Terra Variant

HOLMER

Success through Experience

The Terra Variant.
Powerful efficiency.

HOLMER's Terra Variant represents the new economic concept for tomorrow's agriculture. Europe's biggest and most powerful carrier tractor has impressively huge power reserves and offers a maximum range of options thanks to its unique flexibility. The fundamental principle of this powerful system vehicle is as simple as it is ingenious: one carrier tractor machine is used for numerous applications thanks to interchangeable superstructures.

Reliable in application and optimally suited to meet your requirements, the Terra Variant offers cutting-edge technology and maximum convenience.
Transporting sugar beet or corn, spreading semi-liquid manure, solid manure or mineral fertilizer, soil treatment and sowing – the innovative machine concept designed by HOLMER sets new standards in the top tier of system vehicles as regards economic efficiency, impact, reliability and gentle soil treatment. Large-volume wheels, offset track drive ensuring gentle soil treatment and an exceptional transport volume are additional, convincing arguments for this exemplary self-propelled machine.

Application of liquid fertilizer.

Transporting is not enough: integrating fertilizer is the job in hand.

Technical data:

Tank volume	15, 18 and 21 m³
Solids separation	Rotacut 12,000
Pump for semi-liquid manure	Rotary pump type Vogelsang VX 186 -368Q
Delivery rate	max. 9,300 l/min
Intake pipe	NW 20 mm pivotable through 170°
Reach	5,70 m
Control system	Hydrostatic pump control
Computerized, fully automatic adaptation of the spreading quantities	

- **Stationary or swap body available**
- **Operation via ISOBUS terminal**
- **Automatic folding system for intake pipe**
- **All important features can be controlled via joystick**
- **Double-acting EHR for slitting equipment**

Rising raw material prices and shorter processing periods are putting farming production under increasing pressure. Thus, the use of organic residues in fertilizer is assuming significance. However, an economically efficient use of fertilizers is only possible in connection with a powerful spreading technique.

By combining the processes of application and direct integration in the soil, the Terra Variant combines efficient machine utilization with sustainable area utilization. With the proven ZUNHAMMER Gülletechnik equipment, the Terra Variant is headed towards record spreading results.

- **Most powerful vehicle for slurry injection**
- **Filling the tank takes less than three minutes**
- **Efficient nutrient utilization thanks to complete integration into the soil**
- **50:50 axle load distribution for maximum transmission of traction**
- **Offset track drive possible with all attachments**
- **Low diesel consumption**

Maximum impact of the Terra Variant via fertilizer logistic systems.

Optional equipment:

- **Rotary pump for reduced rates of 0.5 to 3.5 m³/ha**
- **ZUNHAMMER VAN Control for nutrient-controlled spreading of semi-liquid manure**
- **Dosing system for dosage of nitrification inhibitors**

The right attachment for every application:

- **Trailing hose and disc injector for low-emission spreading on grassland**
- **Disc harrow for a high area capacity**
- **Grubber for intensive soil treatment while integrating the semi-liquid manure**

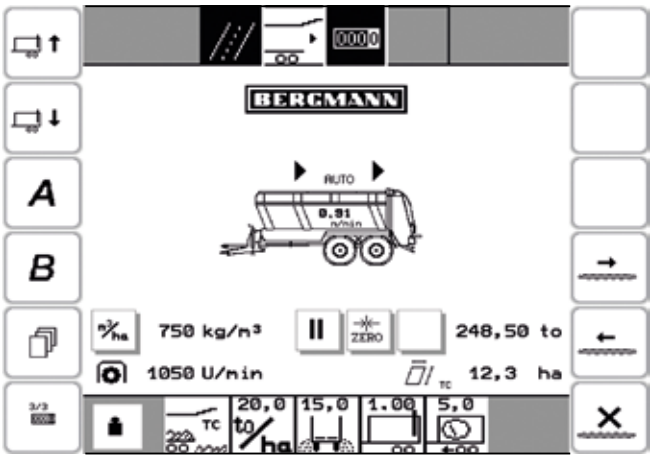
No matter whether mixed manure, solid manure, separated fermentation residue or carbolime is concerned:

valuable solid fertilizers must be spread precisely within short periods of time. An efficient spreading technique is essential. With the spreader body made by the manufacturer BERGMANN, the Terra Variant provides proven technology of world-wide renown for spreading a wide range of material.

- **High loading capacity**
- **Conical all-steel tank**
- **Precise spreading**
- **Working widths up to 30 meters**
- **High working speeds**
- **Diagonal steer mode for optimally gentle soil treatment**
- **Overload clutch and automatic stop of floor conveyor to protect material and gearbox**

Double shredding tines ensure uniform metering and feeding the material to be spread onto the wide working width spreaders

- **Control via joystick and ISOBUS terminal**
- **Rear-view camera**
- **HOLMER interchangeable superstructure system**



Double shredding tines ensure uniform metering and feeding the material to be spread onto the wide working width spreaders

Application of solid fertilizer.

Not spreading, but precise distribution is the job in hand.

Optional equipment:

- **Central lubrication system**
- **Hydraulically folding of heightened lateral side**
- **Hydraulically folding spread limiter**
- **Weighting unit**

Technical data:

Superstructure volume	26 and 30 m³
Streuwerk	infinitely two hydraulically driven spreader tables of Ø 1200 mm Table drive mechanism with 60 mm drive stub
Slat conveyor	infinitely hydraulically driven via spur gear 4 feeder chains (16 x 56 mm) Total breaking strength 100 t
Shredding unit	2 horizontal rollers with double shredding tines
Weighing unit	6 integrated load cells

Field logistics.

We are not just there to stand.

Highly specialized harvesting machines must provide increased working efficiency within ever-decreasing time slots. Valuable time is lost during emptying of the grain or beet tank.
To provide for modern field logistics, HOLMER has developed special grain and beet bodies for the Terra Variant. Thanks to its enormous transfer impact, the Terra Variant helps increase the harvesting or lifting capacity.

The crops are transferred directly from the combine or the sugar beet harvester and transported to the edge of the field in a fashion which is gentle on the soil.

Non-stop harvesting is possible under optimum harvesting conditions – logistics are ensured by the Terra Variant.

Technical data of beet holding tank:

Superstructure volume	35 m³
Transport equipment	2 divided longitudinal slat conveyor Divided transverse slat conveyor Discharge elevator
Drive	2 gearing per slat conveyor with set of bevel gear Forged slat conveyor chain system which can be disassembled
Emptying of hopper	approx. 40 sec
Identically designed proven drive modules from the HOLMER Terra Dos T3 beet tanker harvesters	

The benefits are obvious:

- **Increasing the lifting and harvesting output**
- **Transporting the crops in a way which is gentle on the soil**
- **High unloading performance**

Harvesting is our job.

- **Minimization of deep tracks and uniform strain on the ground exercised by the wheels rolling on it**
- **Reduced soil processing costs**
- **Increased annual utilization rate of the harvesting machinery**

Technical data of grain holding tank:

Superstructure volume	25 m³
Transport equipment	2 longitudinal scrolls Transverse scroll Vertical conveyor Discharge scroll
Diameter of discharge tube	550 mm
Drives	hydraulic motors on all feed elements
Emptying of hopper	approx. 120 sec
Maintenance and cleaning flaps on all important modules	

Fertilizing and sowing.

Don't just refill. Work instead.

Technische Daten VTU 19:

Superstructure volume	19 m³ (2 x 9,5 m³)
Transport equipment	2 Radialgebläse 4 Zellenradschleusen
Delivery lines	2 x 2 ea.
Diameter	125 mm
Lighting	4 LED headlights
Cover	hydraulic tarpaulin roll
Weight	2.400 kg
Here, maintenance and cleaning flaps are also provided on all important modules	

Advantages:

- **Exact treatment of mineral fertilizer**
- **Efficient utilization of the fertilizer**
- **Individual fertilizer mix possible**
- **Reduction in passes**
- **Great working width possible**

VTU – Variable Transport Unit

Variable as regards use – specialized in operation. With the transport superstructure VTU 19, HOLMER has reacted to increased requirements as regards spreading of mineral fertilizer, sowing and new soil tilling procedures.

In both half tanks, the VTU 19 transports seeds and/or fertilizer for soil fertilizing sowing systems and for grubber fertilizing. If necessary, operating resources are thus transported to the attachment by means of fans. The high transport capacity permits efficient machine utilization, shorter downtimes, long operating times and thus the utilization of optimum times for soil treatment.

New soil tilling systems such as strip tillage and grubber fertilizing can be realized in efficient working widths thanks to the high body capacity of the VTU 19 and the enormous tractive effort of the Terra Variant.

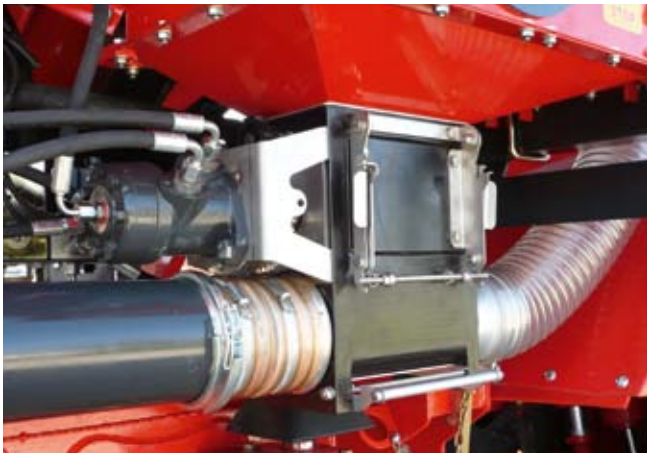
- **Automatic mode and manual operation of the superstructure**
- **Direct dosing and mixing of fertilizer on the superstructure**
- **Big filler ports**
- **Expanded metal plates inside to separate foreign mater**
- **Rear connectors can be assigned freely for connection of attachments**
- **Ultrasonic sensors for level monitoring**
- **Access ladder for safe access on filling**
- **Solid screw-type structure**

One system – two variants:

Variant1: The superstructure provides additional transport capacity for a standard sowing device. As soon as the tank mounted to the attachment is emptied, the VTU's automatic filling mechanism starts to supply operating resources to the attachment. The driver can thus concentrate fully on the sowing operation.

Variant 2: In specialized working processes such as strip tillage and grubber fertilizing, dosing of the quantities to be spread is possible directly via the rotary feeders.

Maintenance and cleaning flaps on all important components



The concept.

For extreme applications.

COMFORTABLE CAB

- 10.4 in. machine terminal
- Clearly arranged operating panel
- Ergonomic multifunction levers
- Climate control
- Comfortable seat incl. heating

DIESEL ENGINE

- Mercedes Benz OM 502 LA E3A/2
  8-cyl. engine in Vee arrangement
- Max. 450 kW/612 HP

GEARBOX

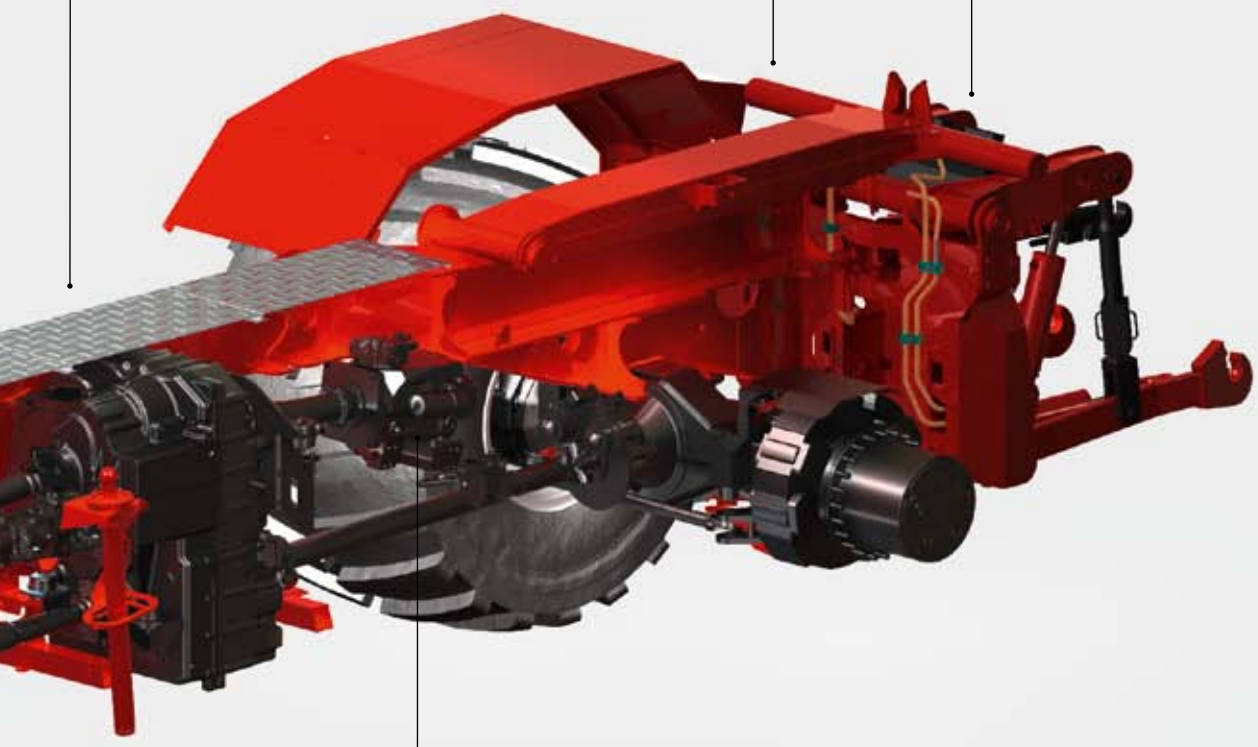
- Powershift gearbox FUNK DF 500
- 18 forward gears
- 6 reverse gears
- Maximum speed 40 km/h

BODY SWAP SYSTEM

- 4 fixed supporting points with locking pins
- Hydraulic elevating rocker and lifting cylinder

THREE-POINT MOUNT

- Attachment mount, hydraulically swinging on both sides, category IV
- Closed-loop hydraulics EHR
- Increasing and reducing the load on the three-point mount
- 5 double-acting control units, adjustable as regards time and delivery flow
- Load-Sensing
- Power Beyond



AXLES

- 2 planetary steering axles, 25 t load bearing capacity each (depending on tyres)
- Hydraulically suspended floating axle, front
- Slope stabilization system
- Preadjustable pressure level for a high side slope stability

POWER HYDRAULICS

- Load-sensing pump max. 190 l/min

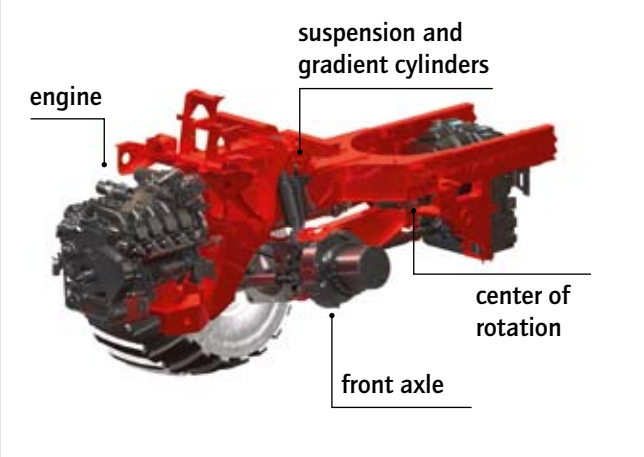
Optional:

- Variable-displacement pump: LINDE HPV 280-02 RE1
- Max. delivery rate 500 l/min
- Rated pressure 420 bar

Just having power is not enough.

Implementing it safely is our concern.

Engine technology by Mercedes Benz ensures sufficient performance in any position. At 450 kW (612 HP), tractive efforts can be implemented efficiently and loads supported gently under difficult conditions.

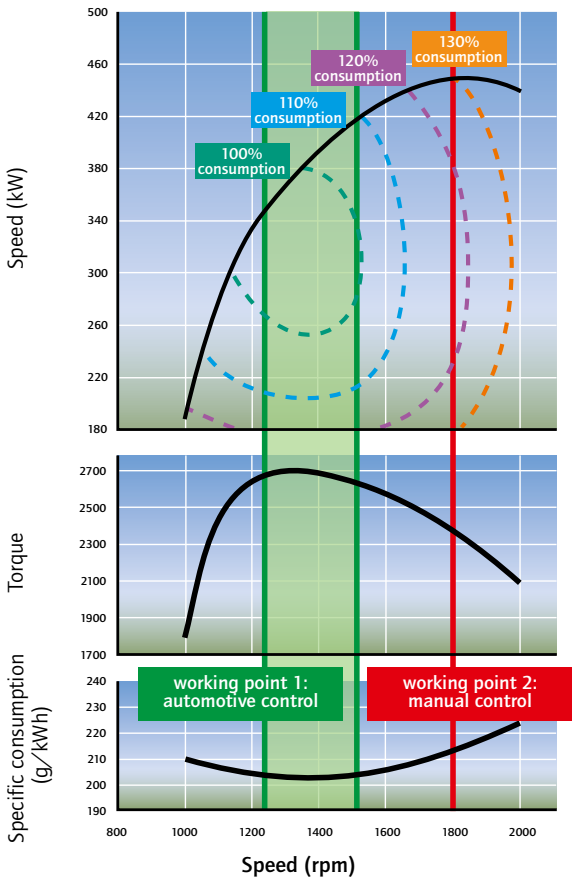


Driving comfort is an overriding development goal at HOLMER for the Terra Variant. Thus, the new, fully reversible powershift gearbox FUNK DF 500 with 18 forward and 6 reversing speeds provides precise dosing plus very efficient power transmission and a high tractive effort for the various applications performed.

The **front axle suspension** with gradient cylinders developed specifically by HOLMER, with its automatic level control, ensures constantly high driving comfort in absolute reliability.

- **Floating axle for optimum adaptation to the terrain**
- **Adjustable spring setting**
- **Variable level control**
- **Adjustable gradient cylinder pressure**

The Terra Variant 600's performance curve



Reduced consumption thanks to the Automotive driving mode

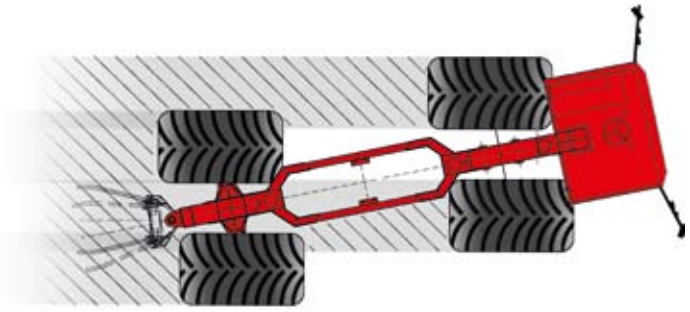
Driving in **automotive mode** as standard feature provides the operator with a choice of various driving strategies:

Eco Mode — Depending on the power required, the vehicle engages the optimum gear automatically. The Terra Variant is always operated at its capacity utilization limit at low engine speed, which helps to save fuel.

Fixed speed — The driver is enabled to define individual gears and to save the engine speeds for every gear. During fieldwork, the driving speeds are kept precisely without the driver having to actuate the accelerator pedal.

Gentle soil treatment.
In all situations.

The large-volume tyres of the Terra Variant in conjunction with the diagonal steer help avoid damaging compaction of the soil. As soon as the driver activates diagonal steer, the rear axle is swung out to the required side and prevents a stretch of soil from being rolled over several times. The three-point mount pivots the attachment into the correct position simultaneously.



The driver can adjust the degree of right-hand/left-hand overlapping during diagonal steer.

Various steering modes are available for fieldwork:

- **All-wheel steering for tight manoeuvring**
- **Diagonal steer left-hand/right-hand to ensure a wide wheel rolling surface, and stable driving characteristics on lateral slopes**
- **Four-wheel steer to utilize the multi-pass effect in the case of heavy-duty traction work, where steering is effected exclusively via the front axle. The rear axle remains in its central position**
- **Manual steering – the driver can steer the rear axle via joystick independently of the front axle**
- **Roadwork – in public road traffic, the front and rear axles are interconnected hydraulically, thus ensuring a high degree of safety in driving**

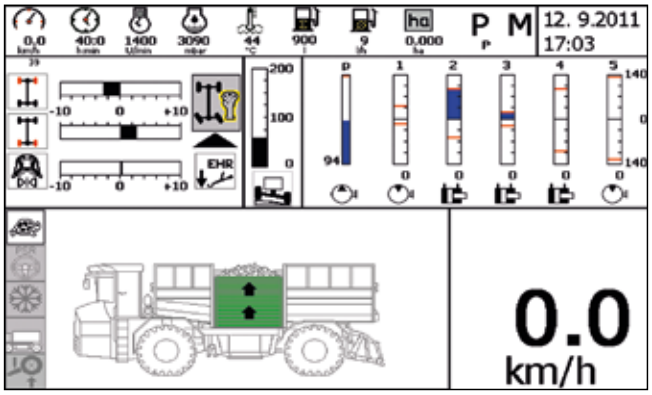
A self-propelled machine.
A real multi-tasker.

Thanks to the long-established quick-change system developed specifically by HOLMER, superstructures can be mounted and removed within less than 30 minutes. Body change is supported by the on-board hydraulic system:

- **Releasing the 4 lock pins**
- **Raising the body via the vehicle's hydraulic cylinders**
- **Extending the body supports**
- **Depositing the body**
- **Releasing the hydraulic couplers**

Thanks to the various bodies, the Terra Variant can be used as self-propelled machine not only in one, but in several versions. In spreading organic manure, in transferring grain and beets or in sowing and soil tilling – every process benefits from the machine tractive effort, body space and gentle soil treatment.

The working place.
Everything under control.



The Cab.

The Terra Variant's comfortable and generously dimensioned cab will convince you thanks to its ample space and excellent panoramic view. The completely automatic climate control system, supported by highly efficient, tinted insulating glass, ensures a high degree of well-being, even in case of high outside temperatures.

Light as day. Even at night.

The lighting concept incl. xenon headlights (optional) provides optimum vision even during operation at night. The following components ensure that the operator is able to work over long periods without tiring:

- **Air-suspended comfort seat**
- **Adjustable three-position steering column**
- **Ergonomic, adjustable joystick position**

The terminal.

The 10.4 in. colour terminal displays all important information clearly in the main area. Thus, the driver can supervise all vehicle parameters at a glance.
This includes:

- **Position of steering axles and three-point mount**
- **Driven working hydraulics**
- **Pressure indication, gradient cylinders**
- **Consumption values**
- **Body-specific values**

In the individual menu items, the driver performs precise settings of machine parameters. Moreover, a vehicle diagnosis is integrated for service purposes.

The joystick.

The multifunction lever helps you control all important functions during work. Without releasing the joystick, you can actuate the following operations

- **Steering modes**
- **Driving strategies**
- **Raising and lowering the three-point mount**
- **Gear selection**

Depending on the body used, body-specific functions are directly available via the pushbuttons or the integrated mini-joystick:

- **Body for semi-liquid manure: Swinging the intake pipe / automatic folding system**
- **Beet body: swinging the discharge elevator**
- **VTU 19: activating the blower**

Driver assistence systems.

Tracking.

GPS. Track guidance for all steering modes. (Optional)

Today, thanks to precise closing-up, track guidance systems contribute towards facilitating the driver's workload, saving consumables and being gentle on resources.

After automatic steering in four-wheel steer mode, the Terra Variant is now the first machine to enable parallel work in diagonal steer mode. Thus, the vehicle remains fully automatic on track even at high speeds such as those used to spread mixed manure or integrate semi-liquid manure. Based on a DGPS (differential GPS) satellite signal, this system has been designed specifically and adapted optimally for HOLMER.

The driver can select one of several parallel driving options:

- Diagonal steer or four-wheel steer
- Creating an A-B line
- Contour driving
- Considering obstacles
- Recording field boundaries

The benefits are obvious:

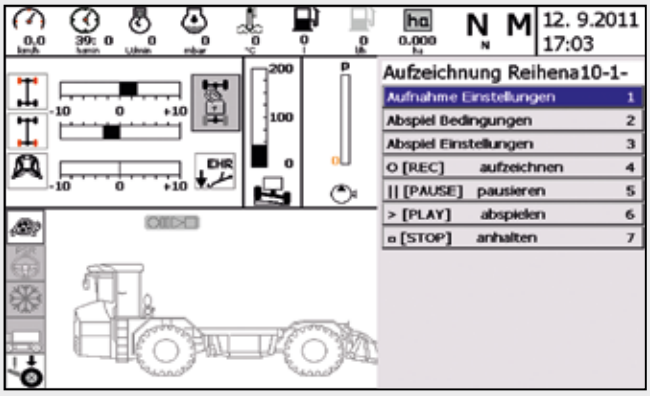
- Saving operating resources
- Reducing the number of passes on the headland turning in one motion
- Facilitating the driver's workload
- Uniform work quality, even during continuous operation
- Utilizing the full working width

HOLMER TerraControl.

Turning on the headland is as easy as child's play: headland management for vehicle and body handles all processes and reduces the driver's workload during long stretches of work.

The handling is as easy:

- Selection, recording, saving and performing
- Precise settings of the individual processes in the terminal
- Saving various sequences



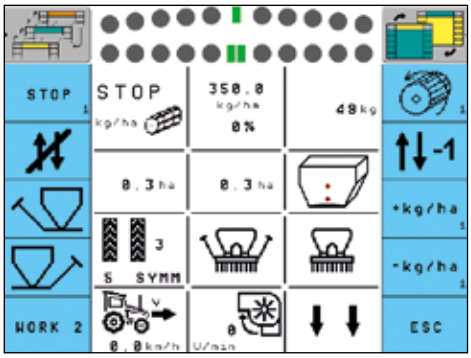
The following functions can be recorded, including:

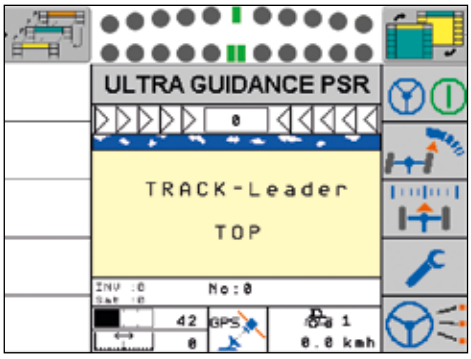
- Three-point mount: swinging, raising, lowering
- Hydraulic valves
- Body functions
- Steering modes
- GPS-steering
- Driving strategies

ISOBUS.
Communication between the equipment.

No matter whether superstructures, various attachments or steering systems are concerned – the HOLMER ISOBUS solution helps display and operate applications comfortably via the ISOBUS terminal on the Terra Variant.
The tracks already covered are displayed, as is the body for semi-liquid manure or the functions of an attachment.
Thus, the HOLMER Terra Variant fully utilizes all ISOBUS advantages:

- **Standardized interfaces**
- **Optimization of working processes**
- **Utilization of special applications such as the ZUNHAMMER VAN-Control**
- **Clear arrangement of several applications on one terminal**
- **Graphic representation of track guidance**
- **Display of documentation system**





The HOLMER Service.
More than convincing.

Within easy reach of our customers, reliable, competent and quick. With its Terra Variant, HOLMER not only boasts a convincing performance, but also tailor-made consultation and other services. This is because HOLMER not only cares about the machine but also about their customers!

- **Customized services offered by HOLMER's after-sales service**
- **Providing a comprehensive service base support**
- **24-hour service and spare parts shipment**
- **Ample training schedule for customers**
- **Comprehensive spare parts program can be ordered conveniently from our on-line shop**

Technical Data.

Engine	Mercedes Benz OM 502 LA E3A/2
Cylinder	8 cylinders in Vee arrangement
Piston displacement	15.93 l
Rated engine speed	1,800 rpm
Rated power at 1,800 rpm	450/612 kW/HP
Max. torque at engine speed 1,300 rpm	2,700 Nm
Fuel tank capacity	approx. 830 l

Travel drive	
Powershift gearbox	FUNK DF 500; 18 forward; 6 reverse gears
Driving speed	40 km/h
All-wheel drive	Permanent

Axles	
Differential locks	Front and rear axles pneumatically connectable
Axle suspension with integrated hillside compensators	Independently suspended front axle beam: hydraulic suspension incl. level control hydraulic support for side slope stability

Chassis	
Steering modes	All-wheel steering, diagonal steer left-hand/right-hand, four-wheel steer

Tyres	Terra tyres 1050/50 R32 T2 Low-cleat profile outer width 3,00 m
	Terra tyres 1050/50 R32 M28 High-cleat profile outer width 3,00m
	Twin tires 710/75 R 34 outer width 4,30 m
	800/65 R 32 (outer width 2.55 m)

Brakes	
Service brake	Hydraulic disc brake
Parking brake	Transmission brake and disc brake

Hydraulic system	
Capacity of hydraulic oil tank	130 l
Load-sensing max. delivery rate	190 l/min
Power-Beyond connector max delivery rate	190 l/min

Steering hydraulics (optional)	
Variable-displacement pump	LINDE HPV 280-02 RE1
Max. pressure	415 bar
Max. delivery rate at 1800 rpm	500 l/min
Max. hydraulic power output	approx. 350 kW

Three-point mount	
Category	CAT IV
Lifting capacity	80 kN
Functions	Lifting, lowering, incl. loading / unloading on both sides, swinging hydraulically
Closed-loop hydraulics EHR	raction control, position control, mixing control. Vibration absorption
Rear connectors	5 double-acting control units incl. floating position Time and volume control
External actuation	Rear pushbutton

Cab can be folded hydraulically for servicing work

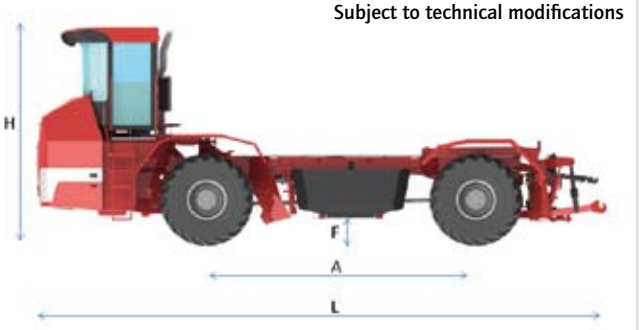
Coupling	
Adjustable drawbar	Ø 38, 50 mm
Ball head	Ø 80 mm

Dimensions	
Overall length incl. three-point mount (L)	10,25 m
Width (B)	2,55 m with 800/65 R32 3,00 m with 1050/50 R32
Height (H)	3,98 m
Ground clearance (F)	0,62 m
Wheelbase (A)	4,80 m
Turning circle	5,50 m

Available bodies	ZUNHAMMER body for semi-liquid manure, stationary (15, 18, 21 m³) or swap body (20 m³) BERGMANN universal spreader (26, 30 m³) HOLMER beet holding tank (35 m³) HOLMER grain holding tank (25 m³) HOLMER VTU 19 (2 x 9.5 m³)

Optional equipment	Central lubrication system GPS track guidance system REICHHARDT PSR Ultra Guidance ISO Compressed air brake system for towed units Xenon headlights Headland management TerraControl ISOBUS Supplementary support axle Axle cooling for maximum traction

Subject to technical modifications



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HOLMER

Success through Experience