



OPERATION MANUAL AND SAFETY INSTRUCTIONS

CULTIVATOR BRETON HD



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GLOSSARY



If you come across this symbol and heading, there is a direct hazard to life and health of man and animal!



This heading refers to possible risks of damage to machine(s), crops, buildings, etc. But also to possible financial and/or legal problems (warranty, liability, and the like)!

NOTE

This indicates a tip to make work easier, better and safer.

All figures, dimensions and weights are free of engagement.

References to direction in the text, such as "Left", "right", "front" and "rear", are always meant to be seen from the forward travel direction of the tractor.

The same applies to the directions clockwise and counter clockwise.

INTRODUCTION

Dear user,

This is the operation manual for the versions of the cultivator Breton. These types have a free spacing of 59 or 63 cm. This short built cultivator is specially designed to be mounted between a Evers Vario Disc and the tracto. These types have a working width of 225 up to 350 cm.



ATTENTION

Read the operation manual carefully before starting to work with the machine and observe all instructions!
Pass on all safety instructions to other (fellow) users!

In order to use the cultivator as safely as possible, you should be well aware of all recommendations and instructions in this manual. Damage and accidents caused by non-observance of these recommendations and instructions are for your responsibility.

Make sure to store this operation manual carefully and in a safe place for future use.

Please apply to your dealer in case there should still be questions after reading this manual.

EVERS AGRO B.V.
Almelo, 28 June 2005

1. PURPOSE OF THE CULTIVATOR BRETON

Field of application

The cultivator Breton is solely for use in regular arable farming. These types are fitted with fixed tines with a free spacing of 59 or 63 cm. The tines are fitted with a round steel bar, welded in front it. The standard chisels are exchangeable and 6 cm wide. The Breton is specially designed for mounting in front of the Evers Vario-disc types Skyros, Orlov and the fixed frames of the Salerno. With the fixed tines it is possible to carry out a deeper tilling, up to ca 30cm deep. It is highly suitable for breaking up harvesting tracks, because the working depth of the Vario-disc is limited up to 10 to 14 cm. another advantage is in cases of much haulm or stubble; this can be worked in by the Vario-disc more properly, when the soil first is loosened by the cultivator Breton.



Any deviating use is considered not matching the intended purpose. The user bears the risk of any damage and/or accidents. The above does not apply if in advance written approval has been obtained from the manufacturer!

2. LIABILITY AND WARRANTY

All people who use this machine and/or work on it (adjustment, maintenance) should read this manual and observe the instructions to prevent danger.

That also means:

1. That work may only be carried out within the functional limits (e.g. max. speed), as laid down in the instructions for operation, maintenance and repair.
2. That locally applying regulations for accident prevention, safety, traffic and transport are to be observed.
3. That exclusively original or equivalent parts and lubricants must be used and mounted according to the instructions. A part and/or lubricant is considered equivalent when it has been approved by the manufacturer or when it can be demonstrated that it has the properties required for the function(s) in question.
4. That changes / modifications on the machine that have not been approved in writing by the manufacturer, exclude all liability of the manufacturer for any damage.



Non-observance of the above rules shall be considered negligence. It will rule out any liability of the manufacturer for all possible damage and/or consequences.
The user is fully and solely responsible for any risk!

3. DANGER AND SAFETY DECALS

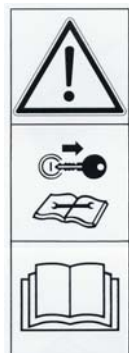


ATTENTION

Working safely also means that you take proper notice of the various decals on the machine. You must know what they warn you for!

There are a number of safety decals on the machine. The ones used and there place on this machine are shown on the next page.

They have the following meaning:



Danger:

Stop the engine and remove the key from the ignition when working on the machine!

Attention:

Carefully read the operating manual before taking the machine into operation!



Danger:

There is a risk of flying objects and / or clods! Keep clear!



Danger:

Keep away from the fold-down parts when the locking pins with inserted retaining clip are not mounted! Keep clear!



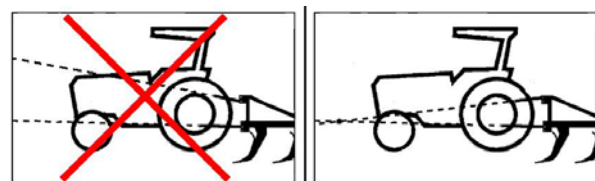
Danger:

There is a risk of parts folding down! Fix the locking pins with inserted retaining clip!



Danger:

Never stand between the tractor and the machine when the power lift is being operated!



Danger:

In operating position the top link must be higher on the machine side than on the tractor side!

4. THE LOCATION OF THE DECALS

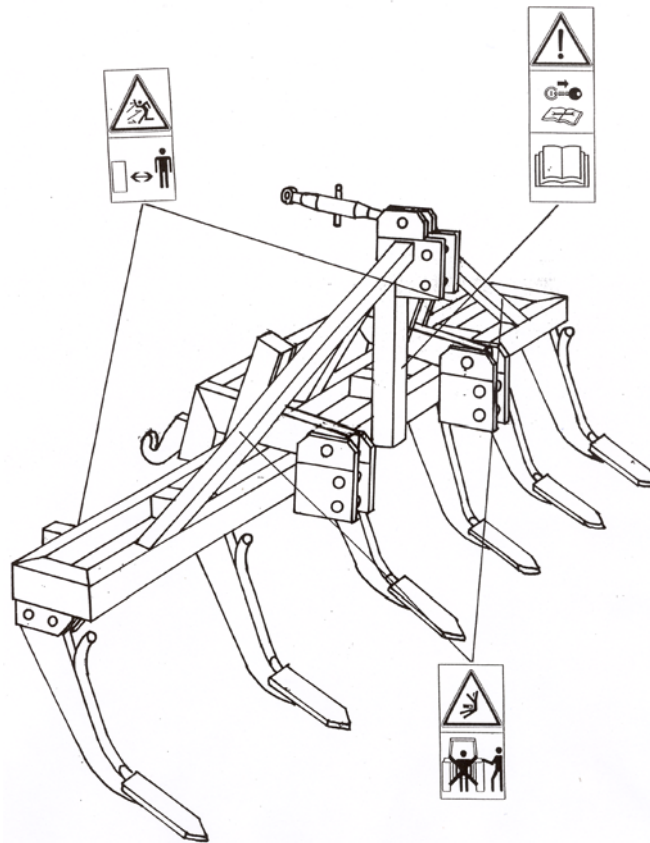


Fig 4.1 The location of the decals.



If decals are loose, have become illegible or are no longer on the machine, these must be replaced as well!

5. SAFETY INSTRUCTIONS

Read and understand these instructions before working with the machine!

If these safety instructions aren't observed, all liability of the manufacturer for any damage is excluded!

5.1 General

- The machine must only be used, operated and maintained by people who are familiar with the machine and who are aware of the risks!
- The operator should familiarise him-/herself with all controls and their functions before starting work. During work could be too late!
- In addition to the specific instructions of this manual, you should also study the general regulations for safety and accidents prevention in your country!

5.2 Road transport and use

- Always observe the road traffic regulations when using public roads!
- Check the safety of the machine and tractor before use as regards work and traffic!
- Observe the maximum permissible axle load, total weight and transport dimensions!
- Prior to road transport, check and mount transport accessories such as lighting, warning signs and any protective parts!
- Put the machine in the position intended for road transport and lock it according to the instructions!
- Always make sure that the machine has sufficient lateral stability in transport position!
- In case of road transport with the machine in lifted position, the control lever of the power lift must be locked to prevent lowering!
- Look around the machine and the tractor before driving off or starting to work. Make sure you have sufficient view. Look out for children!
- It is strictly prohibited to be on the machine during work or transport!
- The driver's seat must at all time be occupied during driving!
- Handling, manoeuvrability and brake performance are influenced by mounted machines and front weights. Therefore, make sure you work with an adequate steering and breaking installation.
- Always adapt the forward speed to the condition of the terrain!
- When taking turns, take into account the length/width (turning circle) and/or swinging out, due to the large mass of the machine!
- Only work with machines with the protective provisions complete, intact and in the functional position!
- There must be nobody within the operating and danger range (including turning and swinging circle) of the machine. At the rear of the machine clods or other objects may be flung away!
- There must be nobody between the tractor and the machine, until the vehicle is prevented from moving by means of the parking brake and/or wheels chocks!
- When leaving the tractor, put the machine on the ground, switch off the tractor engine and remove the ignition key!
- The warning decals on the machine give important instructions for safe use; observing them is for your own safety!
- The user must wear closely fitting clothes. Avoid loose clothing!
- Always mount weights on the tractor according to the instructions on the fixation points intended for that purpose!

5.3 Mounting and dismounting

- Mount machines and accessories according to the instructions and mount the machine and/or parts/accessories only to the provisions intended for that purpose. Make sure they are locked effectively!
- Special care must be taken when mounting or dismounting the machine on or off the tractor
- When mounting or dismounting the machine on or off the three-point linkage, put the power lift control in a position in which inadvertently lifting or lowering is not possible!
- For a three-point linkage the linkage category of the machine must always match that of the tractor!
- The three-point linkage system constitutes a risk of accidents by getting caught and jack-knifing. The same risk exists with the cylinders (if mounted) and the linkage arms and lifts rods!
- The control for the three-point power lift outside the tractor cab must be operated without getting between the tractor and the machine!
- The release ropes for quick coupler should hang freely and in the lowered position must not release the quick coupler by themselves!

5.4 Hydraulic system

- The hydraulic system carries a high pressure!
- When connecting hydraulic cylinders the instructions for connecting hydraulic hoses must be observed!
- Hoses from the cylinders must be routed in such manner that under all transport and operating conditions they cannot cause undesirable situations and/or cannot hinder any functions!
- Never try to locate or shut off a leak in the hydraulic system with your hands. Fluid under high pressure can easily penetrate skin and clothing and it can cause severe injuries. When injured see a doctor immediately! Danger of infection!
- Ensure that the hydraulic system of the tractor and that of the machine are pressure less when connecting or disconnecting the hose!
- The hydraulically operated parts may only be operated when there is nobody within the danger zone (turning circle) of these parts!
- When hydraulically folding frame sections are in the transport position (folded up) the lock pins with inserted retaining clip must be placed in the holes intended for that purpose!
- For hydraulic connectors between tractor and machine the couplings and plugs must be marked. When connections are interchanged, the function reverses (e.g. lifting/lowering) - Risk of accidents!
- Check the hydraulic hoses, pipes and all connections regularly and replace them in case of deterioration and damage. New hoses must satisfy the technical specifications prescribed by the manufacturer!
- Before carrying out work on the hydraulic system, the machine must be lowered to the ground and the hydraulic system must be made pressure less (move the lever of the control valve a few times back and forth with the engine switched off)!
- In transport position the control valve of the hydraulic functions must be in the neutral position!
- Always lay down a disconnected hydraulic hose in such a manner that the plug stays clean!

5.5 Maintenance

- Repair, maintenance and cleaning activities, as well as repairing malfunctions, must be only carried out with the tractor engine switched off. Remove the ignition key!
- When the machine must be in lifted position for repair, cleaning or maintenance, support legs must be used. Only work on a firm surface!
- Regularly check whether all bolts and nuts are still tight. Tighten if necessary!

- Parts must at least satisfy the technical specifications prescribed by the manufacturer!
- Always check whether replaced and/or dismantled parts are mounted correctly before using the machine again!
- Ensure that any damage is repaired at once before using the machine again!
- When conducting electrical welding operations on the tractor or on the mounted implement remove cable from the generator and the battery!
- Before working on the electric gear disconnect battery cables!
- For replacing any tools with cutting edges, always use the suitable tools and gloves!
- Dispose of old oils and grease as prescribed by law.

5.6 Tyres

- Fitting tyres requires knowledge and special tools!
- When working on the tyres, make sure that the machine has been placed on the ground safely and that it is secured by shocks against unintentional rolling!
- Repair work on tyres may only be conducted by trained staff and with suitable tools!
- Check the tyres regularly and replace them in case of deterioration and damage. New tyres must satisfy the technical specifications prescribed by the manufacturer!
- Check the tension of the tyres regularly and adhere to the advised air pressure. (See table).
- In case of doubt, contact your dealer or see a tyre tension table.

Tyre	Max. speed	Min. pressure in Bar	Best pressure in Bar	Max. Pressure in Bar
195 65/15	30 km/h	2	2,5	3
10.0/75 - 15,3 14pr	40km/h	3.5	5.5	7

6. MOUNTING AND DISMOUNTING



ATTENTION

Always place the supplied pins and retaining clips and check whether they are locked securely!

The standard version is based on a three-point linkage: Category II three-point linkage. (= lift pins \varnothing 28 mm, top link pin \varnothing 25 mm and retaining clips \varnothing 11 mm and \varnothing 8 mm).

Do **not** use pins with a smaller diameter!

Make sure that the tree point linkage has enough stabilisation to the side! The machine should not be able to move more than 5 cm side ways.

During mounting, dismounting and transport of the machine, the power lift of the tractor must be in position control, and must be protected against accidental lowering!

6.1 Mounting

There are two mounting options for the top link pin, 2 round holes, A and B. In operating position the top link must be higher on the machine side than on the tractor side! Only in this position it is possible that the machine can move up in case of soil that is not completely flat. The lift pins can be placed in the holes C.

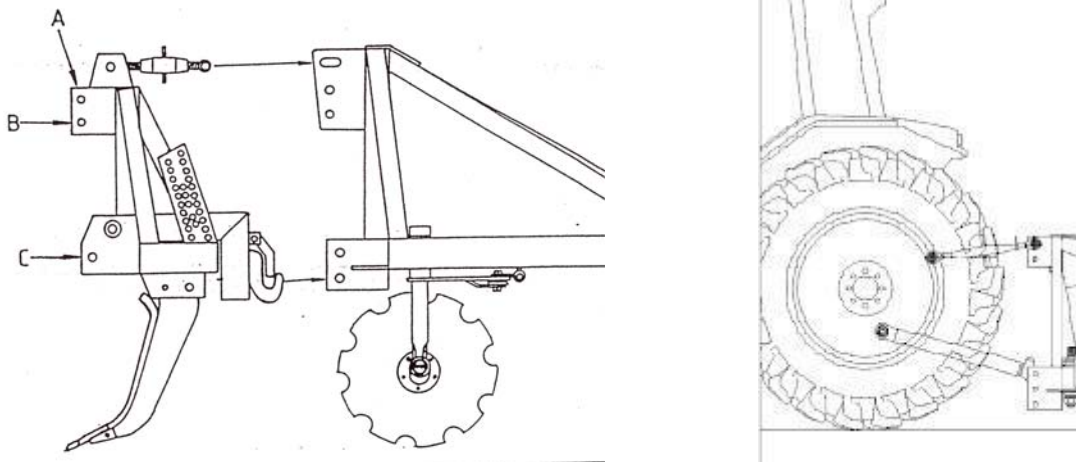


Fig 6.1 Mounting the machine to the tractor.

In standard version the three-point linkage on the back of the Breton is of category II, see to it that the three-point linkage on the Vario-disc is of the same category. The mounting of the Vario-disc on the Breton is done in the same way as mounting the Vario-disc to the tractor. (see the manual of the Vario-disc)

- Put the cultivator/Vario-disc in lifted position and remove the support legs.
- Adjust the check rods or chains of the tractor correctly to prevent lateral sway.
- When the machine is in working position, the tractors power lift must be in floating position (see the manual of the tractor).

6.2 Dismounting and storing

When the user is not going to work with the cultivator for a shorter or longer period and the machine is dismounted from the tractor, the support legs must be placed under the machine.

- Make sure that the tractor hydraulic is set to position control.
- It is important to thoroughly clean the machine with water.
- The joints should be greased as prescribed in chapter 9 Maintenance.
- Dispose of old oils and grease as prescribed by law.
- Let the machine rest on a flat soil.
- Make sure the machine has enough stability.
- Dismount the machine from the tractor.

7. ADJUSTING THE CULTIVATOR.

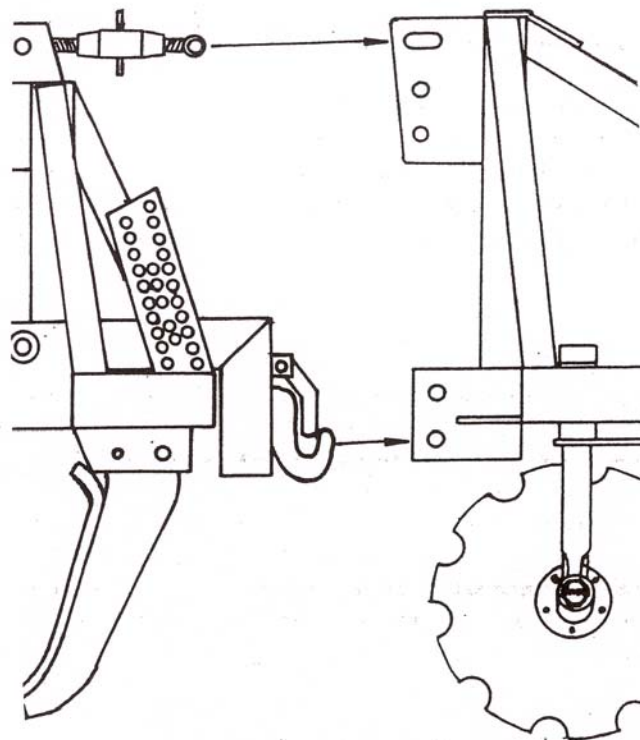
NOTE

The mounting height depends on the tyre size of the tractor. It is recommended to have the lower links as level as possible, while the top link is mounted higher to the machine than to the tractor.

7.1 Adjusting the working depth

Adjusting the working depth of the cultivator Breton can only be done by using the draft control of the tractor.

- Remove the pins of the support arms of the cultivator Breton with mounted Vario-disc
- Put the cultivator Breton at the required depth by driving forward a few meters. At the same time the Vario-disc will take its working depth, which can be adjusted by placing the pins above the roller arms of the Vario-disc. (see the manual of the Vario-disc)
- Level the frame using the top link between the Breton and Vario-disc
- Switch on the automatic draft control of the tractor.
- If required, pins can be placed under the supporting arms of the cultivator to prevent rattling of the Vario-disc during folding out.
- No pins must be placed over the supporting arms. In this manner the working depth of the cultivator Breton can vary, during the tilling, by the draft control of the tractor.



8. INSTRUCTIONS FOR USE

- We recommend not to use the cultivator on soil that contains many heavy rocks (rocks ≥ 15 cm)
- Tight straight angles should be avoided as much as possible
- The cultivator will only work when travelling forward.
- Set the rate of drop of the power lift in such a manner that when lowering into the soil or putting down the machine does not bump on the ground, so as to prevent damage to tines and shares.

9. MAINTENANCE



See chapter 5 “SAFETY INSTRUCTIONS” sub 5.5 “Maintenance”



When the machine is in lifted position for repair, cleaning and maintenance activities, support legs must be placed under the machine and it must rest on them.
Switch off the engine and remove the ignition key!

9.1 General

- Regularly check whether all bolts and nuts are tight.
- After every use the machine should be cleaned with water.

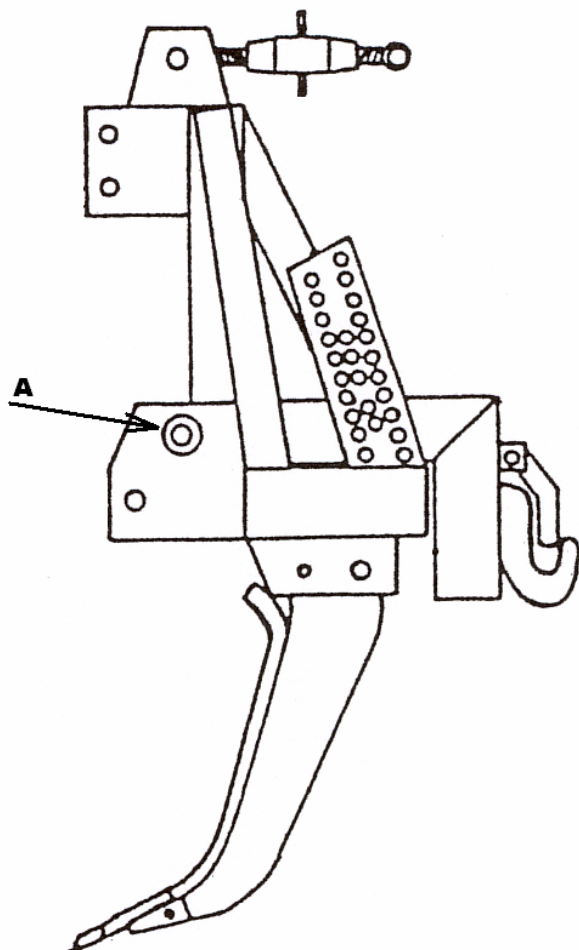


The tines and shares are sharp, especially the KG tines (fitted with the sharp manganese steel cutting knives). Avoid wrenches slipping when working near tines or shares. Avoid climbing on machine above the tines where there is possibility of slipping or falling. Serious injury could occur!

9.2 Lubrication

Grease nipples are installed in the following places:

- a) The arms of the Three-point linkage of the cultivator Breton



- a) They should be greased twice a year

10. TECHNICAL SPECIFICATIONS

Technical specifications cultivator Breton:

Type	KH-4B	KH-5	KH-5B	KH-6	KH-6B	KH-7	KH-7B
Tine types	Burma with wear shin	Burma with wear shin	Burma with wear shin	Burma with wear shin	Burma with wear shin	Burma with wear shin	Burma with wear shin
Number of tines	4	5	5	6	6	7	7
Tine spacing (cm)	55	50	55	50	55	50	55
Share width (cm)	6	6	6	6	6	6	6
Tine rows	1 rij	1 rij	1 rij	1 rij	1 rij	1 rij	1 rij
Max. working depth (cm)	30	30	30	30	30	30	30
Working width (cm)	190	225	245	275	300	325	355
Transport width (cm)	171	206	226	256	281	306	336
Transport length (cm)	75	75	75	75	75	75	75
Free passage (cm)	59	59	59	59	59	59	59
Tractor power (HP)							
Tractor power (kW)							
Linkage category	II	II	II	II	II	II	II

Mass (kg) of the Breton:

Type	Mass
KH-4B	280
KH-5	310
KH-5B	320
KH-6	350
KH-6B	360
KH-7	385
KH-7B	395

The noise level of the cultivator Breton does not exceed 70dB(A) during work.

11. ORDERING PARTS

Contact your local dealer to order spare parts.

Please state the following data when ordering parts.

1. Machine Type (MT) and the production identification number (PIN), these data can be found on the EC certificate of conformity.
2. Name, article number and quantity of the article.

If you are not sure of the correct part number of a part, you can take it to your local dealer or send in the original to prevent incorrect delivery.



ATTENTION

If decals are loose, have become illegible or are no longer on the machine, these must be replaced as well!

12. EC CERTIFICATE OF CONFORMITY

We,

**Evers Agro B.V.
Bedrijvenpark Twente 326
NL-7602 KL ALMELO
The Netherlands**

Declare that the machine

Machine Type (MT):

Cultivator Breton KH-

Product Identification Number (PIN) :

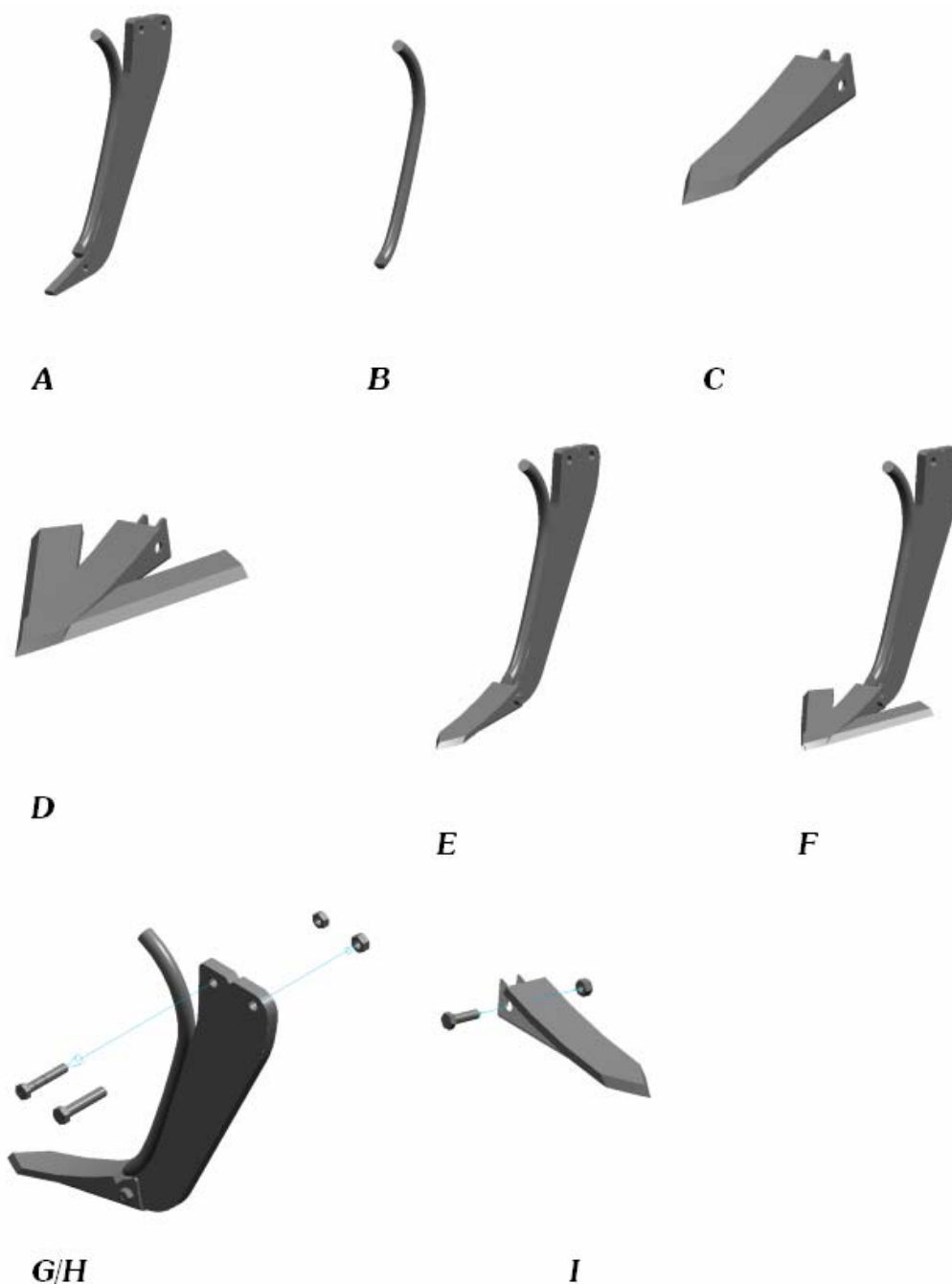
Conforms to the relevant essential health and safety requirements of the
Machine Directive 89/392/EEC and 91/368/EEC.

Almelo, The Netherlands
28 June 2005

G.J. Kamp, The Director

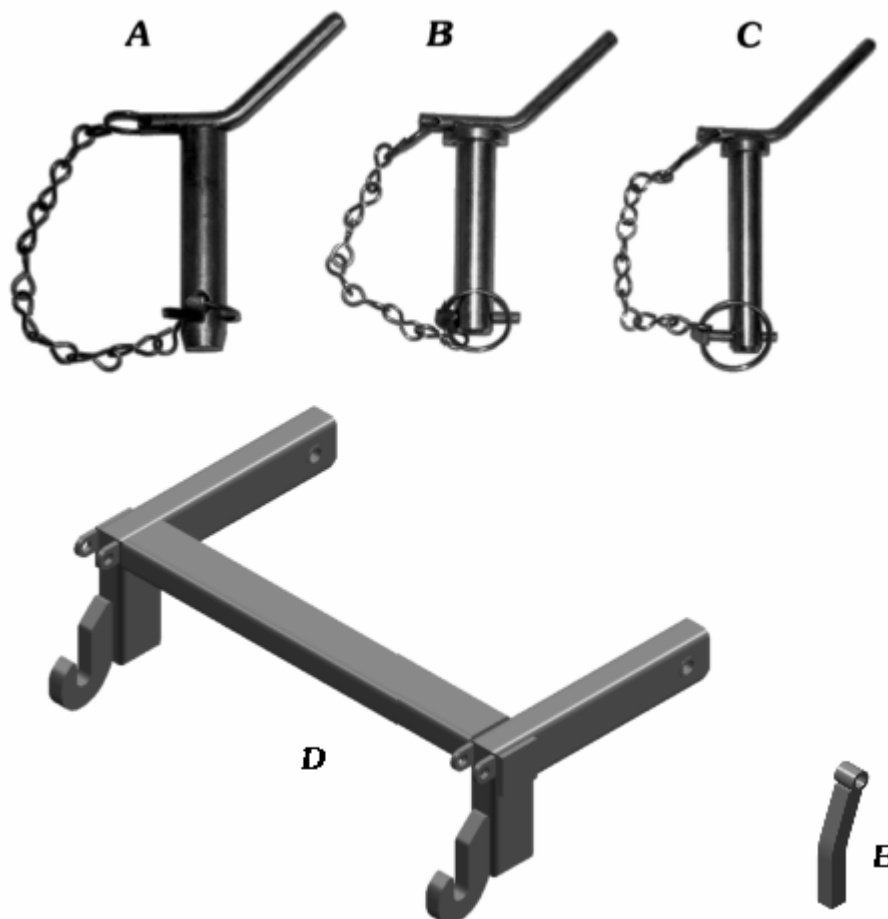
APPENDIX I: PARTSLIST

I.1 Tines and Shares



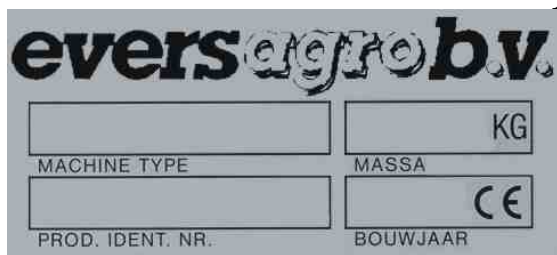
Position	Part. No.	Description
A	991553	Tine Breton with wear shin without point
B	990352	Wear shin for tine Breton - weld-on
	990364	Intermediate wear shin (round)
	990365	Intermediate wear shin (knife)
C	990250	Manganese steel point 6 cm wide
D	990260	Manganese steel duckfoot 25cm wide
E	995350	Tine Breton complete with point 6 cm
F	995360	Tine Breton complete with duckfoot 25 cm
G	990116	Shear bolt M16X90 class 8.8 incl. hexagon nut M16
	990120	Shear bolt M16X90 class 10.9 incl. hexagon nut M16
H	990130	Pivoting bolt M20X90 class 8.8 incl Hexagon nut M16
I	101204	Bolt for fixing point onto the tine M12x45 class 8.8
	100012	Hexagon nut M12

I.2 Lower hitch pin / top link pin / depth control pin / lift

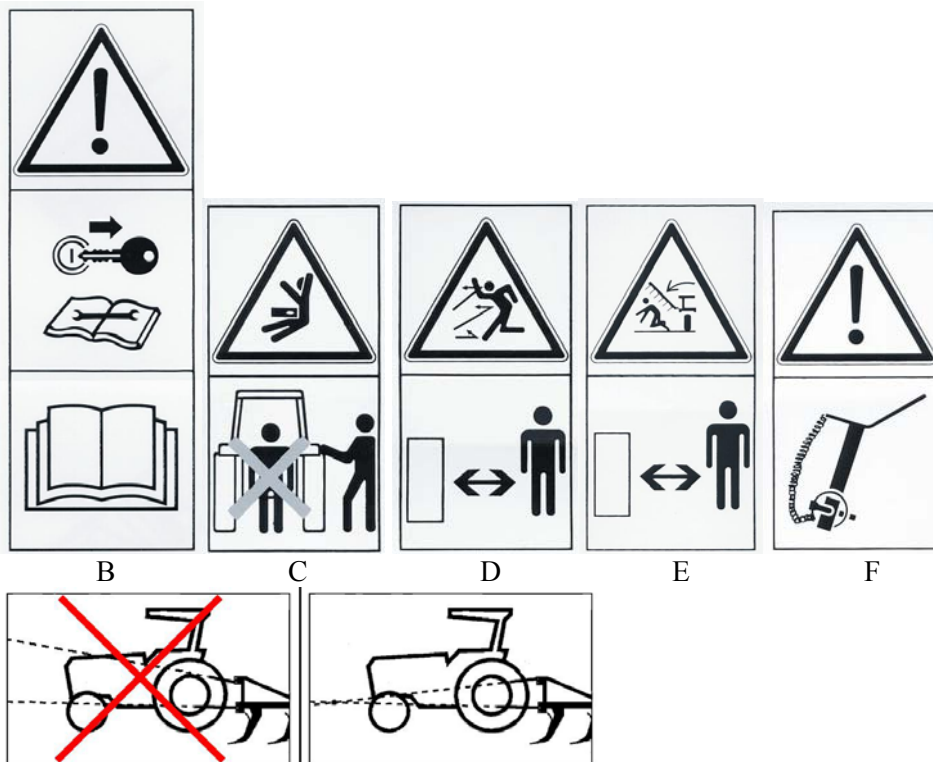


Position	Part no.	Description
A	992208	Lower hitch pin Ø28 mm
B	992207	Top link pin Ø25 mm
C	992206	Depth control pin Ø20 mm
D		Lift Breton
E		Retaining locks for catching hook lift Breton
		Toplink M30, Length 286 mm
	990218	Support leg Breton
	102418	Hexagon head bolt M24x180
	100124	Prevailing torque type hexagon nut with plastic insert M24

I.3 Identification plate and safety decals



A



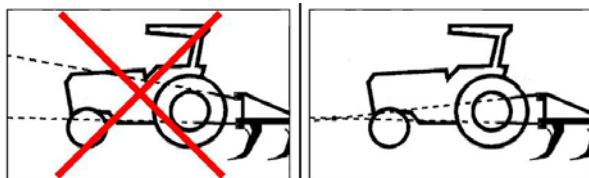
B

C

D

E

F



G

Position	Part no.	Description
A	992061	Identification plate
B	992054	Safety decal "Read operation and safety instructions / remove ignition key when working on machine"
C	992055	Safety decal "Do not stay between tractor and machine"
D	992056	Safety decal "Keep clear"
E	992057	Safety decal "Keep away from folding parts"
F	992058	Safety decal "Fix locking pins with inserted retaining clip"
G	992066	Attention decal "Correct mounting topline between tractor and machine"