

850M

LT/WT/LGP

TIER 4 FINAL CERTIFIED



ENGINE	
Model	FPT F4HFE413P*A008
Emissions Certification	Tier 4 Final Certified
Cylinders	4
Displacement	275 in ³ (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 Rated - full load	2000
Low idle	2000 +/- 50 1100 +/- 25
Horsepower @ 2000 RF	PM – SAE J1349:

Horsepower @ 2000 RPM - SAI	E 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 hydrostation Pump Motor	c: Variable axial piston Variable bent axis piston
Max drawbar pull*	41,010 lb (182.4 kN)
Transmission	Single lever control – electronic straight tracking
Transmission oil filte replaceable	r 4 micron, spin-on w/ 100 mesh suction screen
Travel speeds*: Forward Reverse	5.4 mph (8.7 kph) 5.4 mph (8.7 kph)
Parking brakes	Heavy-duty, spring-applied, hydraulic release disc
Steering brakes	Hydrostatic
Final drive	2 helical gear eduction to planetary output
Ratio	62.4:1
Transmission cooling Type Core size	g: Oil to water 417 in2 (0.27 m2)

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

ELECTRICAL

Alternator	120 amp
Battery	(2) 12-volt, low-maintenance
925 c	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 3 in (76 mm) seat belt; Adjustable armrest; Two foot rest; Rearview mirror; Two door windshield wipers; Dome light; 12-volt accessory outlet; Headliner; Floor mat; Rear Wiper; Radio; Heat/AC.

Warning lights:

Air filter; Alternator; Diagnostic fault indicator; Engine coolant temperature; Engine oil pressure; Hydraulic filter; Low fuel level; DEF fluid 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	21,980 lb (9 970 kg)
Wide Track	22,750 lb (10 320 kg)
LGP	23,250 lb (10 547 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)
MAX LIFE chain:	
18 in (457 mm)	39 lb (17.7 kg)
20 in (508 mm)	39 lb (17.7 kg)
24 in (610 mm)	87 lb (39 kg)
28 in (711 mm)	87 lb (39 kg)
Center rock guard	326 lb (148 kg)
Sweeps	139 lb (63 kg)

HYDRAULICS

Rod diameter

Stroke

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) 3.50 in (88.9 mm) Bore diameter

1.75 in (44.4 mm)

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	26 gal (98.4 L)
Track rollers - each	0.27 qt (0.26 L)
Front idler	0.35 qt (0.33 L)
Carrier roller	0.20 qt (0.19 L)
DEF tank	12.0 gal (45.4 L)

OTHER SPECIFICATIONS

Undercarriage: Track adjustment

Track adjustment Hydraulic Frame Rigid suspension

Length of track on the ground:

SALT HD 92.6 in (2 352 mm)
MAX LIFE 93.4 in (2 373 mm)
Track link pitch 6.73 in (171 mm)
Track shoe height 2.09 in (53 mm)
Pin diameter 1.42 in (36 mm)
Bushing diameter:

SALT HD 2.39 in (60.7 mm)
MAX LIFE 3.15 in (80 mm)
Track shoes per side
Track rollers per side 7
Carrier rollers per side 1

Track roller rail diameter 7.48 in (190 mm)

Track on ground:

Shoe area: 18 in (457 mm) 3,334 in² (21 507 cm²) 20 in (508 mm) 3,704 in² (23 896 cm²)

20 in (508 mm) 3,704 in² (23 896 cm²) 24 in (610 mm) 4,448 in² (28 694 cm²) 28 in (711 mm) 5,184 in² (33 445 cm²)

Track:

Long track:

18 in (457 mm) closed grousers and SALT HD 18 in (457 mm) open grousers and MAX LIFE 20 in (508 mm) closed grousers and SALT HD 20 in (508 mm) open grousers and MAX LIFE

Wide track:

20 in (508 mm) closed grousers and SALT HD 20 in (508 mm) open grousers and MAX LIFE 24 in (610 mm) closed grousers and SALT HD 24 in (610 mm) open grousers and MAX LIFE

Low ground pressure:

28 in (711 mm) closed grousers and SALT HD 28 in (711 mm) open grousers and MAX LIFE

Blade:

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:
96 in 0.62 in (15.875 mm)
104 in 0.75 in (19.05 mm)

0.62 in (15.875 mm)

0.75 in (19.05 mm)

0.75 in (19.05 mm)

30.9 in (785 mm)

Ripper:

 Max penetration
 14.0 in (355 mm)

 Width
 73.1 in (1 856 mm)

 Cut width
 70.1 in (1 781 mm)

 Max ground clearance
 16.8 in (426 mm)

 Max. number of shanks
 3

Tooth spacing: w/ 3 teeth Hydraulic cylinder

112 in

120 in

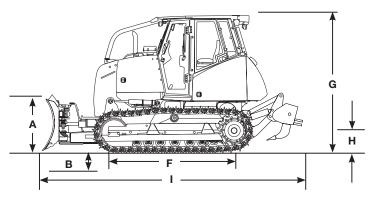
124 in

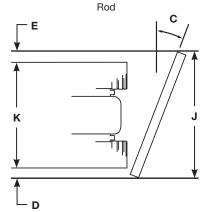
 rdraulic cylinder
 Double-acting

 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	j 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 yd³ (1.65 m³)	2.35 yd³ (1.80 m³)	2.35 yd ³ (1.80 m ³)	2.53 yd³ (1.93 m³)	2.62 yd ³ (2.00 m ³)
A. Blade height	36.0 in (910 mm)				
B. Blade lift above ground	34.0 in (864 mm)				
C. Blade depth below ground	19.2 in (488 mm)				
Blade angle both directions	25°	25°	25°	25°	25°
D. Cast reach	-0.7 in (-17.3 mm)	3.4 in (86.3 mm)	-2.6 in (-66.5 mm)	0.9 in (22.0 mm)	0.6 in (14.9 mm)
E. Cut reach	12.5 in (318.1 mm)	16.5 in (418.2 mm)	10.5 in (265.7 mm)	14.0 in (355.8 mm)	13.9 in (352.0 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)
F. Length of track on ground:					
SALT HD	92.6 in (2 352 mm)				
MAX LIFE	93.4 in (2 373 mm)				
Area of track on ground	3,704 in ² (2.38 m ²)	3,704 in ² (2.38 m ²)	4,448 in ² (2.87 m ²)	4,448 in ² (2.87 m ²)	5,186 in ² (3.34 m ²)
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)
G. Height to top of cab	9 ft 1 in (2 769 mm)				
with air conditioning	9 ft 2 in (2 794 mm)				
H. Ground clearance	14.4 in (366 mm)				
Length:					
Blade straight with drawbar	14 ft 9 in (4 567 mm)				
I. Blade straight with ripper	17 ft 4 in (5 277 mm)				
Width:					
J. 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	8 ft 0 in (2 438 mm)	8 ft 8 in (2 643 mm)	8 ft 8 in (2 653 mm)	9 ft 4 in (2 821 mm)	9 ft 7 in (2 921 mm)
K. Over track	6 ft 9 in (2 066 mm)	6 ft 10 in (2 083 mm)	7 ft 4 in (2 322 mm)	7 ft 10 in (2 386 mm)	8 ft 2 in (2 488 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.

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STANDARD EQUIPMENT

OPERATOR ENVIRONMENT

See page 1

ENGINE

Pusher fan

F4HFE413P*A008 Tier 4 Final Certified Automatic fan belt tensioner Integral engine oil cooling Fuel filter Dual element air cleaner 120 amp alternator 925 CCA 24-volt battery Coolant Heated DEF Lines Anti-freeze to -34° F

Hinged engine side panels

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 Sealed and Lubricated Track Chain (SALT) Permanently lubricated track and carrier rollers Track adjuster guard Track guides - front and rear

Shock resistance idler mounting

OTHER

Backup alarm Horn Work lights:

2 front

Master disconnect switch

Mirror

Turbine Pre-cleaner Front pull hook Rear tow hook

Sweeps

Environmental Drain

4-Spool Hydraulic Valve with plugs for field installed Ripper

Transport Protection Anti-vandalism package Rear Transmission Guard

TELEMATICS

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

PROCARE

CASE ProCare - Full Machine Protection Factory Warranty (3-yr/3000-hr), Planned Maintenance (3-yr/2000-hr) and SiteWatch telematics

OPTIONAL EQUIPMENT

REAR MOUNTED EQUIPMENT

Ripper - 5 position with 3 shanks Hydraulic pump with PTO Drawbar

BLADES

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

GUARDS

Center rock guard

SCREENS

Radiator brush screen Sandblast screen

OTHER

CASE Extended Life Track Additional work lights Front counterweight Rearview mirror Severe Cold Weather Package Cold start aid - grid heater: with dual 12-volt battery

PRECISION

Factory Fit CoPilot Factory Fit 2D Laser Factory Fit 3D GNSS Leica Blade Guidance Ready Trimble Blade Guidance Ready Topcon Blade Guidance Ready

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