Massey-Ferguson

PRODUCT INFORMATION MANUAL

MF 1150 Row Crop Tractor

MF 1100 SERIES TRACTORS

The MF 1100 Series Tractors provide "Big" Tractor power, "down-on-the-farm", with the V-8 powered MF 1150 Tractor leading the way. Today's larger farmers demand tractors that can pull bigger implements faster, year after year with a minimum down time, yet still maintain the handling ease and versatility associated with smaller tractors.

The MF 1100 Tractor is powered by a 320 cu. in. gasoline engine developing 90.29 PTO horsepower, or 354 cu. in. direct injection diesel engine that developes 93.94 PTO horsepower. The MF 1130 Tractor is powered by a 354 cu. in. direct injection turbocharged diesel engine developing 120.51 PTO horsepower. The "BIG" MF 1150 Tractor is powered by a V-8, 510 cu. in. diesel engine capable of 135 (mfg. estimate) PTO horsepower ... the "FIRST" V-8 diesel engine offered in an Agricultural Tractor.

The styling of these Tractors was designed to be pleasing in appearance, with the modernistic look creating an immediate desire of ownership to a prospective owner. The smooth, sleek lines combined with the conveniently designed access to various components demands an appreciation shown only to the Massey-Ferguson line of Tractors.

Good visability, 12-speed Multi-Power transmission, Hydrostatic Power Steering, adjustable steering column and Float-O-Matic seat are just a few of the outstanding features that will make the MF 1100 Series Tractors the popular choice of farmers.

SUMMARY OF FEATURES

SAFETY PRECAUTIONS

Operator safety is a major concern in the design and development of a new machine. New safety features are continuously being added. However, safety features alone cannot protect the operator and nearby personnel. Impress on him that he must know his machine, "THINK SAFETY" and follow safety precautions to prevent accidents.

SAFETY FEATURES

- Positive, shock free steering.
- Easy access to fuel tank filler.
- Non-slip, angled clutch pedal.
- Non-slip, angled brake pedals, with parking brake latch.
- Obstruction free, non-slip, clear vision platform.
- Easy access platform.
- Ignition-Starter safety switch.
- Good lighting for field or roadway use.

STRESS THESE SAFETY RULES

- Make sure personnel are in a safe position before starting the engine or operating the Tractor.
- Only the operator should be permitted on the Tractor when it is in operation. Never allow anyone to ride on drawbar, hitch or fender.
- Always remain seated when the Tractor is moving at high speed or over rough ground.
- Reduce speed before turning or applying brakes. Couple the brake pedals together when operating at high speeds or when traveling on a road or highway.
- When driving the Tractor on a road or highway, whether at night or during the day, use accessory lights and Slow Moving Vehicle sign to warn other vehicles. The use of a flashing amber light is acceptable in most areas. However, some areas prohibit the use of them. Local laws should be checked for possible limitations.
- The speed of the Tractor on curves, rough ground and hillsides should be reduced to a safe speed so there is no chance of overturning.
- Place the gearshift lever and dual range lever in "Neutral" when the Tractor is stopped. Apply the parking brake before leaving the Tractor platform.
- Never refuel the Tractor when the engine is running. Do not smoke while filling the fuel tank or servicing the fuel system.
- Do not leave an implement in the raised position when not in use. Lower the implement to the ground.
- Never operate the Tractor engine in a closed shed or garage.

Look for this symbol to point out important safety precautions. It means – ATTENTION! BECOME ALERT! OPERATOR SAFETY IS INVOLVED.

OPERATOR'S PLATFORM AND CONTROLS

OPERATOR'S PLATFORM — ROOMY NON-SLIP DESIGN

The large operator's platform on Row Crop Tractors is 31 inches wide and 38 inches wide on Western Tractors, providing the operator with room to move around to different positions, reducing fatigue during extended periods of operation.

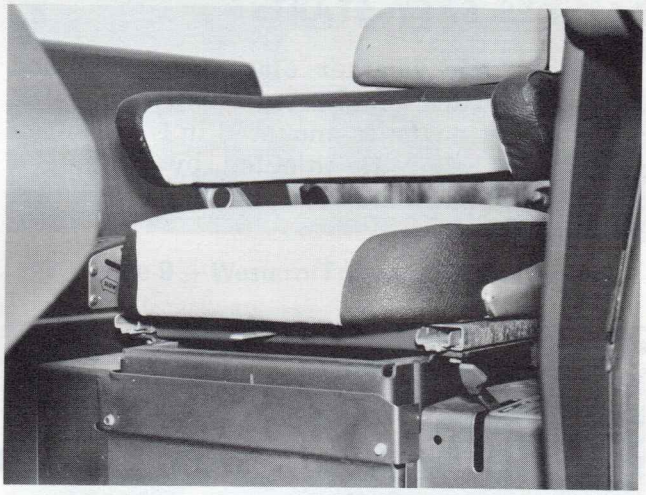
A non-slip platform design provides safe, sure footing, in a standing position. The height of the platform provides good visibility in front and behind the Tractor and positions the operator above dust and dirt from the wheels and implements.

Slide 1 — Large, Uncluttered Operator's Platform

SEAT — COMFORTABLE, FULLY ADJUSTABLE

The thick foam padding and contoured back support of the seat, combined with an air-oil accumulator suspension system, provides a soft, comfortable ride.

The seat is easily adjusted fore-and-aft by a lever in front of the seat and the height is adjusted by a hydraulic control lever on the left side of the seat.

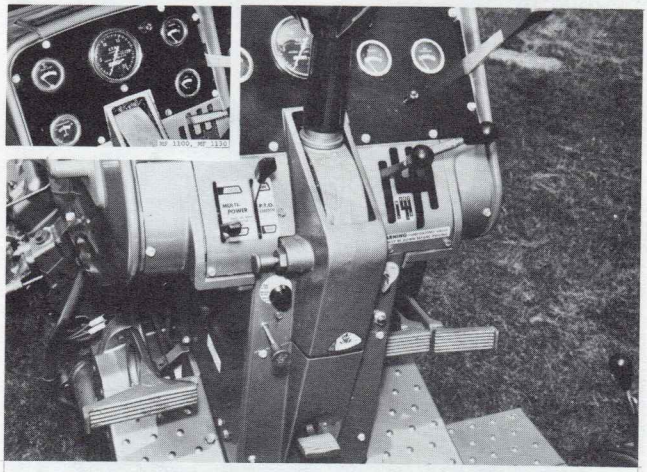


Slide 2 — Comortable Seats are Adjustable to Fit Operator

INSTRUMENTS AND CONTROLS — CONVENIENTLY LOCATED

The instruments are positioned within clear view of the operator and are permanently sealed to ensure long life. Each instrument is illuminated by permanent electro-luminescence, which emits a soft but clearly visible glow of the dial.

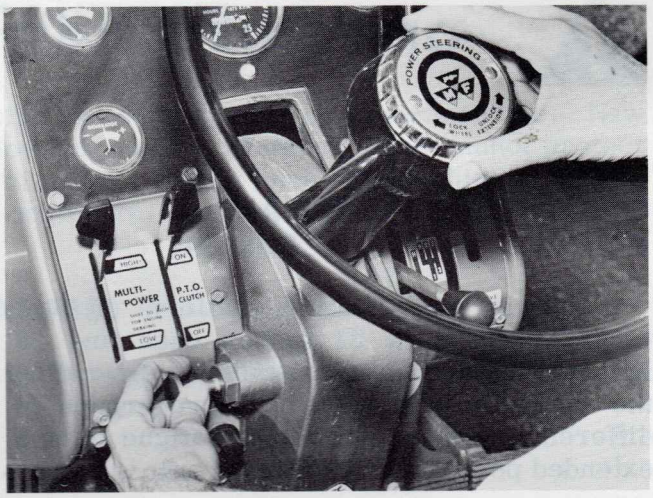
The controls are conveniently located within easy reach of the operator whether sitting or standing, and can be operated with very little effort.



Slide 3 — Instruments and Controls are Easy to Read and Reach

STEERING COLUMN — ADJUSTABLE

The steering column is adjustable from a vertical position downward through a range of positions and the length of the column can be varied four inches.



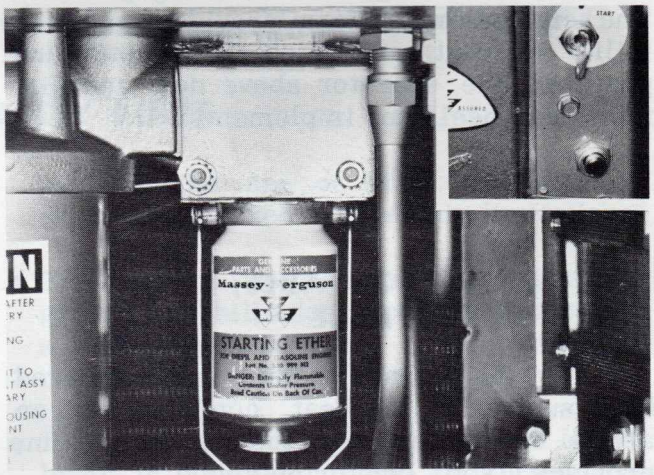
Slide 4 — Steering Column Adjusts Vertically and Telescopes

HYDROSTATIC POWER STEERING — REDUCES FATIGUE

Hydrastatic Power Steering provides precise, effortless steering with no mechanical linkage, yet manual steering is present in the event the engine is inoperative.

ETHER START UNIT — ASSURES EASY STARTS

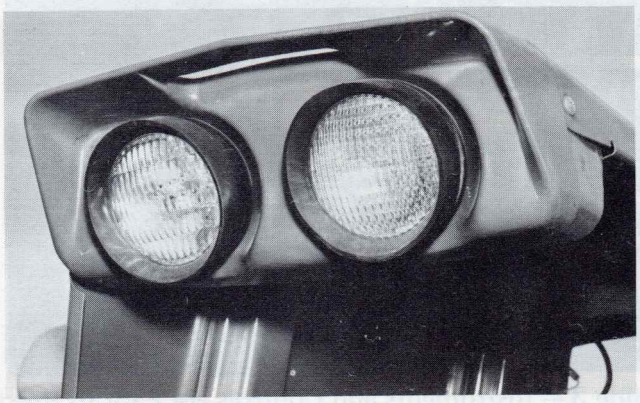
Easy cold weather starting is obtained through the use of an electrically operated ether injection unit, mounted in front of the radiator. Ether is injected by pushing a control button on the dash, below the ignition switch.



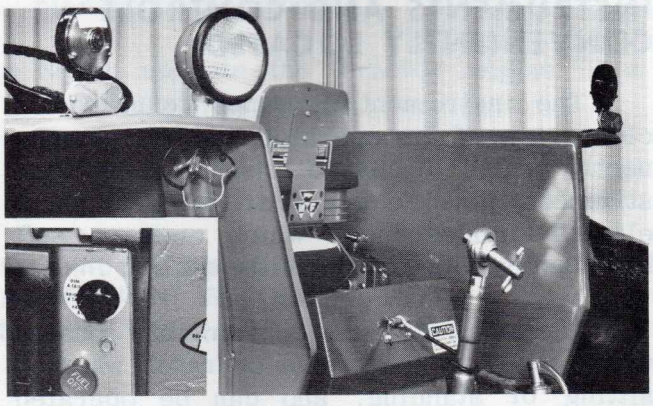
Slide 5 — Ether Start Unit and Button (Inset)

LIGHTING SYSTEM — SAFE, EFFICIENT AFTER DARK OPERATION

Dual head lights, a rear flood light and dual flashing safety lights provide the operator with lighting to meet most any situation from after dark operation in the field to traveling on roadways.



Slide 6 — Dual Headlights



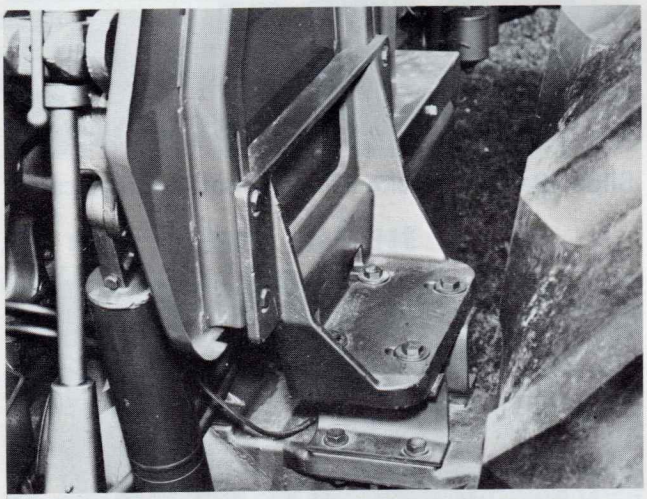
Slide 7 — Rear Lights and Switch (Inset)

FENDERS — PROTECT THE OPERATOR

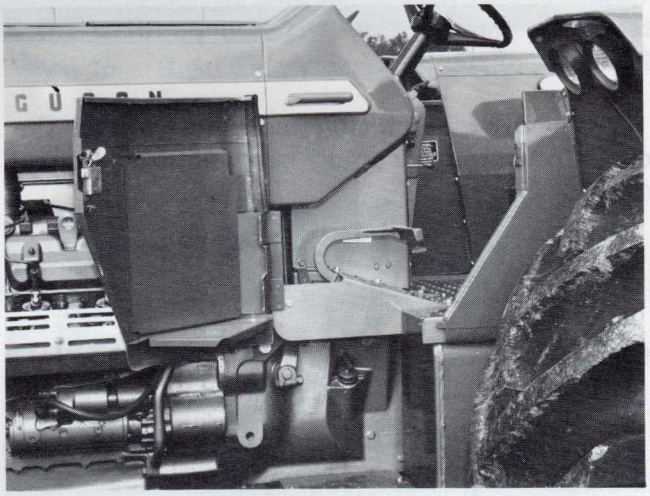
The Row Crop Tractor has large, flat-top, adjustable fenders. The fenders are adjustable up and down for mud clearance and are adjustable in width to accommodate various wheel widths.

The Western Tractor has large crown fenders that follow the contour of the tire, as well as a door, to prevent dust and dirt from blowing up onto the operator's platform and the operator.

The headlights and a hand hold are built into the front of the fender on both models, adding to the safety and convenience of the operator.



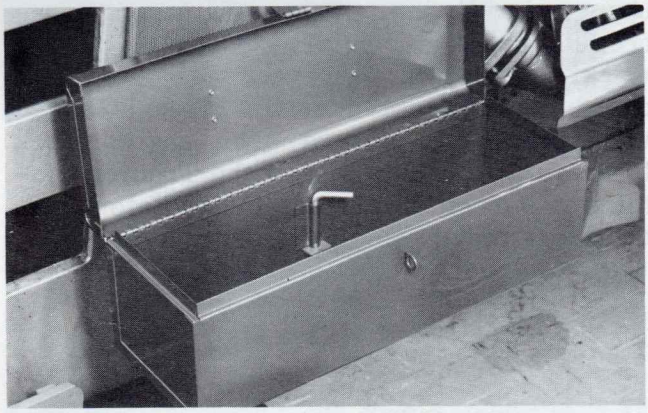
Slide 8 — Row Crop Tractors have Adjustable Fenders



Slide 9 — Western Tractors have a Door

TOOL BOX — HANDY, REMOVABLE

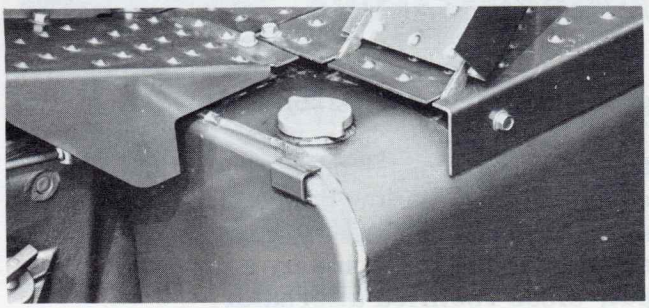
A handy, removable tool box is attached to the side of the Tractor. The tool box is easily detached from the Tractor and carried to where the tools are needed.



Slide 10 — Large Tool Box

FUEL TANKS — LARGE CAPACITY, EASY TO REACH

Large "saddle" type fuel tanks are mounted on each side of the center housing below the operator's platform. The low position of the tanks allow the operator to fill them without stretching or climbing onto the Tractor to see the fuel level.

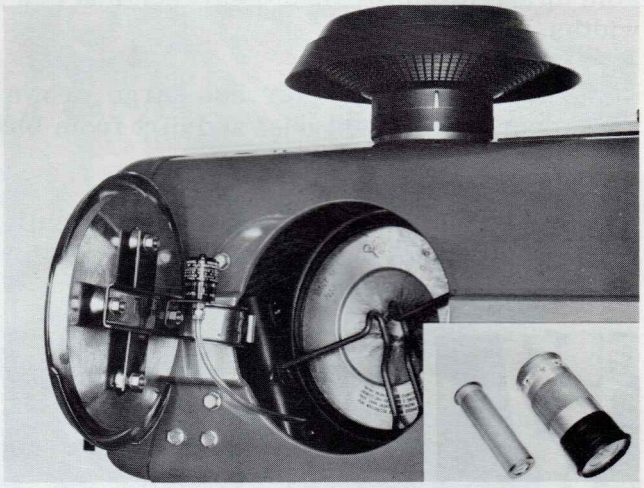


Slide 11 — Fuel Tanks Easy to Fill

AIR INTAKE SYSTEM — OVER 99% EFFECTIVE

The fresh air intake is located at the front of the Tractor and above the hood to ensure entrance of the cleanest air possible into the system. A screened cap prevents large particles from entering the system and an unloader valve removes coarse particles trapped in the housing by the outer filter. An inner filter ensures positive final filtering of the air.

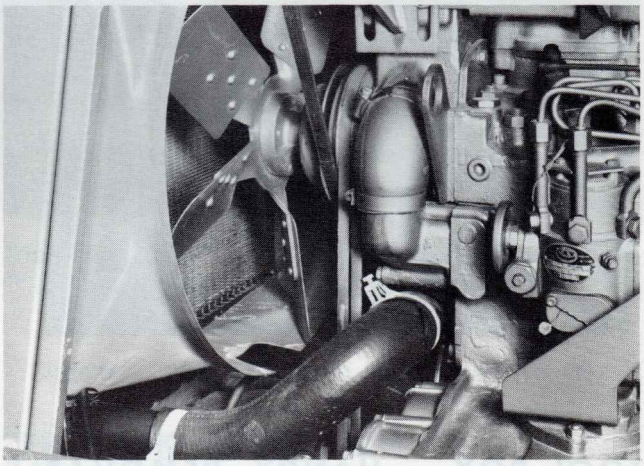
An air restriction indicator warns the operator when cleaning of the filters is required.



Slide 12 — Air Intake Filters (Inset) and Indicator

COOLING SYSTEM — LARGE COOLING CAPACITY

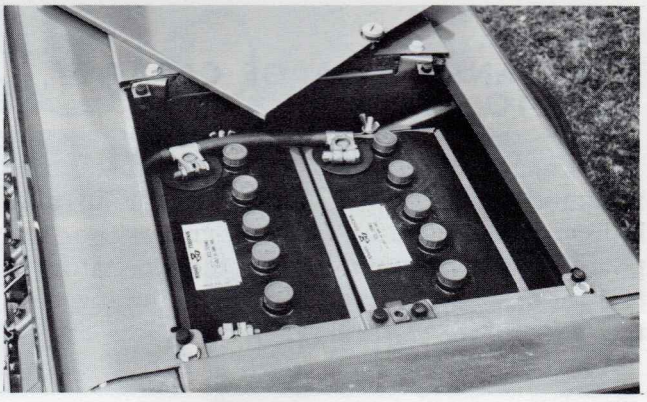
The large capacity pressurized cooling system, with increased capacity to accommodate each larger engine size, provides ample engine cooling under various conditions and altitudes. A thermostatically controlled by-pass system decreases engine warm-up time and a centrifugal pump circulates water continuously throughout the water jacket to ensure even engine block temperature. The grille of the Tractor contains a screen to protect the radiator from becoming plugged by large particles.



Slide 13 — Side View of Cooling System

ELECTRICAL SYSTEM — POSITIVE STARTING

One 12-volt, 96 amp. hr., negative ground battery, for Gasoline Models, or two 12-volt, 96 amp. hr., negative ground batteries for Diesel Models, are located ahead of the console, below the hood. A removable door is provided for easy access. Power is supplied to the batteries by a continuous output, diode rectified alternator.

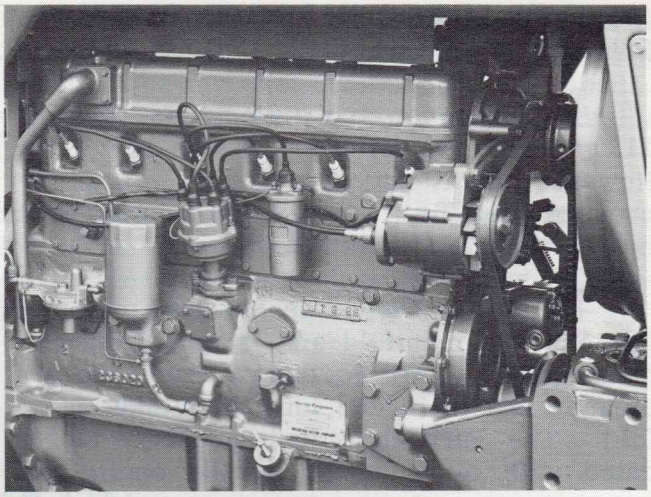


Slide 14 — Top View of Battery Compartment

MF 1100 GASOLINE ENGINE — DEVELOPS 90.29 PTO HP

The MF 1100 Gasoline Engine provides "big" tractor power for large farming operations, where gasoline powered engines are desired. A heavy crankshaft, large bearings and a heavily constructed engine block combine to provide dependable, trouble-free operation.

Fuel is delivered to the carburetor by an engine driven fuel pump. An electric fuel shut-off solenoid on the carburetor prevents engine "run-on" after the ignition is turned off. The battery ignition system is conveniently located for ease of servicing.



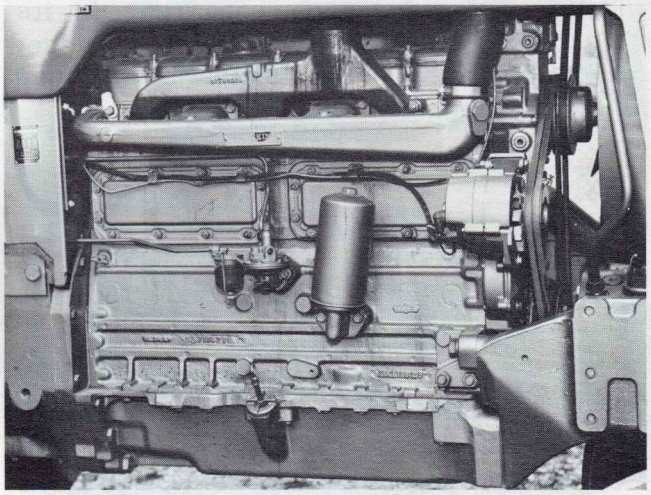
Slide 15 — Right Side View of MF 1100 Gasoline Engine

MF 1100 DIESEL ENGINE — DEVELOPS 93.94 PTO HP

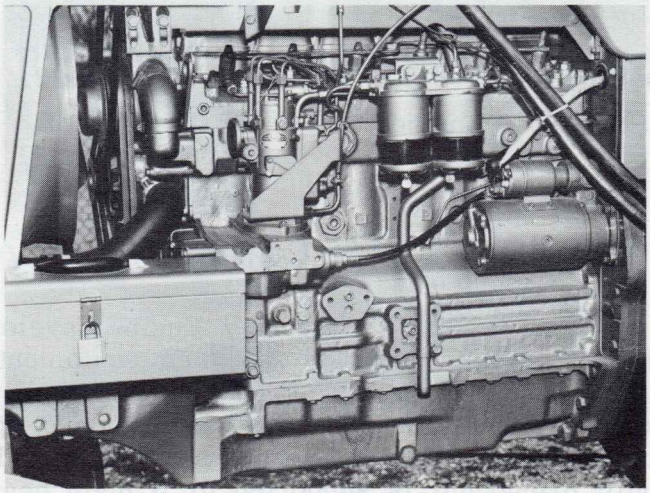
The MF 1100 Perkins Diesel Engine is a high performance engine designed to handle large farming operations economically and dependably. The ruggedly built, induction hardened, crankshaft is supported by 7 main bearings. Dry-type cast iron sleeves permit the use of a heavier block and a cast iron pan adds strength to the engine block.

Fuel is delivered to the injection pump by an engine driven fuel pump. A sediment bowl on the fuel pump removes most fuel impurities. Dual filter elements remove any remaining water or impurities from the fuel. Water is collected in the agglomerator bowls, below the filters, and is easily drained off by opening the drain cocks.

A distributor-type injection pump, driven from the timing gears, contains an advance mechanism to assure maximum engine performance at all engine speeds.



Slide 16 — Right Side View of MF 1100 Diesel Engine



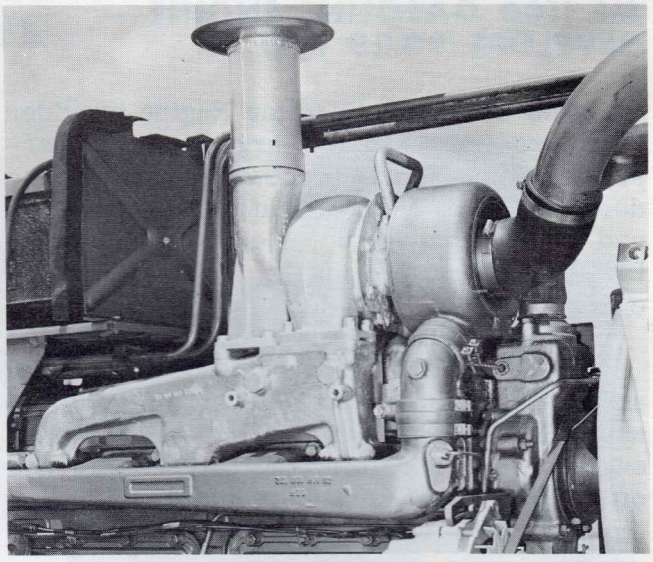
Slide 17 — Left Side View of MF 1100 Diesel Engine

MF 1130 TURBOCHARGED DIESEL ENGINE — DEVELOPS 120.51 PTO HP

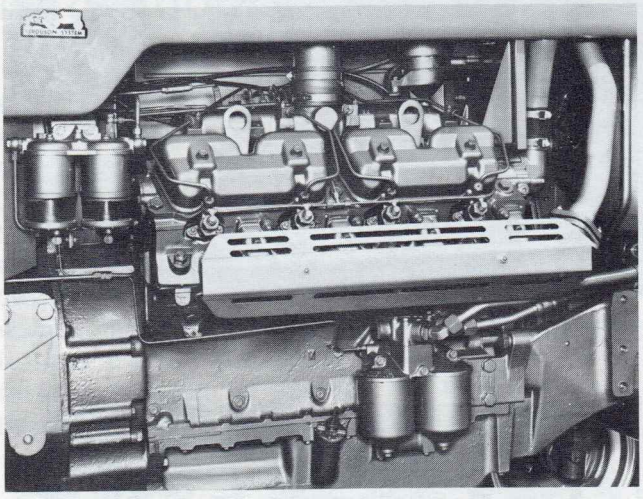
In appearance and dimensions, the MF 1130 engine is similar to the MF 1100. However, additional strength as well as increased cooling capacity have been built into the engine and its components.

The Turbocharger is mounted on top of the exhaust manifold and is driven by exhaust gases. Air is drawn from the air cleaner and is forced into the intake manifold. The Turbocharger is pressure lubricated with oil supplied by the engine oil pump.

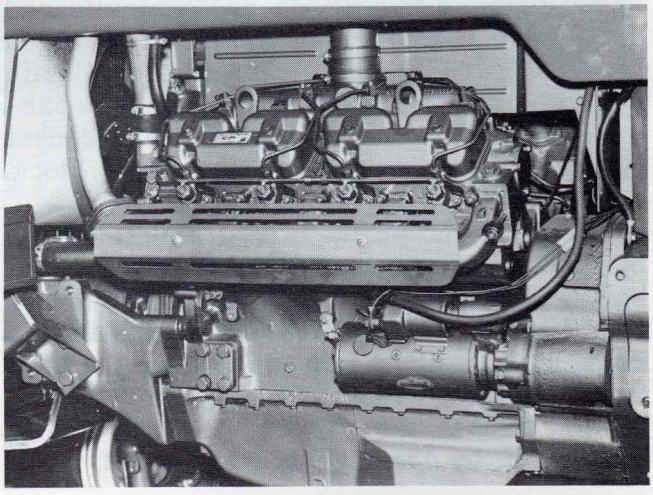
The Turbocharger responds automatically to changes in load demand, providing increased power as required. An additional feature of the Turbocharger is its ability to compensate for increased altitude, providing sea level power output at altitudes up to approximately 8000 ft.



Slide 18 — Turbocharger for MF 1130 Diesel Tractor



Slide 19 — Right Side View of V-8 Diesel for MF 1150 Tractor



Slide 20 — Left Side View of V-8 Diesel for MF 1150 Tractor

MF 1150 V-8 DIESEL ENGINE — DEVELOPS 135 (Mfg. Est.) PTO HP

The MF 1150 V-8 Diesel Engine develops 135 PTO HP. The MF 1150 Perkins Diesel Engine offers a "First" to the farm equipment industry ... V-8 power! The 510 cu. in. direct injection engine provides easy starting and low fuel consumption. Peak torque at low rpm's keeps the Tractor going through the tough spots without stalling or shifting gears. Sturdy V-block construction and a cast-iron pan provide increased engine block strength. The ruggedly built crankshaft is supported by 5 main bearings. An added quality feature of the engine is main bearing cross bolts which furnish an extra margin of support to the crankshaft to assure long engine life under most demanding conditions.

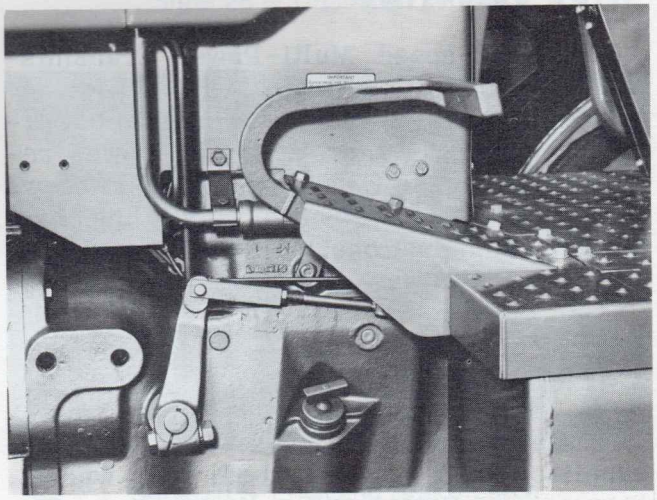
The crankshaft is fully balanced, specially hardened and the 90° crankpin spacing gives smooth running with minimum vibration and low noise level. The V-8 engine, with specially designed fuel injection pump, provides instant response to the throttle, even under heavy loads. Agglomerator bowls on the bottom of the filters remove water from the fuel which is easily drained off through drain cocks.

Full flow, large capacity dual engine oil filters keep the oil clean. An oil cooler maintains the engine oil temperature within operating limits. These, and many more features, have been specially designed into the engine to provide maximum performance and dependability with less maintenance ... less down time and more money saved.

POWER TRAIN

CLUTCH — SMOOTH ENGAGEMENT, LONG SERVICE LIFE

A heavy-duty, 12-inch diameter twin disc clutch with full metallic linings assures smooth engagement and long service life.



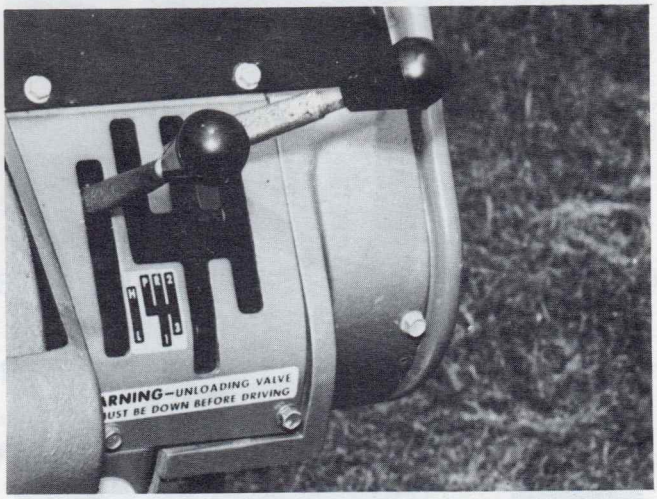
Slide 21 — Clutch Pedal and Linkage

SAFETY STARTER — HELPS PREVENT ACCIDENTS

Safety starting is a feature on all Massey-Ferguson Tractors. On MF 1100 Series Tractors, the clutch pedal must be fully depressed to activate the starter motor.

SHIFT LEVERS — CONSOLE MOUNTED

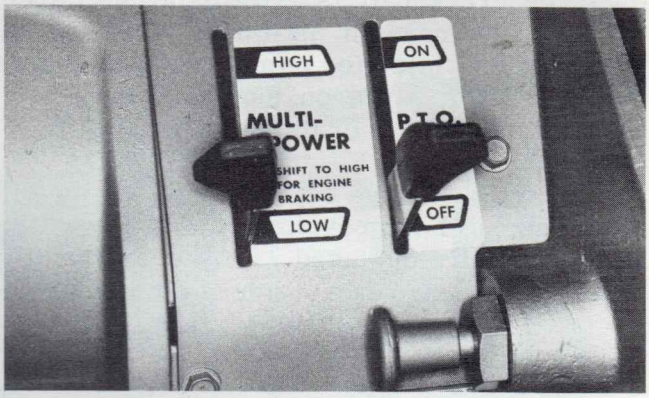
The gearshift levers are mounted in the control console within easy reach of the operator. Selection of one of three basic forward speeds, reverse or a "Park" position, is made with the outer (gear selector) lever. The inner (range selector) lever provides a "High" and "Low" range for each of the three speeds and reverse.



Slide 22 — Shift Levers Mounted on Console

MULTI-POWER TRANSMISSION — SHIFT "ON-THE-GO"

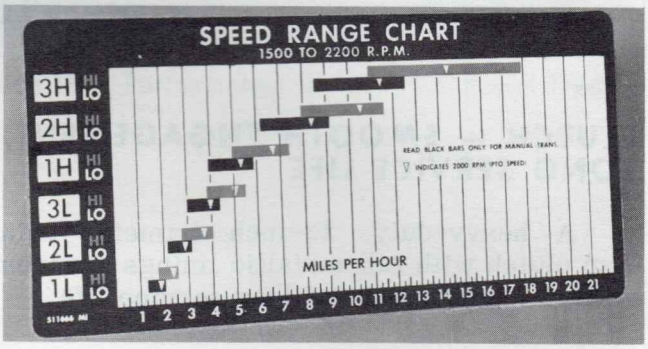
The 12-speed Multi-Power Transmission shift lever is conveniently located on the left side of the steering wheel. Moving the lever to "low" increases pulling power while moving the lever to "high" increases ground speed. Why shift transmission gears when a movement of the Multi-Power lever to "Low", "on-the-go", substantially increases power. In descending steep grades, "engine braking" may be obtained by shifting the lever to "high".



Slide 23 — Multi-Power Lever

TRAVEL SPEEDS — WIDE SELECTION

The 12-speed Multi-Power Transmission provides the operator with a wide selection of travel speeds allowing him to perfectly match Tractor speed to power requirements. The Ground Speed Chart shows the selection of speeds available in the various gear combinations.

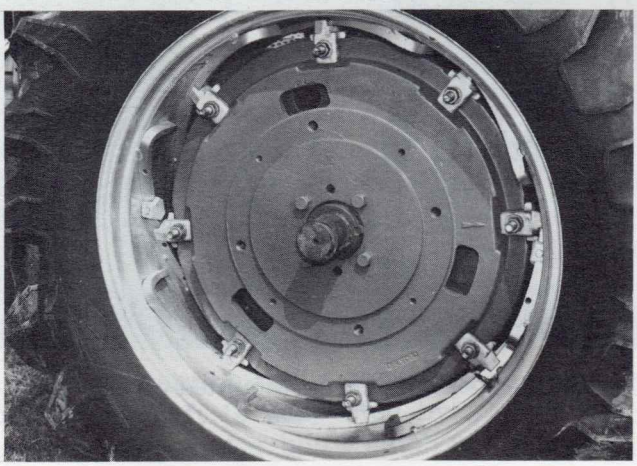


Slide 24 — Speed Range Chart

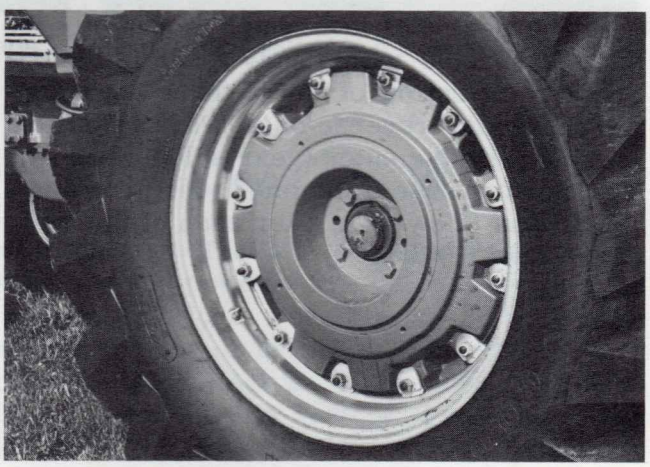
DIFFERENTIAL LOCK — IMPROVED TRACTION

The differential lock, when engaged, supplies equal power to both rear wheels, increasing traction and pulling power. The lock automatically releases when a turn is made or when the clutch is depressed.

Slide 25 — Differential Lock Knob



Slide 26 — PAVT Rear Wheels

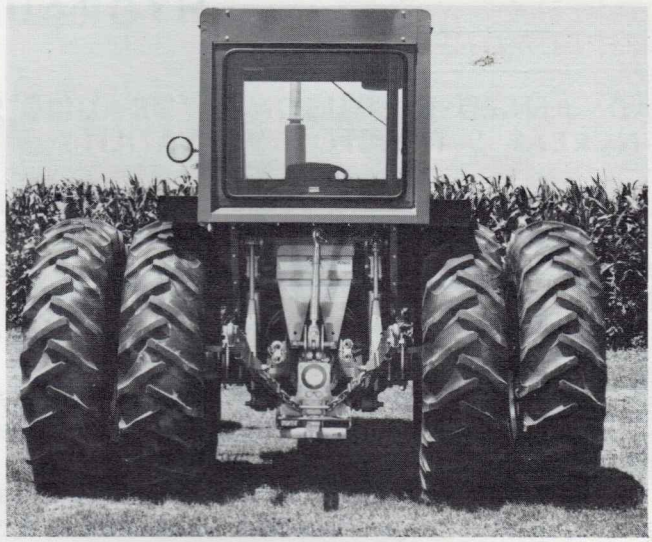


Slide 27 — Manually Adjusted Rear Wheels

REAR WHEELS — DUALS (OPTIONAL) FOR INCREASED FLOTATION

The MF 1100 Series Row Crop Tractors are available with Power Adjusted Variable Tread or Manually Adjusted Rear Wheels in a wide selection of wheel and tire sizes. Solid cast centers provide additional weight. A long axle is available for the addition of Dual Rear Wheels, providing maximum flotation and traction.

The MF 1100 Series Western Tractors are available with Manually Adjusted Rear Wheels only, in a wide selection of wheel and tire sizes. Solid cast centers provide additional weight. A long axle is available for the addition of Dual Rear Wheels, providing maximum flotation and traction.

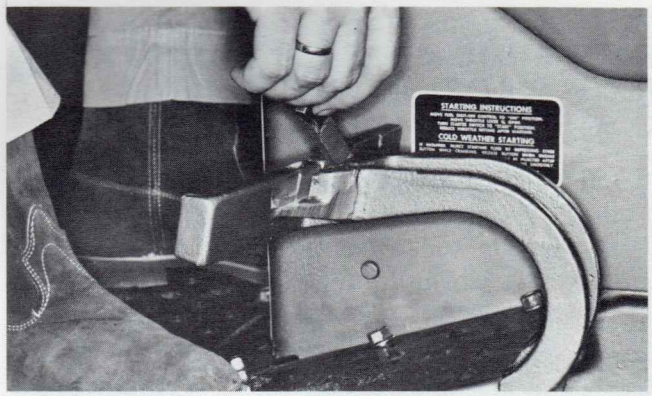


Slide 28 — Dual Rear Wheels

BRAKES — EFFICIENT, EFFORTLESS BRAKING

The heavy-duty, 13-3/4" diameter, full power brakes provide high braking torque with a minimum of foot pressure on the pedal. The brakes may be applied individually to assist in turning or they may be applied simultaneously for quick stops.

An interlocking latch locks the pedals together for roadway operation. A brake accumulator provides braking power in case of engine failure.



Slide 29 — Engaging Brake Latch

PTO CLUTCH — SMOOTH ENGAGEMENT

The hydraulic PTO clutch is engaged by the PTO clutch lever, mounted on the left side of the console. Moving the lever slowly forward controls engagement, allowing the operator to start heavy PTO loads smoothly.

Slide 30 — PTO Clutch and Engine PTO Knob (Inset)

PTO SHAFT COUPLER — PREVENTS ACCIDENTAL STARTING OF PTO

The PTO shaft coupler must be engaged before the PTO clutch will operate the PTO. Leaving this control in the "OFF" position assures against accidental starting of the PTO.

POWER TAKE-OFF — 540 OR 1000 RPM

PTO speed is easily changed from 540 to 1000 rpm's by changing the adaptor shafts. Appropriate shields should always by used when operating PTO driven machines.

HYDRAULIC SYSTEM

ADVANCED FERGUSON HYDRAULIC SYSTEM (ROW CROP TRACTOR ONLY) — INCREASES TRACTOR VERSATILITY

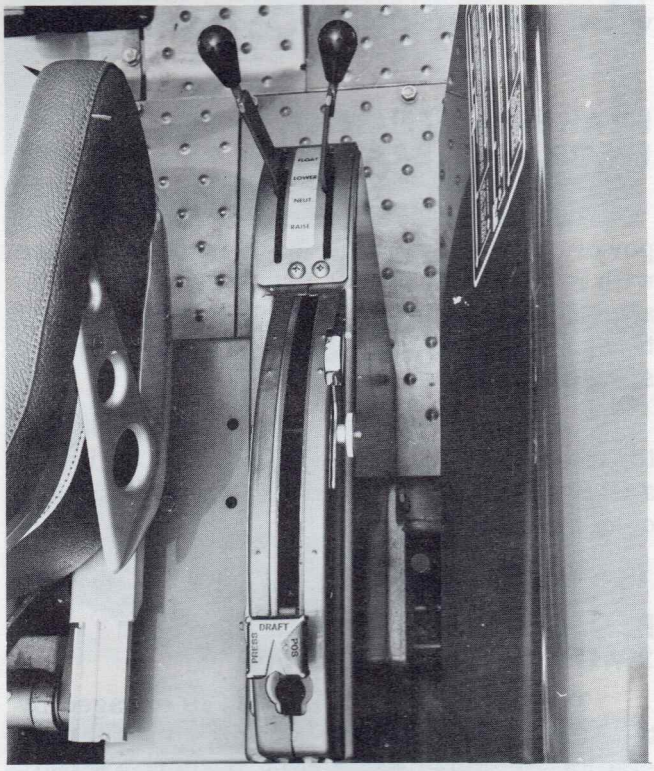
The MF 1100 Series Tractors equipped with the Advanced Ferguson Hydraulic System provide Draft Control, Position Control, Pressure Control and Response Control. This hydraulic system, along with 3-point linkage joins the tractor and implement together as a single unit. Maneuverability, ease of transport and tractive weight to the Tractor as required, are a few of the advantages of this single unit combination.

The combination of mechanical linkage and hydraulic mechanism provides control of mounted, semi-mounted or pull-type implements.

Remember, whatever type implement is used, the Advanced Ferguson Hydraulic System principle of "weight transfer", enables a Tractor with a lower weight-to-horsepower ratio to pull more than heavier tractors, and do it more efficiently.

HYDRAULIC CONTROL QUADRANT (ROW CROP) — COMPLETE CONTROL WITH ONE LEVER

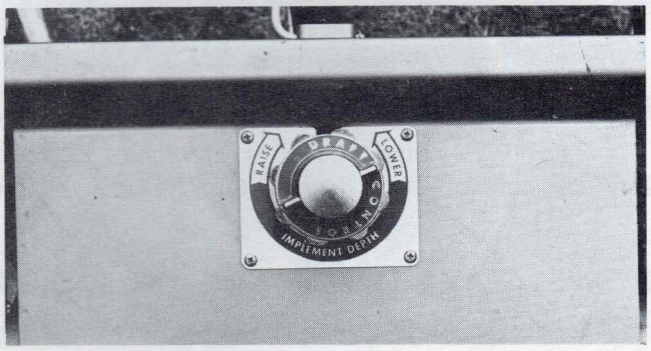
3-Point hitch models are equipped with a single lever control quadrant that enables the operator to select any one of three distinct forms of implement control. To select Draft Control, Position Control or Pressure Control, move the quadrant control lever to the rear of the quadrant range. Push "down" on the control lever knob and rotate it to the desired form of implement control. The forward inscription on the knob will indicate what form of implement control the hydraulic system has been conditioned for.



Slide 31 — Hydraulic Control Quadrant

DRAFT CONTROL — TRANSFER WEIGHT—MAINTAIN WORKING DEPTH

Draft Control is used with 3-point hitch implements, of the soil-engaging type, required to maintain a uniform working depth. Depth is controlled by the Draft Control Hand Wheel. Weight is transfered to the Tractor rear wheels to provide increased traction by moving the Control Quadrant lever rearward. A Draft Control Lever stop allows the operator to raise an implement and then lower the implement back to the same working position.

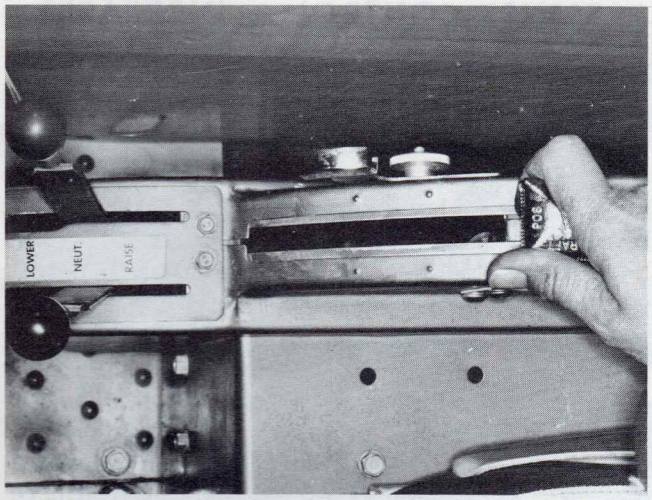


Slide 32 — Draft Control Hand Wheel

POSITION CONTROL — ACCURATE AND POSITIVE

Position Control allows the operator to position an implement at a selected height or depth in relation to the Tractor. This system is basically for above the ground operations, with a few exceptions such as post hole diggers, etc. An adjustable position stop is provided so the operator can raise and lower the implement back to the same working position.

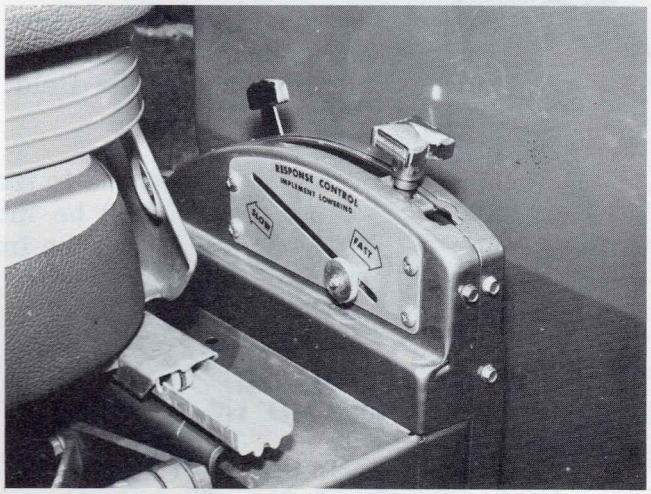
When attaching or detaching an implement the lower link arms should be controlled with Position Control, for the safety of the operator. SELL SAFETY.



Slide 33 — Quadrant Control Lever in Position Control

RESPONSE CONTROL — STOPS IMPLEMENT "BOBBING"

The Advanced Ferguson Hydraulic System provides Response Control of the lower lift links in both Draft Control and Position Control. When working in Draft Control with a soil engaging implement, and the implement begins "bobbing", the response may be slowed down. If the implement tends to "float", as indicated by a progressively shallower implement depth, the response may be moved to a faster position. The lowering rate of 3-point hitch mounted or semi-mounted implements may be regulated by moving the Response Control knob toward the "fast" or "slow" positions as required.

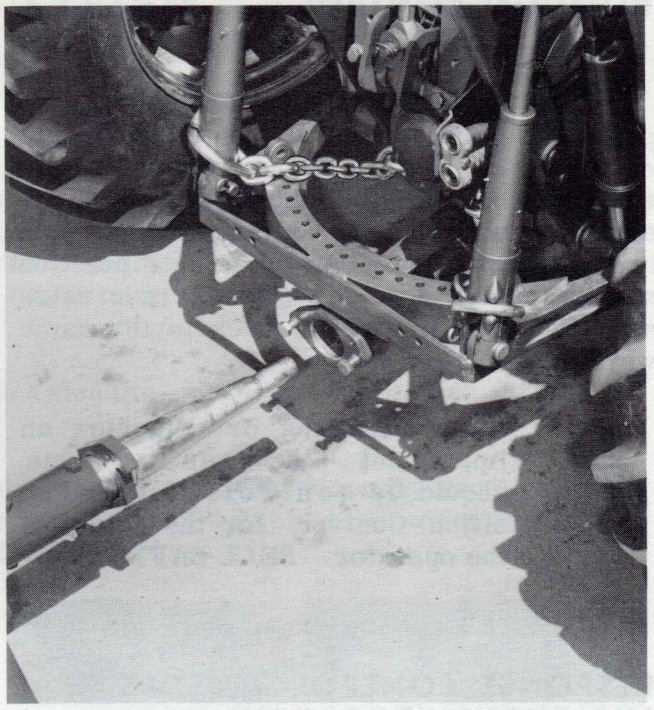


Slide 34 — Response Control

PRESSURE CONTROL — INCREASES TRACTION AS NEEDED WHEN MOVING THROUGH TOUGH SPOTS

A simple movement of the Quadrant Control Lever transfers weight from the front end of the Tractor and from the pull-type implement to the rear wheels of the Tractor. Up to 2000 lbs. of additional weight can be added to the rear wheels. As soon as traction requirements are reduced, the lever is simple moved to its original setting. Pressure Control saves fuel, saves tire wear, helps prevent soil compaction, usually voids the need for added rear wheel weights, and allows up to an extra 10-15 acres a day of discing.

When operating in Pressure Control the pressure should be decreased by moving the lever forward when making sharp turns or turning at the ends of the field. SELL SAFETY.

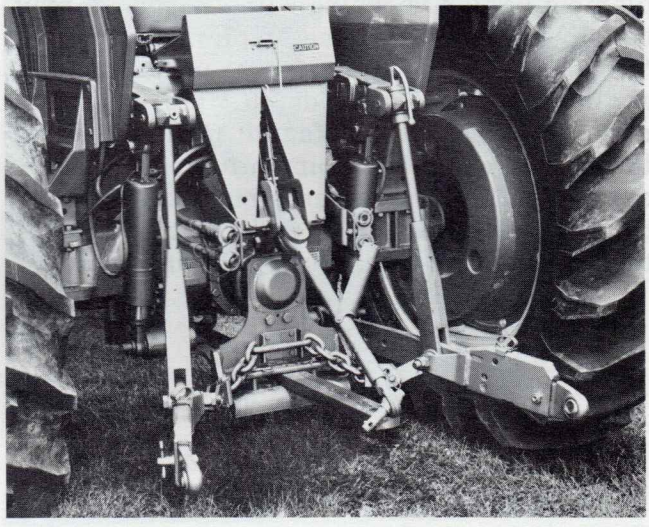


Slide 35 — Pressure Control Hitch

If Pressure Control is to be used to transfer weight from pull-type implements, a Pressure Control Hitch (Accessory) must be mounted on the Tractor's lower lift links and a Cone Hitch (Accessory) must be installed on the implement.

STANDARD 3-POINT HITCH — JOINS TRACTOR AND IMPLEMENT

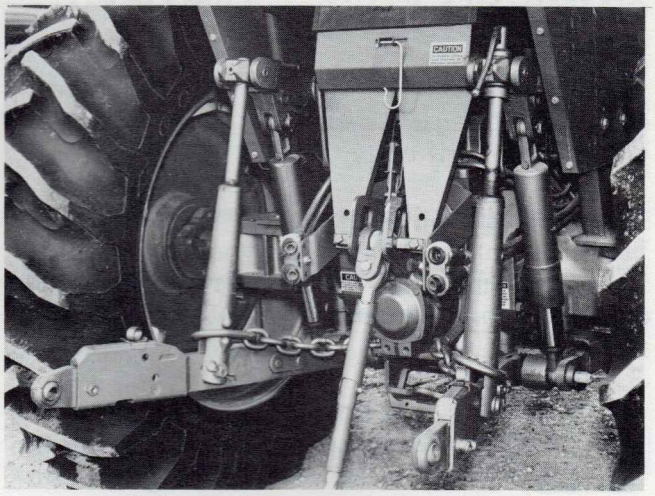
Tractors equipped with the Category II, standard 3-point hitch do not have the drawbar frame that is used in conjunction with pull-type Pressure Control implements. However, the Pressure Control system is incorporated in the Tractor hydraulic system. Pressure Control can be utilized quite effectively on some 3-point hitch implements. An example is tool bar implements that have implement supporting gauge wheels mounted forward of the tool bar.



Slide 36 — Standard 3-Point Hitch

HEAVY-DUTY 3-POINT HITCH — INCLUDES ARCUATE FRAME

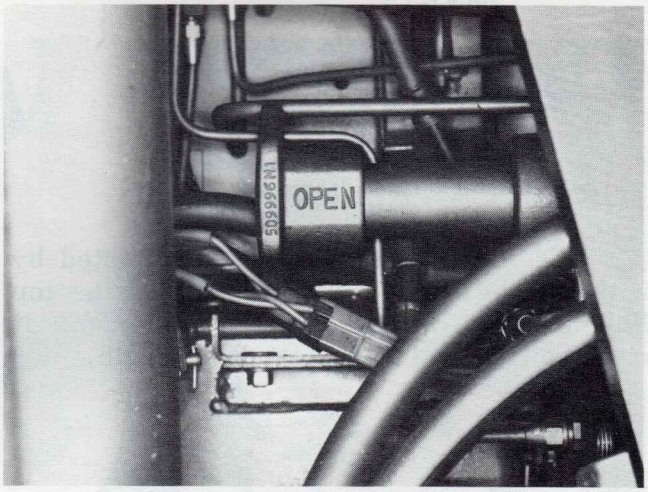
Tractors equipped with the Category II, heavy-duty 3-point hitch have extra heavy lift rods and the drawbar frame that is used in conjunction with pull-type Pressure Control implements. Heavy-duty check chains are also featured. On Tractors equipped with the heavy-duty 3-point hitch, the arcuate frame of the Pressure Control Hitch is included.



Slide 37 — Heavy-Duty 3-Point Hitch

FLOTATION LATCH — PROVIDES IMPLEMENT FLOTATION

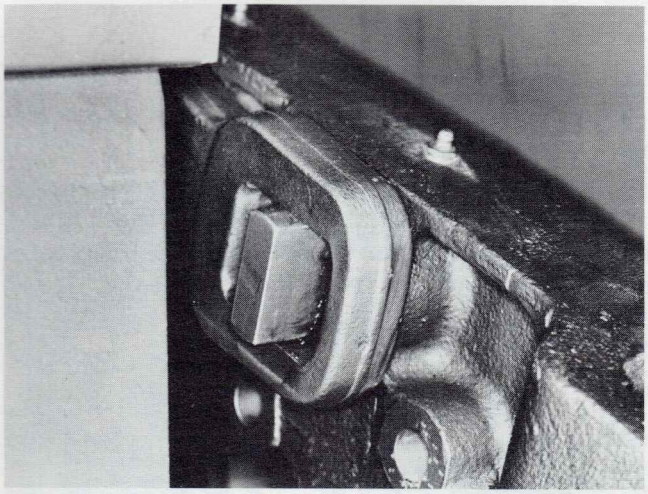
When operating with wide, mounted implements having depth wheels, the Lift Arm Flotation Latch may be released. This permits independent "flotation" of the lift arms allowing the implement to follow the contour of the ground.



Slide 38 — Lift Arm Flotation Latch

ROCKSHAFT LOCK — LOCKS LIFT ARMS IN A STATIONARY POSITION

Heavy, mounted tools may be locked in the transport position by engaging the Rockshaft Lock. If the Pressure Control drawbar frame is to be used for pulling heavy pull-type implements or PTO operated implements, requiring a fixed ASAE/SAE standard drawbar height, the Rockshaft Lock may be engaged, fixing the drawbar in this position.



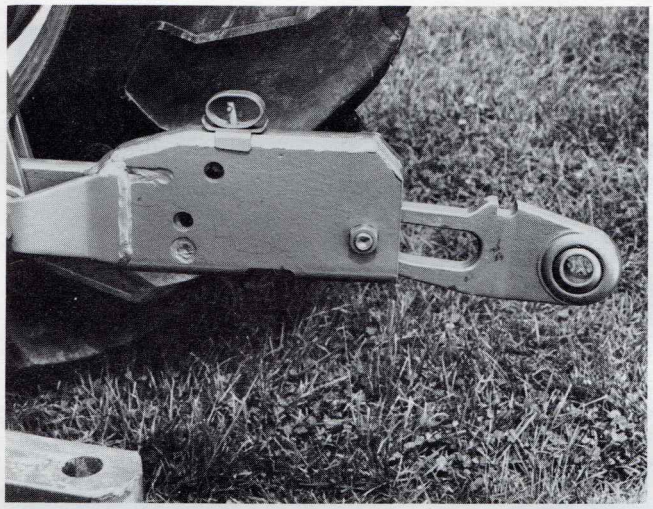
Slide 39 — Rockshaft Lock

LOWER LIFT LINKS — PROVIDE TELESCOPING WRIST ACTION

The lower lift links are rugged, heavy-duty links, with telescoping, wrist action, Category II ball ends.

The ends telescope easily by raising the latch and provide a wrist type action. This is convenient, easy and fast, requiring little effort when attaching 3-point hitch implements.

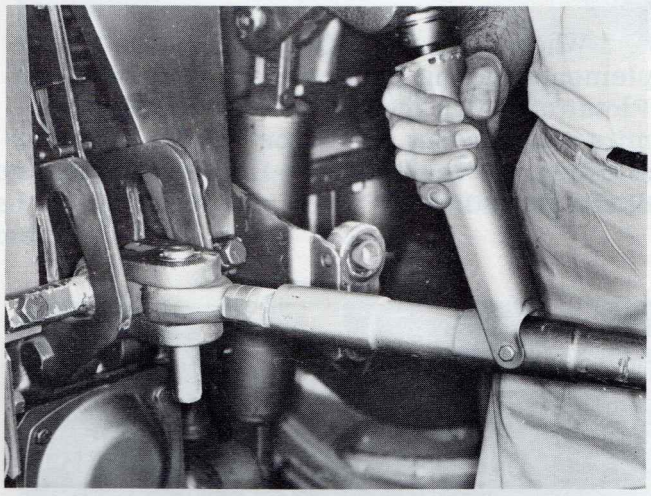
The telescoping and wrist action eliminates the need of moving the Tractor or manhandling the implement. This could prevent an accident. Remember to hook up in Position Control Range. SELL SAFETY.



Slide 40 — Wrist Action of Lower Link

TOP LINK — ADJUSTABLE

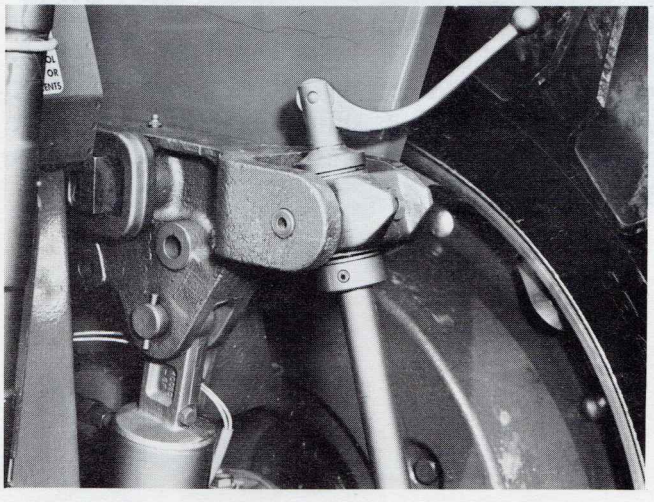
The top link length can be adjusted by rotating the center barrel. After the top link has been attached to the implement, it must be adjusted to its standard length.



Slide 41 — Adjusting the Top Link

LEVELING CRANK — EASY TO REACH

A leveling crank located on the right-hand lift rod makes it easy to level the implement (laterally) from the operator's seat. Easy "on-the-go" adjustment.



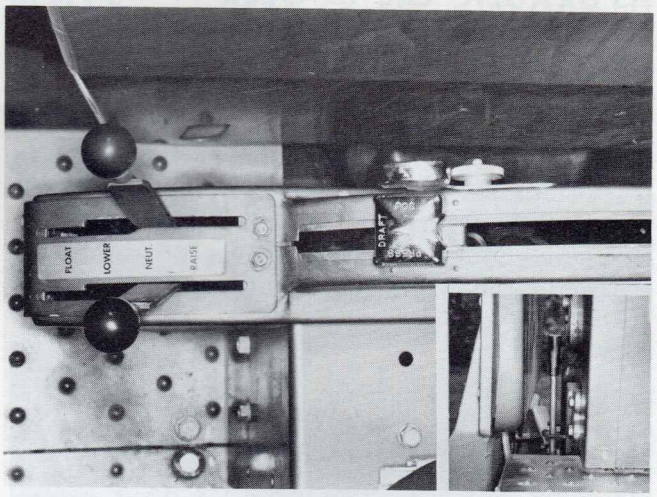
Slide 42 — Leveling Crank for Lower Link

AUXILIARY HYDRAULICS — EASILY CONNECTED OR DISCONNECTED

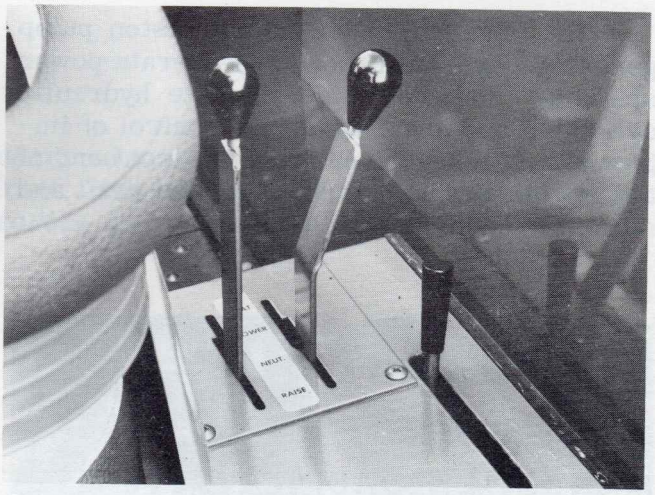
The closed center Auxiliary Hydraulic System used in the MF 1100 Series Tractors consists of either a single or dual control valve, hydraulic hoses and breakaway couplers. This system also includes an unloading valve for releasing pressure at the breakaway couplers and a flow control restrictor to control the input flow of oil to each spool valve.

On those models equipped with a 3-point hitch, the Auxiliary Hydraulic System valve and control lever(s) are located in a quadrant, forward of the main quadrant. On models not equipped with a 3-point hitch, this equipment is located just below and to the right of the operator's seat. With this Auxiliary Hydraulic System, it is possible to operate either single or double-acting cylinders without the need of making any adjustment to the control valve.

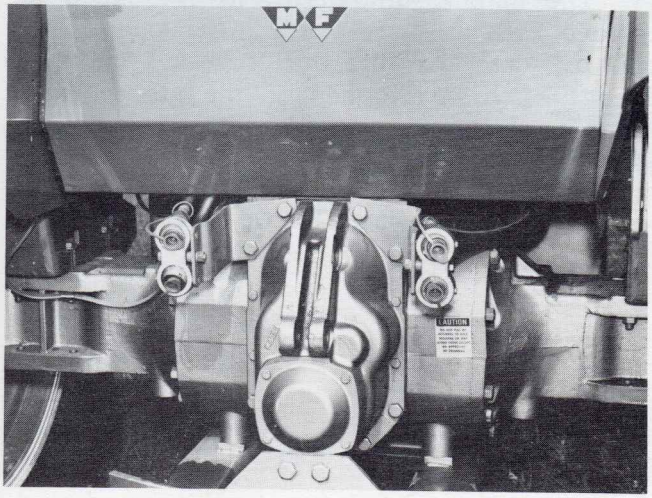
Each control has a "Raise", "Neutral", "Lower" and "Float" position. The "Float" position is used when it is desirable for the implement to follow ground contour, or it can be used to relieve pressure for connecting couplers. However, if the engine is not running, pressure will not be released until the unloading valve is activated.



Slide 43 — Auxiliary Hydraulic Controls (Row Crop) with Unloading Valve (Inset)



Slide 44 — Auxiliary Hydraulic Controls (Western)



Slide 45 — Quick Couplers

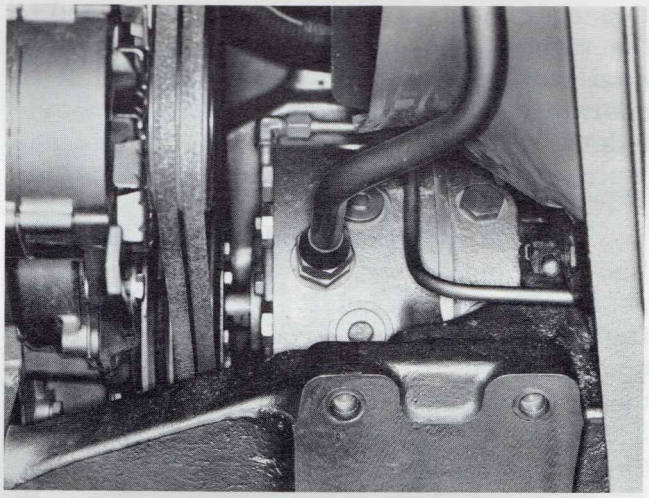
HYDRAULIC OIL COOLER — INCREASES HYDRAULIC SYSTEM EFFICIENCY

Oil delivered to the radial piston pump is first filtered and then passes through an oil cooler. Filtering naturally keeps the oil clean, while circulating the hydraulic oil through the cooler maintains the oil at an optimum operating temperature at all times.

Slide 46 — Hydraulic Oil Cooler

HYDRAULIC PUMP — HIGH CAPACITY

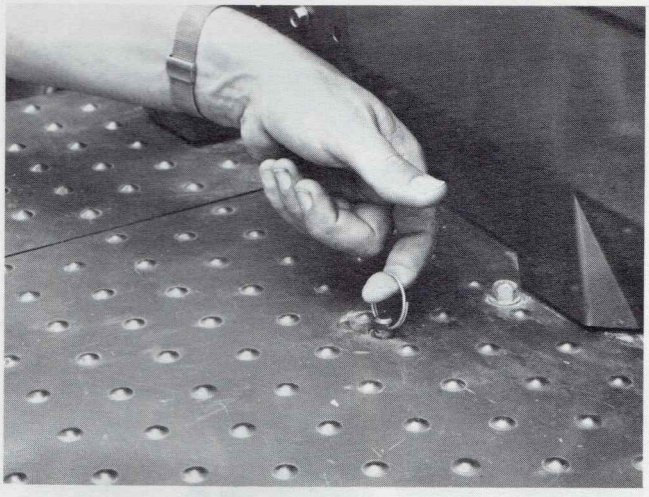
The eight cylinder radial piston pump generates hydraulic power to operate power steering, power brakes, remote hydraulic cylinders and the lifting and control of implements. It is driven from the front end of the engine crankshaft by a splined shaft and a flexible coupling.



Slide 47 — Hydraulic Pump

MANUAL UNLOADING VALVE — RELIEVES HYDRAULIC SYSTEM PRESSURE

The manual unloading valve is used to relieve hydraulic pressure in the pump circuit prior to starting the engine. This reduces the load imposed on the starter and battery and makes cold weather starting easier.



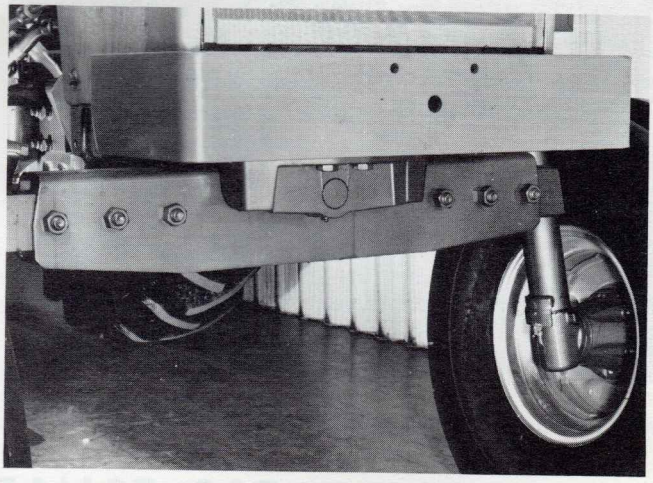
Slide 48 — Pulling Up Manual Unloading Valve

FRONT AXLE

ROW CROP TRACTOR — ADJUSTABLE WIDE AXLE

The front axle on Row Crop Models is the adjustable tread type having a welded box center section and heat-treated extension arms. The axle center section pivots on a 2-inch diameter pin supported by two pivot housings attached to the front support assembly.

The front axle and tie-rod assemblies are designed to provide a front wheel tread adjustment from 56" to 80", in 4" steps (each front wheel adjusts in 2" steps). An additional 8" of front wheel tread width can be obtained at any front axle setting by reversing the wheel discs on the wheel hubs. When this is done, a maximum front wheel tread width of 88" can be obtained.

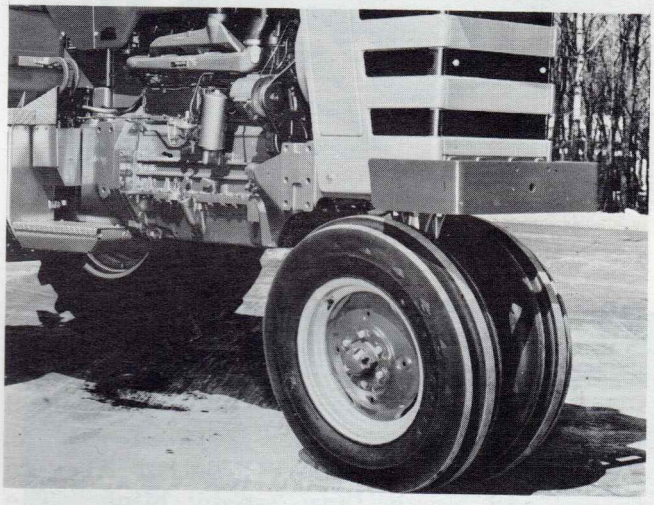


Slide 49 — Front Axle (Row Crop)

The axle and heavy-duty front spindles are designed to provide a short turning radius and good mud clearance between the inside of the front tires and axle arms. Triple-lip grease seals insure long wheel bearing life, even under severe operating conditions.

TRICYCLE TRACTOR — GOOD PEDESTAL-TO-TIRE CLEARANCE

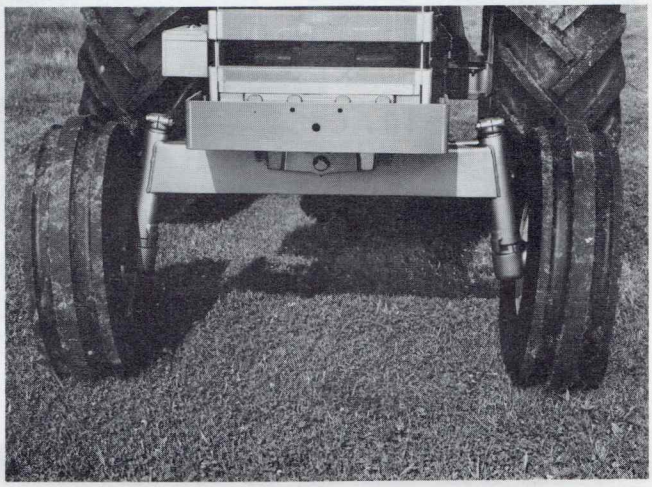
The dual tricycle pedestal and axle spindles are designed to provide maximum strength and good clearance between the tires and front crankcase housing as well as between the inside of the tires and the pedestal. Heavy-duty axle spindles, wheel bearings and triple-lip grease seals provide long, dependable service life.



Slide 50 — Tricycle Pedestal

WESTERN TRACTOR — HEAVY-DUTY NON-ADJUSTABLE AXLE

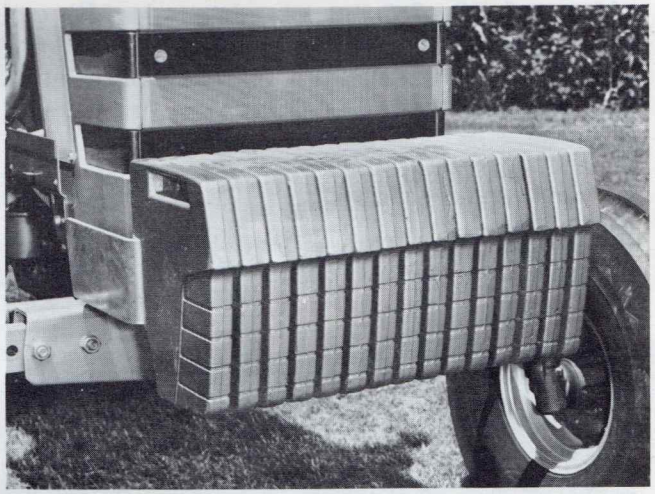
The Western Tractor has a fixed (56") heavy-duty front axle. The added weight that is built into the front axle reduces the amount of weights needed for heavy-duty operation.



Slide 51 — Front Axle (Western)

FRONT WEIGHT FRAME — HEAVY CONSTRUCTION PROTECTS FRONT OF TRACTOR

The sturdy front weight frame allows the installation of up to 25 90 lb. (approx.) front end weights on the MF 1150, or 15 weights on the MF 1100 and MF 1130 Tractors. The weights can be hung on the frame very quickly with a minimum of effort. The weight frame also protects the front of the Tractor from damage.

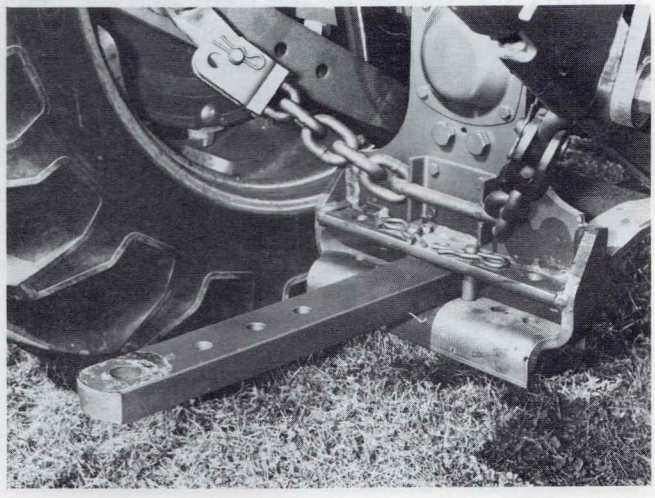


Slide 52 — Front Weight Frame and Weights

DRAWBARS — FIXED OR SWINGING POSITIONS

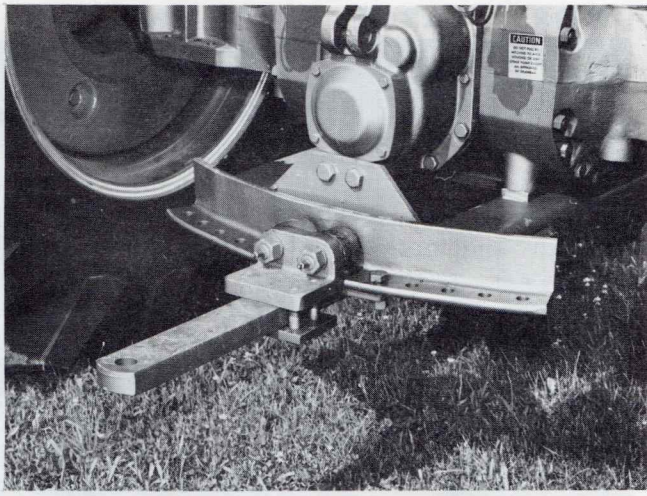
The Row Crop Tractor may be equipped with either a Heavy-Duty Drawbar with 3-point hitch or Pressure Control Arcuate frame and Heavy-Duty 3-point hitch. The Western Tractor will be equipped with a Heavy-Duty Roller type Wide Swinging Drawbar.

The Heavy-Duty Drawbar has a swing angle of 8.5° each side of center, with the pivot pin 16 inches forward of axle. It can be held at various fixed positions.



Slide 53 — Heavy-Duty Drawbar

The Heavy-Duty Roller Wide Swinging Drawbar may be allowed to swing freely or held in various fixed positions.



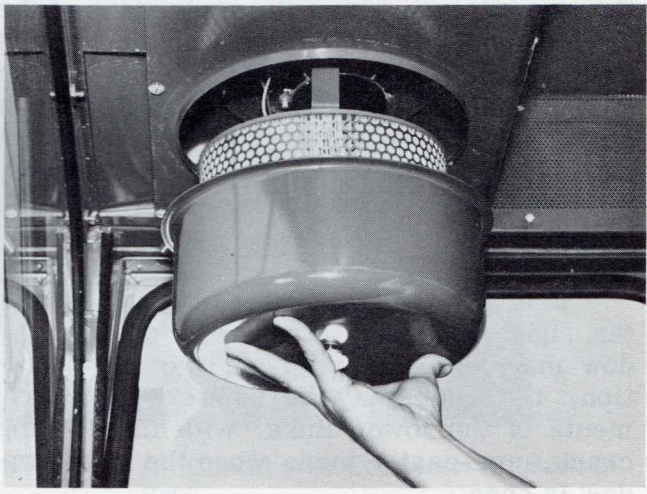
Slide 54 — Heavy-Duty Roller Wide Swinging Drawbar

FACTORY INSTALLED CAB

VENTILATION SYSTEM — PROVIDES CLEAN, FRESH AIR

Outside air enters the cab through a screen above the windshield. The blower draws the air through a filter and with the door and windows closed, maintains an inside pressure slightly higher than the outside atmospheric pressure. The continuous seepage of air from the cab effectively prevents dust and dirt from entering the cab.

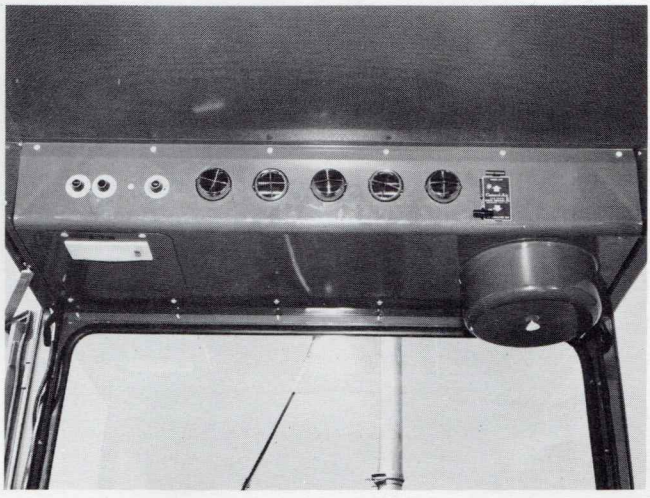
Insulation and a floor mat help to prevent noise and heat from entering the cab.



Slide 55 — Air Filter for Cab

CAB CONTROLS — CONVENIENT, EASY TO USE

All controls are located on the panel in front of the operator, above the windshield. Five air ducts allow the operator to control the direction of air flow. Selection of outside air or recirculated air may be made by changing the position of the lever on the right side of the control panel. A cab interior light and switch are located on the lower left corner of the cab control panel.



Slide 56 — Cab Control Panel and Air Ducts

DOOR — LARGE — ENTERING OR LEAVING IS EASY

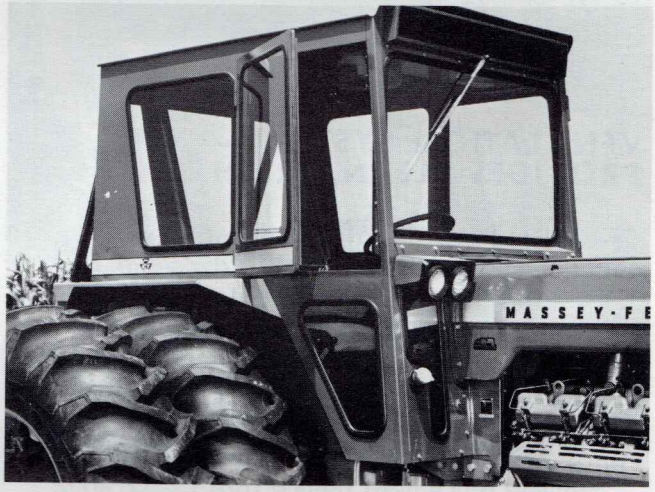
A large door on the left side of the cab permits even a "large" operator to enter or leave the cab with ease. "Non-slip" steps and built in hand holds are designed into the cab for the operator's safety and convenience.

Slide 57 — Large, Easy to Enter Cab Door

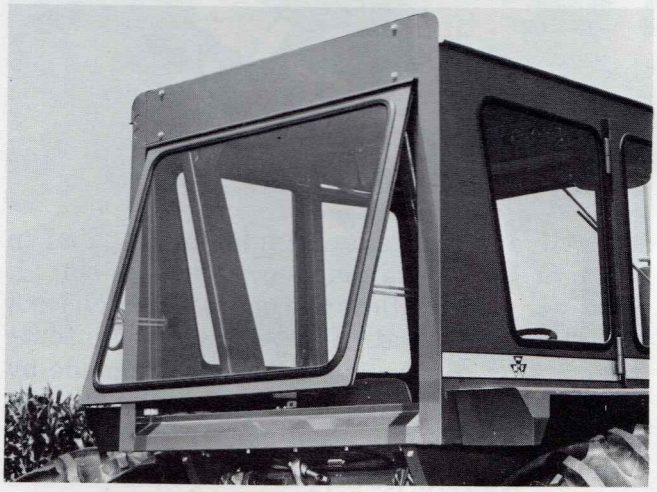
WINDOWS — PROVIDE EXCELLENT VISIBILITY

The large cab windows provide excellent visibility. Two small vertical windows, adjacent to the hood, provide a clear view of the ground area along the front sides of the Tractor. Safety tinted glass is used on the cab to reduce light glare, heat transmission and minimize breakage. Rubber mouldings seal the window panes and cushion them against vibration. Special wheel fenders reduce dirt and dust accummulation on the side windows.

If direct outside ventilation is desired, the right forward window and the rear window may be opened. For additional ventilation, the door may be removed. Adjustments of the lower links, with the leveling crank, are easily made when the rear window is open.



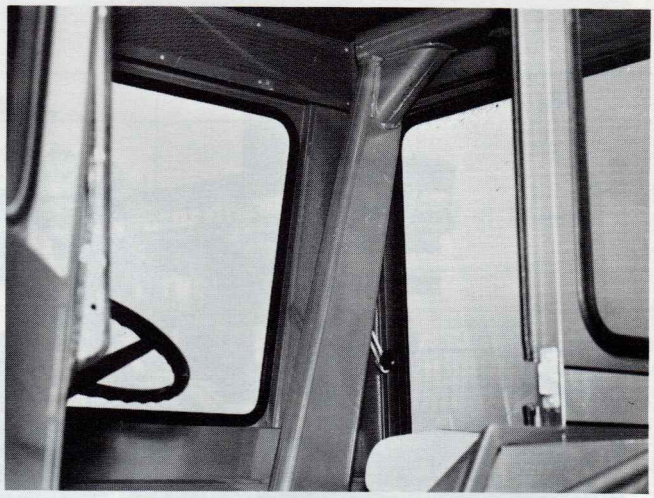
Slide 58 — Right Front Window Opens for Ventilation



Slide 59 — Rear Window also Opens for Ventilation

SAFETY FRAME (OPTIONAL) — ADDITIONAL OPERATOR PROTECTION

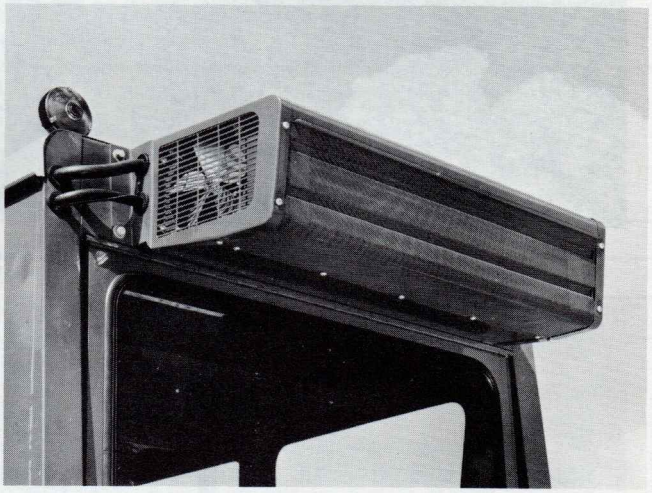
The Tractor may be equipped with a Safety Frame and seat belt, offering the operator additional protection in case of an accident. The Safety Frame fits inside the cab and does not affect visibility.



Slide 60 — Inside View of Cab Showing Safety Frame

AIR CONDITIONING AND HEATER (OPTIONAL) — CONTROL TEMPERATURE

The cab may be equipped with an air conditioning unit (Optional) to provide the operator with controlled, comfortable cab temperature in hot weather. A high capacity condensor is mounted on the rear of the cab. For cold weather comfort, the cab may be equipped with a heater (Optional), which operates on hot water from the engine cooling system. A comfortable operator is a more alert operator!



Slide 61 — Air Conditioner Condenser on Back of Cab

Slide 62 – MF 1130 Row Crop Diesel Tractor

Slide 63 – MF 1150 Diesel Row Crop Tractor with Cab

SPECIFICATIONS

	MF 1100		MF 1130	MF 1150
ENGINE:				
Type	Gasoline	Diesel	Turbocharged Diesel	V-8 Diesel
Make	Waukesha	Perkins		
Model	F 320-G	A6.354	AT6.354	AV8.510
No. of Cylinders	6			8
Displacement, cu. in.	320	354		510
Bore	4.125"	3.875"		4.25"
Stroke	4.0"	5.0"		4.5"
Compression Ratio	7.6:1	16:1		17.5:1
Max. RPM (No Load).	2450	2400		
Max. PTO HP	90.29	93.94	120.51	135 (Mfg. Est.)
FUEL SYSTEM:				
Type	Pressure Fed			
Fuel Filters	Sediment Bowl			N.A.
	N.A.	Two full flow filters w/replaceable elements		
Fuel Injectors	N.A.	CAV multi-hole type		
ELECTRICAL SYSTEM:				
Batteries	One 12-volt 96 amp. hr., neg. ground	Two 12-volt, 96 amp. hr., negative ground		
Starter Switch	Ignition-Starter	N.A.		
	Key operated, self returning			
Starter	12-Volt, 4 pole			
Alternator	12-Volt, continuous output, diode rectified, A.C. type			
Regulator	Voltage - current limiting relay type			
Distributor	Automatic, centrifugal spark advance	N.A.		
HYDRAULIC SYSTEM:				
Pump	Constant pressure - variable volume radial piston pump			
Relief Pressure	2750 psi			
Delivery	20 gpm at 2200 engine rpm and 2000 psi			
Lift System Control	Oscillating control valve in hydraulic lift cover			

POWER TRAIN:

Clutch	12" Diameter, dual disc, dry type
Dual Range Transmission	Basically a 3-speed transmission consisting of constant mesh helical primary reduction gears w/spur type change speed gears. This transmission in conjunction with a constant mesh helical hi-lo compounding gear set provides 6 speeds forward and 2 reverse.
Dual Range Multi-Power Transmission	Constant mesh helical primary reduction gears w/spur type change speed gears. Primary reduction gears controlled by a hydraulically actuated clutch pack and a one-way over-running type clutch. The transmission in conjunction with two sets of constant mesh helical compounding gears, provide 12 forward and 4 reverse speeds.
Final Drive	Spiral bevel gear and pinion in combination with planetary type final reductions.
PTO Clutch	Multiple wet-disc-type, 5" diameter
PTO Speeds	540 or 1000 RPM

BRAKES:

Type	13-3/4" diameter, hydraulic power, wet disc type

TIRES:

	MF 1100		MF 1130	MF 1150
	Gasoline	Diesel		
Front:				
Row Crop	7.50-16, 7.50-18 or 11.00-16			11.00-16
Western	N.A.	7.50-18 or 11.00-16		11.00-16
Rear:				
Row Crop	15.5-38, 18.4-34, 18.4-38 or 23.1-34		18.4-34, 18.4-38, 23.1-34, 24.5-32 or 30.5-32	18.4-38, 23.1-34 or 24.5-32
Western	N.A.	18.4-34, 18.4-38 or 23.1-34	18.4-34, 18.4-38, 23.1-34 or 24.5-32	18.4-38, 23.1-34, 24.5-32 or 30.5-32

DIMENSIONS:

	MF 1100	MF 1130	MF 1150
Wheel Base:			
Tricycle (Single)	100-13/16"		N.A.
Tricycle (Dual)	101-5/16"		N.A.
4-Wheel Rod Crop & Western	102-5/8"		108"
Wheel Tread (Front):			
Row Crop	56" - 80"		56" - 88"
Western	60"		
Wheel Tread (Rear):			
Row Crop	60" - 100"		60" - 120"
Western	70" or 114"		70" or 100"
Overall Height (Top of Steering Wheel)	77"		74-5/8"
Cultivating Clearance	24.5"		
Ground Clearance: (Min. under Drawbar)	16.0"		
Shipping Weight (Approx.)	9000 lbs.	9500 lbs.	11000 lbs.

CAPACITIES:

	MF 1150 Gasoline	MF 1100 Diesel	MF 1130 Turb. Diesel	MF 1150 Diesel
Fuel Tank:				
Row Crop	35 U.S. - 29 Imp. gals.		50 U.S. - 41.5 Imp. gals.	
Western	50 U.S. - 41.5 Imp. gals.			
Cooling System	21 U.S. - 17.3 Imp. qts.	22 U.S. - 18.3 Imp. qts.		48 U.S. - 39.8 Imp. qts.
Crankcase	7 U.S. - 5.8 Imp. qts.	16 U.S. - 12.8 Imp. qts.		19 U.S. - 15.7 Imp. qts.
w/Filter	8 U.S. - 6.6 Imp. qts.	17 U.S. - 13.6 Imp. qts.		21 U.S. - 17.3 Imp. qts.
Central Hydraulic System Reservoir	Approx. 22 U.S. - 18.3 Imp. gals. When changing reservoir, 5 U.S. - 4.2 Imp. gals. will be retained in the reservoir giving it a refill capacity of 17 U.S. - 14.1 Imp. gals.			

N.A. = Not Applicable

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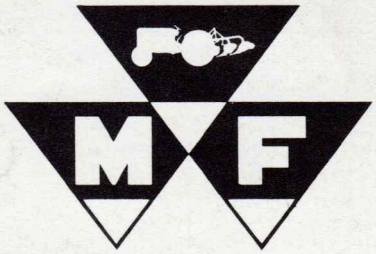

A complete set of color slides is available covering the material in this Manual. Please mention the publication Form No. when ordering from Massey-Ferguson Publications Dept., Box 881, Indianapolis, Indiana.