

# Challenger

## MT700D



**Smart Machines. Serious Results.**

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*Challenger*

**MT700D**  
335-382 hp



**Smart Machines. Serious Results.**



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# POWER WITH ECONOMY

For more than 25 years Challenger has set the standard for tractor performance and efficiency as the first and still the only tractor designed specifically for working on tracks.

Now, Challenger again raises the bar with the latest MT700D Series, which are equipped with advanced new AGCO POWER™ engines that generate more power and offer exceptional fuel economy. Now you can do more work, more quickly and still save fuel. New, extended service intervals further reduce running costs and keep the tractors working for longer.

The unique Mobil-Trac™ system delivers superior traction with its long, wide tracks that place more tread bars on the surface. The large surface area provides minimum slip and low ground pressure operation for unparalleled protection against yield-sapping compaction.

The spacious, comfortable Pinnacle View cab with climate control air-conditioning ensures operators make the most of the tractor's potential. A range of technology makes the job simpler and easier with the automatic gear-shifting and operating Power Management modes: Max Power and Constant Ground Speed and the well known One-Touch™ headland management system: all the mighty Challenger technology at the touch of your fingers. All new models come equipped ready for AutoGuide™ automatic steering and AGCOMMAND™ telemetry options.

This all ensures the MT700D Series are the most economical and most durable high performance tracked tractors ever built.

## Challenger MT700D

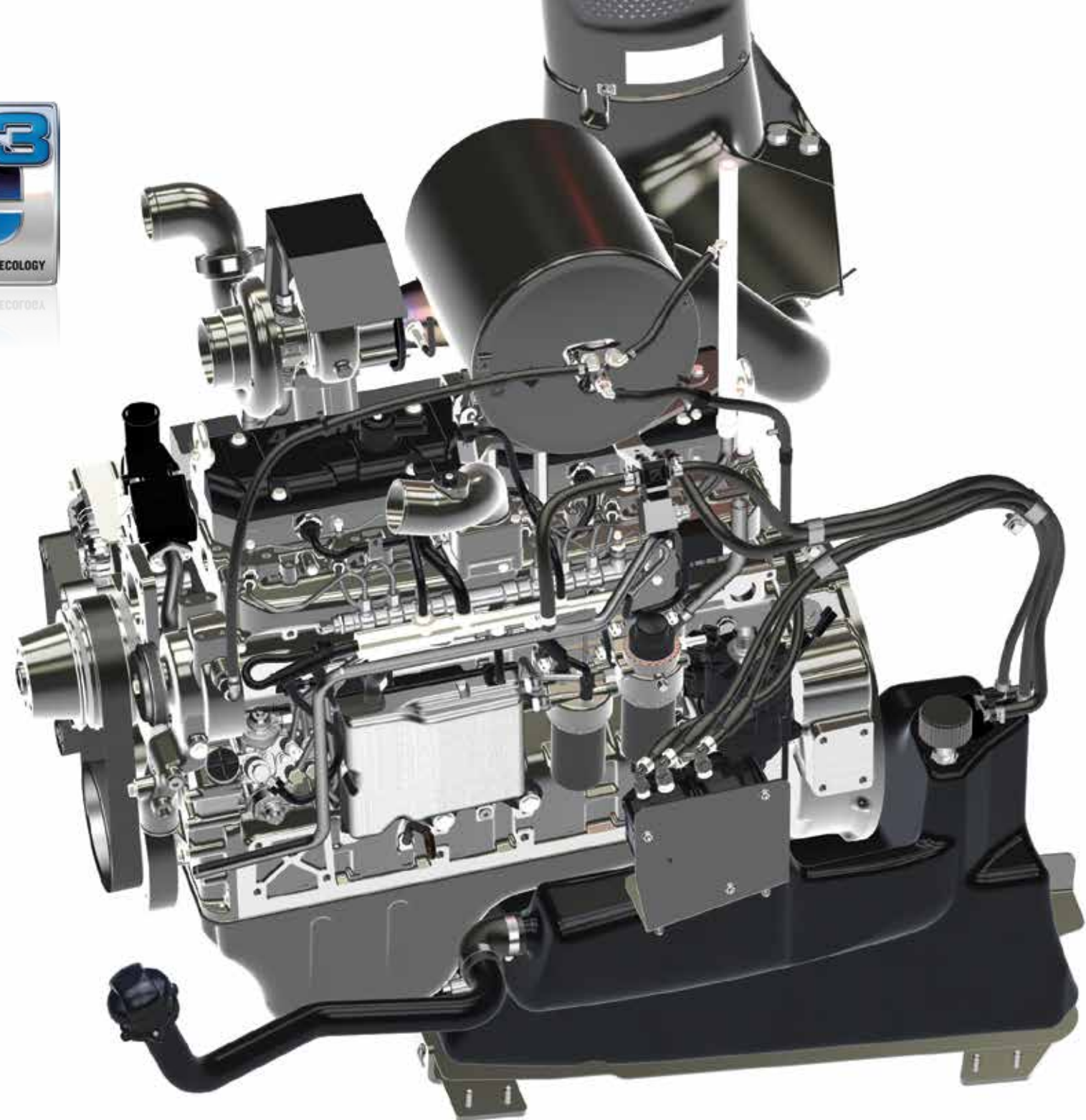
MT745D - 335 hp

MT755D - 358 hp

MT765D - 382 hp

Max. Power numbers according to ECE R120





# THE POWER TO DELIVER SERIOUS RESULTS

The power behind all MT700D tractors is now generated by the most advanced AGCO POWER™ six cylinder, 8.4 litre capacity engines, which employ four valves/cylinder and common-rail fuel injection. Designed specifically for agriculture, they are manufactured to the highest engineering standards for exceptional performance and reliability.

These new AGCO POWER™ engines offer compliance without compromise - delivering more power at lower noise levels while consuming up to 10% less fuel, compared with the previous engines, as well as complying with the strict Stage IIIB emission limits.

All MT700D Series tractor engines benefit from the industry-leading and innovative Generation 2, e<sup>3</sup> Selective Catalytic Reduction (SCR) system. This simple, reliable and virtually maintenance-free system is proven to cut fuel consumption.

The AGCO POWER™ engine makes best use of every drop of diesel thanks to its efficient high pressure 'common-rail' fuel injection system, which is linked to an advanced electronic engine control system. This maintains maximum efficiency and optimises the combustion temperature, which helps reduce the production of Particulate Matter (PM).

A Diesel Oxidation Catalyst (DOC) removes the majority of any remaining PM in the exhaust gas, as well other air pollutants. The DOC is virtually maintenance-free and does not need 'regenerating' and does not develop any additional heat in the process.

Sensors in the exhaust system detect the NO<sub>x</sub> levels and send signals to an injection system that precisely meters the delivery of AdBlue – Diesel Exhaust Fluid – that is injected into the exhaust gas flow. Flowrate varies with load, but on average, this is about 5% of the fuel consumption. AdBlue is stored in a separate DEF tank, which is accessed from ground level.

A swirling airflow thoroughly mixes AdBlue into the exhaust gas before it reaches two sets of catalytic converters, mounted in the exhaust pipe, which transform harmful NO<sub>x</sub> gases into nitrogen and water vapour. This parallel system increases treatment efficiency, while containing the catalysers in a slim, oval exhaust stack. AGCO POWER™ makes perfect economic sense and lightens the burden on the environment too.







MORE TRACTION, LESS SLIP  
**LOWER**  
SOIL DAMAGE

The industry-leading Challenger Mobil-Trac™ system transmits superior drawbar pull and power to the ground, thanks to the large contact area from the MT700D Series's 2.4m long tracks – available in a choice of widths from 16in (406mm) to 30in (762mm) wide.\*

All MT700D Series models are now equipped with new Challenger tracks. Depending on width required, these are available in General Ag specifications, which feature an extra inside rubber layer; as well as Extreme Agricultural and Extreme Application versions, which have two extra inside rubber layers. General Agricultural and Extreme Application tracks also now use a larger 0 degrees cable inside the carcass, which are now even stronger and more durable, offering maximum performance and working life in tough conditions.

With up to 14 tread bars in contact with the soil, Mobil-Trac™ tracks provide ultimate traction in

both hard and soft conditions. They also operate with very low slippage - between 3-5% - and this boosts output so you cover more ground, faster and burning less fuel.

The track's large footprint distributes the weight over a wide, long contact area. This reduces the pressure on the ground, protects the soil structure and helps cut yield-sapping compaction.

The unique Mobil-Trac™ design, which employs a front idler, rear driver and three 'poly' mid-wheels, distributes the load over five individual axles on each side, which further protects the soil from compaction at depth.

\* Market depending





# TRACTION WITHOUT COMPACTION

Challenger was the first and is still the only tractor designed specifically for use on tracks. The maintenance free Mobil-Trac™ system set the industry standard for tracked tractors and it remains the undisputed track technology leader.

The Mobil-Trac™ system is packed with unique features that combine unrivalled traction and low ground pressure for field operations with high road speed for excellent mobility. The 2.4m long track combines flotation with excellent balance and stability.

The exclusive Opti-Ride™ suspension system uses Marsh Mallow\* springs to isolate the 203mm diameter 'Hardbar' and tracks from the chassis. This provides extra comfort and allows each track to lift, independently, up to 150mm above the centre. The front idlers can also tilt at an 8° angle. It always maintains the correct weight distribution, both on flat and hill side fields.

The exclusive Opti-Ride™ suspension system further enhances traction by allowing the tracks to rise up over obstructions while the pivoting and suspended mid-wheels mould into the surface, cushioning impacts and increasing grip.

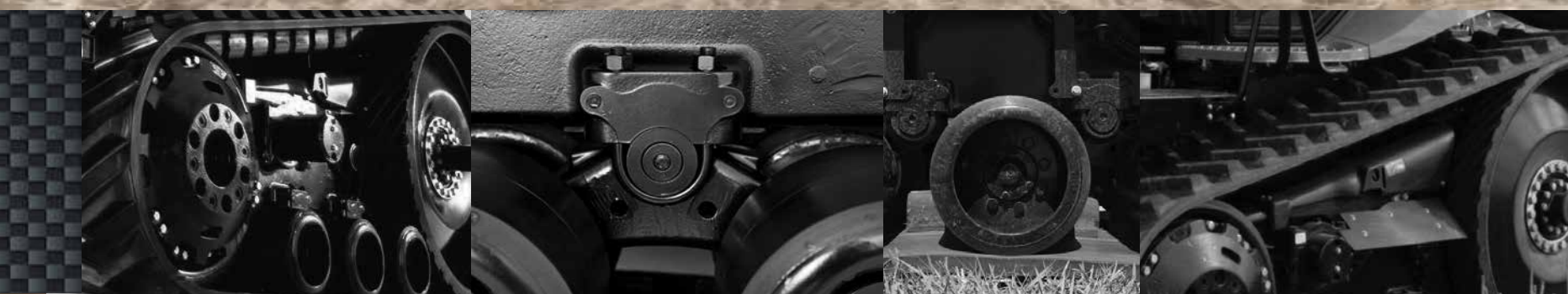
All MT700D tractors now have new highly durable 'poly mid-wheels' with a hard-wearing polyurethane working surface. New bearings

further extend working life and come with larger hub covers to hold more lubrication oil. New, clear sight gauges ease maintenance providing a simple and easy way to check levels.

Robust debris deflectors prolong track life by guiding soil and stones away from the undercarriage and ensuring the belts are kept clean in work, which extends belt life.

Adding or removing ballast to optimise track slip is a simple job on the Mobil-Trac™ system. Weight can be added to the idler wheels – placing it directly over the tracks where it is most effective.

The simple in-line Mobil-Trac™ design is completely self-contained and offers infinite track gauges from 72in to 88in to be set without the need to de-tension the belts. Track tension is set by a cylinder that pushes against the swing link arm. If required, the pressure in the cylinder can be adjusted with help of the spool valves.



\* 'Marsh Mellow' spring is a registered trademark of the Firestone Industrial Products company.





# CAB COMFORT IS TOP PRIORITY

Challenger tractors are engineered to operate for sustained periods, 24 hours/day throughout the seasons to get your work done as quickly and efficiently as possible.

Operator comfort is key to ensuring the tractors work at full capacity during long shifts. Comfortable and alert operators are not only safer, but also more effective helping to increase work quality, boost productivity and improve economy.

Challenger cossets these important people in a quiet, 73.2 dB (EC/2009/76), spacious and air-conditioned workplace. A large glass area provides superb all-round vision, with an unrestricted view to the front and sides maintained by the new slim, oval-shaped exhaust.

Wide steps and a platform offer easy access leading to the Comfort seat, or the Semi-Active suspended seat option. All controls fall to hand easily and there's a clear view of the Tractor Management Centre (TMC) display fitted to the front of the ergonomically-designed TMC Armrest.

Operators will appreciate the superb airflow from the Surround-Flow™ air-conditioning, which directs the air to where they want using strategically placed vents. This offers complete control of temperature, airflow and direction.

There's ample space to fit several instruments on the monitor mounting bar and a new power strip provides even more connections. There's also a new adjustable, intermittent wiper position plus the option of a factory-installed radio. The new ignition key also locks and unlocks the door on Challenger MT700D Series, as well as other Challenger Machines.

Standard and optional lighting packages turn night into day and allow operators to maintain output after dark. Nightbreaker™ and Double Nightbreaker™ HID options are also available.





# ADVANCED FINGERTIP CONTROL

The easy to use Tractor Management Centre (TMC) provides MT700D users with unrivalled control. Heart of the system is the TMC Armrest, which incorporates the fully adjustable 7.4in (178mm) colour TMC display.

Much more than a screen, the display puts the operator in complete control. The TMC display sets-up, monitors and controls every tractor function, as well as showing images from the new video inputs. It complies with the ISOBUS 11783 standard, which means it can also control and operate compatible implements.

The comprehensive One-Touch™ headland management system helps increase output and ease the workload by storing up to 35 functions for eight different implements and replays these at the touch of a button.

The Intellitronics Network™ controls and executes functions from transmission, engine, PTO, hitch and spool valves and links them together which ensures the tractor runs at optimum productivity and economy. This varies the engine and transmission settings to maintain peak performance, allowing operators to select the best mode to suit the task.





# BUILT FOR THE TASK

The Challenger MT700D Series are equipped with the only transmission in the industry developed specifically for use in rubber-tracked tractors, with the rugged full powershift providing industry-leading levels of smooth, reliable and efficient operation.

Challenger also pioneered differential steering for rubber tracked tractors, which powers both tracks through the turn. Steering is simple and easy using a single spoke wheel, with built in 'spinner ball' for one-hand turning, that requires just 344° of rotation from stop to stop.

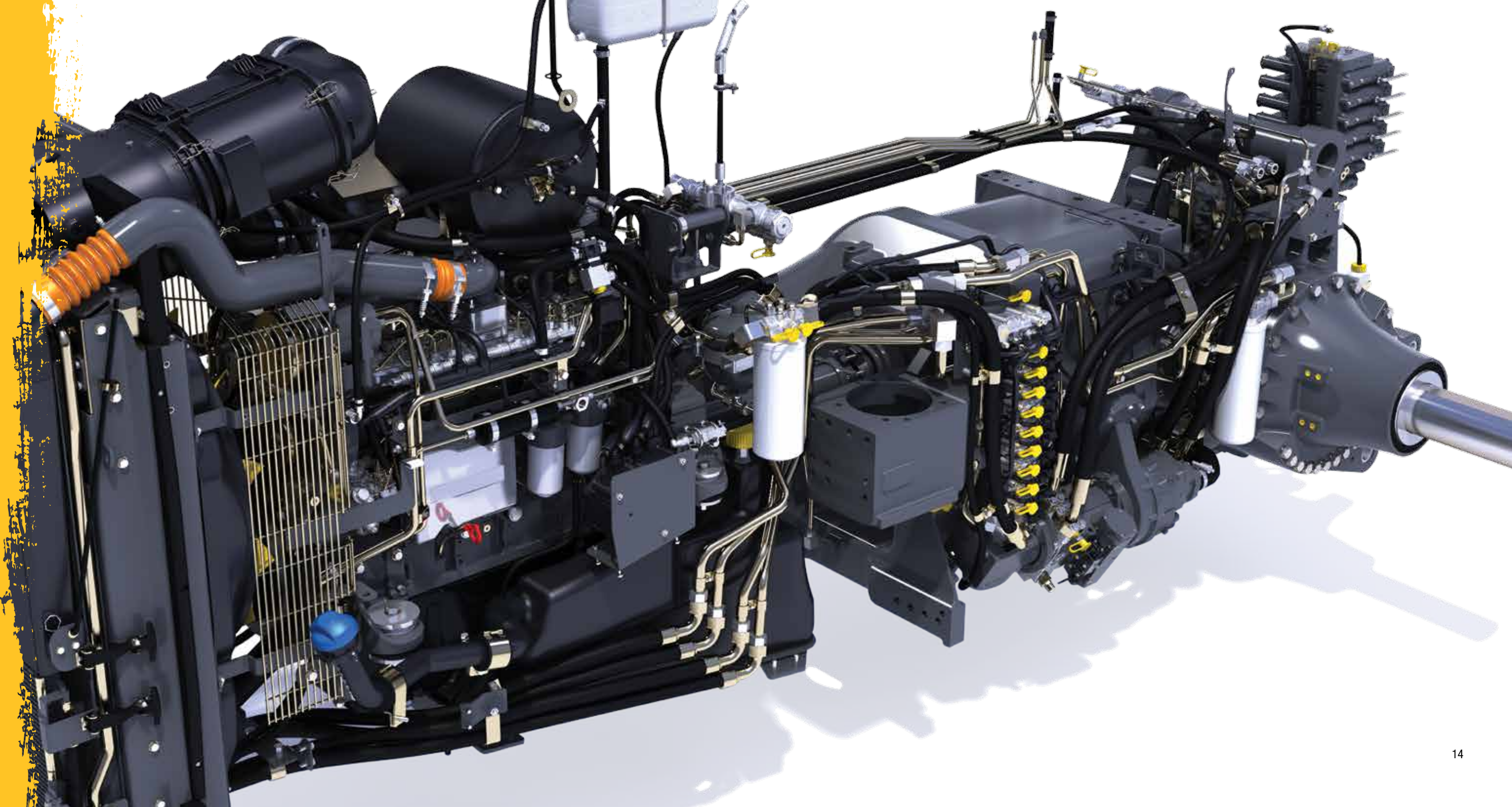
Full power is transmitted through each of the 16 forward and four reverse gears, ensuring the tractors are always operating at precisely the right speed for maximum productivity and efficiency. For specialist operations an optional gearbox provides a 4:1 reduction in all gears offering 14 gears with speeds from 0.7 km/h to 5.6 km/h.

Speeds are changed using just two clutch packs to engage each gear, which improves efficiency. Operators will also appreciate refinements to the transmission hydraulic control valves, which change

the gears and now further improves comfort and control while shifting. There's no need to use a foot clutch – even for changing direction.

The transmission is linked to the engine via the Intellitronics Network™ that controls the shifting in relation to operating conditions. This results in smooth changes while protecting the driveline and offers operators a wide choice of different shifting options.

For fully automatic operation is Power Management that helps exploit the Challenger's full potential at all times. In Maximum Output the gears and throttle are adjusted to keep the engine in the peak power range where horsepower and torque are maximized. Constant ground speed, for lighter applications, alters engine speed and gears to reduce fuel consumption.





# HYDRAULICS HANDLE HEAVY LOADS

The MT700D standard three-point linkage is an integral part of the design – not an add on. The close-coupled linkage provides optimum balance and is built to handle heavy loads with ease, providing maximum lift capacity and height all under straightforward electronic control.

A maximum lift capacity of 11,790kg at the standard Cat 4 hook ends, through the lifting range, ensures the MT700D Series will carry the heaviest and longest implements. Simple setting and operation is through the tractor's TMC display and all actions can be stored and replayed by the One-Touch™ headland management system.

PTO drive is also standard, further enhancing the tractor's versatility, making it ideal for the widest range of tasks. A standard swinging drawbar maintains superb manoeuvrability, which is further improved by a wide angle option.

The advanced closed centre, load sensing hydraulic system with a standard flowrate of 165 litres/min (224 litres/min option), offers high capacity to operate even the most complex, modern machines. The unique Elevated Oil Reservoir (EOR) maintains oil flow and pressure at all times, regardless of the tractor's working angle.

Four standard spool valves can be increased up to six and they are operated via the Intellitronics Network™ for optimal flow adjustment, precise modulation and quick response.







## AGCOMMAND



# STEER STRAIGHT TO HIGHER PRODUCTIVITY

All MT700D Challengers are 'AutoGuide™ ready', which simplifies installation of this output enhancing automatic steering option. This well-proven system provides significant increases in productivity by reducing overlaps and misses.

AutoGuide™ relieves stress on the operator who can then concentrate of improving working quality and work the tractor faster. Alert operators are also safer and more efficient drivers.

All the tractors are also ready-wired for AGCOMMAND™ telemetry. This low cost option is a comprehensive remote monitoring, data recording and fleet management system that provides near real time access, via the mobile phone signal, to a huge amount of operating data that can be viewed on a secure internet page.

On the easy to use AGCOMMAND™ website users can view the whole fleet or locate individual machines and check their current operating status. They can also log and compare performance, create field and job records, plan tasks and set alarms to alert managers if machines enter or leave pre-defined boundaries.

Service reports provide a summary of future maintenance and, with the owner's permission, dealers can also use AGCOMMAND™ to check and flag service needs, which saves time and cuts service costs.



# SUPREME SUPPORT

It pays to pick a powerful partner. AGCO - Challenger's parent company – is the largest specialist, full-line agricultural manufacturer, which sells machinery in 140 countries. A truly global corporation, AGCO has the power, equipment and support structure to help you succeed.

Closer to home you can rely on your Challenger dealer to provide the support you need to make the most of your investment in a MT700D tractor. Challenger service staff not only understand your equipment, they know your business depends on their exceptional support.

Highly trained, field-based service technicians with comprehensively equipped mobile service vehicles are on hand – day and night throughout the season – to respond quickly to your needs. Equipped with laptop computers and diagnostic software technicians can quickly track faults, even remotely using AGCOMMAND™.

The new AGCO POWER™ engine has a longer service interval and can be serviced by every AGCO dealer.

AGCO Parts has an extensive network of strategically located distribution centres that hold enormous stocks offering an industry-leading service. Challenger parts distribution is a high priority, which receives exceptional support from, for example, 'Vehicle Off Road' systems to provide the essential support you need through the main working seasons.





*Challenger*

# THE POWER BEHIND YOUR BUSINESS

