

*Challenger*<sup>®</sup>

**MT700**  
SERIES





# CHALLENGER® MT700 SERIES TRACTORS:

## CHALLENGING THE FUTURE OF TRACTOR PERFORMANCE

Every day you're challenged to farm more efficiently. You continually hunt for tools that will increase your effectiveness while maintaining stewardship of your land. Your Challenger dealer can help. Introducing the future of tractor performance, the all-new Challenger MT700 Series tractors.

Built on the compaction-reducing foundation of Mobil-trac™ technology, these third generation Challenger tractors intelligently deliver maximum performance for maximum payback. Challenger MT700 Series tractors blend smooth power delivery and luxurious comfort with unmatched versatility and enduring Caterpillar strength. This revolutionary combination results in a better return on your investment through increased efficiency, higher yields and minimized cost of ownership.

Add the unparalleled support you receive from the sales and service professionals at your Challenger dealership and you'll understand why we say, own a Challenger, own the future.

As these tractors were being developed, the focus was always on providing farmers with the best tractor technologies possible. Not only does the MT700 Series continue the Challenger tradition of track leadership, but also creates several new technology bench marks that set a new standard for ag tractors.



[ CHALLENGER MT735 ]

185 PTO HP (138 kW)  
235 Gross Engine HP (175 kW)

[ CHALLENGER MT745 ]

205 PTO HP (153 kW)  
255 Gross Engine HP (190 kW)

[ CHALLENGER MT755 ]

235 PTO HP (175 kW)  
290 Gross Engine HP (216 kW)

[ CHALLENGER MT765 ]

255 PTO HP (228 kW)  
306 Gross Engine HP (224 kW)



PRESENTING AN ALL-NEW WAY  
TO DRIVE INVESTMENT SUCCESS

You won't find the same old technology wrapped in new sheet metal when you examine the Challenger MT700 Series tractors. It's the only tractor in its power class designed from the ground up to optimize tractor performance on tracks. A journey that began just four years ago and has resulted in more all-new and exclusive features than ever before. Take a look. We think you'll agree that the Challenger MT700 Series tractors are the smartest way to drive your investment success.



The Challenger MT700 Series tractors were designed around the innovative Intellitronics™ network. Much like the central nervous system in the human body, the Intellitronics™ network links tractor systems together for coordinated control and optimum performance.

Electronic control modules located on components such as the engine, powertrain, hydraulics and hitch share performance data via the Intellitronics™ network. This communication enables the Challenger MT700 Series tractors to diagnose performance through the Tractor Management Center, perform repetitive tasks with the One-Touch™ management system, interface with GPS-based systems such as the Auto-Guide™ satellite navigation system and communicate with implements per ISO11783. In addition, the Intellitronics™ network commands the Power Management system, enables smooth shifting and enhances fuel economy. Another added feature is that all MT700 Series tractors come ISO11783 ready. No other manufacturer gives you the power to drive your investment success as intelligently.

CHALLENGER | STANDARDS



We believe you deserve equipment built to a higher standard. Equipment built stronger, smarter, and tougher. Equipment built to a Cat Standard, the highest standard of engineering excellence in the world. That's why we use double e-coat and autophoretic paint processes, the latest in paint technology, to apply paint to our black and gray components. Most components are painted with

an electrically-charged e-coat emersion process, not once, but twice, for double the corrosion protection. This e-coat system is so uniform, machined and bolted joints can be painted, unlike competitive systems. Rubber-fused components such as drivewheels, are painted with a chemical autophoretic process to ensure no sacrifice is made to the steel-to-rubber bond.

**THE ALL-NEW TRACTOR MANAGEMENT CENTER (TMC)** combines an innovative display with ergonomically designed controls. The TMC displays performance data in a simple format and allows you to optimize performance easily. Innovations such as the One-Touch™ management system, the Auto-Guide™ satellite navigation system and Power Management are conveniently controlled using the TMC.

**THE ALL-NEW CAT® C9 engine** leads the power class with 538 cubic inches (8.8 L) of displacement. Featuring the latest in diesel engine technology, the Cat C9 engine provides superior fuel efficiency, lower noise levels and emissions that meet EPA Tier II standards.

**THE ALL-NEW CAB** boasts more glass area for superior visibility and more interior room than any other tractor in its class. The exclusive Surround-Flow™ ventilation system directs air through strategically placed vents and ducts for maximum airflow and consistent cab temperature.

**THE EXCLUSIVE STEERABLE 3-PT. HITCH** provides an all-new way to match implement control with the tractor.

**THE ALL-NEW HYDRAULICS SYSTEM** offers the highest standard flow rate in the industry. Using up to six hydraulic valves, 43.5 gpm (166 LPM) can be pumped for the control and responsiveness you require. The exclusive Load Independent Flow Division guarantees flow when the implement needs it most.



**THE NEWLY REFINED MOBIL-TRAC™ SYSTEM** features a longer wheelbase and an in-line reaction arm that isolates tension from the driveline. Changing gauge is easy and can be done without detensioning the belt. Three infinitely adjustable gauge configurations are available: standard, wide and ultra-wide gauge.

**BUMPS AND DITCHES ARE NO MATCH** for the all-new Opti-Ride™ Suspension. The new cushioned undercarriage, suspended hardbar and suspended midwheels absorb shock loads for a silky-smooth ride in the field and on the road.

**CATERPILLAR DESIGNED** the all-new powertrain from the ground up for a rubber-belted tractor. Powered by the new Cat C9 engine, the powertrain carries full horsepower in all gears from the flywheel to the undercarriage. The new Cat 16x4 powershift transmission is built in the tradition of industry-leading durability.

**MORE UNDERCARRIAGE OPTIONS** allows this tractor to be carefully matched to the application. Now, you can select your belt width, your treadbar type, and the width of the idlers, drivers, and midwheels to match the job.



# THE NEWEST GENERATION

## OF TRACK LEADERSHIP

Nearly three decades of field experience established Challenger track tractors as the undisputed leader in track technology. The all-new Challenger MT700 Series Mobil-trac™ system extends that leadership to the next generation. The redesigned Mobil-trac™ system provides you the speed and mobility benefits along with the enhanced traction, flotation and compaction advantages you expect from a Challenger track tractor.

The new Mobil-trac™ system wheelbase is the longest in its power class at 96 inches (2438 mm). This lengthened wheelbase and five-axle design distribute the tractor weight over a greater area, reducing the deep compaction that restricts plant root growth, even with the narrow 14-inch belts (356 mm). 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. All reasons why nothing challenges a Challenger tractor.



Low transport speeds and rough rides can drain your efficiency and your stamina. The all-new Challenger MT700 Series tractors help nurture both. Featuring the highest transport speed of any track tractor, Challenger MT700 Series tractors travel up to 24.6 MPH (39.6 km/hr), and do it more comfortably. Here's why.



The Opti-Ride™ Suspension absorbs every ridge, bump and rut the tractor encounters. High-tech 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 to raise up and down independently. The hardbar can tilt to an 8-degree angle allowing each side of the undercarriage to smoothly walk right over obstacles in the field.



New suspended midwheels contribute to smooth ride. The entire undercarriage creates a bridge over field obstructions while the midwheels mold to the surface of the ground cushioning the impact of uneven terrain. Additional rubber cushioning added to drivers, midwheels and idlers further enhances the ride.



Lower rolling resistance, plenty of belt-to-driver grip and longer belt life are among the benefits of the large diameter driver, the largest in its class. The wide chevron grooves on the surface of the driver optimize mud rejection and driver grip.

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 16,000 pounds (71.15 kN) of tension provides optimum belt-to-driver grip without placing stress on the tractor frame. Quick, easy gauge changes can be made without spacers and without detensioning the belt.

The 37-inch (950 mm) diameter front idler improves fuel efficiency by reducing the amount of rolling resistance. The rubber-coated surface is smooth for reduced vibration.



Mounting holes for chemical tanks and other attachments are built right into the Mobil-trac™ system to ensure maximum versatility and tractor balance.

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 provides precise tracking and durability.

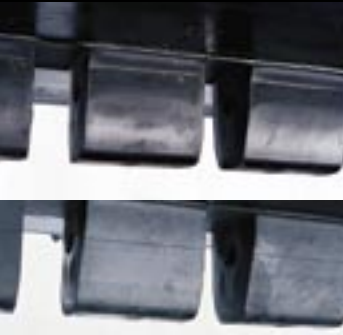




# MORE UNDERCARRIAGE OPTIONS

OPTIMIZE PERFORMANCE

## CHALLENGER | STANDARDS



Belts built to “Cat Standards” means belts designed and built from the ground up, without compromise. Each treadbar and guide block is sized to perform in specific conditions. A patented arrangement of steel cables supplies the belt with extraordinary strength to withstand tremendous tension. Specialized rubber compounds, selected

to stand up to abrasion and wear, are specified individually for treadbars, guide blocks and carcass, then bonded together during the unique vulcanization process. All of this attention to detail enables us to offer you better-quality, long-lasting belts that more closely meet your specific needs.

The Challenger MT700 Series tractors offer more Mobil-trac™ options than ever before allowing you to tailor your tractor to your applications. Belts are available in six widths and in three types. And with this new series, three idler, midwheel and driver widths are offered to improve belt life and belt-to-driver performance. Three infinitely adjustable gauge ranges are available to match your applications.

To expand the versatility of the Challenger MT700 Series tractor on your farm, consider your applications.



### 1 General Ag Belt

This all-purpose belt provides an excellent ride with superior belt alignment and traction in a wide-range of field conditions. Available in a five widths, the general ag belt is equipped with 46, 4.5-inch (115 mm) long guide blocks and 92, 2.7-inch (68.5 mm) tall treadbars (46 treadbars on 16-inch diagonal tread belts).

### 2 Low Profile Belt

Best in situations where little ground disturbance is desired, the low profile belt features more treadbars (130) that are shorter, 1.5-inch (38 mm), and wider than those found on the general ag belt. Available in three widths, the narrow 16-inch (406 mm) belt width uses a diagonal treadbar pattern to maximize self-cleaning capabilities and flotation. Wider belts use the chevron treadbar pattern.

### 3 Extreme Service Belt

This tough belt is a good choice for applications that involve a large amount of road travel, steep side slopes or abrasive underfoot conditions. The six widths of extreme application belts are equipped with longer, 5.3-inch (135 mm) guide blocks, taller, 3-inch (75 mm) treadbars, an additional layer of steel cables and an extra layer of rubber. The narrow 14-inch (356 mm) and 16-inch (406 mm) extreme application belts use a diagonal treadbar pattern to further extend belt life and self-cleaning capability. Wider belts use the chevron treadbar pattern.



Three widths of wheel components are available to maximize the life of your belt. The wheel combination that will work best for your farm will depend on the width of your belt, your soil types and the amount of road travel you require. In wet or adverse conditions, wide belts and wide wheel combinations enhance belt-to-driver performance and decrease ground slip.

Challenger MT700 Series tractors give you the flexibility to match virtually all gauge width needs, now as wide as 160 inches (4064 mm). Three infinitely adjustable gauge ranges are available: standard gauge 60–88 inches (1524 – 2235 mm), wide gauge 80 – 120 inches (2032 – 3048 mm) and ultra wide gauge 120 – 160 inches (3048 – 4064 mm). Quick, easy gauge changes are possible without detensioning the belt and without spacers or bolts.

To match your gauge and crop row width, steps can be adjusted from 60–80 inches (1524 - 2032 mm). Depending on the gauge you choose, several fuel tank options are available: standard gauge has 118 gallons (446.7 L) standard with three optional 30 gallon tanks, wide gauge and ultra wide gauge have 178 gallons (673.8 L) standard with optional 30 gallon tank.



SURROUND YOURSELF WITH

# PURE LUXURY

One of the first things you'll notice about the all-new Challenger MT700 Series cab is its size. The new cab boasts 108 cubic feet (3.06 m<sup>3</sup>) of space, more cubic feet of luxury than all others in its power class. The quiet, roomy cab and all of the built-in comforts let you work longer hours with less fatigue.



The Surround-Flow™ ventilation system keeps you truly comfortable and more productive by directing cool or warm air through 12 vents strategically placed throughout the cab. Six vents in the front console, five in the rear cab posts and one to the left of the instructional seat, direct airflow around your entire body. The vents also direct air onto each window to defrost the window or to create a cool air barrier in the heat of the day. Tinted windows work with the Surround-Flow™ ventilation system to maintain constant temperature compensating for sunlight changes at each headland turn. A small cab-roof overhang works with the tinted glass to block the sun's glare.



Now you can literally have the control of the radio at your fingertips. The optional remote radio controls mounted on the steering wheel allow the operator to make radio adjustments without taking their hands off of the wheel.



Both front and rear heavy-duty sun visors are available on the tractor to help block the sun when at low positions in the sky.



Exceptional sound resonates from the standard four-speaker sound system. You can listen to a day's worth of CDs with the optional heavy-duty six-disc CD changer and sound-boosting sub woofer. Optional steering wheel controls offer added convenience when changing sound system settings.

Equipped with a retractable seat belt, the standard instructional seat offers a comfortable place to learn or teach. The backrest also folds down to provide a work area or table for a laptop computer.

Designed especially for a Challenger track tractor, the patented single-spoke steering wheel provides optimum steering comfort without obstructing visibility to the dash panel. A specially textured and molded round "ball" works like the old-time "spinner ball." To match your size, the steering wheel also telescopes and tilts fore-and-aft. Bright and easy to read analog gauges display engine information.



The air suspension seat adapts to virtually any size operator with the following adjustments:

- A rocker switch on the left armrest adjusts both seat height and suspension.
- A lever adjusts the fore-and-aft seat position within a seven-inch (178 mm) range to match your height.
- Swivel control allows seat movement 25 degrees to the right and 10 degrees to the left reducing fatigue when watching rear-mounted implements and making cab entry and exit effortless.
- A 110-degree seat back tilt range provides a selection of back support positions needed for operation.
- The isolator makes the ride much smoother, especially when operating on rough ground by fixing seat movement or allowing travel within a 2-inch (51 mm) range.
- Ride firmness adjustment can be easily adjusted using the rotating knob on the left side of the seat.
- For added comfort, the amount of lumbar support is adjustable using the knob on the left side of the backrest.
- The retractable, 2-inch (51 mm) wide seat belt uses an anti-cinch design so it will not tighten throughout the day.



# MORE COMFORT AND CONVENIENCES

THAN ANY TRACTOR BEFORE

You expect a certain level of comfort and convenience in your tractor cab. The smart, comfortable Challenger MT700 Series cab offers more than you might expect because farmers like you were extensively involved during the development process. As a result, smart, convenient features such as auxiliary power, top-of-the-line sound systems and an abundance of storage were built in bringing new levels of comfort and productivity to your workplace.



For an unobstructed view to wide implements, rear ROPS cab posts are placed in line with your shoulder. The swivel seat allows you to turn to view the widest implements without strain.



The shallow angle of the Challenger MT700 Series tractor steps makes entering and exiting the cab effortless. An optional second handrail offers additional support.



Storage is not an afterthought. A cell phone holder is located within easy reach while a temperature-controlled storage compartment keeps your lunch cool or warm. Additional storage locations include a coat hook, beverage holders, a literature storage area and a compartment beneath the instructional seat.



The optional accessory bar provides a mounting location for several monitors without hindering the view to the implement. A rubber grommet below the rear window frame supplies a means for routing cables from the implement into the cab without sacrificing cab sealing.



Adding additional attachments to your Challenger MT700 Series tractor is hassle-free with optional Power-Pack accessory outlets. Located in the lower, right-hand corner of the cab, 12-volt circuits power attachments such as planter controls, spray monitors and communication devices. The 20-amp fused terminal strip contains two direct-power circuits, two ignition-switch-powered circuits and two ag standard power plugs.



Challenger MT700 Series tractors are equipped to operate with maximum visibility in any condition. A revolutionary full-coverage, parallel-swath wiper blade clears far more glass area than conventional wipers. Optional side and rear wiper blades provide excellent visibility to implements and the hitch. The deluxe cab also features electronically remote-controlled mirrors that are heated to provide a clear view in all weather conditions.



The Nightbreaker™ HID lighting package replaces 4 of the halogen lights on the deluxe lighting package with 4 HID lights. Two HID lights face forward and two face the rear for visibility to one-quarter mile depending on weather conditions.



In addition to offering 67.5 square feet (6.2 m<sup>2</sup>) of usable glass area, the Challenger MT700 Series tractors feature a short, sloping hood that provides visibility close in to the front of the tractor.

There's more to smart tractor operation than electronics. A smartly designed tractor also makes operation easier with intuitive controls placed specifically for your comfort and ease of use. The Challenger MT700 Series tractors take cab intelligence to new levels. The

instinctive, easy-to-use placement of controls was an essential design criterion for the new series. Collaborating with ergonomic experts, the new cab was built to provide easy access, maximum comfort, and unsurpassed operating convenience.







# COMFORT AND CONVENIENCE

ONE-TOUCH™ CONTROL AT YOUR FINGERTIPS

## SIMULTANEOUS CONTROL IS NOW AT YOUR FINGERTIPS.

The intuitive One-Touch™ management system gives you the power to initiate several tractor and implement functions at the same time with the simple push of a button. Easy to operate, the One-Touch™ management system uses the Intellitronics™ network to record and execute functions such as transmission shifting, throttle, 3-pt. hitch position, PTO status, implement raising and lowering, and Auto-Guide™.

The One-Touch™ management system offers flexibility by allowing you to use it in one of two ways. In Shift

mode, the tractor will up or downshift a pre-selected 1, 2, 3, or 4 gears with the push of a button. Exclusive to Challenger, the system remembers only the number of gears you would like to up or downshift rather than the exact gears. This gives you the flexibility to adjust your speed to field conditions easily and maintain optimum productivity. In One-Touch™ mode, repetitive actions are recorded and repeated on command making your application effortless and less tiring. Both a Work and a Raise sequence can be recorded to further simplify your application and eliminate possible errors due to fatigue.

## One-Touch™ Management System

Recording a sequence of events using the One-Touch™ management system is as easy as 1,2,3.

1. Simply press and hold the top of the One-Touch™ switch for three seconds. An alert will sound and a light on the dash panel will indicate that a sequence is being recorded.
2. Perform the functions you would like recorded. All of the actions you initiate, and the time delays between them, will be recorded in the order they were performed.
3. To finish, press the top of the One-Touch™ switch. An alert from the display will indicate that recording has stopped.

\*The steps to record the Work sequence are listed above. To record the Raise sequence, use the bottom of the One-Touch™ switch instead.

POWER

# MANAGEMENT

MADE EASY

Power Management helps you get the job done faster and more consistently. Executed through the Intellitronics™ network, Power Management is a control strategy that varies engine, transmission and hitch settings to optimize tractor efficiency and productivity in various applications. It is controlled using the Tractor Management Center and the transmission control lever.



POWER  
MANAGEMENT

The bottom yellow button on the transmission control lever engages and disengages Power Management.



## Power Management



### Maximum Power Output

Heavy draft loads like this disc ripper demand maximum power to keep the tool at the proper working depth and keep you moving for top productivity. Maximum Output mode assists by automatically shifting to keep the engine in the peak power range where horsepower is maximized.



### Constant Engine Speed

To maximize efficiency when running a PTO-driven implement, you want to maintain a constant PTO rpm throughout the entire field. Constant Engine Speed mode makes this easy by maintaining a preset engine speed.



### Constant Ground Speed

Thoroughly incorporating chemicals with a field cultivator is effortless using the Constant Ground Speed mode. A preset ground speed is achieved by varying the engine speed and automatic transmission shifts.



# WE SPENT TIME ON THE DETAILS

TO SAVE YOU MORE TIME IN THE FIELD



## CHALLENGER | STANDARDS



The Challenger MT700 Series tractors are built smarter to keep you up and running. The innovative TMC tracks and displays service intervals letting you know when the next is due. Abnormal tractor conditions are also displayed with varying levels of importance so you can keep your tractor in the field.

Gauge can be changed easily, without detensioning the belt, in under two hours. Simply loosen the hardbar bearing caps and axle collet bolts and support the tractor. Then adjust the gauge to the desired width using the gauge adjustment tool.

At busy times, routine service can take a backseat. Fortunately, we understand your hectic schedule and have made it easy to perform routine maintenance. With five easy to access daily service points, you can complete maintenance checks quickly and easily. And, the Tractor Management Center (TMC) keeps track of longer-term service details so you won't have to.

The tilt-up hood raises from the front providing excellent access to key service points.



Hydraulic and powertrain oil levels can be checked with a quick glance using a site gauge at the rear of the tractor.



The engine air filter should be replaced on an annual basis or as it becomes necessary. The primary filter element slides easily from its compartment for inspection and replacement.



No tools are required to swing open the cooling cores to remove trash build-up or blockage.



The cab air filter is conveniently located under the roof overhang on the left side of the cab. You can easily remove the air filter for cleaning or replacement without tools.



The engine oil can be checked daily and added easily at ground level from the left side of the tractor.



A large toolbox is integrated into the steps for easy access. The toolbox carries tools up to 24 inches (610 mm) long with a total capacity of 150 pounds (68 kg).



The Challenger MT700 Series tractor battery location is ideal. Simply tilt up the hood and find the batteries in front of the cooling cores for excellent maintenance access. Plus, an optional battery disconnect is available which cuts all electric power to the tractor.



A SIMPLE WAY TO COMMAND

YOUR INVESTMENT PERFORMANCE



CHALLENGER | STANDARDS

18 GAUGE  
WIRE  
W/COLOR  
CODING

Caterpillar equipment operates in some of the toughest applications in the most remote areas of the world. In these areas, we know that downtime caused by high-tech electronic systems is extremely costly as well as frustrating. That's why all Cat electronic systems are built to withstand the most challenging environments. The MT700 Series are fitted with Caterpillar electronic systems and bring this expertise to farming. Cat electronic

systems are built with thicker, 18-gauge wire that is individually insulated then sheathed in nylon braided wiring harnesses offering unsurpassed protection. Watertight connectors link wires together preventing corrosion. And, should a problem arise, all wires are color-coded and identified every 2 inches (51 mm) with laser-embossed labels to withstand years of service.

TRACTOR MANAGEMENT CENTER:

Achieving top tractor performance has never been so easy. Using the Intellitronics™ network, the state-of-the-art Tractor Management Center (TMC) puts you in command with intuitive controls and at-a-glance performance information.

Vital performance and diagnostic information are shown in an easy-to-read text format using the TMC display screen. This allows you to fine-tune tractor operations by monitoring performance measures such as slip and draft control within parameters you choose. Transflective screen technology keeps the display crystal clear even in direct sunlight.





A FULLY INTEGRATED

WORKING END

The all-new Challenger MT700 Series hitches were designed as integral systems with the tractor— not as add-ons. Balance and load carrying requirements were carefully examined and integrated into the tractor design process. The result? Hitches that expand your productivity by providing you with maximum lift capacity, lift height and intelligent control.



The new, Caterpillar-exclusive steerable 3-point hitch improves tractor steering control and row corrections, especially in narrow-gauge applications. Offering up to 60% shorter turning radius, the steerable hitch can work independently of the differential steering system in float mode or in manual mode to dampen side-to-side movement or completely lock it in one fixed position. The steerable 3-pt. hitch features a lift capacity in excess of 16,000-pound (7260 kg).



The standard drawbar is thicker and wider than previous models. When unpinned, the standard drawbar can swing 9 degrees from the tractor centerline. Rubber bumpers and wear plates are standard to cushion shock loads and ensure long life. A trigger hitch pin is also standard, making one-person implement hook-up simple and convenient.



The standard 3-pt. hitch also features a standard lift capacity in excess of 16,000 pounds (7260 kg). This tough hitch provides the greatest lift capacity at the implement center of gravity, where it's needed most. For longer service life, inverted, seal down lift cylinders ensure clean, and debris-free operation. A heavy-duty quick coupler is standard for fast implement hook-up.



For heavy tillage operations with no need for 3-pt. hitch, a wide-swinging drawbar is available. This rugged drawbar swings 32 degrees and is great for use in solid seeded crops. Unique tapered rollers virtually eliminate wear and standard rubber bumpers minimize shock loads during turns.



The Intellitronics™ network controls the steerable 3-pt. hitch through the TMC. You can easily switch between float and manual modes as well as monitor the steer offset, steer position, and steer sensitivity using one easy-to-read screen.



For applications involving lots of steering with the hitch in the ground, the steerable 3-point hitch is available.

RAISING THE STANDARDS

FOR HYDRAULIC POWER

Challenger MT700 Series tractors raise the standards for hydraulic power, literally. Providing an industry-leading 43.5 GPM (164.6 l/m) as standard equipment, the Caterpillar designed system meets the needs for the way you really use hydraulics.

Easy to hook up without extra connectors, four remote circuits are standard with options for as many as six. Optional, hydraulic power-beyond couplers expand the versatility of the tractor by providing hydraulic flow directly to implement motors and fans. A large sump, a superior hydraulic oil cooler and generous flow ensure hydraulic control and responsiveness without compromise.

The Challenger-exclusive Load-Independent Flow Division (LIFD) ensures proportional oil flow to all circuits when the system is operating at full capacity. Especially important in applications like planting, LIFD guarantees non-stop operation even when hydraulics are in high demand.



Remote implement hydraulics are electronically controlled for precise management via the Intellitronics™ network. Using the Tractor Management Center (TMC), you can feather in flow changes on the go, adjust timed detents and precisely adjust individual valve operation.



Five in-line electronic levers are generously sized and positioned for intuitive operation and fingertip control. An additional lever just behind the hand rest controls the optional sixth implement valve.

CHALLENGER | STANDARDS

Cat has built a reputation based on industry-leading durability. A reputation that is designed into every aspect of the MT700 Series tractors. To ensure the durability of the wide-swinging drawbar, the rollers have a tapered form. This intuitive design rolls more easily over debris as it follows the drawbar swing path, minimizing wear.







DRIVEN WITH

# QUALITY CAT COMPONENTS

Reliability, durability and quality are built into the all-new Challenger MT700 Series powertrain, from the ground up. Cat designed and built the new powertrain — the only one in the industry designed specifically as a rubber-belted ag tractor. And, we verified this design by extensively testing pre-production models in tough, real-world situations. Prior to assembly, we confirm our test results by re-testing every powertrain as a unit before it goes into a tractor.



Series Working Ranges

Eight gears in the 4 to 9.3 mph (6.5 to 14.9 Km/h) operating range give the responsiveness and productivity your applications require. 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.

Gear	MPH	Km/h
1	1.7	2.7
2	2.1	3.4
3	2.7	4.3
4	3.4	5.8
5	4.0	6.5
6	4.5	7.3
7	5.1	8.2
8	5.8	9.3
9	6.5	10.4
10	7.3	11.7
11	8.2	13.2
12	9.3	14.9
13	11.0	17.7
14	14.0	22.5
15	17.7	28.5
16*	24.6	39.7

\*  
In 16, the maximum engine speed increases to 2300 rpm.

The Caterpillar designed and built 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 Cat C9 engine and Cat 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, the optional creeper transmission\* is easily engaged using a switch on Tractor Management Center which provides an additional 14 forward and 4 reverse gears using a 1:4 speed reduction.

The electrohydraulic differential steering is now speed sensitive. At higher transport speeds, the steering becomes less sensitive and corrections are easier to make. At slower speeds, the steering is more sensitive and minimal inputs are required to make all corrections. And, when the tractor is in "Park" the steering is locked out.

Even the brakes on the MT700 Series set a new standard. Brake performance is preserved with a patented self-adjusting retraction mechanism. As the oil-cooled, multi-disc brakes wear, the brake piston's position themselves to maintain a constant piston travel to increase the efficiency.

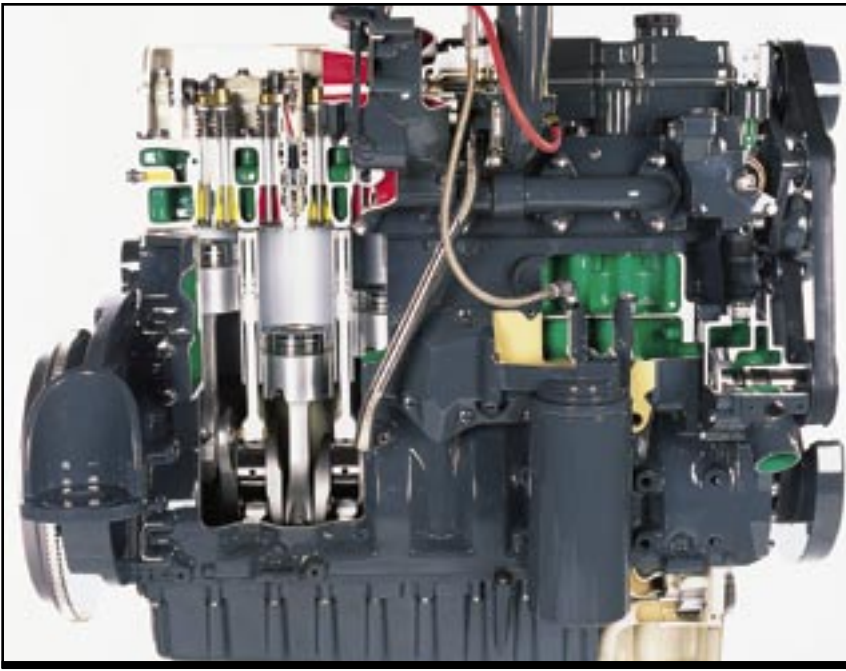
\* With optional Creeper Transmission, 16th gear is locked out and transport speed is limited to 17.7 mph (28.5 Km/h). 3-Point Hitch Capacity is limited to 12,000 lbs (45,425 KG).



With the new 24.6 mph (39.6 km/h) transport speed, more time can be spent in the field and less on the road. The fastest of any rubber-belted ag tractor, the Challenger MT700 Series tractors gear splits are spaced further apart at the higher transport speeds. This requires minimal gearshifts while maintaining excellent acceleration to top transport speed.

## POWERED BY CAT:

The all-new Caterpillar C9 engine pounds out more power than any tractor in its class. Leading the class with 538 cubic inches (8.8 L) of displacement and 52% PTO torque rise, the Cat C9 engine delivers top pulling power in all conditions. PTO power growth up to 13% allows you to harness more power to lug through tough spots without having to downshift or raise the implement.



An integral part of the Intellitronics™ network, ADEM III electronics enables smooth power delivery by coordinating communication between all tractor electronic control modules. Optimum fuel efficiency and emissions that meet EPA Tier II regulations are the result of precisely timed fuel injection and fine-tuned fuel air ratios controlled by ADEM III.



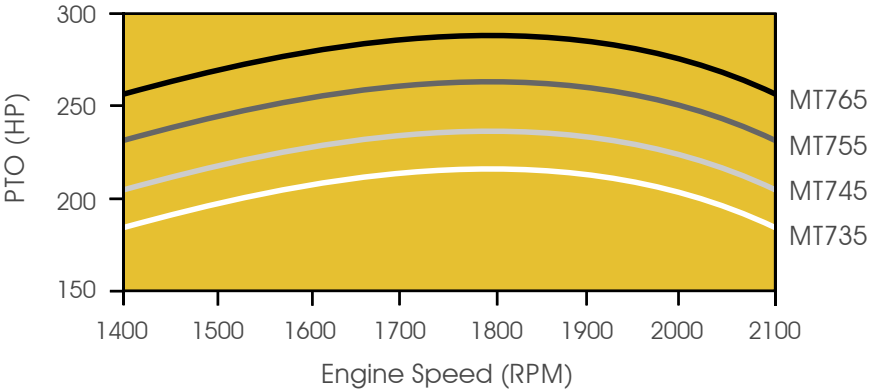
The patented Hydraulic Electric Unit Injector (HEUI) fuel delivery system improves tractor performance across the entire operating range. By tailoring the fuel injection rate to the operating conditions, noise and emission levels are lowered, fuel economy is improved and higher injection pressures are achieved.



An optional air compressor with 116 PSI (800 kPa) powers pneumatic tools, cleans out sprayer nozzles and inflates tires making quick repairs in the field easier.



High-strength, wet cylinder liners improve fuel consumption and lower emissions with a mid-supported design and hardened plateau-honed surface. Removing and replacing the cylinder is easier with the new, wet liner design.



The real test of an engine is in its ability to maintain power while lugging through tough spots, efficiently. The MT700 Series tractors boast an impressive 13% PTO power growth to provide additional horsepower when needed most.



NO ONE SUPPORTS YOUR BUSINESS  
LIKE A CHALLENGER DEALER



Planting and harvest are often a race to the finish. Like any race, success can be dependent on your support team. To keep your equipment hard at work, Challenger dealers offer the responsive support you require at critical times right on your farm or in your field.

Extensively trained, field-based service technicians man fully-equipped, mobile service trucks. These individuals respond to your specific needs by bringing the right tools and training to you. Each service truck is loaded with the diagnostic capability and tools to meet almost all of your service needs, wherever needed.

Challenger dealers offer a brand of service that is a bit different than anything you may have experienced in the past. Surveys show that Challenger owners agree that no one supports the farmer as well as a Challenger dealer.



CHALLENGER | STANDARDS



The key to running a profitable business is often communication. That's why Challenger MT700 Series tractor owners are offered the innovative Product Link option. Product Link enables the communication of service data directly from the Intellitronics™ system to the dealer. Accurate service meter read-

ings, machine location and diagnostics all alert the service technicians to problems before they occur. These alerts allow proactive repairs and maintenance to maximize your uptime and minimize costly repair bills.



# AUTO-GUIDE™:

THE INSIGHT TO WORK EFFICIENTLY



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. Using GPS technology, the Auto-Guide™ satellite navigation system guides the tractor along parallel swaths, and even makes steering corrections for you.

The flexibility to perform precision applications like bedding, planting and tillage are built right into the Auto-Guide™ satellite navigation system. The GPS receiver sends location information to the implement variable rate controllers via the Intellitracks™ and ISO11783 networks.



A green status indicator on the dash panel signals that the Auto-Guide™ satellite navigation system is ready to control the primary steering. If the Auto-Guide™ switch is pressed, the system will respond and a yellow indicator light will illuminate. This signals that the Auto-Guide™ satellite navigation system is controlling the primary steering of the tractor.

## CHALLENGER SPECIFICATIONS

MODEL	MT735	MT745	MT755	MT765
PTO HP @ rated 2100 RPM	185 (138 kW)	205 (153 kW)	235 (175 kW)	255 (190 kW)
GROSS ENGINE HP	235 (175 kW)	255 (190 kW)	290 (216 kW)	306 (228 kW)
DRAWBAR HP*	178 (133 kW)	197 (147 kW)	226 (169 kW)	245 (183 kW)
PTO torque rise	52%	52%	52%	52%
Engine displacement	538 in³ (8.8 L)	538 in³ (8.8 L)	538 in³ (8.8 L)	538 in³ (8.8 L)
Governor type (HEUI)	Electronic	Electronic	Electronic	Electronic
Alternator	160 amp	160 amp	160 amp	160 amp

TRANSMISSION	Cat Powershift 16F/4R Optional Creeper 4 to 1 24.6 mph (39.7 kph) Cat differential steering 60" to 88" (1524-2235 mm) 80" to 120" (2032-3048 mm) 120" to 160" (3048-4064 mm) Bar axle
Transport speed	
DIFFERENTIAL/STEERING	
GAUGE OPTIONS	
GAUGE ADJUSTMENT METHOD	
BELT OPTIONS	
General Ag	16", 18", 20", 25", 30" (406.4, 457.2, 508, 635, 762 mm)
Low Profile Treadbar	16", 18", 25" (406.4, 457.2, 635 mm)
Extreme Application	14", 16", 18", 20", 25", 30" (355.6, 406.4, 457.2, 508, 635, 762 mm)
UNDERCARRIAGE	
Wheelbase	96" (2438 mm)
Hardbar Suspension	Two Marsh Mellow® springs**
Undercarriage Suspension	Suspended Midwheels
Idlers	Narrow, Medium, Wide (TBA)
Midwheels	Narrow, Medium, Wide
Drivers	Narrow, Medium, Wide
HITCH	
3 pt. standard	16,000 lb (7256 kg)
Optional steerable 3 pt	16,000 lb (7256 kg)
Optional wide swinging drawbar	Roller type/32 degrees swing 1000 RPM 20 spline 1.75" (44.4 mm)
PTO	
HYDRAULICS	
Max. flow	43.5 GPM (164.6 L/m)
Max. system pressure	2900 PSI (19 981 kPa)
Remotes standard/optional	4/6
Exclusive features	Load-Independent Flow Division
FUEL CAPACITY	
60" to 88" gauge	118 U.S. gal (446.7 L)
80" to 120" gauge	178 U.S. gal (673.8 L)
120" to 160" gauge	178 U.S. gal (673.8 L)
Optional fuel capacity***	208 U.S. gal (787.4 L)
OTHER KEY FEATURES	
Instructional seat	Standard
Toolbox	Standard, 24" (610 mm) length, 150 lb (68 kg) capacity Manual or electric
Optional external mirrors	Optional
Auto-Guide™ satellite navigation	Optional
Caterpillar Product Link	Optional
Battery disconnect	Optional
Nightbreaker™ HID lights, 4 HID lights	Optional
Steering wheel radio controls	Optional
Decelerator pedal	Optional



MT735



MT745



MT755



MT765

\*Manufacturer's estimate  
\*\*Marsh Mellow® spring is a registered trademark of Firestone Industrial Products Company.  
\*\*\*Not available on all configurations



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In today's marketplace, financing is as much a part of your purchase decision as the features and benefits of the equipment. We are committed to providing the best means for acquiring equipment while allowing you to preserve other credit lines for operating capital.

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COMPETITIVE RATES

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UNLIMITED RESOURCES  
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Talk to your Challenger dealer about financing or leasing your agricultural equipment through AGCO Finance.



AGCO Corporation has a corporate policy of continuous product improvement and development; therefore, specifications are subject to change without any advance notice. AGCO Corporation is not responsible for differences between the specifications or illustrations contained in this publication and the actual equipment. Implements and attachments shown are to illustrate the use of the Challenger MT700 Series tractor and may not be available in North America.