MF 6400/7400

Please also see MF 6400/7400 high horsepower brochure for models from 160 to 215 hp

*See specifications

High-output medium-horsepower tractors

MF 6400 *Dyna-6* and MF 7400 *Dyna-VT*:
95 to 150 hp (110 to 170 hp max. boosted*)

MASSEY FERGUSON

Unbeatable performance and versatility

The latest mid-range MF 6400/7400 Series offers the perfect blend of power, weight, balance and specification features, to give unbeatable versatility and all-round performance.

So choose either MF 6400 Series with Dyna-6 - the best semi-powershift transmission around, or MF 7400 Series with Dyna-VT - MF's unsurpassed CVT transmission, then start to enjoy the benefits of unrivalled overall field efficiency.

MF 6400/7400 Series highlights

– Exceptionally low **70 d(B)A** in-cab noise level and automotive standards of comfort and controls reduce fatigue and increase productivity significantly.

– Latest generation Perkins or SisuDiesel engines featuring common rail fuel injection and four-valve cylinder head design give outstanding power and torque delivery, excellent fuel economy and lower emissions (Tier III compliant).

– New larger capacity (6.6 litre) engines on (MF 6465/75/80 and MF 7465/75/80 models).

– On MF 6400 models, the advanced Dyna-6 transmission driveline interacts with the engine management system to give even more power and torque for PTO and transport work.

– 50 km/h* maximum speed is now available on most models, reducing journey times and increasing haulage productivity.

– All transmissions feature clutchless operation, with left-hand Power Control.

– Choice of Visio roof or Panoramic cab models*.

– The most comprehensive, yet simple headland management systems* reduce operator workload and increase productivity and work quality.

– Datatronic 3 is now available with video capability and ISOBUS compatibility.

– All models have new-generation styling, featuring:
- a pivoting bonnet, giving easy access to the engine and cooling systems (except steep-nose versions).
- a new front axle support casting and 'structural' engine sump that enable fitment of the Massey Ferguson ILS, fully integrated front linkage and PT0 system (MF 6465/75/80 and MF 7465/75/80 models).

* Specifications vary by model and market/legislation

Top: MF 7480 (150 hp)

Above: MF 6470 (125 hp) with Panoramic cab

Main picture: MF 6465 (120 hp)

Model	Engine	Capacity	Rated hp[1]	Max. hp[2]	Max. PTO hp[3]
MF 6445	4 cyl. Turbo/intercooled	4.4 litre	95	100	88
MF 6455	4 cyl. Turbo/intercooled	4.4 litre	105	112	100
MF 6460	4 cyl. Turbo/intercooled	4.4 litre	115	125	110
MF 6465	6 cyl. Turbo/intercooled	6.6 litre	120	130	115
MF 6470	4 cyl. Turbo/intercooled	4.4 litre	125	135	120
MF 6475	6 cyl. Turbo/intercooled	6.6 litre	135	145	130
MF 6480	6 cyl. Turbo/intercooled	6.6 litre	145	157	140
MF 7465	6 cyl. Turbo/intercooled	6.6 litre	125	135	115
MF 7475	6 cyl. Turbo/intercooled	6.6 litre	140	150	130
MF 7480	6 cyl. Turbo/intercooled	6.6 litre	150	167	140

[1] ISO TR14396 (EG 97/68), at 2200 rpm [2] ISO TR14396(EG 97/68), at 2000 rpm [3] OECD, at PTO shaft

MF 6400/7400 - The driver's choice

Straightforward ergonomic design, plenty of space, excellent visibility and exceptionally low noise levels are the hallmarks of the MF 6400/7400 cab. Add to that, automotive industry quality materials and instrumentation, plus solid build quality and you have the ideal environment to spend a productive working day.

Thoughtful design

The layout of the cab is spacious and well planned, with conveniently placed switches, superb instrumentation and controls logically grouped by function. All of the most frequently used controls are mounted in the right-hand armrest, which moves with the seat so everything always falls readily to hand.

Clarity at a glance

The instruments display information either in digital, analogue or graphic form to present data in the most appropriate way for optimum clarity.

Below: Clear instrumentation keeps you informed and in control

Quiet power

MF 6400/7400 tractors are also exceptionally quiet, with sound levels inside the cab of 70 dB(A) under load.

The tone of the sound has also been 'tuned' to reduce irritation, and levels of vibration are very low too.

The result is that working long, hard hours becomes far less stressful and more productive. It's a driving experience that really has to be tried to be fully appreciated.

Main picture: MF 6400 Cab interior shown with Dyna-6 transmission. Options shown include AutoDrive, SMS and Datatronic 3.

Maintain output, day and night

Manual air conditioning controls

'Set-and-forget' Climate Control

Left: Xenon lights for extra night-time productivity

Below: MF 7400 cab interior (with optional Datatronic 3)

A breath of fresh air

The heating and ventilation system has a large number of adjustable outlets, providing excellent air distribution and accurate temperature control. There is also a choice of either manually adjusted air conditioning or full climate control*, which will memorise your chosen temperature setting and return to it at start-up… automatically.

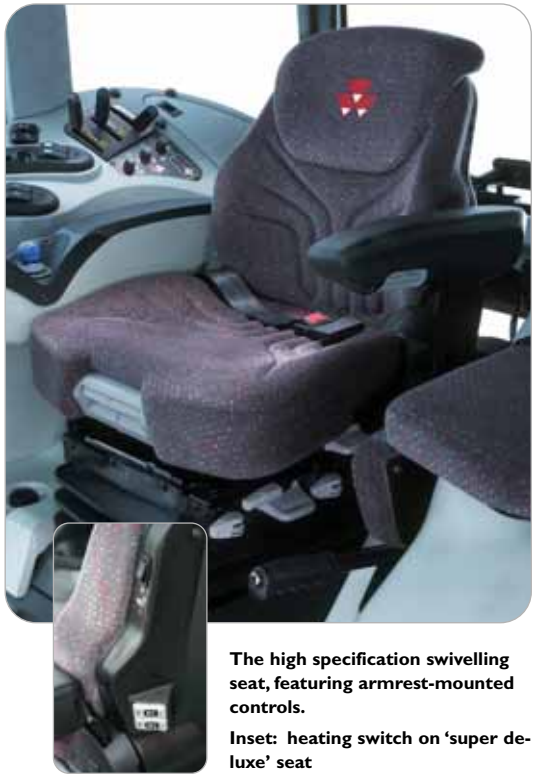
Excellent visibility

A large area of tinted, heat-reflective glass, narrow pillars and side-mounted exhaust all help to ensure excellent all-round visibility. Large telescopic rear view mirrors - heated and electrically adjustable on MF 7400 Series*, are a further aid to safe manoeuvring and transport.

The standard lighting gives excellent night-time productivity, with Xenon lights available as an option for even higher after-dark productivity.

* Standard specifications vary by model and market

Quiet, comfortable and economical... whatever the task



The high specification swivelling seat, featuring armrest-mounted controls.

Inset: heating switch on 'super de-luxe' seat

The standard seat provides exceptional comfort but ride quality can be further enhanced...

High specification seats

The high specification, swivelling seat is fully adjustable including lumbar support, pneumatic height adjustment, plus height and fore and aft adjustment of the right hand armrest so that the armrest-mounted controls can be perfectly positioned. Options include a 'low-frequency', super de-luxe seat* with double pneumatic lumbar support, heating and 'active carbon' seat covering for greater comfort in really hot conditions.

QuadLink suspension

MF's 'QuadLink' suspended front axle* further enhances ride comfort and control. It has a compact, simple design that automatically maintains a constant suspension height, regardless of axle load.

The result is increased stability and a significant improvement in driver comfort, productivity and safety... both on the road and in the field.

New 'waisted' front support casting design enables a tight turning angle

* Standard specifications vary by model and market

Operator-controlled

Unlike many other systems, QuadLink is operator-controlled so you can choose whether to have the system on or off.

For example, when working in the field with front linkage, where a uniform depth of cultivation must be maintained, it is essential to be able to deactivate the system. Or when working in a confined space with a loader or with pallet forks, where height control must be precise, again it is desirable to deactivate the system.

But when switched on, QuadLink improves comfort, safety and speed, especially in transport with heavily laden trailers, either on rough tracks or on the road.

Dual Stage suspended cab

To provide the ultimate in ride comfort, MF's cab suspension system is available on all MF 6400/7400 Series tractors.

The design features 'dual stage' air suspension that can be adjusted at the flick of a switch, between two ride firmness settings to suit field or road transport conditions. This unique operator-controlled system stabilises cab movement more effectively and ensures a safer, more comfortable ride in all conditions.

Ride comfort improvement

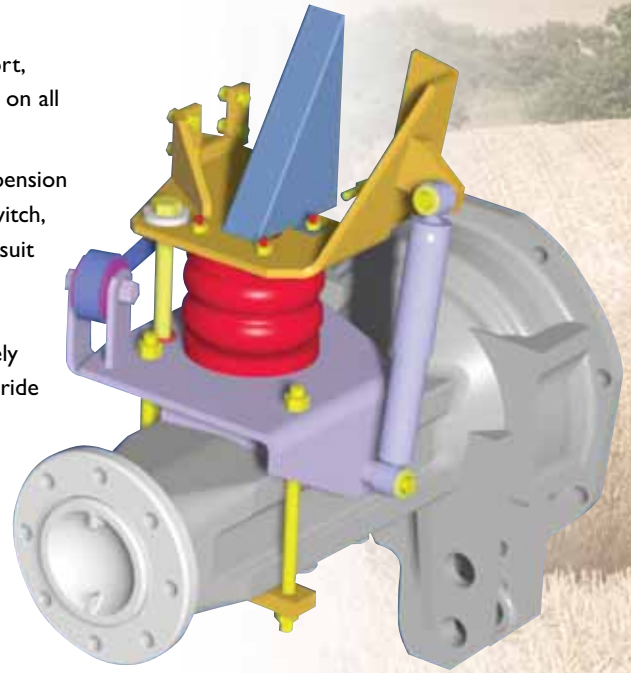
Compared to a 'standard' tractor, the overall effect of having a high specification seat, QuadLink front axle suspension and cab suspension can be a reduction in vibration by up to 50%†.

The result is greater comfort when operating for long periods, leading to increased productivity, improved work quality and a more relaxing working day.

† Depending on speed and field or road conditions

Left: QuadLink and cab suspension switches, giving full operator control

Below: 'Dual stage' cab suspension system




169 V
MASSEY FERGUSON

Plenty of power ... and more in reserve

All models featured in this brochure are powered by either Perkins or SisuDiesel, Tier III emissions-compliant engines, featuring common rail fuel injection and 4-valve cylinder head design.

They deliver high power and torque and work in perfect harmony with the highly efficient Dyna-6 and Dyna-VT transmissions to give outstanding performance in a wide range of applications, with excellent fuel economy.

More usable power

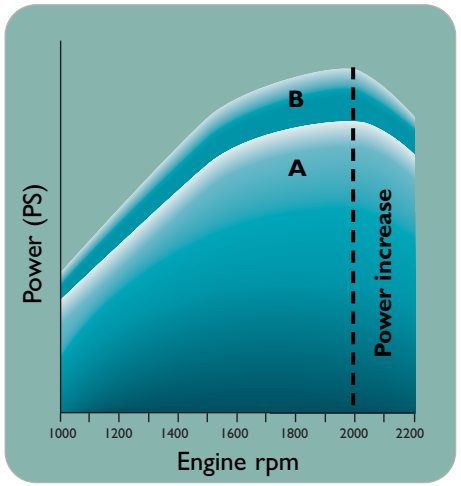
All of the engines have high torque right down to 1,000 rpm, giving incredible lugging ability to pull through difficult conditions or to help haul fully laden trailers on long, steep gradients. There is also significantly more power at 2,000 rpm than at 2,200 rpm (rated engine speed), to maximise PTO performance.

An increased constant power range of around 500 rpm, also helps maintain work rate at lower engine speed, giving reduced noise and fuel consumption.

High power, with power increase as engine speed falls between 2200 and 2000 rpm.

A: Normal power curve

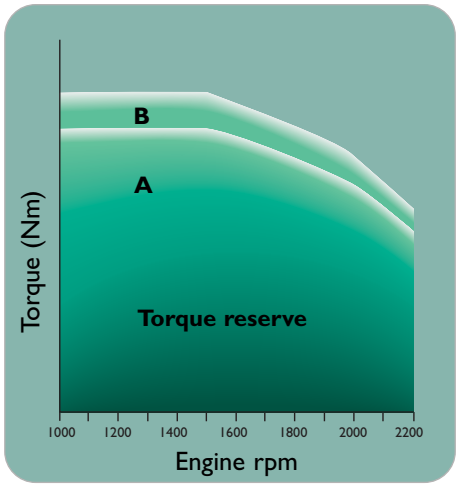
B: Extra power, available when PTO is engaged



The torque curve shows how 'pulling power' is maintained as engine speed falls and how it is also increased with PTO/transport boost

A: Normal torque curve

B: Extra torque, available when PTO is engaged



Advanced Electronic Engine Management

The Electronic Engine Management system (now also fitted on MF 6445/55 models) controls not only the very precise common rail fuel injection, but also enables a range of advanced engine control functions, including Power Boost and Engine Speed Control*.

Power boost

Due to sophisticated interaction between the engine and transmission management systems, on MF 6400 models when 3rd or 4th gear is selected or when the PTO is engaged, EEM automatically gives a significant power and torque 'boost' (see specifications, Page 22, for details).

Engine Speed Control

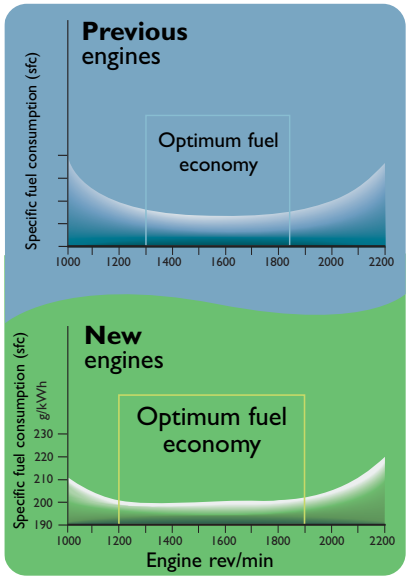
Switches mounted conveniently on the right-hand console enable two engine speeds to be pre-set and memorised.

This enables one engine speed to be set for work and the other for use when turning at the headland.

The ability to return quickly and easily to precise engine speeds will boost productivity, improve work quality and simplify operation in almost all of your daily tasks.

Improved fuel economy

Electronic engine management constantly monitors a wide range of parameters and makes continual and incredibly fine adjustments to fuel injection. Combined with four-valve cylinder head design and Common



Compared to previous generation engines, MF's electronic engine management system broadens the operating range within which the tractor is operating at optimum fuel efficiency

Use '+/-' to pre-set engine speed and 'A/B' to memorise and select the required setting

* Standard specifications vary by model and market

Common rail fuel injection: More power. More torque. Better fuel economy

Rail fuel injection, this has given significant improvements in both emissions and fuel economy.

Whilst lowering the absolute Specific Fuel Consumption (sfc) figure is important, the graph (left) shows how the latest engines achieve lower fuel consumption over a much wider range of operating conditions.

Common rail fuel injection

The common rail fuel injection system uses precise electronic control to continuously monitor operating conditions and engine load, and to regulate accordingly the high-pressure fuel injection.

The result is faster response to changes in field conditions and engine load, more power and torque over a wider engine speed range, excellent fuel economy and lower noise and emissions.

Four valves per cylinder

The cylinder head design features two inlet valves and two exhaust valves per cylinder enabling the fuel injectors to be centrally positioned in the cylinder head.

This design improves fuel/air mixture and gas flow, giving optimum fuel combustion and reducing emissions and fuel consumption, whilst also improving engine reliability by reducing upper cylinder temperature. The more efficient combustion also improves torque characteristics throughout the whole working range.

The overall result of all of the new engine features is that, model for model, there is much more power and torque. So take a close look at the range summary on page three of this brochure and see which model will match your needs perfectly.

Dyna-6 : simply the best mechanical transmission

The MF 6400 Dyna-6 'Eco' transmission is available with Speedmatching or Autodrive levels of automation and either 40 or 50 km/h† maximum speed. With left-hand Power Control and smooth on-the-move clutchless powershift changes, it's simply the best 'semi-powershift' transmission in the field today.

Simplicity and efficiency

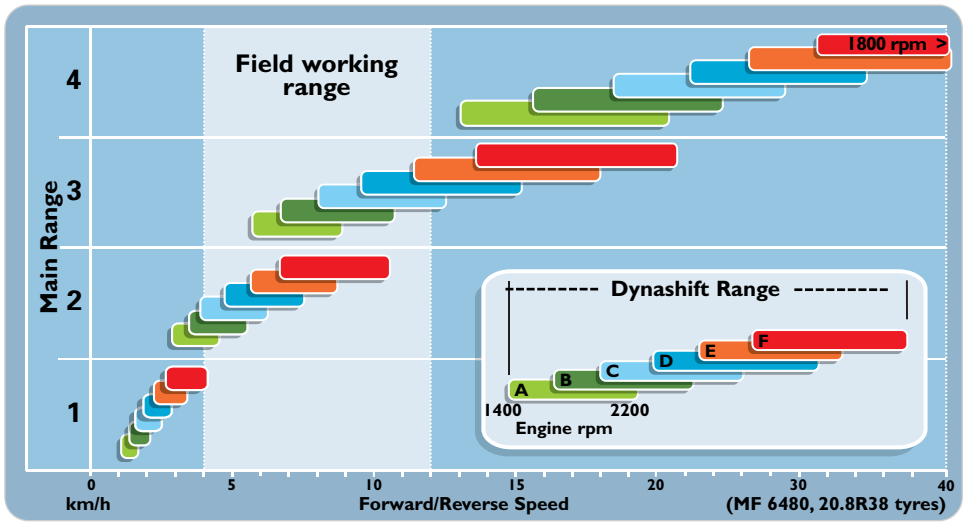
Dyna-6 uses four simple synchromesh gears, each with six Dynashift speeds. This wide spread of speeds within each range means you can change up or down under full load as conditions vary, to optimise output and minimise fuel consumption.

Also, apart from starting the tractor or hitching an implement, there is never any need to use the clutch pedal, so the seat can be swivelled for field work, eliminating the effort of foot pedal operation. And with a choice of either left- or right-hand control, there's real operating flexibility to suit any application or driver preference.

Left-hand Power Control

The left-hand Power Control lever provides convenient forward/reverse shuttle, powershift changes, range changes* and fingertip de-clutching, leaving the right hand free to operate front and rear mounted implements.

Shuttle operations are more efficient too, with programmable forward/reverse speeds, to reduce repetitive tasks and speed cycle times.



† Depending on market/legislation * In Autodrive transport mode

Power Control enables forward/reverse shuttle, powershift changes and fingertip declutching - all from a single, convenient lever

Above: Dyna-6 'T-handle' gear lever with Speedmatching and forward/reverse shuttle 'Comfort Control'

Left: The 40 km/h Dyna-6 Eco gearbox offers six Dynashift changes in each range, excellent speed overlap and maximum speed at around 1800 rpm (1900 rpm for the 50 km/h transmission)

Right-hand control

The T-shaped gear lever (below left) is mounted in the adjustable armrest, so it's always perfectly placed for easy use. Simply 'pulse' the gear lever forwards or backwards to change up or down through the six Dynashift ratios.

To change range, simply press the range selection button as you move the lever.

Dyna-6 Speedmatching *(standard)*

When changing gear or range, Speedmatching automatically selects the most appropriate Dynashift ratio to suit forward speed.

For example, if a tractor is pulling a heavy trailer in 3rd gear in Dynashift ratio 'F', if the operator changes into 4th gear, Speedmatching will automatically select either C or D ratio.

Variable shuttle take-up

On Speedmatching models, in front of the LED display is a rotary 'comfort control' for adjustment of the rate of engagement of the forward/reverse shuttle.

So whether you are turning at the headland or working with a front loader, simply turn the control to achieve the optimum balance between comfort and productivity.

Dyna-6 AutoDrive *(optional)*

AutoDrive enables the operator to select the engine speed at which the transmission will automatically upshift and will also downshift automatically according to load.

The AutoDrive Controller has three main settings:

– ***Manual,*** gives full manual control with Speedmatching switched off.

– ***Speedmatching,*** available within both Transport and Field sectors, provides automatic selection of the most appropriate Dynashift ratio after a range change has been made.

Gear changes can then be made either individually or rapidly, from A to F range by holding the gear lever (or PowerControl lever) forwards or backwards.
In Transport, sequential changes also include range changes, enabling 24 ratio changes, from 1A to 4F, all at the touch of either the left-hand PowerControl lever or the right-hand gear lever.

– ***AutoDrive*** (see diagrams below); in the Field sector, gives fully automatic upshifting and downshifting of Dynashift changes, and in the Transport sector, gives automated Dynashift and range changes.

By adjusting the control, you can pre-select the engine speed at which upshifting takes place, between 1600 and 2200 rpm.

The AutoDrive Controller set to the 'Speedmatching' settiing

Downshifting takes place when engine speed falls under load by around 20%, maintaining full control and engine braking.

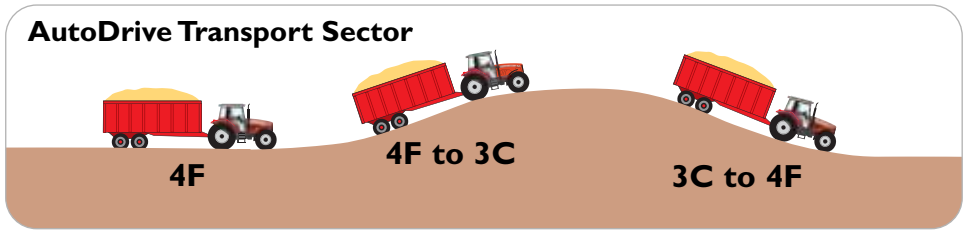
AutoDrive gives you total command of the transmission, with the exact level of automation you require for any application, simply by turning the AutoDrive Controller.

Creep and supercreep speeds

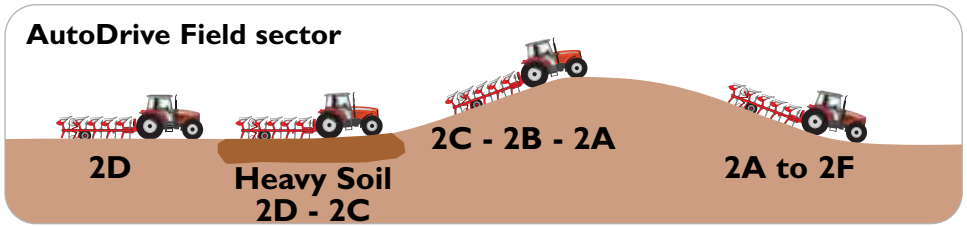
The (optional) creeper gearbox provides a 4.0:1 speed reduction, giving additional 12 forward and 12 reverse creeper gears with speeds down to around 400 metres per hour at rated engine speed. Supercreep is also available on MF 6445-80 models, giving additional 24 forward and 24 reverse gears, with speeds down to around 110 metres per hour at rated engine speed

The Autodrive Controller can be adjusted at any time to achieve ideal transmission settings to suit varying conditions and applications

AutoDrive Transport sector



AutoDrive Field sector



Dyna-VT : putting the MF 7400 Series ahead of the crowd

Dyna-VT gives infinitely variable speed control with optimum power, engine speed and fuel efficiency, resulting in significant gains in output and productivity.

And with the proven, familiar 'MF family' control layout, operation is straightforward and intuitive.

Stepless speed control

Dyna-VT has two infinitely variable speed ranges, 0-28 km/h for field applications and 0-50 km/h* for transport applications.

To start work, simply move the left-hand Power Control lever into 'forward' or 'reverse' direction then push the armrest-mounted Dyna-VT lever. The further you push the lever, the faster you accelerate. No shifting of gears. No jerks. No breaks in traction or power; **just infinite speed control from 'supercreep' to high transport speeds!**

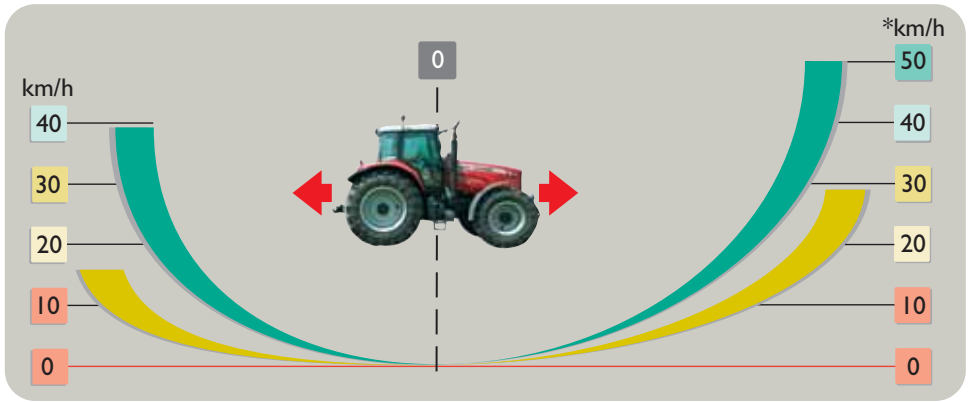
To slow down, simply pull the lever back. When you've reached your chosen speed, just release the lever.

Left-hand Power Control

If you prefer left-hand control, the Power Control lever adjusts ground speeed in a similar way, and also gives convenient, left-hand control of forward/reverse shuttle (see page 10 for more details).

Smooth forward/reverse shuttle

Moving the Power Control lever from forward to reverse position gives an incredibly smooth power shuttle, with the added benefit of being able to pre-set the relationship between forward and reverse speed.



Pre-set speed control

Travel speed and rate of acceleration can also be pre-set and memorised within each of two ranges - 'SV1' and 'SV2'.

The memorised speed acts as a cruise control to maintain a specified speed. It is activated by pressing the SV1 or SV2 button located conveniently in the armrest and can be adjusted, during work, simply by turning the appropriate SV1/SV2 rotary switch in the binnacle on the right-hand console.

The 'Supervisor'

Supervisor optimises the relationship between engine load and travel speed and, in conjunction with SV1/SV2 speed control, can significantly increase productivity in all conditions.

Supervisor reduces forward speed when load becomes excessive, as defined by the rotary control setting, and SV1/SV2 will accelerate the tractor back to the desired forward speed as load decreases.

As this process is happening smoothly, continuously and automatically, maximum output and fuel economy are easily maintained.

Simple, infinite speed control, from creeper speeds to 50 km/h*

* Depending on market/legislation

Dyna-VT for versatility and precision

Choice of operating modes

In addition to Lever Mode, where the Power Control lever or armrest-mounted Dyna-VT lever are used, Pedal Mode is also available.

Pedal Mode

Pedal Mode offers three further operating modes enabling tractor control by use of the accelerator pedal or hand throttle:

Power Mode, gives 'automatic transmission' characteristics, with maximum speed at optimum engine revs, so full power is on hand for hauling fully laden trailers and for other heavy duty applications.

In ***Economy Mode,*** ratio changes are made at a maximum engine speed of 1800 rpm, so top speed is available at reduced engine speed and economy is improved in lighter duty applications.

Forager Mode, is ideal when foraging or baling. This mode maintains pre-set engine speed and maximum power.

So if a large lump of crop is encountered in the swath, just lift off the pedal while the material is baled or chopped. Ground speed is adjusted but engine speed and power is maintained.

Once the problem has been tackled, simply press the pedal and you're off again at normal working speed.

With Dyna-VT there is no compromise. From 'creep' applications as low as 0.03 km/h to high-speed road transport, you set the parameters for power, economy and comfort so that you can easily extract the maximum performance at the lowest operating cost.

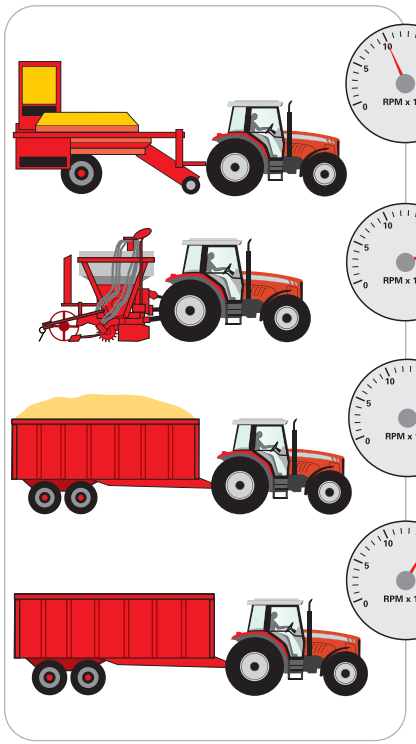
Here are just a few examples of how perfectly matched ground speed, engine speed and power requirement can benefit a wide range of applications:

Left: SV1/SV2 Speed memories (1), 'Pedal' or 'Lever' operating modes (2) and speed range selection (3) all in one convenient 'pod'

The 'Supervisor' (4) works continuously in the background to help you to optimise productivity

Speed control lever (5) and SV1/SV2 speed activation buttons (6) are conveniently located in the adjustable armrest

Far left: Efortless driving, with a choice of left- or right-hand speed control



Low speed and lower power requirement.

Harvesting and planting - with precise ground speed control, to reduce engine speed, minimise in-cab noise and maximise fuel economy.

Low speed with a high power requirement.

Using a Power harrow/seed drill combination - with PTO power and productivity maximised and with the ability to fine-tune travel speed to optimise work quality.

Maximum speed and high power requirement.

Transporting a fully laden trailer from the field at high speed - with maximum engine power available to maintain speed on hills.

Maximum speed and low power requirement.

Towing an empty trailer to the field - at up to 50 km/h* with an engine speed of only 1600 rpm, to minimise in-cab noise and reduce fuel consumption.

* Depending on market/legislation

More power at the wheels and PTO

The light yet tremendously strong transaxle design and low power losses through the highly efficient transmissions give all MF 6400/7400 tractors an outstanding power-to-weight ratio. And with standard PTO speed coinciding with maximum engine power and significant power boost available when the PTO is engaged*, there is always plenty of power in reserve.

More PTO choice

A wide range of fully independent PTO speeds is available, including 540/750/1000 rpm, Economy and a proportional ground speed option on most models.

Speed selection is controlled from the driver's seat, plus exchangeable flanged shafts. The flanged PTO shaft is extremely strong and provides a simple, 'oil-less' shaft change.

Control for front (optional) and rear systems is grouped conveniently to the right. Additional fender-mounted engagement and emergency stop buttons also give added convenience and safety.

Power with economy

540 and 1000 rpm PTO speeds are achieved at or near to 2000 rpm, which is also maximum engine power. With the ability to closely match ground speed at the chosen engine speed, you can always match PTO speed, forward speed and power for optimum output and fuel economy.

Economy PTO

For lighter duty work, '540 Eco' (750) PTO speed is at around 1550 engine rpm, further improving fuel economy and helping to reduce in-cab noise levels.

*See Page 8 and specifications for details

Convenient PTO speed selection and engagement (above, MF 6400; below, MF 7400)

Fender-mounted PTO controls for added convenience and safety

PTO speed selection, engagement and 'Auto' activation switches are well placed and easy to operate

Automated PTO control

In 'Auto' mode, the PTO can be automatically disengaged when the linkage is raised (or when travelling at speeds above 25 km/h) and re-engaged when the linkage is lowered.

Further reducing the need for operator input, the Transmission Controller monitors and controls PTO engagement depending on load. This gives a smoother 'take-up', giving improved driver comfort and also helping to protect both implement and tractor from damage due to inappropriate engagement.

Differential locks and 4-wheel drive

The Transmission Controller also takes care of many of the normally repetitive tasks of 4-wheel drive and differential lock operation.

It ensures that you have 4-wheel drive when you need it; when braking and when the differential lock is engaged, and switches it off when you don't; at over 14 km/h.

The system also engages the differential lock when you need it (after initial manual engagement); when the implement is lowered into work and disengages it when you don't; when the linkage is raised or when using independent brakes and also when travelling at more than 14 km/h.

The MF 6460 is powerful, light and agile making it ideal for PTO applications

MF hydraulics: power with precision

The MF Electronic Linkage Control system still maintains its position as the industry leader in terms of accuracy, responsiveness, ease of use and reliability.

And with high-capacity hydraulic systems providing excellent lift capacity and high oil flow for external services, you can be sure that you'll get optimum performance from linkage-mounted and hydraulically-driven equipment.

Accurate draft control

Massey Ferguson's digital ELC system gives the highest standards of draft and depth control. This optimises weight transfer and traction, giving reduced wheel slip, tyre wear and fuel consumption and increased output.

Simple ELC panel

With the more frequently-used controls armrest-mounted and a straightforward ELC control panel, accurate operation is easy.

The system also incorporates sensitivity, quick soil engagement and automatic drop speed as standard.

The rear linkage can also be operated from conveniently mounted push buttons on each rear fender.

Load sensing hydraulics

The Closed Centre Load Sensing (CCLS) system provides high oil flow for both linkage and external services, with virtually instantaneous response. And as flow and pressure are automatically regulated according to demand, there's no wasted power - or fuel, used in pumping oil that's not required.

Auxiliary spool valves

Implement hook-up is easy too, with 'decompression couplers' that enable connection and disconnection under pressure.

With a choice of mechanical or electro-hydraulic spool valves, programmable SMS or fingertip switches, complex equipment can be controlled more easily and effectively than ever.

Above: Decompression couplers

Left: Most frequently used controls are armrest-mounted (SMS joystick shown)

Right: Natural layout of controls improves comfort and productivity (MF 6400 Dyna-6 AutoDrive model shown).

Rear axle and linkage

The rear axle and 3-point linkage are highly specified. Twin external lift rams, high visibility pick-up hitch and drawbar, quick-attach hook top and lower links, external linkage control on both rear fenders, twin variable float telescopic stabilisers and three spool valves are all standard equipment.

Active Transport Control (ATC)

When driving across the headland or transporting heavy mounted equipment, implement 'bounce' can occur.

Active Transport Control is integrated into the ELC system as standard. It is a shock-absorbing system that minimises the 'pitching' action - automatically adjusting for different implement weights. This gives smoother, safer, faster transport and, by reducing shock loads through the lift rams and hydraulic circuits, also minimises the risk of damage to the lift system.

Right: Well-specified linkage and hydraulics (MF 7480 with height-adjustable hitch shown)

Inset: UK specification with Autohitch and drawbar

ATC is independent of the transport lock and can be controlled either manually or automatically, linked to the ELC lift/lower switch. It is then activated when the implement is raised and deactivated when the implement is lowered.

ATC and QuadLink

ATC operates in conjunction with the QuadLink suspended front axle to give exceptional stability when transporting or operating mounted equipment at speed, giving greater comfort, safety and productivity.

MF 7400 control layout, showing SMS and electro-hydraulic spool valves

Integrated Active Transport Control gives faster, safer transport of mounted equipment

Advanced Field and Headland Management Systems

From the Spool Valve Management System (SMS) to fully programmed implement control via Datatronic 3 and ISOBUS, MF 6400/7400 Series tractors have among the most comprehensive Field and Headland Management Systems available today.

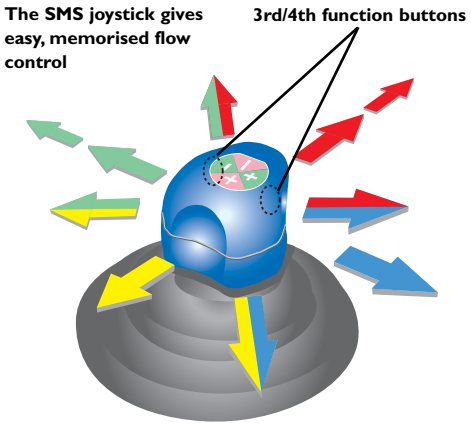
Whichever level you choose to meet your business needs, the result is simply a more relaxing, more productive working day.

Spool Valve Management System (SMS)

SMS* gives easier, more precise, memorised control of the electro-hydraulic, proportional spool valves.

SMS: accuracy and simplicity

SMS enables external hydraulic oil flow rates to be memorised and controlled via either an armrest-mounted joystick*. Each time the same function and flow is required, a single movement of the joystick is all that is needed.



The benefits of SMS

Memorised flow rates and one-touch operation greatly simplify field, and especially, headland manoeuvres when operating complex equipment or front and rear combinations.

And, of course, SMS is ideal for faster, more efficient front loader operation

Integrated Tractor Control System (ITCS)

ITCS (available as an option on all models and standard when Datatronic 3 is specified) provides an entry level of field and headland management that is ideal if all of the functions of Datatronic 3 are not required.

ITCS enables management of:

Wheelslip control – to automatically limit wheelsip to an operator-set maximum. This increases traction, reduces tyre wear and protects soil structure.

Spool Valve Management – to set the flow and timing of the spool valves controlled by the SMS joystick.

A convenient keypad is used to 'navigate' and input settings in ITCS. Information is displayed in the left-hand screen on the instrument console.

Linkage/external services oil flow priority – to control, as a precise percentage, the split of oil flow to the linkage and spool valves to ensure optimum efficiency for different applications.

Headland control – interacts with Engine Speed Control to automatically change between A and B engine speeds as the linkage is raised and lowered.

Engine speed change can be delayed between 0 and 5 seconds from linkage lift/lower switch activation.

More information with ITCS

ITCS also gives a read-out of both 'trip' and total fuel usage, and displays pre-set engine speeds, forward speed and PTO speed.

Datatronic 3: Information, control and easy operation

Datatronic 3 main menu screen

Inset: Memory card used for settings and data transfer

Three versions of Datatronic 3 are now available; with black and white screen, with colour screen, and with colour screen with video capability and ISOBUS connectivity.

Citation
SIMA 2007
PALMARÈS DE L'INNOVATION

Datatronic 3 has won a prestigious commendation at SIMA 2007 for data transfer via the SD card, simplifying operation, control and traceability.

* Options vary by model and market; see 'Specifications'

Programmed headland and implement control with Datatronic 3

Datatronic 3 is controlled from a main screen with up to seven main application menus, plus 'Settings' for console set-up.

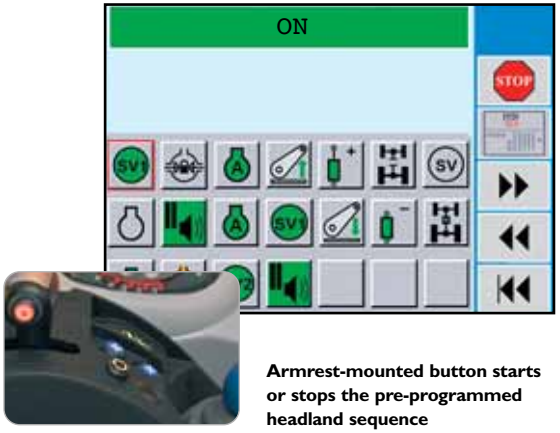
Work menu

The Work screen displays engine and PTO speed, travel speed and wheelslip information. A wide range of tractor functions can also be displayed and controlled, including spool valves, memory, Dual Control and TIC.

Headland menu

The Headland menu, quite simply, gives access to the most comprehensive headland management system available today.

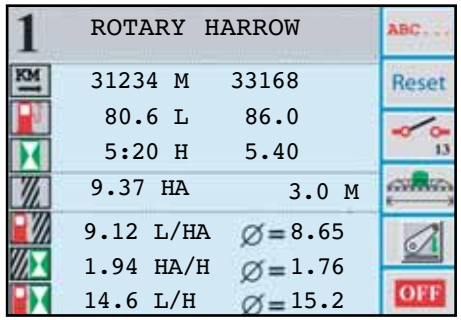
It enables straightforward programming of up to 35 operations, activated at the touch of an armrest-mounted button. The sequence can be modified or over-ridden at any time.



Armrest-mounted button starts or stops the pre-programmed headland sequence

Memories menu

Six independent sets of information can be stored, named and displayed. The data can also be transferred, via SD memory card, to the office computer for analysis or from tractor to tractor to speed implement setup .
Recorded information includes:
- tractor settings, including gearbox, spool valves or a recorded headland sequence;
- implement width
- information gathered during field operation, including hours and area worked, fuel usage, distance covered... and more.



A typical Memory screen, showing fuel usage, hours worked, area worked and distance travelled

Electro-hydraulic spool valves menu

The EHS Valves menu is used to set the operating characteristics of up to four electro-hydraulic spool valves. You can enable or disable 'float' and accurately set ram extension and retraction, flow rates and kickout timing.

ISOBUS compatibility

ISOBUS, the industry-standard for implement connectivity, means that all of your equipment can be easily set up and operated via the GTA Console.

Typical ISOBUS screen image
inset: implement connection

Remote camera

The optional remote video camera can be fitted anywhere on the tractor or on any front- or rear-mounted implement.

Used in conjunction with clear on-screen view (actual image shown) on the GTA Console when reversing enables faster, safer haulage work or, the operator to view any rear or side-mounted equipment.

Optional remote camera gives high quality image on the colour/ISOBUS GTA Console

Dual Control menu

The Dual Control menu enables fully programmed command of front and rear Dual Control and Trailed Implement Control, so maximum output and work quality can be achieved with a minimum of operator input.

When using semi-mounted ploughs, Dual Control automates furrow entry and exit, aids setting the plough, improves evenness and control of work and gives the full benefit of wheelslip control.

When front linkage is fitted, front Dual Control gives automated depth and entry and exit points with front and rear linkage-mounted equipment.

Trailed Implement Control (TIC)

TIC uses wheelslip data to automatically regulate working depth to optimise productivity when using trailed equipment. It is operated via the standard armrest-mounted ELC controls with set-up and monitoring via either ITCS or Datatronic 3.

For comprehensive information about Massey Ferguson advanced Field and Headland Management systems, please ask your Dealer for the 'MF Technology' brochure

Tailored options for higher productivity

GTA software

Data recorded using the Datatronic 3 memory function (see page 19) can be displayed on the console, transferred via memory card from tractor to tractor or to the office computer. This award-winning system can help improve productivity, simplify day-to-day operation and also provide vital 'traceability' data via PC-based GTA software can be used for record keeping, analysis and mapping:

GTA 100 Communicator (standard) - enables machine use and job data to be managed, viewed and exported to third party farm management programmes.

GTA 200 Record Keeping (optional) - allows machine performance data to be allocated to a specific job or field to produce a range of reports, also enabling accurate crop traceability.

GTA 300 Mapping (optional) - enables the user to create maps from data containing GPS-based positioning information gathered while working. This data is recorded with other data, for example forward speed, fuel consumption or yield.

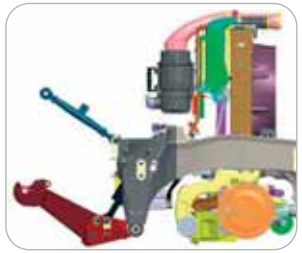
Massey Ferguson ILS

A new front axle support casting enables factory-installation of Massey Ferguson ILS* a neat, fully integrated front linkage and PTO system. Attached to an exceptionally strong structural engine sump, this design means that no additional side rails are necessary when specifying the front linkage. So engine access is further improved and a tighter steering lock is achieved, for faster headland turns and manoeuvring.

Massey Ferguson ILS. A fully integrated, factory-fit front linkage and PTO system (MF 7480 shown).

Ballast options include the 600 kg plus 900 kg modular front weights to aid accurate weight distribution

Below: GTA 200 software enables a range of reports to be produced



The integrated front linkage design also has tremendous strength to cater for heavy, high-productivity front-mounted equipment. The new front linkage also incorporates a towing clevis, electrical connector and up to two spool valve couplers.

Extra visibility

Visio roof

The Visio roof is an opening glass roof panel that provides greatly improved upward visibility from the normal seating position, which is particularly useful in front loader operation when, for example, stacking bales to maximum height.

Panoramic cab (Please also see page 2)

All models are also available with the Panoramic Cab. The pillarless design of the right-hand side of the cab and the clear polycarbonate window provide a perfect view

* MF 6465/75/80 and MF 7465/75/80

A joy to drive, a pleasure to own

of side-mounted equipment. Having all of the benefits of the standard cab, Panoramic models are also available with the steep nose bonnet design and the Visio roof.

Built-in durability

The MF 6400 and 7400 'transaxle' designs are extremely strong yet give low overall weight, with an excellent power-to-weight ratio.

This gives excellent load-carrying capacity and handling characteristics, while the immense rigidity reduces stress on components, reducing maintenance requirements and down-time.

More style, more practicality

The sleek new bonnet on MF 6465/75/80 and MF 7465/75/80 models is stylish and practical. Rear hinged, the lockable bonnet raises fully, giving completely clear access to the engine, radiator and re-designed cooling package.

The radiators have a greater surface area for improved cooling and also hinge and separate for easy cleaning.

Simple servicing and routine maintenance

The conveniently placed engine oil dipsticks and fillers are safely positioned on the 'cold' side of the engine, away from the hot exhaust.

And with convenient ground level refuelling, self-adjusting brakes and electronic protection of engine speed, 4WD, differential locks, PTO and transmission, routine tasks are easy and servicing requirements are minimised.

manager service contract

But for ultimate peace of mind, there is the **manager** service and repair contract; a support package that manages all of your Aftersales needs professionally and at fixed costs.

We can provide total care for your new Massey Ferguson tractor with full service & extended warranty cover up to 5 years or 6000 hours.

Just ask your Massey Ferguson dealer for a tailored manager quote.

Above: New hinged bonnet design gives excellent service access on 4-cylinder models

Right and below: MF 6465/75/80 and MF 7465/75/80, also feature new bonnet design and cooling pack access

MF 6400/7400 Specifications: ● = Standard ❍ = Optional – = Not applicable/available NB. All models are available with Panoramic cab

	MF 6445 *Dyna-6*	MF 6455 *Dyna-6*	MF 6460 *Dyna-6*	MF 6465 *Dyna-6*	MF 6470 *Dyna-6*	MF 6475 *Dyna-6*	MF 6480 *Dyna-6*	MF 7465 *Dyna-VT*	MF 7475 *Dyna-VT*	MF 7480 *Dyna-VT*
Engine power, nominal										
Rated hp @ 2200 rpm *ISO hp (kW)	95 (70)	105 (77)	115 (84)	120 (88)	125 (92)	135 (99)	145 (107)	125 (92)	140 (103)	150 (110)
Maximum hp @ 2000 rpm *ISO hp (kW)	100 (74)	112 (82)	125 (92)	130 (96)	135 (99)	145 (107)	157 (116)	135 (99)	150 (110)	167 (123)
Maximum torque *Nm	400	463	538	543	585	607	649	585	681	711
Engine power, in Transport/PTO										
Maximum hp @ 2000 rpm *ISO hp (kW)	110 (81)	125 (92)	135 (99)	140 (103)	145 (107)	160 (118)	170 (125)	–	–	–
Maximum torque *Nm	463	525	585	585	625	681	711	–	–	–
Max. power available @ PTO shaft										
Maximum hp @ 1000 PTO rpm (OECD, accuracy +/– 2%) hp (kW)	88 (65)	100 (74)	110 (81)	115 (85)	120 (88)	130 (96)	140 (103)	115 (85)	130 (96)	140 (103)
Specific fuel consumption† g/kWh	208	208	205	210	205	208	208	210	208	208
Engine										
Make/Type	Perkins 1104D-E44TA	Perkins 1104D-E44TA	SISU Diesel 44CTA	Perkins 1106D-E66TA	SISU Diesel 44CTA	Perkins 1106D-E66TA	Perkins 1106D-E66TA	Perkins 1106D-E66TA	Perkins 1106D-E66TA	Perkins 1106D-E66TA
Cooling/fuel injection	Water cooled, direct injection diesel. Tier III compliant. Common rail electronic fuel injection. 4 valves per cylinder									
Capacity/number of cylinders litre/no.	4.4/4	4.4/4	4.4/4	6.6/6	4.4/4	6.6/6	6.6/6	6.6/6	6.6/6	6.6/6
Aspiration	Turbocharged, with wastegate and Intercooler									
Clutch										
Operation and control	Forward and reverse, multi-plate, oil-cooled clutches with hydraulic actuation and electronic control							–	–	–
Transmission										
Dyna-6 - Speedmatching ●	Semi-powershift gearbox, with 6 Dynashift ratios in each of 4 electro-hydraulically controlled ranges. Power Control and Speedmatching functions							–	–	–
Dyna-6 - AutoDrive ❍	As 'Speedmatching', plus AutoDrive, giving manual, semi- or fully-automated Dynashift changes							–	–	–
50 km/h max. speed (Depending on market/legislation)	–	–	❍	❍	❍	❍	❍	–	–	–
Creeper speeds ❍	Additional 12F/12R Creeper speeds							–	–	–
Supercreep speeds ❍	Additional 24F/24R Creeper speeds							–	–	–
Dyna-VT	–	–	–	–	–	–	–	Stepless, continuously variable transmission		
Field speed range								0.03 – 28 km/h Forward and 0.03 – 16 km/h Reverse		
Road speed range (▲Depending on market/legislation)								0.03 – 50 km/h▲ Forward and 0.03 – 38 km/h Reverse		
Power take-off - rear										
Operation and control	Independent, electro-hydraulic with rear fender-mounted start/stop control and headland automation. In-cab control lever									
Speed change:										
Shiftable, flanged In-cab/external control	●/❍	●/❍	●/❍	●/❍	●/❍	●/❍	●/❍	–/●	–/●	–/●
PTO speed @ engine rpm										
540 rpm (6 spline shaft) rpm	1980	1980	1980	1980	1980	1980	1980	2100	2100	2100
1000 rpm (21 spline shaft) rpm	2000	2000	2000	2000	2000	2000	2000	2100	2100	2100
Ground speed PTO	❍	❍	❍	❍	❍	❍	❍	–	–	–
Economy PTO, 540 or 1000 rpm @engine rpm	❍/1550	❍/1550	❍/1550	❍/1550	❍/1550	❍/1550	❍/1550	❍/1520	❍/1520	❍/1520
Shaft diameter	35mm (1 3/8in)									

*ISO TR 14396 (EG 97/68 values are comparable to ISO values +/- 0.5%) † Optimum specific fuel consumption (Manufacturer's test)

		MF 6445 Dyna-6	MF 6455 Dyna-6	MF 6460 Dyna-6	MF 6465 Dyna-6	MF 6470 Dyna-6	MF 6475 Dyna-6	MF 6480 Dyna-6	MF 7465 Dyna-VT	MF 7475 Dyna-VT	MF 7480 Dyna-VT
Front Power take-off and linkage (❍)											
MF ILS - Integrated Linkage System		–	–	–	❍	–	❍	❍	❍	❍	❍
'Standard' linkage system		❍	❍	❍	–	❍	–	–	–	–	–
Operation and control		Independent, electro-hydraulic. 6 or 21 spline, 35mm (1³/₈in) diameter PTO shaft. 1000 rpm @ 2040 engine rpm									
Linkage lift capacity	kg	2500	2500	2500	2800/4000	2500	2800/4000	2800/4000	2800/4000	2800/4000	2800/4000
Linkage and hydraulics											
Linkage control		Electronic control of draft, position, Intermix, height/depth, rate of drop, 'quick soil engagement' and Active Transport Control									
Max oil flow/pressure											
Open Centre	litre/min / bar	● 57/200+33/17	● 57/200+33/17	● 57/200+33/17	● 57/200+33/17	● 57/200+33/17	● 57/200+33/17	● 57/200+33/17	–	–	–
Closed Centre (load sensing)	litre/min / bar	❍ 110/200	❍ 110/200	❍ 110/200	❍ 110/200	❍ 110/200	❍ 110/200	❍ 110/200	● 110/200	● 110/200	● 110/200
Lower links		Quick-attach, hook end with Cat. 2/3 balls and cones									
Maximum lift capacity, at link ends	kg	● 5850/❍ 7100	● 5850/❍ 7100	● 5850/❍ 7100	7100	● 5850/❍ 7100	7100	7100	7600	7600	8600
Auxiliary hydraulics											
Spool valves, type	●	Single/double acting mechanical Spool valves							SMS + joystick: electro-hydraulic/mechanical		
- number as standard		2	2	2	3	2	3	3	2/1	2/1	2/1
	❍	Up to 4, mechanical Spool valves							N/A		
Optional, CCLS models only		Spool Valve Management System (SMS) with up to 4 electro-hydraulic Spool valves									
Steering											
Type		Hydrostatic, balanced, with tilting, telescopic steering column									
Brakes											
With power assisitance		–	–	❍	●	❍	●	●	●	●	●
Less power assisitance		●	●	●	–	●	–	–	–	–	–
Trailer brakes		Hydraulic, pedal-operated									
4WD front axle											
Differential lock		Hydralock (full engagement/disengagement), with automated control									
QuadLink suspended axle		❍	❍	❍	❍	❍	❍	●	●	●	
Standard wheels and tyres (Full range available, please consult your Dealer)											
Front		340/85R24 / 13.6R24	340/85R28 / 13.6R28	340/85R28 / 13.6R28	380/85R28 / 14.9R28	380/85R28 / 14.9R28	380/85R28 / 14.9R28	420/85R28 / 16.9R28	380/85R28 / 14.9R28	380/85R28 / 14.9R28	420/85R28 / 16.9R28
Rear		420/85R34 / 16.9R34	420/85R38 / 16.9R38	420/85R38 / 16.9R38	460/85R38 / 18.4R38	460/85R38 / 18.4R38	460/85R38 / 18.4R38	520/85R38 / 20.8R38	460/85R38 / 18.4R38	460/85R38 / 18.4R38	520/85R38 / 20.8R38
Track adjustments (with 'standard' wheels and tyres)											
Front - 2WD (not available in UK)	m	1.54-2.33 ❍	1.54-2.33 ❍	1.54-2.33 ❍	–	–	–	–	–	–	–
- 4WD/QuadLink	m	1.67-1.92	1.67-1.92	1.67-1.92	1.67-1.92	1.67-1.92	1.67-1.92	1.67-1.92	1.62-1.97	1.62-1.97	1.75-1.87
Rear	m	1.59-1.94	1.59-1.94	1.59-1.94	1.70-1.95	1.70-1.95	1.76-2.02	1.76-2.02	1.62-2.00	1.62-2.00	1.67-2.00
Weights and dimensions (approximate, with 'standard wheels and tyres, 4WD model less fuel)											
Weight, Minimum, no ballast	kg	4150	4220	4570	5240	4610	5400	5470	5815	6060	6345
Dimensions (Less front weights)											
Overall length, to lower link ends	m	4.25	4.25	4.32	4.79	4.32	4.79	4.79	4.79	4.79	4.79
Overall height - over cab	m	2.78	2.82	2.82	2.90	2.86	2.90	2.94	2.90	2.90	2.94
Minimum width	m	1.98	1.98	1.98	2.28	2.28	2.28	2.28	2.55	2.55	2.55
Wheelbase	m	2.55	2.55	2.67	2.82	2.67	2.82	2.82	2.82	2.82	2.82
Turning circle; diameter, less brakes, 2WD/4WD	m	7.4/8.4	7.4/8.4	7.7/8.9	–/9.6	–/8.4	–/9.6	–/10.0	–/9.6	–/9.6	–/10.0
Capacities											
Fuel tank	●/❍ litre	130/190	130/190	145/190	270/–	145/190	270/–	270/–	270/–	270/–	270/–

*Fender width complying with 50 km/h maximum road speed legislation

Design, testing and manufacturing

Massey Ferguson has a long tradition of innovation and engineering excellence. Based on continual questioning and analysis of farmers' needs, our products are designed, tested and built using the latest manufacturing techniques to enhance your productivity, efficiency and convenience.

World's largest distribution network

With a network of more than 5000 dealer outlets in over 140 countries, Massey Ferguson can claim to have the world's most comprehensive farm machinery distribution network, dedicated to providing local service of the highest calibre.

Financial support

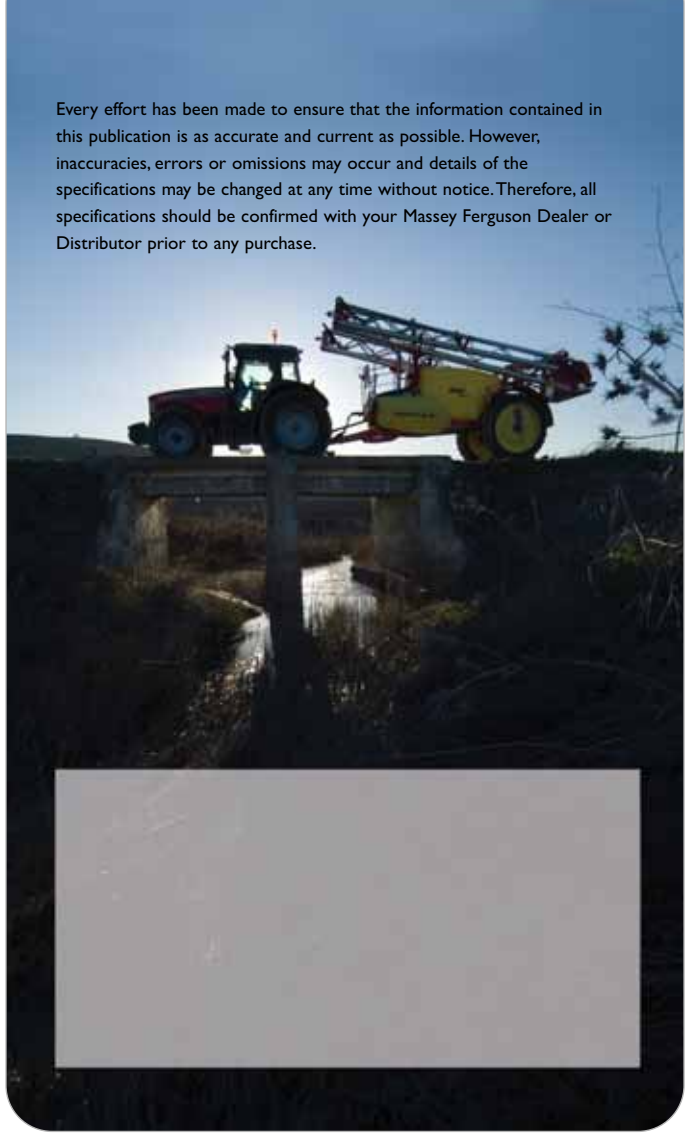
Massey Ferguson retail finance schemes are widely available to help fund machinery purchase. With the emphasis on flexibility, these schemes are tailored to customers' specific business needs and to take account of cash flow and seasonal business cycles. Depending on the market, financial options include leasing, hire purchase, contract hire and loan facilities.

manager service contract

manager service and repair contract

Imagine a 5 year period of known running costs, operating at a level of optimum machinery uptime. Your Massey Ferguson dealer provides vital support to assist with the important task of budgeting expenditure. A manager service and repair contract details the hourly cost for routine maintenance and repair cover carried out on your machine by your dealer. A machine is less likely to fail if maintained by skilled Massey Ferguson technicians operating to the manufacturer's routine maintenance schedule.

There is no substitute for having a team behind you equipped with the latest technology in diagnostic and testing equipment plus years of experience and training, which means they service your machinery with a 'preventative eye', thus minimising risk of future failure.



MASSEY FERGUSON

AGCO