MF 7400

Machine of the year 2004

Agritechnica

High productivity; through friendly technology

6 *Dyna-VT* models: 120 to 185 hp

MASSEY FERGUSON

Exceptional productivity, exceptional specification *and* exceptional quietness

MF 7400 with *Dyna-VT* : More versatile, more profitable

The MF 7400 is an award-winning range of high specification tractors that offers the performance of AGCO's proven continuously variable transmission technology, combined with Massey Ferguson's renowned simplicity of control.

The uniquely efficient MF 'Dyna-VT' transmission means that the 'link' that exists in a conventional transmission between engine speed, ground speed and PTO speed, is effectively broken. You can choose precisely the engine speed and precisely the ground speed that you need for any job, so it's easy to maximize performance and productivity whilst lowering operating costs. Dyna-VT has advantages over Powershift transmissions, with greater economy, smoothness of operation and true infinitely variable speed control; and over other CVT transmissions, with its sheer simplicity of operation

But exceptional though the Dyna-VT is, it's by no means all that the MF 7400 Series has to offer. The latest generation engines provide high power and torque with exceptional flexibility. There's sleek, modern styling and a superb cab with full climate control as standard. The high standard specification also includes a top-level, 'low-frequency' seat, the QuadLink™ suspended front axle and 'dual stage' cab suspension.

Setting new standards in ride comfort, Massey Ferguson's cab suspension is a pneumatic system that you can adjust at the flick of a switch to achieve optimum comfort and safety in both field and road conditions.

Options include Datatronic III, Massey Ferguson's new industry-leading information, control and cost management system, which now incorporates the most comprehensive, fully programmable headland management system available today.

A great deal of work has also gone into noise reduction. At 71 dB(A), in-cab noise levels have been reduced to the lowest in the industry; a major contribution to a driving experience that is second to none.

The MF 7400 range

Model	Engine	Capacity	ISO hp[1]	Min. ISO hp[1] (with Transport Boost)
MF 7465	6 cyl. turbo/intercooled	6.0 litre	120	130
MF 7475	6 cyl. turbo/intercooled	6.0 litre	135	145
MF 7480	6 cyl. turbo/intercooled	6.0 litre	145	155
MF 7485	6 cyl. turbo/intercooled	6.6 litre	155	165
MF 7490	6 cyl. turbo/intercooled	6.6 litre	170	180
MF 7495	6 cyl. turbo/intercooled	6.6 litre	185	195

[1] ISO TR 14396

Hard work has never been this easy

The MF 7400 will help you to work more productively, more accurately and more economically. And it will enable you to achieve all of this with greater ease, comfort and simplicity than you could ever imagine.

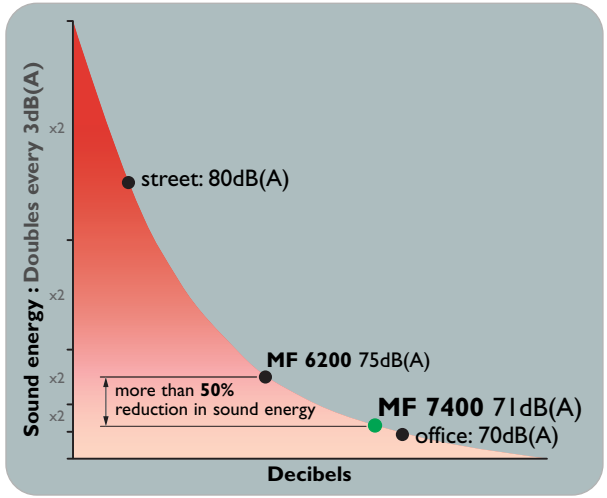
Thoughtful design

Designed by farmers for farmers, you can see from the pictures here the spacious, well-planned layout of the entire cab; the superb instrumentation, intuitive Dyna-VT controls and levers and switches thoughtfully grouped by function. All of the most frequently used controls are mounted conveniently in the armrest, which moves with the seat, so everything always falls readily to hand.

What the pictures can't convey is the sensation of sheer quality when you operate a lever with just the right 'feel' or select a function with almost subconscious ease. For that, you'll have to visit your MF Dealer and arrange a test drive.

Quiet power

Another reason for you to test drive an MF 7400 is to experience for yourself the real difference that has been made to sound levels inside the cab. At 71dB(A) under load, working long, hard hours becomes far less stressful and more productive. And the improvement isn't only in the maximum noise level. The tone of the sound has also been 'tuned' to reduce irritation, and vibration levels have been decreased too. The result is a driving experience that really has to be tried to be fully appreciated.



At 71 dB(A), in-cab noise levels have been reduced by nearly half over previous models at similar horsepower, providing an incredibly relaxed driving environment.

Comfort, safety and simplicity, leading to greater productivity. The MF 7400 Series has the ideal driver environment. (Optional GTA Console with Datatronic III shown)

Maintain output, day and night

Standard 'set-and-forget' Climate Control

A breath of fresh air

Fitted as standard, the 'climate control' system has seven, well-spaced air outlets giving excellent air distribution and accurate temperature control. It will even memorise your chosen temperature setting and return to it at start-up… automatically.

Excellent visibility

A 5.7m^2 surface area of tinted, heat-reflective glass, narrow pillars and side-mounted exhaust all help to ensure excellent all-round visibility. The large telescopic rear view mirrors, with electric de-icing and adjustment, are a further aid to safe manoeuvring and transport in all conditions.

The standard lighting enables high night-time productivity, with Xenon lights available as an option if your business demands a lot of after-dark work.

Standard lighting is excellent (below). Options include super-powerful Xenon work lights.

Sit back and enjoy the ride

The high specification swivelling seat, featuring armrest mounted controls and seat heating (inset)

The high specification, 'low-frequency' seat provides exceptional comfort, but ride quality is still further enhanced...

High specification seats

The top specification swivelling seat is fully adjustable and includes double pneumatic 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. The seat covering has a heat-absorbing 'active carbon' layer for greater comfort in really hot conditions, and also seat heating for those cold winter mornings.

But high specification seats are just part of the MF 7400 Series' ride comfort story...

QuadLink suspension

MF's QuadLink suspended front axle, fitted as standard, 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.

Operator controlled

Unlike many other systems, QuadLink is operator controlled so you can choose whether you want 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 that the operator is 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.

QuadLink and cab suspension switches, giving full operator control

Dual Stage suspended cab

To provide the ultimate in ride comfort, MF's new cab suspension system is standard on all MF 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 also has fewer mechanical links between the cab and transaxle, so noise insulation is also improved.

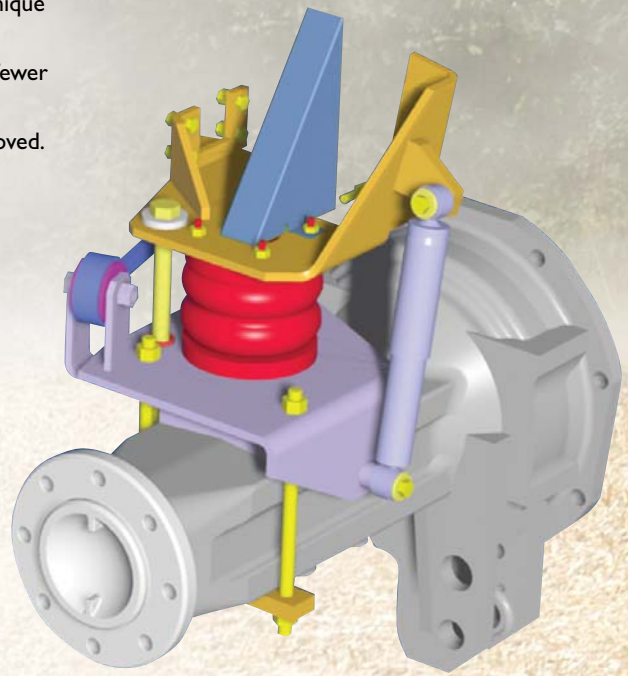
Ride comfort improvement

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

'Dual stage' cab suspension system

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Driving with *Dyna-VT*

Anyone familiar with Massey Ferguson tractors with left-hand Power Control will immediately feel at home with the MF 7400 Series. Those with experience of other systems will quickly appreciate the intuitive, straightforward Dyna-VT controls.

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!**

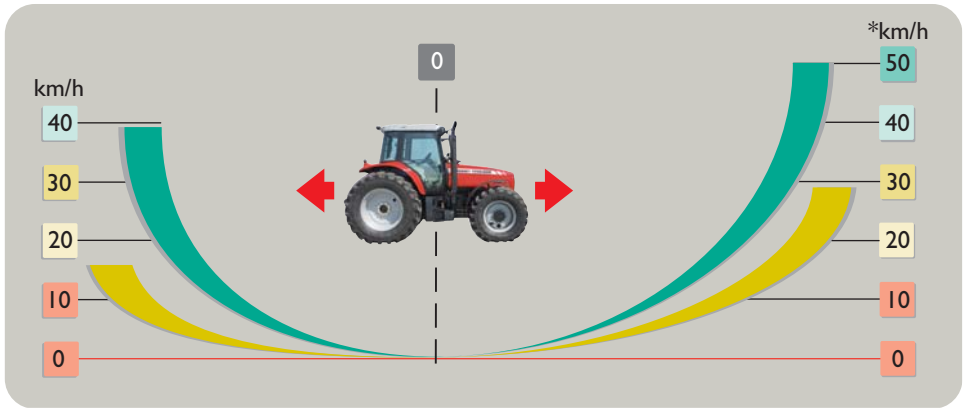
To slow down, simply pull the lever back. When you've reached the chosen speed, just release the lever.

Left hand Power Control

If you prefer left hand speed control, the Power Control lever operates in a similar way, with speed increasing more rapidly the longer the lever is held in the 'forward' or 'reverse' position. The Power Control lever also gives convenient, left-hand control of forward/reverse shuttle.

In some situations, baling or foraging for example, you may prefer control by the foot throttle pedal. Again no problem, simply select 'Pedal Mode' and you have total control of a variety of automated operating modes (see page 10).

* Depending on market/legislation



Convenient left-hand Power Control lever

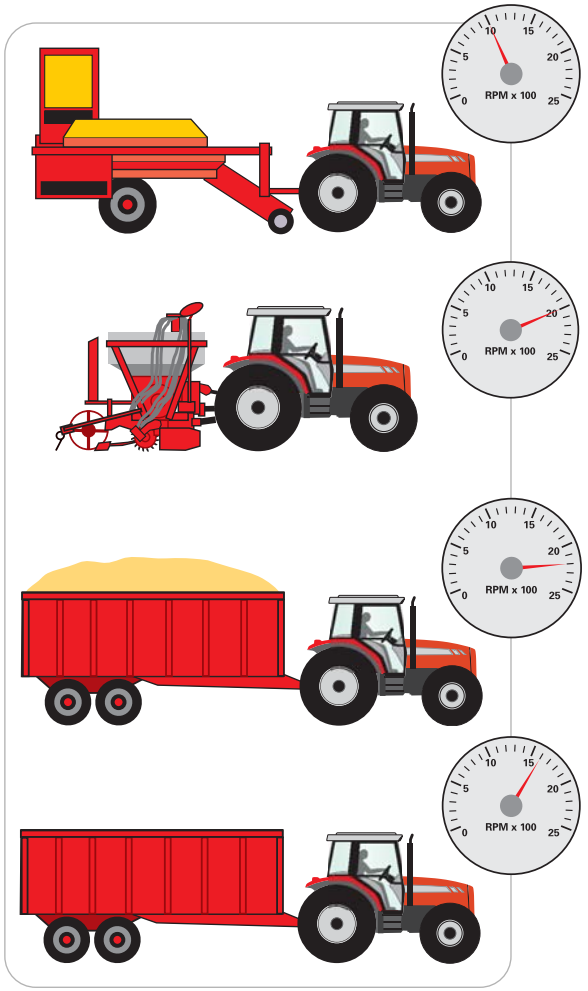
The Dyna-VT lever is mounted in the adjustable armrest, attached to the seat so it's always in exactly the right place

Two infinitely variable speed ranges cover all field and transport application needs

Dyna-VT : Versatility and precision

With Dyna-VT there is no compromise. From specialist '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:



Low speed and low 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 revs, to minimise in-cab noise and reduce fuel consumption.

Dyna-VT: Simple sophistication

Dyna-VT is an elegant amalgamation of tried and tested technologies giving smooth, infinitely variable speed control with low power losses.

But best of all, Dyna-VT is exceptionally easy to use, with sophisticated yet simple electronic control and programming.

Pre-set speed control

Forward and reverse speed and rate of acceleration can be pre-set within each of two ranges.

To set the speeds, simply turn the 'SV1' or 'SV2' rotary knob until the desired speed is indicated on the digital display on the instrument console. To select the pre-set speed, just press the 'SV1' or 'SV2' armrest mounted button and the speed will be maintained automatically and also memorised at engine shutdown.

Headland turns, loader work and many more field operations become faster, easier and less tiring.

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. Simply dip the clutch and adjust using the Power Control lever.

Choice of operating modes

'Lever mode', where ground speed control is via the Power Control or Dyna-VT lever, is ideal in most conditions. However, in some applications simply select 'Pedal Mode' and you have control of three further operating modes, using the accelerator pedal (or hand throttle), which actually adjusts the transmission ratio rather than engine speed or fuelling.

Power mode

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

Economy mode

In 'economy mode', ratio changes are made at 1800 revs, giving improved economy in lighter duty applications.

Forager mode

Ideal when foraging or baling, 'forager mode' maintains maximum engine speed and 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.

The 'Supervisor'

The Supervisor is permanently switched on and activates when engine speed falls under load. By adjusting the transmission ratio, the Supervisor optimises the relationship between engine load and forward speed.

Simply turn the rotary control to maximise engine and transmission characteristics for PTO, transport or draft conditions. Fine adjustments can also be made on-the-move as response is immediate.

SV1/SV2 Speed memories, Dyna-VT operating modes and range selection all in one convenient 'pod'

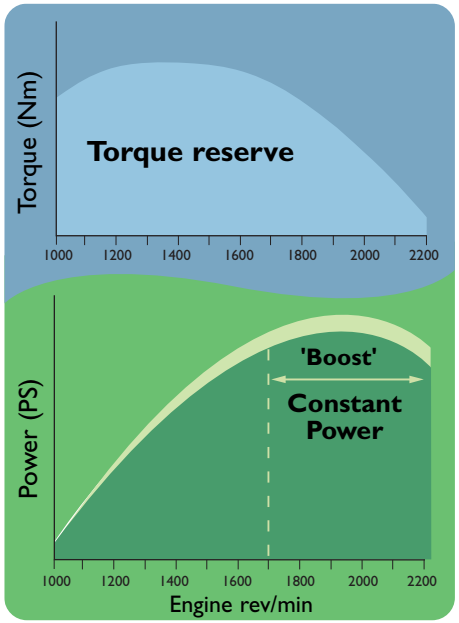
The 'Supervisor' works continuously in the background to help you to optimise productivity

A choice of operating modes for all applications

Increased work-rates with less fuel and quieter operation

All MF 7400 Series tractors have high torque with excellent 'constant power' and torque back-up, right down to 1000 engine rev/min.

These characteristics work in perfect harmony with the versatility and flexibility of the Dyna-VT transmission so you can always maximise productivity with lower engine speeds, giving improved fuel economy and quieter, more relaxed operation.



High power plus 'Power boost' and 'constant power' down to 1700 rev/min. The torque curve also clearly shows how pulling power is maintained as engine speed falls from 1400 to 1000 rev/min.

Electronic Engine Management

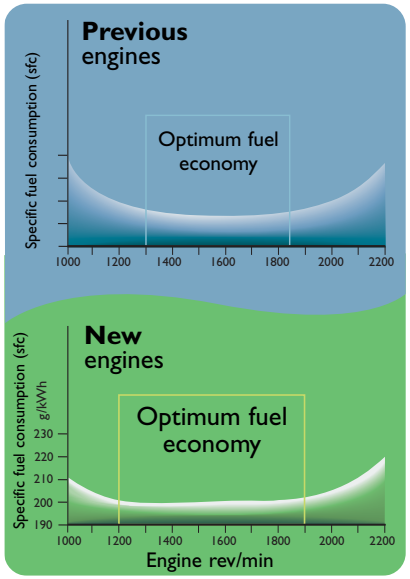
MF 7400 Series tractors all feature latest technology engines incorporating Electronic Engine Management (EEM). This enables continuous adjustment of the amount and timing of fuel injected, in relation to engine speed and load. The result is lower emissions, more power and improved fuel economy.

EEM also enables a range of advanced engine control functions, including Power Boost and Engine Speed Control.

Power boost

When ground speed is over approximately 15 km/h, the electronic engine management system automatically gives a power boost of at least 10 hp, still further enhancing torque back-up characteristics and 'work rate', particularly in transport applications.

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



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

Engine speed control

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

For example when ploughing, your chosen engine speed can be selected at the touch of a 'rocker switch' (direction 'A'), then when turning at the headland, simply press the switch again (direction 'B') and engine speed is reduced. Once back in the furrow, press the rocker switch again (direction 'A') and you're back to full ploughing speed.

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 latest-technology combustion systems, this has given significant improvements, not only in emissions but also in fuel economy.

Whilst lowering the absolute Specific Fuel Consumption (sfc) figure is important, the graph (left) shows how the MF 7400 Series achieves lower fuel consumption over a much wider range of operating conditions.

Lower service requirements

The latest engines also benefit from 400 hour service intervals, keeping down-time to a minimum and further reducing overall operating costs.

High productivity power take-off

With power, versatility and simplicity of operation as key design criteria, the PTO system has a standard specification that meets all operational demands.

High specification PTO

Fully independent 540/750/1000 rev/min PTO is standard, with all controls for front (optional) and rear systems 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 rev/min PTO speeds are achieved at, or near to 2000 rev/min, which is also maximum engine power. With the benefit of a 'constant power' band of at least 400 revs and the ability, with Dyna-VT, to precisely select any ground speed at the chosen engine speed, you can always achieve a perfect match of PTO speed, forward speed and power – with optimum economy.

Economy PTO

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

Automated PTO control

In 'Auto' mode, the PTO is 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.

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

Fender-mounted PTO controls for added convenience and safety

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.

QuadLink front axle

With its 'high pivot' design, the QuadLink front axle has excellent ground clearance and maintains good turning angles even with larger tyre sizes.

MF hydraulics: power with precision

MF 7400 Series tractors have a lift capacity of up to 9300 kg. But power is nothing without control, so Massey Ferguson's Electronic Linkage Control system has been further refined to maintain its position as the industry leader in terms of accuracy, responsiveness, ease of use and reliability.

And to comfortably meet the oil flow and pressure demands of large equipment or multiple front/rear combinations, a 'closed centre load-sensing' hydraulic system is standard on all models.

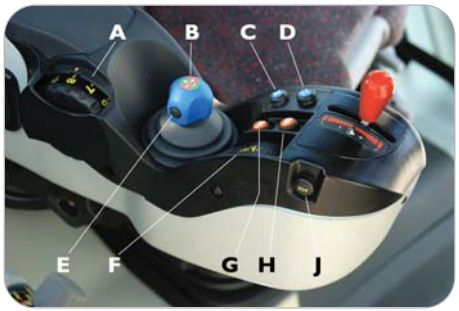
More accurate draft control

Massey Ferguson's digital ELC system gives the highest standards of draft control with more accurate depth settings and better ground contour following. The result is more weight transfer and better traction, giving less wheel slip, reduced tyre wear and fuel consumption and greater output.

Simple ELC panel

With the more frequently used controls armrest-mounted and a straightforward ELC control panel, accurate operation is easy. In addition to all the normal linkage control functions, the system also incorporates advanced integrated features. Sensitivity, quick soil engagement and automatic drop speed are all standard.

For faster implement attachment the rear linkage can also be operated from conveniently mounted push buttons on each rear fender.



Natural layout of controls improves comfort and productivity

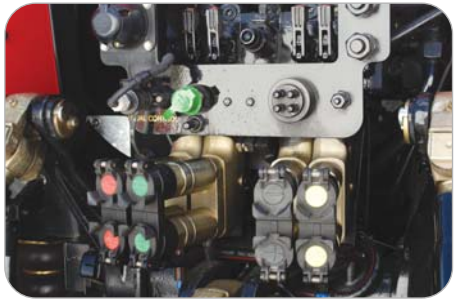
Main right-hand controls:

A. ELC Height/depth control switch
B. SMS joystick
C. SMS memory switch
D. SMS On/Off switch
E. SMS 3rd function switch
F. ELC lift/lower switch
G. SV1 speed memory
H. SV2 speed memory
J. ELC 'Quick drop' switch

Fast hydraulic response

The Closed Centre Load-Sensing (CCLS) hydraulic 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.

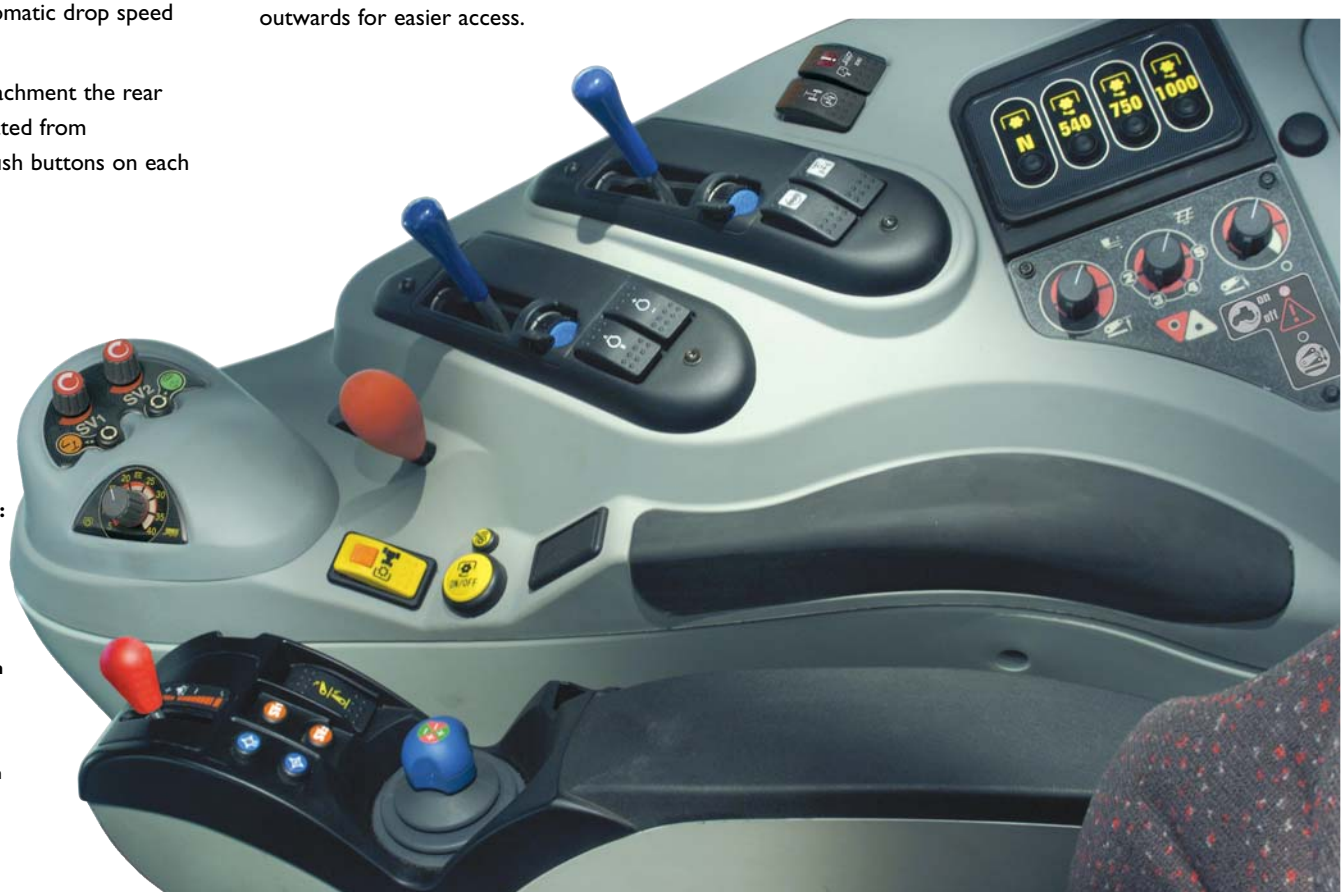
Implement hook-up is easy too, with 'decompression couplers' that enable equipment to be connected and disconnected under pressure. They are also angled outwards for easier access.



'Decompression couplers' enable equipment to be connected and disconnected under pressure

Auxiliary spool valves

With a choice of mechanical or up to four electro-hydraulic valves, with SMS as standard, complex equipment can be controlled more easily and effectively than ever.



Power beyond

Built into the CCLS spool block is the 'Power beyond' facility. Extra flow and return pipes provide oil flow directly from the pump, enabling additional remote spool valves to be connected, without occupying the existing couplers.

Standard 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 which 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.

ATC is independent of the transport lock and can be controlled either manually at the touch of a button, or automatically, whereby it is linked to the lift/lower switch of the ELC panel. 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.

Highly specified rear axle and linkage

Like everything else on the MF 7400 Series, 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.

Exceptionally powerful 'triple' brakes

The rear axle houses two sets of multi-plate disc brakes but there is also an additional brake on the 4-wheel drive output shaft, giving reassuring, fade-free braking, even with heavy loads. Hydraulic trailer brakes are also fitted as standard, for added comfort and safety.

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

Powerful linkage and hydraulics provide up to 9300 kg lift capacity. (MF 7480 French specification shown)

Advanced Field and Headland Management Systems

From the precision of the MF ELC system to the most sophisticated programmed control of complex front- and rear-mounted combination equipment, the MF 7400 Series has among the most comprehensive Field and Headland Management Systems available today.

Whichever level you choose, the result is simply a more relaxing, more productive working day.

Spool Valve Management System (SMS)

Fitted as standard on all MF 7400 models the Spool Valve Management System gives easier, more precise, memorised control of two electro-hydraulic, proportional spool valves.

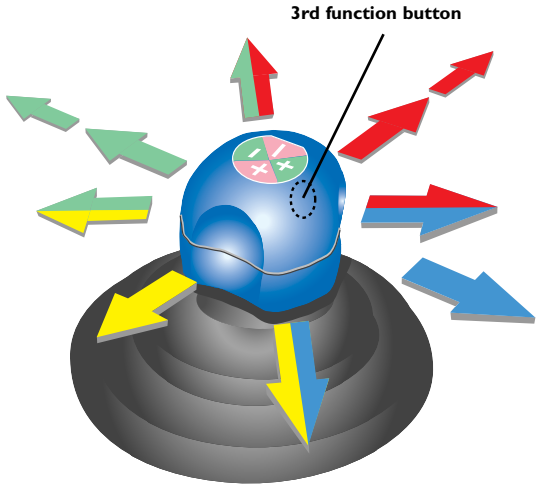
SMS: accuracy and simplicity

SMS enables external hydraulic oil flow rates to be memorised and controlled via an armrest-mounted 'joystick'. Simply move the multi-directional joystick to set the required hydraulic function and flow, then press the memory button. Each subsequent time that the same function and flow is required, a single movement of the joystick is all that is required.

The benefits of SMS

Once the settings have been input, simply move the joystick in the required direction and allow it to return to its 'neutral' position – then let SMS do the work for you! The combination of memorised flow rates and timing with one-touch operation gives greatly simplified 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 too.



The multi-directional SMS joystick controls flow to individual spool valves, split flow to two valves, timing and float functions.

Integrated Tractor Control System (ITCS)

ITCS is available as an option on all MF 7400 Series tractors. It is an integrated monitoring and tractor management system that gives a high level of 'field and headland management', ideal if all of the functions of Datatronic III are not required.

ITCS enables you to manage:

- Wheel slip control

ITCS (fitted as standard when Datatronic III is specified) links with the Transmission Controller and ELC system sensors to provide wheel slip control, giving increased traction and improved performance with draft controlled implements.

Wheel slip control maintains high quality work, increases output, reduces tyre wear and protects soil structure. Once switched on, on the ELC panel, within ITCS you can set maximum permitted wheel slip and monitor actual wheel slip in the left-hand display.

- SMS (the Spool Valve Management System) Programme SMS via the touch-sensitive ITCS keypad for even finer adjustment of oil flow, plus precise pre-set kick-out timing.

- Linkage/external services oil flow priority Control, as a precise percentage, the split of oil flow to the linkage and spool valves to ensure optimum efficiency of both functions.

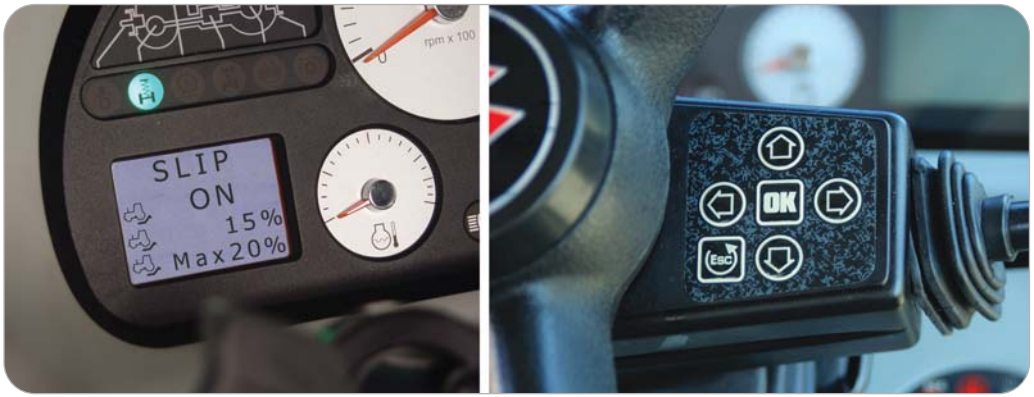
- 'Mini' headland control

The mini headland control interacts with engine speed control to automatically change between A and B engine speeds as the linkage is raised and lowered.

The delay in engine speed change after linkage lift/lower activation can be accurately programmed via the keypad, with a read-out, in seconds, clearly displayed on the left-hand screen.

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.



A convenient keypad is used to 'navigate' and input settings in ITCS.

Information is displayed in the left-hand screen on the instrument console.

The GTA Console

The GTA Console is Massey Ferguson's new operator interface for tractor management and implement control.

It features a full-colour screen which can be adjusted for brightness and contrast for clear legibility day or night. For simple operation, there are six buttons for function selection and a large rotary knob for adjusting settings.

Datatronic III and the GTA Console

Now running on the GTA Console, Datatronic III is available on all MF 7400 Series models. It enables automated operation of complex equipment and also gathers and records information in multiple memories. The data recorded can be displayed on the GTA Console and can also be transferred to the office computer via an SD (Secure Digital) card.

GTA 100 and 200 software*

Once the data has been downloaded via the SD card, PC-based GTA 100 (standard) and GTA 200 (optional) software can be used for record keeping and analysis.

*Availability from May 2005

Datatronic III also forms the basis of the next level of the MF 7400 Series' advanced field and headland management control systems, including Dual Control and Trailed Implement Control:

Dual Control

When using semi-mounted ploughs, Dual Control automates furrow entry and exit even in irregularly shaped fields. It also aids setting the plough and evenness and control of work. It is controlled and monitored via the standard ELC panel and Datatronic III. Dual Control automatically moves the plough's furrow/depth wheel in relation to the lower links, so Draft Control keeps the plough parallel to the ground instead of raising only the front furrows. With Dual Control you get simple operation, plus the full benefit of wheelslip control when operating semi-mounted ploughs.

Dual Control for front linkage

Front Dual Control operates in a similar way, giving automated depth and entry and exit points with front and rear linkage-mounted equipment.

Trailed Implement Control (TIC)

Trailed Implement Control is a unique system for optimising productivity when using trailed equipment.

TIC uses wheelslip data to automatically regulate working depth. It is operated via the standard armrest-mounted ELC controls with set-up and monitoring via either the Integrated Tractor Control System or Datatronic III.

Output is further increased by wheelslip control with trailed equipment, which is unique to Massey Ferguson.

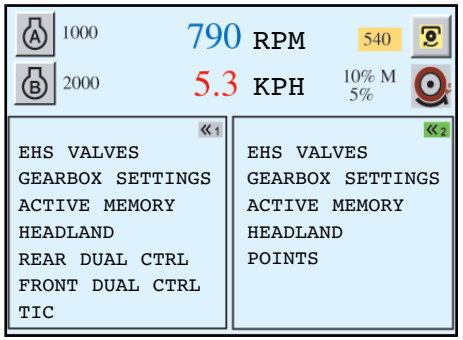
Fully programmed headland and implement control with Datatronic III

Datatronic III is controlled from a main menu divided into six application areas: Work, Settings, Headland, EHS valves, Memories and Dual Control.

Detailed below is a brief summary of some of the features accessed from within each of these main categories.

Work menu

This application is used to display and control a wide range of tractor settings and parameters. At the top of the screen, engine and PTO speed, forward speed and wheel slip information is displayed. In the lower section, a wide range of tractor functions can be displayed and controlled.



The Work screen enables you to monitor and programme virtually all of the tractor's electronically controlled functions

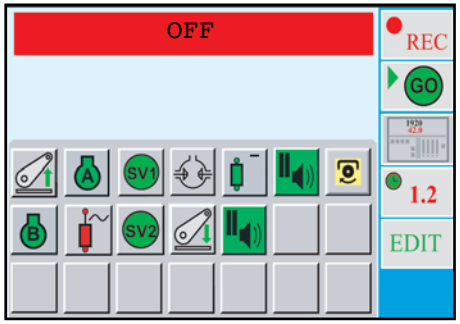
Settings menu

The Settings menu primarily enables you to set the GTA Console for the correct brightness - day or night, language, time, units of measurement and buzzer volume.

Headland menu

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

It enables either manual or automatic programming of up to 35 operations (from a choice of 41), including 'quick soil engagement', to be activated at the touch of a single button. The sequence can be easily modified at any time and once in the field, can be started, stopped or over-ridden at any time; *giving total flexibility and total control.*



Complex headland sequences of up to 35 operations can be programmed, including flows, timings, function activation and deactivation

Automatic programming

Simply start the 'record' sequence, select 'Auto' mode, then perform the operations of the headland manoeuvre, either static or in motion. The sequence of each action will be recorded and a time allocated for the complete manoeuvre.

Manual programming

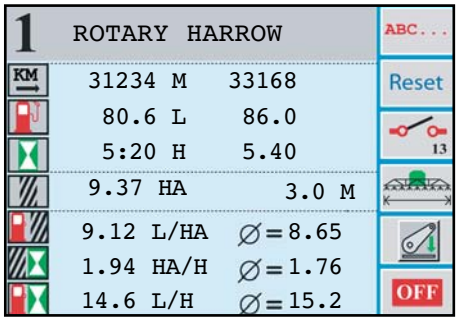
With the tractor static, simply start the 'record' sequence, then set the required functions, actions, flows and timings on the GTA Console. In both modes, the programmed sequence can be edited at any time.

Memories menu

The Memory function enables you to store the parameters of up to six different implements.

Each can be given a name and have a specific headland sequence recorded and replayed at the touch of a button. During each operation, information relating to hours worked, area worked, fuel usage, distance covered and much more, can be recorded.

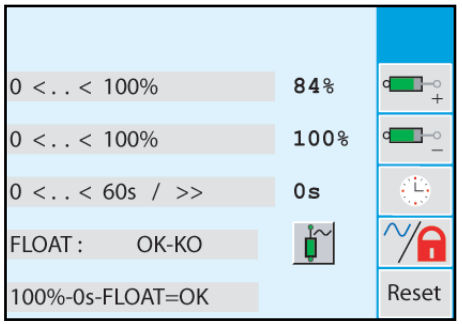
The data is invaluable for contractors and cost-conscious farm managers alike.



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

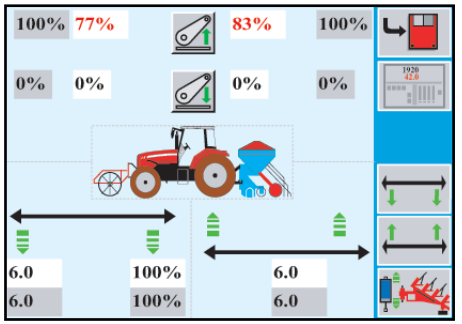
Electro-hydraulic spool valves menu

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.



Dual Control menu

This 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.



Memorise implement heights, entry and exit points and flow rates; replay at the touch of a button

Match your MF 7400 model to your needs

The MF 7400 Series is a premium specification tractor which can tackle virtually any task. But some options are still available to meet specific operating needs.

DVX-specification models

For those who want the control and flexibility of the Dyna-VT transmission, but do not need the ultimate comfort afforded by the standard MF 7400 range, there is a lower specification 'DVX' version of each model available. Please ask your Massey Ferguson Dealer for full details.

FIELDSTAR®

Fieldstar is AGCO's Precision Farming system. A further extension of automation and field management, it helps to maximize crop gross margins and overall profit.

The system is designed to perform the functions of, and to replace, any implement control units. It will work using GPS, with or without a Fieldstar-controlled implement.

Inputs can be varied automatically according to application maps created on the farm computer. With an implement-supplied control box, the implement can be manually adjusted according to the tractor position shown on the terminal.

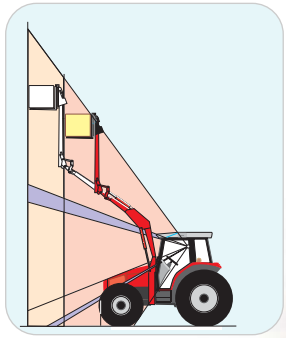
The system is fully programmable so that new implements can be added, enabling the Fieldstar terminal to control them.

The Fieldstar monitor fits neatly next to the main right hand console

FIELDSTAR® is a registered trademark of AGCO Corporation

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.



The Visio roof gives improved upward visibility

As the added visibility is achieved by moving the front overhead console and controls to the right-hand side of the cab roof, air conditioning is fitted when the Visio roof is specified, in place of full climate control.

Front linkage and PTO

Using front/rear implement combinations is known to give significant time savings with consequent benefits in fuel usage, manpower utilisation and reduced soil compaction.

Front linkage with 2.5 and 3.5 tonne lift capacity is available to suit tractor horsepower. Both can be specified with the option of external lift/lower buttons for added convenience, and with front PTO for maximum implement compatibility.

Front linkage and PTO, for significantly increased productivity

MF 7400 Specifications: ● = Standard ❍ = Optional – = Not applicable/available

		MF 7465	MF 7475	MF 7480	MF 7485	MF 7490	MF 7495
Engine power							
@ 2200 rev/min	[1] ISO hp (kW)	120 (87)	135 (98.5)	145 (106)	155 (113)	170 (125)	185 (137)
With 'Boost'	[1] ISO hp (kW)	130 (95)	145 (106)	155 (113)	165 (120)	180 (132,5)	195 (143)
Max. torque	[1] Nm	500	565	590	650	720	780
@ rev/min		1400	1400	1400	1400	1400	1400
Specific fuel consumption[3]	g/kWh	217	215	214	204	200	200
[1]ISO TR 14396 [2]ECE-R24/9768/EC [3]Optimum specific fuel consumption (Manufacturer's test)							
Engine							
Water cooled, 6-cylinder, direct injection diesel	Make	Perkins	Perkins	Perkins	SISU Diesel	SISU Diesel	SISU Diesel
Type		1106C-E60TA	1106C-E60TA	1106C-E60TA	66.ETA	66.ETA	66.ETA
Capacity	litre	6.0	6.0	6.0	6.6	6.6	6.6
Aspiration		Turbo/Intercooled	Turbo/Intercooled	Turbo/Intercooled	Turbo/Intercooled	Turbo/Intercooled	Turbo/Intercooled
Transmission							
Type		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		0.03 – 50* km/h Forward and 0.03–38 km/h Reverse					
* Depending on market/legislation							
Power take-off - Rear							
Operation and control		Independent, electro-hydraulic, start/stop control on rear fender, with headland automation					
Speed change (6 and 21 spline shafts):							
Flanged shaft		●	●	●	●	●	●
In-cab, push-button selection		●	●	●	●	●	●
PTO speed @ engine rev/min							
540/1000 rev/min	rev/min	2100	2100	2100	2100	2100	2100
Economy PTO @ engine rev/min							
750 (540E) rev/min	rev/min	1600	1600	1600	1600	1600	1600
Shaft diameter, 35 mm (1 3/8 in)		●	●	●	●	●	●
Front Power take-off / linkage		❍/❍	❍/❍	❍/❍	❍/❍	❍/❍	❍/❍
Independent, electro-hydraulic		●	●	●	●	●	●
Shaft diameter, 35 mm (1 3/8 in)		●	●	●	●	●	●
PTO speed @ engine rev/min							
1000 rev/min (6 or 21 spline shaft)	rev/min	2040	2040	2040	2040	2040	2040
Linkage lift capacity	kg	2500	2500	2500	–	–	–
	kg	3500	3500	3500	3500	3500	3500
Linkage and hydraulics							
Linkage control		Electronic control of draft, position, Intermix, height/depth, rate of drop, 'quick soil engagement' and Active Transport Control.					
Closed Centre Load Sensing (CCLS)		●	●	●	●	●	●
Max oil flow	litre/min	110	110	110	110	110	110
Maximum lift capacity, at link ends	kg	7600	7600	8600	9300	9300	9300

		MF 7465	MF 7475	MF 7480	MF 7485	MF 7490	MF 7495
Auxiliary hydraulics							
Spool valves, standard equipment		Spool Valve Management System (SMS - 2 electro-hydraulic spool valves) plus 1 mechanical single/double acting spool with flow divider, detent/kick-out, zero leak or float facility					
Hydraulic couplers		Angled 'decompression' couplers with connect/disconnect under pressure function					
Optional, all models		Up to 4 electro-hydraulic spool valves with flow divider, detent/kick-out, zero leak or float facility					
Steering							
Hydrostatic, tilt/telescopic steering column		●	●	●	●	●	●
Brakes							
Oil-cooled, single plate discs, hydraulic actuation							
With power assistance		●	●	●	●	●	●
Parking brake		Independent, hand lever operated					
Trailer brakes, hydraulic, pedal operated		●	●	●	●	●	●
4WD front axle							
Max. steering angle	degrees	55	55	55	55	55	55
'Hydralock' differential lock		●	●	●	●	●	●
QuadLink suspended axle		●	●	●	●	●	●
'Standard' wheels and tyres (Full range available, please consult your Dealer)							
Front - metric		380/85R28	380/85R28	420/85R28	480/70R28	480/70R28	420/85R30
- Imperial		14.9R28	14.9R28	16.9R28	–	–	16.9R30
Rear - metric		460/85R38	460/85R38	520/85R38	580/70R38	580/70R38	520/85R42
- Imperial		18.4R38	18.4R38	20.8R38	–	–	20.8R42
Track adjustments (with 'standard' wheels and tyres)							
Front	m	1.74-1.84	1.74-1.84	1.84-1.98	1.84-1.98	1.84-1.98	1.84-1.98
Rear	m	1.57-2.00	1.57-2.00	1.57-2.00	1.69-2.12	1.69-2.12	1.69-2.12
Weights and dimensions (approximate, with 'standard wheels and tyres, less fuel)							
Weight							
Minimum, no ballast, less fuel	kg	5815	6060	6345	6830	6830	6940
Dimensions							
Overall length - with drawbar	m	4.82	4.82	4.82	5.23	5.23	5.23
Overall height - over cab	m	2.82	2.82	2.85	3.10	3.10	3.10
Minimum width*	m	2.55	2.55	2.55	2.55	2.55	2.55
Wheelbase	m	2.78	2.78	2.78	3.00	3.00	3.00
Turning circle (diameter) less brakes	m	9.6	9.6	10.0	11.4	11.4	11.4
Capacities							
Fuel tank capacity	litre	270	270	270	380	380	380

* 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 dealers 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