



Massey Harris Massey Ferguson

Operator's Manual MF245

Operator's Manual

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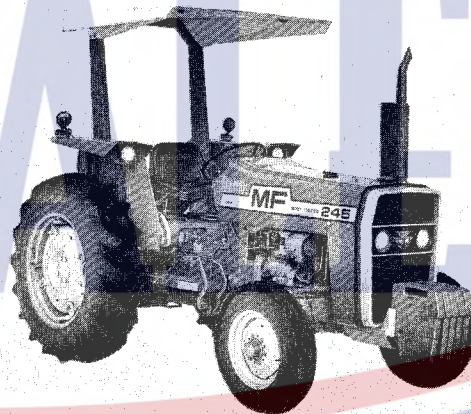
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MH-O-MF245

Operator's Manual

AND

Assembly Instructions



MF 245 TRACTOR



Massey Ferguson

INDEX

	PAGE		PAGE
PRE-DELIVERY INSPECTION	5	Throttle Control Lever	22
INSTRUMENTS AND CONTROLS	6	Ignition System — Gasoline Engine	23
OPERATION	8	Electrical System	23
Starting Engine	8	Battery	24
Engine Operation	8	Alternator	24
Shifting Gears	8	Wiring Diagrams	25
Multi-Power Transmission	9	Cooling System	27
Break-In Procedure	9	Care of Cooling System	27
Stopping Tractor	10	Fan Belt Adjustment	27
Towing Tractor	10	Fan Belt Replacement	28
Engine Operating	10	Engine Air Filters	28
Engine Not Operating	10	Clutch Pedal Adjustment	29
Operating Hydraulic System	10	Brake Adjustment	30
Drawbar	12	Replacing Crankcase Oil	
Power Take-Off	13	and Filter Element	30
Differential Lock	13	Replacing Transmission, Differential	
Attaching and Detaching		and Hydraulic System Oil	31
Implements	14	Auxiliary Hydraulic System	
LUBRICATION AND PERIODIC		Filter Element	31
MAINTENANCE SCHEDULE	16	Power Steering	32
TORQUE VALUE CHART	20	Tires — Wheels	32
Spark Arrestor Muffler	20	Tire Pressure Chart	32
SERVICING	21	Care of Tires	32
Diesel Fuel System	21	Liquid Weight Per Tire — Chart	33
Replacing Fuel Filter Element	21	Wheel Tread Widths	33
Air-Bleeding Fuel System	21	Front Wheel Alignment	34
Low Idle Adjustment	22	Repacking Front Wheel Bearings	35
Gasoline Fuel System	22	Tractor Storage	35
Carburetor Adjustment	22	Removing Tractor From Storage	35
Drain Carburetor Bowl	22	Diesel Engine Break-In Procedure	36
Fuel Filter	22	TROUBLE-SHOOTING	37
		ACCESSORIES	39
		SPECIFICATIONS	40

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Fig. 18 — Constant Pumping Range

3. After implement has reached working depth, move inner quadrant control lever slowly rearward until adequate traction is obtained.

4. Align adjustable locator with control lever as this will be helpful when returning control lever to original position.

CONSTANT PUMPING RANGE

When inner quadrant lever, Fig. 18, is moved to Constant Pumping Range, main system pump will provide a continuous flow of oil at maximum pressure for operating remote hydraulic cylinders through the use of an auxiliary control valve.

NOTE: Do not place quadrant lever in Constant Pumping position while doing operations not related to hydraulic system.

AUXILIARY HYDRAULIC CONTROL

This system permits control of remote hydraulic cylinders and is independent of lift linkage system. The control lever(s), Fig. 19, have two operating positions; Raise and Lower. At end of cylinder travel, lever will automatically return to Neutral.

The control valve can be adjusted to operate single or double-acting cylinders. Holes, No. 1, Fig. 20, are provided in the cover for access to adjustment screws. Turn adjusting screws "IN" for double-acting cylinder or "OUT" for single-acting cylinder.

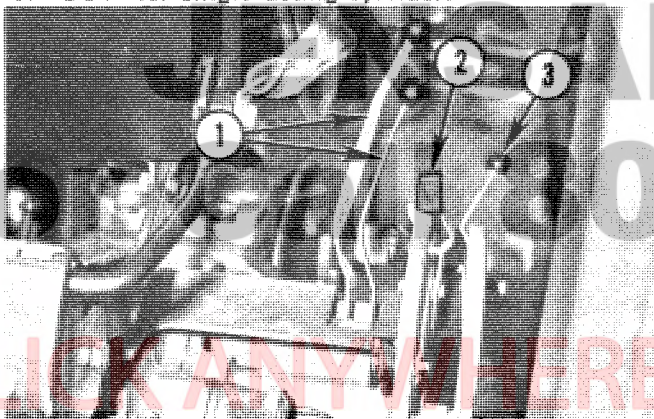


Fig. 19 — Hydraulic Controls

1. Auxiliary Control Levers
2. Inner Quadrant Lever
3. Draft Control Lever

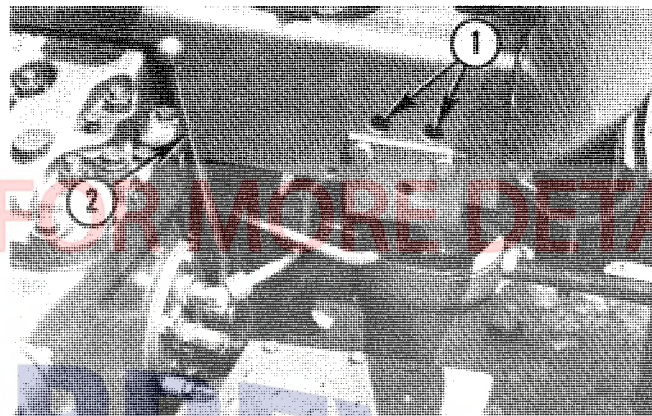


Fig. 20 — Auxiliary Hydraulic Control Valve Adjustment

1. Access Holes
2. PTO Control Lever

Pull rearward on Tractor's upper coupler(s), No. 1, Fig. 21, release locking mechanism and insert implement hose coupler(s) from piston end of cylinder. Repeat procedure to connect hose coupler(s) from rod end of cylinder to Tractor's lower coupler(s), No. 2.

NOTE: If unable to complete connection, and engine turned off, move Auxiliary Control levers a couple of times to relieve pressure in quick-coupler lines.

To disconnect couplers, give cylinder hoses a quick pull. Couplers will automatically uncouple and seal, preventing any loss of oil. After uncoupling hoses, install protective caps on all couplers to prevent any entrance of foreign material.

NOTE: In the event a pull-type implement utilizing auxiliary hydraulics should become disconnected from Tractor, couplers will automatically uncouple and seal, preventing damage to hoses and any loss of oil.

DRAWBAR

UNIVERSAL SWINGING DRAWBAR

Drawbar can swing or can be held at fixed positions by relocating stop pins in drawbar support frame, Fig. 22.

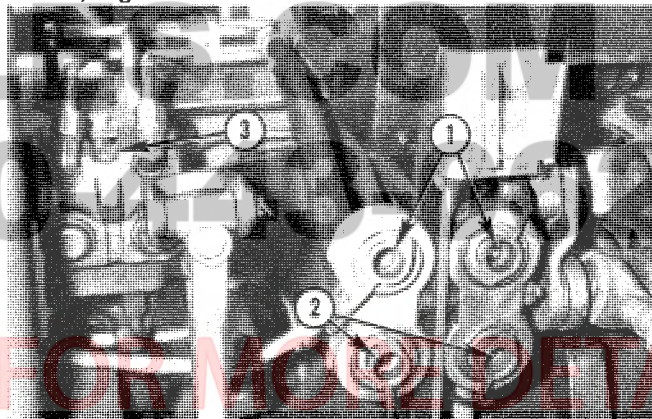


Fig. 21 — Quick Couplers

1. Quick Couplers — Upper
2. Quick Couplers — Lower
3. Auxiliary Hydraulic Control Valve — 2-Spool

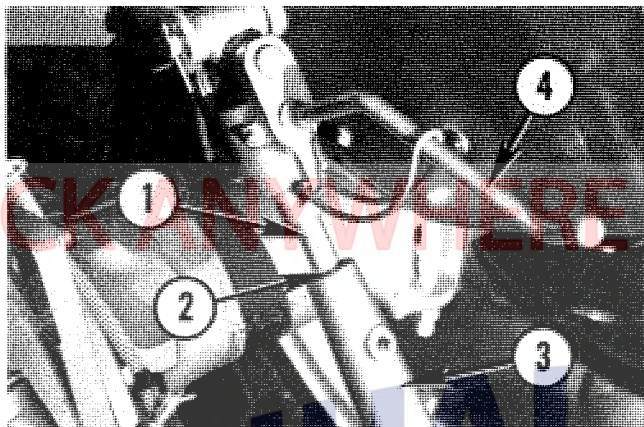


Fig. 28 — Right Lower Lift Link Adjustment

- | | |
|----------------------|--------------------|
| 1. Levelling Box Rod | 3. Lift Fork |
| 2. Annular Groove | 4. Levelling Crank |

DETACHING 3-POINT HITCH IMPLEMENTS

1. Select a level area to detach implement.
2. Lower implement to ground with inner quadrant control lever. If needed, turn levelling crank to level implement with ground.
3. Place shift levers in Neutral position and set parking brake lock.
4. Detach top link from implement.
5. Detach right and left lower links and secure lynch pins in their clips.

UNIVERSAL PRESSURE CONTROL HITCH — FIGS. 29, 30 AND 31 (ACCESSORY CODE 1374 026)

ATTACHING

1. With hitch assembly installed on Tractor, Fig. 29, start Tractor engine, place Draft Control lever in fully raised position and place inner quadrant lever in Position Control, Fig. 16. Position lift arms until coupler frame is parallel with Tractor, being sure that left and right lift rods are adjusted to equal length.
2. Hitch implement tongue to Tractor's drawbar.

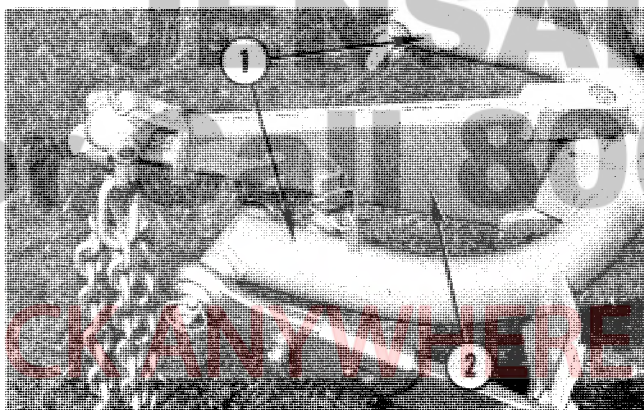


Fig. 29 — Universal Pressure Control Hitch

- | | |
|------------------|-----------------|
| 1. Coupler Frame | 2. Coupler Boom |
|------------------|-----------------|



Fig. 30 — Installing Coupler Chain to Implement

- | | |
|-----------------|---------------|
| 1. Coupler Boom | 2. Chain Claw |
|-----------------|---------------|

NOTE: Be sure implement tongue is sturdy enough to withstand weight transfer. With implement and hitch attached, put inner quadrant lever in Pressure Control (Fig. 17) and move it from "low" pressure to "high" pressure. If in this test application, implement tongue appears to flex to the extent that a permanent bend or break will occur, reinforce tongue.

3. With coupler frame level with Tractor, insert chain through loop and pull chain up snug and fasten it into chain claw, Fig. 30.

IMPORTANT: Position of chain loop on implement tongue should be arrived at by following method.

- a. Attach tongue to Tractor.
- b. Extend coupler boom to operating position.
- c. Measure from point (A) to point (B).
- d. Point (B) to point (C) should not exceed more than .7 distance between point (A) and (B).
- e. Following chart indicates what distance from (B) to (C) should be after measuring (A) to (B) distance for your particular application.

A to B is 15"	B to C is 10.5"
A to B is 16"	B to C is 11.2"
A to B is 17"	B to C is 11.9"
A to B is 18"	B to C is 12.6"
A to B is 19"	B to C is 13.3"
A to B is 20"	B to C is 14.0"
A to B is 21"	B to C is 14.7"
A to B is 22"	B to C is 15.4"
A to B is 23"	B to C is 16.1"
A to B is 24"	B to C is 16.8"
A to B is 25"	B to C is 17.5"
A to B is 26"	B to C is 18.2"
A to B is 27"	B to C is 18.9"
A to B is 28"	B to C is 19.6"
A to B is 29"	B to C is 20.3"
A to B is 30"	B to C is 21.0"

4. Move inner lever to low pressure area of Pressure Control range. Connect remote cylinder hose, or hoses, to hose coupler on Tractor.

5. For PTO driven implements, chain spreaders are used to spread chain providing ample operating



Fig. 43 — Left Side of Instrument Panel

1. Fuses

wire, Figs. 42 and 44, located between starter solenoid and auxiliary circuit solenoid protects Tractor's electrical circuits. Check these parts when an electrical failure occurs. Repeated failure of fuses and link wire indicates an electrical problem. Locate and correct before continuing operation. UNDER NO circumstances should substitutes be used in place of these parts.



CAUTION: When servicing electrical system, DISCONNECT battery cables.

DANGER

This battery produces **EXPLOSIVE GASES**. Keep sparks, flame and cigarettes away. Ventilate when charging or using in enclosed space. This battery contains **SULPHURIC ACID** which causes **severe burns**. If acid contacts eyes, skin or clothing, **flush well with water**. For contact with eyes get **medical attention**. **KEEP AWAY FROM CHILDREN**.

BATTERY

Battery is located in front of instrument panel behind fuel tank. Access to battery is easily gained by prying up battery cover and lifting cover out, Fig. 45.

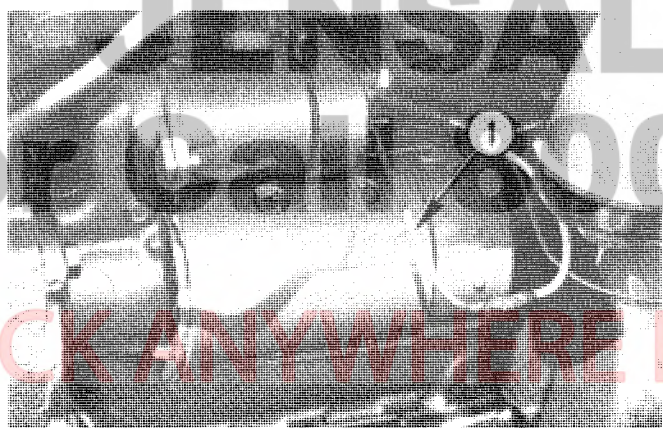


Fig. 44 — Starter Motor — Diesel

1. Fusible Link

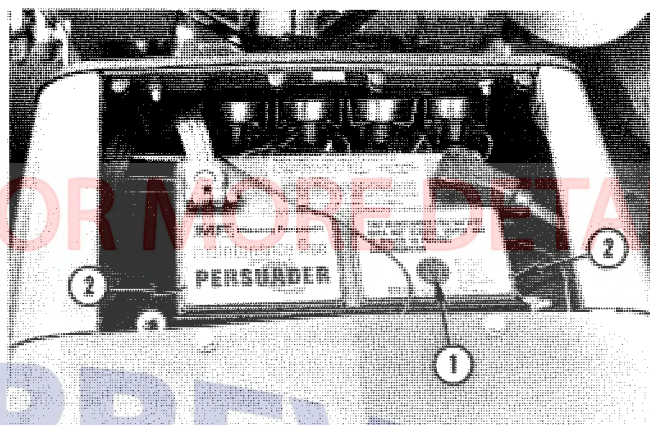


Fig. 45 — Battery Location

MAINTENANCE FREE BATTERY

Water never needs to be added to batteries. Batteries are completely sealed, except for vent holes, No. 2, Fig. 45, in both sides. These vent holes allow what small amount of gasses produced in battery to escape.

Battery charge indicator, No. 1, indicates whether batteries are good, need charging or should be replaced.

GREEN DOT VISIBLE — Batteries do not need charging.

DARK — **GREEN DOT NOT VISIBLE** — Batteries need charging.

LIGHT YELLOW — Replace batteries.

CONVENTIONAL BATTERY

Add distilled water to bring level of fluid up to correct level. Do not overfill as electrolyte will spill onto top of battery through vent plugs during operation.

ACTIVATING BATTERY

To prevent electrolyte from being spilled on Tractor and to ensure battery is filled to proper level, it is suggested:

1. Open cover and remove battery.
2. Fill cells with battery grade sulfuric acid electrolyte (1.265 specific gravity) to 3/8" above separators or to fill point marked on battery.

NOTE: Shake electrolyte container before filling battery cells to assure solution is not separated.

3. Check acid temperature and state of charge.
 - a. Acid temperature must be at least 80° F. (put battery thermometer in center cell).
 - b. State of charge must be good.
 - (1) Check with electrical battery tester, or
 - (2) Use a battery hydrometer — specific gravity must be at least 1.250.
4. If acid temperature is not 80° F. or state of charge not good, charge at 20 amperes. Acid tem-

8-Speed Transmission Consists of a 4-speed forward and 1-speed reverse "sliding" gear set, compounded by a dual range planetary reduction gear set. Dual range planetary, connected to transmission main shaft, provides eight speeds forward and two reverse

Multi-Power Transmission Constant mesh, helical primary reduction gears with spur-type speed change gears. Transmission operates in conjunction with planetary reduction gear assembly and 2-stage compounding in combination with sliding gear and planetary compounding gear, providing 12 forward and four reverse speeds

CAPACITIES:

Fuel Tank	14 U.S., 11.6 Imp. gals.
Cooling System — Diesel (Approx.)	10.5 U.S., 8.7 Imp. qts.
Cooling System — Gasoline (Approx.)	10 U.S., 8.3 Imp. qts.
Crankcase with Filter Change (Approx.)	6 U.S., 5 Imp. qts.
Crankcase without Filter Change (Approx.)	5 U.S., 4.2 Imp. qts.
Hydraulic System (Approx.)	8 U.S., 6.7 Imp. gals.
Power Steering Reservoir (Approx.)	1 U.S., .8 Imp. qt.

DIMENSIONS:

Wheel Base	73-1/8"
Length Overall (Approx.)	116 inches
Width Overall (Approx.)	70 inches
Wheel Tread — Front	48"-72"
Wheel Tread — Rear	See Page 33
Turning Radius (without Brake)	Approximately 9-1/2 feet
Ground Clearance	9-3/4 inches
Maximum Shipping Weight (Approx.)	3600 lbs.

TIRES:

Front	6.00-16 — F2 — 4 Ply Rating
	7.50-10 — F3 — 6 Ply Rating
Rear	12.4-28 — R1 — 4 Ply Rating
	13.6-28 — R1 — 4 Ply Rating
	14.9-24 — R3 — 6 Ply Rating
	16.9-24 — R3 — 6 Ply Rating

PTO POWER:

Diesel	42.90 hp at 2250 rpm (Nebraska Test No. 1251)
Gasoline	41.09 hp at 2250 rpm (Nebraska Test No. 1252)

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