



# **Translation of original Operating Instructions**

## **Deep Aerator TERRA SLIT**

# **499.001**

**From equipment I.D. No. :**

**Status :      January 2010**

**499 99 01**



# EC DECLARATION OF CONFORMITY

We

**Wiedenmann GmbH  
Am Bahnhof  
89192 Rammingen**

declare under our sole responsibility that the product

**Deep Aerator  
TERRA SLIT**

to which this declaration refers, corresponds with the relevant basic safety and health requirements of the machinery directive 2006/42/EC.

<b>Rammingen, the 26.04.2010</b>	<b>Horst Wiedenmann</b>
(Place and date of issue)	<b>Managing Partner</b>
	(Name, function and signature of authorised person)

<b>Rammingen, the 26.04.2010</b>	<b>Peter Rischar</b>
(Place and date of issue)	<b>Technical office manager Authorised representative for tech. documentation</b>
	(Name, function and signature of authorised person)

**NOTE: The declaration of conformity is no longer valid if changes are made to the machine that have not been agreed with the manufacturer.**



## Declaration of conformity

We

**Wiedenmann GmbH  
Am Bahnhof  
89192 Rammingen**

hereby declare that the product

**Deep Aerator  
TERRA SLIT**

referred to by this declaration complies with the requirements of Machinery Directive 2006/42/EC.

<b>Rammingen, the 26.04.2010</b>	<b>Karl Wiedenmann</b>
(Place and date of issue)	<b>Sales Manager</b>
	(Name, function and signature of authorised person)

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# Preface

**READ THESE OPERATING INSTRUCTIONS CAREFULLY** to familiarise yourself with the correct way to operate and service your machine, and to prevent personal injury or damage to the machine. These operating instructions and the adhesive safety signs on your machine can also be obtained in other languages (your dealer can order these for you).

**THESE OPERATING INSTRUCTIONS ARE** a permanent part of your machine and should be handed over to the new owner if the machine is sold.

**MEASUREMENTS** in these operating instructions are given in the metric system. Only use suitable parts and screws. Different wrenches are required for metric and inch screws.

**THE DESIGNATIONS "RIGHT" AND "LEFT"** are based on the forward direction of travel of the mounted equipment or attached machine.

**ENTER THE PRODUCT IDENTIFICATION NUMBERS** in the appropriate "Technical data" or "Product - Identification Number" sections. Please ensure that all figures are accurately entered. These numbers can be of invaluable assistance for tracing the machine should it be stolen. Your dealer also needs these numbers when you order spare parts. We recommend that you additionally file these identification numbers in a secure place away from the machine.

**BEFORE DELIVERY OF THIS MACHINE,** your dealer performed a pre-delivery inspection to ensure optimal performance.

**THIS DEVICE IS EXCLUSIVELY DESIGNED** for commercial use and use in green areas and grounds maintenance, for slitting, loosening or aerating sports grounds or golf courses ("SPECIFIED USE").

Usage for any other purpose beyond this is considered as contrary to the intended use. The manufacturer accepts no liability for damage or injury resulting from this improper use. These risks are borne solely by the user. Compliance with and strict adherence to the operating, maintenance and repair conditions as specified by the manufacturer also form essential elements of the intended usage.

**FORESEEABLE INCORRECT USE/MISUSE.** It is not permitted to use the attached or trailed device to transport persons or things.

**THIS MACHINE MUST ONLY BE** operated, maintained and repaired by persons familiar with all its particular characteristics and acquainted with the relevant safety regulations. The relevant accident prevention regulations, all other generally recognised safety-related, occupational medicine and road traffic regulations must be adhered to. Any modifications carried out to this machine without the express approval of the manufacturer excludes the manufacturer of all liability for any resulting damage.

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# 1.0. Safety Measures

## RECOGNISE WARNING SYMBOLS

This symbol draws your attention to the safety instructions attached to the machine or contained in these operating instructions. It means that there is a risk of injury.

Follow all recommended safety instructions as well as the accident prevention regulations.



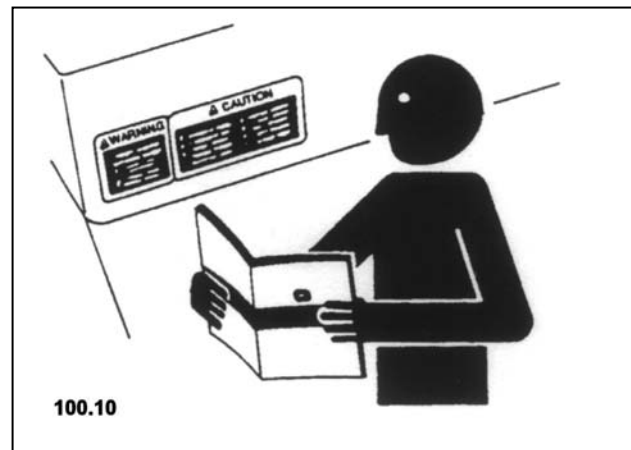
## FOLLOW THE SAFETY INSTRUCTIONS

Ensure that you carefully read all safety instructions contained in these operating instructions as well as all those attached to the machine. The warning signs must be kept in good condition, i.e. readable. Replace missing or damaged warning signs. Ensure that new equipment and spare parts are provided with the appropriate safety signs. Replacement warning signs are available from your dealer.

Familiarise yourself with the operation of the machine and its control devices before working with the machine. Never allow a person without the appropriate knowledge to operate the machine.

Keep your machine in good working order. Unauthorised modifications to the machine can impair the function, operational reliability and service life of the machine.

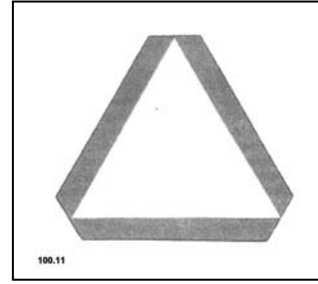
If you do not understand any part of these operating instructions and need assistance, please contact your dealer.



# 1.0. Safety Measures

## OBSERVE THE ROAD TRAFFIC REGULATIONS

Always observe local road traffic regulations when using public roads.



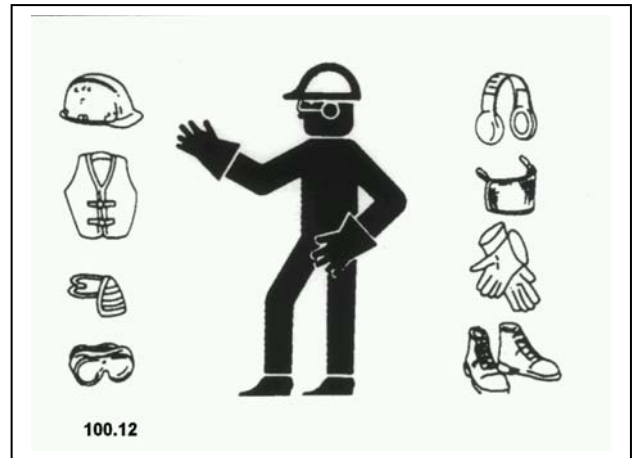
## WEAR PROTECTIVE CLOTHING

Wear close-fitting clothing and the appropriate safety equipment for the work at hand.

Prolonged exposure to loud noise can result in impairment or loss of hearing.

Wear a suitable hearing protective device such as earmuffs or earplugs.

A safe operation of the machine requires the full attention of the operator. Do not wear radio or music headphones while operating the machine.



## STAY CLEAR OF ROTATING DRIVE SHAFTS

Carelessness in the area of the rotating drive shafts can result in serious injury or even death.

Always ensure that all shaft protection devices are fitted i.a.w. regulations and that the universal-joint shaft sheath tubing can turn freely. Wear close-fitting clothing. Shut off the engine and wait until all moving parts are at a standstill before adjusting or cleaning as well as connecting or disconnecting the PTO-driven machines.



# 1.0. Safety Measures

## SAFETY AND PROTECTIVE DEVICES

Safety and protective devices must be kept in proper working order and be fitted to the relevant location.

Always disengage the drive sections and shut off the engine before removing any of the safety and protective devices.

Keep hands, feet and clothing away from moving parts.

## EXERCISE CAUTION IN THE CASE OF LINE LEAKAGE

Leaking high-pressure fluids can penetrate the skin and cause serious injury.

For this reason, depressurise the system before disconnecting lines. Ensure that all line connections are leak-proof before the pressure builds up again in the system.

It is difficult to see hydraulic oil leaking from a small opening. For this reason, use a piece of cardboard when searching for leaks. Protect the hands and body from high-pressure fluids.

If any fluid penetrates the skin, this must be immediately removed by a doctor who has experience with this kind of injury. Failure to seek medical attention can lead to serious infection.

Doctors unfamiliar with this type of injury should reference a knowledgeable medical source.



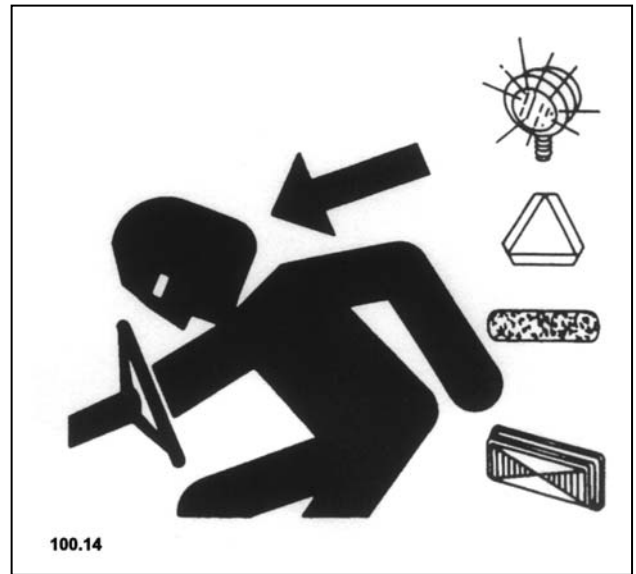


## 1.0. Safety Measures

### USE SAFETY LIGHTS AND EQUIPMENT

Avoid collisions with other road users. Slow moving tractors with mounted or towed equipment, and self-propelled machines on public roads pose a specific danger. Frequently check for traffic coming behind you, especially when making turns. Ensure safe traffic conditions by using hand signals or indicators.

Use headlights, hazard warning lights, indicators and other safety equipment i.a.w. the respective legal provisions. Keep safety equipment in good working order. Replace missing or damaged parts. A set of safety lights is available from your dealer.



### AVOID HEAT DEVELOPMENT NEAR PRESSURISED FLUID LINES

A highly flammable mist can form due to heat development near pressurised fluid lines. This can result in severe burns. Do not cause heat development by welding, soldering or using a welding torch near pressurized fluid lines or other flammable materials. Pressurised lines can be accidentally cut through when heat goes beyond the immediate flame area.



# 1.0. Safety Measures

## REMOVE PAINT BEFORE WELDING OR HEATING PARTS

Welding should only be carried out by persons with a relevant qualifying certificate i.a.w. EN287.

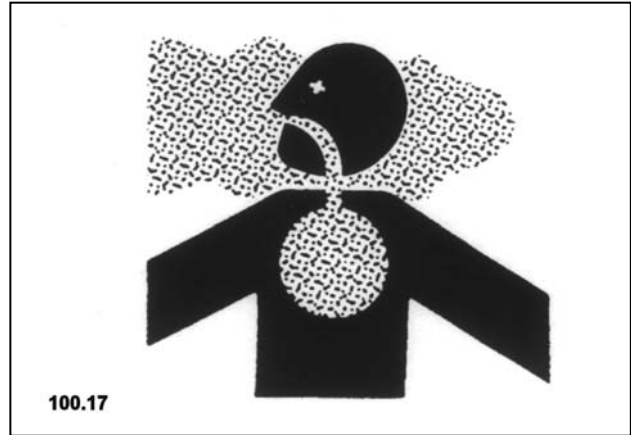
Avoid the formation of toxic fumes and dust.

Hazardous fumes can be generated when paint is heated due to welding, soldering, or using a welding torch.

All work is to be performed outdoors or in a well-ventilated area. Dispose of paints and solvents i.a.w. the appropriate regulations.

Remove paint before welding or heating parts:

- The dust generated due to the sandblasting or grinding of parts must not be inhaled. For this reason, wear suitable breathing protection.
- Where a solvent or paint stripper is used, it must be rinsed off using water and soap before carrying out any welding. Then wait at least 15 minutes before welding or heating for the fumes to disperse.



# 1.0. Safety Measures

## 1.1. Adhesive Safety Signs

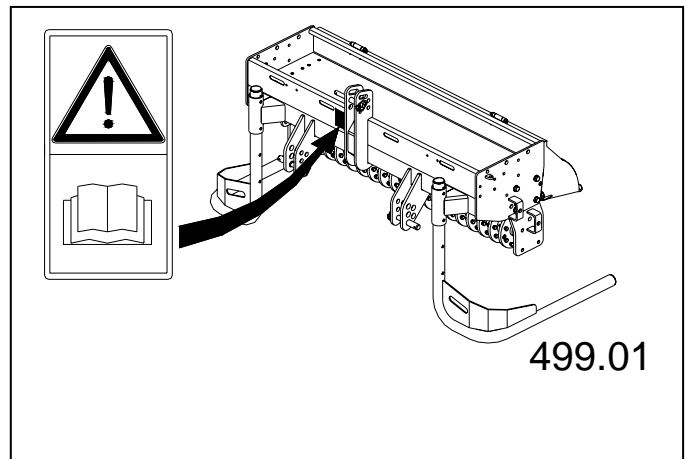
### Warning symbols

Warning signs serving to draw your attention to dangers are attached to the machine at several important positions. The hazard is identified via a warning triangle. A second symbol informs you how the injury can be prevented by acting appropriately. These warning signs, their placement on the machine and a brief explanation are given below.



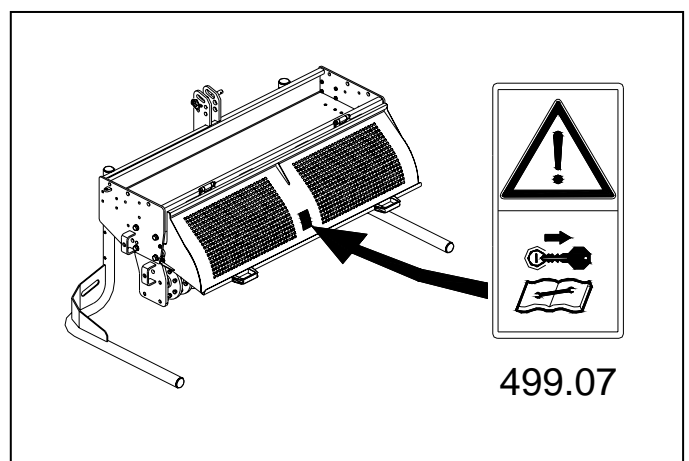
### Operating instructions

These operating instructions contain all important information necessary for the safe operation of the machine. Carefully observe all safety regulations in order to prevent accidents.



### Protective covering

Never reach into crushing hazard zones while parts located there can still move.

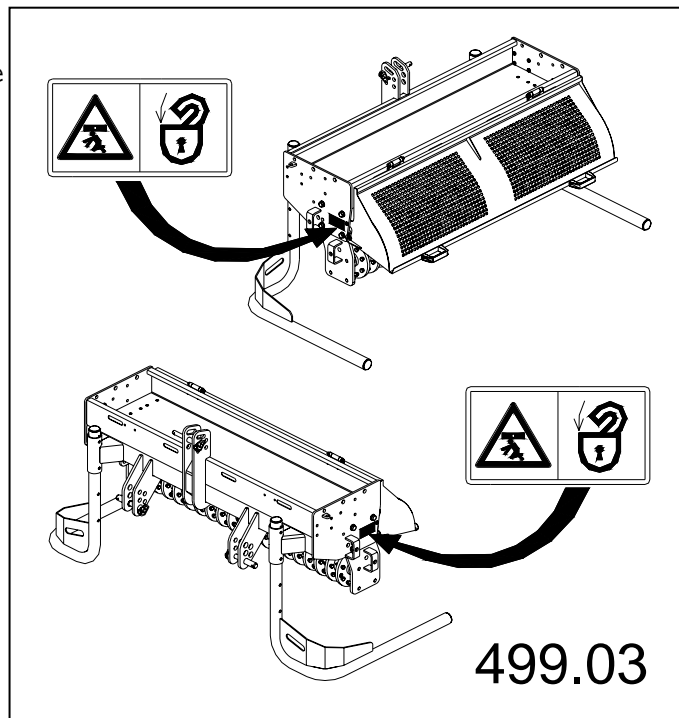


# 1.0. Safety Measures

## 1.1. Adhesive Safety Signs

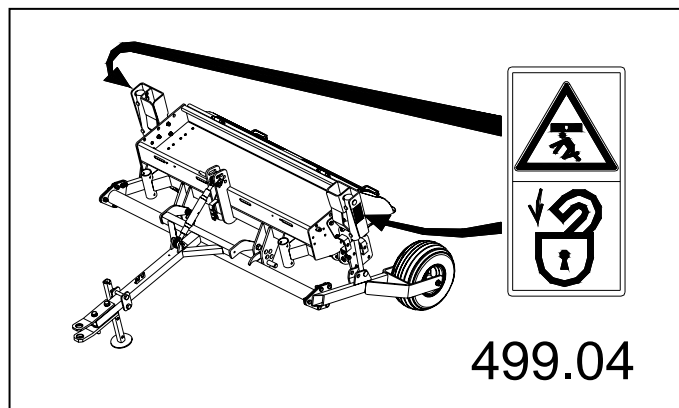
### Protective cover

Protective cover prevents access to tools. The protective cover is secured on both sides for safeguarding.



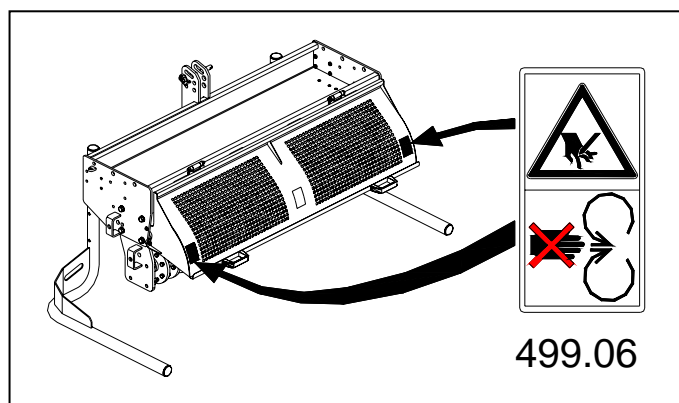
### Parking safeguard

Before placing the machine on the ground, the ball cock on both hydraulic cylinders must be locked to prevent lowering.



### Tools

Never touch the moving parts of the machine. Wait until they have come to a complete standstill.



# 1.0. Safety Measures

## 1.2. Safety Equipment

### GENERAL SAFETY SIGN REQUIREMENTS

A safety sign with the following safety practices or similar information shall be provided on the machine. The label should preferably be visible from the operator's position.

- a) Read the operating instructions.
- b) Do not operate the machine without safeguards, shields, and where the safety devices are not in place and working.
- c) Do not operate the machine when children and others are nearby.
- d) Do not allow untrained personnel to operate the machine.

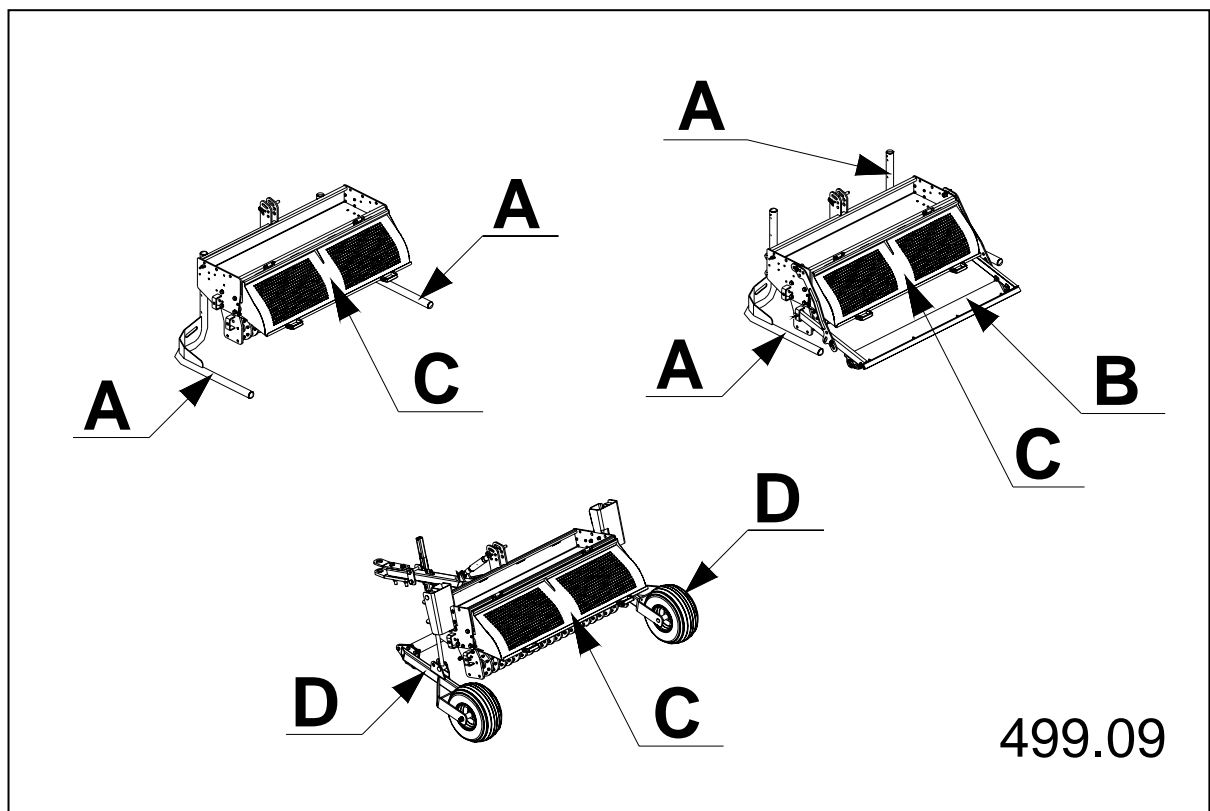
### ATTENTION DANGER !



Never use the TERRA SLIT without safety equipment. Otherwise, you expose yourself and others to extreme danger.

⇒ Moving parts can result in serious injuries.

Where to find safety equipment on your machine



**A** = Undetachable parking supports inserted as spacers on the right and left .

**B** = Undetachable parking supports inserted as spacers on the right and left .

**C** = protective cover, can only be removed with tools.

**D** = chassis securely attached as spacer on the right and left .

# 1.0. Safety Measures

## 1.3. Safety instructions



- In addition to the information provided in these Operating Instructions, please also observe generally applicable safety and accident-prevention standards !
- Familiarise yourself with all equipment and operating elements and their functions before starting work. Ensure that all protective equipment has been properly installed. It is too late to do this when you have started work !
- In the working area, the user is responsible for the safety of other persons !
- Before moving off, ensure that the immediate area of the machine is clear e.g. no children nearby. Ensure that your visibility is not impaired !
- Keep all persons clear of the danger zone of the machine !
- Switch off the machine and the tractor motor when performing any mainten.
- Special care should be taken when working and turning on a slope.  
**- DANGER OF TOPPLING !**
- CAUTION !  
The equipment version with a drawbar is **NOT** approved for travel on public roads!

## 2.0. Assembly

### 2.1. General Information

Place the TERRA SLIT on the ground with parking supports in topmost position.

For this work, please use your personal protective equipment (PSA) such as: gloves, goggles, ear protectors.

If, instead of Wiedenmann additional weights, any random objects are inserted as ballast, the following must be observed:

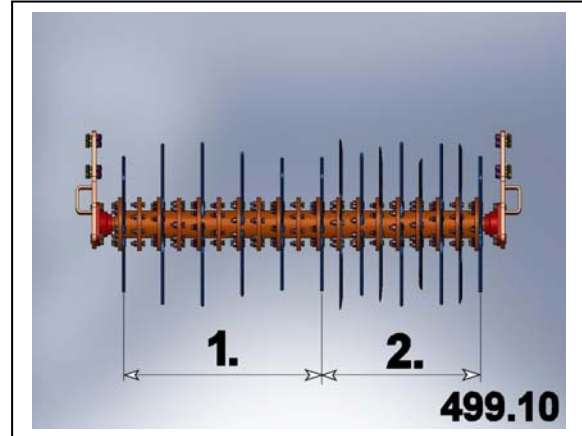
1. The permissible weight according to the information provided in the technical data must be complied with.
2. The objects must be firmly attached to the ballast frame so as to prevent shifting.

## 2.0. Assembly

### 2.2. Mounting knives

Knives can be mounted in two ways :

1. 150 mm division  
for 40 knives
2. 75 mm division  
for 76 knives



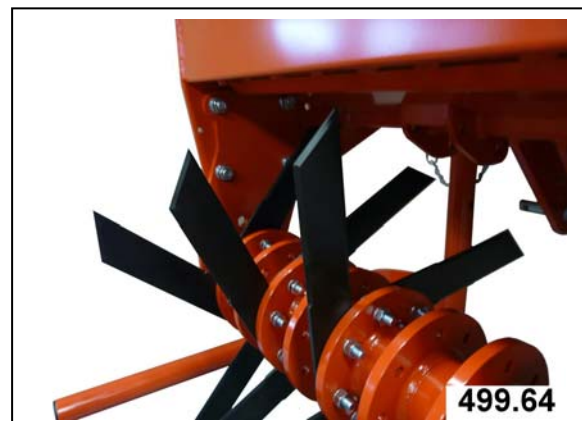
The correct position for standard knives



The correct position for power knives



The correct position for fine-cut knives





## 2.0. Assembly

### 2.3. Installing hollow tines and half discs

Version 1:

8 spoons are mounted per half set of discs



Version 1:

8 spoons are mounted per half set of discs



Discs are always attached to the same side.

No more than ten half sets of discs may be fitted with hollow spoons.

This corresponds to:

**division = 150 mm**



## 2.0. Assembly

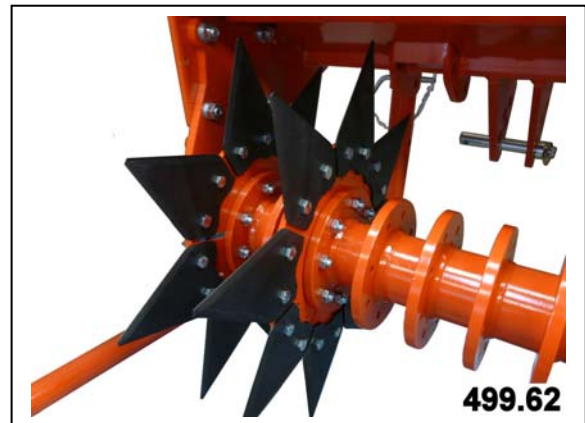
### 2.4. Installing cutting blades and half discs

8 cutting blades are mounted per set of half discs



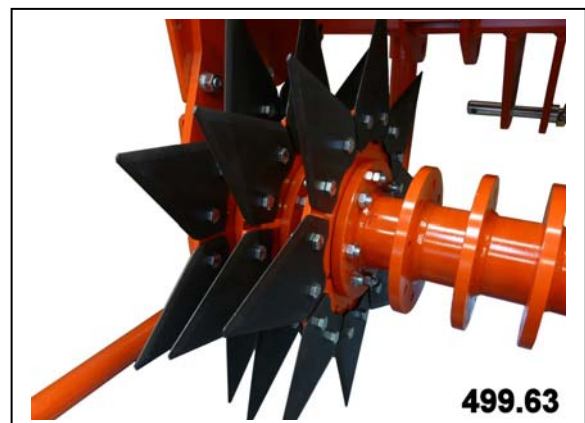
Version 1:  
10 sets of half discs are attached to every second disc

This corresponds to:  
**division = 150 mm**



Version 2:  
19 sets of half discs are attached to every disc

This corresponds to:  
**division = 75 mm**



Discs are always attached to the same side.

## 2.0. Assembly

### 2.5. Mounting additional weight



#### ATTENTION !

Only carry out mounting work when the machine is connected. Lower the connected machine onto the ground.

Switch off the tractor and secure it against unintentional start up.

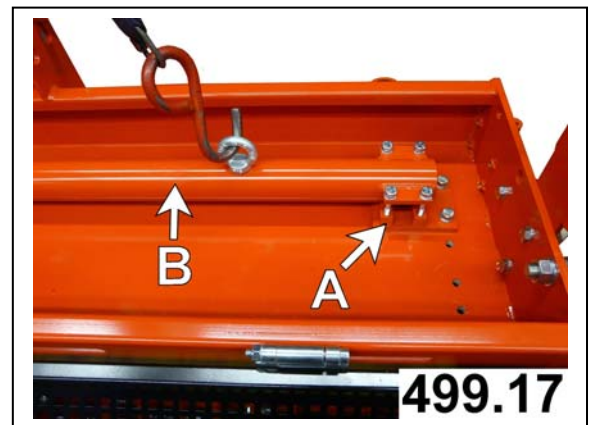
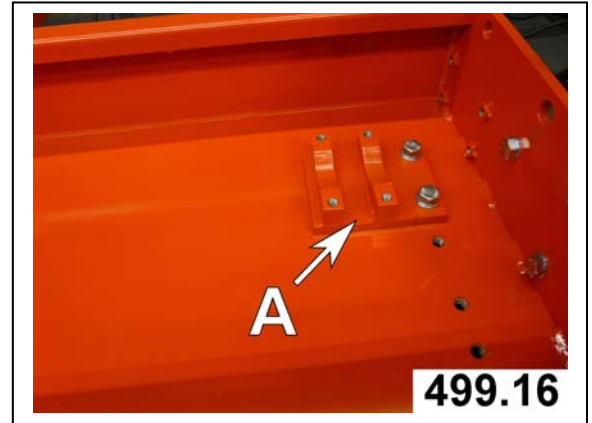
Attach retainers (A) manually on both sides of the ballast frame.

Connect suspension to ring bolts of the additional weight.

Lift additional weight onto mounting position using an auxiliary device.

Installation without auxiliary devices requires 2 persons. Installation load is 22 kg.

Fasten all fixing screws tightly.

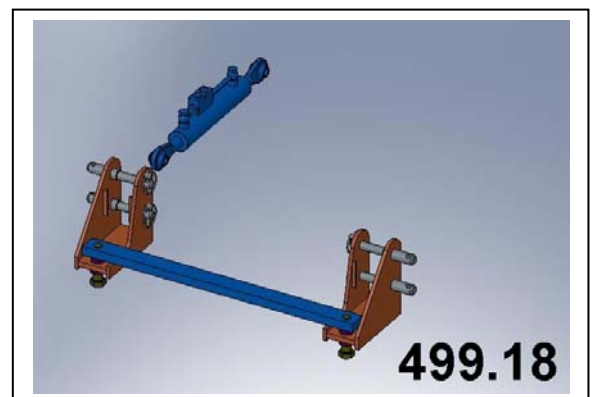


### 2.6. Mounting the hydraulic weight transfer unit

Mounting instructions are included in the scope of delivery of the weight transfer unit.

It contains the following:

1. Important information before installation
2. Mounting description
3. Adjustment description
4. Important points for correct use

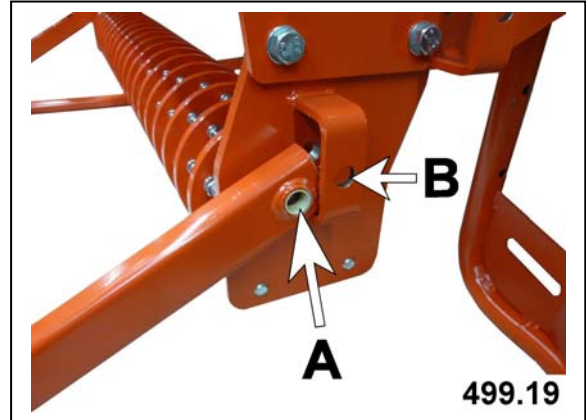


## 2.0. Assembly

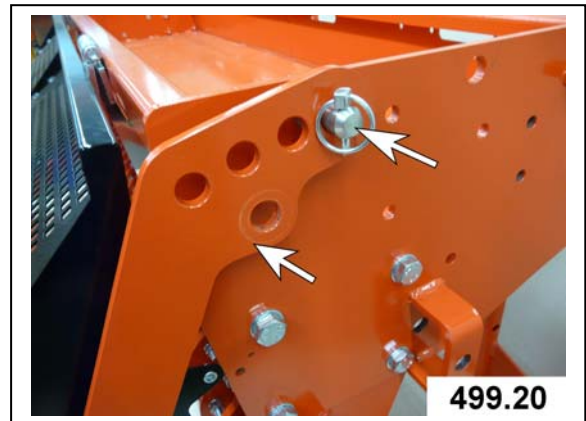
### 2.7. Attaching rear roller

Installation without auxiliary devices requires 2 persons.  
Installation load is 22 kg.  
Align bore (A) of side arms with bore (B) on frame.

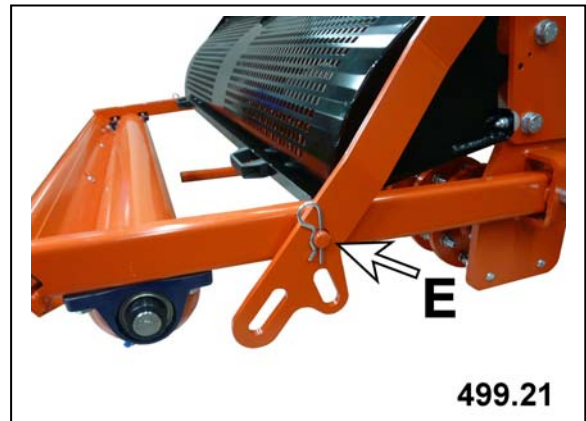
Insert bolts on both sides and secure with spring cotter.



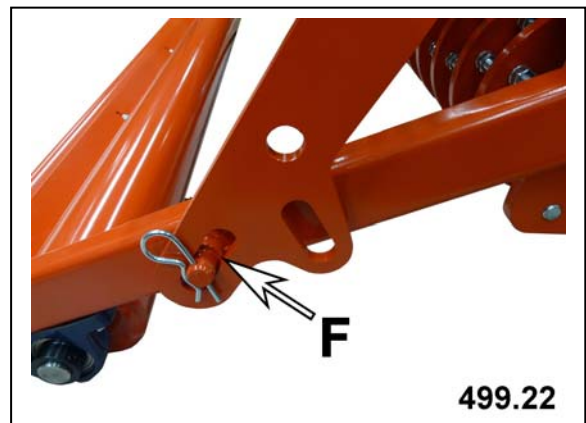
Insert bolts on both sides and secure with spring cotter.  
Insert adjustment bar (D) into threaded bolts and secure.



For transportation, adjustment bars must be inserted with bore (E) into side arm bolts and secured.



Only use the slotted hole (F) when operating the rear roller.



## 2.0. Assembly

### 2.8. Mounting the chassis with drawbar

Installation without auxiliary devices requires 2 persons.  
Installation load is 25 kg.

Hang basic unit on points **(A and B)** .

Attach cylinder bearing **(C)** to frame in the correct hole pattern on both sides.

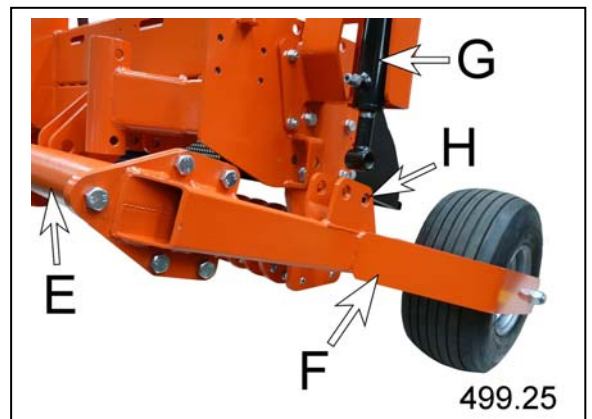
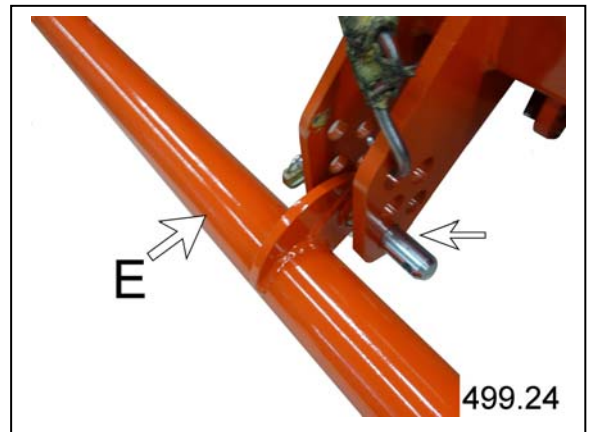
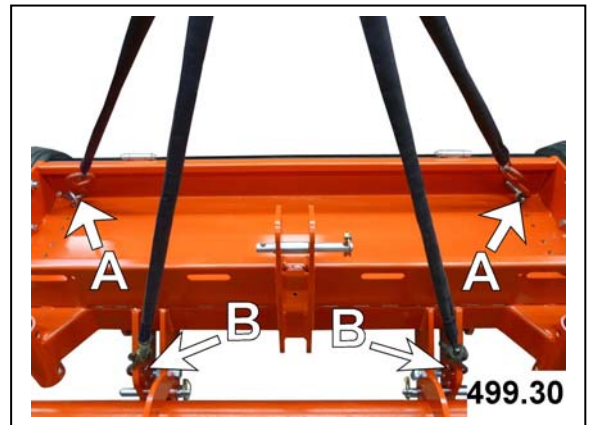
Knock out clamping sleeve on the two parking supports.

Lift basic unit, using an auxiliary device, to dismantle parking supports.

Insert crossmember **(E)** into the lowermost bores of the attachment brackets as shown in illustr. **499.24** and secure.

Attach wheels **(F)** to crossbar **(E)**, using the mounting supports.

Insert hydraulic cylinder **(G)** into the bore **(H)** of the wheel mounting support **(F)** and secure.

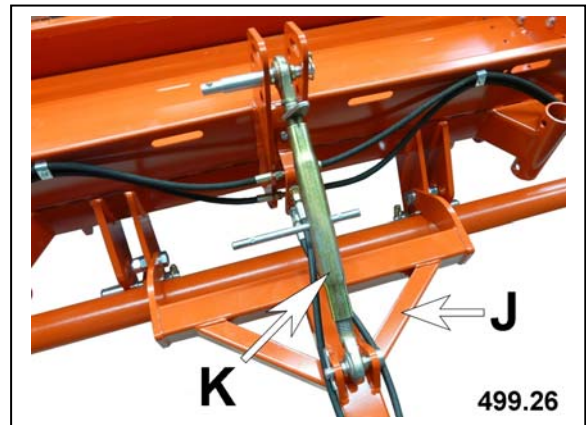


## 2.0. Assembly

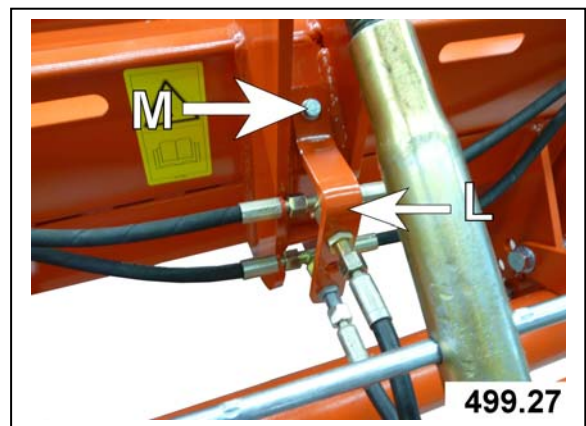
### 2.8. Mounting the chassis with drawbar

Attach drawbar (**J**) to the topmost bores of the inner attachment brackets, ensuring that the drawbar is movable.

Insert upper guide bar (**K**) into the topmost bore and secure.

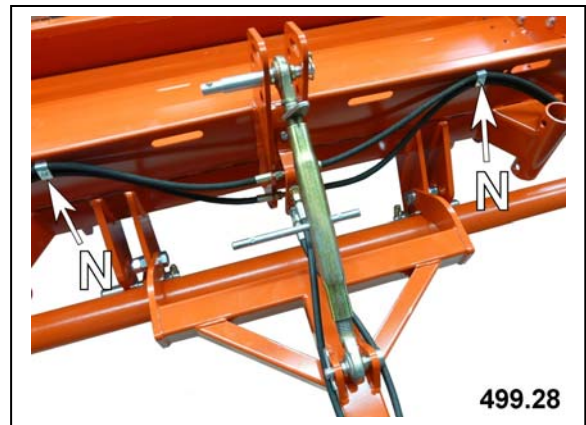


Attach retainer (**L**) to frame with screw (**M**).



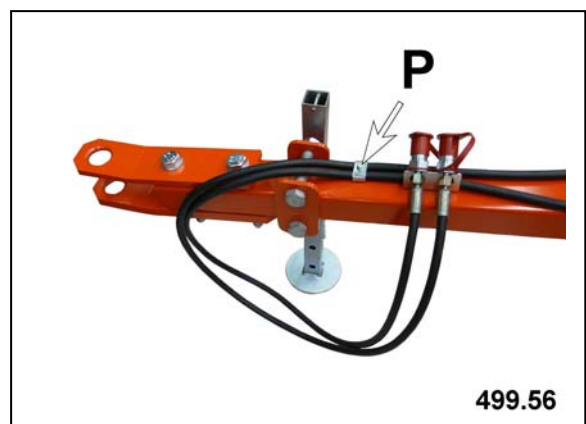
Attach hydraulic pipe to frame using fastening clamps (**N**).

Fasten the lines for the tractor connection on the drawbar, using the fastening clamp (**P**).



When connecting the hydraulic pipes, the following must be observed:

- that length is sufficient to allow movement
- that none of the pipes may be damaged by the movements.



## 3.0. Transport

### 3.1. General Information



#### CAUTION DANGER

- TERRA SLIT is delivered secured to a transport frame.
- Only use fork lifts, cranes or hoisting gear with sufficient lifting capacity.
- Never stand under lifted loads. There is an imminent danger to life if the load falls.

Improper transport and mounting of TERRA SLIT can result in:

- injury to persons
- damage to property.

Pay special attention to the direction of approach when lifting TERRA SLIT with the transport frame.

We do not accept any liability for damage resulting from improper handling.

## 3.0. Transport

### 3.2. Transporting the TERRA SLIT



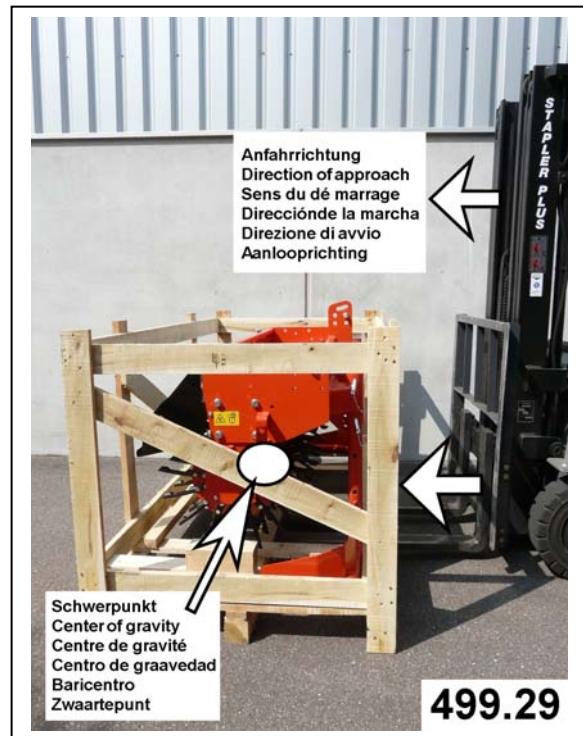
#### CAUTION DANGER

Caution must be exercised when cutting through the securing straps. Risk of injury due to ends "springing open".

#### 3.2.1. Transport Using a Forklift

If the TERRA SLIT is still secured to the transport frame:

- Insert the forks under the transport frame (pay attention to the direction of approach),
- carefully lift the transport frame,
- unload the TERRA SLIT from the transport device when it is balanced.
- cut through the securing straps,
- connect TERRA SLIT to the tractor and lift it from the transport frame. (See item 4.2.)

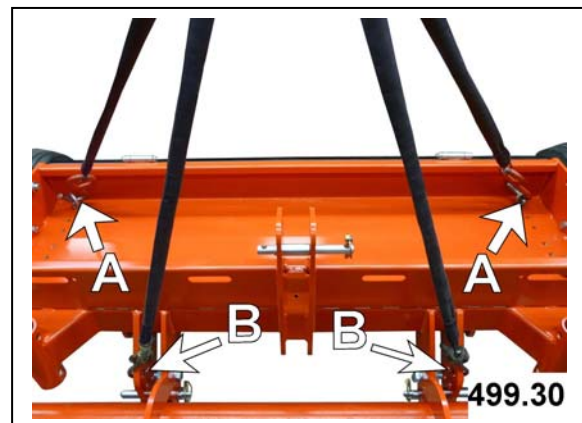


#### 3.2.2. Transport Using a Crane

- Hook ropes or carrying loops into the ring bolts (A) and the topmost bore (B) of the outer connecting plates.
- Unload the TERRA SLIT when it is securely suspended.

#### NOTE:

Transportation damage and missing parts must be immediately reported in writing to the transport company and Wiedenmann GmbH or the supplier.





## 2.0. Transport

### 3.2. Transporting the TERRA SLIT

#### 3.2.3. Mounting point for transport on a trailer



**CAUTION DANGER :**

Please note the removal instructions in Chapter 5.2. - **DANGER OF TOPPLING!**

Tighten tie-down straps evenly, alternating diagonally across.

- Hooking points for straps on the front of the Terra SLIT



- Hooking points for straps on the rear of the Terra SLIT



## 3.0. Transport

### 3.3. Transportation with three-point hitch

Raise the attached equipment with the tractor rear hydraulic system and secure against inadvertent lowering.

When driving on public roads, please observe the swivel range of the attached TERRA SLIT.

### 3.4. Transportation with drawgear

Lower the chassis of the attached device hydraulically to the stop by pressing downwards and secure against accidental lowering.

#### **CAUTION !**

The equipment version with a drawbar is **NOT** approved for travel on public roads!

## 4.0. Connecting to the Tractor

### 4.1. General Information



#### **CAUTION DANGER :**

Do not exceed the max. authorized axle load of the tractor.

Ensure that there is sufficient front axle load to maintain steerability (where required attach ballast weights i.a.w. the tractor's operating instructions).

Always pay attention to:

- The load of the lower guide bar connection.

Only attach the TERRA SLIT if:

- When the engine is switched off,
- and the PTO shaft is stationary.

### 4.2. Ballast

When mounting equipment at the rear, always ensure there is sufficient front axle load; steering must remain supported. Loads must always be attached to the mounting points provided in accordance with regulations.

When selecting the front axle load, ensure that the permissible axle load weight, as well as the permissible overall weight including the mounted equipment, is not exceeded.



#### **ATTENTION !**

**Specifications in the Operating Instructions for the tractor must be observed.**

## 4.0. Connecting to the Tractor

### 4.3. Connecting to the tractor

Prerequisite for connecting:

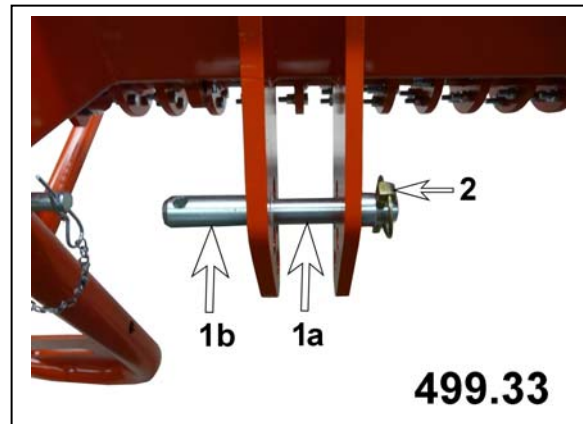
- a three-point hitch.

**NOTE :**

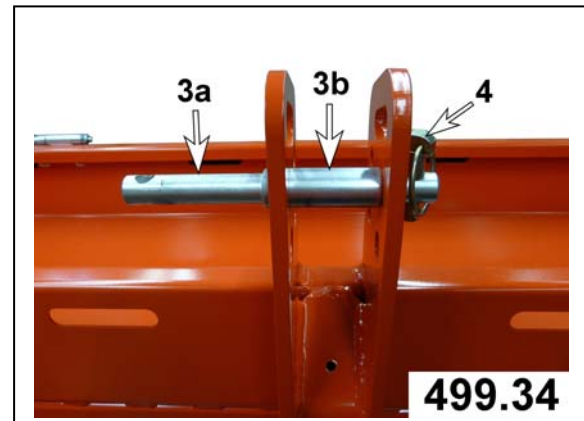
With the three-point linkage it is essential that the assembly categories of the tractor and machine match each other.

Connection procedure:

1. Insert lower guide bar into bolts (1a for cat.1 or 1b for cat.2) and secure with lynch pin (2).

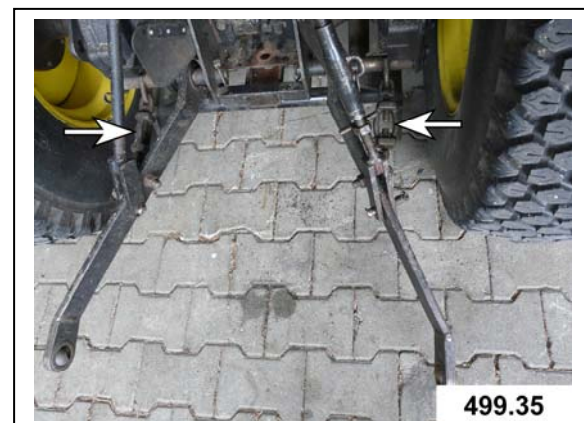


2. Mount top guide, depending on the tractor, the bolt for cat.1 with a diameter (3a) must be inserted and secured using lynch pin (4). For disconnecting from cat. 2 the diameter (3b) must be used.



3. Tighten the tension jack (5) of the stabilising chain.
4. Insert the two parking supports in the top position and secure.

In the operating position, the parking supports function as protective bars.



**CAUTION DANGER :**

**Check for correct connections before initial operation.**

## 4.0. Connecting to the Tractor

### 4.4. Hitching to the tractor

The following is required for attaching the machine:

- **An adjustable drawbar or a trailer hook coupling.**
- **Hydraulic connection on the rear of the tractor**

If your tractor is not equipped with such a socket, please contact your dealer.

Peg out drawbar on tractor and secure.

The hydraulic system is connected to the hydraulic sockets at the rear of the tractor.



Avoid tight bends and chafing of the hydraulic lines.

Move ball cock into opened position.



### 4.5. Support for drawbar

Push supports into the most upper position, peg out and secure.



## 5.0. Disconnecting from the Tractor

### 5.1. General Information

Only set the TERRA SLIT down:

- on a firm, stable and even surface and
- if parking supports are fully lowered.

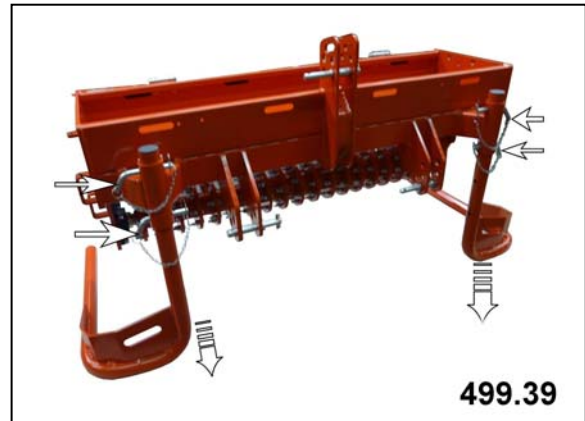
This ensures the TERRA SLIT is securely positioned  
The tools will not be damaged

### 5.2. Dismantling the TERRA SLIT

The TERRA SLIT must only be stored on the parking supports.

The TERRA SLIT must only be stored on the parking supports.

The TERRA SLIT must only be stored on the parking supports.



Slacken upper guide bar and release on the attachment device.

Release turnbuckles of lower guide bar. Remove location bolt from lower guide bar.



## 5.0. Disconnecting from the Tractor

### 5.3. Disconnecting the TERRA SLIT

Lower the chassis of the attached device hydraulically to the stop.

Move ball cock to the "OFF" position to safeguard the device against accidental lowering.

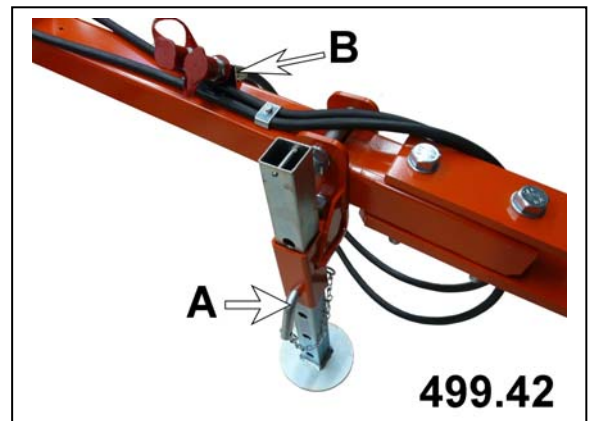
Relieve hydraulic pressure in the lines.



Lower parking support on the drawbar and secure with bolt (A).

Disconnect hydraulic lines and clip into bracket (B).

Disconnect drawbar from tractor.



## 6.0. Before initial operation

### 6.1. General Information



#### CAUTION DANGER :

It is important to become familiar with all equipment and operating elements as well as their function before operating the machine. Make sure that all protective devices have been properly mounted. It will be too late for this during operation!

In addition to the information contained in these operating instructions, also pay attention to the general safety and accident prevention regulations!

The equipment version with a drawbar is **NOT** approved for travel on public roads!

Ensure that there is sufficient front axle load to maintain steerability (where required attach ballast weights i.a.w. the tractor's operating instructions).

Special care should be taken when working and turning on a slope. - **DANGER OF TOPPLING !**



## 6.0. Before initial operation

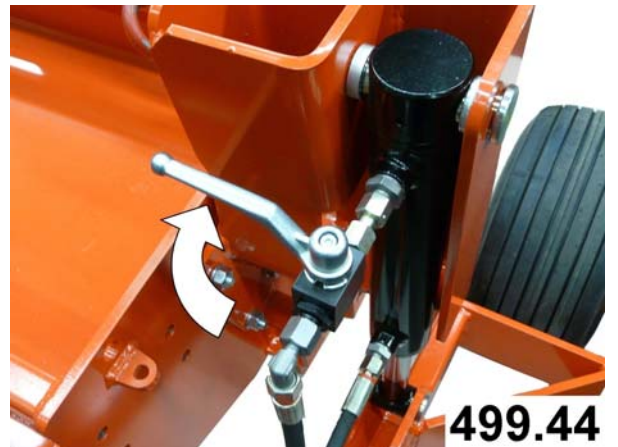
### 6.2. Displays and adjustment elements

Ball cock located on both hydraulic cylinders to keep chassis in position during transportation and maintenance.

**Position: "OPEN"**



**Position: "OPEN"**



Upper guide bar going from the drawbar to the frame of the basic unit.

The upper guide bar is used to adjust the horizontal working position.

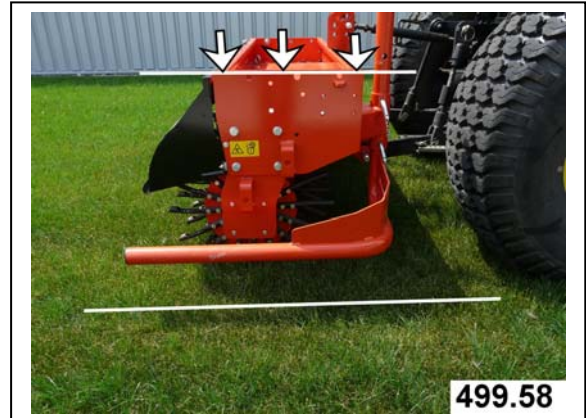


## 6.0. Before initial operation

### 6.3. Adjusting the TERRA SLIT

Lower Terra Slit into working position on a level surface.

Adjust the upper guide bar so that the upper edge of the frame is parallel to the ground.



### 6.4. Adjusting the rear roller

**NOTE:**  
Insert rear roller with mounted knives only.

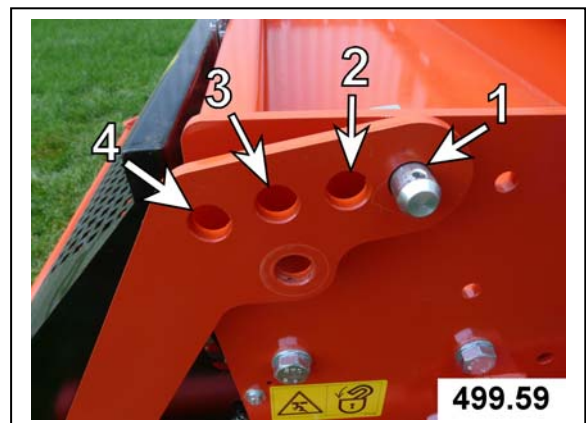
The working depth is adjusted with bores 1 to 4

Bore 1 for 50 mm

Bore 2 for 100 mm

Bore 3 for 150 mm

Bore 4 for 200 mm



## 7.0. Operation

### 7.1. General Information



#### ATTENTION:

The TERRA SLIT operator is responsible for persons located inside the working area.

Never operate the TERRA SLIT without its safety devices. If you do operate the TERRA SLIT without safety devices, you expose yourself and others to extreme danger.

Always check the immediate surroundings when starting to drive (Caution - CHILDREN!).

Do not drive backwards when the TERRA SLIT is operating. Avoid big changes in direction while using yielding tractors.

The equipment version with a drawbar is **NOT** approved for travel on public roads!

In the case of the equipment version with a three-point frame, the rear hydraulic system of the tractor must always be in the floating position during operation.

## 7.0. Operation

### 7.2. Driving characteristics



#### CAUTION !

- When the TERRA SLIT has been installed, this may have an influence on the driving and operational qualities of the tractor.
- Always adapt your driving style to match the terrain and ground conditions.
- Special care should be taken when working and turning on a slope.
  - DANGER OF TOPPLING !

A better result is obtained at low speeds.

Do not make any sharp turns.

### 7.3. Working with the TERRA SLIT

#### NOTE:

Lower the attached TERRA SLIT only:

- on the area to be worked on

Sequence: Three-point version

1. Lower the Terra Slit to the ground.
2. Set tractor rear hydraulic system to floating position

#### NOTE:

Lower the detached TERRA SLIT only:

- on the area to be worked on

Lower the detached TERRA SLIT only:

1. Lower the Terra Slit to the ground.
2. Lift chassis off the ground
3. Lock hydraulic ball cock to safeguard the chassis against accidental lowering

## 7.0. Operation

### 7.4. Malfunctions and troubleshooting

Description	Cause	Remedy
Machine is rocking from left to right	Soil is too dry, or too compact	Place additional weights onto support frame
		The overall permissible weight must be observed when adding extra ballast
	Treat the area twice	
	Stony ground	Reduce the working depth
	Desired working depth is not achieved	Soil is too dry, or too compact
		Place additional weights onto support frame
The overall permissible weight must be observed when adding extra ballast		
	Treat the area twice	
	Too many tools in operation	Only use half a tool set
	Hydraulic weight transfer unit incorrectly adjusted	Rear roller incorrectly adjusted
Rear roller incorrectly adjusted		
Power knives tear up the turf	Soil is too loamy or marshy	Pivot knives by 180 degrees (see Chapter 2.2. Fig. 499.65)
Tools are breaking	Cornering during operation	Stony ground
	Stony ground	Reduce the working depth

## 8.0 Maintenance

### 8.1. General Information



#### CAUTION DANGER :

Only qualified personnel are permitted to perform maintenance, repair and disassembly tasks.

Only perform maintenance work when the device is attached. Turn off the tractor and secure it against being unintentionally switched on.

For this work, please use your personal protective equipment (PSA) such as: gloves, goggles, ear protectors.

Use **only original parts**.

Third-party parts often do not match the required quality and thus endanger your safety. Moreover, the sustained warranty and recognition of justified warranty claims can only be guaranteed, if you exclusively use **original parts from Wiedenmann**.

We expressly point out to you that non-original parts that have not been delivered by Wiedenmann also have not been approved and released by Wiedenmann. The installation and/or use of such products may actually have a negative impact on the constructional properties of your vehicle and thus may affect the active and/or passive safety. Damages arising from the use of non-original parts are excluded from the scope of the manufacturer's liability.

After maintenance, remove all parts not belonging to the TERRA SLIT. Then reinstall all safety covers/guards. (See Section " Safety Equipment" item 1.2.).

## 8.0 Maintenance

### 8.2. Maintenance and inspection list

Working hours	Check	Procedure
10	Flange bearing for loosening rotor	Lubricate
10	Vertical bearing for trailing roller	Lubricate

## 8.0 Maintenance

### 8.3. Lubrication

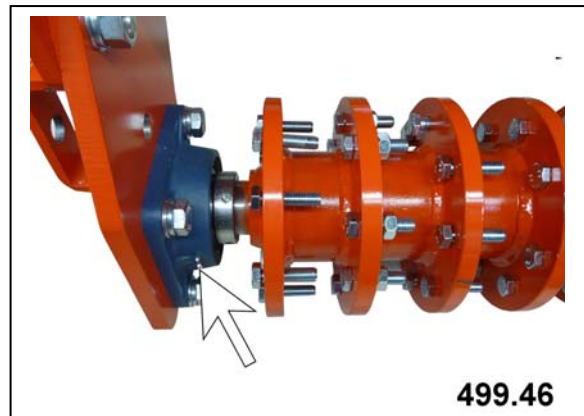
- Only carry out maintenance work when machine is connected. Turn off the tractor and secure it against being unintentionally switched on.
- Lubricate more often, if required, (until all lubrication points are sufficiently lubricated).
- Clean lubrication nipple before use.
- Clean up leaking grease.
- Before starting the machine after a longer standstill, lubricate and maintain the entire machine
- Keep all exposed machine parts, threaded spindles and guides slightly lubricated.

#### Points for manual lubrication

See illustrations.

The illustrations only show one of several corresponding assembly groups with lubrication points.

Flange bearing for loosening rotor



Vertical bearing for trailing roller





## 8.0 Maintenance

### 8.4. Cleaning the Terra Slit

Clean the TERRA SLIT regularly.  
You will prolong the service  
life of expensive components  
and simultaneously detect:

- Loose components
- Damaged cables or lines
- Wear and unintended collision points.

#### **NOTE:**

Do not bring plastic and  
sealing elements in contact  
with aggressive fluids (e.g.  
carbon tetrachloride, tri,  
benzene, caustic  
solutions, acids etc.).

Bind drops of oil with a  
binding agent and dispose of it  
according to the regulations.  
Eliminate the cause.

Only use wire brush and caustic  
solutions in case of emergency.

#### **Auxiliaries and application**

Cleaning with water

- All dirty parts, but use caution:  
⇒ water causes rust.

Cleaning with dry cloth

- All signs and inscriptions

Cleaning with compressed air



#### **ATTENTION !**

Exercise caution when using  
compressed air. Put on safety  
glasses! Without safety glasses  
you risk eye injuries!  
Furthermore you blow dirt into  
the guides and bearings. For  
this reason, avoid this  
cleaning method.



## 8.0 Maintenance

### 8.5. Care and maintenance of the hydraulic system

Suitable for hydraulic fluids based on mineral, glycol and synthetic oils.

Examine hydraulic hose lines regularly for damage and ageing and replace if necessary.

According to the manufacturer's specifications, the replacement period for hydraulic lines is 6 years.



#### CAUTION !

The hydraulic system is not approved for the use of BIO oils !



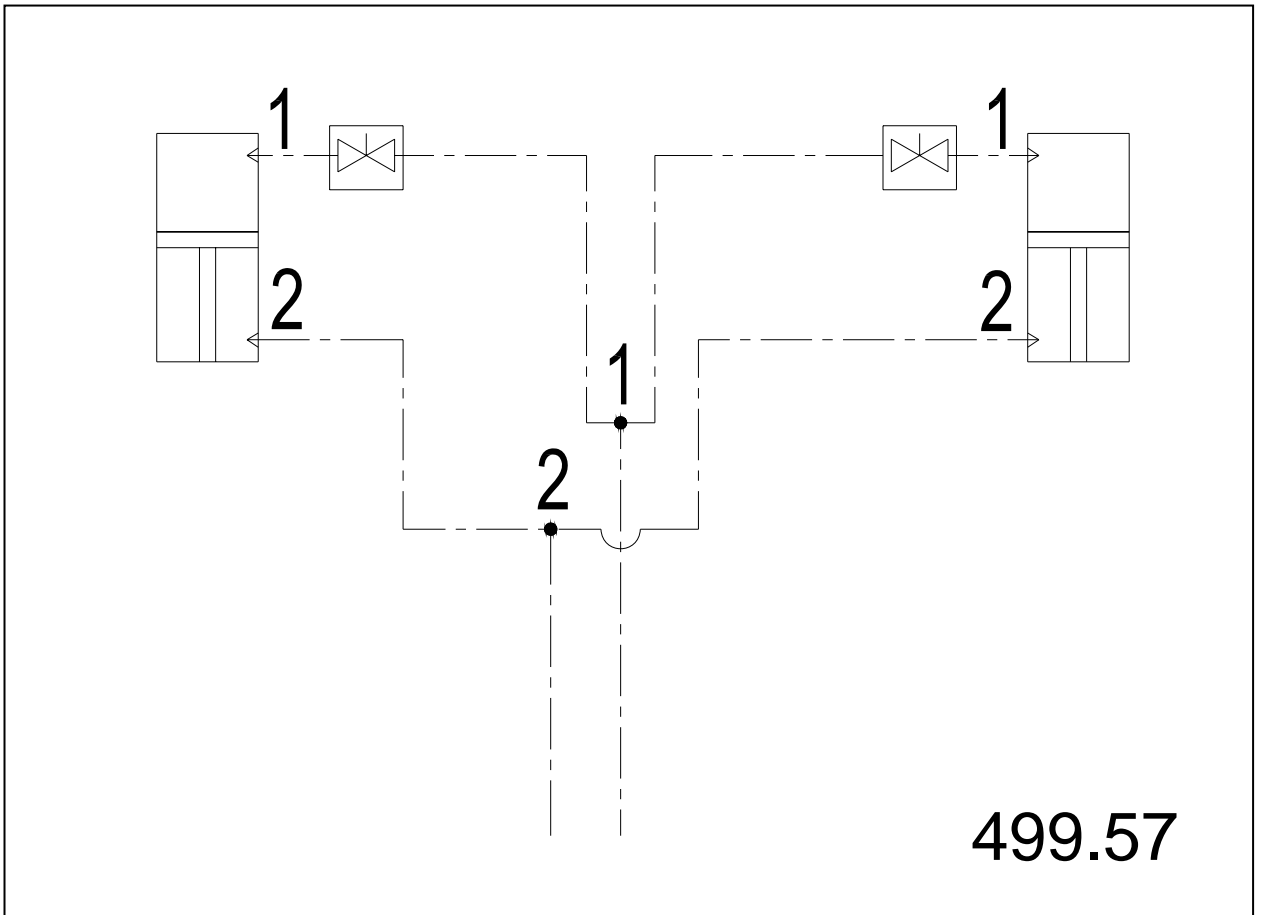
#### CAUTION !

High-pressure fluids leaking under high pressure can penetrate the skin, causing serious injury. For this reason, depressurise the system before disconnecting lines. Before building up pressure in the system again, ensure that all line connections are leak-tight. It is difficult to see hydraulic oil leaking from a small opening. For this reason, use a piece of cardboard when searching for leaks. Protect the hands and body from high-pressure fluids.

If a fluid has penetrated the skin, this must be removed immediately by a doctor familiar with this type of injury; otherwise serious infections are possible. Doctors who are unfamiliar with this type of injury should obtain the relevant information from a competent medical source.

## 8.0 Maintenance

### 8.6. Hydraulic connection diagram



## 8.0. Maintenance

### 8.7. Wheels and Tyres

Regularly check the tyre pressure: **250 kPa**



**CAUTION:**

**Serious or fatal injuries can be caused by the explosion-type bursting of the tyres and by the rim parts.**

Only carry out tyre installation if you have appropriate experience and equipment.

Always adhere to the recommended tyre pressure. Never inflate the tyres over the recommended pressure. Do not heat the wheels or tyres or carry out welding on them. Heating the tyres can lead to explosion-type tyre bursts as the pressure in the tyre thereby becomes very high. Welding can lead to deformations or damage of the wheel.

When inflating the tyres, select a filling connection with a safety clip and an extension hose with sufficient length so that you can stand to one side when inflating the tyres. Never stand in front of or on the tyre. If available, use a safety cage.

Check wheels and tyres daily for low pressure, slits, bulges, damaged rims, missing wheel bolts or -nuts.

## 8.0. Maintenance

### 8.8. Disassembly / disposal



#### CAUTION !

Exercise caution when disassembling the TERRA SLIT. Please refer to the chapter "Safety measures" and local safety regulations.

#### The dangers are as follows:

- residual pressure in lines and components,
- Heavy parts might fall down after being disconnected
- sharp edges,
- The machine might tilt and crush someone.

#### Disassembly for disposal :

1. Set the TERRA SLIT down on stable ground.
2. Drain hydraulic oil.
3. Disassemble TERRA SLIT from the top downwards.

#### IMPORTANT

Specifications and laws concerning the disposal of hazardous substances and pollutants must be observed in all cases. Familiarize yourself completely with the procedure for disposal.

## 8.0. Maintenance

### 8.9. Unauthorised modification and spare part manufacturing

- Conversions or modifications to TERRA SLIT are only authorised with the agreement of the manufacturer!
- Original spare parts and accessories authorised by the manufacturer guarantee your safety. The use of other parts might change the characteristics of the TERRA SLIT. We accept no liability for consequences which occur for this reason.

## 9.0. Additional Equipment

### 9.1. Scope of Delivery

Basic unit

for three-point installation

using a tool roll

Operating instructions,  
transfer declaration with  
guarantee card.

### 9.2. Permissible equipment combinations







<b>Three-point version</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Basic unit	S	S	S	S	S	S	S
Standard knives	W	W	W	W	W	W	W
Power knives	W	W	W	W	W	W	W
Roller blade	W	W	W	W	W	W	W
Hollow tines	W	W	W	W	W	W	W
Set of half discs	W	W	W	W	W	W	W
1 to 3 additional weights			O	O			O
Trailing roller					O	O	O
Hydraulic weight transfer unit		O		O		O	O

<b>Trailer version</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>			
Basic unit	S	S	S	S			
Standard knives	W	W	W	W			
Power knives	W	W	W	W			
Roller blade	W	W	W	W			
Hollow tines	W	W	W	W			
Set of half discs	W	W	W	W			
1 to 3 additional weights	O	O	O	O			
1 to 3 additional weights		O		O			
Trailing roller			O	O			

<b>S = Standard</b>	<b>W = selective</b>	<b>O = optional</b>
---------------------	----------------------	---------------------

## 9.0. Additional Equipment

### 9.3. Tools

			75 mm division	150 mm division
 <p><b>423.48</b></p>	Standard knives	Number	76	40
		Max. working depth	200 mm	
		Slotted rows per working width	19	10
 <p><b>423.49</b></p>	Power knives	Number	76	40
		Max. working depth	200 mm	
		Slotted rows per working width	19	10
 <p><b>423.50</b></p>	Fine-cut knives	Number	76	40
		Max. working depth	150 mm	
		Slotted rows per working width	19	10
 <p><b>499.14</b></p>	Set of half discs and	Number	- - -	10
	Hollow tines	Number	- - -	80
		Max. working depth	80 mm	
		Holes per sqm.	- - -	40
 <p><b>499.15</b></p>	Set of half discs and	Number	- - -	10
	Hollow tines	Number	- - -	160
		Max. working depth	80 mm	
		Holes per sqm.	- - -	80
 <p><b>499.60</b></p>	Set of half discs and	Number	19	10
	Roller blade	Number	152	80
		Max. working depth	100 mm	
		Slotted rows per working width	19	10



## 9.0. Additional Equipment

### 9.4. Special equipment

<b>TERRA SLIT</b>	<b>Three-point version</b>	<b>Trailer version</b>
Standard knives	<b>W</b>	<b>W</b>
Standard knives	<b>W</b>	<b>W</b>
Fine-cut knives	<b>W</b>	<b>W</b>
Roller blade	<b>W</b>	<b>W</b>
Hollow tines	<b>W</b>	<b>W</b>
Set of half discs	<b>W</b>	<b>W</b>
One additional weight compl.	<b>O</b>	<b>O</b>
Two additional weights compl.	<b>O</b>	<b>O</b>
Three additional weights compl.	<b>O</b>	<b>O</b>
Chassis with drawbar	- - -	<b>O</b>
Trailing roller complete	<b>O</b>	<b>O</b>
Hydraulic weight transfer unit	<b>O</b>	<b>O</b>

## 10.0. Technical Specifications

### 10.1.1. Technical Data

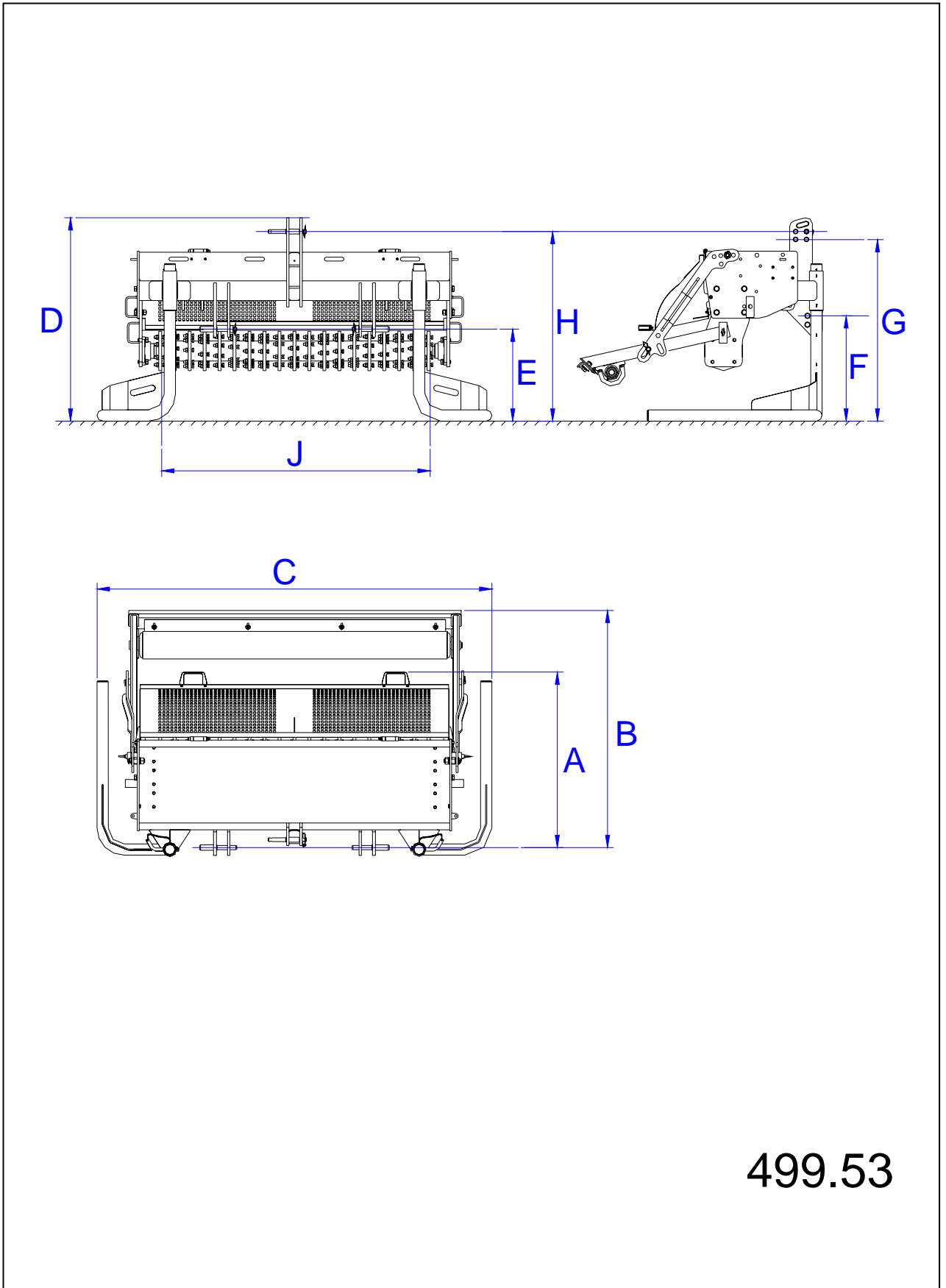
#### Three-point version:

<b>A</b>	Machine length	mm	860
<b>B</b>	Machine length with trailing roller	mm	1250
<b>C</b>	Unit width incl. parking supports	mm	1960
<b>D</b>	Machine height in parking position	mm	1030
<b>E</b>	Height up to lower pull rod connection (down)	mm	460
<b>F</b>	Height up to lower pull rod connection (up)	mm	550
<b>G</b>	Height as far as middle of upper guide bar connection bottom	mm	915
<b>H</b>	Height as far as middle of upper guide bar connection bottom	mm	955
<b>J</b>	Working width	mm	1350
	Max. working depth	see Chapter 9.3.	
	Min. power required for tractor	KW(PS)	22 (30)
	Min. lifting power of tractor with standard fittings	kg	1000
	Weights:		
	Basic unit with protective cover	kg	282
	Basic unit without protective cover	kg	266
	Standard knives      40 for 150 mm division	kg	48
	Standard knives      76 for 75 mm division	kg	92
	Power knives          40 for 150 mm division	kg	32
	Power knives          76 for 75 mm division	kg	61
	Fine-cut knives        40 for 150 mm division	kg	32
	Fine-cut knives        76 for 75 mm division	kg	61
	Roller blade            80 for 150 mm division	kg	56
	Roller blade            152 for 75 mm division	kg	106
	Hollow tines            160 for 150 mm division	kg	46
	Set of half discs        10 for 150 mm division	kg	48
	Set of half discs        19 for 75 mm division	kg	91
	Wiedemann additional weights.....1	kg	48
	.....2	kg	96
	.....3	kg	144
	Trailing roller	kg	62
	Hydraulic weight transfer unit	kg	34
	Permissible additional weight on ballast frame	kg	500
	Overall permissible weight of the TERRA SLIT	kg	1000
	The sounds are drowned by the tractor's engine.		

# 10.0. Technical Specifications

## 10.1.1. Technical Data

Three-point version:



499.53

## 10.0. Technical Specifications

### 10.1.2. Technical Data

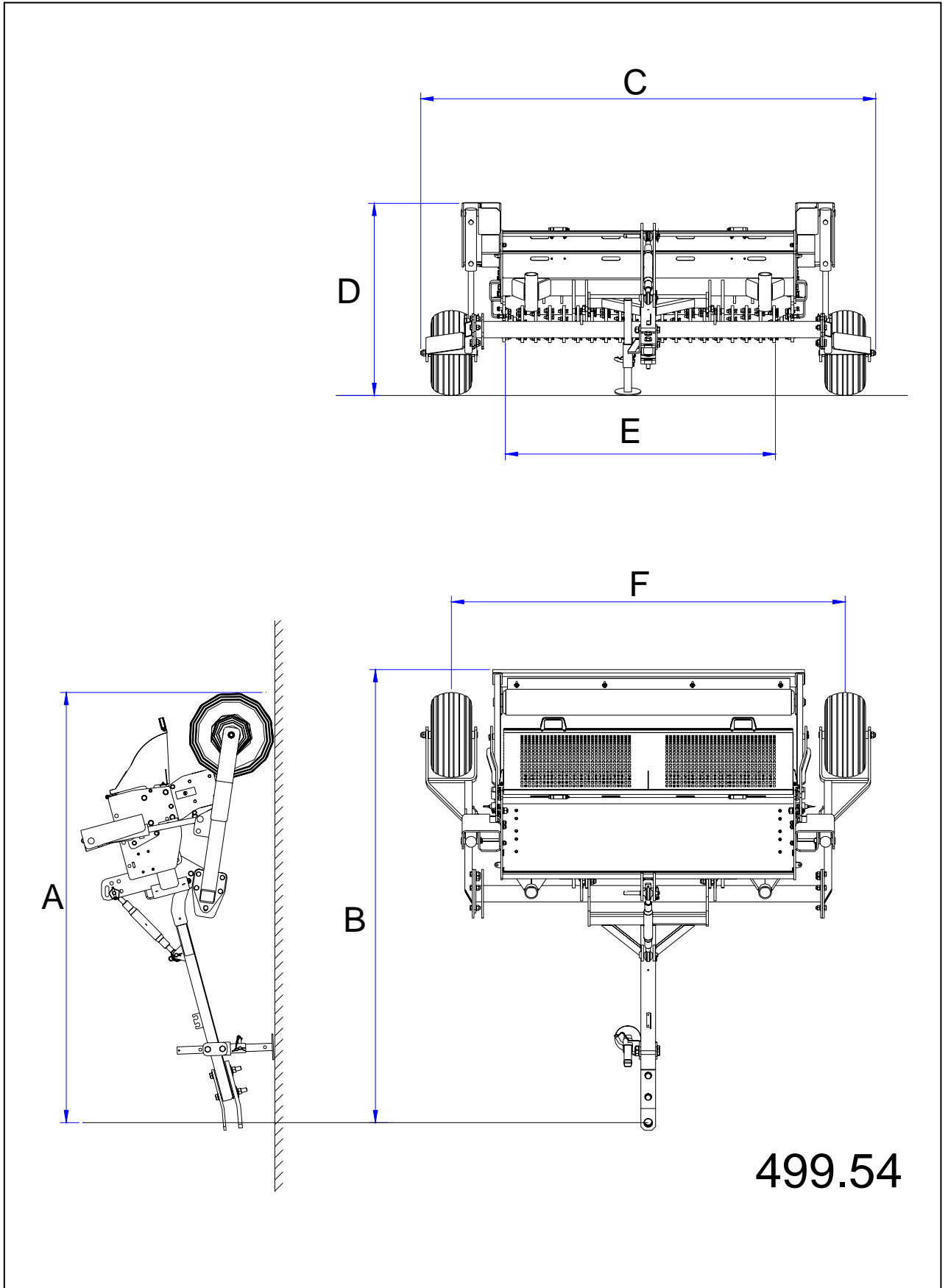
#### Trailer version:

<b>A</b>	Machine length	mm	2240
<b>B</b>	Machine length with trailing roller	mm	2500
<b>C</b>	Width of device	mm	2450
<b>D</b>	Machine height in parking position	mm	1100
<b>E</b>	Working width	mm	1350
	Max. working depth	see Chapter 9.3.	
	Min. power required for tractor	KW(PS)	22 (30)
	Min. hydraulic operating pressure	bar	140
	Max. hydraulic operating pressure	bar	175
	Tyres	18.8.50-8 / 6PR	
	Tyre pressure	bar	2,5
<b>F</b>	Track width	mm	2090
	Number of axles	Piece	2
	Number of wheels per axle	Piece	1
	Permissible drawbar load	kg	190
	Weights:		
	Basic unit with protective cover	kg	270
	Basic unit without protective cover	kg	254
	Chassis with drawbar	kg	184
	Standard knives      40 for 150 mm division	kg	48
	Standard knives      76 for 75 mm division	kg	92
	Power knives          40 for 150 mm division	kg	32
	Power knives          76 for 75 mm division	kg	61
	Fine-cut knives        40 for 150 mm division	kg	32
	Fine-cut knives        76 for 75 mm division	kg	61
	Roller blade            80 for 150 mm division	kg	56
	Roller blade            152 for 75 mm division	kg	106
	Hollow tines            160 for 150 mm division	kg	46
	Set of half discs        10 for 150 mm division	kg	48
	Set of half discs        19 for 75 mm division	kg	91
	Wiedenmann additional weights.....1	kg	48
	.....2	kg	96
	.....3	kg	144
	Trailing roller	kg	62
	Permissible additional weight on ballast frame	kg	400
	Overall permissible weight of the TERRA SLIT	kg	1000
	The sounds are drowned by the tractor's engine.		

# 10.0. Technical Specifications

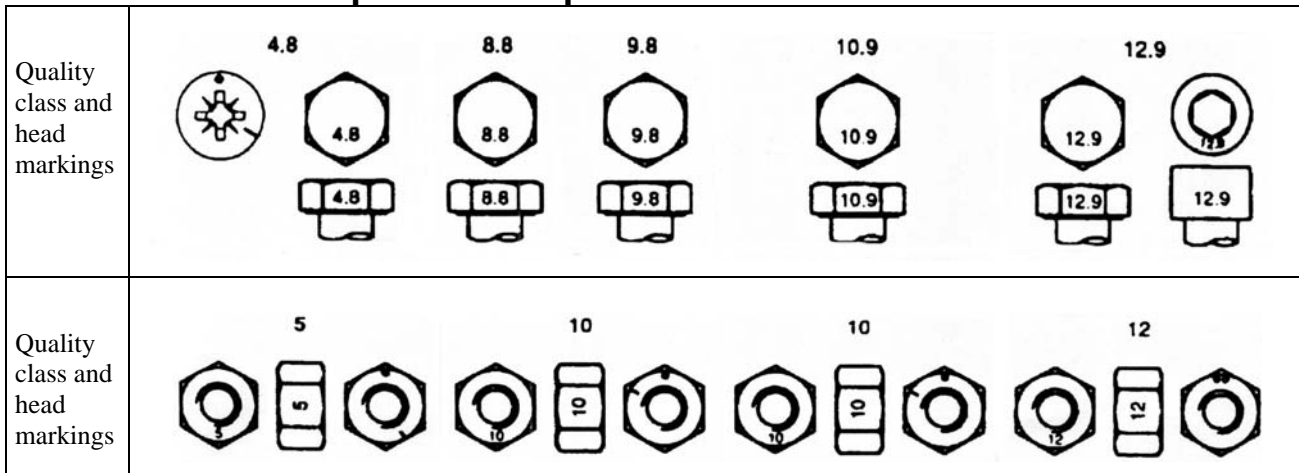
## 10.1.2. Technical Data

Trailer version:



## 10.0. Technical Specifications

### 10.2. Metric bolt and cap screw torque values



Size	Quality class 4.8				Quality class 8.8 or 9.8				Quality class 10.9				Quality class 12.9			
	Lubricated *		Dry **		Lubricated *		Dry **		Lubricated *		Dry **		Lubricated *		Dry **	
	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft
M6	4,8	3,5	6	4,5	9	6,5	11	8,5	13	9,5	17	12	15	11,5	19	14,5
M8	12	8,5	15	11	22	16	28	20	32	24	40	30	37	28	47	35
M10	23	17	29	21	43	32	55	40	63	47	80	60	75	55	95	70

M12	40	29	50	37	75	55	95	70	110	80	140	105	130	95	165	120
M14	63	47	80	60	120	88	150	110	175	130	225	165	205	150	260	190
M16	100	73	125	92	190	140	240	175	275	200	350	255	320	240	400	300

M18	135	100	175	125	260	195	330	250	375	275	475	350	440	325	560	410
M20	190	140	240	180	375	275	475	350	530	400	675	500	625	460	800	580
M22	260	190	330	250	510	375	650	475	725	540	925	675	850	625	1075	800

M24	330	250	425	310	650	475	825	600	925	675	1150	850	1075	800	1350	1000
M27	490	360	625	450	950	700	1200	875	1350	1000	1700	1250	1600	1150	2000	1500
M30	675	490	850	625	1300	950	1650	1200	1850	1350	2300	1700	2150	1600	2700	2000

M33	900	675	1150	850	1750	1300	2200	1650	2500	1850	3150	2350	2900	2150	3700	2750
M36	1150	850	1450	1075	2250	1650	2850	2100	3200	2350	4050	3000	3750	2750	4750	3500

The torques specified in the table are guide values. DO NOT use these values if a different torque value is given in these operating instructions for a specific application. Check tightness of screws and bolts regularly.

Shear bolts are designed to fail at predetermined loads. Always replace a shear bolt with an identical quality class

Screws and bolts should be replaced with the same or a higher quality class. If higher quality class

\* "Lubricated" means coated with a lubricant such as engine oil, or that phosphate and oil coated screws are used.

bolts or screws are used, these should only be tightened to the strength of the screw/bolt they are replacing.

Make sure that the threads are clean and that the screws are correctly connected. This will prevent them from being damaged during tightening.

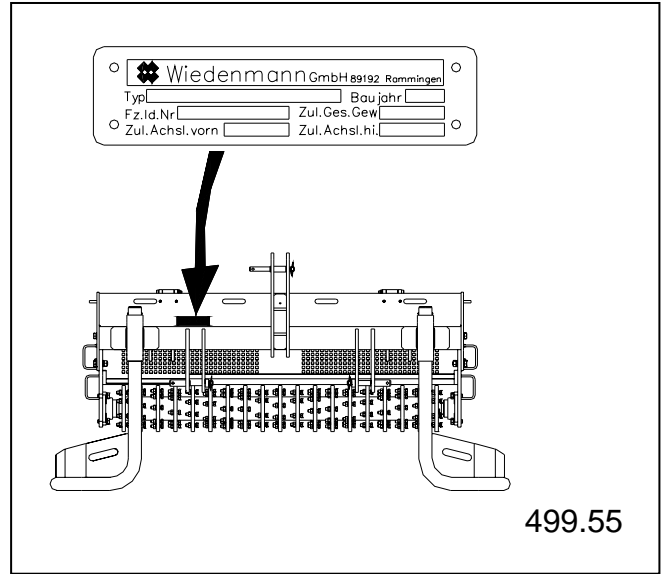
Tighten plastic insert or crimped steel-type locknuts to approximately 50 percent of the dry torque shown in the table. Tighten toothed or serrated-type locknuts to the full torque value.

\*\* "Dry" means plain or zinc plated screws without any lubrication.

# 10.0. Technical Specifications

## 10.3. Chassis Number

Enter the respective product identification no. in the space provided below. The number is required when ordering spare parts or making warranty claims.



Product Id. Number .....