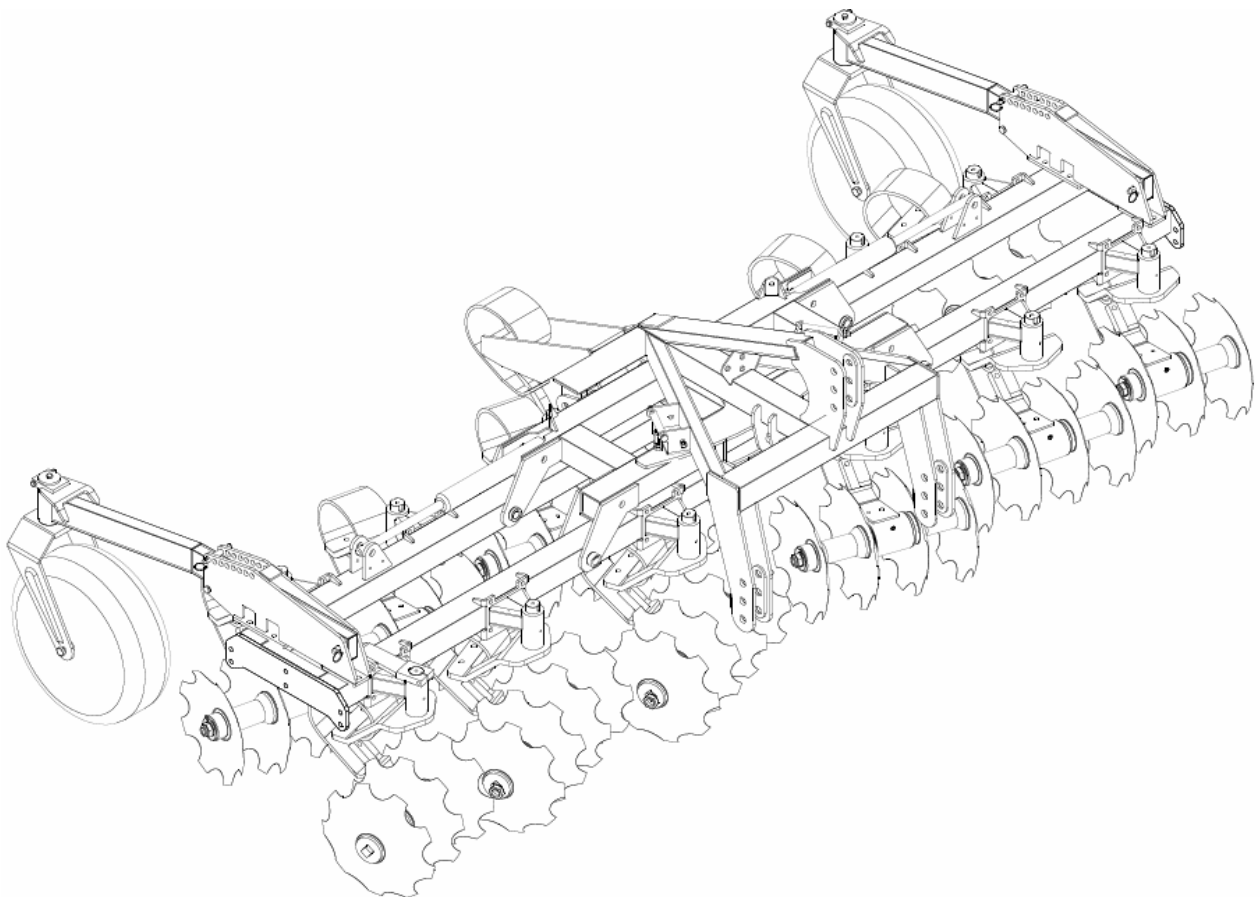


FRONT TERRA DISC



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Introduction

Congratulation with your new KONGSKILDE Front Terra Disc!

The KONGSKILDE Front Terra Disc is an implement for soil cultivation, which is used at the front linkage of a tractor with lower linkages in category II.

Front Terra Disc is a combination implement for stubble cultivation.

Front Terra Disc can be combined with a stubble cultivator, a seed drill or a similar equipment mounted at the rear of the tractor.

In order to obtain good weight distribution on the tractor, it is recommended always to use a rear mounted implement together with Front Terra Disc.

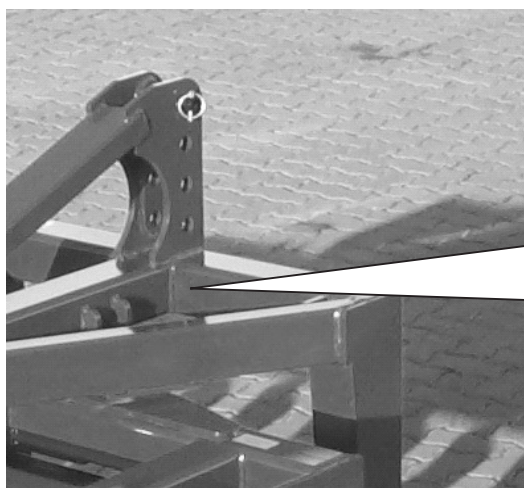
Product Details

Front Terra Disc can work in areas with high amounts of residues, and the front tillage operation improves the ability for rear mounted implements to allow better passage of residues. The hydraulic adjustable working angle of the discs, makes it easy to adjust the implement to different soil types and working speeds. In general Front Terra Disc is a mean to reduce field costs by reducing the number of passes on the field.

Kongskilde Industries A/S is convinced that you will benefit from your new Front Terra Disc.

Identification

The specifications of the Front Terra Disc are located on the type plate. This is located on the inside of the frame for the head stock near the fixation hole for the top link.



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 the Front Terra Disc and for ordering spare parts, please quote the above specifications.

The numbers for the spare parts can be found in the spare parts list.

Safety



General safety advice

- Before commissioning the Front Terra Disc 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 Front Terra Disc resulting from failure to apply safety advice.
- The Front Terra Disc 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.

Coupling and uncoupling

- Be careful when coupling or uncoupling implements to and from the tractor. Do not stand between tractor and the Front Terra Disc, 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.

Three point hitch

- 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 or uncoupling implements to the three point hitch, put the operating mechanism into a position which will prevent any accidental lifting or lowering.
- While the implement 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 in working position and when the engine of the tractor is switched off. Remove ignition key and apply hand brake.
- Wear tightly fitting work 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, in the vicinity of the Front Terra Disc or in the danger zone of fordable parts without keeping a safe distance.
- It is prohibited to allow any person to ride on the Front Terra Disc.
- Never work diagonally to inclines or slopes, where there is a risk that the tractor will overturn.

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.
- To ensure the ability to steer, the front axle load should always amount to at least 20% of the net weight of the tractor.

Before driving

- Observe admissible axle loads, total weights and transport measurements.
- Performance, ability to steer and brake is influenced by attached or coupled implements and ballast weights. Ensure that there is sufficient ability to steer and brake.
- Before starting off and using the Front Terra Disc, 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.
- Fix the interlock bolts on the head stock in the middle position to ensure a firm position of the Front Terra Disc during road transport.
- Close the tilt locks in left and right side of the head stock, to prevent Front Terra Disc from tilting from side to side during road transport.

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/or the inertia of the Front Terra Disc 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 a chock.
- Before operating in the field, remove the interlock bolt and the tilt locks at the head stock to make the Front Terra Disc floating during work.

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 Front Terra Disc on suitable stands.
- 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 Front Terra Disc, read and observe both operating instructions and safety advice.

Order No.: 71 000 187 250

2

Danger of crushing

Never reach into the danger zone, as long as there could be moving parts. (Foldable version only)

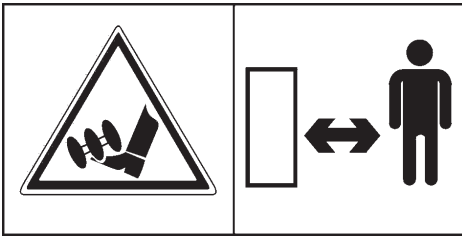
Order No.: 71 000 689 649

Danger of rotating disc

When discs are rotating, keep sufficient distance.

Order No.: 71 000 629 547

3




Moving Parts

Do not stand near foldable frame of the Front Terra Disc.

(Foldable version only)

Order No.: 71 000 629 546

4



MACHINE MUST BE PARKED IN WORKING POSITION

LA MACHINE DOIT ETRE DEPOSEE EN POSITION TRAVAIL

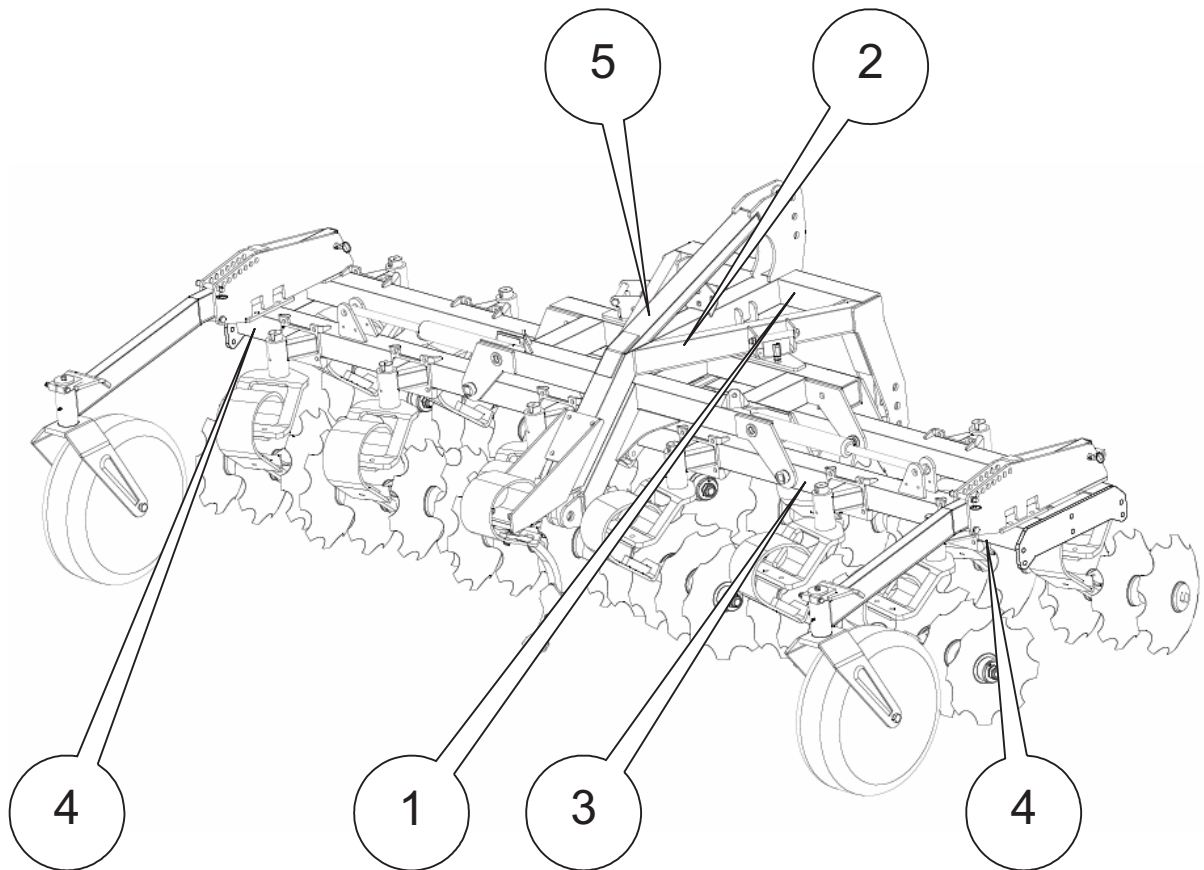
MASCHINE NUR IM ABGESENKTEN ZUSTAND PARKEN

5

Park in lowered position

The Front Terra Disc must **ONLY** be parked in working position.

Order No.: 71 000 646 708



Always keep safety in clean and readable condition!

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

Coupling of the Front Terra Disc

Ensure that during coupling of the Front Terra Disc, no one is standing between the tractor and the implement. No one should stand in the operational range of the implement.

The three-point attachment category on the Front Terra Disc and tractor must match with each other.

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

Make sure that the Front Terra Disc is parked on solid ground and secure it against rolling.

Lower the front lift of the tractor and drive straightway under the couple bolts of the lower link.

Raise the lift until the hooks are hooked in.

Put in the top link and secure all connections against unintentional opening.

Make sure the hydraulic fittings are clean and connect the hydraulic hoses (For folding cylinders and cylinders for adjustment of the working angle)

Attention!

- While hitching up the Front Terra Disc, stop the tractor and secure it from rolling.
- Don't step between the tractor and the Front Terra Disc while hitching up - danger of accident!

Uncoupling of the Front Terra Disc

Unfold the Front Terra Disc (hydraulic foldable version only).

Park the Front Terra Disc on levelled, solid ground.

Uncouple the hydraulic hoses from the tractor (For folding cylinders and cylinders for adjustment of the working angle).

Remove top link from the Front Terra Disc.

Lower the lift arms until free of the implement hitching points.

Drive tractor slowly backwards.

Road transport

Pay attention to the following points before driving on public roads:

- The tractor must be suitable for the Front Terra Disc.
- The local traffic rules must be followed.

After the machine is hitched up and secured, fix the interlock-bolts of the front linkage on middle position and flip down the tilt locks.

Hitch up the machine as far as it is necessary to ensure a safe road transport.

Attention!

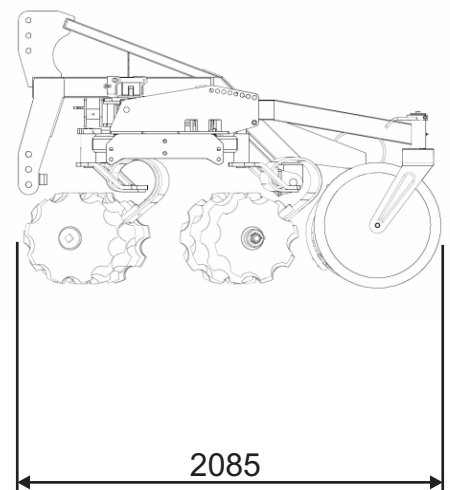
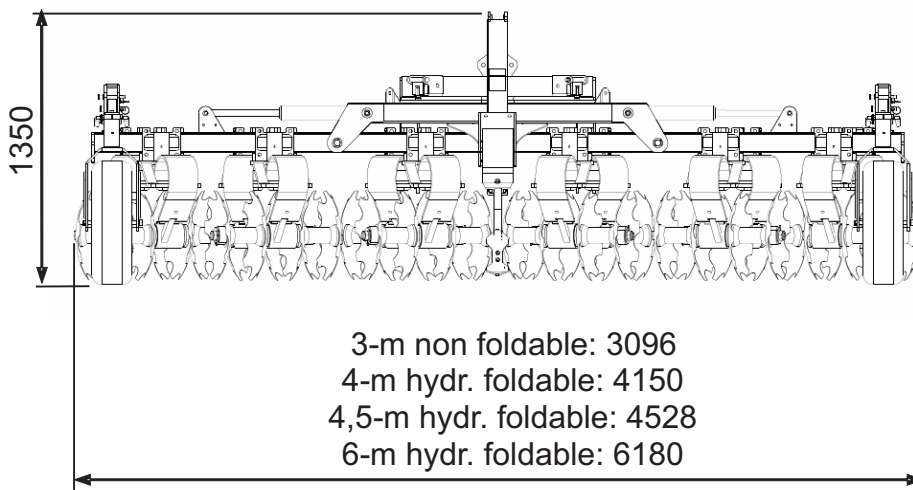
The driving behaviour of the tractor changes. Suit your driving according to the conditions of the street.

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

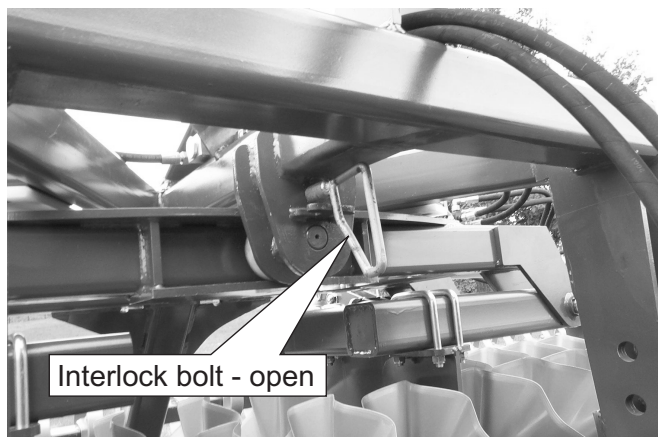
Park the Front Terra Disc on solid ground.

Technical data and dimensions

	3-m	4-m hydr. foldable	4,5 hydr. foldable	6-m hydr. foldable
Working width	3 m	4 m	4,5 m	6 m
Transport width	3,0 m	3,0 m	3,0 m	3,0 m
Weight	1210 kg	1510 kg	1640 kg	2050 kg
Front lift capacity	2500 kg	3100 kg	3500 kg	4100 kg
Working depth	0-10 cm adjustable in 8 steps			
Hydraulic demand	1(one) double acting valve needed			
Diameter of disc	450 mm	450 mm	450 mm	450mm
No. of disc	32	44	48	64
No. of disc sections	8	12	12	16
Number of bearings	8	12	12	16

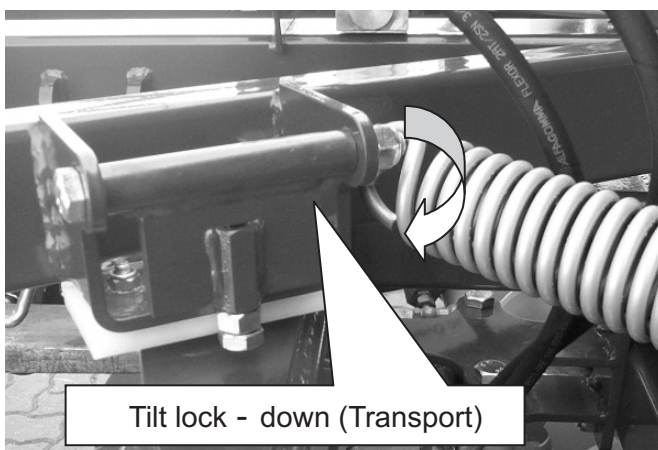


Operation

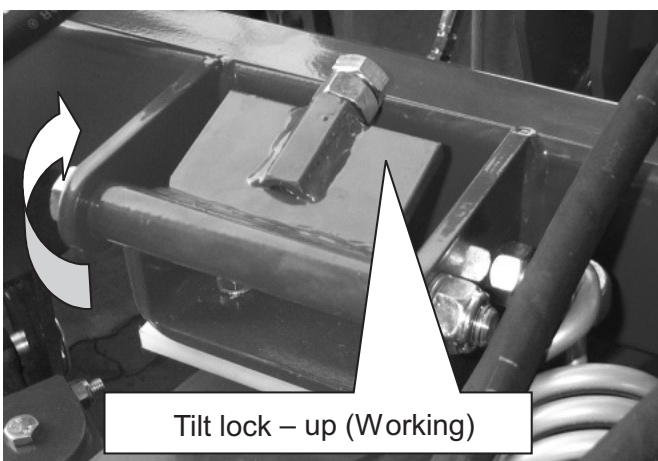


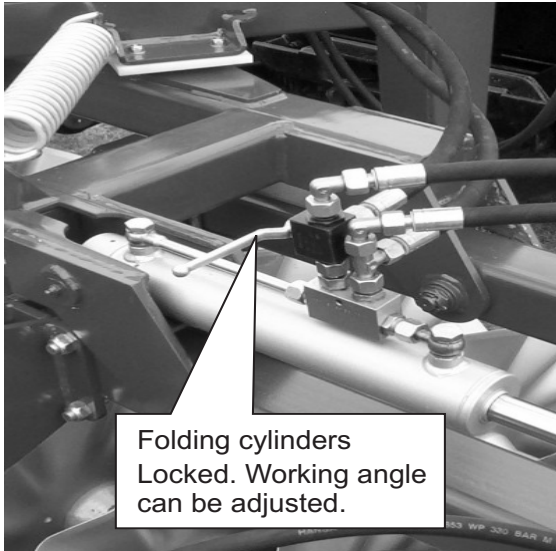
Adjustment and use of the Front Terra Disc

Before beginning the work, open and lock the interlock bolt to vertical position as seen below, at the front linkage to make the Front Terra Disc floating.



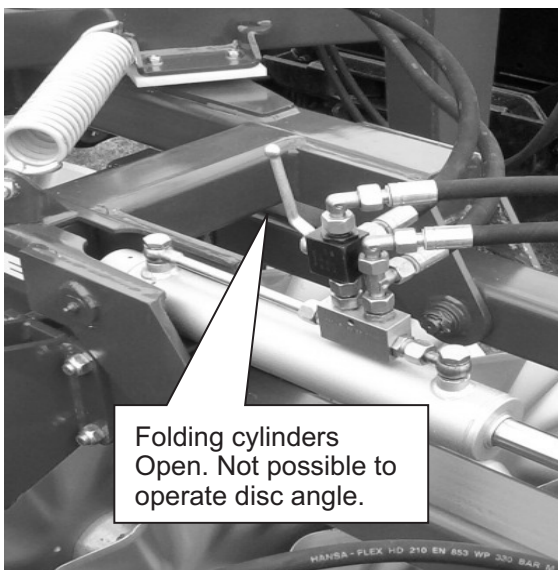
Flip up the tilt locks.



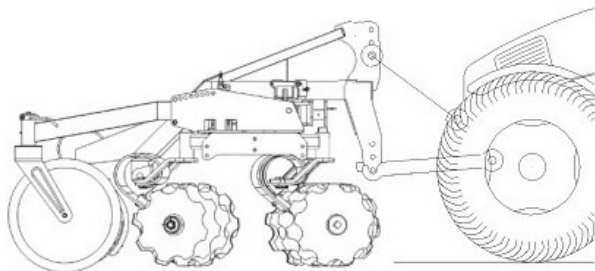


Hydraulic foldable versions have a valve at the folding cylinders for closing the hydraulic system and thereby working as a safety device. After folding the Front Terra Disc for e.g. road transport, the valves should be put in locked position.

The same valves are used for the hydraulic adjustable disc angle. The position locking the folding cylinders, allows the working angle to be adjusted.



Open the valve and unfold the Front Terra Disc (hydraulic foldable versions only) and lower it. Fold and unfold only when lifted off the ground.



Pressure increased

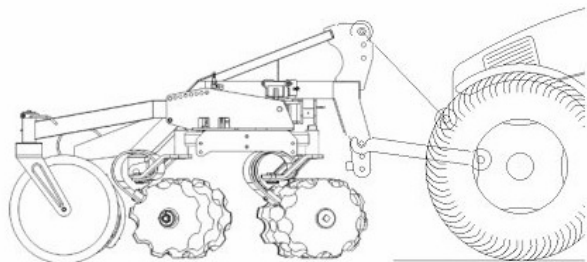
Adjust the Front Terra Disc with the top link in such way that the front disc row runs a little higher than the rear one (approx. 10-20 mm). During the work the front lift should be adjusted in floating position.

It is not allowed to establish a hydraulic weight transfer from the tractor to the Front Terra Disc as the Front Terra Disc will not be able to operate freely and the tractor will lose its steering ability.

If desired, it is possible to have a little more pressure on the Front Terra Disc by adjusting the lower linkages of the tractor into a lower position.

If the lower linkages point downward from the tractor to the Front Terra Disc, pressure from the tractor is transferred to the Front Terra Disc.

If the lower linkages point upward from the tractor to the Front Terra Disc, the pressure on the Front Terra Disc is reduced.



Pressure reduced

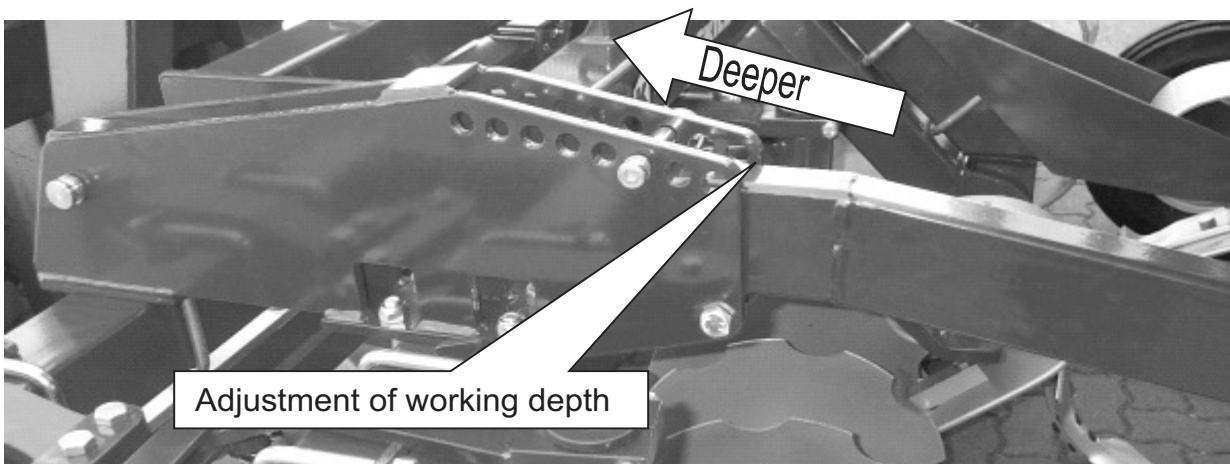
The hydraulics for the front lower linkage has to be in floating position during work, to ensure that the machine is following the

Adjustment of the working depth

The working depth of Front Terra Disc is set by two pendulum wheels in front of the implement. Front Terra Disc is designed for working depths from 0-10 cm.

When adjusting the working depth the machine should be lifted off the ground. The stop pin should be slid into one of the 8 available holes above the wheelarm, and secured by a split pin on the other side.

Remark: The pins always have to be positioned in the same hole in left and right side of the machine.



Adjusting the working angle

The disc sections of the Front Terra Disc can be angled hydraulically to find the most optimal working position.

Speed, type of soil and working depth decides the setting of the angle, which always has to be adjusted to the actual field conditions.

The maximum working angle can be used:

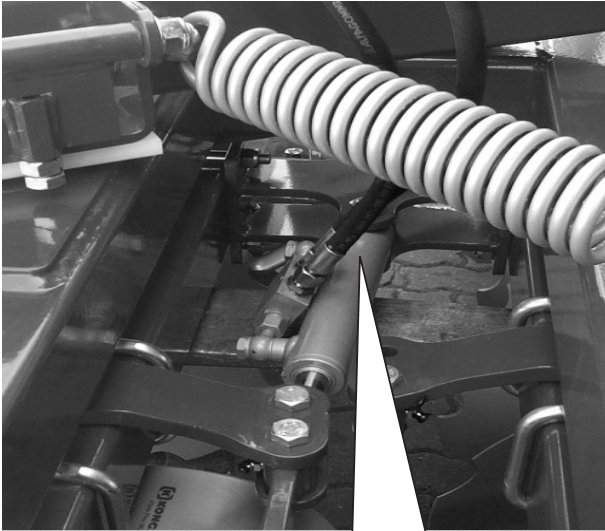
- In hard conditions to penetrate the soil
- When maximum cutting is wanted
- At moderate speeds (up to 8-10 km/h)

The minimum working angle can be used:

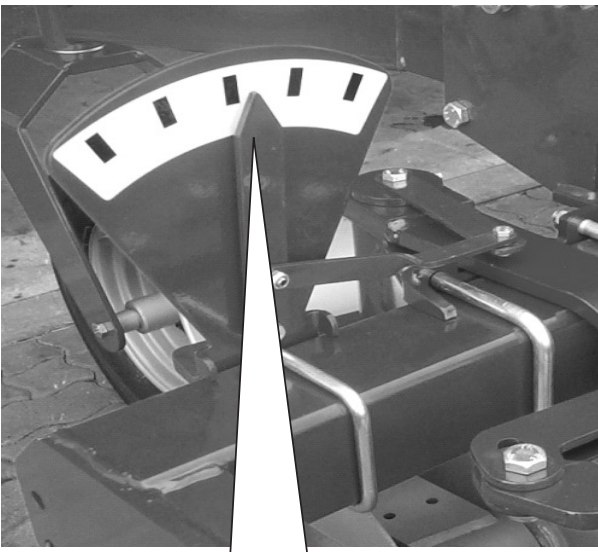
- When a full cut is not desired.
- At maximum working speed (app. 12-13 km/h) combined with maximum working depth.

Adjustment of the main angling

The main working angle can be adjusted hydraulically from the tractor cabin during work. The indicator on the frame shows how much the sections are angled.



The hydraulic cylinder setting the main angle



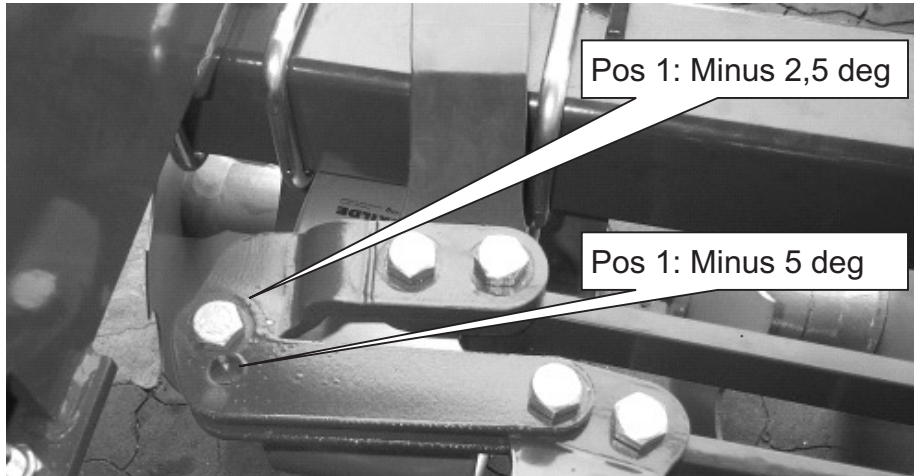
The indicator showing the main angle

Front-rear relation

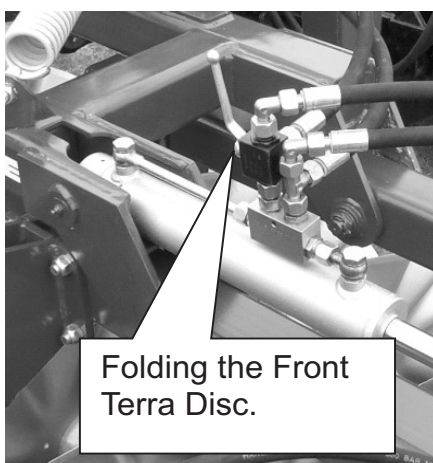
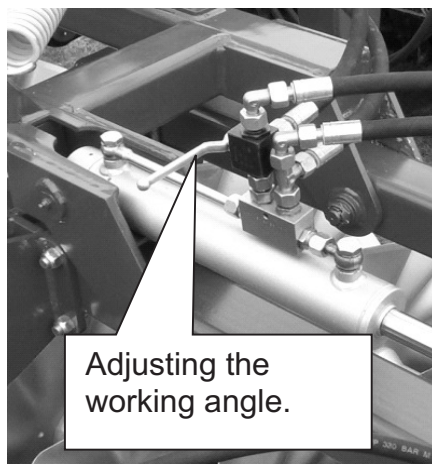
The relation between the front and rear row of discs can also be set, so the most optimal flow in the machine is achieved. There are 2 different fixed settings for the relation between the front and rear row angling, which can be changed manually.

Pos.	Front row of discs	Rear row of discs	Conditions
1	Hydr.variable	Front minus 2,5 degrees	Normal
2	Hydr.variable	Front minus 5,0 degrees	Minimum cut

The relation between the front and rear row is kept also when the main working angle is changed.



The hydraulic adjustment of the working angle does not require additional hydraulic connections on the tractor. The position of the valve placed on the folding cylinders decides the operation.



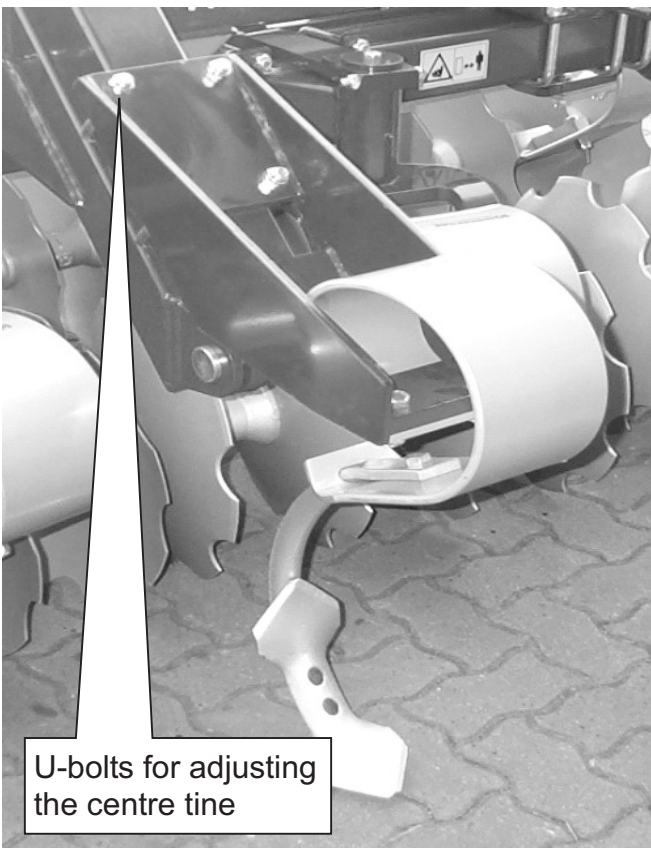
Adjustment of the centre tine

The Front Terra Disc is equipped with a centre tine in the front, to work the zone between the centre discs

The tine is a standard Vibro Flex tine, which should always work in the same depth as the discs.

The centre tine is factory set to the same depth as the disc. When the share of the tine or the discs are getting worn, it can be necessary to adjust the height of the tine.

When adjusting the working depth of the centre tine, the machine should be lifted off the ground.



For adjusting the depth of the centre tine loosen the 2 U-bolts on the tine bracket, and slide the bracket up or down the main frame to the wanted working depth. When the wanted position is found, tighten the U-bolts again.

Remark: Use a standard 11,5 cm Vibro Flex share for the front tine.

Transportation by Road/Traffic Safety

Traffic safety

- When using public traffic routes, observe the regulations applicable in the particular country!

Weight



The attachment of implements must not exceed the overall admissible weight, the admissible axle load the weight-bearing capacity of the tractor tyres and the capacity of the front lift.

To ensure the steering ability, the front axle load should always amount to at least 20 % of the net weight of the tractor.

Before driving:

- Observe admissible axle loads, overall weights and transport measurements!
- Road behaviour, ability to steer and brake are influenced by the attached or coupled implements and ballast weights. Ensure sufficient ability to steer and brake!
- Before starting to drive and use the Front Terra Disc, 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 and for a Front Terra Disc, which is hydraulically foldable, close the valves on the folding cylinders.

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/or the inertia of the Front Terra Disc 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 a chock!
- Foldable frame parts should be completely lowered down. The implement should only be parked with lowered frame parts and the stop valve shut.

Transportation width

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

Transport security

Hydraulic foldable frame parts must be secured for transportation on public roads against any accidental folding out by turning the stop valve the implement to the close position.

Note:

The locking device on the hydraulic cylinders prevents from accidental folding in case of a defect in the hydraulic hoses. However, it does not prevent unintentional folding if the control device is operated by mistake.

Never drive with the frame folded up, while the stop valves are open.

Maintenance

General



The KONGSKILDE Front Terra-C 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.



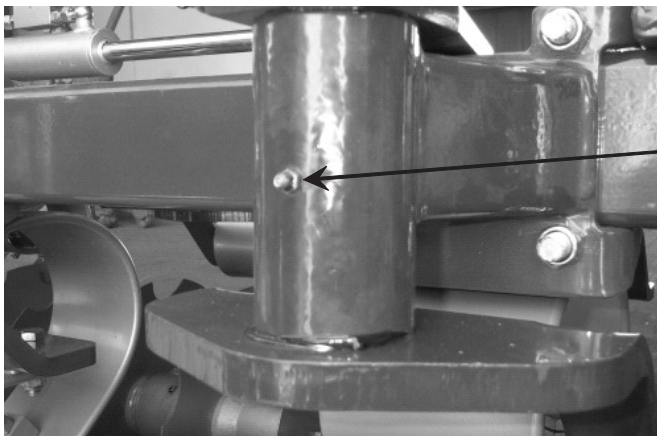
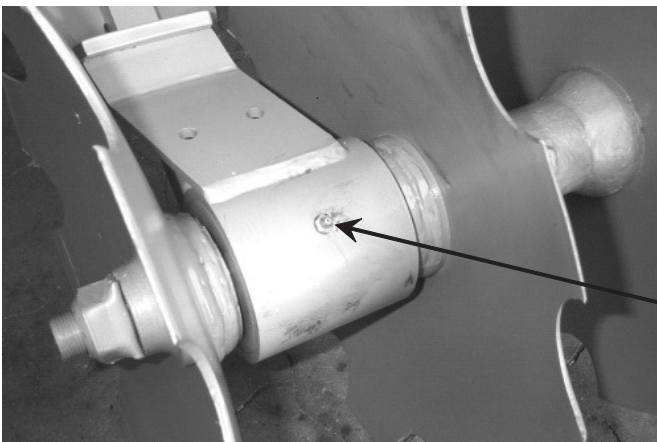
Worn and damaged parts must be changed at the earliest possible moment in order to secure correct and safe function.

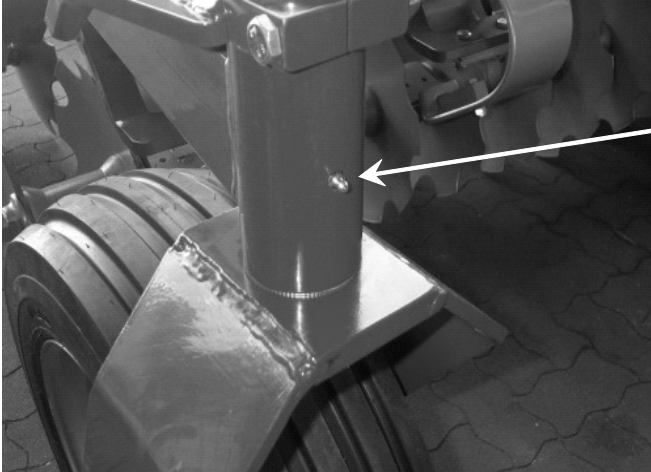


Use only original KONGSKILDE wearing and spare parts.

Lubrication

Disc sections, grease for every 20 hrs

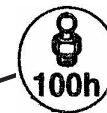
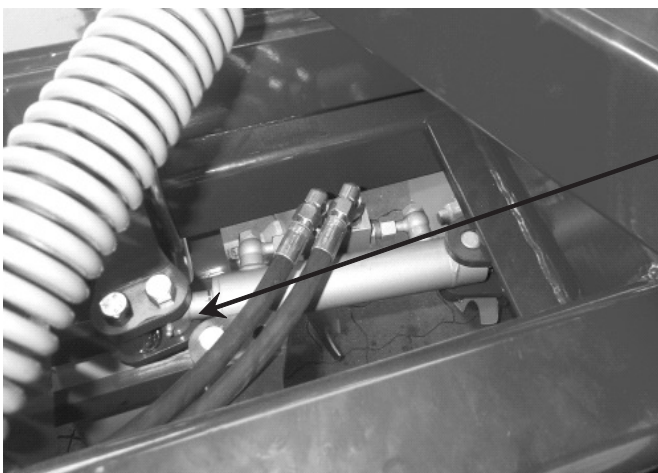




Front wheel turning joints, grease for every 20 hrs.

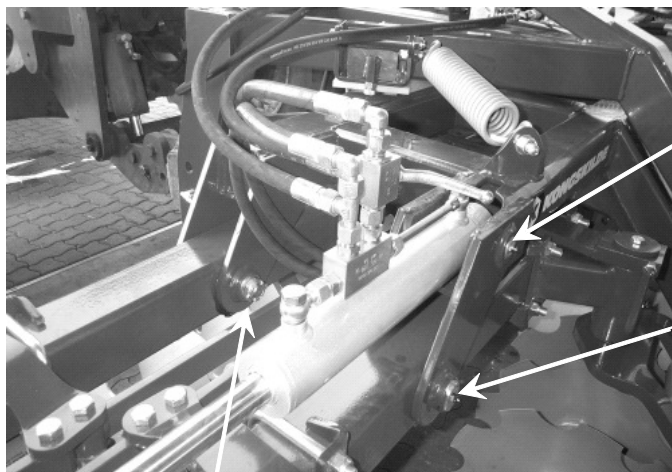


Angle adjustment bars, grease for every 20 hrs.



Cylinder joint for angle adjustment, grease for every 100 hrs.

Folding joints (hydraulic foldable version only),
grease for every 20 hrs.
Cylinder joints (hydraulic foldable only), grease
for every 100 hrs.



Optional equipment

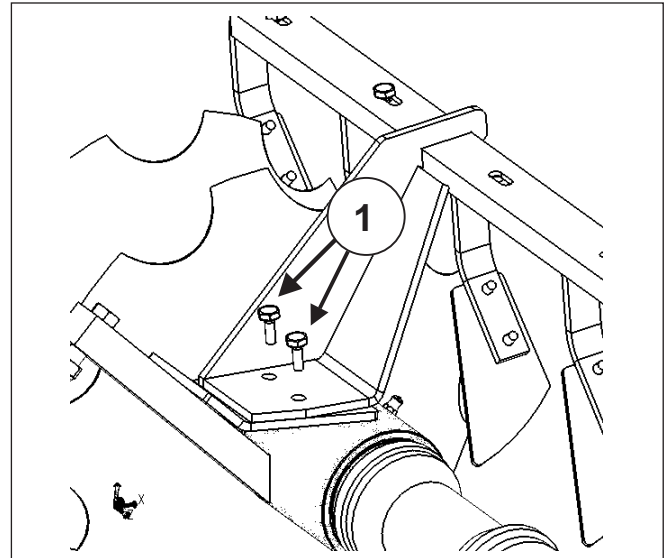
Scraper system

General use

- When using the Front Terra Disc in wet and heavy soil types, a scraper system can be necessary in order to keep the hollow discs clean during work.
- Using a scraper system for Front Terra Disc does not mean, that the implement can work in all possible conditions.
- Using the Front Terra Disc under normal conditions, does not require a scraper system.

Assembly

- The scraper system is individual for each section, and has to be mounted as one set per disc section with 2 bolts and nuts (1)

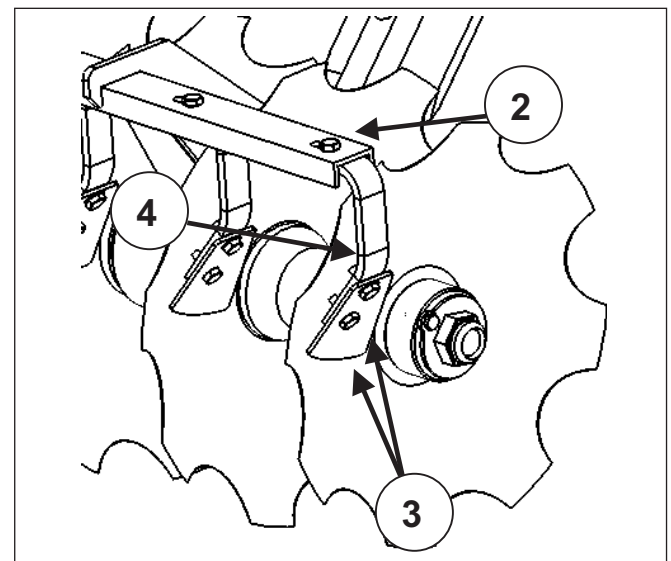


Adjustment of scraper blades

1) Loosen the bolts and nuts (2) and (3)

2) Adjust the scraper blade (4) so the distance from the disc to the scraper blade is app. 2 mm.

3) Retighten the bolts and nuts (2) and (3)



Maintenance

- The scraper blades must be replaced, when they are worn so much, that a distance of 2 mm between scraper blade and disc can not be obtained any longer.

