



► Hybrid plough
VariTansanit





Relaxed and safe at work



▶ **Increased safety**

The weight transfer to the tractor rear axle and the beneficial centre of gravity lead to increased stability and enable safer headland turns even on hillsides.

▶ **Hybrid plough with adjustable top link**

LEMKEN's VariTansanit hybrid plough comes with 6 or 7 furrows and is equipped with an adjustable top link and a load-sense line. Reacting to soil conditions, the plough transfers weight from the land wheel to the tractor rear axle in order to improve traction and minimise wheel slip.

Plough comparison 3m, 6-furrow ploughs, 22 cm ploughing depth		
Unit	Average wheel slip	Average forward speed
VariTansanit hybrid reversible plough, full oil pressure on top link	11.9 %	5.8kph
VariOpal mounted reversible plough	16.8 %	5kph
VariDiamant semi-mounted reversible plough	23 %	3.8kph

Source: DLG Test 03/07

▶ **Consistent work quality at lower costs**

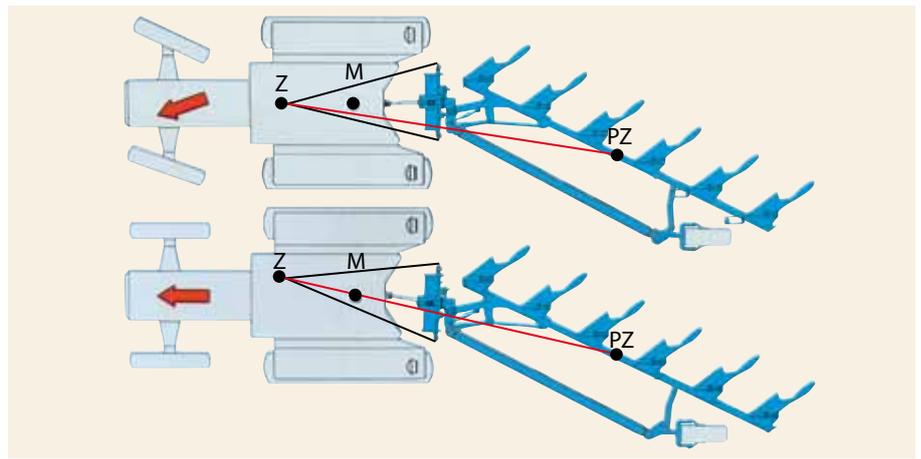
On mounted ploughs, the tractor's three-point draft control ensures optimum draft on the plough. Ploughs with 6 or 7 furrows are mostly towed in a semi-mounted configuration to relieve stress on the top and lower links and to account for the tractor's lift capacity and load rating.

load from the plough to the tractor, optimum traction can only be achieved with a heavier tractor.

However, since the connection between the semi-mounted unit and the three-point hitch prevents any transfer of

Compared to semi-mounted ploughs of similar dimensions, the VariTansanit is expressly suited for smaller-sized tractors, achieving the same level of performance at lower running costs.

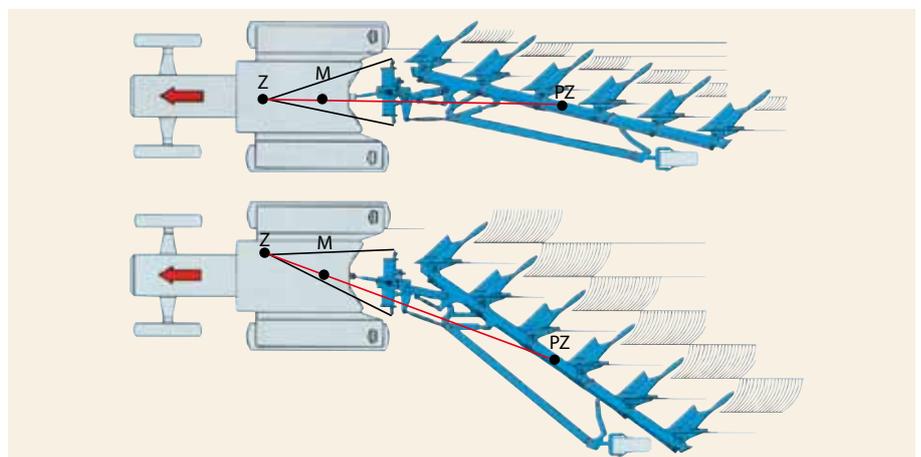
Optiquick for precise plough adjustment



▶ Adjusting front-furrow width and pulling point

The VariTansanit includes LEMKEN's proven Optiquick fuel-saving system.

- When setting the front-furrow width the tractor may still be subject to lateral forces from the plough. This happens when the pulling line does not intersect with the centre (M) of the tractor rear axle.
- The inner turnbuckle eliminates any side draft by directing the pulling line across the rear axle centre (M). In this process, the front-furrow width does not change even though the pulling point has been re-adjusted.



▶ Adapt to different working widths

The front furrow and the optimum pulling point are automatically adapted whenever you decide to change your working width.

- No matter which working width, the pull line will always cross the rear axle centre.

No side draft whatever the working width



▶ Optiquick adjustment centre

All Optiquick pivots have hard-wearing bushings, hardened pins and lubrication points.

- This ensures a high level of stability and a long service life.

- Instead of an external turnbuckle, the VariTansanit uses a combination of hydraulic frame swivel action and front-furrow adjustment to compensate for lateral forces.



▶ Hydraulic furrow width

The VariTansanit comes standard with a hydraulic working width adjustment.

- With an adjustment range of 25 to 55cm per body, it meets all requirements for arable farmers.

- Optiquick eliminates side draft at all working widths.

Trend-setting plough technology



▶ Reduced operator fatigue

The electronic HybridControl system is used to set, control and monitor all main plough functions.

- The required traction and ballasting values can be chosen using the dial on the terminal.
- The electro-hydraulic controllers sense all variations in pressure via the load-sensing line and ensure the pressure value set on the terminal is maintained throughout.
- The standard headland management system automates lifting and turning sequences at the headland.
- Turnover of the plough is fully automatic and is started using the joystick.
- The electro-hydraulic setting for pitch and front-furrow width allows comfortable and precise adjustments from the tractor seat.





▶ **ISOBUS technology and CCI 200 terminal**

ISOBUS technology has been a major advancement to the VariTansanit hybrid plough functions. Together with the CCI 200 terminal, it supports a variety of functions.

- The terminal's working screen offers an overview of the main functions and relevant settings, such as top link pressure, working width or front furrow.
- Main functions on the working screen can be selected directly by the operator, for example to increase/decrease the top link pressure or to enable/disable top link sensing.
- Functions such as the pressure setting can be entered by simply touching the screen surface and entering numerical values instead of using the dial.
- The user-friendly joystick box is an optional accessory. Up to three joysticks can be easily allocated to functions including turnover, soil engagement and more. The joystick box is mounted in the tractor cab within easy reach of the operator.



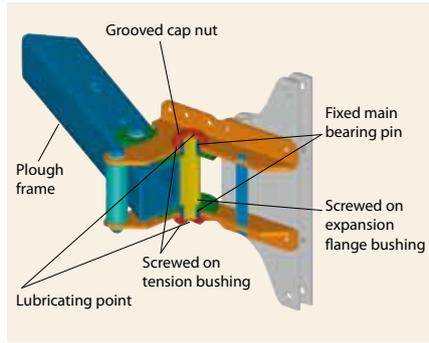
Durable, solid and precise engineering



Pivot points

The pivot for each swivel bracket is mounted adjacent to the plough main beam.

- This reduces strain on the pivots and other components.
- All pivot points have hard-wearing bushings, hardened pins and lubrication points ensuring maximum rigidity and a long service life.



Vario swivel brackets

The Vario swivel bracket main bearing pin has tension bushings and is locked against rotation with the frame plates.

- The Vario swivel bracket also has crimped flange bushings.
- The two lubricated overlapping bushings for working width adjustment ensure long component life even in the toughest of conditions. Each component can be replaced if worn.



Frame plates

The frame plates supporting the swivel brackets and the main link are bolted to the frame.

- This gives enormous strength, increased durability and a high degree of engineering precision.



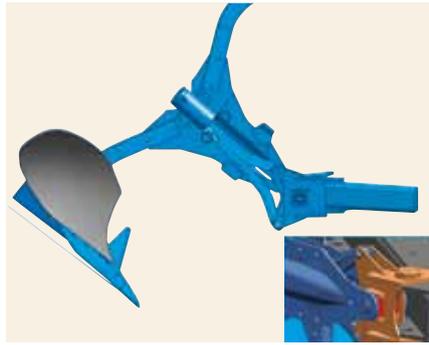
Hydromatic Auto-Reset Overload Safety Device



The concept

On conventional overload devices based on a four-point attachment, the entire plough body will be out of balance when having to trip sideways and upwards at the same time.

- This is because the body disengages from three of its attachment points, which leaves only one point for the mechanical or hydraulic reset to draw it back into position.



Three-dimensional attachment

The significant advantage of the Hydromatic system is its solid connection to the three-dimensional attachment in any plough body position.

- Each body is retained to the frame and cannot unlatch.
- The innovative Hydromatic hydraulic overload device will trip sideways and upwards at the same time, even when hitting lateral obstacles.



Upwards and sideways movement

With up to 38cm of upward travel and 20cm of sideways travel, the VariTansanit has sufficient tripping capacity to provide continuously trouble-free work.

- High trip forces, which are adjustable from the tractor seat, ensure the system combines quality ploughing with efficient plough protection.
- As a further benefit, the system does without any lubrication points and is completely maintenance-free.



Reliable and cost-efficient on all soils



▶ DuraMaxx - the perfect plough body

The DuraMaxx body is a radical new concept increasing service life by an enormous 75% whilst reducing set-up time by up to 80%!

- All DuraMaxx components are manufactured from much harder steel than before. The material is no longer weakened by drilling and punching holes in it.
- Mouldboards and slats are fully supported by the frog. They are no longer a load-bearing part of the plough body so their sole function is to turn over the soil.
- This means they can wear out to a higher degree without the risk of snapping due to soil forces.





▶ **Quick changes without tools**

DuraMaxx plough bodies are designed for quick and tool-less changing of mouldboards, slats and shins.

- The shin is held in place by a lynch pin, which is simply removed to detach the shin. The shin, in turn, holds the mouldboard or slats in place. Once the shin comes off, the mouldboard or slats slide forwards and can be removed without the need of tools.
- Also the share point is attached with a single bolt only, which enables much quicker changing than on conventional systems.



▶ **Body assembly**

The DuraMaxx plough body is available with mouldboards or slats.

- The mouldboard and the slats are attached with no more than three hooks.
- On slatted bodies, the clearance between the slats and their support has been greatly increased. The support is aligned with the slats, which reduces the possibility of blockages from soil getting stuck in the slats.



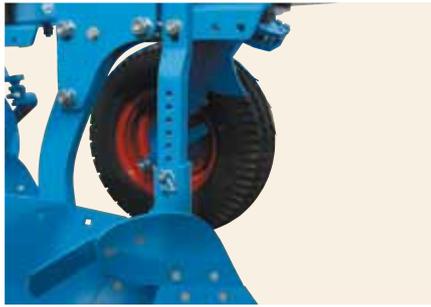
▶ **DuraMaxx Hybrid for sticky soils**

The DuraMaxx plough body can also be configured with plastic slats. They are ideal for use on extremely sticky soils and in soil conditions with little pressure on the mouldboard.

- The best sliding properties are achieved by using plastic slats at the top and bottom areas of the plough body, which are most susceptible to adhesion.
- Therefore, the DuraMaxx body works without any adhesion issues even in extreme conditions.



Ready for adverse conditions



▶ **Flat stalk**

Fitting the frog onto a flat stalk prevents the skimmer from being twisted.

- All types of share and mouldboard can be easily exchanged, thanks to the frog being common to all skimmer types.
- For ploughing without skimmers, just remove two bolts to completely disassemble the skimmer arm.



▶ **Angle adjustment**

Both the VariTansanit and the VariTansanit T are optionally available with an individual quick-adjustment system for the skimmer angle.

- This allows further fine-tuning of trash burial where required.



▶ **Tool box**

Maintenance of all LEMKEN ploughs is easy thanks to the toolbox which holds tools, shear bolts and other small parts within easy reach of the operator.



▶ **Skimmers**

Skimmers of different share lengths ensure trouble-free ploughing even in abundant surface trash.

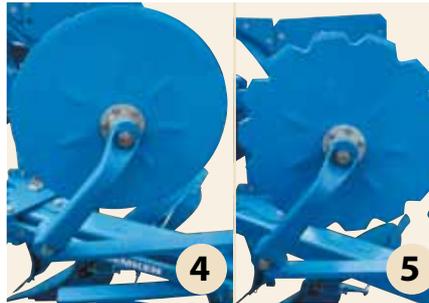
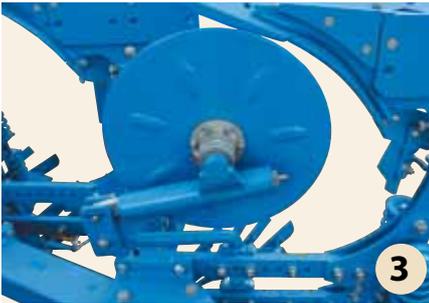
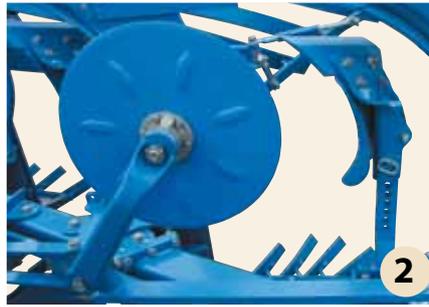
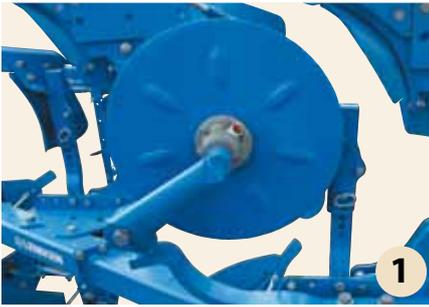
- The special shape of the shares minimises wear and increases their service life, while creating an outstanding soil flow.
- The special shape of the mouldboard separates the organic matter and neatly incorporates it into the ground.
- Plastic mouldboards are available for sticky soil conditions and soils exerting little pressure on the skimmer.



▶ **Trash boards**

The trash boards are fitted directly to the mouldboards and are fully adjustable.

- They enable blockage-free work and clean incorporation even on extreme surface residue.
- For sticky soils, trash boards are also available in plastic.

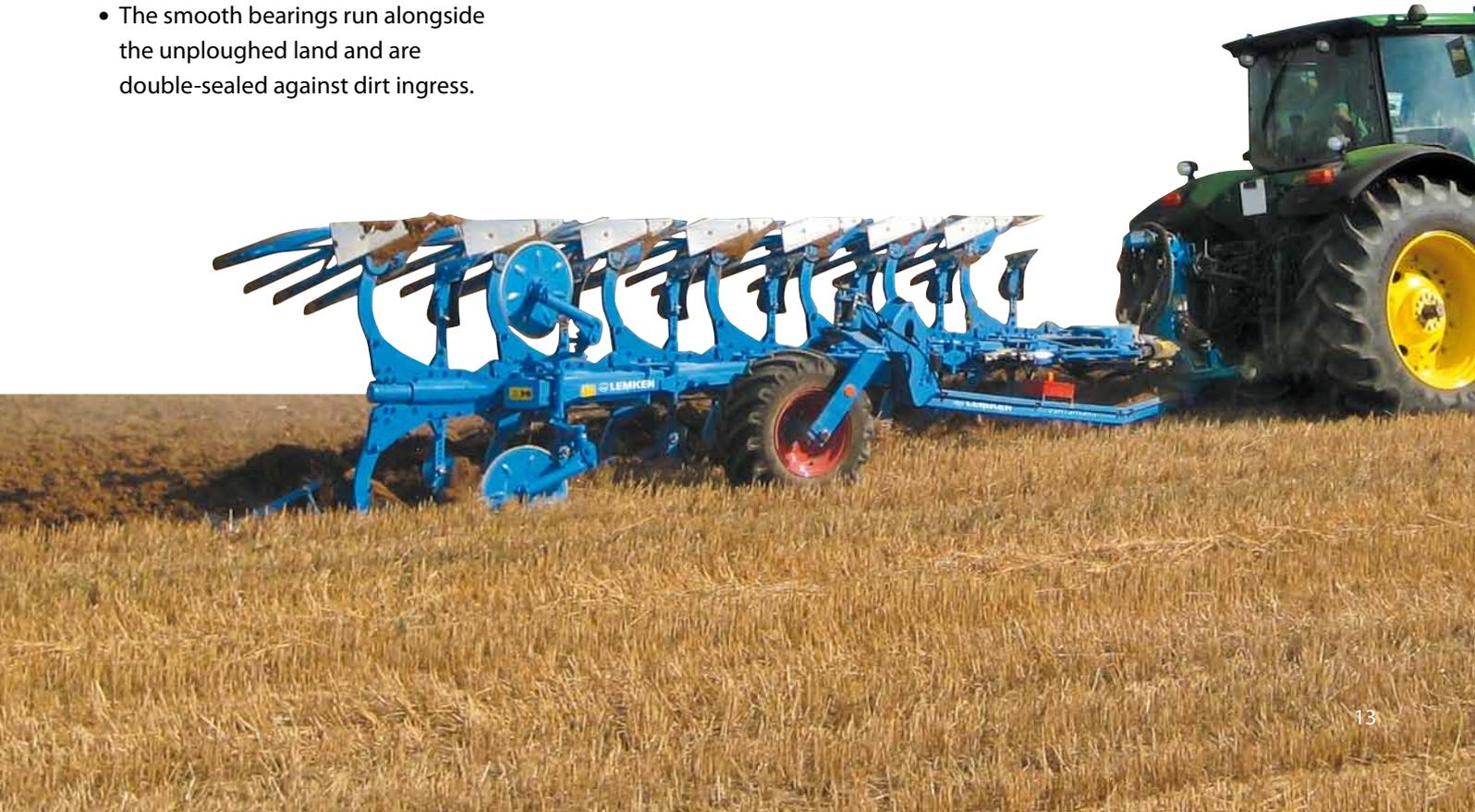


▶ Disc coulters

The plain disc coulters feature side mouldings to provide a positive drive even when breaking up high amounts of organic material.

- Their depth is adjusted by vertically pivoting the coultter arm fixed by a bolt in a splined bracket.
- The smooth bearings run alongside the unploughed land and are double-sealed against dirt ingress.

- Disc coulters are available in a variety of sizes and mounting positions:
 - 500 mm, adjacent to skimmer (1)
 - 500 mm, in front of skimmer (2)
 - 450/500 mm, spring-loaded (3)
 - 590 mm, adjacent to skimmer (4)
 - Serrated-type coulters optionally available in all diameters (5)



Support and transport wheel



▶ Easy Adjustment

At the front of the plough, the working depth is controlled hydraulically by the linkage, whereas the hydraulically adjusted land wheel controls ploughing depth at the rear.

A simple locking pin with an accurately adjustable scale serves as the mechanical stop.

▶ Transport safety

For quick and safe transport, the VariTansanit is rotated into centre position, while the land wheel is hydraulically locked and the supported drawbar is hydraulically unlatched.

The VariTansanit can be safely pulled by the tractor and the system efficiently relieves mechanical strain on the tractor and the plough.



Technical data

Model	Number of furrows	Working width per furrow [approx. cm]	Interbody clearance [cm]	Weight [approx. kg]	Frame [mm]	Underframe clearance [cm]	Dimension of leg [mm]	Tractor power from - up to HP kW	
with double cutting shearbolt overload safety device									
VariTansanit 8 6 N 105	6	30 - 55	105	2,437	140 x 140 x 10	85	80 x 30	140 - 205	103 - 151
VariTansanit 8 6+1 N 105	6+1	30 - 55	105	2,736	140 x 140 x 10	85	80 x 30	140 - 230	103 - 169
with additional hydraulic overload safety device Hydromatic									
VariTansanit 8 T 6 L 105	6	30 - 55	105	2,845	140 x 140 x 10	85	80 x 30	140 - 205	103 - 151
VariTansanit 8 T 6+1 L 105	6+1	30 - 55	105	3,212	140 x 140 x 10	85	80 x 30	140 - 230	103 - 169

All statements, measurements and weights given represent standards subject to continuous further development and are therefore not binding. The weights given always refer to standard equipped implements. We reserve the right to change specifications

Service decides



When you have bought a machine from LEMKEN, the well known, almost proverbial LEMKEN service starts. 17 customer-oriented factory branches and outdoor storage areas in Germany as well as our own sales companies and importers in more than 40 countries, and a strong dealer network, ensure that machines and spare parts are supplied quickly. If a part is not in stock, it can be delivered to the customer within 24 hours via the LEMKEN logistics centre which is manned round-the-clock 365 days a year.

Knowledge from the LEMKEN specialist

Well trained customer service technicians are available to farmers, contractors and trade, who are using machinery for the first time, as well as for professional maintenance and repairs. Thanks to regular training courses, LEMKEN customer service is always up to date with the latest LEMKEN technology.



Original spare parts from LEMKEN

LEMKEN wearing parts are designed for a maximum service life. High-quality materials, the latest production methods, and an intensive quality control ensure a long service life. Therefore, all original spare parts bear a unique identification with the registered LEMKEN trademark. Original spare parts can be ordered at any time online on the Internet via the LEMKEN information and ordering system.



LEMKEN

As professional crop production specialists, LEMKEN is one of the leading companies in Europe, with over 1,100 employees worldwide, achieving sales revenues of more than EUR 270 m. Originally founded in 1780 as a blacksmith's forge, the family company produces high-quality and high-performance farm machinery for soil cultivation, sowing and plant protection at its German headquarters in Alpen and at its two other production sites in Föhren and Meppen. 70 percent of the approximately 15,000 machines per year are exported.



LEMKEN in Alpen/Germany



Mounted ploughs



Hybrid ploughs



Semi-mounted ploughs



Furrow presses



Front presses



Compact combinations



Seedbed combinations



Power harrows



Compact disc harrows



Cultivators



Subsoilers



Seed drills



Drill combinations



Mounted field sprayers



Trailed field sprayers

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