

# 744K-II/824K-II/844K-II LOADERS

226–283 kW (303–380 hp)



**JOHN DEERE**



# Productivity inspired.

Serious productivity demands serious thinking. Many of the numerous advantages of the 744K-II, 824K-II, and 844K-II came from the brightest minds in the industry — our Customer Advocate Group. Armed with insights from loader owners and users like you, we equipped these productive material movers with larger new higher-capacity axles with standard axle cooling and filtration for heavy-duty maneuverability in the most demanding terrain. Self-adjusting wet-disc brakes for extended wear life and sure stops. Advanced onboard diagnostics with pushbutton customization of machine operation and response. All to help increase productivity and uptime, while lowering daily operating costs. Owners, operators, and maintenance personnel will benefit from the big ideas found in these loaders. To learn how, read on. Then talk to your John Deere dealer.

Specifications	744K-II	824K-II	844K-II
<b>Net Peak Power</b>			
EPA Final Tier 4 (FT4)/EU Stage IV	226 kW (303 hp)	248 kW (333 hp)	281 kW (377 hp)
EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II	227 kW (304 hp)	248 kW (333 hp)	283 kW (380 hp)
<b>Bucket Capacity</b>			
	4.0–4.4 m <sup>3</sup> (5.25–5.75 cu. yd.)	4.6–5.2 m <sup>3</sup> (6.0–6.75 cu. yd.)	4.8–6.2 m <sup>3</sup> (6.3–8.1 cu. yd.)
<b>Z-Bar:</b>			
Tipping Load, 40-deg. Full Turn, No Tire Deflection	17 137 kg (37,782 lb.)	17 551 kg (38,693 lb.)	21 816 kg (48,096 lb.)
Breakout Force	19 416 kg (42,805 lb.)	18 718 kg (41,266 lb.)	21 674 kg (47,782 lb.)
Operating Weight	25 358 kg (55,905 lb.)	26 880 kg (59,260 lb.)	34 207 kg (75,413 lb.)



**DEERE**

Fluid-efficient Deere PowerTech™ diesels provide generous displacement, power, and lugging ability.

Unsurpassed powertrain and hydraulic performance helps maintain quick ground speed and boom lift, even on steep ramps. For faster cycles.

Torque reserves are impressive, topping out at 57 percent in the 824K-II. It's a K Series-II advantage that helps maintain good boom and bucket speed in and out of the pile. For heaped loads, even in wet or hard-packed material.

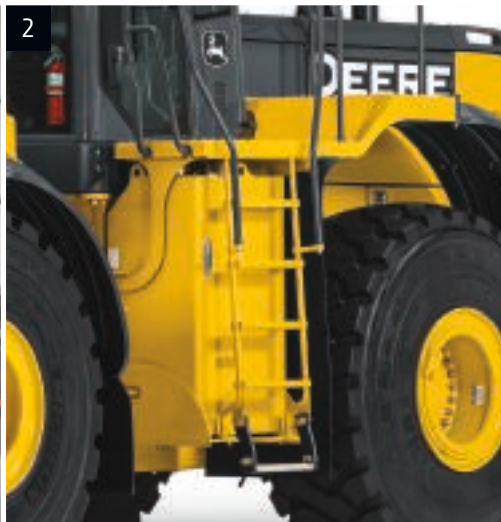
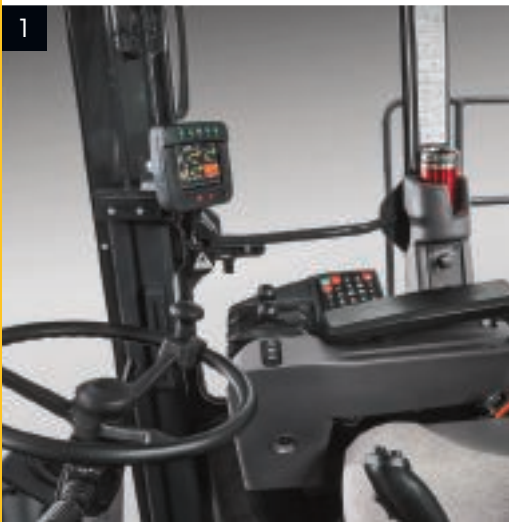
Low center of gravity and optimized fore-and-aft balance deliver impressive stability and full-turn tipping-load capacities.

Ultimate Uptime, featuring John Deere WorkSight™, is a customizable support solution available exclusively from your Deere dealer. This flexible offering maximizes equipment availability with standard John Deere WorkSight capabilities that can help prevent downtime and speed repairs when it does occur. In addition to the base John Deere WorkSight features, our dealers work with you to build an uptime package that meets the specific needs of your machine, fleet, project, and business, including customized maintenance and repair agreements, onsite parts availability, extended warranties, fluid sampling, response-time guarantees, and more.

# Expand your operator's comfort zone.

What operator wouldn't be more productive in the high-back air-ride seat of a K Series-II Loader? An enhanced multifunction monitor displays operating, diagnostic, and maintenance info on a color LCD screen with easy-on-the-eyes clarity. Expansive tinted front glass and a low-profile console provide a commanding view of the work ahead. The quiet and spacious cab boasts generous legroom and exceptional ergonomics including fatigue-beating features like seat-mounted loader controls. And an expanded sealed-switch module with keyless start and easy pushbutton operation of even more functions.

1. Spacious front glass, low-profile console, and large side and rear windows allow for 360-deg. visibility.
2. Platforms, handrails, and steps allow uninterrupted three-point access. There are no crossbars, decreasing the risk of slipping.
3. Keyless start allows up to 10 operator-specific standard security codes to help prevent unauthorized machine operation. Mobile JDLINK™ Ultimate app enables owners to keep tabs on machine location and alerts via iPhone, iPad, or Android devices.





Available premium high/wide-back heated air-suspension seat adjusts multiple ways, for daylong comfort and support.

Joystick steering and hydraulic levers are within easy reach and move with the operator, for more control with less fatigue.

Automotive-style directional louvers provide effective airflow to help keep the glass clear and pressurized cab comfortable.

Front and rear work lights stay on for up to three minutes after the engine is shut down, illuminating the way for an easier exit.

You'll find plenty of places to stow a coffee cup, cooler, and other items. 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.

# Get in touch with your productive side.

If you want to get a handle on increased productivity, put your operator behind the controls of a K Series-II Loader. Its enhanced multifunction LCD color monitor provides a wealth of machine info. And enables an operator to customize machine operation and response, weigh each bucket load, and view the action out back — all at the push of a button.





Multi-language color LCD monitor provides pushbutton access to a wealth of machine info and control:

1. Vital and general operating information, including transmission mode, gear, engine rpm, and ground speed.
2. Exclusive integrated tire monitoring reports pressures and temperatures on the monitor and remotely through JDLink Ultimate, to help reduce tire wear and replacement cost.
3. Customized machine settings such as Quick Shift, Auto-to-1st, and Ride Control. So you can match operating characteristics to specific jobs and conditions.

Programmable clutch cutoff increases productivity in all kinds of conditions. Engaging the brakes disconnects the transmission while maintaining high engine speed. For smooth dumps, fast cycles, and no machine rollback.

Boom-height kick-out sets maximum desired dump height, while return-to-carry determines lowered-boom position. Use these two K Series-II advantages to speed production in repetitive loading applications.

Optional rearview camera provides “eyes-in-the-back-of-the-head” visibility. And rear-object-detection radar gives an audible alert of approaching objects. It’s a “must-have” for high-traffic jobsites.

Exhaust filter operation and maintenance status are indicated with warning lights and on-screen displays. Periodic active and passive regeneration automatically clean the filter without impacting machine productivity.

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# Hard work was never this easy.

Big productivity shouldn't require a lot of extra effort. And it won't on a K Series-II Loader. John Deere PowerTech diesels provide impressive acceleration and torque, along with the horsepower needed for fast and full bucket fills. Larger, higher-capacity axles help tackle the toughest terrain. Generous hydraulic flow provides excellent low-engine-speed performance and quick steering response and boom-up speed. Combined with load-sensing closed-center hydraulics, low-effort controls, and smooth-shifting PowerShift™ transmission, maximum productivity comes naturally. To “weigh in” on which K Series-II Loader is right for your operation, see your John Deere dealer.



Larger new higher-capacity axles provide heavy-duty maneuverability in the most demanding terrain.

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

Responsive steering combines with full 80-deg. articulation for exceptional maneuverability in tight quarters — and faster cycle times.

Load-sensing closed-center hydraulics deliver only the power required for smooth boom and bucket functions. So there's no wasted power or fuel.

1. Ride control smooths travel, allowing these loaders to navigate jobsites more quickly without losing their loads. Auto-actuation travel speed is operator settable between 1.5 and 24.0 km/h (0.5 and 15 mph).
2. Joystick steering offers fatigue-beating comfort and is ideal for V-pattern truck loading. Standard on the 844K-II and available on the 744K-II and 824K-II, it adapts to ground speed to deliver smooth low-effort control. Even during load-and-carry operations.

3. Choose either single-lever joystick or two-lever fingertip pilot-operated hydraulic controls. Joystick version is equipped with an F-N-R selector for convenient direction and full-range gear changes. Both include our innovative Quick-Shift feature for pushbutton gear changes, one gear at a time.



# Explore your options.

Standard equipped with plenty of production-enhancing features, K Series-II Loaders can handle almost anything. But if yours isn't just any application, we've got you covered with a wide variety of factory- or dealer-installed options. Work in a high-debris, extreme-temperature, or corrosive environment? Or emissions-sensitive nonattainment areas? Need a High-Lift boom or long-life cutting edges to help maximize productivity and minimize costs? We can equip your loader with exactly what you need for your kind of work.



1. Spin control boosts productivity in loose material or troublesome ground conditions. Available automatic differential lock engages as soon as a tire begins to slip to help improve traction.

2. Axle choices include manually actuated front differential lock with conventional rear axle, front and rear differential locks, or automatic front and rear differential locks. Open differentials are available on the 844K-II only, for applications not requiring increased traction.

3. LOADRITE™ L2180™ is fully integrated with the JDLink Ultimate telematics system — part of the John Deere WorkSight suite of business-optimization solutions. This gives instant access to production information including total bucket loads, trucks loaded, and totals by material, in addition to other JDLink data, to help increase loading efficiency and track material movement for improved profitability.



High-Lift loaders feature an optional factory-installed boom that extends boom height so you can move materials and push productivity to even greater heights.

Corrosion package shields electrical components and connections for longer life — so corrosion won't short-circuit productivity.

Powered cab pre-cleaner extends cab air-filter life when working in airborne debris.

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

Want to increase the traction, flotation, and stability of your 844K-II? Spec the low-profile tire option.

Advanced air-screen kits protect the engine and cooling system from debris while increasing airflow and preventing overheating.



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# Nothing runs like a Deere, because nothing is built like one.

When you've got hungry hoppers or empty trucks depending on your loader, downtime is more than a downer. It's unacceptable. Boost your uptime (and your bottom line) with K Series-II advantages such as solid-state electronics, highly efficient Quad-Cool™, and advanced diagnostic monitors. You'll also benefit from traditional John Deere durability features such as new larger-capacity axles, heavy-duty wet-sleeve diesels, self-adjusting wet-disc brakes, four-plate loader towers, and double-tapered articulation-joint roller bearings. Plus, 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.



Large-capacity fuel tanks let you run longer between fill-ups. There's also a fast-fill option to get you back into the rat race more quickly.

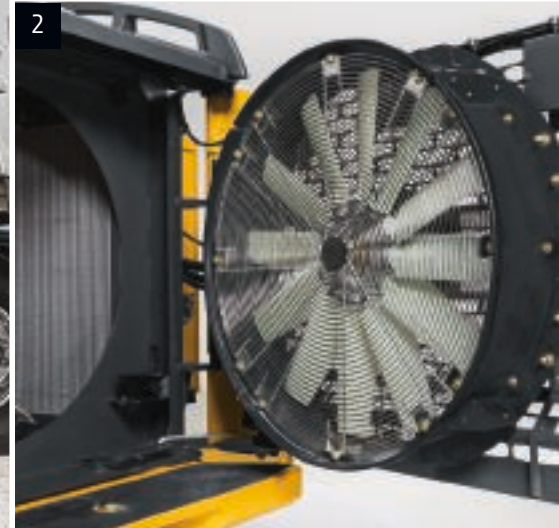
Three-millimeter side-screen perforations act as a "first filter" to catch airborne debris and prevent overheating.

Automatic park brake, bypass-start protection, continuous handrails, and wide slip-resistant steps and platforms help keep operators out of harm's way.

1. Our FT4/Stage IV diesels meet emission regulations without sacrificing power or torque. We built on our Interim Tier 4 (IT4)/Stage IIIB solution to deliver the best combination of performance, efficiency, and reliability. This technology is simple, fluid efficient, fully integrated, and fully supported. It employs field-proven cooled exhaust gas recirculation (EGR), easy-to-maintain high-uptime exhaust filters, and selective catalytic reduction (SCR).

2. Quad-Cool design places coolers in a unique boxed configuration that's isolated from engine heat, for increased efficiency and durability. Hydraulic reversing fan (standard on the 844K-II, optional on the 824K-II and 744K-II) automatically reverses at predetermined intervals, or can be programmed through the monitor, to eject debris from the cores.

3. Bulkhead fittings eliminate long hoses, simplifying replacement and component exchange.



You'll find fewer fuses, relays, connectors, and wiring harnesses. Instead, highly reliable circuit-board technology and sealed solid-state switches ensure the electrical integrity you need.

Larger new higher-capacity heavy-duty axles with standard axle cooling and filtration increase durability in your demanding conditions. Self-adjusting wet-disc brakes provide long life and sure stops.

# The buck stops here.

Servicing big iron doesn't have to be a big production. And it isn't on a K Series-II. Swing open the large side shields and you'll see the many ways these loaders minimize maintenance. Our unique Quad-Cool system and swing-out fan provide wide-open access to both sides of the individually mounted coolers, for simplified cleanout. Grouped same-side service points make quick work of the daily routine. Easy-to-read sight gauges, quick-change filters, extended service intervals, and advanced self-diagnostics — plus numerous other time- and money-saving features help make maintenance manageable.

1. Color-coded fluid-sample and diagnostic test ports help speed preventive maintenance and troubleshooting. Noninvasive design helps prevent contamination.
2. Vertical spin-on engine, transmission, and in-tank hydraulic filters; quick-release fuel filters; and environmentally friendly fluid drains allow quick, no-spill changes.
3. 500-, 2,000-, and 4,000-hour engine, transmission, and hydraulic oil and filter intervals decrease planned downtime and expense. Available quick fluid-evacuation system helps speed servicing.
4. If something goes wrong, the easy-to-navigate LCD monitor displays diagnostic messages and offers possible solutions to help you get back up and running quickly.





John Deere WorkSight is an exclusive suite of telematic solutions that increases uptime while lowering operating costs. At its heart, JDLink Ultimate machine monitoring provides real-time data and health prognostics to suggest maintenance solutions that decrease costly downtime. Remote diagnostics enable your dealer to read codes, record performance data, and even update software without a trip to the jobsite.



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

Maintenance personnel will appreciate the practical locations and ease with which powertrain, hydraulic, and cab filters are replaced. Common hydraulic and transmission fluid- and filter-change intervals further simplify service.

# 744K-II



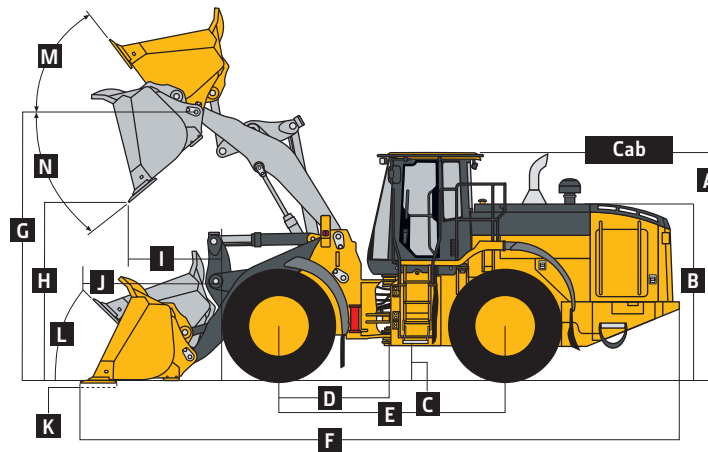
Engine		744K-II Z-BAR / HIGH-LIFT		
Manufacturer and Model	John Deere PowerTech™ PSS 6090	John Deere PowerTech™ Plus 6090H	John Deere PowerTech™ 6090H	
Non-Road Emission Standard	EPA Final Tier 4/EU Stage IV	EPA Tier 3/EU Stage IIIA	EPA Tier 2/EU Stage II	
Cylinders	6	6	6	
Valves per Cylinder	4	4	4	
Displacement	9.0 L (548 cu. in.)	9.0 L (548 cu. in.)	9.0 L (548 cu. in.)	
Net Peak Power (ISO 9249)	226 kW (303 hp) at 1,500 rpm	227 kW (304 hp) at 1,500 rpm	227 kW (304 hp) at 1,500 rpm	
Net Peak Torque (ISO 9249)	1455 Nm (1,073 lb.-ft.) at 1,500 rpm	1456 Nm (1,074 lb.-ft.) at 1,400 rpm	1456 Nm (1,074 lb.-ft.) at 1,400 rpm	
Net Torque Rise	50%	47%	47%	
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	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				
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				
Electrical System	24 volt with 130-amp alternator	24 volt with 100-amp alternator	24 volt with 100-amp alternator	
Batteries (2 – 12 volt)	1,400 CCA (each)	1,400 CCA (each)	1,400 CCA (each)	
Transmission System				
Type	Countershaft-type PowerShift™			
Torque Converter	Single stage, dual phase with freewheeling stator			
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–5th or 2nd–5th); quick-shift button with 2 selectable modes: kick-down or kick-up/down; and 3 adjustable clutch-cutoff settings; change to 1st–5th and 2nd–5th on 5 speed			
	<i>Standard 5-Speed with Lockup Torque Converter</i>		<i>Optional 4-Speed</i>	
Maximum Travel Speeds (with 26.5 R 25, 1 Star L3 tires)	<i>Forward</i>	<i>Reverse</i>	<i>Forward</i>	<i>Reverse</i>
Range 1	7.4 km/h (4.6 mph)	7.4 km/h (4.6 mph)	6.6 km/h (4.1 mph)	6.6 km/h (4.1 mph)
Range 2	14.3 km/h (8.9 mph)	14.3 km/h (8.9 mph)	13.8 km/h (8.6 mph)	13.8 km/h (8.6 mph)
Range 3	22.2 km/h (13.8 mph)	32.3 km/h (20.1 mph)	20.8 km/h (12.9 mph)	29.9 km/h (18.6 mph)
Range 4	32.2 km/h (20.0 mph)	N/A	40.0 km/h (24.9 mph)	N/A
Range 5	40.0 km/h (24.9 mph)	N/A	N/A	N/A
Axles/Brakes				
Final Drives	Heavy-duty inboard-mounted planetary			
Differentials	Hydraulic locking front with conventional rear – standard; dual locking front and rear – optional			
Rear Axle Oscillation, Stop to Stop (with 26.5 R 25, 1 Star L3 tires)	26 deg. (13 deg. each direction)			
Service Brakes (conform to ISO 3450)	Hydraulically actuated, spring released, inboard, sun-gear mounted, oil cooled, self-adjusting, single disc			
Parking Brakes (conform to ISO 3450)	Automatic spring applied, hydraulically released, oil cooled, multi disc			
Tires/Wheels <i>(see page 18 for complete tire adjustments)</i>				
	<i>Tread Width</i>	<i>Width Over Tires</i>		
Michelin 26.5 R 25, 2 Star L3	2298 mm (90.5 in.)	3084 mm (121.4 in.)		
Serviceability				
Refill Capacities	EPA FT4/EU Stage IV	EPA Tier 3/EU Stage IIIA	EPA Tier 2/EU Stage II	
Fuel Tank with Lockable Cap	477 L (126 gal.)	469 L (124 gal.)	469 L (124 gal.)	
Diesel Exhaust Fluid (DEF)	26.3 L (6.9 gal.)	N/A	N/A	
Cooling System	51.2 L (54.1 qt.)	44.8 L (47.3 qt.)	44.8 L (47.3 qt.)	
Engine Oil with Vertical Spin-On Filter	34 L (36 qt.)	34 L (36 qt.)	34 L (36 qt.)	
Transmission Reservoir with Vertical Filter	27.9 L (29.5 qt.)	27.9 L (29.5 qt.)	27.9 L (29.5 qt.)	
Axle Oil (front and rear, each)	55.3 L (58.4 qt.)	55.3 L (58.4 qt.)	55.3 L (58.4 qt.)	
Hydraulic Reservoir and Filter	165.3 L (43.7 gal.)	159 L (42 gal.)	159 L (42 gal.)	
Park Brake Oil (wet disc)	0.7 L (24 oz.)	0.7 L (24 oz.)	0.7 L (24 oz.)	





Hydraulic System/Steering		744K-II Z-BAR / HIGH-LIFT	
Pump (loader and steering)	2 variable-displacement, load-sensing axial-piston pumps; closed-center system		
Maximum Rated Flow at 6895 kPa (1,000 psi) and 2,250 rpm	491 L/m (130 gpm)		
System Relief Pressure (loader and steering)	22 670 kPa (3,288 psi)		
Loader Controls	2-function valve; single- or dual-lever controls; control lever lockout feature; optional 3rd- and 4th-function valve with auxiliary levers		
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)	5.92 m (19 ft. 5 in.)		
Hydraulic Cycle Times	Z-Bar	High-Lift	
Raise	≤6.8 sec.	≤6.8 sec.	
Dump	1.6 sec.	1.6 sec.	
Lower (float down)	2.8 sec.	2.8 sec.	
Total	11.2 sec.	11.2 sec.	

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



**744K-II Z-BAR AND HIGH-LIFT LOADERS WITH PIN-ON BUCKET**

	Z-Bar	Z-Bar	Z-Bar	Z-Bar	Z-Bar	High-Lift
<b>Dimensions with Bucket</b>	4.0-m <sup>3</sup> (5.25 cu. yd.) <i>general-purpose with bolt-on edge</i>	4.4-m <sup>3</sup> (5.75 cu. yd.) <i>light-materials with bolt-on edge</i>	4.0-m <sup>3</sup> (5.25 cu. yd.) <i>general-purpose with teeth and segments</i>	4.4-m <sup>3</sup> (5.75 cu. yd.) <i>light-materials with teeth and segments</i>	4.4-m <sup>3</sup> (5.75 cu. yd.) <i>light-materials with JAGZ™</i>	4.0-m <sup>3</sup> (5.25 cu. yd.) <i>general-purpose with bolt-on edge</i>
<b>A</b> Height to Top of Cab	3.50 m (11 ft. 6 in.)	3.50 m (11 ft. 6 in.)	3.50 m (11 ft. 6 in.)	3.50 m (11 ft. 6 in.)	3.50 m (11 ft. 6 in.)	3.50 m (11 ft. 6 in.)
<b>B</b> Hood Height	2.65 m (8 ft. 8 in.)	2.65 m (8 ft. 8 in.)	2.65 m (8 ft. 8 in.)	2.65 m (8 ft. 8 in.)	2.65 m (8 ft. 8 in.)	2.65 m (8 ft. 8 in.)
<b>C</b> Ground Clearance	462 mm (18.2 in.)	462 mm (18.2 in.)	462 mm (18.2 in.)	462 mm (18.2 in.)	462 mm (18.2 in.)	462 mm (18.2 in.)
<b>D</b> Length from Centerline to Front Axle	1.70 m (5 ft. 7 in.)	1.70 m (5 ft. 7 in.)	1.70 m (5 ft. 7 in.)	1.70 m (5 ft. 7 in.)	1.70 m (5 ft. 7 in.)	1.70 m (5 ft. 7 in.)
<b>E</b> Wheelbase	3.46 m (11 ft. 4 in.)	3.46 m (11 ft. 4 in.)	3.46 m (11 ft. 4 in.)	3.46 m (11 ft. 4 in.)	3.46 m (11 ft. 4 in.)	3.46 m (11 ft. 4 in.)
<b>F</b> Overall Length, Bucket on Ground	9.01 m (29 ft. 7 in.)	9.09 m (29 ft. 10 in.)	9.11 m (29 ft. 11 in.)	9.27 m (30 ft. 5 in.)	9.00 m (29 ft. 6 in.)	9.64 m (31 ft. 8 in.)
<b>G</b> Height to Hinge Pin, Fully Raised	4.28 m (14 ft. 1 in.)	4.28 m (14 ft. 1 in.)	4.28 m (14 ft. 1 in.)	4.28 m (14 ft. 1 in.)	4.28 m (14 ft. 1 in.)	4.85 m (15 ft. 11 in.)
<b>H</b> Dump Clearance, 45 deg., Full Height	3.04 m (10 ft. 0 in.)	2.98 m (9 ft. 9 in.)	2.97 m (9 ft. 9 in.)	2.86 m (9 ft. 5 in.)	3.04 m (10 ft. 0 in.)	3.61 m (11 ft. 10 in.)
<b>I</b> Reach, 45-deg. Dump, Full Height	1.23 m (4 ft. 0 in.)	1.29 m (4 ft. 3 in.)	1.30 m (4 ft. 3 in.)	1.42 m (4 ft. 8 in.)	1.23 m (4 ft. 0 in.)	1.38 m (4 ft. 6 in.)
<b>J</b> Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.85 m (6 ft. 1 in.)	1.88 m (6 ft. 2 in.)	1.88 m (6 ft. 2 in.)	1.95 m (6 ft. 5 in.)	1.85 m (6 ft. 1 in.)	2.41 m (7 ft. 11 in.)
<b>K</b> Maximum Digging Depth	80 mm (3.2 in.)	80 mm (3.2 in.)	80 mm (3.2 in.)	80 mm (3.2 in.)	80 mm (3.2 in.)	214 mm (8.4 in.)
<b>L</b> Maximum Rollback at Ground Level	39.5 deg.	39.5 deg.	39.5 deg.	39.5 deg.	39.5 deg.	40.6 deg.
<b>M</b> Maximum Rollback, Boom Fully Raised	54.9 deg.	54.9 deg.	54.9 deg.	54.9 deg.	54.9 deg.	53.1 deg.
<b>N</b> Maximum Bucket Dump Angle, Fully Raised	49.4 deg.	49.4 deg.	49.4 deg.	49.4 deg.	49.4 deg.	39.2 deg.
Loader Clearance Circle, Bucket Carry Position	14.01 m (46 ft. 0 in.)	14.07 m (46 ft. 2 in.)	14.12 m (46 ft. 4 in.)	14.18 m (46 ft. 6 in.)	14.01 m (46 ft. 0 in.)	14.59 m (47 ft. 10 in.)

**Dimensions and Specifications  
with Pin-On Bucket (continued)**

**744K-II Z-BAR / HIGH-LIFT**

	Z-Bar	Z-Bar	Z-Bar	Z-Bar	Z-Bar	High-Lift
<b>Specifications with Bucket</b>			4.0-m <sup>3</sup> (5.25 cu. yd.) general-purpose with teeth and segments	4.4-m <sup>3</sup> (5.75 cu. yd.) light-materials with teeth and segments	4.4-m <sup>3</sup> (5.75 cu. yd.) light-materials with JAGZ™	4.0-m <sup>3</sup> (5.25 cu. yd.) general-purpose with bolt-on edge
Capacity, Heaped	4.0 m <sup>3</sup> (5.25 cu. yd.)	4.4 m <sup>3</sup> (5.75 cu. yd.)	4.0 m <sup>3</sup> (5.25 cu. yd.)	4.4 m <sup>3</sup> (5.75 cu. yd.)	4.0 m <sup>3</sup> (5.25 cu. yd.)	4.0 m <sup>3</sup> (5.25 cu. yd.)
Capacity, Struck	3.4 m <sup>3</sup> (4.5 cu. yd.)	3.8 m <sup>3</sup> (5.0 cu. yd.)	3.4 m <sup>3</sup> (4.5 cu. yd.)	3.8 m <sup>3</sup> (5.0 cu. yd.)	3.4 m <sup>3</sup> (4.5 cu. yd.)	3.4 m <sup>3</sup> (4.5 cu. yd.)
Bucket Weight with Bolt-On Cutting Edge	2517 kg (5,549 lb.)	2595 kg (5,722 lb.)	2643 kg (5,827 lb.)	2721 kg (5,999 lb.)	2540 kg (5,599 lb.)	2517 kg (5,549 lb.)
Bucket Width	3.27 m (10 ft. 9 in.)	3.27 m (10 ft. 9 in.)	3.27 m (10 ft. 9 in.)	3.27 m (10 ft. 9 in.)	3.27 m (10 ft. 9 in.)	3.27 m (10 ft. 9 in.)
Breakout Force	19 416 kg (42,805 lb.)	18 276 kg (40,292 lb.)	19 345 kg (42,648 lb.)	18 190 kg (40,102 lb.)	19 462 kg (42,906 lb.)	17 433 kg (38,433 lb.)
Tipping Load, Straight, No Tire Deflection	19 854 kg (43,771 lb.)	19 651 kg (43,323 lb.)	19 680 kg (43,387 lb.)	19 476 kg (42,937 lb.)	19 824 kg (43,704 lb.)	15 747 kg (34,716 lb.)
Tipping Load, Straight, with Tire Deflection	18 474 kg (40,728 lb.)	18,270 kg (40,278 lb.)	18 096 kg (40,351 lb.)	18 096 kg (39,895 lb.)	18 240 kg (40,212 lb.)	14 682 kg (32,368 lb.)
Tipping Load, 37-deg. Partial Turn, No Tire Deflection	17 516 kg (38,616 lb.)	17 326 kg (38,197 lb.)	17 342 kg (38,233 lb.)	17 150 kg (37,809 lb.)	17 487 kg (38,552 lb.)	13 808 kg (30,441 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	17 137 kg (37,782 lb.)	16 949 kg (37,366 lb.)	16 964 kg (37,399 lb.)	16 774 kg (36,980 lb.)	17 108 kg (37,717 lb.)	13 494 kg (29,749 lb.)
Tipping Load, 40-deg. Full Turn, with Tire Deflection	15 420 kg (33,995 lb.)	15 231 kg (33,579 lb.)	15 249 kg (33,618 lb.)	15 057 kg (33,195 lb.)	15 201 kg (33,512 lb.)	12 186 kg (26,865 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, with Tire Deflection (conforms to ISO 14397-1)*	7710 kg (16,998 lb.)	7616 kg (16,789 lb.)	7625 kg (16,809 lb.)	7529 kg (16,597 lb.)	7601 kg (16,756 lb.)	6093 kg (13,433 lb.)
Operating Weight	25 358 kg (55,905 lb.)	25 439 kg (56,083 lb.)	25 487 kg (56,189 lb.)	25 568 kg (56,368 lb.)	25 381 kg (55,955 lb.)	25 903 kg (57,106 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**

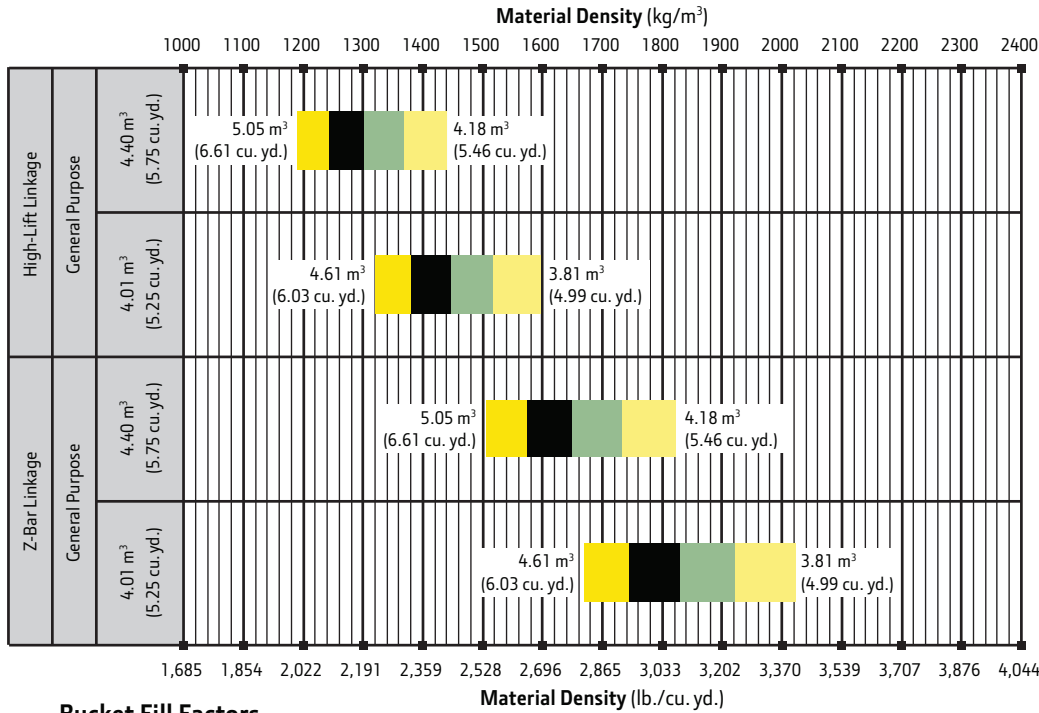
**Tipping Loads with Buckets**

Adjustments to operating weights, tipping loads, and tires are based on Z-Bar machine with pin-on 4.0-m<sup>3</sup> (5.25 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\*

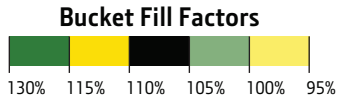
Add (+) or deduct (-) kg (lb.) as indicated for loaders with 3-piece rims	Operating Weight	Tipping Load, Straight	Tipping Load, 37-deg. Partial Turn	Tipping Load, 40-deg. Full Turn	Tread Width	Width Over Tires	Vertical Height
John Deere PowerTech PSS 6090	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	N/A	N/A	N/A
John Deere PowerTech Plus 6090H	-158 kg (-348 lb.)	+447 kg (+986 lb.)	+351 kg (+774 lb.)	+335 kg (+739 lb.)	N/A	N/A	N/A
John Deere PowerTech 6090H	-164 kg (-362 lb.)	+437 kg (+963 lb.)	+342 kg (+754 lb.)	+326 kg (+719 lb.)	N/A	N/A	N/A
Michelin 26.5 R 25, 2 Star L-3	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 mm (0 in.)	0 mm (0 in.)	0 mm (0 in.)
Titan 26.5 R 25, 1 Star L-3	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 mm (0 in.)	-8 mm (-0.3 in.)	4 mm (0.15 in.)
Goodyear 26.5 R 25, 1 Star L-3	-56 kg (-123 lb.)	-42 kg (-93 lb.)	-38 kg (-84 lb.)	-37 kg (-82 lb.)	0 mm (0 in.)	0 mm (0 in.)	4 mm (0.15 in.)
Firestone 26.5-25, 20-Ply L-3	-360 kg (-794 lb.)	-270 kg (-595 lb.)	-242 kg (-533 lb.)	-238 kg (-525 lb.)	0 mm (0 in.)	-30 mm (-1.18 in.)	+41 mm (+1.61 in.)
Firestone 26.5-25, 20-Ply L-5 <sup>§</sup>	+312 kg (+688 lb.)	+234 kg (+516 lb.)	+210 kg (+463 lb.)	+206 kg (+454 lb.)	0 mm (0 in.)	-20 mm (-0.8 in.)	+64 mm (+2.51 in.)

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

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



LOOSE MATERIALS	kg/m <sup>3</sup>	lb./cu. yd.
Chips, pulpwood	288	486
Cinders (coal, ashes, clinkers)	673	1,134
Clay and gravel, dry	1602	2,700
Clay, compact, solid	1746	2,943
Clay, dry in lump loose	1009	1,701
Clay, excavated in water	1282	2,160
Coal, anthracite, broken, loose	865	1,458
Coal, bituminous, moderately wet	801	1,350
Earth, common loam, dry	1218	2,052
Earth, mud, packed	1843	3,105
Granite, broken	1538	2,592
Gypsum	2275	3,834
Limestone, coarse, sized	1570	2,646
Limestone, mixed sizes	1682	2,835
Limestone, pulverized or crushed	1362	2,295
Sand, damp	2083	3,510
Sand, dry	1762	2,970
Sand, voids, full of water	2083	3,510
Sandstone, quarried	1314	2,214
Shale, broken crushed	1362	2,295
Slag, furnace granulated	1955	3,294
Stone or gravel, 37.5 to 87.5-mm (1.5 to 3.5") size	1442	2,430
Stone or gravel, 18.75-mm (3/4") size	1602	2,700



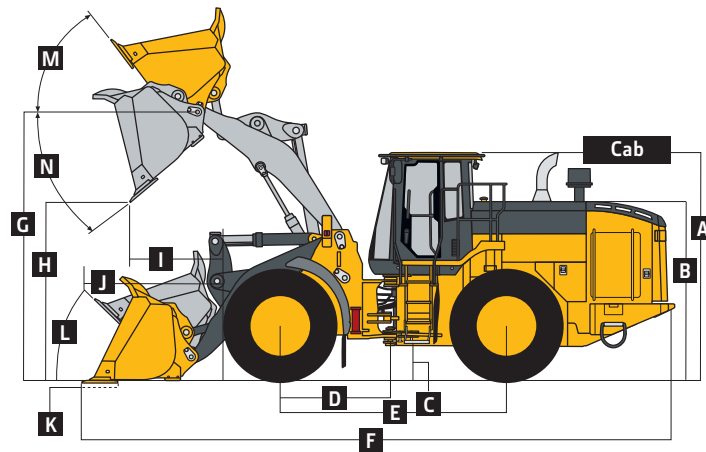
# 824K-II

Engine		824K-II Z-BAR / HIGH-LIFT		
Manufacturer and Model	John Deere PowerTech™ PSS 6135	John Deere PowerTech™ Plus 6135H	John Deere PowerTech™ 6135H	
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	13.5 L (824 cu. in.)	13.5 L (824 cu. in.)	13.5 L (824 cu. in.)	
Net Peak Power (ISO 9249)	248 kW (333 hp) at 1,500 rpm	248 kW (333 hp) at 1,600 rpm	248 kW (333 hp) at 1,600 rpm	
Net Peak Torque (ISO 9249)	1635 Nm (1,206 lb.-ft.) at 900 rpm	1619 Nm (1,194 lb.-ft.) at 900 rpm	1619 Nm (1,194 lb.-ft.) at 900 rpm	
Net Torque Rise	57%	55%	55%	
Fuel System	Mechanically actuated electronic unit injectors	Mechanically actuated electronic unit injectors	Mechanically actuated electronic unit injectors	
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	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				
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				
Electrical System	24 volt with 130-amp alternator	24 volt with 100-amp alternator	24 volt with 100-amp alternator	
Batteries (2 – 12 volt)	1,400 CCA (each)	1,400 CCA (each)	1,400 CCA (each)	
Transmission System				
Type	Countershaft-type PowerShift™			
Torque Converter	Single stage, dual phase with freewheeling stator			
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–5th or 2nd–5th); quick-shift button with 2 selectable modes: kick-down or kick-up/down; and 3 clutch-cutoff settings adjustable on switch pad			
	<i>Standard 5-Speed with Lockup Torque Converter</i>		<i>Optional 4-Speed</i>	
Maximum Travel Speeds (with 26.5 R 25, 1 Star L3 tires)	<i>Forward</i>	<i>Reverse</i>	<i>Forward</i>	<i>Reverse</i>
Range 1	8.3 km/h (5.2 mph)	8.3 km/h (5.2 mph)	7.4 km/h (4.6 mph)	7.4 km/h (4.6 mph)
Range 2	14.9 km/h (9.3 mph)	14.0 km/h (8.7 mph)	13.8 km/h (8.6 mph)	13.8 km/h (8.6 mph)
Range 3	23.1 km/h (14.4 mph)	33.9 km/h (21.1 mph)	21.0 km/h (13.1 mph)	30.1 km/h (18.7 mph)
Range 4	33.9 km/h (21.1 mph)	N/A	40.0 km/h (24.9 mph)	N/A
Range 5	40.0 km/h (24.9 mph)	N/A	N/A	N/A
Axles/Brakes				
Final Drives	Heavy-duty inboard-mounted planetary			
Differentials	Hydraulic locking front with conventional rear – standard; dual locking front and rear – optional			
Rear Axle Oscillation, Stop to Stop (with 26.5 R 25, 1 Star L3 tires)	26 deg. (13 deg. each direction)			
Service Brakes (conform to ISO 3450)	Hydraulically actuated, spring released, inboard, sun-gear mounted, pressure oil cooled, self-adjusting, single disc			
Parking Brakes (conform to ISO 3450)	Automatic spring applied, hydraulically released, oil cooled, multi disc			
Tires/Wheels <i>(see page 22 for complete tire adjustments)</i>				
	<i>Tread Width</i>	<i>Width Over Tires</i>		
Michelin 26.5 R 25, 1 Star L3	2298 mm (90.5 in.)	3084 mm (121.4 in.)		
Serviceability				
Refill Capacities	EPA FT4/EU Stage IV	EPA Tier 3/EU Stage IIIA	EPA Tier 2/EU Stage II	
Fuel Tank with Lockable Cap	477 L (126 gal.)	469.4 L (124 gal.)	469.4 L (124 gal.)	
Diesel Exhaust Fluid (DEF)	26.3 L (6.9 gal.)	N/A	N/A	
Cooling System	78.75 L (83.2 qt.)	47.4 L (50.1 qt.)	47.4 L (50.1 qt.)	
Engine Oil with Vertical Spin-On Filter	40 L (42.3 qt.)	36 L (38 qt.)	36 L (38 qt.)	
Transmission Reservoir with Vertical Filter	27.9 L (29.5 qt.)	27.9 L (29.5 qt.)	27.9 L (29.5 qt.)	
Axle Oil (front and rear, each)	55.3 L (58.4 qt.)	55.3 L (58.4 qt.)	55.3 L (58.4 qt.)	
Hydraulic Reservoir and Filter	165 L (43.7 gal.)	159 L (42 gal.)	159 L (42 gal.)	
Park Brake Oil (wet disc)	0.7 L (24 oz.)	0.7 L (24 oz.)	0.7 L (24 oz.)	



Hydraulic System/Steering		824K-II Z-BAR / HIGH-LIFT	
Pump (loader and steering)	2 variable-displacement, load-sensing axial-piston pumps; closed-center system		
Maximum Rated Flow at 6895 kPa (1,000 psi) and 2,250 rpm	491 L/m (130 gpm)		
System Relief Pressure (loader and steering)	25 166 kPa (3,650 psi)		
Loader Controls	2-function valve; single- or dual-lever controls; control lever lockout feature; optional 3rd- and 4th-function valve with auxiliary levers		
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)	5.92 m (19 ft. 5 in.)		
Hydraulic Cycle Times	Z-Bar	High-Lift	
Raise	5.9 sec.	6.0 sec.	
Dump	1.3 sec.	1.3 sec.	
Lower (float down)	2.5 sec.	2.6 sec.	
Total	9.7 sec.	9.9 sec.	

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



**824K-II Z-BAR AND HIGH-LIFT LOADERS WITH PIN-ON BUCKET**

Dimensions with Bucket	Z-Bar	Z-Bar	High-Lift	High-Lift
	4.6-m <sup>3</sup> (6.0 cu. yd.) general-purpose with bolt-on edge	5.2-m <sup>3</sup> (6.75 cu. yd.) light-materials with bolt-on edge	4.6-m <sup>3</sup> (6.0 cu. yd.) general-purpose with bolt-on edge	4.6-m <sup>3</sup> (6.0 cu. yd.) general-purpose with teeth and segments
A Height to Top of Cab	3.55 m (11 ft. 8 in.)	3.55 m (11 ft. 8 in.)	3.55 m (11 ft. 8 in.)	3.55 m (11 ft. 8 in.)
B Hood Height	2.70 m (8 ft. 10 in.)	2.70 m (8 ft. 10 in.)	2.70 m (8 ft. 10 in.)	2.70 m (8 ft. 10 in.)
C Ground Clearance	462 mm (18.2 in.)	462 mm (18.2 in.)	462 mm (18.2 in.)	462 mm (18.2 in.)
D Length from Centerline to Front Axle	1.70 m (5 ft. 7 in.)	1.70 m (5 ft. 7 in.)	1.70 m (5 ft. 7 in.)	1.70 m (5 ft. 7 in.)
E Wheelbase	3.46 m (11 ft. 4 in.)	3.46 m (11 ft. 4 in.)	3.46 m (11 ft. 4 in.)	3.46 m (11 ft. 4 in.)
F Overall Length, Bucket on Ground	9.26 m (30 ft. 5 in.)	9.38 m (30 ft. 9 in.)	9.77 m (32 ft. 1 in.)	9.95 m (32 ft. 8 in.)
G Height to Hinge Pin, Fully Raised	4.48 m (14 ft. 9 in.)	4.48 m (14 ft. 9 in.)	4.85 m (15 ft. 11 in.)	4.85 m (15 ft. 11 in.)
H Dump Clearance, 45 deg., Full Height	3.19 m (10 ft. 6 in.)	3.12 m (10 ft. 3 in.)	3.63 m (11 ft. 11 in.)	3.52 m (11 ft. 7 in.)
I Reach, 45-deg. Dump, Full Height	1.28 m (4 ft. 2 in.)	1.36 m (4 ft. 6 in.)	1.63 m (5 ft. 4 in.)	1.77 m (5 ft. 10 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	2.05 m (6 ft. 9 in.)	2.09 m (6 ft. 10 in.)	2.50 m (8 ft. 2 in.)	2.58 m (8 ft. 5 in.)
K Maximum Digging Depth	115 mm (4.5 in.)	115 mm (4.5 in.)	196 mm (7.7 in.)	196 mm (7.7 in.)
L Maximum Rollback at Ground Level	45.5 deg.	45.5 deg.	45.5 deg.	45.5 deg.
M Maximum Rollback, Boom Fully Raised	52 deg.	52 deg.	53 deg.	53 deg.
N Maximum Bucket Dump Angle, Fully Raised	44.1 deg.	44.1 deg.	39.8 deg.	39.8 deg.
Loader Clearance Circle, Bucket Carry Position	14.14 m (46 ft. 5 in.)	14.20 m (46 ft. 7 in.)	14.68 m (48 ft. 2 in.)	14.81 m (48 ft. 7 in.)

**Dimensions and Specifications  
with Pin-On Bucket (continued)**

**824K-II Z-BAR / HIGH-LIFT**

	Z-Bar	Z-Bar	High-Lift	High-Lift
<b>Specifications with Bucket</b>				4.6-m <sup>3</sup> (6.0 cu. yd.) general-purpose with teeth and segments
Capacity, Heaped	4.6-m <sup>3</sup> (6.0 cu. yd.) general-purpose with bolt-on edge	5.2-m <sup>3</sup> (6.75 cu. yd.) light-material with bolt-on edge	4.6-m <sup>3</sup> (6.0 cu. yd.) general-purpose with bolt-on edge	4.6 m <sup>3</sup> (6.0 cu. yd.)
Capacity, Struck	4.0 m <sup>3</sup> (5.25 cu. yd.)	4.4 m <sup>3</sup> (5.8 cu. yd.)	4.0 m <sup>3</sup> (5.25 cu. yd.)	4.0 m <sup>3</sup> (5.25 cu. yd.)
Bucket Weight with Bolt-On Cutting Edge	2788 kg (6,146 lb.)	2908 kg (6,411 lb.)	2788 kg (6,146 lb.)	2914 kg (6,423 lb.)
Bucket Width	3.27 m (10 ft. 9 in.)	3.27 m (10 ft. 9 in.)	3.27 m (10 ft. 9 in.)	3.27 m (10 ft. 9 in.)
Breakout Force	18 718 kg (41,266 lb.)	17 310 kg (38,163 lb.)	17 534 kg (38,655 lb.)	17 437 kg (38,443 lb.)
Tipping Load, Straight, No Tire Deflection	20 418 kg (45,014 lb.)	20 131 kg (44,381 lb.)	17 148 kg (37,805 lb.)	17 037 kg (37,560 lb.)
Tipping Load, Straight, with Tire Deflection	18 948 kg (41,773 lb.)	18 657 kg (41,132 lb.)	15 993 kg (35,258 lb.)	15 882 kg (35,014 lb.)
Tipping Load, 37-deg. Partial Turn	17 950 kg (39,573 lb.)	17 680 kg (38,978 lb.)	15 002 kg (33,074 lb.)	14 890 kg (32,827 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	17 551 kg (38,693 lb.)	17 283 kg (38,102 lb.)	14 654 kg (32,307 lb.)	14 543 kg (32,062 lb.)
Tipping Load, 40-deg. Full Turn, with Tire Deflection	15 696 kg (34,604 lb.)	15 423 kg (34,002 lb.)	13 173 kg (29,041 lb.)	13 062 kg (28,797 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, with Tire Deflection (conforms to ISO 14397-1)*	7848 kg (17,302 lb.)	7712 kg (17,001 lb.)	6587 kg (14,521 lb.)	6531 kg (14,398 lb.)
Operating Weight	26 880 kg (59,260 lb.)	27 004 kg (59,534 lb.)	27 267 kg (60,113 lb.)	27 352 kg (60,301 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSS 6135 (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.

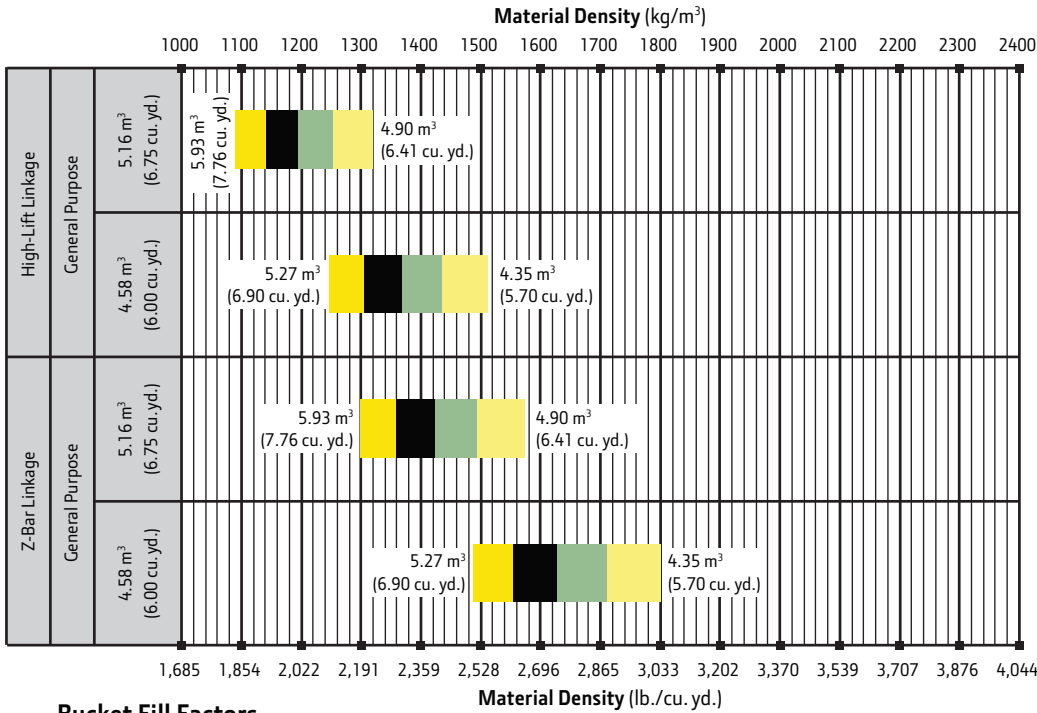
**Adjustments to Operating Weights and Tipping Loads with Buckets**

Adjustments to operating weights, tipping loads, and tires are based on Z-Bar machine with pin-on 4.6-m<sup>3</sup> (6.0 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	Operating Weight	Tipping Load, Straight	Tipping Load, 37-deg. Partial Turn	Tipping Load, 40-deg. Full Turn	Tread Width	Width Over Tires	Vertical Height
John Deere PowerTech PSS 6135	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	N/A	N/A	N/A
John Deere PowerTech Plus 6135H	-134 kg (-295 lb.)	+253 kg (+558 lb.)	+194 kg (+428 lb.)	+184 kg (+406 lb.)	N/A	N/A	N/A
John Deere PowerTech 6135H	-134 kg (-295 lb.)	+253 kg (+558 lb.)	+194 kg (+428 lb.)	+184 kg (+406 lb.)	N/A	N/A	N/A
Michelin 26.5 R 25, 2 Star L-3	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 mm (0 in.)	0 mm (0 in.)	0 mm (0 in.)
Titan 26.5 R 25, 1 Star L-3	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 mm (0 in.)	-7 mm (-0.27 in.)	+4 mm (+0.16 in.)
Goodyear 26.5 R 25, 1 Star L-3	-56 kg (-123 lb.)	-40 kg (-88 lb.)	-36 kg (-79 lb.)	-35 kg (-77 lb.)	0 mm (0 in.)	+1 mm (+0.04 in.)	+4 mm (+0.16 in.)
Firestone 26.5-25, 20-Ply L-3	-360 kg (-794 lb.)	-256 kg (-565 lb.)	-230 kg (-507 lb.)	-226 kg (-498 lb.)	0 mm (0 in.)	-28 mm (-1.1 in.)	+39 mm (+1.53 in.)
Firestone 26.5-25, 20-Ply L-5 <sup>§</sup>	+312 kg (+688 lb.)	+222 kg (+490 lb.)	+199 kg (+440 lb.)	+196 kg (+432 lb.)	0 mm (0 in.)	-18 mm (-0.7 in.)	+63 mm (+2.48 in.)
Michelin 29.5 R 25, 2 Star L-3 <sup>§</sup>	+604 kg (+1,332 lb.)	+430 kg (+949 lb.)	+386 kg (+851 lb.)	+379 kg (+836 lb.)	0 mm (0 in.)	+82 mm (+3.23 in.)	+69 mm (+2.71 in.)
Titan 29.5 R 25, 1 Star L-3 <sup>§</sup>	+664 kg (+1,464 lb.)	+473 kg (+1,043 lb.)	+425 kg (+936 lb.)	+417 kg (+919 lb.)	0 mm (0 in.)	+58 mm (+2.3 in.)	+80 mm (+3.1 in.)
Bridgestone 29.5 R 25, 1 Star L-3 <sup>§</sup>	+720 kg (+1,587 lb.)	+513 kg (+1,131 lb.)	+460 kg (+1,015 lb.)	+452 kg (+996 lb.)	0 mm (0 in.)	+71 mm (+2.8 in.)	+78 mm (+3.0 in.)

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

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



LOOSE MATERIALS	kg/m <sup>3</sup>	lb./cu. yd.
Chips, pulpwood	288	486
Cinders (coal, ashes, clinkers)	673	1,134
Clay and gravel, dry	1602	2,700
Clay, compact, solid	1746	2,943
Clay, dry in lump loose	1009	1,701
Clay, excavated in water	1282	2,160
Coal, anthracite, broken, loose	865	1,458
Coal, bituminous, moderately wet	801	1,350
Earth, common loam, dry	1218	2,052
Earth, mud, packed	1843	3,105
Granite, broken	1538	2,592
Gypsum	2275	3,834
Limestone, coarse, sized	1570	2,646
Limestone, mixed sizes	1682	2,835
Limestone, pulverized or crushed	1362	2,295
Sand, damp	2083	3,510
Sand, dry	1762	2,970
Sand, voids, full of water	2083	3,510
Sandstone, quarried	1314	2,214
Shale, broken crushed	1362	2,295
Slag, furnace granulated	1955	3,294
Stone or gravel, 37.5 to 87.5-mm (1.5 to 3.5") size	1442	2,430
Stone or gravel, 18.75-mm (3/4") size	1602	2,700

# 844K-II



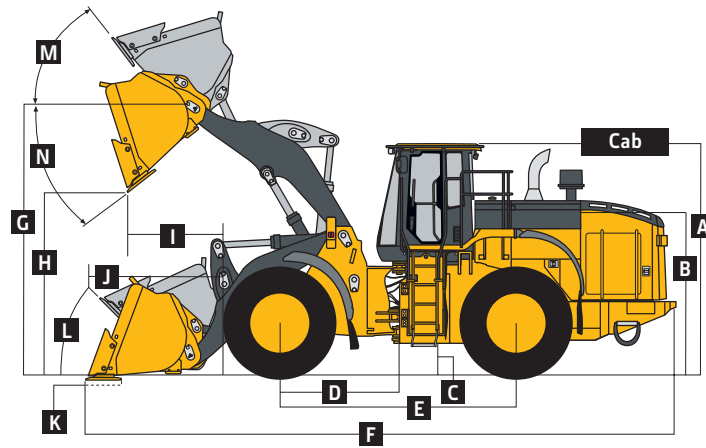
Engine		844K-II Z-BAR		
Manufacturer and Model	John Deere PowerTech™ PSS 6135	John Deere PowerTech™ Plus 6135H	John Deere PowerTech™ 6135H	
Non-Road Emission Standard	EPA Final Tier 4/EU Stage IV	EPA Tier 3/EU Stage IIIA	EPA Tier 2/EU Stage II	
Cylinders	6	6	6	
Valves per Cylinder	4	4	4	
Displacement	13.5 L (824 cu. in.)	13.5 L (824 cu. in.)	13.5 L (824 cu. in.)	
Net Peak Power (ISO 9249)	281 kW (377 hp) at 1,600 rpm	283 kW (380 hp) at 1,600 rpm	283 kW (380 hp) at 1,600 rpm	
Net Peak Torque (ISO 9249)	1804 Nm (1,331 lb.-ft.) at 1,000 rpm	1793 Nm (1,323 lb.-ft.) at 900 rpm	1793 Nm (1,323 lb.-ft.) at 900 rpm	
Net Torque Rise	39%	44%	44%	
Fuel System	Mechanically actuated electronic unit injectors	Mechanically actuated electronic unit injectors	Mechanically actuated electronic unit injectors	
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	Dual-element dry type, restriction indicator in cab monitor for service	Dual-element dry type, restriction indicator in cab monitor for service	Dual-element dry type, restriction indicator in cab monitor for service	
Cooling				
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				
Electrical System	24 volt with 130-amp alternator	24 volt with 100-amp alternator	24 volt with 100-amp alternator	
Batteries (2 – 12 volt)	1,400 CCA (each)	1,400 CCA (each)	1,400 CCA (each)	
Transmission System				
Type	Countershaft-type PowerShift™			
Torque Converter	Single stage, dual phase with freewheeling stator			
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–5th or 2nd–5th); quick-shift button with 2 selectable modes: kick-down or kick-up/down; and 3 clutch-cutoff settings adjustable on switch pad			
	<i>Standard 5-Speed with Lockup Torque Converter</i>		<i>Optional 4-Speed</i>	
Maximum Travel Speeds (with 29.5 R 25, 1 Star L3 tires)	<i>Forward</i>	<i>Reverse</i>	<i>Forward</i>	<i>Reverse</i>
Range 1	7.9 km/h (4.9 mph)	7.9 km/h (4.9 mph)	6.6 km/h (4.1 mph)	6.6 km/h (4.1 mph)
Range 2	13.5 km/h (8.4 mph)	13.1 km/h (8.1 mph)	12.2 km/h (7.6 mph)	12.2 km/h (7.6 mph)
Range 3	20.9 km/h (13.0 mph)	30.7 km/h (19.1 mph)	18.8 km/h (11.7 mph)	27.3 km/h (17.0 mph)
Range 4	30.7 km/h (19.1 mph)	N/A	40.5 km/h (25.2 mph)	N/A
Range 5	40.0 km/h (24.9 mph)	N/A	N/A	N/A
Axles/Brakes				
Final Drives	Heavy-duty mid-board planetary			
Differentials	Hydraulic locking front with conventional rear – standard; dual locking front and rear – optional			
Rear Axle Oscillation, Stop to Stop (with 29.5 R 25, 1 Star L3 tires)	26 deg. (13 deg. each direction)			
Service Brakes (conform to ISO 3450)	Outboard, forced oil cooled, multi disc			
Parking Brakes (conform to ISO 3450)	Automatic spring applied, hydraulically released, sealed wet multi disc			
Tires/Wheels <i>(see page 26 for complete tire adjustments)</i>				
	<i>Tread Width</i>		<i>Width Over Tires</i>	
Michelin 875/65R29, 1 Star L-3	2440 mm (96.1 in.)		3408 mm (134.2 in.)	
Serviceability				
Refill Capacities	EPA FT4/EU Stage IV	EPA Tier 3/EU Stage IIIA	EPA Tier 2/EU Stage II	
Fuel Tank (with ground-level fueling)	534 L (141 gal.)	553 L (146 gal.)	553 L (146 gal.)	
Diesel Exhaust Fluid (DEF)	26.3 L (6.9 gal.)	N/A	N/A	
Cooling System	78.75 L (83.2 qt.)	52.4 L (55.4 qt.)	52.4 L (55.4 qt.)	
Engine Oil with Vertical Spin-On Filter	40 L (42.3 qt.)	36 L (38 qt.)	36 L (38 qt.)	
Transmission Reservoir with Vertical Filter	28 L (29.5 qt.)	28 L (29.5 qt.)	28 L (29.5 qt.)	
Axle Oil (front and rear, each)	68 L (72 qt.)	68 L (72 qt.)	68 L (72 qt.)	
Hydraulic Reservoir and Filter	236 L (62.3 gal.)	242 L (64 gal.)	242 L (64 gal.)	
Park Brake Oil (wet disc)	0.7 L (24 oz.)	0.7 L (24 oz.)	0.7 L (24 oz.)	





Hydraulic System/Steering		844K-II Z-BAR
Pump (loader and steering)	2 variable-displacement, load-sensing axial-piston pumps; closed-center system	
Maximum Rated Flow at 6895 kPa (1,000 psi) and 2,250 rpm	594 L/m (157 gpm)	
System Relief Pressure (loader and steering)	24 132 kPa (3,500 psi)	
Loader Controls	2-function valve; single- or dual-lever controls; control lever lockout feature; optional 3rd- and 4th-function valve with auxiliary levers	
Steering (conforms to ISO 5010)		
Type	Power, fully hydraulic; single-lever control and adjustable wristrest with conventional steering wheel override	
Articulation Angle	80-deg. arc (40 deg. each direction)	
Turning Radius (measured to centerline of outside tire)	6.30 m (20 ft. 8 in.)	
Hydraulic Cycle Times		
Z-Bar		
Raise	5.9 sec.	
Dump	1.9 sec.	
Lower (float down)	3.5 sec.	
Total	11.3 sec.	

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



**844K-II Z-BAR LOADER WITH PIN-ON BUCKET**

	Z-Bar	Z-Bar	Z-Bar 6.2-m <sup>3</sup> (8.1 cu. yd.) light-materials with bolt-on edge and optional spill- guard,* without wear liners	Z-Bar 6.2-m <sup>3</sup> (8.1 cu. yd.) light-materials with bolt-on edge, optional spill- guard,* and wear liners	Z-Bar 4.8-m <sup>3</sup> (6.3 cu. yd.) spade-nose rock with teeth, seg- ments, spillguard, and wear liners	Z-Bar 4.8-m <sup>3</sup> (6.3 cu. yd.) spade-nose rock with bolt-on edge, spillguard, and wear liners
<b>Dimensions with Bucket</b>						
A Height to Top of Cab	3.76 m (12 ft. 4 in.)	3.76 m (12 ft. 4 in.)	3.76 m (12 ft. 4 in.)	3.76 m (12 ft. 4 in.)	3.76 m (12 ft. 4 in.)	3.76 m (12 ft. 4 in.)
B Hood Height	2.74 m (9 ft. 0 in.)	2.74 m (9 ft. 0 in.)	2.74 m (9 ft. 0 in.)	2.74 m (9 ft. 0 in.)	2.74 m (9 ft. 0 in.)	2.74 m (9 ft. 0 in.)
C Ground Clearance	463 mm (18.2 in.)	463 mm (18.2 in.)	463 mm (18.2 in.)	463 mm (18.2 in.)	463 mm (18.2 in.)	463 mm (18.2 in.)
D Length from Centerline to Front Axle	1.85 m (6 ft. 1 in.)	1.85 m (6 ft. 1 in.)	1.85 m (6 ft. 1 in.)	1.85 m (6 ft. 1 in.)	1.85 m (6 ft. 1 in.)	1.85 m (6 ft. 1 in.)
E Wheelbase	3.70 m (12 ft. 2 in.)	3.70 m (12 ft. 2 in.)	3.70 m (12 ft. 2 in.)	3.70 m (12 ft. 2 in.)	3.70 m (12 ft. 2 in.)	3.70 m (12 ft. 2 in.)
F Overall Length, Bucket on Ground	9.65 m (31 ft. 8 in.)	9.65 m (31 ft. 8 in.)	9.72 m (31 ft. 11 in.)	9.72 m (31 ft. 11 in.)	10.06 m (33 ft. 0 in.)	9.83 m (32 ft. 3 in.)
G Height to Hinge Pin, Fully Raised	4.62 m (15 ft. 2 in.)	4.62 m (15 ft. 2 in.)	4.62 m (15 ft. 2 in.)	4.62 m (15 ft. 2 in.)	4.62 m (15 ft. 2 in.)	4.62 m (15 ft. 2 in.)
H Dump Clearance, 45 deg., Full Height	3.32 m (10 ft. 11 in.)	3.32 m (10 ft. 11 in.)	3.27 m (10 ft. 9 in.)	3.27 m (10 ft. 9 in.)	3.05 m (10 ft. 0 in.)	3.21 m (10 ft. 6 in.)
I Reach, 45-deg. Dump, Full Height	1.49 m (4 ft. 11 in.)	1.49 m (4 ft. 11 in.)	1.54 m (5 ft. 1 in.)	1.54 m (5 ft. 1 in.)	1.80 m (5 ft. 11 in.)	1.64 m (5 ft. 4 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	2.28 m (7 ft. 6 in.)	2.28 m (7 ft. 6 in.)	2.31 m (7 ft. 7 in.)	2.31 m (7 ft. 7 in.)	2.47 m (8 ft. 1 in.)	2.38 m (7 ft. 10 in.)
K Maximum Digging Depth	93 mm (3.7 in.)	93 mm (3.7 in.)	93 mm (3.7 in.)	93 mm (3.7 in.)	93 mm (3.7 in.)	93 mm (3.7 in.)
L Maximum Rollback at Ground Level	40.5 deg.	40.5 deg.	40.5 deg.	40.5 deg.	40.5 deg.	40.5 deg.
M Maximum Rollback, Boom Fully Raised	56.3 deg.	56.3 deg.	56.3 deg.	56.3 deg.	56.3 deg.	56.3 deg.
N Maximum Bucket Dump Angle, Fully Raised	55.2 deg.	55.2 deg.	55.2 deg.	55.2 deg.	55.2 deg.	55.2 deg.
Loader Clearance Circle, Bucket Carry Position	15.92 m (52 ft. 3 in.)	15.92 m (52 ft. 3 in.)	15.97 m (52 ft. 5 in.)	15.97 m (52 ft. 5 in.)	15.89 m (52 ft. 2 in.)	15.86 m (52 ft. 0 in.)

**Dimensions and Specifications  
with Pin-On Bucket (continued)**

**844K-II Z-BAR**

	Z-Bar	Z-Bar	Z-Bar	Z-Bar	Z-Bar	Z-Bar
<b>Specifications with Bucket</b>			6.2-m <sup>3</sup> (8.1 cu. yd.) light-materials with bolt-on edge and optional spill- guard,* without wear liners	6.2-m <sup>3</sup> (8.1 cu. yd.) light-materials with bolt-on edge, optional spill- guard,* and wear liners	4.8-m <sup>3</sup> (6.3 cu. yd.) spade-nose rock with teeth, seg- ments, spillguard, and wear liners	4.8-m <sup>3</sup> (6.3 cu. yd.) spade-nose rock with bolt-on edge, spillguard, and wear liners
Capacity, Heaped	5.5 m <sup>3</sup> (7.25 cu. yd.)	5.5 m <sup>3</sup> (7.25 cu. yd.)	6.2 m <sup>3</sup> (8.1 cu. yd.)	6.2 m <sup>3</sup> (8.1 cu. yd.)	4.8 m <sup>3</sup> (6.3 cu. yd.)	4.8 m <sup>3</sup> (6.3 cu. yd.)
Capacity, Struck	4.7 m <sup>3</sup> (6.2 cu. yd.)	4.7 m <sup>3</sup> (6.2 cu. yd.)	5.6 m <sup>3</sup> (7.3 cu. yd.)	5.6 m <sup>3</sup> (7.3 cu. yd.)	4.1 m <sup>3</sup> (5.4 cu. yd.)	4.1 m <sup>3</sup> (5.4 cu. yd.)
Bucket Weight with Bolt-On Cutting Edge	3515 kg (7,748 lb.)	3759 kg (8,288 lb.)	3741 kg (8,247 lb.)	3998 kg (8,813 lb.)	4260 kg (9,392 lb.)	4124 kg (9,092 lb.)
Bucket Width	3.46 m (11 ft. 4 in.)	3.46 m (11 ft. 4 in.)	3.46 m (11 ft. 4 in.)	3.46 m (11 ft. 4 in.)	3.49 m (11 ft. 6 in.)	3.49 m (11 ft. 6 in.)
Breakout Force	21 674 kg (47,782 lb.)	21 568 kg (47,549 lb.)	20 550 kg (45,305 lb.)	20 449 kg (45,083 lb.)	18 680 kg (41,183 lb.)	19 222 kg (42,376 lb.)
Tipping Load, Straight, No Tire Deflection	25 281 kg (55,735 lb.)	24 984 kg (55,080 lb.)	24 811 kg (54,699 lb.)	24 529 kg (54,077 lb.)	24 515 kg (54,046 lb.)	24 700 kg (54,454 lb.)
Tipping Load, Straight, with Tire Deflection	23 502 kg (51,813 lb.)	23 221 kg (51,171 lb.)	23 046 kg (50,808 lb.)	22 770 kg (50,199 lb.)	22 734 kg (50,120 lb.)	22 932 kg (50,556 lb.)
Tipping Load, 37-deg. Partial Turn	22 299 kg (49,161 lb.)	22 002 kg (48,506 lb.)	21 859 kg (48,191 lb.)	21 577 kg (47,569 lb.)	21 518 kg (47,439 lb.)	21 703 kg (47,847 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	21 816 kg (48,096 lb.)	21 519 kg (47,441 lb.)	21 381 kg (47,137 lb.)	21 099 kg (46,515 lb.)	21 033 kg (46,370 lb.)	21 218 kg (46,778 lb.)
Tipping Load, 40-deg. Full Turn, with Tire Deflection	19 677 kg (43,380 lb.)	19 389 kg (42,745 lb.)	19 260 kg (42,461 lb.)	18 984 kg (41,853 lb.)	18 894 kg (41,654 lb.)	19 092 kg (42,091 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, with Tire Deflection (conforms to ISO 14397-1)*	9839 kg (21,690 lb.)	9695 kg (21,373 lb.)	9630 kg (21,230 lb.)	9492 kg (20,926 lb.)	9447 kg (20,827 lb.)	9546 kg (21,045 lb.)
Operating Weight	34 207 kg (75,413 lb.)	34 485 kg (75,026 lb.)	34 439 kg (75,925 lb.)	34 701 kg (76,503 lb.)	34 960 kg (77,074 lb.)	34 831 kg (76,789 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSS 6135 (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.

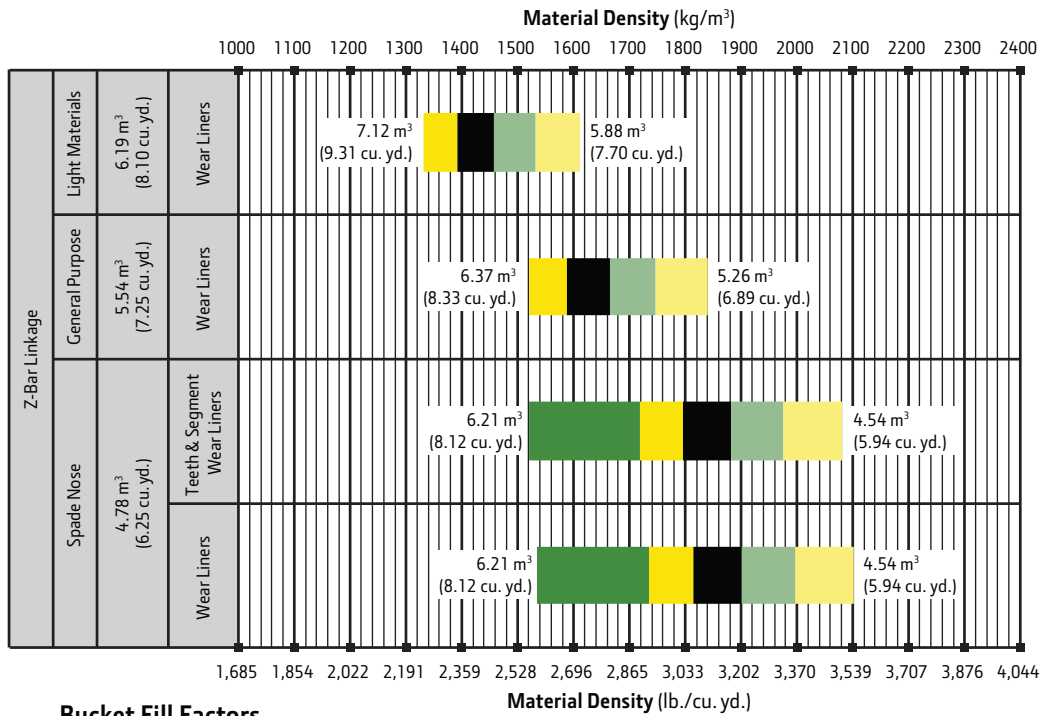
**Adjustments to Operating Weights and  
Tipping Loads with Buckets**

Adjustments to operating weights, tipping loads, and tires are based on Z-Bar machine with pin-on 5.5-m<sup>3</sup> (7.25 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, 37-deg. Partial Turn	Tipping Load, 40-deg. Full Turn	Tread Width	Width Over Tires	Vertical Height
John Deere PowerTech PSS 6135	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	N/A	N/A	N/A
John Deere PowerTech Plus 6135H	-274 kg (-604 lb.)	+221 kg (+487 lb.)	+137 kg (+302 lb.)	+123 kg (+271 lb.)	N/A	N/A	N/A
John Deere PowerTech 6135H	-274 kg (-604 lb.)	+221 kg (+487 lb.)	+137 kg (+302 lb.)	+123 kg (+271 lb.)	N/A	N/A	N/A
Michelin 875/65R29, 1 Star L-3 <sup>§</sup>	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 mm (0 in.)	0 mm (0 in.)	0 mm (0 in.)
Bridgestone 875/65R29, 1 Star L-3 <sup>§</sup>	+388 kg (+176 lb.)	+288 kg (+635 lb.)	+259 kg (+571 lb.)	+254 kg (+660 lb.)	0 mm (0 in.)	+12 mm (+0.47 in.)	+16 mm (+0.62 in.)
Michelin 29.5 R 25, 1 Star L-3	-452 kg (-996 lb.)	-336 kg (-741 lb.)	-302 kg (-666 lb.)	-296 kg (-653 lb.)	0 mm (0 in.)	-98 mm (-3.8 in.)	+3 mm (+0.11 in.)
Titan 29.5 R 25, 1 Star L-3	-392 kg (-864 lb.)	-291 kg (-642 lb.)	-262 kg (-578 lb.)	-257 kg (-567 lb.)	0 mm (0 in.)	-110 mm (-4.3 in.)	+4 mm (+0.15 in.)
Bridgestone 29.5 R 25, 1 Star L-3	-336 kg (-741 lb.)	-250 kg (-551 lb.)	-224 kg (-494 lb.)	-220 kg (-484 lb.)	0 mm (0 in.)	-97 mm (-3.8 in.)	+9 mm (+0.3 in.)
Firestone 29.5-25, 28-Ply L-3	+40 kg (+88 lb.)	+30 kg (+66 lb.)	+27 kg (+60 lb.)	+26 kg (+57 lb.)	0 mm (0 in.)	-89 mm (-3.5 in.)	-9 mm (-0.35 in.)
Bridgestone 29.5 R 25, 1 Star L-5 <sup>§</sup>	+900 kg (+1,984 lb.)	+669 kg (+1,475 lb.)	+601 kg (+1,325 lb.)	+590 kg (+1,301 lb.)	0 mm (0 in.)	-87 mm (-3.42 in.)	+45 mm (+1.77 in.)
Michelin 29.5 R 25, 1 Star L-5 <sup>§</sup>	+356 kg (+785 lb.)	+264 kg (+582 lb.)	+238 kg (+525 lb.)	+233 kg (+514 lb.)	0 mm (0 in.)	-103 mm (-4.05 in.)	+26 mm (+1.02 in.)

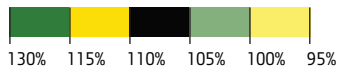
\*May change based on vehicle configuration, weight, or tire-pressure adjustments.

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



LOOSE MATERIALS	kg/m <sup>3</sup>	lb./cu. yd.
Chips, pulpwood	288	486
Cinders (coal, ashes, clinkers)	673	1,134
Clay and gravel, dry	1602	2,700
Clay, compact, solid	1746	2,943
Clay, dry in lump loose	1009	1,701
Clay, excavated in water	1282	2,160
Coal, anthracite, broken, loose	865	1,458
Coal, bituminous, moderately wet	801	1,350
Earth, common loam, dry	1218	2,052
Earth, mud, packed	1843	3,105
Granite, broken	1538	2,592
Gypsum	2275	3,834
Limestone, coarse, sized	1570	2,646
Limestone, mixed sizes	1682	2,835
Limestone, pulverized or crushed	1362	2,295
Sand, damp	2083	3,510
Sand, dry	1762	2,970
Sand, voids, full of water	2083	3,510
Sandstone, quarried	1314	2,214
Shale, broken crushed	1362	2,295
Slag, furnace granulated	1955	3,294
Stone or gravel, 37.5 to 87.5-mm (1.5 to 3.5" size)	1442	2,430
Stone or gravel, 18.75-mm (3/4" size)	1602	2,700

**Bucket Fill Factors**



# Additional equipment

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

744	824	844	Engine
●	●	●	Wet-sleeve cylinder liners
●	●	●	Programmable auto-idle and auto shutdown
●	●	●	Selected idle adjustment from 900–1,250 rpm
●	●	●	Starter protection
●	●	●	Automatic engine cool-down timer <sup>1</sup>
●	●	●	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
Powertrain			
●	●	●	Programmable maximum high gear
●	●	●	Clutch calibration engaged from monitor
●	●	●	2,000-hour vertical spin-on transmission filter
●	●	●	Transmission diagnostic ports
●	●	●	5-speed transmission with lockup torque converter
▲	▲	▲	4-speed transmission with non-lockup torque converter
●	●	▲	Front locking differential
▲	▲	▲	Rear locking differential
▲	▲	▲	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
●	●	●	Integral engine oil cooler
●	●	●	Hydraulic oil cooler (oil to air)
●	●	●	Transmission oil cooler (oil to air)
●	●	●	Charge air cooler (air to air)
●	●	●	Coolant recovery tank
●	●	●	Antifreeze, –37 deg. C [–34 deg. F]
●	●	●	Cool-on-demand swing-out fan
●	●	●	Enclosed fan safety guard
▲	▲	●	Automatic reversing fan drive
●	●	●	Axle and service-brake coolers
▲	▲	▲	Corrosive-environment coolers
Hydraulics			
●	●	●	Automatic return-to-dig bucket positioner
●	●	●	In-cab adjustable automatic boom-height kickout/return to carry

744	824	844	Hydraulics (continued)
●	●	●	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
●	●	●	Ride control, automatic with monitor-adjustable speed settings
▲	▲	▲	Hydraulic control system for quick-coupler locking pins
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
●	●	●	By-pass start safety cover at starter
●	●	●	Remote jump-start access in battery box <sup>1</sup>
●	●	●	Pre-wired for beacon/strobe light
●	●	●	Lights: Halogen driving lights with guards (2) / Front (4), rear cab (2), and rear grille (2) work lights / Incandescent front turn signals and flashers (744K-II and 824K-II) / 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, speedometer, odometer, average fuel consumption, and outside temperature)
●	●	●	Integrated cycle counter with 5 categories
●	●	●	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 USB port
▲	▲	▲	Premium AM/FM/WB/XM Satellite Radio™ ready radio with Bluetooth®, remote auxiliary, and remote USB port
●	●	●	24- to 12-volt, 8-amp converter
▲	▲	▲	24- to 12-volt, 15- or 30-amp converter and power port

<sup>1</sup>Available only with EPA Final Tier 4/EU Stage IV engines.

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions per ISO 9249. No derating is required up to 3050-m (10,000 ft.) altitude. Specifications and design subject to change without notice. Specifications with the exception of bucket capacity are in accordance with all applicable ISO standards. Except where otherwise noted, these specifications are based on units with applicable linkage and standard equipment, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator.

# Additional equipment

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

744	824	844	Operator's Station
●	●	●	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
▲	▲	●	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)
●	●	●	12-volt power port
●	●	●	Rubber floor mat
●	●	●	Tilt steering column
●	●	●	Operator's manual storage compartment
●	●	●	Outside (2) and inside (2) 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)
▲	▲	▲	Rear camera and radar object-detection system
●	●	●	LOADRITE® L2180 Payload Scale ready
▲	▲	▲	LOADRITE L2180 Payload Scale
▲	▲	▲	Fire extinguisher
<b>Loader Linkage</b>			
●	●	●	Z-Bar loader linkage
▲	▲	●	High-Lift Z-Bar loader linkage
<b>Buckets and Attachments</b>			
▲	▲	▲	Full line of Deere pin-on buckets
▲	▲	▲	Bolt-on bucket spill guard
<b>Overall Vehicle</b>			
●	●	●	JDLink™ Ultimate wireless communication system (available in specific countries; see your dealer for details)
●	●	●	NeverGrease™ rear-axle oscillation

744	824	844	Overall Vehicle (continued)
●	●	●	NeverGrease steering-cylinder joints
●	●	●	Bushed pin joints (including static joints on bucket and steering cylinders)
●	●	●	Front and rear tie-downs (844K-II includes mid tie-downs)
●	●	●	Rear cast bumper 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, battery box, and filler access for radiator/fuel/hydraulic transmission
●	●	●	Right and left handrails, platforms, and steps
●	●	●	Service steps and handholds
●	●	●	Storage compartment
●	●	●	Fuel-tank fill strainer
●	●	●	Heavy-duty fuel-tank guard
●	●	●	Ground-level fueling and DEF†
●	●	●	Same-side ground-level daily servicing
●	●	●	Environmental drains for engine, transmission, hydraulic oils, and engine coolant
●	●	●	Fluid-sampling ports for engine, transmission, hydraulic and axle oils, and engine coolant
●	●	●	26.5R25 tires on 5-piece rims
▲	●	●	29.5R25 tires on 5-piece rims
▲	▲	▲	875/65R29 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
▲	▲	▲	Quick fluid service (engine, transmission, hydraulic oils, and engine coolant)
▲	▲	▲	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
▲	▲	▲	Special guarding for waste and forestry applications
†Available only with EPA Final Tier 4/EU Stage IV engines.			

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions per ISO 9249. No derating is required up to 3050-m (10,000 ft.) altitude. Specifications and design subject to change without notice. Specifications with the exception of bucket capacity are in accordance with all applicable ISO standards. Except where otherwise noted, these specifications are based on units with applicable linkage and standard equipment, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator.



**JOHN DEERE**

