

## The versatile experts



# The new Muli mid-range

Powerful. Lightweight.

Excellent slope capability.

### Powerful. Lightweight. Excellent slope capability.

# The universal transporter for year-round use





The REFORM Muli is *the* universal transporter for hill farming and municipal work. With its outstanding versatility, the Muli is can master any work situation, offering unparalleled comfort and maximum safety in all weather conditions.





# Focus on the customer

Improving a tried and tested product even further is always a special challenge. Why did this work out so well with the new Muli mid-range? The development of the new T7 X and T8 X models was specifically focused on customer needs. This resulted in vehicles with an uncompromising focus on the following characteristics:

- **■** Versatile
- Safe
- **■** Comfortable
- **■** User-friendly
- **■** Economical
- **■** Environmentally friendly







# Versatile with four attachment points

The chassis of the Muli is specially designed to accommodate interchangeable bodies and attachments. Four attachment points make it *the* universal transporter for any time of year.

Four fully-featured attachment points

Quick-change attachments turn the Muli into a versatile machine. Four fully-featured attachment points (main frame, front linkage, platform frame, rear linkage/trailer hitch) offer comprehensive multi-functionality for different applications. The adjustable suspension and the quick release system with PTO centring in combination with the REFORM built-on self-loading trailer allow fast swapping of bodies.

New platform frame with increased payload

The new platform frame has increased the torsional rigidity and axle loads, despite the lighter design. The increased maximum permissible gross weight is 8,100 kg (T7 X) and 9,500 kg (T8 X), while the dead weight of the vehicles has remained almost the same compared to the previous models.

Working hydraulics for any application

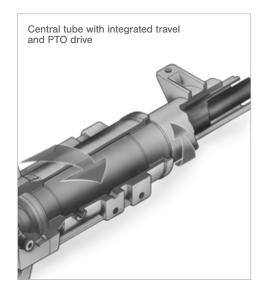
The new Muli mid-range offers finely tuned working hydraulics. The version with a dual pump on the Muli T7 X features an optimised position of the mechanical valves. The multi-stage concept with a 3-stage pump on the T8 X model provides additional options such as proportional valves and a Powerlink connection. Weight compensation and vibration damping have been optimised on all new models.



# VERSATILE

# Safety on any terrain

The all-terrain articulated chassis, the four wheel steering, and the high-traction tyres turn the new Muli models T7 X and T8 X into what they are: multi-functional, agile and safe transporters for any terrain.



#### Excellent slope capability due to special chassis

The special all-terrain chassis of the new Muli mid-range ensures extreme slope capability while protecting the turf. The optimum ground adjustment is achieved through the articulated central tube design. The robust portal axles provide enormous ground clearance and the best protection for the drive train.

#### Newly developed external power braking system

The newly developed hydraulic power braking system ensures shorter braking distances and higher towing capacities with reduced pedal force. Soft setting out on hills is made possible by a proportional spring brake. The new Muli mid-range can also be equipped with an optional eddy current brake.

#### Proven Muli four wheel drive

The permanent four wheel drive with 100% lockable centre, front and rear differential ensures optimum grip in any working situation. The locked centre differential distributes the drive power 50:50 between the front and rear axles. When unlocked, the split is one third to two thirds.

#### High-traction tyres

The hill performance of the new Muli models is perfectly complemented by the high-traction tyres, which can be equipped with snow chains. The standardised auxiliary wheels for the front and rear axles do not require a steering angle limiter.



SAFE

# A comfortable workplace

The completely redesigned cab of the new Muli mid-range offers a generous space, the best all-around view and always the right comfortable temperature for your workspace.

#### Cab with plenty of comfort

The new cab offers a generous space and sets new standards for comfort. The hydro-rubber bearings greatly reduce vibrations – the improved sound insulation provides a pleasantly low noise level in the cab. A high-quality digital radio can be used as a hands-free system or for controlling the navigation system and other apps. The powerful heating and air-conditioning system provides a pleasant working climate.

#### Optimum all-around view and large entry area

The spherical windscreen that extends far downwards and the all-glass doors on both sides with integrated sliding windows ensure the best all-around view. The large opening angle of the doors and the two-step running boards make entering the cockpit easy and comfortable.



#### Suspension system with adjustable chassis

The hydro-pneumatic independent suspension (HCS) with trailing link suspension and adjustable suspension comfort shows its strengths on extremely difficult terrain and with full loads. Another benefit of the HCS is that the Muli can be raised or lowered at the press of a button, making it much easier to couple and uncouple various attachments.



COMFORTABLE

# Logical and intuitive operation

The new Muli mid-range features a logical control concept and clearly structured displays. This means that the driver can quickly become familiarised with the many functions and can start working straight away.

#### Logical control concept

All function switches in the new Muli mid-range are arranged in logical groups and positioned directly on the dashboard for optimum visibility. The 100% differential locks and the PTO are also operated electrohydraulically from here at the press of a button. For easy and safe coupling of attachments, the new Muli mid-range also features external controls at the front.

#### Armrest with controller (R-Com)

The armrest is permanently connected to the driver's seat and contains all the important functions of the Muli. This makes operation easy, ergonomic and safe – even on steep hills. The multi-function R-Com controller can be accessed easily at any time and can be operated along with the multi-function joystick or the fingertips with the arm supported.



# **USER-FRIENDLY**

#### Clearly structured displays

A central 4.3" information display with three analogue display units and 32 indicator lights can be operated with buttons or with the R-Com. The T8 X model is equipped with an auxiliary 7" display for controlling hydraulic functions, the automatic climate control and of various vehicle states.



## Easy access, easy maintenance

When it comes to economy, the new Muli mid-range scores with easy access to all the important vehicle components. This makes maintenance easier and saves time and money.

Convenient maintenance opening

Filters, fluids and lamps can easily be checked through a maintenance opening at the front of the vehicle. All components can be accessed without tools.

Redesigned technical compartment

The technical compartment behind the cab houses all hydraulic components. The entire hydraulic system, including the tank, can be accessed by removing only a few screws, and all hydraulic connections are positioned on the driver's side. The AdBlue tank for the new Muli mid-range can also be found here. As the working hydraulics has its own oil balance, contaminants are prevented from entering into sensitive vehicle components.

Removable cab

For more extensive repairs, the cab of the new Muli mid-range can be removed in a quick and easy process.

Combined radiator unit

The radiator, charge air cooler and air conditioning cooler are combined in the new Muli mid-range in a single unit that is as compact as it is robust. A fine-mesh radiator grille provides protection against contamination.



ECONOMICAL



# Good for environment and soil

An economical and efficient engine, low-pressure tyres for the front and rear axles, and genuine, true-track four wheel steering – this is how the new Muli midrange protects the environment and the soil.

Economical and efficient engine

The new Muli mid-range is equipped with a modern emission level 5 diesel engine that optimally combines power and torque with low consumption. The engine is equipped with a diesel oxidisation catalytic converter, a diesel particulate filter, an AdBlue tank and exhaust gas recirculation. With its compact dimensions, the engine is one of the most lightweight models in its performance class.

Soil protection with genuine four wheel steering

The steering system allows three steering types – front steering, four wheel steering, and crab steering. The genuine four wheel steering allows highly precise manoeuvring on a small footprint while protecting the soil. To ensure manageable vehicle handling at higher speeds, the maximum speed when using four wheel steering is automatically limited to 20 kph.

Low-pressure tyres are gentle on the soil

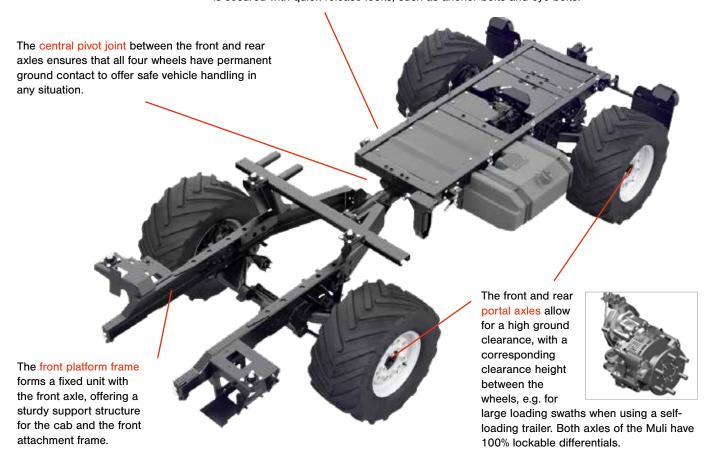
Low-pressure tyres with standardised auxiliary tyres on the front and rear axles without steering angle limitation ensure maximum soil protection. This allows the new Muli mid-range to reduce soil compaction and ensure a healthy soil climate. The same steering angle on the front and rear axles also ensures tension-free turning off-road and protects the turf. A wide range of road tyres are also available for municipal use.



# **MULI** Technical highlights

#### Chassis

The solid main frame is the mounting base for various bodies such as a built-on self-loading trailer, manure spreader, manure container, tipper, and many others. Each attachment is secured with quick-release locks, such as anchor bolts and eye bolts.



#### Suspension



REFORM relies on single-wheel suspension with trailing links for the suspension. This allows the use of portals that offer protection of the drive train, a lower tilting moment in the contour line and unrivalled ground clearance. The benefits in daily use:

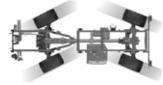
- Optimum grip in any situation
- Maximum tyre protection
- Increased turf protection
- Less risk of slipping
- Reduced ground pressure
- Greater safety on slopes

# Four wheel steering

The steering system allows 3 steering types – front, four wheel and crab steering.

The genuine true-track four wheel steering allows highly precise manoeuvring on a small footprint while protecting the soil.



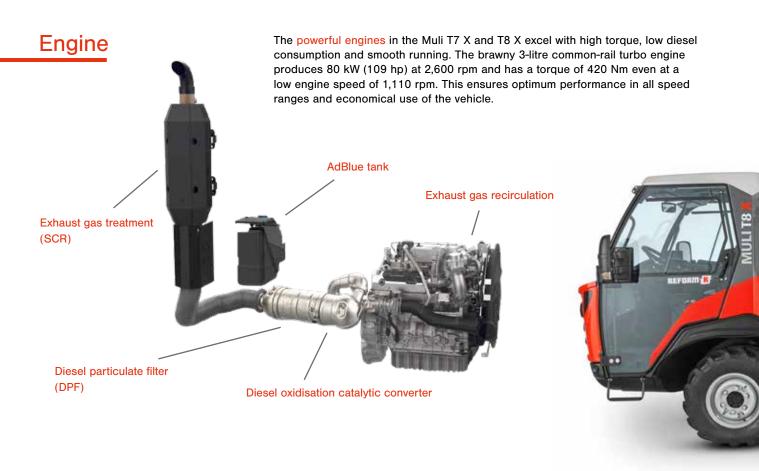




Front steering

Four wheel steering

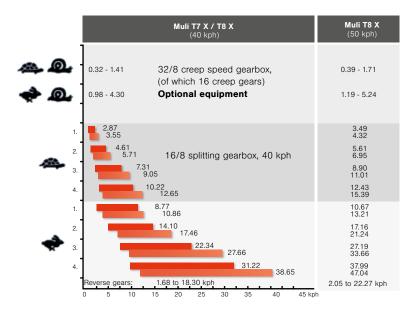
Crab steering



#### Gearbox

The new Multi T7 X and T8 X are equipped as standard with a synchronised splitting gearbox with a choice of 40 or 50 km/h. The 8 forward gears are divided into 16 gears by the splitting group to create an even finer speed gradation.

For use in slow working mode, an optional finely stepped creep speed drive with 32 gears is available to make extremely slow driving possible.



#### Brake system

Low pedal force and high braking power characterise the dual-circuit four-wheel power brakes of the new Muli models, which are equipped with internally ventilated disc brakes at the front and rear as standard. Optimum heat dissipation is ensured by holes in the wheel rims. The fine modulation of the brakes in the REFORM Muli is state of the art. For sprung rear axles, an axle-load dependent brake pressure booster is used to prevent premature blocking of the wheels. A wear-free eddy current brake can be added as an option.



### Muli T7 X technology



#### Muli T7 X suspension system

The Muli T7 X has a single-wheel suspension on the front axle for maximum driving comfort. This suspension system with a hydraulic suspension lock ensures maximum safety on slopes and steep terrain. Smooth axle mounts improve the response of the locating rods on bumpy terrain. The suspension comfort provided by the helical springs with elastic bump stops is based on a well-balanced chassis with single wheel suspension on trailing links at the front. Hydraulic cylinders and hydraulic accumulators act as shock absorbers and support the suspension comfort.

#### **Engine**



VM-R 754 EU6 80 kW/109 hp 420 Nm torque 2,600 rpm nominal speed Emission level 5/diesel particulate filter (DPF) SCR catalytic converter/AdBlue

#### Chassis



Off-road chassis in central tube design with portal axles, front steering, optional four wheel steering and front axle suspension with helical springs Wheelbase 2,805 and 3,180 mm Tyres up to 425/55-R17 GVW 8,100 kg

#### Drive

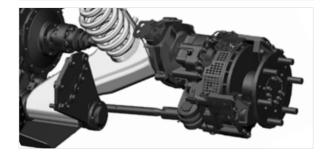


16/8-speed fully synchronous Shuttle gearbox 40 kph Creep speed optional 32/8 gears and eddy current brake

## Hydraulic system



Hydraulic pump 42 I/min at 180 bar PTO on rear axle gearbox 540 rpm Optionally 1,000 rpm and front PTO 1,000 rpm





### Muli T8 X technology



#### Muli T8 X suspension system

HCS (High Comfort Suspension) is a suspension concept for maximum 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, regardless of the load. At the push of a button, the Muli can be raised or lowered, which makes mounting or removal of attachments such as REFORM 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 on rough terrain even safer.

#### **Engine**



VM-R 754 EU6 80 kW/109 hp 420 Nm torque 2,600 rpm nominal speed Emission level 5/diesel particulate filter (DPF) SCR catalytic converter/AdBlue

#### Chassis



Off-road chassis in central tube design with portal axles, front steering, front axle suspension with HCS, optional four wheel steering and full suspension with HCS

Wheelbase 2,805 and 3,180 mm Tyres up to 425/55-R17 GVW 9,500 kg

#### Drive

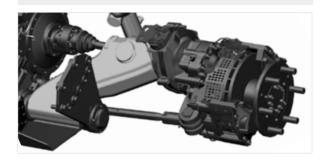


16/8-speed fully synchronous Shuttle gearbox 40 kph or 50 kph Creep speed optional 32/8 gears and eddy current brake

## Hydraulic system



Hydraulic pump 42 I/min, Optionally 73 I/min at 195 bar, or 240 bar PTO at rear axle gearbox 540 rpm Optionally 1,000 rpm and front PTO 1,000 rpm





### Wheels and tyres for the new Muli mid-range

#### For maximum traction and optimum soil protection.

#### **Universal tyres**

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



#### **Auxiliary tyres**

Auxiliary tyres considerably increase slope suitability and soil protection - especially on damp soil. The auxiliary tyres do not restrict the steering angle.



7.50-18 front/rear



285/80 R16 rear

Country-specific variants are available for the auxiliary tyres.

#### **Road tyres**

The road tyres are specially designed for use on roads and paths. They provide optimum traction in all weather conditions.







285/70 R19.5

15.5/55 R18





Outer wheel widths (mm)	T7 X	T8 X, T8 X pro		
AG tyres and All-Ground tyres, front				
15.0/55-17	2,047	2,047		
15.0/55-17 with auxiliary tyre 7.50-18	2,585	2,585		
425/55 R17 or 440/50 R17	2,148	2,108		
425/55 R17 or 440/50 R17 with auxiliary tyre 7.50-18	2,625	2,585		
AG tyres and All-Ground tyres, r	ear			
15.0/55-17	1,842 / 2,047*	1,842 / 2,034** / 2,047*		
15.0/55-17 with auxiliary tyre 7.50-18	2,380 / 2,585*	2,380 / 2,567** / 2,585*		
425/55 R17 or 440/50 R17	1,903 / 2,148*	1,903 / 2,090** / 2,148*		
425/55 R17 or 440/50 R17 with auxiliary tyre 7.50-18	2,380 / 2,625*	2,380 / 2,567** / 2,625*		
425/55 R17 or 440/50 R17 with auxiliary tyre 285/80 R16	2,575 / -*	2,575 / 2,760** / -*		
Road tyres, front				
15.5/55 R18	2,052	2,052		
265/70 R19.5 (ET80)	2,042	2,042		
265/70 R19.5 (ET120)	1,962	1,962		
285/70 R19.5 (ET80)	2,078	2,078		
285/70 R19.5 (ET120)	1,998	1,998		
Road tyres, rear				
15.5/55 R18	1,847 / 2,052*	1,847 / 2,034** / 2,052*		
265/70 R19.5 (ET80)	1,837 / 2,042*	1,837 / 2,024** / 2,042*		
265/70 R19.5 (ET120)	1,757 / 1,962*	1,757 / 1,944** / 1,962*		
285/70 R19.5 (ET80)	1,873 / 2,078*	1,875 / 2,060** / 2,078*		
285/70 R19.5 (ET120)	1,793 / 1,998*	1,793 / 1,980** / 1,998*		

<sup>\*</sup>with four wheel steering

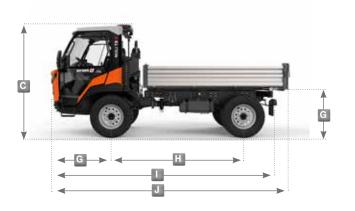
<sup>\*\*</sup>with sprung rear axle

## Dimensions with built-on self-loading trailer and tipper









	<b>Dimensions in mm</b> (tyres 15.0/55-17)	REFORM built-on self-loading trailer	REFORM tipper
<b>A</b> <sup>1</sup>	Cab width with exterior mirrors	2,540	2,540
$A^2$	Cab width without exterior mirrors	1,950	1,950
В	Max. width of main frame	PrimAlpin 2,470 / VSLW 2,200	2,120
C	Height of roof top edge*	2,303 without roof lighting 2,381 with roof lighting 2,394 with OWS	2,303 without roof lighting 2,381 with roof lighting 2,394 with OWS
$D^1$	Height of hay body, folded in	PrimAlpin 2,397 / MCLU 2,237	-
$D^2$	Height of hay body, folded out	PrimAlpin 2,912 / MCLU 2,852	-
E	Height of PrimAlpin cross tube raised	3,162	-
F	Height of loading area	PrimAlpin 1,062 / MCLU 1,012	1,082
G	Length of axle/bumper	1,385	1,385
H	Wheelbase	2,805 / 3,180	2,805 / 3,180
	Length of bumper/lamp holder	-	4,898 / 5,273
J	Overall length	MCLU 6,155 / 6,530 PrimAlpin 6,145 / 6,520 + 70 with four wheel steering	5,217 / 5,591

Technical data	Muli T7 X	Muli T8 X	Muli T8 X pro
Engine			
Туре	VM R754 EU6	VM R754 EU6	VM R754 EU6
Power (hp)	109	109	109
Power (kW)	80	80	80
Displacement/cylinder	2,970	2,970	2,970
Cylinders	4	4	4
Torque	420	420	420
at engine speed	1,100	1,100	1,100
Nominal speed (rpm)	2,600	2,600	2,600
Emission level	5	5	5
Exhaust gas recirculation	✓	✓	✓
Diesel particulate filter	<b>✓</b>	✓	✓
Fuel tank (I)	120	120	120
AdBlue tank (I)	14	14	14
Electrical system	12 V / 135 Ah	12 V / 135 Ah	12 V / 135 Ah
Alternator Ah	140	140	140
Drive/chassis			
Dual disc dry clutch with separate actuation	<b>✓</b>	✓	✓
Shuttle gearbox 16/8	<b>✓</b>	✓	✓
Creep speed gearbox 32/8	0	0	0
Front and rear portal axles	<b>✓</b>	✓	✓
Permanent four wheel drive with optionally activatable centre differential 100 %	<b>√</b>	<b>✓</b>	<b>√</b>
100% electro-hydraulically operated differential lock at front and rear	✓	✓	✓
Individual wheel suspension with helical springs on the front axle	0	-	-
Single-wheel suspension with hydro-pneumatic suspension on the front axle	-	✓	✓
Single-wheel suspension with hydro-pneumatic suspension on the front and rear axles with adjustable suspension comfort	-	0	0
Front steering	<b>✓</b>	✓	✓
Four wheel steering and crab steering	0	0	0
	-		

Technical data	Muli T7 X	Muli T8 X	Muli T8 X pro
Service brake: electro-hydraulic external force brake, hydraulic dual-circuit 4-wheel brake with internally ventilated front and rear disc brakes	<b>√</b>	<b>✓</b>	<b>√</b>
Parking brake: spring-loaded brake as sliding saddle disc brake, electro-hydraulic release	<b>✓</b>	<b>√</b>	<b>√</b>
Wear-free brake (retarder)	0	0	0
Tyre variants			
15.0/55-17 AG	✓	✓	✓
425/55 R17 AG profile	0	0	0
440/50 R17 All-Ground tyres	0	0	0
265/70 R19.5 road tyres	0	0	0
15.5/55 R18 road tyres	0	0	0
285/70 R19.5 road tyres	0	0	0
Cab		1	
Closed cab with tinted all-around windows, all-glass doors with sliding windows	✓	<b>✓</b>	<b>√</b>
Opening roof	0	0	0
Heating	✓	-	-
Manual heating and air conditioning	0	<b>✓</b>	-
Automatic heating and air conditioning	-	-	✓
Single DIN radio	0	О	0
Single DIN radio + CD & SD	0	О	0
Double DIN radio, Android Auto and Apple CarPlay, with USB cable	0	0	0
Double DIN radio, Android Auto and Apple CarPlay, wireless	0	0	0
R-Guide Monitor: personalised vehicle functions	-	-	✓
Comfort seat with leatherette cover, mechanically sprung, with lap belt (driver/passenger)	√/√	-/√	-/-
Comfort seat with cloth cover, mechanically sprung, with lap belt and high backrest (driver/passenger)	0/0	-/0	-/0
Comfort seat with leatherette cover, air cushioned, with lap belt and high backrest (driver/passenger)	0/0	√/0	√/0
Comfort seat with cloth cover, air cushioned, with lap belt and high backrest (driver/passenger)	0/0	0/0	0/0
Comfort seat with cloth cover, mechanically sprung, with 3-point seat belt, high backrest and seat heating (driver/passenger)	0/0	-/0	0/0
Comfort seat with cloth cover, air cushioned, with 3-point seat belt, high backrest and seat heating (driver/passenger)	0/0	0/0	0/0

Technical data	Muli T7 X	Muli T8 X	Muli T8 X pro
Changeable lighting	0	0	0
Front LED working light	О	0	0
Rear LED working light	O	0	0
LED rotating warning light	0	0	0
OWS LED	O	0	0
Interfaces			
Front attachment area optionally with mounting plate size 3 or front linkage cat. 2.	o	0	O
Lifting force of front linkage (kg)	1,250	1,250	1,250
Rear linkage cat. 2	0	0	0
Lifting force of rear linkage (kg)	1,800	1,800	1,800
Basic hydraulic system, delivery rate (I/min)	42	42 (optionally 73)	42 (optionally 73)
Working pressure (bar)	180	195/o. 240	195/o. 240
Control unit, basic equipment	2 d.a.f / f.r. / 1 d.a.r.	1 d.a.f / f.r. / 1 d.a.r. / 1 s.a.f.	1 d.a.f / f.r. / 1 d.a.r. / 1 s.a.f.
Control units: optional (maximum equipment)	3 d.a.f / f.r. / 1 d.a.r. / 1 t.r.	4 d.a.f / f.r. / 1 d.a.r. / 1 t.r.	4 d.a.f / f.r. / 1 d.a.r. / 1 t.r.
Hydraulic control			
Mechanical	✓	-	-
Electrical, using fingertips	-	✓	✓
Electrical, using joystick	-	0	0
Proportional, using fingertips or joystick	-	0	0
Parallel lines, front/rear	0	0	0
PTOs			
Rear 540 rpm	✓	✓	✓
Rear 1,000 rpm	0	0	0
Front 1,000 rpm	0	0	0
Weights in kg			
Axle load, front	3,500	5,200	5,200
Axle load, rear	4,600	5,200	5,200
Dead weight from	3,050	3,200	3,200
Max. gross vehicle weight	8,100	9,500*	9,500*
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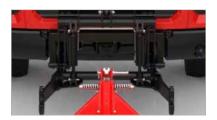
Standard	✓	Optional	0	Not available	-

# Accessories for your new Muli



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





The new cat. 2 front 3-point linkage is available with electro-hydraulic weight compensation (T8 X) and vibration damping.



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



Automatic trailer hitches for the rear are available in rotating versions.



Working lights behind the cab ensure optimum visibility in the dark.



The optical warning system in LED design can be mounted on the roof of the Muli.



Up to 6 working lights or changeable lighting for use with front-mounted implements can be mounted in the roof.



For individual requirements, comfort seats are available in different versions.



High-quality digital radios with a display unit, numerous interfaces, and sound package are available.



The reversing camera ensures optimum visibility in the rear area of the Muli.



On request, the Muli T8 X can be equipped with a digital tachograph.



The Recon wireless remote control allows operating the attachments from the outside.



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

# **REFORM. Teamwork Technology.**



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