

L-SERIES
LOADERS



JOHN DEERE

644L / 644L HYBRID / 724L



CAPABLE, COMFORTABLE,
AND RELIABLE



**MORE
SPACIOUS
CAB***



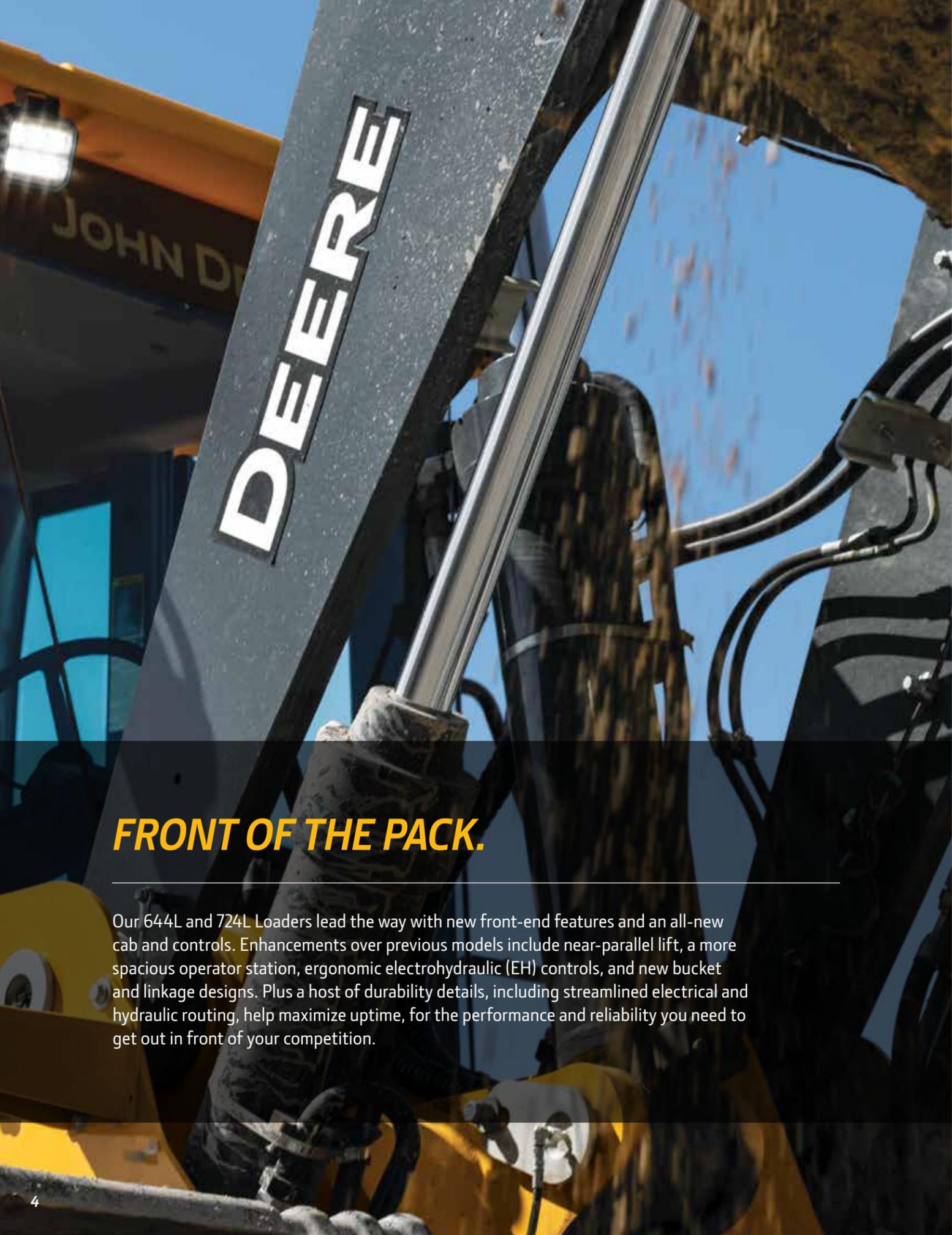
**INTUITIVE
CONTROLS**



**NEW
FRONT-END
FEATURES**

**Compared to our K-Series models.*

**LEAD THE
CHARGE.**



FRONT OF THE PACK.

Our 644L and 724L Loaders lead the way with new front-end features and an all-new cab and controls. Enhancements over previous models include near-parallel lift, a more spacious operator station, ergonomic electrohydraulic (EH) controls, and new bucket and linkage designs. Plus a host of durability details, including streamlined electrical and hydraulic routing, help maximize uptime, for the performance and reliability you need to get out in front of your competition.

NEW FRONT-END FEATURES AND MORE

FORWARD THINKING.

Combining production-boosting features up front with a host of other improvements over K-Series machines, L-Series Loaders help you put your best foot forward.

Productive by design

Boasting new bucket and linkage designs that improve load leveling, material retention, and visibility, these loaders deliver more productivity and performance than earlier models.

User-friendly controls

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

All-new cab

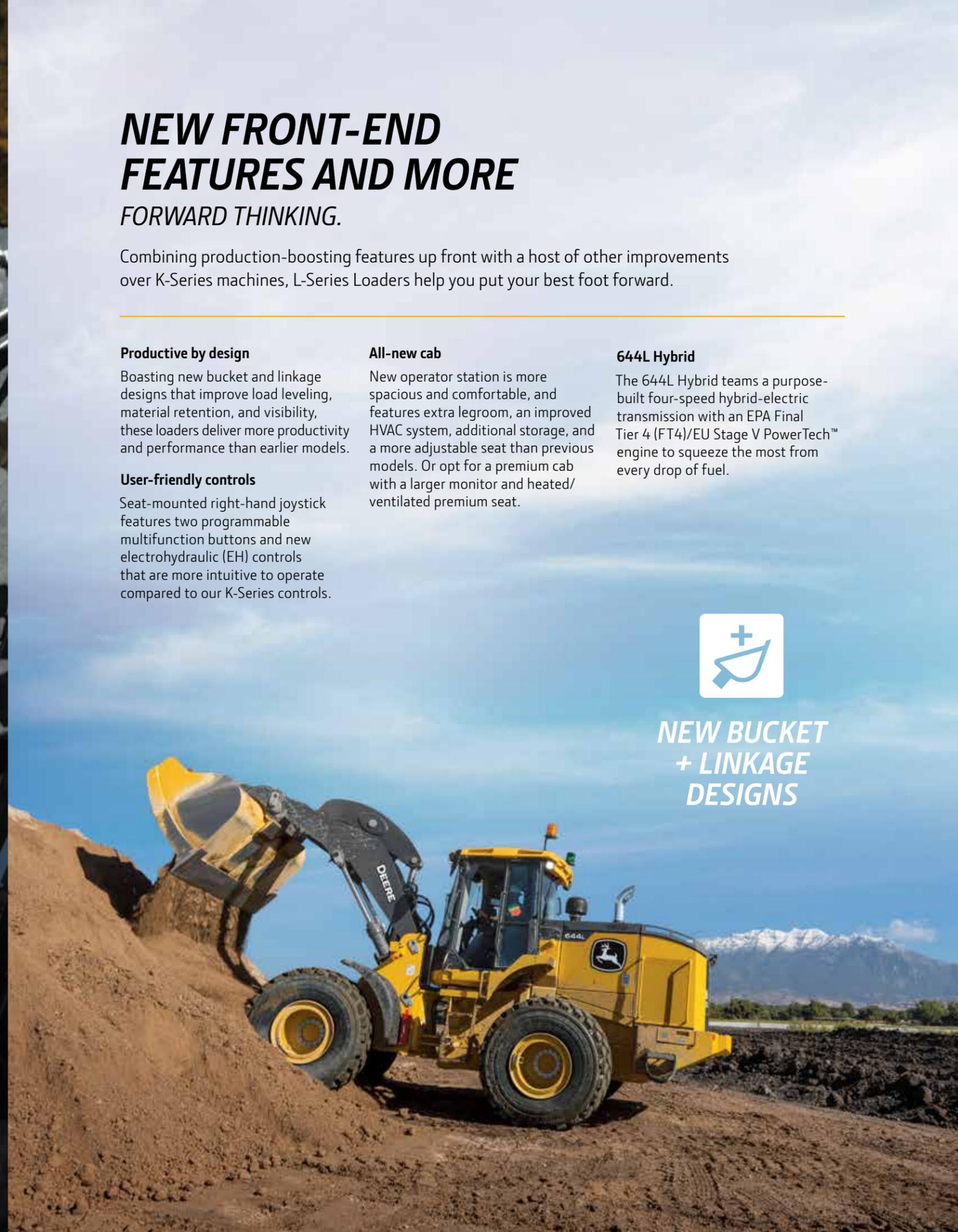
New operator station is more spacious and comfortable, and features extra legroom, an improved HVAC system, additional storage, and a more adjustable seat than previous models. Or opt for a premium cab with a larger monitor and heated/ventilated premium seat.

644L Hybrid

The 644L Hybrid teams a purpose-built four-speed hybrid-electric transmission with an EPA Final Tier 4 (FT4)/EU Stage V PowerTech™ engine to squeeze the most from every drop of fuel.



NEW BUCKET
+ LINKAGE
DESIGNS





**8° OF
PARALLELISM**
VS. 21° ON K-SERIES



**LEVEL UP
WITH NEAR-PARALLEL LIFT**

TAKE PRODUCTIVITY TO THE NEXT LEVEL.

Combining near-parallel lift with improved visibility and more bucket and fork options over previous models, these versatile loaders help you do your level best.

Near-parallel lift

Lift path on all Z-Bar linkages is now near parallel. Better load-leveling capability compared to K-Series models minimizes load rollback, reduces material spillage, and requires fewer manual adjustments.

Reach your potential

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

The bucket list

An expanded selection of enhanced production buckets with integrated spill guards, curved side cutters, and impressive rollback boosts bucket-fill performance and material retention compared to the K-Series.

Clear advantage

Cross-tube and boom geometry of the Z-Bar linkage has been streamlined to provide a better view to the front attachment.



Stick a fork on it, you're done

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

HELPING HARD WORK LOOK EASY

MAKE YOURSELF COMFORTABLE.

Redesigned cab features ergonomic controls, a more adjustable seat, an optional heated/ventilated seat (available only with the premium cab), a better HVAC system, and more legroom, storage, and power ports than previous models, making it easy to work hard in comfort and style.

Mobile office

All-new 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. Extra 12-volt and USB power ports and mounting points help keep all your devices charged up and within easy reach.

Stow your stuff

To create more storage area, the HVAC system was relocated outside the cab. There's plenty of space for a powered cooler, along with a handy 12-volt outlet. There's also a drink-container holder with an adjustable strap, plus a coat hook.

Have a seat

Updated in stain-resistant cloth, the standard high-back air-ride seat is even more adjustable, for daylong comfort and support. Or choose the optional heated/ventilated premium seat (standard in the premium cab) with heavy-duty air-suspension and adjustable seat pan for even more comfort.

Stay cool

Blower vent behind the seat further maximizes airflow and defrosts the rear window. With convenient filter and service locations, the HVAC system is easy to maintain. Brushless motor provides infinite fan speeds, quiet operation, and efficient airflow.

Set and forget

Automatic temperature control (ATC) system (available only with the premium cab) allows operators to simply select a desired temperature instead of fiddling with knobs to get comfortable.

Vital info at a glance

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 LCD screen. Add a dedicated seven-inch rearview display to see the action behind and still have access to vital machine data at all times.

Seat-belt minder

Optional seat-belt monitoring system sends an alert to JDLink™ if the seat belt is not latched within 30 seconds of the park brake being released.



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



BECOME MORE HANDS-ON GREATER PRODUCTIVITY IS WITHIN REACH.

Featuring redesigned joysticks and expanded, customizable electrohydraulic (EH) controls, L-Series Loaders put you in touch with ease and convenience.

Integrated joystick control

Operators can easily control up to six functions without letting go of the ergonomically designed joystick. F-N-R button provides convenient direction and full-range gear changes.

Low-effort short-throw control

Single-axis controls include two multifunction buttons on the bucket lever that can be programmed to handle any of up to 10 functions.



**2 INDUSTRY-EXCLUSIVE
MULTIFUNCTION
BUTTONS**

Expanded EH functionality

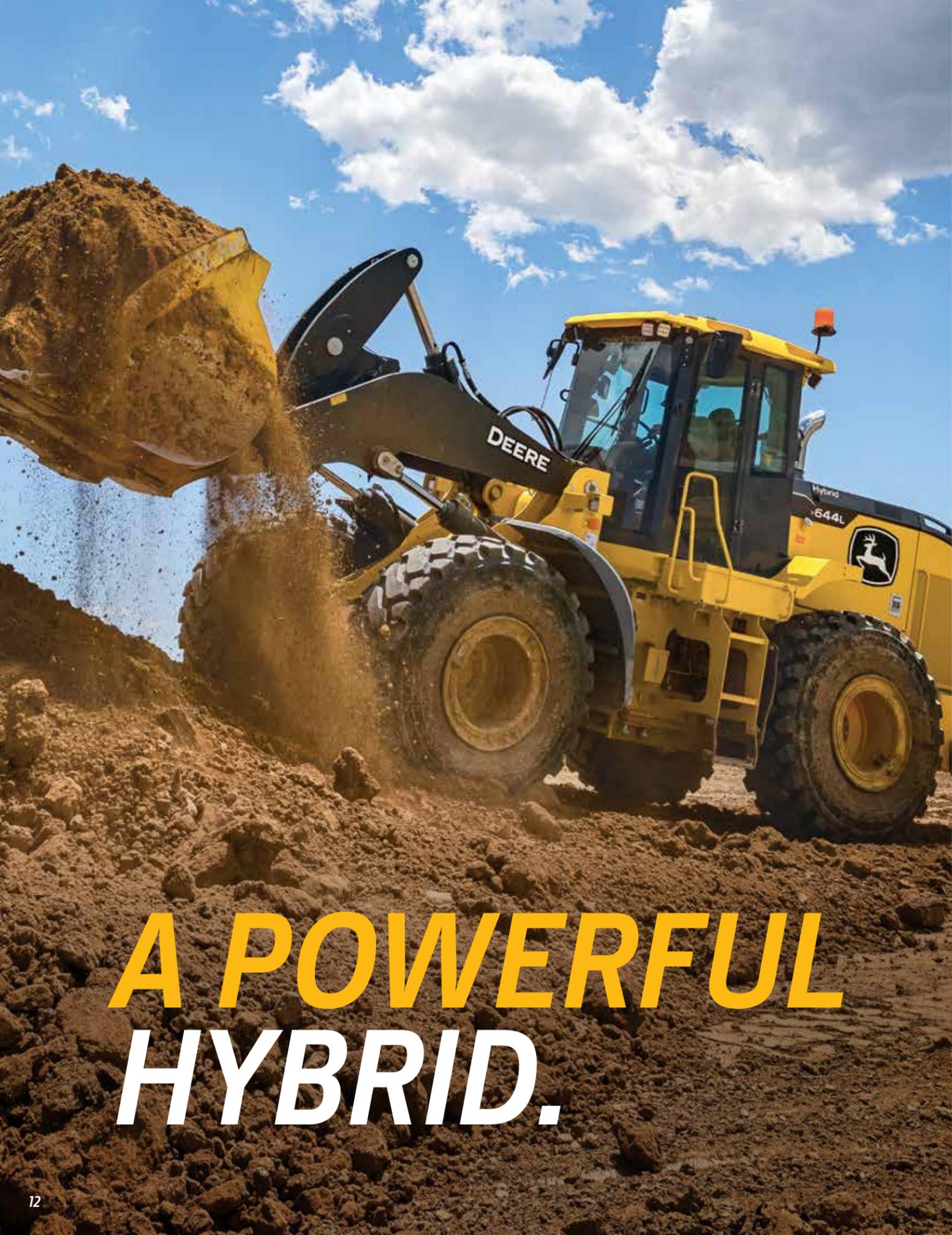
Operators can easily enable the following EH functions using the multifunction buttons and adjust them through the monitor:

- **Soft hydraulic stops** for both the boom and bucket can be enabled for smooth operation or temporarily disabled when the application calls for dislodging stubborn materials.
- **Hydraulic-function flow** can be used to customize flow for specific attachments without needing special plumbing or valves.
- **Bucket vibrate** creates a slight shaking when dumping loose materials into hoppers or feeders, or when sprinkling rock over pipe.
- **EH Precision mode** allows fine metering of the bucket and boom when precise movement is required, for example, laying pipe, moving heavy objects such as road barriers, or placing manholes.
- **Boom and bucket aggressiveness** can be set to low, medium, and high, for quicker and more precise response compared to previous models.

New SSM functionality

Sealed-switch module (SSM) is repositioned under the monitor so it's in the operator's line of sight. Updated or new functions include:

- **Return-to-dig** now allows leveling of the bucket from both dump and curl positions, for quick and easy leveling.
 - **Constant-flow hydraulics** allow the operator to continuously run attachments without having to hold a lever or roller at full stop.
 - **Throttle lock** maintains a specified rpm so the operator can warm up a machine, run a continuous-flow attachment, or road the machine without having to hold the throttle pedal down.
- **Attachment configuration** allows settings such as hydraulic flow and responsiveness to be conveniently stored for up to 10 different attachments.



A POWERFUL HYBRID.

PRODUCTIVE AND EFFICIENT FOR YOUR MULTIPLE PURPOSES.

In addition to burning less fuel while meeting EPA FT4/EU Stage V emissions requirements, the 644L Hybrid Loader also delivers quick, smooth, and responsive hydraulics; fast ramp-climbing ability; and strong pushing power.

Neighborhood friendly

Running wide open at 1,800 rpm, the in-cab noise rating is just 70 dBA. Noise is also less noticeable to bystanders, making this loader a good neighbor in residential areas.

Smooth moves

Purpose-built PowerShift™ transmission provides smooth control through four forward speed ranges. Direction changes are performed by the electric motor, completely eliminating shifting in some truck-loading applications.

Power without compromise

Three constant operator-selected rpms help reduce engine wear, noise levels, and fuel consumption. Boom and bucket functions are powerful, responsive, and quick, without compromising fuel efficiency.

Ramp up productivity

Strong pushing power and quick ramp-climbing ability make the 644L Hybrid an excellent choice for maintaining stockpiles and heaping hoppers in cement plants and other production facilities.

Save fuel

Hybrid-electric drive recaptures energy when the operator lets off the accelerator, lessening the load on the engine while reducing fuel consumption.

Coast to coast

Coast-control feature functions like dynamic braking in a hydrostatic transmission, slowing down the loader without touching a pedal and helping reduce service-brake component wear.



UP AND AT 'EM

SPEND LESS TIME MAINTAINING AND MORE TIME WORKING.

Streamlined routing

Routing of electrical wire harnesses and hydraulic hoses has been streamlined to reduce rubbing.

Same-side service

All daily service points including fuel are conveniently grouped on the left side of the machine at ground level, for easy access.

Onboard diagnostics

Easy-to-navigate LCD monitor displays diagnostic messages if problems occur and even offers possible solutions to help get you back up and running quickly.

Innovative Quad-Cool™

Quad-Cool system places the radiator; air-conditioner condenser; intercooler; and hydraulic, transmission, and axle coolers in a unique boxed configuration that's isolated from engine heat, boosting efficiency and durability.

You'll become a fan

Hydraulically driven fan runs only as needed for optimal cooling and fuel efficiency. Optional programmable fan automatically reverses at predetermined intervals to eject debris from the radiator and cooler cores. Or run individual cleaning cycles through the monitor.

Get valuable insight with **JOHN DEERE WORKSIGHT™**

The John Deere WorkSight suite of construction technology delivers **Productivity Solutions** to help you get more done, more efficiently. The in-base, five-year JDLink™ telematics subscription provides machine location, utilization data, and alerts to help you maximize productivity and efficiency. Other productivity solutions including grade-management and payload-weighting options are also available.

To maximize uptime and lower costs, JDLink telematics also enables **John Deere Connected Support™**. John Deere's centralized Machine Health Monitoring Center analyzes data from thousands of connected machines, identifies trends, and develops recommended actions, called Expert Alerts, to prevent downtime. Dealers use Expert Alerts 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.





644L SPECIFICATIONS

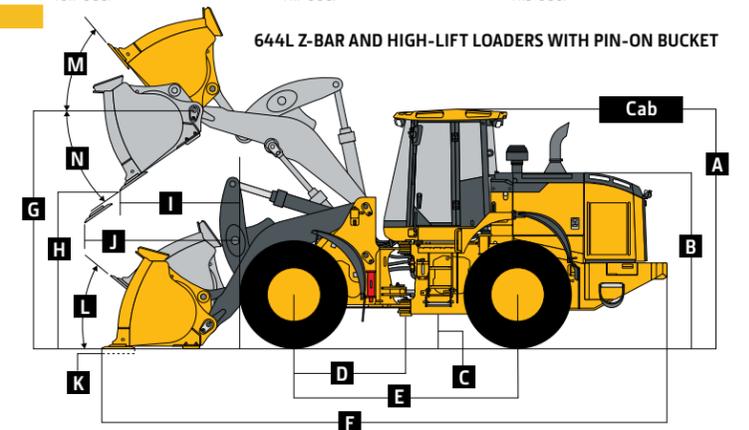
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Engine	644L Z-BAR / HIGH-LIFT		644L HYBRID Z-BAR / HIGH-LIFT	
Manufacturer and Model	John Deere PowerTech™ PSS 6068		John Deere PowerTech PSS 6068	
Non-Road Emission Standard	EPA Final Tier 4/EU Stage V		EPA Final Tier 4/EU Stage V	
Cylinders	6		6	
Valves Per Cylinder	4		4	
Displacement	6.8 L (415 cu. in.)		6.8 L (415 cu. in.)	
Net Peak Power (ISO 9249)	186 kW (249 hp) at 1,800 rpm		172 kW (231 hp) at 1,500 rpm	
Gross Peak Power (ISO 9249)	194 kW (260 hp) at 1,800 rpm		178 kW (238 hp) at 1,500 rpm	
Net Peak Torque (ISO 9249)	1061 Nm (783 lb.-ft.) at 1,400 rpm		1095 Nm (808 lb.-ft.) at 1,500 rpm	
Gross Peak Torque (ISO 9249)	1100 Nm (811 lb.-ft.) at 1,400 rpm		1135 Nm (837 lb.-ft.) at 1,500 rpm	
Net Torque Rise	58%		36%	
Fuel System (electronically controlled)	High-pressure common rail		High-pressure common rail	
Lubrication	Full-flow spin-on filter and integral cooler		Full-flow spin-on filter and integral cooler	
Aspiration	Series turbocharged, charge air cooled		Turbocharged, charge air cooled	
Air Cleaner	Under-hood, dual-element dry type, restriction indicator in cab monitor for service		Under-hood, dual-element dry type, restriction indicator in cab monitor for service	
Cooling	644L Z-BAR / HIGH-LIFT 644L HYBRID Z-BAR / HIGH-LIFT			
Fan Drive	Hydraulically driven, proportionally controlled, fan aft of coolers			
Electrical	644L Z-BAR / HIGH-LIFT			
Electrical System	24 volt with 100-amp alternator (140-amp alternator optional)			
Batteries (2 – 12 volt)	950 CCA (each)			
Transmission System	644L HYBRID Z-BAR / HIGH-LIFT			
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			
	<i>Standard 5-Speed With Lockup Torque Converter</i>		<i>Optional 4-Speed</i>	
Maximum Travel Speeds (with 23.5 R 25 tires)	<i>Forward</i>		<i>Forward</i>	
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	40.0 km/h (24.9 mph)
Axles/Brakes	644L Z-BAR / HIGH-LIFT 644L HYBRID Z-BAR / HIGH-LIFT			
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 Parking	Hydraulically actuated, inboard sun-shaft mounted, oil cooled, self adjusting, single disc			
Tires/Wheels <i>(see page 20 for complete tire adjustments)</i>	Automatic spring applied, hydraulically released, transmission integrated, oil cooled, multi disc			
	<i>Tread Width</i>		<i>Width Over Tires</i>	
Michelin 23.5 R 25, 1 Star L-3	2170 mm (85.4 in.)		2875 mm (113.2 in.)	
Serviceability	644L Z-BAR / HIGH-LIFT	644L HYBRID Z-BAR / HIGH-LIFT	644L Z-BAR / HIGH-LIFT	644L HYBRID Z-BAR / HIGH-LIFT
Refill Capacities			Refill Capacities (continued)	
Fuel Tank (with lockable cap)	350 L (92.6 gal.)	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.)	18.5 L (19.5 qt.)	Axle Oil (front and rear, each)	22 L (23 qt.)
Cooling System	44 L (47 qt.)	63 L (67 qt.)	Hydraulic Reservoir and Filter	105.2 L (27.8 gal.)
Inverter	N/A	5.7 L (6.0 qt.)	Park Brake Oil (wet disc)	0.65 L (22 oz.)
Engine Oil With Vertical Spin-On Filter	27 L (28.5 qt.)	27 L (28.5 qt.)		N/A
Hydraulic System/Steering	644L Z-BAR / HIGH-LIFT		644L HYBRID Z-BAR / HIGH-LIFT	
Pump (loader and steering)	Variable-displacement, axial-piston pump; closed-center, pressure-compensating system			
Rated rpm	2,250 rpm		1,939 rpm	
Maximum Rated Flow at 6895 kPa (1,000 psi) and Rated rpm	310 L/m (82 gpm)		265 L/m (70 gpm)	
System Relief Pressure (loader and steering)	25 166 kPa (3,650 psi)		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			

644L SPECIFICATIONS

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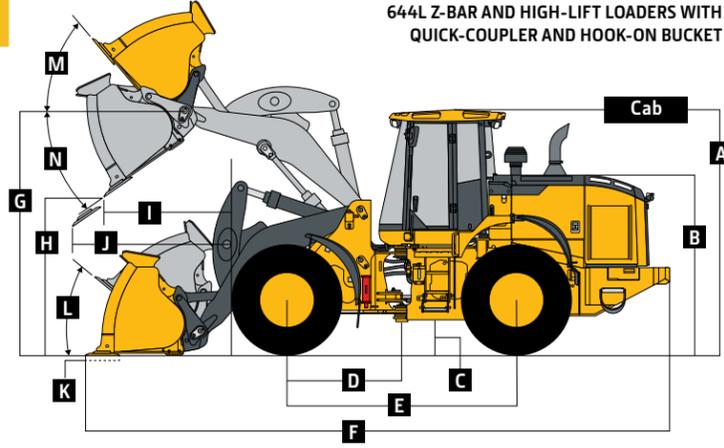
Hydraulic System/Steering (continued)	644L Z-BAR / HIGH-LIFT		644L HYBRID Z-BAR / HIGH-LIFT	
Steering (conforms to ISO 5010)	Power, fully hydraulic		Power, fully hydraulic	
Type	80-deg. arc (40 deg. each direction)		80-deg. arc (40 deg. each direction)	
Articulation Angle	5.64 m (18 ft. 6 in.)		5.64 m (18 ft. 6 in.)	
Turning Radius (measured to centerline of outside tire)	<i>Z-Bar</i>	<i>High-Lift</i>	<i>Z-Bar</i>	<i>High-Lift</i>
Hydraulic Cycle Times	5.3 sec.	5.3 sec.	6.2 sec.	6.2 sec.
Raise	1.4 sec.	1.4 sec.	1.7 sec.	1.7 sec.
Dump	3.8 sec.	4.0 sec.	3.8 sec.	4.0 sec.
Lower (power down)	10.5 sec.	10.7 sec.	11.7 sec.	11.9 sec.
Total				
Dimensions and Specifications With Pin-On Bucket				



	644L Z-Bar	644L Z-Bar	644L High-Lift	644L Hybrid Z-Bar	644L Hybrid Z-Bar	644L Hybrid High-Lift
Dimensions With Bucket	3.2-m³ (4.25 cu. yd.) general-purpose with bolt-on edge	3.4-m³ (4.5 cu. yd.) general-purpose with bolt-on edge	3.2-m³ (4.25 cu. yd.) general-purpose with bolt-on edge	3.2-m³ (4.25 cu. yd.) general-purpose with bolt-on edge	3.4-m³ (4.5 cu. yd.) general-purpose with bolt-on edge	3.2-m³ (4.25 cu. yd.) general-purpose with bolt-on edge
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.)	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.)	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.)	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.)	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.)	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)
F Overall Length, Bucket on Ground	8.33 m (27 ft. 4 in.)	8.38 m (27 ft. 6 in.)	8.72 m (28 ft. 7 in.)	8.26 m (27 ft. 1 in.)	8.31 m (27 ft. 3 in.)	8.72 m (28 ft. 7 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.)	4.09 m (13 ft. 5 in.)	4.09 m (13 ft. 5 in.)	4.50 m (14 ft. 9 in.)
H Dump Clearance, 45 deg., Full Height	2.87 m (9 ft. 5 in.)	2.83 m (9 ft. 4 in.)	3.28 m (10 ft. 9 in.)	2.87 m (9 ft. 5 in.)	2.83 m (9 ft. 4 in.)	3.28 m (10 ft. 9 in.)
I Reach, 45-deg. Dump, Full Height	1.06 m (3 ft. 6 in.)	1.09 m (3 ft. 7 in.)	1.17 m (3 ft. 10 in.)	1.06 m (3 ft. 6 in.)	1.09 m (3 ft. 7 in.)	1.17 m (3 ft. 10 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.61 m (5 ft. 3 in.)	1.62 m (5 ft. 4 in.)	2.02 m (6 ft. 8 in.)	1.61 m (5 ft. 3 in.)	1.62 m (5 ft. 4 in.)	2.02 m (6 ft. 8 in.)
K Maximum Digging Depth	125 mm (5 in.)	129 mm (5 in.)	262 mm (10 in.)	125 mm (5 in.)	129 mm (5 in.)	262 mm (10 in.)
L Maximum Rollback at Ground Level	45 deg.	45 deg.	45 deg.	45 deg.	45 deg.	45 deg.
M Maximum Rollback, Boom Fully Raised	59 deg.	59 deg.	60 deg.	59 deg.	59 deg.	60 deg.
N Maximum Bucket Dump Angle, Fully Raised	48 deg.	48 deg.	45 deg.	48 deg.	48 deg.	45 deg.
Loader Clearance Circle, Bucket Carry Position	13.0 m (42 ft. 8 in.)	13.0 m (42 ft. 9 in.)	13.3 m (43 ft. 9 in.)	13.0 m (42 ft. 8 in.)	13.0 m (42 ft. 9 in.)	13.3 m (43 ft. 9 in.)
Specifications With Bucket						
Capacity, Heaped	3.3 m³ (4.25 cu. yd.)	3.4 m³ (4.50 cu. yd.)	3.3 m³ (4.26 cu. yd.)	3.3 m³ (4.25 cu. yd.)	3.4 m³ (4.50 cu. yd.)	3.3 m³ (4.26 cu. yd.)
Capacity, Struck	2.7 m³ (3.47 cu. yd.)	2.8 m³ (3.68 cu. yd.)	2.7 m³ (3.48 cu. yd.)	2.7 m³ (3.47 cu. yd.)	2.8 m³ (3.68 cu. yd.)	2.7 m³ (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.)	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.)	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.)	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.)	14 548 kg (32,072 lb.)	14 436 kg (31,827 lb.)	12 403 kg (27,344 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.)	13 632 kg (30,053 lb.)	13 524 kg (29,815 lb.)	11 700 kg (25,794 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.)	12 667 kg (27,925 lb.)	12 564 kg (27,698 lb.)	10 723 kg (23,639 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.)	11 541 kg (25,444 lb.)	11 439 kg (25,219 lb.)	9837 kg (21,687 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.)	6333 kg (13,963 lb.)	6282 kg (13,849 lb.)	5361 kg (11,820 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.)	5771 kg (12,722 lb.)	5720 kg (12,609 lb.)	4919 kg (10,843 lb.)
Operating Weight	18 709 kg (41,246 lb.)	18 744 kg (41,324 lb.)	18 894 kg (41,653 lb.)	18 856 kg (41,571 lb.)	18 892 kg (41,649 lb.)	19 218 kg (42,369 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.						

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Dimensions and Specifications With Hi-Vis Coupler and Hook-On Bucket **644L Z-BAR / HIGH-LIFT | 644L HYBRID Z-BAR / HIGH-LIFT**



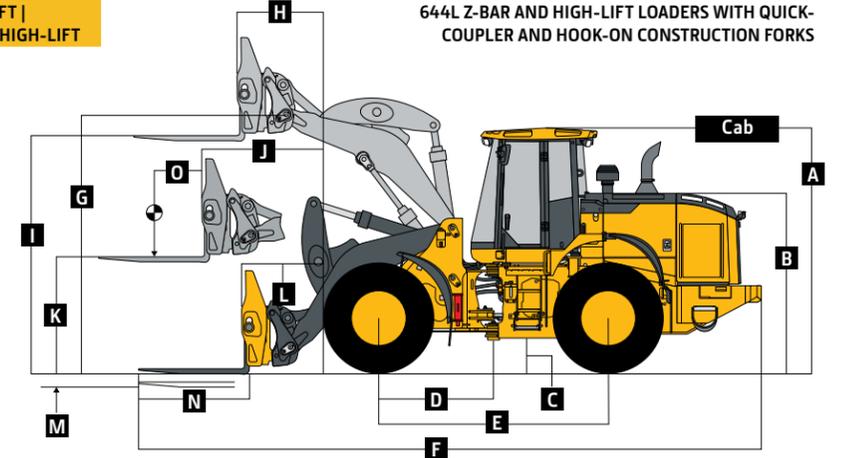
	644L Z-Bar	644L Z-Bar	644L High-Lift	644L High-Lift	644L Hybrid Z-Bar	644L Hybrid Z-Bar	644L Hybrid High-Lift	644L Hybrid High-Lift
Dimensions With Bucket	3.1-m ³ (4.0 cu. yd.) general-purpose with bolt-on edge	3.2-m ³ (4.25 cu. yd.) general-purpose with bolt-on edge	3.1-m ³ (4.0 cu. yd.) general-purpose with bolt-on edge	3.2-m ³ (4.25 cu. yd.) general-purpose with bolt-on edge	3.1-m ³ (4.0 cu. yd.) general-purpose with bolt-on edge	3.2-m ³ (4.25 cu. yd.) general-purpose with bolt-on edge	3.1-m ³ (4.0 cu. yd.) general-purpose with bolt-on edge	3.2-m ³ (4.25 cu. yd.) general-purpose with bolt-on edge
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.)	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.)	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.)	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.)	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.)	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.)	8.31 m (27 ft. 3 in.)	8.35 m (27 ft. 5 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.)	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.)	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.)	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.)	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.)	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.						
M Maximum Rollback, Boom Fully Raised	59 deg.	59 deg.	60 deg.	60 deg.	59 deg.	59 deg.	60 deg.	60 deg.
N Maximum Bucket Dump Angle, Fully Raised	48 deg.	48 deg.	45 deg.	45 deg.	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.)	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.)
Specifications With Bucket								
Capacity, Heaped	3.30 m ³ (4.25 cu. yd.)	3.40 m ³ (4.50 cu. yd.)	3.07 m ³ (4.02 cu. yd.)	3.26 m ³ (4.26 cu. yd.)	3.30 m ³ (4.25 cu. yd.)	3.40 m ³ (4.50 cu. yd.)	3.07 m ³ (4.02 cu. yd.)	3.26 m ³ (4.26 cu. yd.)
Capacity, Struck	2.70 m ³ (3.47 cu. yd.)	2.80 m ³ (3.68 cu. yd.)	2.51 m ³ (3.28 cu. yd.)	2.66 m ³ (3.48 cu. yd.)	2.70 m ³ (3.47 cu. yd.)	2.80 m ³ (3.68 cu. yd.)	2.51 m ³ (3.28 cu. yd.)	2.66 m ³ (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.)	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.)	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.)	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.)	13 801 kg (30,425 lb.)	13 697 kg (30,196 lb.)	11 747 kg (25,898 lb.)	11 656 kg (25,698 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.)	12 924 kg (28,493 lb.)	12 819 kg (28,261 lb.)	10 067 kg (22,399 lb.)	10 977 kg (24,200 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.)	11 967 kg (26,383 lb.)	11 870 kg (26,168 lb.)	10 104 kg (22,275 lb.)	10 018 kg (22,085 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.)	10 884 kg (23,995 lb.)	10 782 kg (23,770 lb.)	9246 kg (20,384 lb.)	9156 kg (20,186 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.)	5984 kg (13,192 lb.)	5935 kg (13,084 lb.)	5052 kg (11,138 lb.)	5009 kg (11,042 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.)	5442 kg (11,998 lb.)	5391 kg (11,885 lb.)	4623 kg (10,192 lb.)	4578 kg (10,093 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.)	19 281 kg (42,507 lb.)	19 338 kg (42,632 lb.)	19 643 kg (43,305 lb.)	19 700 kg (43,430 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.

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 Construction Forks **644L Z-BAR / HIGH-LIFT | 644L HYBRID Z-BAR / HIGH-LIFT**



	644L Z-Bar	644L Z-Bar	644L High-Lift	644L High-Lift	644L Hybrid Z-Bar	644L Hybrid Z-Bar	644L Hybrid High-Lift	644L Hybrid High-Lift
Dimensions With Forks	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	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.)							
B Hood Height	2.51 m (8 ft. 3 in.)							
C Ground Clearance	386 mm (15.2 in.)							
D Length From Centerline to Front Axle	1.66 m (5 ft. 5 in.)							
E Wheelbase	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.)	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.)	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 (36 in.)	930 mm (36 in.)	820 mm (32 in.)	820 mm (32 in.)	930 mm (36 in.)	930 mm (36 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.)	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.)	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.)	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.)	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.)	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.)	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.)	760 mm (30 in.)	910 mm (36 in.)	760 mm (30 in.)	910 mm (36 in.)
Specifications With Forks								
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.)	9646 kg (21,267 lb.)	9146 kg (20,164 lb.)	8630 kg (19,026 lb.)	8213 kg (18,106 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.)	9366 kg (20,648 lb.)	8886 kg (19,590 lb.)	8382 kg (18,479 lb.)	7983 kg (17,599 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.)	8397 kg (18,513 lb.)	7953 kg (17,533 lb.)	7461 kg (16,448 lb.)	7090 kg (15,632 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.)	8028 kg (17,699 lb.)	7608 kg (16,773 lb.)	7125 kg (15,708 lb.)	6777 kg (14,941 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.)	4014 kg (8,849 lb.)	3804 kg (8,386 lb.)	3563 kg (7,854 lb.)	3389 kg (7,470 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.)	4817 kg (10,619 lb.)	4565 kg (10,064 lb.)	4275 kg (9,425 lb.)	4066 kg (8,964 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.)	6422 kg (14,159 lb.)	6086 kg (13,418 lb.)	5700 kg (12,566 lb.)	5422 kg (11,953 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.)	18 750 kg (41,337 lb.)	18 810 kg (41,470 lb.)	19 112 kg (42,134 lb.)	19 172 kg (42,267 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.

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Adjustments to Operating Weights and Tipping Loads With Buckets 644L Z-BAR / HIGH-LIFT | 644L HYBRID Z-BAR / HIGH-LIFT

Adjustments to operating weights, tipping loads, and tires are based on Z-Bar machine with pin-on 3.2-m³ (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
Standard Z-Bar With Hybrid-Electric Drive	+148 kg (+325 lb.)	-457 kg (-1,007 lb.)	-320 kg (-706 lb.)	N/A	N/A	N/A
High-Lift With Hybrid-Electric Drive	+324 kg (+714 lb.)	-10 kg (-22 lb.)	+46 kg (+101 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) ¹⁵⁶	+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 ¹⁵⁶	+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.

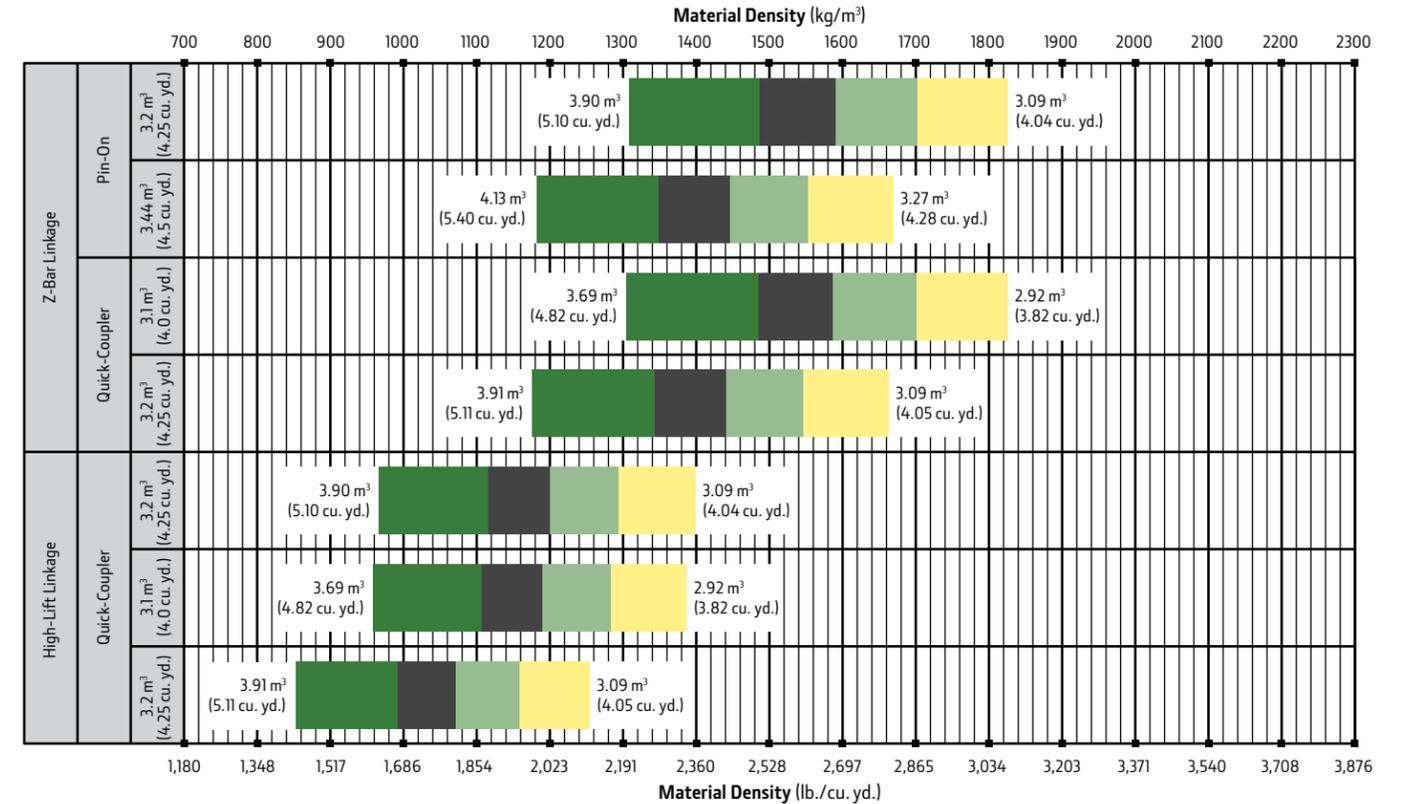
¹Equipped with 5-piece heavy-duty rims.

⁵CaCl₂ not recommended.

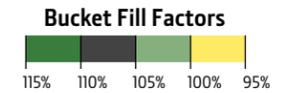
⁸Requires 9-deg. rear axle stops.

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Bucket Selection Guides 644L Z-BAR / HIGH-LIFT | 644L HYBRID Z-BAR / HIGH-LIFT



LOOSE MATERIALS	kg/m ³	lb./cu. yd.	LOOSE MATERIALS	kg/m ³	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			





724L 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		724L 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		
	<i>Standard 5-Speed With Lockup Torque Converter</i>	<i>Optional 4-Speed</i>	
Maximum Travel Speeds (with 23.5 R 25, 1 Star L3 tires)			
	<i>Forward</i>	<i>Reverse</i>	<i>Forward</i>
Range 1	7.1 km/h (4.4 mph)	7.5 km/h (4.7 mph)	7.2 km/h (4.5 mph)
Range 2	12.1 km/h (7.5 mph)	12.8 km/h (8.0 mph)	11.9 km/h (7.4 mph)
Range 3	20.5 km/h (12.7 mph)	26.1 km/h (16.2 mph)	22.9 km/h (14.2 mph)
Range 4	24.7 km/h (15.3 mph)	N/A	35.2 km/h (21.9 mph)
Range 5	40.0 km/h (24.9 mph)	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, oil cooled, multi disc		
Tires/Wheels (see page 26 for complete tire adjustments)			
	<i>Tread Width</i>	<i>Width Over Tires</i>	
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.)		
Engine Oil With Vertical Spin-On Filter	28 L (29.5 qt.)	Hydraulic Reservoir and Filter	105.2 L (27.8 gal.)
		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.)		

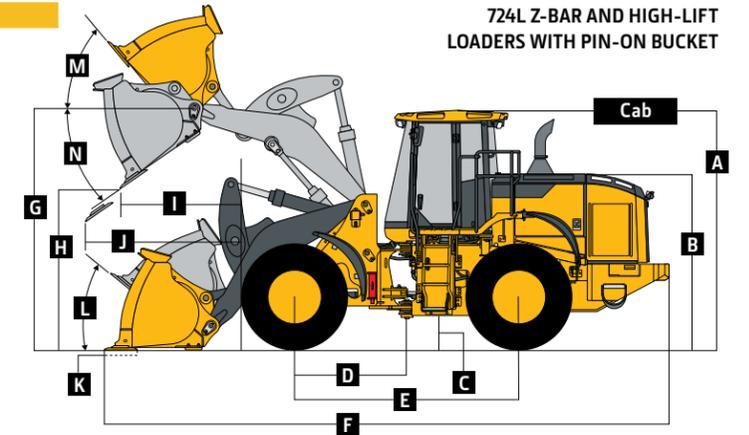
724L SPECIFICATIONS



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Hydraulic System/Steering (continued)	724L Z-BAR	724L HIGH-LIFT
Hydraulic Cycle Times		
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.

Dimensions and Specifications With Pin-On Bucket



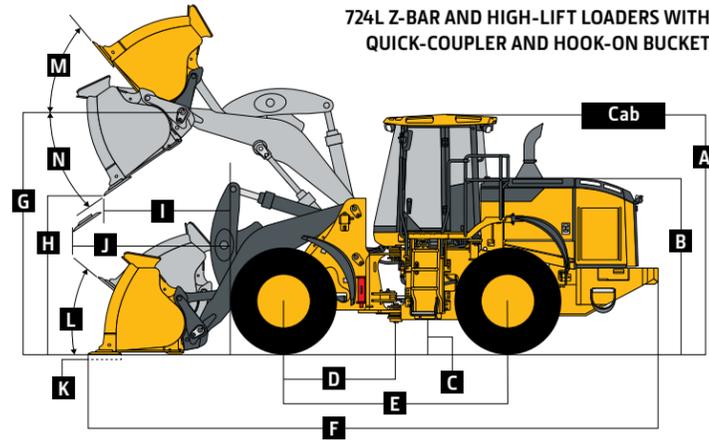
	Z-Bar	Z-Bar	High-Lift	High-Lift
	<i>3.6-m³ (4.75 cu. yd.) general-purpose with bolt-on edge</i>	<i>3.8-m³ (5.0 cu. yd.) general-purpose with bolt-on edge</i>	<i>3.4-m³ (4.5 cu. yd.) general-purpose with bolt-on edge</i>	<i>3.6-m³ (4.75 cu. yd.) general-purpose with bolt-on edge</i>
A Height to Top of 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 (10 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				
Capacity, Heaped	3.6 m³ (4.76 cu. yd.)	3.8 m³ (5.00 cu. yd.)	3.4 m³ (4.50 cu. yd.)	3.6 m³ (4.76 cu. yd.)
Capacity, Struck	3.0 m³ (3.90 cu. yd.)	3.2 m³ (4.12 cu. yd.)	2.8 m³ (3.68 cu. yd.)	3.0 m³ (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 attachment, and assumes no tire deflection per the standard ISO 14397-1 section 5.

*Rated operating capacity based on Deere attachments only.

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Dimensions and Specifications With Hi-Vis Coupler and Hook-On Bucket 724L Z-BAR / HIGH-LIFT



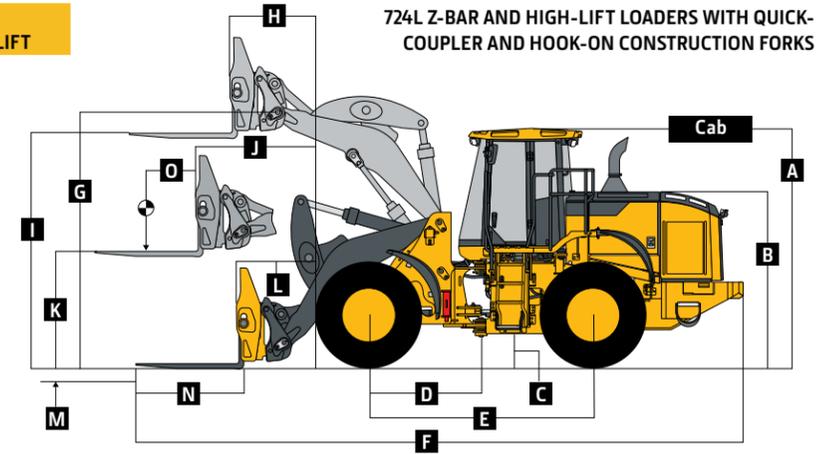
	Z-Bar	Z-Bar	High-Lift	High-Lift
	3.4-m ³ (4.5 cu. yd.) general-purpose with bolt-on edge	3.6-m ³ (4.75 cu. yd.) general-purpose with bolt-on edge	3.2-m ³ (4.25 cu. yd.) general-purpose with bolt-on edge	3.4-m ³ (4.5 cu. yd.) general-purpose with bolt-on edge
Dimensions With Bucket				
A Height to Top 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.)
Specifications With Bucket				
Capacity, Heaped	3.5 m ³ (4.51 cu. yd.)	3.6 m ³ (4.76 cu. yd.)	3.3 m ³ (4.26 cu. yd.)	3.5 m ³ (4.51 cu. yd.)
Capacity, Struck	2.8 m ³ (3.70 cu. yd.)	3.0 m ³ (3.91 cu. yd.)	2.7 m ³ (3.48 cu. yd.)	2.8 m ³ (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.

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Dimensions and Specifications With Hi-Vis Coupler and Construction Forks 724L Z-BAR / HIGH-LIFT



	Z-Bar	Z-Bar	High-Lift	High-Lift
	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
Dimensions With Forks				
A Height to Top of Cab	3.45 m (11 ft. 4 in.)			
B Hood Height	2.51 m (8 ft. 3 in.)			
C Ground Clearance	386 mm (15.2 in.)			
D Length From Centerline to Front Axle	1.66 m (5 ft. 5 in.)			
E Wheelbase	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.)			
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.)
Specifications With Forks				
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.

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Adjustments to Operating Weights and Tipping Loads With Buckets 724L Z-BAR / HIGH-LIFT

Adjustments to operating weights, tipping loads, and tires are based on Z-Bar machine with pin-on 3.6-m³ (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	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 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) ¹ ²	+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 ¹ ²	+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.

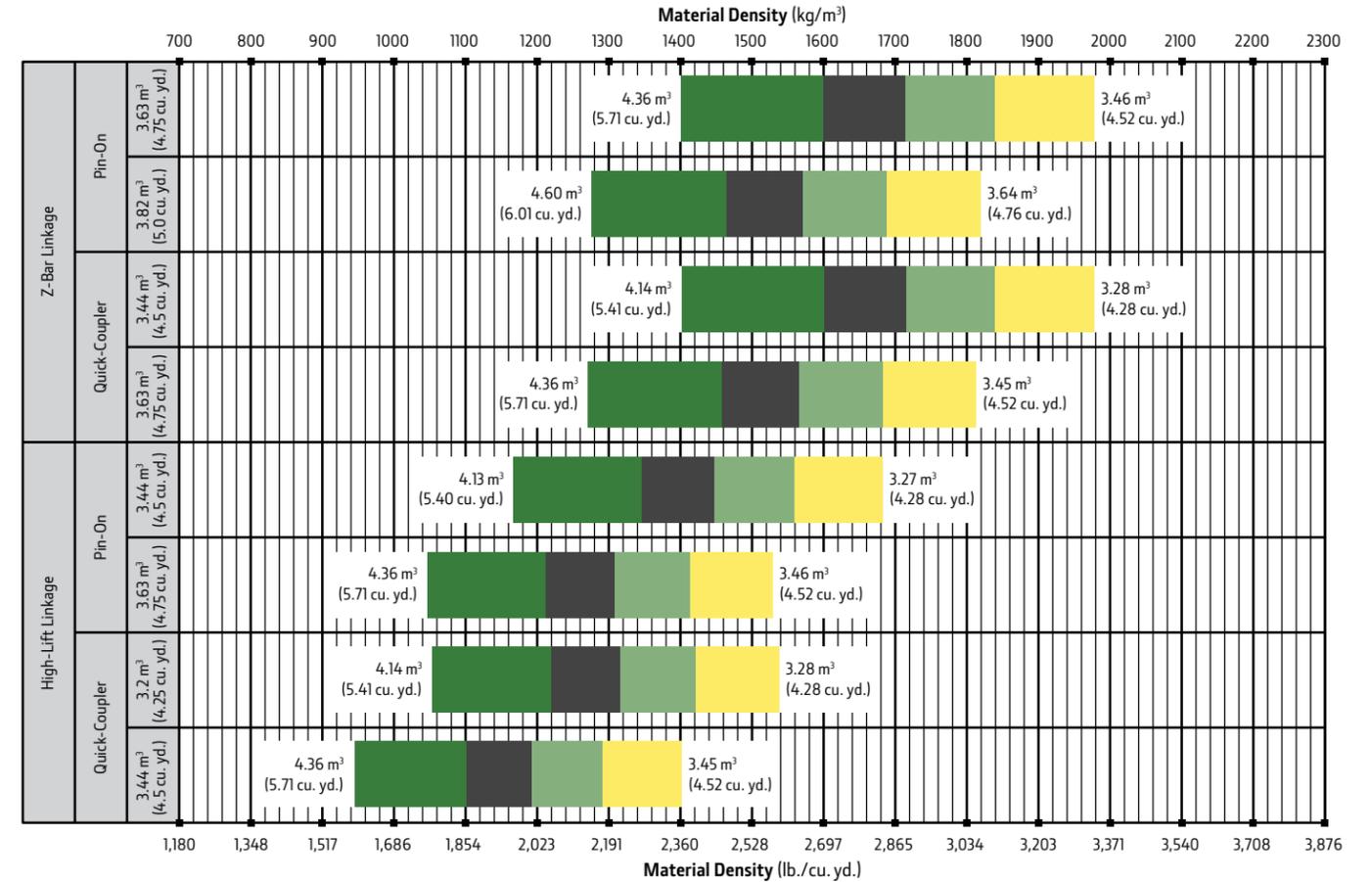
¹Equipped with 5-piece heavy-duty rims.

²CaCl₂ not recommended.

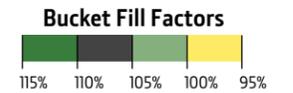
³Requires 9-deg. rear axle stops.

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Bucket Selection Guides 724L Z-BAR / HIGH-LIFT



LOOSE MATERIALS	kg/m ³	lb./cu. yd.	LOOSE MATERIALS	kg/m ³	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			



Additional equipment

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

644L	724L	Engine
●	●	Wet-sleeve cylinder liners
●	●	Automatic glow plugs for cold start
●	●	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 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 lockup torque converter
▲	▲	Hybrid-electric transmission system
●	●	Front locking differential
▲	▲	Rear locking differential
●	●	Brake retractors and adjusters
▲	▲	Automatic differential lock
●	●	Axle oil temperature sensing
▲	▲	Wheel-spin control (not available with hybrid-electric transmission system)
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
●	●	Integral 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

644L	724L	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]
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
●	●	Operator-warning messages

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Additional equipment (cont.)

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

644L	724L	Electrical (continued)
●	●	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
●	●	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

644L	724L	Loader Linkage
●	●	Z-Bar loader linkage (parallel lift)
▲	▲	High-Lift Z-Bar loader linkage (parallel lift)
Buckets and Attachments		
▲	▲	Full line of Deere pin-on buckets
▲	▲	John Deere hydraulic coupler that accepts JRB-pattern attachments
▲	▲	Hi-Vis hydraulic coupler that accepts Euro-pattern attachments (ISO)
▲	▲	Full line of Deere hook-on buckets and forks
Overall Vehicle		
●	●	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
●	●	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 (not available with hybrid-electric transmission system)
▲	▲	Left-side close-mounted steps (not available with hybrid-electric transmission system)
●	●	Storage compartment
●	●	Fuel-tank fill strainer
●	●	Heavy-duty fuel-tank guard
●	●	DEF and ground-level fueling
●	●	Same-side ground-level daily servicing
●	●	23.5R25 tires on 3-piece rims
▲	▲	23.5R25 tires on 5-piece rims
▲	▲	Tire-pressure monitoring system
▲	▲	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 9-deg. axle stops
▲	▲	Rims less tires
▲	▲	Transmission side-frame and bottom guards
▲	▲	Lift eyes
▲	▲	License-plate bracket and light
▲	▲	Special guarding for waste applications

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