**ENGINE**

- **Make:** FPT
- **Model:** F4HFE613
- **Emissions Certification:** Tier 4 Final
- **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, full flow spin-on cartridge
- **Fuel pump:** Bosch CP 3.3
- **Gradeability:**
  - **Side-to-side:** 35°
  - **Fore and aft:** 35°
- **Air filter:** 2-element dry type w/ warning restriction indicator
- **Mid-mount cooling module:** Mid-mount air/water
- **Fan – hydraulic driven:** 8 blade puller
- **Diameter:** 32 in (813 mm)
- **Water pump:** Integral
- **Engine oil pump operating angles ratings:**
  - **Side-to-side:** 35°
  - **Fore and aft:** 35°
- **Oil filtration:** Replaceable, full flow, spin-on cartridge
- **Engine speeds RPM:**
  - Rated – full load: 2000
- **Horsepower:**
  - **Maximum Power Mode:**
    - Gross @ 1300 RPM: 959 lb·ft (1 300 N·m)
    - Net @ 1300 RPM: 930 lb·ft (1 261 N·m)
  - **Standard Power Mode:**
    - Gross @ 1300 RPM: 828 lb·ft (1 233 N·m)
    - Net @ 1300 RPM: 799 lb·ft (1 084 N·m)
  - **Economy Power Mode:**
    - Gross @ 1300 RPM: 828 lb·ft (1 233 N·m)
    - Net @ 1300 RPM: 799 lb·ft (1 084 N·m)
- **Torque rise:** Maximum power range 49%
- **NOTE:** Gross horsepower and torque per SAE J1995.

**DRIVETRAIN**

- **Transmission:** 4F/3R Proportional w/ Electronic Control
- **Gears:** Helical cut
- **Torque converter:**
  - **Stall ratio – 4-speed:** 2.28:1
  - **Stall ratio – 5-speed:** 2.35:1
- **Differential**
  - **Open differentials on front and rear axles**
  - **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:**
  - Front hub: 840 in² (0.542 m²)
  - 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:**
<table>
<thead>
<tr>
<th></th>
<th>Forward</th>
<th>Reverse</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>4.0 (6.4)</td>
<td>4.2 (6.8)</td>
</tr>
<tr>
<td>2nd</td>
<td>7.5 (12.0)</td>
<td>7.8 (12.6)</td>
</tr>
<tr>
<td>3rd</td>
<td>14.3 (23.1)</td>
<td>15.0 (24.2)</td>
</tr>
<tr>
<td>4th</td>
<td>22.4 (36.0)</td>
<td>—</td>
</tr>
</tbody>
</table>

**ELECTRICAL**

- **Voltage:** 24 Volts, negative ground
- **Alternator:** 120 amp
- **Batteries:** (2)

**OPERATOR ENVIRONMENT**

- **ROPS/FOPS Cab w/ heat and AC:** Key start; Articulated power steering w/ tilt column; Fully adjustable suspension seat; Foot throttle; 1-Leaver loader control w/ wrist column; Cup holder; Coat hook; 1 Interior reaview mirror; 2 in (51 mm) retractable seat belt; Storage tray behind seat; Lunch box compartment; Single brake pedal; F-N-R shuttle switch; Glove box; Pressurized air filtering; Anti-glare window strip; Defroster; Side window partial/fully open; Dome light; Wipers, rear and intermittent front; Windshield washers, front and rear; Rubber floor mat; Horn.

**Displays/Gauges:**

- Analog:
  - Transmission oil temperature; Hydraulic oil temperature; Fuel level; Engine coolant temperature.
- LCD screen:
  - Hour meter, Engine speed, Travel speed, Time, Automatic transmission indication; Current gear selection; FNR indication; DeClutch indication; Engine mode indication; Trip computer; Fuel consumption; Multiple languages, Metric/English; Engine diagnostics; Transmission diagnostics; Warning prompts; Error reporting; DEF gauge; Diff. lock*.
- Audible/ Visual alarms:
  - Warning lights: Four-way flashers and turn signals; Brake pressure; Lamp/high beam indication; Grid heater*.

**NOTE:** *If equipped w/ option.
OPERATOR ENVIRONMENT (cont.)

Audible/Visual alarms:
Caution alarm:
Parking brake; Coolant temperature;
Hydraulic oil temperature; Transmission oil temperature; Air filter; Transmission filter; Hydraulic filter; Alternator; Low fuel.
Critical alarm:
Engine oil pressure; Brake pressure;
Steering pressure – w/ aux. steering*;
Coolant temperature; Hydraulic oil temperature; Transmission oil temperature.
Backup alarm

NOTE: *If equipped w/ option.

OPERATING WEIGHT

Z-Bar
Unit equipped w/ 23.5R25 Michelin XHA2; ROPS cab w/ heater and AC; Heavy-duty counterweight – 6,435 lb (2 919 kg); Heavy-duty batteries; Front and rear fenders; Lights; Full fuel; Full urea; 175 lb (79 kg) operator; 4.75 yd³ (3.6 m³) GP pin on w/ bolt on edge:
43,777 lb (19 857 kg)

XR
Unit equipped w/ 23.5R25 Michelin XHA2; ROPS cab w/ heater and AC; Heavy-duty counterweight – 6,435 lb (2 919 kg); Heavy-duty batteries; Front and rear fenders; Lights; Full fuel; Full urea; 175 lb (79 kg) operator; 4.75 yd³ (3.6 m³) GP pin on w/ bolt on edge:
44,090 lb (19 999 kg)

HYDRAULICS

Pump – steering/implement:
Closed center pressure/flow compensated
Variable displacement – load sensing:
42.8 gpm @ 2000 RPM (162 L/min @ 2000 RPM)

Loader control valve:
Closed-center, sectional 2, 3 or 4-function w/ pilot control for lift, tilt and auxiliary hydraulics, electromagnetic detents in float, raise and rollback

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

High pressure standby:
Implement 3,625 psi (25 000 kPa)
Steering 3,499 psi (24 132 kPa)

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

SERVICE CAPACITIES

Fuel tank 76.1 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 29.1 gal (110.0 L)
Total 52.8 gal (200.0 L)

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

Front and rear axle:
Front axle 11.1 gal (42.0 L)
Rear axle 10.6 gal (40.0 L)

Engine oil w/ filter 4.0 gal (15.1 L)

Cooling system 7.9 gal (30.0 L)

OTHER SPECIFICATIONS

Lift cylinder:
Bore diameter 6.0 in (152 mm)
Rod diameter 3.5 in (89 mm)
Stroke 33.3 in (846 mm)

Dump cylinder:
Bore diameter 7.0 in (178 mm)
Rod diameter 4.0 in (102 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 1.4 sec
Power down 3.8 sec
Float down 3.1 sec
DIMENSIONS

A. Height to top of ROPS cab 135.8 in (3 450 mm)
   Height to drawbar 42.2 in (1 071 mm)
B. Wheelbase 131.5 in (3 340 mm)
C. Ground clearance 16.4 in (416 mm)
D. Angle of departure 30°

Width:
   Overall* without bucket 113.6 in (2 885 mm)
   Centerline tread 87.8 in (2 230 mm)

Turning radius* – outside 237.5 in (6 032 mm)

Turning angle:
   From center 40°
   Total angle 80°

Rear axle oscillation, total 24°

NOTE: *Dimensions taken with 23.5R25 Michelin XHA2 tires. Additional dimensions on pages 4 and 5.

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></td>
<td></td>
<td>Straight</td>
<td>40° Turn</td>
</tr>
<tr>
<td>Base counterweight</td>
<td>-1,365 lb (-619 kg)</td>
<td>-3,142 lb (-1 425 kg)</td>
<td>-2,652 lb (-1 203 kg)</td>
</tr>
<tr>
<td>L2BIAS tires</td>
<td>-948 lb (-430 kg)</td>
<td>-725 lb (-329 kg)</td>
<td>-642 lb (-291 kg)</td>
</tr>
<tr>
<td>L3BIAS tires</td>
<td>-313 lb (-142 kg)</td>
<td>-240 lb (-109 kg)</td>
<td>-212 lb (-96 kg)</td>
</tr>
<tr>
<td>ROPS Canopy</td>
<td>-295 lb (-134 kg)</td>
<td>-256 lb (-116 kg)</td>
<td>-249 lb (-113 kg)</td>
</tr>
</tbody>
</table>

NOTE: Unit equipped with Z-Bar loader arms, 4.75 yd³ (3.6 m³) pin on bucket with bolt-on edge, 23.5R25 Michelin XHA2 tires, ROPS cab with heater and air conditioner, full counterweight, heavy-duty batteries, front and rear fenders, full fuel and 175 lb (79 kg) operator. Adjust select options from rated weight.
## PERFORMANCE DATA

### 921F Z-Bar®

<table>
<thead>
<tr>
<th></th>
<th>4.0 yd³ GP Pin On (3.1 m³)</th>
<th>4.0 yd³ GP Pin On (3.1 m³)</th>
<th>4.75 yd³ GP Pin On (3.6 m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bucket with Bolt-on Edge</td>
<td>Bucket with Teeth Only</td>
<td>Bucket with Bolt-on Edge</td>
</tr>
<tr>
<td><strong>E.</strong> Operating height – fully raised with spillguard</td>
<td>213.8 in (5 430 mm)</td>
<td>213.8 in (5 430 mm)</td>
<td>219.8 in (5 583 mm)</td>
</tr>
<tr>
<td><strong>F.</strong> 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><strong>G.</strong> Overall length – bucket level on ground</td>
<td>308.4 in (7 833 mm)</td>
<td>313.9 in (7 973 mm)</td>
<td>314.0 in (7 976 mm)</td>
</tr>
<tr>
<td><strong>H.</strong> Dump angle – fully raised</td>
<td>55°</td>
<td>55°</td>
<td>55°</td>
</tr>
<tr>
<td><strong>J.</strong> Bucket reach – fully raised, 45° dump</td>
<td>66.4 in (1 687 mm)</td>
<td>68.9 in (1 751 mm)</td>
<td>69.0 in (1 752 mm)</td>
</tr>
<tr>
<td><strong>K.</strong> Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump</td>
<td>3.1 in (80 mm)</td>
<td>3.1 in (80 mm)</td>
<td>3.1 in (80 mm)</td>
</tr>
<tr>
<td><strong>L.</strong> Operating load – ISO</td>
<td>16,001 lb (7 258 kg)</td>
<td>16,252 lb (7 372 kg)</td>
<td>15,704 lb (7 123 kg)</td>
</tr>
<tr>
<td><strong>M.</strong> Maximum material density – ISO</td>
<td>4,001 lb/yd³ (2 374 kg/m³)</td>
<td>4,241 lb/yd³ (2 516 kg/m³)</td>
<td>3,307 lb/yd³ (1 962 kg/m³)</td>
</tr>
<tr>
<td><strong>N.</strong> Tipping load – ISO: Straight</td>
<td>37,190 lb (16 869 kg)</td>
<td>37,739 lb (17 118 kg)</td>
<td>36,550 lb (16 579 kg)</td>
</tr>
<tr>
<td></td>
<td>40° turn</td>
<td>32,004 lb (14 517 kg)</td>
<td>32,503 lb (14 743 kg)</td>
</tr>
<tr>
<td><strong>O.</strong> Operating load – SAE</td>
<td>14,687 lb (6 662 kg)</td>
<td>14,916 lb (6 766 kg)</td>
<td>14,379 lb (6 522 kg)</td>
</tr>
<tr>
<td><strong>P.</strong> Maximum material density – SAE</td>
<td>3,673 lb/yd³ (2 137 kg/m³)</td>
<td>3,892 lb/yd³ (2 309 kg/m³)</td>
<td>3,027 lb/yd³ (1 796 kg/m³)</td>
</tr>
<tr>
<td><strong>Q.</strong> Tipping load – SAE: Straight</td>
<td>37,190 lb (16 869 kg)</td>
<td>37,739 lb (17 118 kg)</td>
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</tr>
<tr>
<td></td>
<td>40° turn</td>
<td>32,004 lb (14 517 kg)</td>
<td>32,503 lb (14 743 kg)</td>
</tr>
<tr>
<td><strong>R.</strong> Breakout force with tilt cylinder</td>
<td>26,963 lb (12 307 kg)</td>
<td>27,132 lb (12 357 kg)</td>
<td>26,638 lb (12 083 kg)</td>
</tr>
<tr>
<td><strong>S.</strong> Loader clearance circle with bucket</td>
<td>119.3 in (3 030 mm)</td>
<td>119.3 in (3 030 mm)</td>
<td>119.3 in (3 030 mm)</td>
</tr>
</tbody>
</table>

### 921F XR

<table>
<thead>
<tr>
<th></th>
<th>4.0 yd³ GP Pin On (3.1 m³)</th>
<th>4.0 yd³ GP Pin On (3.1 m³)</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bucket with Bolt-on Edge</td>
<td>Bucket with Teeth Only</td>
<td>Bucket with Bolt-on Edge</td>
</tr>
<tr>
<td><strong>E.</strong> Operating height – fully raised with spillguard</td>
<td>231.2 in (5 872 mm)</td>
<td>231.2 in (5 872 mm)</td>
<td>237.2 in (6 025 mm)</td>
</tr>
<tr>
<td><strong>F.</strong> Hinge pin height – fully raised</td>
<td>197.5 in (4 560 mm)</td>
<td>197.5 in (4 560 mm)</td>
<td>197.5 in (4 559 mm)</td>
</tr>
<tr>
<td><strong>G.</strong> Overall length – bucket level on ground</td>
<td>327.5 in (8 318 mm)</td>
<td>333.0 in (8 458 mm)</td>
<td>333.1 in (8 461 mm)</td>
</tr>
<tr>
<td><strong>H.</strong> Dump angle – fully raised</td>
<td>49°</td>
<td>49°</td>
<td>49°</td>
</tr>
<tr>
<td><strong>J.</strong> Bucket reach – fully raised, 45° dump</td>
<td>83.5 in (2 122 mm)</td>
<td>86.3 in (2 193 mm)</td>
<td>86.4 in (2 194 mm)</td>
</tr>
<tr>
<td><strong>K.</strong> Bucket depth – edge below ground</td>
<td>5.7 in (146 mm)</td>
<td>5.7 in (146 mm)</td>
<td>5.7 in (146 mm)</td>
</tr>
<tr>
<td><strong>L.</strong> Operating load – ISO</td>
<td>12,718 lb (5 769 kg)</td>
<td>12,917 lb (5 859 kg)</td>
<td>12,454 lb (5 649 kg)</td>
</tr>
<tr>
<td><strong>M.</strong> Maximum material density – ISO</td>
<td>2,956 lb/yd³ (1 556 kg/m³)</td>
<td>3,135 lb/yd³ (1 860 kg/m³)</td>
<td>2,434 lb/yd³ (1 444 kg/m³)</td>
</tr>
<tr>
<td><strong>N.</strong> Tipping load – ISO: Straight</td>
<td>29,789 lb (13 521 kg)</td>
<td>30,219 lb (13 707 kg)</td>
<td>29,229 lb (13 258 kg)</td>
</tr>
<tr>
<td></td>
<td>40° turn</td>
<td>25,437 lb (11 538 kg)</td>
<td>25,832 lb (11 717 kg)</td>
</tr>
<tr>
<td><strong>O.</strong> Maximum material density – SAE</td>
<td>11,828 lb (5 365 kg)</td>
<td>12,013 lb (5 449 kg)</td>
<td>11,559 lb (5 243 kg)</td>
</tr>
<tr>
<td></td>
<td>40° turn</td>
<td>12,917 lb (5 859 kg)</td>
<td>12,454 lb (5 649 kg)</td>
</tr>
<tr>
<td><strong>P.</strong> Tipping load – SAE: Straight</td>
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<td>29,229 lb (13 258 kg)</td>
</tr>
<tr>
<td></td>
<td>40° turn</td>
<td>25,437 lb (11 538 kg)</td>
<td>25,832 lb (11 717 kg)</td>
</tr>
<tr>
<td><strong>Q.</strong> Lift capacity: Full height</td>
<td>24,970 lb (11 266 kg)</td>
<td>25,139 lb (11 403 kg)</td>
<td>24,650 lb (11 181 kg)</td>
</tr>
<tr>
<td><strong>R.</strong> Maximum reach</td>
<td>31,497 lb (14 287 kg)</td>
<td>31,688 lb (14 378 kg)</td>
<td>31,136 lb (14 123 kg)</td>
</tr>
<tr>
<td><strong>S.</strong> Ground</td>
<td>37,117 lb (16 836 kg)</td>
<td>37,476 lb (16 999 kg)</td>
<td>36,436 lb (16 527 kg)</td>
</tr>
<tr>
<td><strong>T.</strong> Breakout force with tilt cylinder</td>
<td>42,840 lb (19 432 kg)</td>
<td>46,118 lb (20 919 kg)</td>
<td>38,193 lb (17 324 kg)</td>
</tr>
<tr>
<td><strong>U.</strong> Loader clearance circle with bucket</td>
<td>541.6 in (13 756 mm)</td>
<td>545.4 in (13 852 mm)</td>
<td>545.4 in (13 854 mm)</td>
</tr>
</tbody>
</table>

### 921F

<table>
<thead>
<tr>
<th></th>
<th>Z-Bar/XR</th>
<th>Z-Bar/XR</th>
<th>Z-Bar/XR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maximum rollback:</strong></td>
<td>Ground</td>
<td>42°/37°</td>
<td>42°/37°</td>
</tr>
<tr>
<td></td>
<td>Carry position</td>
<td>44°/43°</td>
<td>44°/43°</td>
</tr>
<tr>
<td></td>
<td>@ Maximum reach</td>
<td>54°/53°</td>
<td>54°/53°</td>
</tr>
<tr>
<td></td>
<td>@ Full height</td>
<td>59°/60°</td>
<td>59°/60°</td>
</tr>
<tr>
<td><strong>Maximum grading angle with bucket – back dragging:</strong></td>
<td>60°/63°</td>
<td>61°/64°</td>
<td>61°/64°</td>
</tr>
<tr>
<td><strong>SAE bucket capacity – struck:</strong></td>
<td>3.4 yd³ (2.61 m³)</td>
<td>3.3 yd³ (2.49 m³)</td>
<td>4.1 yd³ (3.12 m³)</td>
</tr>
<tr>
<td></td>
<td>Heaped</td>
<td>4.0 yd³ (3.06 m³)</td>
<td>3.8 yd³ (2.93 m³)</td>
</tr>
<tr>
<td><strong>Bucket width – outside:</strong></td>
<td>119.3 in (3 030 mm)</td>
<td>119.3 in (3 030 mm)</td>
<td>119.3 in (3 030 mm)</td>
</tr>
<tr>
<td><strong>Bucket weight:</strong></td>
<td>3,618 lb (1 641 kg)</td>
<td>3,468 lb (1 573 kg)</td>
<td>3,931 lb (1 783 kg)</td>
</tr>
</tbody>
</table>
## PERFORMANCE DATA

### 921F Z-Bar*

<table>
<thead>
<tr>
<th></th>
<th>4.75 yd³ GP Pin On (3.6 m³)</th>
<th>4.0 yd³ (3 m³) Bucket with Bolt On Edge with CASE Coupler (JRB Compatable)</th>
<th>4.0 yd³ (3 m³) Bucket with Teeth Only with CASE Coupler (JRB Compatable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E. Operating height – fully raised with spillguard</td>
<td>219.8 in (5 584 mm)</td>
<td>221.9 in (5 635 mm)</td>
<td>221.9 in (5 635 mm)</td>
</tr>
<tr>
<td>F. Hinge pin height – fully raised</td>
<td>162.1 in (4 118 mm)</td>
<td>162.1 in (4 117 mm)</td>
<td>162.1 in (4 117 mm)</td>
</tr>
<tr>
<td>G. Overall length – bucket level on ground</td>
<td>319.6 in (8 117 mm)</td>
<td>319.5 in (8 116 mm)</td>
<td>325.6 in (8 270 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>110.8 in (2 815 mm)</td>
<td>110.8 in (2 815 mm)</td>
<td>106.9 in (2 715 mm)</td>
</tr>
<tr>
<td>J. Bucket reach – fully raised, 45° dump</td>
<td>51.3 in (1 302 mm)</td>
<td>51.2 in (1 300 mm)</td>
<td>55.7 in (1 414 mm)</td>
</tr>
<tr>
<td>K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump</td>
<td>71.4 in (1 813 mm)</td>
<td>71.3 in (1 812 mm)</td>
<td>73.6 in (1 869 mm)</td>
</tr>
<tr>
<td>L. Dig depth – edge below ground</td>
<td>3.1 in (80 mm)</td>
<td>3.2 in (81 mm)</td>
<td>3.3 in (85 mm)</td>
</tr>
<tr>
<td>Operating load – ISO</td>
<td>15,946 lb (7 233 kg)</td>
<td>14,169 lb (6 427 kg)</td>
<td>14,396 lb (6 530 kg)</td>
</tr>
<tr>
<td>Operating load – SAE</td>
<td>14,601 lb (6 623 kg)</td>
<td>12,963 lb (5 880 kg)</td>
<td>13,173 lb (5 975 kg)</td>
</tr>
<tr>
<td>Maximum material density – ISO</td>
<td>3,474 lb/yd³ (2 061 kg/m³)</td>
<td>3,541 lb/yd³ (2 101 kg/m³)</td>
<td>3,757 lb/yd³ (2 229 kg/m³)</td>
</tr>
<tr>
<td>Maximum material density – SAE</td>
<td>3,181 lb/yd³ (1 887 kg/m³)</td>
<td>3,240 lb/yd³ (1 922 kg/m³)</td>
<td>3,438 lb/yd³ (2 040 kg/m³)</td>
</tr>
</tbody>
</table>

### Operating load – ISO

- Straight: 237.2 in (6 025 mm)
- 40° turn: 31,890 lb (14 465 kg)
- Lift capacity: 26,808 lb (12 160 kg)
- Full height: 34,678 lb (15 712 kg)
- Maximum reach: 34,678 lb (15 712 kg)
- Ground: 34,678 lb (15 712 kg)

### Breakout force with tilt cylinder

- 40° turn: 40,131 lb (18 203 kg)
- Ground: 40,131 lb (18 203 kg)

### Loader clearance circle with bucket

- Maximum: 528.7 in (13 428 mm)

### 921F XR

<table>
<thead>
<tr>
<th></th>
<th>4.75 yd³ GP Pin On (3.6 m³)</th>
<th>4.0 yd³ (3 m³) Bucket with Bolt On Edge with CASE Coupler (JRB Compatable)</th>
<th>4.0 yd³ (3 m³) Bucket with Teeth Only with CASE Coupler (JRB Compatable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E. Operating height – fully raised with spillguard</td>
<td>237.2 in (6 025 mm)</td>
<td>239.3 in (6 077 mm)</td>
<td>239.3 in (6 077 mm)</td>
</tr>
<tr>
<td>F. Hinge pin height – fully raised</td>
<td>179.5 in (4 560 mm)</td>
<td>179.4 in (4 558 mm)</td>
<td>179.4 in (4 558 mm)</td>
</tr>
<tr>
<td>G. Overall length – bucket level on ground</td>
<td>338.7 in (8 602 mm)</td>
<td>338.6 in (8 601 mm)</td>
<td>344.7 in (8 755 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>128.2 in (3 257 mm)</td>
<td>128.2 in (3 257 mm)</td>
<td>124.3 in (3 157 mm)</td>
</tr>
<tr>
<td>J. Bucket reach – fully raised, 45° dump</td>
<td>55.7 in (1 414 mm)</td>
<td>55.6 in (1 413 mm)</td>
<td>60.1 in (1 527 mm)</td>
</tr>
<tr>
<td>K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump</td>
<td>89.1 in (2 262 mm)</td>
<td>89.0 in (2 261 mm)</td>
<td>91.6 in (2 326 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>5.9 in (151 mm)</td>
</tr>
<tr>
<td>Operating load – ISO</td>
<td>12,648 lb (5 737 kg)</td>
<td>11,230 lb (5 094 kg)</td>
<td>11,416 lb (5 178 kg)</td>
</tr>
<tr>
<td>Operating load – SAE</td>
<td>11,740 lb (5 325 kg)</td>
<td>10,401 lb (4 718 kg)</td>
<td>10,576 lb (4 797 kg)</td>
</tr>
<tr>
<td>Maximum material density – ISO</td>
<td>2,756 lb/yd³ (1 653 kg/m³)</td>
<td>2,806 lb/yd³ (1 665 kg/m³)</td>
<td>2,978 lb/yd³ (1 767 kg/m³)</td>
</tr>
<tr>
<td>Maximum material density – SAE</td>
<td>2,557 lb/yd³ (1 517 kg/m³)</td>
<td>2,599 lb/yd³ (1 542 kg/m³)</td>
<td>2,761 lb/yd³ (1 638 kg/m³)</td>
</tr>
</tbody>
</table>

### Operating load – ISO

- Straight: 29,648 lb (13 448 kg)
- 40° turn: 30,265 lb (13 701 kg)
- Lift capacity: 28,276 lb (12 826 kg)
- Full height: 30,265 lb (13 701 kg)
- Maximum reach: 30,265 lb (13 701 kg)
- Ground: 30,265 lb (13 701 kg)

### Breakout force with tilt cylinder

- 40° turn: 39,179 lb (17 732 kg)
- Ground: 39,179 lb (17 732 kg)

### Loader clearance circle with bucket

- Maximum: 549.3 in (13 953 mm)

### 921F Z-Bar/ XR

<table>
<thead>
<tr>
<th></th>
<th>Z-Bar/ XR</th>
<th>Z-Bar/ XR</th>
<th>Z-Bar/ XR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum rollback:</td>
<td>42°/37°</td>
<td>42°/38°</td>
<td>42°/38°</td>
</tr>
<tr>
<td>Carry position</td>
<td>44°/43°</td>
<td>44°/43°</td>
<td>44°/43°</td>
</tr>
<tr>
<td>@ Maximum reach</td>
<td>54°/63°</td>
<td>54°/63°</td>
<td>54°/63°</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>62°/65°</td>
<td>62°/65°</td>
<td>64°/67°</td>
</tr>
<tr>
<td>SAE bucket capacity – struck</td>
<td>4.0 yd³ (3.04 m³)</td>
<td>4.0 yd³ (3.04 m³)</td>
<td>3.3 yd³ (2.49 m³)</td>
</tr>
<tr>
<td>Heaped</td>
<td>4.6 yd³ (3.51 m³)</td>
<td>4.0 yd³ (3.06 m³)</td>
<td>3.8 yd³ (2.93 m³)</td>
</tr>
<tr>
<td>Bucket width – outside</td>
<td>119.3 in (3 030 mm)</td>
<td>119.3 in (3 030 mm)</td>
<td>120.1 in (3 051 mm)</td>
</tr>
<tr>
<td>Bucket weight</td>
<td>3,781 lb (1 715 kg)</td>
<td>5,090 lb (2 309 kg)</td>
<td>4,925 lb (2 334 kg)</td>
</tr>
</tbody>
</table>
**PERFORMANCE DATA**

921F Z-Bar*

4.0 yd³ (3 m³) Bucket with Bolt On Edge with CASE Coupler (ACS Compatable)

4.0 yd³ (3 m³) Bucket with Teeth Only with CASE Coupler (ACS Compatable)

E. Operating height – fully raised with spillguard
   218.8 in (5 558 mm) 218.8 in (5 558 mm)

F. Hinge pin height – fully raised
   162.1 in (4 117 mm) 162.1 in (4 117 mm)

G. Overall length – bucket level on ground
   315.4 in (8 011 mm) 321.3 in (8 162 mm)

Dump angle – fully raised
   55° 55°

H. Dump height – fully raised, 45° dump
   113.5 in (2 883 mm) 109.6 in (2 785 mm)

J. Bucket reach – fully raised, 45° dump
   48.0 in (1 220 mm) 52.4 in (1 331 mm)

K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump
   69.6 in (1 767 mm) 71.9 in (1 825 mm)

L. Dig depth – edge below ground
   3.2 in (81 mm) 3.3 in (85 mm)

Operating load – ISO
   14,581 lb (6 614 kg) 14,808 lb (6 717 kg)

Operating load – SAE
   13,338 lb (6 050 kg) 13,545 lb (6 144 kg)

Maximum material density – ISO
   3,644 lb/yd³ (2 126 kg/m³) 3,905 lb/yd³ (2 317 kg/m³)

Maximum material density – SAE
   3,332 lb/yd³ (1 977 kg/m³) 3,572 lb/yd³ (2 119 kg/m³)

Tipping load – ISO: Straight
   29,161 lb (13 228 kg) 29,090 lb (12 288 kg)

Tipping load – SAE: Straight
   26,674 lb (12 099 kg) 27,090 lb (12 288 kg)

Lift capacity:
   Full height
   25,408 lb (11 501 kg) 25,576 lb (11 601 kg)
   Maximum reach
   34,692 lb (15 736 kg) 34,879 lb (15 821 kg)
   Ground
   38,865 lb (17 638 kg) 40,748 lb (18 483 kg)

Breakout force with tilt cylinder
   86.7 in (2 210 mm) 89.6 in (2 277 mm)

Loader clearance circle with bucket
   526.2 in (13 366 mm) 530.3 in (13 471 mm)

921F XR

4.0 yd³ (3 m³) Bucket with Bolt On Edge with CASE Coupler (ACS Compatable)

4.0 yd³ (3 m³) Bucket with Teeth Only with CASE Coupler (ACS Compatable)

E. Operating height – fully raised with spillguard
   236.2 in (6 000 mm) 236.2 in (6 000 mm)

F. Hinge pin height – fully raised
   179.4 in (4 558 mm) 179.4 in (4 558 mm)

G. Overall length – bucket level on ground
   334.5 in (8 496 mm) 340.4 in (8 646 mm)

Dump angle – fully raised
   49° 49°

H. Dump height – fully raised, 45° dump
   130.9 in (3 324 mm) 127.0 in (3 226 mm)

J. Bucket reach – fully raised, 45° dump
   52.5 in (1 333 mm) 52.4 in (1 331 mm)

K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump
   69.6 in (1 767 mm) 71.9 in (1 825 mm)

L. Dig depth – edge below ground
   5.8 in (147 mm) 5.9 in (151 mm)

Operating load – ISO
   11,519 lb (5 225 kg) 11,700 lb (5 307 kg)

Operating load – SAE
   10,668 lb (4 839 kg) 10,838 lb (4 916 kg)

Maximum material density – ISO
   2,879 lb/yd³ (1 708 kg/m³) 3,084 lb/yd³ (1 830 kg/m³)

Maximum material density – SAE
   2,666 lb/yd³ (1 582 kg/m³) 2,859 lb/yd³ (1 696 kg/m³)

Tipping load – ISO: Straight
   27,036 lb (12 345 kg) 27,090 lb (12 288 kg)

Tipping load – SAE: Straight
   23,988 lb (10 613 kg) 24,080 lb (10 916 kg)

Lift capacity:
   Full height
   23,428 lb (10 627 kg) 23,594 lb (10 702 kg)
   Maximum reach
   34,860 lb (15 853 kg) 35,005 lb (15 978 kg)
   Ground
   39,277 lb (17 863 kg) 40,748 lb (18 483 kg)

Breakout force with tilt cylinder
   86.7 in (2 210 mm) 89.6 in (2 277 mm)

Loader clearance circle with bucket
   546.5 in (13 878 mm) 551.1 in (13 999 mm)

921F Z-Bar/ XR

Z-Bar/ XR

Z-Bar/ XR

Maximum rollback:
   Ground
   42°/38° 42°/38°
   Carry position
   44°/43° 44°/43°
   @ Maximum reach
   54°/53° 54°/53°
   @ Full height
   59°/60° 59°/60°

Maximum grading angle with bucket – back dragging
   61°/64° 63°/65°

SAE bucket capacity – struck
   3.4 yd³ (2.61 m³) 3.3 yd³ (2.50 m³)

Heaped
   4.0 yd³ (3.06 m³) 3.8 yd³ (2.90 m³)

Bucket width – outside
   119.9 in (3 046 mm) 119.9 in (3 046 mm)

Bucket weight
   5,099 lb (2 313 kg) 4,949 lb (2 245 kg)

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

Performance data unit equipped with 23.5R25 Michelin XHA2 tires, ROPS cab with heater and air conditioner, full counterweight, standard batteries, front and rear fenders, full fuel and 175 lb (75 kg) operator. Specifications per SAE J732, J1234, J695, J742, and J818.

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STANDARD EQUIPMENT

OPERATOR ENVIRONMENT
See page 1

ENGINE
Case/FPT F4HFE613
Tier 4 Final Certified
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

DRIVETRAIN
4-wheel drive
4F/3R Selectable autoshift/manual shift transmission
Electronic Control Module – programmable, computer controlled proportional shifting with programmable gear selection
Onboard diagnostics
Single lever electronic shift control
F/N/R switch in loader control handle
Downshift button

ELECTRICAL (CONTINUED)
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 receptacle

TELEMATICS
CASE SiteWatch™ Telematics – includes hardware and a 3-yr Advanced data subscription

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
Remote drain points
Grouped remote-mounted ecology drains:
- Engine oil
- Engine coolant
- Hydraulic oil

OPTIONAL EQUIPMENT

OPERATOR ENVIRONMENT
Heated cloth-covered air suspension seat
Cloth mechanical suspension seat
Headrest
3 in (76 mm) retractable seat belt
Sound Shield noise suppression package
Cab with heater only – no AC
Radio-ready – 12 or 24-volt with auxiliary power – 12-volt
AM/FM stereo radio
Cab convenience package: ashtray, 24V cigar lighter and cell phone holder
Rotating beacon
Right hand brake pedal
External rearview mirrors
External rearview mirrors, heated
In-cab accessory mount – no rear view camera
Rear view camera with accessory mount
Extra front-facing work lights

HYDRAULICS
Auxiliary hydraulics
Ride Control
Secondary steering
Joystick steering with and without secondary steering
2-function loader valve with single access control

DRIVETRAIN (CONTINUED)
Torque converter
Open differential axles:
- Provides open type differentials in front and rear axles and the same axle housing as the Heavy-duty axles. Recommended for applications on hard surfaces, solid tires or ballast.
Outboard planetary axles
Transmission oil cooler
Brake pedal transmission disconnect – declutch
Hydraulic wet disc brakes
Spring-applied hydraulic release parking brake
Limp-Hone Mode
Greasable rear axle trunnion
3-piece rims

HYDRAULICS (CONTINUED)
3-function loader valve with 3 lever control or with joystick plus lever
4-function loader valve with joystick and 2 lever control

DRIVETRAIN
5F/3R Autoshift/manual shift transmission, lockup torque converter, PowerInch de-clutch
Differential locking front axle – heavy-duty application:
- Same size axles as standard axles but with automatic 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

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

TIRES (CONTINUED)
Spare wheels and tires
Axle oscillation stops

LOADER
XR extended reach version
Attachment auxiliary hydraulics
Coupler systems – JRB or ACS compatible

BUCKETS – see pages 4 through 5
4 – 1 clamp buckets
Forks

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

921F • Page 7 of 8
All Case construction equipment is biodiesel ready.