CASE CONSTRUCTION

850M

DOZER

LT/WT/LGP

TIER 4 FINAL CERTIFIED



ENGINE

Model	FPT F4HFE413P*A008
Emissions Certification	Tier 4 Final Certified
Cylinders	4
Displacement	275 in³ (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	2000
Rated - full load	2000 +/- 50
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*	41,010 lb (182.4 kN)
Transmission	Single lever control – electronic straight tracking
Transmission oil filter	4 micron, spin-on replaceable w/ 100 mesh suction screen
Travel speeds*:	
Forward	5.4 mph (8.7 kph)
Reverse	5.4 mph (8.7 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 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 cold-cranking amps @ -4° F (-20° C)
Electrical System	24 Volts

OPERATOR ENVIRONMENT

ROPS Canopy: Isolation mounted, Single lever control for speed, steering and direction; Vinyl mechanical suspension seat that tilts for access, Retractable 3 in (76 mm) seat belt; Adjustable armrests; Foot rests; Rearview mirror.

Optional ROPS cab: Cloth air suspension seat w/ back adjustment; Two door windshield wipers; Rear wiper, Dome light; 12-volt accessory outlet; Headliner; Floor mat; Blue tooth Radio; Heat/AC, additional rear mirror.

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/ cab, full fuel tank, full hydraulic tank, 170 lb (77 kg) operator, 20 in SALT HD Chain, 104 in Blade Width, Drawbar, and All Other Standard Equipment

Long track	22,319 lb (10 124 kg)
Wide track	22,381 lb (10 152 kg)
Low ground pressure	22,381 lb (10 152 kg)
Add-on weights:	
Drawbar	Incl. 128 lb (58 kg)
Ripper – 3 shank	1,400 lb (635 kg)
Winch	1,960 lb (889 kg)
Front counterweight	818 lb (371 kg)
Open ROPS	-560 lb (-254 kg)
Radiator Brush Screen	21 lb (9.5 kg)
Rear Screen	71 lb (32 kg)
Blades:	
104 in Blade	Incl. 1,280 lb (581 kg)
112 in Blade	53 lb (24 kg)
124 in Blade	207 lb (94 kg)
Tracks:	
SALT Chain 20 in	Incl. 1,989 lb (902 kg)
SALT Chain 24 in	421 lb (191 kg)
SALT Chain 28 in	842 lb (382 kg)
Max-Life Closed Chain 18 in	92 lb (42 kg)
Max-Life Closed Chain 24 in	514 lb (233 kg)
Max-Life Closed Chain 28 in	424 lb (934 kg)

NOTE: Subtract 15 kg for Max-Life Open

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	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

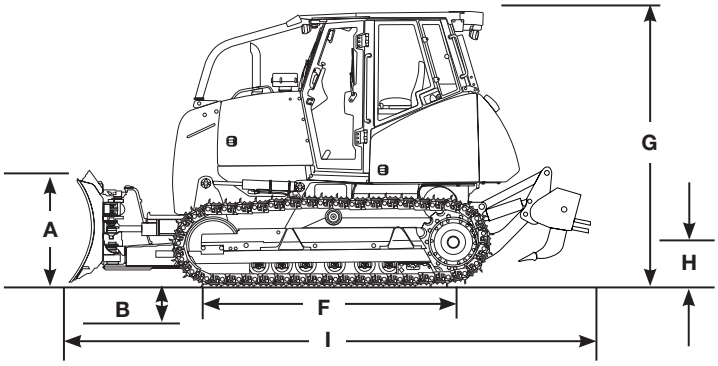
Undercarriage:	
Track adjustment	Hydraulic
Frame	Rigid suspension
Length of track on the ground:	
SALT HD track	92.6 in (2 352 mm)
Max-Life track	93.4 in (2 373 mm)
Track link pitch	6.73 in (171 mm)
Track shoe height	2.09 in (53 mm)
Pin diameter	1.42 in (36 mm)
Bushing diameter:	
SALT HD track	2.39 in (60.7 mm)
Max-Life track	3.15 in (80 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)

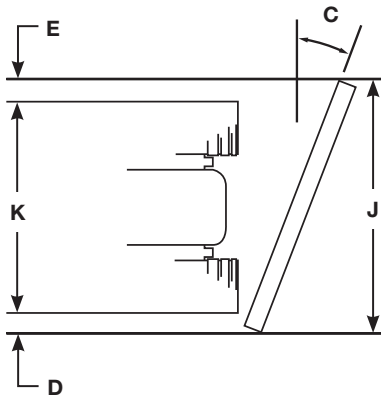
Track on ground:	
Shoe area:	
18 in (457 mm)	3,334 in² (21 507 cm²)
20 in (508 mm)	3,704 in² (23 896 cm²)
24 in (610 mm)	4,448 in² (28 694 cm²)
28 in (711 mm)	5,184 in² (33 445 cm²)

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:	
104 in	0.75 in (19 mm)
112 in	0.62 in (16 mm)
124 in	0.75 in (19 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	30.9 in (785 mm)
Hydraulic 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 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)	124 in (3 150 mm)	124 in (3 150 mm)
SAE blade capacity	2.16 yd³ (1.65 m³)	2.35 yd³ (1.80 m³)	2.35 yd³ (1.80 m³)	2.62 yd³ (2.00 m³)	2.62 yd³ (2.00 m³)
A. Blade height	36.0 in (910 mm)	36.0 in (910 mm)	36.0 in (910 mm)	36.0 in (910 mm)	36.0 in (910 mm)
B. Blade lift above ground	34.0 in (864 mm)	34.0 in (864 mm)	34.0 in (864 mm)	34.0 in (864 mm)	34.0 in (864 mm)
C. Blade depth below ground	19.2 in (488 mm)	19.2 in (488 mm)	19.2 in (488 mm)	19.2 in (488 mm)	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)	15.8 in (401.1 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)	4.6 in (67.4 mm)	13.9 in (352.0 mm)
Blade tilt, each end (+/- 9.4°)	8.32 in (211 mm)	9.04 in (230 mm)	9.04 in (230 mm)	9.98 in (253 mm)	9.98 in (253 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	93.1 in (2 365 mm)	93.1 in (2 365 mm)	93.1 in (2 365 mm)	93.1 in (2 365 mm)	93.1 in (2 365 mm)
Max-Life	93.9 in (2 385 mm)	93.9 in (2 385 mm)	93.9 in (2 385 mm)	93.9 in (2 385 mm)	93.9 in (2 385 mm)
Area of track on ground	3,724 in² (2.4 m²)	3,724 in² (2.4 m²)	4,472 in² (2.89 m²)	4,472 in² (2.89 m²)	5,213 in² (3.36 m²)
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 (2 766 mm)	9 ft 1 in (2 766 mm)	9 ft 1 in (2 766 mm)	9 ft 1 in (2 766 mm)	9 ft 1 in (2 766 mm)
with air conditioning	9 ft 1 in (2 766 mm)	9 ft 1 in (2 766 mm)	9 ft 1 in (2 766 mm)	9 ft 1 in (2 766 mm)	9 ft 1 in (2 766 mm)
H. Ground clearance	14.4 in (366 mm)	14.4 in (366 mm)	14.4 in (366 mm)	14.4 in (366 mm)	14.4 in (366 mm)
Length:					
Blade straight with drawbar	14 ft 9 in (4 567 mm)	14 ft 9 in (4 567 mm)	14 ft 9 in (4 567 mm)	14 ft 9 in (4 567 mm)	14 ft 9 in (4 567 mm)
I. Blade straight with ripper	17 ft 4 in (5 277 mm)	17 ft 4 in (5 277 mm)	17 ft 4 in (5 277 mm)	17 ft 4 in (5 277 mm)	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 4 in (3 150 mm)	10 ft 4 in (3 150 mm)
Blade angled	8 ft 0 in (2 440 mm)	8 ft 8 in (2 643 mm)	8 ft 8 in (2 653 mm)	9 ft 7 in (2 911 mm)	9 ft 7 in (2 911 mm)
K. Over track	6 ft 9 in (2 065 mm)	6 ft 10 in (2 083 mm)	7 ft 7 in (2 320 mm)	7 ft 10 in (2 388 mm)	8 ft 2 in (2 489 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*A008
Tier 4 Final Certified
DOC + SCR
Automatic fan belt tensioner
Integral engine oil cooling
Fuel filter
Dual element air cleaner
120 amp alternator
950 CCA (2) 12-volt batteries
Coolant Heated DEF Lines
Anti-freeze to -34° F
Pusher fan
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
15 incremental speed settings and adjustable forward/reverse speed differential setting
Operator preference settings for max. speed, shuttle sensitivity and steering sensitivity
Decelerator with selectable engine decel mode or transmission braking mode

BLADE

52° – 60° variable pitch, with integral adjustment tool
Single lever electro-hydraulic 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
HD track covers
Undercarriage Spade Shovel holder
Heavy duty track frame, sprocket and mounting pads
High visibility track idler

OTHER

Backup alarm
Horn
Premium LED work light package
4 total in front
2 total in rear
Master disconnect switch
Turbine Pre-cleaner
Front pull hook
Drawbar
Sweeps
Environmental Drain
4-Spool electro-hydraulic valve with plugs for field installed ripper
Transport Protection
Anti-vandalism package
Rear Transmission Guard
Additional Rear mirror (Cabs only)
Hinged grill
Operator's manual enclosure
Diagnostic check ports
Two additional power sources available for heater, air seat, or auxiliary 12-volt port

TELEMATICS

CASE SiteWatch™ 4G Telematics – includes hardware and a 5-yr Advanced data subscription

PROCARE

CASE ProCare – Full Machine Protection Factory Warranty (3-yr/3000-hr), Planned Maintenance (3-yr/2000-hr) and SiteWatch 4G Telematics

OPTIONAL EQUIPMENT

REAR MOUNTED EQUIPMENT

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

BLADES

104 in (2.64 m) LT
112 in (2.86 m) LT/WT/LGP
124 in (3.16 m) WT/LGP

SCREENS

Radiator brush screen
ROPS side screen
ROPS/CAB rear

OTHER

Case Max-Life track
Front counterweight
Severe Cold Weather Package
Rear-view Camera (Cab only)

PRECISION

Factory Fit CoPilot
Factory Fit 2D Laser
Factory Fit 3D GNSS
Universal Blade Guidance Ready

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Biodiesel Ready

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.

SAFETY™ NEVER HURTS

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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