

X8

680 VT-DRIVE


McCORMICK

Power Technology.



McCORMICK, INNOVATORS BY TRADITION

Cyrus Hall McCormick was born in Virginia, United States, in 1809. As a pioneer in engineering, McCormick had a stunning ability to mechanize farm work, as he demonstrated when, in 1831, he invented the first mechanical reaper.

The McCormick company was established in 1847. It produced wheat harvesters. Starting from 1866, the company adopted the colour red which from then on would distinguish McCormick around the world. In 1871, McCormick manufactured the greatest number of machines than any other company: 250 reapers per day. The first tractor, the Mogul 8-16, was launched in 1910. In those years, the company opened up factories in Canada, Great Britain, Germany, France and Sweden.

In the following years, the company was bought and sold various times. In 2001, McCormick was acquired by the Argo Group, which re-launched the brand under the name McCormick Tractors International Limited.

Today, McCormick is a world leader in the tractor industry and its name stands for uncompromised technology and innovative design. Thanks to heavy investments in research and development, the new generation of McCormick tractors is now positioned at the top of the market for performance and innovation. Farmers look for performance, reliability and versatility and this is exactly what McCormick offers its customers to maximize their productivity.





McCORMICK X8, INNOVATION AT FULL THROTTLE

Continuous technological innovation and constant pursuit of quality have been the cornerstone of Argo Tractor's activity since its foundation more than 30 years ago. This ongoing commitment has led to the design and development of the innovative McCormick **X8** tractor range which sets the benchmark world-wide for power, reliability, user-friendly technology and comfort.

The **X8** tractor is designed to suit the most demanding needs of large farms and full-time agricultural contractors.

The new generation **X8** has received a more contemporary, aggressive look that will not go unnoticed. Completely redesigned, the automotive-style Premiere Cab offers the operator a spacious working environment with high-grade fit and finish, ergonomically-arranged controls and easy-to-use instruments, such as the 12-inch touch screen monitor. Everything inside the cab is designed to maximize the operator comfort.

The **X8** range features an innovative VT-Drive four-stage continuous variable transmission. A high-flow hydraulic system supplies 212 l/min to up to six electrohydraulic remote valves.

Located within a heavy-duty cast-iron chassis and carried on iso-mounts, the new Betapower Fuel Efficiency engine moves the tractor's centre of gravity forward, making the vehicle well balanced and stable.

The chassis not only helps isolate the cab from engine-generated vibration, but enables the tractor to transfer all the power to the ground. With a maximum power of 310 hp, the X8.680 is the most powerful model in the range.

Choosing McCormick means you can count on a reliable partner that delivers industry-leading technology along with outstanding performance and uncompromising reliability.


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Betapower engines: efficiency that improves your productivity

The **X8** tractors are powered by the new Betapower Fuel Efficiency 6.7-litre, 6-cylinder engines with eVGT turbocharger and common rail injection system. These engines meet Stage2/Tier 2 emissions regulations

The new Betapower Fuel Efficiency powers the **X8** series is a cutting-edge engine designed to offer simplicity and functionality without compromising on reliability and durability.

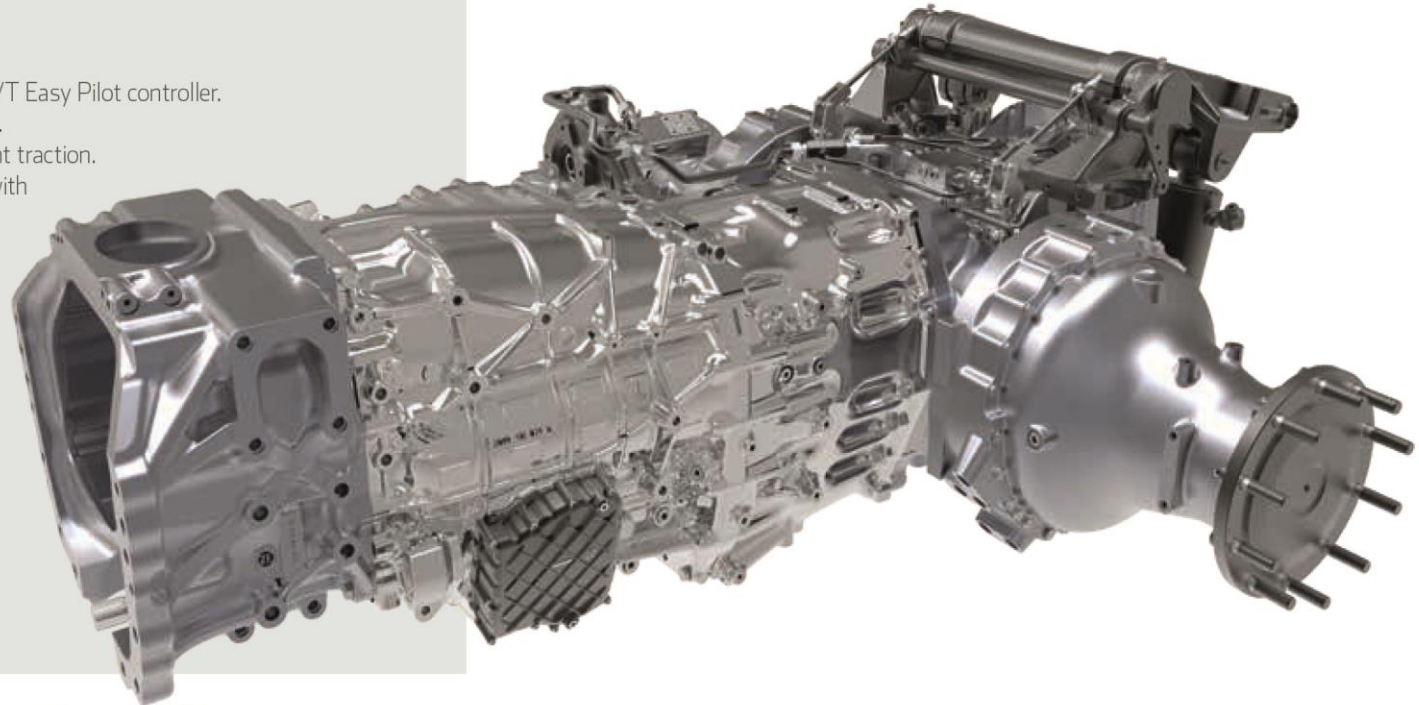
HIGHLIGHTS

- › Electronic engine management and variable-geometry turbocharger (eVGT) with common rail intercooler.
- › High torque backup.
- › Engine compliant with Stage2/Tier 2 Final emissions regulations.
- › Large, easy-fill fuel tank.
- › Cooling package opens out to allow easier and faster cleaning



HIGHLIGHTS

- › All transmission controls grouped on the VT Easy Pilot controller.
- › Speed shifting without use of clutch pedal.
- › Soft acceleration, optimum speed, constant traction.
- › Greater concentration on the job in hand with the user-friendly VT-Drive transmission.
- › Lower fuel consumption, reduced operating costs.
- › Remote Shuttle button on multi-function controller for automatic forward/reverse shifting.

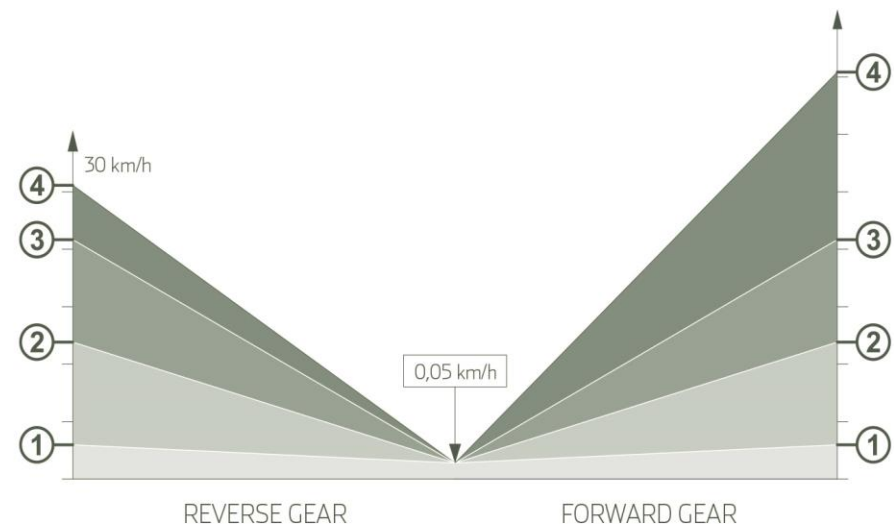


VT-Drive 4-stage continuous variable transmission

The McCormick VT-Drive transmission with its four-stage technology sets a new benchmark in continuous variable transmissions. Using a four-stage instead of usual two-stage CVT transmission offers real benefits to farmers and agricultural contractors who look for multi-purpose tractors capable of ensuring maximum productivity whatever the task or the field conditions.

The VT-DRIVE transmission features four operating modes:

- 1. Auto Mode** – The electronic unit adjusts the engine revs and transmission ratio according to the potentiometer settings to achieve the required speed.
- 2. Manual Mode** – The operator sets the engine speed using the hand throttle. The electronic unit adjusts the transmission ratio to achieve the required speed.
- 3. PTO Mode** – The operator sets the engine speed using the hand throttle. The electronic unit adjusts the transmission ratio to achieve the required speed, giving priority to PTO speed.
- 4. Cruise Mode** – The operator selects the tractor travel speed which remains constant.



THE **X8** KNOWS HOW TO PUMP UP YOUR **PRODUCTIVITY**

The **X8** tractor features a closed-centre hydraulic system with variable-displacement pump. This means that the pump always delivers exactly the quantity of oil that the system requires, thereby eliminating unnecessary power waste. The system supplies 212 l/min to the hitch and remote valves and 115 l/min to the electronic steering system, allowing for simultaneous operation of all hydraulic functions.

The rear hitch provides a lifting capacity of up to 12000 kg. The system features up to eleven electrohydraulic remote valves: up to six at the rear, three at the front and two in the middle.




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HIGHLIGHTS

- › Closed-centre hydraulic system with 212 l/min variable-displacement pump.
- › Electronically-controlled rear hitch with up to 12000 kg lift capacity.
- › Front hitch with up to 5000 kg lift capacity as standard.
- › Three-speed PTO as standard (540Eco/1000/1000Eco rpm).
- › Front hitch and PTO option.
- › Remote electrohydraulic valves: up to 6 at the rear, 2 mid-mounted and 3 at the front, including one dedicated to the hitch.



Rear PTO

The **X8** range has been designed to operate in a variety of conditions with heavy, power-demanding implements. The driveline design ensures minimal power loss, resulting in maximum productivity.

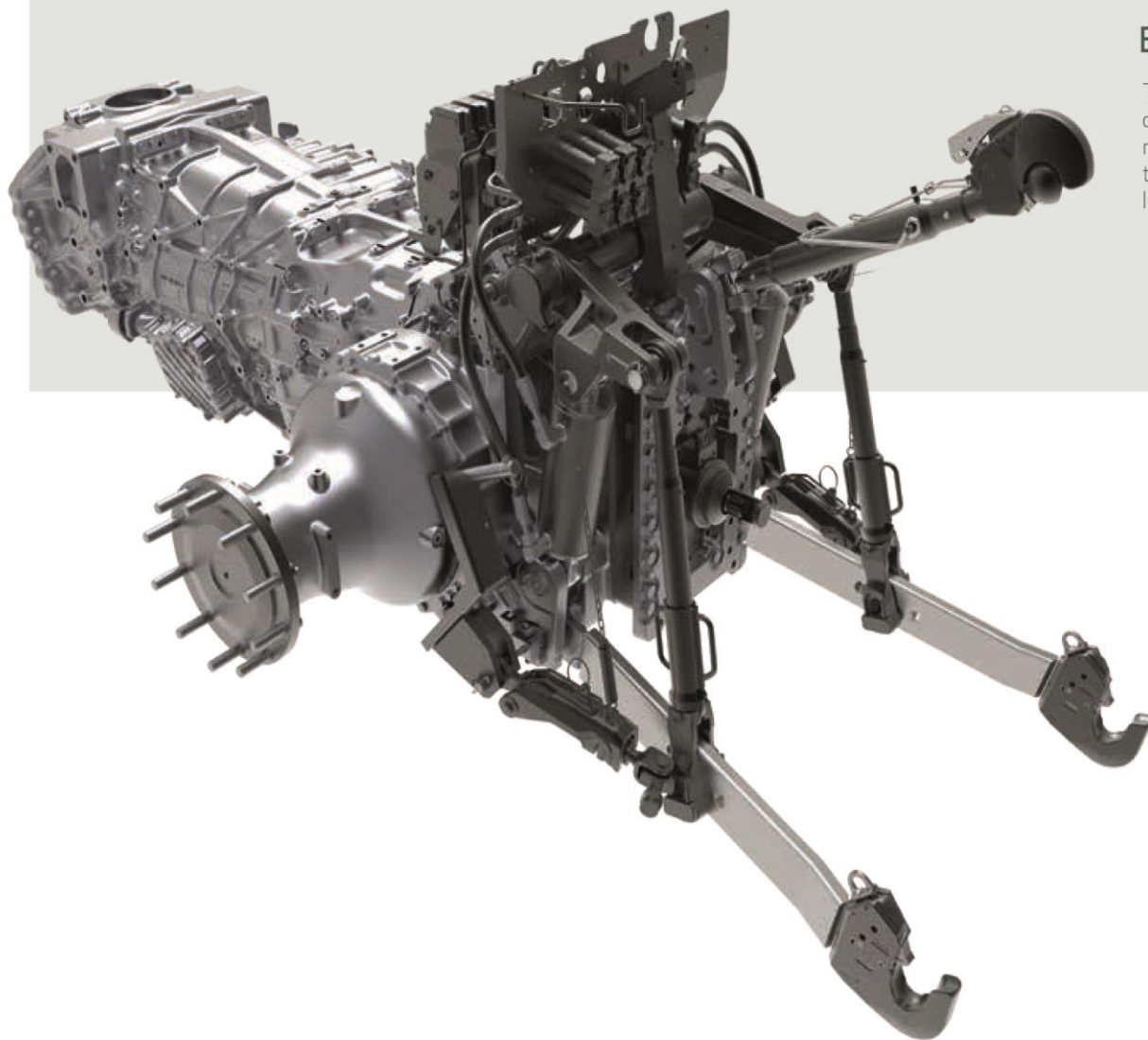
The PTO offers three electronically selectable speeds: 540Eco, 1000 and 1000Eco rpm. An electro hydraulically operated clutch enables smooth and modulated engagement of the PTO, ensuring a soft start-up of the implement.

External PTO, hitch and remote valve controls are located on the rear fenders making it easier to attach implements from the ground.



AUTO PTO FUNCTION

The Auto PTO feature will automatically disengage and re-engage the PTO at three-point linkage heights set by the operator. This gives the operator precise control of the implement during headland turns.



Electronically-controlled rear hitch

The ergonomically-designed VT Easy Pilot controller enables convenient and intuitive operation of the rear hitch and implements. Offering a maximum lift capacity of 12000 kg, the three-point hitch is Category 4/4N and is equipped with lower link draft sensing for accurate implement control.

CONVENIENT REAR HITCH CONTROLS

External PTO, hitch and remote valve controls are located on the rear fenders making it easier to attach implements from the ground.



HIGHLIGHTS

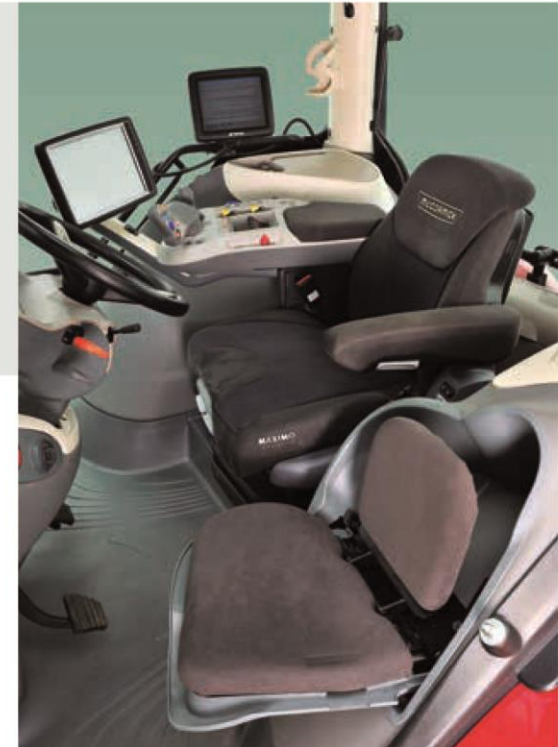
- › Four-post cab design with flat-deck platform.
- › One-piece panoramic windscreen for unequalled all-round visibility.
- › Instrument panel tilting with steering column.
- › Ventilated air suspension seat with swivel optional.
- › Multi-function armrest with ergonomically-designed controller and integrated controls.
- › 12" Data Screen Manager touch screen monitor.
- › Hide-away buddy seat for easier access to the cab.
- › Automatic climate control.
- › Opening transparent roof hatch.
- › Automotive-style interior with soft-touch materials.
- › Radio with MP3 player and Bluetooth standard.
- › Up to 12 work lights on hood, cab and fenders.

Internal mirror, an opening transparent roof hatch providing extra visibility for loader operations and 10 work lights fitted on the roof that provide day-light illumination for night work. Integrated into the cab roof, a highly-efficient automatic climate control maintains the desired cab temperature whatever the outdoor weather conditions.

DRIVER SEAT AND HIDE-AWAY BUDDY SEAT

The driving position features a large and stylish Alcantara upholstered swivel seat equipped with air suspension system, fully automatic height adjustment and backrest heating and ventilation for maximum driving comfort.

Passengers can also travel in comfort thanks to an innovative, upholstered buddy seat, which neatly folds away to allow easier and safer access to the cab.



DIGITAL INSTRUMENT PANEL AND ADJUSTABLE STEERING WHEEL

Simple and intuitive, the digital instrument panel keeps the operator constantly informed on the tractor's performance.

The telescopic tilt-adjustable steering wheel is designed to tilt with the instrument panel.

TOUCH SCREEN MONITOR AND MULTI-FUNCTION ARMREST

Thanks to its user-friendly tablet-like graphic interface, the large 12-inch DSM touch screen monitor enables simple and intuitive control of implements.

Integrated into the driver's seat, the multi-function armrest is ergonomically designed to allow a quick and intuitive use of main tractor controls.



ISOBUS, FOR SIMPLE AND EFFICIENT IMPLEMENT CONTROL

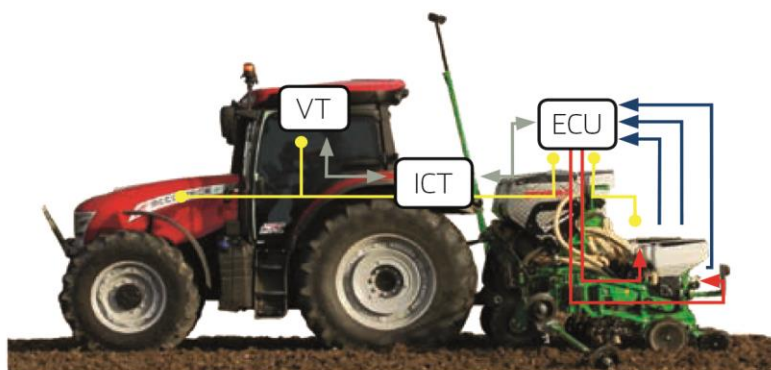
The **X8** tractor range can be optionally equipped with an ISOBUS system, a protocol for data communication between tractor, implement and on-board computer, that enhances operating efficiency and productivity.

With the ISOBUS system, the operator can manage the operating parameters and performance of the implement via a simple touch screen monitor, without the need to install a dedicated control unit inside the cab.



TOUCH SCREEN MONITOR

An 8.0-inch touch screen monitor manages the satellite-based guidance and the TRIMBLE system.



Benefits of satellite-based guidance and ISOBUS system

The satellite-based guidance and the ISOBUS system maximise efficiency and productivity while improving riding comfort and safety:

- › Each implement operation is controlled with extreme accuracy. Implement can also be managed via an electronic self-adjustment feature.
- › Reducing the travelled distance in the field reduces tractor and implement wear and saves fuel.
- › The application of variable rate treatments eliminates skips and overlaps; this minimizes product wastes and reduces working time while maximizing efficiency and crop yield.
- › Precision farming reduces chemical residues. For example, it makes it possible to place fertilizer only in a specific row that will be sown at later date: at the time of seeding, the row will be found thanks to the map system of the automatic guidance.
- › Report and pre-setting operations become more user-friendly and can be done from home. This eliminates the need for expert operators, thus reducing operating costs.

HIGHLIGHTS

Cab

- › Four-post design with flat deck platform
- › 12-inch DSM touch screen monitor.
- › Automatic climate control.

Engine

- › Electronically-controlled variable-geometry turbocharger (eVGT).
- › Engine located within a cast-iron chassis for enhanced traction and performance.
- › Cooling pack opens out to allow easier & faster cleaning
- › 550-liter fuel tank

Transmission

- › VT-Drive four-stage continuous variable transmission
- › Four programmable speed ranges.
- › Transmission controls integrated into the VT Easy Pilot proportional controller.
- › Lower fuel consumption, reduced operating costs.
- › 40km/h Eco speed at reduced engine rpm.

Axles

- › Rigid front axle
- › Electronically-controlled centre-pivot front suspended axle. (Optional)
- › Rear axle with annular-piston wet multi-disc brakes.
- › Automatic 4WD and differential lock engagement.

- › Full locking differential.
- › Tyre size up to 900/60 R42 (Ø 2.15 m) available as an option.

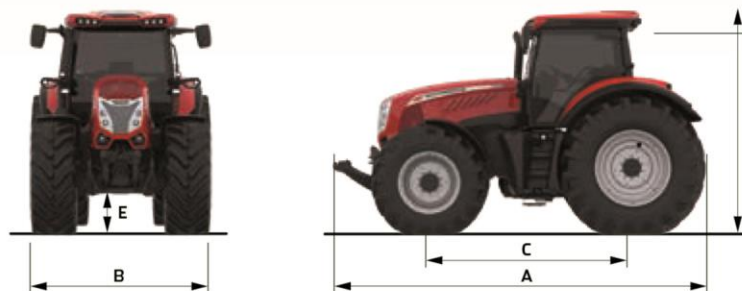
Hydraulic system

- › Closed-centre hydraulic system with variable-displacement pump up to 212 l/min.
- › Electronically-controlled rear hitch with up to 12000 kg lift capacity.
- › Three-speed PTO.



		X8.680 VT DRIVE
ENGINE		
STAGE 2/TIER2 EMISSION REGULATIONS		BETAPOWER
ELECTRONIC HIGH PRESSURE COMMON RAIL		•
TURBO/AIR-TO-AIR INTERCOOLER		•
RATED ENGINE POWER AT 2200 RPM	HP/KW	301/215
RATED ENGINE SPEED	RPM	2100
MAX TORQUE	NM	1282
DISPLACEMENT/CYLINDERS/VALVES	CM	6728/6/24
FUEL TANK CAPACITY	L	550
CLUTCH		
MULTI-DISC WET CLUTCH		•
TRANSMISSION		
VT-DRIVE CONTINUOUS VARIABLE TRANSMISSION (4CVT RANGES)		•
ECO FORTY (40KM/H) AT REDUCED ENGINE RPM		•
REVERSE POWER SHUTTLE		•
ELECTROHYDRAULIC DIFFERENTIAL LOCK ON REAR AXLE		•
POWER TAKE-OFF		
WET MULTI-DISC PTO CLUTCH		•
MODULATED ELECTROHYDRAULIC ENGAGEMENT		•
3 SPEEDS:540/1000/1000E	RPM	•
FRONT 4WD AXLE		
RIGID FRONT AXLE		•
WITH ELECTRONICALLY-CONTROLLED HYDRAULIC SUSPENSIONS		○
ELECTROHYDRAULIC 4WD ENGAGEMENT		•
MAX. STEERING ANGLE		55°
ELECTROHYDRAULIC DIFFERENTIAL LOCK		•
BRAKING SYSTEM		
WET MULTI-DISC REAR BRAKES		•
AUTOMATIC 4WD ENGAGEMENT ON BRAKING		•
BRAKING BOOSTER SYSTEM SERVO BRAKE		•
HYDRAULIC TRAILER BRAKING		○
PNEUMATIC TRAILER BRAKING		○
HYDRAULIC SYSTEM		
CLOSED-CENTRE CIRCUIT		•
HYDRAULIC PUMP FLOW	L/MIN	212
STEERING PUMP FLOW	L/MIN	115
ELECTROHYDRAULICALLY-OPERATED REAR REMOTE VALVES	STD/OPT	4/6
ELECTROHYDRAULICALLY-OPERATED FRONT REMOTE VALVES		○
EAZYSTEER STEERING SYSTEM		•

		X8.680 VT DRIVE
CAN BUS LIFT CONTROL HITCH		
ELECTRONICALLY-CONTROLLED REAR HITCH		●
MAX LIFT CAPACITY	KG	12000
DRAFT SENSING ON LOWER LINKS		●
THREE-POINT HITCH	CAT.	4/4N
DOUBLE-ACTING FRONT HITCH (LIFT CAPACITY 5000 KG)		○
CAB AND DRIVING POSITION		
PREMIERE CAB WITH FOUR-POST DESIGN AND FLAT-DECK PLATFORM		●
ELECTRONICALLY-CONTROLLED HYDRAULIC CAB SUSPENSION (SEMI-ACTIVE CAB SUSPENSION)		○
AUTOMATIC CLIMATE CONTROL		●
DIGITAL INSTRUMENT PANEL WITH PERFORMANCE MONITOR		●
DELUXE LOW-FREQUENCY AIR SUSPENSION SEAT WITH VENTILATION AND ARMREST		●
PSM ADAPTOR		●
RADIO / BLUETOOTH / MP3 READY		●
ISOBUS ADAPTOR		●
ISOBUS FRONT ADAPTOR		○
12" TOUCH SCREEN MONITOR		●
PSM GUIDANCE KIT (PRECISION STEERING MANAGEMENT)		○
HIDE AWAY BUDDY SEAT + AIR-CONDITIONED IN-CAB STORAGE COMPARTMENT		●
LED LIGHTS		○
DIMENSIONS AND WEIGHTS		
FRONT TYRES		650/65R34
REAR TYRES		710/75R42
A - MAX LENGTH (WITH BALLAST WEIGHTS)	MM	5150
B - MIN WIDTH	MM	2930
C - WHEELBASE	MM	3000
D - HEIGHT OVER CAB	MM	3400
E - GROUND CLEARANCE	MM	520
TOTAL WEIGHT WITHOUT BALLAST WEIGHTS	KG	10800
OPTIONAL EQUIPMENT		
FRONT HITCH AND PTO		○
FRONT WEIGHT FOR HITCH 2450 KG		○
BALLAST WEIGHTS FOR REAR WHEELS 4 X 250 KG		○





McCORMICK **SPARE PARTS AND SERVICE,** TO GIVE YOU THE BEST ALWAYS

McCormick is worldwide recognized as a reliable supplier of high-quality spare parts and after-sales services. Developed by the same engineers who design and manufacture the McCormick tractors, genuine McCormick parts are designed and manufactured to the highest quality standards to ensure tractors reliable performance and maximum safety. The pluses of McCormick's after-sales service include following:

- Each part comes with a 12-month warranty and bears a non-falsifiable hologram which certifies its build quality and genuineness.
 - Original McCormick parts are reliable and convenient, as they enhance the working quality and efficiency of the **X8** tractors.
- After-sales service is handled by our dealers through a team of highly-skilled, solution-oriented technicians who avail themselves of the latest diagnostic techniques. Choosing McCormick means choosing excellence.



Power Technology.

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