

SPECIFICATIONS



M-SERIES

CRAWLER DOZERS

1650M SPECIFICATIONS

ENGINE

Model _____ FPT F4HFE6132*A004
 Cylinders _____ 6
 Displacement _____ 6.7 l
 Fuel injection _____ Direct common rail
 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 _____ 2200
 Low idle _____ 800 +/- 25
 Horsepower SAE J1349:
 Engine rated net power _____ 150 hp - 112 kW @ 2200 rpm
 Engine max net power _____ 164 hp - 122 kW @ 2200 rpm
 Engine Peak Power _____ 173 hp - 129 kW @ 1800 rpm
 Rated net torque _____ 666 Nm
 Max net torque _____ 726 Nm

Engine lubrication

Pump _____ Deep sump plate cooler w/ pressurized under-piston nozzles

Pump operating angle ratings:

Side-to-side _____ 35°
 Fore and aft _____ 45°

Radiator:

Core size area (Water Radiator) _____ 0.33 m²
 Rows of tubes _____ 4

Fan

Diameter _____ 700 mm
 Ratio _____ hydraulically driven

POWERTRAIN

Dual path hydrostatic

Pump _____ Variable axial piston
 Motor _____ Variable bent axis piston

Max. drawbar pull* _____ 272 kN

Transmission _____ Single lever control electronic straight tracking

Oil filter _____ 2 micron, spin-on, replaceable

Travel speeds*

Forward _____ 0 – 9.3 km/h

Reverse _____ 0 – 9.3 km/h

Parking brakes _____ Heavy-duty, spring-applied, hydraulic pressure release

Steering brakes _____ Hydrostatic

Final drive _____ 2 helical gear reduction to planetary output

Ratio _____ 61.4:1

TRANSMISSION COOLING

Type _____ Oil to air
 Core size _____ 0.31m²

ELECTRICAL SYSTEM

Alternator _____ 120 amps
 Batteries (2) _____ 12-volt, low-maintenance
 925 cold-cranking amps @ -18°C

OPERATOR ENVIRONMENT

ROPS/FOPS cab; Pneumatically suspended seat; w/ back adjustment; Seat belt; Adjustable armrests; Foot rests; Tool storage area; Headliner; Floor mat; Tilting seat platform; Noise Level 75 dbA.

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; Digital hourmeter/tachometer diagnostic/service reminder; Fuel level; Transmission oil temperature; Transmission speed indicator; Water temperature.

Audible warnings:

Engine coolant temperature; Engine oil pressure; Low fuel level, Transmission charge pressure; Transmission/hydraulic temperature.

HYDRAULICS

Pump flow @ 2200 RPM _____ 149 l/min
 Max pressure _____ 206 bar

Lift Cylinder PAT _____ nr. 2

Bore diameter _____ 114.3 mm

Rod diameter _____ 63.5 mm

Stroke _____ 428 mm

Angle cylinder PAT _____ nr. 2

Bore diameter _____ 114.3 mm

Rod diameter _____ 63.5 mm

Stroke _____ 502.7 mm

Tilt cylinder PAT _____ nr. 1

Bore diameter _____ 127 mm

Rod diameter _____ 63.5 mm

Stroke _____ 148.3 mm

Lift cylinder Bull Dozer

Bore diameter _____ 95.3 mm

Rod diameter _____ 57.2 mm

Stroke _____ 906 mm

Tilt cylinder Bull Dozer

Bore diameter _____ 114.3 mm

Rod diameter _____ 63.5 mm

Stroke _____ 98.9 mm

SPECIFICATIONS

SERVICE CAPACITY

Fuel tank	322 l
AD Blue Tank	52 l
Engine oil w/ filter	16.4 l
Engine oil w/o filter	15.6 l
Engine cooling system	32 l
Hydraulic reservoir	160 l
Final drive - per side	15 l
Track rollers - each	0.25 l
Front idlers - each	0.33 l
Carrier rollers - each	0.27 l

UNDERCARRIAGE

Track adjustment	Hydraulic
Frame	Oscillating equalizer beam suspension and pivot shaft
Track link pitch	
"Heavy-Duty" track	190 mm
"Ultra-Life" track	190 mm
Track shoe height	56 mm
Pin diameter	38 mm
Bushing diameter	
"Heavy-Duty" track	65 mm
"Ultra-Life" Track	86 mm
Track shoes per side	45
Track rollers per side	8
Carrier rollers per side	2
Track roller rail diameter	203 mm

TRACK ON GROUND

Shoe area	
560 mm	34571 cm ²
610 mm	37040 cm ²
710 mm	43831 cm ²
810 mm	50004 cm ²
860 mm	52782 cm ²

PAT BLADE

Variable blade pitch - adjustable	55° +/- 5°
Lift speed - per second	483 mm
Cutting edge	Reversible, replaceable
Width	200 mm
Thickness	20 mm

RIPPER

Max. penetration	545 mm
Width	1953 mm
Cut width	1889 mm
Max. ground clearance	611 mm
Max. number of shanks	3
Tooth spacing	
w/3 teeth	944 mm
Hydraulic cylinder	Double-acting
Diameter	155 mm
Stroke	596 mm
Rod	69 mm

OPERATING WEIGHT

Operating weight includes cab, full fuel and hydraulic tanks, 170 lb (77 kg) operator, "Heavy-Duty" chain, front pull hook, rear retrieval hitch, track guides, back up alarm, horn, lights, track shoe, C-frame and blade width as noted.

	Weight (kg)	Add-on weights	Weight (kg)	"Ultra-Life" Chains	Add on weights (kg)
Extra Long Track	17123 kg PAT 18030 kg Semi-U	Drawbar	66	22" (560 mm)	202
Wide Track	17531 kg PAT	Ripper (3 shank)	1749	24" (610 mm)	200
Low Ground Pressure	17940 kg PAT	Winch	1057	28" (710 mm)	202
				32" (810 mm)	202
				34" (860 mm)	206
				Full Rock Guard	189
				Sweeps	63

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CRAWLER DOZERS

1650M TRACK AND SHOE OPTIONS

XLT (Extra Long Tracks)

		Weight (kg)
560 mm	closed grousers and "Heavy-Duty"	2740
560 mm	open grousers and "Ultra-Life"	2942
610 mm	closed grousers and "Heavy-Duty"	2860
610 mm	open grousers and "Ultra-Life"	3060

WT (Wide Tracks)

		Weight (kg)
710 mm	closed grousers and "Heavy-Duty"	3132
710 mm	open grousers and "Ultra-Life"	3334
810 mm	closed grousers and "Heavy-Duty"	3394
810 mm	open grousers and "Ultra-Life"	3596

LGP (Low Ground Pressure)

		Weight (kg)
860 mm	closed grousers and "Heavy-Duty"	3058
860 mm	open grousers and "Ultra-Life"	3714

BLADE DIMENSIONS	Bull Dozer Semi-U (XLT)	Straight PAT (XLT)	Straight PAT (WT/LGP)	Foldable PAT (WT/LGP)
Blade Capacity SAE J1265	4.84 m ³	3.27 m ³	3.99 m ³	4.04 m ³
Undercarriage available	XLT		WT-LGP	
Blade width	3359 mm	3302 mm	3974 mm	
Blade width in transport position	3359 mm	3000 mm	3609 mm	2855 mm
Transport width	3359 mm	3000 mm	3609 mm	Width depending from tracks: 28": 2894 mm 32": 2994 mm 34": 3039 mm
A Blade height	1319 mm		1176 mm	
Max. Tilt	+/- 410 mm	+/- 450 mm	+/- 550 mm	
Max. Pitch			+/-2.5°	
C Max. Angle	-		+/- 28°	
B Digging depth.	572 mm		503 mm	
Max lift above ground	1124 mm		1077 mm	
D Cast reach track coverage	434 mm	457 mm	559 mm	509 mm
E Cut reach track coverage	434 mm	53 mm	149 mm	99 mm