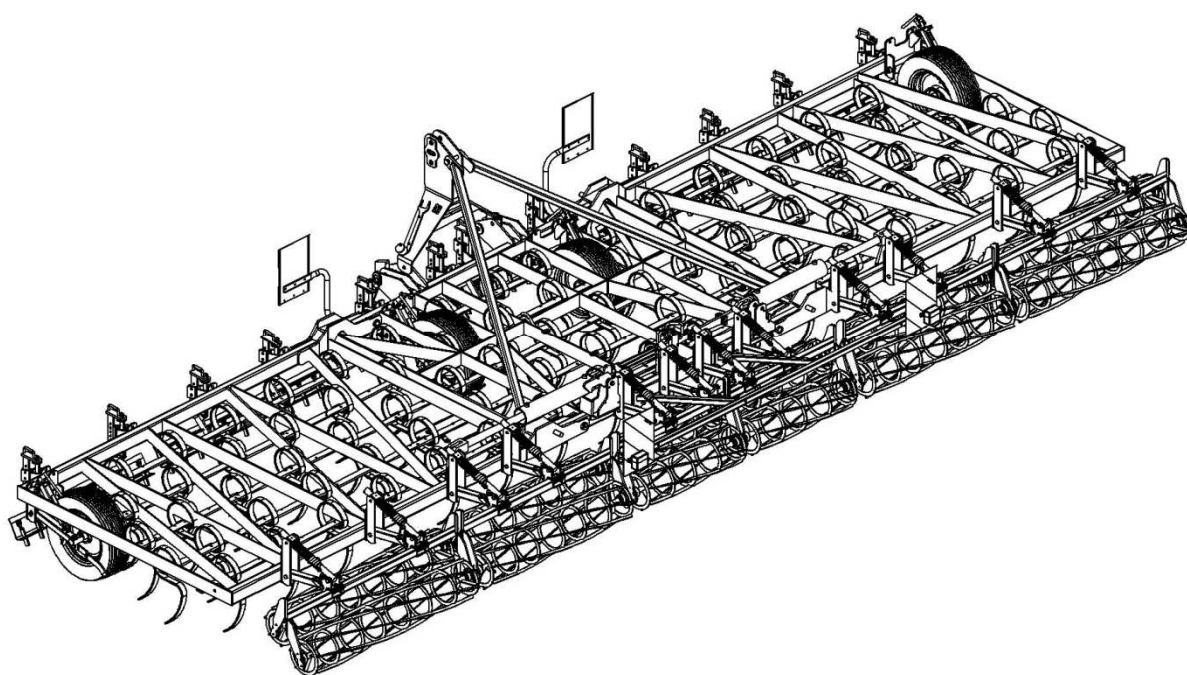


# ***VIBRO MASTER 3000***



Directions for use

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## Introduction

Congratulation with your new KONGSKILDE Vibro Master 3000!

The KONGSKILDE Vibro Master 3000 is a seedbed cultivator, based on the well known vibrating KONGSKILDE tines.

Vibro Master 3000 is a fully mounted cultivator.

Vibro Master 3000 is mainly designed for the seedbed preparation before seeding. Vibro Master 3000 can be equipped according to the specific demands with different types of tines, levelling board and rear implements.

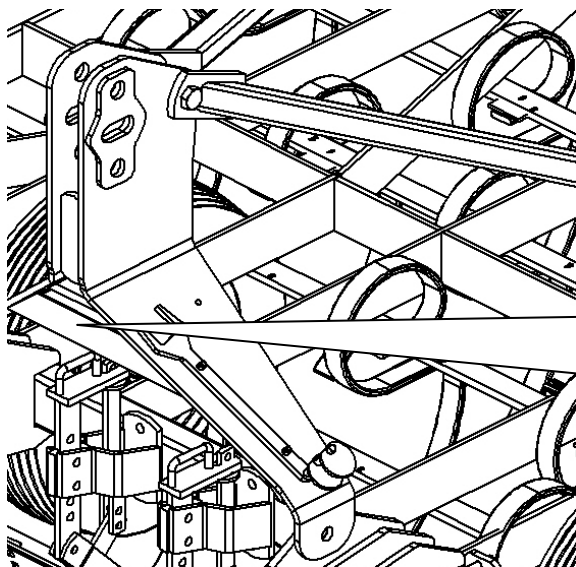
In order to obtain good weight distribution on the tractor, it is recommended always to use adequate front weights on the tractor.

In order to get the full benefit from your new cultivator, Kongskilde Industries A/S recommends to read this users manual, before taking the cultivator in use.

Kongskilde Industries A/S is convinced that you will benefit from your new Vibro Master 3000!

## Identification

The specifications of the Vibro Master 3000 can be found in the type plate. This is located on the left side of the head stock, as shown on the below drawing.



Please note the specifications from the type plate:










Type: \_\_\_\_\_ Name of implement.  
 No.: \_\_\_\_\_ EDP identification number.  
 Serial: \_\_\_\_\_ The serial number for the specific implement.

For any queries regarding Vibro Master 3000 and for ordering spare parts, please quote the above specifications.

The numbers for the spare parts can be found in the spare parts list supplied along with this users manual.

### **Explanation of symbols**

The symbols given in this manual will shorten the text and simplify working with the document. Please study carefully all symbols and their meaning prior to operation.

	<b>Warning</b>	Important note
	<b>Visual inspection</b>	Visual inspection, inspection of condition
	<b>Setting</b>	Check and adjust measures and settings
	<b>Lubricate</b>	Lubricate or grease parts of machine
	<b>Securing</b>	Adjust securings (bolts, guards, rings)
	<b>Easy servicing</b>	Facilitating work
	<b>Observe direction of mounting</b>	For these parts a wrong direction of mounting might be possible
	<b>Recycling</b>	Special operating elements are to be recycled
	<b>Protection of environment</b>	Follow local prescriptions for environmental protection

## Safety



### General safety advice

- Before commissioning the Vibro Master 3000 read the operating instructions and safety advice. It is mandatory to stick to the safety advice and the warnings stated in the manual. The manufacturer declines any responsibility for accidents and damages to the Vibro Master 3000 resulting from failure to apply safety advice.
- The Vibro Master 3000 should only be used, maintained and repaired by persons, who are familiar with the safety advice and who are informed about the dangers.
- General safety advice and the regulations for the prevention of accidents must be observed.
- The safety instructions must be passed on to other users.
- Use the implement only for soil preparation in farming.

### Coupling and uncoupling

- Be careful when coupling or uncoupling implements to and from the tractor. Do not stand between tractor and the Vibro Master 3000, when the tractor is moving.
- Fasten the implement only at the provided points.
- **Do not use fully mounted cultivators together with tracked tractors. Damages on fully mounted cultivators caused by the use of tracked tractors are not covered by the normal warranty conditions of Kongskilde.**
- Check and attach transport equipment, for example lighting equipment, warnings and possibly safety equipment.
- Observe the tractor's operating instructions.
- Use original and correct coupling parts.

### Three-point hitch or linkage

- The attachment category for the three-point hitch on the tractor and the implement has to match properly, or the appropriate adjustments must be made.
- Before coupling, check all linkage parts for cracks, missing components, loose bolts and nuts etc. Make sure the implement will not disconnect by accident during fieldwork or transport.
- While the implement, when mounted in the three-point hitch, is in transport position, ensure sufficient locking at the side of the three-point linkage.

### Operation

- Before each use, check the implement and the tractor as to their road and operational safety.
- Before starting work, familiarise yourself with all facilities and operating elements. It is too late to do so during work activities.
- Examine work surface for hidden obstacles, which could pose a risk (For example under-ground cables, pipes).
- Adjustments should only be made on the implement, when it is completely parked on the ground in unfolded position and when the engine of the tractor is switched off. Remove ignition key and apply hand brake.
- Wear tightly fitting working clothes. Avoid loose clothes, which could be caught in movable parts.
- Wear strong shoes or preferably safety shoes.
- Unauthorised persons are not allowed to stay in the working area during work. No work is to be carried out, if there are unauthorised persons, especially children, near the Vibro Master 3000 or in the danger zone of foldable parts without keeping a safe distance.
- It is prohibited to allow any person to ride on the Vibro Master 3000.
- Never work diagonally to inclines or slopes, where there is a risk that the tractor can tilt.

### Transportation by road/transport

- When using public traffic routes, observe the regulations specific to the particular country including the local maximum transportation width.
- The attachment of implements should not exceed the admissible total weight, the admissible axle load and the weight-bearing capacity of the tractor tyres and the capacity of the lift.
- The tractor must be suitable for the Vibro Master 3000.
- To ensure the ability to steer, the front axle load should always amount to at least 20% of the total weight of the tractor incl. cultivator.
- Hitch up the machine as far as it is necessary to ensure a safe road transport.

### Attention!

The driving behaviour of the tractor changes.

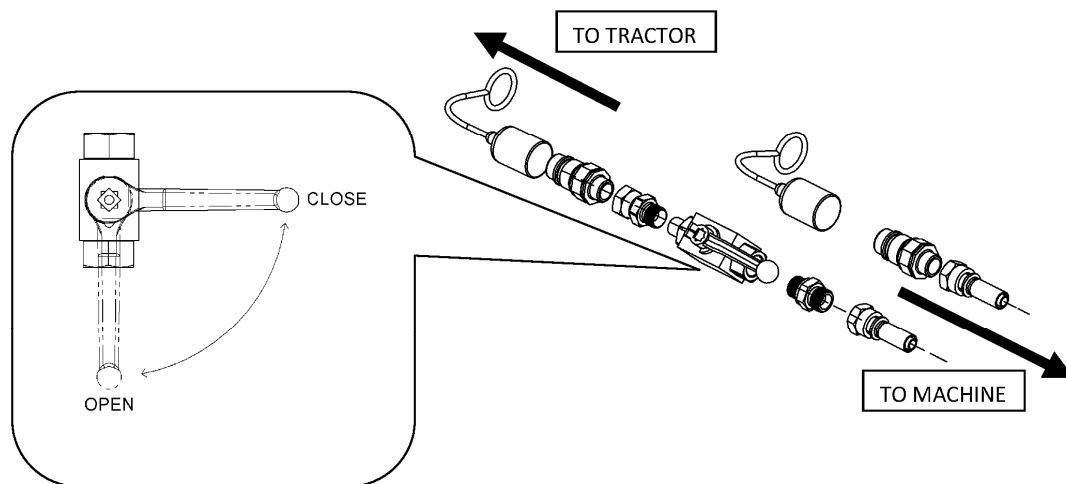
Suit your driving according to the conditions of the street.

Pay special attention to the centre of gravity of hydraulic foldable machines.

Do not exceed a speed of 25 km/h when transporting Vibro Master 3000 on the road.

### Before driving

- Observe admissible axle loads, total weights and transport measurements.
- For transportation on any public road, track or place, the legal transport width according to local rules should not be exceeded. If the transport width is exceeded, a special authorisation may be obtained under certain conditions from the appropriate authorities.
- Road behaviour, performance, ability to steer and brake are influenced by attached or coupled implements and ballast weights. Ensure that there is sufficient ability to steer and brake.
- Before starting off the Vibro Master 3000, check the immediate area. Pay special attention to children and that there is sufficient visibility.
- For road transportation with the implement raised, lock the control valves of the tractor.
- Make sure that wing security locks are correctly locked.
- Make sure that valve which prevent from accidental unfolding is closed.



### NOTE:

- The security locking devices prevents from accidental unfolding in case of a defect in the hydraulic hoses. However, it may not prevent unintentional unfolding or lowering if the control device is operated by mistake and valve preventing from accidental unfolding will be not closed

### During transportation

- Riding on the implement during work and transport is not permitted.
- Never leave the driver's cab during transportation.
- When driving around corners and bends take the extra width and the inertia of the Vibro Master 3000 as well as the high centre of gravity of the folded frame into consideration.

### After transportation

- Before leaving the tractor, set the implement down onto the ground, switch engine off, remove ignition key and apply hand brake.
- No one should stand between tractor and implement without securing the vehicle by the hand brake and/or stop chocks.
- Foldable frame parts should be completely unfolded. The implement must only be parked with unfolded frame parts.

### Maintenance

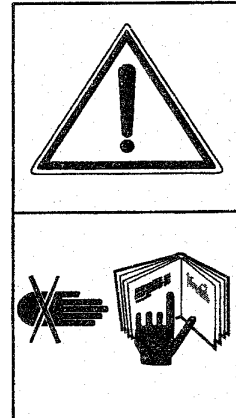
- Repairs, maintenance and cleaning work as well as the solving of functional faults should principally only be carried out, while the engine is switched off. Remove ignition key and apply hand brake.
- For maintenance on a raised up implement, always secure the Vibro Master 3000 on suitable stands.
- Do not ever go under the Vibro Master 3000 unless secured on suitable stands.
- Never attempt to disconnect hydraulic connections while system is pressurised.
- When changing work tools, which have cutting edges, use suitable tools and gloves.
- Spare parts should correspond at least to the technical requirements defined by the manufacturer. Use only original parts.



Safety decals**1**Instructions

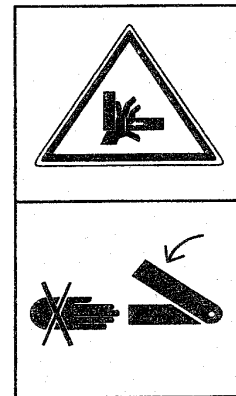
Read and observe the operating instructions. Before commissioning the Vibro Master 3000, read and observe both operating instructions and safety advice.

Part no.: 71 000 187 250

**2**Danger of crushing

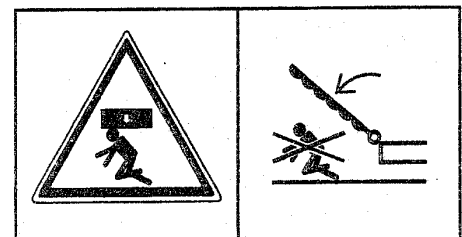
Never reach into the danger zone, as long as there could be moving parts.

Part no.: 71 000 629 549

**3**Moving Parts

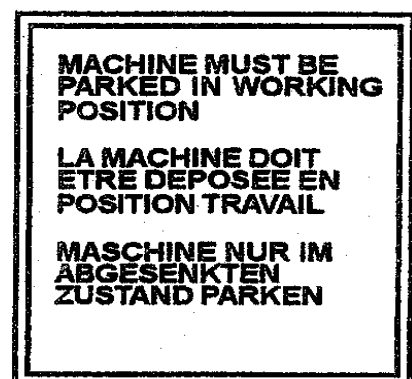
Do not stand near foldable frame of the Vibro Master 3000.

Part no.: 71 000 629 546

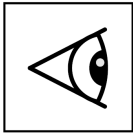
**4**Park in lowered position.

The Vibro Master 3000 must ONLY be parked in working position.

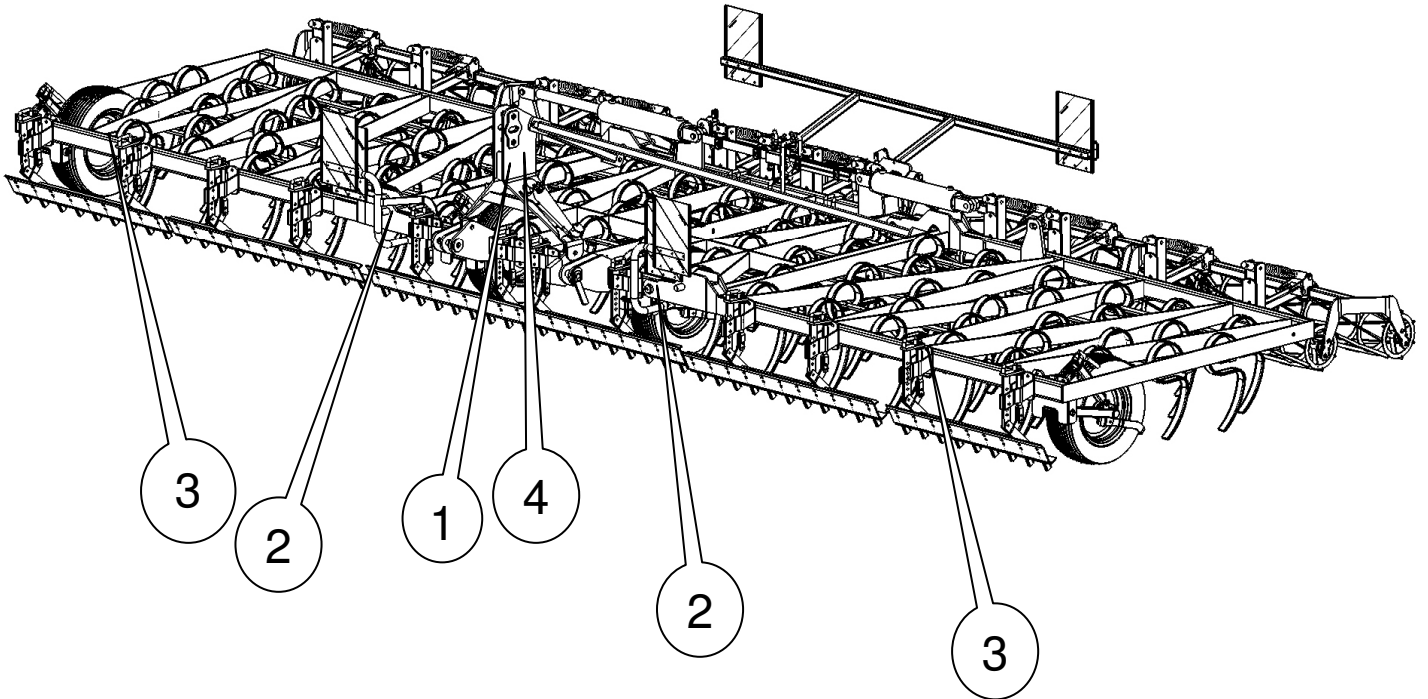
Part no.: 71 000 646 708



**Always keep safety decals in clean and readable condition!**



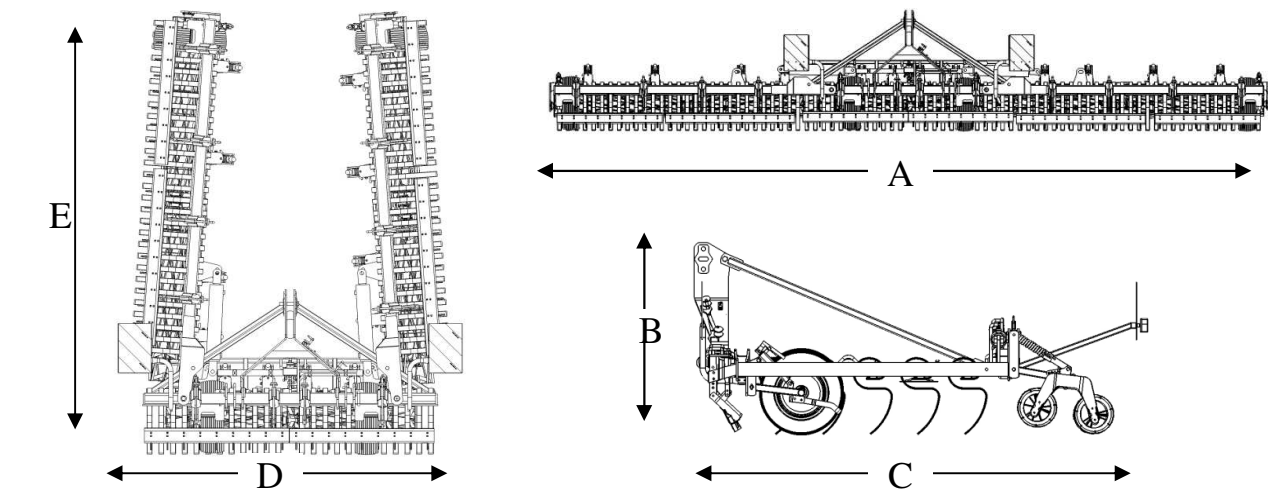
**Request substitutes for damaged or missing decals from the dealer and place these at the intended positions!**



### Technical data and dimensions

Type	VM 3055	VM 3065	VM 3075	VM 3083
Working width	5,5 m	6,5 m	7,5 m	8,3 m
Transport width	3,0 m	3,0 m	3,0 m	3,0 m
Transport height *)	2.79 m	3.19 m	3.69 m	4.09 m
Hydr. folding	YES	YES	YES	YES
Weights, kg				
Cultivator	1375	1475	1725	1925
Level board	180	195	210	226
Double roller (C/R)	310	345	380	415
Hydraulic demands	1 double acting outlet required or 2 if machine is equipped with hydraulic adjustable front leveling board			
Horsepower demand, HP	125-165	140 - 180	155 - 205	170 – 230
Maximum allowed HP	200	250	250	250
Number of tines, pcs				
<b>Vibro S</b> (10 cm tine space)	55	65	75	83
<b>Vibro Super-Q</b> (8 cm tine space)	69	81	93	103
<b>Vibro Super-S</b> (10 cm tine space)	55	65	75	83
<b>VTM</b> (15 cm tine space)	37	43	51	55
Dimensions, in mm				
A	5500	6500	7500	8300
B	1410 (1510 – VTM tines)	1410 (1510 – VTM tines)	1410 (1510 – VTM tines)	1410 (1510 – VTM tines)
C	3100 (3600 with CDL and light kit)	3100 (3600 with CDL and light kit)	3100 (3600 with CDL and light kit)	3100 (3600 with CDL and light kit)
D	2750 (2950 – VTM tines)	2750 (2950 – VTM tines)	2750 (2950 – VTM tines)	2750 (2950 – VTM tines)
E	2500 (2600 – VTM tines)	2890 (2990 – VTM tines)	3390 (3490 – VTM tines)	3790 (3890 – VTM tines)

\*) with 30 cm ground clearance



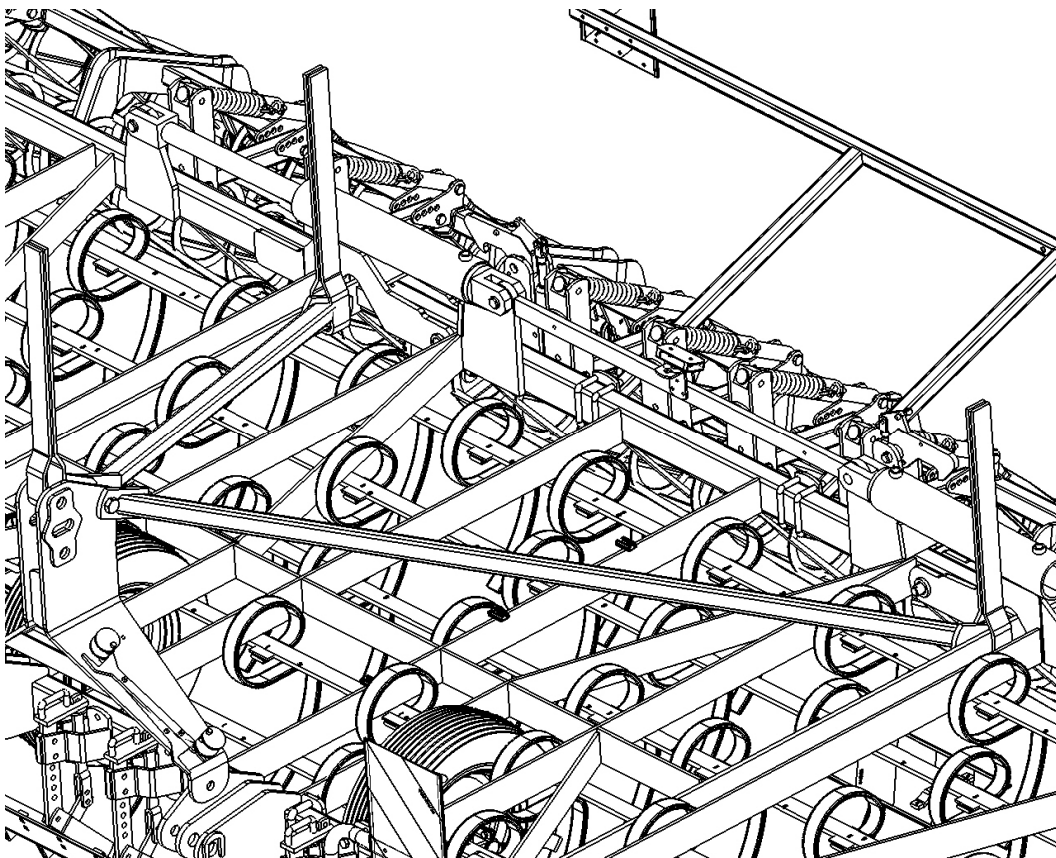
### Lifting points

When the Vibro Master should be lifted up or down from a truck by a crane or a forklift the following lifting recommendations must be followed.

- Always use a crane or a forklift with the sufficient strength and ballast to carry the weight of the Vibro Master 3000.
- Always move the cultivator in unfolded position.
- Do not stay under the cultivator when lifting

Lifting the Vibro Master 3000 (with and without rear rollers connected) :

- Fasten one connection in the pin for the top link connection
- Fasten 2 connections to the rear connection points (side flat bars on main frame).



## Operation

### Coupling

#### Attention!

- While hitching up the Vibro Master 3000, stop the tractor and secure it from rolling.
- Ensure that during coupling of the Vibro Master 3000, no one is standing between the tractor and the implement. No one should stand in the operational range of the implement.

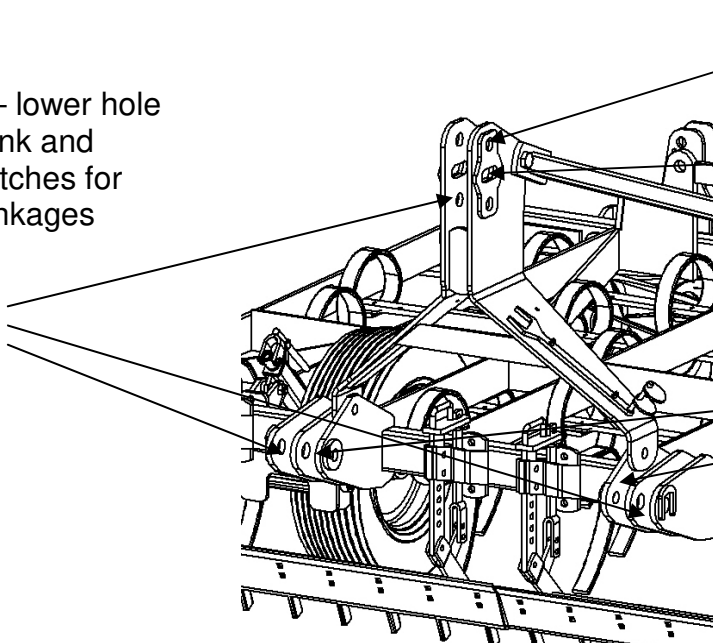
The three-point linkage category of the Vibro Master 3000 and tractor must match each other. Vibro Master 3000 can be connected by category 2 + 3.

If they do not correspond, the three-point linkage on the tractor must be adjusted.

Make sure that the Vibro Master 3000 is parked on solid ground and secure it against rolling.

- Fit ball bushes in correct category over the pins for the lower links and the head stock connections
- Lower the lower links of the tractor and drive backward until the lower link hooks are under the ball bushes
- Raise the lift until the lower link hooks are hooked in.
- Put in the top link
- Secure all connections against unintentional opening
- Make sure the hydraulic fittings are clean and connect the hydraulic hoses.
- Connect light equipment (Optional)
- Control no oil is leaking from hydraulic connections
- Control all functions work correctly.

**Cat. 3** – lower hole for topline and outer latches for lower linkages



- Upper hole for correct topline angle on large tractors.
- Slotted / long hole recommended for unlevel field

**Cat. 2** – inner latches for lower linkages

### Uncoupling

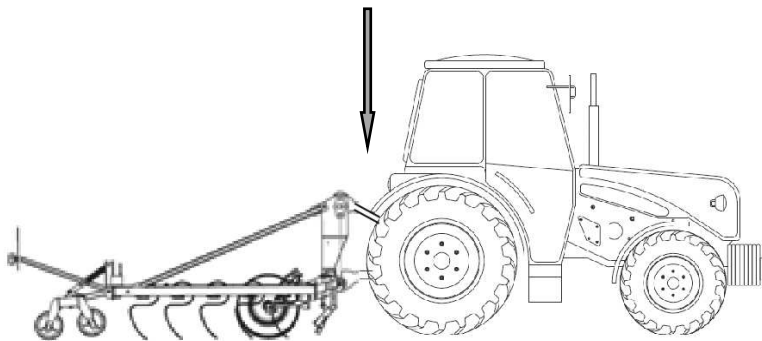
- Unfold the Vibro Master 3000
- Park the Vibro Master 3000 on levelled, solid ground.
- Remove the oil pressure from the connections
- Uncouple the hydraulic hoses from the tractor
- Disconnect the light equipment (Optional)
- Remove top link from the Vibro Master 3000
- Release the lower linkage hooks
- Lower the lower links until free of the ball bushes
- Drive tractor slowly forwards.

### Adjustment of top link

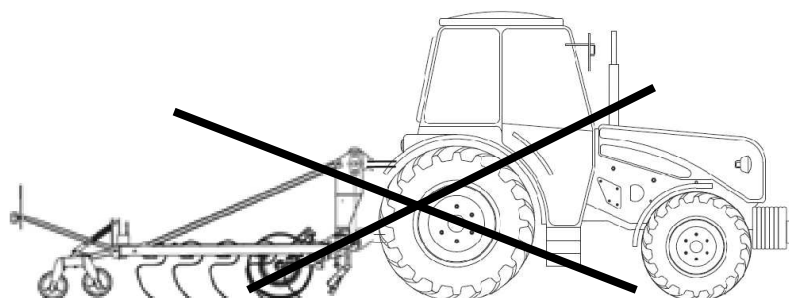
The cultivator frame must stay horizontal during work to make both the front and the rear row of tines work at the same depth. This is adjusted by means of the tractor's top link. A short top link raises the rear row of tines whereas a lengthened top link lowers the rear row of tines.

When using the topline in the middle slotted/long hole (for uneven fields), the topline pin must have contact to the front side of the headstock, in order to prevent the back-end of the cultivator dropping down.

When the cultivator works in the field the top link must be lower at the tractor end than at the head stock of the cultivator.



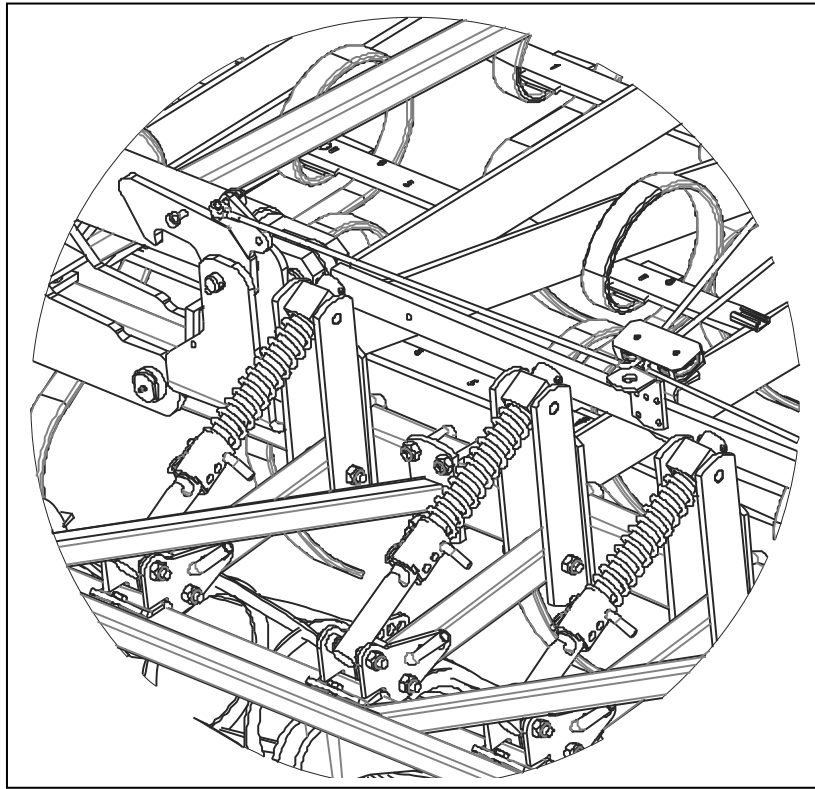
The top link must never be horizontal or parallel with the lower linkages, as the cultivator will run unsteadily and make steering of the tractor difficult.



### Folding and unfolding (mechanical wing lock system)



When folding or unfolding make sure that no one are in the working range of the implement



- Lift the implement off the ground, high enough to secure it does not hit during folding or unfolding.

#### Unfolding:

- Open valve preventing from accidental unfolding.
- In order to ensure clearance between the hooks and the pins remember that the wings should be folded in completely (4 degrees inside), before unfolding.
- Open the security hooks by pulling the 2 strings attached to the wing locks. If the tractor hydraulic is slightly leaking, then there may be tension on the security hooks. In this case operate the tractors hydraulic valve as to fold the implement and then pull the strings.
- Use the hydraulics to unfold the Vibro Master 3000.

#### Folding:

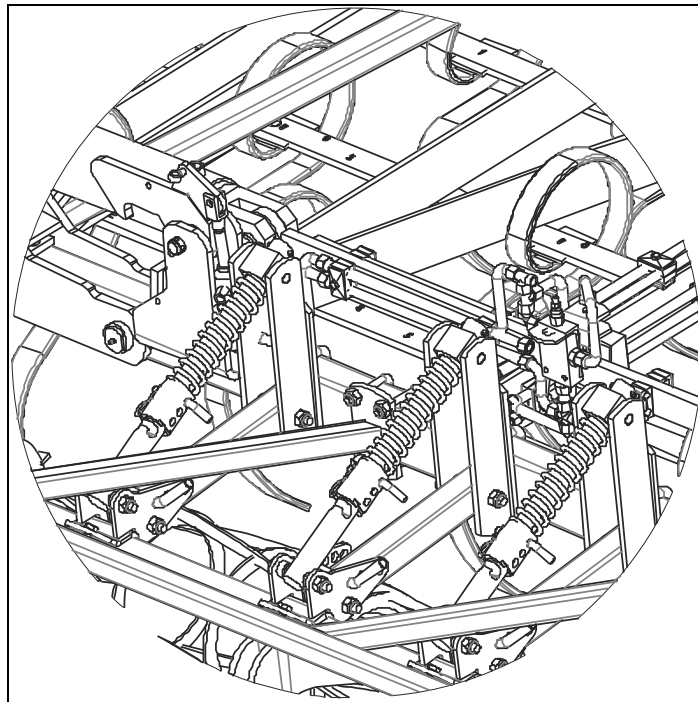
- Make sure the strings for the security hooks are loose, so the security hooks are in the lower position ready to lock the wings when folded up
- Use the hydraulics to fold the Vibro Master 3000.



- Make sure the security hooks have locked the frames in upright position
- Close valve preventing from accidental unfolding

#### Folding and unfolding (automatic hydr. wing lock system)

Vibro Master 3000 can be equipped with an automatic wing lock system. Micro cylinders are used instead of a string and work together with folding system for the side wings.



#### Preparing for Road transport

- Lift the implement and fold as described
- Make sure the security hooks have locked the frames in upright position
- Close valve preventing from accidental unfolding
- To give a lower point of gravity, and thereby a more stabile transport, it is recommended to lower the implement to a lower level, but keeping sufficient distance to road during transport.
- Secure that the implement is safe, that nothing will fall off, including big lumps of soil, during transport.
- Check any light kits and warning plates that these are working and clean.



## Adjustment and use of the Vibro Master 3000

The Vibro Master 3000 can be equipped with 4 different types of tines. See table below for recommended settings and use.

Type of tine	Working depth	Working speed	Tine distance	Conditions
<b>Vibro S</b> (32x10,5 mm)	4 – 10 cm	8 – 12 km/h	10 cm	Seedbed
<b>Vibro Super Q</b> (32x12,4 mm)	4 – 10 cm	8 – 12 km/h	8 cm	Seedbed
<b>Vibro Super S</b> (45x11 mm)	4 – 12 cm	8 – 12 km/h	10 cm	Seedbed
<b>VTM*)</b> (50x10,8 mm)	4 – 12 cm	8 – 12 km/h	15 cm	Seedbed with some residues

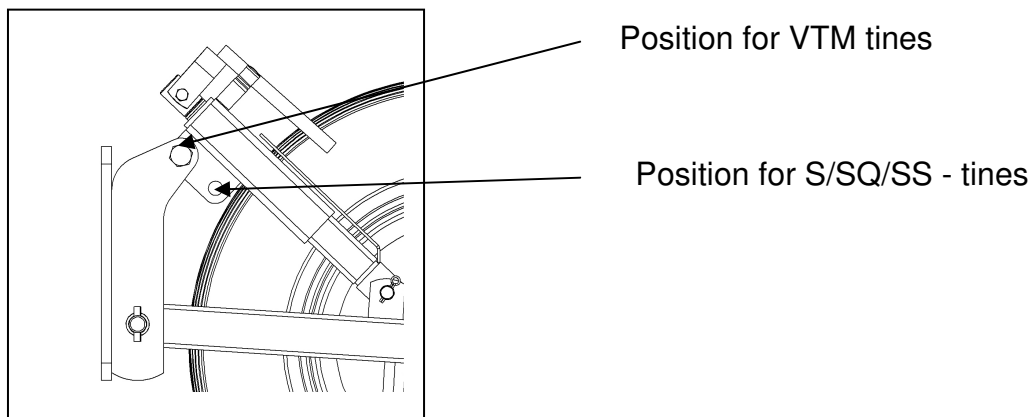
\*) As shares for VTM can be used 2 ½" goose foot (101000551) and 4" sweep (101000552) for shallow tillage.

Local conditions such as soil type, weather conditions, stones, amount of residues etc. must always be taken into account when setting the cultivator.

### Adjustment of the working depth (cultivator)

The cultivator must be lifted for adjusting the working depth.

The working depth is set by means of the wheel spindles on each of the 4 rubber wheels. An indicator is showing the position of the spindle.



The depth wheels on the centre section must be set deeper than the depth wheels on the wings, as they sometimes are running in the tracks from the tractor. As a general rule can be used :

**Depth wheels on the centre section must be set 1 scale-point deeper than the wings.**



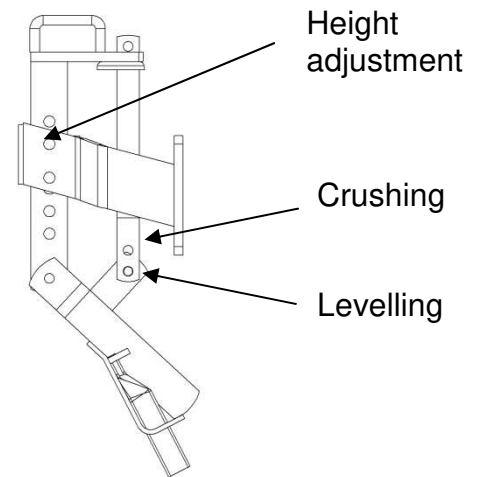
After adjustment to the correct depth remember to position the handle in the storage clip, to prevent the handles from turning during work.

## Adjustment of the level board

### Angle:

The level board has in general 2 different ways of working:

- Crushing (upper hole) – the board is backward angled and clods are crushed under the board
- Levelling – (lower hole) the board is more vertical positioned and it has a better ability to level out the soil surface.

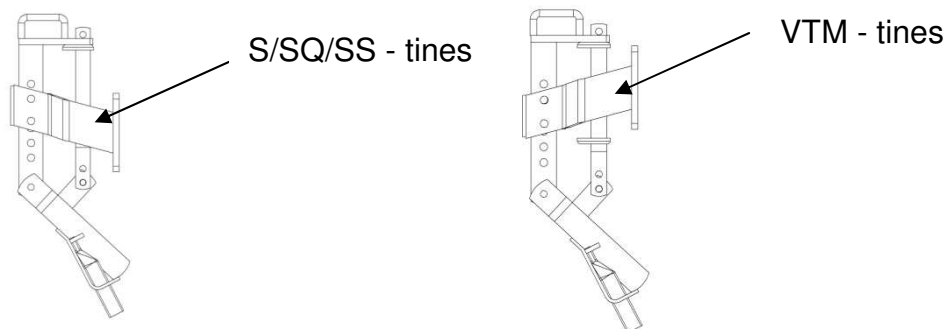


To change from crushing to levelling mode:

- Remove the bolts
- Change the angle of the level board to match the upper/lower hole
- Insert the bolts and tighten again

### Height:

The bracket for the level board must be positioned according to the type of tine used:



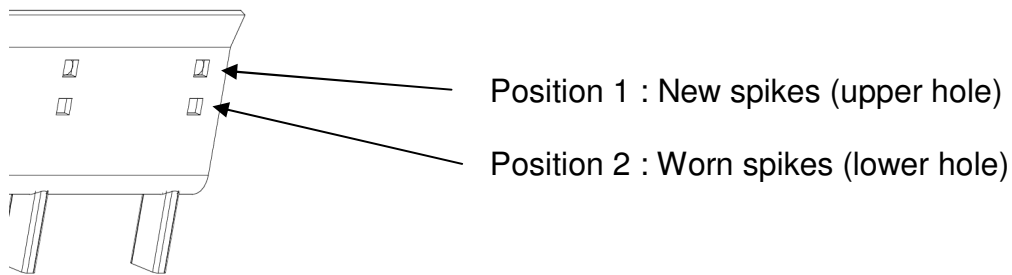
The level board sections are hung up in 2 brackets. From here the height can be adjusted.

- Pull out the ring clip of both pins
- Remove the pins
- Adjust to the wanted height
- Insert pins and ring clips again

Adjustment of spikes on the level board:

The spikes on the level board are possible to mount in 2 height positions. From the factory the spikes are mounted in the upper hole. When the spikes get worn they must be moved to the lower hole.

When worn out – replace with original Kongskilde spikes.



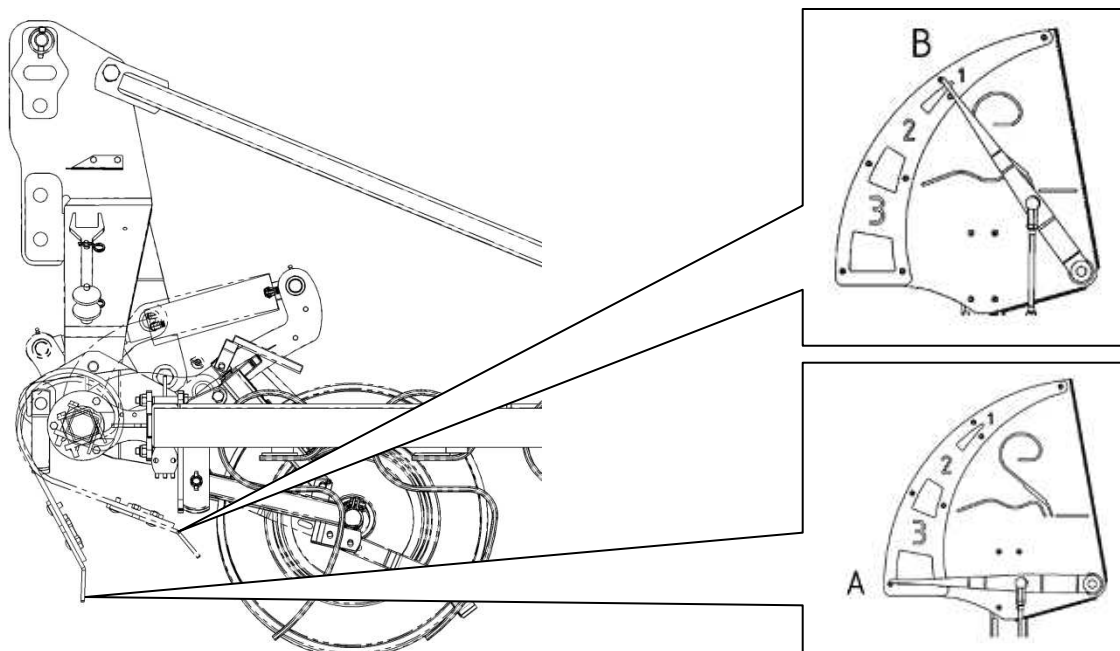
**The level board is made for crushing and levelling – not for dozing big amounts of soil!**

### Front flex board position

The purpose of the front Flex board is to pre-level the surface of the soil. The positioning is controlled from the operator's booth, using a blue double-action hydraulic line.

The unit is equipped with an indication of the front Flex board position :

- position "A" – the beam is maximally extended
- position "B" – the beam is out of work

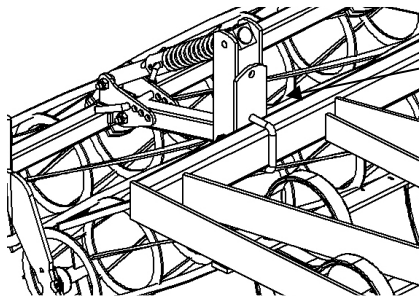


### Adjustment of the rear rollers

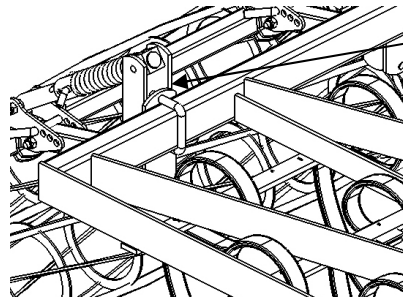
The rear rollers are attached to the cultivator by a arm, which follows the soil during work and ensures optimal reconsolidation.

Attachment to the cultivator:

The rear harrow attachment must be connected to the cultivator. There are 2 possible connections, which depends on the type of tines used on the cultivator:



S/SQ/SS -  
tines



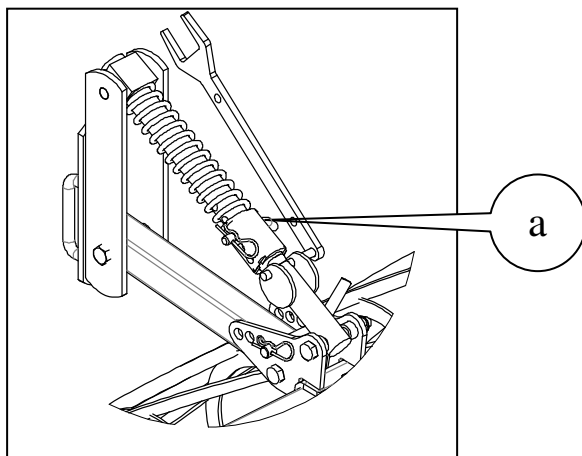
VTM - tines

### Adjustment of the pressure on the double rollers:

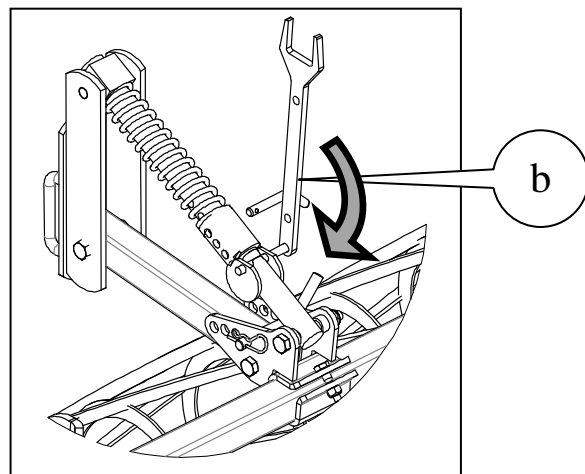
The pressure on the rollers can be adjusted by using the tool for the spring adjustment.

There are 6 different positions. Adjustment is done by:

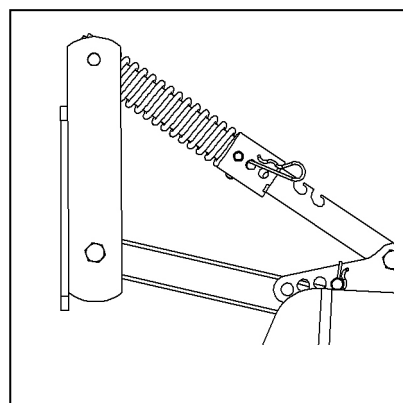
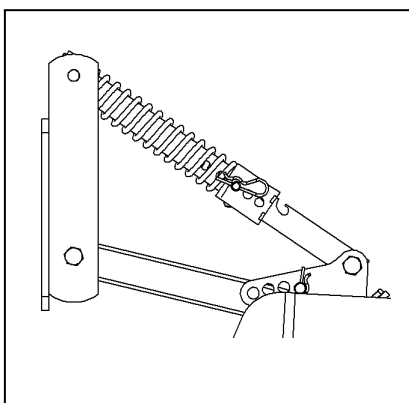
- Place the excentric tool (A) in the slot of the rod
- Turn the tool slightly until the pin (B) can be removed
- Adjust with the tool to the wanted pressure and insert the pin (B) again
- Repeat this for all arms



Minimum pressure on the rollers



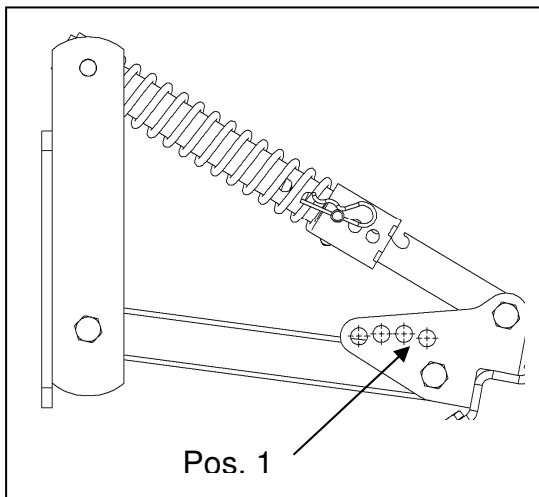
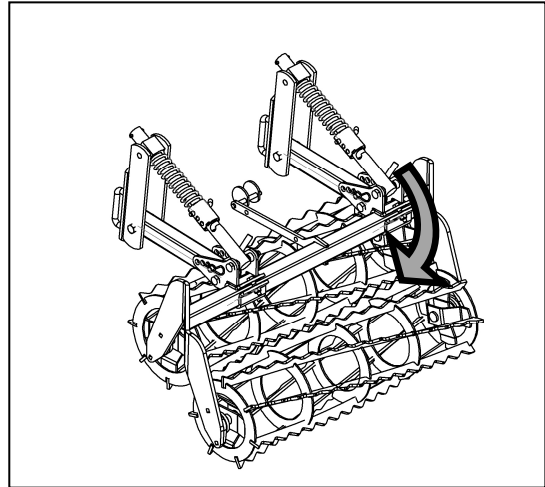
Maximum pressure on the rollers



### Adjustment of the angle on the double rollers (CD-VM, RD-VM, CR-VM, CDL-VM):

The attack angle of the rollers can be adjusted. It is important to adjust this according to the soil conditions. The front roller must be set higher than the rear roller (app. 10-20 mm), in order to prevent it from digging too deep into the soil.

- Pull out the ring clip of both pins
- Lift front roller (use special tool)
- Remove the pins
- Insert pins and ring clips again



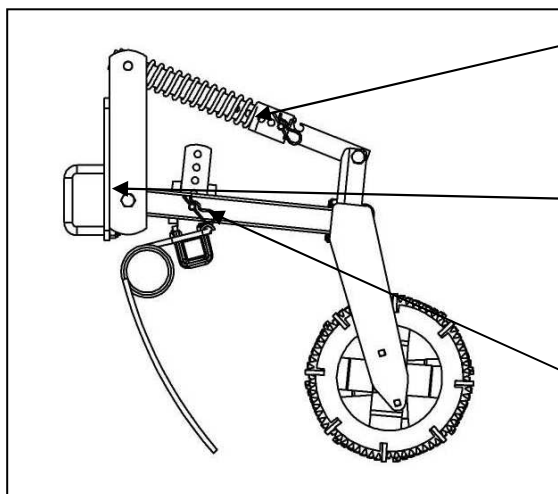
#### Recommendation:

- Pos. 1: for 4 - 6 cm working depth
- Pos. 2: for 6 - 8 cm working depth
- Pos. 3: for 8 - 10 cm working depth
- Pos. 4: for 10 - 12 cm working depth



The front roller must work higher than rear roller.

### Adjustment of the Max Flow tine + single roller (CL-VM)



Pressure adjustment is the same as for double rollers (page 20).

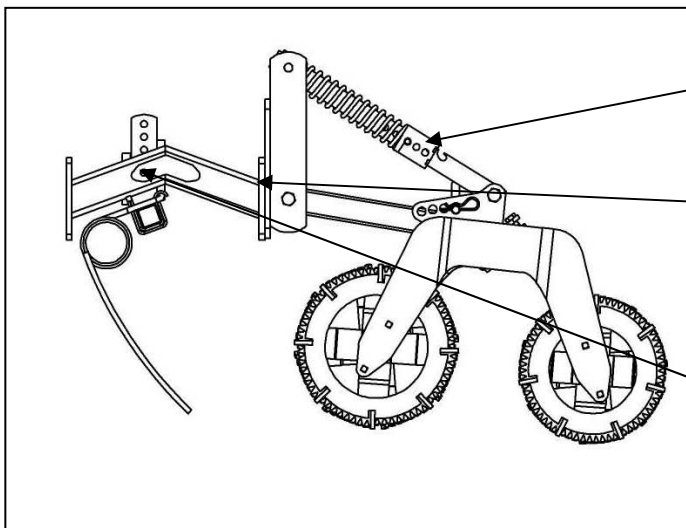
Two possible connections depend of the type of tines of the cultivator. The same as for double rollers (page 19).

Height adjustment of Max Flow tine

Height adjustment:

- Pull out the ring clip of pin
- Remove the pin
- Adjust to the wanted height
- Insert pin and ring clip again
- Repeat this for all arms

#### Adjustment of the Max Flow tine + double rollers (CDL-VM)



Pressure adjustment is the same as for double rollers (page 20).

Two possible connections depend of the type of tines of the cultivator. The same as for double rollers (page 19).

Height adjustment of Max Flow tine

Height adjustment:

- Pull out the ring clip of pin
- Remove the pin
- Adjust to the wanted height
- Insert pin and ring clip again
- Repeat this for all arms

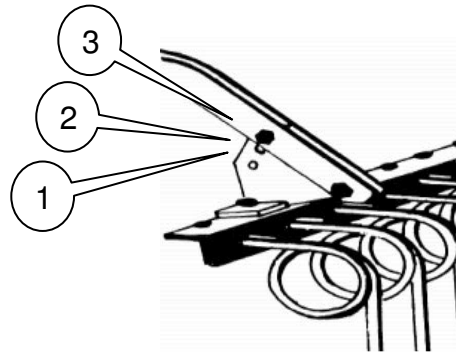
#### Adjustment of the long finger rear harrow (FL-VM)

The long finger rear harrow (FL-VM) can be fitted on the rear of the cultivator to eliminate tracks from the last row of tines, and to level out the surface in general.

Adjustment of tine angle:

The long finger tines can be set in 3 different angles to the ground.

Position	Function
1	Steep angle – max levelling
2	Middle angle – levels out and allows clods and residues to pass
3	Low angle – maximum passage of clods and residues



### Turning

Never turn the cultivator, when working in the soil, so sharply that the tines are forced sideways and backwards. It may result in loads far in excess of what the tines are designed for.

### Reversing

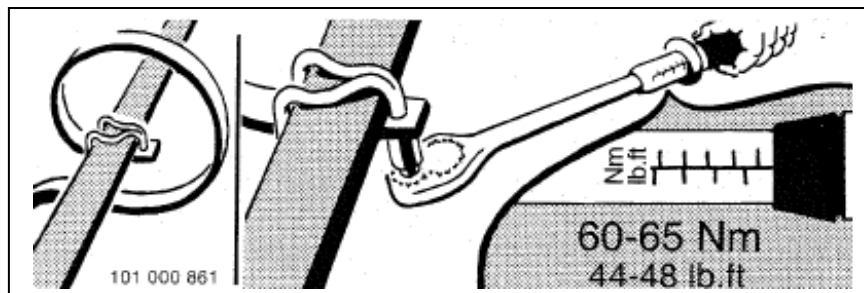
Never reverse with the tines in the soil. The cultivator must be raised to avoid the tines being overloaded, as this can lead to breakage of the tines.

## **Maintenance**

### General

The KONGSKILDE Vibro Master 3000 needs very little maintenance:

- After usage clean the machine.
- All nuts and bolts must be checked and tightened after initial 10 working hours and then for every 100 hours. Tighten if necessary.
- If the cultivator tines come loose, the clamp must be re-tightened to a torque of 60 – 65 Nm

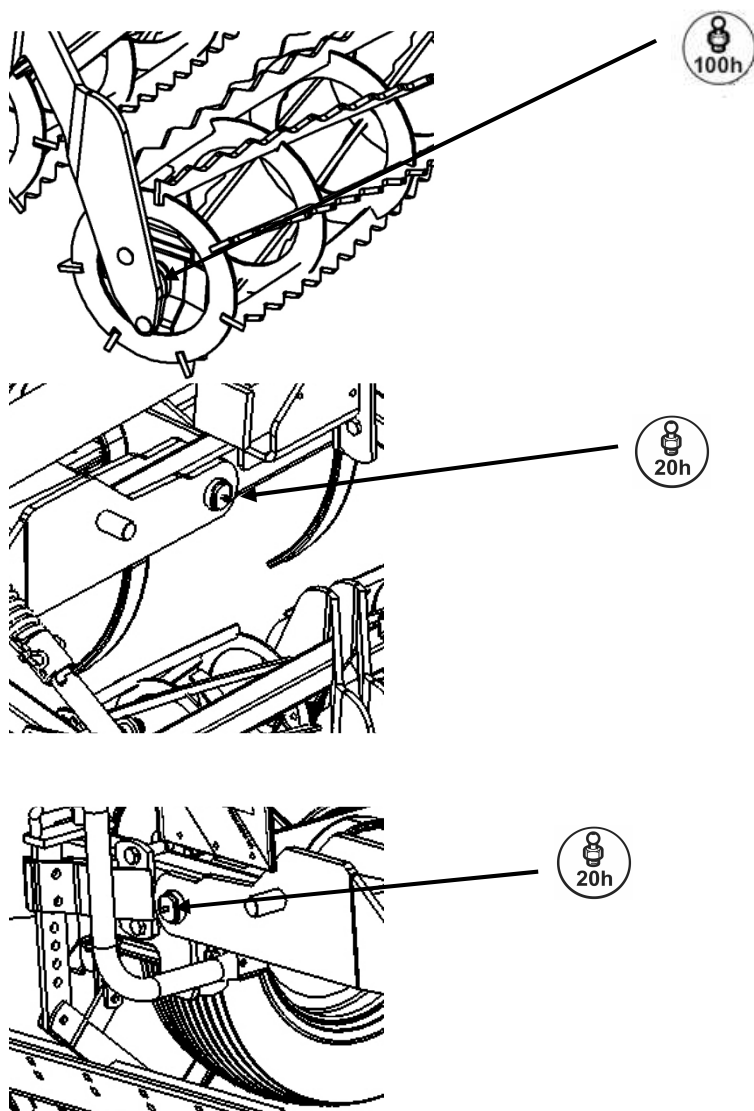


- Grease according to the specifications below.
- Worn and damaged parts must be changed at the earliest possible moment in order to secure correct and safe function.
- Use only original KONGSKILDE wearing and spare parts.

#### Tyre pressure

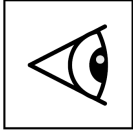
Type of tyre	Recommended tyre pressure
24X8.00 – 14.5	3,2 bar / (46 PSI)

#### Lubrication





### **Hydraulic hoses and couplings**



Before every use of the Vibro Master 3000, check the hydraulic hoses and connections. If there is any sign of breakage emerging, make sure to change the parts in question.



Note that if the hydraulic fails during folding or unfolding, then the wings may immediately unfold.

### **Warehousing and storage**



For longer operation pauses, store the machine in safe place-not accessible for children.



Prior to longer operation pauses (winter) and prior to first operation all lubrication points must be lubricated and pins and adjusting devices must be greased.



During longer operation pauses exposed surfaces of tines, scrapers and rollers must be greased in order to prevent the formation of rust. Only use grease, which does not have any polluting impact on the environment.



Order necessary spare parts and wearing parts before the beginning of storage period to avoid delays with the new season starting.

