

T-Max

80 · 90 · 100 · 110 · 115

TECHNO / TOP

ARGOTRACTORS
PRODUCT LIFECYCLE MANAGEMENT
FABBRICO



Product guide

INTRODUCTION	2
THE RANGE	3
PRESENTATION TO THE CUSTOMER	4
SALES TOPICS	5
DESIGN AND CAB	7
COCKPIT	8
DASHBOARD	9
ACCESS TO THE COCKPIT	9
WORK ENVIRONMENT IN THE CAB	10
AIR CONDITIONING	11
FIELD LIGHTS	12
ENGINES	13
GEARBOX	14
SPEEDFOUR STANDARD GEARBOX	15
SPEEDFOUR GEARBOX WITH OVERDRIVE	17
POWERFOUR GEARBOX	20
T-TRONIC GEARBOX	23
PARK LOCK	27
POWER TAKE-OFF	31
DIFFERENTIAL LOCK	31
4WD FRONT AXLE	32
STEERING SYSTEM	33
BRAKES	34
THREE-POINT HITCH	35
REAR TOW HOOKS	37
MECHANICAL POWER LIFT	39
ELECTRONIC POWER LIFT + E.L.S.	41
HYDRAULIC CIRCUITS	42
AUXILIARY CONTROL VALVES	43
MAINTENANCE	45
WEIGHTS AND DIMENSIONS FOOTSTEP	47
WEIGHTS AND DIMENSIONS CAB	49
TYRES - TRACK WIDTHS	52
SPECIFICATIONS	53
COMPARISONS	54

Series T-Max comprises agricultural tractors, the function of which mainly derives from a lugging power specifically designed to pull, push, carry or operate certain interchangeable implements for agricultural use or to tow agricultural trailers.

The T-Max Series tractors have been designed in compliance with Machine Directive DM 2006/42/EC governing the safe use of agricultural tractors: the customer is thus assured that the machine he purchases is equipped with all those improvements and devices able to safeguard the operator.

This manual is valid for world-wide use. The specifications and options may vary without prior notice.

Consult the price list for detailed information about individual models and the basic standard and optional equipment.



T-MAX Series

technological evolution

T80Max - T90Max

T100Max - T110Max

T115Max

Techno and Top versions



The T-Max Series tractors are the technological evolution of the C-Max range of which they have inherited the cab and wheelbase, while the gearbox with three Powershift ranges, the epicyclic final drives and the power lift all come from the Powermondial range. The T-Max Series represents McCormick's new technical goal when it comes to medium power tractors able to meet the requirements of the modern and demanding farmer.

All the models are equipped with Perkins 1104D engines that comply with Tier 3 standards and are able to provide excellent power at high torque levels: aspirated for the 80 version, turbocharged for the 90 version and the TA turboaftercooler engine for the 100, 110 and 115 flagship models.

Two different transmissions are available: SpeedFour and T-Tronic. SpeedFour is the mechanical version with 12FWD+12REV speeds which, in conjunction with the reverse shuttle and creeper (on request) provides 16FWD+16REV speeds with a 30 kph top speed. This version is also available with the Overdrive gearbox and 40 kph top speed and 36FWD+12REV speeds in conjunction with the creeper (on request). T-Tronic is a gearbox with 12 ratios which, in conjunction with 3 Powershift High Medium Low hydraulic clutch assemblies on load that triplicate the basic speed plus the electrohydraulic reverse shuttle, provides a total 48FWD+16REV speeds when the creeper is installed (on request).

The reliable, powerful and versatile electrohydraulic PTO is part of the standard equipment on all the models. It features 2 standard speeds (540/100) plus the optional 540ECO (3 speeds are available on request).

The front axle, with 55° maximum steering angle and electrohydraulic engagement, is equipped with oil-cooled brakes for the utmost braking efficiency.

The T-Tronic version also features an electronic power lift with Class 2 three-point hitch and a high lifting capacity which, in conjunction with the auxiliary control valves, allows the operator to control all types of implement. In the Techno version, the Load Sensing mechanical power lift with draft control of the lower links ensures an excellent operating capacity and adequate control of the implements.

The T-Max Series is available in the cab and footstep versions. The cab with 4 pillars and generously sized doors hinged at the rear provides total visibility in all directions and the utmost in comfort thanks to the layout of the controls and the air conditioning system.

The T-Max Series offers medium and large farms modern and performance-oriented tractors created by the winning technology that McCormick has always used for machines that guarantee the utmost in productivity and quality.



THE RANGE

T-Max Series tractors cover the **54 to 81 kW ISO** power bracket and meet the requirements of medium size and large farms that need versatile tractors for demanding work in the open fields or for transporting materials. They are also ideal for farm-contractors who need powerful, reliable, versatile and comfortable machines.

T-Max Series is a range of all-purpose tractors with **four** driving wheels that includes 4 cab and footstep models.

These modern tractors are equipped with a new transmission that's ideal for open field work, general use, for transporting materials and lifting loads.

CAB & FOOTSTEP MODELS		
80	74 HP / 54.5 kW ISO Perkins	1104D-44
90	83 HP / 61 kW ISO Perkins	1104D-44T
100	92.5 HP / 68 kW ISO Perkins	1104D-44TA
110	102 HP / 75 kW ISO Perkins	1104D-44TA
115	110.2 HP / 81 kW ISO Perkins	1104D-44TA

SPECIFICATIONS

Four Models 74 HP - 83 HP - 92 HP - 102 HP - 110.2 HP.
 High-range technical specifications.
 Techno - Speedfour transmission with 4 ratios and reverse shuttle
 T-Tronic transmission with 3 HML ranges on load and 4 gear ratios.
 Cab with 4 pillars.
 New hydraulic power lift and hydraulically engaged PTO.

ADVANTAGES AND BENEFITS

Power chosen to suit the customer's specific requirements. Up to date, modern range that maintains its value.
 Higher productivity and versatile use.
 Efficient, productive, versatile and comfortable to use
 High-level comfort.
 Excellent performance, versatile. All types of implement can be hitched.

PRESENTATION TO THE CUSTOMER

The product

- **Cab with 4 pillars** , large windows providing all-round visibility and transparent roof.
- **New boosted ventilation and air conditioning system** installed in the roof so as to improve both air circulation and efficiency.
- **New engines** that conform to the Tier 3 directives governing emissions, with high-level maximum torque.
- **New mechanical transmission** with 4 ratios and improved mesh, in conjunction with a mechanical reverse shuttle.
- **T-Tronic transmission with electrohydraulic reverse shuttle and gearbox with 3 HML ranges on load.**
- **Hydraulic circuit** featuring tip-top safety standards and a high lifting capacity.
- **Hydraulically engaged PTO.**
- **New Load Sensing mechanical power lift which detects the lugging power sustained by the lower links.** External control lever (on request).
- **New electronic power lift with a new control panel, which detects the lugging power sustained by the lower links.** (on request)



Technical-Commercial Denomination	
Top Techno Speedfour	Version with high-level specifications Version with basic specifications Gearbox with mechanical reverse shuttle
Powershuttle T-Tronic	Hydraulic reverse shuttle Electro-hydraulic gearbox with 3 ranges HML: High-Medium-Low

ALWAYS REMEBERS
<ul style="list-style-type: none"> - Choose the customer with care. - Fully assess his requirements. - Explain the technical features and technological innovations in these tractors. - Assess the advantages offered by our product

Customer profile

- Medium-size tractor users.
- Users loyal to the McCormick brand.
- New customers who want an extremely comfortable machine with ground-breaking technical features.
- Customers who care about the quality/price ratio.

Reasons for the choice

- The T-Max Series is a range that responds perfectly to the needs of the 74 to 110 HP tractor market.
- Spacious cab with excellent visibility and controls in ergonomic positions.
- T-Tronic transmission with PowerShuttle electrohydraulic reverse shuttle and gearbox with 3 HML ranges for the Top version.
- Speedfour transmission with a valid combination of mechanical reverse shuttle and 4-speed selection in the Techno version.
- Highly versatile, productive and generously sized hydraulic circuit.

SALES TOPICS

1 Bonnet

Modern, pioneering and attractive design in line with the state-of-the-art.

2 Perkins 1104D Series Tier 3 engine with 4 cylinders, Mod.80 aspirated, Mod. 90 turbo, Mod.100-110-115 turbo aftercooler. High performance with a low impact on the environment.

3 Total View cab

A new and extremely comfortable cab. **Heating - Ventilating and Air conditioning:** The operator can create the ideal temperature in the cab.

4 4WD front axle

Electrohydraulic 4WD and 55° steering angle.

5 Twin-Lock

Simultaneous locking of the front and rear differentials.

6 IBS: Integral Braking System

Integral braking on the 4 wheels.

7 4WD engagement, "Spring-On" type

Electrohydraulic 4WD engagement. The 4WD remains engaged or disengages automatically when the engine stops for the utmost safety.

8 Transmission - Gearbox

The gearbox is available with a number of different options, allowing the user to choose the combination most able to meet his specific needs.

- Speed Four

- Speed Four with synchronized reverse shuttle: 12FWD+12REV speeds.

- Speed Four with synchronized reverse shuttle and Creeper: 16FWD+16REV speeds.

- Speed Four with synchronized reverse shuttle and 40 kph Overdrive: 24FWD+12REV speeds.

- Speed Four with synchronized reverse shuttle, 40 kph Overdrive and Creeper: 32FWD+16REV speeds.

T-Tronic

- Electrohydraulic Power Shuttle with Speed Four

12FWD+12REV speeds.

- Electrohydraulic Power Shuttle with Speed Four and Creeper: 16FWD+16REV speeds.

- Electrohydraulic Power Shuttle with Speed Four and T-Tronic with 3 ranges HML on load: 36FWD+12REV speeds (40 kph).

- Electrohydraulic Power Shuttle with Speed Four and T-Tronic with 3 ranges HML on load: 48FWD+16REV speeds (40 kph).

9 Power lift

- Mechanical - Load Sensing

Latest generation power lift with POSITION, DRAFT and INTERMIX functions. External control lever on request. Draft detected on the lower links.

- Electronic (Top Version)

Hydraulic power lift with electronic control, Shock Absorber and draft sensors on the lower links of the three-point hitch.

10 Power take-off

PTO with hydraulically engaged oil-cooled multiple-plate clutch.

2-speed PTO

Selection of the 2 speeds, 540 and 540 eco (or 540/1000).

3-speed PTO

Selection of the 3 speeds 540/540 eco/1000 (on request).

11 Rear axle

With epicyclic final drives. Equipped with oil-cooled disc brakes



SALES TOPICS

The T-Max Series offers the right combination of functionality, versatility and value for all the jobs required on a medium-sized farm at low purchasing and running costs.

T-Max Series are ideal tractors for general applications and handling materials

- **Synchronized mechanical** reverse shuttle in the Techno version.
- **T-Tronic gearbox** with range shifting on load in conjunction with the electrohydraulic reverse shuttle for agile direction changes in the Top version.
- **Excellent all-round** visibility as well as the utmost in comfortable surroundings for the operator.
- **55° steering angle** for agile manoeuvres.
- **Generously sized, comfortable cab** with an improved air conditioning system.
- **Front loader** designed for the T-Max Series.
- **Load Sensing mechanical hydraulic power lift** with lowering speed regulation for improved sensitivity during work. An external control lever that facilitates the implement hitching and unhitching operations can be supplied on request.
- **Electronically controlled hydraulic power lift** for improved efficiency and precision at work.

Electrohydraulic power take-off for all applications

- Simple hydraulic engagement that facilitates the operator's work by improving both efficiency and safety.
- The fast increase in torque guarantees fade-free efficiency at work.
- A front PTO is available on request and makes the machine even more versatile when used in conjunction with the front power lift.

Ideal for soil working and crop cultivation.

- The front PTO and power lift are available on request for use of specific implements.
- The creeper adapts the ground speed to any use of the PTO.
- Versatile PTO and with PTO proportional to the ground speed for use with trailers.
- A range of specific front loaders for the T-Max Series.
- Ideal weight and weight distribution to prevent the soil from being packed down to an excessive extent.

Ideal for soil working and tillage in medium-sized farms.

- New generation 4-cylinder engine: powerful, reliable, safeguards the environment.
- High torque at the most frequently used engine rates.
- Vast range of speeds available.
- Electrohydraulic reverse shuttle (Top version) for faster manoeuvres.
- High lifting capacity thanks to pumps with high flow rates and supplementary lifting rams.
- Thanks to their higher flow rate, the hydraulic pumps provide an adequate supply for the implement being used.
- The power lift's ELC electronic control makes the work settings easier to control.

Ideal for transport work, towing and fast driving on the roads

- Techno Speedfour with 4 synchronized speeds that can be selected in succession for greater efficiency at work and 40 kph Overdrive (on request) to facilitate road circulation.
- T-Tronic Speedfour with 4 synchronized speeds selected in succession, maximum speed 40 kph and gearbox with 3 ranges on load.
- The wheelbase and weight distribution guarantee high-level comfort and safety when driving.
- Front brakes for short braking distances.
- Various tow hooks are available for all requirements and are type-approved in accordance with the laws in force.

MODERN DESIGN

Modern design with softly rounded lines and bonnet. The shapes reflect the McCormick Family Style. A look that will remain up to date for a very long time. Front and rear lights featuring a new design.

Bonnet with a lowered and aggressive looking profile that gives a solid and sturdy look. The sloping bonnet guarantees excellent visibility at the front. The bonnet can be tipped back to facilitate the normal servicing operations.

Rounded mudguards with clearly visible rear lights recessed into the mudguards in a protected position. The silencer at the side of the cab pillar blends in with the shape of the tractor without reducing the visibility at the front.

PLATFORM

Platform assembled on silent-blocks so as to isolate the cockpit from stress and make work less tiring for the operator.

The generously sized, spacious platform creates a comfortable work station for this type of tractor.

SAFETY FRAME

Safety frame with two uprights type-approved in accordance with the international safety standards. Safeguards the cockpit and protects the work area. The operator can work with confidence when the tractor is used exclusively for normal farming jobs.

TOTAL VIEW CAB

Modern cab with 4 pillars and large windows for **all-round visibility**: this is the first thing the operator notices about his work station. The **transparent roof window** increases the visibility in the upward direction, a must when working with front loaders.

Generously sized, comfortable cab interior.

Fully glass side doors hinged at the rear. Push-open rear window for improved ventilation. Can be used as an emergency exit.

The ventilation, heating and air conditioning systems are grouped in the roof and create a pleasant and comfortable place of work.

cab is type-approved in accordance with the safety laws. It provides protection should the tractor tip over and is tested in compliance with the laws in force.

pressurizing: the window and door seals are perfectly tight.

sound-proofing thanks to use of specific materials, high-standard finishes and silent engines with a noise level that complies with the standards.

SPECIFICATIONS	ADVANTAGES AND BENEFITS
<p>A modern, long-lasting image.</p> <p>Glass roof window with sunshade canopy</p> <p>Visibility in all directions thanks to the large windows.</p> <p>The cab is lower in height than other tractors, making it easier to pass under low foliage.</p> <p>The maximum noise level complies with the standards.</p>	<p>Pleasant and gratifying to own. Sure-fire investment</p> <p>Excellent visibility in the upward direction for work with front loaders.</p> <p>Maximum visibility at the front and rear when working during the day and night: higher productivity.</p> <p>Safe and versatile in all conditions.</p> <p>Comfortable, improved work conditions. Less stress for the operator.</p>



COCKPIT

The cockpit is generously sized and comfortable. All the controls can be easily reached and are positioned in a simple, logical way so as to allow the tractor to be safely and promptly operated.

Elegant, modern and well finished cab interiors thanks to the use of new lining materials.

Greater care and attention to detail and finishes achieve a pleasant and qualitatively better appearance inside the cab.

Ergonomic padded seat adjustable as to height and distance from controls, with suspensions that adapt to the driver's weight for even more comfortable driving.

A seat with pneumatic suspensions is available on request.

A second, passenger seat is available on request and can be folded back when not in use.

SPECIFICATIONS	ADVANTAGES AND BENEFITS
<p>Large windows with nothing to impair the visibility.</p> <p>Controls in ergonomic positions.</p> <p>Lots of space available.</p> <p>Padded, adjustable seat.</p> <p>New roof with new materials.</p> <p>Second passenger seat (on request).</p>	<p>All-round visibility: safe driving and when manoeuvring in tight corners.</p> <p>Simple and easy to drive. Complete control of the vehicle.</p> <p>Comfortable use and less stress during work.</p> <p>Improved comfort. Less tiring.</p> <p>Guarantees that water will not penetrate. Safety and comfort.</p> <p>A third person can be transported in safety.</p>



STEERING WHEEL

Adjustable slant, can be adapted to the different driving conditions.

DASHBOARD

Complete; provides all the information the operator needs to control the tractor. The material and the **non-reflecting** glass allow the information to be quickly consulted in even the most critical environmental conditions.

Digital indicators provide precise information about the engine rate, PTO rate and ground speed.

Analog indicators on a white background show the fuel level and engine coolant temperature.

Indicator lights for the driving functions, yellow for the functions selected and red to warn of operating faults.

Indicator lights show the range engaged, while yet others indicate the type of PTO engaged and provide detailed information to optimize the way the tractor is used.



ACCESS TO THE COCKPIT

It's easy to access the cab thanks to the **large** outward-opening doors.

The **steps** are well-sized and sturdy to allow the operator to safely climb into the tractor even in precarious conditions.

A **handrail** on the cab pillar and another on the cab door provide a firm grip when the operator climbs in and out of the tractor.

Lots of freedom of movement in the space between the dashboard and driving seat.



ADVANTAGES AND BENEFITS

ACCESS TO THE COCKPIT

No obstructions when getting in and out of the vehicle.

Safety in all conditions.

Freedom of movement, facilitates the job

DASHBOARD

Clearly and easily understood.

Information promptly available.

Precision when driving the tractor.



WORK ENVIRONMENT TOTAL VIEW CAB

Modern, functional and extremely comfortable cab- with a 4-pillar structure.

All-round visibility thanks to the generously sized windows.

Unobstructed visibility in the upward direction thanks to the roof window, particularly useful when working with front loaders.

Generously sized uncluttered area under the cab roof; more space for the operator.

Pre-engineering for radio installation completes the equipment.



VENTILATION

However, adequate **natural ventilation** is guaranteed by the openable roof window, the large rear hatch and well-sized push-open side windows.

Air **re-circulation** around the cab is regulated by an air inlet on the roof and allows the operator to choose whether to draw filtered air from outdoors or to re-circulate the air inside the cab.



CAB AIR FILTERS

Two large air filters at the sides ensure that the air that enters the cab is filtered to an optimal degree.

The filters are self-cleaning and can be easily removed for fast maintenance.

SPECIFICATIONS

Controls in ergonomic positions.

Lots of space available.

Padded, adjustable seat.

New roof with new materials.

ADVANTAGES AND BENEFITS

Simple and easy to drive. Complete control of the vehicle.

Comfortable use and less stress during work.

Improved comfort. Less tiring.

Guarantees that water will not penetrate. Safety and comfort.

HEATING/VENTILATING AND AIR CONDITIONING SYSTEM

The **ventilating/heating and air conditioning system** is installed in the roof so as to improve the operator's comfort.

The air conditioning, heating and ventilating controls are grouped on a single panel in the cab's right-hand pillar.

The flow of hot or cold air enters the cab from above and the operator can direct it where he wants thanks to the air vents.

The operator can choose between outdoor air and internal air circulation. Using the three-speed fan, he can also adjust the intensity of the flow as desired.

The air conditioning system uses R134A **environment-friendly** refrigerant that guarantees a high differential in relation to the outdoor temperature.



SPECIFICATIONS	ADVANTAGES AND BENEFITS
<p>Optimal air conditioning in any work environment with a uniform temperature inside the cab.</p> <p>Positionable air vents. Air re-circulation system.</p> <p>Air conditioning system with R134 environment-friendly fluid.</p> <p>Double cab air filter</p>	<p>Extra comfort and safeguards for the health.</p> <p>Even temperature inside the cab.</p> <p>Protection for the environment.</p> <p>Clean and filtered air, safe and clean environment.</p>

FIELD LIGHTS

Visibility during night work is guaranteed by 2 halogen headlights on the roof. Another 2 adjustable halogen field lights are installed at the rear:

The revolving beacon on the roof allows the tractor to be driven on the roads in compliance with the Highway Code regulations.





TIER3 ENGINES

A new range **Green Engines** that complies with the new **low exhaust specifications** as required by the TIER III standards.

These Perkins 1104D aspirated, turbo and Turbo After-cooler engines have been specially designed for agricultural use with modern features and ground-breaking technical solutions.

1104D-44TA four-cylinder TurboAftercooler engines are the Perkins answer to the increasingly more stringent standards governing harmful emissions. Particular technological innovations guarantee excellent air-fuel mixing; the result is better combustion and efficiency, higher power and torque with lower running costs and respect for the environment.

		T80Max	T90Max	T100Max	T110Max	T115Max
Perkins engine		1104D-44	1104D-44T	1104D-44TA	1104D-44TA	1104D-44TA
N° cylinders/Swept volume	N./cc	4/4400	4/4400	4/4400	4/4400	4/4400
Aspiration		Naturale	Turbo	TurboAfter-Cooler	TurboAfter-Cooler	TurboAfter-Cooler
Bore / Stroke	mm./mm.	105/127	105/127	105/127	105/127	105/127
ISO power rating	CV / Kw	74,12/54,5	82,3/60,5	92,5/68	102/75	110,2/81
Max. engine rate	RPM	2200	2200	2200	2200	2200
Maximum torque	Nm	256	345	384	412	410
Max. torque rate	RPM	1400	1400	1400	1400	1400

Perkins engines pass the standards establish by the TIER III directives

SPECIFICATIONS	ADVANTAGES AND BENEFITS
<p>MODERN ENGINES Conform to TIER III standards for reducing emissions.</p> <p>Adequate swept volume: 4400 cc and 4 cylinders.</p> <p>Completely renewed fuel injection system.</p> <p>Advanced Turbo Aftercooler technology that guarantees: Constant power High torque reserve.</p> <p>Perkins</p>	<p>Excellent mixture and efficient injection. Lower fuel consumption. "Clean" exhaust gas.</p> <p>Lower fuel consumption, greater economy.</p> <p>Better combustion, more efficient. Increased performance in the most frequently used rate between 1800 and 2200 RPM; more efficient and productive.</p> <p>Utmost efficiency in all load conditions. Lively engines. Extremely flexible engine performance. Fewer gear changes to adapt the power to the different operating phases.</p> <p>Guaranteed reliability and safety.</p>

GEARBOX

The gearbox is available with a number of different options, allowing the user to choose the combination most able to meet his specific needs.

TECHNO

Speed Four 30 kph

4-speed gearbox with 3 ranges (Low - Medium - High) and synchronized reverse shuttle: 12FWD+12REV speeds.

4-speed gearbox with 4 ranges (Low - Medium - High and Creeper) plus synchronized reverse shuttle: 16FWD+16REV speeds.

Speed Four 40 kph

4-speed gearbox with 3 ranges (Low - Medium - High), synchronized reverse shuttle and Overdrive: 24FWD+12REV speeds.

4-speed gearbox with 4 ranges (Low - Medium - High and Creeper) plus synchronized reverse shuttle and Overdrive: 32FWD+16REV speeds.

TOP

Power Four

4-speed gearbox with 3 ranges (Low - Medium - High) and PowerShuttle electrohydraulic reverse shuttle: 12FWD+12REV speeds.

4-speed gearbox with 4 ranges (Low - Medium - High and Creeper on request) and PowerShuttle electrohydraulic reverse shuttle: 16FWD+16REV speeds.

T-TRONIC

4-speed gearbox with 3 ranges (Low - Medium - High), T-Tronic with 3 ranges on load and PowerShuttle electrohydraulic reverse shuttle: 36FWD+12REV speeds.

4-speed gearbox with 4 ranges (Low - Medium - High and Creeper on request), T-Tronic with 3 ranges on load and PowerShuttle electrohydraulic reverse shuttle: 48FWD+16REV speeds.

SPECIFICATIONS	ADVANTAGES AND BENEFITS
<p>Gearbox with 4 synchronized speeds in correct succession.</p> <p>Four ranges: creeper (on request), low, medium and high.</p> <p>Overdrive with 40 kph top speed.</p> <p>Synchronized reverse shuttle with lever on the left-hand side of the steering wheel.</p> <p>Creeper range with 0.41 kph minimum speed.</p>	<p>Simple to use, makes it easier to select the right work speed.</p> <p>Flexible use: improved performance.</p> <p>Speedy driving to the place of work.</p> <p>Immediate, simple and safe manoeuvres with the reverse shuttle: increased performance and efficiency.</p> <p>Allows implements that need slow ground speeds to be used: increased productivity.</p>

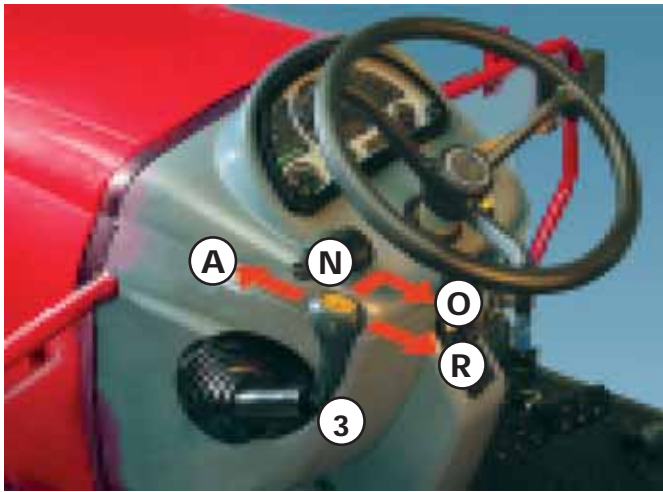
SPEEDFOUR BASIC GEARBOX

The Speedfour gearbox with four speeds in conjunction with the synchronized reverse shuttle is the basic version. The gearbox has four speeds, all synchronized with the three ranges, low, medium and high: 12 forward + 12 reverse speeds.

The gearbox can be supplied with a Creeper, which adds a further 4 ultra-slow speeds starting from 0.41 kph (at 1500 rpm, depending on the tyres used): a total of 16 forward speeds.

The synchronized reverse shuttle allows the operator to make fast, safe manoeuvres and facilitates handling jobs or work with front loaders: 16 forward + 16 reverse speeds.

The gear sequence covers a wide range of speeds and allows the operator to make the best choice for all operating conditions.



13" (330.2 mm) single-plate diaphragm clutch for the standard Speedfour gearbox.

The control pedal of the main clutch is the **sprung** type. It ensures even and progressive engagements and disengagements since the radial shape of the clutch provides a uniform thrust over the entire pressure plate.

The dimensions and materials used suit the torque transmitted: a high degree of heat dispersion thanks to the cerametallic clutch plate material.

Speed Four: Gearbox with synchronized mechanical reverse shuttle and creeper for 16FWD + 16REV speeds

The SpeedFour gearbox with mechanical reverse shuttle has 4 speeds synchronized with 4 ranges (Creeper, Low, Medium, High). This makes for a total of 16 forward speeds and 16 reverse speeds.

Without Creeper: 12 FWD + 12 REV speeds.

Gearshift lever

The lever has four possible positions, corresponding to four totally synchronized speeds.

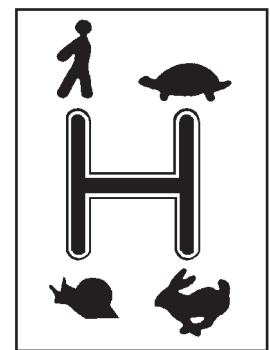
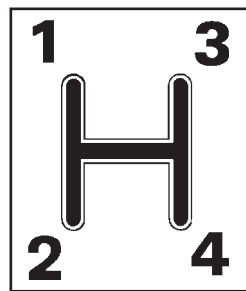
To shift gears in the same range, just operate the lever after disengaging the main clutch, without stopping the tractor.

Range selector lever

The speed range selector lever has three or four possible positions corresponding to the available ranges: low, medium, high and Creeper (on request).

Each range is identified by a symbol on the knob of the lever.

To change from one speed range to another, disengage the main clutch, stop the tractor and move the speed range selector to its new position.



Creeper range (on request)



Low range



Medium range



High range

Gearbox with synchronized reverse shuttle: 12FWD+12REV (without Creeper) - Speeds in kph.

Gearbox with synchronized reverse shuttle: 16FWD+16REV (with Creeper) - Speeds in kph.

Direct drive	16.9 R30; 540/65 R30	18.4R30	480/70 R34; 540/65 R34; 16.9 R34
Creeper*			
1	0,34	0,36	0,37
2	0,54	0,56	0,58
3	0,68	0,71	0,73
4	1,01	1,04	1,08
Lente			
1	1,64	1,70	1,76
2	2,58	2,68	2,77
3	3,26	3,38	3,50
4	4,81	4,99	5,16
Medie			
1	3,93	4,07	4,21
2	6,17	6,39	6,61
3	7,79	8,07	8,35
4	11,50	11,91	12,32
Veloci			
1	9,69	10,03	10,38
2	15,22	15,77	16,31
3	19,23	19,91	20,60
4	28,37	28,38	30,39
Reverse shuttle	16.9 R30; 540/65 R30	18.4R30	480/70 R34; 540/65 R34; 16.9 R34
Creeper*			
1	0,35	0,36	0,37
2	0,55	0,57	0,59
3	0,69	0,72	0,74
4	1,02	1,06	1,09
Lente			
1	1,66	1,72	1,78
2	2,61	2,70	2,80
3	3,30	3,41	3,53
4	4,86	5,04	5,21
Medie			
1	3,97	4,11	4,25
2	6,23	6,46	6,68
3	7,87	8,15	8,44
4	11,62	12,03	12,45
Veloci			
1	9,78	10,13	10,48
2	15,38	15,93	16,48
3	19,42	20,12	20,81
4	28,66	29,68	30,70

* Creeper on request

BASIC SPEED FOUR GEARBOX WITH SYNCHRONIZED REVERSE SHUTTLE AND 40 KPH OVERDRIVE (only with 4WD Axle and front brakes)

The gear sequence covers a speed range of up to 40 kph and allows the operator to make the best choice for all operating conditions: 24 forward + 12 reverse speeds.

Ideal for transport work, handling materials and driving for long distances on the roads.

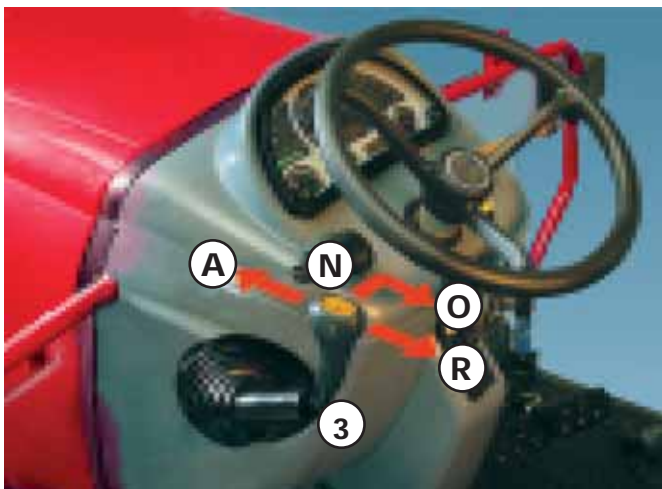
On request, the gearbox can be supplied with a Creeper, which adds a further four ultra-slow speeds starting from 0.30 kph (at 1500 rpm, depending on the tyres used): a total of 32 forward and 16 reverse speeds.



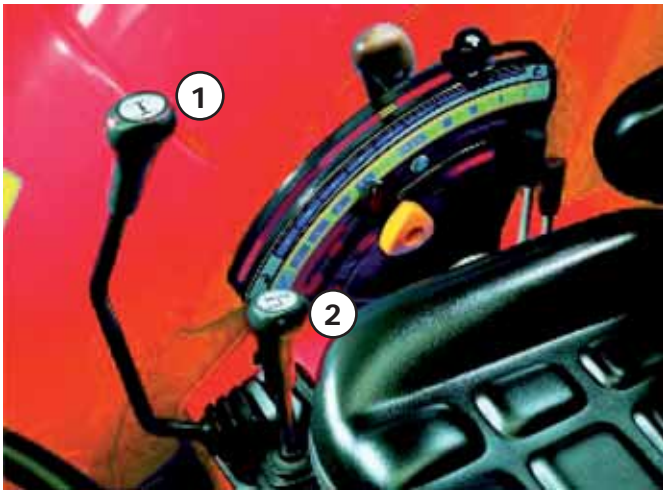
40 km/h

Reverse shuttle (3) and Overdrive (on request) selector lever. Even when engagement is synchronized, to engage the forward or reverse gears you need to disengage the main clutch, stop the tractor and then set the lever to the required position.

- A - Forward speeds
- N - Neutral
- R - Reverse speeds
- O - Overdrive



The Overdrive allows you to obtain the top speed of 40 kph (4WD only).



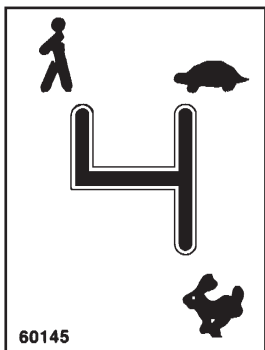
Gearshift levers.
1- Speed selector lever
2- Range selector lever

Range selector lever

The lever has three or four possible positions corresponding to the available ranges: low, medium and high.

Each range is identified by a symbol on the knob of the lever.

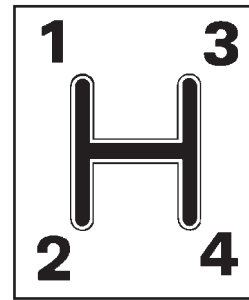
To change from one speed range to another, disengage the main clutch, stop the tractor and move the speed range selector to its new position.



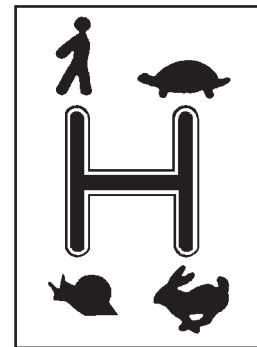
-  Low range
-  Medium range
-  High range

Gearshift lever

The lever has four possible positions, corresponding to four totally synchronized speeds.



To shift gears in the same range, just operate the lever after disengaging the main clutch, without stopping the tractor.



THE CREEPER (installed on request)

12 forward speeds, with speed reduced by 80% in relation to the standard speeds.



SPECIFICATIONS

Gearbox with 4 synchronized speeds in correct succession.

Three ranges: low, medium and high.

Overdrive, with 40 kph top speed.

Synchronized reverse shuttle with lever on the left-hand side of the steering wheel.

Creeper range with 0.30 kph minimum speed (on request).

ADVANTAGES AND BENEFITS

Simple to use, makes it easier to select the right work speed.

Flexible use: improved performance.

Speedy driving to the place of work.

Immediate, simple and safe manoeuvres with the reverse shuttle: increased performance and efficiency.

Allows implements that need slow ground speeds to be used: increased productivity.

4WD versions only

Gearbox with synchronized reverse shuttle and Overdrive: 12FWD+12REV(without Creeper)-Speeds in kph.

Gearbox with synchronized reverse shuttle and Overdrive: 32FWD+16REV (with Creeper) - Speeds in kph

Direct drive	16.9 R30; 540/65 R30	18.4R30	480/70 R34; 540/65 R34; 16.9 R34
Creeper*			
1	0,34	0,36	0,37
2	0,54	0,56	0,58
3	0,68	0,71	0,73
4	1.01	1.04	1.08
Low			
1	1.64	1.70	1.76
2	2.58	2.68	2.77
3	3.26	3.38	3.50
4	4.81	4.99	5.16
Medium			
1	3.93	4.07	4.21
2	6.17	6.39	6.61
3	7.79	8.07	8.35
4	11.50	11.91	12.32
High			
1	9,69	10,03	10,38
2	15,22	15,77	16,31
3	19,23	19,91	20,60
4	28,37	28,38	30,39
Overdrive	16.9 R30; 540/65 R30	18.4R30	480/70 R34; 540/65 R34; 16.9 R34
Creeper*			
1	0.44	0.46	0.48
2	0.70	0.72	0.75
3	0.88	0.91	0.94
4	1.30	1.35	1.39
Low			
1	2.12	2.19	2.27
2	3.33	3.45	3.57
3	4.20	4.35	4.50
4	6.20	6.42	6.65
Medium			
1	5.06	5.24	5.42
2	7.95	8.24	8.52
3	10.04	10.40	10.76
4	14.82	15.35	15.87
High			
1	12.48	12.92	13.37
2	19.61	20.31	21.01
3	24.77	25.65	26.54
4	36.55	37.85	39.16
Reverse shuttle	16.9 R30; 540/65 R30	18.4R30	480/70 R34; 540/65 R34; 16.9 R34
Creeper*			
1	0,35	0,36	0,37
2	0,55	0,57	0,59
3	0,69	0,72	0,74
4	1.02	1.06	1.09
Low			
1	1.66	1.72	1.78
2	2.61	2.70	2.80
3	3.30	3.41	3.53
4	4.86	5.04	5.21
Medium			
1	3.97	4.11	4.25
2	6.23	6.46	6.68
3	7.87	8.15	8.44
4	11.62	12.03	12.45
High			
1	9,78	10,13	10,48
2	15,38	15,93	16,48
3	19,42	20,12	20,81
4	28,66	29,68	30,70

* Creeper on request

TOP POWERSHUTTLE GEARBOX



POWERSHUTTLE REVERSE SHUTTLE ON LOAD

The tractor's driving direction is automatically reversed by pushing the orange lever at the left of the steering wheel forwards or backwards.

The reverse shuttle is automatically controlled through the following phases.

- DECELERATION
- STOP
- CHANGE OF DIRECTION
- ACCELERATION



POWERFOUR GEARBOX

4-speed gearbox with 3 ranges (Low - Medium - High) and PowerShuttle electrohydraulic reverse shuttle: 12FWD+12REV speeds.

4-speed gearbox with 4 ranges (Low - Medium - High and Creeper on request) and PowerShuttle electrohydraulic reverse shuttle: 16FWD+16REV speeds.

The lever has three positions:

- FWD Forward speeds
- N Neutral
- REV Reverse

The reverse shuttle allows you to start in for forward or reverse directions without depressing the clutch pedal.

Functions of the electrohydraulic reverse shuttle on load.

- Reverse shuttle under load: allows the driving direction to be reversed by simply moving the small lever on the left hand near the steering wheel. The electronic control unit guarantees smooth and gradual reversing. For safety reasons, the direction can only be reversed at speeds of less than 10 Kph.
- The Declutch system disengages the main hydraulic clutch by means of the orange button on the gearshift lever (1). This button allows the driver to shift mechanical gears without using the clutch pedal.

The clutch pedal is only used for very small movements of the tractor, e.g. for hitching or unhitching an implement, and for greater safety when sudden stops are made or obstacles are encountered.

- The range lever (2) is used to select the operating range: Creeper (on request) - Low - Medium - High

Gearbox with Powershuttle reverse shuttle and 30 kph top speed: 12FWD+12REV (without Creeper) - Speeds in kph.

Gearbox with Powershuttle reverse shuttle and 30 kph top speed: 16FWD+16REV (with Creeper) - Speeds in kph.

Direct drive	16.9 R30; 540/65 R30	18.4R30	480/70 R34; 540/65 R34; 16.9 R34
Creeper*			
1	0,34	0,36	0,37
2	0,54	0,56	0,58
3	0,68	0,71	0,73
4	1.01	1.04	1.08
Low			
1	1.64	1.70	1.76
2	2.58	2.68	2.77
3	3.26	3.38	3.50
4	4.81	4.99	5.16
Medium			
1	3.93	4.07	4.21
2	6.17	6.39	6.61
3	7.79	8.07	8.35
4	11.50	11.91	12.32
High			
1	9,69	10,03	10,38
2	15,22	15,77	16,31
3	19,23	19,91	20,60
4	28,37	28,38	30,39
Reverse shuttle	16.9 R30; 540/65 R30	18.4R30	480/70 R34; 540/65 R34; 16.9 R34
Creeper*			
1	0,35	0,36	0,37
2	0,55	0,57	0,59
3	0,69	0,72	0,74
4	1.02	1.06	1.09
Low			
1	1.66	1.72	1.78
2	2.61	2.70	2.80
3	3.30	3.41	3.53
4	4.86	5.04	5.21
Medium			
1	3.97	4.11	4.25
2	6.23	6.46	6.68
3	7.87	8.15	8.44
4	11.62	12.03	12.45
High			
1	9,78	10,13	10,48
2	15,38	15,93	16,48
3	19,42	20,12	20,81
4	28,66	29,68	30,70

* Creeper on request