

MASSEY-FERGUSON

135

TRACTOR

LIGHT/MEDIUM CLASS  
MODEL OF THE MF  
COMPLETE RANGE  
OF TRACTORS



# two million tractor know-how has gone into the making of this new 45 h.p. model



The MF 135 . . . . outcome of the world's richest experience in the design and service of Ferguson System tractors. A generation of leadership in light-medium tractor development is behind this latest achievement of MF engineers—finest of its class and best all-round tractor investment you can make. Modern, businesslike styling is in keeping with the 135's outstanding performance; practical, proved Massey-Ferguson design, the foundation for new standards in feature specification. The direct injection diesel is everything a tractor engine should be. Robust, reliable, economical. Sparing with fuel—easy to start from cold in all weathers. Highest power to weight ratio. Vigorous "back-up" torque which increases over a speed range from 2250 maximum right down to 1300 r.p.m. — meaning low speed lugging power to slog through tough going without need for time-wasting gear changes.

And MF are first again with the most effective, most advanced means of putting this power to work. Another forward stride has been made in tractor hydraulics. Now you have single lever control of

draft operated implements. And exclusive new Pressure Control to bring even trailed implements into the Ferguson System sphere of weight transfer benefits.

Popular, trouble-free Multi-Power is available, of course—but with an important addition; the 135 Multi-Power model has an auxiliary high capacity hydraulic system to provide large volume oil flow for external services.

For the first time you can order a cab that's designed integrally with the tractor. A spring seat is another optional to make the driver's job more comfortable. Close study has been devoted to all aspects of operating to promote output. And among many valuable items of standard equipment are built-in lights, diff. lock, handbrake and the full range of instruments. Yes, this tractor is built to your most exacting requirements. But only a working trial can prove it, so have it demonstrated on your land. Then you'll know why two million others have settled for Ferguson System farming.

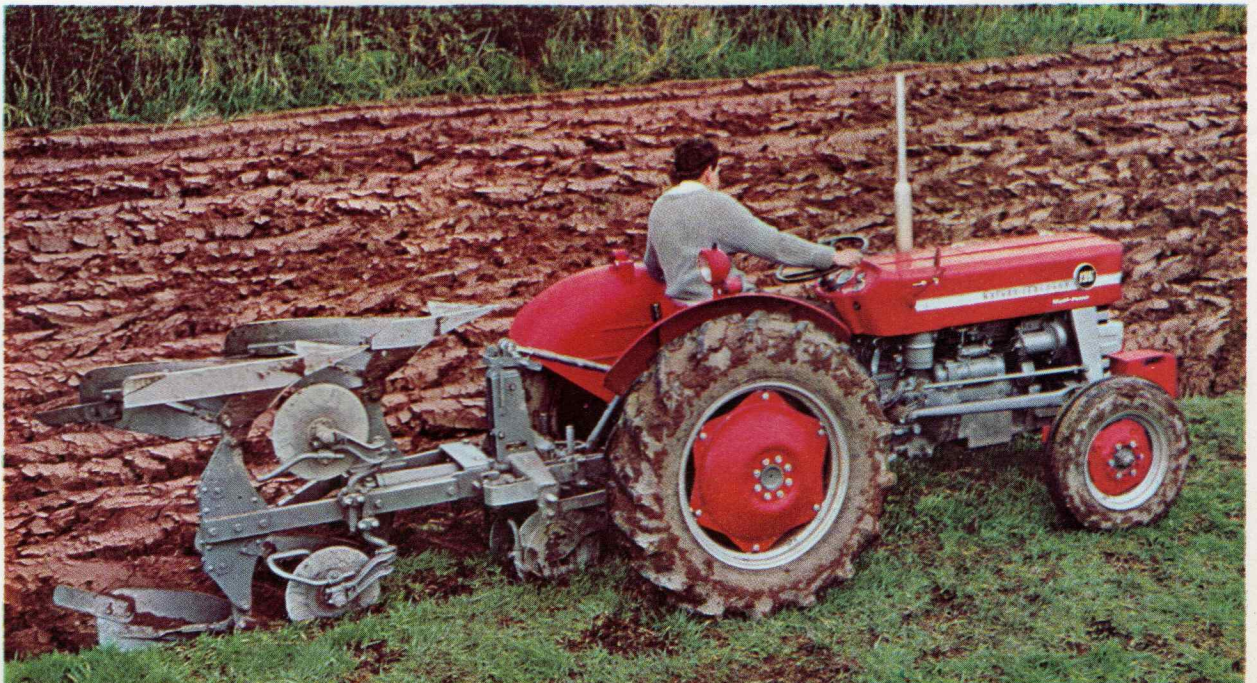
# THE MASSEY-FERGUSON TRACTOR RANGE

## *breakthrough to a new era of design*

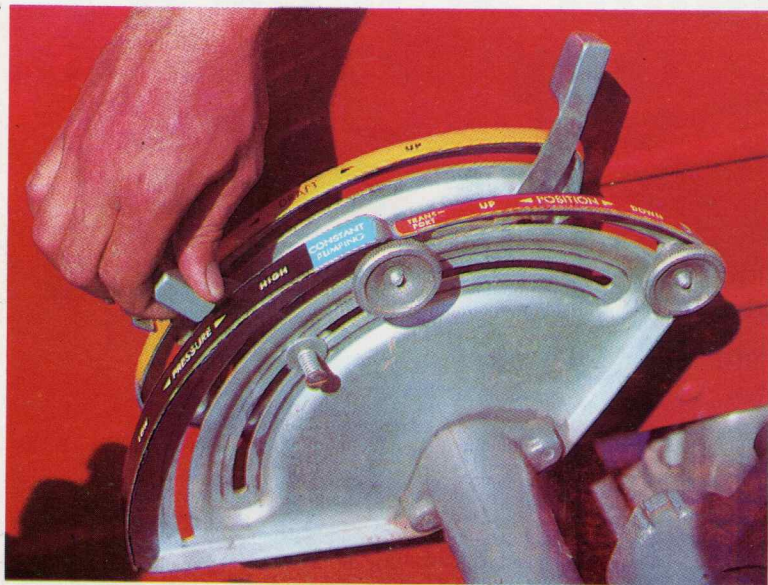
These points show where the MF 135 stands in the tractor world of today . . . .

- Light/medium model of an all-new range which provides a tractor exactly suited to every type and scale of farming enterprise.
- Unique in the power/price combination it offers.
- Last word in realistic design and practical feature specification.
- Engineered for highest efficiency both with trailed and linkage-mounted implements.
- Equipped with the world's most advanced tractor hydraulic system.
- Attractively styled with full regard to operator comfort, convenience and safety.
- Supported by MF's wide and comprehensive range of machinery and implements.
- Supply and Service facilities by the country's leading farm machinery Distributor organisation.

*Now see the following pages for 135 feature details . . .*



# World's most advanced hydraulics



## The new Ferguson System

Pressure Control extends Ferguson System weight transfer benefits to the use of trailed machines and implements. It opens up a whole new field of possibilities with heavy equipment. Now you can hitch up (in seconds) to virtually any pull-behind implement confident of the tractor's ability to keep moving through the toughest going. Even PTO driven machines — balers for example — can be operated with the special hitch transferring weight to the tractor for positive wheel grip. The finger-tip lever on the 'Pressure' quadrant beside the driver pre-determines maximum pressure in the hydraulic system. Set anywhere between LOW (150 p.s.i.) and HIGH (2300 p.s.i.) it effects a constant lift effort by the lower links ranging from a few pounds to 2500 lbs. Weight transfer is unaffected by rise and fall of the linkage when traversing uneven ground. At maximum, Pressure Control will practically double the weight on the rear wheels — at the same time lightening the front of the trailer to reduce rolling resistance . . .

*. . . and Pressure Control gives you these other advantages . . .*

### EXTERNAL HYDRAULIC SERVICES

Oil pressure in the system may be limited to any pre-selected maximum. This will protect implement cylinders and hoses designed to operate below normal tractor system pressures. And it means that trailers, for example, can be tipped without need for the operator to remain at the control quadrant. As soon as the trailer's hydraulic ram is fully extended oil pumping ceases — no strain falls upon the tractor relief valve.

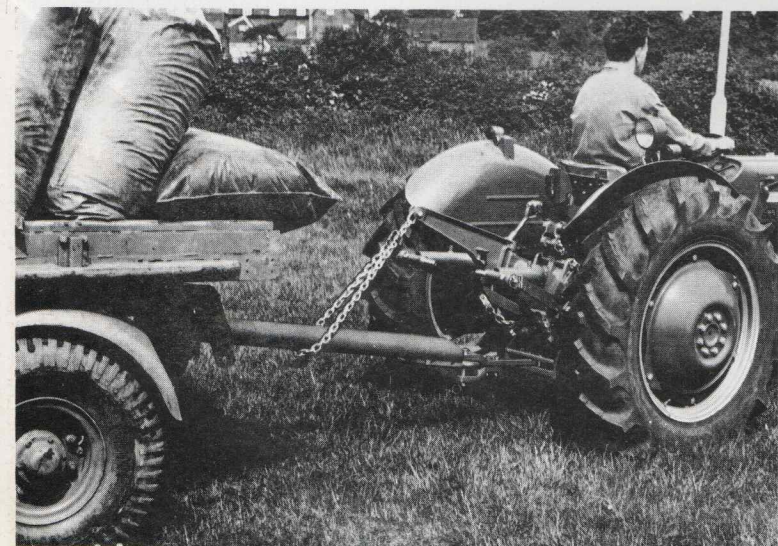
### SAFETY

Pressure falls immediately the lower links reach their upward limit of travel. So the tractor cannot rear up dangerously when trailing heavy machines.

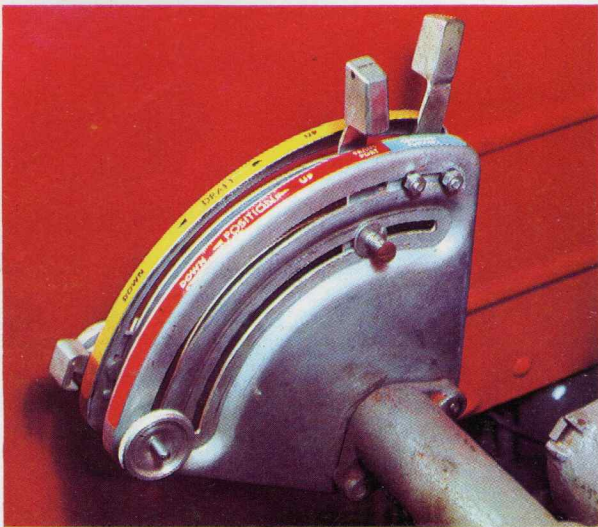
- *Pressure Control is a factory fitted optional. The special hitch is provided at no extra cost on Pressure Control tractors*

## now with PRESSURE CONTROL

*— the new dimension  
in tractor hydraulics*



## SINGLE LEVER CONTROL for normal mounted implements



Hydraulics control layout on this tractor is the simplest yet. For the great majority of jobs you use only the outer (yellow) quadrant lever.

- Illustration shows the basic quadrant on tractors without Pressure Control.

## TWO-WAY DRAFT CONTROL (Outer Lever)

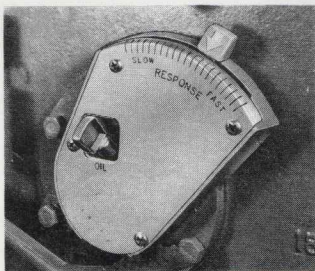
Practically all mounted implements are controlled entirely by the outer lever for lifting, lowering and in work. The two-way draft system automatically maintains constant depth whether implements are long or short, light or heavy, working shallow or deep.

## POSITION CONTROL AND CONSTANT PUMPING (Inner Lever)

Inner Lever is used for hitching up and the few occasions where it is required to operate with the linkage at a fixed height. Lower link height, throughout the range of travel, corresponds to the position of the lever on its quadrant.

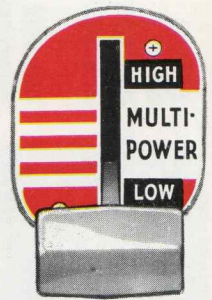
**Constant Pumping**, to supply continuous oil flow to external services, is obtainable by moving the lever to a separate location at the top end of the quadrant. Once 'Constant Pumping' has been selected, oil supply to remote cylinders is again controlled by the outer lever.

## RESPONSE CONTROL



New dash pot system has control quadrant on side of transmission housing below seat. Regulates linkage rate of drop from very slow to fast. Once response setting is made, according to the job in hand, operator again controls implement entirely by the outer lever.

# Only MF Tractors have



## MULTI-POWER

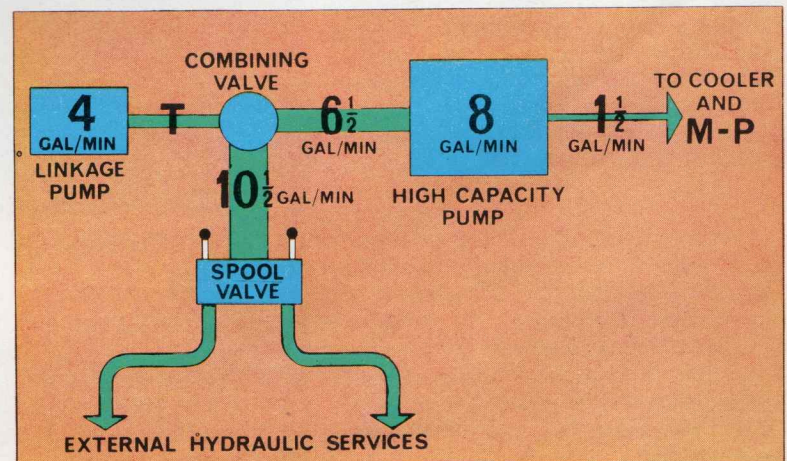
*Which lets you switch gears on the move with 12 forward speeds to match every field requirement*

It's available on the 135 — the simplest, most practical, most reliable change-on-the-go ever devised. You switch down for more power, switch up for more speed, in any one of the 6 forward, 2 reverse gears of the basic transmission. In easy going you work fast in HIGH. When the going gets tough — uphill or in heavy soil — you just flick the switch to gear down without losing time or traction. Multi-Power makes all the difference to daily output in tillage work, haulage and with PTO machines . . . but now there's even more:

## the 135 MULTI-POWER model gives you EXTRA HIGH CAPACITY for EXTERNAL HYDRAULICS

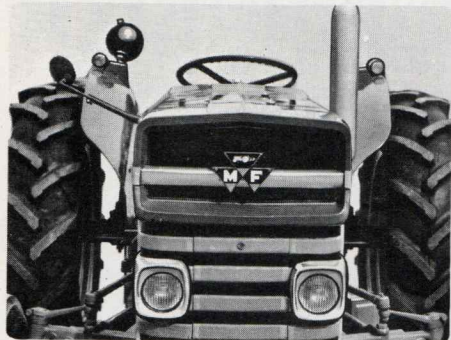
Over 10 gallons per minute—that's the amount of oil you can tap off to external services from the 135 Multi-Power model. This means really fast operation of equipment with remote hydraulic cylinders — tipping trailers, for example, and implements with slave ram depth control. And it gives you great scope in the use of machines driven by hydraulic motors.

MF engineers have achieved this by means of an auxiliary high capacity pump in addition to the tractor's normal linkage pump. You still get the usual efficient action of the rear linkage which is not affected by the new design. The high capacity pump, which also feeds the Multi-Power clutches, gives a surplus  $6\frac{1}{2}$  g.p.m. Through a combining valve this can be joined to the 4 g.p.m. of the linkage pump. By means of spool valves all or part of the total  $10\frac{1}{2}$  g.p.m. can be directed to one or more remote systems—with a power output of 15 h.p. available. The Combining and Spool valves are optional factory fittings—so you have no trouble in obtaining the right equipment for your tractor.



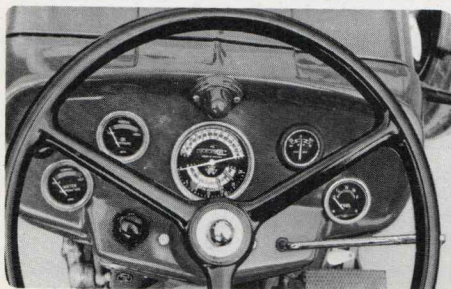
# all these features are standard equipment

on single and dual clutch models . .



## BUILT-IN LIGHTS

The full array of lights — head, side and tail — are neatly built in and comply with Road Traffic Regulations. Number plate illumination and tail reflectors are provided, too. There is an adjustable angle plough lamp at the rear.

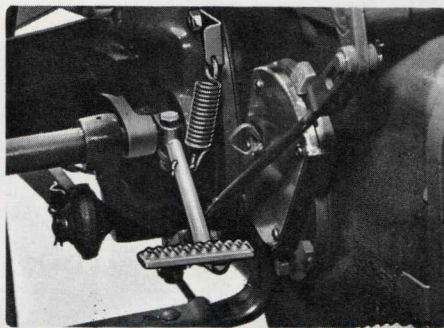


## FULL SET OF INSTRUMENTS

Illuminated panel shows everything you need for efficient control of the tractor. For the first time on any tractor a fuel gauge is standard. Easy-to-read tractormeter gives low range speeds in lower sector, high range speeds in upper sector of dial; also standard PTO and belt speeds. Rear-view mirror, ammeter, water temperature and oil pressure gauges are here, too — even, as optional, a cigarette lighter.

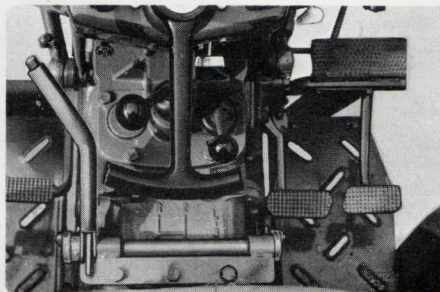
## ● SAFETY STARTING

No danger of starting in gear — another MF exclusive. All MF tractors have the long-proved safety device which allows the electric starter to work only when the gear shift lever is in neutral.



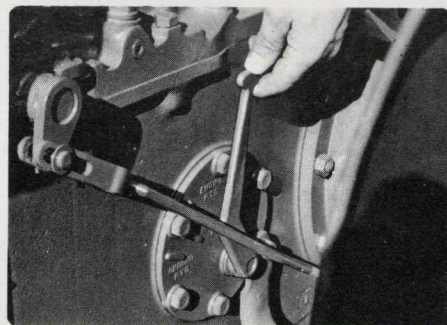
## DIFFERENTIAL LOCK

Pedal close to driver's right heel operates differential lock to give "solid axle" drive when ground surface resists adhesion of either rear wheel. Pedal position indicates whether lock is "in" or "out".



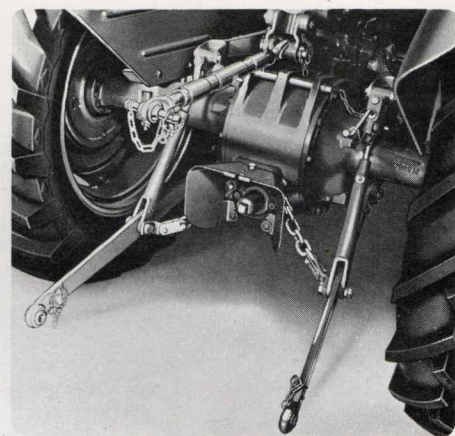
## HANDBRAKE — FOOTBRAKES

Push-button hand lever brakes both wheels for parking. Twin foot pedals can be applied together for normal braking or independently to assist steering.



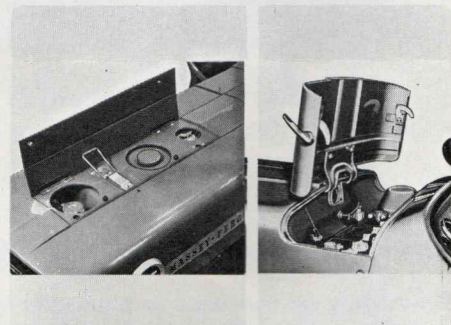
## PTO POWER—34 h.p. at 540 r.p.m.

PTO drive is proportional to engine or ground speed. Standard 540 r.p.m. occurs at 1684 engine r.p.m. providing excellent "back-up" torque. Dual clutch model gives live PTO and hydraulics.



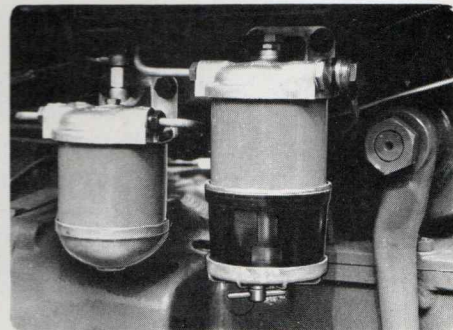
## STRONG CAT. 1 LINKAGE

Extra strong components give complete reliability. Lower links have big lift capacity of 2850 lbs. Screw type top link is adjustable for length. Spring catch on levelling lever maintains chosen setting. Note PTO guard with time-saving single bolt fixing.



## SERVICE PANELS

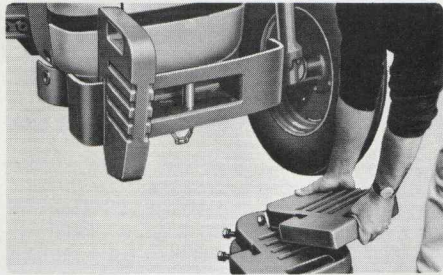
Neat, hinged panel gives quick access to fuel and water filling points. Separate panel at rear is specially arranged to facilitate servicing of battery.



## CLEAN FUEL

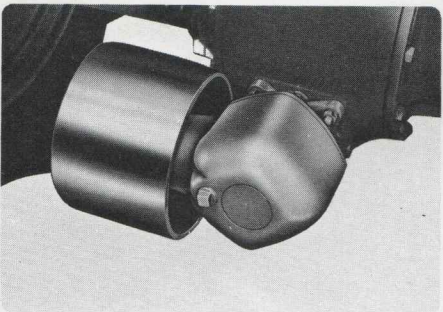
Primary and secondary filters ensure complete reliability of the fuel injection system. Agglomerator in primary filter traps any water in fuel — water is quickly released through drain cock in base of sediment bowl.

... and these *OPTIONALS* ensure maximum convenience and versatility



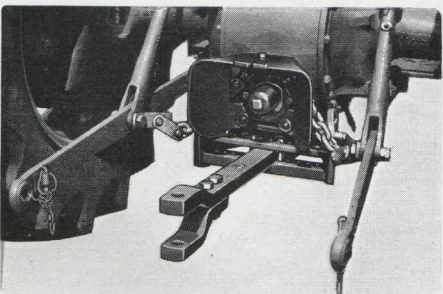
### WEIGHT FRAME/TOW HITCH

Front-end ballast is easily adjusted with this attachment. Up to eight 60 lb. weights can be set on the frame — each secured in seconds by one bolt. Recessed towing mouth provides useful front hitch point.



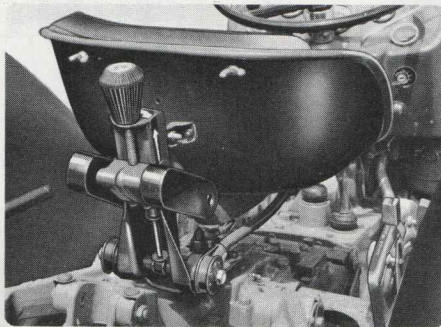
### BELT PULLEY

This 9" pulley is driven by the PTO shaft. Rotation in either direction is obtainable by mounting the unit to left or right of the shaft. Dual clutch tractor gives belt speed up to 3093 ft./min. Regulation safety guards are provided.



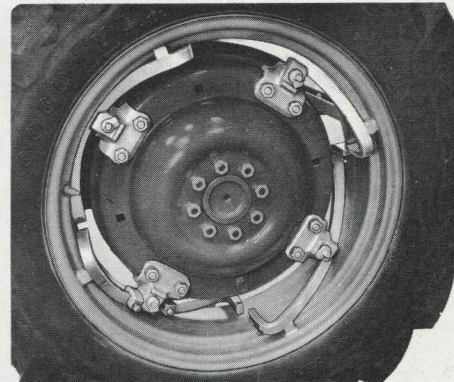
### SWINGING DRAWBAR

Drawbar is adjustable both for length and height. Provides correct hitching position for PTO driven machines and rigid, simple coupling for trailed implements.



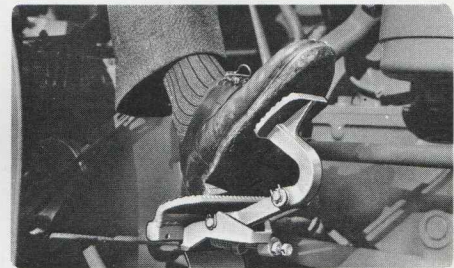
### SPRING SUSPENSION SEAT

This seat gives the operator day-long comfort to conserve energy for the job that matters. Adjustable spring tension is set to suit the driver's weight and the work in hand. Shocks are absorbed and bumps levelled out to give a really smooth ride.



### POWER ADJUSTED WHEELS

Rear track setting is quickly changed without manual effort on these power adjusted wheels. Track can be adjusted from 48" to 64" initially, then from 60" to 76" by interchanging wheels.



### FOOT THROTTLE

If you have never used one, try before you buy — you'll soon be convinced of its value, especially for transport work. Foot pedal overrides hand throttle; engine speed returns to hand lever setting when pedal is released.



### ALL-WEATHER CAB DESIGNED ALONG WITH THE TRACTOR

Now you can order a cab made to MF specifications and designed concurrently with the tractor itself. Flat-top fenders are built in to match the tractor. You know right away that it fits exactly, is styled in keeping, shaped to allow the driver maximum vision, operating room, comfort and convenience. Steel framed fibreglass construction is completely rainproof and free from drumming and rattles. Spigot-hinged doors are detachable in seconds for coolness in summer. The top is removable in one piece. Side windows are slide opening. Fittings available include a windscreen wiper and roller blind at the rear with inset window.

# 135

# T R A C T O R

## Specification

**General Note:** All data on this page is specific to the MF 135 diesel, dual clutch model. (Petrol engine and single clutch models are also available).

### ENGINE

AD3.152 Three cylinder direct injection diesel made by Perkins to Massey-Ferguson specifications:

Capacity ... ..	152.7 cu. in.
Bore ... ..	3.6"
Stroke ... ..	5"
Compression ratio ... ..	18.5 : 1
Starting aid ... ..	Thermostart
Injection pump ... ..	Distributor type
Governor ... ..	Mechanical
Max. Gross H.P. ... ..	45.5 at 2250 r.p.m.
Max. Torque ... ..	119 lb./ft. at 1300 r.p.m.

### TRANSMISSION

**Clutch** Dual type with 11" primary and 9" secondary driven plates. Self ventilating for cool running.

**Gearbox** Sliding spur type with planetary reduction unit giving 'High' and 'Low' ranges to provide 6 forward, 2 reverse gears.

**Multi-Power** Doubles basic gear range giving additional 30% faster speeds in each gear and so providing 12 forward, 4 reverse gears. Multi-Power HIGH ratios obtained by hydraulic clutch engagement of extra set of constant mesh gears.

**Final Drive** Conventional differential with spiral bevel gears.

**Differential Lock** Fitted as standard.

**Road Speeds** On 11-28 tyres (22.9" rolling radius):—

N.B.—Multi-Power LOW speeds are almost identical to those of the basic range.

Engine r.p.m.	BASIC RANGE		MULTI-POWER HIGH	
	500	2250	500	2250
Gear	m.p.h.	m.p.h.	m.p.h.	m.p.h.
1	0.33	1.50	0.44	1.98
2	0.50	2.24	0.66	2.95
3	0.91	4.11	1.20	5.42
4	1.33	5.97	1.76	7.89
5	1.99	8.96	2.63	11.82
6	3.65	16.40	4.82	21.70
Reverse 1	0.45	2.03	0.60	2.68
Reverse 2	1.80	8.10	2.39	10.74

**Power Take-off** Drive proportional to engine speed or to ground speed. Shaft: diameter 1 3/8", 6 splines, annular groove and transverse hole for various couplings.

**Ground Speed:** Shaft revolves once for 19" travel (clockwise in forward, anti-clockwise in reverse).

**Engine Speed:** Engine/PTO reduction of 3.12 : 1 gives 540 PTO r.p.m. at 1684 e.r.p.m. and 721 PTO r.p.m. at 2250 e.r.p.m. Power available: 34 h.p. at 540 r.p.m. (British Standard speed).

**Belt Speed:** 3093 ft./min. at 2250 e.r.p.m.

### STEERING

Recirculating ball mechanism. 2 1/2 turns from lock to lock.

### BRAKES

14" x 2" drum brakes, two shoes per drum. Operated together or independently by twin foot pedals. Handbrake fitted as standard.

### HYDRAULICS

**Functions** Two-way Draft Control, Response Control, Position Control, Pressure Control (optional).

**Linkage** Cat. 1 three-point linkage standard. Dual Cat. 1 and 2 linkage optional. Top link screw adjustable. Lift capacity 2850 lbs.

**Linkage Pump** Four cylinder piston type, constant running. Single control valve on suction side. Delivery 4 gal./min. at 2250 e.r.p.m. Relief valve setting 2500 p.s.i. Oil supply of up to 1 1/2 galls. available from sump for external rams.

**Auxiliary System** (Multi-Power model only) Comprises High Capacity pump with oil cooler. Supplies oil for external services (including hydraulic motors) through spool valves; one spool or two spool, double acting, convertible to single acting.

High capacity pump is located adjacent to linkage pump and driven from PTO shaft. Requirement for Multi-Power is diverted through priority circuit to cooler, leaving 6.6 gal./min. available for external services. Relief valve setting 2000 p.s.i. Combining Valve allows High Capacity and Linkage pump outputs to be united to give total 10.6 gal./min.

Hydraulic power available: High Capacity pump only, 9.3 h.p.; combined pumps 14.9 h.p.

Oil Cooler is located between tractor radiator and front grille.

### WHEELS AND TYRES

**Track Adjustment** Rear 48" to 76". Front 48" to 80".

**Tyre Sizes** 4-00-19 Front with 10-28 Rear.

6-00-16 Front with 10-28 Rear.

6-00-16 Front with 11-28 Rear.

### DIMENSIONS, WEIGHTS, CAPACITIES

Length ... ..	118"	Weight (with fuel, oil, water) ... ..	3,200 lbs.
Width (normal track) ... ..	64"	Weight Distribution:	
Height (over steering wheel) ... ..	54"	Front ... ..	1,376 lbs.
Ground Clearance (min.) ... ..	12"	Rear ... ..	1,824 lbs.
Wheelbase ... ..	72"	Fuel Tank ... ..	8 1/2 galls.
Turning Circle (without brakes) ... ..	19' 3"	Cooling System ... ..	18 pints
		Engine Sump ... ..	11 1/2 pints
		Transmission ... ..	6.6 galls.

### EQUIPMENT SUMMARY

#### Basic

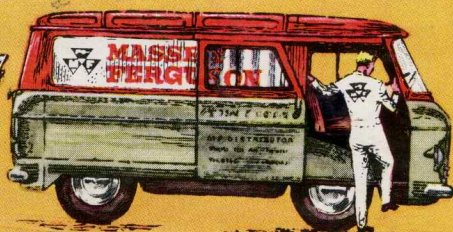
Lights, plough lamp, reflectors  
 Differential lock  
 Comprehensive instruments, rear mirror  
 Hydraulics and Cat. 1 linkage  
 6 forward, 2 reverse speed transmission  
 Dual clutch/Live PTO  
 Ground speed PTO  
 Handbrake  
 Cushion seat  
 Vertical exhaust  
 4-00-19, 10-28 4 ply tyres  
 or 6-00-16, 10-28 4 ply tyres  
 or 6-00-16, 11-28 4 or 6 ply tyres

#### Optional/Accessories

Cab  
 Multi-Power/Auxiliary hydraulics  
 Combining valve  
 One-spool valve  
 Two-spool valve  
 Pressure Control and hitch  
 Spring suspension seat  
 P.A.V.T. rear wheels  
 Foot throttle  
 Front frame and weights/Tow hitch  
 Belt pulley  
 Dual Cat. 1 and 2 linkage  
 Swinging drawbar  
 Automatic hitch  
 Cigarette lighter  
 Horizontal exhaust  
 Dual rear wheels (11-28 tyres)  
 Front and Rear wheel weights  
 6-00-16, 11-28 6 ply tyres

*In accordance with the Company's policy of continuous improvement to its machines, alterations in the specifications of machines may be made at any time without notice and the Company accepts no responsibility for any discrepancies which may occur between the specifications of its machines and the descriptions thereof contained in its publications.*

Prompt MF Service is just  
 a 'phone call away



Set a date — We'll demonstrate