



## ENGINE

Model	FPT F4HFE413P
Emissions Certification	Tier 4 Interim Certified
Cylinders	4
Displacement	275 in <sup>3</sup> (4.5 L)
Fuel injection	Common rail
Fuel	#2 Diesel
Fuel filter	Spin-on w/ in-line strainer
Air intake	Cross-flow
Cooling	Liquid
Engine speeds	RPM
High idle - no load	2200 +/- 50
Rated - full load	2000
Low idle	1100 +/- 25
Horsepower @ 2000 RPM – SAE J1349:	
Net	112 hp (84 kW)
Gross	120 hp (90 kW)
Engine lubrication:	
Pump	Deep sump plate cooler w/ pressurized under-piston nozzles
Pump operating angle ratings:	
Side-to-side	35°
Fore and aft	45°
Oil filtration	Replaceable, spin-on full-flow cartridge
Radiator:	
Fins per inch	8.5
Fan:	
Diameter	21.6 in (550 mm)
Ratio	1.1:1

## DRIVETRAIN

Dual path hydrostatic:	
Pump	Variable axial piston
Motor	Variable bent axis piston
Max drawbar pull*	42,813 lb (190.4 kN)
Transmission	Single lever control – electronic straight tracking
Transmission oil filter	4 micron, spin-on replaceable w/ 100 mesh suction screen
Travel speeds*:	
Forward	5.2 mph (8.4 kph)
Reverse	5.2 mph (8.4 kph)
Parking brakes	Heavy-duty, spring-applied, hydraulic release disc
Steering brakes	Hydrostatic
Final drive	2 helical gear reduction to planetary output
Ratio	62.4:1
Transmission cooling:	
Type	Oil to water
Core size	417 in <sup>2</sup> (0.27 m <sup>2</sup> )

NOTE: \*Measured using standard track chain. Increase travel speeds by 4% and reduce drawbar pull by 4% with the optional CELT track chain.

## ELECTRICAL

Alternator	120 amp
Battery	(2) 12-volt, low-maintenance 925 cold-cranking amps @ -4° F (-20° C)
Electrical System	24 Volts

## OPERATOR ENVIRONMENT

Optional ROPS cab; Single lever control for speed, steering and direction; Cloth air suspension seat w/ back adjustment; Retractable 2 in (51 mm) seat belt; Adjustable armrest; Two foot rest; Rearview mirror; Two door windshield wipers; Dome light; 12-volt accessory outlet; Headliner; Floor mat.

Warning lights:  
Air filter; Alternator; Diagnostic fault indicator; Engine coolant temperature; Engine oil pressure; Hydraulic filter; Low fuel level; Park brake engaged; Service soon indicator; Transmission filter; Transmission charge pressure; Transmission temperature.

Gauges:  
Battery voltage; Fuel level; Digital hour meter/tachometer/diagnostic/service reminder; Transmission oil temperature; Transmission speed indicator; Water temperature; Diesel Exhaust Fluid (DEF) level.

Audible warnings:  
Engine coolant temperature; Engine oil pressure; Low fuel level; Transmission charge pressure; Temperature/hydraulic temperature.

## OPERATING WEIGHT

Unit equipped w/ ROPS, full fuel tank, 170 lb (77 kg) operator, drawbar, side shield, track guides, backup alarm, horn and lights.	
Long track	21,560 lb (9 779 kg)
Wide track	22,330 lb (10 129 kg)
Low ground pressure	22,830 lb (10 355 kg)
Add-on weights:	
Drawbar	84 lb (38 kg)
Ripper – 3 shank	1,400 lb (635 kg)
Winch	1,001 lb (454 kg)
Front counterweight	827 lb (375 kg)
Cab	560 lb (254 kg)
CELT chain:	
18 in (457 mm)	141 lb (64 kg)
20 in (508 mm)	128 lb (58 kg)
24 in (610 mm)	141 lb (64 kg)
28 in (711 mm)	141 lb (64 kg)
Center rock guard	340 lb (154 kg)
Sweeps	139 lb (63 kg)

## HYDRAULICS

Pump flow @ 2000 RPM @ 3,000 psi (20 684 kPa)	20.3 gpm (78.8 L/min)
Lift cylinder	Two (2)
Bore diameter	3.50 in (88.9 mm)
Rod diameter	1.75 in (44.4 mm)
Stroke	14.26 in (362.1 mm)
Angle cylinder	Two (2)
Bore diameter	3.50 in (88.9 mm)
Rod diameter	1.75 in (44.4 mm)
Stroke	14.56 in (369.9 mm)
Tilt cylinder	One (1)
Bore diameter	3.50 in (88.9 mm)
Rod diameter	1.75 in (44.4 mm)
Stroke	5.39 in (137.0 mm)

## SERVICE CAPACITIES

Fuel tank	50.0 gal (189.0 L)
Engine oil w/ filter	13.0 qt (12.3 L)
Engine oil w/o filter	12.2 qt (11.5 L)
Engine cooling system	5.75 gal (21.8 L)
Hydraulic reservoir	23.75 gal (90.0 L)
Final drive – per side	15.0 qt (14.2 L)
Track rollers – each	0.26 qt (0.25 L)
Front idlers – each	0.52 qt (0.49 L)
Carrier rollers – each	0.25 qt (0.24 L)
DEF tank	12.0 gal (45.4 L)

## OTHER SPECIFICATIONS

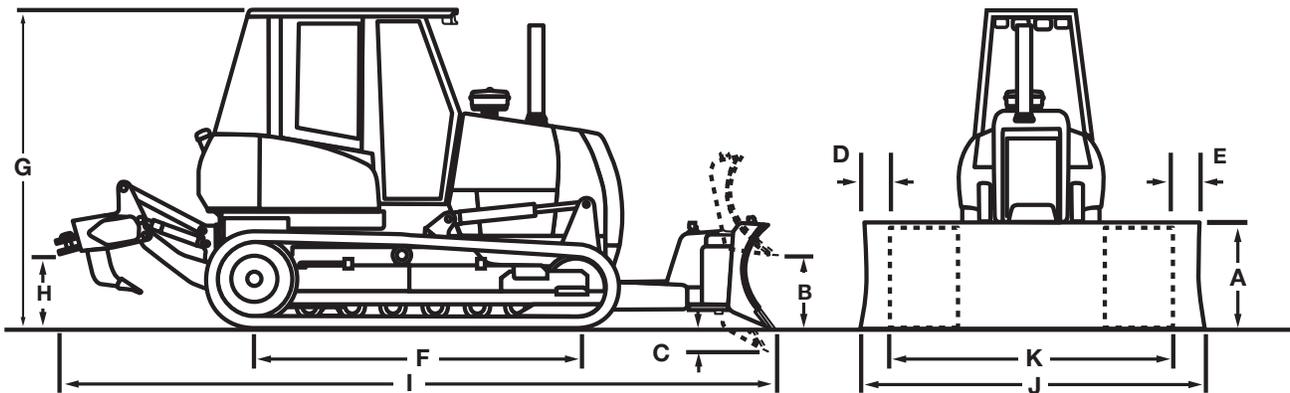
<b>Undercarriage:</b>	
Track adjustment	Hydraulic
Frame	Rigid suspension
Length of track on ground	93 in (2 352 mm)
Track link pitch	6.73 in (171 mm)
Track shoe height	2.06 in (52 mm)
Pin diameter	1.32 in (33 mm)
<b>Bushing diameter:</b>	
CLT track	2.24 in (57 mm)
CELT track	3.0 in (76 mm)
Track shoes per side	40
Track rollers per side	7
Carrier rollers per side	1
Track roller rail diameter	7.48 in (190 mm)

<b>Track on ground:</b>		
<b>Shoe area:</b>		
18 in (457 mm)	3,334 in <sup>2</sup> (21 507 cm <sup>2</sup> )	
20 in (508 mm)	3,704 in <sup>2</sup> (23 896 cm <sup>2</sup> )	
24 in (610 mm)	4,448 in <sup>2</sup> (28 694 cm <sup>2</sup> )	
28 in (711 mm)	5,184 in <sup>2</sup> (33 445 cm <sup>2</sup> )	

<b>Track:</b>	
<b>Long track:</b>	
18 in (457 mm) closed grousers and CLT	
18 in (457 mm) open grousers and CELT	
20 in (508 mm) closed grousers and CLT	
20 in (508 mm) open grousers and CELT	
<b>Wide track:</b>	
20 in (508 mm) closed grousers and CLT	
20 in (508 mm) open grousers and CELT	
24 in (610 mm) closed grousers and CLT	
24 in (610 mm) open grousers and CELT	
<b>Low ground pressure:</b>	
28 in (711 mm) closed grousers and CLT	
28 in (711 mm) open grousers and CELT	

<b>Blade:</b>	
Variable blade pitch	52° – 60°
Lift speed – per second	19.7 in (500 mm)
Cutting edge	Reversible, replaceable
Width	8.0 in (203 mm)
Thickness	0.75 in (19 mm)

<b>Ripper:</b>	
Max. penetration	14.2 in (361 mm)
Width	71.1 in (1 806 mm)
Cut width	69.5 in (1 765 mm)
Max. ground clearance	17.7 in (450 mm)
Max. number of shanks	3
<b>Tooth spacing:</b>	
w/ 3 teeth	30.9 in (785 mm)
<b>Hydraulic cylinder</b>	
Diameter	3.9 in (99.1 mm)
Stroke	8.4 in (213 mm)
Rod	1.75 in (44.5 mm)



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

## DIMENSIONS

	Long Track (LT)		Wide Track (WT)		Low Ground Pressure (LGP)
Blade width	104 in (2 640 mm)	112 in (2 845 mm)	112 in (2 845 mm)	120 in (3 048 mm)	124 in (3 150 mm)
SAE blade capacity	2.16 yd <sup>3</sup> (1.65 m <sup>3</sup> )	2.35 yd <sup>3</sup> (1.80 m <sup>3</sup> )	2.35 yd <sup>3</sup> (1.80 m <sup>3</sup> )	2.53 yd <sup>3</sup> (1.93 m <sup>3</sup> )	2.62 yd <sup>3</sup> (2.00 m <sup>3</sup> )
<b>A.</b> Blade height	36.0 in (910 mm)				
<b>B.</b> Blade lift above ground	34.4 in (874 mm)				
<b>C.</b> Blade depth below ground	19.0 in (483 mm)				
Blade angle both directions	25°	25°	25°	25°	25°
<b>D.</b> Cast reach	-0.4 in (-10.3 mm)	3.7 in (93.4 mm)	-2.7 in (-69.2 mm)	0.7 in (17.5 mm)	0.5 in (12.0 mm)
<b>E.</b> Cut reach	12.8 in (325.6 mm)	16.8 in (425.8 mm)	10.4 in (263.2 mm)	13.9 in (353.4 mm)	13.7 in (348.4 mm)
Blade tilt, each end – up to 8.3°	8.9 in (226 mm)	8.9 in (226 mm)	8.9 in (226 mm)	9.49 in (241 mm)	9.49 in (241 mm)
Track gauge	62.0 in (1.57 m)	62.0 in (1.57 m)	70.0 in (1.78 m)	70.0 in (1.78 m)	70.0 in (1.78 m)
Maximum shoe width	20.0 in (508 mm)	20.0 in (508 mm)	24.0 in (610 mm)	24.0 in (610 mm)	28.0 in (711 mm)
<b>F.</b> Length of track on ground:					
CLT	93.0 in (2.35 m)				
Area of track on ground	3,704 in <sup>2</sup> (2.38 m <sup>2</sup> )	3,704 in <sup>2</sup> (2.38 m <sup>2</sup> )	4,448 in <sup>2</sup> (2.87 m <sup>2</sup> )	4,448 in <sup>2</sup> (2.87 m <sup>2</sup> )	5,186 in <sup>2</sup> (3.34 m <sup>2</sup> )
Ground pressure	5.3 psi (0.37 bar)	5.3 psi (0.37 bar)	4.5 psi (0.31 bar)	4.5 psi (0.31 bar)	4.0 psi (0.28 bar)
<b>G.</b> Height to top of cab	9 ft 1 in (2 769 mm)				
with air conditioning	9 ft 2 in (2 794 mm)				
<b>H.</b> Ground clearance	14.2 in (361 mm)				
<b>Length:</b>					
<b>I.</b> Blade straight with drawbar	14 ft 5 in (4 394 mm)				
Blade straight with ripper	17 ft 2 in (5 232 mm)				
<b>Width:</b>					
<b>J.</b> Blade straight	8 ft 8 in (2 642 mm)	9 ft 4 in (2 845 mm)	9 ft 4 in (2 845 mm)	10 ft 0 in (3 048 mm)	10 ft 4 in (3 150 mm)
Blade angled	7 ft 8 in (2 337 mm)	8 ft 6 in (2 590 mm)	8 ft 6 in (2 590 mm)	9 ft 3 in (2 820 mm)	9 ft 4 in (2 845 mm)
<b>K.</b> Over track	6 ft 8 in (2 030 mm)	6 ft 8 in (2 030 mm)	7 ft 10 in (2 390 mm)	7 ft 10 in (2 390 mm)	8 ft 2 in (2 490 mm)

NOTE: Ground clearance and overall height dimensions are with the grousers fully penetrated. Add 2.07 in (52.5 mm) if unit is on solid surface.

## STANDARD EQUIPMENT

### OPERATOR ENVIRONMENT

See page 1

### ENGINE

F4HFE413P  
Tier 4 Interim Certified  
Automatic fan belt tensioner  
Integral engine oil cooling  
Fuel filter  
Dual element air cleaner  
120 amp alternator  
925 CCA 24-volt battery  
Engine side panels  
Anti-freeze to -34° F  
Pusher fan

### DRIVETRAIN

Dual path infinitely variable, single-lever controlled hydrostatic drive, with electronic straight tracking, power turns and counter-rotation  
Final drive:  
Triple reduction; helical gear/planetary decelerator with hydrostatic drive retardation  
Spring-applied hydraulic release parking brake

### BLADE

52° – 60° variable pitch, with integral adjustment tool  
Single lever control for blade lift, angle and tilt

### UNDERCARRIAGE

Hydraulic track adjusters  
Easy clean track covers  
Case Lubricated Track Chain  
Permanently lubricated track and carrier rollers  
Track adjuster guard  
Track guides – front and rear  
Shock resistance idler mounting

### OTHER

Anti-vandalism package  
Backup alarm  
Horn  
Work lights:  
2 front  
1 rear  
Master disconnect switch  
Mirror  
Pre-cleaner  
Front pull hook  
Rear transmission guard

### TELEMATICS

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

## OPTIONAL EQUIPMENT

### OPERATOR ENVIRONMENT

Cab with heat, A/C, defroster, lights  
Seat belt – 3 in (76 mm)  
Rear wiper for cab  
Radio

### HYDRAULICS

4-spool hydraulic valve for field-installed ripper

### REAR MOUNTED EQUIPMENT

Ripper – 5 position with 3 shanks  
Hydraulic pump with PTO  
Rear tow hook  
Drawbar

### BLADES

96 in (2 438 mm)  
104 in (2 642 mm)  
112 in (2 855 mm)  
120 in (3 058 mm)  
124 in (3 160 mm)

### GUARDS

Sweeps  
Center rock guard

### SCREENS

Radiator brush screen  
Sandblast screen

### OTHER

Environmental drains  
Case Extended Life Track  
Additional work lights  
Front counterweight  
Blade guidance ready – Trimble  
Blade guidance ready – Leica  
Blade guidance ready – Topcon  
Rearview mirror  
Cold start aid – grid heater:  
with dual 12-volt battery

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