



Order-Nr.9900.01.06GB02

Operating instructions

Disc-Tiller

Fire Bird

Profi Bird





Operating instructions

Disc-Tiller Fire Bird Profi Bird

Before operating the Disc-Tiller for the first time, please read carefully through these operating instructions and the safety precautions ("For your own safety") and ensure that they are observed.

Ensure that the operators are properly qualified, trained in its use and everyday maintenance, and familiar with the hazards. Make sure that other users are supplied with the safety precautions.

Ensure that all applicable accident prevention regulations are observed, along with other generally recognized safety procedures and any legislation that may apply with respect to road traffic and to health and safety in the workplace.

Observe the warning labels at all times! (DIN 4844-W9)

Instructions in this manual which are marked with this symbol, and its presence on the unit, warn of danger (for explanation see appendix).



The 'Beware' symbol indicates safety instructions which, if not observed, may cause danger to the unit and its operation.



The 'Note' symbol indicates machine-specific instructions which should be followed for trouble-free operation of the unit.



Loss of warranty

This Disc-Tiller is designed and built exclusively for standard agricultural use. Use for any other purpose will be regarded as unauthorized operation and no liability whatsoever will be accepted for any damage or injury that may occur as a result.

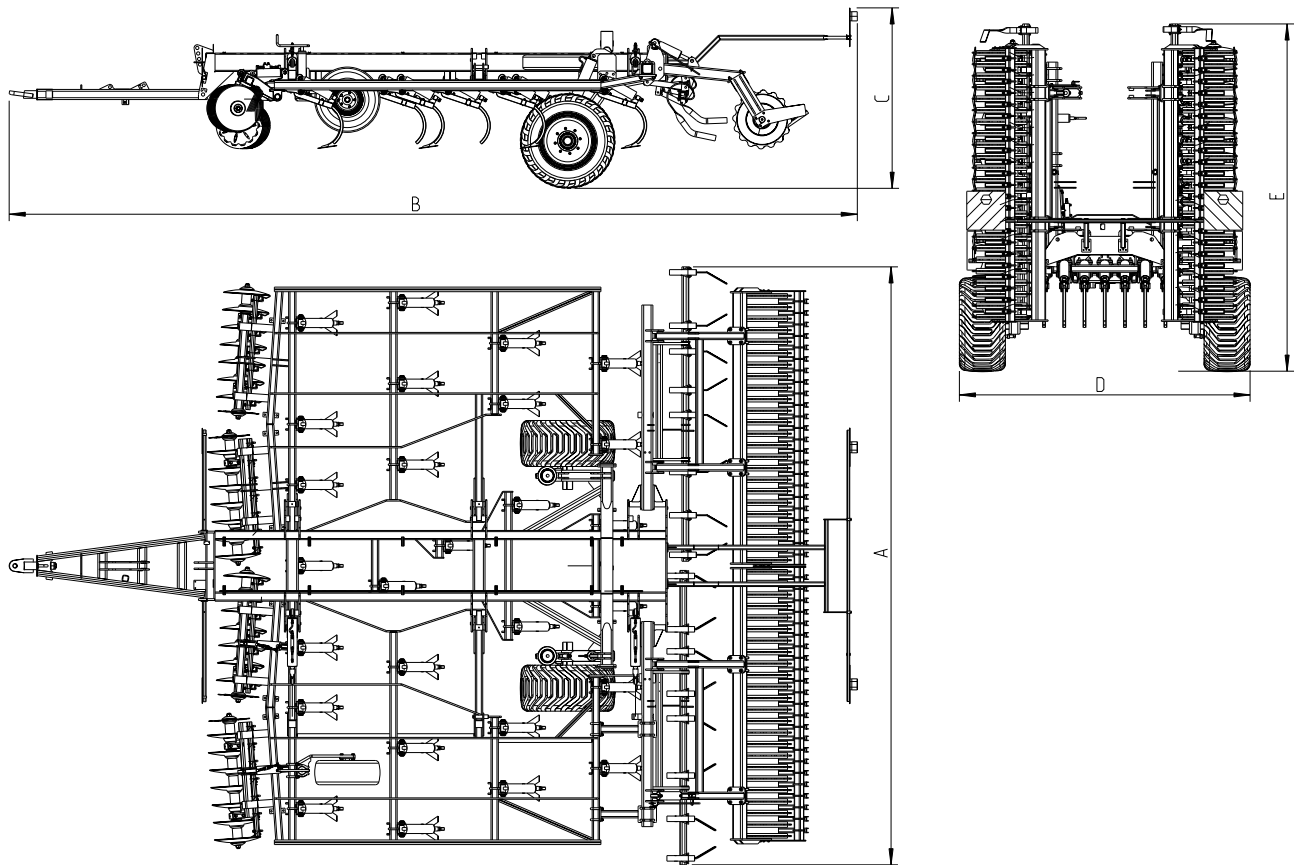
The term "authorized operation" also covers the full observance of all operating, maintenance and servicing specifications and the exclusive use of original spare parts.

The use of non-original accessories, spares and/or consumables that do not carry specific approval from RABE shall void all warranty liabilities.

We accept no liability for damage, loss or injury resulting from the carrying out of unauthorized repairs and/or modifications to the unit nor from failure to supervise its use.

Delivery claims (transit damage, missing parts) should be made immediately and in writing. Warranty claims, warranty conditions and our liability exclusions are based on our general terms of delivery.

Technical specifications



Fire Bird, Profi Bird

Basic model	A: Approximate working width in mm	B: Approximate length of unit in mm	Number of tines	C: Approximate height of Profi frame in mm	C: Approximate height of frame in mm	D: Approximate transport width/height (E) in mm	Approximate overall weight in kg with trailer and MPW	For tractor up to approx. KW/HP	Approximate axle loading in kg	Approximate supported load at front in kg
3000	3000	9200	13	75	65	3000/2000	3500	147/200	3000	500
4000K	4000		19			3000/2900	6000	184/250	5400	560
5000K	5000		23			3000/3300	6600	221/300	6000	600
6000K	6000		27			3000/3800	7200	257/350	6530	670

Noise level is less than 70 dB (A).

Note: With 500/45-22.5 tyres (500x1030) the transport width is greater than 3m, and an exemption permit may be required depending on the national road regulations.

Equipment:

Sprung tines with variable pre-tension and automatic return.

Quick-Fix Knock-On coulter, 26 cm wide or
Quick-Fix Knock-On coulter, 10 cm wide

Drawbar with three-point cross-shaft, category III (or for "K 700") and stands, hydraulic extension and retraction, as well as hydraulic depth control for the disc set and trailing roller (4 double acting control valves required),

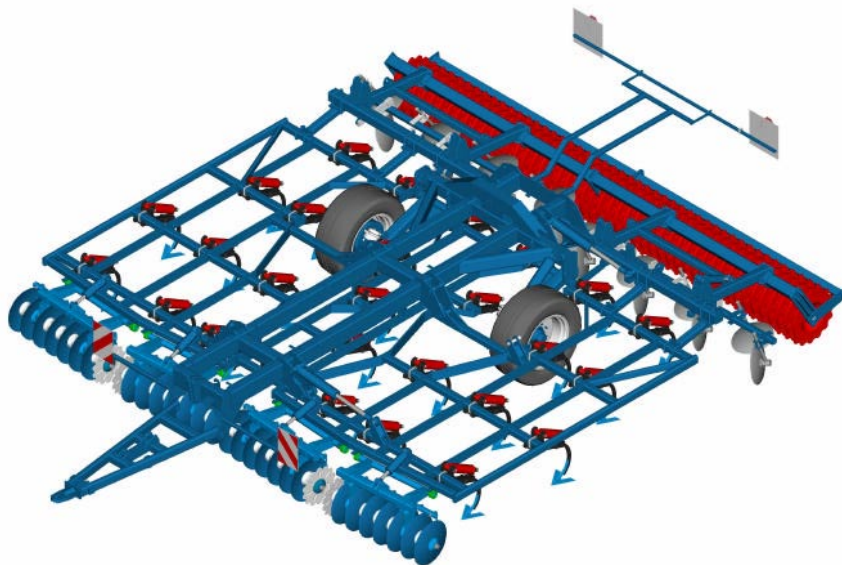
Tyres for 3.00 m:

Tyres for 5.00 and 6.00 m:

Warning symbols (pictograms)

Warning symbols are indicators of potential danger points. Their purpose is to ensure the safety of anyone who has anything to do with the disc tiller. For an explanation of these symbols, see appendix 'Explanation of warning symbols (pictograms)'; for their positioning, see 'Positioning of warning symbols (pictograms)'.

Always replace missing warning symbols.



Safety precautions

Do not allow anyone to stand between the tractor and the unit during coupling or uncoupling. Note that this includes stepping between the tractor and unit to operate the external hydraulic controls - risk of injury! The working position for the user is on the tractor's driver seat; this is where the unit is managed!



Set the tractor's hydraulic control system to "position control" before coupling and uncoupling!

Before operating the tractor and the unit, always ensure that nobody is in the unit's operating and turning area!

- maximum length of the combination (tractor and unit) is 18m
- width 2.55m to a maximum 3m
- maximum height 4m
- maximum overall weight of the combination is 16t, of which 20% is on the front axle



Do not mount or ride on the unit or remain within its turning circle or operating area!

There is danger of crushing and shearing within the areas of the three point linkage, and of the hydraulic extension and retraction gear!



Danger exists from disc and roller parts continuing to rotate if the unit is raised while moving at high speed. Only approach these parts after they have ceased to rotate!

Before using or starting up the equipment, take care that there is no-one in its proximity!

When transporting, lock the tractor's hydraulic control unit against accidental activation!

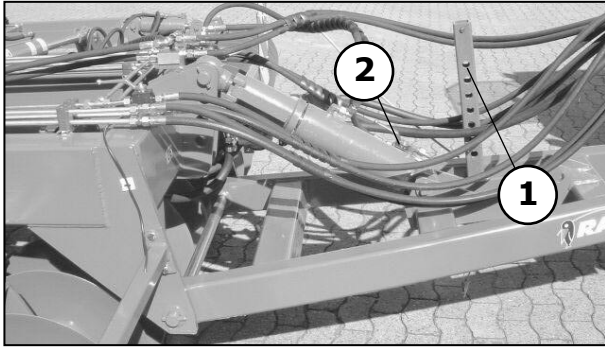


Before leaving the tractor, lower the unit, switch off the motor, and remove the ignition key!

Only carry out adjustment or other work on the unit when it has been lowered front and rear!

Before the first use, and after a long period of disuse, ensure that all bearings are sufficiently lubricated, that all screws are tightened, that the hydraulic equipment has no leaks, and that the tyre pressure is correct!

The working pressure of the hydraulic system must not exceed 200 bar!



1



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3



4



Connection (1)

- Connect the lower link cross shaft (Axle variants: category III).
- Secure the coupling equipment correctly.
- Lock the tractor's lower link arms in a central position.
- Raise the support stands (1/1).
- Connect hydraulic hoses: 8 connections – 4 double acting control valves.

Ensure that hydraulic hoses have been correctly connected (also for additional roller)

- Connect brake hoses
First yellow control hose, then red brake hose

Preparation for transport (2)

- Extend the tiller fully to the rear and retract.
- Use the tractor's lower coupler to achieve a sufficient clearance from the ground (with coupler fixed at the sides).
- Raise the support stands (1/1).
- Ensure that lighting functions correctly.
- Take account of the height during transport! See Transport Instructions

Extend and retract the unit only when fully extended at the rear.

Conversion to the working position (3)

- Ensure that the unit is fully extended at the rear. Extend if necessary.
- Extend the lateral sections.

Parking the unit (4)

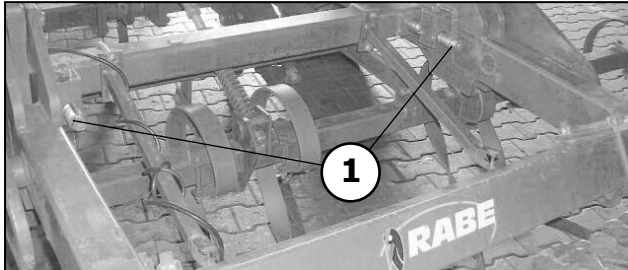
- The tiller can be stabled either extended or retracted (ready for transport); when retracted, park it on stands and wheels.
- Disconnect hydraulic connectors and protect from dust.
- Disconnect brake hoses; first the red brake hose, then the yellow control hose.

It is recommended that for overwintering, the unit is parked in its extended position and is fully lowered.

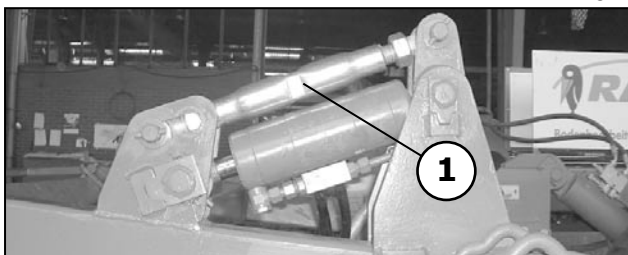
Before disconnecting or parking, secure the unit from accidentally rolling away by placing chocks under the wheels (9/1).



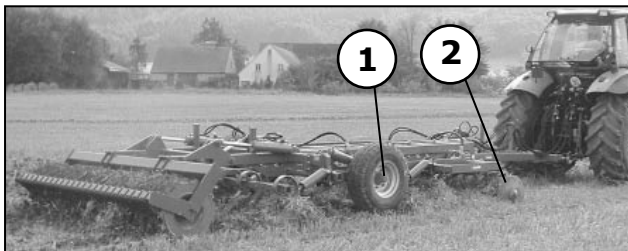
5



6.1



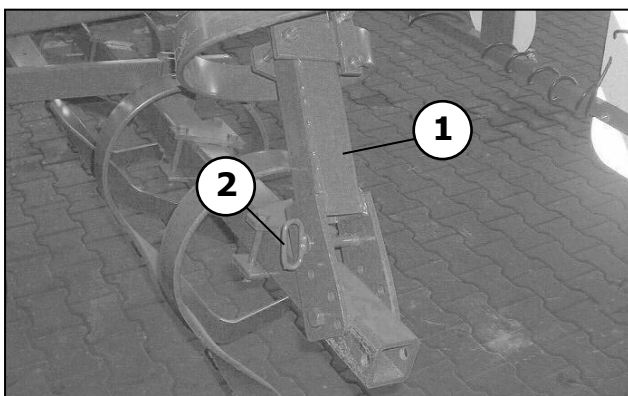
6.2



6



7



7.1

Use (3)

The hitchable tiller can be set to an exact depth with the hydraulic controls (lower link).

The depth can also be adjusted with the disc set (6/2) and the roller depth stop (6.1, 6.2/1).

Maximum working speed 15km/h.

If there are wheel tracks in the field, or straw poorly distributed in irregular strips, a diagonal course will improve the leveling, distribution, and mulching in of the straw.

If the field is to be double tilled, it is advantageous for the passes to be at an angle to each other, and for the first pass to be flatter than the second.

In curves, e.g. before the turn, raise the tiller sufficiently (5), and extend fully at the rear.

Adjustment

Working depth:

Set at the front using the hydraulic controls (position or mixed control), and at the rear with the undercarriage (6/3), or adjust the depth with the disc set (6/2) and the roller depth stop (6.1, 6.2/1). Retract the undercarriage (6/3) fully so that the wheels are in the air.

(Align the tiller frame horizontally in the direction of travel)

Roller depth stop

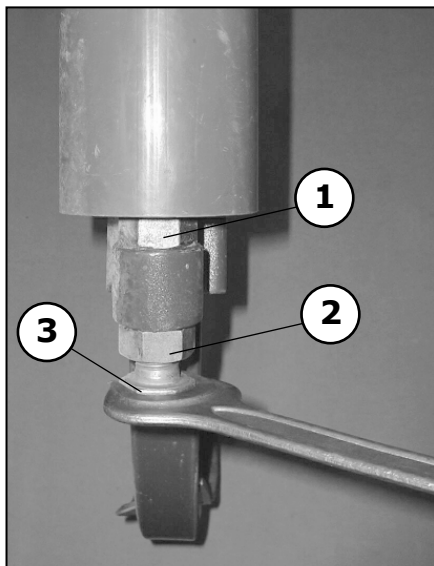
For 3m machines, release the hydraulic pressure, and use the stop adjustment spindle (6.1/1) to set the roller depth. For 5m machines and upwards, release the hydraulic pressure, and use the turnbuckles (6.2/1) to set the roller depth.

Leaf sprung spreader (7)

The spreader is spring-loaded and can be adjusted via a spindle.

Depending on the soil, working depth, speed, and organic bulk, set the sledge so that it levels the soil easily. Ensure that the smoothing plates are correctly positioned - they can be individually moved laterally. Adjust the angle of the sledge (and the ground play of the sledge beam) with the turnbuckle (7/1), and the depth/soil pressure with the perforated plate (7/2).

When transporting, ensure that the extensions (7.1/1) on both sides are retracted and secured with pins to the sprung spreaders or the hollow disc spreaders.



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Sprung protection against stones (8)

The preloaded tension of the springs can be adjusted variably.

Loosen the nut (8/2).

When turning the bolt (8/3), hold nut (8/1) fast.

After adjustment, counterfix with nut (8/2).

Turn bolt (8/3) to the right to increase the preloaded tension.

Turn bolt (8/3) to the left to decrease the preloaded tension.

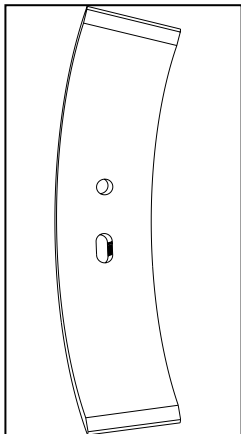
Coulters

Curved coulters (9) = cutting width approximately 7 cm

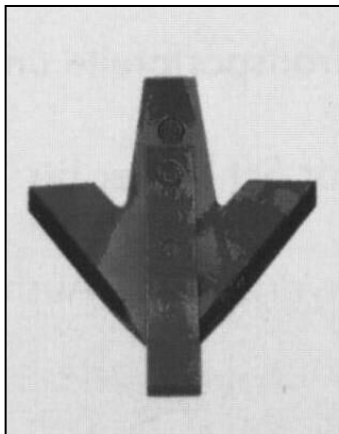
Working depth up to 18 cm

Goosefoot coulters (10) = cutting width approximately 26 cm

Working depth up to 15 cm



9



10

Quick-Fix rapid change system (11)

Narrow coulters 11 cm

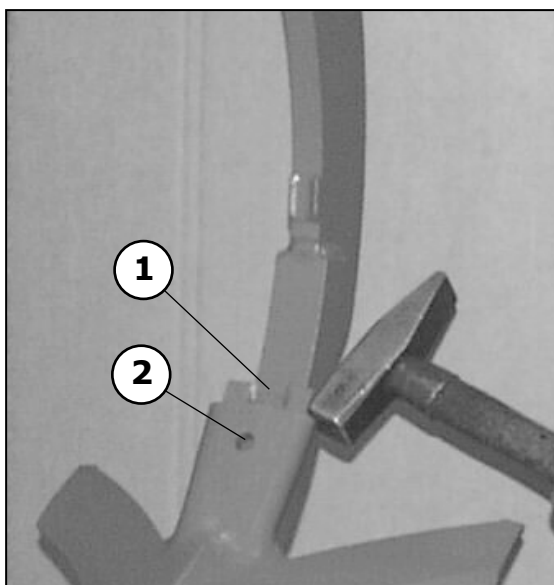
Goosefoot coulters = cutting width approximately 26 cm

Reversible guide plate

Carry out the change by tapping gently with a hammer.

The tip of the securing spring (11/1) must engage tightly into the hole (11/2) in the coulters!

Danger of injury: When changing, wear protective gloves (sharp edges), and hold the coulters tightly!



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Residual risks

Area of danger	Instructions
Folding side parts	Operating instructions
Hydraulic reservoir	Operating instructions: Maintenance

Maintenance



Switch off the engine and remove the ignition key when working on the mounted implement!

Never work on a raised implement! If it needs to be raised, secure first against accidental lowering!



Prior to working on the hydraulic system, fold out and lower the implement, and depressurize the unit!

Dispose of oil in a due and proper manner! (mineral-based hydraulic oil).



Changing wheels requires having sufficient training; always use the correcting fitting tools.

Lubricate articulate parts and keep spindles in good running order.



Check the hydraulic hose lines at regular intervals and replace if damaged or brittle (Spare Parts List). Hose lines age naturally; they should not be used for longer than 5-6 years.



When cleaning with a water jet (especially under high pressure) do not aim directly „at the bearings“.

Coat all tools on parked implements with an anticorrosive agent and the cylinder rod with acid-free grease.

Repair damage to paint work.

Tyre pressure:

Fire Bird, Profi Bird 3000 3.0 bar

Fire Bird, Profi Bird collapsible 3.5 bar

Transport precautions



Put the unit into the transport position. Check that it is suitable to be transported. Travelling on the unit and staying within its area of danger are forbidden.

Towed units weighing more than 3 t require a traffic permit. If the axle load is greater than 3 t, they must have a braking system.

Depending on the traffic permit, maximum speed is either 25 km/h or 40 km/h.

Adapt transport speed to the conditions of the highway.



Take care on slopes and in curves. Take the centre of gravity into account.

Observe the requirements of the road traffic regulations. These make the user responsible for the tractor and trailer being connected together in a way that is safe to traffic when travelling on public highways.

Working equipment must not impede the safe movement of the combination. The connected unit must not cause the permitted tractor axle load, overall weight, and the load bearing capacity of the tyres (depending on speed and air pressure) to be exceeded. To ensure steering safety, the front axle loading must be at least 20% of the unladen vehicle weight.

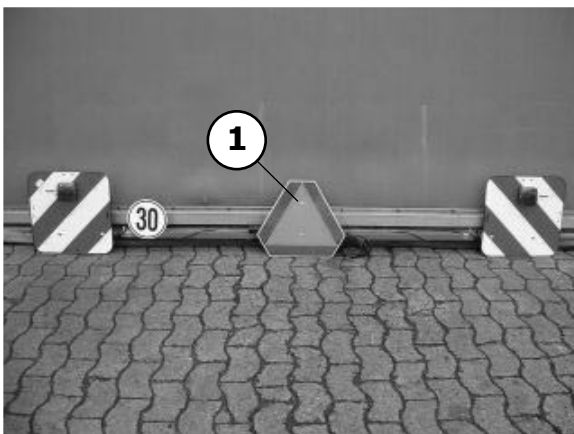
The maximum permitted width for transport is 3m. The overall length of the combination may be 18m maximum.

If the maximum permitted dimensions are exceeded, a special permit must be obtained. To avoid danger to traffic, no part must project from the outline of the vehicle more than is absolutely necessary. If it cannot be avoided that parts project, they should be covered and made conspicuous. Safety measures must also be taken to make the outermost contours of the unit conspicuous, and to ensure safety at the rear. For example, fit red/white striped warning shields (423 x 423mm, stripes 100mm width at an angle of 45° running outwards and downwards).

Towed or saddle units should be fitted with red rear reflectors, and yellow reflectors at the side when being moved, as well as having their lights illuminated, even during the day (as well as clearance lights when the unit projects more than 400mm beyond the tractor lights).

The safety coverings required for transport in traffic on public highways are available from RABE.

The safety information (TÜV) required for a traffic permit can also be obtained from RABE. When transporting on public roads in Poland, fit the warning triangle **(20/1)** centred on the unit.



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Positioning of warning symbols on the unit

For explanation see subsequent warning symbols

