

OPERATING INSTRUCTIONS

(Inglese) (cod. 2022 06/16)

1. GENERAL INFORMATION AND CODING DATA

1.1. Manufacturer

- **FALC S.r.l.**
- via Proventa n.41 FAENZA (RAVENNA) ITALY
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- fax ++39 0546 663986
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- www.falc.eu

1.2. **C.E.**

1.3. Series:

- FOX HARROW
- SMART HARROW
- KRATOS HARROW
- MAGNUM HARROW

1.4. INSTRUCTIONS ATTACHED TO THE MODELS :

1.5. SERIAL NUMBER :

N.B.:

- THIS INSTRUCTION MANUAL MUST BE SUPPLIED WITH EACH UNIT OF THE ABOVE MENTIONED SERIES.
- THE MACHINE OPERATOR IS OBLIGED TO READ IT IN ALL ITS PARTS IN ORDER TO UNDERSTAND THE MACHINE'S CORRECT OPERATION.
- **SAFETY NOTES AND NOTES OF PARTICULAR IMPORTANCE ARE HIGHLIGHTED IN BOLD.**

2. CONDITIONS OF USE

The harrows of the Magnum, Kratos, Smart and Fox series are used to achieve a perfect preparation of the sowing bed. Various types of rollers, Packer, Gabbia, Spuntoni, Flexicoil, can be linked with the harrows, depending on specific requirements and soil conditions.

ATTENTION: if the harrow is used without the rear roller it is compulsory to mount a supplementary guard which is supplied on request

It is absolutely prohibited to use the harrow without the rear roller or the supplementary guard.

- It is possible to apply to the Fox and Smart series harrows a mechanical sowing hitch as well as an hydraulic one: the hydraulic controls for the latter can be operated from the gearcase located on the tractor.
- It is possible to apply to the Magnum and Kratos series harrows an hydraulic sowing hitch with hydraulic controls which can be operated directly from the gearcase located on the tractor.
- All FALC harrows are predisposed to mount ploughing peg teeth and subsoilers.

Every other use of the harrow and the application of accessories not manufactured by FALC is to be considered illegal and not allowed by the manufacturer.

To prevent toppling risks, the tractor to be linked to the harrow must be chosen taking into account the weight of the apparatus (kg) and of the distance of the centre line of the pins from the 3rd point from the centre of gravity of the harrow itself (Xg) (see point 4.2.2.). The tractors must moreover be chosen with a power to suit the harrow's size. The tractor's power values recommended by FALC are the following:

Model	Hp	Kw
• Fox	50-120	37-88
• Smart	50-120	37-88
• Kratos	90-200	66-147
• Magnum	90-240	66-177

IT IS ABSOLUTELY FORBIDDEN TO ALLOW PERSONS, ANIMALS OR THINGS TO CLIMB OR BE TRANSPORTED ON THE HARROWS OF THE MAGNUM, KRATOS, SMART AND FOX SERIES.

2.1. USE OF THE FOLDING MAGNUM/ KRATOS/ SMART 4000 - 5000 – 6000

The folding harrow has been designed to satisfy the requirements of subcontractors, of the large farming companies and for all those who generally have problems in transferring a large farming machine from one work place to another. In fact, in transport conditions, the total overall dimension is below 2,5 m. The opening and closing of the machine is achieved by the activation of 2 hydraulic cylinders connected to the tractor's gearcase. The 2 cylinders are complete of blockage valve to give absolute safety during the opening and closing operations.

The safety valves on the lifting cylinders and the sequence valves which adjust the safety hooks must NOT absolutely be set by the user. The tempering of these valves can injure the security of the machine.

During the opening and closing operations of the power harrow, the operator is obliged to ensure that no animals, persons or things are located within a range of 5 m around the machine.

The operator must not carry out any opening or closing operation of the harrow if the previous condition has not been adhered to.

In order to "close" the harrow, the operations are as follows:

- 1) Stop the tractor on plane ground, disengage the power take-off, activate the handbrake, Ease the harrow on the ground by operating on the control of the 3rd point and turn the engine of the tractor itself off.
- 2) Climb off the tractor, disconnect the Cardan shaft from the tractor's power take-off and place it in the appropriate support.
Attention: the company FALC is not responsible of any eventual damage on the power harrow or on the tractor if the following operation is effectuated without disconnecting the cardan shaft from the tractor pto.
- 3) Climb on the tractor again, start the motor, lift the machine by about 200 mm from the ground and operate the hydraulic gearcase to activate the 2 cylinders which allow the closure of the harrow.
- 4) After the cylinders will have entirely carried out their stroke, the machine will be in a configuration similar to that shown on **fig.2**.
- 5) Put the safety manual bar.

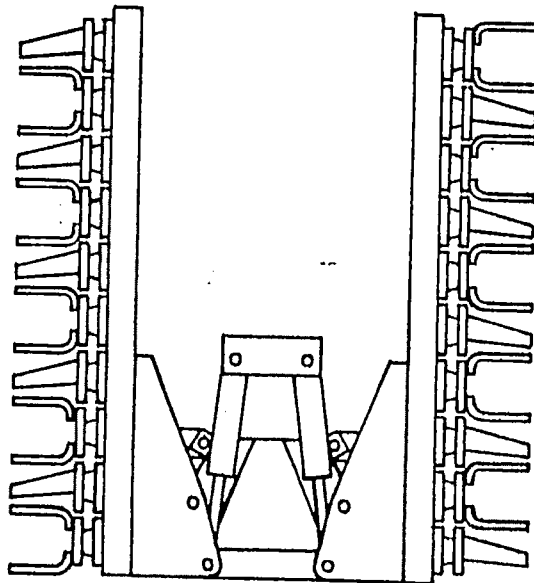


FIG. 2

In order to open the harrow operate as follows:

- 1) Stop the tractor on level ground, activate the handbrake and check that there are no persons, animals or things in a radius of 5 m around the harrow.
- 2) It is absolutely prohibited to "open" the harrow from outside the tractor's driver's cabin.
- 3) Take the safety manual bar away.
- 4) Operate the hydraulic control lever to lower the 2 mobile parts until, at the end of the cylinders' stroke, the machine will take up the working condition, namely, perfectly horizontal.

- 5) Ease the harrow on the ground by operating the tractor's 3rd point.
- 6) Climb off the tractor and connect the Cardan shaft according to the specific instructions (see point 4.1.1 of this manual).

2.2. MAGNUM, KRATOS, SMART, FOX: USE OF THE SOWER HITCH (HUCKEPAK):

- The Smart and Fox series harrows are predisposed to utilise both a mechanical and hydraulic sower hitch.
- The Magnum and Kratos series harrows are predisposed to utilise an hydraulic sower hitch.

The various types of sower hitches manufactured by FALC can only be utilised if linked to machines manufactured by FALC.

Even if sold separately as accessories, they absolutely cannot be linked to other types of machines.

Improper use of a sower hitch produced by FALC, will be considered illegal and not allowed by the manufacturer.

The sower hitch, mechanical as well as hydraulic can be supplied already mounted on the machine or as an accessory to be applied by the end user. It is anyhow recommended to always consult a service centre, or directly FALC's commercial or technical departments if one intends mounting a sower hitch on an existing harrow.

ATTENTION : the user himself is responsible to check if the tractor is strong enough to carry also the sowing machine without toppling risks or breakings.

The data of item 4.2.2 don't take into account any eventual application of sowing machine.

2.2.1. Mounting the sower hitch

The sower hitch, mechanical as well as hydraulic, is fixed to the harrow's 3rd point in 3 positions (**fig.3 pos.A**) by means of dowels and relative split pins. To mount the sower hitch, follow these operations:

- a) Stop the tractor and the harrow on plane ground, activate the handbrake, switch the tractor off and Ease the harrow on the ground taking care that it maintains a plane configuration with respect to the ground.
- b) Disengage the tractor's power take-off.
- c) Climb off the tractor, disconnect the Cardan shaft from the tractor's power take-off and place it in the relative support.
- d) Lift the sower hitch with suitable lifting apparatus and place it in correspondence of the hitches located on the harrow's 3rd point.

ATTENTION: if suitable apparatus is not available in order to carry out this operation, it is recommended to always consult a FALC service centre or a specialised workshop.

- e) Position the dowels and block them with the split pins.

In transport conditions, namely, with the hydraulic sower hitch positioned as in **fig.4**, it is compulsory to fix the safety dowel (**fig. 4 pos.A**) in correspondence of the holes provided on the upper part of the harrow's 3rd point.

The sowing machine must be placed in location of the 2 hooks (**fig.4 pos.B and fig.3 pos.B**) and of the adjustable tierod (**fig.4 pos.C and fig.3 pos.C**).

If the sowing machine is to be connected to the harrow's gearbox by means of the Cardan shaft, the plastic output shaft cover on the rear side of the gearbox itself must be removed and replaced with an appropriate cover which is supplied on request.

THE COVER OF THE HARROW'S GEARBOX'S THROUGH SHAFT CAN ONLY BE REMOVED IF A CARDAN SHAFT CONNECTION WITH A SOWING MACHINE IS TO BE CARRIED OUT.

As soon as the junction between the harrow's gearbox and the sowing machine is disconnected, it is obligatory to reposition the cover of the through shaft.

As already highlighted, the installation of the sower hitch, the sowing machine and the connection between harrow and sowing machine by means of a Cardan shaft can only be carried out if the tractor and the harrow are NOT connected by Cardan joint.

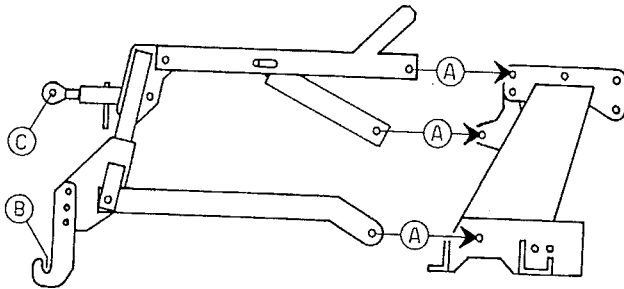


FIG. 3

2.2.2. Connection of the hydraulic sower hitch

The hydraulic cylinder of the sower hitch is complete of hydraulic piping with quick fasteners for connection to the gearcase located on the tractor. The movement of the sower hitch and eventually of the sowing machine is obtained by activating the levers of the hydraulic gearcase.

- In working condition, the resultant configuration is similar to that shown on **fig.3**.
- In transport condition the resultant configuration is similar to that shown on **fig.4**.

In the latter situation it is compulsory to engage the safety dowel (see point 2.2.1.e).

During the movement phases of the sower hitch and of the sowing machine, the operator must ensure that there are no persons, animals or things within a radius of 5 m around the machine.

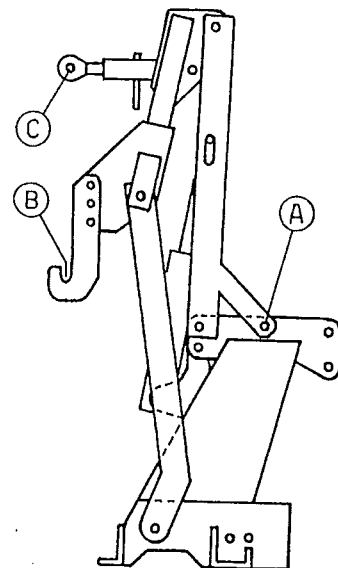


FIG. 4

2.3. USE WITH PLOUGHING PEG TEETH.

One or more ploughing peg teeth can be applied to the front pipe of the harrow's framework by means of threaded clips (**fig.5**). Normally, the ploughing peg teeth are positioned in couples close to the tractor wheels.

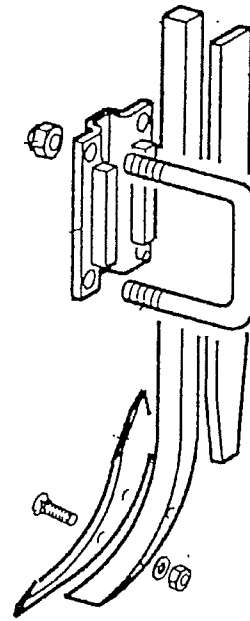


FIG. 5

2.4. USE WITH SUBSOILER

In order to reduce production costs, it is possible to apply a subsoiler in front of the harrows to "break" the ground in depth (**fig.6**). The subsoiler is provided with suitable hitches for application to the harrow and to the tractor's rear arms. It is necessary to dispose of suitable lifting means to apply the subsoiler to the harrow.

If suitable lifting apparatus is not available to apply the subsoiler to the harrow's 3rd point, it is compulsory to consult a FALC service centre or a specialised workshop.

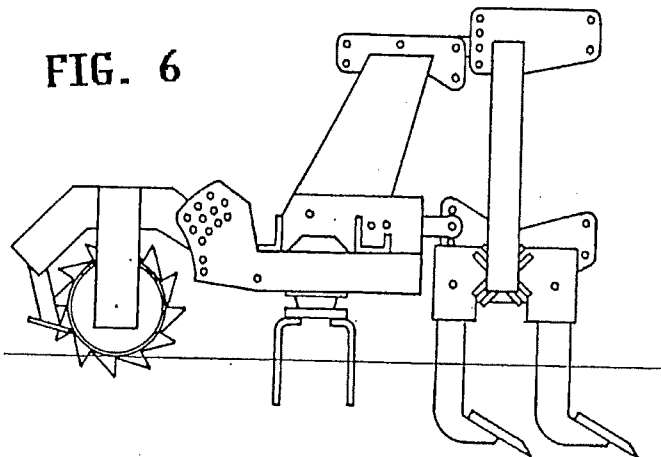


FIG. 6

The weights of the subsoilers are the following:

Subsoiler 2000	300 kg
Subsoiler 2500	350 kg
Subsoiler 3000	490 kg
Subsoiler 4000	670 kg
Subsoiler 4500	720 kg

2.5 USE OF CARDAN JOINT WITH CLUTCH (OR DIFFERENTE SAFETY SISTEM) FOR STONY SOILS

In case of soils with rocks, stones or whatever can cause a crash to the blades, it is necessary the use of cardan joint with clutch or other safety systems. Moreover we advise you to keep the engine with a slow running, so that you will deaden at most the blows.

Eventual inconvenients due to a work in particulary stony soils or with emerging rocks won't be recognized on warranty.

You have also to check the calibration of the cardan joint's clutch, in order to be sure that it works correctly. We advise you to let a Specialized Assisting Center make this control. Standard cardan joints' clutches supplied by company FALC, are calibrated for maximum available load. We advise you to let an expert check the cardan joint's clutch every 300 working hours or, in case of seasonal work, when you restart working after the resting period.

3. CONDITIONS FOR THE OPERATOR

During the use of the harrow, the operator must remain on the tractor in the driver's position.

The operator cannot leave the driver's position on the tractor if he hasn't disengaged the power take-off from the tractor itself.

In normal conditions, the operator must ensure that when starting up the harrow and during its operation, there are no persons within a radius of 5 m around the machine.

The operator must immediately stop the tractor as well as the harrow if one or more persons enter within a 5 m radius around the machine.

The operator can operate the hydraulic elevator of the tractor only after disconnecting the power take-off.

Before lifting the harrow from the ground using the tractor's hydraulic elevator, the operator has to be sure that the power take-off is disconnected.

3.1. ADVANCEMENT WORKING SPEED

The tractor's advancement speed is independent from the harrow; it is up to the operator to judge and determine the best machine output depending on some factors, namely the tractor's power, type of soil to be worked, adjustment of the working height, etc..

3.2. CHANGE OF SPEED OF THE GEARBOX

3.2.1. Fox-Smart-Kratos-Magnum series

The Fox, Smart, Kratos and Magnum series mounts a gearbox predisposed for manual replacement of the gears. It is therefore possible to vary the transmission speed according to the operator's requirements.

The manual replacement of the gears in the gearbox can only be carried out if the harrow is not connected by means of the Cardan joint to the tractor's power take-off.

In order to replace the gears, the operations are as follows:

- a) Stop the tractor with the connected harrow on plane ground, activate the handbrake and disengage the power take-off.
- b) Climb off the tractor, disconnect the Cardan joint from the tractor's power take-off.
- c) **Wait until the gearbox has cooled off before touching it. Cooling time depends on the use which has been made of the harrow before stopping the same and on the weather conditions.**
- d) After having made certain that the gearbox is cool, unscrew the discharge plug and collect the oil which will flow out of it, in a suitable container.
ATTENTION: do not discard this oil in the natural environment.
- e) Unscrew the bolts, remove the plug.
- f) Replace the gears with the spare ones strictly adhering to the diagram shown on the label located on each harrow.
In case of any doubt about the position of gears to reassemble, do not hesitate to contact the dealer or Falc commercial department directly, in order to ask for explanations.
- g) Reassemble the cover, place the screws and position the discharge plug.
- h) Fill with the previously discharged oil through the oil cap and check its level.

It is convenient to look at the spare parts catalogue, attached to each Power Harrow, where you can see the gearbox assembled on each model.

4. INSTRUCTIONS TO CARRY OUT THE FOLLOWING OPERATIONS WITHOUT ANY RISK

4.1. SETTING UP THE HARROW

4.1.1. Connection of the FALC harrow to the tractor:

All FALC harrows can be mounted onto any type of tractor provided it is supplied with a 3-point universal hitch.

During the connecting phase, the tractor must be positioned on level ground, with the engine off and the handbrake on.

It is forbidden to all persons to stay on the tractor until the connection phase is fully carried out.

The following, are necessary precautions for a correct connection of the FALC harrows to the tractor:

- a) Provide for the connection of the 3rd point of the harrow with the tractor arms by means of the relative dowels. Block these with the split pins supplied.
- b) Connect the protected Cardan shaft, the tractor's power take-off and that of the harrow's transmission box, taking care not to exceed a 30° offset. (this condition must be respected in every use situation of the harrow). Furthermore, ensure that the Cardan shaft has locked onto the 2 power take-offs.
- c) **(fig.7)** When mounting the Cardan shaft check that the two parts of the same are linked for at least 1/3 of the length of the Cardan shaft itself in the most offset position.



- d) **ATTENTION** : For the standard series machines the maximum revolutions of the P.T.O. can be:
 - 540 r.p.m. for the Fox series.
 - 1000 r.p.m. for the Magnum, Kratos, Smart series.

4.1.2. Disconnection of the harrow from the tractor:

During the disconnection phase, the tractor must be positioned on level ground with the engine off and the handbrake on.

It is forbidden to all persons to stay on the tractor until the disconnection operation has been fully carried out.

The following, are necessary precautions for a correct disconnection of the FALC harrows from the tractor:

- a) Stop the tractor on level ground, activate the handbrake, turn the engine off and disconnect the power take-off.
- b) Ease the harrow on the ground activating the tractor's hydraulic lift.
- c) Disconnect the harrow from the 3-point hitch of the tractor first by sliding out the split pins that block the dowels and then by removing the pins themselves.
- d) Disconnect the Cardan joint from the tractor's power take-off and place it in the appropriate harrow support.
- e) Climb onto the tractor again and move it forward to completely free the tractor's arms from the 3rd point of the harrow.

4.2. TRANSPORT

4.2.1. During operation, all FALC harrows rest on the roller at the rear and are kept lifted by the tractor's hydraulic hitches' arms in the front

4.2.2. For transport in non-operational conditions, the harrows are completely carried by the tractor. Listed hereafter are the weights of the various models in their most common configuration. The measure (Xg) represents the distance between the machine's center of gravity and the axle of the 3rd lower point's pins (**see drawing 6**).

The weights of the Fox model with packer roller and rear bar are the following:

	Weight (kg)	Xg (mm)
Fox Vigneron 1000	410	490
Fox Vigneron 1300	450	490
Fox Vigneron 1500	510	490
Fox Vigneron 1800	570	490
Fox special 2000	660	490
Fox Special 2300	710	490
Fox Special 2500	760	490
Fox Special 3000	860	490
Fox 2500	945	490
Fox 3000	1060	490

The weights of the Smart model with packer roller and rear bar are the following:

	Weight (kg)	Xg (mm)
Smart 2500	1110	560
Smart 3000	1310	560
Smart 3500	1530	560
Smart 4000	1960	560
Smart 4000/P	2790	610
Smart 5000/P	3210	610
Smart 6000/P	3690	610

The weights of the Kratos model with packer roller and back bar are the following:

	Weight (kg)	Xg (mm)
Kratos 3000	1715	560
Kratos 3500	1935	560
Kratos 4000	2155	560
Kratos 4000/P	2790	610
Kratos 5000/P	3210	610
Kratos 6000/P	3690	610

The weights of the Magnum model with packer roller are the following:

	Weight (kg)	Xg (mm)
Magnum 3000	1730	560
Magnum 3500	2020	560
Magnum 4000	2310	560
Magnum 4500	2600	560
Magnum 5000	2890	560
Magnum 5000/P	3650	610
Magnum 6000/P	4080	610
Super Magnum 5000/P	3770	610
Super Magnum 6000/P	4200	610
Super Magnum 7000/P	4920	610

4.2.3. An easy-to-use and easy-to-install trailer and drawbar are available to transport the Magnum 3500, 4000, 4500, 5000, Kratos 3500-4000, Smart 3500-4000 series harrows. In working conditions the machine takes up a configuration similar to that shown on **fig.8**. The two wheels of the transport trailer and the corresponding axle, can be dismantled while working, if they are considered obstacle. In transport condition the machine takes up a configuration similar to that shown on **fig.9**.

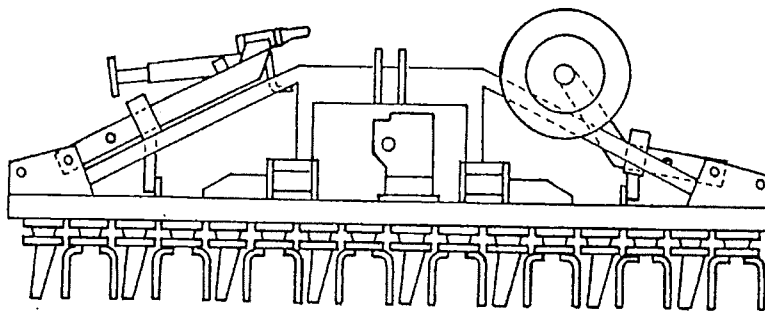


FIG. 8

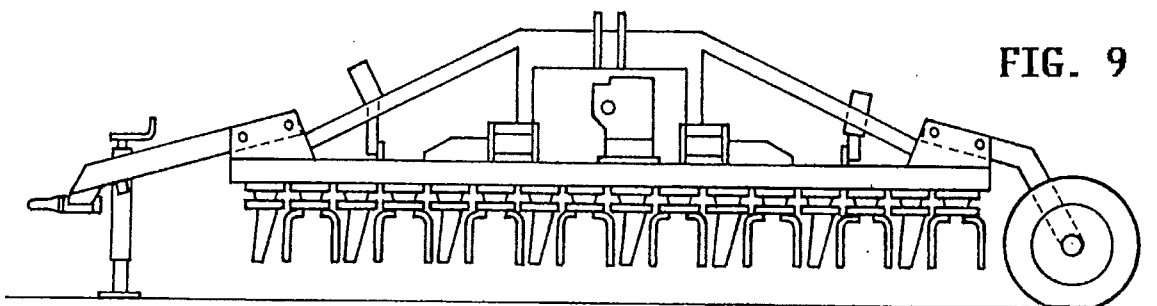


FIG. 9

4.3. FOX-SMART 2500 - 3000; MAGNUM 3000 s: FOLDING OF THE SIDE PANELS

The Fox-Smart 2500, Fox-Smart 3000 and Magnum 3000 s harrows are designed so that in transport conditions, the total overall dimension is respectively below 2,5 and 3 m. To achieve this it is necessary to fold the side panels of the machine. The operations to be carried out are as follows:

- a) Stop the tractor with the connected harrow on plane ground, activate the handbrake and disengage the power take-off.
- b) Climb off the tractor, disconnect the Cardan joint from the tractor's power take-off and place it in the appropriate support.
- c) Unscrew the bolts so as to free the springs.
- d) The side panels are hence free to rotate around the hinges and can be folded over the machine's body.
- e) In these conditions, if the path to be followed is uneven, it is recommended to tie the 2 side panels to prevent possible damage due to shaking and bumping.

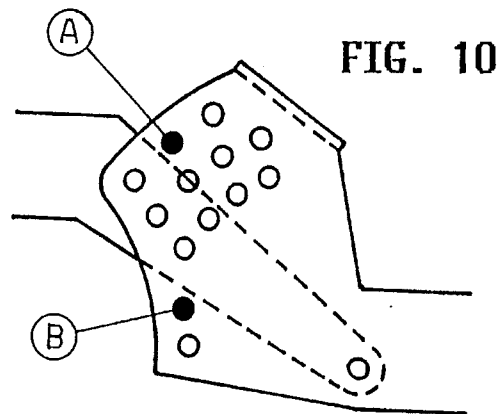
To reset the harrow in working conditions, simply rotate the panels up to the initial position and reassemble the bolts and springs.

4.4. ADJUSTMENT

Adjustments can only be made when the machine is stopped and the Cardan joint is not connected to the tractor's power take-off.

4.4.1. Adjustment of the working depth

The working depth is adjusted by positioning the 2 dowels in the holes of the machine's side panels, in such a way as to block the movement of the rear roller's arms (**fig.10 pos.A**). The arms can be completely blocked by using the second dowel furnished (**fig.10 pos.B**).



4.4.2. Adjustment of the rear bar

The rear bar is blocked to the desired height by means of 2 dowels with the relative split pins. The upward or downward movement takes place manually, or on request, by activating the 2 handwheels.

4.5. MAINTENANCE AND REPAIRS

Before approaching the machine to carry out any maintenance or repairs, it is compulsory to take some precautions:

- a) Stop the tractor on level ground, activate the handbrake, turn the engine off and disengage the power take-off.
- b) Ease the harrow on the ground by activating the tractor's hydraulic lift.
- c) Disconnect the harrow from the 3-point hitch of the tractor.

After having carried out these operations the operator can approach the harrow in order to carry out maintenance and repairs

IT IS ABSOLUTELY PROHIBITED TO CARRY OUT MAINTENANCE AND REPAIR OPERATIONS IF THE HARROW IS CONNECTED TO THE TRACTOR.

In case of specific maintenance or repair where it is necessary to lift the machine from the ground or rotate it, it is indispensable to use suitable equipment built for such purposes.

It is always recommended to consult the area sales assistance or mechanical workshops ideally equipped.

The machines' weights are reported in point 4.3.2. of this instruction manual.

4.5.1. Maintenance

Even though all the harrows are delivered well greased and lubricated, hereafter is a list of rules which must strictly be adhered to, so as to obtain the best results.

a) After the first hour of operation

- Check that all bolts and screws are correctly tightened.
- Check the ring nut that blocks the cutters which is under the box.

b) Daily

- Check the oil level in the transmission box.
- Check through the cap that the grease covers the gears within the harrow's body (on delivery, the harrow is lubricated with grease type Mobilux EP0 - grade NLGI 0)
- Check the wear rate of the cutters and the correct tightening of the relative bolts
- Lubricate the Cardan joint (see the specific Instruction manual relative to the Cardan joint)
- **ATTENTION: the Cardan joint is in general supplied by FALC and is suitable for the effective power required for the tractor-harrow link-up. In case of replacement always use a Cardan joint with characteristics not inferior to those of the original Cardan shaft.**

c) Every 300 working hours

- Change the oil in the transmission box.
- On delivery the transmission box is lubricated with MobilGear 600 XP 220 oil (=MobilGear 630-SAE 90), (=DIN 51517 part 3 CLP – ISO VG 220).
- Provide for the Cardan shaft to be checked by a specialist.

d) Prior to a period of inactivity, it is recommended to accurately clean the machine from remains accumulated during operation. During the period of inactivity, it is recommended to protect it from atmospheric agents.

4.5.2. Repairs

Replacement of the cutters: to replace the cutters it is indispensable to lift the harrow and hence have the availability of adequate lifting equipment (see point 4.5.). In case of accidental breakage, proceed to immediate replacement of the part, taking care to remount the new cutter in the identical position of the old one. To replace multiple cutters, it is recommended to always dismantle and reinstall one at a time to avoid positioning errors. For each rotor, the blades of the cutters must be one opposite the other; the blade must face the rotation direction.

Tightening moment of the cutters' bolts (material 12.9) = **390 Nm (\cong 39 kgm)**

For all repair work where it is necessary to operate on the transmission or on the gearbox, it is recommended to always consult a FALC service centre or a specialised workshop.

5. WARRANTY

- 5.1. Warranty period is fixed at 1 year from delivery. The company commits itself to replace parts which might present material or construction defects, in the least time possible. Labour time necessary for the replacement is excluded from the warranty. Transport and/or dispatch expenses are also excluded from the warranty.
- 5.2. The buyer loses the warranty right if the faults are derived from force majeure, from an incorrect use of the machine or from any wrong action on behalf of the buyer, his employees or third parties. Repairs, replacements and modifications carried out or made to carry out by the buyer without the manufacturing company's authorisation are included among these actions. An incorrect use of the machine is when the operating instructions listed in this manual are not carried out.
- 5.3. Parts which due to their nature or function are subject to inevitable wear and tear or strain, are excluded from the warranty.
- 5.4. Bearings and oil seals are excluded from the warranty.
- 5.5. The Cardan shaft is excluded from the warranty
- 5.6. The following rules are applicable to the parts for which warranty is intended:
 - a) the part to be replaced must be returned to the company on request of the new part.
 - b) the spare parts will always be invoiced on dispatch.
 - c) **only the examination of the part on behalf of the manufacturing company's technicians could give the right to recognition of the warranty and hence a right to the credit.**

6. RULES TO OBSERVE IN ORDERING SPARE PARTS CORRECTLY

To obtain a speedy dispatch of spare parts orders, it is necessary to specify:

- a) Machine type, Model, Serial Number.
(e.g. MAGNUM HARROW 3000 S.N. XXXXX)
- b) Spare parts table number where the part in question is located, Identification Number, Part code.
(e.g. Table no. YY, Detail no. JJ, Code KKKKKK)
- c) Exact name of the detail.
- d) Quantity of pieces requested.
- e) Dispatch instructions.
(by rail, parcel post, courier, etc.)
- f) **The minimum delivery time of the requested parts is 3 days from receipt of order**

IF ANY PART OF THIS INSTRUCTION MANUAL SHOULD RESULT INSUFFICIENTLY CLEAR, WE ASK YOU TO KINDLY CONTACT YOUR CLOSEST AUTHORISED DEALER OR CONTACT US DIRECTLY AT OUR TECHNICAL AND COMMERCIAL DEPARTMENTS.

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7. Safety pictograms

This handbook or any part of it cannot be reproduced, copied or published without prior written authorization of FALC.

FALC reserves the right to modify the here described specifications at any time without committing itself to update this handbook every time.

7) SAFETY PICTOGRAMS

All the safety pictograms applied to Falc's machines, are based on norms ISO 11/684. The adhesive labels adopted are 168 x 88 mm and are divided in two equal parts. The left part contains within the triangular danger symbol the graphic description of the symbol itself.

e.g. Attention - Danger of flying objects.

The right part shows how to avoid the risk.

e.g. Maintain a safety distance.

Together, these 2 graphics synthesise the full message which is intended to be transmitted to all those which for various reasons are in direct contact or nearby a Falc-produced machine.

(see enclosure C of the norm)

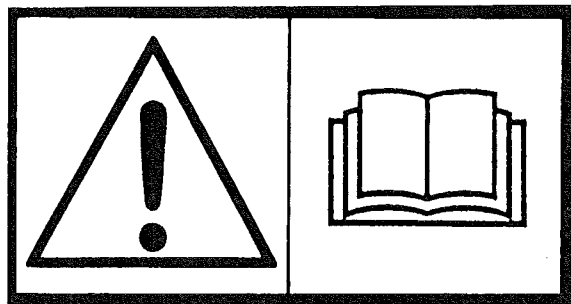
The graphical message is hence directed to the machine operators as well as all those that enter within the working radius of the machine.

The operator is obliged to carefully read the machine's instruction manual in order to understand its correct operation and to have a comprehensive explanation of the safety pictograms

The complete list of all the pictograms which are applied to Falc-produced machines is reported hereafter with the relative explanation on the side.

Label no.1

ATTENTION: Read the instruction manual before using the machine.

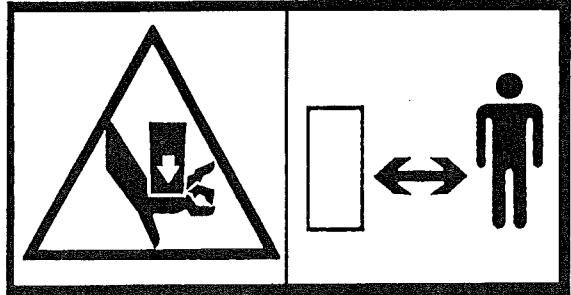


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Label no.2

ATTENTION: Danger of hand and fingers collision with movements in alternate rotation.

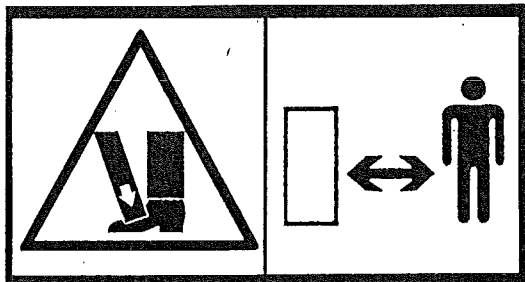
Keep the safety distance.



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Label no.3

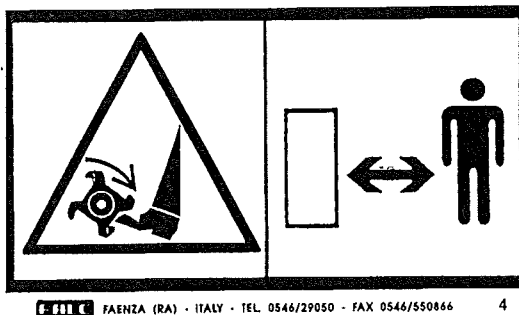
ATTENTION: Danger of foot collision with movements in alternate rotation. Keep the safety distance.



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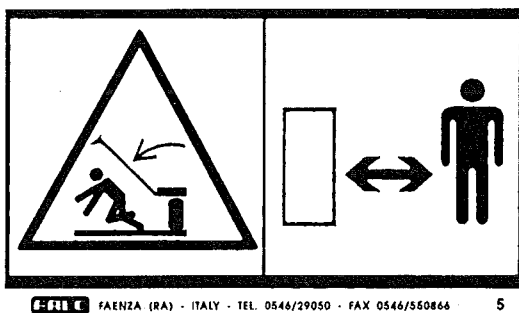
Label no.4

ATTENTION: Danger for feet due to rotating cutters with horizontal rotating axis. Keep the safety distance.



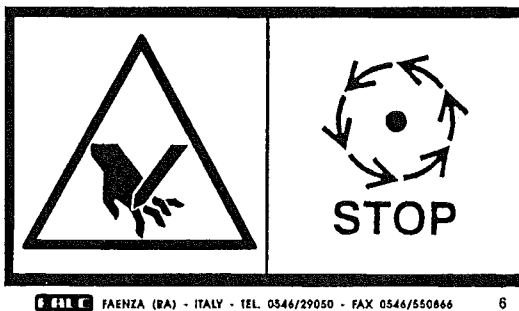
Label no.5

ATTENTION: Danger due to machine component that can be lifted from the ground. Keep the safety distance.



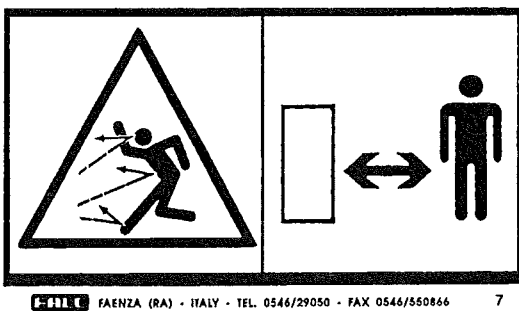
Label no.6

ATTENTION: Danger of cutting due to moving parts. Wait until all moving components are completely still before approaching the machine.



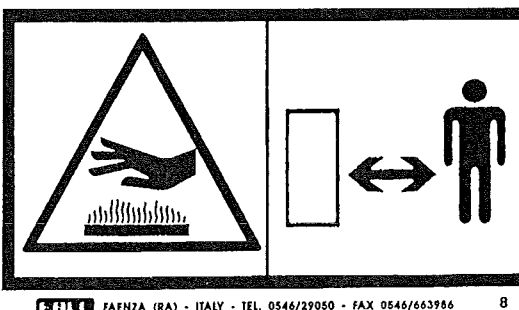
Label no.7

ATTENTION: Danger due to flying objects. Keep the safety distance.



Label no.8

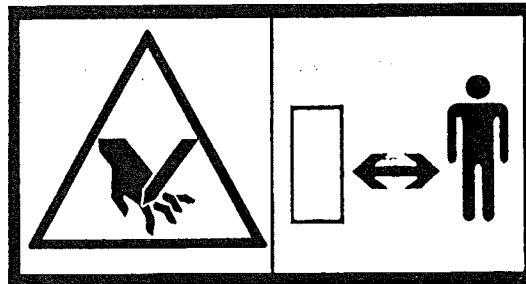
ATTENTION: Danger due to hot surfaces. Keep the safety distance.



Label no.9

ATTENTION: Danger of hand and finger cutting.

Keep the safety distance.

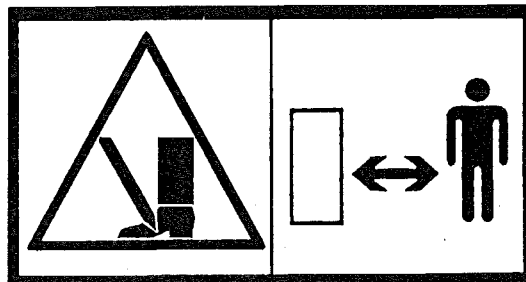


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Label no.10

ATTENTION: Danger of feet cutting.

Maintain the safety distance.

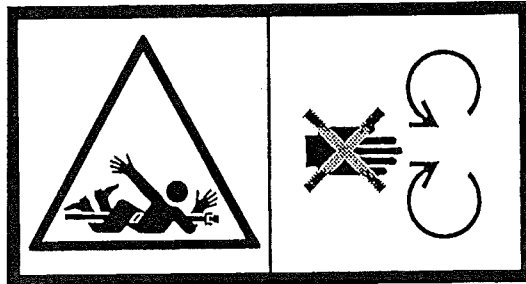


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Label no.11

ATTENTION: Danger of rotating movements.

Do not open or remove the safety guards of the rotating shafts while the machine is in operation.

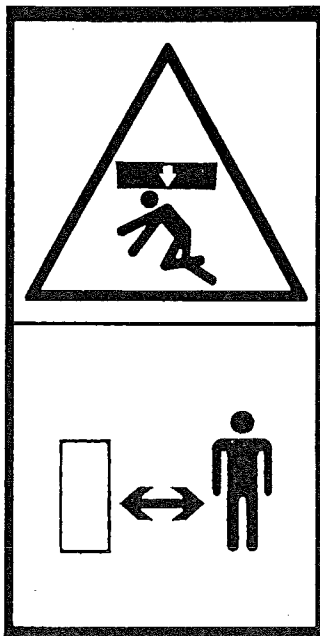


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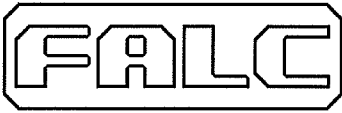
Label no.12

ATTENTION: Danger due to loads lifted from the ground.

Keep the safety distance.

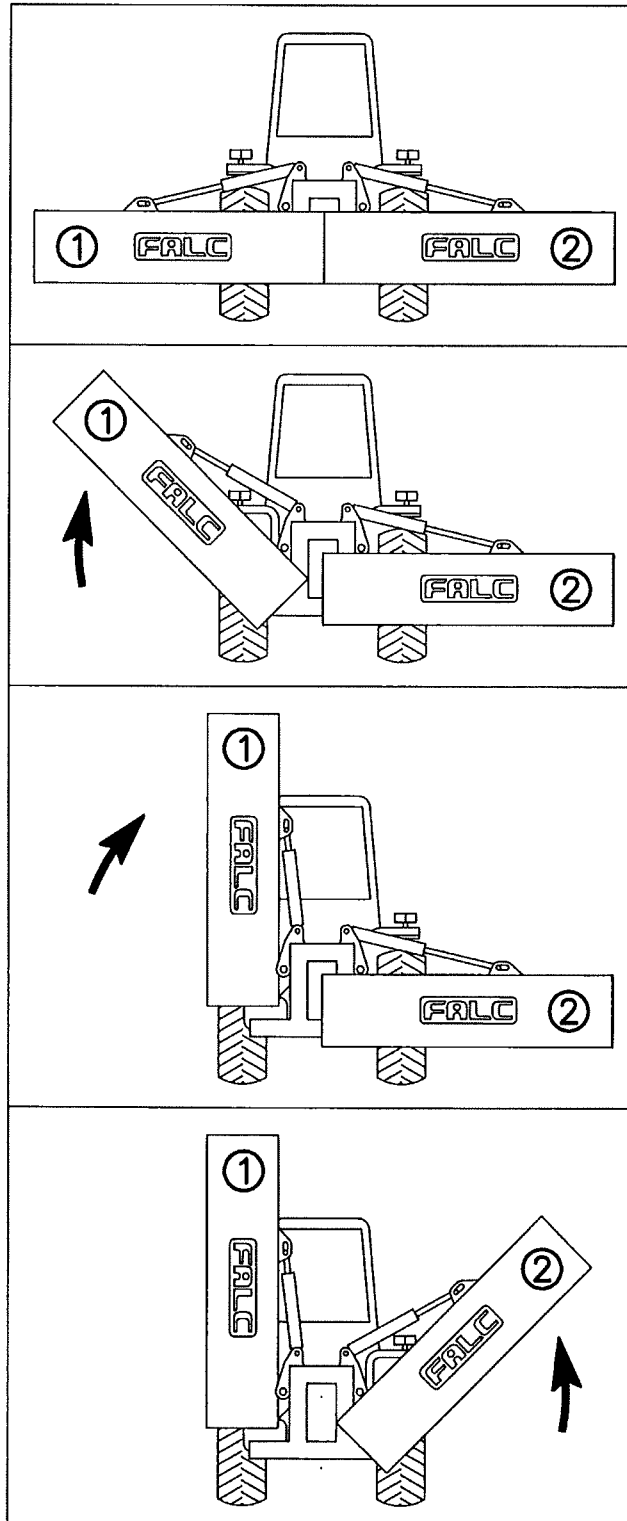


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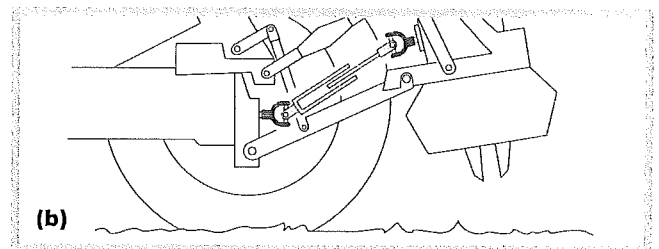
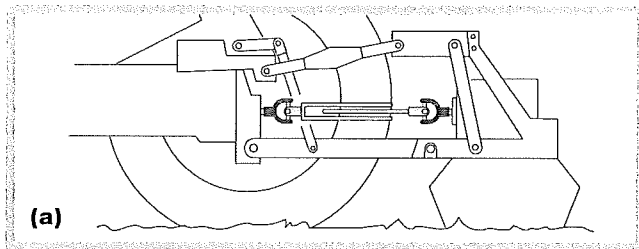
FOLDING POWER HARROW

The valves on the lift rams are calibrated such that the harrow wings lift independently; first (1), and then (2). Make sure the flow in the valves is adjusted to ensure that the lift sequence is as shown in the diagram.



Italiano: Istruzione per il montaggio del cardano

<p>Prima di montare il cardano, leggere attentamente il Libretto fornito dal costruttore del cardano stesso. La Ditta Falc Srl declina ogni responsabilità per operazioni effettuate sul cardano senza seguire le Istruzioni specifiche fornite dal costruttore del cardano stesso.</p>	<p>Prima di iniziare a lavorare, si raccomanda di verificare la lunghezza del cardano: se è LUNGO, alzando o abbassando la macchina, le 2 parti telescopiche si accoppieranno completamente creando pressione sulle crociere e sulle forcelle; se è CORTO, alzando o abbassando la macchina, le 2 parti telescopiche si sfileranno troppo.</p>	<p>Le macchine agricole portate sono collegate direttamente al trattore e posizionate mediante attacco a tre punti. Generalmente con attrezzo in lavoro (a) si ha la configurazione di minore lunghezza dell'albero ed angoli di snodo sensibilmente uguali. Ad attrezzo sollevato (b) si ha la massima estensione dell'albero, l'aumento e la diversificazione degli angoli di snodo. Durante il sollevamento è INDISPENSABILE interrompere la rotazione del cardano.</p>
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Français: Instructions pour le montage de l'arbre à cardan

<p>Avant de monter le cardan, lire attentivement le Livret fourni par le fabricant du cardan lui-même. L'entreprise Falc Srl décline toute responsabilité pour toute opération effectuée sur le cardan sans avoir suivi les instructions spécifiques fournies par le fabricant de ce cardan.</p>	<p>Avant de commencer à travailler, nous recommandons de vérifier la longueur du cardan : s'il est LONG, en relevant ou en baissant la machine, les deux parties télescopiques vont s'accoupler complètement en exerçant une pression sur les tourillons et les fourchettes ; s'il est COURT, en relevant ou en baissant la machine, les 2 parties télescopiques risquent de se désefiler trop.</p>	<p>Les machines agricoles portées sont connectées directement au tracteur et mises en place par l'attelage à trois points.. Avec l'outil en fonction (a) la configuration du cardan est de longueur minimum et les angles d'articulation sont similaires. Lorsque l'outil est soulevé (b), l'extension du cardan est au maximum et on a l'augmentation et la diversification des angles d'articulation. Pendant le soulèvement il est INDISPENSABLE d'interrompre la rotation du cardan.</p>
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English: Instructions for the assembling of the cardan shaft

<p>Before mounting the cardan shaft, carefully read the booklet supplied by the Manufacturer. Falc Srl declines all responsibility for operations carried out on the cardan shaft if the specific instructions supplied by the Manufacturer are not followed.</p>	<p>Before starting work, it is advised to check the length of the cardan shaft: if it is LONG, by raising or lowering the machine, the 2 telescopic parts will couple completely, creating pressure on the cross and on the forks; if it is SHORT, by raising or lowering the machine, the 2 telescopic parts will slide apart too much.</p>	<p>The agricultural machinery carried is connected directly to the tractor and positioned using a three-point attachment. Generally, when the equipment is functioning (a) the shorter length of the shaft with equal articulation angles is present. With the equipment raised (b) there is maximum extension of the shaft, increase and diversification of the articulation angles. During lifting it is INDISPENSABLE to interrupt rotation of the cardan shaft.</p>
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Deutsch: Bedingungen für die Gelenkwellenanbau

<p>Bevor Sie die Kardanwelle montieren, ist das vom Hersteller der Kardanwelle gelieferte Handbuch aufmerksam durchzulesen. Falc Srl haftet nicht für an der Kardanwelle durchgeführte Arbeiten, bei denen die spezifischen Anweisungen des Herstellers der Kardanwelle nicht eingehalten wurden.</p>	<p>Vor dem Beginn der Arbeiten ist die Länge der Kardanwelle zu überprüfen. Falls die Kardanwelle LANG ist, kuppeln die beiden Teleskopteile bei Heben oder Senken vollständig ein und drücken auf das Gelenkkreuz und das Gabelgelenk. Falls die Kardanwelle KURZ ist, fahren die beiden Teleskopteile bei Heben oder Senken zu sehr aus.</p>	<p>Die Anbau-Landmaschinen werden direkt an den Traktor angeschlossen und mit einem Dreipunktanschluss positioniert. Im Allgemeinen sind im Fahrzustand der Maschine (a) die Welle kürzer und die Gelenkwinkel annähernd gleich. Bei gehobener Maschine (b) ist die Welle maximal ausgefahren; die Gelenkwinkel sind größer und unterscheiden sich voneinander. Während des Hubs MUSS die Rotation der Welle unterbrochen werden.</p>
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Español: Instrucciones para el montaje de la cardan

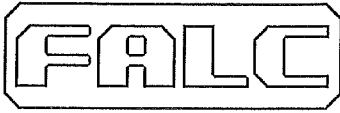
<p>Antes de montar el cardan, leer detenidamente el Manual suministrado por el fabricante de éste. La empresa Falc Srl se exime de cualquier responsabilidad frente a operaciones que puedan efectuarse en el cardan sin cumplimiento de las instrucciones específicas dictadas por el fabricante del mismo.</p>	<p>Antes de iniciar a trabajar, se recomienda comprobar que la longitud del cardan sea la adecuada: Si es demasiado LARGO, al alzar o descender la máquina sus 2 partes telescópicas se acoplarán completamente, creando presión en las crucetas y en las horquillas. Si es demasiado CORTO, al alzar o descender la máquina sus 2 partes telescópicas se desengancharán excesivamente.</p>	<p>Las máquinas agrícolas traídas están directamente unidas al tractor por medio de un enganche de tres puntos. Generalmente, cuando el equipo está en posición de trabajo (a) se obtiene una configuración con una menor longitud del árbol y con ángulos de articulación muy parecidos. Con el equipo en posición alzada (b) se obtiene la extensión máxima del árbol, con un aumento de los ángulos de articulación, que ahora serán distintos entre sí. Durante la elevación es INDISPENSABLE interrumpir la rotación del cardan.</p>
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Nederlands: Instructies voor montage van de aftakas

<p>Lees de door de fabrikant geleverde handleiding aandachtig door alvorens de aftakas te monteren. Falc Srl wijst elke aansprakelijkheid af als de betreffende specifieke montageaanwijzingen niet worden opgevolgd.</p>	<p>Controleer eerst de lengte van de aftakas alvorens met de montage-werkzaamheden te beginnen. Als de aftakas TE LANG is, schuiven de beide telescopische delen volledig in tijdens het heffen en dalen van het werktuig en wordt druk uitgeoefend op de kruiskoppeling en de vorken; Als de aftakas TE KORT is, schuiven de beide telescopische delen tijdens het heffen en dalen van het werktuig te veel uit elkaar.</p>	<p>Aanbouwmachines worden bevestigd aan de driepuntskoppeling van de tractor. In het algemeen geldt dat als het werktuig in bedrijf is (a) de korter is en de knikhoek gelijk. Met het werktuig in geheven positie (b) is de as maximaal uitgeschoven, en is de knikhoek groter en variabel. Als het werktuig wordt geheven MOET de aftakas worden uitgeschakeld.</p>
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Dansk: Montage af kardanaksel

<p>Før montagen af kardanakslens påbegyndes, gennemlæses producentens brugervejledning grundigt. Falc Srl er fritaget for ethvert ansvar i forbindelse med arbejder foretaget på kardanakslens, hvis de givne retningslinier, som er specificeret af producenten, ikke er fulgt nøje.</p>	<p>Før arbejdet påbegyndes, anbefales det at kontrollere kardanakslens længde ved at hæve eller sænke redskabet. Hvis den er for LANG, resulterer det i, at de to kardan dele støder sammen, når redskabet er i sin yderposition, hvilket bevirker et ødelæggende tryk på kardankryds og transmissioner. Hvis den er for KORT, resulterer det i, at de to kardan dele kan glide fra hinanden, hvilket bevirker, at de ikke er i indgreb med hinanden.</p>	<p>Redskabet monteres direkte på traktorens 3-punktsophæng. Generelt gælder, at når redskabet er sænket (a), er kardanakslens i sin korteste position, og når redskabet er hævet (b), er kardanakslens i sin længste position. Når redskabet hæves, SKAL kardanakslens rotation afbrydes.</p>
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Erpice - Fresa / Pieghevole

Le valvole dei pistoni laterali sono tarate per alzare prima l'erpice (1) e poi l'erpice (2).

Regolare la PORTATA del distributore affinché questa sequenza di movimenti sia rispettata.

(F)

Herse Rotative - Fraise / Repliable

Les soupapes des pistons latéraux sont étalonnées pour élever d'abord la herse (1) et ensuite la herse (2).

Régler la PORTEE du distributeur afin que cette séquence de mouvements soit respectée

(GB)

Folding Power Harrow – Rotary Tiller

The valves on the lift rams are calibrated such that the harrow wings lift independently; first (1), and then (2).

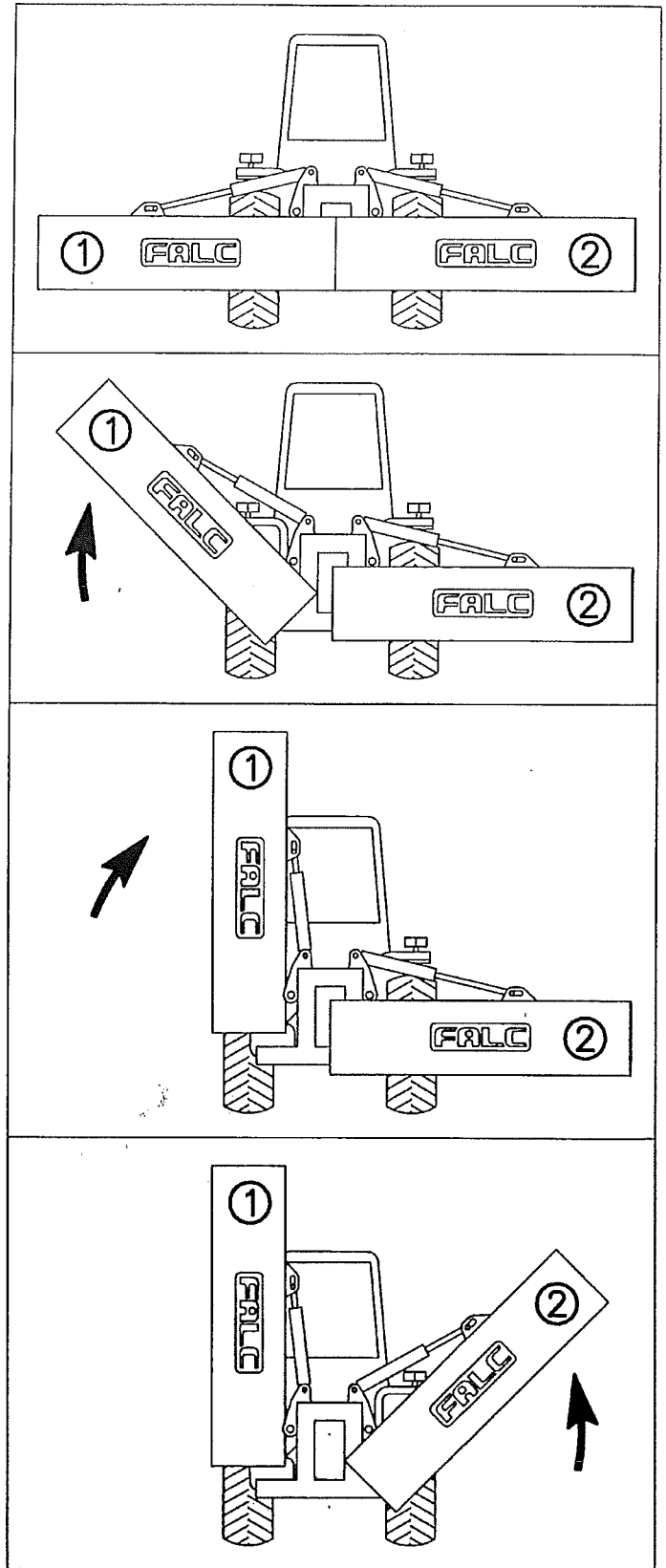
Make sure the flow in the valves is adjusted to ensure that the lift sequence is as shown in the diagram.

(ES)

Grada Rotativa - Fresa / Plegable

Las válvulas de los pistones laterales son calibradas para elevar primero la grada (1) y después la grada (2).

Regule la CAPACIDAD del distribuidor, para que esta secuencia de movimientos sea respetada.



Erpice / Pieghevole - Fresa / Pieghevole - Trincia / Pieghevole

Regolare la PORTATA del distributore del trattore affinché la sequenza dei movimenti sia rispettata:

a) Chiusura delle 2 parti della macchina – b) Chiusura dei ganci di sicurezza

(F) Régler la PORTEE du distributeur du tracteur afin que cette séquence de mouvements soit respectée:

a) fermeture des 2 cotés de la machine – b) fermeture des crochets de sécurité

(GB) Make sure the flow in the valves is adjusted to ensure that the lift sequence is as shown in the diagram:

a) locking of the 2 wings of the machine – b) locking of the security hooks

(ES) Regule la CAPACIDAD del distribuidor, para que esta secuencia de movimientos sea respetada:

a) cierre de las 2 gradas – b) cierre de los ganchos de seguridad

