Engine

Make: FPT
Model: F4HFE613S
Emissions Certification: Tier 4 Final
Emissions Technology: SCR/DOC
Type: 4-stroke, turbocharged and air-to-air cooled
Cylinders: 6-cylinder in-line
Bore/Stroke: 4.09 x 5.20 in (104 x 132 mm)
Displacement: 411 in³ (6.7 L)
Fuel: #2 Diesel, #1 and #2 mixture permitted for cold temperatures
Fuel injection: Direct injection – electronic
Fuel filter: Replaceable, spin-on cartridge
Fuel pump: Bosch CP 3.3

Economy Power Mode:
- Peak gross @ 1400 RPM: 169 hp (126 kW)
- Net rated @ 2000 RPM: 123 hp (92 kW)
- Peak net @ 1400 RPM: 161 hp (120 kW)

Torque – peak:
- Maximum Power Mode:
  - Gross @ 1300 RPM: 873 lb·ft (1,184 N·m)
  - Net @ 1300 RPM: 845 lb·ft (1,145 N·m)
- Standard Power Mode:
  - Gross @ 1300 RPM: 745 lb·ft (1,010 N·m)
  - Net @ 1300 RPM: 716 lb·ft (971 N·m)
- Economy Power Mode:
  - Gross @ 1300 RPM: 664 lb·ft (900 N·m)
  - Net @ 1300 RPM: 635 lb·ft (861 N·m)

Torque rise:
- Maximum power range: 47%


Drivetrain

Transmission:
- 4F/3R Proportional w/ Electronic Control
- Module torque sensing autoshift/manual shift and modulation
- Gear ratios – 4-speed:
  - 1st: 3.754/3.551
  - 2nd: 2.184/2.071
  - 3rd: 1.072/1.017
  - 4th: 0.636/—
- Gear ratios – 5-speed:
  - 1st: 3.921/3.718
  - 2nd: 2.255/2.138
  - 3rd: 1.466/0.894
  - 4th: 0.942/—
  - 5th: 0.613/—

Differential:
- Limited slip differential, front – up to 72.5% of available axle torque to wheel w/ traction
- Limited slip differential, rear – up to 72.5% of available axle torque to wheel w/ traction

Rear axle oscillation: 24° total

Front and rear axles:
- Differential ratio: 4.11
- Planetary ratio: 6.00
- Final axle ratio: 24.67

Heavy-duty axles – optional:
- Front axle equipped w/ locking differential
- Rear axle equipped w/ open differential

Planetarys: Outboard

Service brakes:
- Hydraulically actuated, maintenance-free, multiple wet disc w/ accumulator to all four wheels
- Brake surface area:
  - Rear hub: 600 in² (0.387 m²)
  - Front and opt. rear hub: 721 in² (0.465 m²)

Parking brakes:
- Spring-applied hydraulic release disc on transmission output shaft neutralizes power flow to wheels when engaged

Travel speeds – 4-speed transmission:
- Forward mph (kph):
  - 1st: 4.4 (7.1)
  - 2nd: 7.4 (12.0)
  - 3rd: 14.5 (23.3)
  - 4th: 22.8 (36.6)
- Reverse mph (kph):
  - 1st: 4.4 (7.0)
  - 2nd: 7.4 (12.0)
  - 3rd: 17.2 (27.7)
  - 4th: 24.9 (40.0)

Travel speeds – 5-speed transmission:
- Forward mph (kph):
  - 1st: 4.1 (6.6)
  - 2nd: 7.1 (11.4)
  - 3rd: 10.6 (17.1)
  - 4th: 16.4 (26.4)
  - 5th: 24.9 (40.0)
- Reverse mph (kph):
  - 1st: 4.4 (7.0)
  - 2nd: 7.4 (12.0)
  - 3rd: 17.2 (27.7)
  - 4th: 24.9 (40.0)

Electrical

Voltage: 24 Volts, negative ground
Alternator: 120 amp
Batteries: 2 12-volt

Operator Environment

ROPS cab AC w/ heat; Key start; Articulated power steering w/ tilt column; Fully adjustable, suspension seat; Foot throttle; Single lever loader control w/ fully adjustable wrist rest, 2 cup holders; 2 interior rear view mirrors; 2 in (51 mm) retractable seat belt; Multiple storage trays; Single brake pedal; F/N/R shuttle switch; External rearview mirrors; Pressurized air filtering; Anti-glare window strip; Front and Rear Defroster; Side window, partial/fully open; 2 Dome lights; Wipers, rear and intermittent front; Windshield washers, front and rear; Rubber floor mat; Horn;

Displays/Gauges:
- Digital:
  - Transmission oil temperature; Hydraulic oil temperature; Engine coolant temperature; Fuel level; DEF level.
- LCD screen:
  - Hour meter; Engine speed; Travel speed; Time; Automatic transmission indication; Current gear selection; F/N/R shuttle indication; DeClutch indication; Engine mode indication; Trip computer A/B; Fuel consumption; Multiple languages, Metric/English; Engine diagnostics; Transmission diagnostics; Warning prompts; Error reporting; Diff. Lock*; DEF gauge.

Audible/Visual alarms:
- Four-way flashers and turn signals;
- Brake pressure; Lamp/high beam indication; Grid heater*.
Caution warnings:
- Parking brake; Coolant temperature;
- Hydraulic oil temperature; Transmission oil temperature; Air filter; Transmission filter; Hydraulic filter; Alternator; Low fuel.

Critical warnings:
- Engine oil pressure; Brake pressure;
- Steering pressure – w/ aux steering*; Coolant temperature; Hydraulic oil temperature; Transmission oil temperature.

Backup alarm

Maintenance reminders:
- Cab air filter; Engine oil filter; Fuel pre-filter; DEF tank vent filter; SCR supply filter; Hydraulic oil and filter; Engine air filter; Engine coolant drive belt; Cab recirculation filter; Engine breather filter; Transmission breather; Front and rear axle fluid; SCR supply module filter.

NOTE: *If equipped w/ option.

**OPERATING WEIGHT**

Z-Bar
Unit equipped w/ 23.5-R25 L3 Radial tires; ROPS cab w/ heater and A/C; Heavy-duty counterweight – 4,940 lb (2241 kg); Heavy-duty batteries; Front and rear fenders; Lights; Full fuel; 165 lb (75 kg) operator; 4.25 yd³ (3.2 m³) MD pin on w/ bolt on edge:

40,057 lb (18 170 kg)

XR
Unit equipped w/ 23.5-R25 L3 Radial tires; ROPS cab w/ heater and A/C; Heavy-duty counterweight – 4,940 lb (2240 kg); Heavy-duty batteries; Front and rear fenders; Lights; Full fuel; 165 lb (75 kg) operator; 4.25 yd³ (3.2 m³) MD pin on w/ bolt on edge:

40,648 lb (18 438 kg)

**HYDRAULICS**

Main pump – steering/implement:
- Closed center pressure/flow compensated

Tandem variable displacement – load-sensing:
- Max rated flow x2: 31.6 gpm @ 2000 RPM
- (120 L/min @ 2000 RPM)

Loader control valve:
- Closed-center, sectional 2, 3 or 4-function
- w/ control for lift, tilt and auxiliary hydraulics

Loader auxiliary steering:
- Hydraulic orbital center-pivot articulating
- w/ on-demand oil flow

High pressure standby:
- Implement 3,625 psi (25 000 kPa)
- Steering 3,500 psi (24 132 kPa)

Filtration:
- Filtered vent w/ relief on hydraulic reservoir, maintains 3-5 psi on reservoir, 10-micron, return filter furnishes only clean oil to all components of the system

**SERVICE CAPACITIES**

Fuel tank 76.0 gal (288.0 L)

DEF tank – Diesel Exhaust Fluid:
- Usable 9.8 gal (37.1 L)
- Total 15.6 gal (58.9 L)

Hydraulic system:
- Reservoir 24.0 gal (90.8 L)
- Total 47.0 gal (178.0 L)

Transmission:
- Service w/ filter 9.0 gal (34.1 L)

Front and rear axle:
- Front axle 42.3 qt (40.0 L)
- Rear axle 42.3 qt (40.0 L)

Engine oil w/ filter 16.0 qt (15.1 L)

Cooling system 32.0 qt (30.0 L)

**OTHER SPECIFICATIONS**

Lift cylinder:
- Bore diameter 5.5 in (140 mm)
- Rod diameter 3.0 in (76 mm)
- Stroke 33.3 in (846 mm)

Dump cylinder:
- Bore diameter 6.5 in (165 mm)
- Rod diameter 3.5 in (90 mm)
- Stroke 23.6 in (600 mm)

Loader:
- Z-Bar loader linkage; Single control for lift and tilt; Positive hold float; Automatic return-to-dig; Automatic height control;
- Automatic return-to-travel; Brake pedal transmission disconnect; Bucket position indicator on bucket.

Cycle time:
- Raise w/ rated bucket load 6.2 sec
- Dump w/ rated bucket load 1.2 sec
- Float down 2.5 sec

Sound level in Cab (LpA) 68 dB(A)

Exterior sound level (LwA) 104 dB(A)

NOTE: Sound level data tested in accordance with ISO6395, 6396, 3744.
**DIMENSIONS**

A. Height to top of ROPS cab  
136.2 in (3,460 mm)

Height to drawbar  
42.6 in (1,081 mm)

B. Wheelbase  
131.5 in (3,340 mm)

C. Ground clearance  
17.0 in (431 mm)

D. Angle of departure  
29°

Width:  
- Overall* without bucket  
111.4 in (2,829 mm)

- Centerline tread  
87.8 in (2,230 mm)

Turning radius* – outside  
236.3 in (6,003 mm)

Turning angle:  
- From center  
40°

- Total angle  
80°

Rear axle oscillation – total  
24°

NOTE: *Dimensions taken with 23.5-R25 L3 Radial tires. Additional dimensions on pages 4 through 8.

**WEIGHT ADJUSTMENTS**

<table>
<thead>
<tr>
<th>Select Options</th>
<th>Weight Adjustment</th>
<th>Tipping Load Adjustment</th>
<th>Tipping Load Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.5-R25 L2 Bias</td>
<td>-748 lb (-339 kg)</td>
<td>-610 lb (-277 kg)</td>
<td>-971 lb (-440 kg)</td>
</tr>
<tr>
<td>23.5-R25 L2 Radial tires</td>
<td>-28 lb (-13 kg)</td>
<td>-104 lb (-47 kg)</td>
<td>-133 lb (-60 kg)</td>
</tr>
<tr>
<td>23.5-R25 Snow Radial Tires</td>
<td>+52 lb (+24 kg)</td>
<td>+162 lb (+73 kg)</td>
<td>+166 lb (+75 kg)</td>
</tr>
<tr>
<td>Light counterweight</td>
<td>-1,655 lb (-751 kg)</td>
<td>-3,514 lb (-1,594 kg)</td>
<td>-2,770 lb (-1,257 kg)</td>
</tr>
</tbody>
</table>

NOTE: Unit equipped with Z-Bar loader arms, 4.25 yd³ (3.2 m³) general purpose pin on bucket with bolt-on edge, 23.5-R25 L3 Radial tires, ROPS cab with heater and air conditioner, heavy counterweight, heavy-duty batteries, front and rear fenders, full fuel and 165 lb (75 kg) operator. Adjust select options from rated weight.

*Tipping loads: ISO 14397-1 Deflected Tires.
**Performance Specs**

### 821G Z-Bar*

**3.5 yd³ (2.7 m³) Bucket**
- Operating weight: 39,723 lb (18,018 kg)
- Breakout force with tilt cylinder: 40,608 lb (18,420 kg)
- Lift capacity: Full height: 22,334 lb (10,131 kg)
- Tipping load – ISO Rigid Tires: Straight: 33,583 lb (15,233 kg)
- Maximum material density – ISO Rigid Tires: 4,187 lb/yd³ (2.760 kg/m³)
- Operating load – ISO Rigid Tires: 14,653 lb (6,653 kg)
- Dump angle – fully raised: 55°

**3.2 yd³ (2.4 m³) Bucket**
- Operating weight: 39,584 lb (17,955 kg)
- Breakout force with tilt cylinder: 44,051 lb (19,981 kg)
- Lift capacity: Full height: 22,490 lb (10,201 kg)
- Tipping load – ISO Deflected Tires: Straight: 25,220 lb (11,440 kg)
- Maximum material density – ISO Deflected Tires: 3,615 lb/yd³ (1.990 kg/m³)
- Operating load – ISO Deflected Tires: 10,193 lb (4,623 kg)
- Dump angle – fully raised: 49°

**4.25 yd³ (3.2 m³) Bucket**
- Operating weight: 40,057 lb (18,170 kg)
- Breakout force with tilt cylinder: 35,288 lb (16,007 kg)
- Lift capacity: Full height: 21,980 lb (9,970 kg)
- Tipping load – ISO Rigid Tires: Straight: 26,828 lb (12,169 kg)
- Maximum material density – ISO Rigid Tires: 4,018 lb/yd³ (2.111 kg/m³)
- Operating load – ISO Rigid Tires: 10,193 lb (4,623 kg)
- Dump angle – fully raised: 49°

### 821G XR

**3.5 yd³ (2.7 m³) Bucket**
- Operating weight: 40,314 lb (18,286 kg)
- Breakout force with tilt cylinder: 41,299 lb (18,733 kg)
- Lift capacity: Full height: 22,334 lb (10,131 kg)
- Tipping load – ISO Rigid Tires: Straight: 31,551 lb (14,311 kg)
- Maximum material density – ISO Rigid Tires: 3,615 lb/yd³ (1.970 kg/m³)
- Operating load – ISO Rigid Tires: 10,193 lb (4,623 kg)
- Dump angle – fully raised: 49°

**3.2 yd³ (2.4 m³) Bucket**
- Operating weight: 40,175 lb (18,223 kg)
- Breakout force with tilt cylinder: 44,797 lb (20,319 kg)
- Lift capacity: Full height: 22,490 lb (10,201 kg)
- Tipping load – ISO Deflected Tires: Straight: 25,220 lb (11,440 kg)
- Maximum material density – ISO Deflected Tires: 4,018 lb/yd³ (2.111 kg/m³)
- Operating load – ISO Deflected Tires: 10,193 lb (4,623 kg)
- Dump angle – fully raised: 49°

**4.25 yd³ (3.2 m³) Bucket**
- Operating weight: 40,648 lb (18,438 kg)
- Breakout force with tilt cylinder: 35,879 lb (16,275 kg)
- Lift capacity: Full height: 21,980 lb (9,970 kg)
- Tipping load – ISO Rigid Tires: Straight: 26,828 lb (12,169 kg)
- Maximum material density – ISO Rigid Tires: 4,018 lb/yd³ (2.111 kg/m³)
- Operating load – ISO Rigid Tires: 10,193 lb (4,623 kg)
- Dump angle – fully raised: 49°

### 821G Z-Bar* XR

**3.5 yd³ (2.7 m³) Bucket**
- Operating weight: 40,057 lb (18,170 kg)
- Breakout force with tilt cylinder: 41,299 lb (18,733 kg)
- Lift capacity: Full height: 22,334 lb (10,131 kg)
- Tipping load – ISO Rigid Tires: Straight: 31,551 lb (14,311 kg)
- Maximum material density – ISO Rigid Tires: 4,018 lb/yd³ (2.111 kg/m³)
- Operating load – ISO Rigid Tires: 10,193 lb (4,623 kg)
- Dump angle – fully raised: 49°

**3.2 yd³ (2.4 m³) Bucket**
- Operating weight: 39,584 lb (17,955 kg)
- Breakout force with tilt cylinder: 44,051 lb (19,981 kg)
- Lift capacity: Full height: 22,490 lb (10,201 kg)
- Tipping load – ISO Deflected Tires: Straight: 25,220 lb (11,440 kg)
- Maximum material density – ISO Deflected Tires: 4,018 lb/yd³ (2.111 kg/m³)
- Operating load – ISO Deflected Tires: 10,193 lb (4,623 kg)
- Dump angle – fully raised: 49°

**4.25 yd³ (3.2 m³) Bucket**
- Operating weight: 40,057 lb (18,170 kg)
- Breakout force with tilt cylinder: 35,879 lb (16,275 kg)
- Lift capacity: Full height: 21,980 lb (9,970 kg)
- Tipping load – ISO Rigid Tires: Straight: 26,828 lb (12,169 kg)
- Maximum material density – ISO Rigid Tires: 4,018 lb/yd³ (2.111 kg/m³)
- Operating load – ISO Rigid Tires: 10,193 lb (4,623 kg)
- Dump angle – fully raised: 49°

### 821G

- Operating weight: 39,723 lb (18,018 kg)
- Breakout force with tilt cylinder: 40,608 lb (18,420 kg)
- Lift capacity: Full height: 22,334 lb (10,131 kg)
- Tipping load – ISO Rigid Tires: Straight: 33,583 lb (15,233 kg)
- Maximum material density – ISO Rigid Tires: 4,018 lb/yd³ (2.111 kg/m³)
- Operating load – ISO Rigid Tires: 10,193 lb (4,623 kg)
- Dump angle – fully raised: 49°

- Operating height – fully raised with spillguard: 226.9 in (5.763 mm)
- Hinge pin height – fully raised: 179.6 in (4.561 mm)
- Overall length – bucket level on ground: 327.6 in (8.322 mm)
- Dump angle – fully raised: 55°

### 821G XR

- Operating weight: 40,314 lb (18,286 kg)
- Breakout force with tilt cylinder: 41,299 lb (18,733 kg)
- Lift capacity: Full height: 22,334 lb (10,131 kg)
- Tipping load – ISO Rigid Tires: Straight: 31,551 lb (14,311 kg)
- Maximum material density – ISO Rigid Tires: 4,018 lb/yd³ (2.111 kg/m³)
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### 821G Z-Bar XR

- Operating weight: 40,057 lb (18,170 kg)
- Breakout force with tilt cylinder: 41,299 lb (18,733 kg)
- Lift capacity: Full height: 22,334 lb (10,131 kg)
- Tipping load – ISO Rigid Tires: Straight: 31,551 lb (14,311 kg)
- Maximum material density – ISO Rigid Tires: 4,018 lb/yd³ (2.111 kg/m³)
- Operating load – ISO Rigid Tires: 10,193 lb (4,623 kg)
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### PERFORMANCE SPECS

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<tr>
<th>821G Z-Bar*</th>
<th>4.0 yd³ (3.1 m³) Bucket with Teeth - Pin On</th>
<th>4.5 yd³ (3.4 m³) Bucket with Bolt-on Edge - Pin On</th>
<th>3.5 yd³ (2.7 m³) Bucket with Bolt-on Edge - ACS Coupler</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating weight</td>
<td>39,916 lb (18 106 kg)</td>
<td>40,123 lb (18 200 kg)</td>
<td>41,223 lb (18 699 kg)</td>
</tr>
<tr>
<td>E. Operating height – fully raised with spillguard</td>
<td>215.4 in (5 471 mm)</td>
<td>216.7 in (5 505 mm)</td>
<td>214.0 in (5 437 mm)</td>
</tr>
<tr>
<td>F. Hinge pin height – fully raised</td>
<td>162.2 in (4 120 mm)</td>
<td>162.2 in (4 120 mm)</td>
<td>162.1 in (4 118 mm)</td>
</tr>
<tr>
<td>G. Overall length – bucket level on ground</td>
<td>321.0 in (8 153 mm)</td>
<td>316.5 in (8 039 mm)</td>
<td>316.5 in (8 040 mm)</td>
</tr>
<tr>
<td>Bucket weight</td>
<td>3,256 lb (1 477 kg)</td>
<td>3,464 lb (1 571 kg)</td>
<td>4,564 lb (2 070 kg)</td>
</tr>
<tr>
<td>Bucket width – outside</td>
<td>119.2 in (3 027 mm)</td>
<td>119.3 in (3 030 mm)</td>
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</tbody>
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</tr>
</thead>
<tbody>
<tr>
<td>Operating weight</td>
<td>40,507 lb (18 573 kg)</td>
<td>40,714 lb (18 467 kg)</td>
<td>41,814 lb (18 966 kg)</td>
</tr>
<tr>
<td>E. Operating height – fully raised with spillguard</td>
<td>232.8 in (5 912 mm)</td>
<td>234.1 in (5 946 mm)</td>
<td>231.4 in (5 878 mm)</td>
</tr>
<tr>
<td>F. Hinge pin height – fully raised</td>
<td>179.6 in (4 561 mm)</td>
<td>179.6 in (4 561 mm)</td>
<td>179.5 in (4 559 mm)</td>
</tr>
<tr>
<td>G. Overall length – bucket level on ground</td>
<td>340.1 in (8 638 mm)</td>
<td>335.6 in (8 525 mm)</td>
<td>335.6 in (8 525 mm)</td>
</tr>
<tr>
<td>Bucket weight</td>
<td>3,256 lb (1 477 kg)</td>
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</thead>
<tbody>
<tr>
<td>Maximum rollback:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ground</td>
<td>42°/37°</td>
<td>41°/37°</td>
<td>42°/37°</td>
</tr>
<tr>
<td>Carry position</td>
<td>45°/43°</td>
<td>45°/43°</td>
<td>45°/43°</td>
</tr>
<tr>
<td>@ Full height</td>
<td>59°/60°</td>
<td>59°/60°</td>
<td>59°/60°</td>
</tr>
<tr>
<td>Lift capacity:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full height</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ground</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breakout force with tilt cylinder</td>
<td>3.44 yd³ (2.63 m³)</td>
<td>3.78 yd³ (2.89 m³)</td>
<td>3.90 yd³ (2.22 m³)</td>
</tr>
<tr>
<td>Bucket width – outside</td>
<td>119.2 in (3 027 mm)</td>
<td>119.3 in (3 030 mm)</td>
<td>119.3 in (3 030 mm)</td>
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### PERFORMANCE SPECS

#### 821G Z-Bar*

<table>
<thead>
<tr>
<th>Bucket Size</th>
<th>3.2 yd³ (2.4 m³) Bucket with Teeth - ACS Coupler</th>
<th>4.0 yd³ (3.06 m³) Bucket with Bolt-On Edge - ACS Coupler</th>
<th>3.8 yd³ (2.91 m³) Bucket with Teeth - ACS Coupler</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating weight</td>
<td>41,082 lb (18,634 kg)</td>
<td>41,483 lb (18,816 kg)</td>
<td>41,342 lb (18,752 kg)</td>
</tr>
<tr>
<td>E. Operating height – fully raised with spillguard</td>
<td>214.0 in (5,437 mm)</td>
<td>218.8 in (5,558 mm)</td>
<td>218.8 in (5,558 mm)</td>
</tr>
<tr>
<td>F. Hinge pin height – fully raised</td>
<td>162.1 in (4,118 mm)</td>
<td>162.1 in (4,118 mm)</td>
<td>162.1 in (4,118 mm)</td>
</tr>
<tr>
<td>G. Overall length – bucket level on ground</td>
<td>322.4 in (8,188 mm)</td>
<td>320.9 in (8,151 mm)</td>
<td>326.8 in (8,299 mm)</td>
</tr>
<tr>
<td>Dump angle – fully raised</td>
<td>55°</td>
<td>55°</td>
<td>55°</td>
</tr>
<tr>
<td>H. Dump height – fully raised, 45° dump</td>
<td>112.6 in (2,860 mm)</td>
<td>113.6 in (2,886 mm)</td>
<td>109.8 in (2,790 mm)</td>
</tr>
<tr>
<td>J. Bucket reach – fully raised, 45° dump</td>
<td>48.7 in (1,236 mm)</td>
<td>47.8 in (1,213 mm)</td>
<td>52.2 in (1,326 mm)</td>
</tr>
<tr>
<td>K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump</td>
<td>69.7 in (1,771 mm)</td>
<td>69.4 in (1,762 mm)</td>
<td>71.8 in (1,823 mm)</td>
</tr>
<tr>
<td>L. Dig depth – edge below ground</td>
<td>3.3 in (84 mm)</td>
<td>3.1 in (79 mm)</td>
<td>3.2 in (80 mm)</td>
</tr>
<tr>
<td>Operating load – ISO Rigid Tires</td>
<td>13,339 lb (6,051 kg)</td>
<td>12,975 lb (6,046 kg)</td>
<td>14,613 lb (6,628 kg)</td>
</tr>
<tr>
<td>Operating load – ISO Deflected Tires</td>
<td>11,440 lb (5,189 kg)</td>
<td>11,077 lb (5,024 kg)</td>
<td>12,259 lb (5,606 kg)</td>
</tr>
<tr>
<td>Maximum material density – ISO Rigid Tires</td>
<td>4,169 lb/yd³ (2,473 kg/m³)</td>
<td>3,244 lb/yd³ (1,925 kg/m³)</td>
<td>3,845 lb/yd³ (2,282 kg/m³)</td>
</tr>
<tr>
<td>Maximum material density – ISO Deflected Tires</td>
<td>3,575 lb/yd³ (2,121 kg/m³)</td>
<td>2,769 lb/yd³ (1,643 kg/m³)</td>
<td>3,226 lb/yd³ (1,914 kg/m³)</td>
</tr>
<tr>
<td>Tipping load – ISO Rigid Tires: Straight 40° turn</td>
<td>30,752 lb (13,949 kg)</td>
<td>29,981 lb (13,599 kg)</td>
<td>33,733 lb (15,301 kg)</td>
</tr>
<tr>
<td>Tipping load – ISO Deflected Tires: Straight 40° turn</td>
<td>28,532 lb (12,942 kg)</td>
<td>27,762 lb (12,593 kg)</td>
<td>30,896 lb (14,014 kg)</td>
</tr>
<tr>
<td>Lift capacity: Full height</td>
<td>20,916 lb (9,487 kg)</td>
<td>20,500 lb (9,299 kg)</td>
<td>20,789 lb (9,430 kg)</td>
</tr>
<tr>
<td>Ground</td>
<td>35,573 lb (16,316 kg)</td>
<td>32,373 lb (14,684 kg)</td>
<td>39,661 lb (17,990 kg)</td>
</tr>
<tr>
<td>Breakout force with tilt cylinder</td>
<td>36,578 lb (16,951 kg)</td>
<td>31,163 lb (14,135 kg)</td>
<td>33,269 lb (15,090 kg)</td>
</tr>
<tr>
<td>Loader clearance circle with bucket</td>
<td>527.3 in (13,394 mm)</td>
<td>526.5 in (13,374 mm)</td>
<td>529.9 in (13,459 mm)</td>
</tr>
</tbody>
</table>

#### 821G XR

<table>
<thead>
<tr>
<th>Bucket Size</th>
<th>3.2 yd³ (2.4 m³) Bucket with Teeth - ACS Coupler</th>
<th>4.0 yd³ (3.06 m³) Bucket with Bolt-On Edge - ACS Coupler</th>
<th>3.8 yd³ (2.91 m³) Bucket with Teeth - ACS Coupler</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating weight</td>
<td>41,672 lb (18,902 kg)</td>
<td>42,074 lb (19,084 kg)</td>
<td>41,932 lb (19,020 kg)</td>
</tr>
<tr>
<td>E. Operating height – fully raised with spillguard</td>
<td>231.4 in (5,878 mm)</td>
<td>236.2 in (5,999 mm)</td>
<td>236.2 in (5,999 mm)</td>
</tr>
<tr>
<td>F. Hinge pin height – fully raised</td>
<td>179.5 in (4,560 mm)</td>
<td>179.5 in (4,559 mm)</td>
<td>179.5 in (4,559 mm)</td>
</tr>
<tr>
<td>G. Overall length – bucket level on ground</td>
<td>345.1 in (8,737 mm)</td>
<td>340.0 in (8,636 mm)</td>
<td>345.9 in (8,785 mm)</td>
</tr>
<tr>
<td>Dump angle – fully raised</td>
<td>49°</td>
<td>49°</td>
<td>49°</td>
</tr>
<tr>
<td>H. Dump height – fully raised, 45° dump</td>
<td>130.0 in (3,301 mm)</td>
<td>131.0 in (3,327 mm)</td>
<td>127.2 in (3,231 mm)</td>
</tr>
<tr>
<td>J. Bucket reach – fully raised, 45° dump</td>
<td>53.1 in (1,349 mm)</td>
<td>52.2 in (1,326 mm)</td>
<td>56.6 in (1,439 mm)</td>
</tr>
<tr>
<td>K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump</td>
<td>87.2 in (2,161 mm)</td>
<td>86.8 in (2,044 mm)</td>
<td>89.5 in (2,274 mm)</td>
</tr>
<tr>
<td>L. Dig depth – edge below ground</td>
<td>5.9 in (151 mm)</td>
<td>5.8 in (146 mm)</td>
<td>5.8 in (147 mm)</td>
</tr>
<tr>
<td>Operating load – ISO Rigid Tires</td>
<td>10,519 lb (4,771 kg)</td>
<td>10,198 lb (4,626 kg)</td>
<td>11,279 lb (5,116 kg)</td>
</tr>
<tr>
<td>Operating load – ISO Deflected Tires</td>
<td>9,152 lb (4,151 kg)</td>
<td>8,833 lb (4,007 kg)</td>
<td>9,660 lb (4,382 kg)</td>
</tr>
<tr>
<td>Maximum material density – ISO Rigid Tires</td>
<td>3,287 lb/yd³ (1,950 kg/m³)</td>
<td>2,549 lb/yd³ (1,513 kg/m³)</td>
<td>2,968 lb/yd³ (1,761 kg/m³)</td>
</tr>
<tr>
<td>Maximum material density – ISO Deflected Tires</td>
<td>2,860 lb/yd³ (1,697 kg/m³)</td>
<td>2,208 lb/yd³ (1,310 kg/m³)</td>
<td>2,542 lb/yd³ (1,508 kg/m³)</td>
</tr>
<tr>
<td>Tipping load – ISO Rigid Tires: Straight 40° turn</td>
<td>24,474 lb (11,101 kg)</td>
<td>23,799 lb (10,795 kg)</td>
<td>26,290 lb (11,925 kg)</td>
</tr>
<tr>
<td>Tipping load – ISO Deflected Tires: Straight 40° turn</td>
<td>22,944 lb (10,407 kg)</td>
<td>22,272 lb (10,102 kg)</td>
<td>24,433 lb (11,082 kg)</td>
</tr>
<tr>
<td>Lift capacity: Full height</td>
<td>19,087 lb (8,658 kg)</td>
<td>18,674 lb (8,470 kg)</td>
<td>18,970 lb (8,604 kg)</td>
</tr>
<tr>
<td>Ground</td>
<td>29,326 lb (13,302 kg)</td>
<td>28,592 lb (12,969 kg)</td>
<td>29,852 lb (13,541 kg)</td>
</tr>
<tr>
<td>Breakout force with tilt cylinder</td>
<td>37,188 lb (16,688 kg)</td>
<td>31,694 lb (14,376 kg)</td>
<td>33,832 lb (15,346 kg)</td>
</tr>
<tr>
<td>Loader clearance circle with bucket</td>
<td>547.4 in (13,904 mm)</td>
<td>546.4 in (13,880 mm)</td>
<td>550.5 in (13,982 mm)</td>
</tr>
</tbody>
</table>

#### 821G

<table>
<thead>
<tr>
<th>Z-Bar/XR</th>
<th>Z-Bar/XR</th>
<th>Z-Bar/XR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum rollback: Ground</td>
<td>42°/38°</td>
<td>42°/37°</td>
</tr>
<tr>
<td>Carry position</td>
<td>45°/43°</td>
<td>45°/43°</td>
</tr>
<tr>
<td>@ Full height</td>
<td>59°/60°</td>
<td>59°/60°</td>
</tr>
<tr>
<td>Maximum grading angle with bucket – back dragging</td>
<td>61°/64°</td>
<td>61°/64°</td>
</tr>
<tr>
<td>SAE bucket capacity – struck</td>
<td>2.75 yd³ (2.10 m³)</td>
<td>3.41 yd³ (2.61 m³)</td>
</tr>
<tr>
<td>Heaped</td>
<td>3.20 yd³ (2.45 m³)</td>
<td>4.00 yd³ (3.06 m³)</td>
</tr>
<tr>
<td>Bucket width – outside</td>
<td>119.2 in (3,027 mm)</td>
<td>119.3 in (3,030 mm)</td>
</tr>
<tr>
<td>Bucket weight</td>
<td>4,422 lb (2,006 kg)</td>
<td>4,824 lb (2,188 kg)</td>
</tr>
</tbody>
</table>
## PERFORMANCE SPECS

### 821G Z-Bar*

<table>
<thead>
<tr>
<th>Bucket</th>
<th>3.6 yd³ (2.75 m³) Bucket with Bolt-On Edge - JRB Coupler</th>
<th>3.2 yd³ (2.45 m³) Bucket with Teeth - JRB Coupler</th>
<th>4.0 yd³ (3.06 m³) Bucket with Bolt-On Edge - JRB Coupler</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating weight</td>
<td>41,110 lb (18 647 kg)</td>
<td>40,969 lb (18 583 kg)</td>
<td>41,430 lb (18 792 kg)</td>
</tr>
<tr>
<td>E. Operating height – fully raised with spillguard</td>
<td>216.2 in (5 491 mm)</td>
<td>216.2 in (5 492 mm)</td>
<td>221.9 in (5 636 mm)</td>
</tr>
<tr>
<td>F. Hinge pin height – fully raised</td>
<td>162.1 in (4 118 mm)</td>
<td>162.2 in (4 119 mm)</td>
<td>162.1 in (4 118 mm)</td>
</tr>
<tr>
<td>G. Overall length – bucket level on ground</td>
<td>319.2 in (8 108 mm)</td>
<td>325.1 in (8 256 mm)</td>
<td>325.1 in (8 258 mm)</td>
</tr>
<tr>
<td>Dump angle – fully raised</td>
<td>55°</td>
<td>55°</td>
<td>55°</td>
</tr>
<tr>
<td>H. Dump height – fully raised, 45° dump</td>
<td>114.7 in (2 914 mm)</td>
<td>110.9 in (2 818 mm)</td>
<td>110.9 in (2 817 mm)</td>
</tr>
<tr>
<td>J. Bucket reach – fully raised, 45° dump</td>
<td>46.5 in (1 181 mm)</td>
<td>50.9 in (1 293 mm)</td>
<td>51.0 in (1 295 mm)</td>
</tr>
<tr>
<td>K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump</td>
<td>68.6 in (1 743 mm)</td>
<td>71.1 in (1 806 mm)</td>
<td>71.2 in (1 807 mm)</td>
</tr>
<tr>
<td>L. Dig depth – edge below ground</td>
<td>3.1 in (79 mm)</td>
<td>3.1 in (80 mm)</td>
<td>3.1 in (79 mm)</td>
</tr>
<tr>
<td>Operating load – ISO Rigid Tires</td>
<td>12,945 lb (5 872 kg)</td>
<td>13,152 lb (5 966 kg)</td>
<td>12,618 lb (5 723 kg)</td>
</tr>
<tr>
<td>Operating load – ISO Deflected Tires</td>
<td>11,097 lb (5 034 kg)</td>
<td>11,280 lb (5 117 kg)</td>
<td>10,768 lb (4 884 kg)</td>
</tr>
<tr>
<td>Maximum material density – ISO Deflected Tires</td>
<td>2,844 lb/yd³ (1 687 kg/m³)</td>
<td>3,115 lb/yd³ (1 829 kg/m³)</td>
<td>3,155 lb/yd³ (1 872 kg/m³)</td>
</tr>
<tr>
<td>Maximum material density – ISO Rigid Tires</td>
<td>2,844 lb/yd³ (1 687 kg/m³)</td>
<td>3,251 lb/yd³ (1 929 kg/m³)</td>
<td>2,489 lb/yd³ (1 477 kg/m³)</td>
</tr>
<tr>
<td>Tipping load – ISO Rigid Tires: Straight</td>
<td>29,859 lb (13 544 kg)</td>
<td>30,309 lb (13 748 kg)</td>
<td>29,157 lb (13 225 kg)</td>
</tr>
<tr>
<td>Tipping load – ISO Deflected Tires: Straight</td>
<td>27,708 lb (12 568 kg)</td>
<td>28,126 lb (12 758 kg)</td>
<td>27,004 lb (12 249 kg)</td>
</tr>
<tr>
<td>Lift capacity: Full height Ground</td>
<td>20,848 lb (9 456 kg)</td>
<td>21,005 lb (9 528 kg)</td>
<td>20,513 lb (9 305 kg)</td>
</tr>
<tr>
<td>Breakout force with tilt cylinder</td>
<td>32,313 lb (14 657 kg)</td>
<td>34,565 lb (15 678 kg)</td>
<td>28,871 lb (13 096 kg)</td>
</tr>
<tr>
<td>Loader clearance circle with bucket</td>
<td>525.6 in (13 349 mm)</td>
<td>528.9 in (13 433 mm)</td>
<td>529.0 in (13 437 mm)</td>
</tr>
</tbody>
</table>

### 821G XR

<table>
<thead>
<tr>
<th>Bucket</th>
<th>3.6 yd³ (2.75 m³) Bucket with Bolt-On Edge - JRB Coupler</th>
<th>3.2 yd³ (2.45 m³) Bucket with Teeth - JRB Coupler</th>
<th>4.0 yd³ (3.06 m³) Bucket with Bolt-On Edge - JRB Coupler</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating weight</td>
<td>41,701 lb (18 915 kg)</td>
<td>41,595 lb (18 851 kg)</td>
<td>42,021 lb (19 060 kg)</td>
</tr>
<tr>
<td>E. Operating height – fully raised with spillguard</td>
<td>233.6 in (5 933 mm)</td>
<td>233.6 in (5 933 mm)</td>
<td>239.3 in (6 078 mm)</td>
</tr>
<tr>
<td>F. Hinge pin height – fully raised</td>
<td>179.5 in (4 560 mm)</td>
<td>179.5 in (4 560 mm)</td>
<td>179.5 in (4 559 mm)</td>
</tr>
<tr>
<td>G. Overall length – bucket level on ground</td>
<td>338.3 in (8 593 mm)</td>
<td>344.2 in (8 742 mm)</td>
<td>344.2 in (8 743 mm)</td>
</tr>
<tr>
<td>Dump angle – fully raised</td>
<td>49°</td>
<td>49°</td>
<td>49°</td>
</tr>
<tr>
<td>H. Dump height – fully raised, 45° dump</td>
<td>132.1 in (3 355 mm)</td>
<td>128.3 in (3 259 mm)</td>
<td>128.3 in (3 258 mm)</td>
</tr>
<tr>
<td>J. Bucket reach – fully raised, 45° dump</td>
<td>50.9 in (1 293 mm)</td>
<td>55.3 in (1 406 mm)</td>
<td>55.4 in (1 408 mm)</td>
</tr>
<tr>
<td>K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump</td>
<td>86.0 in (2 184 mm)</td>
<td>88.7 in (2 254 mm)</td>
<td>88.8 in (2 256 mm)</td>
</tr>
<tr>
<td>L. Dig depth – edge below ground</td>
<td>5.7 in (146 mm)</td>
<td>5.8 in (147 mm)</td>
<td>5.8 in (146 mm)</td>
</tr>
<tr>
<td>Operating load – ISO Rigid Tires</td>
<td>10,237 lb (4 644 kg)</td>
<td>10,404 lb (4 719 kg)</td>
<td>9,955 lb (4 515 kg)</td>
</tr>
<tr>
<td>Operating load – ISO Deflected Tires</td>
<td>9,903 lb (4 438 kg)</td>
<td>9,055 lb (4 107 kg)</td>
<td>8,622 lb (3 911 kg)</td>
</tr>
<tr>
<td>Maximum material density – ISO Deflected Tires</td>
<td>2,844 lb/yd³ (1 687 kg/m³)</td>
<td>3,251 lb/yd³ (1 929 kg/m³)</td>
<td>2,489 lb/yd³ (1 477 kg/m³)</td>
</tr>
<tr>
<td>Maximum material density – ISO Rigid Tires</td>
<td>2,473 lb/yd³ (1 467 kg/m³)</td>
<td>2,830 lb/yd³ (1 679 kg/m³)</td>
<td>2,155 lb/yd³ (1 279 kg/m³)</td>
</tr>
<tr>
<td>Tipping load – ISO Rigid Tires: Straight</td>
<td>23,834 lb (10 811 kg)</td>
<td>24,193 lb (10 974 kg)</td>
<td>23,232 lb (10 538 kg)</td>
</tr>
<tr>
<td>Tipping load – ISO Deflected Tires: Straight</td>
<td>22,346 lb (10 136 lb)</td>
<td>22,686 lb (10 290 lb)</td>
<td>21,745 lb (9 863 kg)</td>
</tr>
<tr>
<td>Lift capacity: Full height Ground</td>
<td>19,023 lb (8 629 kg)</td>
<td>19,179 lb (8 699 kg)</td>
<td>18,692 lb (8 479 kg)</td>
</tr>
<tr>
<td>Breakout force with tilt cylinder</td>
<td>32,861 lb (14 905 kg)</td>
<td>35,147 lb (15 942 kg)</td>
<td>29,366 lb (13 320 kg)</td>
</tr>
<tr>
<td>Loader clearance circle with bucket</td>
<td>545.3 in (13 850 mm)</td>
<td>549.3 in (13 951 mm)</td>
<td>549.4 in (13 955 mm)</td>
</tr>
</tbody>
</table>

### 821G

<table>
<thead>
<tr>
<th>Bucket</th>
<th>Z-Bar/XR</th>
<th>Z-Bar/XR</th>
<th>Z-Bar/XR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum rollback: Ground</td>
<td>42°/37°</td>
<td>42°/37°</td>
<td>42°/37°</td>
</tr>
<tr>
<td>Carry position</td>
<td>45°/43°</td>
<td>45°/43°</td>
<td>45°/43°</td>
</tr>
<tr>
<td>@ Full height</td>
<td>59°/60°</td>
<td>59°/60°</td>
<td>59°/60°</td>
</tr>
<tr>
<td>Maximum grading angle with bucket – back dragging</td>
<td>61°/63°</td>
<td>62°/65°</td>
<td>62°/65°</td>
</tr>
<tr>
<td>SAE bucket capacity – struck</td>
<td>2.90 yd³ (2.22 m³)</td>
<td>2.75 yd³ (2.10 m³)</td>
<td>3.41 yd³ (2.61 m³)</td>
</tr>
<tr>
<td>Heaped</td>
<td>3.60 yd³ (2.75 m³)</td>
<td>3.20 yd³ (2.45 m³)</td>
<td>4.00 yd³ (3.06 m³)</td>
</tr>
<tr>
<td>Bucket width – outside</td>
<td>119.3 in (3 030 mm)</td>
<td>119.2 in (3 027 mm)</td>
<td>119.3 in (3 030 mm)</td>
</tr>
<tr>
<td>Bucket weight</td>
<td>4,450 lb (2 019 kg)</td>
<td>4,309 lb (1 955 kg)</td>
<td>4,770 lb (2 164 kg)</td>
</tr>
</tbody>
</table>

**PERFORMANCE SPECS**
## PERFORMANCE SPECS

<table>
<thead>
<tr>
<th>821G</th>
<th>Z-Bar*</th>
<th>XR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating weight</td>
<td>41,289 lb (18 728 kg)</td>
<td>41,879 lb (18 996 kg)</td>
</tr>
<tr>
<td><strong>E.</strong> Operating height – fully raised with spillguard</td>
<td>221.9 in (5 637 mm)</td>
<td>239.3 in (6 078 mm)</td>
</tr>
<tr>
<td><strong>F.</strong> Hinge pin height – fully raised</td>
<td>162.1 in (4 118 mm)</td>
<td>179.5 in (4 559 mm)</td>
</tr>
<tr>
<td><strong>G.</strong> Overall length – bucket level on ground</td>
<td>331.0 in (8 406 mm)</td>
<td>350.1 in (8 892 mm)</td>
</tr>
<tr>
<td>Dump angle – fully raised</td>
<td>55°</td>
<td>49°</td>
</tr>
<tr>
<td><strong>H.</strong> Dump height – fully raised, 45° dump</td>
<td>107.1 in (2 721 mm)</td>
<td>124.5 in (3 162 mm)</td>
</tr>
<tr>
<td><strong>J.</strong> Bucket reach – fully raised, 45° dump</td>
<td>55.4 in (1 408 mm)</td>
<td>59.9 in (1 521 mm)</td>
</tr>
<tr>
<td><strong>K.</strong> Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump</td>
<td>73.5 in (1 866 mm)</td>
<td>91.4 in (2 322 mm)</td>
</tr>
<tr>
<td><strong>L.</strong> Dig depth – edge below ground</td>
<td>3.2 in (80 mm)</td>
<td>5.8 in (147 mm)</td>
</tr>
<tr>
<td>Operating load – ISO Rigid Tires</td>
<td>12,820 lb (5 815 kg)</td>
<td>10,118 lb (4 589 kg)</td>
</tr>
<tr>
<td>Operating load – ISO Deflected Tires</td>
<td>10,948 lb (4 966 kg)</td>
<td>8,771 lb (3 978 kg)</td>
</tr>
<tr>
<td>Maximum material density – ISO Rigid Tires</td>
<td>3,374 lb/yd³ (2 002 kg/m³)</td>
<td>2,663 lb/yd³ (1 580 kg/m³)</td>
</tr>
<tr>
<td>Maximum material density – ISO Deflected Tires</td>
<td>2,881 lb/yd³ (1 709 kg/m³)</td>
<td>2,308 lb/yd³ (1 370 kg/m³)</td>
</tr>
<tr>
<td>Tipping load - ISO Rigid Tires: Straight 40° turn</td>
<td>29,595 lb (13 424 kg)</td>
<td>23,584 lb (10 697 kg)</td>
</tr>
<tr>
<td>Tipping load – ISO Deflected Tires: Straight 40° turn</td>
<td>25,640 lb (11 630 kg)</td>
<td>20,236 lb (9 179 kg)</td>
</tr>
<tr>
<td>Tipping load – ISO Deflected Tires: Straight 40° turn</td>
<td>27,412 lb (12 434 kg)</td>
<td>22,078 lb (10 015 kg)</td>
</tr>
<tr>
<td>Tipping load – ISO Deflected Tires: Straight 40° turn</td>
<td>21,895 lb (9 931 kg)</td>
<td>17,541 lb (7 957 kg)</td>
</tr>
<tr>
<td>Lift capacity: Full height</td>
<td>20,670 lb (9 376 kg)</td>
<td>18,847 lb (8 459 kg)</td>
</tr>
<tr>
<td>Lift capacity: Ground</td>
<td>29,604 lb (13 428 kg)</td>
<td>28,385 lb (12 875 kg)</td>
</tr>
<tr>
<td>Breakout force with tilt cylinder</td>
<td>30,698 lb (13 925 kg)</td>
<td>31,221 lb (14 161 kg)</td>
</tr>
<tr>
<td>Loader clearance circle with bucket</td>
<td>532.4 in (13 523 mm)</td>
<td>553.5 in (14 059 mm)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>821G</th>
<th>Z-Bar</th>
<th>XR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum rollback: Ground</td>
<td>42°</td>
<td>37°</td>
</tr>
<tr>
<td>Carry position</td>
<td>45°</td>
<td>43°</td>
</tr>
<tr>
<td>@ Full height</td>
<td>59°</td>
<td>60°</td>
</tr>
<tr>
<td>Maximum grading angle with bucket – back dragging</td>
<td>64°</td>
<td>67°</td>
</tr>
<tr>
<td>SAE bucket capacity – struck</td>
<td>3.25 yd³ (2.48 m³)</td>
<td>3.25 yd³ (2.48 m³)</td>
</tr>
<tr>
<td>Heaped</td>
<td>3.80 yd³ (2.91 m³)</td>
<td>3.80 yd³ (2.91 m³)</td>
</tr>
<tr>
<td>Bucket width – outside</td>
<td>119.2 in (3 027 mm)</td>
<td>119.2 in (3 027 mm)</td>
</tr>
<tr>
<td>Bucket weight</td>
<td>4,629 lb (2 100 kg)</td>
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</tr>
</tbody>
</table>

NOTE: *Z-Bar performance data shown with full counterweight.

Performance data unit equipped with 23.5-R25 L3 Radial tires, ROPS cab with heater and air conditioner, full counterweight, standard batteries, front and rear fenders, full fuel and 165 lb (75 kg) operator. Specifications per SAE J732, J1234, J695, J742, and J818.
STANDARD EQUIPMENT

OPERATOR ENVIRONMENT

See page 1

ENGINE

Case/FPT F4HFE613S
Tier 4 Final Certified
Selective Catalytic Reduction (SCR) with Diesel Oxidation Catalyst
Selectable work modes:
  - Maximum Power
  - Standard Power
  - Economy Power
  - Auto Power
Turbocharger
Charge air cooling
Automatic belt tensioner
Integral engine oil cooling
Fuel filter with water trap
Dual-element dry-type air cleaner
Hydraulic-driven cooling fan
Air-cooled radiator
Mid-mounted cooling module
Common rail electronic fuel injection

LOADER

See page 2 – Operating weight, Other specifications

ONBOARD DIAGNOSTICS

Single lever electronic shift control
F/N/R switch in loader control handle
Downshift button
Torque converter
Limited-slip differentials
Outboard planetary axles
Transmission oil cooler
Brake pedal transmission disconnect – declutch
Hydraulic wet disc brakes
Spring-applied hydraulic release parking brake
Limp-Home Mode
Greasable rear axle trunnion
3-piece rims

HYDRAULICS

Electro-hydraulic (EH) joystick loader control
Low-effort steering
Hydraulic driven cooling fan
Diagnostic quick couplers
Split flange hydraulic connections – 1 in or greater
Hydraulic oil cooler

DRIVETRAIN

4-wheel drive
4F/3R Selectable autoshift/manual shift transmission
Electronic Control Module – programmable, computer controlled proportional shifting with programmable gear selection

ELECTRICAL

Alternator and voltage regulator
Battery isolator/electrical disconnect
120 amp alternator
(2) 700 CCA 12-volt batteries
Electric starter
Lights:
  - 2 Front and 2 rear halogen flood lights
  - 2 Front driving headlights – high/low beam with integrated turn signals
  - 2 LED stop/tail lights with integrated turn signals
Key start/stop switch
Backup alarm
Centrally located fuse box with all electrical circuits protected
Remote jump start posts

OTHER

Electric hood lift
Front and rear fenders, partial coverage
Heavy counterweight
Drawbar hitch
Articulation locking bar
Lift arm locking bar
Lift and tie-down points – front/rear
Grouped remote-mounted ecology drains:
  - Engine oil
  - Engine coolant
  - Hydraulic oil

TELEMATICS

CASE SiteWatch™ Telematics – includes hardware and a 3-yr Advanced data subscription
**OPTIONAL EQUIPMENT**

**OPERATOR ENVIRONMENT**
- Cloth-covered heated air-suspension seat
- Leather trimmed heated air seat with active suspension
- Cloth mechanical suspension seat
- Headrest
- 3 in (76 mm) retractable seat belt
- Sound Shield noise suppression package
- Bluetooth radio, 12V AM/FM with auxiliary input
- Radio-ready – 12 or 24-volt with auxiliary power – 12-volt
- Cab convenience package:
  - Rear sun shade, interior mirror, under the seat drawer, coat hook, 12V accessory port, and an ash tray
  - In cab powered cooler box
  - In cab accessory mount
  - LED rotating beacon
  - Rear view camera
  - External rear view mirrors
  - External heated rear view mirrors
  - Front LED driving/headlights
  - LED front and rear work lights
  - Extra front-facing LED work lights

**HYDRAULICS**
- Auxiliary hydraulics
- Ride Control™
- Secondary steering
- Joystick steering with and without secondary steering
- 2-function loader valve with single access control
- 3-function loader valve with 3 lever control or with joystick plus lever
- 4-function loader valve with joystick and 2 lever control

**ADVANCED ENGINE AIR FILTRATION**
- Variable speed hydraulic reversing fan
- Full-view air pre-cleaner
- Sy-Klone® ejector type pre-cleaner

**OTHER**
- Additional RH steps and platform with standard or wide fenders
- Side guards for rear frame
- Tool box – ground level access
- Light counterweight – Z-Bar
- Fire extinguisher
- License plate bracket
- 12.4 mph (20 kph) maximum speed control
- Special paint
- Skid plate and transmission
- Standard fenders with right and left hand steps
- Wide full coverage fenders with right and left hand steps

**DRIVETRAIN**
- 5F/3R Autoshift/manual shift transmission, lockup torque converter, PowerInch de-clutch
- Heavy-duty axles:
  - Larger size rear axle with hydraulically-actuated differential lock on front axle, open differential on rear axle. Recommended for applications on hard surfaces or with solid tires.
- Cold weather package:
  - Heavy-duty (2) 950 CCA 12V batteries
  - Grid heater
  - Fuel heater
  - Hydraulic oil cooler bypass
  - Low temperature hydraulic oil
  - Fast-warm hydraulic valve

**LOADERS**
- XR extended reach version
- Attachment auxiliary hydraulics
- Coupler systems – JRB or ACS compatible
- Buckets – see pages 4 through 8
- 4 – 1 clamp buckets
- Forks

**TIRES**
- 23.5 x 25 L2 bias – dirt/traction
- 23.5 x 25 L3 bias – rock
- 23.5-R25 L2 radial – dirt/traction
- 23.5-R25 L3 radial – rock
- 23.5-R25 radial Michelin SnoPlus
- Spare wheels and tires
- Axle oscillation stops

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