

Challenger MT400B

Challenger MT400B



We're up to
The Challenge

MT400B
83 - 115 hp

MT400B Series

Challenging the way you think

From innovative beginnings comes a line of equipment that will change the way you think about farm machinery.

Today, farming is a serious business – more serious than ever. We understand that you face ever-increasing pressure to maximise productivity, cut costs and control as many variables as possible. It's with all these factors in mind that in March 2002 we launched an entirely new kind of equipment company. It was then that AGCO Corporation acquired the highly praised Challenger® line of tracked tractors from Caterpillar® and began expanding it into a full line of exceptional farm machinery.

Serious Machinery. Serious Dealers.

Today we're offering the most innovative and advanced tracked tractors in the world - without exception - alongside a highly productive range of combines and balers, high-output application equipment and an entire line of rugged wheeled tractors from 67 to 290 HP, all built to the toughest standards in the industry. All sold, serviced and supported solely by Challenger dealerships, the best-trained, most responsive dealers in any business.

In the pages that follow, we'll outline what makes the Challenger MT400B Series wheeled tractors stand out in the market today. And rest assured, we're constantly making improvements, anticipating the needs of the future and improving on the Serious Machinery from Challenger.

Power where you need it

Challenger MT400B Series tractors have been designed to be more rugged and more reliable with enough raw power to handle your toughest jobs.

- 4-cylinder Caterpillar Tier II engines recognised around the world for durability and reliability
- 2 or 4WD front axle
- 16F x 16R Speedshift Transmission with your choice of synchronised mechanical shuttle or Power Shuttle
- Optional 16F x 16R AutoPower IV transmission with Power Shuttle
- Electronically controlled 3-point rear linkage
- Luxurious cab with excellent visibility

Model	Rated Engine hp - ISO TR (14396)
MT425B	83 hp
MT445B	90 hp
MT455B	100 hp
MT465B	115 hp





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The Challenge 3



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Maximum comfort - maximum productivity

The MT400B Series cab offers exceptional visibility, easy-to-reach controls, adjustable driving position and plenty of elbowroom. The cab is ergonomically designed to ensure operator comfort and convenience during long hours of operation.

These machines are the first choice for a comfortable environment with heating and air conditioning, a low noise level and a spacious operator area. A spring suspension seat, or the optional adjustable air suspension seat, provides comfort and a smooth ride for long days in the field.

All major tractor and implement operational controls are located together on the right-hand console, perfectly positioned for comfortable, intuitive operation.

State-of-the-art display

All gauges and indicator lights on the state-of-the-art instrument panel are in full view and are a natural, no-stress glance from the seat. Vital performance functions are easy to read. Indicator lights are positioned across the bottom of the instrument panel, notifying you of system settings and maintenance needs at a glance.



1. POWER SHUTTLE CONTROL LEVER



2. FOUR-SPEED SYNCHRONISED SHIFT



3. POWER CONTROL LEVER FOR USE WITH AUTOPOWER IV (OPTION NOT PICTURED ON PAGE 4)



4. AUTOPOWER IV LEVER (OPTION NOT PICTURED ON PAGE 4)



5. DIFFERENTIAL LOCK 4WD FRONT AXLE



6. STATE-OF-THE-ART INSTRUMENT PANEL



7. EXCELLENT VISIBILITY



8. TILT/TELESCOPIC STEERING WHEEL & COLUMN



9. CONVENIENT TEMPERATURE CONTROLS



10. MAXIMUM OPERATOR COMFORT



11. HYDRAULIC CONTROLS



12. PTO CONTROL

Power at the speed you need

Tough transmissions

Challenger offers industry-leading transmission options to tailor your tractor to your unique applications. MT400B Series tractors offer a standard 16F/16R synchronised manual shuttle transmission, with a full power shuttle option available. For even more refinement and performance, the AutoPower IV option can be specified. The standard speed range is 2.7 to 40.2 kph. If slower speeds are required, the tractor can be equipped with either a creeper or a super-creeper option. The standard creeper allows the tractor to operate at a minimum 0.4 mph (0.6 kph) at rated engine rpm. The super-creeper runs as slow as 0.12 mph (0.19 kph). The creeper and super-creeper

speeds are ideal for many specialised planting and harvesting applications.

Speed selection and shifting

Speed selection and shifting are easy and comfortable with the ergonomically designed right-hand gear selector and a choice of either a synchronised mechanical shuttle or a single-function power shuttle. The single “H” pattern of the shift lever and push-button high/low control allow for smooth gear transitions when moving up or down within the gear range.

AutoPower IV

AutoPower IV provides a smooth, 4-speed powershift change in each of four gears, giving you powershift

flexibility over a wide speed range, and delivering maximum field performance. With the capability of both powershift and range changes being made under load, without the need to use the clutch pedal, AutoPower IV is exceptionally easy to use. And with a choice of either left-



or right-hand control, there's real operating flexibility to suit different applications and driver preference.

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



With your right hand, simply move the T-shaped gear lever forwards or backwards to change up or down through the four powershift ratios. To change range, simply press the range selection button as you move the lever. When changing range, speedmatching automatically selects the correct AutoPower IV ratio to match the tractor's forward speed.



Caterpillar® engine - legendary strength and efficiency

Legendary Caterpillar 1104C diesel engines power each of the MT400B Series tractors, providing outstanding power and reliability. In addition, these engines include the latest Tier II technology for increased fuel efficiency and decreased noise levels from their high-contact gear train.

Your choice of axle

The MT400B Series offers you the choice between a 2 or 4WD front axle to give you the perfect machine for your specific applications.

4WD front axle

The axle is designed as an integral component of the tractor, not an add-on, and is perfectly matched to the tractor's horsepower and chassis size. The system features a centre-line drive and has no universal joints in the driveline from the transmission to the front axle. The front axle drive operates electro-hydraulically with the push of a button from a rocker switch in the cab. Additionally, the 4WD front axle will engage when the brake pedals are pressed at the same time, delivering 4-wheel braking capability and increasing control with heavy loads.



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More power, more control, more productivity

Challenger hydraulics

Open-centre hydraulics are standard on the MT400B Series, offering hydraulic flow and pressure for a wide range of applications. Two mechanical valves are standard with the option to add valves up to a maximum of four. If a joystick is required, two mechanical valves can be combined in a mechanical joystick configuration. In addition, a dedicated loader joystick can also be added to allow the remotes to be used for operating other implements.

As an option on these machines, 100 l/min oil flow can be achieved by combining the flow from two hydraulic pumps. The higher flow is made available by the simple flick of a switch that "locks out" the 3-point linkage, providing extra speed and power for loader work.



Electronically controlled 3-point rear linkage

Linkage-mounted implements can be controlled with precision using the MT400B Series' Electronic Linkage Control (ELC) 3-point hitch. These category II hitches are ideal for implements such as planters, cultivators, rear blades and mowers. Also available on the MT400B Series is a factory-installed front linkage package, including front hydraulics and PTO, with the front PTO electro-hydraulically engaged through a console-mounted rocker switch. The system is ideal for cultivation equipment and other implements, offering a better operator view compared to more traditional rear-mounted tools.



System control

The system's controls allow for quick customisation for various tasks such as mowing, cultivating and grading. The integrated Active Transport Control on the rear linkage works independently of the transport lock to absorb shock and minimise the pitching action, automatically adjusting for different implement weights. It can be controlled manually or linked to the ELC's lift/lower system to activate automatically as required for smoother, safer and faster transport with minimal damage to the lift system.

PTO

The PTO on the MT400B Series has been carefully designed. Each features an independent (540/540E/1000 rpm) PTO. Speeds are easily read on the digital display on the cab instrument panel, and the PTO can be engaged and disengaged independently of the main transmission clutch, allowing for starting and stopping at any time for optimum productivity.

The economy PTO is perfect for equipment that does not require maximum horsepower. It reduces

engine speed by 23 percent, from 2000 rpm to 1550 rpm, while still maintaining full PTO shaft speed. The slower engine speeds reduce fuel usage, noise and vibration while increasing overall tractor versatility and engine life.

A live shaft drives the electronically controlled system through a wet multi-disc clutch. The PTO automatically disengages when the engine is turned off, while a hydraulic brake prevents shaft rotation when the PTO isn't engaged.

No longer a chore

Service and maintenance

Daily service points on the MT400B Series are at your fingertips. Standard side panels are fully removable and give unobstructed access to the engine, air filter, coolant level, belts, alternator, air conditioning compressor and windscreen washer fluid. The radiator, oil cooler and air conditioning condenser are also easy to reach for cleaning and maintenance.

Daily service checks such as the engine oil level, engine oil fill and fuel filter drain are accessed without removing the side panels. Transmission and hydraulic oil checks are done from the rear of the tractor. The MT400B Series tractors feature ground level fuelling with a large opening to minimise backsplashes and spills.



Equipped for the job

MT400B Series models are equipped to handle a wide variety of tasks, whether the job is up front or behind the tractor. The electronically controlled 3-point hitch, for example, features electronic draft sensing and a standard lift capacity of 5000 kgs or an optional 6000 kgs. With a total hydraulic flow of 132 l/min, with 57 l/min available at the remotes, MT400B Series tractors also offer a combined flow option which gives you 100 l/min flow at the spool valves which is very useful for loader work.

A 540/540E/1000 rpm PTO is also standard on all models.

Best of all, these tractors are a pleasure to drive and easy to operate. Regardless of which productivity features you use most often, the controls are well organised and within easy reach.

Specifications

	MT425B	MT445B	MT455B	MT465B
Engine				
PTO	83 hp	90 hp	100 hp	115 hp
Engine	Caterpillar® 1104C	Caterpillar® 1104C	Caterpillar® 1104C	Caterpillar® 1104C
Cooling	Liquid	Liquid	Liquid	Liquid
Rated Speed	2,200	2,200	2,200	2,200
Aspiration	Natural	Turbo	Turbo	Turbo
Displacement	4.4 litres	4.4 litres	4.4 litres	4.4 litres
Bore	105 mm	105 mm	105 mm	105 mm
Stroke	127 mm	127 mm	127 mm	127 mm
# Cylinders	4	4	4	4
3-Point Hitch				
3-point hitch control	Electronic	Electronic	Electronic	Electronic
Category	II	II	II	II
3-point hitch stabilisers	Screw adjustable	Screw adjustable	Screw adjustable	Screw adjustable
Lift capacity (std/opt)	5000/6000 kg	5000/6000 kg	5000/6000 kg	5000/6000 kg
Lower draft arm link ends	Fixed ball ends	Fixed ball ends	Hook ends	Hook ends

Specifications common to all models

Fuel Tank Capacity	
Standard	130 litres
Optional	150 + 50 litres
Transmission	
Standard Speeds	16F x 16R
Speedshift-mech shuttle	Std
Speedshift-power shuttle	Opt
AutoPower IV	Opt
Brakes	
Type	Hydraulic, Wet Disc
Power Take-Off (PTO)	
Type	Independent
Speeds	540/540E/1000 rpm

Hydraulic System	
Type	Open Centre
# remotes (std/opt)	2/up to 4
Max pressure	200 bar
Std output	57 l/min
Dimensions	
Wheelbase	2463 mm
Minimum Tread	1518 mm
Height to top of cab	2706 mm
Overall length	4302 mm

Cat® Dealers and Service

In addition to bringing new thinking to machines, Challenger brings a whole new concept to sales and service through Cat dealers. It may be our biggest difference and our greatest strength. It may be the reason your operation could become more profitable with Challenger equipment.

We're already creating Challenger loyalists - because every Challenger machine is backed by premium quality support. Cat dealers are second to none in on-location service, with more mobile service trucks loaded with more diagnostic equipment than most repair shops, and better-trained technicians who work as hard at

preventing problems as they do at repairing them. Combine it all with our 24-hour a day parts network and you have the absolute gold standard in service. It's all at work, ready to maximise your productivity and uptime.

Cat dealers have a rock-solid commitment to agriculture and have underlined their confidence in the Challenger product by putting their name behind the sales force and service network. The combination of Challenger and Caterpillar is shifting the way things have always been done. A shift we're certain you'll agree is the new standard to beat.



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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