

440-450-460-650-660-670-680 (T4i) PS-DRIVE / 440-450-460-660-670 (T4i) VT-DRIVE

X7



McCORMICK



MCCORMICK

New McCormick X7 series, the essence of modernity

Each McCormick tractor reflects the passion and dedication of those involved in designing, testing and producing this superb range of tractors. The new X7 tractors offer the ultimate in style, technology, operator comfort and productivity.

Seven models in the range are all powered by the new Betapower Fuel Efficiency four- and six-cylinder turbo engines with multivalve technology and common rail injection system. These engines meet Tier 4 Interim emission regulations using the SCR system, an exhaust gas after-treatment technology that reduces exhaust emission without compromising engine performance.

The X7.440, X7.450 and X7.460 models feature self-supporting 4.5L, four-cylinder engines, while the X7.650, X7.660, X7.670 and X7.680 models are equipped with 6.7L, six-cylinder engines located within a rugged chassis which helps reduce noise and vibration levels within the cab.

The range comes with a choice of two transmissions: PS-Drive and VT-Drive. The PS-Drive transmission with 24 speeds in six ranges offers a four-speed on-

the-go powershift and incorporates electro hydraulic range shifting. The VT-Drive transmission is a continuously variable transmission (CVT) that provides an infinite number of speed ratios from zero to the maximum speed permitted in the country of use. Both transmissions feature a left-hand steering-column power shuttle and are controlled electronically via pushbuttons located on the multi-function armrest.

The electro hydraulically-engaged rear PTO features an exchangeable shaft providing 6 or 21 splines and offers four speeds 540/540E/1000/1000E rpm. The electronic control of the PTO always ensures smooth and modulated implement start-up. The system also incorporates PTO headland management to eliminate implement drive line damage when raising the machine.

The X7 PS-Drive model comes in two versions with different hydraulic systems: EFFICIENT and PREMIUM. The Efficient version features an open-centre hydraulic system with a flow rate of 88+44 l/min to operate the hitch and steering and up to six mechanical remote valves. The Premium version is equipped with a closed-centre hydraulic system that provides a flow rate of 123+44 l/min to the hitch and steering and operates up to seven electro-hydraulic remote valves. The X7 VT-Drive model is only available with open-centre hydraulic system. The electronically-controlled rear hitch with draft sensing on the lower links provi-

des a maximum lift capacity of 9300 Kg and allows a precise control of the implement. Also included is a Ride Control system to help protect the implement and reduce shock loadings on the tractor during transport. A radar sensor is also available for operations where true ground speed is required, this can also be used in difficult ground conditions to improve tractive performance and reduce wheel slip.

True versatility can be obtained with a front hitch capable of lifting up to 3500 Kg and a front PTO. Lift & Lower switches are provided at the front to assist in connecting or disconnecting front implements. The front axle, either rigid-mounted or with electronically-controlled independent suspensions, offers a 55° steering angle, providing excellent manoeuvrability in confined spaces.

The Premiere Cab is a true high-tech control centre that allows the operator to work the tractor with maximum ease and comfort. The cab features a Data Screen Manager (DSM), standard on the VT-Drive models, and a 12" touchscreen monitor that allows the driver to control the performance and functions of both tractor and implement (ISOBUS, satellite-based guidance system etc.). The cab interior offers the operator a fully sound-proofed, functional ergonomic environment and a high-quality, automotive-grade fit and finish that further enhance the driving comfort.



DRIVER SEAT AND HIDE-AWAY BUDDY SEAT

The driving position features a large and stylish air-suspended driver seat that can be optionally equipped with heating and ventilation system. 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. The in-cab storage compartment to the left of the operator is air-conditioned..



DIGITAL INSTRUMENT PANEL

Modern and intuitive, the digital instrument panel keeps the operator constantly informed on the tractor's performance. The instrument panel is designed to tilt with the steering wheel so it is always clearly visible.





DATA SCREEN MANAGER (DSM) AND MULTI-FUNCTION ARMREST

The modern 12-inch DSM touchscreen monitor is bright and provides easy and intuitive control of tractor functions. The multi-function armrest integrated into the seat frame accommodates the main tractor controls.



CAB ROOF

The automatic climate controls are conveniently built into a stylish roof console. An opening transparent roof hatch provides extra visibility for loader operations.



KEY FEATURES AND BENEFITS

- › FOUR-POST CAB DESIGN WITH SPACIOUS FLAT-DECK PLATFORM – EASY ACCESS
- › INSTRUMENT PANEL TILTING WITH STEERING COLUMN – ALWAYS VISIBLE
- › VENTILATED AIR SUSPENSION SEAT WITH SWIVEL OPTIONAL – INCREASED OPERATOR COMFORT
- › DRIVER'S ARMREST WITH INTEGRATED CONTROLS – EFFORTLESS OPERATION
- › DSM TOUCHSCREEN MONITOR
- › COMFORTABLE HIDE-AWAY BUDDY SEAT – EASE OF ACCESS
- › AUTOMATIC CLIMATE CONTROL
- › HYDRAULIC CAB SUSPENSION (OPTIONAL)

Premiere Cab, a true high-tech control centre

Two years after the launch of the X7 series, the Premiere Cab has been updated with cosmetic and ergonomic upgrades to improve operator comfort and ease of operation, making long hours in the field as stress-free and comfortable as possible.

The new cab retains the same design as the previous version – a four-post frame with flat-deck platform, rear-hinged doors and one-piece panoramic windscreen that provides ease of access to the driving position and unequalled all-round visibility. The Alcantara upholstered swivel seat with dynamic air suspension system and fully automatic height adjustment features an optional backrest ventilation system and a multi-function right-hand armrest that houses the main tractor controls.

Also integrated into the armrest is a 12" DSM touchscreen monitor that controls the tractor performance and functions. The telescopic tilt-adjustable steering wheel is designed to tilt with the instrument panel.

The new cab also includes several new features as standard including an inside mirror, additional 12V sockets for portable devices, a bottle holder and a roof hatch frame. The cab is pressurized to keep a clean, dust-free environment and has a sound level of only 70 dBA, while a highly-efficient automatic climate control maintains the desired cab temperature whatever the outdoor weather conditions. To further increase operator comfort, an electronically-controlled hydraulic cab suspension system is available as an option.

KEY FEATURES AND BENEFITS

- › POWER MANAGEMENT WITH THE POWER PLUS SYSTEM – ADDITIONAL POWER FOR ROAD & PTO
- › ELECTRONIC ENGINE MANAGEMENT AND TURBO INTERCOOLER WITH COMMON RAIL INJECTION – FUEL EFFICIENT
- › EXHAUST GAS AFTER-TREATMENT WITH SCR CATALYTIC CONVERTER – LOW RUNNING COSTS AND EXCELLENT PERFORMANCE
- › CHASSIS FOR THE SIX-CYLINDER MODELS – ADDITIONAL STRENGTH AND WEIGHT
- › LOW MAINTENANCE – TRACTOR RUNNING COSTS REDUCED



POWER PLUS

The Power Plus system is designed to electronically adjust the engine power to respond to varying load conditions during transport applications or PTO operations. Four models in the X7 PS-Drive range are equipped with the Power Plus system to boost engine power up to 175 (X7.460, X7-660), 192 (X7.670) and 212 hp (X7.660) respectively, while on the X7 VT-Drive series the Power Plus system is available on all five models to increase available power to 147, 160, 176, 181 and 195 hp.



ENGINE CHASSIS FOR X7.6

The six-cylinder models feature a rugged chassis with shock absorbing rubber mounts which support the engine helping to effectively reduce noise and vibration levels within the cab.





MAINTENANCE

The tilt-up hood opens wide to provide easy access to the engine compartment for routine service and maintenance. The coolers located in front of the radiator open fully from a single latch to provide easy cleaning in dusty conditions.



ADBLUE® TANK

The Adblue® tank holds 38-litres of fluid for the SCR system which represents the best solution to meet the Tier 4 Interim emission standards.



Betapower Fuel Efficiency

Tier4 Interim engines with SCR system

All models of the X7 series are powered by the new Betapower Tier 4 Interim engines.

The X7.4 model features a 4.5L, 4-cylinder engine, while the X7.6 model is equipped with a 6.7L, 6-cylinder engine. The X7 models with PS-Drive transmission are powered by seven engines with power ratings of 143, 160 and 166 hp for the four cylinder and of 160, 165, 177 and 188 hp for the six cylinder. The X7 models with VT-Drive continuously variable transmission feature five engines with power ratings of 136, 150 and 166 hp for the four cylinder and of 172 and 181 hp for the six cylinder. Differences in power ratings between the two versions depend on the different performance of the two transmissions. All engines are equipped with turbocharger and common

rail injection system and meet the Tier 4 Interim emission regulations using the SCR system, an exhaust gas after-treatment technology that reduces exhaust emission without compromising the tractor performance. The SCR technology utilizes a second fluid (AdBlue®) that is injected from a separate tank into the exhaust stream via an injector unit. The fluid reaches the SCR catalytic converter where it reacts with the exhaust gas, thus significantly reducing NOx emissions. The optimised electronic fuel injection and the enhanced combustion efficiency, combined with the SCR system, allow these engines to deliver exceptional power with outstanding fuel economy and high torque backup, resulting in excellent flexibility and fast response to load changes.



MULTI-FUNCTION CONTROLLER FOR PRO-DRIVE TRANSMISSION

An ergonomically-designed controller integrated into the right-hand armrest provides easy and intuitive control of the PS-Drive transmission allowing the operator to shift through all gears and ranges by simply using his thumb and forefinger without depressing the clutch pedal.

The powershift button and the servo hydraulic range shifting allow seamless speed progression both in the field and on the road.

The multi-function controller incorporates our unique patented My Switch button (P) (fig. A) that allows the operator to select and activate up to four different functions: the Autoshift facility, differential lock, 4WD operation and De-clutch button. Also built into the control handle are additional buttons to operate other functions such as the rear hitch fast raise lower, speed cruise control, one remote valve and the headland management; this allows the operator to drive and operate implements without taking his hand off the armrest controller. All functions are clearly displayed on the instrument panel.

Two transmissions to choose from: PS-Drive and VT-Drive

A powerful versatile range like the X7 must be able to handle all kinds of tasks and field conditions. That's why McCormick engineers have developed two different transmissions named PS-Drive and VT-Drive that provide all the versatility and flexibility required by modern agriculture.

PS-DRIVE TRANSMISSION WITH AUTOSHIFT

The PS-Drive transmission features 24 speeds in six ranges with four powershift steps in each range. Incorporated is a robotised range shifting and electrohydraulic power shuttle providing 24 forward and 24 reverse speeds. In addition, a creep speed option provides 40 forward and 40 reverse speeds.

The PS-Drive transmission is designed to ensure the operator has the right speed for every application and offers a top speed of either 40 km/h in economy mode or 50 km/h where legally permitted.

Management of the braking system controls the brake disc oil cooling during transport, this reduces internal losses as well as reducing fuel consumption. Multi disc brakes are fitted to ensure safe positive stopping and long life.

ADDITIONAL ELECTRONIC FUNCTIONS

The electronic transmission management offers additional features that can be programmed by the operator via the pushbuttons integrated into the armrest:

- › Selectable drive off gear.
- › Range skip shifting.
- › Speed Matching: automatic powershift selection based on tractor speed.
- › Auto Powershift: automatic shifting through all powershifts with ECO/POWER modulation adjustment.
- › De-clutch button.
- › Shuttle Modulation Control: adjustment of power shuttle response (via instrument panel display).



AUTO POWERSHIFT

The Autoshift facility allows the operator to automatically select the right gear in each range to suit load conditions on the engine. The Auto Powershift (APS) will change the powershift speeds based on engine speed parameters and load for up and downshifting. These parameters can be adjusted by the APS dial in the armrest from an ECO through to a POWER setting (fig. B). Having the APS system means the operator is not continually having to press the powershift switches when operating in varying soil conditions or when travelling on the road; this reduces fatigue and allows greater concentration on the job in hand.

ELECTROHYDRAULIC POWER SHUTTLE

The X7 tractors feature a reverse power shuttle (fig. C) with neutral position that allows the operator to automatically shift from forward to reverse without use of the clutch pedal, by simply operating the shuttle control lever adjacent to the steering wheel. The shuttle response is electronically modulated and adjustable by the operator if required for different tasks.



KEY FEATURES AND BENEFITS

- › ALL TRANSMISSION CONTROLS GROUPED ON A SINGLE CONTROL POMMEL
- › ELECTRO-HYDRAULIC RANGE SHIFTING
- › AUTOPOWERSHIFT: AUTOMATIC POWERSHIFTS
- › POWER SHUTTLE WITH RESPONSE MODULATION
- › ECO MODE 40KM/HR FOR TRANSPORT OPERATIONS
- › PATENTED MY SWITCH PUSH BUTTON ACTIVATES UP TO 4 FUNCTIONS WITH JUST ONE SWITCH
- › 40 FORWARD SPEEDS + 40 REVERSE SPEEDS WITH OPTIONAL CREEPER





VT EASY PILOT MULTI-FUNCTION CONTROLLER

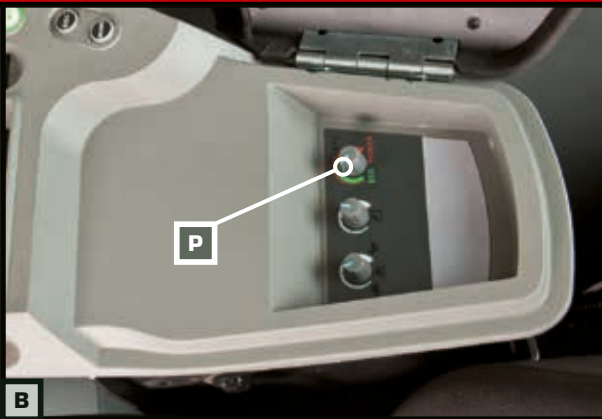
An ergonomically-designed controller named VT Easy Pilot (fig.A) integrated into the right-hand armrest provides easy and intuitive control of the VT-Drive transmission allowing the operator to shift through the four speed ranges by simply using his thumb and forefinger without depressing the clutch and the accelerator pedal.

The VT Easy Pilot controller features two orange buttons with the symbols + and -. Combining these buttons with the enable button located on the back of the controller allows the operator to select the speed range best suited for the job on hand.

After selecting the desired speed range, the operator can use the VT Easy Pilot as an accelerator by moving it forward or backward to either increase

or reduce the travel speed without using the accelerator pedal. The VT-Drive transmission also features the Remote Shuttle button (R) (fig. A) which allows the operator to shift from forward to reverse without using the shuttle control lever adjacent to the steering wheel, making for faster headland turns and front loader operations. Also built into the control handle are additional buttons to operate other functions such as the rear hitch fast raise lower, speed cruise control, one remote valve and the headland management; this allows the operator to drive and operate implements without taking his hand off the armrest controller. All functions are clearly displayed on the instrument panel and on the DSM.





ELECTROHYDRAULIC POWER SHUTTLE

The X7 tractors feature a reverse power shuttle with neutral position that allows the operator to automatically shift from forward to reverse without use of the clutch pedal, by simply operating the shuttle control lever adjacent to the steering wheel. The shuttle response is electronically modulated and adjustable by the operator if required for different tasks.



KEY FEATURES AND BENEFITS

- › ALL TRANSMISSION CONTROLS GROUPED ON THE VT EASY PILOT CONTROLLER
- › SPEED SHIFTING WITHOUT USE OF THE CLUTCH PEDAL OR THE DE-CLUTCH BUTTON
- › SOFT ACCELERATION, OPTIMUM SPEED, CONSTANT TRACTION
- › LOWER FUEL CONSUMPTION, REDUCED OPERATING COSTS
- › REMOTE SHUTTLE BUTTON

VT-Drive

continuously variable transmission

The VT-Drive transmission is a continuously variable transmission (CVT) developed by McCormick that provides an infinite number of speed ratios from zero to the maximum speed permitted in the country of use. This transmission offers four speed ranges to suit different operating requirements:

RANGE	1	CREEPER	0.5 - 3 KM/H
RANGE	2	FIELD 1	0.5 - 12 KM/H
RANGE	3	FIELD 2	0.5 - 21 KM/H
RANGE	4	TRANSPORT	0.5 - 40 or 50 KM/H

The VT-DRIVE transmission features four operating modes:

A. AUTO MODE

The electronic unit takes control of the engine speed and transmission ratio (in accordance with the settings of the droop

potentiometer (P) (fig.B) integrated into the armrest) in order to achieve the required speed.

B. MANUAL MODE

The operator sets the engine speed using the hand throttle. The electronic unit takes controls of the transmission ratio in order to achieve the required speed.

C. PTO MODE

The operator sets the engine speed using the hand throttle. The electronic unit takes control of the transmission ratio in order to achieve the required speed with the PTO on.

D. CRUISE MODE

The operator selects the tractor travel speed and this remains constant.



A

CAB AND INDEPENDENT FRONT SUSPENSION

The X7 range can be equipped with an electronically-controlled independent front suspension for extra comfort. The independent front axle system is designed to allow each wheel to absorb impacts independently of one another. This makes for better grip and greater stability compared to conventional axles, resulting in improved

driving safety. The independent front suspension allows faster travel speeds and enhances operator comfort, whether in the field or on the road (fig. A).

The suspended axle, combined with the optional electrohydraulic cab suspension (McCormick Suspended Hydro Cab) (fig. B), allows the X7 tractors to achieve superior levels of performance, ensuring maximum ride comfort and safety on all terrains.

Traction, manoeuvrability and stopping power

Outstanding traction is always guaranteed from the X7 series, the tractor is equipped with full hydraulic locking differentials at the front and rear. These can be set to work automatically using the headland management system.

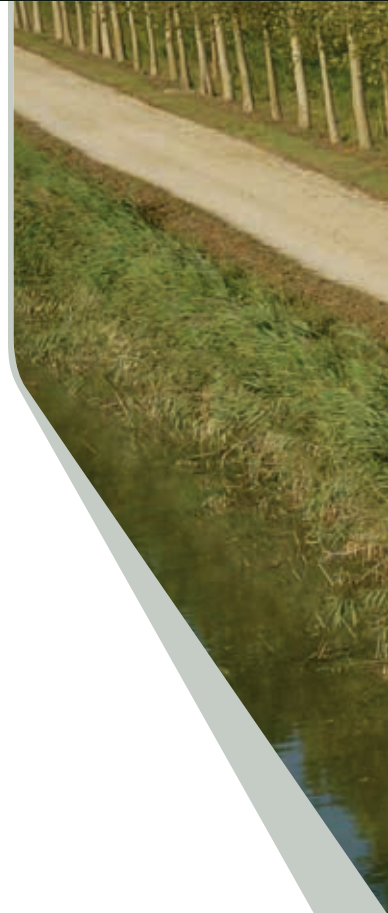
The electro hydraulic four-wheel drive engagement uses a failsafe design so it is always engaged with the engine stopped, this results in the front and rear wheels being held when the parking brake is applied thereby providing maximum safety in any situation.

High capacity wet multi-disc rear axle brakes ensure safe controlled stopping power, these are power boosted to reduce the effort required by the operator. Also when braking, the four-wheel drive engages automatically,

which in turn brakes the front axle for efficient braking on all four wheels. The tractor may be equipped with hydraulic/pneumatic trailer braking systems for total transport safety and road legislation.

OPTIMUM MANOEUVRABILITY

X7 tractors are extremely easy to handle. The four cylinder models have even greater agility and tighter turning, making them suitable for tasks where space is often limited. The 55-degree maximum steering angle and the tight turning radius – 4800 mm and 5400 mm for the X7.4 and X7.6, respectively – all make for excellent manoeuvrability, while the hydrostatic drive delivers smooth steering control even at low engine rpm.





AUTOMATIC 4WD AND DIFFERENTIAL LOCK ENGAGEMENT FOR EASY HEADLAND TURNING

All X7 Series models are equipped with combined front and rear differential locks to reduce wheel slip and maximise traction.

The system is controlled electronically through the Auto function which automatically engages or disengages the differential lock and the four-wheel drive during headland operations (fig. C).





REAR PTO

The X7 range has been designed to operate in a variety of conditions with heavy, power-demanding implements. The PTO offers four speeds: 1000, 1000Eco, 540 and 540Eco rpm and the driveline design ensures minimal power loss and therefore maximum productivity (fig. A). An electro hydraulically operated clutch (P) (fig. B) enables smooth and modulated engagement of the PTO, ensuring a soft start-up of the implement. Some models are equipped with the Power Plus system which automatically increases power available when the PTO is operational. This enables the engine to maintain a constant power as the load varies, allowing optimum use of the PTO for enhanced tractor performance and productivity.

External PTO and hitch controls are located on the rear fenders making it easier to attach implements from the ground and control the PTO when using tanker for example (fig. C).





C



D

AUTO PTO FUNCTION

The Auto PTO feature will automatically disengage and reengage the PTO at three-point linkage heights set by the operator. This reduces implement driveline damage and gives the operator precise control of the implement during headland turns (fig.B).



E

FRONT HITCH AND PTO

A front hitch and PTO are available as an option to add greater versatility to the tractor for applications using front-mounted implements and rear and front implement combinations (fig. E). When not in use it can be folded to reduce overall length. Control switches at the front allow the operator to raise and lower the hitch for easier implement hook up.



KEY FEATURES AND BENEFITS

- › CLOSED-CENTRE HYDRAULIC SYSTEM
- › ELECTRONICALLY-CONTROLLED REAR HITCH
- › 4-SPEED PTO AS STANDARD
- › CONSTANT PTO POWER WITH THE POWER PLUS SYSTEM
- › UP TO 7 DEDICATED ELECTROHYDRAULIC REMOTE VALVES
- › FRONT HITCH AND PTO OPTION
- › ISOBUS AND SATELLITE GUIDING SYSTEM

A unique mix of hydraulics and electronics

LOAD-SENSING HYDRAULIC SYSTEM

The X7 series tractors feature 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 has a total flow of 167 l/min and supplies up to 123 l/min to the hitch and remote valves, allowing for simultaneous operation of all hydraulic functions.

ELECTRONICALLY-OPERATED REAR HITCH

With the raise/lower control (S) (fig.B) conveniently located on the multi-function controller and the main settings integrated into the right-hand console, the rear hitch guarantees precise

implement operation. Offering a maximum lift capacity of 9300 kg, the three-point hitch is Category III and is equipped with lower link draft sensing for accurate implement control.

REMOTE VALVES

The X7 tractors can be fitted with up to seven electro hydraulically-controlled double-acting remote valves. One valve is controlled by the multi-function controller and four are operated via fingertip controls integrated into the armrest which also includes a mini-joystick that operates the remaining two valves to control either a front hitch or a front loader (fig. B, D). All valves can be set to operate for specific times or drive hydraulic motors, hydraulic power beyond is also built into for those machines requiring a dedicated oil supply.



IMPLEMENT CONTROL WITH ISOBUS

The X7 series can be optionally equipped with an ISOBUS system meeting the ISO-11783 standard, which allows the operator to control the implements without having to install a dedicated control unit inside the cab. The system utilizes the tractor CANBUS network and allows the operator to manage the implement operating parameters and performance via a dedicated menu in the DSM monitor.

The ISOBUS system allows communication between tractor, implement and on-board computer by synchronising the data exchange for improved operating efficiency.



Satellite-based guidance system

The optional satellite-based guidance system is controlled via a dedicated 8.4" touchscreen monitor in conjunction with a satellite antenna fitted on the roof of the tractor cab (fig. A, B).

THE MONITOR MANAGES TWO FUNCTIONS:

- A. PSM- Precision Steering Management for control of the satellite guidance system. Specially designed for professional farmers, this technology delivers up to 2 cm accuracy with RTK guidance system, making it ideal for field applications. Greater accuracy means lower cost per worked unit area. Supplied in conjunction with the satellite guidance system is also the Eazysteer quick steering system with dynamic management which allows the tractor to make a complete turn by turning the steering wheel about one full revolution.. This avoids multiple turns of the steering wheel, thereby improving the ride comfort and optimising the working time.
- B. Configuration and control of the ISOBUS system with management of advanced implement section and task controller functions. The ISOBUS system can be controlled also via the DSM monitor.



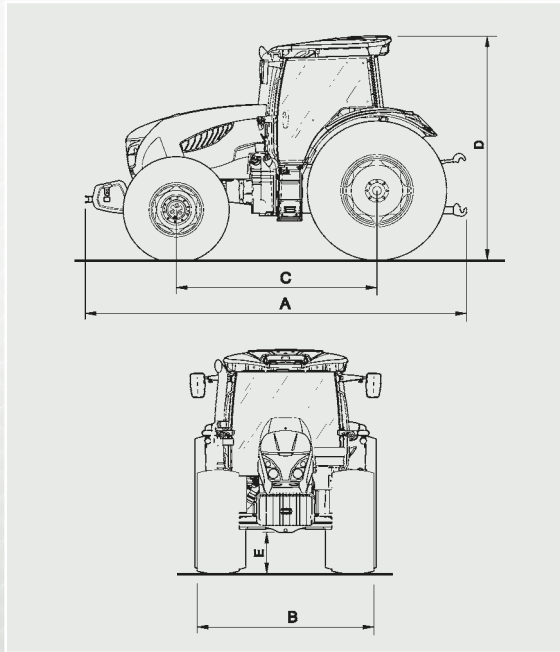


TECHNICAL DATA - MODELS WITH PS-DRIVE TRANSMISSION		X7.440 PS DRIVE	X7.450 PS DRIVE	X7.460 PS DRIVE	X7.650 PS DRIVE	X7.660 PS DRIVE	X7.670 PS DRIVE	X7.680 PS DRIVE
ENGINE								
TIER 4 INTERIM / STAGE 3B		BETAPOWER	BETAPOWER	BETAPOWER	BETAPOWER	BETAPOWER	BETAPOWER	BETAPOWER
ELECTRONIC HIGH PRESSURE COMMON RAIL		●	●	●	●	●	●	●
TURBO/AIR-TO-AIR INTERCOOLER		●	●	●	●	●	●	●
MAX. ENGINE POWER WITH POWER PLUS AT 1900 RPM (ISO TR 14396 ECE R120)	HP/KW	—	—	175/129	—	175/129	192/141	212/156
RATED ENGINE POWER WITH POWER PLUS AT 2200 RPM (ISO TR 14396 ECE R120)	HP/KW	—	—	170/125	—	170/125	188/138	205/151
MAX. ENGINE POWER AT 1900 RPM (ISO TR 14396 ECE R120)	HP/KW	143/105	160/118	166/122	160/118	165/121	177/130	188/138
RATED ENGINE POWER AT 2200 RPM (ISO TR 14396 ECE R120)	HP/KW	135/99	152/112	160/118	152/112	159/117	166/122	181/133
RATED ENGINE SPEED	RPM	2200	2200	2200	2200	2200	2200	2200
MAX. TORQUE (WITH POWER PLUS) (ISO TR 14396 ECE R120)	NM	590 (-)	676 (-)	680 (700)	676 (-)	632 (726)	726 (810)	810 (867)
ENGINE RPM @ MAX. TORQUE (WITH POWER PLUS)	RPM	1500 (-)	1500 (-)	1500 (1500)	1500 (-)	1500 (1500)	1500 (1500)	1500 (1500)
ENGINE RPM @ MAX. POWER (WITH POWER PLUS)	RPM	1800 (-)	1800 (-)	1800 (1800)	1800 (-)	1800 (1800)	1800 (1800)	1800 (1800)
TORQUE RISE (WITH POWER PLUS)		41% (-)	41% (-)	41% (29%)	41% (-)	41% (37%)	41% (45%)	37% (37%)
BORE / STROKE	MM	104 / 132	104 / 132	104 / 132	104 / 132	104 / 132	104 / 132	104 / 132
DISPLACEMENT (CM ³) / NO. OF CYLINDERS/ NO. OF VALVES		4500 / 4 / 16	4500 / 4 / 16	4500 / 4 / 16	6728 / 6 / 24	6728 / 6 / 24	6728 / 6 / 24	6728 / 6 / 24
COMPRESSION RATIO		17:1	17:1	17:1	17:1	17:1	17:1	17:1
WATER COOLING		●	●	●	●	●	●	●
AXIAL AIR FILTER WITH CYCLONE PRE-CLEANING		●	●	●	●	●	●	●
AIR FILTER EJECTOR		●	●	●	●	●	●	●
S.C.R. EXHAUST SYSTEM		●	●	●	●	●	●	●
ADBLUE TANK CAPACITY	L	38	38	38	38	38	38	38
FUEL TANK CAPACITY	L	280	280	280	320	320	320	320
CLUTCH								
MULTI-DISC WET CLUTCH		●	●	●	●	●	●	●
PS-DRIVE TRANSMISSION								
PS-DRIVE + POWER SHUTTLE: 24FWD+24REV (4 POWERSHIFT SPEEDS IN 6 RANGES)		●	●	●	●	●	●	●
PS-DRIVE+CREEPER+POWER SHUTTLE: 40FWD+40REV(4 POWERSHIFT SPEEDS IN 6 RANGES)		○	○	○	○	○	○	○
ELECTRO-HYDRAULIC RANGE SHIFTING		●	●	●	●	●	●	●
ECO FOURTY (40 KM/H) AT REDUCED ENGINE SPEED		●	●	●	●	●	●	●
TOP FIFTY (50 KM/H)		○	○	○	○	○	○	○
REVERSE POWER SHUTTLE		●	●	●	●	●	●	●
ELECTROHYDRAULIC DIFFERENTIAL LOCK ON REAR AXLE		●	●	●	●	●	●	●
FLANGED-TYPE AXLE		●	●	●	●	●	●	●
BAR-TYPE AXLE		○	○	○	○	○	○	○
POWER TAKE-OFF								
WET MULTI-DISC PTO CLUTCH		●	●	●	●	●	●	●
MODULATED ELECTROHYDRAULIC ENGAGEMENT		●	●	●	●	●	●	●
FOUR SPEEDS: 540/540E/1000/1000E RPM		●	●	●	●	●	●	●
1 3/8 PTO SHAFT WITH 6 AND 21 SPLINES		●	●	●	●	●	●	●
FRONT 4WD AXLE								
RIGID TYPE		●	●	●	●	●	●	●
WITH ELECTRONICALLY-CONTROLLED HYDRAULIC SUSPENSIONS		○	○	○	○	○	○	○
ELECTROHYDRAULIC 4WD ENGAGEMENT		●	●	●	●	●	●	●
MAX. STEERING ANGLE		55°	55°	55°	55°	55°	55°	55°
ELECTROHYDRAULIC DIFFERENTIAL LOCK		●	●	●	●	●	●	●
TURNING RADIUS	MM	4800	4800	4800	4900	4900	5400	5400
BRAKING SYSTEM								
WET MULTI-DISC REAR BRAKES		●	●	●	●	●	●	●
AUTOMATIC 4WD ENGAGEMENT ON BRAKING		●	●	●	●	●	●	●
BRAKING BOOSTER SYSTEM SERVO BRAKE		●	●	●	●	●	●	●
HYDRAULIC TRAILER BRAKING		○	○	○	○	○	○	○
PNEUMATIC TRAILER BRAKING		○	○	○	○	○	○	○

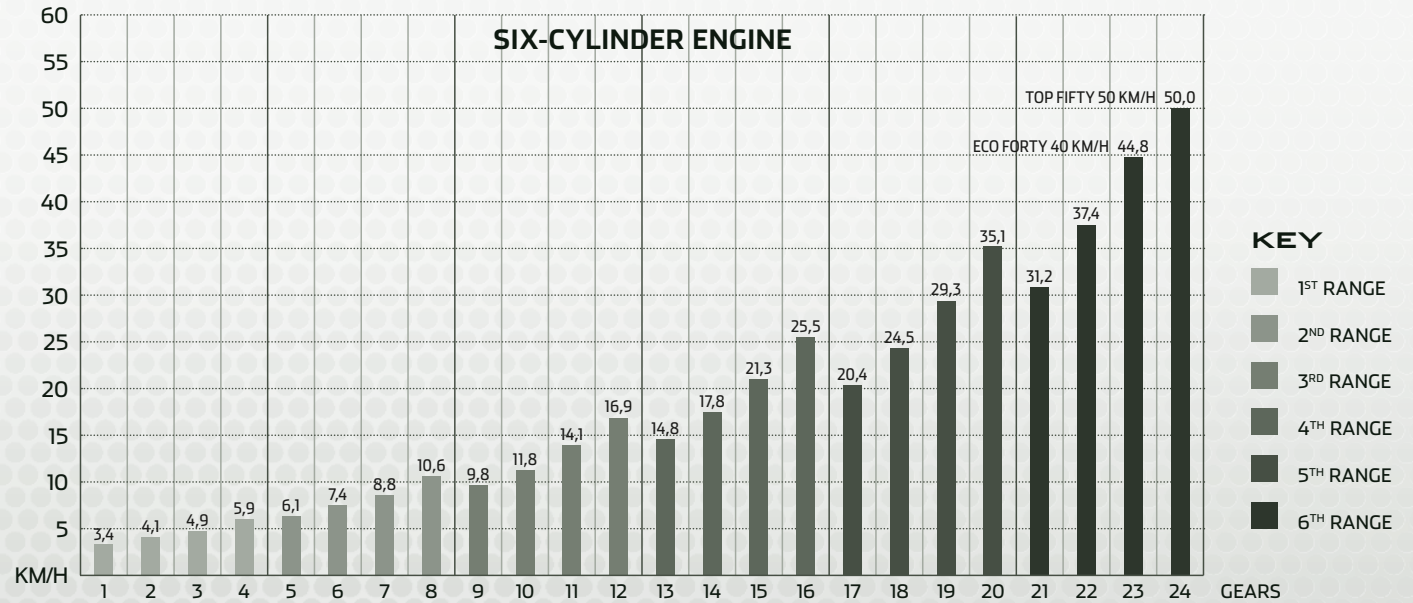
Key: ● standard ○ option — non available

TECHNICAL DATA - MODELS WITH PS-DRIVE TRANSMISSION		X7.440 PS DRIVE	X7.450 PS DRIVE	X7.460 PS DRIVE	X7.650 PS DRIVE	X7.660 PS DRIVE	X7.670 PS DRIVE	X7.680 PS DRIVE
HYDRAULIC SYSTEM								
OPEN-CENTRE CIRCUIT (EFFICIENT MODEL)		●	●	●	●	●	●	●
HYDRAULIC PUMP FLOW (EFFICIENT MODEL)	L/MIN	88	88	88	88	88	88	88
STEERING PUMP FLOW (EFFICIENT MODEL)	L/MIN	44	44	44	44	44	44	44
CLOSED-CENTRE CIRCUIT (PREMIUM MODEL)		●	●	●	●	●	●	●
HYDRAULIC PUMP FLOW (PREMIUM MODEL)	L/MIN	123	123	123	123	123	123	123
STEERING PUMP FLOW (PREMIUM MODEL)	L/MIN	44	44	44	44	44	44	44
ELECTROHYDRAULICALLY-CONTROLLED REMOTE VALVES (EFFICIENT MODEL)	STD/OPT	2/4 - 6	2/4 - 6	2/4 - 6	2/4 - 6	2/4 - 6	2/4 - 6	2/4 - 6
ELECTROHYDRAULICALLY-CONTROLLED REMOTE VALVES (PREMIUM MODEL)	STD/OPT	3/5 - 7	3/5 - 7	3/5 - 7	3/5 - 7	3/5 - 7	3/5 - 7	3/5 - 7
CAN BUS LIFT CONTROL HITCH								
ELECTRONICALLY-CONTROLLED HITCH		●	●	●	●	●	●	●
FUNCTIONS: POSITION, MIXED AND FLOAT CONTROL, SHOCK ABSORBER		●	●	●	●	●	●	●
MAX. LIFT CAPACITY (EFFICIENT MODEL)	KG	6300	6300	6300	6300	6300	6300	6300
MAX. LIFT CAPACITY (PREMIUM MODEL)	KG	9300	9300	9300	9300	9300	9300	9300
DRAFT SENSING ON LOWER LINKS		●	●	●	●	●	●	●
THREE-POINT HITCH	CAT.	3N / 3	3N / 3	3N / 3	3N / 3	3N / 3	3	3
FRONT HITCH AND PTO (LIFT CAPACITY KG)		3500 ○	3500 ○	3500 ○	3500 ○	3500 ○	3500 ○	3500 ○
CAB AND DRIVING POSITION								
PREMIERE CAB WITH FOUR-POST DESIGN AND FLAT-DECK PLATFORM		●	●	●	●	●	●	●
MCCORMICK SUSPENDED HYDRO CAB-ELECTRONICALLY-CONTROLLED HYDRAULIC CAB SUSPENSION		○	○	○	○	○	○	○
HEATING / VENTILATION		●	●	●	●	●	●	●
AIR-CONDITIONING (EFFICIENT MODEL)		●	●	●	●	●	●	●
CLIMATE CONTROL (PREMIUM MODEL)		●	●	●	●	●	●	●
DIGITAL INSTRUMENT PANEL WITH PERFORMANCE MONITOR		●	●	●	●	●	●	●
SUPER DELUXE AIR SUSPENSION SEAT WITHOUT ARMREST (EFFICIENT MODEL)		●	●	●	●	●	●	●
SUPER DELUXE AIR SUSPENSION SEAT WITH ARMREST (PREMIUM MODEL)		●	●	●	●	●	●	●
DELUXE LOW-FREQUENCY AIR SUSPENSION SEAT WITH VENTILATION AND ARMREST (PREMIUM MODEL)		○	○	○	○	○	○	○
RADIO / BLUETOOTH / MP3 READY		●	●	●	●	●	●	●
ISOBUS ADAPTOR		○	○	○	○	○	○	○
12" DSM TOUCHSCREEN MONITOR		○	○	○	○	○	○	○
SATELLITE GUIDANCE KIT (8" MONITOR + ANTENNA)		○	○	○	○	○	○	○
HIDE AWAY BUDDY SEAT + AIR-CONDITIONED IN-CAB STORAGE COMPARTMENT		●	●	●	●	●	●	●
LED LIGHTS		●	●	●	●	●	●	●
DIMENSIONS AND WEIGHTS								
FRONT TYRES		540/65R28	540/65R28	540/65R28	540/65R28	540/65R28	540/65R30	540/65R30
REAR TYRES		650/65R38	650/65R38	650/65R38	650/65R38	650/65R38	650/65R42	650/65R42
A - MAX. LENGTH (WITH BALLAST WEIGHTS)	MM	5070	5070	5070	5260	5260	5360	5360
B - MIN. WIDTH	MM	2430	2430	2430	2430	2430	2430	2430
C - WHEELBASE	MM	2600	2600	2600	2750	2750	2820	2820
D - HEIGHT OVER CAB	MM	2920	2920	2920	2920	2920	3055	3055
E - GROUND CLEARANCE	MM	485	485	485	550	550	550	550
WEIGHT WITH EMPTY TANK, WITHOUT BALLAST WEIGHTS	KG	6400	6400	6400	6810	6810	7010	7010
OPTIONAL EQUIPMENT								
FRONT BALLAST WEIGHTS 45 KG EACH		16	16	16	16	16	16	16
FRONT HITCH (MAX. LIFT CAPACITY)	KG	3500 ○	3500 ○	3500 ○	3500 ○	3500 ○	3500 ○	3500 ○
FRONT HITCH AND PTO		○	○	○	○	○	○	○
FRONT WEIGHT FOR HITCH 800 KG		○	○	○	○	○	○	○
FRONT WEIGHT FOR HITCH 1400 KG		○	○	○	○	○	○	○

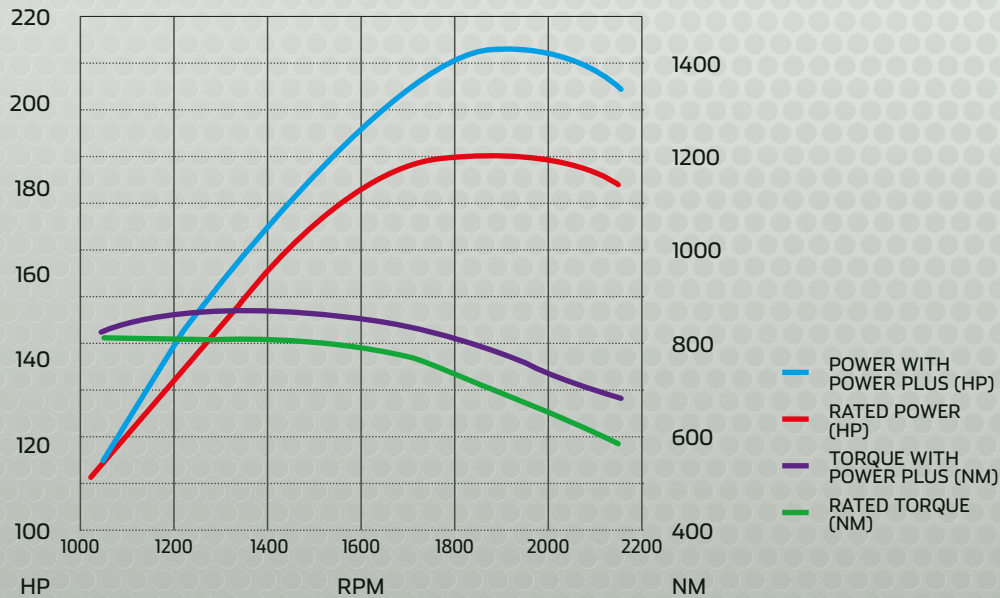
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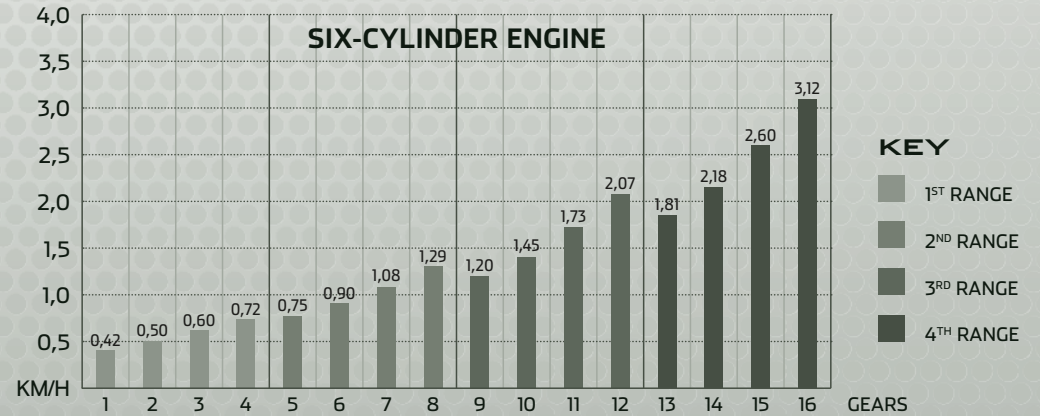
SPEEDS WITH 540/65R30 OR 650/65R42 TYRES AT 2200 RPM



ENGINE POWER MANAGEMENT WITH POWER PLUS



CREEP SPEED IN THE 1ST TO 4TH RANGE WITH 540/65R30 OR 650/65R42 TYRES AT 2200 RPM

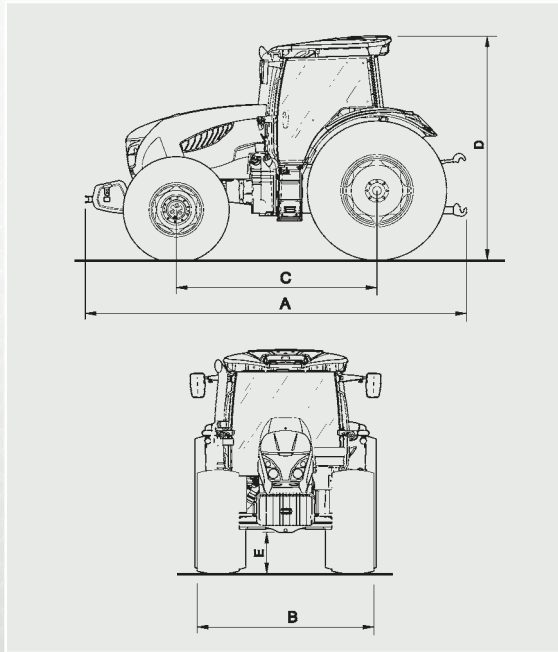


TECHNICAL DATA - MODELS WITH VT-DRIVE TRANSMISSION		X7.440 VT DRIVE	X7.450 VT DRIVE	X7.460 VT DRIVE	X7.660 VT DRIVE	X7.670 VT DRIVE
ENGINE						
TIER 4 INTERIM / STAGE 3B		BETAPOWER	BETAPOWER	BETAPOWER	BETAPOWER	BETAPOWER
ELECTRONIC HIGH PRESSURE COMMON RAIL		●	●	●	●	●
TURBO/AIR-TO-AIR INTERCOOLER		●	●	●	●	●
MAX. ENGINE POWER WITH POWER PLUS AT 1900 RPM (ISO TR 14396 ECE R120)	HP/KW	147/108	160/118	176/129	181/133	195/143
RATED ENGINE POWER WITH POWER PLUS AT 2200 RPM (ISO TR 14396 ECE R120)	HP/KW	136/100	152/112	170/125	175/129	191/140
MAX. ENGINE POWER AT 1900 RPM (ISO TR 14396 ECE R120)	HP/KW	136/100	150/111	166/122	172/126	181/133
RATED ENGINE POWER AT 2200 RPM (ISO TR 14396 ECE R120)	HP/KW	124/91	140/103	159/117	165/121	176/129
RATED ENGINE SPEED	RPM	2200	2200	2200	2200	2200
MAX. TORQUE (WITH POWER PLUS) (ISO TR 14396 ECE R120)	NM	581 (620)	633 (671)	693 (693)	718 (765)	752 (810)
TORQUE RISE (WITH POWER PLUS)		47% (43%)	41% (38%)	37% (28%)	36% (37%)	34% (33%)
BORE / STROKE	MM	104 / 132	104 / 132	104 / 132	104 / 132	104 / 132
DISPLACEMENT / NO. OF CYLINDERS / NO. OF VALVES	CM ³	4500 / 4 / 16	4500 / 4 / 16	4500 / 4 / 16	6728 / 6 / 24	6728 / 6 / 24
COMPRESSION RATIO		17.1:1	17.1:1	17.1:1	17.1:1	17.1:1
WATER COOLING		●	●	●	●	●
AXIAL AIR FILTER WITH CYCLONE PRE-CLEANING		●	●	●	●	●
AIR FILTER EJECTOR		●	●	●	●	●
S.C.R. EXHAUST SYSTEM		●	●	●	●	●
ADBLUE TANK CAPACITY	L	38	38	38	38	38
FUEL TANK CAPACITY	L	280	280	280	320	320
CLUTCH						
MULTI-DISC WET CLUTCH		●	●	●	●	●
VT-DRIVE TRANSMISSION						
VT-DRIVE CONTINUOUSLY VARIABLE TRANSMISSION (4 RANGES CVT)		●	●	●	●	●
ECO FORTY (40 KM/H) AT REDUCED ENGINE SPEED		●	●	●	●	●
TOP FIFTY (50 KM/H)		○	○	○	○	○
REVERSE POWER SHUTTLE		●	●	●	●	●
ELECTROHYDRAULIC DIFFERENTIAL LOCK ON REAR AXLE		●	●	●	●	●
FLANGED-TYPE AXLE		●	●	●	●	●
BAR-TYPE AXLE		○	○	○	○	○
POWER TAKE-OFF						
WET MULTI-DISC PTO CLUTCH		●	●	●	●	●
MODULATED ELECTROHYDRAULIC ENGAGEMENT		●	●	●	●	●
4 SPEEDS: 540/540E/1000/1000E RPM		●	●	●	●	●
1 3/8 PTO SHAFT WITH 6 AND 21 SPLINES		●	●	●	●	●
FRONT 4WD AXLE						
RIGID TYPE		●	●	●	●	●
WITH ELECTRONICALLY-CONTROLLED HYDRAULIC SUSPENSIONS		○	○	○	○	○
ELECTROHYDRAULIC 4WD ENGAGEMENT		●	●	●	●	●
MAX. STEERING ANGLE		55°	55°	55°	55°	55°
ELECTROHYDRAULIC TWIN-LOCK DIFFERENTIAL LOCK		●	●	●	●	●
TURNING RADIUS	MM	4800	4800	4800	4900	5400
BRAKING SYSTEM						
WET MULTI-DISC REAR BRAKES		●	●	●	●	●
AUTOMATIC 4WD ENGAGEMENT ON BRAKING		●	●	●	●	●
BRAKING BOOSTER SYSTEM SERVO BRAKE		●	●	●	●	●
HYDRAULIC TRAILER BRAKING		○	○	○	○	○
PNEUMATIC TRAILER BRAKING		○	○	○	○	○

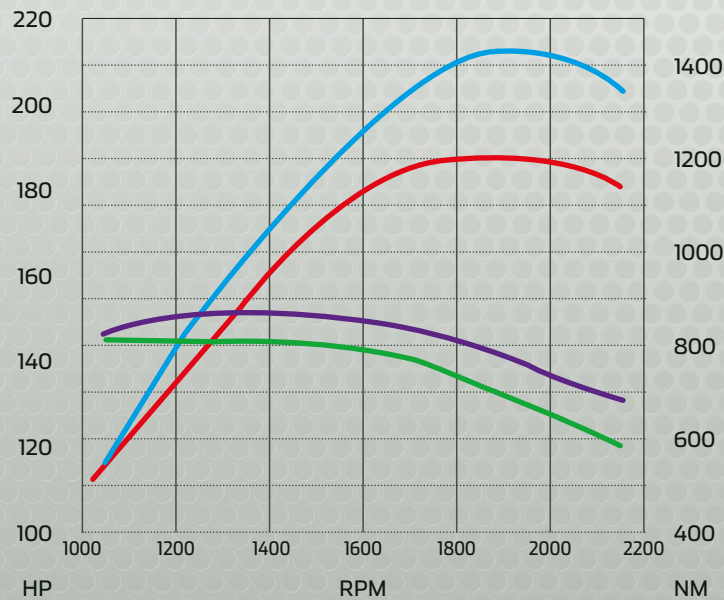
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TECHNICAL DATA - MODELS WITH VT-DRIVE TRANSMISSION		X7.440 VT DRIVE	X7.450 VT DRIVE	X7.460 VT DRIVE	X7.660 VT DRIVE	X7.670 VT DRIVE
HYDRAULIC SYSTEM						
CLOSED-CENTRE CIRCUIT		●	●	●	●	●
HYDRAULIC PUMP FLOW	L/MIN	123	123	123	123	123
STEERING PUMP FLOW	L/MIN	44	44	44	44	44
ELECTROHYDRAULICALLY-CONTROLLED REMOTE VALVES	STD/OPT	3/5 - 7	3/5 - 7	3/5 - 7	3/5 - 7	3/5 - 7
"CAN BUS LIFT CONTROL" HITCH						
ELECTRONICALLY-CONTROLLED HITCH		●	●	●	●	●
MAX. LIFT CAPACITY	KG	9300	9300	9300	9300	9300
DRAFT SENSING ON LOWER LINKS		●	●	●	●	●
THREE-POINT HITCH	CAT.	3N / 3	3N / 3	3N / 3	3N / 3	3
CAB AND DRIVING POSITION						
PREMIERE CAB WITH FOUR-POST DESIGN AND FLAT-DECK PLATFORM		●	●	●	●	●
MCCORMICK SUSPENDED HYDRO CAB-ELECTRONICALLY-CONTROLLED HYDRAULIC CAB SUSPENSION		○	○	○	○	○
CLIMATE CONTROL		●	●	●	●	●
DIGITAL INSTRUMENT PANEL WITH PERFORMANCE MONITOR		●	●	●	●	●
SUPER DELUXE AIR SUSPENSION SEAT WITH ARMREST		●	●	●	●	●
DELUXE LOW-FREQUENCY AIR SUSPENSION SEAT WITH VENTILATION AND ARMREST		○	○	○	○	○
RADIO / BLUETOOTH / MP3 READY		●	●	●	●	●
ISOBUS ADAPTOR		○	○	○	○	○
12" DSM TOUCHSCREEN MONITOR		●	●	●	●	●
SATELLITE GUIDANCE KIT (8" MONITOR + ANTENNA)		○	○	○	○	○
HIDE AWAY BUDDY SEAT + AIR-CONDITIONED IN-CAB STORAGE COMPARTMENT		●	●	●	●	●
LED LIGHTS		●	●	●	●	●
DIMENSIONS AND WEIGHTS						
FRONT TYRES		540/65R28	540/65R28	540/65R28	540/65R28	540/65R30
REAR TYRES		650/65R38	650/65R38	650/65R38	650/65R38	650/65R42
A - MAX. LENGTH (WITH BALLAST WEIGHTS)	MM	5070	5070	5070	5260	5360
B - MIN. WIDTH	MM	2430	2430	2430	2430	2430
C - WHEELBASE	MM	2600	2600	2600	2820	2820
D - HEIGHT OVER CAB	MM	2920	2920	2920	2920	3055
E - GROUND CLEARANCE	MM	485	485	485	550	550
WEIGHT WITH EMPTY TANK, WITHOUT BALLAST WEIGHTS	KG	6850	6850	6850	7160	7360
OPTIONAL EQUIPMENT						
FRONT BALLAST WEIGHTS 45 KG EACH		16	16	16	16	16
FRONT HITCH (MAX. LIFT CAPACITY)	KG	3500 ○	3500 ○	3500 ○	3500 ○	3500 ○
FRONT HITCH AND PTO		○	○	○	○	○
FRONT WEIGHT FOR HITCH 800 KG		○	○	○	○	○
FRONT WEIGHT FOR HITCH 1400 KG		○	○	○	○	○

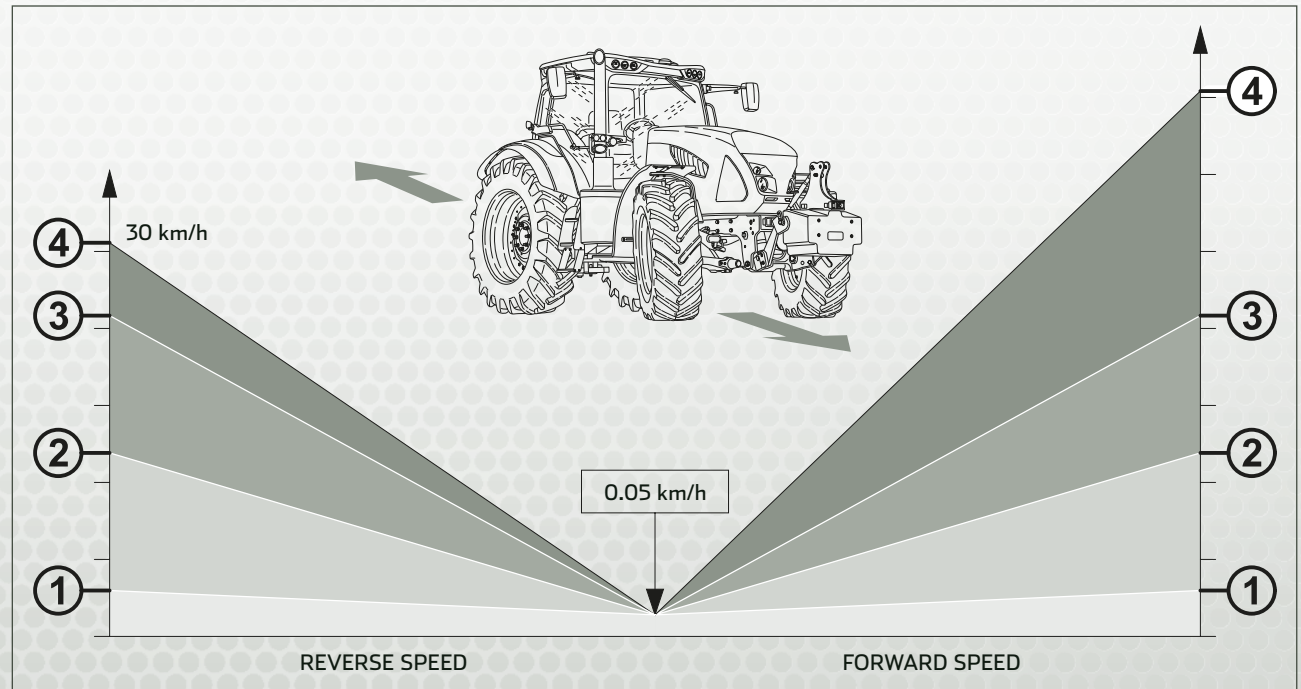
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ENGINE POWER MANAGEMENT WITH POWER PLUS



TRAVEL SPEED



SPEED RANGE	MAXIMUM SPEED (FORWARD)
1	3 KM/H
2	12 KM/H
3	21 KM/H
4	40 KM/H or 50 KM/H

SPEED RANGE	MAXIMUM SPEED (REVERSE)
1	3 KM/H
2	12 KM/H
3	21 KM/H
4	30 KM/H



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