

590SN

BACKHOE LOADER
TIER 3 CERTIFIED



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LITCHTL	
Model	FPT F4HE9484C
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 ³ (4.5 L)
Fuel injection	Direct, high pressure common rail – HPCR
Fuel	Diesel
Engine speeds* Rated speed – full load Low idle High idle – no load	RPM 2200 900 – 1000 2320 – 2430
Horsepower @ 2200 RPM Gross Net	: 110 hp (82 kW) 108 hp (81 kW)
Maximum torque @ 1400 l	RPM:
Gross Net	381 lb·ft (516 N·m) 380 lb·ft (515 N·m)
Torque rise at rated speed	45% +/- 5%
Radiator: Core type Core size area Rows of tubes	Square wave 486 in ² (3 145 cm ²) 5
Viscous Fan: Style 9 Diameter Ratio	blade viscous suction 19.68 in (500 mm) 1.4:1

Pump operating angle ratings: Side to side

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.

DRIVETRAIN

Gear ratios

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

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

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

1st		5.603/4.643
2nd		3.481/2.884
3rd		1.584/1.313
4th		0.793/0.657*
Travel speeds	Forward	Reverse
	mph (kph)	mph (kph)
1st	3.9 (6.3)	4.7 (7.6)
2nd	6.3 (10.1)	7.5 (12.1)
3rd	13.2 (21.3)	15.9 (25.6)
4th	24.2 (38.9)	29.0 (46.7)*

Forward/Reverse

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	Reverse
	mph (kph)	mph (kph)
1st	4.0 (6.4)	4.8 (7.7)
2nd	6.5 (10.5)	7.8 (12.6)
3rd	13.7 (22.0)	16.4 (26.4)
4th	23.0 (37.0)	_
Torque converter	ratio	2.6

Differential lock On-the-go push-button activation

Front 4WD – H-Type/Rear axle:
Differential ratio 2.1/2.5
Planetary hub ratio 6.0/6.4
Total reduction ratio 12.8/16.0

Service brakes:

Individually applied, power assisted, hydraulically actuated, maintenance-free, self-adjusting, outboard mounted, wet disc, 2 per side.

Total disc area 384 in² (0.25 m²)

Parking brakes Trans Mounted spring-applied hydraulic release – SAHR

NOTE: *4R not available on Powershift S-type Travel speeds at 2306 engine RPM specified: w/ 21.0 L x 24.0 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 - SAE Transport:

93 in (2.36 m) 4 IN 1® bucket, 4WD, Extendahoe®, 24 in HD bucket, flip stabilizer pads, 2-Door ROPS cab, air suspension seat, ride control, 1,100 lb CWT, tool box, backhoe coupler, backhoe auxiliary hydraulics, dual battery, no operator.

20,458 lb (9 280 kg)

Add-on weights:

Cab-over canopy	309 lb (140 kg)
Fabricated stabilizer pads	141 lb (64 kg)
Counterweights	700 lb (318 kg)
	1,100 lb (500 kg)
Extendahoe®	335 lb (152 kg)
4WD w/ driveshaft guard	393 lb (178 kg)

HYDRAULICS

Pump:

Bosch Rexroth Series 31 Variable Displacement Axial Piston Pump

Main relief pressure:

Standard 3,450 +/- 50 psi (238 +/- 3.5 bar)

Power Lift 3,625 +/- 50 psi (250 +/- 3.5 bar)

Filtration:

7-micron, full flow replaceable cartridge on return line, condition indicator light for filter.

Oil cooler Heavy-duty

Loader flow @ rated engine RPM:

43 gpm @ 2,340 psi (162.6 L/min @ 161 bar)

Loader control valve w/ pilot or manual backhoe controls:

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.

Loader auxiliary hydraulics w/ proportional thumb switch w/ detent on loader control handle: 0 to 43 gpm (0 to 162.6 L/min)

Backhoe flow @ rated engine RPM:

43 gpm @ 3,100 psi (162.6 L/min @ 214 bar)

Manual backhoe control valve:

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)
Hydraulic system:	
Total	139 qt (132.0 L)
w/ Extendahoe®	145 qt (137.7 L)
Reservoir w/ filter	53 qt (50.0 L)
Reservoir w/o filter	50 qt (47.0 L)
Transmission – total system:	
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)

Front axle:	
2WD each hub	0.8 qt (0.8 L)
4WD Differential	9.1 qt (8.6 L)
4WD Planetaries – each	1.1 qt (1.0 L)
Rear axle:	
Differential and planetaries	14.4 qt (13.6 L)
Engine oil w/ filter	14.4 qt (13.6 L)
Cooling system:	
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

Front tires:

2WD 14.0 x 17.5, 10-ply Industrial Rib 4WD 14.0 x 17.5, 10-ply SGL SS

Rear tires:

2/4WD 21.0 L x 24.0, 10-ply R4

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				
2WD:				
Brakes on	12 ft 8 in (3.87 m)			
Brakes off	13 ft 2 in (4.00 m)			
4WD - engaged:				
Brakes on	12 ft 6 in (3.81 m)			
Brakes off	14 ft 4 in (4.36 m)			
4WD - disengaged:				
Brakes on	11 ft 8 in (3.55 m)			
Brakes off	12 ft 8 in (3.86 m)			

Backhoe:

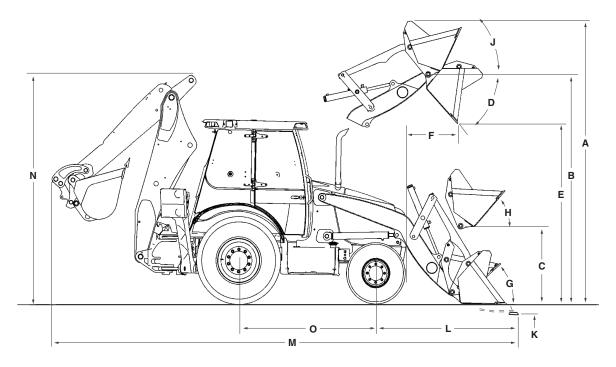
Over center design, Fabricated "S" boom; Pro Control System; Case mechanical coupler; Power Lift.

NOTE: *Turning radius dimensions curb to curb w/ long lip bucket.

LOADER BUCKET SIZES					
Туре	Width	Weight	Struck	Heaped Capacity	
General Purpose Bucket	93 in (2.36 m)	1,123 lb (509 kg)	1.1 yd ³ (0.84 m ³)	1.3 yd ³ (0.99 m ³)	
w/ lift points and bolt-on cutting edge	96 in (2.44 m)	1,324 lb (601 kg)	1.27 yd ³ (0.97 m ³)	1.5 yd ³ (1.15 m ³)	
4 IN 1® Bucket	93 in (2.36 m)	1,628 lb (738 kg)	1.0 yd ³ (0.76 m ³)	1.2 yd³ (0.92 m³)	

BACKHOE BUCKET SIZES			
Туре	Width	Weight	Heaped Capacity
Universal Buckets	12 in (305 mm)	295 lb (134 kg)	3.40 ft ³ (0.10 m ³)
	18 in (457 mm)	356 lb (162 kg)	5.30 ft ³ (0.15 m ³)
	24 in (610 mm)	427 lb (194 kg)	7.70 ft ³ (0.22 m ³)
	30 in (762 mm)	489 lb (222 kg)	10.20 ft ³ (0.29 m ³)
	36 in (914 mm)	552 lb (251 kg)	12.70 ft ³ (0.36 m ³)
High Capacity Buckets	24 in (610 mm)	447 lb (203 kg)	8.50 ft ³ (0.24 m ³)
	30 in (762 mm)	502 lb (228 kg)	10.60 ft ³ (0.30 m ³)

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

	93 in (2.36) Long Lip Bucket	93 in (2.36) 4 IN 1 [®] Bucket
A. Overall operating height – fully raised	13 ft 11 in (4.24 m)	13 ft 10 in (4.22 m)
Height to:		
B. Bucket hinge pin fully raised	11 ft 6 in (3.50 m)	11 ft 6 in (3.50 m)
C. Bucket hinge pin at SAE carry	12.8 in (325 mm)	12.8 in (325 mm)
D. Dump angle at full height	45°	45°
E. Dump clearance at full height, 45° dump:		
Bucket	8 ft 11 in (2.72 m)	9 ft 1 in (2.77 m)
Clam open	_	9 ft 10 in (3.01 m)
F. Dump reach at full height, 45° dump – from bumper:		
Bucket	29.2 in (741 mm)	27.8 in (707 mm)
Clam open		13.8 in (351 mm)
Bucket rollback:		
G. @ Groundline	40°	41°
H. @ SAE carry	46°	46
J. @ Full height	Adjustable	Adjustable
K. Digging depth below grade:	221 (177	- o t (1-o
Bucket flat	6.2 in (157 mm)	5.9 in (150 mm)
Clam open – dozing		3.5 in (89 mm)
L. Reach from front axle centerline – bucket on ground	6 ft 7 in (2.05 m)	6 ft 5 in (1.99 m)
Lift capacity to full height - calculated values	8,425 lb (3 822 kg)	8,025 lb (3 640 kg)
Breakout force:		
Lift cylinders	11,463 lb (5 200 daN)	11,225 lb (5 091 daN
Dump cylinders	12,776 lb (5 795 daN)	13,717 lb (6 222 daN)
Bucket cutting edge width	92.7 in (2.36 m)	93.0 in (2.36 m)
Maximum grading angle	106°	106°
Maximum clam opening	_	38.3 in (972 mm)
Moldboard height	_	36.8 in (934 mm)
Raising time to full height	3.7 sec	3.7 sec
Bucket dumping time	2.0 sec	2.0 sec
Lowering time:		
Power down	2.5 sec	2.5 sec
Return-to-dig	3.8 sec	3.8 sec
Clam:		
Open time	_	1.3 sec
Close time	_	1.1 sec

NOTE: Loader dimensions taken with 4WD.

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DIMENSIONS				
	Standard Backhoe	Extendahoe®		
		Retracted	Extended	
M. Overall transport length:				
Long Lip bucket	23 ft 10 in (7.25 m)	23 ft 10 in (7.25 m)	_	
4 IN 1® bucket	23 ft 7 in (7.20 m)	23 ft 7 in (7.20 m)	_	
Overall transport width	7 ft 9 in (2.36 m)	7 ft 9 in (2.36 m)	_	
Height:				
To top of canopy	8 ft 9 in (2.68 m)	8 ft 9 in (2.68 m)	8 ft 9 in (2.68 m)	
To top of cab	8 ft 11 in (2.71 m)	8 ft 11 in (2.71 m)	8 ft 11 in (2.71 m)	
To top of exhaust stack	8 ft 9 in (2.67 m)	8 ft 9 in (2.67 m)	8 ft 9 in (2.67 m)	
N. Transport	11 ft 7 in (3.54 m)	11 ft 8 in (3.54 m)	_	
Ground clearance at backhoe frame	14.8 in (377 mm)	14.8 in (377 mm)	14.8 in (377 mm)	
Angle of departure	18.4°	18.4°	18.4°	
Front wheel tread:				
14.0 x 17.5 Industrial Rib	74.3 in (1.89 m)	74.3 in (1.89 m)	-	
14.0 x 17.5	74.3 in (1.89 m)	74.3 in (1.89 m)	_	
Rear wheel tread:				
21.0 L x 24.0	69.6 in (1.77 m)	69.6 in (1.77 m)	_	
O. Wheelbase:				
2WD	84.0 in (2.13 m)	84.0 in (2.13 m)		
4WD	84.5 in (2.15 m)	84.5 in (2.15 m)	_	

NOTE: Dimensions taken with 21.0 L x 24.0 rear tires and 14.5/75.0 L x 16.1 front tires except that data marked 4WD is taken with 14.0 x 17.5 front tires.

CYLINDERS				
	Bore Diameter	Rod Diameter	Stroke	Closed Length
Loader:				
Lift – 2	3.50 in (88.9 mm)	1.875 in (47.6 mm)	29.13 in (740.0 mm)	41.54 in (1 055.0 mm)
Dump – 2	3.25 in (82.6 mm)	1.75 in (44.5 mm)	20.33 in (516.5 mm)	30.78 in (781.8 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	5.50 in (139.7 mm)	2.75 in (69.9 mm)	40.57 in (1 030.5 mm)	57.05 in (1 449.0 mm)
Dipperstick	5.25 in (133.4 mm)	2.75 in (69.9 mm)	23.53 in (597.7 mm)	38.49 in (977.7 mm)
Bucket	3.50 in (88.9 mm)	2.50 in (63.5 mm)	38.95 in (989.4 mm)	51.78 in (1 315.2 mm)
Extendahoe®	3.00 in (76.2 mm)	1.75 in (44.5 mm)	48.03 in (1 220.0 mm)	64.02 in (1 626.0 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	5.25 in (133.4 mm)	2.50 in (63.5 mm)	20.40 in (518.1 mm)	33.57 in (852.7 mm)

AXLE RATINGS				
	Front – 2WD	Rear	Front – 4WD	
Maximum static	65,506 lb (29 713 kg)	70,848 lb (32 136 kg)	67,883 lb (30 791 kg)	
Dynamic operating	44,261 lb (20 077 kg)	49,494 lb (22 450 kg)	47,426 lb (21 512 kg)	
Static operating	17,704 lb (8 031 kg)	19,798 lb (8 980 kg)	18,969 lb (8 604 kg)	
Oscillation – front axle	22° total – 11° each side	_	22° total – 11° each side	

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BACKHOE LIFT CAPACITIES							
	Standard Backhoe		Extendahoe®				
				Retracted		Extended	
	Standard	Power Lift	Standard	Power Lift	Standard	Power Lift	
Boom Lift	Lift Capacity lb (kg)						
+18 ft (5.50 m)	_	_	_	_	2,548 (1 156)	2,710 (1 229)	
+16 ft (4.87 m)	_	_	_	_	2,783 (1 262)	2,961 (1 343)	
+14 ft (4.27 m)	3,942 (1 788)	4,177 (1 895)	3,688 (1 673)	3,923 (1 779)	2,967 (1 346)	3,156 (1 431)	
+12 ft (3.66 m)	4,160 (1 887)	4,409 (2 000)	3,898 (1 768)	4,147 (1 881)	3,037 (1 378)	3,231 (1 465)	
+10 ft (3.05 m)	4,204 (1 907)	4,456 (2 021)	3,937 (1 786)	4,188 (1 900)	3,051 (1 384)	3,246 (1 472)	
+8 ft (2.44 m)	4,180 (1 896)	4,430 (2 009)	3,908 (1 773)	4,158 (1 886)	3,052 (1 384)	3,247 (1 473)	
+6 ft (1.83 m)	4,128 (1 873)	4,374 (1 984)	3,853 (1 748)	4,099 (1 859)	3,037 (1 378)	3,231 (1 466)	
+4 ft (1.22 m)	4,064 (1 843)	4,305 (1 953)	3,785 (1 717)	4,027 (1 827)	3,011 (1 366)	3,203 (1 453)	
+2 ft (0.61 m)	4,001 (1 815)	4,239 (1 923)	3,720 (1 687)	3,957 (1 795)	2,983 (1 353)	3,174 (1 440)	

3,657 (1 659)

3,606 (1 635)

3,572 (1 620)

3,565 (1 617)

3,609 (1 637)

3,776 (1 713)

3,900 (1 769)

5,853 (2 655)

6,409 (2 907)

6,650 (3 016)

6,903 (3 131)

6,928 (3 142)

7,953 (3 608)

3,891 (1 765)

3,836 (1 740)

3,800 (1 724)

3,793 (1 720)

3,839 (1 741)

4,017 (1 822)

4,149 (1 882)

5,853 (2 655)

6,409 (2 907)

6,650 (3 016)

6,903 (3 131)

6,928 (3 142)

7,953 (3 608)

2,970 (1 347)

2,946 (1 336)

2,929 (1 329)

2,924 (1 326)

2,941 (1 334)

2,985 (1 354)

3,102 (1 407)

3,307 (1 500)

4,312 (1 956)

4,020 (1 823)

5,252 (2 382)

4,849 (2 200)

4,945 (2 243)

4,670 (2 118)

4,424 (2 007)

3,160 (1 433)

3,134 (1 422)

3,116 (1 413)

3,111 (1 411)

3,129 (1 419)

3,175 (1 440)

3,300 (1 497)

3,519 (1 596)

4,312 (1 956)

4,020 (1 823)

5,252 (2 382)

4,849 (2 200)

4,945 (2 243)

4,670 (2 118)

4,424 (2 007)

5,103 (2 315)

+2 ft (0.61 m) - - 5,103 (2 315)

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.

4,175 (1 894)

4,123 (1 870)

4,091 (1 856)

4,088 (1 854)

4,141 (1 878)

4,329 (1 964)

4,494 (2 038)

6,102 (2 768)

6,651 (3 017)

6,891 (3 126)

7,147 (3 243)

7,178 (3 256)

8,226 (3 731)

Ground Level

-2 ft (0.61 m)

-4 ft (1.22 m)

-6 ft (1.83 m)

-8 ft (2.44 m)

-10 ft (3.05 m)

-12 ft (3.66 m)

-14 ft (4.27 m)

+14 ft (4.27 m)

+12 ft (3.66 m)

+10 ft (3.05 m)

+8 ft (2.44 m)

+6 ft (1.83 m)

+4 ft (1.22 m)

Dipper Lift +16 ft (4.87 m) 3,942 (1 788)

3,893 (1 766)

3,863 (1 752)

3,861 (1 751)

3,910 (1 774)

4,088 (1 854)

4,245 (1 925)

6,102 (2 768)

6,651 (3 017)

6,891 (3 126)

7,147 (3 243)

7,178 (3 256)

8,226 (3 731)

BACKHOE OPERATIONAL DATA			
	Standard Backhoe	Exter	ndahoe®
		Retracted	Extended
Digging depth:			
Maximum	15 ft 6 in (4.72 m)	15 ft 6 in (4.72 m)	19 ft 6 in (5.94 m)
Maximum with hi-capacity bucket	16 ft 0 in (4.88 m)	16 ft 0 in (4.88 m)	20 ft 0 in (6.10 m)
2 ft (610 mm) flat bottom	15 ft 5 in (4.69 m)	15 ft 5 in (4.69 m)	19 ft 5 in (5.92 m)
8 ft (2.44 m) flat bottom	14 ft 5 in (4.40 m)	14 ft 5 in (4.40 m)	18 ft 8 in (5.63 m)
Overall reach from:			
Rear axle centerline	23 ft 3 in (7.10 m)	23 ft 3 in (7.10 m)	27 ft 2 in (8.28 m)
Swing pivot	19 ft 7 in (5.98 m)	19 ft 7 in (5.98 m)	23 ft 6 in (7.17 m)
Loading height	13 ft 1 in (4.00 m)	13 ft 1 in (4.00 m)	15 ft 9 in (4.81 m)
Loading reach – dipper retracted	5 ft 1 in (1.56 m)	5 ft 1 in (1.56 m)	8 ft 1 in (2.47 m)
Swing arc 1	180°	180°	180°
Bucket rotation:			
Mechanical coupler	198.0°	198.0°	198.0°
Hydraulic coupler - Extendahoe®	194.8°	194.8°	194.8°
Hydraulic coupler – standard dipper	198.0°	198.0°	198.0°
Stabilizer spread – operating – centers:			
Flip pad	10 ft 8.5 in (3.26 m)	10 ft 8.5 in (3.26 m)	10 ft 8.5 in (3.26 m)
Cast pad	11 ft 0.5 in (3.37 m)	11 ft 0.5 in (3.37 m)	11 ft 0.5 in (3.37 m)
Digging force:			
Bucket cylinder - SAE rated 3,460 psi	14,940 lb (66 455 N)	14,940 lb (66 455 N)	14,940 lb (66 455 N)
Bucket cylinder – Power Lift	15,652 lb (69 623 N)	15,652 lb (69 623 N)	15,652 lb (69 623 N)
Dipper cylinder – SAE rated 3,460 psi	9,047 lb (40 244 N)	9,047 lb (40 244 N)	6,463 lb (28 748 N)
Dipper cylinder – Power Lift	9,478 lb (42 163 N)	9,478 lb (42 163 N)	9,478 lb (42 163 N)
Leveling angle:			
Flip pad	11.2°	11.2°	11.2°
Cast pad	12.0°	12.0°	12.0°

NOTE: Lift capacities apply straight to the rear of prime mover. 4WD equipped with 24 in (610 mm) Universal HD trenching bucket and Case coupler except as noted.

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STANDARD EQUIPMENT

OPERATOR ENVIRONMENT

See page 1

ENGINE

FPT F4HE9484C 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)

Electronic throttles - foot and rotary hand

Viscous drive fan

Self adjusting belt

High Pressure Common Rail computer controlled injection with diagnostic features

DRIVETRAIN

Powershift S-Type transmission, 4F-3R fully synchronized electronic transmission controller and kick down in loader control valve lever - 2WD or 4WD

Front axle:

2WD heavy-duty front axle with 14.0 x 17.5 tires with Industrial Rib tread 4WD heavy-duty mechanically driven front axle with 14.0 x 17.5 tires and drive shaft guard

Rear axle:

2/4WD heavy-duty outboard planetary drive with 21.0 L x 24.0 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

43 gpm @ 3,100 psi (162.6 L/min @ 214 bar)

Heavy-duty oil cooler

7-micron, spin on oil filter

LOADER

See page 2

BACKHOE

Power Lift 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

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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

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, heated, electric height adjustment, adjustable back rest and lumbar support - cab units cloth, canopy

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 grid heater with dual 12 Volt batteries

DRIVETRAIN

Powershuttle, 4F-4R Power Shuttle Synchromesh transmission - 2WD/4WD Powershift H-Type transmission, 4F-3R hydraulic clutch shifting with auto function 4WD only

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 43 gal/min (0 to 162.6 L/min)

Extendahoe®

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 Standard dipper

Flip over stabilizer pads

Cemetery pads

Hydraulic bucket coupler Buckets - see page 2

OTHER

Front:

14.0 x 17.5 10 PR Industrial Rib (2WD)

Rear:

21 L x 24

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 biodieselfriendly. NOTE: All engines meet current EPA emissions regulations. All specifications are stated in accordance with SAF Standards or Recommended Practices, where applicable.



SAFETY™ 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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