

MULI
MUNICIPAL



**Multi-functional
all year round.**

REFORM 

TECHNOLOGY AT ITS BEST



REFORM 

REFORM 

MULTI T10 X

REFORM Muli – The Universal Transporter

Efficiency in all 4 seasons.

REFORM transporter have been designed for universal application in the municipal sector all year round, as well as for special purposes in the most diverse areas. They benefit from their formidable terrain capability, maximum safety, and high operational and driving comfort. **REFORM transporters have been produced in series since 1967.**



By its **versatile use**, a REFORM Muli guarantees **high utilisation** all year round. Whether flat or steep, wet or dry – there is always something to do for the flexible transporter. The various attachment areas and versatile interfaces open up limitless applications for a Muli.

Cutting edge technology and safety.

The REFORM Multi chassis.

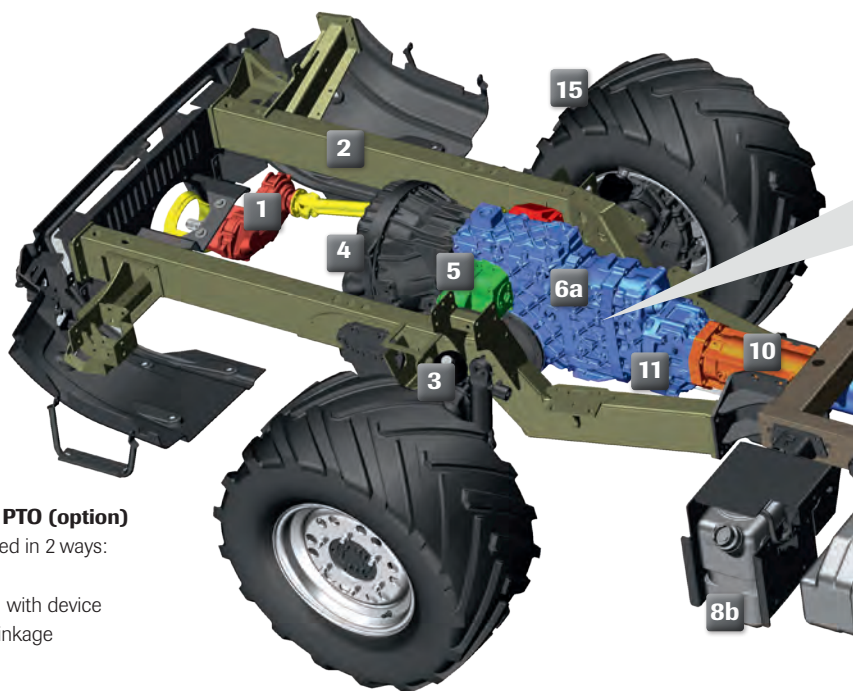
On the road or in the field, on snow or scree –

The chassis concept of the REFORM transporters impresses with reliable technology and universal application. Front and rear section are linked by a pivoting joint, forming the robust chassis on which a wide variety of attachments can be mounted.

2 The front **platform frame** is joined together with the engine, gearbox and front axle to form a fixed unit. This way it provides a solid carrier frame for the cab and the front mounting frame for various front attachments.

3 **Hydrostatic steering with Load Sensing and hydraulic synchronising cylinder.**

No changed kinematics during spring deflection and rebound.
Equal steering ratio in steering to the right and left.
Increased ground clearance.



Lateral drive and front PTO (option)

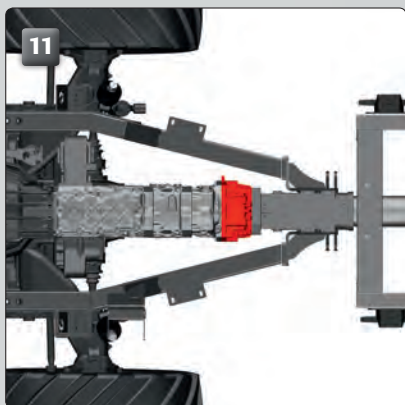
The lateral drive can be used in 2 ways:

- Front PTO in combination with device mounting frame or front linkage
- Lateral PTO for operating special attachments.

With the 1,000 rpm front PTO, this drive unit is suited for a wide range of attachments.

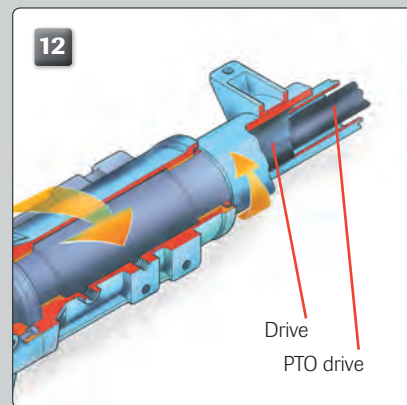
4 **Dual disc dry clutch with separate actuation.**

Drive clutch hydraulic via pedal, electro-hydraulic power-shift **PTO**;
Multi T10 X HybridShift: In hydrostatic mode, the clutch pedal causes zero flow of the hydraulic pump.



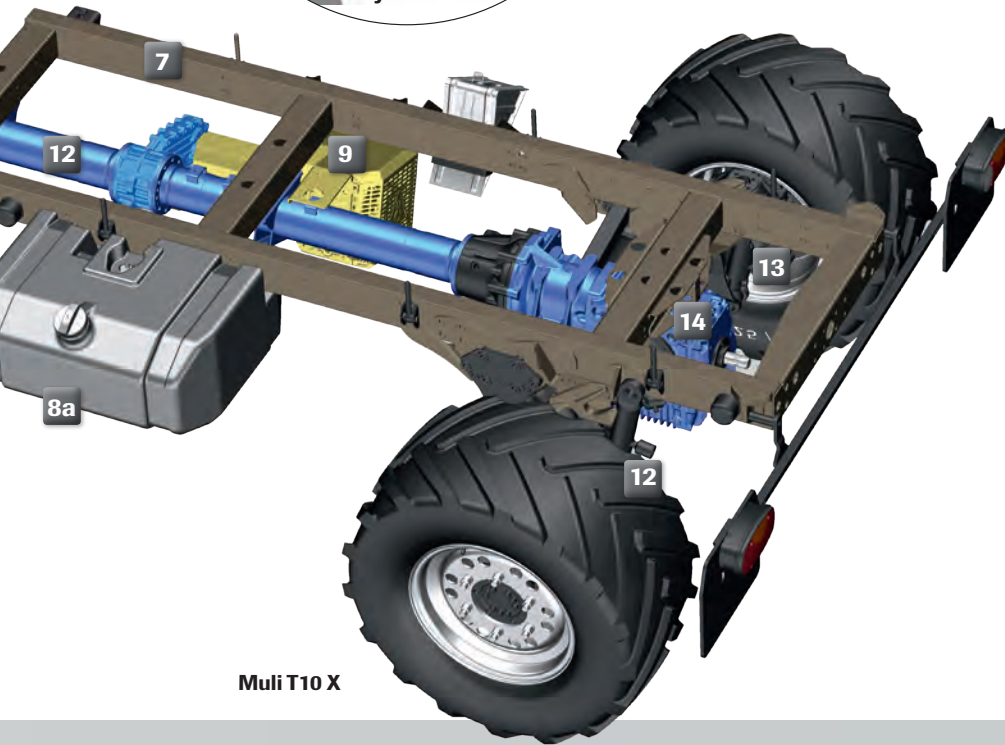
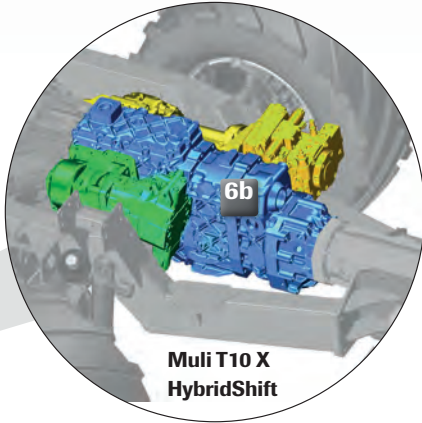
The lockable centre differential (11) is positioned between the front and rear axles and ensures, together with the permanent 4 wheel drive, maximum force translation to the ground. Tensions between front and rear axle that could occur in cornering or uneven surfaces are compensated. If the centre differential is locked, the driving force is evenly distributed (1/1) between front and rear axle.

The **centre tube (12)** with integrated drive and PTO drive connects the shifting gearbox and the front axle gearbox with the rear axle. The axle drive and most of all also the PTO drive are directly routed to the rear, optimally protected by the centre tube (nothing can wind around the free propeller shaft). The PTO is tension-free twisted in the centre of the pivot joint, eliminating the need for pivot stop.



5 Creep speed (option for Muli T10 X)
For attachments that require particularly low speeds (snow blower, mulcher, lateral manure spreader, etc.), a creep speed gearbox with 16 speed ranges is available from 0.4 kph.

6 Direct shift shuttle gearbox on Muli T10 X (6a)
Patented hybrid gearbox on Muli T10 X HybridShift (6b)



7 The solid **main frame** is the mounting base for various attachments such as tipper, crane, top mounted spreader, leaf vacuum, etc. The attachments are mounted with quick releases such as anchor and eye bolts.

8 The large 120-litre **PE tank (8a)** holds enough fuel for a whole working day without refuelling. In the Euro 6 engine version, there is an additional **AdBlue tank (8b)**.

9 The optionally available **auxiliary brake system** makes downhill driving even safer and less stressful. This wear-free eddy current brake relieves the main brake system and thus protects brake discs and pads.



The 360° pivoting **central joint (10)** between front and rear axles takes care that all 4 wheels have permanent ground contact, ensuring safe driving behaviour in any situation. You get full power transfer and optimum soil protection also in rough terrain.



The front and rear axles are designed as **portal axles (13)**. This design provides the largest possible ground clearance with the corresponding passage width between the wheels. The ground clearance is 450 mm.

The centre tube with the propeller shafts for the rear wheel drive and for the **power-shift rear PTO** ends in the **robust rear axle gearbox (14)**. There is no open cardan shaft between the main gearbox and the rear axle gearbox.

The standard **wheelhouse cover (15)** on the front axle protects the engine compartment. The full coverage prevents ingress of water and salt into the engine compartment.



REFORM Multi

4 full attachment areas.

The chassis is designed for changeable attachments.

Quick-change attachments such as tipper, winter service attachments, leaf vacuum, crane, deposit tipper and many more make the vehicle a compact and versatile work horse. REFORM Transporters feature 4 full attachment areas for a large range of attachments.

- 1 Main frame**
for top mounted
attachments

3-side tipper, deposit tipper, top mounted spreader, leaf vacuum, road brush, fire engine equipment

- 2 Front linkage/front mounting frame**
with/without front PTO

Snow plough, snow blower, rotary disc mower, leaf vacuum blower

- 3 Platform frame**
behind the cab or
at the rear end

Loading crane, timber crane

- 4 Rear linkage,
trailer hitch**
with rear PTO

Various 3-point attachments and trailers



For a wide range of everyday requirements.





1 Deposit tipper



1 3-side tipper



1 Top-mounted spreader
2 Snow plough



1 3-side tipper
3 Loading crane



1 Fire engine equipment

1 Top-mounted container
2 Leaf vacuum/blower



1 3-side tipper
2 Extension arm boom flail mower

REFORM Muli – The all-round vehicle for any terrain.

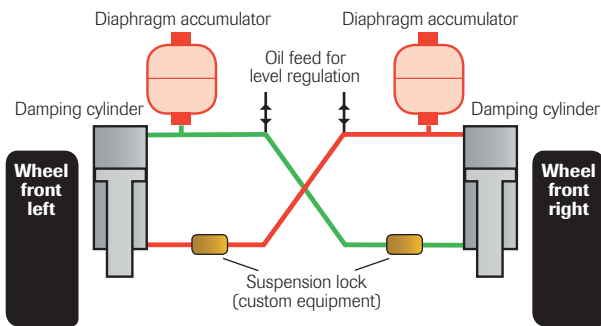


The suspension concept

HCS High Comfort Suspension.

Single-wheel suspension with level adjustment.

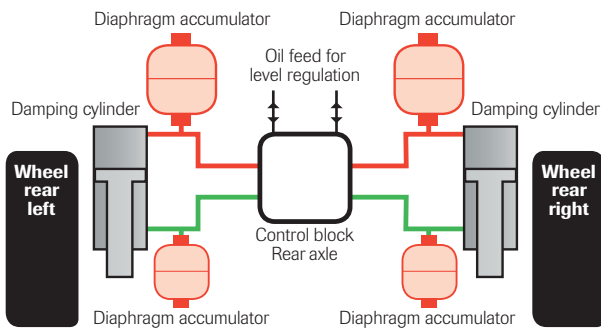
Front axle suspension concept: CROSS SWITCH



HCS High Comfort Suspension is a new suspension concept designed for demand-oriented driving comfort, which delivers highest comfort, stability and safety in any driving situation. The electronically controlled **hydro-pneumatic suspension system** with level regulation keeps the chassis always at the desired level, compensating for any payload. This produces exemplary suspension comfort, which protects the physical health of driver and passenger and also takes a lot of stress off the vehicle.

At the push of a button, the Muli can be raised or lowered, which makes mounting or removal of attachments such as tippers much easier. A **suspension lock** can be activated for locking and lowering the selected axle. This lowers the vehicle's centre of gravity, making driving in rough terrain even safer.

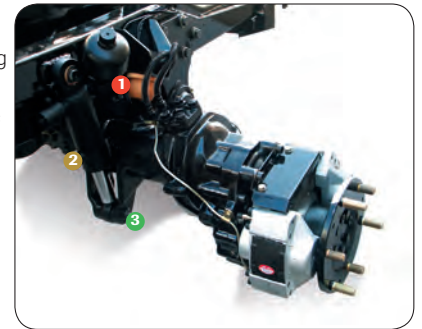
Rear axle suspension concept with counter pressure at the piston ring



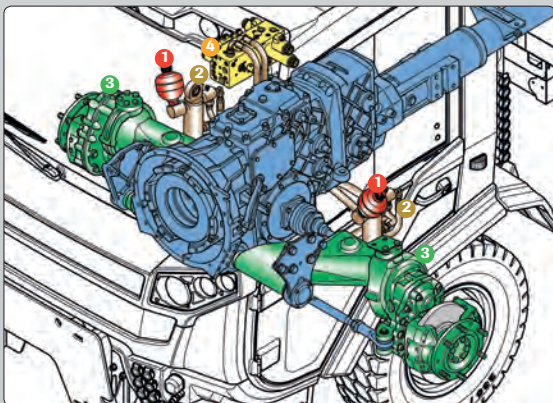
Suspension principle of the portal axles

Independent suspension on trailing links via damping cylinders with hydraulic accumulators and elastic bump stops

- 1 Diaphragm accumulators as elastic element
- 2 Damping cylinder
- 3 Axle and wheel location
- 4 Hydraulic block



Driving comfort with HCS.



4 wheel steering

The intelligent REFORM steering system.

The unique **REFORM 4 wheel steering system** ensures highest manoeuvrability and can be switched to front or crab steering. Thus providing 3 steering modes!

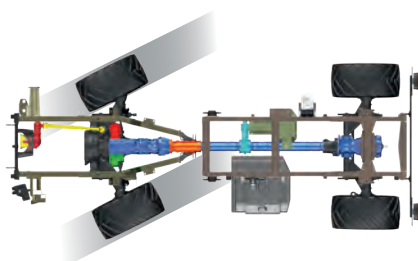
These are the special features of original REFORM 4 wheel steering:

- Front and rear wheels are steered at the same angle and run exactly in the same track.
- Maximum soil protection by even, absolutely tension-free traction of all 4 wheels.
- Steering mode can be changed at the push of a button.
- “Smart” steering: sensors signal straight wheel alignment to the automatic steering system; fully automatic switching from front to 4 wheel steering and vice versa.
- 4 wheel steering recommended only up to 20 kph for safety reasons (warning signal sounds at higher speeds).

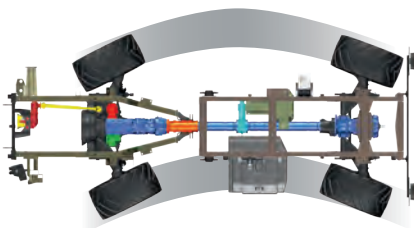
Crab steering feature:

Front steering is used while the rear wheels are turned at an angle; this results in a lateral offset of the Muli during driving.

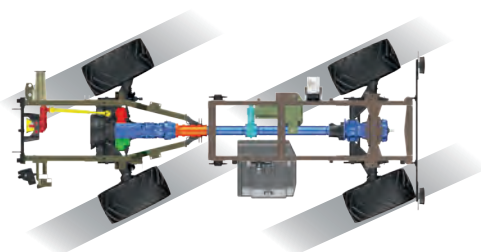
The 3 steering modes



1 Front wheel steering



2 4 wheel steering



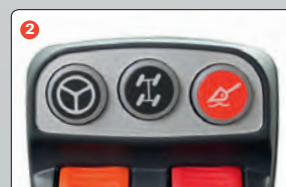
3 Crab steering

REFORM 4 wheel steering



REFORM 4 wheel steering (option)
possible only on version with sprung rear axle!

The steering modes can be switched conveniently by pressing a button on the dashboard of the Muli T10 X (1) or on the joystick of the Muli T10 X HybridShift (2). The steering switching status is indicated by symbols on the display.



Maximum comfort.

The REFORM Muli cab.

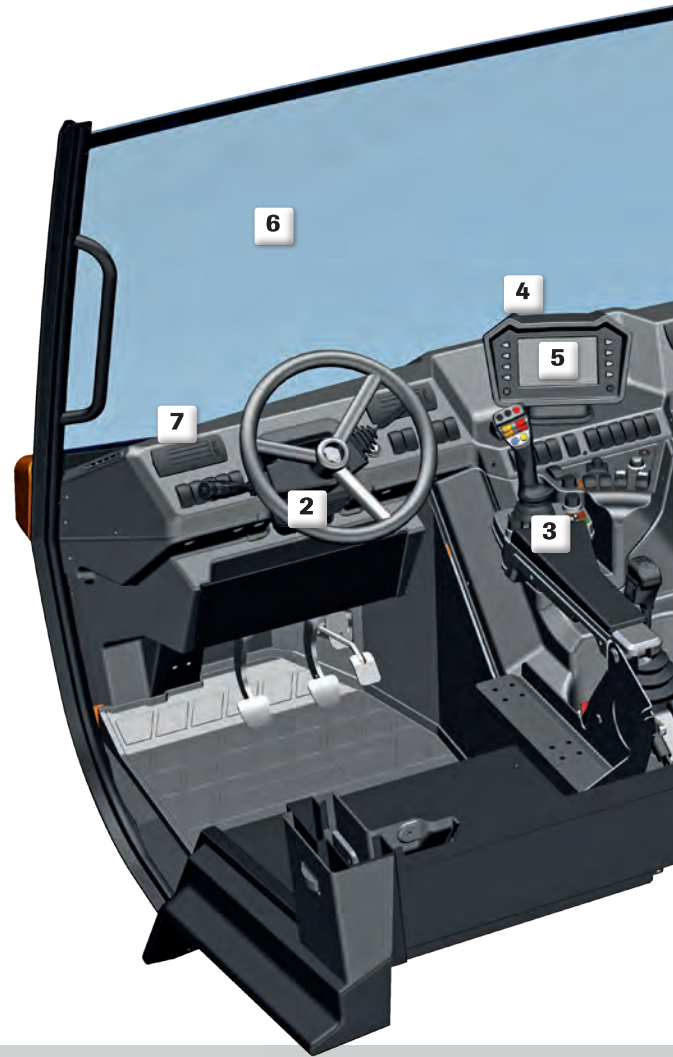
The REFORM Muli offers the driver an ergonomic workplace. In the development of the cab, emphasis was placed on creating **large free spaces for driver and passenger**. Comfortable seats, a 2-way adjustable steering column, pleasant air conditioning of the cab and **excellent all-round view** create perfect working conditions. A particularly low noise level, logical placement of all important controls, and great freedom of movement ensure relaxed working even during long periods of use.



A **perfectly cushioned seat** is easy on the back and increases comfort considerably. The various models offer the highest levels of comfort and safety. The driver and the passenger seat are optionally available with mechanical or air cushioning. The high backrest and the optional seat heater make work a pleasure.

2 Steering wheel adjustment

A correctly adjusted steering wheel is very important for a comfortable working position. The steering wheel of the Muli T10 X can be adjusted as standard vertically by +/- 50 mm as well as tilted by +/- 20 degrees.



Many attachments have their own control unit or display (e.g. reversing camera). They can be ideally placed in the Muli cab by means of a specially developed **monitor holder (8)**. Cables between the attachment and control unit can be routed neatly and with a minimum of space into the cab through a cable lead-through in the tailboard. Pulse or power outlets for attachments are available as options.

In developing the cab, great emphasis was placed on ease of servicing. The **fuse box (9)** with all the main fuses is located centrally at the cab tailboard where it can always be reached with ease.



3 Ergonomic operation of the individual functions. The logical layout of the controls facilitates work tremendously. So you always have everything under control and can concentrate fully on the job.



Muli T10 X HybridShift



The **central information panel (4)** located in the centre of the cab shows the driver all the important information and data at a glance. By mounting it on the side, the view of the central information panel is not impaired by the steering wheel.



In addition to the central information panel, the Muli T10 X HybridShift has an integrated **operator control system (5)**. The driver can set the desired activity, and the operator control system suggests all the important settings of the vehicle.

6 The **panoramic windscreen** and the large rear window provide excellent visibility around the vehicle and of the attachments. This increases safety, simplifies working and maximises working comfort. The side windows and large-sized rear-view mirrors provide excellent visibility to the side and to the rear.

7 Year-round use of the Muli T10 X places high demands on the **air conditioning** of the cab. With the sophisticated cab design, the driver can look forward to a pleasantly cooled cab in summer and a nice warm workplace in winter. Differently arranged ventilation nozzles, a powerful fan and a large-sized air conditioner ensure a uniform distribution of air in the cab. On request, REFORM provides an electrically heated windscreen.



The **standard tilting cab (10)** of the Muli T10 X allows quick access to the engine compartment for maintenance and repairs. The cab can be raised in no time and hydraulically tilted to the side without tools. By tilting to the side, front attachments such as a snow plough or mower need not be removed.

For daily inspections, the **maintenance opening (11)** provides a quick and easy way to check the engine oil level, the water for the windscreen washer, the coolant, the clutch fluid, and the filters for the heater and air conditioner. Also any lamps can be replaced quickly through the maintenance opening.



Perfect flexibility

Always the right interface package.

Whether hydraulic system, PTO, electrical interfaces – with the Muli T10X and Muli T10X HybridShift you are prepared for any job.

Hydraulic system

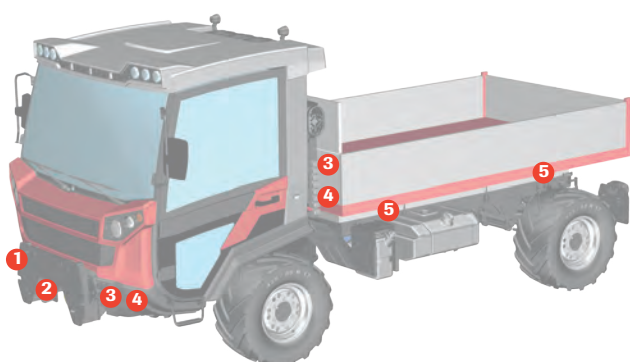
In the REFORM Muli, a variety of hydraulic equipment is available to you. It can be individually adapted to the respective requirements.

PTO

For attachments that are driven by the PTO, Muli T10 X and Muli T10 X HybridShift offer the possibility of front and rear PTO.

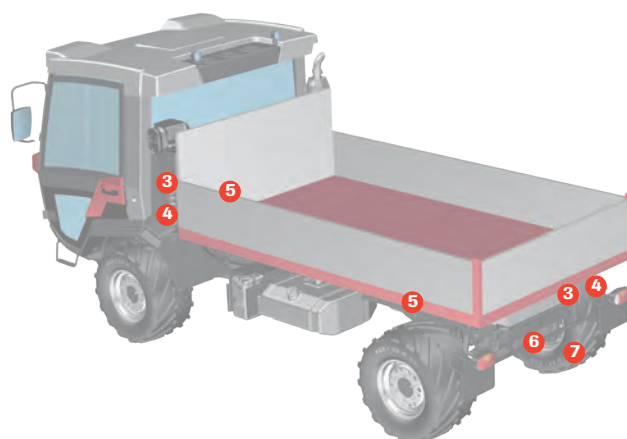
Electrical system

Muli T10X and T10X HybridShift have all electrical interfaces such as various outlets and pulse sockets to a cable lead-through.



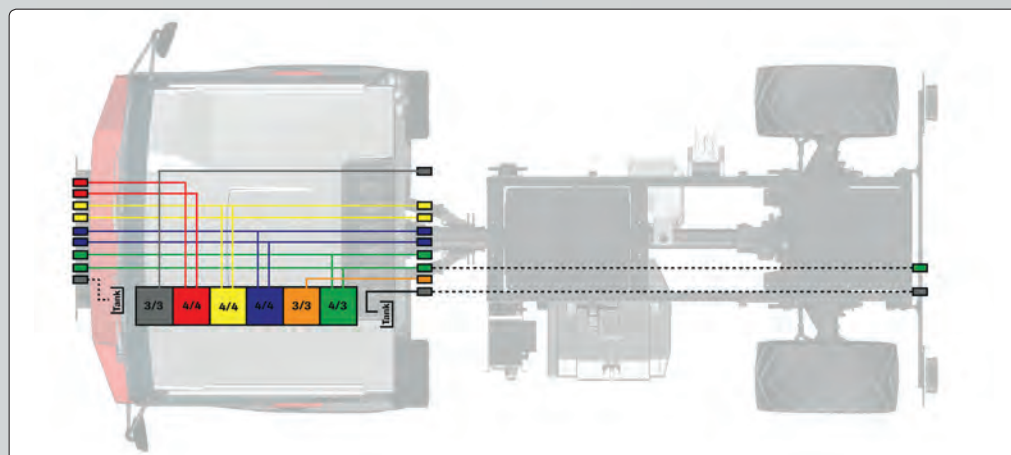
- 1) Front attachment plate / front linkage
- 2) Front PTO

- 3) Hydraulic system (front, centre, rear)
- 4) Electrical connectors (7, 13-pole, etc.)
- 5) Quick release system



- 6) Rear PTO
- 7) Rear linkage, trailer hitch

Hydraulic connections



The front hydraulic system can be equipped with a 4-fold **multi-coupler**. This makes switching attachments even faster and easier.

The **hydraulic fittings** can be attached at the front, behind the cab or at the rear as needed.

Maximum power

Common-rail turbo-diesel engines.

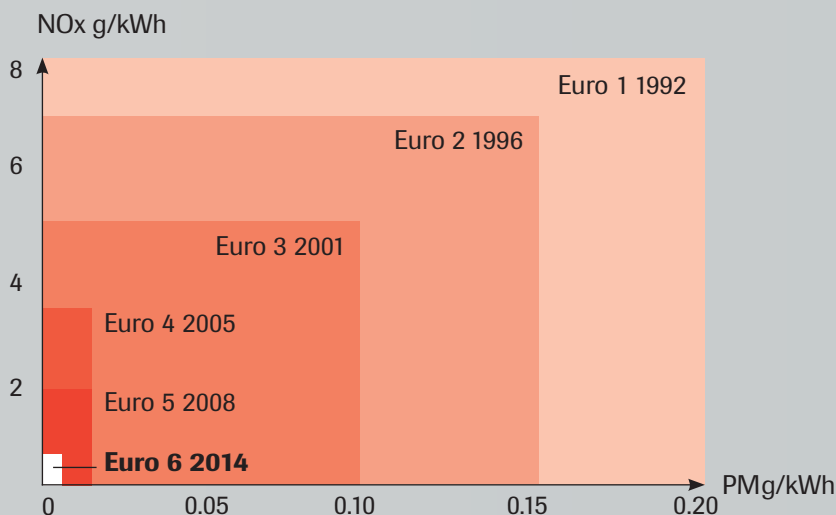
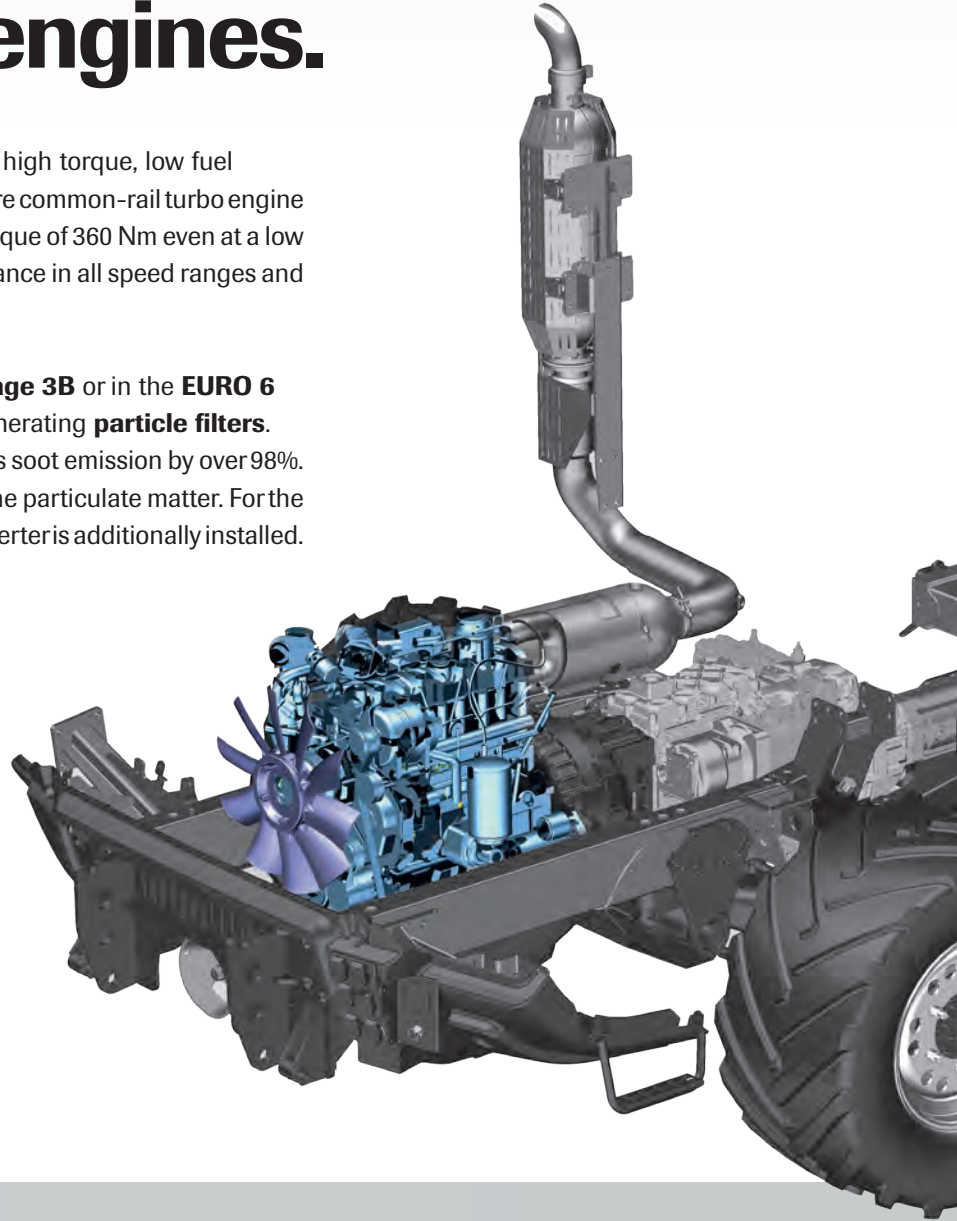
The **powerful engines** in the Multi T10 X excel by high torque, low fuel consumption and smooth running. The brawny 3-litre common-rail turbo engine produces 80 kW (109 hp) at 2,600 rpm and has a torque of 360 Nm even at a low speed of 1,100 rpm. This ensures optimum performance in all speed ranges and economic use of the vehicle.

The engine is optionally available in **emission stage 3B** or in the **EURO 6** version. Both models are equipped with self-regenerating **particle filters**. The closed loop diesel particle filter system reduces soot emission by over 98%. The system also absorbs and eliminates 99.9% of the particulate matter. For the sake of the environment, an oxidation catalytic converter is additionally installed.

Emission stage 3B or EURO 6

Intercooling, cooled exhaust gas recirculation and a particle filter deliver compliance with the **3B exhaust emission level regulations**.

With the additional SCR (Selective Catalytic Reduction) equipment and the Ad Blue addition, the engines in the Multi T10 X meet the **EURO 6** emission regulations.



The purpose of tightening the emission levels is the reduction of various pollutants in the exhaust gases of diesel engines.

- Carbon monoxide (CO):
- Hydrocarbon (HC):
- Nitrogen oxides (NOx):
- Particulate matter (PM):

By incorporating different exhaust gas treatment systems, the emission of pollutants was greatly reduced.

REFORM Muli T10 X

The versatile pro in municipal technology.

A payload of up to 5,200 kg, greatest ground clearance, a very low dead weight and an extremely low centre of gravity make the **Muli T10 X** a versatile partner for municipal applications even in the most difficult terrain. Due to its compact size, the extremely low platform bed and an unmatched agility, it is a reliable companion also in urban areas.

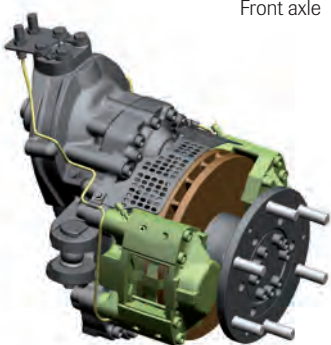
The benefits at a glance:

- Up to 5,200 kg payload
- Engine output 109 hp
- Tipping cab for easy servicing
- Generous front and rear windows
- Ergonomic comfort seats
- Central information panel with digital and analogue displays
- Optimised cab illumination in the entry area, LED search lighting in the roof liner
- Working hydraulics with Power Link system
- Hydrostatic steering with Load Sensing
- Retarder brake system for maximum safety
- Approval as agriculture/forestry vehicle or lorry possible



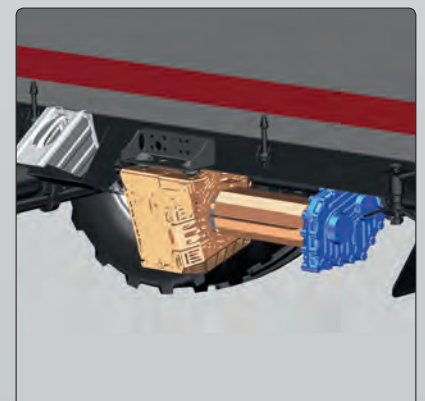
Safe braking

Front axle



As standard, the Muli T10 X comes with **internally ventilated disk brakes** (front and rear). Braking efficiency is clearly increased by larger brake discs. Optimum heat dissipation is ensured by holes in the wheel rims. The dual-circuit, 4 wheel power brake is characterised by low pedal force and high braking power. The brake booster is also standard.

The wear-free auxiliary brake system supports the service brake and minimises the wear of the whole brake system. The activation of this **eddy current brake** is easy and convenient: the ergonomic hand lever is positioned directly next to the steering wheel and can be switched in steps.



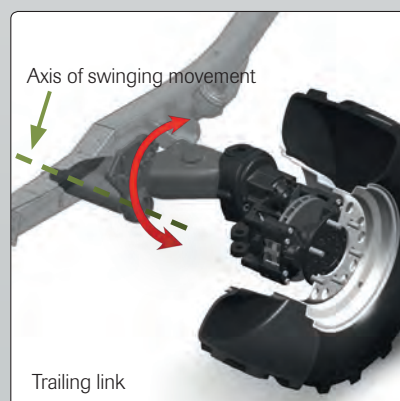


The tried and tested trailing link suspension

What is a trailing link suspension?

The spring deflection and rebound of the wheel is parallel to the direction of travel. This results in a permanent **parallel** ground **contact** of the sprung driving wheel. Compact size and uncomplicated, robust design of the suspension make the use of portals (reduction gears) possible. The benefits of portals are obvious:

- Protection of the drive train
- Low tilting moment in the contour line
- Unparalleled ground clearance especially for driving over objects
- Ease of service



Sprung axles with trailing links

Parallel wheel contact means in practice:

- Optimum grip in any situation
- Best possible tyre protection by even ground contact.
- Protects the turf in frequent passages
- Fewer open spots and gaps in the turf caused by damage.
- Lower risk of slipping
- Lower ground pressure
- Higher safety on slopes

Muli T10 X

The right speed for every task.

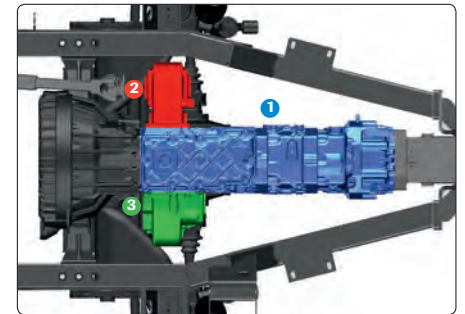
REFORM Muli vehicles have a synchronised 40 kph or 50 kph **splitting gearbox** as standard equipment, in which the splitting group subdivides the 8 forward gears into 16 gears, creating an even finer speed stepping. For use in slow working mode, an optional finely stepped **creep speed gearbox with 32 gears** is available, which makes extremely slow driving possible.

Your benefits from the REFORM speed change gearbox:

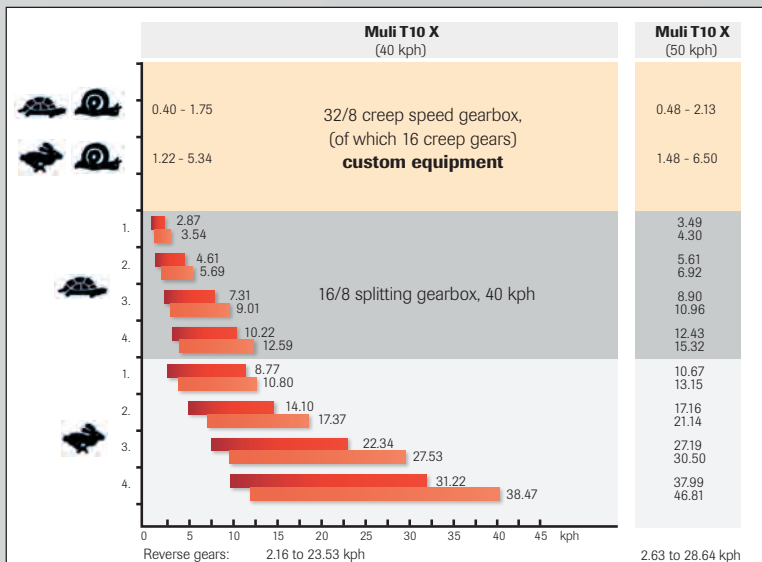
- Narrow, even, field-oriented gear stepping – well engineered and reliable
- Low moving-off speeds – essential for rough terrain
- 8 gears in the main working range between 4 and 12 kph
- Creep speed gear group with 16 creep speeds
- Large overlaps between the gears
- Smooth, quick and easy gear shifting with synchronised speed change and shuttle gearbox (provides also more safety on slopes)
- Short, exact shifting travels for precise gear selection and quick manoeuvring
- Now bowden cables (gear shift lever goes directly to the gearbox)
- Ergonomically placed and clearly arranged gear shift levers
- Preselectable splitting group for anticipatory shifting
- Simultaneous shifting (1–4) and splitting (I–II)
- Optimum working speed and PTO speed for maximum productivity of the attachments (e.g. rotary disc mower in front combined with top-mounted self-loading trailer in the rear)
- Precision helical gearing, perfect match of engine, gearbox and drive ensure safety and long service life



The 8 forward gears are subdivided into 16 gears by the splitting ("half gear") group, creating an even finer speed stepping.



- 1 Main gearbox
- 2 Lateral drive (option)
- 3 Creep speed gearbox (option)



The gear shift levers are ergonomically placed next to the driver's seat. Thanks to the synchronisation of the speed change and shuttle gearbox, all gear changing operations can be performed quickly and easily.

Choose from:

- 16/8 splitting gearbox
- 32/8 creep speed gearbox (option)
- Lateral drive (option)

as an extension to the main gearbox, required for driving the front PTO.



Muli T10 X HybridShift

The best of two worlds.

The demands on the Muli are becoming more diverse and require different drive concepts depending on the attachment, operating speed and load torque. Each drive concept has its advantages and disadvantages. With the **REFORM HybridShift gearbox**, however, it has become possible to combine the advantages of a hydrostatic drive in work mode and a mechanical drive in road mode without sacrifices.



In road mode, nothing beats the efficiency of a **mechanical gearbox**. The vehicle can be driven economically in particular when fully loaded and in the high speed range.

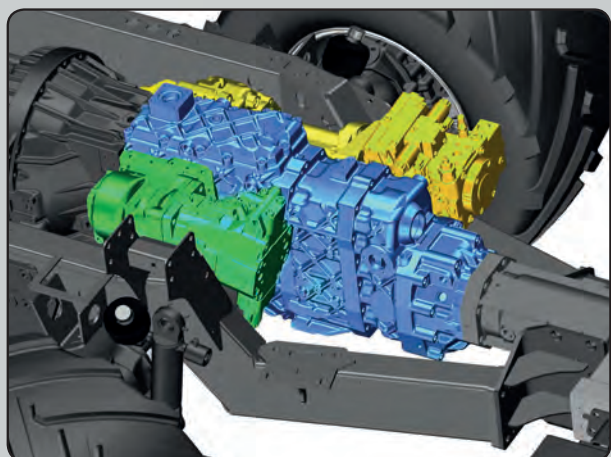


Applications such as snow removal on parking lots and cleaning of reflector posts require frequent changes of direction or stop and go operation. A **hydrostatic drive** is the best solution in this case.



Mechanical drive

- Mechanical gearbox for road driving
- Economical due to high efficiency
- Unlimited applications
- Splitting at the push of a button



Hydrostatic drive

- Eight-stage hydrostatic drive during work
- Comfort by continuous speed control
- Easy and ergonomic operation
- Changing the driving direction by pushing a button during work

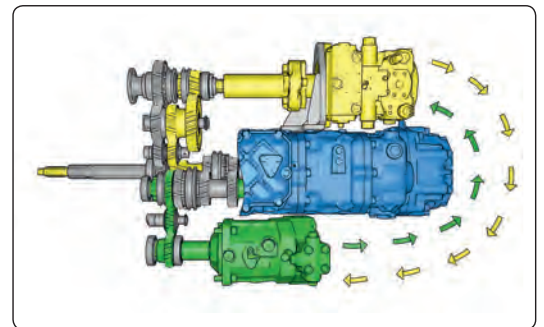
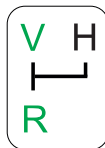
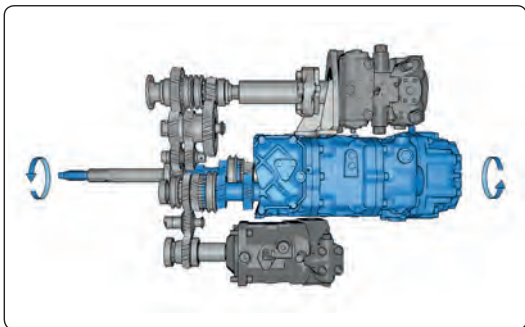


Muli T10 X HybridShift

For each application the optimal drive.



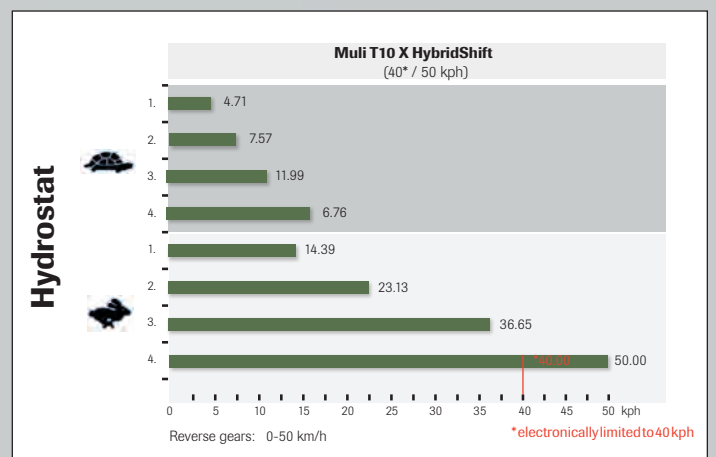
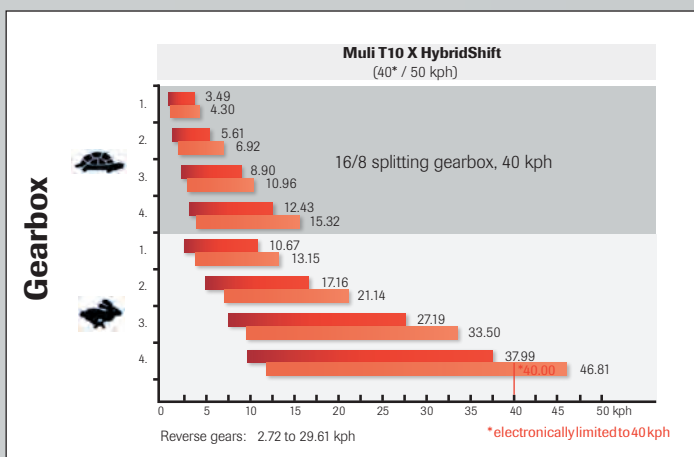
Depending on the work, the operator can choose between the **gearbox (1)** and the **continuously variable gearbox (2)**. Switching is done by a control lever.



In **mechanical mode**, the hydraulic components are separated from the drive train. The drive is 100% mechanical (blue) without any loss of efficiency due to the hydraulic components.

After changing to **hydrostatic mode**, the hydraulic components, hydro-pump (yellow) and hydro-motor (green), start to work. The hydrostat system can be controlled through 4 gears and two groups. The driving direction is changed via a rocker switch on the joystick.

Driving speeds gearbox and hydrostat





Mechanical drive for road driving ...





... hydrostatic drive for work



TECHNOLOGY AT ITS BEST

REFORM Assistance System (RAS).

Vehicles are becoming increasingly more complex in their functionality and operation. But to ensure that the operator is able to maintain an overview and fully concentrate on the work and the attachment, he is supported by the specially developed **REFORM Assistance System (RAS)**.

Features REFORM Assistance System (RAS)



Cruise control

Automatically maintaining a constant preset driving speed, allowing the driver to fully concentrate on the attachment.



Speed limit

This allows more sensitive use of the accelerator pedal.

KPH
+ / -
RPM

Power limit control

Power limit control automatically controls the power distribution between the drive and the attachment drive.



PTO mode

In PTO mode, the driver can set a constant engine speed.



ECO mode

In continuous mode, this feature allows driving with optimised fuel consumption and low noise generation.



Operator control system

The heart of the REFORM Assistance System assists the operator in the optimal vehicle settings for different applications.

Areas of the operator control system



- 1 Gearbox:** The optimum gearbox and corresponding gear are suggested here.
- 2 General vehicle:** The operator is suggested important vehicle settings for the specific work, such as suspension or cruise control, as well as any functional checks such as lighting, heater, etc.
- 3 Hydraulics and PTO info:** Necessary settings such as PTO on/off, PTO mode, or hydraulic settings such as weight compensation are displayed in this area.
- 4 Work use:** A predefined work use can be selected here. Then, in the areas of gearbox, general vehicle, and hydraulics and PTO, the optimum setting for this selection is shown.



Muli accessories

Top equipment for any job.



The **device mounting frame** allows front attachments to be directly mounted, e.g. snow plough or blower.



The **front 3-point linkage** with forks is available with electro-hydraulic weight compensation and vibration damping.



The **rear 3-point linkage** is equipped with fixed category 2 lower links.



Automatic rear **trailer hitches** are available in pivoting or fixed design.



One or two **working lights** behind the cab provide sufficiently good visibility at night.



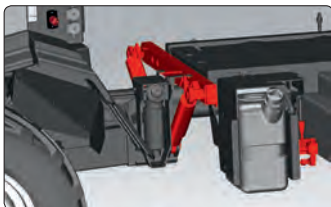
The **optical warning system** can be mounted on the roof of the Muli and can be labelled individually.



The roof of the Muli T10 X can accommodate up to 3 working lights per side or a **changeable lighting** for use with front attachment.



Specifically for municipal use, a **warning marking set** is available for better visibility, especially at night.



Use with a crane requires a mandatory **hydraulic twist lock**.



The splash-proof and lockable **tool box** made of polyethylene provides enough storage space for straps, tools or options.

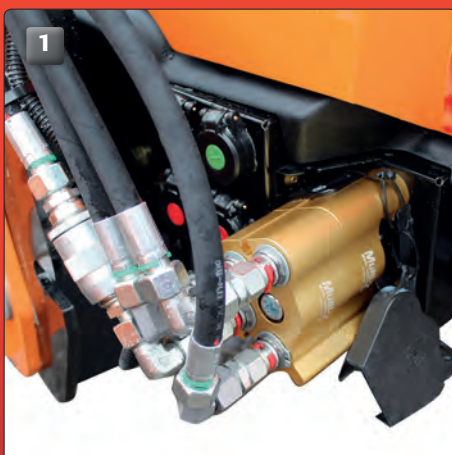


All Muli models can be finished in your specified **custom paint**.



The **Recon wireless remote control** allows operating the attachments on the Muli T10X from the outside.

Further accessories



For quick and easy connecting and disconnecting of the hydraulic hoses of front attachments, a **multi-hydraulic coupler (1)** can be installed.

Different control panels or monitors such as a **reversing camera (2)** with 5.6" colour monitor can easily be mounted on the **monitor holder (2)**.

Other custom equipment

- Winter service preservation
- Bio-hydraulic oil
- Power outlets
- Radio with USB port
- Tachygraph

REFORM Multi

The climbers with the strong profile.

Road tyres



265/70 R19.5



285/70 R19.5



15.5/55 R18

The tried-and-tested special tread patterns ensure **maximum traction, low ground pressure** and reliable turf protection. They provide grip on difficult soils and on steep slopes.

Universal tyres



15.0/55-17
AG profile



425/55-R17
AG profile



440/50 R17
All-Ground

Auxiliary tyres Universal tyres



7.50-18
front / rear



285.80-R16 rear
7.50-18 front / rear



7.50-18
front / rear

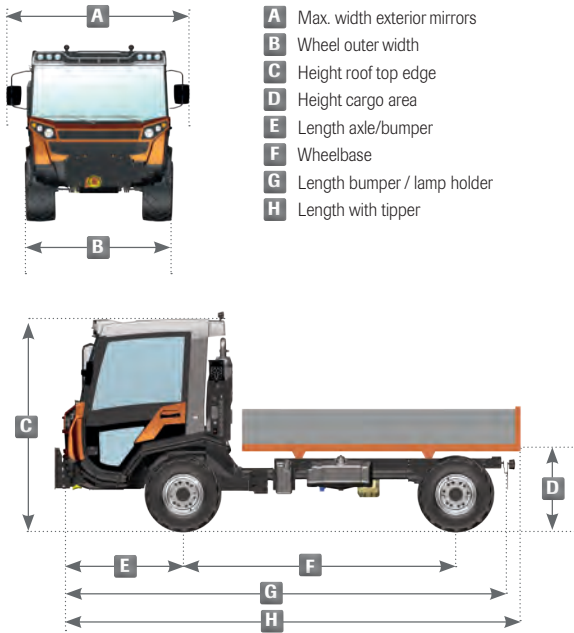
Auxiliary wheels with universal tyres

Auxiliary tyres considerably increase slope suitability and soil protection – especially in moist soil conditions.

The right tyres for every job.



Dimensions Muli T10 X / Muli T10 X HybridShift



- A** Max. width exterior mirrors
- B** Wheel outer width
- C** Height roof top edge
- D** Height cargo area
- E** Length axle/bumper
- F** Wheelbase
- G** Length bumper / lamp holder
- H** Length with tipper

Dimensions in mm (tyres 15.0/55-17)

	Muli T10 X Suspension FA	Muli T10 X Suspension FA / RA	Muli T10 X HybridShift Suspension FA / RA
A	2,650	2,650	2,650
B	2,045 FA, 1,840 RA	2,045 FA, 2,030 RA	2,045 FA, 2,030 RA
C	2,355*	2,355*	2,355*
D	1,060	1,060	1,060
E	1,385	1,385	1,385
F	2,805 / 3,180	2,805 / 3,180	2,805 / 3,180
G	4,898 / 5,273	4,898 / 5,273	4,898 / 5,273
H	5,217 / 5,591	5,217 / 5,591	5,217 / 5,591

* Lowered suspension
FA (front axle)
RA (rear axle)

Wheel outer widths Muli T10 X / Muli T10 X HybridShift



Wheel outer widths (mm)	T10 X Suspension FA	T10 X Suspension FA / RA	T10 X HybridShift Suspension FA / RA
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Road tyres front

15.5/55 R18	2,050	2,050	2,050
265/70 R19.5 (ET80)	2,040	2,040	2,040
265/70 R19.5 (ET120)	1,960	1,960	1,960
285/75 R16 (ET80)	2,080	2,080	2,080
285/75 R16 (ET120)	2,000	2,000	2,000

Road tyres rear

15.5/55 R18	1,847	2,035	2,035
265/70 R19.5 (ET80)	1,835	2,025	2,025
265/70 R19.5 (ET120)	1,755	1,945	1,945
285/75 R16 (ET80)	1,875	2,060	2,060
285/75 R16 (ET120)	1,795	1,980	1,980

AG tyres front

15.0/55-17	2,045	2,045	2,045
15.0/55-17 w. aux. wheel 7.50-18	2,585	2,585	2,585
425/55 R17	2,110	2,110	2,110
425/55-R17 w. aux. wheel 7.50-18	2,585	2,585	2,585

AG tyres rear

15.0/55-17	1,840	2,030	2,030
15.0/55-17 w. aux. wheel 7.50-18	2,380	2,565	2,565
425/55 R17	1,905	2,090	2,090
425/55-R17 w. aux. wheel 7.50-18	2,380	2,565	2,565
425/55-R17 w. aux. wheel 285 / 80 R16	2,575	---	---

All-Ground front tyres

440/50 R17	2,110	2,110	2,110
440/50-R17 w. aux. wheel 7.50-18	2,585	2,585	2,585

All-Ground rear tyres

440/50 R17	1,905	2,090	2,090
440/50-R17 w. aux. wheel 7.50-18	2,380	2,565	2,565

REFORM Muli – The original!

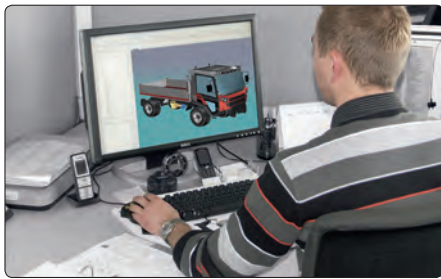


Innovative engineering since 1910

Customer Satisfaction through Quality.



REFORM-Werke Wels is one of the few manufacturers which assume undivided responsibility for the entire value added chain. Have a brief tour on the creation of Reform products, from development of a new machine to standard production. The entire production process is subject to the requirements of the **ISO 9001 quality management system**.



Latest equipment, such as 3-D CAD, in **design and development** of new special purpose vehicles.



In **parts production** precision parts are manufactured on leading edge CNC tools in different batch sizes.



Permanent **quality control** ensures compliance with standards according to the ISO 9001 quality management system.



In **line assembly**, excellently trained and continuously schooled expert personnel produce a wide range of vehicle types and variants.



Before delivery, all vehicles undergo intensive **functional testing** such as here on the chassis dynamometer (pictured).



In the **end of line check** and the **finishing department**, all machines are thoroughly checked once more and prepared for shipment to their future owners.

REFORM – On the way to the customer.

A large part of the machines are transported with **REFORM's own lorries** – they reach their destination fast and safely.

Our own transport vehicles – in eye-catching, contemporary design – have special accessories for optimal loading of REFORM machines. Additionally, we also use outside forwarding agencies and railway transport.



Technical data



Muli T10 X

Engine	<p>4-cylinder 4-stroke diesel engines with turbocharger and common rail direct injection, intercooling, exhaustgas recirculation including cooling, self-regenerating particle filter, displacement 2,970 cc, water-cooled, electronic accelerator pedal and PTO mode.</p> <p>- VM-R 754 IE4, 80 kW (109 hp) at 2,600 rpm, (emission level 3 B), max. torque 360 Nm at 1,100 rpm or - VM-R 754 EU6, 80 kW (109 hp) at 2,600 rpm, (emission level Euro 6). Ad Blue and SCR, max. torque 360 Nm at 1,100 rpm.</p>
Gearbox	<p>Direct shift shuttle gearbox with synchronisation, controlled forced feed lubrication with suction filter in the main gearbox. Field and road gear groups with preselectable splitting via rocker switch on gear lever, 16 forward gears (2.6–40 kph) and 8 reverse gears.</p> <p>Option: Creep speed group (0.40 – 40 kph), gearbox variant 50 kph.</p>
Clutch	<p>Dual disc dry clutch with separate actuation: Drive clutch hydraulic via pedal, electro-hydraulic power-shift PTO.</p>
Axles / differential locks	<p>Portal axles with rear differential lock, switch status indicator lights in central information dashboard. Option: Front differential lock (both preselectable and electro-hydraulically switchable).</p>
Axle drive	<p>Permanent 4 wheel drive (drive torque split: 1/3 front and 2/3 rear) via preselectable, electro-hydraulically lockable centre differential. Activation indicator light in the central information dashboard.</p>
Suspension	<p>HCS – High Comfort Suspension: Independent suspension with level regulation and suspension lock standard on front axle or optionally on both axles. Single wheel suspension on trailing links via damping cylinders with hydraulic accumulators and elastic bump stops. Option: Sprung rear axle, suspension lock on the rear axle.</p>
Steering	<p>Hydrostatic steering with Load Sensing; hydraulic synchronising cylinder. Option: 4 wheel steering with electro-hydraulic steering mode switch during driving.</p>
Service brake	<p>Hydr. dual circuit 4 wheel brake with hydraulic brake booster, internally ventilated disc brakes front and rear. For sprung rear axle with axle load dependent tandem brake regulator. Option: Retarder auxiliary brake system.</p>
Parking brake	<p>Spring brake as sliding saddle disc brake on the drive shaft, electro-hydraulic release.</p>
Work and steering hydraulic system / driving hydraulics (HybridShift)	<p>Hydraulic pump 42 l/min, max. pressure 195 bar, 60-litre oil tank, equipped with hydraulic version B rear. Option: Hydraulic pump 73 l/min, proportional control up to three 4/4-control valves, multi-hydraulic coupling, extension to max. 6 control valves.</p>
PTOs	<p>Power-shift PTO at rear axle gearbox, 540 rpm, (option: 1,000 rpm), clockwise; Option: power-shift PTO front 1,000 rpm, counter-clockwise.</p>
Cab	<p>Hydro-rubber mounted clear vision tipping cab (ROPS-tested) with doors, heating and air conditioning, central information system with on-board computer, hydraulic locking and tilting, tilt- and height-adjustable steering column, tinted all-round windows, bonnet service opening, 2 side mirrors, 2 front working lights integrated in the roof, daytime running lights, windscreen wiper/washer system with intermittent operation, radio preparation incl. loudspeakers and aerial, comfort seats in various versions, sun visors, fixed-mounted shift gate of the main operations, interior lighting system, cup holders, storage compartments in the centre console, tailboard and the footwell, heatable and coolable glove box, mounting bracket in the roof liner, fastening options for attachments displays, cigarette lighter, wheel arch lining and floor protection plate at front. Option: Cable entry at the tailboard, heated or electrically adjustable exterior mirrors, heated windscreen, wide-angle mirror, ramp mirror, reversing camera with display.</p>
Gauges	<p>Central information panel: Speedometer, remote thermometer, fuel gauge, tachometer, on-board computer display (splitting stage, operating hours counter, odometer, daily hours counter, clock, various warning indications, current and average fuel consumption, average speed, driving range, acreage counter with preselectable working width, service indicator). Option: Steering mode indicator, brake pad wear indicator, retarder activation, electr. weight compensation, indicator of ground, road and outside temperature.</p>
Electric system	<p>Decentralised electronic system with protection class IP67, networked via high-speed CAN BUS system, battery 12V, 135 AH, 1000 AEN (cold start properties), alternator 140 A (180 A Euro6), full road lighting according to traffic regulations, battery cut-out switch. Option: Changeable lighting (high and low beam, turn signal in the roof) or additional 2 pairs of working lights (H7) in the roof, 2-, 3- or 4-pin socket in the tailboard, rear working lights, 2-piece lamp holder, rear underride protection, optical warning system (OWS), rotating warning light, rear fog light, service tool (diagnostic system via PC). ReCon wireless remote control.</p>
Fuel tank	<p>PE tank, capacity 120 l, with heated fuel filter.</p>
Seat designs	<p>Longitudinally and height-adjustable comfort seats with tilt-adjustable backrest in various designs: Leatherette cover with lap belt (standard), cloth cover mechanically or air-cushioned with lap belt and high backrest (3-point belt optional); Cloth cover mechanically or air-cushioned with integrated 3-point belt, seat heater and high backrest (arm rests optional); Further options: high backrest for leatherette seat, cloth seat cover.</p>
Accessories Further options on request	<p>Heated windscreen/rearview mirror, stereo radio, adjustable steering wheel, speedometer, tachygraph, temperature display, reversing camera, display holder, various lamp holders and warning lights, working lights, front PTO, front mounting frame optionally with mounting plate or hydr. linkage, hydr. weight compensation and vibration damping, rear 3-point linkage, twist lock, various trailer hitches, 4 wheel steering, custom paint finish, snow chains, winter service preservation. Further options on request.</p>
Attachments Further attachments on request.	<p>3-side tipper bridge (all-steel or steel/aluminium version), deposit tipper, road spraying and washing unit, tank attachments, road sweeper attachment, leaf vacuum, extension arm boom flail mower, grass collector, loading crane mounted behind the cab or at the rear, various snow ploughs, snow blowers and spreaders, scraper floor, built-on self-loading trailer (standard cut, multi-cut), manure container, manure spreading unit, lateral spreader, front rotary disc mower. Further attachments on request.</p>
Weights	<p>Dead weight (with doors and heater): from 3,300 kg Permissible axle load, front: 4,600 kg Permissible axle load, rear: 4,600 kg Permissible gross weight: 9,000 kg* * For Germany also 7,500 kg max. permissible gross weight possible!</p>
Miscellaneous	<p>Quick releases for tools attachments, front hitch.</p>



Muli T10 X HybridShift

4-cylinder 4-stroke diesel engines with turbocharger and **common rail direct injection**, intercooling, exhaustgas recirculation including cooling, self-regenerating particle filter, displacement 2,970 cc, water-cooled, electronic accelerator pedal and PTO mode.

-VM-R 754 IE4, 80 kW (109 hp) at 2,600 rpm, (emission level 3 B), max. torque 360 Nm at 1,100 rpm or
-VM-R 754 EU6, 80 kW (109 hp) at 2,600 rpm, (emission level Euro 6), **Ad Blue and SCR**, max. torque 360 Nm at 1,100 rpm.

Patented hybrid transmission with two selectable driving modes

1) Mechanical driving mode

Direct shift shuttle gearbox with synchronisation, controlled forced feed lubrication with suction filter in the main gearbox. Terrain and road gear groups with preselectable splitting via rocker switch on gear lever, 16 forward gears and 8 reverse gears, optionally 40 km/h or 50 km/h version (3.5 - 50 km/h). 40 km/h version is limited electronically. Travel direction switched by forward/reverse lever.

2) Hydrostatic driving mode

Hydromechanical gearbox with 8 forward driving ranges and 8 reverse driving ranges, optionally 40 km/h version (0 - 40 km/h) or 50 km/h version (0 - 50 km/h), travel direction switched at joystick.

Dual disc dry clutch with separate actuation; drive clutch hydraulic via pedal, electro-hydraulic power-shift PTO. In hydrostatic mode, the clutch pedal causes zero flow of the hydraulic pump without separating the clutch.

Portal axles with rear differential lock. Switch status indicator lights in central information panel.

Option: Front differential lock (both preselectable and electro-hydraulically switchable).

Permanent 4 wheel drive (drive torque split: 1/3 front and 2/3 rear) via preselectable, electro-hydraulically lockable centre differential.

Activation indicator light in the central information dashboard.

HCS – High Comfort Suspension: Independent suspension with level regulation standard on the front and rear axle. Single wheel suspension on trailing links via damping cylinders with hydraulic accumulators and elastic bump stops. Suspension lock as standard on the front axle.

Option: Suspension lock on the rear axle.

Hydrostatic steering with Load Sensing; hydraulic synchronising cylinder.

Option: 4 wheel steering with electro-hydraulic steering mode switch during driving.

Hydr. dual circuit 4 wheel brake with hydraulic brake booster, internally ventilated disc brakes front and rear. Axle load dependent tandem brake regulator.

Option: Retarder auxiliary brake system.

Spring brake as sliding saddle disc brake on the drive shaft, electro-hydraulic release; active stop feature in hydrostatic mode.

Hydraulic pump 42 l/min, max. pressure 195 bar, 60-litre oil tank, equipped with hydraulic version B rear.

Option: Hydraulic pump 73 l/min., up to 4 double-acting control valves (3 proportional valves on request). Extension to max. 6 control valves.

Power-shift PTO at rear axle gearbox, 540 rpm, (option: 1,000 rpm), clockwise;

option: power-shift PTO front 1,000 rpm, counter-clockwise.

Hydro-rubber mounted clear vision tipping cab (ROPS-tested) with doors, **heating and air conditioning**, **central display with on-board computer**, hydraulic locking and tilting, tilt- and height-adjustable steering column, tinted all-round windows, bonnet service opening, 2 side mirrors, 2 front working lights integrated in the roof, daytime running lights, windscreen wiper/washer system with intermittent operation, radio preparation incl. speakers and aerial, driver seat with integrated 3-point seat belt, seat heater and arm rest with integrated joystick to operate the hydraulic functions, the travel direction in hydrostatic mode and the cruise control, passenger seats in various versions, sun visors, cab illumination system, cup holders, storage compartments in the centre console, tailboard and the footwell, heatable and coolable glove box, mounting bracket in the roof liner, fastening options for attachments displays, cigarette lighter, wheel arch lining and floor protection plate at front.

Option: Cable entry at the tailboard, heated or electrically adjustable exterior mirrors, heated windscreen, wide-angle mirror, ramp mirror, reversing camera with display.

Central display: Speedometer, tachometer, remote thermometer (engine and driving hydraulics), fuel and Adblue gauge, lock status (4 wheel, front and rear diff. lock), parking lock status/active stop feature, cruise control, time, splitting stage, display of mechanical/hydrostatic mode, various warning and signal lamps; optional: Display for steering mode, retarder activation, electr. weight compensation.

Onboard computer/information area: Total distance and hours, hours/day, average speed, service interval, max. time period until refuelling, current fuel consumption, average fuel consumption, acreage

counter, **operator guidance system**, rotation monitoring;

Optional: set ELC pressure, soil and ambient temperature.

Decentralised electronic system with protection class (dust- and waterproof), networked via **high speed CAN bus system**, battery 12V, 135 Ah, 1000 AEN (cold-start properties), alternator 220 A, full road lighting according to traffic regulations, front working lights in the roof, battery cut-out switch, 13-pin socket (self-loading trailer, manure spreader,...), 7-pin socket at rear for lamp holder, "ambient light" in the cab. Option: Changeable lighting (high and low beam, indicator in roof) or additional 2 pairs of working lights (LED) in the roof, up to 2 x 7-pin socket at rear for lamp holder split and trailer, 7- or 13-pin socket at front for attachments, disconnectable crane connection with monitoring, disconnectable reverse buzzer, 2-, 3- or 4-pin socket in cab rear wall, rear working light, 2-component lamp holder, underdrive protection rear, OWS optical warning system, rotating warning light, rear fog light, REFORM Maintenance Support (PC-based diagnostics system), ReCon remote control.

PE tank, capacity 120 l, with heated fuel filter.

Longitudinally and height-adjustable comfort seats with tilt-adjustable backrest in various designs: Leatherette cover with lap belt (standard for passenger seat),

cloth cover mechanically or air-cushioned with lap belt and high backrest (3-point belt optional);

Cloth cover mechanically (standard for driver) or air-cushioned **with integrated 3-point belt**, seat heater and high backrest (arm rests optional);

other options: high backrest for leatherette seat, cloth seat cover.

Heated windscreen/rearview mirror, stereo radio, **adjustable steering wheel**, speedometer, tachygraph, temperature display, reversing camera, display holder, various lamp holders and warning lights, working lights, front PTO, front mounting frame optionally with mounting plate or hydr. linkage, hydr. weight compensation and vibration damping, rear 3-point linkage, twist lock, various trailer hitches, 4 wheel steering, custom paint finish, snow chains, winter service preservation. Further options on request.

3-side tipper bridge (all-steel or steel/aluminium version), deposit tipper, road spraying and washing unit, tank attachments,

road sweeper attachment, leaf vacuum, extension arm boom flail mower, grass collector, loading crane mounted behind the cab or at the rear,

various snow ploughs, snow blowers and spreaders, scraper floor, built-on self-loading trailer (standard cut, multi-cut), manure container, manure spreading unit, lateral spreader,

front rotary disc mower. Further attachments on request.

Dead weight (with doors and heater): from 3,600 kg

Permissible axle load, front: 4,600 / 5,200 kg*

Permissible axle load, rear: 4,600 / 5,200 kg*

Permissible gross weight: 8,500 / 9,500 kg*

*only with road tyres

For Germany also 7,500 kg max. permissible gross weight possible!

Quick releases for tools attachments, front hitch.



REFORM – your strong partner.

The acknowledged expert in municipal technology, intensive lawn care, mountain agriculture, horticulture and landscaping since 1910. Innovative quality solutions help to preserve a livable environment. We maintain a long term, reliable partnership with our customers. REFORM is your expert for steep slopes, so you experience best possible safety

on extreme terrain. REFORM machines are distinguished by compact design, low dead weight and excellent soil protection. The tried and tested REFORM 4 wheel steering allows formidable agility with the smallest footprint. REFORM is your partner for all year round operation, offering solutions tailored to your requirements.



Your Reform Partner

REFORM-WERKE

Bauer & Co Gesellschaft m.b.H.
Haidestrasse 40, A-4600 Wels, Austria
FN 139380 x, Landesgericht Wels
Tel. +43 / 7242 / 232 - 0
Fax +43 / 7242 / 232 - 4
www.reform.at
E-mail: info@reform.at

AGROMONT AG

Postfach 142
Bösch 1
CH-6331 Hünenberg, Switzerland
Tel. +41 / 41 / 784 20 20
Fax +41 / 41 / 784 20 22
www.agromont.ch
E-mail: info@agromont.ch



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www.reform.at