



**CASE**  
CONSTRUCTION

**M-SERIES**  
**CRAWLER DOZERS**



2050M



# M-SERIES

## CRAWLER DOZERS

### POWER AND EFFICIENCY

**Drawbar pulling leadership:** The hydrostatic transmission and common rail engine deliver best-in-class pulling capacity and controllability. All the working parameters can be customised by the driver for excellent machine controllability and faster cycle times.

**Efficiency boosting electronics:** The new cab controls offer a wide choice of electronic settings and automated functions that make the driver's job easier. Together with the lowest noise level in the market, they minimise fatigue on long working days.

**Customise your dozer:** The M-Series offers a wide choice of attachments such as blades, tracks, rippers, or winches. You can easily specify the configuration that perfectly meets your needs.

**Quick maintenance:** The fully openable side panels enable you to service the M-Series from the ground, while the wide belly plates provide perfect accessibility for extraordinary maintenance.

### NEXT GENERATION ENGINE

The state-of-the-art common rail engine delivers **top performance in load response, max torque, power and fuel economy**. The combustion is optimised for maximum efficiency, occurring at high temperatures and using 100% fresh, cool air, as the air intake is separated from the exhaust. The turbocharged engine with an Air-to-Air intercooler relies on well-proven multi injection technology to maximize torque back-up and fuel efficiency with reduced engine noise and vibrations.



### NEVER ENDING POWER

The powerful FPT Industrial engine ensures high torque back-up under load. When the tractive effort grows and the rpm tends to drop, the engine power increases by up to 16% to reach 1800 rpm. The result is constant performance and higher pulling capacity. In addition, the ability to work with high torque at lower engine rpm reduces engine wear.



# BOOST YOUR PRODUCTIVITY

## DUAL PATH HYDROSTATIC TRANSMISSION

The innovative Hydrostatic Transmission offers Best-in-Class pulling capacity coupled with excellent maneuverability. The triple reduction final drives ensure high torque on the ground, reducing the working pressure of the entire system and improving its overall efficiency.

## “V” SHAPE COOLING PACKAGE

The cooling package of the 2050M has been redesigned and fitted with a hydrostatic reversible fan. In the new design, the radiators are mounted with no overlap, so that each radiator receives fresh air, maintaining constant fluid temperatures. The hydrostatic fan continuously adapts its speed to match the real cooling demand, reducing power absorption. The reversing mode reduces maintenance needs and lengthens cleaning intervals.



## CASE EXTENDED LIFE TRACK

The CASE Extended Life Track (CELT), option on the 2050M is built with a single piece Sprocket ring with a special Tooth profile & open shoes. This feature substantially improves durability, especially in highly abrasive conditions.



# M-SERIES

## CRAWLER DOZERS

### AGILE AND STRONG

The operator has full control of the massive power of the M-Series Dozer. The electrohydraulic joystick allows to customize reversing and steering sensitivity for faster and more efficient cycles. The decelerator pedal can be used either to reduce only travel speed or both travel and engine speed.



### AUTOMATIC BLADE FUNCTIONS

The advanced electronics functions enable the operator to perform specific functions in addition to the standard blade movements. The onboard computer can be set directly from the joystick; the blade reaction can be set choosing from 3 levels of sensitivity; the grading button immediately reduces the speed of the blade by 50% for more accurate soil contour; the shaking mode enables the operator to shed material quickly, especially when working with sticky soil.

### UNMATCHED VISIBILITY

The M-Series cab is engineered for operator performance, comfort and safety. The new positioning, further forward on the machine, ensures complete blade visibility. The operator can work with confidence and more productively in every operation. The air suspended seat is easy to adjust, providing every operator with a perfect working position. The powerful air conditioning system combined with best-in-class noise level provide an excellent working environment, reducing operator stress during long working days.



## FULLY INTEGRATED BLADE CONTROL

The M-Series is ready to work with the most common blade controls available in the market. The machine can be prepared in the factory to a specific configuration, ensuring perfect wire layout, visibility and component integration, guaranteeing that the high standard of reliability of every CASE product is maintained.



## READY FOR EVERY TASK

A wide offering of implements and equipment, such as the 3 shank parallel ripper, can be installed on the new CASE Dozers. A “Semi-U blade” with 2050M is available for Indian market. All CASE dozers offer the patented «Equistatic» system that increases the tilting capability, while reducing the efforts on the pushbeams, increasing the overall frame reliability and reducing the overall wear of components.





# M-SERIES CRAWLER DOZERS

## SIMPLE AND EASY

The hydrostatic transmission means less complexity and lower maintenance requirements than a traditional one. Belly plates on the bottom of the machine provide excellent access to controls and transmission components. The final drive installation on the main dozer frame enables dismounting while leaving the hydrostatic components in place. The transmission can even be reached through the cab floor, so it can be serviced directly on the job site.



## FAST REFUELING

The refilling points (Fuel /Hydraulic Oil) are conveniently placed on the rear of the cab in a well-protected place. The daily maintenance can be done quickly, thanks to dedicated steps that make the access easier and safer.

## GROUND ACCESS FOR SERVICING

The new single piece main frame enables you to service the main controls easily from the ground, simply opening the wide lateral shieldings. Oil levels, battery status, electric components, filters and the emergency cut-off switch are rationally grouped and clearly identified with colour coding. With the M-Series, you can quickly get ready for your working day.



# M-SERIES 2050M

## CRAWLER DOZERS

### ENGINE

|                                      |   |
|--------------------------------------|---|
| Model                                | FPT Industrial Engine F4HE96848                               |
| Cylinders                            | 6   |
| Displacement                         | 6.7 L   |
| Fuel injection                       | Direct common rail  |
| Fuel filter                          | Screw-on, with screen   |
| Air intake                           | Cross-flow  |
| Cooling                              | Liquid  |
| Engine speeds                        | RPM   |
| High idle - no load                  | 2200 +/- 50   |
| Rated - full load                    | 2200  |
| Low idle                             | 800 +/- 25  |
| <b>Horsepower @2200 rpm SAEJ1349</b> |   |
| Net                                  | 160 kW  |
|                                      | Imperial 214 hp   |
|                                      | Metric 218 hp   |
| Gross                                | 173 kW  |
|                                      | Imperial 232 hp   |
|                                      | Metric 235 hp   |
| <b>Horsepower @1800 rpm SAEJ1349</b> |   |
| Gross Peak                           | 184 kW  |
|                                      | Imperial 247 hp   |
|                                      | Metric 250 hp   |
| Max torque                           | 1082 Nm @ 1500rpm   |
| Engine lubrication                   |   |
| Pump                                 | Deep sump plate cooler<br>w/ pressurized under-piston nozzles |
| <b>Pump operating angle ratings</b>  |   |
| Side-to-side                         | 35°   |
| Fore and aft                         | 45°   |
| <b>Radiator</b>                      |   |
| Core size area                       | 0.33 m <sup>2</sup>   |
| Rows of tubes                        | 2   |

### TRANSMISSION COOLING

|           |                     |
|-----------|---------------------|
| Type      | Oil to air          |
| Core size | 0.31 m <sup>2</sup> |

### ELECTRICAL SYSTEM

|            |  |
|------------|--|
| Alternator | 120 amps   |
| Battery    | 12 Volt, low maintenance<br>1000 cold-cranking amps @ -18° C |

### POWERTRAIN

|  |   |
|--|---|
| <b>Dual path hydrostatic</b>   |   |
| Pump   | Variable axial piston                               |
| Motor  | Variable bent axis piston                           |
| Max. drawbar pull  | 360 kN  |
| Transmission   | Single lever control electronic tracking            |
| Oil filter   | 4 micron, spin-on, replaceable                      |
| <b>Travel speeds</b>   |   |
| Forward  | 0-9.3 km/h  |
| Reverse  | 0-9.3 km/h  |
| Parking brakes heavy-duty<br>(Spring applied hydraulically released) |   |
| Steering brakes  | Hydrostatic   |
| Oil Final drive  | 2 helical gear reductions to<br>planetary reduction |
| Reduction ratio  | 48.75:1   |

### BLADE

|                                   |                         |
|-----------------------------------|-------------------------|
| Variable blade pitch - adjustable | 55° to 60°              |
| Lift speed - per second           | 483 mm                  |
| Cutting edge                      | Reversible, replaceable |
| Width (blade HSU)                 | 200 mm                  |
| Thickness                         | 20 mm                   |

### HYDRAULICS

|                         |           |
|-------------------------|-----------|
| Pump Flow@2200 RPM      | 153 L/min |
| Max Pressure            | 248 bar   |
| HSU Blade lift cylinder |           |
| Bore diameter           | 82.6 mm   |
| Rod diameter            | 50.8 mm   |
| Stroke                  | 1000 mm   |
| HSU Blade tilt cylinder |           |
| Bore diameter           | 114.3mm   |
| Rod diameter            | 63.5 mm   |
| Stroke                  | 126 mm    |
| PAT Blade lift cylinder |           |
| Bore diameter           | 114 mm    |
| Rod diameter            | 63.5 mm   |
| Stroke                  | 428.8 mm  |
| PAT Tilt cylinder       |           |
| Bore diameter           | 114.3 mm  |
| Rod diameter            | 63.5 mm   |
| Stroke                  | 502.7 mm  |

### UNDERCARRIAGE

|                            |  |
|----------------------------|--|
| Track adjustment           | Grease injection   |
| Hydraulic frame            | Oscillating equalizer beam<br>suspension and pivot shaft |
| Track link pitch           |  |
| CLT track                  | 203.2 mm   |
| CELT track                 | 203.2 mm   |
| Track shoe height          | 73 mm  |
| Pin diameter               | 44.5 mm  |
| Bushing diameter           |  |
| CLT track                  | 72.7 mm  |
| CELT track                 | 93 mm  |
| Track shoes per side       |  |
| CLT/CELT track             | 45   |
| Track rollers per side     | 8  |
| Carrier rollers per side   | 2  |
| Track roller rail diameter | 187.6 mm   |

### TRACK AND SHOE OPTIONS

|                         |                         |
|-------------------------|-------------------------|
| XLT (EXTRA LONG TRACKS) |                         |
| 610 mm                  | closed grousers and CLT |
| 610 mm                  | open grousers and ECLT  |

### TRACK ON GROUND

|           |                       |
|-----------|-----------------------|
| Shoe area |                       |
| 610 mm    | 39979 cm <sup>2</sup> |

### RIPPER

|                         |               |
|-------------------------|---------------|
| Max. penetration        | 438 mm        |
| Width                   | 1953 mm       |
| Cut width               | 1889.8 mm     |
| Max. ground clearance   | 518 mm        |
| Max. number of shanks   | 3             |
| Tooth spacing w/3 teeth | 930 mm        |
| Hydraulic cylinder      | Double-acting |
| Diameter                | 133.4 mm      |
| Stroke                  | 597 mm        |
| Rod                     | 70 mm         |

### SERVICE CAPACITY

|                        |         |
|------------------------|---------|
| Fuel tank              | 405 L   |
| Engine oil w/filter    | 16.4 L  |
| Engine oil w/o filter  | 15.6 L  |
| Engine cooling system  | 30.8 L  |
| Hydraulic reservoir    | 210 L   |
| Final drive - per side | 25 L    |
| Track rollers - each   | 0.275 L |
| Front idlers - each    | 0.225 L |
| Carrier rollers - each | 0.334 L |

# SPECIFICATIONS

## OPERATING WEIGHT

| 2050M                                |                      |
|--------------------------------------|----------------------|
| Cab                                  | Front pull hook      |
| Full fuel tank                       | Rear retrieval hitch |
| Hydraulics tanks                     | Track guides         |
| Operator                             | 170 lb (77 kg)       |
| CLT chain                            | Horn                 |
| Lights                               | Track shoe           |
| C- frame                             | Blade width as noted |
| WEIGHT (KG)                          |                      |
| Extra Long Tracks                    | 20592 kg Semi-U      |
|                                      | 20599 kg with PAT    |
| ADD-ON WEIGHTS                       |                      |
| Drawbar                              | 66                   |
| Ripper(3 shank)                      | 1355                 |
| Winch                                | 2500                 |
| CELT CHAIN-PER TRACK                 |                      |
| 24" (610 mm)                         | 1789                 |
| Additional weights vs CLT- per track | 43                   |
| Center rock guard                    | 306                  |
| Sweeps                               | 63                   |

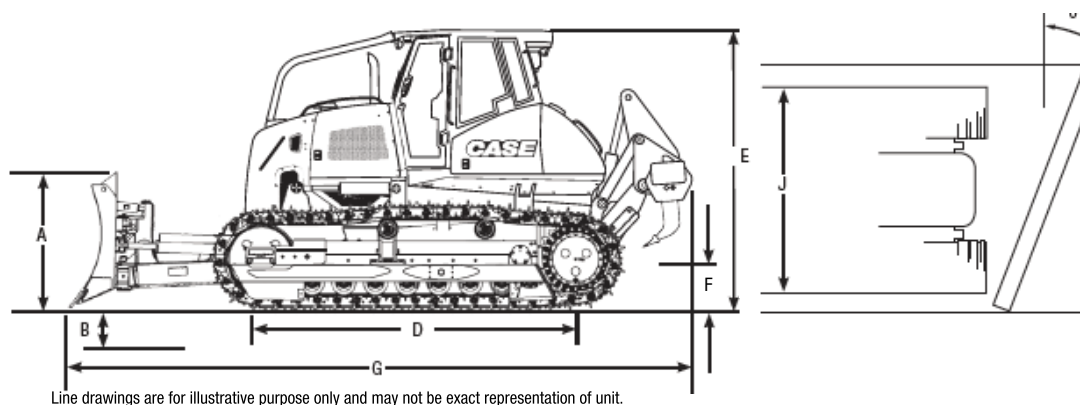
## OPERATOR ENVIRONMENT

ROPS/FOPS cab - pneumatically suspended seat - w/back adjustment - seat belt - arm rests - foot rests - tool storage area - headliner - floor mat - tilting seat platform - noise level 78dbA.

**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 hour meter/tachometer diagnostic/service reminder - fuel level - transmission oil temperature - transmission speed indicator - water temperature.

**Audible alarms** - Engine coolant temperature - engine oil pressure - low fuel level - transmission charge pressure - transmission/hydraulic temperature.



| GENERAL DIMENSIONS |   | 2050M HSU Blade    | 2050M PAT Blade |
|--------------------|---|--------------------|-----------------|
| <b>A</b>           | Blade height                                  | mm                 | 1413            |
|                    | Max. Tilt                                     | mm                 | +/- 433         |
|                    | Max. Pitch                                    | °                  | +/- 5           |
| <b>B</b>           | Digging depth                                 | mm                 | 583             |
|                    | Max. Lift above ground                        | mm                 | 1244            |
| <b>C</b>           | Max. Angle                                    | °                  | -               |
| <b>D</b>           | Track on ground                               | mm                 | 3277            |
|                    | Area of track of ground                       | m <sup>2</sup>     | 4.0             |
|                    | Ground pressure                               | kg/cm <sup>2</sup> | 0.51            |
| <b>E</b>           | Height to top of cab                          | mm                 | 3103            |
| <b>F</b>           | Ground clearance                              | mm                 | 362             |
| <b>G</b>           | Length  | mm                 | 2438            |
|                    | Blade straight with drawbar                   | mm                 | 5387            |
|                    | Blade straight with ripper                    | mm                 | 6869            |
| <b>H</b>           | Blade width                                   | mm                 | 3411            |
|                    | Width of the blade fully placed on the ground | mm                 | 3426            |
| <b>I</b>           | Blade angle of attack                         | °                  | 25.7            |
| <b>J</b>           | Over track width (610 mm shoes)               | mm                 | 2550            |
| <b>M</b>           | Cast reach                                    | mm                 | 438             |
| <b>N</b>           | Cut reach                                     | mm                 | 438             |
|                    | Track Gauge                                   | mm                 | 1940            |
|                    | Max. shoe width                               | mm                 | 610             |
|                    | Blade Capacity SAE J1265                      | m <sup>3</sup>     | 5.6             |
|                    | Undercarriage available                       | mm                 | XLT             |



# STANDARD AND OPTIONAL EQUIPMENT

## STANDARD EQUIPMENT

### ENGINE

FPT Industrial engine NEF Family  
Integral  
engine oil cooling  
Fuel filter  
Dual element radial seat air cleaner  
120 amp alternator  
2 x 12 V batteries  
Engine side panels

### BLADE

50°- 60° variable pitch with Integral Adjustment Tool, Single Lever, Electro-Hydraulic control for blade lift, angle, or tilt "Equistatic" device for dozer version

### POWER TRAIN

Dual path infinitely variable, single-lever  
controlled Hydrostatic drive with Electronic  
Straight Tracking and Counter-rotation  
Forward/reverse ratio control  
3 pre-selectable steering sensitivities  
3 reversing sensitivities  
3 blades sensitivities  
Blade Shaking Mode  
Fine grading mode  
Triple reduction final drive: helical gear/planetary  
Decelerator with hydrostatic drive retardation  
Automatic spring applied parking brake

### UNDERCARRIAGE

Hydraulic track adjusters  
Case Extended Life Track (CELT)  
Chain  
Permanently lubricated (track and carrier rollers/idlers  
Track adjuster guard  
Track guides - front and rear

### OPERATOR ENVIRONMENT

Cab with heater, A/C, defroster, windshield  
wiper and lights  
Seat belt  
76 mm Internal mirror

### OTHER

Reverse gear warning  
Horn  
Lights: 2 in front and 1 in rear  
Master disconnect switch  
Mirror  
Rear transmission guard

## OPTIONAL EQUIPMENT

### REAR MOUNTED EQUIPMENT

Ripper - 5 positions with 3 shanks  
Rear tow hook  
Rear drawbar

### 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

### GUARDS

CAB canopy brush guard  
Center rockguard  
Sweeps

### SCREENS

Cab rear screen  
Radiator brush screen

### OPERATOR ENVIRONMENT

Environmental drain  
Grid heater  
Additional work lights  
Front pull hook  
Rear view mirror  
Rear wiper for cab

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# BUILDING A STRONG CASE.

Since 1842, at CASE Construction Equipment we have lived by an unwavering commitment to build practical, intuitive solutions that deliver both efficiency and productivity.

We continually strive to make it easier for our customers to implement emerging technologies and new compliance mandates.

Today, our global scale combined with our local expertise enables us to keep customers' real-world challenges at the center of our product development.

The vast CASE dealers' network is always ready to support and protect your investment and exceed your expectations, while also providing you with the ultimate ownership experience.

Our goal is to build both stronger machines—and stronger communities. At the end of the day, we do what's right for our customers and our communities so that they can count on CASE.

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NOTE: Standard and optional fittings can vary according to the demands and specific regulations of each country. The illustrations may include optional rather than standard fittings - consult your Case dealer. Furthermore, CNH Industrial reserves the right to modify machine specifications without incurring any obligation relating to such changes.

Conforms to directive 2006/42/EC

