



## ENGINE

|                               |  |
|-------------------------------|--|
| Model                         | FPT F5HFL463D                                |
| Emissions Certification       | Tier 4 Final                                 |
| Type                          | Diesel 4-stroke, Turbocharged                |
| Cylinders                     | 4  |
| Bore/Stroke                   | 3.90 x 4.33 in<br>(99 x 110 mm)              |
| Displacement                  | 207 in <sup>3</sup> (3.4 L)                  |
| Fuel injection                | Direct, high pressure<br>common rail – HPCR  |
| Fuel                          | Diesel                                       |
| Engine speeds*                | RPM  |
| Rated speed – full load       | 2200   |
| Low idle                      | 900 – 1000                                   |
| High idle – no load           | 2330 – 2430                                  |
| Horsepower @ 2200 RPM:        |  |
| Gross                         | 74 hp (55 kW)                                |
| Net w/ viscous fan**          | 72 hp (54 kW)                                |
| Net                           | 68 hp (51 kW)                                |
| Maximum torque @ 1400 RPM:    |  |
| Gross                         | 233 lb-ft (316 N-m)                          |
| Net w/ viscous fan            | 228 lb-ft (310 N-m)                          |
| Net                           | 220 lb-ft (298 N-m)                          |
| Torque rise at rated speed    | 35% +/- 5%                                   |
| Radiator:                     |  |
| Core type                     | Square wave                                  |
| Core size area                | 486 in <sup>2</sup> (3 145 cm <sup>2</sup> ) |
| Rows of tubes                 | 5  |
| 39° fan:                      |  |
| Style                         | 7 blade suction                              |
| Diameter                      | 19.65 in (499 mm)                            |
| Ratio                         | 1.1:1  |
| Pump operating angle ratings: |  |
| Side to side                  | Rated 35°                                    |
| Fore and aft                  | Rated 35°                                    |
| Oil filtration                | Replaceable,<br>full flow spin on            |

NOTE: \*Meets federal emission regulations.

\*\*Viscous fan available as DIA  
w/ High Ambient Kit.

## DRIVETRAIN

Transmission – standard:  
4F-4R Power Shuttle Synchronesh Transmission  
manual gear shift, fully synchronized

| Gear ratios | Forward/Reverse |
|-------------|-----------------|
| 1st         | 5.603/4.643     |
| 2nd         | 3.481/2.884     |
| 3rd         | 1.584/1.313     |
| 4th         | 0.793/0.657     |

| Travel speeds – Standard Power Shuttle Transmission |             |             |
|---|-------------|-------------|
|   | Forward     | Reverse     |
|   | mph (kph)   | mph (kph)   |
| 1st   | 3.5 (5.6)   | 4.2 (6.8)   |
| 2nd   | 5.5 (8.9)   | 6.6 (10.6)  |
| 3rd   | 11.8 (19.0) | 14.1 (22.7) |
| 4th   | 21.3 (34.3) | 25.5 (41.0) |

Torque converter ratio 3.2

Differential lock:  
On-the-go push-button activation

| Front/Rear axle (w/ 4WD 12x16.5 front tires): |           |
|---|-----------|
| Differential ratio                            | 2.2/2.75  |
| Planetary hub ratio                           | 6.0/6.4   |
| Total reduction ratio                         | 13.3/17.6 |

Service brakes:  
Individually applied, power assisted,  
hydraulically actuated, maintenance-free,  
self-adjusting, outboard mounted, wet disc,  
2 per side.  
Total disc area 384 in<sup>2</sup> (0.25 m<sup>2</sup>)

Parking brakes Trans Mounted  
spring-applied hydraulic release – SAHR

NOTE: Travel speeds at 2293 engine  
RPM specified: w/ 19.5 L x 24.0 tires.  
Speeds decrease w/ 17.5 L x 24.0 rear tires.

## ELECTRICAL

|                          |                             |
|--------------------------|-----------------------------|
| Voltage                  | 12 Volts, negative ground   |
| Alternator               | 120 amp                     |
| Battery                  | 850 cold-cranking amps      |
| Optional dual batteries: | 850 cold-cranking amps each |
| Power plugs – 2          | 30 amps total               |

## OPERATOR ENVIRONMENT

ROPS/FOPS certified protective canopy;  
Rear fenders extensions; Coat hook w/  
garment strap; Interior rearview convex mirror;  
Mechanical suspension seat – 180° swivel – Vinyl;  
3 in (76 mm) retractable seat belt; Cup holder/  
storage tray mounted on left-hand fender;  
Right-hand storage compartment w/ lid,  
anti-vandalism dash cover, tilt steering wheel  
on cab models.

Gauges:  
Engine water temperature; Converter oil  
temperature; Fuel level; Tachometer/  
hourmeter; Voltmeter.

Warning lights:  
Air cleaner restriction; Alternator; A/C high  
pressure; Cold start; Engine oil pressure  
low; Hydraulic oil filter bypass; Parking brake  
engagement; Low fuel; Water in fuel.

Audible alarms:  
Coolant temperature; Engine oil pressure;  
Parking brake engagement; Shuttle  
engagement/seat position; Backup  
alarm; Converter temperature.

Horn Dual switched front and rear

## OPERATING WEIGHT

**Configuration 1 – SAE Transport:**  
GP Loader Bucket, 2WD, Canopy, Boom  
Guard, Full of Fuel, SAE Carry, Tier 4 Final  
Engine, Extendahoe®, 4 Stick Mech BH,  
Standard Transmission, 19.5 L – 24 Rear Tires,  
900 lb Front Counterweight.  
15,995 lb (7 255 kg)

**Configuration 2 – SAE Transport:**  
GP Loader Bucket, 4WD, 2 Door Cab, AC,  
Boom Guard, Full of Fuel, SAE Carry, 24 in HD  
BH Bucket, Tier 4 Final Engine, Pilot Controls,  
Standard Dipper, Manual Transmission,  
19.5 – 24 Rear Tires, 900 lb Front  
Counterweight, 4WD Driveshaft Guard.  
16,093 lb (7 300 kg)

**Add-on weights:**  
Cab-over canopy 309 lb (140 kg)  
Fabricated stabilizer pads 141 lb (64 kg)  
Extendahoe® 285 lb (129 kg)

## HYDRAULICS

|   |   |
|---|---|
| <b>Pump:</b>  |   |
| Parker P330 Single Section Gear Pump  |   |
| <b>Main relief pressure:</b>  |   |
| Standard  | 3,350 +/- 50 psi<br>(231 +/- 3.5 bar)           |
| <b>Filtration:</b>  |   |
| 7-micron, return line, full flow, spin on element.  |   |
| Oil cooler  | Heavy-duty                                      |
| <b>Loader flow @ rated engine RPM:</b>  |   |
|   | 28.5 gpm @ 3,350 psi<br>(108.0 L/min @ 231 bar) |
| <b>Loader control valve:</b>  |   |
| Two or three-spool open center monoblock valve. Two and three-spool valves have a single lever manual control for lift and tilt functions. Three-spool valve uses a proportional Electro-Hydraulic control for the auxiliary function. The lift lever has a positive hold "Float" position and a "return-to-dig" feature. |   |
| <b>Loader auxiliary hydraulics w/ proportional thumb switch w/ detent on loader control handle:</b>   |   |
|   | 0 – 28.5 gpm (0 – 108 L/min)                    |
| <b>Backhoe flow @ rated engine RPM:</b>   |   |
|   | 28.5 gpm @ 3,350 psi<br>(108 L/min @ 231 bar)   |
| <b>Manual backhoe control valve:</b>  |   |
| Six-spool monoblock open center control valve w/ seventh and eighth spool bolt-on sections. Basic control valve has an open center parallel circuit for all functions.  |   |

**Pilot backhoe control valve:**  
Six, seven or eight-spool sectional closed center control valve. Basic control valve is closed center, w/ circuits in parallel w/ a post-compensated, flow sharing feature for simultaneous operation of all circuits.

### 1-way flow auxiliary hydraulics:

1-way flow hydraulic valve is equipped w/ an adjustable LS relief valve to control attachment pressure and a 6 position flow control selector for 6 detented, distinct flow settings.

#### Actuation:

Manual backhoe controls – cab floor pedal  
Pilot controls – left-hand joystick

### 2-way flow auxiliary hydraulics\*:

#### Actuation:

Activate the 2-way flow switch located on the rear console  
Manual shift – 2-way flow linkage on far right of backhoe tower  
Pilot controls – left-hand joystick

NOTE: \*Available w/ 1-way/2-way Aux. Hyd. option.

## SERVICE CAPACITIES

|                                     |                    |
|-------------------------------------|--------------------|
| Fuel tank                           | 30.0 gal (114.0 L) |
| <b>Hydraulic system:</b>            |                    |
| Total                               | 106 qt (100.0 L)   |
| w/ Extendahoe®                      | 112 qt (106.0 L)   |
| Reservoir w/ filter                 | 58 qt (55.0 L)     |
| Reservoir w/o filter                | 56 qt (53.0 L)     |
| <b>Transmission – total system:</b> |                    |
| 2WD Standard                        | 18 qt (17.0 L)     |
| 4WD Standard                        | 21 qt (19.4 L)     |

|                              |                  |
|------------------------------|------------------|
| <b>Front axle:</b>           |                  |
| 4WD Differential             | 5.8 qt (5.5 L)   |
| 4WD Planetaries – each       | 0.7 qt (0.7 L)   |
| <b>Rear axle:</b>            |                  |
| Differential and planetaries | 14.4 qt (13.6 L) |
| Engine oil w/ filter         | 8.5 qt (8.0 L)   |
| <b>Cooling system:</b>       |                  |
| w/ heater                    | 19.0 qt (18.0 L) |
| w/o heater                   | 18.3 qt (17.3 L) |
| Window washer reservoir      | 3.0 qt (2.8 L)   |

## OTHER SPECIFICATIONS

|                     |                              |
|---------------------|------------------------------|
| <b>Front tires:</b> |                              |
| 2WD                 | 11.0 L x 16.0, 10-ply rating |
| 4WD                 | 12.0 L x 16.5, 8-ply rating  |
| <b>Rear tires:</b>  |                              |
| 2/4WD               | 19.5 L x 24.0, 10-ply rating |

### Turning radius: Curb to Curb:

|                           |                      |
|---------------------------|----------------------|
| <b>2WD:</b>               |                      |
| Brakes on                 | 10 ft 8 in (3.24 m)  |
| Brakes off                | 12 ft 4 in (3.76 m)  |
| <b>4WD – engaged*:</b>    |                      |
| Brakes on                 | 11 ft 4 in (3.45 m)  |
| Brakes off                | 13 ft 10 in (4.21 m) |
| <b>4WD – disengaged*:</b> |                      |
| Brakes on                 | 11 ft 0 in (3.36 m)  |
| Brakes off                | 12 ft 3 in (3.72 m)  |

NOTE: \*Turning radius dimensions curb to curb w/ 12.0 x 16.5 front tires and 19.5 L x 24.0 rear tires.

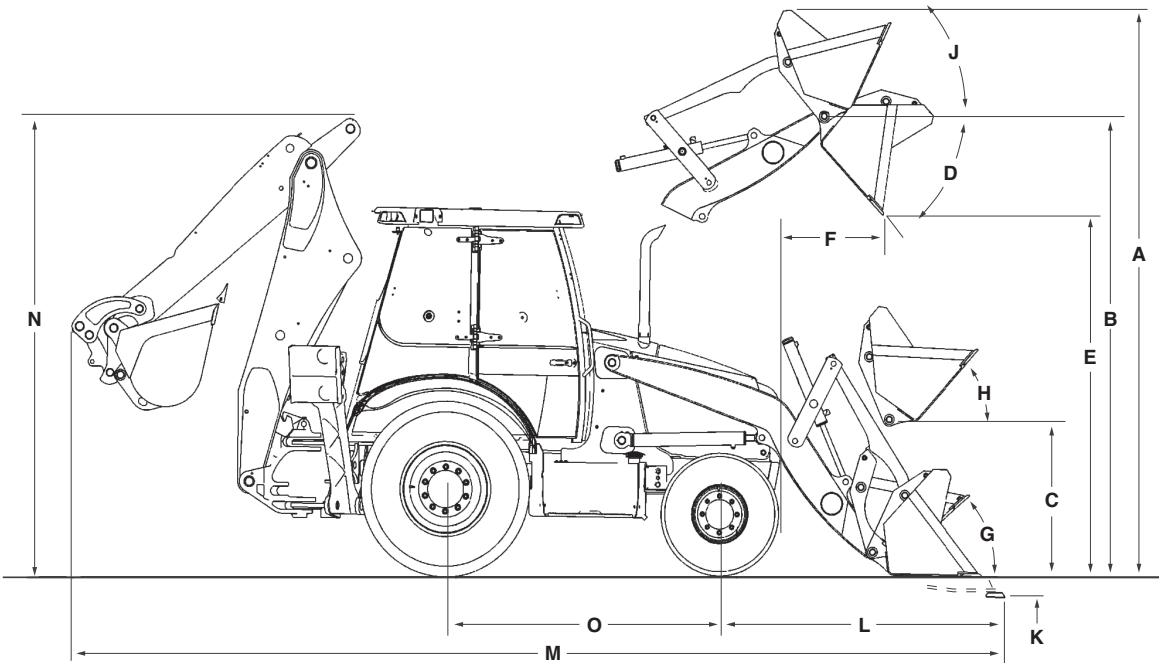
## LOADER BUCKET SIZES

| Type                                 | Width          | Weight             | Struck                                      | Heaped Capacity                             |
|--------------------------------------|----------------|--------------------|---|---|
| Long Lip Bucket without bolt-on edge | 82 in (2.08 m) | 683 lb (310 kg)    | 0.88 yd <sup>3</sup> (0.67 m <sup>3</sup> ) | 1.03 yd <sup>3</sup> (0.79 m <sup>3</sup> ) |
|                                      | 93 in (2.36 m) | 1,188 lb* (539 kg) | 1.10 yd <sup>3</sup> (0.89 m <sup>3</sup> ) | 1.29 yd <sup>3</sup> (0.99 m <sup>3</sup> ) |
| 4 IN 1® Bucket with bolt-on edge     | 82 in (2.08 m) | 1,572 lb* (713 kg) | 0.85 yd <sup>3</sup> (0.65 m <sup>3</sup> ) | 1.05 yd <sup>3</sup> (0.80 m <sup>3</sup> ) |

NOTE: \*Weight of 4 IN 1® bucket includes edges, cylinders and tube lines.

## BACKHOE BUCKET SIZES

| Type                              | Width          | Weight          | Heaped Capacity                              |
|-----------------------------------|----------------|-----------------|--|
| General Purpose Trenching Buckets | 18 in (457 mm) | 232 lb (105 kg) | 4.70 ft <sup>3</sup> (0.13 m <sup>3</sup> )  |
|                                   | 24 in (610 mm) | 272 lb (123 kg) | 6.26 ft <sup>3</sup> (0.18 m <sup>3</sup> )  |
| Universal Buckets                 | 12 in (305 mm) | 295 lb (134 kg) | 3.40 ft <sup>3</sup> (0.10 m <sup>3</sup> )  |
|                                   | 18 in (457 mm) | 356 lb (162 kg) | 5.30 ft <sup>3</sup> (0.15 m <sup>3</sup> )  |
|                                   | 24 in (610 mm) | 427 lb (194 kg) | 7.70 ft <sup>3</sup> (0.22 m <sup>3</sup> )  |
|                                   | 30 in (762 mm) | 489 lb (222 kg) | 10.20 ft <sup>3</sup> (0.29 m <sup>3</sup> ) |
|                                   | 36 in (914 mm) | 552 lb (251 kg) | 12.70 ft <sup>3</sup> (0.36 m <sup>3</sup> ) |
| High Capacity Buckets             | 24 in (610 mm) | 447 lb (203 kg) | 8.50 ft <sup>3</sup> (0.24 m <sup>3</sup> )  |



Line drawings are for illustrative purpose only and may not be exact representation of unit.

### LOADER DIMENSIONS

|   | Long Lip Bucket      | 4 IN 1® Bucket        |
|---|----------------------|-----------------------|
| <b>A.</b> Overall operating height – fully raised             | 13 ft 9 in (4.17 m)  | 14 ft 4 in (4.35 m)   |
| Height to:  |                      |                       |
| <b>B.</b> Bucket hinge pin fully raised                       | 11 ft 3 in (3.41 m)  | 11 ft 3 in (3.41 m)   |
| <b>C.</b> Bucket hinge pin at SAE carry                       | 12.8 in (326 mm)     | 14.6 in (371 mm)      |
| <b>D.</b> Dump angle at full height                           | 46°                  | 46°                   |
| <b>E.</b> Dump clearance at full height, 45° dump:            |                      |                       |
| Bucket  | 8 ft 8 in (2.63 m)   | 8 ft 11 in (2.71 m)   |
| Clam open   | –                    | 9 ft 8 in (2.93 m)    |
| <b>F.</b> Dump reach at full height, 45° dump – from bumper:  |                      |                       |
| Bucket  | 26.7 in (679 mm)     | 26.2 in (666 mm)      |
| Clam open   | –                    | 12.6 in (321 mm)      |
| Bucket rollback:  |                      |                       |
| <b>G.</b> @ Groundline  | 40°                  | 40°                   |
| <b>H.</b> @ SAE carry   | 43°                  | 43°                   |
| <b>J.</b> @ Full height                                       | Adjustable           | Adjustable            |
| <b>K.</b> Digging depth below grade:                          |                      |                       |
| Bucket flat   | 7.8 in (199 mm)      | 7.1 in (180 mm)       |
| Clam open – dozing  | –                    | 4.4 in (111 mm)       |
| <b>L.</b> Reach from front axle centerline – bucket on ground | 6 ft 10 in (2.08 m)  | 6 ft 8 in (2.03 m)    |
| Lift capacity to full height                                  | 6,503 lb (2 950 kg)  | 6,537 lb (2 965 kg)   |
| Breakout force:   |                      |                       |
| Lift cylinders  | 9,271 lb (4 124 daN) | 8,904 lb (3 961 daN)  |
| Dump cylinders  | 9,607 lb (4 273 daN) | 10,302 lb (4 583 daN) |
| Bucket cutting edge width                                     | 82.5 in (2.09 m)     | 82.0 in (2.08 m)      |
| Maximum grading angle   | 114°                 | 114°                  |
| Maximum clam opening  | –                    | 38.3 in (972 mm)      |
| Moldboard height  | –                    | 36.8 in (934 mm)      |
| Raising time to full height                                   | 3.3 sec              | 3.3 sec               |
| Bucket dumping time   | 0.8 sec              | 0.8 sec               |
| Lowering time:  |                      |                       |
| Power down  | 2.4 sec              | 2.4 sec               |
| Return-to-dig   | 4.4 sec              | 4.4 sec               |
| Clam:   |                      |                       |
| Open time   | –                    | 1.3 sec               |
| Close time  | –                    | 1.1 sec               |

NOTE: Loader dimensions taken with 4WD, 12.0 x 16.5 front tires and 19.5 L x 24.0 rear tires.

## DIMENSIONS

|  | 2WD with 19.5 L x 24.0 tires | 4WD with 19.5 L x 24.0 tires |
|--|------------------------------|------------------------------|
| <b>M. Overall transport length:</b>    |                              |                              |
| Long Lip bucket with Universal Coupler | 23 ft 1 in (7.02 m)          | 23 ft 0 in (7.00 m)          |
| 4 IN 1® bucket with Universal Coupler  | 22 ft 10 in (6.96 m)         | 22 ft 9 in (6.93 m)          |
| Long Lip bucket with Straight Links    | 23 ft 2 in (7.04 m)          | 23 ft 0 in (7.00 m)          |
| 4 IN 1® bucket with Straight Links     | 22 ft 11 in (6.98 m)         | 22 ft 10 in (6.95 m)         |
| Overall transport width – rear tires   | 7 ft 2 in (2.17 m)           | 7 ft 2 in (2.17 m)           |
| Height:                                |                              |                              |
| To top of canopy                       | 8 ft 9 in (2.66 m)           | 8 ft 9 in (2.66 m)           |
| To top of cab                          | 8 ft 11 in (2.72 m)          | 8 ft 11 in (2.72 m)          |
| To top of exhaust stack                | 8 ft 7 in (2.62 m)           | 8 ft 7 in (2.61 m)           |
| <b>N. Transport - standard dipper</b>  | 10 ft 10 in (3.30 m)         | 11 ft 1 in (3.37 m)          |
| Ground clearance at backhoe frame      | 15.0 in (380 mm)             | 15.0 in (380 mm)             |
| Angle of departure                     | 15.3°                        | 19.0°                        |
| Front wheel tread:                     |                              |                              |
| 11.0 L x 16.0                          | 67.5 in (1.71 m)             | 67.5 in (1.71 m)             |
| 12.0 L x 16.5                          | 67.7 in (1.72 m)             | 67.7 in (1.72 m)             |
| Rear wheel tread:                      |                              |                              |
| 17.5 L x 24.0                          | 63.1 in (1.60 m)             | 63.1 in (1.60 m)             |
| 19.5 L x 24.0                          | 61.2 in (1.55 m)             | 61.2 in (1.55 m)             |
| Width over tires:                      |                              |                              |
| 11.0 L x 16.0                          | 79.3 in (2.01 m)             | 79.3 in (2.01 m)             |
| 12.0 L x 16.5                          | 81.1 in (2.06 m)             | 81.1 in (2.06 m)             |
| 17.5 L x 24.0                          | 81.7 in (2.07 m)             | 81.7 in (2.07 m)             |
| 19.5 L x 24.0                          | 81.4 in (2.07 m)             | 81.4 in (2.07 m)             |
| <b>O. Wheelbase</b>                    | 84.0 in (2.13 m)             | 84.5 in (2.15 m)             |

## CYLINDERS

|                  | Bore Diameter      | Rod Diameter      | Stroke                | Closed Length         |
|------------------|--------------------|-------------------|-----------------------|-----------------------|
| <b>Loader:</b>   |                    |                   |                       |                       |
| Lift – 2         | 3.25 in (82.6 mm)  | 1.75 in (44.5 mm) | 30.2 in (766.0 mm)    | 40.80 in (1 036.0 mm) |
| Dump – 2         | 3.00 in (76.2 mm)  | 1.50 in (38.1 mm) | 20.6 in (522.0 mm)    | 30.70 in (780.5 mm)   |
| 4 IN 1® clam – 2 | 3.00 in (76.2 mm)  | 1.75 in (44.5 mm) | 9.18 in (230.6 mm)    | 19.69 in (498.3 mm)   |
| <b>Backhoe:</b>  |                    |                   |                       |                       |
| Boom             | 4.50 in (114.3 mm) | 2.25 in (57.2 mm) | 38.25 in (971.6 mm)   | 52.82 in (1 341.6 mm) |
| Dipperstick      | 4.25 in (108.0 mm) | 2.25 in (57.2 mm) | 24.74 in (628.5 mm)   | 39.65 in (1 007.0 mm) |
| Bucket           | 3.25 in (82.6 mm)  | 2.25 in (57.2 mm) | 35.35 in (897.9 mm)   | 48.17 in (1 223.6 mm) |
| Extendahoe®      | 3.00 in (76.2 mm)  | 1.75 in (44.5 mm) | 42.05 in (1 068.0 mm) | 56.22 in (1 428.0 mm) |
| Swing – 2        | 3.75 in (95.3 mm)  | 2.00 in (50.8 mm) | 11.50 in (292.0 mm)   | 24.44 in (620.8 mm)   |
| Stabilizer – 2   | 4.00 in (101.6 mm) | 2.00 in (50.8 mm) | 21.78 in (553.3 mm)   | 33.80 in (858.5 mm)   |

## AXLE RATINGS

|                          | Front – 2WD                  | Rear                  | Front – 4WD                  |
|--------------------------|------------------------------|-----------------------|------------------------------|
| Maximum static           | 70,821 lb (32 124 kg)        | 90,145 lb (40 889 kg) | 64,613 lb (29 308 kg)        |
| Dynamic operating        | 44,261 lb (20 076 kg)        | 56,200 lb (25 492 kg) | 39,328 lb (17 839 kg)        |
| Static operating         | 17,704 lb (8 030 kg)         | 22,480 lb (10 197 kg) | 15,732 lb (7 136 kg)         |
| Oscillation – front axle | 22° total – 11° side to side | —                     | 22° total – 11° side to side |

**BACKHOE LIFT CAPACITIES**

| Standard Backhoe    |                          | Extendahoe®                           |                                      |
|---------------------|--------------------------|---------------------------------------|--------------------------------------|
| Boom Lift           | Lift Capacity<br>lb (kg) | Retracted<br>Lift Capacity<br>lb (kg) | Extended<br>Lift Capacity<br>lb (kg) |
| +16 ft (4.87 m)     | —                        | —                                     | 1,693 (768)                          |
| +14 ft (4.27 m)     | 2,472 (1 121)            | 2,271 (1 030)                         | 1,979 (897)                          |
| +12 ft (3.66 m)     | 2,857 (1 296)            | 2,644 (1 199)                         | 2,124 (964)                          |
| +10 ft (3.05 m)     | 2,966 (1 345)            | 2,748 (1 246)                         | 2,172 (985)                          |
| +8 ft (2.44 m)      | 2,983 (1 353)            | 2,761 (1 252)                         | 2,169 (984)                          |
| +6 ft (1.83 m)      | 2,963 (1 344)            | 2,739 (1 242)                         | 2,173 (985)                          |
| +4 ft (1.22 m)      | 2,929 (1 329)            | 2,701 (1 225)                         | 2,165 (982)                          |
| +2 ft (0.61 m)      | 2,892 (1 312)            | 2,662 (1 207)                         | 2,153 (977)                          |
| <b>Ground Level</b> | 2,858 (1 297)            | 2,625 (1 191)                         | 2,153 (977)                          |
| -2 ft (0.61 m)      | 2,834 (1 285)            | 2,598 (1 178)                         | 2,145 (973)                          |
| -4 ft (1.22 m)      | 2,827 (1 282)            | 2,588 (1 174)                         | 2,143 (972)                          |
| -6 ft (1.83 m)      | 2,853 (1 294)            | 2,609 (1 183)                         | 2,154 (977)                          |
| -8 ft (2.44 m)      | 2,949 (1 338)            | 2,698 (1 224)                         | 2,189 (993)                          |
| -10 ft (3.05 m)     | 3,319 (1 506)            | 3,053 (1 385)                         | 2,270 (1 030)                        |
| -12 ft (3.66 m)     | —                        | —                                     | 2,429 (1 102)                        |
| -14 ft (4.27 m)     | —                        | —                                     | 3,115 (1 413)                        |
| <b>Dipper Lift</b>  |                          |                                       |                                      |
| +14 ft (4.27 m)     | —                        | —                                     | 3,154 (1 431)                        |
| +12 ft (3.66 m)     | 4,343 (1 970)            | 4,139 (1 877)                         | 2,981 (1 352)                        |
| +10 ft (3.05 m)     | 4,027 (1 827)            | 3,826 (1 735)                         | 2,823 (1 281)                        |
| +8 ft (2.44 m)      | 4,112 (1 865)            | 3,910 (1 774)                         | 2,855 (1 295)                        |
| +6 ft (1.83 m)      | 4,563 (2 070)            | 4,357 (1 976)                         | 3,010 (1 365)                        |
| +4 ft (1.22 m)      | 5,398 (2 449)            | 5,177 (2 348)                         | 2,948 (1 337)                        |
| +2 ft (0.61 m)      | —                        | —                                     | 3,486 (1 581)                        |

**BACKHOE OPERATIONAL DATA\***

| Standard Backhoe               |                      | Extendahoe®          |                      |
|--------------------------------|----------------------|----------------------|----------------------|
|                                |                      | Retracted            | Extended             |
| Digging depth:                 |                      |                      |                      |
| Maximum                        | 15 ft 0 in (4.58 m)  | 15 ft 0 in (4.58 m)  | 18 ft 6 in (5.63 m)  |
| 2 ft (610 mm) flat bottom      | 14 ft 11 in (4.54 m) | 14 ft 11 in (4.54 m) | 18 ft 4 in (5.95 m)  |
| 8 ft (2.44 m) flat bottom      | 13 ft 11 in (4.24 m) | 13 ft 11 in (4.24 m) | 17 ft 7 in (5.36 m)  |
| Overall reach from:            |                      |                      |                      |
| Rear axle centerline           | 21 ft 11 in (6.68 m) | 21 ft 11 in (6.68 m) | 25 ft 4 in (7.72 m)  |
| Swing pivot                    | 18 ft 6 in (5.65 m)  | 18 ft 6 in (5.65 m)  | 21 ft 11 in (6.68 m) |
| Loading height                 | 11 ft 7 in (3.53 m)  | 11 ft 7 in (3.53 m)  | 13 ft 11 in (4.24 m) |
| Loading reach                  | 4 ft 7 in (1.39 m)   | 4 ft 7 in (1.39 m)   | 7 ft 2 in (2.18 m)   |
| Swing arc                      | 180°                 | 180°                 | 180°                 |
| Bucket rotation:               |                      |                      |                      |
| Straight links                 | 175.6°               | 175.6°               | 175.6°               |
| Mechanical coupler             | 198.0°               | 198.0°               | 198.0°               |
| Universal coupler              | 190.0°               | 190.0°               | 190.0°               |
| Stabilizer spread – centers:   |                      |                      |                      |
| Flip pad                       | 9 ft 5 in (2.87 m)   | 9 ft 5 in (2.87 m)   | 9 ft 5 in (2.87 m)   |
| Cast Pad                       | 9 ft 9 in (2.97 m)   | 9 ft 9 in (2.97 m)   | 9 ft 9 in (2.97 m)   |
| Digging force – Quick Coupler: |                      |                      |                      |
| Bucket cylinder                | 11,517 lb (51 228 N) | 11,517 lb (51 228 N) | 11,517 lb (51 228 N) |
| Dipper cylinder                | 6,710 lb (29 484 N)  | 6,710 lb (29 484 N)  | 4,895 lb (21 738 N)  |
| Leveling angle:                |                      |                      |                      |
| Flip pad                       | 12°                  | 12°                  | 12°                  |
| Cast pad                       | 13°                  | 13°                  | 13°                  |

NOTE: \*Dimensions taken with 2WD, 17.5 L x 24 Rear tires, Universal coupler.

## STANDARD EQUIPMENT

### OPERATOR ENVIRONMENT

See page 1

### ENGINE

FPT F5HFL463D diesel  
Full flow engine oil filter  
Aspirated air cleaner – replaceable dual element dry type with radial seal  
Fuel filter with water trap  
Diesel Oxidation Catalyst  
Radiator with de-aeration bottle  
Antifreeze to -34° F (-37° C)  
Throttles, both hand rotary and foot  
Self adjusting belt  
High Pressure Common Rail

### DRIVETRAIN

Front axle, as selected:  
2WD front axle with 11.0 L x 16.0 tires  
4WD mechanically driven front axle, with 12.0 L x 16.5 tires  
Rear axle:  
2/4WD heavy-duty outboard planetary drive, with 19.5 L x 24.0 tires  
4F-4R Power Shuttle  
Synchromesh transmission  
Torque converter – 11.8 in (300 mm)  
On-the-go electric 4WD control  
Electric F/R shuttle control  
Electric differential lock control, with push-button activation on the loader control lever  
Park brake, spring-applied, hydraulic release – SAHR  
Drive shaft guard – 4WD models

### HYDRAULICS

Pump:  
28.5 gal/min @ 3,350 psi  
(107.9 L/min @ 231 bar)  
Heavy-duty hydraulic oil cooler  
7-micron, spin on oil filter

### LOADER

Bucket position indicator; Lifting lugs and tie downs on standard bucket; Single lever control with self-leveling and return-to-dig; Hand operated clutch disconnects on loader and shift levers, single lever  
4-function loader control: lift, dump, clutch cut-out, differential lock

### BACKHOE

Over center design, Fabricated “S” boom  
Pro Control Swing dampening  
Cleated dirt stabilizer pads

### OTHER

Forward tilt engine hood  
Replaceable, molded front bumpers  
Front/Rear tie downs  
Reflective logos  
Working/Driving/Signal Lights – halogen:  
Canopy:  
2 headlights – clear/white  
2 rear flood lights – clear/white  
2 front flashers/turn signals – amber  
2 rear flashers/turn signals – amber  
2 rear tail/stop lights – red  
Cab:  
4 headlights – clear/white  
4 rear flood lights – clear/white  
2 side lights – clear/white  
2 front flashers/turn signals – amber  
2 rear flashers/turn signals – amber  
2 rear tail/stop lights – red  
Master disconnect switch and remote jump-start terminals  
Hydrostatic steering  
Backup alarm  
Vertical spin-on engine oil, fuel and hydraulic filters

### TELEMATICS

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

### WARRANTY

1-Year/Unlimited-Hour Full-Coverage Base Limited Warranty  
2-Year/2,000-Hour Extended Engine Warranty

## OPTIONAL EQUIPMENT

### OPERATOR ENVIRONMENT

ROPS/FOPS certified protective cab available in LH Door with heat, A/C, defroster, door activated dome light, 4 front, 4 rear and 2 adjustable side lights, floor mat, tinted glass, bluetooth radio, front and rear wiper and fender extensions

Mechanical suspension seat with flip-up armrests, 180° swivel, adjustable seat and weight, backrest angle, lumbar and cushion angle – cab units cloth or vinyl, canopy units vinyl only

### ENGINE

Cold Weather Starting Aid:

Dual 12 volt batteries, glow plugs, engine block heater and heated CCV hose

Severe Cold Weather Starting Aid:

Synthetic transmission, hydraulic and engine oil – order with cold weather starting aid

### LOADER

Auxiliary hydraulics for loader-mounted equipment with thumb-operated proportional control

Hydraulic front quick coupler

Tool portfolio of additional attachments

Buckets – see page 2

### BACKHOE

1-way Auxiliary backhoe hydraulics for hammers, plate compactors or similar 1-way flow attachments

1-way/2-way Auxiliary backhoe hydraulics for hammers, plate compactors or similar 1-way flow attachments or switch to 2-way flow for thumbs, augers or similar 2-way flow attachments

Extendahoe®

Two-lever backhoe controls

Pilot operated control system:

Fingertip proportional Electro-Hydraulic stabilizer controls

Thumb-operated proportional

Electro-Hydraulic Extendahoe®

Thumb-operated auxiliary hydraulic control

Infinitely adjustable towers

In-cab switchable “excavator to backhoe” control pattern change

Flip over stabilizer pads

Case mechanical quick coupler

Universal coupler – CAT/Deere compatible

Buckets – see page 2

Hydraulic thumb – Includes: 2 replaceable, high strength, bolt on tines with two positions for Universal or Hi-Cap buckets – meshes with Bucket teeth on 18 in & 24 in Buckets

### OTHER

Front tires:

11.0 L x 16.0 10-ply or 12.0 L x 16.5 10-ply

Rear tires:

500/70 R24 Michelin XMCL Radial Tires

Special paint

LED Working/Driving Light Package:

4 front

4 rear

2 side

Front Fenders

Special Feature Request

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CASE Construction Equipment is biodiesel-friendly. NOTE: All engines meet current EPA emissions regulations. All specifications are stated in accordance with SAE Standards or Recommended Practices, where applicable.



Always read the Operator's Manual before operating any equipment. Inspect equipment before using it, and be sure it is operating properly. Follow the product safety signs and use any safety features provided.

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**580N EP**

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