

# K-SERIES LOADERS

## 644K/724K

171–197 kW (229–264 net hp)



JOHN DEERE



# Job driven. Customer inspired. And a fuel-sipping hybrid-electric model.

Secured keyless start. Advanced onboard diagnostics. Innovative Quad-Cool™ system with cool-on-demand swing-out fan. These and the many other features found in our 644K and 724K come from listening to customer needs and responding with exceptionally productive, durable, and versatile loaders. Among the big customer inspirations is the availability of the hybrid-electric drivetrain in the 644K. Check out the K-Series Loader line today. And be prepared to become an inspired customer yourself.



Key Specifications	644K	724K
Net Peak Power	173 kW (232 hp) / 171 kW (229 hp) Hybrid	197 kW (264 hp)
Bucket Capacity	3.1–3.2 m <sup>3</sup> (4.0–4.25 cu. yd.)	3.1–3.6 m <sup>3</sup> (4.0–4.75 cu. yd.)
Z-Bar: Tipping Load, 40-deg. Full Turn, No Tire Deflection	12 798 kg (28,214 lb.)	14 266 kg (31,451 lb.)
Breakout Force	15 378 kg (33,903 lb.)	15 607 kg (34,408 lb.)
Operating Weight	18 682 kg (41,188 lb.)	19 419 kg (42,812 lb.)
PowerLevel™: Tipping Load, 40-deg. Full Turn, No Tire Deflection	12 923 kg (28,489 lb.)	N/A
Breakout Force	12 029 kg (26,519 lb.)	N/A
Operating Weight	20 269 kg (44,685 lb.)	N/A

Fluid-efficient John Deere PowerTech™ EPA Final Tier 4 (FT4)/EU Stage IV diesels provide generous displacement, power, and lugging ability.

644K Hybrid provides fuel efficiency via a PowerTech EPA Interim Tier 4 (IT4)/EU Stage IIIB engine coupled with an ultra-smooth PowerShift™ hybrid-electric transmission system.

PowerTech diesels maintain impressive torque reserves for great boom and bucket speeds in and out of the pile, delivering heaped loads — even in wet- or hard-packed material.

K-Series Loaders ride on a wide stance that provides additional lateral stability for handling heavy loads and working on rough terrain. Overall balance is exceptional.

John Deere WorkSight™ is an exclusive suite of telematics solutions that increases uptime while lowering operating costs. At its heart, JDLink™ Ultimate machine monitoring provides real-time utilization data and alerts to help you maximize productivity and efficiency while minimizing downtime. Remote diagnostics enable your dealer to read codes, record performance data, and even update software without a trip to the jobsite.





## Hard work made simple.

What operator wouldn't be more productive in the high-back air-ride seat of a K-Series Loader? Up front, an enhanced multifunction monitor displays operating, diagnostic, and maintenance info on a color LCD screen with easy-on-the-eyes clarity. Generous tinted glass and a low-profile console allow a commanding view of the jobsite. Spacious and quiet cab boasts seat-mounted controls, fatigue-beating ergonomics, and plenty of limb-stretching legroom. And their sealed-switch modules with keyless start and push-button operation of other machine functions help you work harder with less effort.



To help prevent unauthorized machine operation, the keyless-start security system requires a numeric pass code (when activated).

Available premium heated air-ride armchair seat adjusts multiple ways for extra comfort and cushioning.

Standard eight-amp converter (15 and 30 amp are optional) and a 12-volt outlet provide convenient power for cell phones and other electronic devices.

Brake and throttle pedals are conveniently positioned, allowing plenty of legroom and easy entrance and exit.

Adjustable automotive-style louvers provide effective airflow to keep the glass clear and pressurized cab comfortable.

**1.** Multi-language color LCD monitor provides push-button access to a wealth of machine data and functions:

**Vital information**, including transmission mode, gear, engine rpm, and ground speed.

**Enhanced onboard diagnostics** with speed, pressure, temperature readings, and switch status.

**Customized machine settings —**

Quick Shift, Auto-to-1st, and ride control (standard on the 724K, optional on the 644K) match your operating characteristics to specific jobs and conditions.

**Optional embedded payload scale** weighs each bucket load, helping fill trucks to the max.

**2.** Optional joystick steering is ideal for V-pattern truck loading. It adapts to the loader's ground speed to deliver smooth control for load-and-carry applications.

**3.** Optional rearview camera only or optional rearview camera and radar object-detection system provides maximum visibility via an LCD screen. Radar object-detection system includes an audible alert for extra awareness in tight quarters and high-traffic areas.

**4.** Spacious cab with a cooler compartment and beverage holder provides plenty of room to stow your stuff.



# More power and control mean more productivity.

If you've got maximum productivity in mind, put a 644K or 724K Loader at the top of your list. It's not just big torque reserves that make them such impressive performers. Single-lever joystick or two-lever fingertip controls provide smooth, near-effortless control. Excavator-style hydraulics sense the load to better deliver the flow needed for combined functions and fast work cycles. And you won't find a smoother-shifting loader — the standard PowerShift transmission with smart shift technology continuously evaluates speed and load conditions, and adjusts clutch-pack engagement to suit.



1. A backlit touchpad sealed-switch module controls keyless start and 24 other machine functions, allowing the operator to activate boom-height kickout, return to carry, and return to dig from the seat.



2. Choose between a single-lever joystick or...

3. ...two-lever fingertip pilot-operated hydraulic controls.



Standard five-speed transmission with lockup torque converter for gears 2–5 increases acceleration, speeds cycles, and optimizes power and fuel efficiency during transport, roading, and ramp climbing.

The 644K Hybrid teams a purpose-built three-speed hybrid-electric transmission with an IT4/Stage IIIB PowerTech engine to squeeze the most out of every drop of fuel.

Even when working with large, wet loads, K-Series Loaders maintain excellent boom and bucket power into and out of the pile.

Optional wheel-spin control boosts productivity by improving traction in troublesome underfoot conditions, reducing tire wear, fuel costs, and operator fatigue.

The 644K PowerLlel Loader has two presets to help make frequent attachment changeover easy.

Joystick F-N-R selector provides convenient direction and full-range gear changes, and includes an innovative Quick-Shift feature for push-button gear changes.

Boom-height kickout and return-to-carry functions speed production in repetitive loading applications.

New adaptive clutch cutoff automatically provides more power to the hydraulic system, ensures smooth control at high engine rpms and low speeds, and allows for better machine handling in all terrain without the operator having to change settings.

Responsive steering and full 80-deg. articulation increase maneuverability in tight quarters, delivering faster cycle times with fewer three-point turns.



# Parallel lift that's simply unparalleled.

The 644K Powerllef Loader delivers both powerful digging force and parallel lift. Its innovative design allows load forces to work with, not against, the boom for big breakout forces — even in difficult digging. Impressive torque throughout the entire dump and rollback range enables this Powerllef loader to excel at a wide variety of material-handling tasks. But don't just look for these John Deere advantages in the numbers on a spec sheet. The best way to fully appreciate them is on your jobsite. Whatever the task, whatever the load, you'll discover parallel lift that's without parallel.



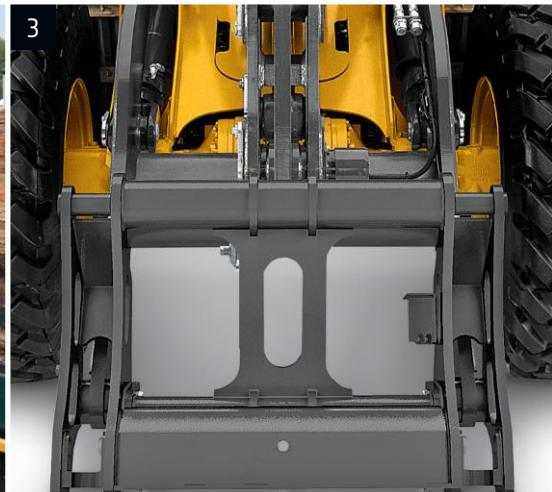
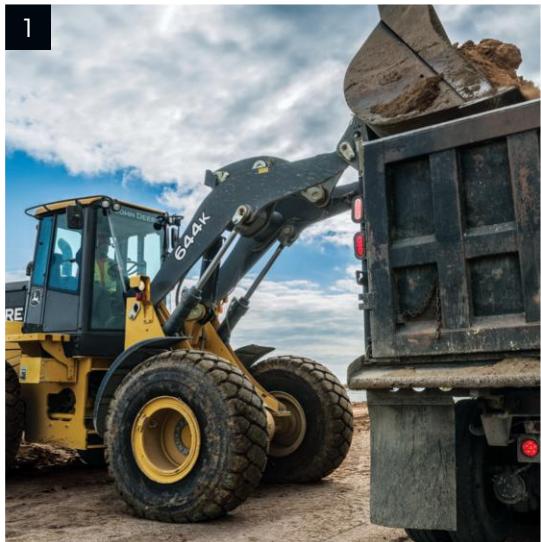


Choose the optional Hi-Vis coupler for extra stability and visibility when handling heavy loads.

Unique Y-link, low-mounted boom cylinders, and optional Hi-Vis coupler provide clear visibility to the work tool and throughout the lift arc.

Tire and axle options let you equip your 644K Powerlleg Loader for material-handling work in a wide variety of terrain.

1. Powerlleg's unique design maximizes parallel-lift-loader advantages for stronger breakout forces, delivering more efficient material handling to your operation.
2. The 644K Powerlleg Loader delivers outstanding breakout force throughout the entire bucket and angle range to conquer tough tasks like loading logs.
3. Pick up a broad range of Worksite Pro™ and other attachments from the comfort of the cab with an optional Hi-Vis coupler, for more versatility.



# It's a powerful hybrid of efficiency, value, and applied customer thinking.

Our 644K Hybrid Loader goes well beyond burning less fuel while reducing emissions — although with its PowerTech IT4/Stage IIIB engine, hybrid-electric transmission, and brushless generator, it can boost fuel economy by up to 25 percent. Designed with extensive customer input, it also delivers everyday operating advantages like consistently quick, smooth, and responsive hydraulics; fast ramp-climbing ability; and strong pushing power. And, it's nearly twice as quiet, both inside and outside the cab. Simply put, this hybrid will help make your operator more productive while making your operation more efficient.

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.

Running wide open at 1,800 rpm, in-cab sound levels are just 68 dBA. Noise is also less noticeable to bystanders, making this loader a good neighbor in residential areas.

The engine runs at a choice of three constant operator-selected rpms so boom and bucket functions are powerful, responsive, and quick while optimum fuel efficiency is maintained.

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

John Deere 6.8-L diesel runs at a constant operator-selected speed of 1,200, 1,500, or 1,800 rpm to reduce engine wear, noise levels, and fuel consumption.

Brushless A/C generator and motor, water-cooled brake resistor, and solid-state power electronics deliver long-term reliable performance.



1. Hybrid-electric drive recaptures energy while slowing the loader when the operator lets off the accelerator. This lessens the load on the engine, further reducing fuel consumption.





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

3. Our 644K Hybrid delivers up to 25-percent better average fuel efficiency than a conventional 644K with lockup torque converter. In applications like V-pattern truck loading, your fuel savings will be even greater.



# Discover your options.

K-Series Loaders come standard with plenty of production-boosting features to help you handle almost anything you throw their way. But yours isn't just any application, so we've got you covered with a wide variety of factory- or dealer-installed options. Equip your loader with exactly what you need to maximize your efforts and expand your opportunities.



1. Automatic differential lock engages as soon as a tire begins to slip. It's ideal for inexperienced operators or applications requiring high traction, such as stockpiling silage, plowing snow, and handling pipe.

2. With ride control (standard on the 724K, optional on the 644K), lift cylinders act as shock absorbers, cushioning bumps to navigate over rough ground without losing material. Auto-actuation travel speed is adjustable from 1.5 to 24.0 km/h (1.0 to 15.0 mph).

3. Worksite Pro couplers increase versatility and make attachment switchover push-button easy. Or opt for the Hi-Vis coupler for high-visibility switchover of a broad range of Deere and other attachments.



General-purpose or excavating buckets are available in pin-on or coupler configurations from 3.1–3.6 m<sup>3</sup> (4.0–4.75 cu. yd). Or opt for 1.52- and 1.83-m (60 and 72 in.) tines, depending on model.

Powered cab pre-cleaner is a smart addition in high airborne-debris environments.

Opt for the corrosion package to shield electrical components and connections, and help prevent corrosive materials from short-circuiting your productivity.

Need to take productivity to another level? High-Lift option extends lift height up to 356 mm (14 in.).

Heated mirrors prevent fog and ice from obstructing the view and affecting productivity.

Embedded payload scale enables you to fill each truck to its limit for maximum productivity. It's available on both Z-Bar and High-Lift loaders.

Integrated tire-pressure monitor helps maximize tire life and fuel efficiency. You can quickly check tire pressure via JDLink.

Full-tire front and rear fenders and flaps help keep the machine free of mud and debris.

Optional right-side service steps and handholds are slip resistant, providing safe access to the cab.



# Nothing runs — or is built — like a Deere.

It's all about uptime. So we gave both K-Loaders — including the 644K Hybrid — traditional John Deere durability features. They boast standard heavy-duty wet-sleeve diesels, Quad-Cool, and solid-state electrical systems. Other uptime-boosting features include reinforced articulation joints with double-tapered roller bearings, and booms and mainframes so tough they're warranted for three years or 10,000 hours. When you know how they're built, you'll run a Deere.



Electrical-distribution center employs reliable circuit-board technology and solid-state switches to eliminate many wiring harnesses, fuses, relays, and connectors. Sealed gold-pin electrical connectors resist corrosion for long-term integrity.

Standard features like bypass-start protection, automatic park brake, and convenient handholds help keep the operator out of harm's way. Both models feature slip-resistant steps and platforms on both sides of the machine to provide safer access.

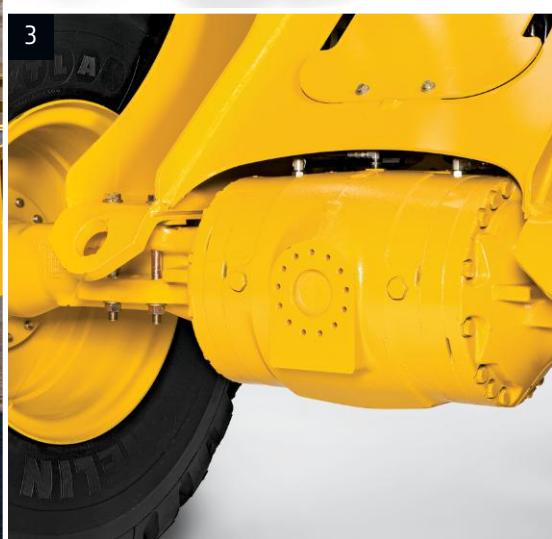
John Deere PowerTech FT4/Stage IV diesel engines meet emission regulations without sacrificing power or torque. A PowerTech IT4/Stage IIIB diesel and a brushless electrical generator power the 644K Hybrid.

1. Optional programmable fan automatically reverses at predetermined intervals, ejecting debris from the radiator and cooler cores. Or choose your own cleaning cycles through the monitor.



2. Efficient and rugged Quad-Cool places the radiator, air-conditioner condenser, intercooler, and hydraulic, transmission, and standard axle coolers in a unique boxed configuration that's isolated from engine heat.

3. Planetary final drives are mounted inboard. Hydraulic wet-disc brakes on both models are self-adjusting.



Sealed-switch module keeps out dust, moisture, and debris, and virtually never wears out. Proven marine-grade touchpad eliminates rocker switches and nearly 100 wires, keeping things simple and durable.

Four steel plates support the loader tower, extending pin life and protecting the boom-cylinder hoses.

Standard starter protection limits cranking time and requires cool-down periods between attempts.

Wet-sleeve engine liners provide uniform engine cooling for less oil breakdown and longer durability than cast-in-block designs.

Wide-mouth fuel tank allows quick and convenient ground-level fill-ups — generous tank capacity lets you work longer.

Heavy-duty axles employ cooling, filtration, and temperature monitoring to increase durability.

# Stretches your dollars, not your service techs.

Controlling daily owning and operating costs shouldn't be a reach — and it's not on a K-Series Loader. Same-side ground-level service points make quick work of the daily routine. Unique Quad-Cool system provides wide-open access to both sides of the coolers for easy cleanout. Extended service intervals let you work longer between changes. And because no maintenance beats low maintenance, standard self-adjusting serpentine engine belts and wet-disc brakes seldom, if ever, require attention. That's just for starters. The list of K-Series features that help minimize maintenance goes on and on. And so will the owning and operating cost savings you'll enjoy.



1. Vertical spin-on filters allow quick, no-spill changes. Extended 500-, 2,000-, and 4,000-hour engine, transmission, and hydraulic oil-service intervals help reduce operating costs.
2. Ground-level fuel and diesel exhaust fluid (DEF) fill access helps speed servicing for more uptime. There's also an available fast-fuel option.
3. If something goes wrong, the easy-to-navigate LCD monitor displays diagnostic messages and offers possible solutions to help get you back up and running quickly.
4. Color-coded fluid-sample and diagnostic test ports help speed preventive maintenance and troubleshooting. Noninvasive design helps keep out contaminants.
5. Conveniently located, easy-to-read sight gauges and see-through reservoirs let you check transmission, hydraulic, coolant, and windshield washer fluid levels at a glance.
6. Lockable compartment opens wide, offering convenient ground-level access to remote-start battery terminals and the electrical-disconnect switch.





Greasing is less messy thanks to centralized lube banks that provide easy access to zerks. Conveniently located periodic lube and maintenance chart ensures nothing gets overlooked.

Inboard planetary final drives and self-adjusting wet-disc brakes are virtually maintenance-free.

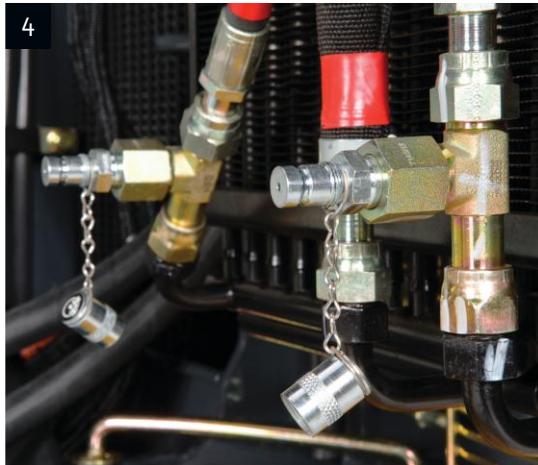
Hydraulically driven fan runs only as needed for efficient cooling. Helps conserve fuel, too.

All daily service points including fueling are grouped on the left side for quick and convenient ground-level access.

Ash-service intervals for the diesel particulate filter (DPF) are condition based, so changing it may not be necessary until the first engine overhaul. Intervals can be extended further depending on application, regular maintenance practices, and the use of recommended fluids and lubricants.

3-mm (0.12 in.) side-shield perforations block most airborne debris. Unlike stacked coolers, Quad-Cool cores resist plugging and are easily accessible from either side, for quick and easy cleanout.

Auto-idle automatically reduces engine speed to help conserve fuel after an operator-determined period of inactivity. Auto shutdown turns off the engine after extended inactivity.



# 644K

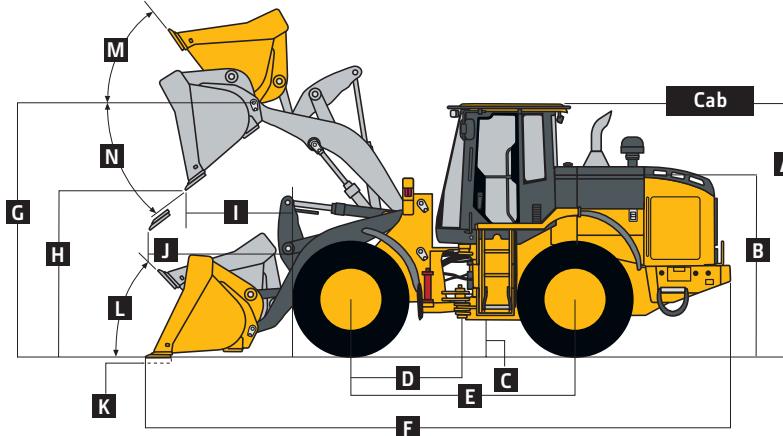
**644K**

<b>644K Z-BAR / HIGH-LIFT / POWERLLEL™</b>						
Manufacturer and Model	John Deere PowerTech™ PSS 6090	John Deere PowerTech™ Plus 6068H	John Deere PowerTech™ 6068H	John Deere PowerTech PSX 6068		
Non-Road Emission Standard	EPA Final Tier 4/EU Stage IV	EPA Tier 3/EU Stage IIIA	EPA Tier 2/EU Stage II	EPA Interim Tier 4/EU Stage IIIB with Hybrid-Electric Drive		
Cylinders	6	6	6	6		
Valves Per Cylinder	4	4	4	4		
Displacement	9.0 L (548 cu. in.)	6.8 L (414 cu. in.)	6.8 L (414 cu. in.)	6.8 L (414 cu. in.)		
Net Peak Power (ISO 9249)	173 kW (232 hp) at 1,700 rpm	173 kW (232 hp) at 1,700 rpm	173 kW (232 hp) at 1,700 rpm	171 kW (229 hp) at 1,700 rpm		
Net Peak Torque (ISO 9249)	1062 Nm (783 lb.-ft.) at 1,400 rpm	1016 Nm (749 lb.-ft.) at 1,400 rpm	1016 Nm (749 lb.-ft.) at 1,400 rpm	991 Nm (730 lb.-ft.) at 1,400 rpm		
Net Torque Rise	56%	55%	55%	19%		
Fuel System (electronically controlled)	High-pressure common rail	High-pressure common rail	High-pressure common rail	High-pressure common rail		
Lubrication	Full-flow spin-on filter and integral cooler					
Aspiration	Series turbocharged, charge air cooled	Turbocharged, charge air cooled	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			
Fan Drive	Hydraulically driven, proportionally controlled, fan aft of coolers		Hydraulically driven, proportionally controlled, fan aft of coolers			
Electrical System	24 volt with 130-amp alternator	24 volt with 80-amp (100-amp optional) alternator		24 volt with 100-amp (130-amp optional alternator)		
Batteries (2 – 12 volt)	950 CCA (each)	950 CCA (each)	950 CCA (each)	950 CCA (each)		
<b>Transmission System</b>						
	EPA FT4/EU Stage IV / EPA Tier 3/EU Stage IIIA / EPA Tier 2/EU Stage II			EPA IT4/EU Stage IIIB with Hybrid-Electric Drive		
Type	Standard 5-Speed with Lockup Torque Converter	Optional 4-Speed		Standard 3-Speed Hybrid-Electric Drive		
Torque Converter	Countershaft-type PowerShift™	Countershaft-type PowerShift		Countershaft-type PowerShift		
Motor/Generator	Single stage, single phase	Single stage, single phase		N/A		
Inverter	N/A	N/A		Brushless A/C		
Shift Control	Electronically modulated, adaptive, load and speed dependent	Electronically modulated, adaptive, load and speed dependent		Solid-state power		
Operator Interface	Steering-column or joystick-mounted F-N-R and gear-select lever; Quick-Shift button on hydraulic lever			Electronically modulated, adaptive, load and speed dependent		
Shift Modes	Manual/auto (1st-D or 2nd-D); quick-shift button with 2 selectable modes: kick-down or kick-up/down; and adaptive clutch cutoff					
Maximum Travel Speeds (with 23.5 R 25 tires)	<i>Forward</i> Range 1 Range 2 Range 3 Range 4 Range 5	<i>Reverse</i> 7.8 km/h (4.8 mph) 13.4 km/h (8.3 mph) 22.6 km/h (14.0 mph) 27.4 km/h (17.0 mph) 40.0 km/h (24.9 mph)	<i>Forward</i> 7.6 km/h (4.7 mph) 12.6 km/h (7.8 mph) (15.3 mph) 36.6 km/h (22.7 mph) N/A	<i>Reverse</i> 7.9 km/h (4.9 mph) 12.9 km/h (8.0 mph) (15.5 mph) N/A N/A	<i>Forward</i> 7.5 km/h (4.5 mph) 14.0 km/h (8.7 mph) (15.5 mph) 40.0 km/h (24.9 mph) N/A	<i>Reverse</i> 7.5 km/h (4.5 mph) 14.0 km/h (8.7 mph) (15.5 mph) 40.0 km/h (24.9 mph) N/A
<b>Axles/Brakes</b>						
	EPA FT4/EU Stage IV / EPA Tier 3/EU Stage IIIA / EPA Tier 2/EU Stage II			EPA IT4/EU Stage IIIB with Hybrid-Electric Drive		
Final Drives	Heavy-duty inboard-mounted planetary			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)			26 deg. (13 deg. each direction)		
Service Brakes (conform to ISO 3450)	Hydraulically actuated, spring-retracted, self-adjusting, inboard sun-shaft mounted, oil-cooled, single disc			Hydraulically actuated, inboard sun-shaft mounted, oil-cooled, self-adjusting, single disc		
Parking Brakes (conform to ISO 3450)	Automatic spring-applied, hydraulically released, driveline-mounted, oil-cooled, multi disc			Automatic spring-applied, hydraulically released, transmission-integrated, oil-cooled, multi disc		
<b>Tires/Wheels (see page 22 for complete tire adjustments)</b>						
	EPA FT4/EU Stage IV / EPA Tier 3/EU Stage IIIA / EPA Tier 2/EU Stage II / EPA IT4/EU Stage IIIB with Hybrid-Electric Drive					
<i>Tread Width</i>						
Michelin 23.5 R 25, 1 Star L-3	2170 mm (85.4 in.)		2875 mm (113.2 in.)			
<b>Serviceability</b>						
Refill Capacities	EPA FT4/EU Stage IV			EPA IT4/EU Stage IIIB with Hybrid-Electric Drive		
Fuel Tank with Lockable Cap	397 L (105 gal.)	352 L (93 gal.)		397 L (105 gal.)		
Diesel Exhaust Fluid (DEF)	32 L (34 qt.)	N/A		N/A		
Engine Cooling System	45.5 L (48.1 qt.)	29.5 L (31.2 qt.)		54.9 L (58 qt.)		
Inverter Cooling System	N/A	N/A		5.7 L (6 qt.)		
Engine Oil with Vertical Spin-On Filter	28 L (29.5 qt.)	24.5 L (26 qt.)		27 L (28.5 qt.)		
Transmission Reservoir with Vertical Filter	23 L (24 qt.)	27 L (28.5 qt.)		37.9 L (40 qt.)		
Axle Oil (front and rear, each)	22 L (23 qt.)	22 L (23 qt.)		22 L (23 qt.)		
Hydraulic Reservoir and Filter	105.2 L (27.8 gal.)	110 L (29 gal.)		106 L (28 gal.)		
Park Brake Oil (wet disc)	0.6 L (20 oz.)	0.6 L (20 oz.)		0		



<b>Hydraulic System/Steering</b>		<b>644K Z-BAR / HIGH-LIFT / POWERLLEL</b>					
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		297 L/m (78 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)		5.57 m (18 ft. 3 in.)					
Hydraulic Cycle Times		EPA FT4/EU Stage IV / EPA Tier 3/EU Stage IIIA / EPA Tier 2/EU Stage II					
Z-Bar		<b>High-Lift</b>	<b>Powerllef</b>	<b>Z-Bar</b>	<b>High-Lift</b>	<b>Powerllef</b>	
Raise		6.4 sec.	6.4 sec.	6.4 sec.	8.2 sec.	8.2 sec.	8.2 sec.
Dump		1.6 sec.	1.6 sec.	2.1 sec.	2.3 sec.	2.3 sec.	2.8 sec.
Lower (float down)		3.0 sec.	3.0 sec.	2.8 sec.	3.0 sec.	3.0 sec.	2.8 sec.
Total		11.0 sec.	11.0 sec.	11.3 sec.	13.5 sec.	13.5 sec.	13.8 sec.

#### Dimensions and Specifications with Pin-On Bucket



**644K Z-BAR AND HIGH-LIFT LOADERS WITH PIN-ON BUCKET**

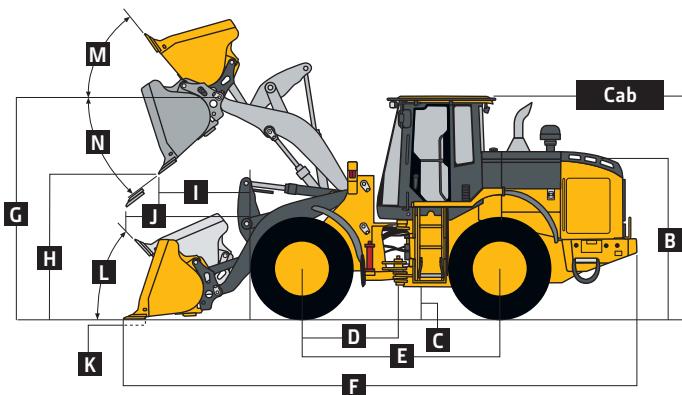
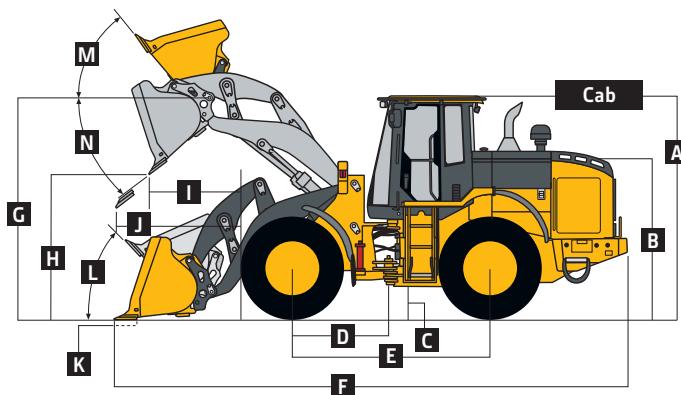
<b>Dimensions with Bucket</b>		<b>Z-Bar</b>	<b>High-Lift</b>
A Height to Top of Cab		3.2-m <sup>3</sup> (4.25 cu. yd.) general-purpose with bolt-on edge	3.2-m <sup>3</sup> (4.25 cu. yd.) general-purpose with bolt-on edge
B Hood Height		3.43 m (11 ft. 3 in.)	3.43 m (11 ft. 3 in.)
C Ground Clearance		2.53 m (8 ft. 4 in.)	2.53 m (8 ft. 4 in.)
D Length from Centerline to Front Axle		461 mm (18.1 in.)	461 mm (18.1 in.)
E Wheelbase		1.60 m (5 ft. 3 in.)	1.60 m (5 ft. 3 in.)
F Overall Length, Bucket on Ground		3.26 m (10 ft. 8 in.)	3.26 m (10 ft. 8 in.)
G Height to Hinge Pin, Fully Raised		8.30 m (27 ft. 3 in.)	8.77 m (28 ft. 9 in.)
H Dump Clearance, 45 deg., Full Height		4.12 m (13 ft. 6 in.)	4.54 m (14 ft. 11 in.)
I Reach, 45-deg. Dump, Full Height		2.91 m (9 ft. 6.5 in.)	3.33 m (10 ft. 11.1 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance		1.06 m (3 ft. 5.7 in.)	1.19 m (3 ft. 10.9 in.)
K Maximum Digging Depth		1.61 m (5 ft. 3.4 in.)	2.06 m (6 ft. 9.1 in.)
L Maximum Rollback at Ground Level		106 mm (4.2 in.)	200 mm (7.9 in.)
M Maximum Rollback, Boom Fully Raised		42 deg.	41 deg.
N Maximum Bucket Dump Angle, Fully Raised		55 deg.	47 deg.
Loader Clearance Circle, Bucket Carry Position		50 deg.	45 deg.
		13.19 m (43 ft. 3.1 in.)	13.62 m (44 ft. 8.2 in.)

#### Specifications with Bucket

Capacity, Heaped	3.2 m <sup>3</sup> (4.25 cu. yd.)	3.2 m <sup>3</sup> (4.25 cu. yd.)
Capacity, Struck	2.8 m <sup>3</sup> (3.7 cu. yd.)	2.8 m <sup>3</sup> (3.7 cu. yd.)
Bucket Weight with Bolt-On Cutting Edge	1735 kg (3,826 lb.)	1736 kg (3,827 lb.)
Bucket Width	3.04 m (10 ft. 0 in.)	3.04 m (10 ft. 0 in.)
Breakout Force	15 378 kg (33,903 lb.)	13 782 kg (30,384 lb.)
Tipping Load, Straight, No Tire Deflection	14 771 kg (32,565 lb.)	12 249 kg (27,004 lb.)
Tipping Load, Straight, with Tire Deflection	13 923 kg (30,695 lb.)	11 628 kg (25,635 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	12 798 kg (28,214 lb.)	10 546 kg (23,250 lb.)
Tipping Load, 40-deg. Full Turn, with Tire Deflection	11 739 kg (25,880 lb.)	9750 kg (21,495 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, No Tire Deflection (conforms to ISO 14397-1)*	6398 kg (14,107 lb.)	6124 kg (13,502 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, with Tire Deflection (conforms to ISO 14397-1)*	5870 kg (12,941 lb.)	4875 kg (10,747 lb.)
Operating Weight	18 682 kg (41,188 lb.)	19 091 kg (42,088 lb.)

*Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSS 6090 (EPA Final Tier 4/EU Stage IV) engine, ROPS cab, rear cast bumper/counter-weight, 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.*

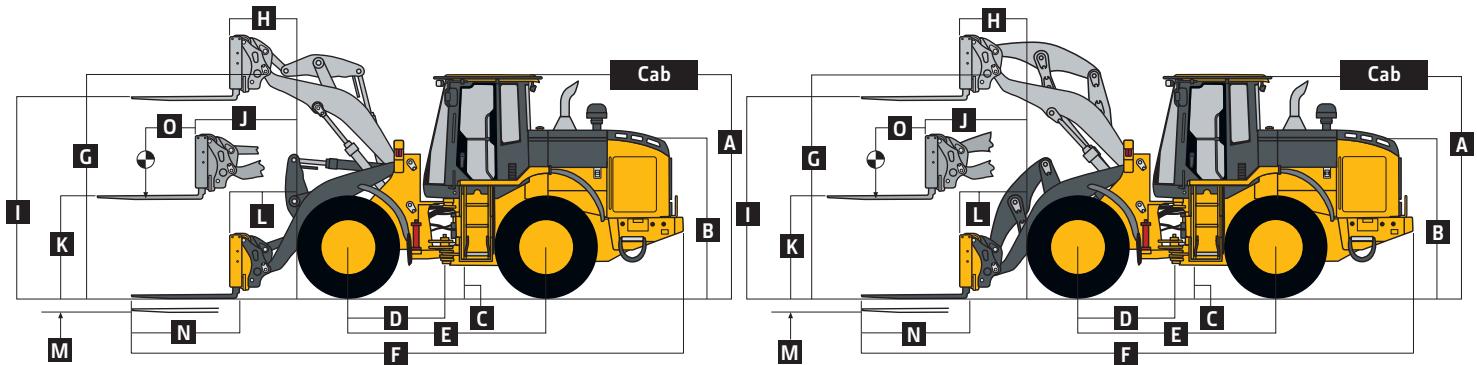
\*Rated operating capacity based on Deere attachments only.

644K Z-BAR AND HIGH-LIFT LOADERS WITH QUICK-COUPLER  
AND HOOK-ON BUCKET644K POWERLLE LOADER WITH QUICK-COUPLER  
AND HOOK-ON BUCKET

	Z-Bar	High-Lift	Powerlle
<b>Dimensions with Bucket</b>	<i>3.1-m<sup>3</sup> (4.0 cu. yd.) general-purpose with bolt-on edge</i>	<i>3.1-m<sup>3</sup> (4.0 cu. yd.) general-purpose with bolt-on edge</i>	<i>3.1-m<sup>3</sup> (4.0 cu. yd.) general-purpose with bolt-on edge</i>
A Height to Top of Cab	3.43 m (11 ft. 3 in.)	3.43 m (11 ft. 3 in.)	3.43 m (11 ft. 3 in.)
B Hood Height	2.53 m (8 ft. 4 in.)	2.53 m (8 ft. 4 in.)	2.53 m (8 ft. 4 in.)
C Ground Clearance	461 mm (18.1 in.)	461 mm (18.1 in.)	461 mm (18.1 in.)
D Length from Centerline to Front Axle	1.60 m (5 ft. 3 in.)	1.60 m (5 ft. 3 in.)	1.60 m (5 ft. 3 in.)
E Wheelbase	3.26 m (10 ft. 8 in.)	3.26 m (10 ft. 8 in.)	3.26 m (10 ft. 8 in.)
F Overall Length, Bucket on Ground	8.27 m (27 ft. 2 in.)	8.74 m (28 ft. 8 in.)	8.50 m (27 ft. 11 in.)
G Height to Hinge Pin, Fully Raised	4.12 m (13 ft. 6 in.)	4.54 m (14 ft. 11 in.)	4.12 m (13 ft. 6 in.)
H Dump Clearance, 45 deg., Full Height	2.79 m (9 ft. 2 in.)	3.11 m (10 ft. 2 in.)	2.79 m (9 ft. 2 in.)
I Reach, 45-deg. Dump, Full Height	1.16 m (3 ft. 10 in.)	1.28 m (4 ft. 2 in.)	1.20 m (3 ft. 11 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.64 m (5 ft. 5 in.)	2.10 m (6 ft. 11 in.)	1.74 m (5 ft. 9 in.)
K Maximum Digging Depth	139 mm (5.0 in.)	226 mm (9.0 in.)	91 mm (3.6 in.)
L Maximum Rollback at Ground Level	42 deg.	42 deg.	41 deg.
M Maximum Rollback, Boom Fully Raised	55 deg.	47 deg.	55 deg.
N Maximum Bucket Dump Angle, Fully Raised	45 deg.	45 deg.	50 deg.
Loader Clearance Circle, Bucket Carry Position	13.28 m (43 ft. 7 in.)	13.72 m (45 ft. 0 in.)	13.36 m (43 ft. 10 in.)
<b>Specifications with Bucket</b>			
Capacity, Heaped	3.1 m <sup>3</sup> (4.0 cu. yd.)	3.1 m <sup>3</sup> (4.0 cu. yd.)	3.1 m <sup>3</sup> (4.0 cu. yd.)
Capacity, Struck	2.7 m <sup>3</sup> (3.6 cu. yd.)	2.7 m <sup>3</sup> (3.6 cu. yd.)	2.6 m <sup>3</sup> (3.5 cu. yd.)
Bucket Weight with Bolt-On Cutting Edge	2124 kg (4,682 lb.)	2124 kg (4,682 lb.)	2085 kg (4,597 lb.)
Bucket Width	3.00 m (9 ft. 10 in.)	3.00 m (9 ft. 10 in.)	3.04 m (10 ft. 0 in.)
Breakout Force	13 664 kg (30,124 lb.)	12 242 kg (26,989 lb.)	12 029 kg (26,519 lb.)
Tipping Load, Straight, No Tire Deflection	13 401 kg (29,543 lb.)	11 155 kg (24,593 lb.)	12 923 kg (28,489 lb.)
Tipping Load, Straight, with Tire Deflection	12 645 kg (27,877 lb.)	10 593 kg (23,353 lb.)	12 216 kg (26,932 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	11 556 kg (25,476 lb.)	9549 kg (21,051 lb.)	11 123 kg (24,523 lb.)
Tipping Load, 40-deg. Full Turn, with Tire Deflection	10 605 kg (23,380 lb.)	8814 kg (19,431 lb.)	10 227 kg (22,547 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, No Tire Deflection (conforms to ISO 14397-1)*	5778 kg (12,738 lb.)	4774 kg (10,525 lb.)	5562 kg (12,261 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, with Tire Deflection (conforms to ISO 14397-1)*	5303 kg (11,691 lb.)	4407 kg (9,716 lb.)	5114 kg (11,274 lb.)
Operating Weight	19 074 kg (42,050 lb.)	19 482 kg (42,951 lb.)	20 269 kg (44,685 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSS 6090 (EPA Final Tier 4/EU Stage IV) 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.

644K Z-BAR AND HIGH-LIFT LOADERS WITH QUICK-COUPLER  
AND HOOK-ON CONSTRUCTION FORKS644K POWERLLEL LOADER WITH QUICK-COUPLER  
AND HOOK-ON CONSTRUCTION FORKS

	Z-Bar	Z-Bar	High-Lift	High-Lift	Powerllef	Powerllef	Powerllef Rockland Logging
<b>Dimensions with Forks</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	1.52-m (60 in.) tine length	1.83-m (72 in.) tine length	1.52-m (60 in.) tine length
A Height to Top of Cab	3.43 m (11 ft. 3 in.)						
B Hood Height	2.53 m (8 ft. 4 in.)						
C Ground Clearance	461 mm (18.1 in.)						
D Length from Centerline to Front Axle	1.60 m (5 ft. 3 in.)	1.45 m (4 ft. 9 in.)	1.60 m (5 ft. 3 in.)	1.45 m (4 ft. 9 in.)	1.60 m (5 ft. 3 in.)	1.45 m (4 ft. 9 in.)	1.45 m (4 ft. 9 in.)
E Wheelbase	3.26 m (10 ft. 8 in.)	2.93 m (9 ft. 7 in.)	3.26 m (10 ft. 8 in.)	2.93 m (9 ft. 7 in.)	3.26 m (10 ft. 8 in.)	2.93 m (9 ft. 7 in.)	2.93 m (9 ft. 7 in.)
F Overall Length, Forks on Ground	8.81 m (28 ft. 11 in.)	9.11 m (29 ft. 11 in.)	9.28 m (30 ft. 5.4 in.)	9.58 m (31 ft. 5 in.)	9.04 m (29 ft. 8 in.)	9.34 m (30 ft. 8 in.)	9.13 m (29 ft. 11 in.)
G Height to Hinge Pin, Fully Raised	4.12 m (13 ft. 6 in.)	4.12 m (13 ft. 6 in.)	4.54 m (14 ft. 11 in.)	4.54 m (14 ft. 11 in.)	4.12 m (13 ft. 6 in.)	4.12 m (13 ft. 6 in.)	4.12 m (13 ft. 6 in.)
H Reach, Fully Raised	788 mm (31.0 in.)	788 mm (31.0 in.)	905 mm (35.6 in.)	905 mm (35.6 in.)	819 mm (32.2 in.)	819 mm (32.2 in.)	932 mm (37.0 in.)
I Fork Height, Fully Raised	3.89 m (12 ft. 9 in.)	3.89 m (12 ft. 9 in.)	4.22 m (13 ft. 10.1 in.)	4.22 m (13 ft. 10.1 in.)	3.79 m (12 ft. 5 in.)	3.79 m (12 ft. 5 in.)	3.83 m (12 ft. 7 in.)
J Maximum Reach, Fork Level	1.68 m (5 ft. 6 in.)	1.68 m (5 ft. 6 in.)	2.07 m (6 ft. 9.5 in.)	2.07 m (6 ft. 9.5 in.)	1.76 m (5 ft. 9 in.)	1.76 m (5 ft. 9 in.)	1.87 m (6 ft. 2 in.)
K Fork Height, Maximum Reach	1.71 m (5 ft. 7 in.)	1.71 m (5 ft. 7 in.)	1.86 m (6 ft. 1.2 in.)	1.86 m (6 ft. 1.2 in.)	1.71 m (5 ft. 7 in.)	1.71 m (5 ft. 7 in.)	1.76 m (5 ft. 9 in.)
L Reach, Ground Level	1.17 m (3 ft. 10 in.)	1.17 m (3 ft. 10 in.)	1.64 m (5 ft. 4.6 in.)	1.64 m (5 ft. 4.6 in.)	1.22 m (4 ft. 0 in.)	1.22 m (4 ft. 0 in.)	1.31 m (4 ft. 4 in.)
M Depth Below Ground	89 mm (4.0 in.)	89 mm (4.0 in.)	181 mm (7.1 in.)	181 mm (7.1 in.)	38 mm (1.5 in.)	38 mm (1.5 in.)	0 mm (0 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.)
O Load Position, 50% Tine Length	0.76 m (30 in.)	0.92 m (36 in.)	0.76 m (30 in.)	0.92 m (36 in.)	0.76 m (30 in.)	0.92 m (36 in.)	0.76 m (30 in.)
<b>Specifications with Forks</b>							
Tipping Load, Straight, No Tire Deflection	9883 kg (21,789 lb.)	9373 kg (20,663 lb.)	8791 kg (19,381 lb.)	8369 kg (18,449 lb.)	9892 kg (21,807 lb.)	9388 kg (20,697 lb.)	9632 kg (21,235 lb.)
Tipping Load, Straight, with Tire Deflection	9621 kg (21,211 lb.)	9123 kg (20,113 lb.)	8571 kg (18,896 lb.)	8166 kg (18,003 lb.)	9579 kg (21,118 lb.)	9090 kg (20,040 lb.)	9234 kg (20,357 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	8562 kg (18,876 lb.)	8110 kg (17,880 lb.)	7571 kg (16,691 lb.)	7198 kg (15,868 lb.)	8557 kg (18,866 lb.)	8112 kg (17,884 lb.)	8209 kg (18,097 lb.)
Tipping Load, 40-deg. Full Turn, with Tire Deflection	8208 kg (18,095 lb.)	7773 kg (17,136 lb.)	7266 kg (16,019 lb.)	6912 kg (15,238 lb.)	8145 kg (17,957 lb.)	7725 kg (17,031 lb.)	7674 kg (16,918 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, with Tire Deflection (conforms to ISO 14397-1 and SAE J1197)*	4104 kg (9,048 lb.)	3887 kg (8,569 lb.)	3633 kg (8,009 lb.)	3456 kg (7,619 lb.)	4073 kg (8,979 lb.)	3863 kg (8,516 lb.)	3837 kg (8,459 lb.)
Rated Operating Load, Rough Terrain, 60% Full-Turn Tipping Load, with Tire Deflection (conforms to EN474-3)*	4925 kg (10,858 lb.)	4664 kg (10,282 lb.)	4360 kg (9,612 lb.)	4147 kg (9,143 lb.)	4887 kg (10,774 lb.)	4635 kg (10,218 lb.)	4604 kg (10,150 lb.)
Rated Operating Load, Firm and Level Ground, 80% Full-Turn Tipping Load, with Tire Deflection (conforms to EN474-3)*	6567 kg (14,476 lb.)	6219 kg (13,710 lb.)	5813 kg (12,815 lb.)	5530 kg (12,192 lb.)	6516 kg (14,365 lb.)	6180 kg (13,626 lb.)	6139 kg (13,534 lb.)
Operating Weight	18 603 kg (41,012 lb.)	18 663 kg (41,144 lb.)	19 012 kg (41,914 lb.)	19 072 kg (42,046 lb.)	19 796 kg (43,643 lb.)	19 856 kg (43,775 lb.)	21 469 kg (47,330 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSS 6090 (EPA Final Tier 4/EU Stage IV) 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**

**644K Z-BAR / HIGH-LIFT / POWERLLEL**

Adjustments to operating weights, tipping loads, and tires are based on Z-Bar machine with pin-on 3.1-m<sup>3</sup> (4.0 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\*

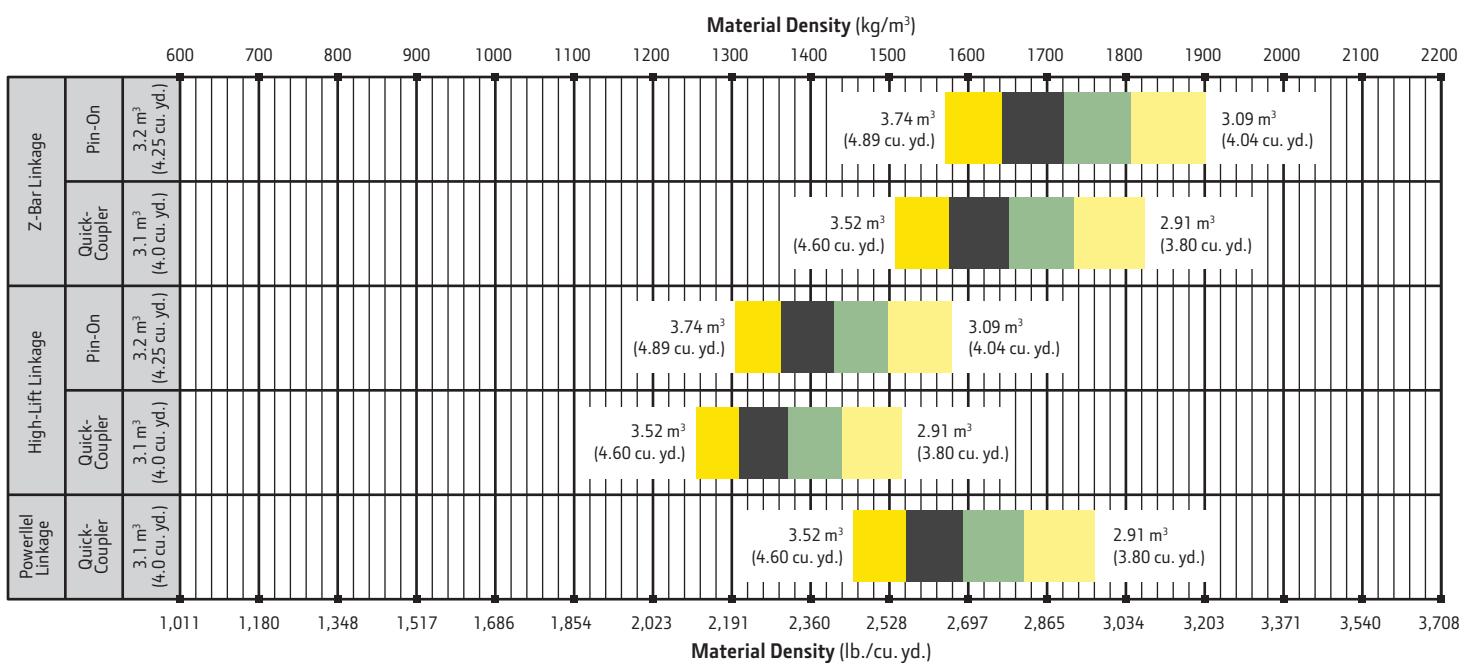
Add (+) or deduct (-) kg (lb.) as indicated for loaders with 3-piece rims	<i>Operating Weight</i>	<i>Tipping Load, Straight</i>	<i>Tipping Load, 40-deg. Full Turn SAE</i>	<i>Tread Width</i>	<i>Width Over Tires</i>	<i>Vertical Height</i>
John Deere PowerTech PSS 6090	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	N/A	N/A	N/A
John Deere PowerTech Plus 6068H	-98 kg (-215 lb.)	+338 kg (+745 lb.)	+242 kg (+534 lb.)	N/A	N/A	N/A
John Deere PowerTech 6068H	-124 kg (-273 lb.)	+293 kg (+646 lb.)	+203 kg (+448 lb.)	N/A	N/A	N/A
John Deere PowerTech PSX 6068 Z-Bar	-341 kg (-753 lb.)	-682 kg (-1,504 lb.)	-554 kg (-1,222 lb.)	N/A	N/A	N/A
John Deere PowerTech PSX 6068 High Lift/Powerllef	+8 kg (+18 lb.)	+14 kg (+30 lb.)	+35 kg (+78 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	+116 kg (+256 lb.)	+86 kg (+190 lb.)	+76 kg (+167 lb.)	0 mm (0 in.)	-28 mm (-1.1 in.)	+17 mm (+0.7 in.)
Titan 23.5 R 25, 20 PR L-3	-156 kg (-343 lb.)	-115 kg (-255 lb.)	-102 kg (-224 lb.)	0 mm (0 in.)	+27 mm (+1.1 in.)	0 mm (0 in.)
Titan 725/70-25 16-Ply L-4T (Logger Style) <sup>†§®</sup>	+266 kg (+587 lb.)	+208 kg (+459 lb.)	+183 kg (+404 lb.)	+37 mm (+1.5 in.)	+95 mm (+3.7 in.)	+49 mm (+1.9 in.)
Michelin 750/65 R 25, 1 Star L-3T <sup>†§®</sup>	+622 kg (+1,371 lb.)	+472 kg (+1,041 lb.)	+416 kg (+917 lb.)	+37 mm (+1.5 in.)	+158 mm (+6.2 in.)	+12 mm (+0.5 in.)

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

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

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

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



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		
Granite, broken	1538	2,592	(1.5 to 3.5") size	1442	2,430
Gypsum	2275	3,834	Stone or gravel, 18.75-mm (3/4") size	1602	2,700

# 724K

724K Z-BAR / HIGH-LIFT			
<b>Engine</b>			
Manufacturer and Model	John Deere PowerTech™ PSX 6090	John Deere PowerTech™ Plus 6090H	John Deere PowerTech™ 6090H
Non-Road Emission Standard	EPA Final Tier 4/EU Stage IV	EPA Tier 3/EU Stage IIIA	EPA Tier 2/EU Stage II
Cylinders	6	6	6
Valves Per Cylinder	4	4	4
Displacement	9.0 L (548 cu. in.)	9.0 L (548 cu. in.)	9.0 L (548 cu. in.)
Net Peak Power (ISO 9249)	197 kW (264 hp) at 1,800 rpm	197 kW (264 hp) at 1,800 rpm	197 kW (264 hp) at 1,800 rpm
Net Peak Torque (ISO 9249)	1161 Nm (856 lb.-ft.) at 1,300 rpm	1159 Nm (852 lb.-ft.) at 1,300 rpm	1159 Nm (852 lb.-ft.) at 1,300 rpm
Net Torque Rise	61%	60%	60%
Fuel System (electronically controlled)	High-pressure common rail	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	Full-flow spin-on filter and integral cooler
Aspiration	Series turbocharged, charge air cooled	Turbocharged, charge air cooled	Turbocharged, charge air cooled
Air Cleaner	Under-hood, dual-element dry type, restriction indicator in cab monitor for service		
Fan Drive	Hydraulically driven, proportionally controlled, fan aft of coolers	Hydraulically driven, proportionally controlled, fan aft of coolers	Hydraulically driven, proportionally controlled, fan aft of coolers
Electrical System	24 volt with 130-amp alternator	24 volt with 100-amp alternator	24 volt with 100-amp alternator
Batteries (2 – 12 volt)	950 CCA (each)	1,400 CCA (each)	1,400 CCA (each)
<b>Transmission System</b>			
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 adaptive clutch cutoff		
Maximum Travel Speeds (with 23.5 R 25, 1 Star L3 tires)		Standard 5-Speed with Lockup Torque Converter	Optional 4-Speed
Forward		Forward	Reverse
Range 1	7.5 km/h (4.7 mph)	7.9 km/h (4.9 mph)	7.2 km/h (4.5 mph)
Range 2	13.4 km/h (8.3 mph)	13.0 km/h (8.1 mph)	11.9 km/h (7.4 mph)
Range 3	22.6 km/h (14.0 mph)	28.8 km/h (17.9 mph)	23.1 km/h (14.4 mph)
Range 4	27.4 km/h (17.0 mph)	N/A	35.6 km/h (22.1 mph)
Range 5	40.0 km/h (24.9 mph)	N/A	N/A
<b>Axles/Brakes</b>			
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, 1 Star L3 tires)	26 deg. (13 deg. each direction)		
Service Brakes (conform to ISO 3450)	Hydraulically actuated, spring-retracted, self-adjusting, inboard sun-shaft mounted, oil-cooled, single disc		
Parking Brakes (conform to ISO 3450)	Automatic spring-applied, hydraulically released, oil-cooled, multi disc		
<b>Tires/Wheels (see page 28 for complete tire adjustments)</b>			
Michelin 23.5 R 25, 1 Star L-3		Tread Width	Width Over Tires
		2170 mm (85.4 in.)	2880 mm (113.4 in.)
<b>Serviceability</b>			
Refill Capacities	EPA FT4/EU Stage IV	EPA Tier 3/EU Stage IIIA	EPA Tier 2/EU Stage II
Fuel Tank with Lockable Cap	397 L (105 gal.)	352 L (93 gal.)	352 L (93 gal.)
Diesel Exhaust Fluid (DEF)	32 L (34 qt.)	N/A	N/A
Cooling System	45.5 L (48.1 qt.)	33.8 L (35.7 qt.)	33.8 L (35.7 qt.)
Engine Oil with Vertical Spin-On Filter	28 L (29.5 qt.)	29.6 L (28 qt.)	29.6 L (28 qt.)
Transmission Reservoir with Vertical Filter	24 L (25 qt.)	24 L (25 qt.)	24 L (25 qt.)
Axle Oil (front and rear, each)	22 L (23 qt.)	22 L (23 qt.)	22 L (23 qt.)
Hydraulic Reservoir and Filter	105.2 L (27.8 gal.)	110 L (29 gal.)	110 L (29 gal.)
Park Brake Oil (wet disc)	0.6 L (20 oz.)	0.6 L (20 oz.)	0.6 L (20 oz.)
<b>Hydraulic System/Steering</b>			
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	297 L/m (78 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)		



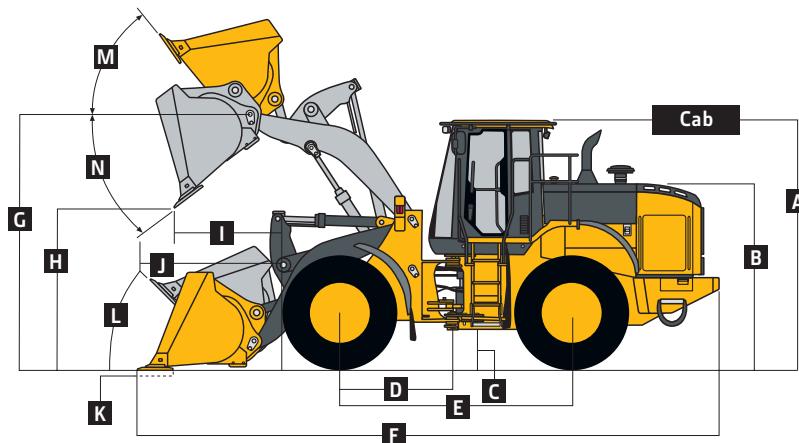
#### Hydraulic System/Steering (continued)

Turning Radius (measured to centerline of outside tire) 5.64 m (18 ft. 6 in.)

#### Hydraulic Cycle Times

	Z-Bar	High-Lift
Raise	6.4 sec.	6.4 sec.
Dump	1.4 sec.	1.6 sec.
Lower (float down)	3.0 sec.	3.0 sec.
Total	10.8 sec.	11.0 sec.

#### Dimensions and Specifications with Pin-On Bucket

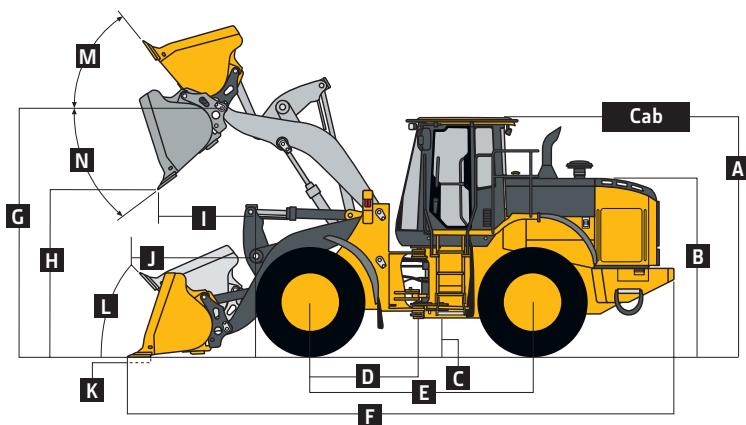


724K Z-BAR AND HIGH-LIFT LOADERS WITH PIN-ON BUCKET

Dimensions with Bucket	Z-Bar	Z-Bar	High-Lift	High-Lift
A Height to Top of Cab	3.2-m <sup>3</sup> (4.25 cu. yd.) general-purpose with bolt-on edge	3.6-m <sup>3</sup> (4.75 cu. yd.) general-purpose with bolt-on edge	3.2-m <sup>3</sup> (4.25 cu. yd.) general-purpose with bolt-on edge	3.6-m <sup>3</sup> (4.75 cu. yd.) general-purpose with bolt-on edge
B Hood Height	3.43 m (11 ft. 3 in.)			
C Ground Clearance	2.53 m (8 ft. 4 in.)			
D Length from Centerline to Front Axle	461 mm (18.1 in.)			
E Wheelbase	1.60 m (5 ft. 3 in.)			
F Overall Length, Bucket on Ground	3.26 m (10 ft. 8 in.)			
G Height to Hinge Pin, Fully Raised	8.20 m (26 ft. 11 in.)	8.31 m (27 ft. 3 in.)	8.67 m (28 ft. 5 in.)	8.78 m (28 ft. 10 in.)
H Dump Clearance, 45 deg., Full Height	4.12 m (13 ft. 6 in.)	4.12 m (13 ft. 6 in.)	4.54 m (14 ft. 11 in.)	4.54 m (14 ft. 11 in.)
I Reach, 45-deg. Dump, Full Height	2.91 m (9 ft. 7 in.)	2.84 m (9 ft. 4 in.)	3.33 m (10 ft. 11 in.)	3.26 m (10 ft. 8 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.06 m (3 ft. 6 in.)	1.13 m (3 ft. 9 in.)	1.19 m (3 ft. 11 in.)	1.25 m (4 ft. 1 in.)
K Maximum Digging Depth	1.61 m (5 ft. 3 in.)	1.67 m (5 ft. 6 in.)	2.06 m (6 ft. 9 in.)	2.12 m (6 ft. 11 in.)
L Maximum Rollback at Ground Level	123 mm (5.0 in.)	123 mm (5.0 in.)	216 mm (8.5 in.)	216 mm (8.5 in.)
M Maximum Rollback, Boom Fully Raised	41 deg.	41 deg.	42 deg.	42 deg.
N Maximum Bucket Dump Angle, Fully Raised	55 deg.	55 deg.	47 deg.	47 deg.
Loader Clearance Circle, Bucket Carry Position	50 deg.	50 deg.	45 deg.	45 deg.
Capacity, Heaped	13.19 m (43 ft. 3 in.)	13.25 m (43 ft. 6 in.)	13.62 m (44 ft. 8 in.)	13.68 m (44 ft. 11 in.)
Specifications with Bucket				
Capacity, Struck	3.2 m <sup>3</sup> (4.25 cu. yd.)	3.6 m <sup>3</sup> (4.75 cu. yd.)	3.2 m <sup>3</sup> (4.25 cu. yd.)	3.6 m <sup>3</sup> (4.75 cu. yd.)
Bucket Weight with Bolt-On Cutting Edge	3.0 m <sup>3</sup> (3.5 cu. yd.)	3.2 m <sup>3</sup> (4.2 cu. yd.)	2.8 m <sup>3</sup> (3.7 cu. yd.)	3.2 m <sup>3</sup> (4.2 cu. yd.)
Bucket Width	1736 kg (3,827 lb.)	1822 kg (4,016 lb.)	1736 kg (3,827 lb.)	1822 kg (4,017 lb.)
Breakout Force	3.04 m (10 ft. 0 in.)			
Tipping Load, Straight, No Tire Deflection	15 607 kg (34,408 lb.)	14 398 kg (31,742 lb.)	13 884 kg (30,610 lb.)	12 968 kg (28,590 lb.)
Tipping Load, Straight, with Tire Deflection	16 508 kg (36,396 lb.)	16 236 kg (35,794 lb.)	13 332 kg (29,393 lb.)	13 101 kg (28,883 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	15 534 kg (34,247 lb.)	15 267 kg (33,658 lb.)	12 645 kg (27,877 lb.)	12 420 kg (27,381 lb.)
Tipping Load, 40-deg. Full Turn, with Tire Deflection	14 266 kg (31,451 lb.)	14 015 kg (30,899 lb.)	11 466 kg (25,278 lb.)	11 252 kg (24,806 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, No Tire Deflection (conforms to ISO 14397-1)*	13 047 kg (28,764 lb.)	12 801 kg (28,221 lb.)	10 578 kg (23,320 lb.)	10 371 kg (22,864 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, with Tire Deflection (conforms to ISO 14397-1)*	7133 kg (15,726 lb.)	7008 kg (15,449 lb.)	5733 kg (12,639 lb.)	5626 kg (12,403 lb.)
Operating Weight	6524 kg (14,383 lb.)	6401 kg (14,111 lb.)	5289 kg (11,660 lb.)	5186 kg (11,433 lb.)
	19 419 kg (42,812 lb.)	19 512 kg (43,016 lb.)	19 646 kg (43,311 lb.)	19 739 kg (43,516 lb.)

*Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSX 6090 (EPA Final Tier 4/EU Stage IV) 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.

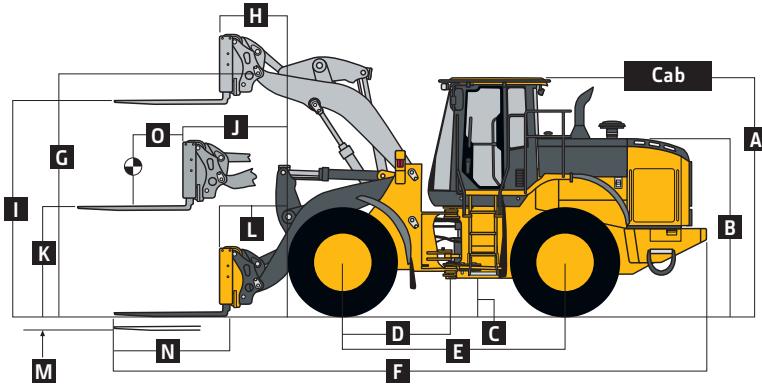


724K Z-BAR AND HIGH-LIFT LOADERS WITH QUICK-COUPLER AND HOOK-ON BUCKET

Dimensions with Bucket		Z-Bar	High-Lift
A Height to Top of Cab		3.1-m <sup>3</sup> (4.0 cu. yd.) general-purpose with bolt-on edge	3.1-m <sup>3</sup> (4.0 cu. yd.) general-purpose with bolt-on edge
B Hood Height		3.43 m (11 ft. 3 in.)	3.43 m (11 ft. 3 in.)
C Ground Clearance		2.53 m (8 ft. 4 in.)	2.53 m (8 ft. 4 in.)
D Length from Centerline to Front Axle		461 mm (18.1 in.)	461 mm (18.1 in.)
E Wheelbase		1.60 m (5 ft. 3 in.)	1.60 m (5 ft. 3 in.)
F Overall Length, Bucket on Ground		3.26 m (10 ft. 8 in.)	3.26 m (10 ft. 8 in.)
G Height to Hinge Pin, Fully Raised		8.20 m (26 ft. 11 in.)	8.74 m (28 ft. 8 in.)
H Dump Clearance, 45 deg., Full Height		4.12 m (13 ft. 6 in.)	4.54 m (14 ft. 11 in.)
I Reach, 45-deg. Dump, Full Height		2.88 m (9 ft. 6 in.)	3.11 m (10 ft. 2 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance		1.15 m (3 ft. 9 in.)	1.28 m (4 ft. 2 in.)
K Maximum Digging Depth		1.72 m (5 ft. 8 in.)	2.10 m (6 ft. 11 in.)
L Maximum Rollback at Ground Level		123 mm (5.0 in.)	216 mm (8.5 in.)
M Maximum Rollback, Boom Fully Raised		41 deg.	42 deg.
N Maximum Bucket Dump Angle, Fully Raised		55 deg.	47 deg.
Loader Clearance Circle, Bucket Carry Position		50 deg.	45 deg.
Loader Clearance Circle, Bucket Carry Position		12.93 m (42 ft. 5 in.)	13.72 m (45 ft. 0 in.)
Specifications with Bucket			
Capacity, Heaped		3.1 m <sup>3</sup> (4.0 cu. yd.)	3.1 m <sup>3</sup> (4.0 cu. yd.)
Capacity, Struck		2.4 m <sup>3</sup> (3.2 cu. yd.)	2.4 m <sup>3</sup> (3.2 cu. yd.)
Bucket Weight with Bolt-On		1764 kg (3,890 lb.)	1764 kg (3,890 lb.)
Cutting Edge			
Bucket Width		2.90 m (9 ft. 6 in.)	2.90 m (9 ft. 6 in.)
Breakout Force		14 524 kg (32,019 lb.)	12 404 kg (27,346 lb.)
Tipping Load, Straight, No Tire Deflection		15 025 kg (33,125 lb.)	12 178 kg (26,848 lb.)
Tipping Load, Straight, with Tire Deflection		14 157 kg (31,211 lb.)	11 553 kg (25,470 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection		12 929 kg (28,503 lb.)	10 416 kg (22,964 lb.)
Tipping Load, 40-deg. Full Turn, with Tire Deflection		11 829 kg (26,078 lb.)	9603 kg (21,171 lb.)
Rated Operating Load, 50% Full-Turn		6464 kg (14,251 lb.)	5208 kg (11,482 lb.)
Tipping Load, No Tire Deflection (conforms to ISO 14397-1)*			
Rated Operating Load, 50% Full-Turn		5915 kg (13,040 lb.)	4802 kg (10,586 lb.)
Tipping Load, with Tire Deflection (conforms to ISO 14397-1)*			
Operating Weight		19 810 kg (43,674 lb.)	20 037 kg (44,173 lb.)

*Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSX 6090 (EPA Final Tier 4/EU Stage IV) 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.



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

	Z-Bar	Z-Bar	High-Lift	High-Lift
<b>Dimensions with Forks</b>				
A Height to Top of Cab	1.52-m (60 in.) tine length 3.43 m (11 ft. 3 in.)	1.83-m (72 in.) tine length 3.43 m (11 ft. 3 in.)	1.52-m (60 in.) tine length 3.43 m (11 ft. 3 in.)	1.83-m (72 in.) tine length 3.43 m (11 ft. 3 in.)
B Hood Height	2.53 m (8 ft. 4 in.)			
C Ground Clearance	461 mm (18.1 in.)			
D Length from Centerline to Front Axle	1.60 m (5 ft. 3 in.)			
E Wheelbase	3.26 m (10 ft. 8 in.)			
F Overall Length, Forks on Ground	8.89 m (29 ft. 2 in.)	9.19 m (30 ft. 2 in.)	9.35 m (30 ft. 8 in.)	9.65 m (31 ft. 8 in.)
G Height to Hinge Pin, Fully Raised	4.12 m (13 ft. 6 in.)	4.12 m (13 ft. 6 in.)	4.54 m (14 ft. 11 in.)	4.54 m (14 ft. 11 in.)
H Reach, Fully Raised	788 mm (31.0 in.)	788 mm (31.0 in.)	905 mm (35.6 in.)	905 mm (35.6 in.)
I Fork Height, Fully Raised	3.89 m (12 ft. 9.0 in.)	3.89 m (12 ft. 9.0 in.)	4.22 m (13 ft. 10.1 in.)	4.22 m (13 ft. 10.1 in.)
J Maximum Reach, Fork Level	1.68 m (5 ft. 6.0 in.)	1.68 m (5 ft. 6.0 in.)	2.07 m (6 ft. 9.5 in.)	2.07 m (6 ft. 9.5 in.)
K Fork Height, Maximum Reach	1.71 m (5 ft. 7.0 in.)	1.71 m (5 ft. 7.0 in.)	1.86 m (6 ft. 1.2 in.)	1.86 m (6 ft. 1.2 in.)
L Reach, Ground Level	1.17 m (3 ft. 10.0 in.)	1.17 m (3 ft. 10.0 in.)	1.64 m (5 ft. 4.6 in.)	1.64 m (5 ft. 4.6 in.)
M Depth Below Ground	89 mm (4.0 in.)	89 mm (4.0 in.)	181 mm (7.1 in.)	181 mm (7.1 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	0.76 m (30 in.)	0.92 m (36 in.)	0.76 m (30 in.)	0.92 m (36 in.)
<b>Specifications with Forks</b>				
Tipping Load, Straight, No Tire Deflection	11 082 kg (24,432 lb.)	10 518 kg (23,188 lb.)	9598 kg (21,160 lb.)	9143 kg (20,156 lb.)
Tipping Load, Straight, with Tire Deflection	10 770 kg (23,744 lb.)	10 227 kg (22,547 lb.)	9342 kg (20,596 lb.)	8904 kg (19,630 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	9576 kg (21,112 lb.)	9080 kg (20,017 lb.)	8256 kg (18,202 lb.)	7855 kg (17,317 lb.)
Tipping Load, 40-deg. Full Turn, with Tire Deflection	9162 kg (20,199 lb.)	9691 kg (21,365 lb.)	7911 kg (17,441 lb.)	7530 kg (16,601 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, with Tire Deflection (conforms to ISO 14397-1 and SAE J1197)*	4581 kg (10,099 lb.)	4846 kg (10,684 lb.)	3956 kg (8,721 lb.)	3765 kg (8,300 lb.)
Rated Operating Load, Rough Terrain, 60% Full-Turn Tipping Load, with Tire Deflection (conforms to EN474-3)*	5497 kg (12,119 lb.)	5815 kg (12,820 lb.)	4747 kg (10,465 lb.)	4518 kg (9,960 lb.)
Rated Operating Load, Firm and Level Ground, 80% Full-Turn Tipping Load, with Tire Deflection (conforms to EN474-3)*	7330 kg (16,160 lb.)	7753 kg (17,092 lb.)	6329 kg (13,953 lb.)	6024 kg (13,281 lb.)
Operating Weight	19 385 kg (42,738 lb.)	19 446 kg (42,870 lb.)	19 618 kg (43,250 lb.)	19 678 kg (43,383 lb.)

*Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSX 6090 (EPA Final Tier 4/EU Stage IV) 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**

**724K Z-BAR / HIGH-LIFT**

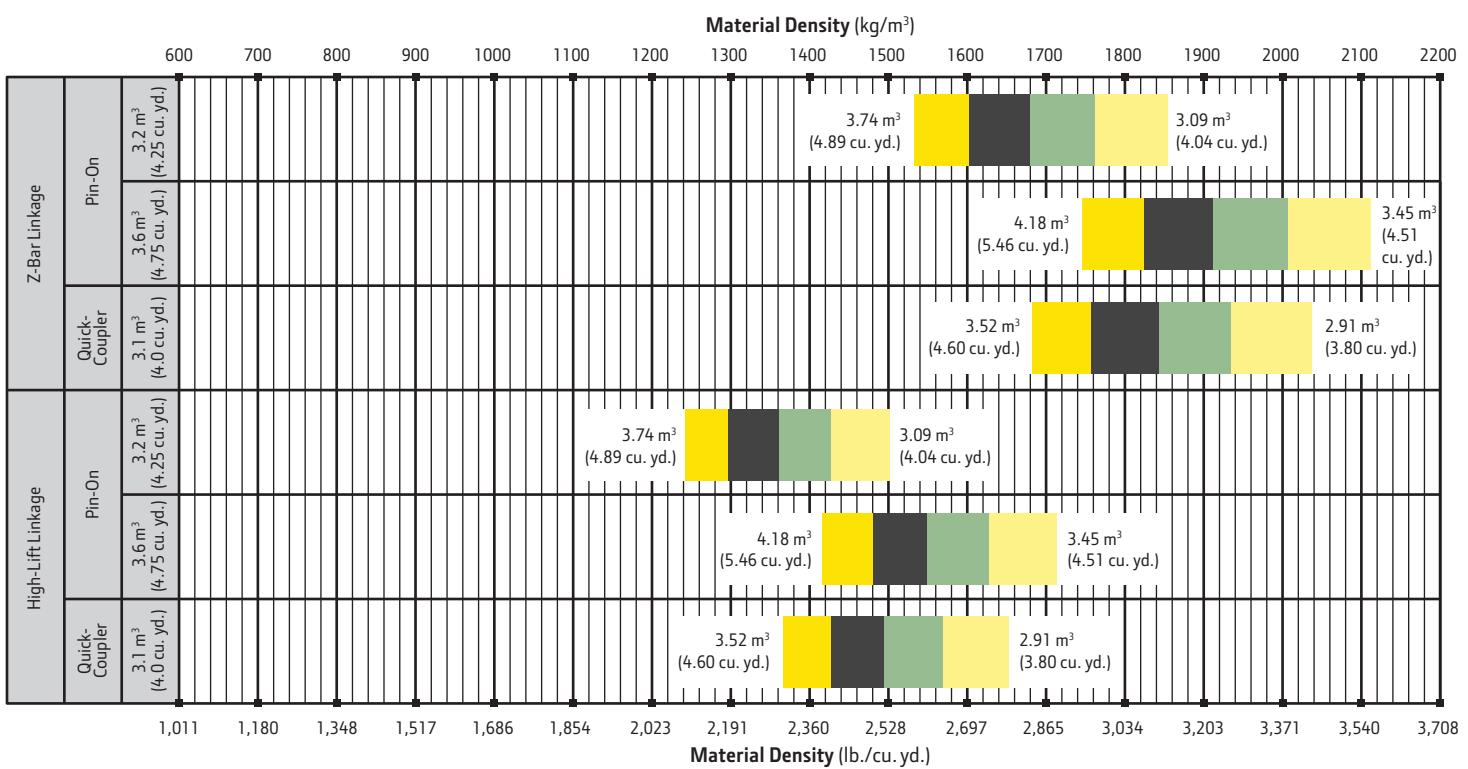
Adjustments to operating weights, tipping loads, and tires are based on Z-Bar machine with pin-on 3.6-m<sup>3</sup> (4.75 cu. yd.) general-purpose bucket with bolt-on cutting edge, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator.\*

Add (+) or deduct (-) kg (lb.) as indicated for loaders with 3-piece rims	<i>Operating Weight</i>	<i>Tipping Load, Straight</i>	<i>Tipping Load, 40-deg. Full Turn SAE</i>	<i>Tread Width</i>	<i>Width Over Tires</i>	<i>Vertical Height</i>
John Deere PowerTech PSX 6090	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	N/A	N/A	N/A
John Deere PowerTech Plus 6090H	-120 kg (-265 lb.)	+44 kg (+97 lb.)	+13 kg (+29 lb.)	N/A	N/A	N/A
John Deere PowerTech 6090H	-126 kg (-278 lb.)	+34 kg (+75 lb.)	+4 kg (+9 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	+116 kg (+256 lb.)	+86 kg (+190 lb.)	+76 kg (+167 lb.)	0 mm (0 in.)	-28 mm (-1.1 in.)	+17 mm (+0.7 in.)
Titan 23.5-25, 20 PR L-3	-156 kg (-343 lb.)	-115 kg (-255 lb.)	-102 kg (-224 lb.)	0 mm (0 in.)	+27 mm (+1.1 in.)	0 mm (0 in.)
Titan 725/70-25, 16-Ply L-4T (Logger Style) <sup>†</sup>	+266 kg (+587 lb.)	+208 kg (+459 lb.)	+183 kg (+404 lb.)	+37 mm (+1.5 in.)	+95 mm (+3.7 in.)	+49 mm (+1.9 in.)
Michelin 750/65 R 25, 1 Star L-3T <sup>‡</sup>	+622 kg (+1,371 lb.)	+472 kg (+1,041 lb.)	+416 kg (+917 lb.)	+37 mm (+1.5 in.)	+158 mm (+6.2 in.)	+12 mm (+0.5 in.)

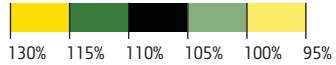
\*May change based on vehicle configuration, weight, or tire-pressure adjustments.

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

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



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 (3/4") size	1602	2,700
Gypsum	2275	3,834			

**Bucket Fill Factors**

# Additional equipment

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

## 644K 724K 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 protection
  - ● Automatic engine cool-down timer<sup>†</sup>
  - ● Automatic derating for exceeded system temperatures
  - ● Serpentine drive belt for automatic tensioner
  - Under-hood prescreened air intake<sup>§</sup>
  - ● Electrical fuel-priming pump<sup>#</sup>
  - ● 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])<sup>#</sup>
  - ▲ ▲ Engine-block heater (recommended for cold starts below –23 deg. C [–10 deg. F])<sup>#</sup>
  - ▲ ▲ Centrifugal engine air pre-cleaner
- ## Powertrain
- ● 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
  - ● 5-speed transmission with lockup torque converter
  - ▲ ▲ 4-speed transmission with non-lockup torque converter
  - ▲ Hybrid-electric transmission system
  - ● Front locking differential
  - ▲ ▲ Rear locking differential
  - ● Brake retractors and adjusters (not available with hybrid-electric transmission-system option)
  - ▲ ▲ Automatic differential lock
  - ● Axle oil temperature sensing
  - ▲ ● Wheel-spin control
- ## 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<sup>†</sup>
  - ● 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 (optional on units equipped with hybrid-electric transmission system)

## 644K 724K Hydraulics

- ● Automatic return-to-dig bucket positioner
- In-cab adjustable automatic return-to-dig bucket positioner (PowerLevel™ only)
- ● 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 — joystick with steering column F-N-R
- ▲ ● 2 function — 2-lever fingertip controls and steering column F-N-R
- ▲ ▲ 3 function — joystick with F-N-R and 3rd-function auxiliary lever
- ▲ ▲ 3 function — joystick with steering column F-N-R and 3rd-function auxiliary lever
- ▲ ▲ 3 function — 3-lever fingertip controls and steering column F-N-R
- ▲ ▲ 4 function — 4-lever fingertip controls and steering column F-N-R
- ● Ride control, automatic with monitor-adjustable speed settings
- ▲ ▲ Hydraulic control system for quick-coupler locking pins
- ▲ ▲ Hydru™ 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<sup>†</sup>
- ● Pre-wired for beacon/strobe light
- ● Lights: Halogen driving lights with guards (2) / Front (4) and rear (2) cab work lights / Incandescent front turn signals and flashers / LED stop- and taillights
- ▲ ▲ Heavy-duty front LED turn signal and marker lights
- ▲ ▲ Premium LED work, drive, and marker lights
- ● Programmable courtesy lights
- ● Horn, electric
- ● Reverse warning alarm
- ● Multi-function/multi-language 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<sup>†</sup>, speedometer, odometer, and average fuel consumption)
- ● Integrated cycle counter with 5 categories

\*Available only on 644K EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II engines, and 644K Hybrid EPA Interim Tier 4/EU Stage IIB engines.

<sup>†</sup>Available only with EPA Final Tier 4 (FT4)/EU Stage IV engines.

<sup>§</sup>Available only on 644K EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II engines.

<sup>#</sup>Available only on 644K and 724K EPA FT4/EU Stage IV engines, and 724K EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II engines.

# Additional equipment (continued)

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

## 644K 724K Electrical (continued)

- ● Indicator lights: Standard and selected options / Amber caution and red stop
  - ● Operator-warning messages
  - ● Built-in diagnostics: Diagnostic-code details / Sensor values / Calibrations / Individual circuit tester
  - ▲ ▲ Electrical corrosion-prevention package
  - ▲ ▲ AM/FM/Weather-Band (WB) radio with remote auxiliary port
  - ▲ ▲ Premium AM/FM/WB/XM Satellite Radio™ ready radio with Bluetooth®, remote auxiliary port, and remote USB port
  - ● 24- to 12-volt, 8-amp converter and power port
  - ▲ ▲ 24- to 12-volt, 15- or 30-amp converter and power port
- Operator's Station**
- ▲ Quiet Cab with heater (ROPS/FOPS Level 1, isolation mounted)
  - ● Quiet Cab with air conditioning/heater (ROPS/FOPS Level 1, isolation mounted)
  - ● Keyless start with multiple security modes
  - ● Sealed-switch module with function indicators
  - ● Seat with backrest extension, deep foam, fabric cover, and adjustable air suspension
  - ▲ Seat with backrest extension, deep foam, vinyl cover, and adjustable air suspension
  - ▲ ▲ Premium seat with high-wide back and headrest extension, heated, leather/fabric cover, and adjustable air suspension
  - ● Hydraulic controls integrated to seat
  - ● High-visibility, bright-orange seat belt, 76 mm (3 in.), with retractor
  - ● Cup holders (2)
  - ● Lunch-box/cooler holder
  - ● Dome and reading light (included with Quiet Cab)
  - ● Rubber floor mat
  - ● Tilt steering column
  - ● Operator's manual storage compartment
  - ● Outside (2) and inside (1) rearview mirrors
  - ▲ ▲ Large heated outside mirrors
  - ● Left-side operator-station access
  - ● Slip-resistant steps and ergonomic handholds
  - ● Sun visor (Quiet Cab only)
  - ● Radio ready (Quiet Cab only)
  - ● Front and rear intermittent windshield wiper and washers
  - ▲ ▲ Powered cab air pre-cleaner
  - ▲ ▲ Beacon bracket (single or dual available)
  - ▲ ▲ Rearview camera
  - ▲ ▲ Rearview camera and radar object-detection system
  - ● LOADRITE™ L2180™ Payload Scale Ready
  - ▲ ▲ LOADRITE L2180 Payload Scale
  - ▲ ▲ Embedded payload scale
  - ▲ ▲ Fire extinguisher
- Loader Linkage**
- ● Z-bar loader linkage
  - ▲ ▲ High-Lift Z-bar loader linkage
  - ▲ Powerllef linkage for visibility and parallel-lift

## 644K 724K Buckets and Attachments

- ▲ ▲ Full line of Deere pin-on buckets
  - ▲ ▲ Hi-Vis hydraulic coupler that accepts Euro-pattern attachments (Volvo)
  - ▲ ▲ Full line of Deere hook-on buckets and forks
  - ▲ ▲ Bolt-on fork frame guard
- Overall Vehicle**
- ● JDLink™ Ultimate wireless communication system (available in specific countries; see your dealer for details)
  - ● NeverGrease™ rear-axle oscillation
  - ● NeverGrease steering-cylinder joints
  - ● 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
  - Right and left platforms with handrails
  - Left-side service steps and handholds
  - ▲ ▲ Right-side service steps and handholds
  - ▲ Left-side close-mounted steps<sup>§</sup>
  - Storage compartment
  - Fuel-tank fill strainer
  - Heavy-duty fuel-tank guard
  - Ground-level fueling and DEF<sup>†</sup>
  - Same-side ground-level daily servicing
  - Environmental drains for engine, transmission, hydraulic oils, and engine coolant
  - ▲ ▲ Quick fluid service (engine, transmission, hydraulic oils, and engine coolant)
  - 23.5R25 tires on 3-piece rims
  - ▲ ▲ 23.5R25 tires on 5-piece rims
  - ▲ ▲ Waste handler (Z-bar and High-Lift)
  - Level 1 sound package
  - ▲ ▲ Level 2 sound package
  - ▲ ▲ Transmission side-frame and bottom guards
  - ▲ ▲ Fast-fuel system
  - Fenders, front
  - ▲ ● Fenders, full-coverage, front
  - ▲ ▲ Fenders, full-coverage, front and rear
  - ▲ ▲ Less wheels and tires with axle stops
  - ▲ ▲ Rims less tires
  - ▲ ▲ Lift eyes
  - ▲ ▲ License-plate bracket and light
  - ▲ Forestry-application package (Powerllef only)
  - ▲ ▲ Special guarding for waste and forestry applications
- <sup>†</sup>Available only with EPA Final Tier 4 (FT4)/EU Stage IV engines.
- <sup>§</sup>Available only on EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II engines.



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