



Massey Harris Massey Ferguson

Operator's Manual

MF50H & MF50HX

Tractor, Loader & Backhoe

Operator's Manual

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or Call 800-443-0625



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MH-O-MF50H

Operator Manual

1472 210 M6

MF 50H/50HX Digger Loader

Including S series

THIS MANUAL IS TO BE
KEPT WITH THE MACHINE
AT ALL TIMES

AftercareTM

by  FERMEC

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Specifications

Fuel injection pump	CAV distributor type with mechanical governor.
Engine speeds (no load)	Low idle 700 - 750 rpm Maximum 2160 rpm
Injection timing	23° before top dead centre. A4 236 engine 24° before top dead centre. A4 248 engine
Injectors	CAV nozzles and holders
Cold-starting aid	CAV Thermostart Mark III C. - Europe/Export Optional ether start system - North America only.
Air cleaner	2 stage dry paper element with additional safety element. Air cleaner restriction warning light on main instrument panel.

Cooling system

Engine coolant	Water/air radiator with pump assisted thermo syphon type. 5 blade asymmetric air fan.
Temperature	Thermostat opens 77 - 82°C (170 - 180°F)
System pressure	0.7 bar (10 lbf/in ²)
Engine lubricating oil	Oil/air type mounted in front of water radiator.
Powershuttle transmission	Oil/air type mounted in front of water radiator
Hydraulic oil cooler (digger/loader models only)	Oil/air type mounted in front of water radiator
Fan belt tension	13 - 19 mm ($\frac{1}{2}$ - $\frac{3}{4}$ inch) measured midway between fan pulley and crankshaft pulley.

Transmission Powershuttle

	4 forward and 4 reverse speeds. All speed shifts are fully synchronised. Forward and reverse direction shift is made by multi-plate, oil cooled, hydraulic clutches.
Torque converter	Fichtel Sachs single stage, two phase type, torque multiplication ratio 2.86:1.
Drive axle - rear	Spiral bevel crown wheel and pinion driving through axle-end epicyclic units giving 10.68 overall reduction.

Instruments and Controls

Seat adjustments (Figure 30 and 31 - Later MF 50H/HX and S models)

Weight (Figure 30)

Whilst seated operate the weight adjustment lever (1) until the indicator (2) is level with the front of the seat frame (3).

Angle (Figure 30)

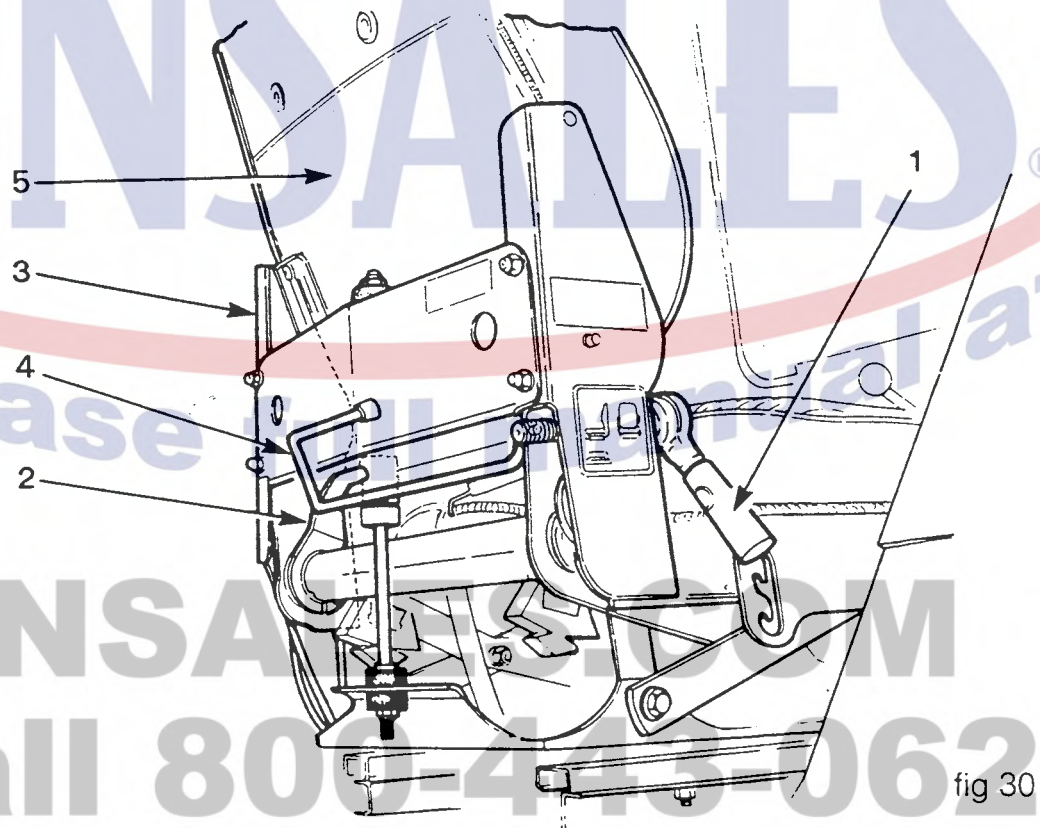
Operate lever (4) to alter the angle of the backrest (5).

Seat positions (Figure 31)

Operate lever (6) to raise or lower the front of the seat cushion (7).

Lift lever (8) to reposition seat forwards or backwards.

For digger operation, lift lever (8) and push seat fully rearwards, against spring pressure, and turn seat through 180°. Repeat operation again to release seat for loader work.



Operation of the Digger

2. Exercise careful control when swinging an extended 'Extendahoe' digger into the cushion zone.
3. **NEVER** swing a laden and extended 'Extendahoe' digger, at maximum speed into the cushion zone.

Off-setting the digging arm (Figure 39) - All side shift models

The side-shift digger can be offset to any position within the limit stops on the backframe. This permits trenches to be dug adjacent to walls or buildings or simply be an efficient way of re-aligning the digging arm to the trench after moving the machine forward.

1. Lower the stabilizers.
2. Swing the digging arm, in the direction it is to be offset, until the arm is parallel with the back frame and extend the digging arm to approximately 3/4 reach, lower the bucket to the ground.
3. Push the clamp control lever fully forward where it will lock into position. Dump the bucket fully and hold it stalled for a moment, the high pressure generated will unlock the digger clamp.
4. Operate the boom and dipperstick controls, to pull the digging arm across the backframe to the desired position. Pull the clamp control lever back and fully dump the bucket again and hold it stalled for a moment, this will securely re-clamp the digger to the backframe.

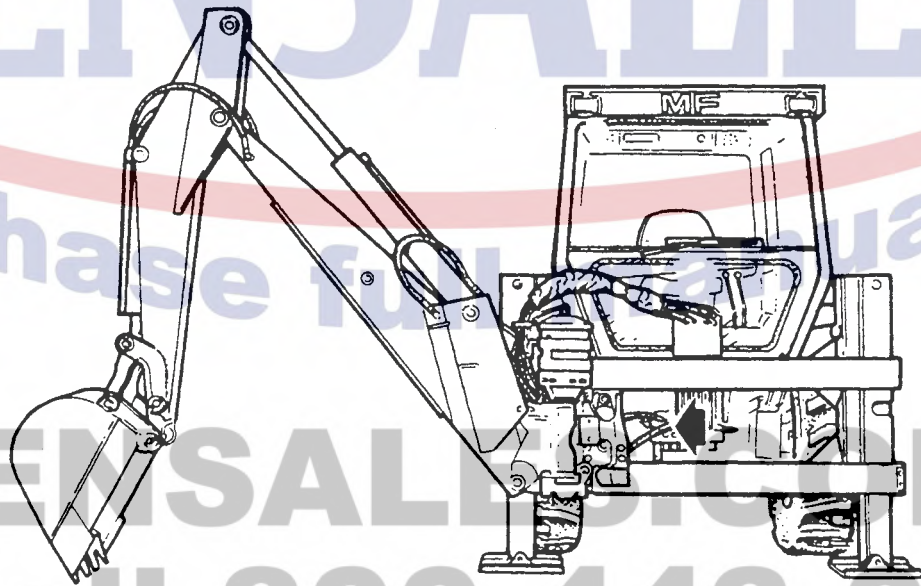


fig 39

Fuel System

Venting the Fuel System

If at any time air enters the fuel system, either due to servicing or running out of fuel, the following procedure should be used:

1. Figure 67 Slacken the outlet union on the fuel filter (1).
2. Operate the pump priming lever (2) on the fuel lift pump until fuel, free of air bubbles, issues from the union, then re-tighten the union.
3. Figure 68 Slacken the lower vent plug (1) on the fuel injection pump and operate the fuel lift pump until fuel, free of air bubbles issues from the vent, then re-tighten the vent plug.
4. Slacken the upper vent plug (2) on the fuel injection pump and operate the priming lever until fuel, free of air bubbles issues from the vent, then re-tighten the vent plug.
5. Slacken the unions (3) at the numbers one and four injectors.
6. **Europe/Export** only-Slacken the fuel feed pipe at the Thermostart unit and operate the fuel lift pump until fuel, free of air bubbles, issues from the pipe, then re-tighten the pipe.
7. Set the throttle fully open and ensure that the fuel cut-off knob is pushed fully in, then crank the engine over with the starter, until the engine begins to run. Re-tighten the unions.

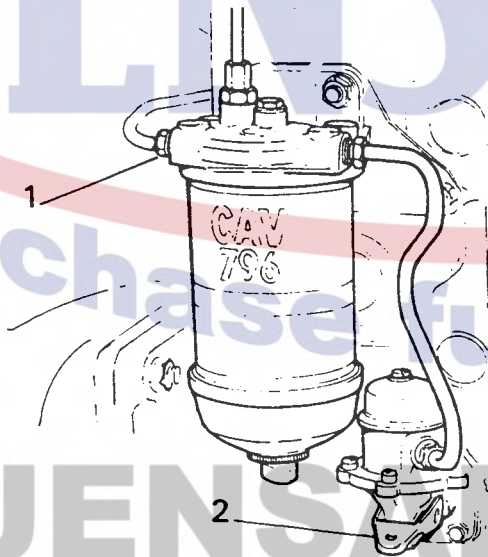


fig 67

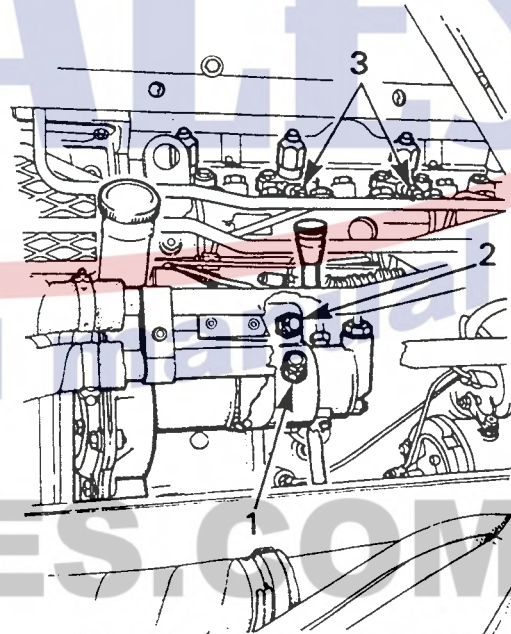


fig 68