MF 4300

Maschine
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Agritechnica Award

Versatile, high productivity tractors from 67 to 116 hp

MASSEY FERGUSON

The MF 4300 Series: Award-winning versatility and productivity

The Massey Ferguson 4300 Series is a versatile range of tractors that are light, strong and powerful. And with class-leading standards of operator comfort and visibility combined with a range of cab types, specifications and optional equipment, the 4300 Series tractor you choose will be precisely the tractor you need.

Outstanding comfort

The spacious cab, with side-mounted exhaust on most models, is available with a choice of 'Standard', 'LoProfile' and 'HiVisibility' styles to help you to tailor your tractor to specific application needs. The modern control layout offers a choice of electronic or manual linkage control, counter weighted, short-lever gear selection, excellent visibility and highly efficient heating and ventilation systems all mean exceptional comfort and simplicity of operation.

Powerful engines

Power, ranging from 67 to 116 ISO horsepower (65 to 110 DIN PS), is provided by fully 'emissions-compliant' Perkins engines. With high torque at low engine revs., power delivery is ideal for a wide range of agricultural, horticultural and municipal applications.

Field efficiency

From the superb 24/24 speed PowerShuttle transmission with unique Comfort Control, to the simplest 8-speed manual shuttle gearbox, there is a range of gearbox options to meet all operational needs.

Combined with the precision and control of MF's renowned hydraulic linkage system, either mechanically or electronically controlled, and the

Front cover: New MF 4365

Below: MF 4355 4-WD 'HiVisibility' model with optional front linkage and PTO

high lift capacity on all models, high output and work quality are assured.

With the backing of MF's comprehensive Dealer network and unbeatable parts and service support, the award-winning 4300 Series from Massey Ferguson is not only a pleasure to drive, but also an exceptional long term investment.

[1]Model	[2]ISO hp/[3]DIN PS	Engine	[4]LoPro.	HiVis.	Std.
MF 4325	67/65	4 cyl.	●	●	●
MF 4335	78/75	4 cyl.	●	●	●
MF 4345	90/85	4 cyl. turbo	●	●	●
MF 4355	100/95	4 cyl. turbo	●	●	●
MF 4365	112/105	4 cyl. turbo	–	–	●
MF 4370	116/110	6 cyl. turbo	–	–	●

[1]All models are available in 2- and 4-wheel drive. [2]ISO (TR 14396) [3]DIN 70020
[4]Also available as 'Flat Roof' cab version with opening front screen

The MF 4300 Series ...

- Maximum versatility, with a wide choice of models, cab types and specifications
- High performance, with operating simplicity
- High power to weight ratio
- Superb comfort and controls
- Outstanding visibility
- High build quality, durability... and residual value

Class-leading comfort and controls

With its large glass area and side-mounted exhaust for excellent visibility, choice of high specification seats and stylish right-hand control console, the 4300 Series cab is a relaxed, productive place to be.

Outstanding comfort

The fully adjustable 'deluxe' seat has long folding armrests with height adjustment, a wide, well contoured seat cushion, plus a 30^0 total swivel capability for added comfort when there's a need to keep a constant eye on rear mounted equipment. A choice of pneumatic seats is also available, providing all the benefits of air suspension for maximum comfort. All seats have a rake-adjustable backrest and can be fitted with an extension for added support. The 'Super Deluxe' option also adjusts automatically for the driver's weight and has 'climate control' fabric for extra comfort in hot weather.

Class-leading heating, demisting and ventilation is achieved, with up to 12 kW output from the heater and air distribution via a 3-speed blower plus six adjustable and six fixed vents. All fresh or recirculated air is filtered and the total volume of air inside the cab is changed four times every minute.

Tinted glass is standard on most models, with air conditioning as an option, to create an outstandingly comfortable workplace.

Below: Clear instruments and superb control layout, including fully adjustable steering column. Model shown with mechanical linkage control.

Right: Standard and HiVisibility models feature the 'flat floor' cab. Choice of seats includes the Super deluxe air suspension seat (pictured). Model shown with optional Electronic Linkage Control.

Right: LoProfile model shown with optional 'flat roof' cab and opening front screen is ideal for working in areas with restricted height

Superb cab and controls

- Choice of cab and sheet metal styles to suit needs
- New side mounted exhaust (most models) for improved visibility
- Below 80 dB(A) in-cab noise level for more relaxed operation
- Choice of seats, right up to automatic air suspension with 'climate control' fabric

Comfort, style and efficiency

The two wide-opening doors and console mounted gear lever ensure easy access from either side of the cab. And once inside, you'll feel at home straight away, with controls falling easily to hand and information displayed clearly and simply.

Comprehensive instrumentation

The instrument console displays all vital information via a carefully researched combination of indicator lights, clear analogue dials and, depending on specification, large digital readouts of either forward speed and PTO speed. When the performance monitor is specified (see page 22), additional data related to distance travelled, area worked and wheelslip is also available.

Models fitted with the performance monitor have an implement data socket and are compatible with the MF Fieldstar™ terminal; the basis of the Massey Ferguson precision farming system (see page 23).

Excellent ergonomics for optimum output

Positive rocker switches, plus the sturdy multi-function column 'stalk' which incorporates self-cancelling indicators, are all well placed for easy operation. All of the main controls are housed to the right of the operator's seat, including linkage and spool valve levers and switches which are all large and well shaped for easy operation.

As an option, two spool valves can be controlled with a single 'joystick'. When an MF loader is fitted, an alternative lever provides additional functions

Electronic Linkage Control (optional) is operated via the ELC panel and the ingenious 'mouse' (below)

Above: Instrumentation is clear and concise. Digital readouts* give accurate PTO and forward speed (*depending on specification)

Right: Superb new right-hand console. Gear lever is angled to follow natural arm movement (Model shown has optional Electronic Linkage Control)

Clearly, a better view ...

The tilting/telescopic steering column adjusts simply to give exactly the right driving position

On 4 wheel drive models, front and rear differential locks are actuated by a large rocker switch positioned conveniently adjacent to the linkage controls. Simplicity is the keynote too with the switch-operated 'on-the-move' 4 wheel drive engagement and disengagement.

For the ultimate ease of three point linkage operation, Electronic Linkage Control is also available as an option. (See pages 18 and 19).

Unrestricted visibility

The side mounted exhaust and one of the largest cab glass areas in the class, mean there's very little to obstruct the view, in any direction. The powerful heating and ventilation system also ensures that windows stay clear in all weathers, adding further to safety and efficiency.

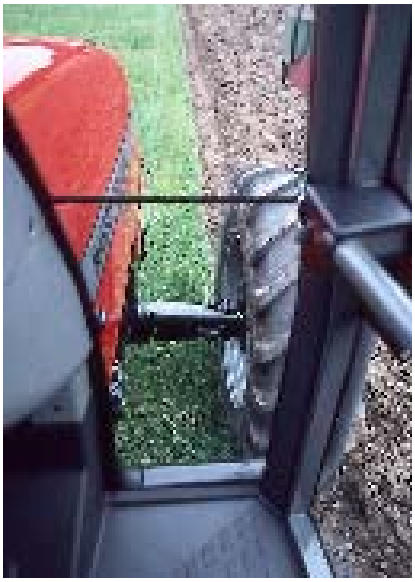
Attention to detail

Small details can often make a big difference to driver comfort and ease of day-to-day operation.

The toolbox is now conveniently located in the front weight frame and has a large capacity for storage of tools, linkage accessories and so on; the interior light operates when the left side door is opened; the handbrake position is adjustable and there are convenient auxiliary power sockets, full width sun visor and stowage for mobile telephone, food and drinks. All of these things... and many more, help to make life more comfortable in the superb MF 4300 Series cab.

Operator environment

- Clear, comprehensive, digital or analogue instrumentation
- New side mounted exhaust for improved visibility
- Fully adjustable tilt/ telescopic steering column
- Highly efficient heating and ventilation, with optional air conditioning



Below and left: Excellent visibility ensures safe, precise control

Plenty of power ... with added torque and economy

All MF 4300 series tractors have fully 'emissions compliant' Perkins engines which have been specifically designed for agricultural use, with a unique long stroke design which develops high torque at low engine revs.

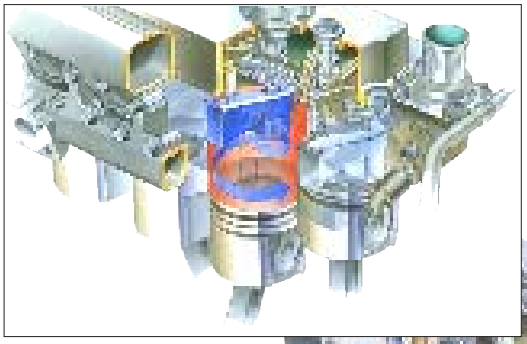
This torque back-up means that in difficult conditions, when engine revs fall as load increases, real 'working power' rises, so you don't have to change down continually to maintain high output. Also, tyres and transmission components last longer, driving is more relaxed and fuel economy is better too.

High Power-to-weight ratio

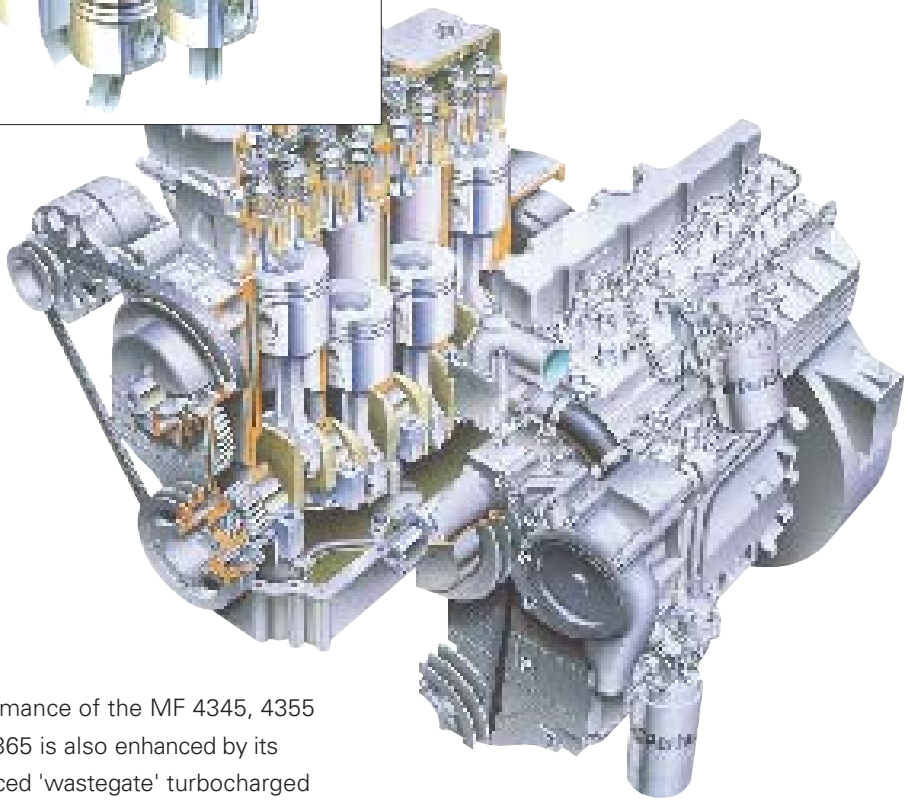
MF 4300 Series tractors all have outstanding power-to-weight ratios; up to 21% better than some competitive models. Weight can always be added but it can't be taken away, so with an MF 4300 Series tractor, you can match ballast precisely to the application, to minimise soil compaction and optimise fuel consumption and productivity.

Perkins 1000 engines

All models feature the latest Perkins 1000 series engines. With 4 or 4.2 litre capacity on four-cylinder versions and 6 litre, 6 cylinder versions on the MF 4370.



Far right: Advanced 4-cylinder (MF 4345) engine with Fastram combustion system (inset)



With these engines, power output is only part of the story. Outstanding performance has been achieved in terms of the 'spread' of power, with high power and torque available throughout the heavy working range between 1800 and 2200 engine rev/min. This performance is further supported by a steep torque rise as engine revs fall under load. So there is always plenty of pulling power in reserve in tough conditions.

'Dynatorque' power

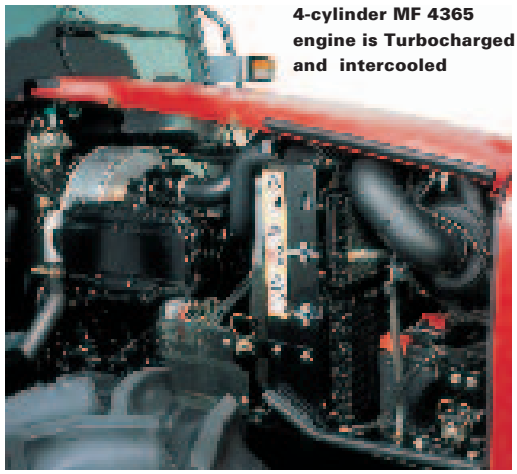
'Dynatorque' characteristics enhance field performance by giving precisely the right combination of power and torque for each job and engine speed.

Performance of the MF 4345, 4355 and 4365 is also enhanced by its advanced 'wastegate' turbocharged design. The wastegate releases excess turbo pressure as engine speed increases, so optimum boost pressure can be achieved at lower engine revs, giving exceptional low speed torque and more power, particularly at PTO operating speeds.

'Fastram'

All MF 4300 Series engines feature Fastram combustion. The 'Fastram' design creates air 'swirl' within the cylinder head, so air enters the combustion chamber in the piston crown at very high speed. The result is precisely controlled, highly efficient combustion, lower noise levels and less wasted fuel.

Below: Powerful 4-cylinder MF 4365 engine is Turbocharged and intercooled



Engines and performance

- Excellent power to weight ratio on all models ensures maximum productivity
- Advanced engine designs for power, torque and economy
- High torque back-up for easy operation in tough conditions
- All engines start and stop at the turn of a key, for added convenience

PowerShuttle, Speedshift or Manual change ... the choice is yours

The MF 4300 series offers the widest choice of transmissions to suit every application. Depending on model, there are 12-and 24-speed PowerShuttle gearboxes, both with unique 'Comfort Control'; also 8- or 12-speed manual shuttle and 12-speed manual gearboxes, plus 'creep' and 'super creep' options.

Single lever side shift

Whichever gearbox you choose, control is by a console-mounted single lever side shift gear change. The lever is 'counter-weighted' to ease gear selection and angled so that it moves comfortably and naturally with the driver's arm movement.

In addition to the conventional 'H' gate for selection of the basic gears, there is a third plane (see diagrams) for range selection. Simply move the gear lever to the right and move forwards to select a higher range and rearwards to select a lower range. The range selected is shown on an indicator on the instrument console.

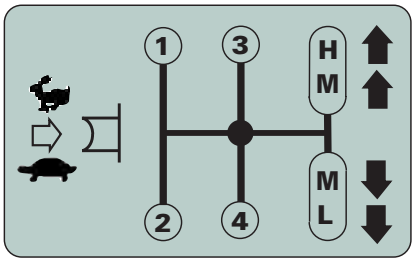
High output PowerShuttle

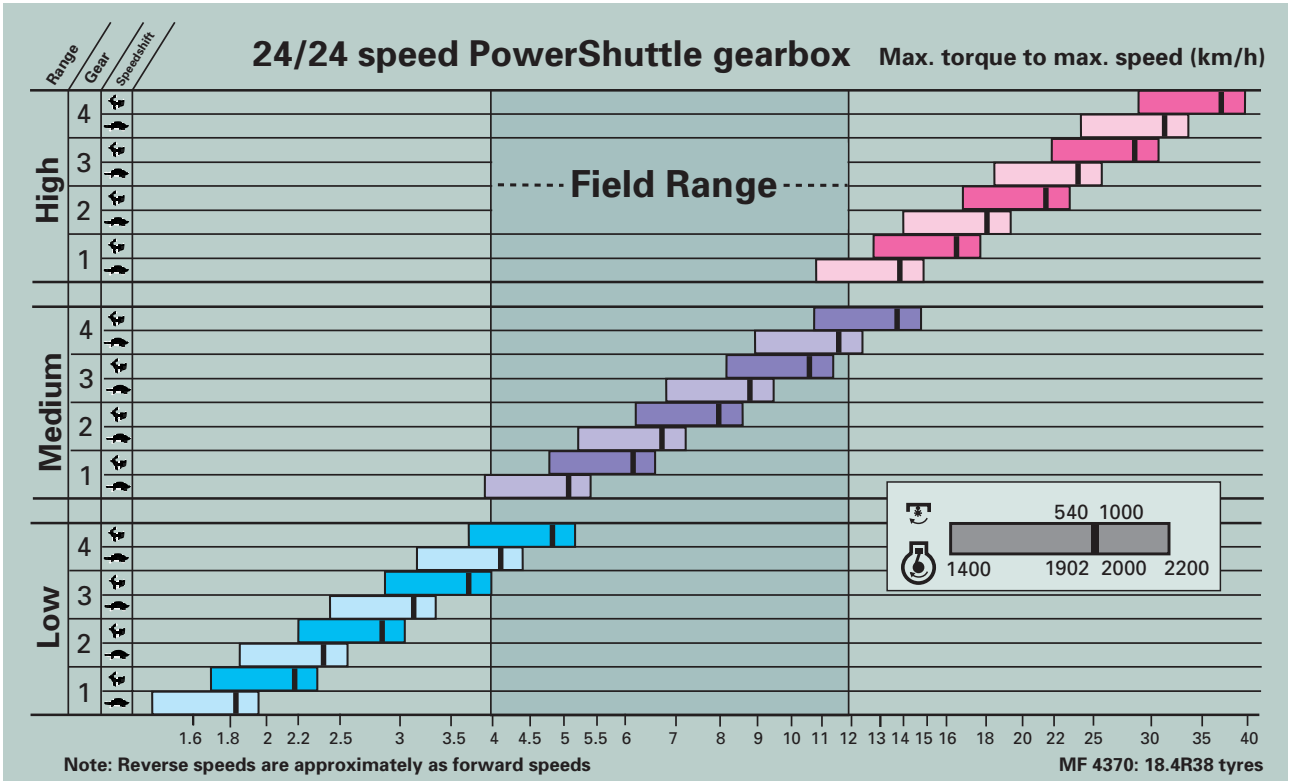
The 12/12 and 24/24 speed PowerShuttle gearboxes are available on all 4300 Series models. Both gearboxes feature clutchless left hand control of forward/reverse power shuttle and 'Comfort Control'.

The PowerShuttle gearboxes help to increase output and reduce operator fatigue in continuous shuttle operations such as loader work, or when making frequent headland turns. Baling is easier too, with a quickly selected neutral, and reverse, position.

Below: High speed transport or the toughest field cultivation; no problem with the 24/24 PowerShuttle

Simple, 24 speed PowerShuttle gear pattern. The gear lever incorporates the push-button Speedshift change





Note: Reverse speeds are approximately as forward speeds

MF 4370: 18.4R38 tyres

Rugged and simple, yet highly efficient ... the 24/24 PowerShuttle gearbox

Unique 'Comfort Control'

A simple rotary 'Comfort Control' knob, just below the PowerShuttle lever, enables the operator to adjust the rate of engagement of forward/reverse shuttle selection. So for loader work, a fairly aggressive setting speeds cycle times and gives maximum productivity; whilst a gentler setting offers smooth, yet almost instantaneous directional changes.

Speedshift changes

Similar in design to the 12/12 PowerShuttle gearbox, the 24/24 speed gearbox also provides a two-speed 'Speedshift' change in each gear ratio. And because Speedshift changes can be made on the move, under full load, there's plenty of flexibility to cope with changing ground or crop conditions.

Electronic engagement

On PowerShuttle tractors, there is no mechanical actuation of the forward/reverse drive clutches. Instead, the clutch pedal simply provides signals to an Electronic Control Unit which modulates clutch engagement according to operating conditions.

There are also extra features built in to enhance safety and to protect the tractor from inappropriate operation. For example, if reverse drive is selected at too high a forward speed, the gearbox will be put into 'neutral', to avoid any possibility of transmission damage, or operator discomfort due to excessively fast change of direction.

Above: The PowerShuttle lever is guarded to avoid accidental engagement. The Comfort Control switch is conveniently located

Right: The electronically controlled clutch on PowerShuttle models can be used as an 'inching pedal' - ideal for precise loader work. ('Visi-Roof' cab option shown)

Manual shuttle or 'Speedshift' transmissions for simplicity and efficiency

Push-button Speedshift

On 24/24 PowerShuttle transmissions, the touch of a button mounted on the gear lever gives a smooth 'speedshift' change in each of nine forward and three reverse gears. This gives maximum operator comfort, by changing so fast that drive to the wheels is virtually uninterrupted. It also helps to maintain engine speed and traction, to cope easily with changing ground or crop conditions.

Downward Speedshift changes give a speed reduction of around 17% and upward changes around 20%, giving a progressive speed increase with good speed overlap, which is further enhanced with eight speeds within the field working range. There's also full engine braking in all gears to ensure operator control at all times.

Indicator lights are clearly visible on the instrument console showing the Speedshift range selected.

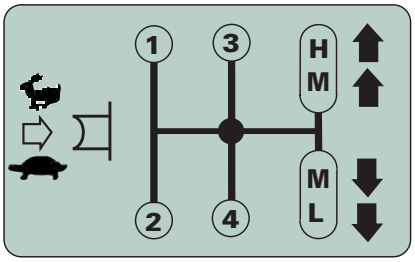
8 or 12 speed shuttle gearboxes

The 8 or 12 speed shuttle gearboxes provide an easy, synchronised forward/reverse 'shuttle' via a left hand lever. With matched forward/reverse speeds, loading, buckraking, yard scraping or simply turning on tight headlands are all faster and more efficient.

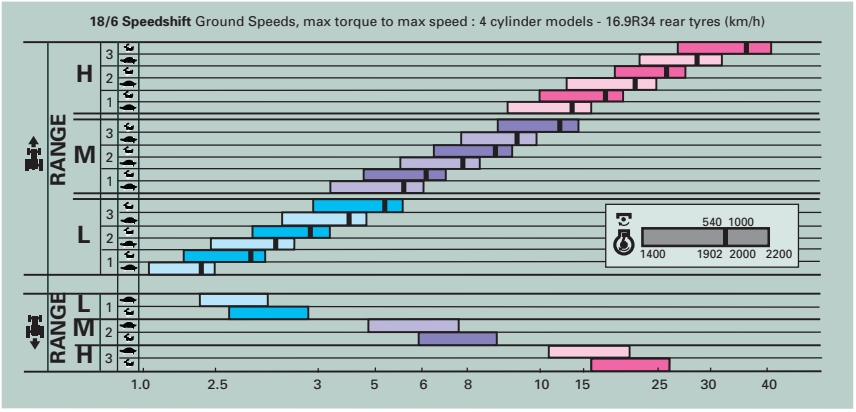
Creeper gearbox

The 12 speed shuttle gearbox is available with a 'creeper' gear option. Both 2 and 4 wheel drive models can be specified with creeper gears, providing four additional speeds ranging from as low as 239 metre/h at 540E PTO speed (depending on model, wheels and tyres). On MF 4325-4335 (30 km/h) models, moving the shuttle lever into 'reverse' overrides the creep gears, providing normal reverse speeds. This easy 'fast reverse' selection saves time at the headland and means less tiring operation.

Below: Gear and range selection is simple with the single lever. The range change principle is the same on 12 speed shuttle and PowerShuttle gearboxes.



Right: On 24/24 PowerShuttle transmissions, a button on the gear lever provides on-the-move gear changes



Above: 18/6 transmission not available in UK

Choice of transmissions

- Superb PowerShuttle gearboxes available, with unique Comfort Control
- Wide choice of gearboxes to suit all operating needs
- Creep and Supercreep options available

Easy selection

Selecting the creeper range couldn't be simpler. Select LOW range, using the side shift gear lever, then pull the 'creep' engagement lever up. There is no need to worry about inadvertent selection in MEDIUM or HIGH range because the range selector has a safety lock-out device built in. This protects the creeper gears from excessive torque loads.

Supercreep gearbox

Models with ELC can be specified with 'Supercreep'. Operated electro-hydraulically by a dash-mounted switch, this gives speeds as low as 130 metre/h at 540E PTO speed, for very specialist applications. To speed headland turns, changing range automatically disengages supercreep and to avoid inadvertant selection, supercreep cannot be re-engaged at speeds above 200 metre/h. (supercreep speed at rated engine speed)

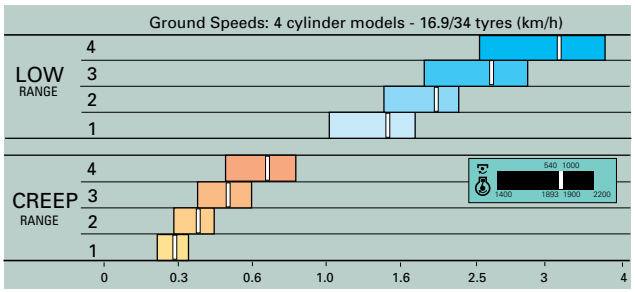
Synchro 12 gearbox

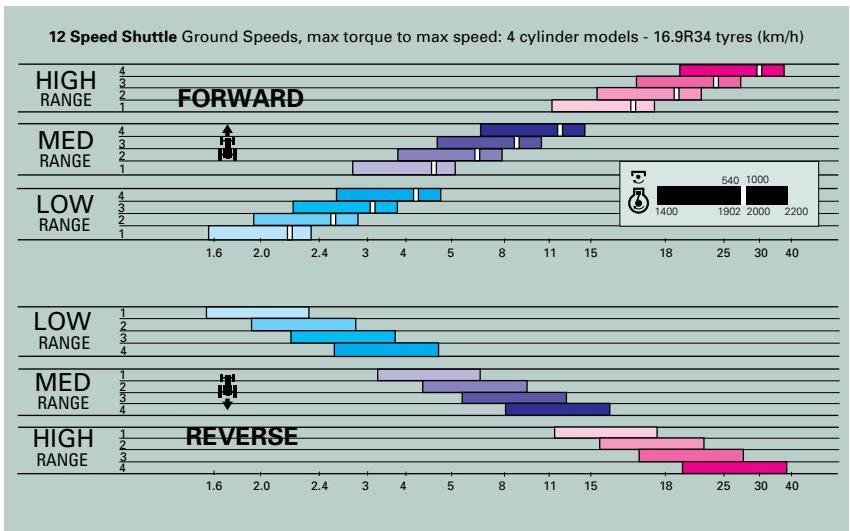
12 perfectly spaced ratios give progressive speed increase and excellent coverage of the field working range. This gearbox features a synchronised 'Hare and Tortoise' change, giving an overdrive/ underdrive shift in all gears, so you can react quickly to changes in gradient and soil condition. Full engine braking is maintained for safety and control.

Left: High transport speeds help to boost productivity

Below: The 12 speed shuttle gearbox offers ideally spaced ratios and matched forward/reverse speeds

Below: Sample speed chart shows the 12 speed shuttle gearbox 'low' range plus the optional 'creep' speeds





Efficient 4-wheel drive and PTO systems

The MF 4300 Series boasts low power loss, centre drive 4-wheel drive for added traction, stability and safety and a wide choice of PTO systems that provide high performance and economy in a variety of applications.

High output 4-wheel drive

All 4-wheel drive models have centre-drive front axles. A solid drive shaft, with no universal joints, transmits power to the front axle via simple transfer gears, keeping power losses to a minimum. Recessed in the engine sump, the solid driveshaft is fully enclosed, eliminating any possibility of crop 'wrapping' and damage. The design is also maintenance free.

The axle has a high static load capacity, so heavy front-mounted equipment can be handled with ease. The 55 ^{0} steering angle (depending on tyre size and track width) and balanced hydrostatic steering, also give outstanding manoeuvrability and light operation.

On-the-move 4WD engagement and disengagement

All models feature on-the-move 4-wheel drive engagement and disengagement controlled by a convenient rocker switch.

Automatic 4-wheel braking

This electro-hydraulic system also provides automatic engagement of 4-wheel drive when the brakes or parking brake are applied. This gives 4-wheel braking, for added braking efficiency, stability and safety. Due to its fail-safe, 'pressure off' design, if loss of hydraulic pressure or electrical power occurs, again, 4-wheel drive will automatically be engaged.

True 4-wheel drive

The 'Hydralock' differential lock is standard on all 4-wheel drive models.

Left: Automatic 4-wheel braking on 4-wheel drive models gives added safety

Right and below: Light, medium or heavy duty applications - the 4300 Series' PTO systems are a match for every job

Simply pressing a rocker switch, simultaneously actuates both front and rear differential locks, with fast disengagement assured by an improved coupler design.

The Hydralock design gives true 4-wheel drive, with both front wheels locked together and turning at a speed proportional to the rear wheels. When engaged, the Hydralock coupler is locked mechanically to avoid any possibility of disengagement under high torque loads. Unlike 'limited slip' systems, when disengaged, Hydralock operates as a normal differential, so tyre scrub and soil damage are reduced and tyre life is extended.

Powerful PTO systems

With PTO operating speed achieved at around 85% of engine rated speed, there is always ample power and torque back-up as load increases to maintain correct PTO speed.

Shiftable PTO

The in-cab shiftable PTO system is standard on all other models and offers a high degree of flexibility with PTO driven implements. It is available with either 540/540 Economy or 540/1000 speed versions. (Depending on model).

Economy PTO

With the standard 6-spline shaft fitted, implements requiring 540 rev/min operation can be driven at 1979 engine rev/min for maximum power, or at 1421 engine rev/min. Operation at the reduced engine speed is ideal for low power applications such as spraying, granular fertiliser spreading and so on, with greatly improved economy and comfort.

The 21-spline shaft and 540/1000 rev/min PTO option is available for higher power equipment, and with 1000 PTO speed being delivered at 2000 engine rev/min maximum power is achieved with plenty of torque in reserve.

Simple PTO controls

Conveniently placed levers provide speed selection and a large button on the right hand console engages and disengages PTO drive.

Right: All MF 4300 have excellent power to weight ratios

Below: MF 4355 with optional front linkage and PTO


4365

MF 4300 hydraulics and linkage. Powerful, accurate, responsive

The simplicity and effectiveness of the linkage and hydraulic systems is one of the main reasons why Massey Ferguson is so often the 'driver's choice' in this class of tractor. So whether you choose the mechanical or electronic system, you can be sure of maximum productivity and the highest work quality.

Electronic Linkage Control

ELC is available as an option on most models. It uses an electronic sensor to measure draft forces through the top link (ideal for precise control of sensitive implements), with an additional sensor on the lift arm cross shaft to register linkage lift height. The sensors send signals to a microprocessor – the system's brain – which compares these signals with others from the driver when he adjusts the settings on the ELC console.

More accurate draft control

The digital ELC system gives the highest standard of draft control for more accurate depth settings and better ground contour following.

ELC also provides additional functions, including maximum height control, automated linkage lowering, a 'safe mode' that avoids inadvertant linkage operation and now, automated disengagement and reengagement of the differential lock when raising/ lowering the linkage. For ease of operation, LED's on the ELC console indicate linkage lift/lower movement and fender mounted switches provide convenient linkage adjustment for easy implement attachment.

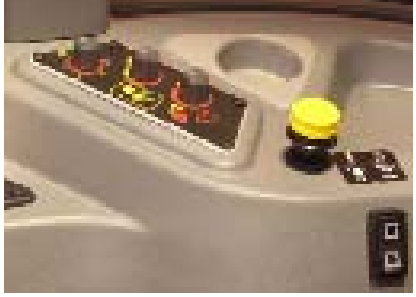
Active Transport Control (ATC)

ATC is integrated into the ELC system. It is a shock absorbing system which minimises implement 'bounce' which can occur when driving across the headland or transporting heavy mounted equipment. By reducing shock loads through the lift rams and hydraulic circuits, ATC gives smoother, safer, faster transport and also minimises the risk of damage to the lift system and implement.

Precise mechanical linkage

Mechanical linkage models use two independent systems to operate the three point linkage and external hydraulics. The heart of the linkage system is the exclusive 'Ferguson' pump which provides oil flow with a

Powerful, versatile linkage offers maximum output and flexibility (MF 4370 shown with automatic pickup hitch)



Electronic or mechanical; well designed levers and switches aid precise linkage control.

maximum operating pressure of 210 bar providing excellent lift capacity.

Linkage control is governed by a valve on the low pressure 'suction side' of the pump. By controlling oil flow in this area, the response is faster, smoother and more accurate than any other mechanical linkage system.

Excellent lift capacity

Two hydraulic pumps provide very high combined oil flow and pressure, giving excellent response times and high tear-out force when using front end loaders.

Tough chassis and linkage

With massive transmission, centre housing and top cover castings and the optional 'strongback' chassis on MF 4355-65 models (standard on 4370), up to 5 tonne lift capacity is available, so you can handle big implements with ease.

The three point linkage is also extremely strong and provides a high lift capacity on all models. Strong, easy-adjust, heavy duty telescopic stabilisers are standard and the tough lower links have both lift rods fitted with smooth-turning turnbuckles for easy levelling adjustment.

Power with precision

- Wide range of linkage and hydraulic specifications for all applications
- High oil flow and pressure
- Ferguson System hydraulics or advanced ELC both provide operating simplicity and accuracy
- Superb ergonomics, on both 'mechanical' and 'electronic' linkage control models

Outstanding oil flow and pressure for fast, powerful, equipment control

The 'linkage' and 'auxiliary' systems use independent oil supplies so, for example, you can lift and index a plough at the same time, to speed headland turns. Both mechanical and ELC systems provide more than enough flow and pressure to cater for modern high-performance equipment.

External hydraulics

The 'auxiliary' or external hydraulics, use an externally mounted pump to provide ample oil flow and pressure to cater for modern high-performance equipment. In addition, a simple selector valve enables the auxiliary pump to operate either completely independently of the linkage pump, or to produce a 'combined' flow of up to 66 litre/min and a maximum pressure of 210 bar giving, for example, very high tear-out force and fast operation.

Wider choice of spool valves

With up to four spool valves, you also have total flexibility to select and control the oil flow best suited to the job in hand. Factory-fit valve options now also include a 'loader spool' and 'Flow Control' valves. The loader spool valve, with its detented 'float' position makes loader operation easier and more efficient, especially when used in conjunction with the joystick.

The Flow Control valve enables the flow between two spools to be adjusted to allow two services to be used simultaneously, or to control the speed of a hydraulic motor. Implement efficiency is increased by making the most efficient use of the tractor's hydraulic flow.

Joystick control (Optional)

The 'joystick' enables control of two double acting spool valves. Ideally suited to loader applications, it enables easier, more precise control of loader attachments, without the need for dedicated loader joysticks. An alternative knob with electrical switches to control a third and even fourth service can also be fitted (by your MF Dealer) to cater for more complex equipment.

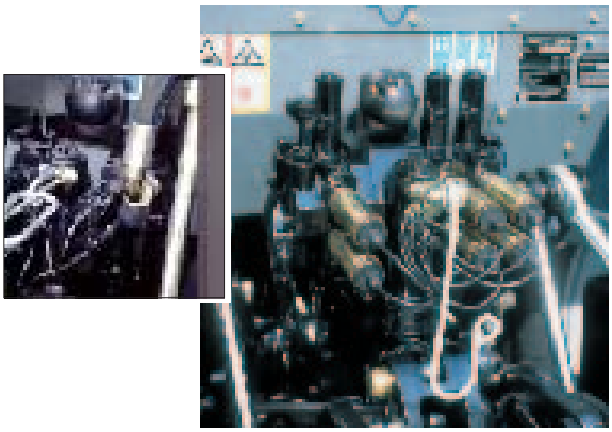
Right: Linkage lift height and capacity are unaffected by demand on external hydraulics

Above: Optional 'joystick' controls two spool valves simultaneously

Below: Large, well shaped spool valve and linkage control levers

Right: Quick couplers give fast implement hook-up, and self release should the operator forget to disconnect an implement. (Optional flow control valve shown)

Inset: 'Power beyond' facility enables remote spool valves to be operated, without occupying the existing couplers.



Powerful external hydraulics

- 'Linkage' and 'Auxiliary' systems use independent oil supply, giving increased productivity
- High oil flow and pressure
- Wide range of spool valves, including Flow Control valves, to suit all needs
- Designed for easy, low-cost fitment of additional spool valves if required

To meet all your needs: the widest range of variable equipment

The MF 4300 Series offers a range of optional equipment to help maximise productivity in a wide variety of applications; just a few are detailed below...

Additional ballast

With quick-attach front end weights and weights for both front and rear wheels, additional ballast can be easily added - or removed, to vary weight distribution and traction.

Linkage and hitches (Fig. 1)

Heavy duty links, quick-attach hook links, various drawbars, height adjustable 2-axle trailer hitches (Not available in UK), and pickup hitches; the 4300 Series offers the widest range of linkage options.

Fig. 1. Depending on model and local legislation, a variety of linkages and hitches is available

Front linkage / front PTO (Fig. 2)

Most MF 4300 Series 4-wheel drive tractors can be fitted with either front linkage, or front linkage and PTO. Designed specifically for the MF 4300 Series, the front linkage is available, depending on model, with a choice of either 1.8 tonne or 2.5 tonne lift capacity. (1.8 tonne shown).

Lift assistor rams (rear linkage)

Additional 'external' lift assistor cylinders can be fitted to increase lift capacity by up to 58%, to handle large mounted equipment with ease.

Performance monitor (Figs.4 and 5)

Engine hours, implement width, forward speed, total and part area covered, total and part distance travelled, and wheelslip (with optional Dealer fit radar unit) can all be calculated and displayed by the performance monitor. Controlled by a four-button dash-mounted keypad and featuring a large digital display, the system is easy to use and provides vital information to help monitor and control inputs and costs.

FIELDSTAR™

Tractors fitted with the performance monitor are also fully compatible with Massey Ferguson's precision farming system; FIELDSTAR™.

Fieldstar is designed to further maximise gross margins and overall profit by smarter management of chemicals, fertiliser and seeding rates.

Fig. 2. Front linkage and front PTO is available, for maximum productivity

Fig. 3. Performance monitor 'keypad'

1

2

3

Right: MF 4300 Series tractors are also available less cab (where local legislation permits)

The Fieldstar monitor is easily transferable from tractor to combine or AgTV and is also a comprehensive implement control system connected quickly and simply via a single socket. It can perform the functions of, and thus replace, any implement control units and will work using GPS, with or without a Fieldstar controlled 'smart' implement.

As it is programmable, Fieldstar is easy to keep up-to-date with the latest developments or to add new implements enabling the Fieldstar terminal to control them.

Fig. 4. Performance monitor display

Fig. 5. The Fieldstar monitor

4

5

Visi-Roof (Fig. 6)

The 'Visi-Roof' cab is available on all 4300 Series models. It provides greatly improved high forward visibility from the normal seating position, which is particularly useful in front loader operation when, for example, stacking bales to maximum height.

Fenders (Figs. 7)

To provide added protection and safety, a range of front fenders and rear fender extensions can be fitted. (standard on specified models in UK).

Fig. 6. The Visi-Roof affords superb high forward visibility for loader work

Fig. 7. Front fenders and rear fender extensions

6

7

Specialist wheels and tyres

A wide range of wheels and tyres are available, to suit groundscare, forestry and industrial applications.

'Versa' cab models (Fig. 6)
[Not available in UK]

For forestry work and other specialist applications, 'Standard' cab models can be specified with the 'Versa' cab. With a fully reversible seat and large rear footwell with an additional foot throttle, the tractor can be operated, when stationary, in the reverse position in comfort and safety. A strengthened rear frame member enables fitment of auxiliary spool blocks for operating cranes, tree processors, linkage mounted diggers, etc.

Fig. 8. A variety of specialist wheels and tyres, including grassland tyres, can be specified

Fig. 9. 'Versa' cab model, with 180° swivel seat and rear operator's footwell

8

9

Easy servicing and routine maintenance

The MF 4300 Series chassis has been designed to provide maximum strength and rigidity for longer component life and also easy access to hydraulic pumps, strainers, filler and drain points.

From the rugged centre drive, 55^0 steer 4 WD front axle to the heavy duty transmission and centre housings, every casting is stronger than ever before. And with advanced Computer Aided Design techniques, the high strength has been achieved without unwanted extra weight.

Routine maintenance and periodic servicing are both fast and simple, thanks to the care taken in the design of the MF 4300 series.

Engine and transmission oil dipsticks are readily accessible and hinged and removable hood and side panels fully reveal the engine and cooling system. The auxiliary hydraulic system has an externally mounted pump and filter and the steering pump is also conveniently externally mounted.

All models (except PowerShuttle) have a cerametallic clutch, which is very durable and, due to a constant running, self aligning thrust bearing, exceptionally light in operation.

1

2

3

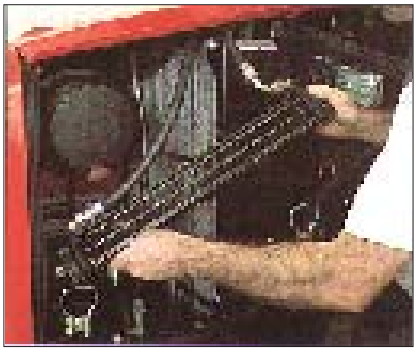


Fig. 1. Quick access to batteries, lights and horn

Fig. 2 and 3. Side panel removal provides engine, air cleaner, oil cooler and radiator access

The benefits of simplicity

- Large, hinged and removable panels for easy service access
- Centrifugal filter for external hydraulic system, only requires cleaning every 1200 hours
- All electrical circuits separately fused to speed fault finding
- High capacity fuel tanks with low level fillers reduce refuelling time

Above: The MF 4300 Series is designed to be simple to service and maintain

Specification: 4300 series tractors

Key: ● = standard equipment ❍ = optional equipment – = not available/applicable

		4325	4335	4345	4355	4365	4370
Performance							
Engine power	*ISO hp (kW)	67 (50)	78 (58.5)	90 (67)	100 (74.5)	112 (83.5)	116 (86.5)
	**DIN PS (kW)	65 (48)	75 (55)	85 (62.5)	95 (70)	105 (77)	110 (81)
@ Rated speed	rev/min	2200	2200	2200	2200	2200	2200
Max. torque	*ISO/**DIN Nm	192/190	282/281	363/350	403/393	440/427	465/454
@ rev/min		1300	1400	1400	1400	1400	1400
‡ PTO power	PS (kW)	57.7 (42.4)	67.6 (49.7)	75.8 (55.7)	86.8 (63.8)	95.9 (70.5)	99.2 (72.9)
* ISO TR14396 ** = DIN 70020	‡ = Manufacturer's estimate (varies with specification)						
Engine							
Perkins, water cooled, direct injection diesel	Model	1004.40	1004.42	1004.40T	1004.40T	1004.40T	1006.60T
Aspiration		Natural	Natural	Wastegate Turbo	Wastegate Turbo	Wastegate Turbo/Intercooled	Turbo
Bore/Stroke	mm	100/127	103/127	100/127	100/127	100/127	100/127
No. cylinders/Capacity	No/litre	4/4	4/4.2	4/4	4/4	4/4	6/6
Air cleaner, three stage dry element		●	●	●	●	●	●
Side mounted exhaust		●	●	●	●	●	●
Clutch							
Clutch plate diameter	mm	305	305	330	330	330	330
Lining material		Cerametallic	Cerametallic	Cerametallic	Cerametallic	Cerametallic	Cerametallic
PowerShuttle models		1 forward, 1 reverse drive oil-cooled clutch, controlled by a programmed Electronic Control Unit					
Transmission (*20 mile/h [30 km/h] max speed. †25 mile/h [40 km/h] max speed). NB: All single lever side shift gear change							
Twelve forward, four reverse synchro gearbox*		❍	❍	❍	❍	–	–
ΔTwelve forward, twelve reverse synchro gearbox, with manual shuttle†		❍	❍	❍	❍	❍	❍
Twelve forward, Twelve reverse synchro gearbox, with PowerShuttle and Comfort Control†		❍	❍	❍	❍	❍	❍
ΔΔ24 forward, 24 reverse synchro gearbox, with PowerShuttle and Comfort Control†		❍	❍	❍	❍	❍	❍
Δ 4.7:1 reduction Creep also available ΔΔ 9.7:1 reduction Supercreep also available on ELC models.							
Road Speeds, (minimum/maximum forward speed, km/h, with 'standard' wheels and tyres)							
8 speed shuttle		–	–	–	–	–	–
12 speed Synchro		–	–	–	–	–	–
12 speed shuttle		2.2-37.8	2.2-37.8	2.1-36.5	2.3-38.8	2.3-38.8	2.3-38.8
12 speed PowerShuttle		–	–	2.3-39.8	2.3-39.5	2.3-39.5	2.3-39.5
24 speed PowerShuttle		–	–	1.9-39.8	1.9-39.5	1.9-39.5	1.9-39.5
Power take-off - Rear							
Independent /shiftable, operated by hand lever/s,actuated by hydraulic clutch. 35 mm ($1^3/_8$ in) shaft diameter		●	●	●	●	●	●
– 540 rev/min		–	–	–	–	–	–
– 540/540 economy rev/min		●	●	❍	❍	–	–
– 540/1000 rev/min		❍	❍	●	●	●	●
Interchangeable shafts		●	●	●	●	●	●
Shiftable PTO		●	●	●	●	●	●
PTO speed @ engine rev/min							
540/540 economy rev/min (6 spline shaft)		1979/1421	1979/1421	1979/1421	1979/1421	–	–
540/1000 rev/min (6 & 21 spline shafts)		1902/2000	1902/2000	1902/2000	1902/2000	1902/2000	1902/2000

	4325	4335	4345	4355	4365	4370
Front linkage and power take-off (optional)						
Independent pto, switch operated, actuated by hydraulic clutch	❍	❍	❍	❍	❍	❍
Linkage lift capacity kg	1800	2500	2500	2500	2500	2500
Linkage and hydraulics						
Mechanical Draft, Position and Response control	●	●	●	●	●	●
Linkage pump						
– max. oil flow litre/min	28	28	28	28	28	28
540 Econ. PTO litre/min	22	22	22	22	–	–
Electronic control of Draft, Position, Intermix, sensitivity, height/depth, rate of drop, 'quick soil engagement' and Active Transport Control	❍	❍	❍	❍	❍	❍
Max. pressure bar	210	210	210	210	210	210
Lower links	**LP**	**LP**	**LP. Std. HV**	**LP.Std.HVStd.**	**Std.**	**Std.**
Cat 1/2 interchangeable ball end	●	●	– – –	– – –	–	–
Cat 2 fixed ball end	–	–	● – –	● – –	–	–
Cat 2 QA hook end	–	–	❍ ● ●	❍ ● ●	●	●
Max. lift capacity at link ends, links						
horizontal [with 1 additional assistor ram] kg	2600	3000 [4000]	3000 [4000]	4000 [5000]	4000 [5000]	5000
[with 2 additional assistor rams] kg			[5000]	[5000]		
Auxiliary hydraulics						
Externally mounted dual element gear pump	●	●	●	●	●	●
Max output litre/min	38	38	38	38	38	38
@ pressure bar	210	210	210	210	210	210
Combined flow litre/min	66 [60]	66 [60]	66 [60]	66 [60]	66	66
[540 Economy PTO]						
Selector valve	●	●	●	●	●	●
Spool valves, single/double acting	2	2	2	2	2	2
Up to 4 single/double acting spool valves with detent/kick-out, zero leak, float facility or motor spool	❍	❍	❍	❍	❍	❍
'Joystick' spool valve control	❍	❍	❍	❍	❍	❍
Steering						
Hydrostatic, balanced, with tilt/telescopic steering column	●	●	●	●	●	●
4WD front axle						
Centre drive with on-the-move engagement and disengagement	●	●	●	●	●	●
Max. turning angle	55^0	55^0	55^0	55^0	55^0	55^0
Auto 4WD engagement with brakes	●	●	●	●	●	●
Differential lock, switch operated simultaneously with rear diff. lock	●	●	●	●	●	●
Brakes						
Oil-cooled, hydraulic actuation	●	●	●	●	●	●
Parking brake, hand lever operated with auto. 4WD engagement (4WD models only)	●	●	●	●	●	●
Hydraulic trailer brakes	●	●	●	●	●	●
'Standard' wheels and tyres						
Front – 2WD ●	7.50-16	10.00-16	10.00-16	10.00-16	10.00-16	10.00-16
– 4WD ●	11.2R24	13.6R24	13.6R24	13.6R24	13.6R28	13.6R28
Rear ●	16.9R30	16.9R34	16.9R34	16.9R34	16.9R38	16.9R38

Specification:
4300 series tractors

Key: ● = standard equipment ❍ = optional equipment – = not available/applicable

		4325	4335	4345	4355	4365	4370
Track adjustments							
Front – 2WD	m	1.32-1.82	1.32-1.82	1.32-1.82	1.32-1.82	1.32-1.82	1.45-2.17
– 4WD	m	1.41-1.91	1.41-1.91	1.41-1.91	1.41-1.91	1.41-1.91	1.57-2.05
				*1.57-2.05	*1.57-2.05	*1.57-2.05	
Rear	m	1.43-2.13	1.43-2.13	1.53-2.24	1.53-2.24	1.53-2.24	1.53-2.24
*Depending on wheel/tyre specification							

Miscellaneous equipment

Standard equipment includes: One or two hydraulic spool valves, telescopic stabilisers, drawbar and pick-up hitch, hydraulic trailer brakes, hitch viewing mirror, front weight frame with tow pin.

Cab and controls

– LoProfile cab: Low-noise safety cab: Equipment includes opening rear 3/4 windows, rear window and sun roof; front windscreen wiper and washer; rear view mirrors, large internal mirror; three speed blower with heater unit and fresh air system; full lighting set including direction indicators, hazard lights, 7-pin trailer socket and 2 front and 2 rear work lamps, roof mounted flashing beacon; adjustable 'standard' specification seat on MF 4325 and high specification deluxe seat on MF 4335-4370; stereo radio/cassette.

– Flat roof cab: As LoProfile cab, with adjustable 'standard' specification seat, opening front screen and sun roof with sun screen.

– Standard/HiVis cab: As LoProfile cab but with flat floor cab, deluxe swivel seat, tinted glass, rear screen wash/wipe and quick-attach linkage

– Visi-Roof cab: Available on Standard, LoProfile and HiVisibility cabs.

Variable equipment includes: Air conditioning (except Flat roof cab models); front linkage and PTO (4WD models); swivel seat, pneumatic seat, Super Deluxe auto-adjust pneumatic seat, passenger seat; large telescopic rear view mirrors; 4 rear work lights; Electronic Linkage Control (4-and 6-cylinder models only), joystick spool valve control, flow control spool valves (Note: 'variable equipment' may differ by model and market. Please consult your dealer)

Weights and dimensions. Standard cab/sheet metal except where specified. With full fuel, oil and water and 'standard' wheels and tyres.

Weights							
2WD	kg	3146	3475	3509	3509	3529	3871
4WD	kg	3396	3625	3730	3730	3750	4105
Dimensions							
Overall length. 2WD/*4WD	m	3.98	4.14	4.14**	4.14**	4.14**	4.45
Wheelbase – 2WD	m	2.35	2.35	2.35**	2.35**	2.35**	2.61
– 4WD	m	2.35	2.35	2.35**	2.35**	2.35**	2.61
Width - minimum	m	2.06	2.06	2.06	2.06	2.06	2.10
Height. over cab							
– LoProfile models	m	2.45	2.53	2.53	2.53	–	–
– 'Flat roof' models	m	2.37	2.42	2.42	2.42	–	–
– Standard/HiVis models	m	2.57	2.61	2.61**	2.61**	2.61**	2.70
Turning Circle							
– 2WD, less brakes	m	8.0	8.0	8.0	8.0	8.0	9.5
– 4WD, less brakes	m	8.0	8.0	8.0	8.0	8.0	9.2
Ground clearance							
– minimum	mm	340	390	390	390	390	441

* measured to front of weight frame ** Plus 40 mm if 5000 kg lift capacity is specified

Capacities							
Fuel tank capacity							
– LoProfile models	litre	84	98	98	98	–	–
– Standard models	litre	–	127	127	127	127††	202†
– HiVisibility models	litre	84	127	127	127	127	–
Cooling system	litre	17.5	17.5	17.5	17.5	17.5	28
Hydraulic system	litre	50	50	50	50	50	50

† includes auxiliary tank †† increases to 143 litre (202 litre incl. auxiliary tank) if 5000 kg lift capacity is specified

The 4300 Series and Three Point Power

Below:
- Advanced quality control
- Extensive rig testing
- 24 hour parts support
- Skilled service support

The MF 4300 Series has a proud heritage. With constant development and innovative design, the eight tractors in the new range provide you with superior comfort, superior reliability, superior control and superior choice. They are also supported by the Massey Ferguson Three Point Power proposition.

Powerful Engineering

Research and development: Questioning and analysis of farmers' needs is an on-going process at Massey Ferguson. Only then can all of the advanced design and manufacturing techniques be employed so that the product meets your needs ... precisely.

Testing: Before any component gets the all-clear for production it is subjected to stringent test procedures. Rig and field testing are employed extensively to compress a lifetime's work into hours or days to confirm that computer-predicted performance is achieved where it counts - out in the field.

Powerful Products

The new range combines new features and builds on proven strengths giving:

– class-leading output and productivity
– powerful, economical and environmentally kind engines
– a choice of hydraulic and linkage systems
– the option of advanced electronic monitoring control and information systems
– low power loss transmissions and PTO systems, giving more 'usable' power
– efficient single lever transmission control and unique Comfort Control

Powerful Support

MF 4300 Series tractors are supported in the field by a dedicated package that includes parts, service and finance back-up.

Parts: A network of modern, interlinked parts distribution centres and 'master warehouses' are strategically situated to ensure the fastest, most comprehensive parts support to the MF Dealer network ... and onward to the customer.

Service: MF dealers are committed to a high level of customer service at all times. Our dealers are equipped with special tools and diagnostic equipment, and skilled technicians committed to keeping all of your MF equipment operating at its original level of efficiency and reliability.

Finance

Your MF dealer has access to a wide range of purchasing plans that allow payments to be matched to your cash flow, ensuring the fastest possible return on your investment.

THREE POINT POWER

Powerful engineering. Powerful products. Powerful support

Point one reflects our heritage of innovation and engineering excellence.
Point two recognises the demand for superior products with more controllable power.
Point three is our solid commitment to support your tractor throughout its lifetime, with personalised finance arrangements, professional service and guaranteed, readily available parts, all delivered by our world-renowned Dealer network.
Three Point Power - making these tractors as revolutionary as our original three point linkage.

MASSEY FERGUSON

A English 1202/8m

12973/0702/100m