

CRAWLER DOZER

CASE

CONSTRUCTION

SINCE 1842.

1650M

ENGINE

Brand	FPT
Model	F4HFA613M*E003
Type	Turbo charged, water cooled. 4-stroke cycle diesel engine. Electronic fuel injection with crank case shield, Tier 2 certified
Cylinders	6
Bore and stroke	4.09 x 5.2 in (104 x 132 mm)
Displacement	409 in ³ (6,7 l)
Direct injection	Common Rail
Fuel	Diesel
Fuel filter	Spin-on w/ in-line strainer
Cooling System	Liquid
Engine rotations - rpm	
High - neutral without load	2,200 +/- 50
Nominal - full load	2,200
Low idle	800 +/- 25
Power @ 2,000 rpm - ISO 14396	
Gross (SAE J1349)	164 hp (122 kW)
Net (SAE J1349)	150 hp (112 kW)
Torque @ 1,500 rpm	
Gross	535 lbf.ft (726 Nm)
Net	491 lbf.ft (666 Nm)
Engine lubrication	
Pump	Deep sump plate cooler w/ pressurized under-piston nozzles
Operating angle	
Sideways	35°
Longitudinal	45°
Oil filter	Replaceable, spin-on full-flow cartridge
Radiator	
Fins per inch	10
Fan propeller	Diameter 27.6 in (700 mm)

POWER TRAIN

Dual path hydrostatic:	
Pump	Variable axial piston
Motor	Variable bent axis piston
Maximum traction force*	61,200 lbf (272.2 kN)
Transmission	Commanded by a single electronically controlled lever
Oil filter	Replaceable cartridge with filtering up to 4 micron with a 100 mesh suction screen
Displacement speeds	
Forward	5.8 mph (9.3 km/h)
Reverse	5.8 mph (9.3 km/h)
Parking brake	SAHR (Applied through spring actuation, released hydraulically)
Steering Brakes	Hydrostatic
Final command	2 helical gear reductions and a planetary reduction
Reduction ratio	60.9:1
Transmission cooling	
Type	Oil to air
Core frontal area	512 in ² (0.33 m ²)

ELECTRICAL SYSTEM

Alternator	120 A
Batteries	2x 12V in series, maintenance free 925 CCA @ 0° F
Voltage	24 V

HYDRAULIC SYSTEM

Pump flow @ 2,200 rpm with 2,830 psi (195 bar)	39.4 gpm (149 L/min)
PAT lifting cylinders	2
Diameter of the cylinder	4.5 in (114.3 mm)
Diameter of the cylinder rod	2.5 in (63.5 mm)
Stroke	16.9 in (428.8 mm)
PAT blade angling cylinders	2
Diameter of the cylinder	4.5 in (114.3 mm)
Diameter of the cylinder rod	2.5 in (63.5 mm)
Stroke	19.8 in (502.7 mm)
PAT inclination cylinder	1
Diameter of the cylinder	5.0 in (127.0 mm)
Diameter of the cylinder rod	2.5 in (63.5 mm)
Stroke	5.8 in (148.3 mm)
Bulldozer lifting cylinder	2
Diameter of the cylinder	3.8 in (95.3 mm)
Diameter of the cylinder rod	2.3 in (57.2 mm)
Stroke	35.7 in (906.0 mm)
Bulldozer inclination cylinder	1
Diameter of the cylinder	4.5 in (114.3 mm)
Diameter of the cylinder rod	2.5 in (63.5 mm)
Stroke	3.9 in (98.9 mm)

OPERATOR COMPARTMENT

Cab

Fully enclosed ROPS cab
Single lever control for speed, steering and direction
Cloth air suspension seat w/ back adjustment
Retractable 3 in (76,2mm) 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

Gauges

Battery voltage
Fuel level
Digital hour meter
Tachometer
Diagnosis
Service reminder
Transmission oil temperature
Transmission speed indicator
Cooling fluid temperature

Audible warnings

Engine coolant temperature
Engine oil pressure
Low fuel level
Transmission charge pressure
Temperature/hydraulic temperature

SERVICE CAPABILITIES

Fuel Tank	85.1 gal (322.0 L)
Engine oil with filter	17.3 qt (16.4 L)
Engine oil without filter	16.5 qt (15.6 L)
Engine cooling system	8.5 gal (32.0 L)
Hydraulic tank	54.2 gal (205.0 L)
Final drive – per side	16.5 qt (15.6 L)
Track rollers – each	0.264 qt (0.250 L)
Front idlers – each	0.349 qt (0.330 L)
Carrier rollers – each	0.285 qt (0.270 L)

OPERATING WEIGHT

Unit equipped w/ cab, full fuel and hydraulic tanks, 170 lb (77 kg) operator, SALT chain, front pull hook, rear retrieval hitch, track guides, backup alarm, horn, lights, track shoe and PAT blade.

Long track	37,756 lb (17 123 kg)
LGP	39,557 lb (17 940 kg)

Add-on weights:

Drawbar	146 lb (66 kg)
Ripper 3 Shank	3,857 lb (1 749 kg)
Winch	2,331 lb (1 057 kg)
Center rock guard	417 lb (189 kg)

OTHER SPECIFICATIONS

UNDERCARRIAGE

Adjustment of tracks	Hydraulic
Frame	Pivot shaft and oscillating equalizer beam suspension
Length of the tracks on the ground	
SALT	121.5 in (3 087 mm)
Track pitch	
Distance between the shoes	7.5 in (190 mm)
Grouser height	2.2 in (55.5 mm)
Pin diameter	1.5 in (38 mm)
Bushing diameter	2.55 in (65 mm)
Number of shoes	45
Rollers	
Lower (each side)	8
Upper (each side)	2
Lower diameter of the rollers	8 in (203 mm)
Upper diameter of the rollers	6.75 in (171.5 mm)

TRACK

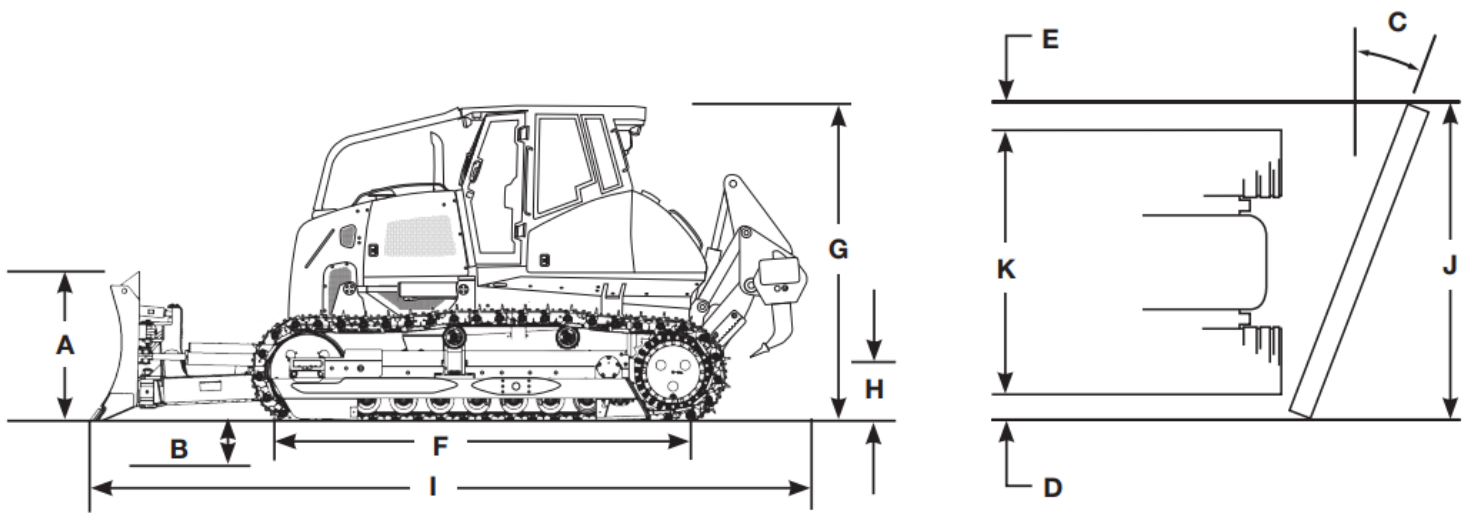
Shoe area:	
22 in (559 mm)	5,358 in ² (34 571 cm ²)
24 in (610 mm)	5,741 in ² (37 040 cm ²)
28 in (711 mm)	6,794 in ² (43 831 cm ²)
32 in (813 mm)	7,751 in ² (50 004 cm ²)
34 in (864 mm)	8,181 in ² (52 782 cm ²)

BLADE

Variable blade inclination	55° – 60°
Lifting speed	19 in/sec (483 mm/seg)
Reversible and replaceable cutting edges	
Width	7.8 in (200 mm)
Thickness	0,78 in (20 mm)

RIPPER

Maximum penetration	21.5 in (546 mm)
Width	85.0 in (2 159 mm)
Cutting width	74.4 in (1 890 mm)
Maximum free space over the ground	24.1 in (611 mm)
Maximum number of teeth	3
Clearance between the teeth with 3 shanks	37.2 in (945 mm)
Double action hydraulic piston	1
Diameter	5.25 in (134 mm)
Stroke	23.5 in (597 mm)
Diameter of the rod	2.75 in (70 mm)



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

DIMENSIONS

	"Extra Long Track (XLT) with Semi U"	"Extra Long Track (XLT) with PAT"	"Low Ground Pressure (LGP) with PAT"
Blade width	131 in (3 322 mm)	130 in (3 302 mm)	156 in (3 962 mm)
SAE blade capacity	6.33 yd ³ (4.84 m ³)	4.28 yd ³ (3.27 m ³)	5.22 yd ³ (3.99 m ³)
A. Blade height	52.0 in (1 321 mm)	46.3 in (1 176 mm)	46.3 in (1 176 mm)
Blade lift above ground	44.3 in (1 124 mm)	42.4 in (1 077 mm)	42.5 in (1 077 mm)
B. Blade depth below ground	22.5 in (572 mm)	19.8 in (503 mm)	19.8 in (503 mm)
C. Blade angle both directions	0°+/-	25°	25°
D. Cast reach	16.3 in (414 mm)	17.2 in (437 mm)	19.2 in (487 mm)
E. Cut reach	16.3 in (414 mm)	0.9 in (24 mm)	3.0 in (76 mm)
Blade tilt, each end – up to 8.3°	16.1 in (410 mm)	17.7 in (450 mm)	21.7 in (550 mm)
Track gauge	76 in (1.93 m)	76 in (1.93 m)	86 in (2.18 m)
Maximum shoe width	24 in (600 mm)	24 in (600 mm)	34 in (855 mm)
F. Length of track on ground	121.5 in (3.09 m)	121.5 in (3.09 m)	121.5 in (3.09 m)
Area of track on ground	5,741 in ² (3.7 m ²)	5,741 in ² (3.7 m ²)	8,181 in ² (5.28 m ²)
Ground pressure	6.73 psi (0.46 bar)	6.73 psi (0.46 bar)	4.83 psi (0.33 bar)
G. Height of cab with air conditioner	9 ft 9 in (2 971 mm)	9 ft 9 in (2 971 mm)	9 ft 9 in (2 971 mm)
H. Ground clearance	13.5 in (342 mm)	13.5 in (342 mm)	13.5 in (342 mm)
Length:			
Blade straight with drawbar	19 ft 8 in (5 985 mm)	18 ft 8 in (5 678 mm)	18 ft 8 in (5 678 mm)
I. Blade straight with ripper	24 ft 1 in (7 345 mm)	23 ft 1 in (7 038 mm)	23 ft 1 in (7 038 mm)
Width:			
Blade straight	10 ft 12 in (3 359 mm)	10 ft 10 in (3 302 mm)	13 ft 0 in (3 974 mm)
J. Blade angled	-	9 ft 10 in (3 000 mm)	11 ft 10 in (3 602 mm)
K. Over track	8 ft 4 in (2 530 mm)	8 ft 4 in (2 530 mm)	10 ft 0 in (3 039 mm)

NOTE: Ground clearance and overall height dimensions are with the grousers fully penetrated. Add 2.19 in (56 mm) if unit is on solid surface.

STANDARD EQUIPMENT

Operator Compartment

See page 2

Engine

FPT F4HFA613M*E003

Tier 2 certified

V-Shape Cooling package with hydraulic-driven reversing fan

Integral engine oil cooling

Fuel filter

Dual element radial seal air cleaner

120 amp alternator

(2) 925 CCA 12-volt batteries

Engine side panels.

Blade

55° – 60° variable pitch, with integral adjustment tool

Single lever electro-hydraulic control for blade lift, angle and tilt.

Undercarriage

Hydraulic track adjusters

SALT HD track chain

Permanently lubricated track and carrier rollers and idlers

Track adjuster guard

Track guides – front and rear

Others

Anti-vandalism package

Backup alarm

Horn

Work lights

2 frontal

1 rear

Master disconnect switch

Mirror

Pre-cleaner

Front pull hook

Power Train

Dual path infinitely variable, single-lever controlled hydrostatic drive, with electronic straight tracking and counter-rotation

Final drive:

Triple reduction; helical gear/planetary

decelerator with hydrostatic drive retardation

Automatic spring-applied parking brake.

OPTIONAL EQUIPMENT

Operator Compartment

Cab air quality system

Rear wiper for cab

Radio

Hydraulics

4-spool hydraulic valve for field-installed ripper

3-spool hydraulic valve without plugs for field-installed ripper

3-spool hydraulic valve with plugs

Rear mounted equipment

Ripper – 3 position with 3 shanks

Rear tow hook

Drawbar

Drawbar with step

Blade

PAT – 130 in (3 302 mm)

PAT – 156 in (3 974 mm)

Foldable PAT – 156 in (3 974 mm)

Semi-U – 131 in (3 322 mm)

Guards

CAB canopy brush guard

Center rock guard

Screens

Cab rear screen

Others

Environmental drains

Case Ultra Life Track

Additional work lights

Blade guidance ready – Trimble

Blade guidance ready – Leica

Blade guidance ready – Topcon

Rearview mirror

Cold start aid – grid heater: with dual 12-volt battery

Turbine pre-cleaner



Fleet monitoring and management system by satellite or cel phone tracking.

CASE Corporation reserves the right to make improvements in design or changes in specifications at any time without incurring any obligation to install them on units previously sold. The specifications, descriptions, and illustrative materials contained here reflect correctly the data known up to the publication date, but are subject to changes with no previous notice. The illustrations may include optional equipment and accessories and may not include all standard equipment.

CCEIO109 – 03/2022 – Printed in Brazil

CaseCE.com

CNI
INDUSTRIAL | CAPITAL

Commercial Offices

ARGENTINA

Ávalos 2829 Edif. 1 Piso 4°,

Complejo Urbana

Vicente López (1605) Bs. As.,

Argentina.

Tel: +54 (11) 2034 1400

Manufacturing plants

Contagem – Minas Gerais – Brasil

Av. General David Sarnoff, 2.237

Inconfidentes – C.P. 32210-900

Tel.: +55 31 2104-3392

Sorocaba – São Paulo – Brasil

Av. Jerome Case, 1.801

Éden – C.P. 18087-220

Tel.: +55 15 3334-1700