

MT700E - MT800E LRC

*Challenger*



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**SERIOUS MACHINERY, SERIOUS RESULTS.**

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# POWERED BY AGCO POWER

The new AGCO Power engine pounds out more power and torque than any tractor in its class. Leading the class bigger displacement compared to competitors and 42% torque rise, the engine delivers top pulling power in all conditions. The real test of an engine is in its ability to maintain power efficiently while lugging under load: high torque rise allows you to harness more power to lug through tough spots without having to downshift or raise the implement.

An integral part of the Intellitratics network, an engine electric controller module enables smooth power delivery by coordinating communication between all tractor electronic control modules. Dual stage air charging system with two fixed turbo chargers and inter-stage Charge Air Cooler (iCAC) to maintain the engine power at any given speed.

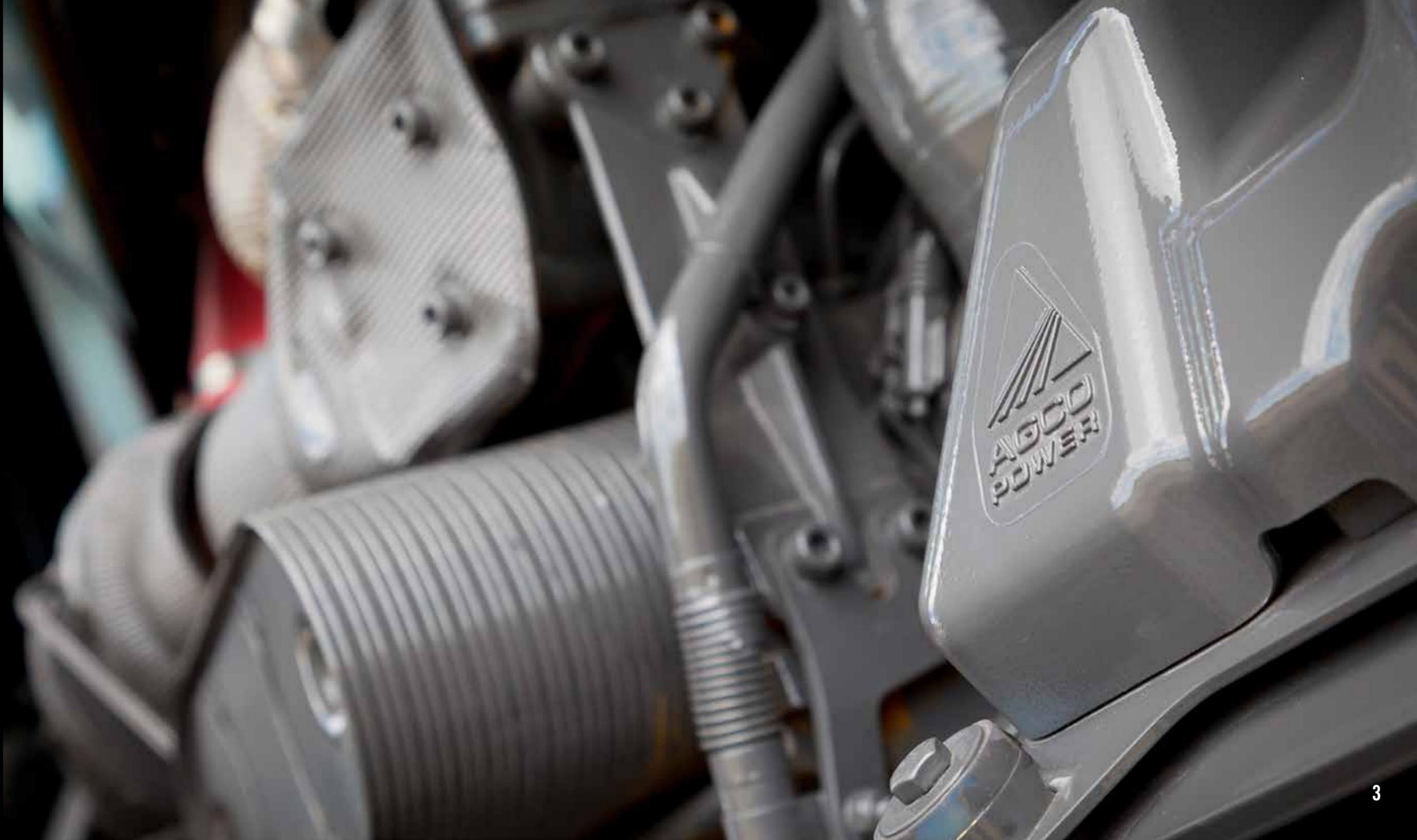
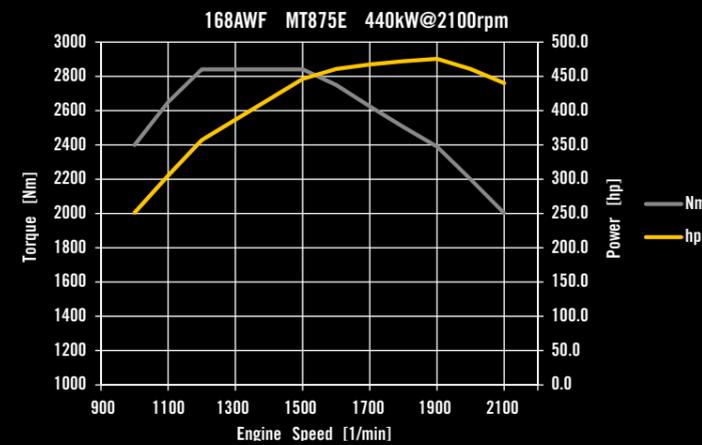
Result of the cross flow cylinder heads and the vertically positioned injectors there is no need for Diesel Particulate Filter (DPF) as the level of the particulate matter in the exhaust gas is below the allowed level.

Exhaust-gas After Treatment system using Cooled Exhaust Gas Recirculation (cEGR) in order to reduce the Particulate Matter (PM) levels in the exhaust gas. The electronically controlled cEGR will allow gas recirculation only when needed to meet emissions levels.

An optional air compressor can power pneumatic tools, cleaning cooling package. High strength, wet cylinder liners improve fuel consumption and lower emissions with a mid-supported design.

New cooling package with two-stage design. In addition to improved air-flow and cooling, the compact space saving format provides

for easier access for cleaning. Hydraulic Lift Assist (HLA) is now standard on the AP168-4 engines. Results in extended valve train life hydraulic lifters improve the engine balance and results in lower fuel consumption. lower maintenance levels which results in lower operational costs.





# POWERTRAIN BUILT FOR THE TRACK

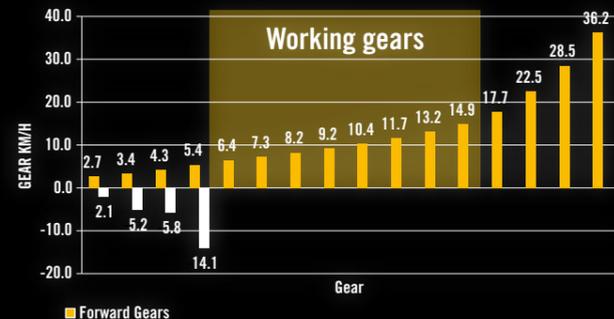


Reliability, durability and quality are built into the Challenger E Series powertrain, from the ground up. The power train is built and designed specifically as a rubber-belted agricultural tractor. We verified this design by extensively testing pre-production models in tough, real-life situations. Nowadays the Challenger powertrain is well-known as one of the most reliable across the industry. Prior to assembly, we confirm our test results by re-testing every powertrain as a unit before it goes into a tractor.

The 16F/4R electronically controlled transmission provides the user extreme flexibility, offering several shift options, including an automatic shifting mode using power management. Plus, using the Intellitronics network, smoother shifts result from continuous electronic communication between the AGCO Power engine and the transmission. Before the transmission executes a shift, it first senses how much load the engine is experiencing in order to deliver the smoothest shift possible. Plus on the MT700E, the optional creeper transmission is easily engaged using a switch on Tractor Management Centre which provides an additional 14 forward and 3 reverse gears using a 4:1 speed reduction.

Eight gears in the 6.5 to 14.9 km/h operating range give the responsiveness and productivity your application requires. Closely spaced gear splits concentrated in the primary working range were designed with engine torque rise and

operating rpm, to deliver the most usable power. With the new 39.6 km/h transport speed, more time can be spent in the field and less on the road. The fastest of any rubberbelted agricultural tractor, the Challenger E Series tractors gear splits are spaced further apart the higher transport speeds. This requires minimal gearshifts while maintaining excellent acceleration to top transport speed.





# NOTHING CHALLENGES A CHALLENGER TRACKED TRACTOR

Three decades of field experience have established Challenger tracked tractors as the undisputed leader in rubber track technology. The Mobil-Trac System extends that leadership to the next generation. The Mobil-Trac System provides you the speed and mobility benefits along with the enhanced traction, flotation and compaction advantages you expect from a Challenger tracked tractor.

The long wheelbase of the Mobil-Trac system and more than 2 axles design distribute the tractor weight over a greater area, reducing the deep compaction that restricts plant root growth. Superior traction and lower rolling resistance are provided by the long wheelbase, transferring more power to the ground and improving fuel efficiency.

Leadership in track technology is embedded in the details. Examine the rugged and reliable components that make up the compaction-reducing Mobil-Trac System.

Challenger tracked tractors can travel up to 39.6km/h and do it more comfortably. Here's why. The Opti-Ride Suspension absorbs every ridge, bump and rut the tractor encounters. High-tech Marsh Mellow® Springs rubber/fabric springs absorb shocks to the operator by isolating the hardbar from the chassis of the tractor. A robust stabilizer bar enables the left and the right undercarriages not just to pivot, but even to raise up and down independently from the tractor frame.

The hardbar can tilt to an 8-degree angle allowing each side of the undercarriage to smoothly travel over the field. Suspended midwheels contribute to smooth ride. The entire undercarriage creates a bridge over field obstructions while the midwheels mould to the soil surface cushioning the impact of undulating terrain. Additional rubber cushioning added to drivers and idlers further enhances the ride.



**1** Lower rolling resistance, plenty of driver to belt grip and easier walk over bumps are among the benefits of the large diameter driver, the largest in its class. The wide chevron grooves on the surface of the driver wheels optimize mud rejection and driver grip.

**2** The unique in-line reaction arm tensions each belt independently and keeps that tension in line and isolated from the tractor drive axles and frame. The tension provides optimum driver-to-belt grip without putting stress on the tractor frame. Quick, easy gauge changes can be made without spacers, without de-tensioning the belt and without the limitation of fix bolt positions.

**3** Industry exclusive oscillated mid-wheels are maintaining an even contact area by following the soil contour. Results in better traction and less soil compaction. All mid-wheels are standard Polyurethane (light weight molecular plastic) with improved heat reject and resistance to UV radiation. Sight glasses for with increased oil capacity

**4** The 940 mm diameter front idler improves fuel efficiency by reducing the amount of rolling resistance. The rubber coated surface is smooth for reduced vibration. Standard sight glasses for easy daily check of optimum oil level.

**5** Challenger designed originally rubber compounds individually formulated for treadbars, belt body and guide blocks are used in the belt manufacturing process. A patented arrangement of four or more layers of steel cable to provide precise tracking and durability.

**6** Round Hard-bar connecting the two undercarriages with the possibility of step-less gauge settings. This unique feature gives the possibility to match your way-lines in a Controlled traffic Farming system. Different axle length are available from the factory. Suspended by two maintenance free Marsh-Mellow springs and a stabilizer bar keeps in position but let lateral movements up to 8° degrees.

# POWER LIFTER

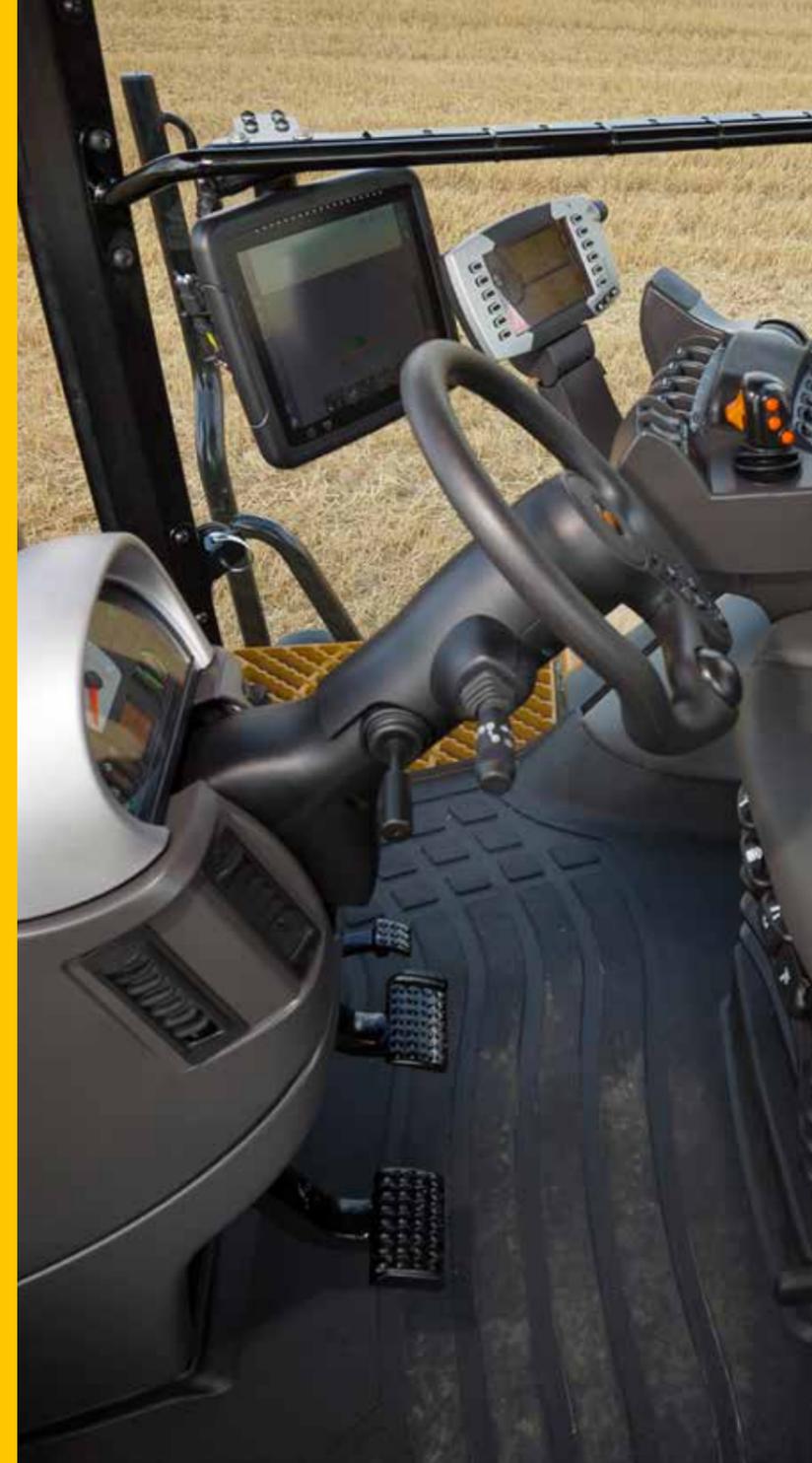
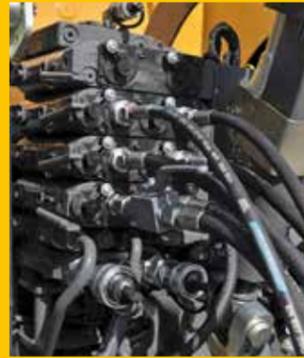
Right from the start, the Challenger E Series rear linkage was designed as an integrated system for both series. Balance and load carrying requirements were carefully examined and integrated into the tractor design process. The result? A linkage that maximizes productivity by providing you with maximum lift capacity, lift height and intelligent control.



Three-point linkages are designed as an integral system to provide maximum lift capacity, lift height and control. The standard 3-pt. linkage on the MT700E also features a lift capacity in excess of 81.7 kN, with a maximum lift capacity of 130.9 kN. This provides the greatest lift capacity at the implement's centre of gravity, where it's needed most. For longer service life, inverted, seal down lift cylinder ensure clean and debris-free operation.

The exclusive steerable 3-point linkage of the MT800E, now with new design geometry and new positioning of the steering cylinders, leads to better control and stability of linkage mounted implements, both in wet and dry conditions.

With 224 litres/min standard and 321 litres/min optional flow capacity, these machines not only handle today's requirements, but can deal with the increasing demands for higher capacity as implements demand more and more hydraulic flow. The system shares a common sump that also provides lubrication for the PTO, transmission, brakes and differential, supplies pilot control oil for the steering, transmission and PTO, and provides system oil for the implement and steering hydraulic systems, via the exclusive Elevated Oil Reservoir (EOR). Each systems has their own separate filtration system to protect the pumps, valves and motors from contamination. An integrated cooling system keeps all this oil running at optimum temperature



# ROOM WITH A VIEW MORE COMFORT AND CONVENIENCE

The cab of the Challenger MT800E Series tractor surrounds the operator with luxury and comfort, making long hours in the field as comfortable and stress-free as possible. These cabs were designed by ergonomic experts, with direct input from farmers, to make these state-of-the-art interiors the finest in the industry. Reduced overlap and fewer skips. Faster operation speeds. Less exhaustion and, lower operating costs. These are just a few of the ways you benefit from Auto-Guide satellite navigation system.

These quiet cabs have unprecedented space and all-around visibility from the high operator position. All controls are positioned logically and ergonomically. The Tractor Management Centre, integrated into the driver's seat armrest, puts control of most major functions at the operator's fingertips.

Seat height, suspension, ride firmness and lumbar support are adjustable, and the seat adjusts 178 mm fore and aft. It's equipped with fore-aft and side-to-side isolators, and swivels 25 degrees right and 10 degrees left, making it easier to keep an eye on rear-mounted implements.

Both standard and optional lighting packages provide the best lighting in the industry. The Nightbreaker™ light option features four HID lights (two in the front and two in the rear) for excellent visibility of not only what is in front, but more importantly, of the huge implements these powerful tractors are pulling. Treat yourself with the optional Double Nightbreaker light, with 6 HID lights to break darkness. The rear lights easily adjust for the operator to see exactly what needs to be seen. Plenty of storage area is designed into the interior. The monitor mounting bar provides ample space to attach several monitors within easy reach to the operator. The Powerstrip features six additional 3 pin connectors to attach and control multiple electronic options.

SPECIFICATIONS	MT765E LRC	MT775E LRC
<b>*Engine</b>	AGCO Power™ 9.8 L	AGCO Power™ 9.8 L
Rated engine power @ 2,100 rpm	381 hp	405 hp
Rated engine power @ 2,100 rpm	280 kW	298 kW
Max power @ 1,900 rpm	411 hp	438 hp
Max power @ 1,900 rpm	302 kW	322 kW
Max torque @ 1,500 rpm	1,808 Nm	1,921 Nm
<b>SPECIFICATIONS COMMON TO ALL MODELS</b>		
Transmission	Full Powershift 16F/4R - Creeper available	
Transport speed	39.7 km/h (24.6 mph)	
Steering	Differential, electrohydraulic	
Gauge	1829 to 2235 mm (standard gauge) / 2032 to 3048 mm (wide gauge) / 3048 to 4064 mm (ultra-wide gauge)	
Gauge adjustment method	Bar axle	
<b>Undercarriage</b>		
Opti-Ride Suspension	Hardbar with 2 Marsh Mellow® springs	
Hardbar oscillation	Stabiliser Bar with 8° Range of Motion	
Undercarriage Suspension	Oscillating Poly Mid-wheels	
Idler wheel width	Medium, Wide	
Midwheels width	Medium, Wide	
Driver wheel width	Medium, Wide	
<b>Belt Options</b>		
General Agricultural	635, 762 mm (25", 30")	
Extreme Agricultural	635, 762, 864 mm (25", 30", 34")	
Extreme Application	419, 457, 635, 762 mm (16", 18", 25", 30")	
<b>Hitch/Drawbar</b>		
Standard 3-point linkage	Capacity at hooks over the entire length of travel 81.7 kN to 130.9 kN	
Standard swinging drawbar	Cat IV (51 mm), Vertical load 4536 kg	
<b>PTO</b>		
Standard PTO	Independent/1000 rpm	
<b>Hydraulic System</b>		
Type	Load Sensing	
Number of rear spool valves	Standard 4/Optional up to 6	
Max flow	Standard 224 L/min / Optional 321 L/min	
Max pressure	200 bar	
<b>Fuel capacity</b>		
Standard fuel capacity	659 L	
Optional capacity (Std.)	773 L	
Optional capacity (Std. Wide and ultra-wide)	943 L	

\*\* Marsh Mellow® spring is a registered trademark of Firestone Industrial Products Group

SPECIFICATIONS	MT855E LRC	MT865E LRC	MT875E LRC
<b>*Engine</b>	AGCO Power™	AGCO Power™	AGCO Power™
Rated engine power @ 2,100 rpm	496 hp	548 hp	598 hp
Rated engine power @ 2,100 rpm	365 kW	403 kW	440 kW
Max power @ 1,900 rpm	536 hp	592 hp	646 hp
Max power @ 1,900 rpm	394 kW	435 kW	475 kW
Max torque @ 1,500 rpm	2,360 Nm	2,600 Nm	2,840 Nm
<b>SPECIFICATIONS COMMON TO ALL MODELS</b>			
Transmission	Full Powershift 16F/4R - Creeper available		
Transport speed	39.7 km/h (24.6 mph)		
Steering	Differential, electrohydraulic		
Gauge	2286 to 3251 mm (90-128 inches)		
Gauge adjustment method	Bar axle		
<b>Undercarriage</b>			
Opti-Ride Suspension	Hardbar with 2 Marsh Mellow® springs**		
Hardbar oscillation	Stabiliser Bar with 8° Range of Motion		
Undercarriage Suspension	Oscillating Poly Mid-wheels		
Idler wheel width	Wide		
Midwheels width	Wide		
Driver wheel width	Wide		
<b>Belt Options</b>			
General Agricultural	762, 914 mm (30", 36")		
Extreme Application	762, 914 mm (30", 36")		
<b>Hitch/Drawbar</b>			
Optional 3-pt Linkage	Capacity at hooks over the entire length of travel 98.5 kN to 198.2 kN		
Standard wide swinging drawbar	Roller type / 32° swing / Vertical load 4536 kg		
Optional controlled swinging drawbar	Roller type / 32° swing / Vertical load 4536 kg		
<b>PTO</b>			
Standard PTO	Independent/1000 rpm		
<b>Hydraulic System</b>			
Type	Load Sensing		
Number of rear spool valves	Standard 4/Optional up to 6		
Max flow	Standard 224 L/min / Optional 321 L/min		
Max pressure	200 bar		
<b>Fuel capacity</b>			
Standard fuel capacity	1002 L	1206 L	1206 L
Optional capacity	1206 L		

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Every effort has been made to ensure that the information contained in this publication is as accurate and current as possible. However, inaccuracies, errors or omissions may occur and details of the specifications may be changed at any time without notice. Therefore, all specifications should be confirmed with your Challenger Dealer or Distributor prior to any purchase.

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