EN

OPERATING MANUAL

Cultivator technology

Terrakan	3000 5000 6000
Terrakan R6	3000 BIO 5000 BIO 6000 BIO

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Translation of the original instructions!

Version 22.01 / Editor: Xaver Hager, Mail: x.hager@regent.at

GENERAL INFORMATION

FOREWORD

We are pleased that you have chosen a quality product from Regent. Regent products offer you best quality and proven technology. In order to be able to take full advantage of the performance of your device and to enjoy your device for many years, please read this user manual carefully before the first use of your machine. Operate the device according to the instructions on the following pages. These operating instructions contain basic information on how to operate, maintain and transport your Regent product correctly. Operational safety and technical function of the device can only be guaranteed if the regulations of general security and accident prevention of the legislator of your country and in addition also the the regulations of general security and accident prevention of this operating manual are observed and followed. We accept no liability for damage caused by improper use or incorrect operation. Misuse can lead to damage to the machine, loss of any guarantee or warranty claims and life-threatening situations.

Make sure that all persons operating the device have read and understood the operating instructions. The operator must be qualified for operation, maintenance and safety requirements of the device.

Keep the user manual safe and accessible so that they can be accessed quickly if necessary. If you decide to sell the machine, hand over the operating instructions to the new owner.

If you have any questions about the device and when ordering spare parts, please state the model name, the year of production and the serial number of your machine. You can find this information on the type plate of the machine, further information can be found in the chapter CE MARKING & IDENTIFICATION.

Together with these operating instructions, you will be given a handling over declaration. Please fill out this document completely and return it to Regent within 10 days. If you have not received the document, please contact your specialist dealer. The handover declaration is directly related to the processing of any guarantee or warranty claims.

The information, illustrations and data in these operating instructions must correspond to the construction status of the machine delivered, subject to errors and changes.

DESCRIPTION OF THE DEVICE

The Terrakan cultivator (hereinafter also called machine or device) is a device for flat cultivation, loosening and mixing of the soil structure. The use of broad shares cuts the soil layer almost horizontally across the entire surface. Depending on the share, the working depths are between 4-12 cm. The device can be adapted to various conditions with various front / back rollers, accessories and row extensions.

Main applications:

- Loosening and ventilation of the soil in spring
- Incorporation of manure
- Second stubble cultivation as preparation for mulch sowing
- Seed bed preparation after main tillage
- Mechanical weed control

PRINCIPLE OF OPERATION

The TERRAKAN light cultivator is essentially a device which consists of a rigid tine frame (3m version) or a central supporting main frame with a 3-point connection and foldable side parts. In the case of hydraulically foldable devices, the tine frames can be pivoted upwards hydraulically from the tractor to enable the passage of narrow points and the road transport of the machine (if the device complies with the country-specific road traffic regulations). Spring tines are attached on the tine frame, which work with interchangeable wear parts in the soil and loosen it. Depth control takes place via the tractor hoist, and, depending on the equipment, with support wheels, front- or back rollers. The loosened material is reconsolidated by optional rollers, which are available in various designs.

GUARANTEE AND WARRANTY

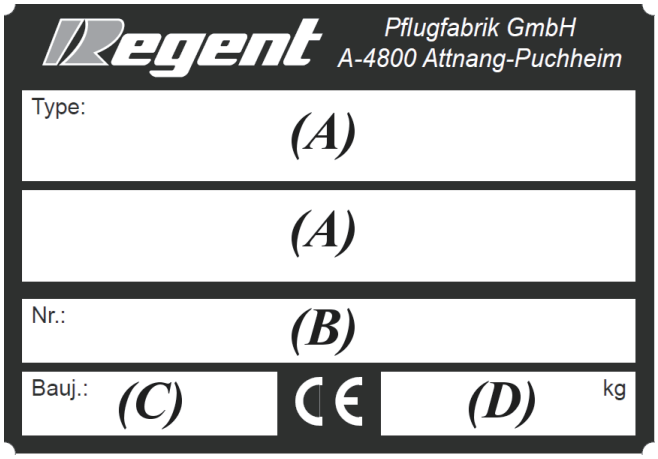
Unless otherwise agreed in writing, the guarantee & warranty is limited to one year from the delivery date and includes the repair or free replacement of the defective part, according to the manufacturer's instructions. The scope of coverage does not include damage or injuries to persons or objects, as well as costs for labor and freight forwarding. Before taking over your new machine, please check that the device has not been damaged in transit and that the accessories are undamaged and complete. If you find any defects, please note this on your delivery document and report the damage within 8 working days by registered mail. If parts are replaced or repaired by the manufacturer or his authorized representative during the guarantee period, this does not mean that the guarantee period for the replaced part or the device starts again or is extended. The buyer can only assert guarantee and warranty claims if he adheres to the conditions stated under the point of guarantee in our general terms and conditions.

EXPIRY OF GUARANTEE AND WARRANTY

The guarantee is void if the device is damaged due to an accident, lack of care, insufficient maintenance, incorrect use, improper handling, the installation of spare parts or accessories that are not officially approved by Regent, misuse or negligence (e.g. oversized tractors).

CE BRANDING & IDENTIFICATION

The CE marking and product-relevant data can be found on the machine's type plate. The type plate is mounted on the right side of the linkage tower. If the type plate can no longer be found because it has fallen off, you can order a replacement from a Regent dealer. The serial number is also stamped on the top of the main frame near to the linkage tower. Please always have the data on the nameplate ready for inquiries or orders.



- A = Machine model (equipment-dependent type designation)
- B = Serial number (five-digit identification number)
- C = Year of construction (regardless of delivery date)
- D = Total weight (including additional equipment when delivered)

BEFORE FIRST OPERATION

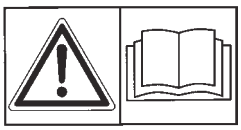
- Fill out the handling over declaration and return it to the manufacturer
- Read the operating instructions completely
- Check device for completeness according to delivery document
- Check device for damage
- Check all screws for tightness, retighten if necessary
- Lubricate all grease nipples, see lubrication schedule
- Lubricate moving parts without grease nipples (coupling bolts)

STANDARD EQUIPMENT

- Stable 4-row beam construction
- Screwed headstock with lower lifting arms
- Spring tine 70x12 mm
- Distance of tines 15 cm
- Under beam clearance 59 cm
- Hydraulic folding from type 5000 up
  incl. hydr. transport locking valve

PICTOGRAMS DECLERATION

Lifting point



Refer to the manual!

Do not step!
Do not enter the machine!

Risk of being crushed!
Do not reach into moving parts!

Do not reach into rotating components!
Due to the flywheel effect, parts may rotate even after the machine has been switched off!

SPECIAL EQUIPMENT AND ACCESSORIES

- Cage Roller EWK
- Double cage roller ZWK
- Ring roller RKW
- Broad share B200
- Broad share V220
- Carbide- Broad share X200 HM
- Carbide- Slim share X35 HM
- Levelling tines spring loaded
- Side - levelling tines
- Side shields, spring loaded and adjustable
- Straw harrow NLS, adjustable, behind the roller
- Intercrop seeder 3m, 9 outlets- mechanic roller drive (only Terrakan R4-3000)
- Agitator shaft for intercrop seeder
- Levelling board, spring loaded, front
- Front roller WSW ø450mm
- Vibroboard ZT 80
- Rubber depth wheel, lateral
- Rubber depth wheel, in front
- Rubber depth wheel, long in front f. vibro-beam
- R6 BIO 6-row design (no double spring tines and various special equipment)

REGULATIONS OF GENERAL SECURITY AND ACCIDENT PREVENTION

Before using your new machine for the first time, please read all instructions carefully and operate in accordance with the „General safety and accident prevention regulations“ of the manufacturer and those of the legislator of your country. The manufacturer declines all liability if the rules below are not followed. If you have any questions about the safety regulations, please contact an authorized dealer or the factory customer support of Regent Pflugfabrik GmbH.

- The attached danger symbols and warning signs provide important information about dangerous areas on the machine. Heed the warnings permanently
- Never reach into moving parts. Do not approach the machine until the machine and towing vehicle have come to a complete standstill. A safety distance of 5 m around the machine must be maintained during operation
- It is strictly forbidden to carry people or animals on the device. It is forbidden to enter the device, use a ladder for cleaning, service or other work
- Always wear suitable protective work clothing and headgear for long hair. With long hair or fluttering clothing, there is otherwise a risk of injury because of moving or rotating machine parts
- Before starting up the machine, make sure that there are no people or animals in the danger area around the machine
- Power-operated elements (e.g. hydraulic) may only be operated when people or animals have a sufficient safety distance (> 5 meters) from the swivel / working area
- Rotating rollers can cause serious injuries. Do not approach the machine until all machine parts have come to a complete standstill
- On all moving machine parts there are places where you can get caught
- The device may only be uncoupled from the towing vehicle on firm, horizontal and sufficiently stable ground
- Secure devices with their own chassis against rolling away whenever they are not used with suitable wheel chocks
- Make sure that the towing vehicles used are sufficiently dimensioned and have appropriate ballasting. Observe the manufacturer‘s information and standards regarding maximum loads. Make sure that all manufacturer information and regulations of the towing vehicle are observed during operation
- Make sure that the front axle of the towing vehicle is loaded with at least 20% of the vehicle‘s unladen weight for steering safety
- The category of the towing vehicle hoist must correspond to the category of the device in accordance with DIN ISO 730-1.
- Be careful when working in the danger area between the device and the towing vehicle. It is strictly forbidden to stay in this area when the hoist is active
- Never leave the driver‘s seat while the tractor is in operation. Before leaving the towing vehicle, always lower the device coupled to the power lift, switch off the engine, apply the parking brake and remove the ignition key. Make sure that nobody can approach chemicals (e.g. pickled seeds in the seed box).
- When lifted, the lifting struts must be locked to prevent them from swinging sideways; if this is violated, the vehicle can swing up when the direction changes. When cornering, pay attention to increased centrifugal forces caused by the shifted center of gravity due to the attachment and the additional ballast.
- Coupling the towing vehicle with add-ons or semi-trailers, as well as additional ballasting, may seriously impair stability, acceleration, braking and the steerability of the towing vehicle.
- Make sure that you only bring the device into public transport in compliance with the country-specific road traffic regulations. Movements in public areas may only take place when all components of the device have been brought into the transport position.
- Before each transport journey, the device must be checked for the functional safety of the components relevant to the transport journey.
- Make sure that hydraulic controls are locked during road transport and secured against unintentional operation.
- In the interest of the operational safety of the device, only use original spare parts. Replica parts can cause damage to the device and considerable safety deficiencies for users. Regent original spare parts stand for high performance, durability and economy.
- It is strictly forbidden to have the device and towing vehicle operated by persons with impairments, persons without a license, persons in poor health or persons without knowledge of these operating instructions.
- Worn screw heads and wearing parts can be razor sharp, never touch them with your bare fingers. Be especially careful when unscrewing screws with a conical head shape
- Hydraulic system is under high pressure! Check hoses, pipes and hydraulic assemblies for leaks before they are pressurized. Liquids escaping under high pressure can penetrate under the skin and cause serious injuries. Service work may only be carried out by authorized specialist workshops.
- Staying under suspended loads is prohibited.

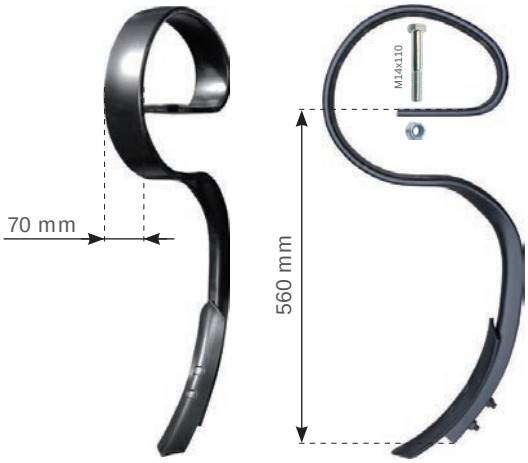
HERCULES TINE AND SHARE VARIANTS

Hercules tine

- Spring tines 70/12 mm
- Good fine crumbling effect of the soil due to strong vibration
- Very resistant due to special hardening process
- Avoid driving backwards while tines are in the soil (risk of breakage)
- If possible, lift the device off the ground while driving
- When changing the coulters, make sure that the M10 fastening screws are not tightened too much (max. 70 Nm).
- Avoid cornering as the tines are not designed for side loading.

- Order number of tines loose: 33.42.248
- Order number mounting bracket: 33.37.282
- Order number screw M14x110 (for clamp): 12.27.276-M5

TIGHTENING TORQUE: 150 Nm



Slim share (standard)

- Very good mixing
- Good entry into the soil

- Order number: 33.42.249
- Screw: 2 pieces 12.45.172-M7

Slim share X35 HM

- Very good mixing
- Good entry into the soil
- Very long service life due to carbide tipping
- For soils with a low stone content-

- Order number: 33.42.255
- Screw: 2 pieces 12.60.238-M7

Broad share B200

- Good for weed control
- Overlap, full-area cut through

- Order number: 33.42.246
- Screw: 2 pieces 12.45.172-M7

Broad share X200 HM

- Good for weed control
- Overlap, full-area cut through
- Very long service life due to carbide tipping
- Full width over the entire service life
- For soils with a low stone content-

- Order number: 33.42.247
- Screw: 2 pieces 12.45.172-M7

Broad share V220

- Ideal for weed control
- Full-surface cutting of the soil even at low working depths
- Long service life
- Good entry into the soil

- Order number: AE1.02.94
- Screw: 2 pieces 12.45.172-M7

Fastener equipment for shares

- 12.60.238-M7 *TIGHTENING TORQUE: 70 Nm*
- Plow screw M10x60 incl. special-nut
- For broad shares and X35 HM

- 12.45.172-M7 *TIGHTENING TORQUE: 70 Nm*
- Oval head screw M10x60 incl. special-nut
- For Slim share (standard)

- 15.12.216
- Special nut with integrated spring steel washer ø28mm
- Self-locking by spring steel washer (Pay attention to the tightening torque!)

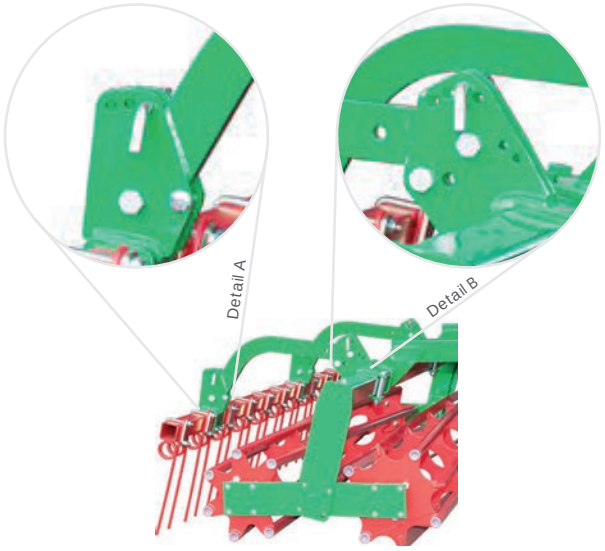
ROLLER VARIANTS AND STRAW HARROW

Straw harrow NLS

The straw harrow is used to level fine, crumbly soil and to lift rooted plant residues to the surface of the soil.

Make sure there is enough clearance between the harrow tines and the wheels on machines with chassis, the wheels can cause damage if the setting is unfavorable.

The contact pressure of the harrow is regulated with the hole group (detail B). If there is a lot of organic mass, it may be necessary to remove the bolt, so that the harrow can freely deflect upwards.
The angle of inclination and thus the intensity of the harrow can be regulated with the hole group (detail A). If there is a lot of organic mass, the harrow should be set as open as possible (so that the organic mass is not retained) otherwise the harrow can tend to clog. The function of the harrow can be deactivated if the harrow is turned backwards and the bolt (detail A) is then inserted in front of the connecting arm (Not possible with some model variants due to collision with other components).



Cage roller EWK

The single roller is designed as a combi-mix roller (flat bar / cage bar mixed). The diameter is 400 mm. The combination of cage and flat bars results in an ideal combination of reconsolidation and fine crumbling effect. The self-cleaning effect of the flat bars is particularly helpful in damp conditions and offers significant advantages compared to pure tube bar rollers.

The numerous partition walls give the roller the necessary stability and, in combination with the large-sized flange bearings, ensure a long service life.

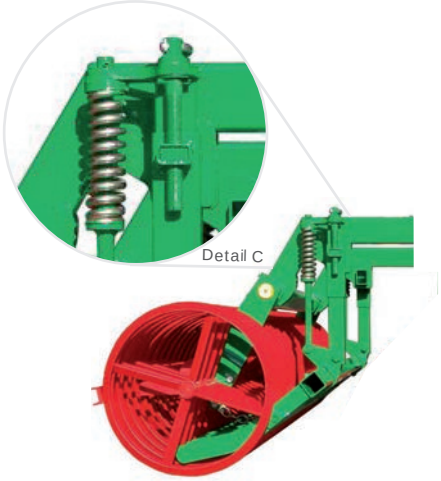
Double cage roller ZWK

The front roller has a diameter of 400 mm, the rear roller has a diameter of 350 mm. Due to the smaller diameter of the rear roller, it achieves a higher rotational speed than the front roller. The material thrown up by the front roller is thus very finely crumbled by the rear roller.

As standard, the front roller is a combi-mix (flat bar / cage bar mixed) version and the rear roller is a pure cage bar version. If desired, the rear roller can be designed as a pure flat bar version, but this is only recommended for floors that are not rich in stones.

Ring roller RKW

The ring roller ø600 mm in combination with the spring-loaded knife-harrow ensures intensive crumbling and optimal reconsolidation. The knife-harrow is adjusted in its high by using the spindle Detail C. If the spindle is turned clockwise, the knives work deeper. If the spindle is turned counterclockwise, the knives work higher. If there is a lot of organic matter, the pre-harrow can tend to clog, the knives should then be set higher or raised up completely. Make sure that the same height is adjusted on both sides, this can be checked by measuring the length of the spindle on both sides. The knife-harrow is spring-suspended and thus secured against overload.
A scraper rail is mounted on the ring roller which prevents the roller from becoming blocked.



ⓘ Avoid cornering on all types of rollers as the bearings can be damaged

PREPARATIONS ON THE TRACTOR

Please read the manufacturer's operating instructions in full before starting the tractor, act according to the manufacturer's instructions and be sure to observe the safety information and regulations contained therein, as well as the general instructions.

Suitability of the tractor

Basically, the towing vehicle must be checked for suitability for use with the attached device. Among other things, the following parameters from the type certificate must be observed.

Check whether the following load specifications fit for the device before you connect it:

- maximum permissible total weight
- maximum permissible axle loads
- maximum permissible trailer load
- maximum permissible vertical load
- Load capacity and air pressure limits of the tires
- the prescribed braking decelaration must also be adhered to when the implement is connected
- Lifting power of the hitch

Tires

Make sure that the tire pressure is the same on all axles of the towing vehicle. A different tire pressure causes the towing vehicle to tilt and has a negative impact on the operation of the attachment.

When working in the field, low tire pressure has a positive effect on traction, fuel consumption and soil protection. We therefore recommend choosing the lowest possible tire pressure (taking into account the manufacturer's instructions).

For road transport on a paved surface, please observe the manufacturer's instructions.

Ballasting

Correct ballasting reduces tire slippage, and thereby also reducing fuel consumption. If the front ballast is too low, the all-wheel drive and the steering of the towing vehicle will work restrictedly.

Wheel weights on the rear axle can reduce the tire slippage to. When choosing the ballasting, always observe the country-specific rules of the legislature. As a basic value, you should make sure that the front axle is permanently loaded with 20% - 40% of the vehicle's empty weight. Always make sure that the maximum permissible axle loads of the vehicle are not exceeded and observe the specifications and recommendations of the manufacturer.

Hitch rods

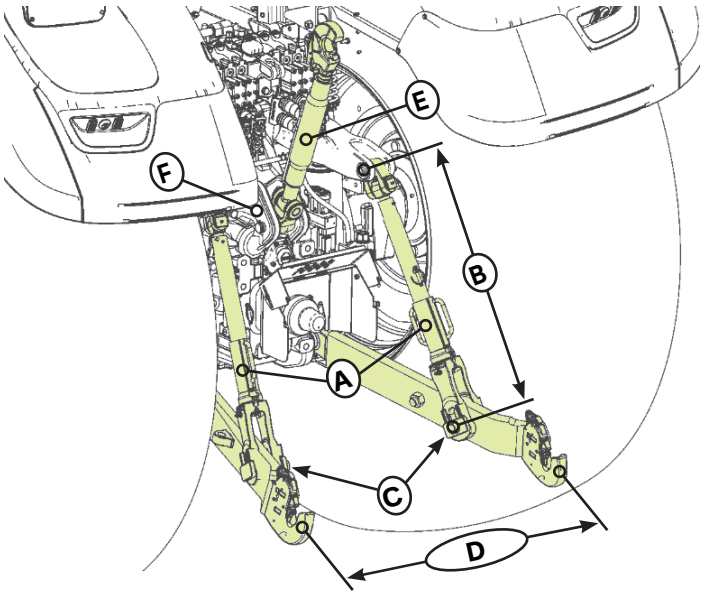
- The two lifting struts (A) must be set so that they have the same length (B) on both sides from the center of the pin to the center of the pin.
- The pins of the lifting struts (C) must be locked in a rigid position and must not be in the slot or have any height clearance.
- The side struts are to be set so that they are locked against sideways swinging during road transport or in the raised state, in the lowered state (when the device is working in the ground) the side struts must be able to swing freely and must not be fixed. In the case of semi-mounted devices, the lower links should be permanently locked against lateral swinging.
- The leg dimension between the two center hook points (D) must be set exactly to the leg dimension of the device.
- The top link (E) should be pegged in the hole group (F) of the towing vehicle so, that the imaginary extended line of the top link in intersects the front axle of the towing vehicle (working position, see depth adjustment). In this way, the tire-slip can be reduced to a minimum and the electronic hoist control can work correctly.

Electric hitch settings

Lock all control units and the hitch control against unintentional operation during road-transport.

The operating mode „position control" must be selected during coupling / uncoupling of the device and during road-transport. The operating mode „traction control „ can be used during field work. We recommend setting the traction control as low as possible, a strong control frequency would have a negative impact on the work result.

Coulters and processing tools are hardened components, placing them hard on the ground can cause such components to break. Therefore, set the lowering throttle as slowly as possible.



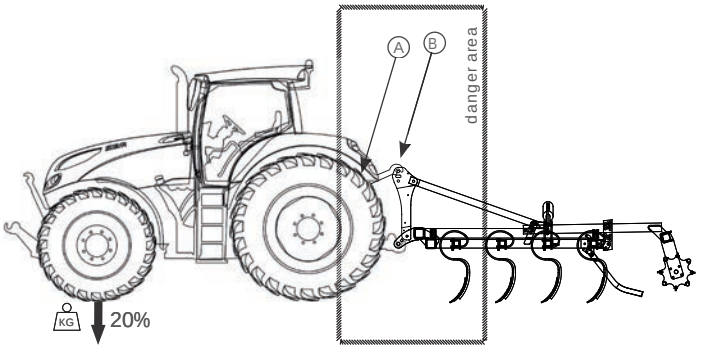
COUPLING AND UNCOUPLING

Coupling

- Make sure that there are no people in the danger zone.
- Select the operating mode „position control“ in the hitch settings
- Ballast the towing vehicle so, that the front axle is loaded with min. 20% of the vehicle‘s empty weight
- Insert the linkage- balls with the corresponding NORM category on the device side and secure the bolts with folding plugs
- Couple the lower links of the towing vehicle to the attachment, make sure that the hooks are correctly locked
- Couple the hydraulic and electrical connections to the towing vehicle
- For devices that are equipped with front support wheels or front rollers, couple the upper link in the slot-hole of the linkage tower tower
- For devices without front support wheels or front rollers, you can couple the top link in the rigid hole of the linkage tower
- Make sure that the top link is on the tractor side (point A) lower than on the device side (point B)
- Slowly lift the device off the ground. Make sure that the device does not collide with the towing vehicle, pay special attention to the rear window.
- If the maximum lifting height with sufficient clearance to the towing vehicle is reached, set this in the hitch settings

Uncouple

- Make sure that there are no people in the danger zone.
- Select the operating mode „position control“ in the hitch settings
- Set the lowering throttles (hitch settings) as slowly as possible and place the device on a solid surface
- Remove the upper link on the device side and secure it to the towing vehicle
- Remove the hydraulic and electrical connections
- Open the locking hooks on the lower links
- Lower the hitch
- The towing vehicle can be removed
- If the device is uncoupled when folded, the folding-system must be locked (see chapter folding)



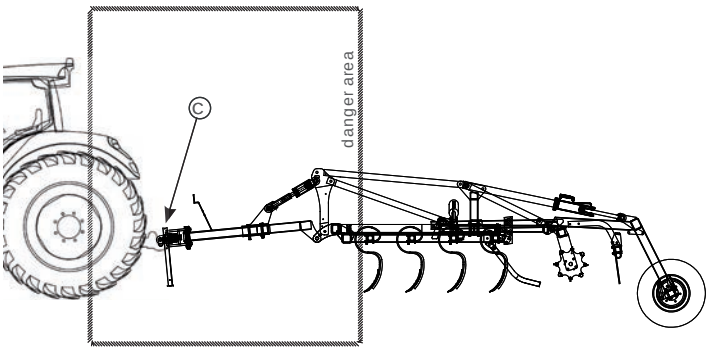
COUPLING AND UNCOUPLING DEVICE WITH CHASSIS

Coupling

- Make sure that there are no people in the danger zone.
- Select the operating mode „position control“ in the hitch settings
- Ballast the towing vehicle so, that the front axle is loaded with min. 20% of the vehicle‘s empty weight
- Insert the linkage- balls with the corresponding NORM category on the device side and secure the bolts with folding plugs
- Attention, there is a risk of jamming on the lower link support axle at the device, if necessary fix it with wheel chocks.
- Lock the lower links against swinging sideways.
- Couple the lower links of the towing vehicle to the attachment, make sure that the hooks are correctly locked
- Couple the hydraulic and electrical connections to the towing vehicle
- Lift the device a little with the hitch
- Bring the two parking supports (C) of the lower link support axle into the working position (supports raised).
- Do not remove the wheel chocks until the device is fixed by the towing vehicle
- Devices with chassis have their own hitch-system and are independent of the towing vehicle hitch. Lift the device only via the corresponding hydraulic control circuit. Use the device only in tractor operating mode „position control“
- Make sure that there is enough space between the straw harrow and the axle of the chassis

Uncouple

- Make sure that there are no people in the danger zone.
- Select the operating mode „position control“ in the hitch settings
- Lower the device on a solid surface
- Secure the device against rolling away by using wheel chocks
- Bring the two parking supports (C) of the lower link support axle into the parkink position (supports lowered).
- Open the locking hooks on the lower links
- Lower the hitch
- Remove the hydraulic and electrical connections
- The towing vehicle can be removed



HYDRAULIC FOLDING MECHANISM (TERRAKAN 5000, TERRAKAN 6000)

Hydraulically foldable devices consist of a central load-bearing main frame with a 3-point connection for the tractor hitch and two hydraulically foldable tine frames. When folded up, the tine frames must always be secured against unintentional opening, for this purpose a mechanically operated shut-off valve is installed on the hydraulic coupling plug of the corresponding control circuit. In the special equipment variant „remote-operated shut-off valves", permanently locked shut-off valves are installed on the two hydraulic cylinders, which can be opened by pulling the unlocking rope. As soon as the unlocking rope is released, the valves automatically switch to the locked state.

Make sure that the hydraulic control circuit is only unlocked for the active folding process.
For safety reasons, the folding mechanism must be locked during transport and field work.

Unfold the device

- Make sure that there are no people / animals in the danger area.
- Only approach the device when the hitch is lowered and the device stands securely on the ground.
- Open the shut-off valve on the hydraulic coupling plug.
- Lift the device at least one meter off the ground via hitch.
- In the case of devices with chassis, lift the tractor's hitchin addition to the hitch system of the device.
- Make sure there is sufficient space between the machine components and the ground during the entire folding process. Various components can be severely damaged in a collision.
- With the „remote-operated shut-off valves" equipment, the unlocking rope must be pulled during the entire folding process.
- Apply pressure to the hydraulic control unit until both tine frames are lowered and have reached the end position.
- After the folding process, lock the hydraulic circuit using a shut-off valve (if the option remote-operated shut-off valve is installed, the device is automatically secured against unintentional opening as soon as you release the actuating rope).

Fold up the device

- Make sure that there are no people / animals in the danger area.
- Only approach the device when the hoist is lowered and the device stands securely on the ground.
- Open the shut-off valve on the hydraulic coupling plug.
- Lift the device at least one meter off the ground via hitch.
- In the case of devices with chassis, lift the tractor's hitchin addition to the hitch system of the device.
- Make sure there is sufficient space between the machine components and the ground during the entire folding process. Various components can be severely damaged in a collision.
- With the „remote-operated shut-off valves" equipment, the unlocking rope must be pulled during the entire folding process.
- Apply pressure to the hydraulic control unit until both tine frames are fully raised and have reached the end position.
- After the folding process, lock the hydraulic circuit using a shut-off valve (if the option remote-operated shut-off valve is installed, the device is automatically secured against unintentional opening as soon as you release the actuating rope).

TRANSPORT POSITION & WORKING POSITION

Before switching from field work to road transport, some machine elements have to be brought into the transport position in order to adjust the width and height of the device to the requirements of road transport.

Transport position

- Fold the side plates into the transport position (see chapter side shields).
- Fold the side levelling tines into the transport position (see chapter Edge levelling tines).
- In the case of foldable devices, position the front roller so, that when the machine is folded, the transport width of the roller it is less than the transport width of the tine fields (see chapter front roller).
- In the case of foldable devices, position the vibroboard so, that when the machine is folded, the transport width of the vibroboard it is less than the transport width of the tine fields (see chapter vibroboard).
- In the case of foldable devices, position the rear roller so, that when the machine is folded, the transport width of the rear roller it is less than the transport width of the tine fields (see chapter roller and straw harrow).
- Before entering public area, make sure that the control circuit for the folding device is locked.
- For devices with chassis, make sure that the control circuit for the hitch system is locked.
- Make sure that all bolts are secured with a pin or spring pin before starting the transport journey.
- Make sure that the lower links of the towing vehicle have to be locked against sideways swinging before transport. The device could swing up at higher speeds or when cornering with freely swinging lower links.
- Before driving on public roads, make sure that you comply with the country-specific road traffic regulations.
- Always observe the regulations of the legislator.

Working position

- Fold the side plates into the working position (see chapter side plates).
- Fold the side levelling tines into the working position (see chapter side leveling tines).
- Make sure that all bolts are secured with a pin or spring pin before starting field work.

DEPTH ADJUSTMENT

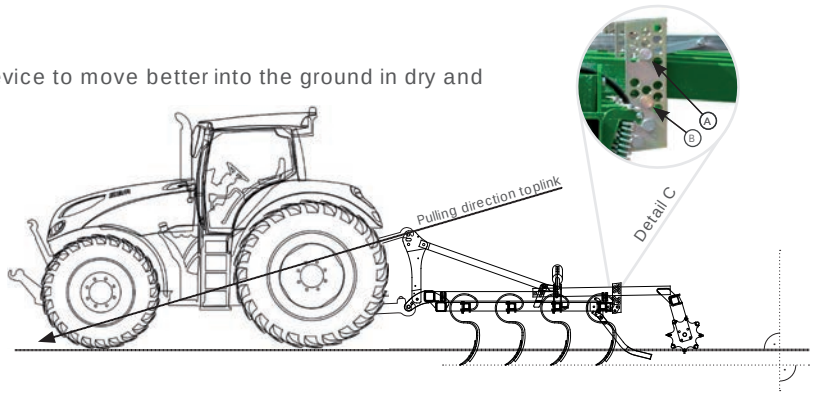
The device should be set via the position of the roller, the lifting height of the hitch and the length of the top link so, that the frame is aligned parallel to the ground surface in the longitudinal and transverse axes. When correctly adjusted, the front and rear tine rows have the same working depth. The setting of the bank angle is adjusted via the spindles on the lifting linkage of the towing vehicle. The correct setting is achieved when the left and right tines work at the same depth and the cultivator frame is thus aligned horizontally to the ground surface.

In case of towing vehicles with double-acting rear hitch, the hitch control must be set to the single-acting operating mode; failure to observe this could result in damage to various device components.

Basic setting

DETAIL C

Bolt A regulates the maximum working depth of the tines
Bolt B The additional weight on the tine frame allows the device to move better into the ground in dry and hard conditions.



Place the bolt A in the hole for the desired working depth of the tines and let the device move into the ground. Check whether the tines work at the same depth in the front and rear area. If there are any deviations, adjust the depth in the front area by changing the lifting height of the hitch and the length of the top link.

In order to ensure the best possible traction at all times, please make sure that the imaginary extended line of the top link pulling direction intersects the tractor´s front axle of the (see graphic).
If necessary, adjust the position of the top link on the tractor, usually it can be set at different heights. If you do not have this option on the tractor, you can use the hole group on the linkage-tower of the device.

SPECIAL CONDITIONS

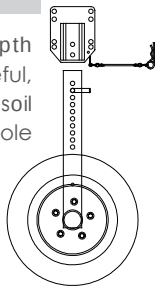
Device with chassis

For devices with chassis no toplink is used. In the rear area, the working depth is adjusted via the bolt A of the rear roller (see chapter Basic setting, detail C). The working depth in the front area is regulated by the lifting height of the hitch. Make sure that the cylinders of the device‘s own hitch system are fully retracted in the working position and that the working depth is only regulated via the tractors hitch. For devices with a chassis, we recommend the additional equipment „support wheels in front“ to stabilize the working depth in the front area. When you have finished adjusting the depth, you should no longer change the height of the tractor´s hitch and lift the device only by using its own hitch system.

Terrakan R6 - BIO

At devices of the R6 - BIO version there is no rear roller used in order to prevent reconsolidation of the previously worked surface. In order to enable exact depth control without a roller, reinforced depth control wheels are installed on the front frame segment. The working depth of the tines in the front area is limited by the depth control wheels. The horizontal inclination of the device and thus the working depth in the rear area is adjusted over the length of the top link. If you shorten the top link, the working depth in the rear area is reduced. If you lengthen the top link, the working depth in the rear area is increased.

Support wheels



Deep support wheels serve to regulate the depth control more precisely. The wheels can be useful, especially on uneven headlands and changing soil conditions. The depth can be adjusted by a hole group on the support wheel holder and a hole group on the holding bracket, the desired depth can be fixed by using the locking bolt. The ideal tire pressure for the 20.5 x 8.00 - 10 tire is 2.2 bar (32 PSI), maximum pressure: 2.5 bar (36 PSI). When operating with front wheels, we recommend that the top link of the tractor is hung in the elongated hole of the device side´s linkage tower.

Front roller & Vibroboard

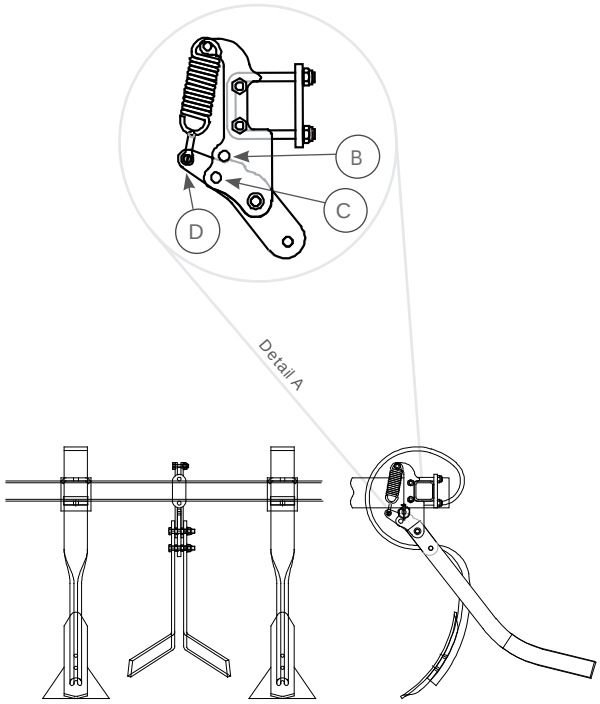
Front roller and vibroboard serve as pure working tools and must not be used for depth control. If equipped, carry out the depth adjustment of the device with a raised and deactivated front roller or vibroboard (see basic setting). As soon as the desired working depth of the tines is reached and the device is aligned horizontally, you can start adjusting the front roller or the vibroboard (see chapter front roller / vibroboard).

DOUBLE - LEVELLING TINES

The spring-loaded levelling tines are used to level loose soil material and to distribute crop residues. The inclination and thus the intensity of the tines can be adjusted to the soil conditions in two stages by using a locking bolt (detail A, marking B + C).

Only adjust the levelling tines when the unfolded device stands securely on the ground.

- Remove the folding pin of the bolt.
- Use one hand to lift the tine
- With the tine is raised, pull out the bolt with your second hand and insert it into the desired new position
- Secure the bolt with the folding pin



If there is so much organic mass that the levelling tines block material even in position C (detail A), the spring force must be removed from the tines.

To do this, open the shackle D (detail A) and let the spring hang freely. The leveling tine now lies on the ground without pressure and should work without blockage. If crop residues accumulate, the levelling tine can deflect upwards without resistance. As soon as conditions allow, you can hang the spring back in and load the tine with the spring force.

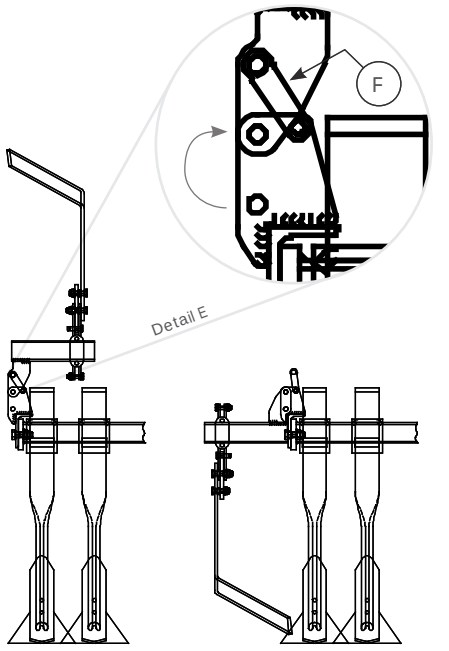
SIDE - LEVELLING TINES

The spring-loaded side levelling tines are used to level loose soil material and to distribute crop residues in the area of the left and right outer tines. The edge-leveling tines are preventing the formation of dams between the lanes on connecting journeys.

Only adjust the side levelling tines, when the unfolded device stands securely on the ground. Be especially careful when lowering or lifting the tines, there is a risk of pinching!

- Remove the folding pin of the bolt.
- Now hold the up-folded side levelling tine with one hand and remove the bolt with the second hand.
- Fold down the side levelling tine as far as it will go. Be careful, not to pinch yourself!
- Insert the bolt and secure it with a folding pin.

- The procedure for folding up is done in reverse order.



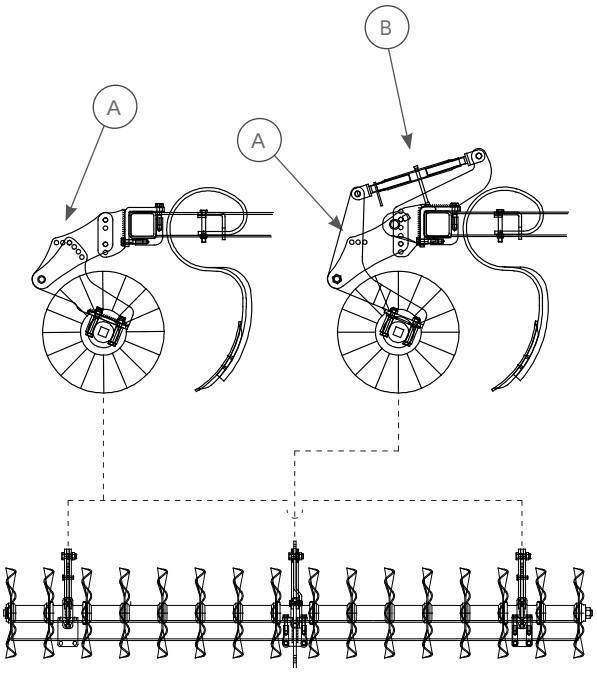
Transport position **Working position**

In the case of devices with a working width of 3m (implements without hydraulic folding), an additional safety hook is installed on the side levelling tine bracket (detail E, marking F). This is necessary, so that the side levelling tine cannot inadvertently fold down when cornering. Lock the safety hook before every transport trip. The safety hook is not necessary for devices with hydraulic folding.

The adjustment of the intensity or the removal of the tension spring is carried out in the same way as described in chapter DOUBLE LEVELLING TINES. The side levelling tines must be fixed in the working position for this process.

FRONT ROLLER WSW Ø450

The front roller is used to shred and press living plant mass. Be sure to raise the front roller during the depth adjustment on the cultivator, so that it does not run during the adjustment work. Only when you have reached the desired working depth on the cultivator, you can start to adjust the depth of the front roller. For this purpose, two bearing points with hole group (A) and one bearing point with spindle adjustment (B) are installed for each roller segment. To change the working depth, proceed as follows:

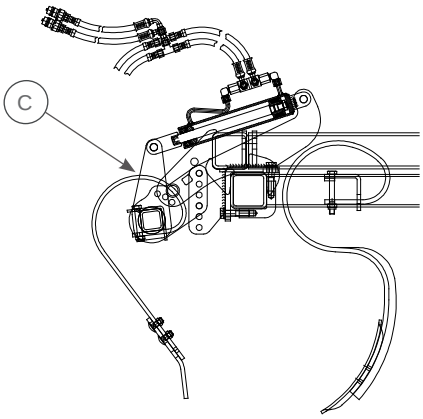


- First remove the bolt of the hole group (A) only on one side and in the middle.
- Now turn the spindle (B) until the desired working depth is reached on the hole group (A) on the other outer bearing point and the bolt can be inserted there.
- Insert the bolt and secure it with a folding pin.
- Now remove the bolt of the hole group (A) on the opposite side.
- Now turn the spindle (B), until the position on both outer hole groups (left and right) matches.
- Insert the bolt and secure it with a folding pin.
- Now turn the spindle (B) until the position of the middle hole group corresponds to the outer hole groups.
- Insert the bolt and secure it with a linch pin.
- Secure the spinel (B) by using the locking nut.

When operating the front roller, make sure that the outside of the roller does not touch any elevations or dams, especially at the field edges there is a risk of damage. Use the roller only in loose conditions to chop up living plant matter, do not use the roller to guide the depth of the cultivator in dry and compacted soil structures after harvesting. The working depth of the roller may only be adjusted so that it runs just above the soil surface in order to crush living plant matter and the discs do not penetrate the soil!

VIBROBOARD ZT80

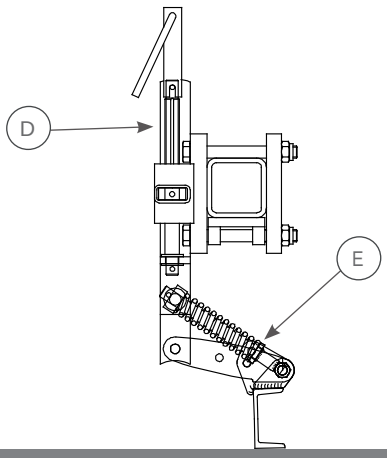
The vibroboard is used to adjust loose soil material and is primarily used on already plowed areas for seedbed preparation. The incline of the bar can be adjusted to 3 levels, proceed as follows:



- Spread the hydraulic cylinders apart (tines must move away from the ground).
- Insert the locking bolts in the desired position of the hole group (C) and secure them with a linch pin. Make sure that you have staked the bolts to the the same position on the left and right hole group.
- Move the hydraulic cylinders together until the holding plates are in contact with the locking bolts.
- If you want a new position, repeat this scheme again.

LEVELLING BOARD

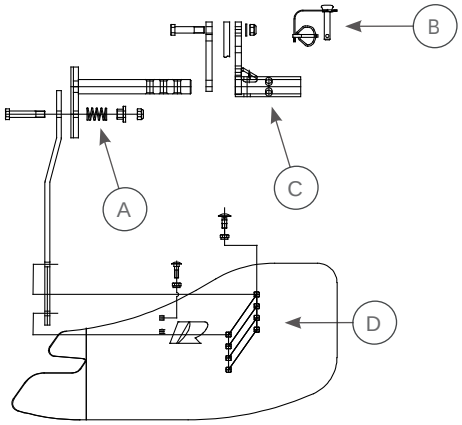
The levelling board is used for levelling and aligning previously worked areas and is secured against overload by means of a spiral spring. The working depth of the leveling bar can be infinitely adjusted using the spindle (D). Make sure that you only make a few turns per side when changing the working depth and then make up for it on the other side, otherwise the levelling board can jam itself. The exact same depth must be set on the left and right side.



The inclination and thus the intensity of the levelling board can be set on the two-stage hole group (E). To move, pull out the spring-loaded bolts on both sides, turn the level ling board to the new position and then snap the spring-loaded bolts back into place.

SIDE PLATES

The side plates intercept the thrown earth from the outer tines and ensure that no dam is created between two working lanes. For the working position, the side plates must be pinned in the slot of the console (C) and can avoid small obstacles such as accumulated crop residues. For height adjustment, a 4-stage hole group (D) is integrated in the plate. If necessary, open the two fastening screws, set the plate to the desired height and tighten the screws again. In order to be able to avoid lateral loads, depending on the version, either a rubber buffer or a spring (A) is integrated at the top of the holder, which allows the plate to spring laterally in the event of an overload.

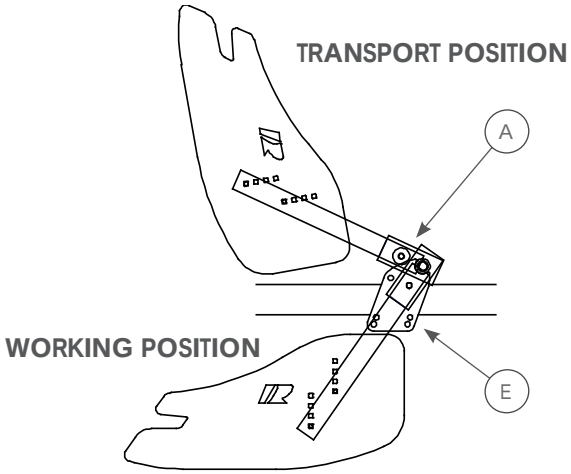


SPECIAL CONDITIONS

Terrakan 3000

For transport, the side plates must be pushed in to reduce the transport width. To do this, remove the locking pin of the insertion shaft, lift the side plate vertically and push it in towards the frame as far as it will go. The locking pin can now be inserted on the inside of the console. Now lower the side plate until it rests on the support plate with the rubber buffer.

(A rubber buffer (A) is mounted on the inside of the side plate and serves as a transport pad. A support plate for the rubber buffer (A) is integrated on the console (E).)



MAINTENANCE

Cleaning of the device

- Blow dry dirt off the device using compressed air
- Remove adhering dirt with a water jet and a brush. When using high-pressure cleaners, make sure that the water jet is not directed at hydraulic components, seals and bearing points
- Avoid rust formation after washing. Treat the device with corrosion protection immediately after washing (when selecting the corrosion protection agent, make sure that you comply with country-specific environmental protection regulations)
- Lubricate the device completely after washing. After lubricating, turn moving parts a few turns so that the lubricant is distributed in the bearing points and the water can escape

Operating fluids

Hydraulic fluid:
- Mineral hydraulic oil DIN 51524 HLP 46

Grease:
- Semi-synthetic calcium soap grease Divinol TOP 2003

Lubricating plan and lubrication points

Every 15 hours of operation until grease emerges from the bearing:
- Cage roller EWK: Flange bearing (2 pieces per roller segment)
- Double cage roller ZWK: Flange bearing (2 pieces per roller segment)
- Ring roller RKW : Flange bearing (2 pieces per roller segment) + Knife-harrow : Spindle adjustment (1 piece per spindle)
- Front roller WSW: Bearings (3 pieces per roller segment)
- Levelling board: Spindle adjustment (1 piece per spindle)
- Moving parts and sliding surfaces (bolts, etc.)

Maintenance schedule

During every commissioning::
- Check hydraulic hoses

Every 25 hours of operation:
- Tighten screws
- Check wear parts, replace if necessary

Every 50 operating hours:
- Check ball bearings, replace if necessary
- Check hydraulic actuators for leaks

DECLARATION OF CONFORMITY

Der Hersteller erklärt hiermit, daß die nachstehend beschriebene neue Maschine übereinstimmt mit den Bestimmungen der Maschinen Sicherheitsverordnungen - 2006/42/EG, und damit der durch sie umgesetzten Maschinenrichtlinie RL2013/167/EG in der geltenden Fassung, und zwar mit den folgenden grundlegenden Sicherheitsanforderungen wie - Zubehörteile für Lastaufnahmeeinrichtungen
- Kohärente, sichere Stellteile
- Ausreichende Stabilität
- Keine Gefahr durch Bruch der Fluidleitungen
- Sichere Steuerung gefertigt wurde.

Bei der Auslegung und dem Bau der Maschine wurden folgende Normen angewendet:
- EN ISO 12100 (Sicherheit von Maschinen)

DECLARATION OF CONFORMITY ENGLISH

The manufacturers hereby declare that the new machine named below complies with machine safety regulations - Machine Safety Regulations (MSV), Federal Law Gazette 2006/42/EG, and, therefore, with the machine guideline RL2013/167/EG, applied by you, in the valid edition, which means it has been manufactured in accordance with the following basic safety requirements relating to:
- accessories for the load absorption device
- coherent and safe retaining parts
- sufficient stability
- no danger as a result of the breakage of fluid leads
- a safe control system

The following standards were applied when designing and constructing the machine: - EN ISO 12100 (safety of machines)

ATTESTATION DE CONFORMITÉ FRANÇAIS

Le fabricant atteste par la présente que la nouvelle machine décrite ci-dessous a été construite dans le respect des dispositions des ordonnances de sécurité machine - 2006/42/EG et de la directive machine ayant servi de base RL2013/167/EG dans la version valable, et ce en répondant aux exigences de sécurité suivantes, à savoir:
- Accessoires pour dispositif de retenue de charge
- Organes de commande cohérents et sûrs
- Stabilité suffisante
- Aucun risque du fait de la rupture des conduites de fluides
- Commande sûre.

Lors de la conception et de la fabrication de la machine, les normes suivantes ont été appliquées :
- EN ISO 12100 (sécurité des machines)

DICHIARAZIONE DI CONFORMITÀ ITALIANO

Il produttore con la presente dichiara che la nuova macchina qui in seguito descritta corrisponde alle norme descritte nei regolamenti di sicurezza - 2006/42/EG e con ciò anche alla direttiva relativa alle macchine RL2013/167/EG nella versione vigente, ed è stata costruita tenendo conto delle seguenti richieste di sicurezza:
- parti accessorie per la disposizione dei punti di carico
- parti di regolazione sicure e coerenti
- sufficiente stabilità
- nessun pericolo in caso di una rottura delle condutture dei fluidi
- guida sicura

Nella costruzione e nell'esposizione della macchina sono state applicate le seguenti norme:
- EN ISO 12100 (sicurezza delle macchine)

DECLARACION DE CONFORMIDAD ESPAÑOL

El fabricante DECLARA por la presente que la nueva máquina descrita a continuación cumple con las disposiciones de los reglamentos de seguridad para máquinas 2006/42/EG, y de ese modo con la norma para máquinas RL2013/167/EG por ellos insta u rada en su formulación vigente, habiendo sido fabricada cumpliendo con las siguientes exigencias básicas de seguridad:
- Accesorios para dispositivos de elevación de carga
- Dispositivos de maniobra seguros y coherentes
- Estabilidad suficiente
- Ausencia de peligro por rotura de los conductos de fluidos
- Control seguro

En el dimensionamientoy la construcción de la máquina se han aplicado las siguientes normas:
- EN ISO 12100 (Seguridad de máquinas)

EGYSÉGESSÉGI NYILATKOZAT MAGYAR

A gyártó ezzel kijelenti, hogy a továbbiakban leírt új gép megegyezik a gép biztonsági szabványokkal - 2006/42/EG és ezzel az általuk megvalósított érvényes gép rendelettel RL2013/167/EG, és hogy a következő biztonsági követelményekkel készültek:
- tartozék elem teher emelőbe rendezéssel
- összefüggő, biztos állító elemek
- kielégítő stabilitás
- veszély mentes, folyadék vezeték törés esetében
- biztos vezérlés.

A gép kivitelezése és építése a következő szabvány szerint történt:
- EN ISO 12100 (Gép biztonság)

PROHLÁŠENÍ O KONFORMITĚ ČESKY

Výrobce tímto prohlašuje, že níže popsaný nový stroj se shoduje s ustanoveními strojového bezpečnostního nařízení - 2006/42/EG, a tímto také s nimi realizovanou strojovou směrnicí RL2013/167/EG v platném znění, a byl vyroben s následující mi základními bezpečnostními požadavky jako na příklad:
- výstrojné součásti pro vybavení na zachycení zatížení
- koherentní, bezpečné regulační díly
- dostatečná stabilita
- žádné nebezpečí prasknutím fluidních vedení
- bezpečné ovládání

Při konstrukci a stavbě tohoto stroje byly použité následující normy:
- EN ISO 12100 (Bezpečnost strojů)

IZJAVA O SUKLADNOSTI HRVATSKI

Proizvođač ovime izjavljuje da je novi stroj koji je opisan u nastavku sukladan s odredbama Uredbe o sigurnosti strojeva, Savezni službeni list broj 2006/42/EG, odnosno time i sa Smjernicama o strojevima br. RL2013/167/EG u važećoj verziji, a koje su ovom Uredbom primijenjene pa je time izrađen sukladno slijedeći m osnovnim zahtjevima o sigurnosti kao što su:- dijelovi pri bora uređaja za prihvat tereta
- koherentni i sigurni izvršni dijelovi
- dostatna stabilnost
- bez opasnosti uslijed pucanja vodova za tekućine
- sigurno upravljanje.

Pri projektiranju i gradnji stroja primijenjeni su slijedeći standardi:
- EN ISO 12100 (Sigurnost strojeva)

DECLARAT IE DE CONFORMITATE LB. ROMÂNĂ

Producătorul declară prin prezenta că utilajul descris mai jos a fost fabricat în conformitate cu dispoziiile Ordonanței referitoare la siguranța utilajelor 2006/42/EG, precum şi cu Dispoziiile de aplicare RL2013/167/EG prevăzute în aceasta, şi anume cu respectarea cerințelor de siguranță cum sunt:
- părții accesorii pentru dispozitivul de preluarea greutății
- părții de ajustare sigure şi care se unesc
- stabilitate suficient
- lipsa pericolului la spargerea conductelor cu fluid
- mecanism de comand sigur.

La proiectarea şi construcția utilajului au fost aplicate următoarele norme:
- EN ISO 12100 (Siguranța utilajelor)

☐ Pflug ☐ Kreiselegge ☐ Drillmaschine ☐ Walze ☐ Scheibenegge ☐ Grubber ☐ Saatbettkombi

Type: _____ Bj: _____

S/N: _____ Attnang-Puchheim am, _____

_____
Ing. Roland Berger Geschäftsführer
und Dokumentationsverantwortlicher

Regent Pflugfabrik GmbH
Bahnhofstraße 105
4800 Attnang-Puchheim Austria
Tel.: +43 7674 62661
Fax.: +43 7674 62207
info@regent.at
UID ATU56602117
Firmenbuch FN229714
Oberbank Vöcklabruck (A)
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BIC OBKLDEMX

Regent Pflugfabrik GmbH
Bahnhofstr. 105
4800 Attnang-Puchheim
Austria

Tel. +43 7674 62661
Fax. +43 7674 62207
info@regent.at
www.regent.at