

SPECIFICATIONS



M-SERIES

CRAWLER DOZERS

2050M SPECIFICATIONS

ENGINE

Model _____ FPT F4FHE613J*A017
 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 _____ 214 hp - 160 kW @ 2200 rpm
 Engine max net power _____ 232 hp - 173 kW @ 2200 rpm
 Engine Peak Power _____ 246 hp-184 kW @ 1800 rpm
 Rated net torque _____ 1004 Nm
 Max net torque _____ 1082 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* _____ 360 kN

Transmission _____ Single lever control electronic straight tracking

Oil filter _____ 2 micron, spin-on, replaceable

Travel speeds*

Forward _____ 0 – 9.8 km/h

Reverse _____ 0 – 9.8 km/h

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

Steering brakes _____ Hydrostatic

Final drive _____ 2 helical gear reduction to planetary output

Ratio _____ 48.75 :1

TRANSMISSION COOLING

Type _____ Oil to air

Core size _____ 0.31m²

ELECTRICAL SYSTEM

Alternator _____ 120 amps

Batteries (2) _____ 12-volt, low-maintenance

1200 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 77.2dba.

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 _____ 179.5 l/min

Max pressure _____ 248 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 _____ 88.9 mm

Rod diameter _____ 57.2 mm

Stroke _____ 1074 mm

Tilt cylinder Bull Dozer

Bore diameter _____ 114.3 mm

Rod diameter _____ 63.5 mm

Stroke _____ 98.9 mm

SPECIFICATIONS

SERVICE CAPACITY

Fuel tank	405 l
AD Blue Tank	62 l
Engine oil w/ filter	16.4 l
Engine oil w/o filter	15.6 l
Engine cooling system	38 l
Hydraulic reservoir	210 l
Final drive - per side	25 l
Track rollers - each	0.35 l
Front idlers - each	0.33 l
Carrier rollers - each	0.31 l

UNDERCARRIAGE

Track adjustment _____ Hydraulic
 Frame _____ Oscillating equalizer beam suspension and pivot shaft

Track link pitch

"Heavy-Duty" track	203 mm
"Ultra-Life" track	203 mm
Track shoe height	71.5 mm
Pin diameter	44.5 mm

Bushing diameter

"Heavy-Duty" track	72 mm
"Ultra-Life" track	93 mm
Track shoes per side	40 LT 45 XLT /WT/LGP

Track rollers per side

LT	7
XLT/WT-LGP	8
Carrier rollers per side	2
Track roller rail diameter	227 mm

TRACK ON GROUND

Shoe area	
610 mm	32856 cm ² LT
	38952 cm ² XLT
710 mm	46093 cm ² WT
760 mm	48690 cm ² WT
910 mm	58753 cm ² LGP

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	491 mm
Width	1953 mm
Cut width	1889 mm
Max. ground clearance	577 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)
Long Track	20213 kg PAT	Drawbar	66	24" (610 mm)	256 (LT)
	20206 kg Straight	Ripper (3 shank)	1933	24" (610 mm)	290 (XLT/WT)
	20336 kg Semi-U	Winch	1057	28" (710 mm)	228
Extra Long Tracks	20599 kg PAT			30" (760 mm)	268
	20592 kg Straight			36" (910 mm)	274
	20722 kg Semi-U				
Wide Tracks	21269 kg PAT			Center rockguard	
	21971 kg PAT Foldable			LT	221
	21431 kg Straight			XLT/WT/LGP	306
Low Ground Pressure	22115 kg PAT			Sweeps	63
	22790 kg PAT Foldable				
	22131 kg Straight				

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2050M TRACK AND SHOE OPTIONS

LT (Long Tracks)

	Weight (kg)
24" (610 mm) closed grousers and "Heavy-Duty"	3280
24" (610 mm) open grousers and "Ultra-Life"	3536

XLT (Extra Long Tracks)

	Weight (kg)
24" (610 mm) closed grousers and "Heavy-Duty"	3690
24" (610 mm) open grousers and "Ultra-Life"	3980

WT (Wide Tracks)

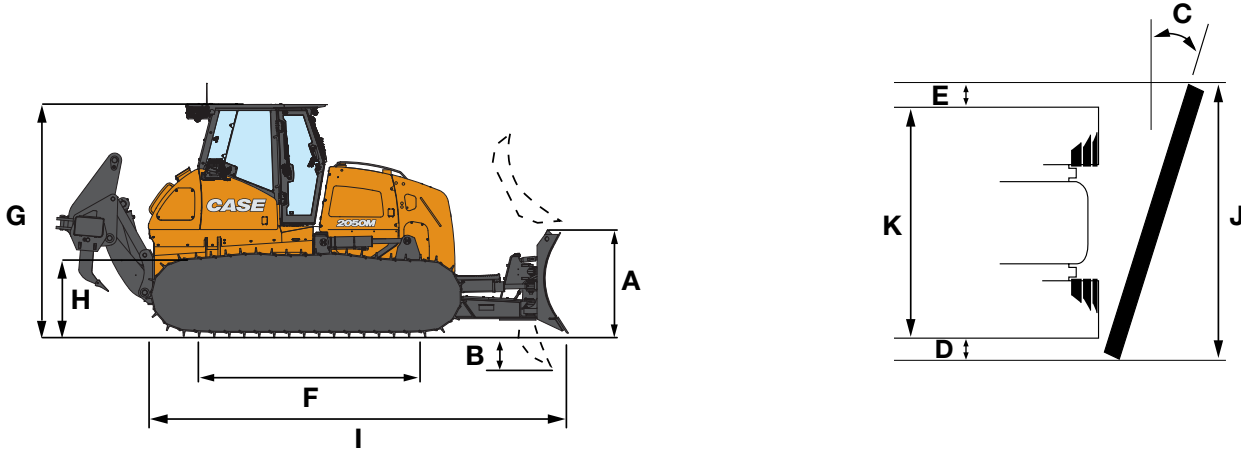
	Weight (kg)
28" (710 mm) closed grousers and "Heavy-Duty"	4096
28" (710 mm) open grousers and "Ultra-Life"	4324
30" (760 mm) closed grousers and "Heavy-Duty"	4230
30" (760 mm) open grousers and "Ultra-Life"	4498

LGP (Low Ground Pressure)

	Weight (kg)
36" (910 mm) closed grousers and "Heavy-Duty"	4744
36" (910 mm) open grousers and "Ultra-Life"	5018

BLADE DIMENSIONS	Bull Dozer Straight	Bull Dozer Straight	Bull Dozer Semi-U	Straight PAT	Straight PAT	Foldable PAT
Blade Capacity SAE J1265	3.22 m ³	3.78 m ³	5.57 m ³	4.83 m ³	5.44 m ³	5.54 m ³
Undercarriage available	LT -XLT	WT - LGP	LT-XLT		WT-LGP	
Blade width	3334 mm	3900 mm	3423 mm	3607 mm	4001 mm	4065 mm
Blade width in transport position	3334 mm	3900 mm	3423 mm	3276 mm	3633 mm	2900 mm
Transport width	3334 mm	3900 mm	3423 mm	3276 mm	3690 mm	Width depending form tracks: 28": 2971 mm 30": 3011 mm 36": 3157 mm
A Blade height	1108 mm		1425 mm		1369 mm	
Max. Tilt	+/-400 mm			+/- 450 mm	+/- 550 mm	
Max. Pitch	+/- 5°				+/- 2.5 °	
C Max. Angle	-				+/- 28°	
B Digging depth.	507 mm	508 mm	547 mm	487 mm		
Max lift above ground	1177 mm		1233 mm		1112 mm	
D Cast reach track coverage	397 mm	367 mm	442 mm	582 mm	477 mm	545 mm
E Cut reach track coverage	397 mm	367 mm	442 mm	148 mm	42 mm	110 mm

2050M GENERAL DIMENSIONS



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

	LT (Long Track)	XLT (Extra Long Track)	WT (Wide Track)	LGP (Low Ground Pressure)
TRACKS				
Track gauge	1940 mm		2261 mm	
Max shoe width	610 mm		760 mm	910 mm
F Track on ground	2769 mm		3246 mm	
Area of track on ground	3.33 m ²	3.96 m ²	4.99 m ²	5.93 m ²
Ground pressure	0.58 kg/cm ^{2*}	0.44 kg/cm ^{2**}	0.42 kg/cm ^{2***}	0.36 kg/cm ^{2****}
DIMENSIONS				
G Height to top of cab			3150 mm	
H Ground clearance			408 mm	
I Length				
- Blade straight with drawbar	5556 mm PAT 5464 mm Straight Semi-U		5964 mm PAT 5980 mm Straight	
- Blade straight with ripper	6929 mm PAT 6837 mm Straight Semi-U		7337 mm PAT 7353 mm Straight	
Width				
- Blade straight	3607 mm PAT 3334 mm Straight 3423 mm Semi-U		4065 mm PAT Foldable 4001 mm PAT Straight 3900 mm Straight	
J Blade angled	3276 mm PAT		3691 mm PAT Foldable 3633 mm PAT Straight	
K Over track	2540 mm with 610 mm shoes		3011 mm with 760 mm shoes	3157 mm with 910 mm shoes

* with 610 mm shoes and PAT blade
 ** with 710 mm shoes and PAT blade
 *** with 760 mm shoes and PAT blade
 **** with 910 mm shoes and PAT blade

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