It comes fully loaded.

Designed to maximize your productivity and uptime while minimizing your daily operating costs, the 225-horsepower 644J combines the muscle of a production machine with the flexibility and maneuverability of a utility loader. Numerous enhancements within the more spacious cab include a multifunction state-of-the-art monitor with advanced diagnostics, durable solid-state electrical distribution center, new sealed switch module, and improved ventilation. Add to that a more efficient drivetrain and hydraulics cooling system with proportional fan control, and you’ve got a multipurpose machine that’ll make any operator and operation more productive.
Productivity never felt this comfortable.

From the convenient controls that customize machine operation to the comfortable fully adjustable air-ride armchair, the 644J has everything your operators need to do their best. All-around visibility is unobstructed, and an improved ventilation system helps keep the view clear and the cab environment comfortable. The all-new sealed switch module allows convenient fingertip control of multiple machine operations. Up-front, a state-of-the-art multifunction monitor with easy-to-read messaging, large analog gauges, and LED warning lights provides vital operating info at a glance.
Adjustable automotive-style louvers and independently adjustable defrosters provide effective airflow to help keep the glass clear and the pressurized cab comfortable.

Conveniently positioned switch module helps reduce operator fatigue with clearly visible backlit and sealed controls.

Standard air-ride armchair seat adjusts multiple ways for extra comfort and cushioning over rough terrain.

1. Industry-leading 360-degree visibility gives clear sight lines of the work ahead and the worksite around you.

2. Advanced programmable monitor with analog gauges and LED indicators provides:

   A. **Vital and general operating information** including transmission mode, gear, engine rpms, and ground speed.

   B. **Diagnostic readings of most sensors and switches**, enabling technicians to quickly troubleshoot problems.

   C. **Customized machine settings** that let an operator match the 644J’s operating characteristics to specific applications by preselecting transmission functions such as Quick Shift and Auto-to-1st for maximum productivity.
Boom height kick-out sets maximum desired dump height, while return-to-carry predetermines the lowered boom position. Use these two John Deere advantages to speed production in repetitive loading applications.

Responsive steering and full 80-degree articulation increase maneuverability in tight quarters — for faster cycle times and fewer “three-point” turns.

Since the hydraulic system provides only the power required, there’s no wasted horsepower or fuel. When the rpms drop below 2,200, the horsepower actually goes up. The John Deere Power Bulge advantage helps maintain good boom and bucket speed into the pile.

1. Choose from single-lever joystick or two-lever fingertip pilot-operated controls. Single-lever control can also be equipped with an optional fingertip FNR selector for convenient direction and full-range gear changes. Both controls also include John Deere’s innovative Quick Shift feature that allows pushbutton gear changes, one gear at a time.

2. Sealed switch module gives fingertip control of numerous functions.

Programmable clutch cut-off increases productivity in all kinds of terrain. Simply select the slope at your dumpsite — level, small, or steep. When the brake pedal is depressed, the transmission disconnects while keeping engine speed high for fast boom cycles.
The 644J was designed and built with maximum productivity in mind. Its performance edge starts with a high-torque John Deere diesel that delivers extra horsepower when the going gets tough. Excavator-style hydraulics sense the load and deliver the fluid power needed for smooth boom and dump functions, and faster work cycles. You won’t find a smoother shifting loader, either. The 644J’s PowerShift™ torque-converter transmission employs Smart Shift™ technology to continuously evaluate the machine’s speed and load conditions, and adjusts clutch-pack engagement to suit. The 644J does the busywork, so your operator can concentrate on doing the work at hand.
Uptime is everything and exactly the reason we added enhancements such as the sealed solid-state electrical distribution center, advanced diagnostic monitor, extended service intervals, optional pre-cleaner, and reversing cooling fan. Of course, the 644J also retains numerous traditional John Deere durability features such as wet-sleeve engine cylinder liners, inboard planetary axles with self-adjusting inboard wet-disc brakes, and four-plate loader frame, to list just a few. How tough is the 644J? Tough enough that it’s backed by an exclusive warranty that covers all major frame structures, including articulation joints, mainframe, and loader boom — for three years, 10,000 hours. That’s confidence, and peace of mind.
1. Electrical distribution center employs highly reliable circuit-board technology and solid-state switches, eliminating numerous wiring harnesses, fuses, relays, and connectors.

2. Optional fan automatically reverses every 30 minutes, ejecting debris from the radiator and coolers for more uptime and productivity. Or just hit the button to choose your own cleaning cycles.

3. Planetary final drives are mounted inboard. Since gear size isn’t limited by wheel hub diameter, larger, more durable components are used. Hydraulic wet-disc brakes self-adjust for wear. Axle seal guards are standard.

Four steel plates extend from the axle housing to the top of the loader tower, giving full support to the far end of the boom pivot pins. This heavy-duty design extends the life of the pins and helps protect the boom cylinder hoses.

You can expect long life from the PowerTech™ 8.1-L turbocharged diesel, thanks in part to its wet-sleeve liners that provide uniform cooling for less oil breakdown and longer durability than cast-in-block designs.

Service intervals for engine oil, transmission filter, and hydraulic oil have been extended to 500, 1,000, and 4,000 hours. So your 644J will require fewer breaks for routine maintenance.

If necessary, the PowerShift™ transmission’s clutch fast-fill times can be easily recalibrated. Takes just minutes to restore like-new performance.

Standard features such as bypass-start protection, automatic park brake, convenient handholds, and slip-resistant steps help keep the operator out of harm’s way.

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Standard features such as bypass-start protection, automatic park brake, convenient handholds, and slip-resistant steps help keep the operator out of harm’s way.
Available spin control helps reduce tire wear, fuel consumption, and operator fatigue in poor tractive conditions. Enables the operator to work without worrying about wheel spin or trying to feather the accelerator.

Axle options include front differential lock with conventional rear or front and rear differential locks. For limited slip or conventional front and rear axles, see your John Deere dealer.

1. Unique reversible and interchangeable design and through-hardened boron-steel construction of JAGZ™ edges can last more than two times longer than conventional edges.

2. Choose either single-lever joystick or two-lever fingertip control. Add up to three additional hydraulic functions.

3. Need to go higher? The factory-installed high-lift option extends lift height nearly a foot-and-half and is ideal for efficiently moving materials to new heights.

4. Extra guarding and integrated “purpose-built” features go into the 644J Waste Handler. We’ve got what it takes for other heavy-duty applications, too.

5. Ride-control option enables the hydraulic lift cylinders to act as shock absorbers, so the 644J can navigate rough terrain more quickly and still maintain its load.
Yours isn’t just another business. So why should you buy just another loader? With the 644J, you won’t have to “settle” for the wrong axles, boom, bucket, or whatever. We offer a wide variety of factory-installed options to fit a wide variety of applications. Whether you’re handling waste or shuttling sand, you can equip a 644J with the right stuff to maximize your efforts.
Side-by-side cooling components are exceptionally efficient and easy to clean. Condenser rotates forward and out of the way. Optional axle coolers mount between engine and radiator.

Large service doors open wide, and all daily service points are located on the left side for quick and convenient ground-level access.

The cooling package includes a hydraulic-driven fan with proportional control that’s regulated by cooling system temperature. Varying the fan speed as needed reduces fuel consumption and daily operating costs.
We made ourselves more accessible.

You said you wanted a loader that's as easy to service as it is to operate. As you can see, we're open to your ideas. Deere designers worked hard to make the 644J hassle-free to maintain. Hinged side shields open wide, providing ample ground-level access to the engine compartment. All daily service points are conveniently grouped and located on the left side. Even routine servicing is simplified. For example, the hydraulically driven cooling fan swings out and away for radiator and oil-cooler clean-out. Add to those details such as easy-to-read sight gauges and an advanced diagnostics monitor with clear and concise messaging, and it's easy to see how the 644J controls your costs as easily as it controls a load.

1. Conveniently located, easy-to-read sight gauges let you check fluid levels at a glance.
2. Extended transmission filter and engine and hydraulic oil service intervals contribute to the 644J’s low operating costs.
3. Greasing is less messy, with centralized lube banks providing easy access to difficult-to-reach zerks.
4. When something goes wrong, the advanced monitor gives easy-to-understand diagnostic messages and even offers possible solutions to help get you back up and running more quickly.
5. Your John Deere dealer has the parts and service you need to stay productive, and also offers a wide variety of preventative maintenance and support programs to help control owning and operating costs.
Engine

Type: John Deere PowerTech™ 6081H; meets EPA and CARB emission non-road regulations
Cylinders: 6
Valves Per Cylinder: 2
Displacement: 496 cu. in. (8.1 L)
Net Peak Power: 225 hp (168 kW) @ 1,600 rpm
Net Rated Power: 185 hp (138 kW) @ 2,200 rpm
Net Peak Torque: 765 lb.-ft. (1040 Nm) @ 1,300 rpm
Net Torque Rise: 74%
Net Power Bulge: 22%
Fuel System: high-pressure common rail
Lube System: full-flow spin-on filter and integral cooler
Aspiration: turbocharged, charge air cooled
Air Cleaner: dual element dry type, restriction indicator in cab monitor for service
Fan Drive: hydraulically driven, proportionally controlled, fan aft of coolers
Electrical System: 24 volt with 80-amp alternator
Batteries (two 12 volt): 1,400 CCA

Transmission

Type: countershaft-type power shift
Torque Converter: single stage, single phase
Shift Control: electronically modulated, adaptive, load and speed dependent
Operator Interface: steering-column-mounted, twist-grip shift lever; quick-shift button on hydraulic lever
Shift Modes: auto/manual, auto to 1st or 2nd, kick down or kick up/down, three clutch cutoff settings adjustable on switch pad

Travel Speeds*

<table>
<thead>
<tr>
<th>Gear</th>
<th>Forward</th>
<th>Reverse</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.6 mph (7.4 km/h)</td>
<td>4.9 mph (7.9 km/h)</td>
</tr>
<tr>
<td>2</td>
<td>7.6 mph (12.2 km/h)</td>
<td>8.0 mph (12.8 km/h)</td>
</tr>
<tr>
<td>3</td>
<td>14.7 mph (23.6 km/h)</td>
<td>15.5 mph (24.9 km/h)</td>
</tr>
<tr>
<td>4</td>
<td>22.0 mph (35.4 km/h)</td>
<td></td>
</tr>
</tbody>
</table>

*Equipped with 23.5 R 25 radial tires.

Axles/Brakes

Final Drives: heavy-duty inboard planetary
Differentials*: hydraulic locking front, conventional rear — standard; dual locking front and rear — optional
Rear Axle Oscillation, Stop to Stop**: 26 degrees
Brakes (conform to SAE J1473, ISO3450)
  - Service Brakes: hydraulically actuated, inboard, carrier mounted, pressure oil cooled, self adjusting, multi-disc
  - Parking Brake: automatic spring applied, hydraulically released, oil cooled, multi-disc

*Contact dealer for information regarding limited slip and conventional front and rear availability.
**Equipped with 23.5 R 25 radial tires.
### Tires

<table>
<thead>
<tr>
<th>Choice of (with multi-piece rims)</th>
<th>Tread Width</th>
<th>Width Over Tires</th>
<th>Change In Vertical Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.5-25, 20 PR L3</td>
<td>85.4 in. (2170 mm)</td>
<td>113.4 in. (2881 mm)</td>
<td>– 0.1 in. (– 2 mm)</td>
</tr>
<tr>
<td>23.5 R 25, 1 Star L3 Radial</td>
<td>85.4 in. (2170 mm)</td>
<td>113.2 in. (2875 mm)</td>
<td>0 in. (0 mm)</td>
</tr>
<tr>
<td>750/65 R 25 L3-T*</td>
<td>86.8 in. (2204 mm)</td>
<td>120.7 in. (3066 mm)</td>
<td>– 0.3 in. (– 7 mm)</td>
</tr>
<tr>
<td>28L-26, 14 PR LS2*</td>
<td>89.4 in. (2272 mm)</td>
<td>117.6 in. (2986 mm)</td>
<td>+ 0.4 in. (+ 11 mm)</td>
</tr>
</tbody>
</table>

*Requires 9-degree rear axle stops.

With single-piece rims.

### Refill Capacities (U.S.)

- Fuel Tank (with ground-level fueling) .. 100 gal. (379 L)
- Cooling System ................................ 32 qt. (31 L)
- Engine Lubrication, Including Vertical Spin-On Filter .................. 26 qt. (25 L)
- Powershift Transmission, Including Filter ... 27 qt. (26 L)
- Differential (front and rear, each axle) ... 30 qt. (29 L)
- Loader Hydraulic Reservoir and Filters .... 31 gal. (118 L)
- Sealed Wet-Disc Parking Brake .............. 20 oz. (0.6 L)

### Hydraulic System/Steering

- Pump (loader and steering) ................... variable-displacement, axial-piston pump; closed-center, pressure-compensating system
- Maximum Flow @ 2,200 rpm .................... 68 gpm (257 L/m) @ 1,000 psi (6895 kPa)
- Pressure ........................................ 3,600 psi (24 850 kPa) relief
- Loader Controls ................................. two-function valve; single- or dual-lever controls; control lever lockout feature; optional third- and fourth-function valve with auxiliary lever
- Steering (conforms to SAE J1511) ............ power, fully hydraulic
- Pressure ........................................ 3,600 psi (24 850 kPa) relief
- Articulation Angle ............................. 80-degree arc (40 degrees each direction)
- Hydraulic Cycle Times
  - Standard Z-Bar Lower ..................... 3.0 sec. (float down)
  - Standard Z-Bar Total ...................... 10.6 sec.
  - High-Lift Z-Bar Lower ................... 3.0 sec. (float down)
  - High-Lift Z-Bar Total .................... 10.6 sec.
- Maximum Lift Capacity ...................... with 4.25-cu.-yd. (3.3 m³) bucket with bolt-on cutting edge
- Lift at Ground Level ...................... 34,166 lb. (15 495 kg)
- Lift at Maximum Height .................... 20,226 lb. (9173 kg)
- Turning Radius (measured to centerline of outside tire) ............. 18 ft. 0 in. (5500 mm)
### Dimensions with Pin-On Bucket

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Standard Z-Bar</th>
<th>High-Lift Z-Bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Height to Top of Cab and Canopy</td>
<td>11 ft. 2 in. (3404 mm)</td>
<td>11 ft. 2 in. (3400 mm)</td>
</tr>
<tr>
<td>B Height to Top of Exhaust</td>
<td>11 ft. 0 in. (3353 mm)</td>
<td>11 ft. 0 in. (3353 mm)</td>
</tr>
<tr>
<td>C Ground Clearance</td>
<td>18.1 in. (461 mm)</td>
<td>18.1 in. (461 mm)</td>
</tr>
<tr>
<td>D Length from Centerline to Front Axle</td>
<td>63 in. (1600 mm)</td>
<td>63 in. (1600 mm)</td>
</tr>
<tr>
<td>E Wheelbase</td>
<td>126 in. (3200 mm)</td>
<td>126 in. (3200 mm)</td>
</tr>
<tr>
<td>F Dump Height</td>
<td>▲ (see page 17)</td>
<td>▲ (see page 19)</td>
</tr>
<tr>
<td>G Height to Hinge Pin, Fully Raised</td>
<td>13 ft. 7 in. (4144 mm)</td>
<td>15 ft. 0 in. (4569 mm)</td>
</tr>
<tr>
<td>H Dump Reach</td>
<td>▲▲ (see page 17)</td>
<td>▲▲ (see page 19)</td>
</tr>
<tr>
<td>I Maximum Digging Depth</td>
<td>2.7 in. (69 mm)</td>
<td>6.4 in. (163 mm)</td>
</tr>
<tr>
<td>J Overall Length</td>
<td>▲▲▲ (see page 17)</td>
<td>▲▲▲ (see page 19)</td>
</tr>
<tr>
<td>K Maximum Rollback at Ground Level</td>
<td>40 degrees</td>
<td>40 degrees</td>
</tr>
</tbody>
</table>

### Dimensions with Quick-Coupler and Bucket

- **A Dump Clearance**: ▲ (see page 18)
- **B Dump Reach**: ▲▲ (see page 18)
- **C Maximum Digging Depth**: 2.5 in. (63 mm)
- **D Height to Hinge Pin, Fully Raised**: 13 ft. 7 in. (4144 mm)
- **E Overall Length**: ▲▲▲ (see page 18)
- **F Maximum Rollback, Boom Fully Raised**: 55 degrees
- **G Maximum Bucket Discharge Angle, Fully Raised**: 45 degrees
- **H Maximum Rollback at Ground Level**: 39 degrees
Dimensions with Quick-Coupler and Construction Fork 644J

**Standard Z-Bar**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reach, Fully Raised</td>
<td>2 ft. 1 in. (642 mm)</td>
</tr>
<tr>
<td>Fork Height, Fully Raised</td>
<td>12 ft. 11 in. (3929 mm)</td>
</tr>
<tr>
<td>Maximum Reach, Fork Level</td>
<td>5 ft. 1 in. (1537 mm)</td>
</tr>
<tr>
<td>Fork Height, Maximum Reach</td>
<td>6 ft. 1 in. (1848 mm)</td>
</tr>
<tr>
<td>Reach, Ground Level</td>
<td>3 ft. 0 in. (925 mm)</td>
</tr>
<tr>
<td>Depth Below Ground</td>
<td>2.0 in. (49 mm)</td>
</tr>
<tr>
<td>Tine Length</td>
<td>▲ (see page 18)</td>
</tr>
<tr>
<td>Overall Length</td>
<td>▲▲ (see page 18)</td>
</tr>
</tbody>
</table>

**Standard Z-Bar Pin-On Type Bucket Information**

<table>
<thead>
<tr>
<th>Bucket Type/Size</th>
<th>Capacity, Heaped SAE</th>
<th>Capacity, Struck SAE</th>
<th>Bucket Weight</th>
<th>Bucket Width</th>
<th>Breakout Force, SAE J792C</th>
<th>Tipping Load, Straight</th>
<th>Tipping Load, 40-Degree Full Turn, SAE</th>
<th>Reach, 45-Degree Dump, 7-ft.</th>
<th>Reach, 45-Degree Dump, Full Height</th>
<th>Dump Clearance, 45 Degree, Full Height</th>
<th>Overall Length, Bucket on Ground</th>
<th>Loader Clearance Circle, Bucket In</th>
<th>Operating Weight</th>
<th>Tipping Load, 40-Degree Full Turn, SAE</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Purpose</td>
<td>4.25 cu. yd. (3.3 m³)</td>
<td>4.25 cu. yd. (3.3 m³)</td>
<td>4.5 cu. yd. (3.4 m³)</td>
<td>3.55 lb. (1612 kg)</td>
<td>114.2 in. (2900 mm)</td>
<td>34,407 lb. (15 604 kg)</td>
<td>31,210 lb. (14 079 kg)</td>
<td>65.7 in. (1668 mm)</td>
<td>42.2 in. (1071 mm)</td>
<td>115.8 in. (2942 mm)</td>
<td>26 ft. 5 in. (8045 mm)</td>
<td>26 ft. 8 in. (8197 mm)</td>
<td>38,376 lb. (17 631 kg)</td>
<td>111.9 in. (2841 mm)</td>
</tr>
<tr>
<td>General Purpose w/Bolt-On Edge</td>
<td>4.25 cu. yd. (3.3 m³)</td>
<td>3.7 cu. yd. (2.8 m³)</td>
<td>3.68 lb. (1670 kg)</td>
<td>34,407 lb. (15 604 kg)</td>
<td>31,044 lb. (14 154 kg)</td>
<td>3,555 lb. (1612 kg)</td>
<td>26,281 lb. (11 845 kg)</td>
<td>67.6 in. (1718 mm)</td>
<td>46.2 in. (1174 mm)</td>
<td>115.7 in. (2938 mm)</td>
<td>26 ft. 5 in. (8045 mm)</td>
<td>26 ft. 8 in. (8197 mm)</td>
<td>38,376 lb. (17 631 kg)</td>
<td>111.9 in. (2841 mm)</td>
</tr>
<tr>
<td>General Purpose w/JAGZ™</td>
<td>4.5 cu. yd. (3.4 m³)</td>
<td>3.9 cu. yd. (3.0 m³)</td>
<td>3.65 lb. (1655 kg)</td>
<td>34,407 lb. (15 604 kg)</td>
<td>31,150 lb. (14 127 kg)</td>
<td>3,650 lb. (1655 kg)</td>
<td>26,215 lb. (11 889 kg)</td>
<td>66.2 in. (1681 mm)</td>
<td>42.8 in. (1087 mm)</td>
<td>115.7 in. (2938 mm)</td>
<td>26 ft. 5 in. (8045 mm)</td>
<td>26 ft. 8 in. (8197 mm)</td>
<td>38,376 lb. (17 631 kg)</td>
<td>111.9 in. (2841 mm)</td>
</tr>
</tbody>
</table>

Adjustments to Operating Weights with Standard Z-Bar Pin-On Buckets

<table>
<thead>
<tr>
<th>Tire Size</th>
<th>Adjustment to Operating Weight</th>
<th>Tipping Load, Straight</th>
<th>Tipping Load, 40-Degree Full Turn, SAE</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.5-25, 20 PR L3</td>
<td>+ 981 lb. (+ 446 kg)</td>
<td>213 lb. (+ 97 kg)</td>
<td>182 lb. (+ 83 kg)</td>
</tr>
<tr>
<td>23.5 R 25, 1 Star L3 Radial</td>
<td>0 lb. (0 kg)</td>
<td>0 lb. (0 kg)</td>
<td>0 lb. (0 kg)</td>
</tr>
<tr>
<td>28L-26, 14 PR LS2™</td>
<td>+ 88 lb. (+ 40 kg)</td>
<td>+ 61 lb. (+ 28 kg)</td>
<td>+ 54 lb. (+ 24 kg)</td>
</tr>
</tbody>
</table>

Loader operating information is based on machine with all standard equipment; 23.5 R 25 radial tires; standard counterweight; ROPS/FOPS cab; 175-lb. (79 kg) operator; and full fuel tank. This information is affected by tire size, ballast, and different attachments.

*Requires 9-degree rear axle stops.

With single-piece rims.
### Standard Z-Bar Information with Quick-Coupler and Bucket 644J

<table>
<thead>
<tr>
<th>Specification</th>
<th>General Purpose</th>
<th>General Purpose w/ Teeth and Segments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucket Type/Size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity, Heaped SAE</td>
<td>4.25 cu. yd. (3.3 m³)</td>
<td>4.25 cu. yd. (3.3 m³)</td>
</tr>
<tr>
<td>Capacity, Struck SAE</td>
<td>3.8 cu. yd. (2.9 m³)</td>
<td>3.8 cu. yd. (2.9 m³)</td>
</tr>
<tr>
<td>Bucket Weight with Coupler</td>
<td>4,900 lb. (2223 kg)</td>
<td>5,025 lb. (2280 kg)</td>
</tr>
<tr>
<td>Bucket Width</td>
<td>114.2 in. (2900 mm)</td>
<td>114.2 in. (2900 mm)</td>
</tr>
<tr>
<td>Breakout Force, SAE J732C</td>
<td>28,976 lb.</td>
<td>28,976 lb.</td>
</tr>
<tr>
<td>Tipping Load, Straight</td>
<td>29,121 lb.</td>
<td>29,958 lb.</td>
</tr>
<tr>
<td>Tipping Load, 40-Degree Full Turn, SAE</td>
<td>24,394 lb.</td>
<td>24,235 lb.</td>
</tr>
<tr>
<td>Reach, 45-Degree Dump, 7-ft. (2.13 m) Clearance</td>
<td>62.9 in. (1598 mm)</td>
<td>63.8 in. (1620 mm)</td>
</tr>
<tr>
<td>▲ Reach, 45-Degree Dump, Full Height</td>
<td>44.4 in. (1128 mm)</td>
<td>48.1 in. (1222 mm)</td>
</tr>
<tr>
<td>▲▲ Dump Clearance, 45 Degree, Full Height</td>
<td>106.8 in. (2713 mm)</td>
<td>102.5 in. (2603 mm)</td>
</tr>
<tr>
<td>▲▲▲ Overall Length, Bucket on Ground</td>
<td>27 ft. 1 in.</td>
<td>27 ft. 7 in.</td>
</tr>
<tr>
<td>Loader Clearance Circle, Buckets In Carry Position</td>
<td>42 ft. 9 in.</td>
<td>43 ft. 0 in.</td>
</tr>
<tr>
<td>Operating Weight</td>
<td>40,224 lb.</td>
<td>40,349 lb.</td>
</tr>
</tbody>
</table>
| Loader operating information is based on machine with all standard equipment; 23.5 R 25 radial tires; standard counterweight; ROPS/FOPS cab; 175-lb. (79 kg) operator; and full fuel tank. This information is affected by tire size, ballast, and different attachments.

### Standard Z-Bar Information with Quick-Coupler and Construction Fork

<table>
<thead>
<tr>
<th>Specification</th>
<th>60 in. (1525 mm)</th>
<th>28 ft. 4 in. (8641 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tine Length</td>
<td>72 in. (1829 mm)</td>
<td>29 ft. 4 in. (8946 mm)</td>
</tr>
<tr>
<td>Tipping Load, Straight (fork level, load centered 24 in. [610 mm] forward on tine)</td>
<td>22,782 lb. (10 334 kg)</td>
<td>22,603 lb. (10 252 kg)</td>
</tr>
<tr>
<td>Tipping Load, 40-Degree Full Turn (fork level, load centered 24 in. [610 mm] forward on tine)</td>
<td>19,206 lb. (8712 kg)</td>
<td>19,029 lb. (8632 kg)</td>
</tr>
<tr>
<td>Operating Weight</td>
<td>39,854 lb. (17 621 kg)</td>
<td>39,051 lb. (17 710 kg)</td>
</tr>
</tbody>
</table>
High-Lift Z-Bar Pin-On
Type Bucket Information 644J

Bucket Type/Size

| Capacity, Heaped SAE | 4.25 cu. yd. (3.3 m³) |
| Capacity, Struck SAE | 3.7 cu. yd. (2.8 m³) |
| Bucket Weight       | 3,554 lb. (1612 kg)   |
| Bucket Width        | 114.2 in. (2900 mm)   |
| Breakout Force, SAE J732C | 30,574 lb. (13 868 kg) |
| Tipping Load, Straight | 24,798 lb. (11 246 kg) |
| Tipping Load, 40-Degree Full Turn, SAE | 20,765 lb. (9419 kg) |
| Reach, 45-Degree Dump, 7-ft. (2.13 m) Clearance | 82.4 in. (2093 mm) |

▲ Reach, 45-Degree Dump, Full Height . . . . 46.3 in. (1175 mm)
▲▲ Dump Clearance, 45 Degree, Full Height . . . . 132.9 in. (3375 mm)
▲▲▲ Overall Length, Bucket on Ground . . . . 28 ft. 0 in. (8525 mm)

Loader Clearance Circle, Bucket In

| Carry Position | 43 ft. 8 in. (13 320 mm) |
| Operating Weight | 39,000 lb. (17 690 kg) |

Loader operating information is based on machine with all standard equipment; 23.5 R 25 radial tires; standard counterweight; ROPS/FOPS cab; 175-lb. (79 kg) operator; and full fuel tank. This information is affected by tire size, ballast, and different attachments.

Bucket Selection Guide*

* This guide, representing bucket sizes not necessarily manufactured by Deere, will help you in selecting proper bucket size for material density, loader configuration, and operating conditions. Optimum bucket size is determined after adding or subtracting all tipping load changes due to optional equipment. The “conservative load” line on this guide is recommended when operating in conditions such as soft ground and unlevel surfaces.

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[Diagram and table of material densities and corresponding tipping loads]
644J LOADER

Key: ● Standard equipment ▲ Optional or special equipment

644J Engine
● Meets EPA and CARB emission non-road regulations
● Antifreeze, −34°F (−37°C)
● Coolant recovery tank
● Fan guard
● Muffler, under hood with large exhaust stack
● Environmentally friendly engine oil drain
● Engine oil cooler
● Quick-release fuel filter and water separator
● Heavy-duty trash-resistant cooling package
▲ Either start aid (for cold starts)
● Engine air heater (for cold starts)
● Engine coolant heater, 1,000 watts, 110 volts
▲ Reversing fan
● Desert and high-altitude cooling package
▲ Special-application trash screens, axle seal guards, etc.*
● Chrome exhaust stack
● Cooler corrosion package

Powertrain
● 2F torque-converter powershift transmission — 4F/3R
Electronically controlled, adaptive, load- and speed-dependent shift modulation
● Integral transmission sight gauge / fill tube
● Transmission clutch disconnect with three selectable settings
● Quick-shift button with two selectable modes
● Front axle with hydraulic locking differential
▲ Conventional-type differentials, front and rear*
▲ Front and rear axles with hydraulic locking differentials
● Limited slip differentials*
▲ Spin-control system
● Axle oil coolers

Hydraulic System
● In-cab adjustable automatic bucket positioner
● In-cab adjustable automatic boom height kick-out control
● In-cab adjustable automatic boom return-to-carry control
● Reservoir sight gauge
● Spin-on hydraulic filters, vertical mounting
● Hydraulic lever lockout
● Two-function hydraulic valve with single-lever control and adjustable wristrest
▲ Two-function hydraulic valve with two-lever fingertip controls and adjustable wristrest
● Three-function hydraulic valve with single-lever control and auxiliary lever for third function
● Three-function hydraulic valve with two-lever fingertip controls, adjustable wristrest, and auxiliary lever for third function
▲ Four-function hydraulic valve, with dual single-lever controls
● Hydraulic conversion kits, two- to three- and three- to four-function valves

644J Hydraulic System (continued)
● Hydraulic system oil cooler (for continuous running attachments and extreme temperatures)
▲ Ride control, automatic type
● Hydraulic control system for quick-coupler locking pins

Electrical
● Solid-state electrical power distribution system
● 24-volt electrical system
● High-capacity batteries (2), 12 volt with 1,400 CCA, 200-min. rated reserve
● Master electrical disconnect switch
● Alternator, high capacity, 80 amps and 24 volts
▲ Alternator trash covers
● Battery terminal safety covers
● Starting switch with electric fuel shut off
▲ Lights (conform to SAE J99): Driving with guards / LED turn signals and flashers / Stop and taillights
● Work lights, front (2) and rear (2)
▲ Horn, with push button in center of steering wheel (conforms to SAE J994, J1446)
● Reverse warning alarm (conforms to SAE J994, J1446)
● Computerized multifunction monitor

Audible and visual warnings: Amber caution / Red stop / Analog gauges: Engine coolant temperature, transmission oil temperature, fuel level, hydraulic oil temperature, engine oil pressure / Digital instruments: Engine rpm, odometer, transmission gear indicator, speedometer, hourmeter / Operator warning lights: Check engine, engine oil pressure, engine air filter restriction, battery voltage, transmission filter restriction, brake pressure, hydraulic oil filter, fasten seat belt, transmission fault, hydraulic oil temperature, transmission fault

▲ Operator's Station
● Indicator lights: Park brake / Ride control / LED turn signals and warning flashers / Coupler pin disconnect / Engine preheater / Secondary steering / Work lights
● Built-in diagnostics: Fault code retrieval
● Radio-ready cab
● 24- to 12-volt converter, 5 amp with receptacle
● 24- to 12-volt converter, 10 amp with two receptacles
● 24-volt AM/FM/WB stereo radio with cassette
● 24-volt AM/FM/WB stereo radio with CD
● 24-volt AM/FM/8 stereo radio with clock
● Cab wired for rotating beacon
● Electrical corrosion-prevention package

Operator's Station (continued)
● Cab (conforms to SAE J1040 APR88): ROPS/ FOPS / Heater/defroster / Multiplane isolation mounted for noise/vibration reduction / Front and rear windshield washers and intermittent wipers / Tinted safety glass
● Canopy (conforms to SAE J1040 APR88): ROPS/ FOPS / Multiplane isolation mounted for noise/vibration reduction / Optional canopy rear window glass, for noise reduction

Air conditioning (factory installed)
● Seat belt, 3 in. (76 mm), with retractor
● Seat, air suspension, deluxe cloth covered with deep foam, high back, air suspension, adjustable for weight/height, fore-aft position, backrest tilt, and armrest angle with backrest extension
● Seat, air suspension, vinyl, on canopy with backrest extension
● Backlit sealed switch module with function indicators
● Cup holder, personal cooler holder and storage space
▲ Sun visor for cab
● Rubber floor mat
● Tilt steering column
● Textured steering wheel and spinner knob
● Rearview mirrors, outside (2) and inside (1) (conform to SAE J985)
● Handholds and steps, ergonomically located and slip resistant (conform to SAE J185)

Loader Linkage
● Loader boom service locking bar (conforms to SAE J38)
● Z-bar loader linkage
● High-lift Z-bar loader linkage

Buckets and Attachments
● Full line of Deere pin-on buckets with selection of bolt-on cutting edges, JAGZ™ cutting edges, and teeth-segmented bolt-on cutting edges*

Tires
● 23.5-25, 20 PR L3
● 23.5 R 25, 1 Star L3 Radial
● 750/85 R 25 L3-T*
● 28L-26, 14 PR LS-2 (single-piece rims)
● Multi-piece rims
● Less wheels and tires
● 9-degree rear axle stops for extra-large tires, 12-degree oscillation for standard

Other
● Fenders, front
● Full fenders, front, with mud flap
● Full fenders, front and rear, with mud flap
● Articulation locking bar (conforms to SAE J276)
● Vandal protection, includes lockable engine enclosure, rear grille, and fuel fill
● Counterweight, built-in
● Drawbar, with locking pin
● Transmission side frame guards
● Auxiliary bottom guards
● Lift hooks
● Fire extinguisher
● License plate bracket
● Secondary steering

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at standard conditions per SAE J1349 and DIN 70 030, using No. 2-D fuel at 35 API gravity. No derating is required up to 10,000 ft. (3050 m) altitude. Gross power is without cooling fan.

Specifications and design subject to change without notice. Whenever applicable, specifications are in accordance with SAE standards. Expect where otherwise noted, these specifications are based on a unit with all standard equipment, 23.5 R 25 radial tires, standard counterweight, ROPS/FOPS cab, full fuel tank, and 175-lb. (79 kg) operator.