.5 in.)
Titan 23.5-25, 20 PR L-3	–271 kg (–597 lb.)	–207 kg (–456 lb.)	–183 kg (–402 lb.)	–3 mm (–0.1 in.)	+33 mm (+1.3 in.)	+29 mm (+1.1 in.)
Titan 725/70-25 16-Ply L-4T (Logger Style) <sup>1</sup> <sup>8</sup>	+359 kg (+792 lb.)	+285 kg (+629 lb.)	+252 kg (+555 lb.)	+34 mm (+1.4 in.)	+119 mm (+4.7 in.)	+78 mm (+3.1 in.)
Michelin 750/65 R 25, 1 Star L-3T <sup>1</sup> <sup>8</sup>	+715 kg (+1,577 lb.)	+557 kg (+1,228 lb.)	+492 kg (+1,084 lb.)	+34 mm (+1.4 in.)	+140 mm (+5.5 in.)	+42 mm (+1.7 in.)

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

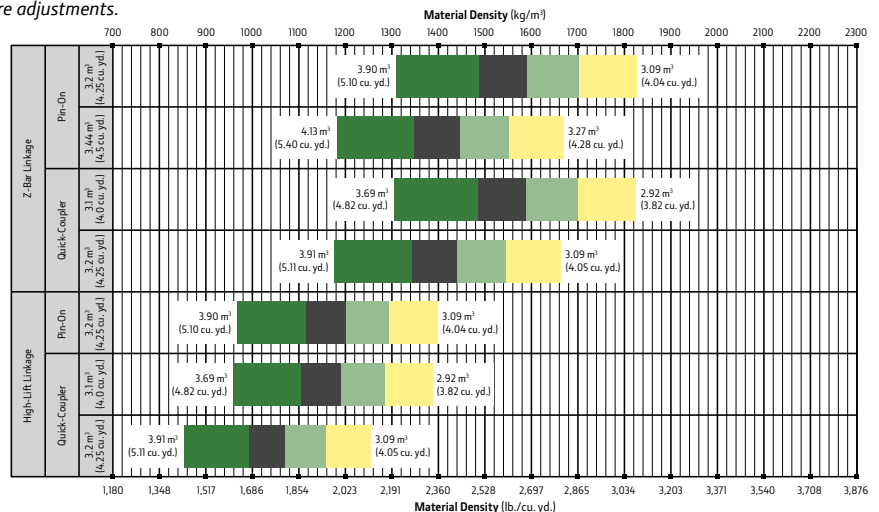
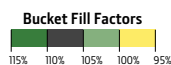
<sup>1</sup>Equipped with 5-piece heavy-duty rims.

<sup>8</sup>CaCl<sub>2</sub> not recommended.

<sup>8</sup>Requires 9-deg. rear axle stops.

### Bucket Selection Guides

LOOSE MATERIALS	kg/m <sup>3</sup>	lb./cu. yd.	LOOSE MATERIALS	kg/m <sup>3</sup>	lb./cu. yd.
Chips, pulpwood	288	486	Limestone, coarse, sized	1570	2,666
Cinders (coal, ashes, clinkers)	673	1,134	Limestone, mixed sizes	1682	2,835
Clay and gravel, dry	1602	2,700	Limestone, pulverized or crushed	1362	2,295
Clay, compact, solid	1746	2,943	Sand, damp	2083	3,510
Clay, dry in lump loose	1009	1,701	Sand, dry	1762	2,970
Clay, excavated in water	1282	2,160	Sand, voids, full of water	2083	3,510
Coal, anthracite, broken, loose	865	1,458	Sandstone, quarried	1314	2,214
Coal, bituminous, moderately wet	801	1,350	Shale, broken crushed	1362	2,295
Earth, common loam, dry	1218	2,052	Slag, furnace granulated	1955	3,294
Earth, mud, packed	1843	3,105	Stone or gravel, 37.5 to 87.5-mm (1.5 to 3.5") size	1442	2,430
Granite, broken	1538	2,592	Stone or gravel, 18.75-mm (0.75") size	1602	2,700
Gypsum	2275	3,834			





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Engine		724 P-TIER Z-BAR / HIGH-LIFT		
Manufacturer and Model	John Deere PowerTech™ PSS 6090	Gross Peak Torque (ISO 9249)	1325 Nm (977 lb.-ft.) at 1,300 rpm	
Non-Road Emission Standard	EPA Final Tier 4/EU Stage V	Net Torque Rise	48%	
Cylinders	6	Fuel System (electronically controlled)	High-pressure common rail	
Valves Per Cylinder	4	Lubrication	Full-flow spin-on filter and integral cooler	
Displacement	9.0 L (548 cu. in.)	Aspiration	Series turbocharged, charge air cooled	
Net Peak Power (ISO 9249)	200 kW (268 hp) at 1,800 rpm	Air Cleaner	Under-hood, dual-element dry type, restriction indicator in cab monitor for service	
Gross Peak Power (ISO 9249)	206 kW (276 hp) at 1,800 rpm			
Net Peak Torque (ISO 9249)	1290 Nm (951 lb.-ft.) at 1,400 rpm			
Cooling				
Fan Drive	Hydraulically driven, proportionally controlled, fan aft of coolers			
Electrical				
Electrical System	24 volt with 100-amp alternator (140-amp alternator optional)			
Batteries (2 – 12 volt)	950 CCA (each)			
Transmission System				
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 2 selectable modes: kick-down or kick-up/down; and 4 clutch cutoff settings			
	Standard 5-Speed With Lockup Torque Converter		Optional 4-Speed	
Maximum Travel Speeds (with 23.5 R 25, 1 Star L3 tires)	Forward	Reverse	Forward	Reverse
Range 1	7.1 km/h (4.4 mph)	7.5 km/h (4.7 mph)	7.2 km/h (4.5 mph)	7.6 km/h (4.7 mph)
Range 2	12.1 km/h (7.5 mph)	12.8 km/h (8.0 mph)	11.9 km/h (7.4 mph)	12.5 km/h (7.7 mph)
Range 3	20.5 km/h (12.7 mph)	26.1 km/h (16.2 mph)	22.9 km/h (14.2 mph)	23.9 km/h (14.9 mph)
Range 4	24.7 km/h (15.3 mph)	N/A	35.2 km/h (21.9 mph)	N/A
Range 5	40.0 km/h (24.9 mph)	N/A	N/A	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 23.5 R 25 tires)	26 deg. (13 deg. each direction)			
Brakes (conform to ISO 3450)				
Service	Hydraulically actuated, spring retracted, self-adjusting, inboard sun-shaft mounted, oil cooled, single disc			
Parking	Automatic spring applied, hydraulically released, driveline mounted, oil cooled, multi disc			
Tires/Wheels (see page 39 for complete tire adjustments)				
	Tread Width	Width Over Tires		
Michelin 23.5 R 25, 1 Star L-3	2170 mm (85.4 in.)	2880 mm (113.4 in.)		
Serviceability				
Refill Capacities				
Fuel Tank (with lockable cap)	351 L (92.6 gal.)	Transmission Reservoir With Vertical Filter	23 L (24.3 qt.)	
Diesel Exhaust Fluid (DEF)	18.5 L (19.5 qt.)	Axle Oil Without Coolers (front and rear, each)	22 L (23 qt.)	
Cooling System	48 L (51 qt.)	Hydraulic Reservoir and Filter	105.2 L (27.8 gal.)	
Engine Oil With Vertical Spin-On Filter	28 L (29.5 qt.)	Park Brake Oil (wet disc)	0.65 L (22 oz.)	
Hydraulic System/Steering				
Pump (loader and steering)	Variable-displacement, axial-piston pump; closed-center, pressure-compensating system			
Maximum Rated Flow at 6895 kPa (1,000 psi) and 2,250 rpm	310 L/m (82 gpm)			
System Relief Pressure (loader and steering)	27 580 kPa (4,000 psi)			
Loader Controls	2-function valve; joystick control or fingertip controls; hydraulic-function enable/disable; optional 3rd-function valve with roller or auxiliary lever and 4th-function valve with dual roller			
Steering (conforms to ISO 5010)				
Type	Power, fully hydraulic			
Articulation Angle	80-deg. arc (40 deg. each direction)			
Turning Radius (measured to centerline of outside tire)	5.64 m (18 ft. 6 in.)			

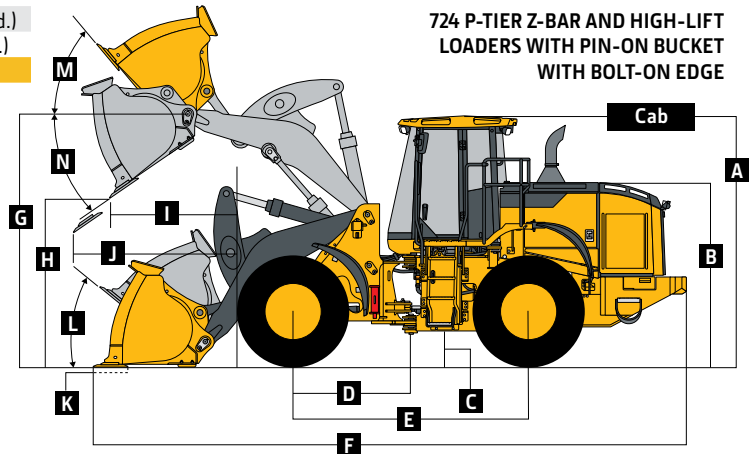
## 724 P-TIER WHEEL LOADER SPECIFICATIONS

# 724

# P

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

Hydraulic System/Steering <i>(continued)</i>			724 P-TIER Z-BAR / HIGH-LIFT	
Hydraulic Cycle Times			Z-Bar	High-Lift
Raise			5.3 sec.	5.3 sec.
Dump			1.4 sec.	1.4 sec.
Lower (power down)			3.8 sec.	4.0 sec.
Total			10.5 sec.	10.7 sec.
Bucket Capacity Range				
Bucket Type				
Pin-On			3.2–3.8 m <sup>3</sup> (4.25–5.0 cu. yd.)	
Coupler			3.1–3.8 m <sup>3</sup> (4.0–5.0 cu. yd.)	
Dimensions and Specifications With Pin-On Bucket With Bolt-On Edge				



	Z-Bar	Z-Bar	High-Lift	High-Lift
Dimensions With Bucket With Bolt-On Edge <i>(illustration above right)</i>	3.6-m <sup>3</sup> (4.75 cu. yd.)	3.8-m <sup>3</sup> (5.0 cu. yd.)	3.4-m <sup>3</sup> (4.5 cu. yd.)	3.6-m <sup>3</sup> (4.75 cu. yd.)
	<i>general-purpose</i>	<i>general-purpose</i>	<i>general-purpose</i>	<i>general-purpose</i>
A Height to Top of Cab	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
B Hood Height	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)
C Ground Clearance	386 mm (15.2 in.)	386 mm (15.2 in.)	386 mm (15.2 in.)	386 mm (15.2 in.)
D Length From Centerline to Front Axle	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)
E Wheelbase	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)
F Overall Length, Bucket on Ground	8.42 m (27 ft. 8 in.)	8.47 m (27 ft. 9 in.)	8.77 m (28 ft. 9 in.)	8.82 m (28 ft. 11 in.)
G Height to Hinge Pin, Fully Raised	4.16 m (13 ft. 8 in.)	4.16 m (13 ft. 8 in.)	4.50 m (14 ft. 9 in.)	4.50 m (14 ft. 9 in.)
H Dump Clearance, 45 deg., Full Height	2.87 m (9 ft. 5 in.)	2.84 m (9 ft. 4 in.)	3.25 m (10 ft. 8 in.)	3.21 m (10 ft. 7 in.)
I Reach, 45-deg. Dump, Full Height	1.12 m (3 ft. 8 in.)	1.15 m (3 ft. 9 in.)	1.20 m (3 ft. 11 in.)	1.24 m (4 ft. 1 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.68 m (5 ft. 6 in.)	1.70 m (5 ft. 7 in.)	2.04 m (6 ft. 8 in.)	2.06 m (6 ft. 9 in.)
K Maximum Digging Depth	160 mm (6 in.)	160 mm (6 in.)	270 mm (10 in.)	270 mm (11 in.)
L Maximum Rollback at Ground Level	43 deg.	43 deg.	46 deg.	46 deg.
M Maximum Rollback, Boom Fully Raised	60 deg.	60 deg.	60 deg.	60 deg.
N Maximum Bucket Dump Angle, Fully Raised	47 deg.	47 deg.	45 deg.	45 deg.
Loader Clearance Circle, Bucket Carry Position	13.0 m (42 ft. 10 in.)	13.1 m (42 ft. 10 in.)	13.3 m (43 ft. 7 in.)	13.4 m (44 ft. 0 in.)
Specifications With Bucket With Bolt-On Edge				
Capacity, Heaped	3.6 m <sup>3</sup> (4.76 cu. yd.)	3.8 m <sup>3</sup> (5.00 cu. yd.)	3.4 m <sup>3</sup> (4.50 cu. yd.)	3.6 m <sup>3</sup> (4.76 cu. yd.)
Capacity, Struck	3.0 m <sup>3</sup> (3.90 cu. yd.)	3.2 m <sup>3</sup> (4.12 cu. yd.)	2.8 m <sup>3</sup> (3.68 cu. yd.)	3.0 m <sup>3</sup> (3.90 cu. yd.)
Bucket Weight With Bolt-On Cutting Edge	1919 kg (4,232 lb.)	1954 kg (4,308 lb.)	1880 kg (4,145 lb.)	1919 kg (4,232 lb.)
Bucket Width	3.04 m (10 ft. 0 in.)	3.04 m (10 ft. 0 in.)	3.04 m (10 ft. 0 in.)	3.04 m (10 ft. 0 in.)
Breakout Force	15 988 kg (35,248 lb.)	15 496 kg (34,163 lb.)	16 527 kg (36,436 lb.)	15,946 kg (35,155 lb.)
Tipping Load, Straight, No Tire Deflection	16 405 kg (36,167 lb.)	16 302 kg (35,940 lb.)	13 777 kg (30,373 lb.)	13 677 kg (30,153 lb.)
Tipping Load, Straight, With Tire Deflection	15 312 kg (33,757 lb.)	15 210 kg (33,532 lb.)	12 975 kg (28,605 lb.)	12 876 kg (28,387 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	14 204 kg (31,315 lb.)	14 109 kg (31,106 lb.)	11 870 kg (26,168 lb.)	11 777 kg (25,964 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	12 843 kg (28,314 lb.)	12 747 kg (28,102 lb.)	10 854 kg (23,929 lb.)	10 761 kg (23,724 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, No Tire Deflection (conforms to ISO 14397-1)*	7102 kg (15,657 lb.)	7055 kg (15,553 lb.)	5935 kg (13,084 lb.)	5889 kg (12,982 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1)*	6422 kg (14,157 lb.)	6374 kg (14,051 lb.)	5427 kg (11,964 lb.)	5381 kg (11,862 lb.)
Operating Weight	19 825 kg (43,707 lb.)	19 859 kg (43,783 lb.)	19 945 kg (43,971 lb.)	19 984 kg (44,058 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSS 6090 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments, and assumes no tire deflection per the standard ISO 14397-1 section 5.

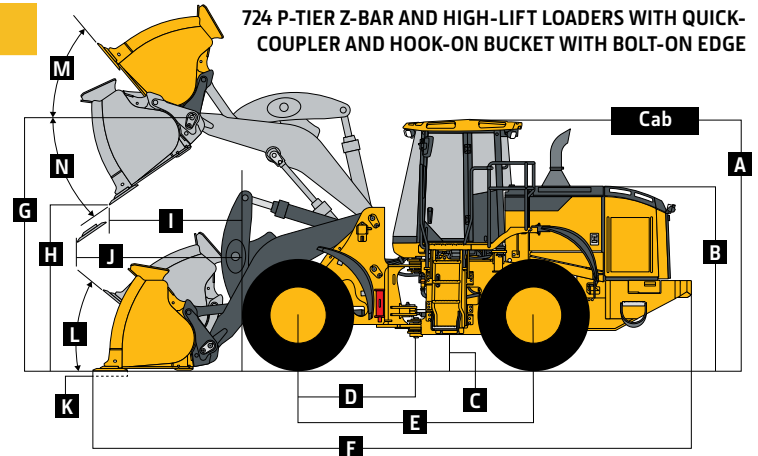
\*Rated operating capacity based on Deere attachments only.



# 724 P TIER

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## Dimensions and Specifications With Hi-Vis Coupler and Hook-On Bucket With Bolt-On Edge 724 P-TIER Z-BAR / HIGH-LIFT



	Z-Bar	Z-Bar	High-Lift	High-Lift
<b>Dimensions With Bucket With Bolt-On Edge (illustration above right)</b>	<i>3.4-m<sup>3</sup> (4.5 cu. yd.) general-purpose</i>	<i>3.6-m<sup>3</sup> (4.75 cu. yd.) general-purpose</i>	<i>3.2-m<sup>3</sup> (4.25 cu. yd.) general-purpose</i>	<i>3.4-m<sup>3</sup> (4.5 cu. yd.) general-purpose</i>
A Height to Top of Cab	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
B Hood Height	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)
C Ground Clearance	386 mm (15.2 in.)	386 mm (15.2 in.)	386 mm (15.2 in.)	386 mm (15.2 in.)
D Length From Centerline to Front Axle	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)
E Wheelbase	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)
F Overall Length, Bucket on Ground	8.46 m (27 ft. 9 in.)	8.51 m (27 ft. 11 in.)	8.82 m (28 ft. 11 in.)	8.86 m (29 ft. 1 in.)
G Height to Hinge Pin, Fully Raised	4.16 m (13 ft. 8 in.)	4.16 m (13 ft. 8 in.)	4.50 m (14 ft. 9 in.)	4.50 m (14 ft. 9 in.)
H Dump Clearance, 45 deg., Full Height	2.85 m (9 ft. 4 in.)	2.81 m (9 ft. 3 in.)	3.22 m (10 ft. 7 in.)	3.19 m (10 ft. 6 in.)
I Reach, 45-deg. Dump, Full Height	1.15 m (3 ft. 9 in.)	1.18 m (3 ft. 10 in.)	1.24 m (4 ft. 1 in.)	1.27 m (4 ft. 2 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.70 m (5 ft. 7 in.)	1.71 m (5 ft. 7 in.)	2.06 m (6 ft. 9 in.)	2.08 m (6 ft. 10 in.)
K Maximum Digging Depth	150 mm (6 in.)	160 mm (6 in.)	270 mm (10 in.)	270 mm (11 in.)
L Maximum Rollback at Ground Level	43 deg.	43 deg.	45 deg.	45 deg.
M Maximum Rollback, Boom Fully Raised	60 deg.	60 deg.	60 deg.	60 deg.
N Maximum Bucket Dump Angle, Fully Raised	47 deg.	47 deg.	45 deg.	45 deg.
Loader Clearance Circle, Bucket Carry Position	13.1 m (42 ft. 10 in.)	13.1 m (42 ft. 11 in.)	13.5 m (44 ft. 4 in.)	13.5 m (44 ft. 4 in.)
<b>Specifications With Bucket With Bolt-On Edge</b>				
Capacity, Heaped	3.5 m <sup>3</sup> (4.51 cu. yd.)	3.6 m <sup>3</sup> (4.76 cu. yd.)	3.3 m <sup>3</sup> (4.26 cu. yd.)	3.5 m <sup>3</sup> (4.51 cu. yd.)
Capacity, Struck	2.8 m <sup>3</sup> (3.70 cu. yd.)	3.0 m <sup>3</sup> (3.91 cu. yd.)	2.7 m <sup>3</sup> (3.48 cu. yd.)	2.8 m <sup>3</sup> (3.70 cu. yd.)
Bucket Weight With Bolt-On Cutting Edge	1737 kg (3,829 lb.)	1774 kg (3,911 lb.)	1695 kg (3,737 lb.)	1737 kg (3,829 lb.)
Bucket Width	3.04 m (10 ft. 0 in.)	3.04 m (10 ft. 0 in.)	3.04 m (10 ft. 0 in.)	3.04 m (10 ft. 0 in.)
Breakout Force	15 478 kg (34,123 lb.)	14 977 kg (33,018 lb.)	15 900 kg (35,053 lb.)	15 437 kg (34,032 lb.)
Tipping Load, Straight, No Tire Deflection	15 644 kg (34,489 lb.)	15 537 kg (34,254 lb.)	13 089 kg (28,855 lb.)	13 009 kg (28,679 lb.)
Tipping Load, Straight, With Tire Deflection	14 589 kg (32,163 lb.)	14 484 kg (31,932 lb.)	12 312 kg (27,143 lb.)	12 231 kg (26,965 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	13 493 kg (29,746 lb.)	13 395 kg (29,530 lb.)	11 221 kg (24,738 lb.)	11 146 kg (24,572 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	12 177 kg (26,846 lb.)	12 081 kg (26,634 lb.)	10 236 kg (22,566 lb.)	10 158 kg (22,395 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, No Tire Deflection (conforms to ISO 14397-1)*	6746 kg (14,873 lb.)	6697 kg (14,765 lb.)	5610 kg (12,369 lb.)	5573 kg (12,286 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1)*	6089 kg (13,423 lb.)	6041 kg (13,317 lb.)	5118 kg (11,283 lb.)	5079 kg (11,197 lb.)
Operating Weight	20 299 kg (44,753 lb.)	20 335 kg (44,830 lb.)	20 417 kg (45,012 lb.)	20 459 kg (45,103 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSS 6090 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments, and assumes no tire deflection per the standard ISO 14397-1 section 5.

\*Rated operating capacity based on Deere attachments only.

## Dimensions and Specifications With Hi-Vis Coupler and Construction Forks

	Z-Bar	Z-Bar	High-Lift	High-Lift
<b>Dimensions With Forks (illustration at top of next page)</b>	<i>1.52-m (60 in.) tine length</i>	<i>1.83-m (72 in.) tine length</i>	<i>1.52-m (60 in.) tine length</i>	<i>1.83-m (72 in.) tine length</i>
A Height to Top of Cab	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
B Hood Height	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)
C Ground Clearance	386 mm (15.2 in.)	386 mm (15.2 in.)	386 mm (15.2 in.)	386 mm (15.2 in.)
D Length From Centerline to Front Axle	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)
E Wheelbase	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)
F Overall Length, Forks on Ground	9.00 m (29 ft. 6 in.)	9.30 m (30 ft. 6 in.)	9.41 m (30 ft. 10 in.)	9.71 m (31 ft. 10 in.)
G Height to Hinge Pin, Fully Raised	4.16 m (13 ft. 8 in.)	4.16 m (13 ft. 8 in.)	4.50 m (14 ft. 9 in.)	4.50 m (14 ft. 9 in.)
H Reach, Fully Raised	810 mm (32 in.)	810 mm (32 in.)	930 mm (3 ft. 1 in.)	930 mm (3 ft. 1 in.)
I Fork Height, Fully Raised	3.85 m (12 ft. 7 in.)	3.85 m (12 ft. 7 in.)	4.19 m (13 ft. 9 in.)	4.19 m (13 ft. 9 in.)
J Maximum Reach, Fork Level	1.72 m (5 ft. 8 in.)	1.72 m (5 ft. 8 in.)	2.05 m (6 ft. 9 in.)	2.05 m (6 ft. 9 in.)
K Fork Height, Maximum Reach	1.74 m (5 ft. 9 in.)	1.74 m (5 ft. 9 in.)	1.74 m (5 ft. 9 in.)	1.74 m (5 ft. 9 in.)
L Reach, Ground Level	1.15 m (3 ft. 9 in.)	1.15 m (3 ft. 9 in.)	1.56 m (5 ft. 1 in.)	1.56 m (5 ft. 1 in.)
M Depth Below Ground	110 mm (4 in.)	110 mm (4 in.)	220 mm (9 in.)	220 mm (9 in.)
N Tine Length	1.52 m (60 in.)	1.83 m (72 in.)	1.52 m (60 in.)	1.83 m (72 in.)
O Load Position, 50% Tine Length	760 mm (30 in.)	910 mm (36 in.)	760 mm (30 in.)	910 mm (36 in.)

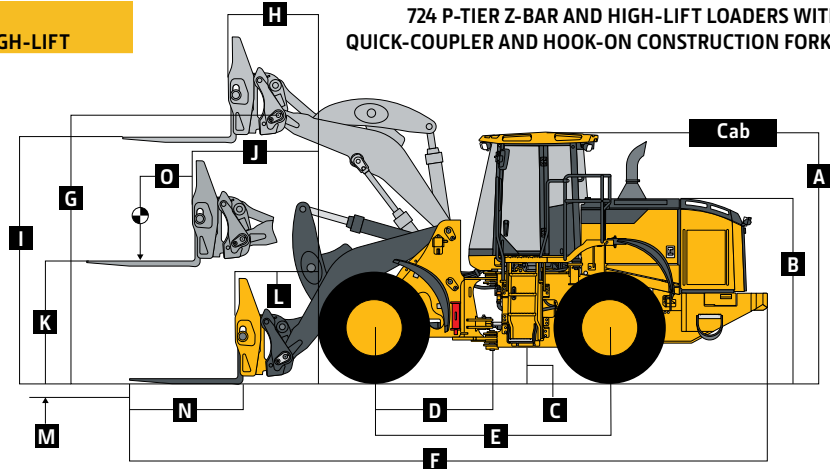
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# 724 P TIER

## Dimensions and Specifications With Hi-Vis Coupler and Construction Forks (continued)

## 724 P-TIER Z-BAR / HIGH-LIFT

## 724 P-TIER Z-BAR AND HIGH-LIFT LOADERS WITH QUICK-COUPLER AND HOOK-ON CONSTRUCTION FORKS



	Z-Bar	Z-Bar	High-Lift	High-Lift
<b>Specifications With Forks (illustration above right)</b>				
Tipping Load, Straight, No Tire Deflection	10 998 kg (24,247 lb.)	10 441 kg (23,018 lb.)	9653 kg (21,280 lb.)	9194 kg (20,270 lb.)
Tipping Load, Straight, With Tire Deflection	10 668 kg (23,519 lb.)	10 137 kg (22,348 lb.)	9372 kg (20,662 lb.)	8931 kg (19,689 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	9528 kg (21,006 lb.)	9036 kg (19,921 lb.)	8320 kg (18,342 lb.)	7915 kg (17,450 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	9090 kg (20,040 lb.)	8631 kg (19,028 lb.)	7950 kg (17,527 lb.)	7569 kg (16,687 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1 and SAE J1197)*	4545 kg (10,020 lb.)	4316 kg (9,514 lb.)	3975 kg (8,763 lb.)	3785 kg (8,343 lb.)
Rated Operating Load, Rough Terrain, 60% Full-Turn Tipping Load, With Tire Deflection (conforms to EN474-3)*	5454 kg (12,024 lb.)	5179 kg (11,417 lb.)	4770 kg (10,516 lb.)	4541 kg (10,012 lb.)
Rated Operating Load, Firm and Level Ground, 80% Full-Turn Tipping Load, With Tire Deflection (conforms to EN474-3)*	7272 kg (16,032 lb.)	6905 kg (15,222 lb.)	6360 kg (14,021 lb.)	6055 kg (13,349 lb.)
Operating Weight	19 670 kg (43,366 lb.)	19 731 kg (43,499 lb.)	19 830 kg (43,717 lb.)	19 890 kg (43,849 lb.)
Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSS 6090 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments, and assumes no tire deflection per the standard ISO 14397-1 section 5.				

\*Rated operating capacity based on Deere attachments only.

## Adjustments to Operating Weights and Tipping Loads With Buckets

Adjustments to operating weights, tipping loads, and tires are based on Z-Bar machine with pin-on 3.6-m<sup>3</sup> (4.75 cu. yd.) 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 79-kg (175 lb.) operator\*

Add (+) or deduct (-) kg (lb.) as indicated for loaders with 3-piece rims	Operating Weight	Tipping Load, Straight	Tipping Load, 40-deg. Full Turn	Tread Width	Width Over Tires	Vertical Height
Michelin 23.5 R 25, 1 Star L-3	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 mm (0 in.)	0 mm (0 in.)	0 mm (0 in.)
Bridgestone 23.5 R 25, 1 Star L-3	+101 kg (+223 lb.)	+77 kg (+170 lb.)	+68 kg (+150 lb.)	-3 mm (-0.1 in.)	+15 mm (+0.6 in.)	+39 mm (+1.5 in.)
Titan 23.5-25, 20 PR L-3	-271 kg (-597 lb.)	-206 kg (-455 lb.)	-182 kg (-401 lb.)	-3 mm (-0.1 in.)	+33 mm (+1.3 in.)	+29 mm (+1.1 in.)
Titan 725/70-25, 16-Ply L-4T (Logger Style) <sup>186</sup>	+359 kg (+792 lb.)	+284 kg (+627 lb.)	+251 kg (+554 lb.)	+31 mm (+1.2 in.)	+116 mm (+4.6 in.)	+78 mm (+3.1 in.)
Michelin 750/65 R 25, 1 Star L-3T <sup>188</sup>	+715 kg (+1,577 lb.)	+556 kg (+1,225 lb.)	+491 kg (+1,081 lb.)	+31 mm (+1.2 in.)	+137 mm (+5.4 in.)	+42 mm (+1.7 in.)

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

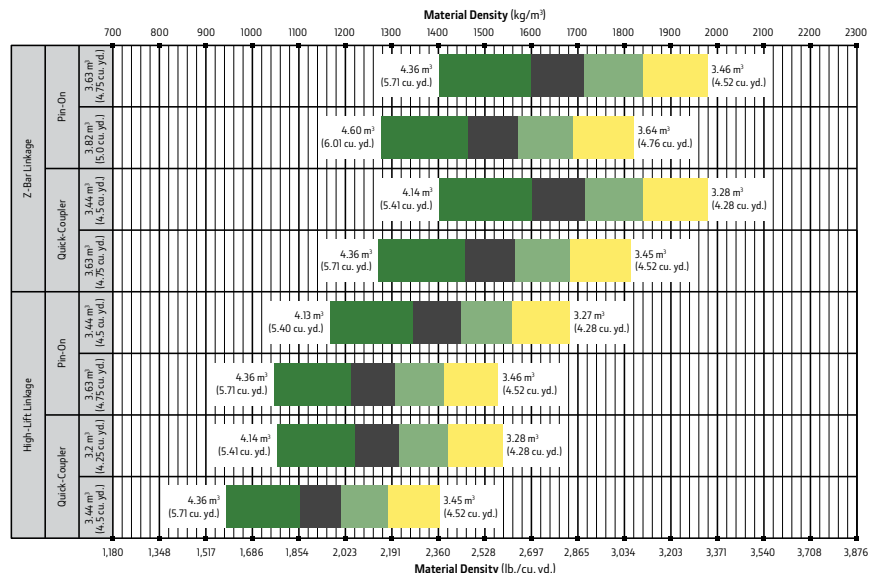
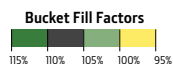
<sup>1</sup>Equipped with 5-piece heavy-duty rims.

<sup>2</sup>CaCl<sub>2</sub> not recommended.

<sup>3</sup>Requires 9-deg. rear axle stops.

## Bucket Selection Guides

LOOSE MATERIALS	kg/m <sup>3</sup>	lb./cu. yd.	LOOSE MATERIALS	kg/m <sup>3</sup>	lb./cu. yd.
Chips, pulpwood	288	486	Limestone, coarse, sized	1570	2,646
Cinders (coal, ashes, clinkers)	673	1,134	Limestone, mixed sizes	1682	2,835
Clay and gravel, dry	1602	2,700	Limestone, pulverized or crushed	1362	2,295
Clay, compact, solid	1746	2,943	Sand, damp	2083	3,510
Clay, dry in lump loose	1009	1,701	Sand, dry	1762	2,970
Clay, excavated in water	1282	2,160	Sand, voids, full of water	2083	3,510
Coal, anthracite, broken, loose	865	1,458	Sandstone, quarried	1314	2,214
Coal, bituminous, moderately wet	801	1,350	Shale, broken crushed	1362	2,295
Earth, common loam, dry	1218	2,052	Slag, furnace granulated	1995	3,294
Earth, mud, packed	1843	3,105	Stone or gravel, 37.5 to 87.5-mm		
Granite, broken	1538	2,592	(1.5 to 3.5") size	1442	2,430
Gypsum	2275	3,834	Stone or gravel, 18.75-mm (0.75") size	1602	2,700



# Additional equipment

Key: ● Standard ▲ Optional or special See your John Deere dealer for further information.

444 P	524 P	544 P	624 P	644 P	724 P	Engine
●	●	●	●	●	●	Wet-sleeve cylinder liners
●	●	●	●	●	●	Programmable auto-idle and auto shutdown
●	●	●	●	●	●	Selected idle adjustment from 900–1,250 rpm
●	●	●	●	●	●	Starter excessive-cranking protection
●	●	●	●	●	●	Automatic engine cool-down timer
●	●	●	●	●	●	Automatic derating for exceeded system temperatures
●	●	●	●	●	●	Serpentine drive belt for automatic tensioner
●	●	●	●	●	●	Electrical fuel-priming pump
●	●	●	●	●	●	Dual-stage fuel filter and water separator
●	●	●	●	●	●	500-hour vertical spin-on oil filter
▲	▲	▲	▲	▲	▲	Engine-compartment light
▲	▲	▲	▲	▲	▲	Chrome exhaust stack
●	●	●	●	●	●	Automatic glow plugs for cold start
					▲	Automatic ether starting aid (recommended for cold starts below –12 deg. C [10 deg. F])
▲	▲	▲	▲	▲	▲	Engine-block heater (recommended for cold starts below –23 deg. C [–10 deg. F])
▲	▲	▲	▲	▲	▲	Centrifugal engine air pre-cleaner
▲	▲	▲	▲	▲	▲	Throttle lock
						Powertrain
●	●	●	●	●	●	Clutch cutoff with 4 operator settings: Automatic, level ground, small slope, or steep slope
●	●	●	●	●	●	Programmable maximum high gear
●	●	●	●	●	●	Clutch calibration engaged from monitor
●	●	●	●	●	●	2,000-hour vertical spin-on transmission filter
●	●	●	●	●	●	Transmission fill tube and sight gauge
●	●	●	●	●	●	Transmission diagnostic ports
●				▲	▲	4-speed transmission with non-lockup torque converter
	●	▲	▲			5-speed transmission with non-lockup torque converter
		●	●	●	●	5-speed transmission with lockup torque converter
●	●	●	●	●	●	Front locking differential
▲	▲	▲	▲	▲	▲	Rear locking differential
●	●	●	●	●	●	Brake retractors and adjusters
▲	▲	▲	▲	▲	▲	Automatic differential lock
●	●	●	●	●	●	Axle oil temperature sensing
▲	▲	▲	▲	▲	▲	Wheel-spin control

444 P	524 P	544 P	624 P	644 P	724 P	Quad-Cool™ Cooling System
●	●	●	●	●	●	Heavy-duty, trash-resistant radiator and high-ambient cooling package
●	●	●	●	●	●	2-side access to all coolers
●	●	●	●	●	●	Isolated from engine compartment
●	●	●	●	●	●	Engine radiator
●	●	●	●	●	●	Engine oil cooler
●	●	●	●	●	●	Hydraulic oil cooler (oil to air)
●	●	●	●	●	●	Transmission oil cooler (oil to air)
●	●	●	●	●	●	Charge air cooler (air to air)
●	●	●	●	●	●	Fuel cooler
●	●	●	●	●	●	Coolant recovery tank
●	●	●	●	●	●	Antifreeze, –37 deg. C (–34 deg. F)
●	●	●	●	●	●	Cool-on-demand, hydraulically driven, swing-out fan
●	●	●	●	●	●	Enclosed fan safety guard
▲	▲	▲	▲	▲	▲	Automatic reversing fan drive
▲	▲	▲	●	●	●	Axle and service-brake coolers
						Hydraulics
●	●	●	●	●	●	Electrohydraulic (EH) controls with soft stops and adjustable settings
●	●	●	●	●	●	In-cab adjustable automatic return-to-dig bucket positioner
●	●	●	●	●	●	In-cab adjustable automatic boom-height kickout/return to carry
●	●	●	●	●	●	Reservoir with sight gauge and fill strainer
●	●	●	●	●	●	Hydraulic diagnostic ports
●	●	●	●	●	●	4,000-hour in-tank filter
●	●	●	●	●	●	2 function — joystick with F-N-R
▲	▲	▲	▲	▲	▲	2 function — 2-lever fingertip controls and steering column F-N-R
▲	▲	▲	▲	▲	▲	3 function — joystick with F-N-R and integrated 3rd-function roller
▲	▲	▲	▲	▲	▲	3 function — 3-lever fingertip controls and steering column F-N-R
▲	▲	▲	▲	▲	▲	4 function — joystick with F-N-R and integrated 3rd/4th-function rollers
●	●	●	●	●	●	Programmable multifunction buttons (2)
●	●	●	●	●	●	Adjustable and continuous hydraulic-flow settings
●	●	●	●	●	●	Programmable attachment settings
▲	▲	▲	▲	▲	●	Ride control, automatic with monitor-adjustable speed settings
▲	▲	▲	▲	▲	▲	Hydraulic control system for quick-coupler locking pins
▲	▲	▲	▲	▲	▲	Hydrau™ XR cold-temperature hydraulic fluid recommended below –25 deg. C (–13 deg. F)

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# Additional equipment *(cont.)*

Key: ● Standard ▲ Optional or special See your John Deere dealer for further information.

444 P	524 P	544 P	624 P	644 P	724 P	Steering Systems
●	●	●	●	●	●	Conventional steering wheel with spinner knob
				▲	▲	Joystick steering (including conventional steering column) with gearshift, F-N-R, and horn
▲	▲	▲	▲	▲	▲	Secondary steering
Electrical						
●	●	●	●	●	●	Solid-state electrical power-distribution system
●	●	●	●	●	●	Lockable master electrical-disconnect switch
●	●	●	●	●	●	Battery-terminal safety covers
●	●	●	●	●	●	By-pass start safety cover at starter
●	●	●	●	●	●	Remote jump-start access in battery box
●	●	●	●	●	●	Pre-wired for beacon/strobe light
●	●	●	●	●	●	Lights: Halogen driving lights with guards (2) / Front (4), rear cab (2), and rear grille (2) work lights / LED front turn signals and flashers / LED stop- and taillights
▲	▲	▲	▲	▲	▲	Premium LED light package (all exterior lights are heavy-duty LED)
●	●	●	●	●	●	Programmable courtesy lights
●	●	●	●	●	●	Horn, electric
●	●	●	●	●	●	Reverse warning alarm
●	●	●	●	●	●	Multifunction/multi-language 178-mm (7 in.) LCD color monitor includes: Digital instruments — Analog display (hydraulic oil temperature, engine coolant temperature, transmission oil temperature, and engine oil pressure) / Digital display (engine rpm, transmission gear/direction indicator, hour meter, fuel level, diesel exhaust fluid (DEF) level, speedometer, odometer, and average fuel consumption)
▲	▲	▲	▲	▲	▲	Multifunction/multi-language 127-mm (5 in.) LCD color monitor includes: Digital instruments — Analog display (hydraulic oil temperature, engine coolant temperature, transmission oil temperature, and engine oil pressure) / Digital display (engine rpm, transmission gear/direction indicator, hour meter, fuel level, DEF level, speedometer, odometer, and average fuel consumption)
▲	▲	▲	▲	●	●	Integrated cycle counter with 5 categories
●	●	●	●	●	●	Indicator lights: Standard and selected options / Amber caution and red stop

444 P	524 P	544 P	624 P	644 P	724 P	Electrical <i>(continued)</i>
●	●	●	●	●	●	Operator-warning messages
●	●	●	●	●	●	Built-in diagnostics: Diagnostic-code details / Sensor values / Calibrations / Individual circuit tester
▲	▲	▲	▲	▲	▲	Electrical corrosion-prevention package
●	●	●	●	●	●	Standard AM/FM/Weather-Band (WB) radio with remote auxiliary port
▲	▲	▲	▲	▲	▲	Premium AM/FM/WB radio with Bluetooth®, remote auxiliary port, and remote USB port (premium cab only)
●	●	●	●	●	●	24- to 12-volt, 8-amp converter and cab power ports (3)
▲	▲	▲	▲	▲	▲	24- to 12-volt, 15- or 30-amp converter and cab power ports (3)
Operator's Station						
●	●	●	●	●	●	Standard cab with air conditioning/heater (ROPS/FOPS Level 1, isolation mounted)
▲	▲	▲	▲	▲	▲	Premium cab with air conditioning/heater (ROPS/FOPS Level 1, isolation mounted)
▲	▲	▲	▲	▲	▲	Automatic temperature control (premium cab only)
●	●	●	●	●	●	Rear window defrost vent
●	●	●	●	●	●	Keyless start with multiple security modes
●	●	●	●	●	●	Sealed-switch module with function indicators
●	●	●	●	●	●	Seat with backrest extension, deep foam, fabric cover, and adjustable air suspension
▲	▲	▲	▲	▲	▲	Premium seat with high-wide back- and headrest extension, heated and ventilated, leather/fabric cover, and adjustable heavy-duty air suspension
●	●	●	●	●	●	Hydraulic controls integrated to seat
●	●	●	●	●	●	High-visibility, bright-orange seat belt, 76 mm (3 in.), with retractor
▲	▲	▲	▲	▲	▲	Seat-belt minder monitoring with JDLink™ and seat-belt indicator beacon
●	●	●	●	●	●	Cup holder and cup/Thermos® holder with retaining strap
●	●	●	●	●	●	Lunch-box/cooler holder with tie-down brackets
●	●	●	●	●	●	Coat hook
●	●	●	●	●	●	LED dome and reading light
●	●	●	●	●	●	Rubber floor mat
●	●	●	●	●	●	Dual-tilt steering column
●	●	●	●	●	●	Operator's manual storage compartment

*Operator's Station continued on next page*

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# Additional equipment *(cont.)*

Key: ● Standard ▲ Optional or special See your John Deere dealer for further information.

444 P	524 P	544 P	624 P	644 P	724 P	Operator's Station <i>(continued)</i>
●	●	●	●	●	●	Outside (2) and inside (1) rearview mirrors
▲	▲	▲	▲	▲	▲	Heated outside mirrors with convex lens
▲	▲	▲	▲	▲	▲	In-cab adjustable heated outside mirrors with convex lens (premium cab only)
●	●	●	●	●	●	Left-side operator-station access
●	●	●	●	●	●	Slip-resistant steps and ergonomic handholds
●	●	●	●	●	●	Pull-down front sun visor
●	●	●	●	●	●	Front and rear intermittent windshield wipers and washers
▲	▲	▲	▲	▲	▲	Powered cab air pre-cleaner
▲	▲	▲	▲	▲	▲	Beacon bracket only
▲	▲	▲	▲	▲	▲	Beacon bracket with strobe beacon
●	●	●	●	●	●	Rearview camera
▲	▲	▲	▲	▲	▲	Rearview camera with radar object-detection system
▲	▲	▲	▲	▲	▲	Dedicated 178-mm (7 in.) rear camera display
●	●	●	●	●	●	Payload scale ready
▲	▲	▲	▲	▲	▲	Fire extinguisher
<b>Loader Linkage</b>						
●	●	●	●	●	●	Z-Bar loader linkage (parallel lift)
▲	▲	▲	▲	▲	▲	High-Lift Z-Bar loader linkage (parallel lift)
	▲	▲	▲			High-Lift Plus Z-Bar loader linkage (parallel lift)
	▲		▲			Tool Carrier linkage for visibility (parallel lift)
<b>Buckets and Attachments</b>						
▲	▲	▲	▲	▲	▲	Full line of Deere pin-on buckets, coupler buckets, and forks
▲	▲	▲	▲	▲	▲	John Deere hydraulic coupler that accepts JRB-pattern attachments
▲	▲	▲	▲	▲	▲	Hi-Vis hydraulic coupler that accepts Euro-pattern attachments (ISO)
<b>Overall Vehicle</b>						
●	●	●	●	●	●	JDLINK wireless communication system (available in specific countries; see your dealer for details)
●	●	●	●	●	●	NeverGrease™ rear-axle oscillation
●	●	●	●	●	●	Front and rear tie-downs
●	●	●	●	●	●	Rear cast bumper/counterweight with rear hitch and locking pin

444 P	524 P	544 P	624 P	644 P	724 P	Overall Vehicle <i>(continued)</i>
●	●	●	●	●	●	Articulation locking bar
●	●	●	●	●	●	Loader boom service locking bar
●	●	●	●	●	●	40-deg. steering articulation to each side with rubber-cushion stops on frame
●	●	●	●	●	●	Vandal protection with lockable engine enclosures, right counterweight storage, and filler access for radiator/fuel/DEF/hydraulic transmission
●	●	●	●	●	●	Left-side service steps and handholds
▲	▲	▲	▲	▲	▲	Right-side service steps and handrails
▲	▲	▲	▲	▲	▲	Left-side close-mounted steps
●	●	●	●	●	●	Storage compartment
●	●	●	●	●	●	Fuel-tank fill strainer
●	●	●	●	●	●	Heavy-duty fuel-tank guard
●	●	●	●	●	●	Ground-level fuel and DEF fill
●	●	●	●	●	●	Same-side ground-level daily servicing
●						17.5R25 tires on 3-piece rims
▲	●	●	●			20.5R25 tires on 3-piece rims
				●	●	23.5R25 tires on 3-piece rims
				▲	▲	23.5R25 tires on 5-piece rims
				▲	▲	Tire-pressure monitoring system
	▲	▲	▲			Ag material-handling package
			▲	▲	▲	Waste handler (Z-Bar and High-Lift)
▲	▲	▲	▲	●	●	Environmental drains and sample ports for engine, transmission, hydraulic oils, and engine coolant
				▲	▲	Quick fluid service (engine, transmission, hydraulic oils, and engine coolant)
				▲	▲	Fast-fuel system
●	●	●	●	●	●	Fenders, front narrow
▲	▲	▲	▲	▲	▲	Fenders, front full width
▲	▲	▲	▲	▲	▲	Fenders, front and rear full width
▲	▲	▲	▲	▲	▲	Fenders, front and rear full width with mud flaps
▲	▲	▲	▲	▲	▲	Less wheels and tires with axle stops
▲	▲	▲	▲	▲	▲	Rims less tires
▲	▲	▲	▲	▲	▲	Transmission side-frame and bottom guards
			▲	▲	▲	Special guarding for waste applications
▲	▲	▲	▲	▲	▲	Lift eyes
▲	▲	▲	▲	▲	▲	License-plate bracket and light

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