744K-II/824K-II LOADERS

226–248 kW (303–333 net hp)





Productivity inspired.

Serious productivity demands serious thinking. Many of the numerous advantages of the 744K-II and 824K-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 material-handling buckets for all models to reduce fill time in processed aggregates, better retain loads, and ultimately conserve fuel. Higher-capacity axles with standard axle cooling and filtration for heavy-duty maneuverability in demanding terrain. Self-adjusting wet-disc brakes for extended wear life and sure stops. Advanced onboard diagnostics with push-button customization of machine operation and response. All to help increase productivity and uptime, while lowering daily operating costs. Read on to learn how the big ideas found in these loaders will benefit your operation.

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|---|--|--------------------------------|-------------------------------|
| ş | Specifications | 744K-II | 824K-II |
| ¢ | Net Peak Power | 226 kW (303 hp) | 248 kW (333 hp) |
| J | Bucket Capacity | 4.0–4.5 m³ (5.25–5.85 cu. yd.) | 4.6–5.2 m³ (6.0–6.75 cu. yd.) |
| ĺ | Z-Bar: | | |
| | Tipping Load, 40-deg. Full Turn, No Tire Deflection | 17 182 kg (37,880 lb.) | 17 597 kg (38,795 lb.) |
| | Breakout Force | 19 367 kg (42,697 lb.) | 18 718 kg (41,266 lb.) |
| - | Operating Weight | 25 314 kg (55,808 lb.) | 26 800 kg (59,083 lb.) |

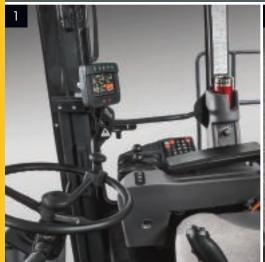


Expand your operator's comfort zone.

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. 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 enables easy push-button operation of even more functions.

- 1. Spacious front glass, low-profile console, and large side and rear windows allow for 360-deg. visibility.
- 2. Keyless-start security system stores up to 10 operator-specific standard security codes to help prevent unauthorized machine operation.
- **3.** Slip-resistant steps, platforms, and handrails enable uninterrupted three-point access. There are no crossbars, decreasing the risk of skids.











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 744K-II or 824K-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. JOHN DEER





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.

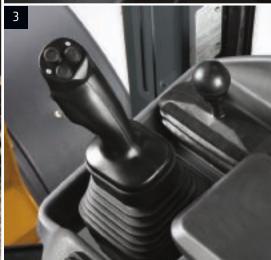
Responsive steering combines with full 80-deg. articulation for exceptional maneuverability in tight quarters — and faster cycle times.

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

- Ride control smoothes 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 km/h (0.5 and 15 mph).
- 2. Available joystick steering offers fatigue-beating comfort and is ideal for V-pattern truck loading. 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 push-button 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 areas? Need a High-Lift boom, a larger material-handling bucket, 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.

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

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

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





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 unacceptable. Boost your uptime (and your bottom line) with John Deere loader advantages such as solid-state electronics, highly efficient Quad-Cool™, and advanced diagnostic monitors. You'll also benefit from traditional Deere durability features such as heavy-duty wet-sleeve diesels, 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.

Highly reliable circuit-board technology and sealed solid-state switches reduce the need for fuses, relays, and connectors. Electrical integrity is durable and uncompromised. Large-capacity fuel tank lets you run longer between fill-ups. A fast-fill option gets you back in the rat race more quickly.

3-mm (0.12 in.) 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.

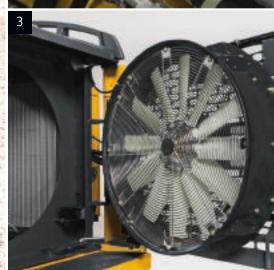
Larger, higher-capacity heavy-duty axles with standard axle cooling and filtration increase durability in demanding conditions. Self-adjusting wet-disc brakes help provide long life and sure stops.



- 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-tomaintain high-uptime exhaust filters, and selective catalytic reduction (SCR).
- 2. Bulkhead fittings eliminate long hoses, simplifying replacement and component exchange.
- 3. Quad-Cool design places coolers in a unique boxed configuration that's isolated from engine heat, for increased efficiency and durability. Optional hydraulic reversing fan automatically reverses at predetermined intervals, or can be programmed through the monitor, to eject debris from the cores.





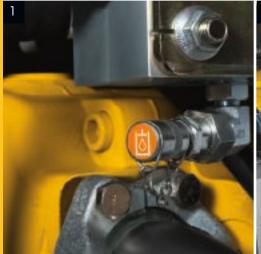


The buck stops here.

Servicing big iron doesn't have to be a big production. And it isn't on a K Series-II Loader. 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, simplifying 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.

- 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 easyto-navigate LCD monitor displays diagnostic messages and offers possible solutions to help you get back up and running quickly.







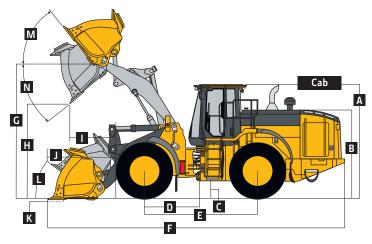




| Engine | 744K-II Z-BAR / HIGH-LIFT | | | | | | |
|---|---|-----------------------------|----------------------|---|---------------------------------------|--|--|
| Manufacturer and Model | John Deere PowerTech™ PSS 6090 |) John Deere Power | Tech™ Plus 6090H | John Dee | ere PowerTech™ 6090H | | |
| Non-Road Emission Standard | EPA Final Tier 4/EU Stage IV | EPA Tier 3/EU Sta | | | 2/EU Stage II | | |
| Cylinders | 6 | 6 | ge m/r | 6 | 27 20 Stage II | | |
| Valves per Cylinder | 4 | | 4 | | | | |
| Displacement | 9.0 L (548 cu. in.) | 9.0 L (548 cu. in.) | | | 8 cu in l | | |
| Net Peak Power (ISO 9249) | 226 kW (303 hp) at 1,500 rpm | 227 kW (304 hp) | at 1 500 rpm | 9.0 L (548 cu. in.) 227 kW (304 hp) at 1,500 rpm | | | |
| Net Peak Torque (ISO 9249) | 1455 Nm (1,073 lbft.) at 1,500 rp | | | | 1456 Nm (1,074 lbft.) at 1,400 rpm | | |
| | | m 1456 Nm (1,074 lb 47% |)11.) at 1,400 (pill | 47% | 1 (1,074 lb1t.) at 1,400 lpill | | |
| Net Torque Rise | 50% | | | | | | |
| Fuel System (electronically controlled) | High-pressure common rail | High-pressure co | | | High-pressure common rail | | |
| Lubrication | Full-flow spin-on filter and integration | al Full-flow spin-on cooler | filter and integral | cooler | Full-flow spin-on filter and integral | | |
| Aspiration | Series turbocharged, charge air | Turbocharged, ch | argo air coolod | | arged, charge air cooled | | |
| Aspiration | cooled | rurbochargeu, ch | arge all cooled | TUIDUCII | arged, charge all cooled | | |
| Air Cleaner | Under-hood, dual-element dry type, restriction indicator in cab monitor for service | | | | | | |
| Cooling | onder nood, daar element dry ty | oc, restriction maleate | in tab moment | 1 JCI VICC | | | |
| Fan Drive | Hydraulically driven, proportional | ly Hydraulically drive | en proportionally | Hydraulia | cally driven, proportionally | | |
| Tuli Brive | controlled, fan aft of coolers | controlled, fan af | | | ed, fan aft of coolers | | |
| Electrical | controlled, fall art of coolers | controlled, full di | t or coolers | CONTROLL | ed, full dit of coolers | | |
| Electrical System | 24 volt with 130-amp alternator | 24 volt with 100- | amn alternator | 24 volt v | vith 100-amp alternator | | |
| Batteries (2 – 12 volt) | 1,400 CCA (each) | 1,400 CCA (each) | amp diterriator | 1,400 CC | | | |
| Transmission System | i, iou cen (eacii) | I, TOU CCA (Call) | | 1,400 CC | .A (cacil) | | |
| Type | Countershaft-type PowerShift™ | | | | | | |
| Torque Converter | Single stage, dual phase with free | whooling stator | | | | | |
| Shift Control | | | andant | | | | |
| Operator Interface | Electronically modulated, adaptive, load and speed dependent 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 | | | | -aown or kick-up/aown; | | |
| | and 3 adjustable clutch-cutoff set | | | | | | |
| Maniana Tanada (with 20 F D 20 1 Ctan 1 2 time) | Standard 5-Speed with Lockup To Forward Rever | | Optional 4-Speed | | Davisana | | |
| Maximum Travel Speeds (with 26.5 R 25, 1 Star L3 tires) | | | Forward | L.A | Reverse | | |
| Range 1 | | m/h (4.6 mph) | 6.6 km/h (4.1 mp | | 6.6 km/h (4.1 mph) | | |
| Range 2 | | km/h (8.9 mph) | 13.8 km/h (8.6 m | | 13.8 km/h (8.6 mph) | | |
| Range 3 | | km/h (20.1 mph) | 20.8 km/h (12.9 r | | 29.9 km/h (18.6 mph) | | |
| Range 4 | 32.2 km/h (20.0 mph) N/A | | ` ' ' | | 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 pla | | | | | | |
| Differentials | Hydraulic locking front with conv | entional rear – standa | rd; dual locking fro | nt and rea | r – 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 rele | eased, inboard, sun-ge | ear mounted, oil co | oled, self- | adjusting, single disc | | |
| Parking Brakes (conform to ISO 3450) | Automatic spring applied, hydrau | | | | 3 3. | | |
| Tires/Wheels (see page 18 for complete tire adjustments) | , | | | | | | |
| | Tread Width | Width Over Tires | | | | | |
| Michelin 26.5 R 25, 2 Star L3 | 2298 mm (90.5 in.) | 3084 mm (121.4 i | n.) | | | | |
| Serviceability | | | | | | | |
| Refill Capacities | EPA FT4/EU Stage IV | EPA Tier 3/EU Sta | ge IIIA and EPA Tier | 2/EU Stad | ge II | | |
| Fuel Tank with Lockable Cap | 477 L (126 gal.) | 469 L (124 gal.) | , | | 3 | | |
| Diesel Exhaust Fluid (DEF) | 26.3 L (6.9 gal.) | N/A | | | | | |
| Cooling System | 51.2 L (54.1 qt.) | 44.8 L (47.3 qt.) | | | | | |
| Engine Oil with Vertical Spin-On Filter | 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.) | | | | | |
| Axle Oil (front and rear, each) | 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.) | | | | | |
| Park Brake Oil (wet disc) | 0.7 L (24 oz.) | 0.7 L (24 oz.) | | | | | |
| Hydraulic System/Steering | · · · · · · · · · · · · · · · · · · · | 0.7 = (2 02.) | | | | | |
| Pump (loader and steering) | 2 variable-displacement, load-ser | sing axial-niston num | ns: closed-center s | vstem | | | |
| Maximum Rated Flow at 6895 kPa (1,000 psi) and 2,250 rpm | 491 L/m (130 gpm) | .sig axiai pistoii palii | ps, closed cellter s | , 500111 | | | |
| System Relief Pressure (loader and steering) | 22 670 kPa (3,288 psi) | | | | | | |
| Loader Controls | 2-function valve; single- or dual-l | ever controls; control | lever lockout featu | re; option | al 3rd- and 4th-function | | |
| | valve with auxiliary levers | | | | | | |



| 744K-II Z-BAR / HIGH-LIFT |
|--------------------------------------|
| |
| Power, fully hydraulic |
| 80-deg. arc (40 deg. each direction) |
| 5.92 m (19 ft. 5 in.) |
| |
| 6.8 sec. |
| 1.6 sec. |
| 2.8 sec. |
| 11.2 sec. |
| 3 |



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

Z-Bar

Z-Bar

Z-Bar

Z-Bar

Z-Bar High-Lift

Z-Bar

Z-Bar

| Dimensions with Bucket | 4.0-m³ (5.25 c | cu. yd.) general- | purpose | 4.2-m³ (5.5 cu. yd.) general-purpose enhanced production | | | 4.5-m³ (5.85 cu. yd.) material-handling enhanced production | | 4.0-m³ (5.25 cu. yd.) gen- eral-purpose | |
|--|----------------|-------------------|-----------------|---|----------------|-----------------|---|----------------|---|--|
| | | teeth and | | | teeth and | | | | | |
| Cutting Edge Type | bolt-on-edge | segments | JAGZ™ | bolt-on-edge | segments | JAGZ | bolt-on-edge | JAGZ | bolt-on-edge | |
| A Height to Top of Cab | 3.50 m | 3.50 m | 3.50 m | 3.50 m | 3.50 m | 3.50 m | 3.50 m | 3.50 m | 3.50 m | |
| | (11 ft. 6 in.) | (11 ft. 6 in.) | (11 ft. 6 in.) | (11 ft. 6 in.) | (11 ft. 6 in.) | (11 ft. 6 in.) | (11 ft. 6 in.) | (11 ft. 6 in.) | (11 ft. 6 in.) | |
| B Hood Height | 2.65 m | 2.65 m | 2.65 m | 2.65 m | 2.65 m | 2.65 m | 2.65 m | 2.65 m | 2.65 m | |
| | (8 ft. 8 in.) | (8 ft. 8 in.) | (8 ft. 8 in.) | (8 ft. 8 in.) | (8 ft. 8 in.) | (8 ft. 8 in.) | (8 ft. 8 in.) | (8 ft. 8 in.) | (8 ft. 8 in.) | |
| C Ground Clearance | 462 mm | 462 mm | 462 mm | 462 mm | 462 mm | 462 mm | 462 mm | 462 mm | 462 mm | |
| | (18.2 in.) | (18.2 in.) | (18.2 in.) | (18.2 in.) | (18.2 in.) | (18.2 in.) | (18.2 in.) | (18.2 in.) | (18.2 in.) | |
| D Length from Centerline to Front Axle | 1.70 m | 1.70 m | 1.70 m | 1.70 m | 1.70 m | 1.70 m | 1.70 m | 1.70 m | 1.70 m | |
| | (5 ft. 7 in.) | (5 ft. 7 in.) | (5 ft. 7 in.) | (5 ft. 7 in.) | (5 ft. 7 in.) | (5 ft. 7 in.) | (5 ft. 7 in.) | (5 ft. 7 in.) | (5 ft. 7 in.) | |
| E Wheelbase | 3.46 m | 3.46 m | 3.46 m | 3.46 m | 3.46 m | 3.46 m | 3.46 m | 3.46 m | 3.46 m | |
| | (11 ft. 4 in.) | (11 ft. 4 in.) | (11 ft. 4 in.) | (11 ft. 4 in.) | (11 ft. 4 in.) | (11 ft. 4 in.) | (11 ft. 4 in.) | (11 ft. 4 in.) | (11 ft. 4 in.) | |
| F Overall Length, Bucket on Ground | 9.02 m | 9.23 m | 9.02 m | 9.10 m | 9.30 m | 9.10 m | 9.16 m | 9.16 m | 9.64 m | |
| | (29 ft. 7 in.) | (30 ft. 4 in.) | (29 ft. 7 in.) | (29 ft. 10 in.) | (30 ft. 6 in.) | (29 ft. 10 in.) | (30 ft. 1 in.) | (30 ft. 1 in.) | (31 ft. 8 in.) | |
| G Height to Hinge Pin, Fully Raised | 4.28 m | 4.28 m | 4.28 m | 4.28 m | 4.28 m | 4.28 m | 4.28 m | 4.28 m | 4.85 m | |
| | (14 ft. 1 in.) | (14 ft. 1 in.) | (14 ft. 1 in.) | (14 ft. 1 in.) | (14 ft. 1 in.) | (14 ft. 1 in.) | (14 ft. 1 in.) | (14 ft. 1 in.) | (15 ft. 11 in.) | |
| H Dump Clearance, 45 deg., Full Height | 2.97 m | 2.82 m | 2.97 m | 2.90 m | 2.76 m | 2.91 m | 2.86 m | 2.86 m | 3.61 m | |
| | (9 ft. 10 in.) | (9 ft. 3 in.) | (9 ft. 9 in.) | (9 ft. 6 in.) | (9 ft. 1 in.) | (9 ft. 7 in.) | (9 ft. 5 in.) | (9 ft. 5 in.) | (11 ft. 10 in.) | |
| I Reach, 45-deg. Dump, Full Height | 1.17 m | 1.30 m | 1.17 m | 1.21 m | 1.33 m | 1.21 m | 1.25 m | 1.25 m | 1.38 m | |
| | (3 ft. 10 in.) | (4 ft. 4 in.) | (3 ft. 10 in.) | (4 ft. 0 in.) | (4 ft. 4 in.) | (4 ft. 0 in.) | (4 ft. 1 in.) | (4 ft. 1 in.) | (4 ft. 6 in.) | |
| J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) | 1.89 m | 1.96 m | 1.89 m | 1.92 m | 1.98 m | 1.92 m | 1.95 m | 1.95 m | 2.41 m | |
| Clearance | (6 ft. 2 in.) | (6 ft. 5 in.) | (6 ft. 2 in.) | (6 ft. 4 in.) | (6 ft. 6 in.) | (6 ft. 4 in.) | (6 ft. 5 in.) | (6 ft. 5 in.) | (7 ft. 11 in.) | |
| K Maximum Digging Depth | 105 mm | 121 mm | 102 mm | 111 mm | 131 mm | 108 mm | 116 mm | 116 mm | 214 mm | |
| | (4.1 in.) | (4.8 in.) | (4.0 in.) | (4.4 in.) | (5.2 in.) | (4.3 in.) | (4.6 in.) | (4.6 in.) | (8.4 in.) | |
| L Maximum Rollback at Ground Level | 39.2 deg. | 39.2 deg. | 39.2 deg. | 39.2 deg. | 39.2 deg. | 39.2 deg. | 39.2 deg. | 39.2 deg. | 40.6 deg. | |
| M Maximum Rollback, Boom Fully Raised | 54.3 deg. | 54.3 deg. | 54.3 deg. | 54.3 deg. | 54.3 deg. | 54.3 deg. | 54.3 deg. | 54.3 deg. | 53.1 deg. | |
| N Maximum Bucket Dump Angle, Fully Raised | 49.3 deg. | 49.3 deg. | 49.3 deg. | 49.8 deg. | 49.8 deg. | 49.8 deg. | 49.8 deg. | 49.8 deg. | 39.2 deg. | |
| Loader Clearance Circle, Bucket Carry Position | 14.02 m | 14.14 m | 14.00 m | 14.06 m | 14.24 m | 14.06 m | 14.10 m | 14.10 m | 14.59 m | |
| | (46 ft. 0 in.) | (46 ft. 5 in.) | (45 ft. 11 in.) | (46 ft. 2 in.) | (46 ft. 9 in.) | (46 ft. 2 in.) | (46 ft. 3 in.) | (46 ft. 3 in.) | (47 ft. 10 in.) | |

| Dimensions and Specifications | | | | | | | | | |
|---|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| with Pin-On Bucket (continued) | 744K-II Z-BA | R / HIGH-LIFT | | | | | | | |
| | Z-Bar | Z-Bar | Z-Bar | Z-Bar | Z-Bar | Z-Bar | Z-Bar | Z-Bar | High-Lift |
| | | | | | | | 4.5-m³ (5.85 cu. yd.) | | 4.0-m³ (5.25 |
| | | | | 4.2-m³ (5.5 cu. yd.) general-purpose | | | material-handling | | cu. yd.) gen- |
| Specifications with Bucket | 4.0-m³ (5.25 d | . , , , , , , , , | | enhanced production | | | enhanced pro | duction | eral-purpose |
| Cutting Edge Tune | h = lh = = = d = = | teeth and | IAC7 | h = h = = = = d = = | teeth and | JAGZ | halt an adaa | JAGZ | halt an adaa |
| Cutting Edge Type | bolt-on edge | segments 4.0 m ³ | <i>JAGZ</i> 4.0 m ³ | bolt-on edge | segments 4.2 m ³ | 4.2 m ³ | bolt-on edge 4.5 m ³ | | bolt-on edge |
| Capacity, Heaped | 4.0 m ³ | | | 4.2 m ³ | | | | 4.5 m ³ | 4.0 m ³ |
| Capacity, Struck | (5.25 cu. yd.) 3.4 m ³ | (5.25 cu. yd.) 3.4 m ³ | (5.25 cu. yd.) 3.4 m ³ | (5.5 cu. yd.) 3.5 m ³ | (5.5 cu. yd.) 3.5 m ³ | (5.5 cu. yd.) 3.5 m ³ | (5.85 cu. yd.) 3.8 m ³ | (5.85 cu. yd.) 3.8 m ³ | (5.25 cu. yd.) 3.4 m ³ |
| Capacity, Struck | (4.5 cu. yd.) | (4.5 cu. yd.) | (4.5 cu. yd.) | (4.6 cu. yd.) | (4.6 cu. yd.) | (4.6 cu. yd.) | (4.9 cu. yd.) | (4.9 cu. yd.) | (4.5 cu. yd.) |
| Bucket Weight with Bolt-On Cutting | 2575 kg | 2703 kg | 2598 kg | 2866 kg | 2998 kg | 2889 kg | 2920 kg | 2944 kg | 2517 kg |
| Edge | (5,677 lb.) | (5,959 lb.) | (5,728 lb.) | (6,318 lb.) | (6,609 lb.) | (6,369 lb.) | (6,437 lb.) | (6,490 lb.) | (5,549 lb.) |
| Bucket Width | 3.27 m | 3.27 m | 3.27 m | 3.27 m | 3.27 m | 3.27 m | 3.27 m | 3.27 m | 3.27 m |
| Bucket Width | (10 ft. 9 in.) | (10 ft. 9 in.) | (10 ft. 9 in.) | (10 ft. 9 in.) | (10 ft. 9 in.) | (10 ft. 9 in.) |
| Breakout Force | 19 367 kg | 16 900 kg | 19 401 kg | 18 263 kg | 16 093 kg | 18 294 kg | 17 507 kg | 17 459 kg | 17 433 kg |
| | (42,697 lb.) | (37,258 lb.) | (42,772 lb.) | (40,263 lb.) | (35,479 lb.) | (40,331 lb.) | (38,596 lb.) | (38,490 lb.) | (38,433 lb.) |
| Tipping Load, Straight, No Tire | 19 898 kg | 19 734 kg | 19 869 kg | 19 423 kg | 19 244 kg | 19 403 kg | 19 334 kg | 19 239 kg | 15 747 kg |
| Deflection | (43,868 lb.) | (43,506 lb.) | (43,804 lb.) | (42,820 lb.) | (42,426 lb.) | (42,776 lb.) | (42,624 lb.) | (42,415 lb.) | (34,716 lb.) |
| Tipping Load, Straight, with Tire | 18 591 kg | 18 420 kg | 18 561 kg | 18 138 kg | 17 964 kg | 18 120 kg | 18 051 kg | 17 958 kg | 14 682 kg |
| Deflection | (40,986 lb.) | (40,609 lb.) | (40,920 lb.) | (39,987 lb.) | (39,604 lb.) | (39,948 lb.) | (39,796 lb.) | (39,591 lb.) | (32,368 lb.) |
| Tipping Load, 37-deg. Partial Turn, | 17 560 kg | 17 386 kg | 17 531 kg | 17 109 kg | 16 931 kg | 17 089 kg | 17 031 kg | 16 937 kg | 13 808 kg |
| No Tire Deflection | (38,713 lb.) | (38,330 lb.) | (38,649 lb.) | (37,719 lb.) | (37,326 lb.) | (37,675 lb.) | (37,547 lb.) | (37,340 lb.) | (30,441 lb.) |
| Tipping Load, 40-deg. Full Turn, No | 17 182 kg | 17 008 kg | 17 153 kg | 16 735 kg | 16 556 kg | 16 715 kg | 16 658 kg | 16 564 kg | 13 494 kg |
| Tire Deflection | (37,880 lb.) | (37,469 lb.) | (37,816 lb.) | (36,894 lb.) | (36,500 lb.) | (36,850 lb.) | (36,725 lb.) | (36,517 lb.) | (29,749 lb.) |
| Tipping Load, 40-deg. Full Turn, with | 15 516 kg | 15 345 kg | 15 486 kg | 15 096 kg | 14 922 kg | 15 078 kg | 15 021 kg | 14 928 kg | 12 186 kg |
| Tire Deflection | (34,207 lb.) | (33,830 lb.) | (34,141 lb.) | (33,280 lb.) | (32,897 lb.) | (33,241 lb.) | (33,116 lb.) | (32,911 lb.) | (26,865 lb.) |
| Rated Operating Load, 50% Full-Turn | 7758 kg | 7673 kg | 7743 kg | 7548 kg | 7461 kg | 7539 kg | 7511 kg | 7464 kg | 6093 kg |
| Tipping Load, with Tire Deflection (conforms to ISO 14397-1)* | (17,103 lb.) | (16,915 lb.) | (17,070 lb.) | (16,640 lb.) | (16,449 lb.) | (16,621 lb.) | (16,558 lb.) | (16,455 lb.) | (13,433 lb.) |
| Operating Weight | 25 314 kg | 25 444 kg | 25 338 kg | 25 587 kg | 25 719 kg | 25 611 kg | 25 576 kg | 25 665 kg | 25 903 kg |
| | (55,808 lb.) | (56,094 lb.) | (55,861 lb.) | (56,410 lb.) | (56,701 lb.) | (56,463 lb.) | (56,385 lb.) | (56,582 lb.) | (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.

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-m³ (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*

| · · · · · · · · · · · · · · · · · · · | | | Tipping Load, | Tipping Load, | · • • • • • • • • • • • • • • • • • • • | · • | |
|--|-------------------------|--------------------------|--------------------------|--------------------------|---|-----------------------|-----------------------|
| Add (+) or deduct (–) kg (lb.) as indicated | Operating | Tipping Load, | 37-deg. | 40-deg. | | | |
| for loaders with 3-piece rims | Weight | Straight | Partial Turn | 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§ | +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.) |
| 4.2-m³ (5.5 cu. yd.) General-Purpose Enhanced- Production Bucket with Wear Liners | +212 kg (+467 lb.) | –211 kg (–465 lb.) | –212 kg (–467 lb.) | –212 kg (–467 lb.) | 0 mm (0 in.) | 0 mm (0 in.) | 0 mm (0 in.) |
| 4.5-m³ (5.85 cu. yd.) Material-Handling Enhanced-Production Bucket with Wear Liners | +278 kg (+613 lb.) | –282 kg (–622 lb.) | –283 kg (–624 lb.) | –283 kg (–624 lb.) | 0 mm (0 in.) | 0 mm (0 in.) | 0 mm (0 in.) |
| High-Lift Boom | +546 kg (+1,204 lb.) | –4115 kg (–9,072 lb.) | –3709 kg (–8,177 lb.) | –3643 kg (–8,031 lb.) | 0 mm (0 in.) | 0 mm (0 in.) | 0 mm (0 in.) |
| *May change based on vehicle configuration, w | pinht or tire-press | uro adjustments | | | | | |

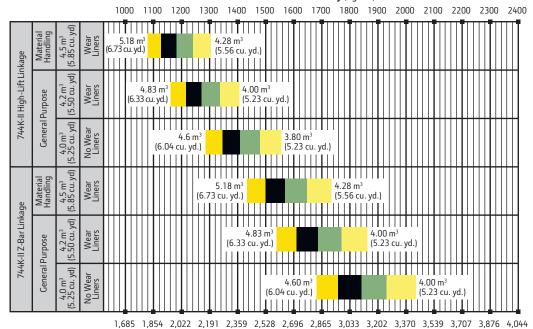
^{*}May change based on vehicle configuration, weight, or tire-pressure adjustments.

^{*}Rated operating capacity based on Deere attachments only.

[§]Requires 8-deg. rear axle stops.

Material Density (kg/m³)

Material Density (lb./cu.yd.)



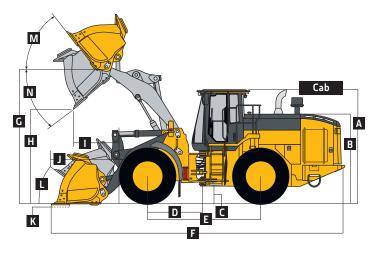
| LOOSE MATERIALS | kg/m³ lb | ./cu. yd. |
|--------------------------------------|----------|-----------|
| | | |
| Chips, pulpwood | 288 | 486 |
| Cinders (coal, ashes, clinkers) | 673 | 1,134 |
| Clay and gravel, dry | 1602 | 2,700 |
| Clay, compact, solid | 1746 | 2,943 |
| Clay, dry in lump loose | 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") siz | ze 1602 | 2,700 |



| Engine | 824K-II Z-BAR / HIGH-LIFT | | | | | | |
|---|---|--|--|---|----------------------------------|----------------------------------|--|
| Manufacturer and Model | John Deere PowerTech™ PSS | 6135 | John Deere Power | Tech™ Plus 6135H | John De | ere PowerTech™ 6135H | |
| Non-Road Emission Standard | EPA Final Tier 4/EU Stage IV | | EPA Tier 3/EU Sta | | | · 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. |) | | 824 cu. in.) | |
| Net Peak Power (ISO 9249) | 248 kW (333 hp) at 1,500 rp | om | 248 kW (333 hp) a | | 248 kW (333 hp) at 1,600 rpm | | |
| Net Peak Torque (ISO 9249) | 1635 Nm (1,206 lbft.) at 90 | | 1619 Nm (1,194 II | | | 1619 Nm (1,194 lbft.) at 900 rpm | |
| Net Torque Rise | 57% | | 55% | ,, | 55% | | |
| Fuel System | | | | | Mechanically actuated electronic | | |
| , | unit injectors | | unit injectors | | unit injectors | | |
| Lubrication | Full-flow spin-on filter and integral Full-flow spin-on filter and integral Fu | | Full-flov cooler | v spin-on filter and integral | | | |
| Aspiration | Series turbocharged, charge cooled | e air | Turbocharged, cha | arge air cooled | | arged, charge air cooled | |
| Air Cleaner | Under-hood, dual-element of | dry type r | octriction indicato | r in eah monitor fo | rconico | | |
| Cooling | Olider-1100d, dual-element d | ary type, i | estriction marcato | I III Cab IIIOIIILOI 10 | Service | | |
| Fan Drive | Hudraulically driven propert | tionally | Hudraulically drive | n proportionally | Hydrauli | ically driven, proportionally | |
| rall blive | controlled, fan aft of coolers | lydraulically driven, proportionally Hydraulically driven, proportionally ontrolled, fan aft of coolers controlled, fan aft of coolers | | | ed, fan aft of coolers | | |
| Electrical | 2/ 1/ 1/ 722 | | 2/ 1: :: : : : : : : : : : : : : : : : : | | 24 | W 100 | |
| Electrical System | 24 volt with 130-amp altern | ator | 24 volt with 100-a | imp alternator | | with 100-amp alternator | |
| Batteries (2 – 12 volt) | 1,400 CCA (each) | | 1,400 CCA (each) | | 1,400 C | CA (each) | |
| Transmission System | 6 1 1 6 1 5 | ·C·TV | | | | | |
| Type | Countershaft-type PowerSh | | P | | | | |
| Torque Converter | Single stage, dual phase wit | | | | | | |
| Shift Control | Electronically modulated, ac | 1.C. 1 | 1 1 1 1 | | | | |
| Operator Interface | Steering-column or joystick-mounted F-N-R and gear-select lever; Quick-Shift button on hydraul | | | | | | |
| Shift Modes | Manual/auto (1st–5th or 2nd–5th); Quick-Shift button with 2 selectable modes: kick-down or kick and 3 clutch-cutoff settings adjustable on switch pad | | | | | | |
| | Standard 5-Speed with Lock | kup Torqu Reverse | e Converter | Optional 4-Speed | | | |
| Maximum Travel Speeds (with 26.5 R 25, 1 Star L3 tires) | | | Forward | | Reverse | | |
| Range 1 | | | (5.2 mph) | 7.4 km/h (4.6 mp | | 7.4 km/h (4.6 mph) | |
| Range 2 | | | h (8.7 mph) | 13.8 km/h (8.6 m | | | |
| Range 3 | | 33.9 km/ | h (21.1 mph) | 21.0 km/h (13.1 r | nph) 30.1 km/h (18.7 mph) | | |
| Range 4 | ` ' ' | N/A | | 40.0 km/h (24.9 r | nph) | N/A | |
| Range 5 | 40.0 km/h (24.9 mph) | N/A | | N/A | | N/A | |
| Axles/Brakes | | | | | | | |
| Final Drives | Heavy-duty inboard-mounte | | | | | | |
| Differentials | Hydraulic locking front with | | onal rear – standaı | d; dual locking fro | nt and rea | ar – optional | |
| Rear Axle Oscillation, Stop to Stop (with 26.5 R 25, 1 Star L3 tires) | 26 deg. (13 deg. each direct | ion) | | | | | |
| Service Brakes (conform to ISO 3450) | Hydraulically actuated, spring | g released | l, inboard, sun-gea | r mounted, pressur | e oil coole | ed, self-adjusting, single disc | |
| Parking Brakes (conform to ISO 3450) | Automatic spring applied, hy | ydraulical | ly released, oil coo | led, multi disc | | | |
| Tires/Wheels (see page 22 for complete tire adjustments) | | | | | | | |
| | Tread Width | | Width Over Tires | | | | |
| Michelin 26.5 R 25, 1 Star L3 | 2298 mm (90.5 in.) | | 3084 mm (121.4 i | n.) | | | |
| Serviceability | | | | | | | |
| Refill Capacities | EPA FT4/EU Stage IV | | | ge IIIA and EPA Tier | 2/EU Sta | ge II | |
| Fuel Tank with Lockable Cap | 477 L (126 gal.) | | 469.4 L (124 gal.) | | | | |
| Diesel Exhaust Fluid (DEF) | 26.3 L (6.9 gal.) | | N/A | | | | |
| Cooling System | 78.75 L (83.2 qt.) | | 47.4 L (50.1 qt.) | | | | |
| Engine Oil with Vertical Spin-On Filter | 40 L (42.3 qt.) | | 36 L (38 qt.) | | | | |
| Transmission Reservoir with Vertical Filter | 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.) | | | | |
| Hydraulic Reservoir and Filter | 165 L (43.7 gal.) | | 159 L (42 gal.) | | | | |
| Park Brake Oil (wet disc) | 0.7 L (24 oz.) | | 0.7 L (24 oz.) | | | | |
| Hydraulic System/Steering | 2 11 11 11 1 | | | | | | |
| Pump (loader and steering) | 2 variable-displacement, loa | id-sensin | g axial-piston pum | ps; closed-center s | ystem | | |
| 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 or valve with auxiliary levers | dual-leve | controls; control | ever lockout featu | re; optior | nal 3rd- and 4th-function | |
| | | | | | | | |



| Hydraulic System/Steering (continued) | 824K-II Z-BAR / HIGH-LIFT | |
|---|--------------------------------------|-----------|
| Steering (conforms to ISO 5010) | | |
| Туре | 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

| | Z-Bar | Z-Bar | Z-Bar | Z-Bar | Z-Bar | Z-Bar | Z-Bar | Z-Bar | High-Lift | High-Lift |
|---|----------------|----------------|----------------|---|----------------|----------------|---|----------------|---|----------------|
| Dimensions with Bucket | | | | 4.8-m³ (6.25 cu. yd.) general-purpose enhanced production | | | 5.2-m³ (6.75 cu. yd.) material-handling enhanced production | | 4.6-m³ (6.0 cu. yd.) general-purpose | |
| | bolt-on- | teeth and | | bolt-on- | teeth and | | bolt-on- | | bolt-on- | teeth and |
| Cutting Edge Type | edge | segments | JAGZ™ | edge | segments | JAGZ | edge | JAGZ | edge | segments |
| A Height to Top of Cab | 3.55 m | 3.55 m | 3.55 m | 3.55 m | 3.55 m | 3.55 m | 3.55 m | 3.55 m | 3.55 m | 3.55 m |
| | (11 ft. 8 in.) | (11 ft. 8 in.) | (11 ft. 8 in.) | (11 ft. 8 in.) | (11 ft. 8 in.) | (11 ft. 8 in.) | (11 ft. 8 in. |
| B Hood Height | 2.70 m | 2.70 m | 2.70 m | 2.70 m | 2.70 m | 2.70 m | 2.70 m | 2.70 m | 2.70 m | 2.70 m |
| | (8 ft. 10 in.) | (8 ft. 10 in.) | (8 ft. 10 in.) | (8 ft. 10 in.) | (8 ft. 10 in.) | (8 ft. 10 in.) | (8 ft. 10 in.) |
| C Ground Clearance | 462 mm | 462 mm | 462 mm | 462 mm | 462 mm | 462 mm | 462 mm | 462 mm | 462 mm | 462 mm |
| | (18.2 in.) | (18.2 in.) | (18.2 in.) | (18.2 in.) | (18.2 in.) | (18.2 in.) | (18.2 in.) | (18.2 in.) | (18.2 in.) | (18.2 in.) |
| D Length from Centerline to Front Axle | 1.70 m | 1.70 m | 1.70 m | 1.70 m | 1.70 m | 1.70 m | 1.70 m | 1.70 m | 1.70 m | 1.70 m |
| | (5 ft. 7 in.) | (5 ft. 7 in.) | (5 ft. 7 in.) | (5 ft. 7 in.) | (5 ft. 7 in.) | (5 ft. 7 in.) | (5 ft. 7 in.) |
| E Wheelbase | 3.46 m | 3.46 m | 3.46 m | 3.46 m | 3.46 m | 3.46 m | 3.46 m | 3.46 m | 3.46 m | 3.46 m |
| | (11 ft. 4 in.) | (11 ft. 4 in.) | (11 ft. 4 in.) | (11 ft. 4 in.) | (11 ft. 4 in.) | (11 ft. 4 in.) | (11 ft. 4 in.) |
| F Overall Length, Bucket on Ground | 9.28 m | 9.48 m | 9.28 m | 9.38 m | 9.59 m | 9.37 m | 9.44 m | 9.44 m | 9.77 m | 9.95 m |
| | (30 ft. 5 in.) | (31 ft. 1 in.) | (30 ft. 5 in.) | (30 ft. 9 in.) | (31 ft. 6 in.) | (30 ft. 9 in.) | (31 ft. 0 in.) | (31 ft. 0 in.) | (32 ft. 1 in.) | (32 ft. 8 in.) |
| G Height to Hinge Pin, Fully Raised | 4.48 m | 4.48 m | 4.48 m | 4.48 m | 4.48 m | 4.48 m | 4.48 m | 4.48 m | 4.85 m | 4.85 m |
| | (14 ft. 9 in.) | (14 ft. 9 in.) | (14 ft. 9 in.) | (14 ft. 9 in.) | (14 ft. 9 in.) | (15 ft. 11 in.) | (15 ft. 11 in. |
| H Dump Clearance, 45 deg., Full Height | 3.19 m | 3.06 m | 3.20 m | 3.12 m | 2.97 m | 3.12 m | 3.07 m | 3.08 m | 3.63 m | 3.52 m |
| | (10 ft. 6 in.) | (10 ft. 0 in.) | (10 ft. 6 in.) | (10 ft. 3 in.) | (9 ft. 9 in.) | (10 ft. 3 in.) | (10 ft. 1 in.) | (10 ft. 1 in.) | (11 ft. 11 in.) | (11 ft. 7 in.) |
| I Reach, 45-deg. Dump, Full Height | 1.28 m | 1.42 m | 1.28 m | 1.28 m | 1.42 m | 1.28 m | 1.38 m | 1.38 m | 1.63 m | 1.77 m |
| | (4 ft. 2 in.) | (4 ft. 8 in.) | (4 ft. 2 in.) | (4 ft. 4 in.) | (4 ft. 10 in.) | (4 ft. 4 in.) | (4 ft. 6 in.) | (4 ft. 6 in.) | (5 ft. 4 in.) | (5 ft. 10 in.) |
| J Reach, 45-deg. Dump, 2.13-m | 2.05 m | 2.12 m | 2.05 m | 2.08 m | 2.15 m | 2.09 m | 2.10 m | 2.10 m | 2.50 m | 2.58 m |
| (7 ft. 0 in.) Clearance | (6 ft. 9 in.) | (6 ft. 11 in.) | (6 ft. 9 in.) | (6 ft. 10 in.) | (7 ft. 1 in.) | (6 ft. 10 in.) | (6 ft. 11 in.) | (6 ft. 11 in.) | (8 ft. 2 in.) | (8 ft. 5 in.) |
| K Maximum Digging Depth | 117 mm | 130 mm | 114 mm | 125 mm | 145 mm | 121 mm | 130 mm | 127 mm | 196 mm | 196 mm |
| | (4.6 in.) | (5.1 in.) | (4.5 in.) | (4.9 in.) | (5.7 in.) | (4.8 in.) | (5.1 in.) | (5.0 in.) | (7.7 in.) | (7.7 in.) |
| L Maximum Rollback at Ground Level | 44.3 deg. | 44.3 deg. | 44.3 deg. | 44.3 deg. | 44.3 deg. | 44.3 deg. | 44.3 deg. | 44.3 deg. | 45.5 deg. | 45.5 deg. |
| M Maximum Rollback, Boom Fully Raised | 52 deg. | 52 deg. | 52 deg. | 52 deg. | 52 deg. | 52 deg. | 52 deg. | 52 deg. | 53 deg. | 53 deg. |
| N Maximum Bucket Dump Angle, Fully Raised | 44.1 deg. | 44.1 deg. | 44.1 deg. | 44.6 deg. | 44.6 deg. | 44.6 deg. | 44.6 deg. | 44.6 deg. | 39.8 deg. | 39.8 deg. |
| Loader Clearance Circle, Bucket Carry | 14.14 m | 14.26 m | 14.14 m | 14.20 m | 14.34 m | 14.20 m | 14.12 m | 14.12 m | 14.68 m | 14.81 m |
| Position | (46 ft. 5 in.) | (46 ft. 9 in.) | (46 ft. 5 in.) | (46 ft. 7 in.) | (47 ft. 1 in.) | (46 ft. 7 in.) | (46 ft. 9 in.) | (46 ft. 9 in.) | (48 ft. 2 in.) | (48 ft. 7 in. |

| Dimensions and Specifications | | | | | | | | | | |
|---|---|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|--------------------|--------------------|--------------------|
| with Pin-On Bucket (continued) | 824K-II Z-B | AR / HIGH-L | IFT | | | | | | | |
| | Z-Bar | Z-Bar | Z-Bar | Z-Bar | Z-Bar | Z-Bar | Z-Bar | Z-Bar | High-Lift | High-Lift |
| | | | | | | | 5.2-m³ (6.75 | cu. yd.) | | |
| | | | | | cu. yd.) general | l-purpose | material-han | | 4.6-m³ (6.0 ci | |
| Specifications with Bucket | . , , , , , , , , , , , , , , , , , , , | | | enhanced production | | | enhanced production | | general-purpose | |
| | bolt-on | teeth and | | bolt-on | teeth and | | bolt-on | | bolt-on | teeth and |
| Cutting Edge Type | edge | segments | JAGZ | edge | segments | JAGZ | edge | JAGZ | edge | segments |
| Capacity, Heaped | 4.6 m ³ | 4.6 m ³ | 4.6 m ³ | 4.8 m ³ | 4.8 m ³ | 4.8 m ³ | 5.2 m ³ | 5.2 m ³ | 4.6 m ³ | 4.6 m ³ |
| | (6.0 cu. yd.) | (6.0 cu. yd.) | (6.0 cu. yd.) | (6.25 cu. yd.) | (6.25 cu. yd.) | (6.25 cu. yd.) | (6.75 cu. yd.) | (6.75 cu. yd.) | (6.0 cu. yd.) | (6.0 cu. yd.) |
| Capacity, Struck | 4.0 m ³ | 4.0 m ³ | 4.0 m ³ | 4.1 m ³ | 4.1 m ³ | 4.1 m ³ | 4.4 m ³ | 4.4 m ³ | 4.0 m ³ | 4.0 m^3 |
| | (5.25 cu. yd.) | (5.25 cu. yd.) | (5.25 cu. yd.) | (5.36 cu. yd.) | (5.36 cu. yd.) | (5.36 cu. yd.) | (5.8 cu. yd.) | (5.8 cu. yd.) | (5.25 cu. yd.) | (5.25 cu. yd.) |
| Bucket Weight with Bolt-On Cutting Edge | 2788 kg | 2956 kg | 2880 kg | 3009 kg | 3141 kg | 3032 kg | 3073 kg | 3096 kg | 2788 kg | 2914 kg |
| | (6,146 lb.) | (6,517 lb.) | (6,349 lb.) | (6,634 lb.) | (6,927 lb.) | (6,684 lb.) | (6,775 lb.) | (6,826 lb.) | (6,146 lb.) | (6,423 lb.) |
| Bucket Width | 3.27 m | 3.27 m | 3.27 m | 3.27 m | 3.27 m | 3.27 m | 3.27 m | 3.27 m | 3.27 m | 3.27 m |
| | (10 ft. 9 in.) | (10 ft. 9 in.) | (10 ft. 9 in.) | (10 ft. 9 in.) | (10 ft. 9 in.) | (10 ft. 9 in.) | (10 ft. 9 in.) | (10 ft. 9 in.) | (10 ft. 9 in.) | (10 ft. 9 in.) |
| Breakout Force | 18 718 kg | 16 537 kg | 18 733 kg | 17 568 kg | 15 562 kg | 17 590 kg | 16 840 kg | 16 858 kg | 17 534 kg | 17 437 kg |
| | (41,266 lb.) | (36,457 lb.) | (41,299 lb.) | (38,731 lb.) | (34,308 lb.) | (38,779 lb.) | (37,126 lb.) | (37,165 lb.) | (38,655 lb.) | (38,443 lb.) |
| Tipping Load, Straight, No Tire Deflection | 20 464 kg | 20 348 kg | 20 454 kg | 19 973 kg | 19 794 kg | 19 944 kg | 19 793 kg | 19 763 kg | 17 148 kg | 17 037 kg |
| | (45,115 lb.) | (44,860 lb.) | (45,093 lb.) | (44,033 lb.) | (44,033 lb.) | (43,969 lb.) | (43,363 lb.) | (43,570 lb.) | (37,805 lb.) | (37,560 lb.) |
| Tipping Load, Straight, with Tire | 19 074 kg | 18 960 kg | 19 065 kg | 18 612 kg | 18 438 kg | 18 585 kg | 18 435 kg | 18 408 kg | 15 993 kg | 15 882 kg |
| Deflection | (42,051 lb.) | (41,800 lb.) | (42,031 lb.) | (41,032 lb.) | (40,649 lb.) | (40,973 lb.) | (40,642 lb.) | (40,583 lb.) | (35,258 lb.) | (35,014 lb.) |
| Tipping Load, 37-deg. Partial Turn | 17 996 kg | 17 880 kg | 17 986 kg | 17 545 kg | 17 366 kg | 17 516 kg | 17 377 kg | 14 347 kg | 15 002 kg | 14 890 kg |
| | (39,674 lb.) | (39,419 lb.) | (39,652 lb.) | (38,680 lb.) | (38,285 lb.) | (38,616 lb.) | (38,309 lb.) | (31,630 lb.) | (33,074 lb.) | (32,827 lb.) |
| Tipping Load, 40-deg. Full Turn, No Tire | 17 597 kg | 17 480 kg | 17 586 kg | 17 152 kg | 16 973 kg | 17 123 kg | 16 986 kg | 16 957 kg | 14 654 kg | 14 543 kg |
| Deflection | (38,795 lb.) | (38,537 lb.) | (38,770 lb.) | (37,814 lb.) | (37,419 lb.) | (37,750 lb.) | (37,448 lb.) | (37,384 lb.) | (32,307 lb.) | (32,062 lb.) |
| Tipping Load, 40-deg. Full Turn, with | 15 795 kg | 15 681 kg | 15 786 kg | 15 387 kg | 15 213 kg | 15 360 kg | 15 225 kg | 15 195 kg | 13 173 kg | 13 062 kg |
| Tire Deflection | (34,822 lb.) | (34,571 lb.) | (34,802 lb.) | (33,922 lb.) | (33,539 lb.) | (33,863 lb.) | (33,565 lb.) | (33,499 lb.) | (29,041 lb.) | (28,797 lb.) |
| Rated Operating Load, 50% Full-Turn | 7930 kg | 7841 kg | 7893 kg | 7694 kg | 7607 kg | 7680 kg | 7613 kg | 7598 kg | 6587 kg | 6531 kg |
| Tipping Load, with Tire Deflection (conforms to ISO 14397-1)* | (17,483 lb.) | (17,286 lb.) | (17,401 lb.) | (16,961 lb.) | (16,769 lb.) | (16,931 lb.) | (16,783 lb.) | (16,750 lb.) | (14,521 lb.) | (14,398 lb.) |
| Operating Weight | 26 800 kg | 26 884 kg | 26 809 kg | 26 937 kg | 27 069 kg | 26 960 kg | 27 001 kg | 27 024 kg | 27 267 kg | 27 352 kg |
| | (59,083 lb.) | (59,269 lb.) | (59,104 lb.) | (59,386 lb.) | (59,677 lb.) | (59,437 lb.) | (59,527 lb.) | (59,578 lb.) | (60,113 lb.) | (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.

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-m³ (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 | Operating | Tipping Load, | Tipping Load, 37-deg. | Tipping Load, 40-deg. | T 1 10/2 1/1 | Will O . T | West alles |
|--|-------------------------|--------------------------|--------------------------|--------------------------|--------------|-----------------------|-----------------------|
| for loaders with 3-piece rims | Weight | Straight | Partial Turn | 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§ | +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§ | +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§ | +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§ | +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.) |
| 4.8-m³ (6.25 cu. yd.) General-Purpose Enhanced- Production Bucket with Wear Liners | +238 kg (+525 lb.) | –246 kg (–542 lb.) | –247 kg (–545 lb.) | –247 kg (–545 lb.) | 0 mm (0 in.) | 0 mm (0 in.) | 0 mm (0 in.) |
| 5.2-m³ (6.75 cu. yd.) Material-Handling Enhanced-Production Bucket with Wear Liners | +238 kg (+525 lb.) | –246 kg (–542 lb.) | –247 kg (–545 lb.) | –247 kg (–545 lb.) | 0 mm (0 in.) | 0 mm (0 in.) | 0 mm (0 in.) |
| High-Lift Boom | +338 kg (+855 lb.) | –3169 kg (–6,986 lb.) | –2859 kg (–6,303 lb.) | –2809 kg (–6,193 lb.) | 0 mm (0 in.) | 0 mm (0 in.) | 0 mm (0 in.) |
| **** C | | 1 | | | | | |

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

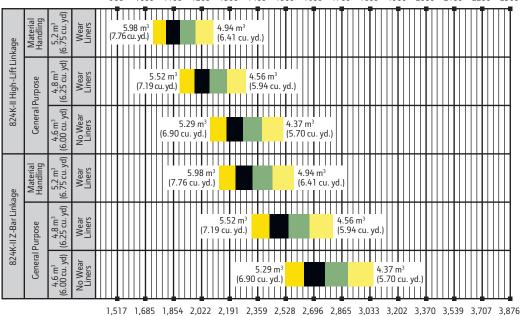
^{*}Rated operating capacity based on Deere attachments only.

[§]Requires 8-deg. rear axle stops.

Material Density (kg/m³)



Material Density (lb./cu.yd.)



| LOOSE MATERIALS | kg/m³ lt | ./cu. yd. |
|---|--|---|
| Chips, pulpwood Cinders (coal, ashes, clinkers) Clay and gravel, dry Clay, compact, solid Clay, dry in lump loose Clay, excavated in water Coal, anthracite, broken, loose Coal, bituminous, moderately wet Earth, common loam, dry Earth, mud, packed Granite, broken Gypsum Limestone, coarse, sized Limestone, mixed sizes Limestone, pulverized or crushed Sand, damp Sand, dry Sand, voids, full of water Sandstone, quarried Shale, broken crushed Slag, furnace granulated Stone or gravel, 37.5 to 87.5-mm (1.5 to 3.5") size | 288 673 1602 1746 1009 1282 865 801 1218 1843 1538 2275 1570 1682 1362 2083 1762 2083 1762 2083 1314 1362 1955 | 486 1,134 2,700 2,943 1,701 2,160 1,458 1,350 2,052 3,105 2,592 3,834 2,646 2,835 2,295 3,510 2,970 3,510 2,214 2,295 3,294 |
| Stone or gravel, 18.75-mm (3/4") siz | 26 1002 | 2,700 |

Bucket Fill Factors

130% 115% 110% 105% 100% 95%

Additional equipment

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

744K 824K Quad-Cool Cooling System (continued)

| 744K 824K | Fngine | |
|------------|---|--|
| 744K 024K | 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 [†] | |
| • | 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 | |
| A A | Chrome exhaust stack | |
| Ā Ā | Automatic ether starting aid (recommended for cold starts below –12 deg. C [10 deg. F]) | |
| A A | Engine-block heater (recommended for cold starts below –23 deg. C [–10 deq. F]) | |
| A • | Centrifugal engine air pre-cleaner | |
| | Powertrain | |
| • • | 3-position clutch cutoff | |
| • • | 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 | |
| • • | | |
| | 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 | |
| A A | Automatic reversing fan drive | |

| • • | Axle and service-brake coolers | | |
|------------|---|--|--|
| A A | Corrosive-environment coolers | | |
| | Hydraulics | | |
| • • | Automatic return-to-dig bucket positioner | | |
| • • | In-cab adjustable automatic boom-height kickout/return to carry | | |
| • • | Reservoir with sight gauge and fill strainer | | |
| • • | Hydraulic diagnostic ports | | |
| • • | 4,000-hour in-tank filter | | |
| | 2 function — joystick with F-N-R | | |
| A A | 2 function — joystick with steering column F-N-R | | |
| • • | 2 function — 2-lever fingertip controls and steering column F-N-R | | |
| A A | 3 function — joystick with F-N-R and 3rd-function auxiliary lever | | |
| A A | 3 function — joystick with steering column F-N-R and 3rd-function auxiliary lever | | |
| A A | 3 function — 3-lever fingertip controls and steering column F-N-R | | |
| • • | Ride control, automatic with monitor-adjustable speed settings | | |
| A A | 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 | | |
| A A | 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 [†] | | |
| • | 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 / LED stop- and taillights | | |
| A A | 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 | | |
| | Willit-Tuffction/filuiti-fallquage LCD color filofiltor filcidues. 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) | | |
| • • | 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, odom- | | |

and red stop †Available only with EPA Final Tier 4/EU Stage IV engines.

Indicator lights: Standard and selected options / Amber caution

Additional equipment (continued)

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

| 744K 824K EI | ectrical (continued) | 744K 824I | K Buckets and Attachments |
|---------------|--|------------|--|
| • • 0 | perator-warning messages | A A | Full line of Deere pin-on buckets |
| ● ● Bu | uilt-in diagnostics: Diagnostic-code details / Sensor values / | | Bolt-on bucket spill guard |
| Ca | alibrations / Individual circuit tester | A A | Bushed pin joints (including static joints) on optional Enhanced- |
| ▲ ▲ El | ectrical corrosion-prevention package | | Production buckets |
| ▲ ▲ Ai | M/FM/Weather Band (WB) radio with remote auxiliary port | | Overall Vehicle |
| | remium AM/FM/WB/XM Satellite Radio™ ready radio with | • • | JDLink™ Ultimate wireless communication system (available in |
| | uetooth®, remote auxiliary port, and remote USB port | | specific countries; see your dealer for details) |
| | 4- to 12-volt, 8-amp converter | • • | NeverGrease™ rear-axle oscillation |
| ▲ ▲ 24 | 4- to 12-volt, 15- or 30-amp converter and power port | • • | NeverGrease steering-cylinder joints |
| | perator's Station | • • | Front and rear tie-downs |
| • • Q | uiet Cab with air conditioning/heater (ROPS/FOPS Level 1, | • • | Rear cast bumper with rear hitch and locking pin |
| | olation mounted) | • • | Articulation locking bar |
| • • Ke | eyless start with multiple security modes | • • | Loader boom service locking bar |
| • • Se | ealed-switch module with function indicators | • • | 40-deg. steering articulation to each side with rubber-cushion |
| • • Se | eat with backrest extension, deep foam, fabric cover, and adjust- | | stops on frame |
| | ole air suspension | • • | Vandal protection with lockable engine enclosures, right counter- |
| | remium seat with high-wide back and headrest extension, heated, | | weight storage, battery box, and filler access for radiator/fuel/ |
| le | ather/fabric cover, and adjustable air suspension | | hydraulic transmission |
| | ydraulic controls integrated to seat | • • | Right and left handrails, platforms, and steps |
| ● ● Hi | igh-visibility, bright-orange seat belt, 76 mm (3 in.), with retractor | • • | Service steps and handholds |
| | up holders (2) | • • | Storage compartment |
| • • Lu | unch-box/cooler holder | • • | Fuel-tank fill strainer |
| • • De | ome and reading light | • • | Heavy-duty fuel-tank guard |
| • • 12 | 2-volt power port | • • | Ground-level fueling and DEF [†] |
| ● Ru | ubber floor mat | • • | Same-side ground-level daily servicing |
| • • Ti | lt steering column | • • | Environmental drains for engine, transmission, hydraulic oils, and |
| • • 0 | perator's manual storage compartment | | engine coolant |
| • • 0 | utside (2) and inside (2) rearview mirrors | • • | Fluid-sampling ports for engine, transmission, hydraulic and axle |
| ▲ ▲ La | arge heated outside mirrors | | oils, and engine coolant |
| • • Le | eft-side operator-station access | • • | 26.5R25 tires on 5-piece rims |
| • • SI | ip-resistant steps and ergonomic handholds | A | 29.5R25 tires on 5-piece rims |
| • • Su | un visor | A A | Waste handler (Z-Bar and High-Lift) |
| • • Ra | adio ready | • • | Level 1 sound package |
| ● ● Fr | ont and rear intermittent windshield wiper and washers | A • | Level 2 sound package |
| | owered cab air pre-cleaner | A • | Transmission side-frame and bottom guards |
| ▲ A Be | eacon bracket (single or dual available) | A A | Fast-fuel system |
| | ear camera | | Quick fluid service (engine, transmission, hydraulic oils, and |
| | ear camera and radar object-detection system | | engine coolant) |
| | DADRITE® L2180 Payload Scale ready | | Fenders, full-coverage, front |
| | DADRITE L2180 Payload Scale | | Fenders, full-coverage, front and rear |
| | DADRITE L2180 Payload Scale with printer | | Less wheels and tires with axle stops |
| | re extinguisher | A | Rims less tires |
| | pader Linkage | • • | Lift eyes |
| | | A A | License-plate bracket and light |
| | ·Bar loader linkage | | zicense piace sidence and ngin |
| | Bar loader linkage igh-Lift Z-Bar loader linkage | A A | Special guarding for waste and forestry applications |



