



## ENGINE

Model	FPT F4HE0484G
Emissions Certification	Tier 3
Type	4-stroke, Turbocharged
Cylinders	4
Bore/Stroke	4.09 x 5.19 in (104 x 132 mm)
Displacement	274 in <sup>3</sup> (4.5 L)
Fuel injection	Direct, high pressure 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	97 hp (72 kW)
Net w/ viscous fan**	95 hp (71 kW)
Net	92 hp (68 kW)
Maximum torque @ 1400 RPM:	
Gross	334 lb-ft (453 N-m)
Net w/ viscous fan**	333 lb-ft (452 N-m)
Net	328 lb-ft (445 N-m)
Torque rise at rated speed	45% +/- 5%
Radiator:	
Core type	Square wave
Core size area	486 in <sup>2</sup> (3 145 cm <sup>2</sup> )
Rows of tubes	3
Fan:	
Style	7 blade suction
Diameter	19.65 in (499 mm)
Angle – std.	33°
Ratio	1.1:1
Pump operating angle ratings:	
Side to side	Rated 35°
Fore and aft	Rated 35°
Oil filtration	Replaceable, full flow cartridge

NOTE: \*Engine speeds w/ standard transmission.  
Meets federal emission regulations.

\*\*Viscous fan included w/ Cab  
Convenience package.

## DRIVETRAIN

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

Transmission – optional:  
Powershift S-Type, 4F-3R Power Shuttle,  
Synchronesh transmission w/ hydraulic  
gear shifting

Specifications below apply to both Power  
Shuttle and Powershift S-Type transmission  
unless otherwise indicated.

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	Forward mph (kph)	Reverse mph (kph)
1st	3.8 (6.1)	4.5 (7.3)
2nd	6.0 (9.7)	7.2 (11.6)
3rd	12.8 (20.6)	15.4 (24.7)
4th	24.0 (38.6)	28.8 (46.3)*

Transmission – optional:  
Powershift H-Type, 4F-3R hydraulic clutch  
shifting w/ auto function

Gear ratios	Forward/Reverse
1st	5.533/4.549
2nd	3.359/2.762
3rd	1.533/1.260
4th	0.811/—

Travel speeds	Forward mph (kph)	Reverse mph (kph)
1st	3.9 (6.2)	4.6 (7.4)
2nd	6.3 (10.1)	7.5 (12.1)
3rd	13.3 (21.4)	16.0 (25.7)
4th	23.6 (38.0)	—

Torque converter ratio	2.6
Differential-lock	On-the-go push-button activation

Front 4WD/Rear axle:	
Differential ratio	2.0/2.5
Planetary hub ratio	6.0/6.4
Total reduction ratio	12.0/16.0

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
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NOTE: \*4R not available on Powershift S-Type.  
Travel speeds at 2293 engine  
RPM specified: w/ 19.5 x 24.0 tires.  
Speeds decrease w/ 17.5 L x 24.0 rear tires.  
Travel speeds at 2312 engine  
RPM specified: w/ 19.5 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
Opt. batteries – 2	850 cold-cranking amps
Power plugs – 2	30 amps total

## OPERATOR ENVIRONMENT

ROPS/FOPS certified protective canopy;  
Anti-vandalism cover for dash – w/ canopy only;  
Rear fenders extensions; Coat hook w/ garment  
strap; Interior rearview mirror, convex  
3.54 in (90 mm) wide x 10.83 in (275 mm) high;  
Non-suspension seat – 180° swivel – Vinyl; 2 in  
(50 mm) retractable seat belt; Cup holder/storage  
tray mounted on left-hand fender; Right-hand  
storage compartment w/ lid.

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;  
Hydraulic oil filter bypass; Parking brake  
engagement; Low fuel.

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

Horn Dual switched front and rear

## OPERATING WEIGHT

### Configuration 1 – SAE Transport:

82 in (2.08 m) LL bucket, 4WD, 19.5 L x 24.0  
rear tires, standard dipper, 24 in HD bucket, flip  
stabilizer pads, ROPS cab, non-suspension  
seat, dual battery, no operator:  
16,239 lb (7 366 kg)

### Configuration 2 – SAE Transport:

82 in (2.08 m) loader bucket, 4WD, 19.5 L x 24.0  
rear tires, Extendahoe®, 24 in HD bucket, flip  
stabilizer pad, 700 lb CWT, ROPS cab, cloth  
seat, dual battery, mechanical backhoe coupler,  
no operator, power synchro-transmission:  
17,226 lb (7 814 kg)

### Add-on weights:

Cab-over canopy	309 lb (140 kg)
Fabricated stabilizer pads	141 lb (64 kg)
Counterweights	700 lb (318 kg)
Extendahoe®	286 lb (130 kg)
4WD w/ driveshaft guard	283 lb (128 kg)



## HYDRAULICS

<b>Pump:</b> Bosch Rexroth Series 31 Variable Displacement Axial Piston Pump	
<b>Main relief pressure:</b> Standard 3,450 +/- 50 psi (238 +/- 3.5 bar)	
Power Lift 3,625 +/- 50 psi (250 +/- 3.5 bar)	
<b>Filtration:</b> 7-micron, full flow replaceable cartridge on return line, condition indicator light for filter.	
Oil cooler	Heavy-duty
<b>Loader flow @ rated engine RPM:</b> 41 gpm @ 2,340 psi (156.2 L/min @ 161 bar)	
<b>Loader control valve w/ pilot or manual backhoe controls:</b> Two or three-spool closed center sectional control valve. Single lever manual control for lift and tilt functions. The 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 to 41 gpm @ 2,340 psi (0 to 156.2 L/min @ 161 bar)	
<b>Backhoe flow @ rated engine RPM:</b> 41 gpm @ 3,100 psi (156.2 L/min @ 161 bar)	
<b>Manual backhoe control valve:</b> Six or seven-spool monoblock open center control valve. Features "Pro-Control" which includes custom designed spools for each individual function along w/ "swing cushioning" valve for zero-wag swing control. 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. Features "Pro-Control" which includes custom designed spools for each individual function along w/ "swing cushioning" valve for zero-wag swing control. Basic control valve is closed center, w/ circuits in parallel w/ a post-compensated, flow sharing feature for simultaneous operation of all circuits.

**Unidirectional auxiliary hydraulics:**  
Unidirectional 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

**Bidirectional auxiliary hydraulics\*:**  
**Actuation:**  
Activate the bidirectional switch located on the rear console  
Manual shift – bidirectional linkage on far right of backhoe tower  
Pilot controls – left-hand joystick.

NOTE: \*Available w/ Combo Aux. Hyd. option.

## SERVICE CAPACITIES

Fuel tank	42.0 gal (159.0 L)
<b>Hydraulic system:</b>	
Total	126 qt (119.2 L)
w/ Extendahoe®	132 qt (124.9 L)
Reservoir w/ filter	58 qt (54.5 L)
Reservoir w/o filter	56 qt (52.6 L)
<b>Transmission – total system:</b>	
2WD Standard	18 qt (17.0 L)
2WD Powershift S-Type	23 qt (21.7 L)
4WD Standard	21 qt (19.4 L)
4WD Powershift S-Type	22 qt (20.7 L)
4WD Powershift H-Type	19 qt (18.0 L)

<b>Front axle:</b>	
4WD Differential	8.1 qt (7.7 L)
4WD Planetaries – each	0.5 qt (0.5 L)
<b>Rear axle:</b>	
Differential and planetaries	14.4 qt (13.6 L)
Engine oil w/ filter	14.4 qt (13.6 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 x 16.5, 8-ply rating

<b>Rear tires:</b>	
2/4WD	19.5 L x 24.0, 10-ply rating
2/4WD	17.5 L x 24.0, 10-ply rating

**Loader:**  
Bucket position indicator; Lifting lugs on standard bucket; Single lever control w/ 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.

## 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 0 in (3.36 m)
Brakes off	14 ft 2 in (4.31 m)
<b>4WD – disengaged:</b>	
Brakes on	10 ft 12 in (3.35 m)
Brakes off	12 ft 8 in (3.85 m)

**Backhoe:**  
Over center design, Fabricated "S" boom; Pro Control System; Dipperstick integrated serrated gripper teeth; Case mechanical coupler.

NOTE: \*Turning radius dimensions curb to curb w/ 17.5 L x 24.0 tires.

## LOADER BUCKET SIZES

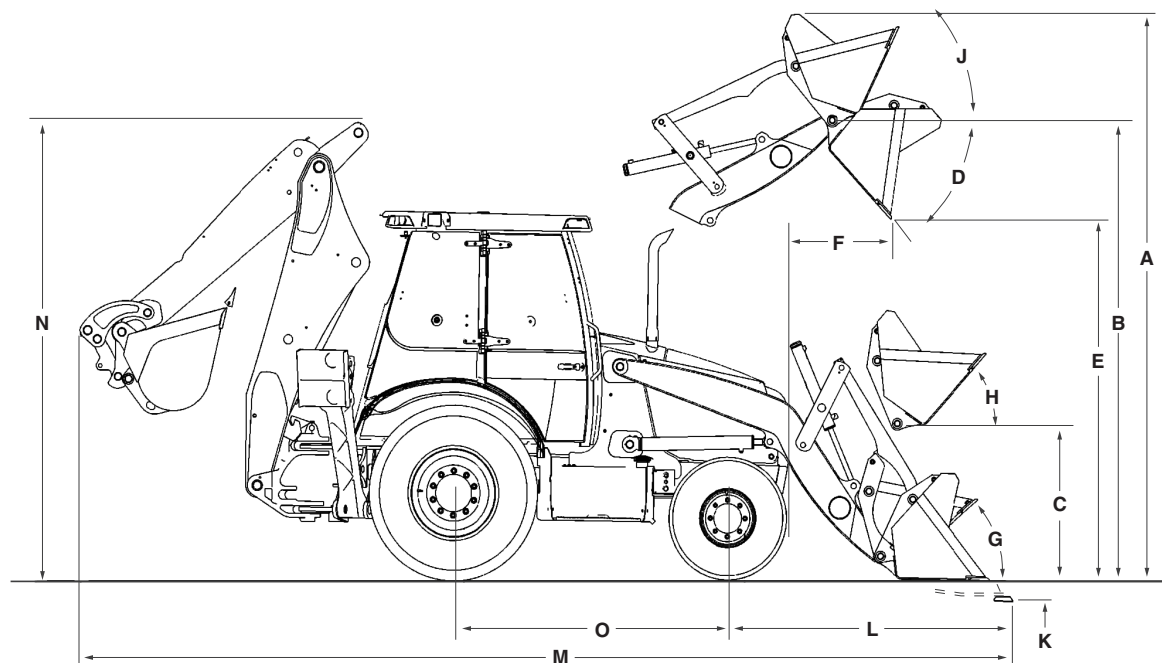
Type	Width	Weight	Struck	Heaped Capacity
Long Lip Bucket: without bolt-on edge with bolt-on edge	82 in (2.08 m)	864 lb (392 kg)	0.88 yd <sup>3</sup> (0.67 m <sup>3</sup> )	1.03 yd <sup>3</sup> (0.79 m <sup>3</sup> )
	93 in (2.36 m)	1,188 lb* (539 kg)	1.10 yd <sup>3</sup> (0.89 m <sup>3</sup> )	1.29 yd <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> )	1.04 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
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> )
	30 in (762 mm)	502 lb (228 kg)	10.60 ft <sup>3</sup> (0.30 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 (4.18 m)	13 ft 8 in (4.16 m)
Height to:		
<b>B.</b> Bucket hinge pin fully raised	11 ft 3 in (3.42 m)	11 ft 3 in (3.42 m)
<b>C.</b> Bucket hinge pin at SAE carry	13.6 in (345 mm)	13.6 in (345 mm)
<b>D.</b> Dump angle at full height	47°	47°
<b>E.</b> Dump clearance at full height, 45° dump:		
Bucket	8 ft 10 in (2.69 m)	8 ft 11 in (2.71 m)
Clam open	—	9 ft 8 in (2.96 m)
<b>F.</b> Dump reach at full height, 45° dump – from bumper:		
Bucket	31.5 in (801 mm)	29.1 in (738 mm)
Clam open	—	15.3 in (388 mm)
Bucket rollback:		
<b>G.</b> @ Groundline	42°	42°
<b>H.</b> @ SAE carry	42°	42°
<b>J.</b> @ Full height	Adjustable	Adjustable
<b>K.</b> Digging depth below grade:		
Bucket flat	6.1 in (155 mm)	4.8 in (122 mm)
Clam open – dozing	—	4.1 in (103 mm)
<b>L.</b> Reach from front axle centerline – bucket on ground	6 ft 10 in (2.07 m)	6 ft 8 in (2.03 m)
Lift capacity to full height – calculated values	7,044 lb (3 195 kg)	6,703 lb (3 040 kg)
Breakout force:		
Lift cylinders	9,833 lb (4 460 daN)	9,610 lb (4 359 daN)
Dump cylinders	10,947 lb (4 965 daN)	11,658 lb (5 288 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 – manual/pilot controls	3.4/3.6 sec	3.4/3.6 sec
Bucket dumping time	1.8/2.0 sec	1.8/2.0 sec
Lowering time:		
Power down	2.5/2.6 sec	2.5/2.6 sec
Return-to-dig	3.6/2.8 sec	3.6/2.8 sec
Clam:		
Open time	—	1.3 sec
Close time	—	1.1 sec

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



## DIMENSIONS

	2WD with 17.5 L x 24.0 rear tires	4WD with 19.5 L x 24.0 tires
<b>M.</b> Overall transport length:		
Long Lip bucket with Quick Coupler	23 ft 5 in (7.14 m)	23 ft 4 in (7.10 m)
4 IN 1® bucket with Quick Coupler	23 ft 3 in (7.07 m)	23 ft 1 in (7.04 m)
Long Lip bucket with Straight Links	23 ft 6 in (7.15 m)	23 ft 4 in (7.12 m)
4 IN 1® bucket with Straight Links	23 ft 3 in (7.09 m)	23 ft 2 in (7.06 m)
Overall transport width	7 ft 2 in (2.17 m)	7 ft 2 in (2.17 m)
Height:		
To top of canopy	8 ft 8 in (2.64 m)	8 ft 9 in (2.66 m)
To top of cab	8 ft 9 in (2.68 m)	8 ft 11 in (2.72 m)
To top of exhaust stack	8 ft 5 in (2.58 m)	8 ft 7 in (2.62 m)
<b>N.</b> Transport	10 ft 10 in (3.29 m)	11 ft 1 in (3.37 m)
Ground clearance at backhoe frame	12 in (304 mm)	15.0 in (381 mm)
Angle of departure	15.3°	19.0°
Front wheel tread:		
11.0 L x 16.0	67.5 in (1.72 m)	—
12.0 x 16.5	67.7 in (1.72 m)	—
19.5 x 24.0	61.2 in (1.55 m)	—
17.5 L x 24.0	63.1 in (1.60 m)	—
Width over tires:		
11.0 L x 16.0	79.3 in (2.02 m)	—
12.0 x 16.5	81.1 in (2.06 m)	—
19.5 x 24.0	81.4 in (2.07 m)	—
17.5 L x 24.0	81.7 in (2.07 m)	—
<b>O.</b> Wheelbase:		
19.5 L x 24.0	84.0 in (2.13 m)	84.5 in (2.15 m)
17.5 L x 24.0	84.0 in (2.13 m)	84.5 in (2.15 m)

## CYLINDERS

	Bore Diameter	Rod Diameter	Stroke	Closed Length
Loader:				
Lift – 2	3.25 in (82.6 mm)	1.75 in (44.5 mm)	28.86 in (733.0 mm)	42.95 in (1 062.0 mm)
Dump – 2	3.00 in (76.2 mm)	1.50 in (38.1 mm)	20.33 in (516.5 mm)	29.90 in (759.5 mm)
4 IN 1® clam – 2	3.00 in (76.2 mm)	1.75 in (44.5 mm)	9.08 in (230.6 mm)	19.62 in (498.3 mm)
Backhoe:				
Boom	5.00 in (127.0 mm)	2.50 in (63.5 mm)	38.25 in (971.6 mm)	52.82 in (1 341.6 mm)
Dipperstick	4.75 in (120.7 mm)	2.50 in (63.5 mm)	25.14 in (628.5 mm)	39.65 in (1 007.0 mm)
Bucket	3.50 in (88.9 mm)	2.50 in (63.5 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	4.00 in (101.6 mm)	2.00 in (50.8 mm)	11.50 in (292.0 mm)	24.44 in (620.8 mm)
Stabilizer – 2	4.50 in (114.3 mm)	2.25 in (57.2 mm)	21.37 in (542.9 mm)	33.87 in (860.2 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®			
	Standard		Retracted		Extended	
	Lift Capacity lb (kg)	Power Lift Lift Capacity lb (kg)	Lift Capacity lb (kg)	Power Lift Lift Capacity lb (kg)	Lift Capacity lb (kg)	Power Lift Lift Capacity lb (kg)
<b>Boom Lift</b>						
+16 ft (4.87 m)	—	—	—	—	2,115 (959)	2,298 (1 043)
+14 ft (4.27 m)	3,039 (1 378)	3,285 (1 490)	2,837 (1 287)	3,083 (1 398)	2,395 (1 086)	2,603 (1 181)
+12 ft (3.66 m)	3,413 (1 548)	3,691 (1 674)	3,201 (1 452)	3,479 (1 578)	2,536 (1 151)	2,757 (1 250)
+10 ft (3.05 m)	3,499 (1 587)	3,784 (1 716)	3,281 (1 488)	3,566 (1 618)	2,593 (1 176)	2,818 (1 278)
+8 ft (2.44 m)	3,485 (1 581)	3,768 (1 709)	3,263 (1 480)	3,546 (1 608)	2,564 (1 163)	2,786 (1 264)
+6 ft (1.83 m)	3,438 (1 559)	3,717 (1 686)	3,213 (1 457)	3,492 (1 584)	2,549 (1 156)	2,770 (1 257)
+4 ft (1.22 m)	3,374 (1 530)	3,648 (1 655)	3,146 (1 427)	3,420 (1 551)	2,521 (1 144)	2,741 (1 243)
+2 ft (0.61 m)	3,307 (1 500)	3,575 (1 622)	3,077 (1 396)	3,345 (1 517)	2,489 (1 129)	2,706 (1 227)
<b>Ground Level</b>	3,251 (1 475)	3,513 (1 594)	3,018 (1 369)	3,280 (1 488)	2,489 (1 129)	2,706 (1 227)
-2 ft (0.61 m)	3,201 (1 452)	3,459 (1 569)	2,965 (1 345)	3,223 (1 462)	2,466 (1 118)	2,680 (1 215)
-4 ft (1.22 m)	3,175 (1 440)	3,430 (1 556)	2,935 (1 331)	3,190 (1 447)	2,446 (1 109)	2,659 (1 206)
-6 ft (1.83 m)	3,182 (1 443)	3,437 (1 559)	2,938 (1 333)	3,193 (1 448)	2,443 (1 108)	2,656 (1 205)
-8 ft (2.44 m)	3,258 (1 478)	3,520 (1 597)	3,007 (1 364)	3,269 (1 483)	2,465 (1 118)	2,679 (1 215)
-10 ft (3.05 m)	3,441 (1 561)	3,717 (1 686)	3,175 (1 440)	3,451 (1 565)	2,530 (1 148)	2,750 (1 248)
-12 ft (3.66 m)	—	—	—	—	2,707 (1 228)	2,943 (1 335)
-14 ft (4.27 m)	—	—	—	—	3,239 (1 469)	3,521 (1 597)
<b>Dipper Lift</b>						
+14 ft (4.27 m)	—	—	—	—	4,281 (1 942)	4,281 (1 942)
+12 ft (3.66 m)	5,822 (2 641)	5,822 (2 641)	5,618 (2 548)	5,618 (2 548)	4,046 (1 835)	4,046 (1 835)
+10 ft (3.05 m)	5,600 (2 540)	5,600 (2 540)	5,399 (2 449)	5,399 (2 449)	3,984 (1 807)	3,984 (1 807)
+8 ft (2.44 m)	5,562 (2 523)	5,562 (2 523)	5,360 (2 431)	5,360 (2 431)	3,913 (1 775)	3,913 (1 775)
+6 ft (1.83 m)	6,236 (2 829)	6,236 (2 829)	6,030 (2 735)	6,030 (2 735)	4,166 (1 889)	4,166 (1 889)
+4 ft (1.22 m)	7,424 (3 368)	7,424 (3 368)	7,203 (3 267)	7,203 (3 267)	4,102 (1 861)	4,102 (1 861)
+2 ft (0.61 m)	—	—	—	—	4,850 (2 200)	4,850 (2 200)

NOTE: Boom and Dipper Lift Capacities are rated per SAE J31 and are 87% of the maximum hydraulic lift force available with the specified options.

## BACKHOE OPERATIONAL DATA

Standard Backhoe		Extendahoe®	
		Retracted	Extended
Digging depth:			
Maximum	14 ft 6 in (4.41 m)	14 ft 6 in (4.41 m)	17 ft 11 in (5.47 m)
Maximum with hi-capacity bucket	15 ft 0 in (4.51 m)	15 ft 0 in (4.51 m)	18 ft 6 in (5.63 m)
2 ft (610 mm) flat bottom	14 ft 4 in (4.37 m)	14 ft 4 in (4.37 m)	17 ft 10 in (5.43 m)
8 ft (2.44 m) flat bottom	13 ft 4 in (4.06 m)	13 ft 4 in (4.06 m)	17 ft 1 in (5.19 m)
Overall reach from:			
Rear axle centerline	21 ft 10 in (6.66 m)	21 ft 10 in (6.66 m)	25 ft 3 in (7.69 m)
Swing pivot	18 ft 2 in (5.55 m)	18 ft 2 in (5.55 m)	21 ft 7 in (6.58 m)
Loading height	12 ft 1 in (3.67 m)	12 ft 1 in (3.67 m)	14 ft 5 in (4.38 m)
Loading reach	4 ft 7 in (1.41 m)	4 ft 7 in (1.41 m)	7 ft 3 in (2.20 m)
Swing arc	180°	180°	180°
Bucket rotation:			
Straight links	175.6°	175.6°	175.6°
Mechanical coupler	198.0°	198.0°	198.0°
Hydraulic coupler – Extendahoe® dipper	194.8°	194.8°	194.8°
Hydraulic coupler – standard dipper	198.0°	198.0°	198.0°
Stabilizer spread – operating:			
Flip pad	9 ft 3 in (2.82 m)	9 ft 3 in (2.82 m)	9 ft 3 in (2.82 m)
Cast pad	9 ft 7.2 in (2.93 m)	9 ft 7.2 in (2.93 m)	9 ft 7.2 in (2.93 m)
Digging force:			
Bucket cylinder – SAE rated 3,460 psi	13,576 lb (60 388 N)	13,576 lb (60 388 N)	13,576 lb (60 388 N)
Bucket cylinder – Power Lift	14,223 lb (63 267 N)	14,223 lb (63 267 N)	14,223 lb (63 267 N)
Dipper cylinder – SAE rated 3,460 psi	8,657 lb (38 508 N)	8,657 lb (38 508 N)	6,305 lb (28 045 N)
Dipper cylinder – Power Lift	9,070 lb (40 345 N)	9,070 lb (40 345 N)	6,606 lb (29 382.7 N)
Leveling angle:			
Flip pad	11.8°	11.8°	11.8°
Cast pad	12.8°	12.8°	12.8°

NOTE: Lift capacities apply straight to the rear of prime mover. 4WD with 19.5 L x 24.0 tires equipped with 24 in (610 mm) heavy-duty bucket and Case coupler except as noted.



## STANDARD EQUIPMENT

### OPERATOR ENVIRONMENT

See page 1

### ENGINE

FPT F4HE0484G diesel  
Full flow engine oil filter  
Air cleaner – replaceable dry type  
with radial seal  
Aspirated air cleaner  
Muffler, non spark arresting  
Fuel filter with water trap  
Radiator with de-aeration bottle  
Antifreeze to -34° F (-37° C)  
Self-adjusting belt  
Electronic throttles – foot and rotary hand  
High Pressure Common Rail computer  
controlled injection with diagnostic features

### DRIVETRAIN

Standard Powershuttle, 4F-4R Power  
Shuttle Synchronmesh transmission  
Front axle:  
2WD heavy-duty front axle with  
11.0 L x 16.0 tires  
4WD heavy-duty mechanically driven  
front axle with 12.0 x 16.5 tires and  
drive shaft guard  
Rear axle:  
2/4WD heavy-duty outboard planetary drive  
with 17.5 L x 24.0, 10 PR (R4) tires  
Torque converter – 11.8 in (300 mm)  
On-the-go electric 4WD control  
Electric F/R shuttle control  
Electric differential lock control, push-button  
Park brake, spring-applied, hydraulic  
release – SAHR

### HYDRAULICS

Variable displacement axial piston pump  
Pump:  
41 gpm @ 3,100 psi  
(156.2 L/min @ 207 bar)  
Heavy-duty hydraulic oil cooler  
7-micron, spin on oil filter

### LOADER

See page 2

### BACKHOE

See page 2

### OTHER

Forward tilt engine hood  
Replaceable, molded front bumpers  
Front/Rear tie downs  
Reflective logos  
Lights – cab and canopy:  
2 front driving  
2 rear tail/stop  
2 front flashers/turn  
2 rear flashers/turn  
Lights – cab only:  
Adjustable halogen work lights – 55 W:  
2 front  
2 side – left and right  
4 rear  
Lights – canopy only:  
Adjustable halogen work lights – 55 W:  
2 front  
2 side – left and right  
4 rear



## OPTIONAL EQUIPMENT

### OPERATOR ENVIRONMENT

Ride Control  
Comfort Steering with momentary latching switch, two speed steering pump and 3rd/4th gear cutout  
ROPS/FOPS certified protective cab with rear wipers and floor mat  
Cab Convenience Package containing pull-down sun visor, window washer – front and rear, left-hand storage tray, deluxe interior package, Sound Reduction Package for cab models – levels reduced to 72 dB (A), right-hand threshold storage box, viscous fan  
Air-conditioning for cab models  
Mechanical suspension seat with flip-up armrests, 180° swivel, cloth or vinyl, adjustable seat and weight, backrest angle, lumbar and cushion angle  
Air Ride suspension seat with flip-up armrests, 180° swivel, electric height adjustment, adjustable back rest and lumbar support – cab units cloth, canopy units vinyl  
Pull-down sun visor for canopy models  
Radio, AM/FM Stereo/WB, MP3 auxiliary input – cab models  
3 in (75 mm) seat belt for mechanical and air suspension seat

### ENGINE

Cold Weather Starting Aid  
with dual 12 Volt batteries and grid heater

### DRIVETRAIN

Powershift S-Type transmission, 4F-3R electronic transmission controller and kick down in loader control lever – 2WD or 4WD  
Powershift H-Type transmission, 4F-3R hydraulic clutch shifting with auto function 4WD only  
Rear axle heavy-duty outboard planetary drive with 19.5 L x 24.0 tires either 2WD or 4WD

### LOADER

Auxiliary hydraulics for loader-mounted equipment with thumb-operated proportional control  
Hydraulic front quick coupler  
Loader linkage without loader bucket  
Tool portfolio of additional attachments  
Buckets – see page 2

### BACKHOE

Auxiliary backhoe unidirectional hydraulics  
Auxiliary backhoe combo hydraulics:  
Hand lever operated for manual controls  
Button operated for pilot controls includes unidirectional and bidirectional  
Auxiliary hydraulics with flow from 0 to 41 gal/min (0 to 156.2 L/min)  
Extendahoe®  
Power Lift  
Bolt-on hardened gripper teeth  
Two-lever control – backhoe or Extendahoe®

Pilot operated control system:  
Fingertip proportional Electro-Hydraulic stabilizer controls  
Thumb-operated proportional Electro-Hydraulic Extendahoe® control  
Thumb-operated horn button  
Thumb-operated auxiliary hydraulic control  
Infinitely adjustable towers  
In-cab switchable “excavator to backhoe” control pattern change  
Flip over stabilizer pads  
Cemetery pads  
Hydraulic bucket quick coupler  
Buckets – see page 2

### OTHER

Front:  
11.0 x 16.0 or 12.0 x 16.5  
Rear:  
17.5 L x 24.0 or 19.5 L x 24.0  
Special paint  
Tool box – bolt-on, step-mounted  
Front counterweights:  
700 lb and 1,100 lb (318 kg and 500 kg)  
Rotating beacon  
Master disconnect switch and remote jump-start terminals

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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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**7 of 7**