

# OPERATION MANUAL & SAFETY INSTRUCTIONS

## SWARD SLITTER

GB, GBL & GBW



### OPICO LIMITED

Cherry Holt Road

Bourne

Lincolnshire PE10 9LA

Telephone: 01778 421111

Fax: 01778 425080

Email: [ask@opico.co.uk](mailto:ask@opico.co.uk)

Website: [www.opico.co.uk](http://www.opico.co.uk)

Version: 17 03 Sward slitter PV





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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 GB, GBL and GBW Sward Slitter.



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 Sward Slitter 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 your responsibility.

Please ensure that this operation manual is kept in a safe place for future reference.

If you have any more questions after reading this manual, please contact your dealer.

EVERS AGRO B.V.  
Almelo, March 17



# 1. PURPOSE OF THE SWORD SLITTER

## Field of application

The Sward Slitter is solely for use in regular arable farming. The Sward Slitter is designed to relieve the surface compaction in our grassland. This compaction in the top layer of grassland is caused by rainfall, livestock damage and traffic with heavy machines.

Important features of the Sward Slitter are:

- \* Higher yields with more quality.
- \* Better absorption of water, oxygen and plant food elements.
- \* Less change for unwanted grass species to grow.



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

Anyone operating the machine, or carrying out adjustments or maintenance should read this manual carefully 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 regulation 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 any 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



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 their 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!

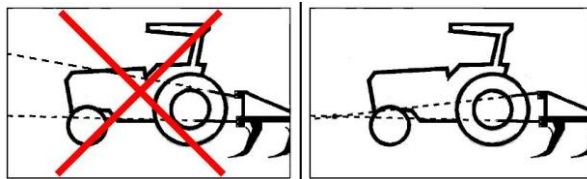


**Danger:**

Risk of injection at a leaking hydraulic system!

Liquid under pressure easily penetrates through skin and clothing this can cause heavy injuries!



**Danger:**

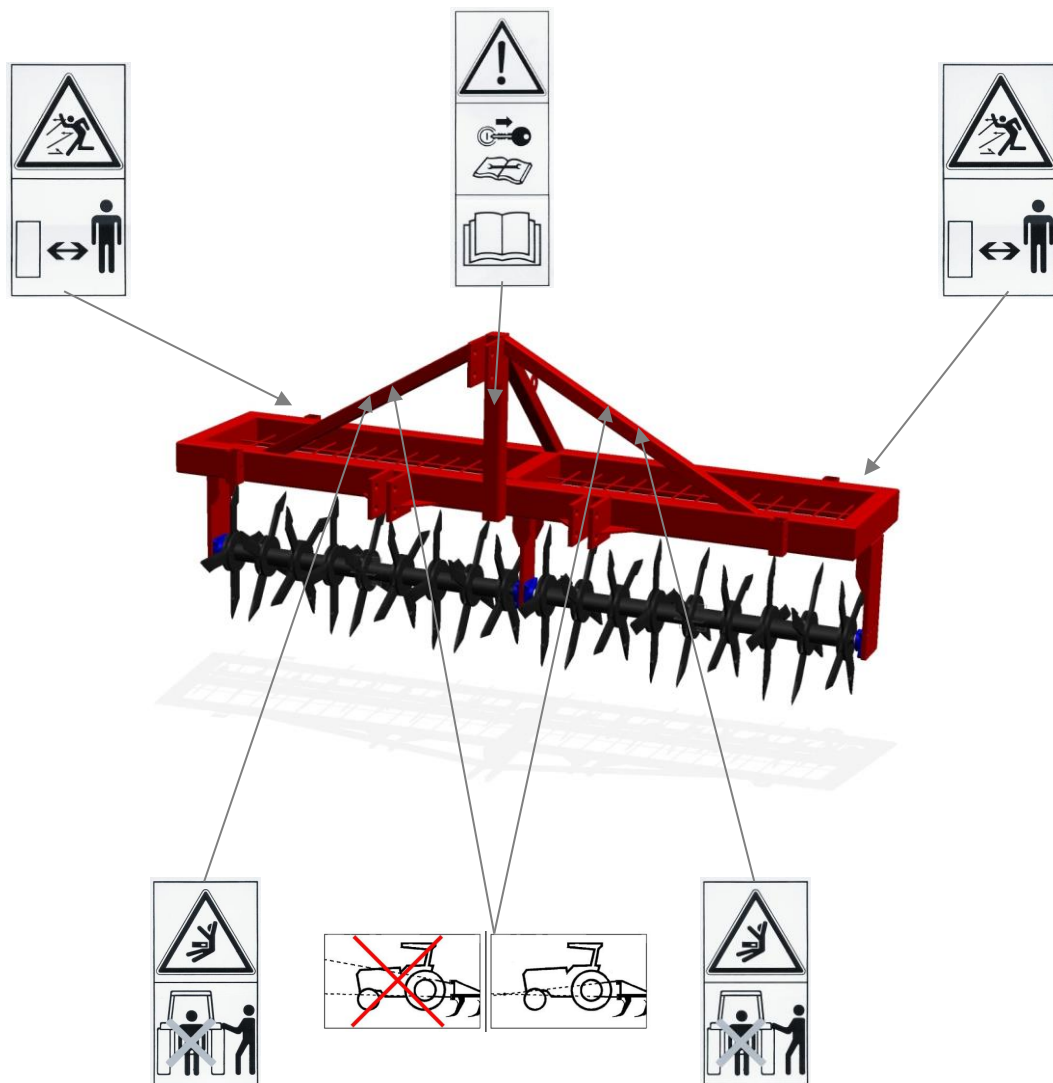
In operating position the top link must be higher on the machine side than on the tractor side!



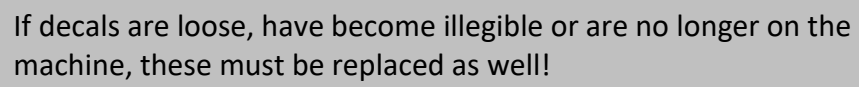
## 4. THE LOCATION OF THE DECALS



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 familiarize 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, maneuverability 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 making 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 with 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 Maintenance

- Repair, maintenance and cleaning activities, as well as repairing malfunctions, must only be carried out with the tractor engine switched off. Remove the ignition key!
- When the machine is in the lifted position for repair, cleaning or maintenance, support legs must be used. Only work on a firm surface!
- Regularly check to ensure all bolts and nuts are 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!
- When replacing cutting edges, always use the suitable tools and gloves!
- Dispose of old oils and grease as prescribed by law.
- After using the machine and/or cleaning, grease the rams of the cylinders to prevent corrosion.



After using the machine and/or after cleaning the machine with water, grease the rams of the cylinders to prevent corrosion!

## 5.5 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!

## 5.6 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 chocks 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 pressure 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



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).

This machine can also be fitted with a Category III three-point linkage (= lift pins  $\varnothing$  36,5 mm, top link pin  $\varnothing$  31,5 mm and retaining clips  $\varnothing$  11 mm).

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

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

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 is it possible for the machine to move up in cases where the soil is not completely flat. The lift pins can be placed in the holes C.

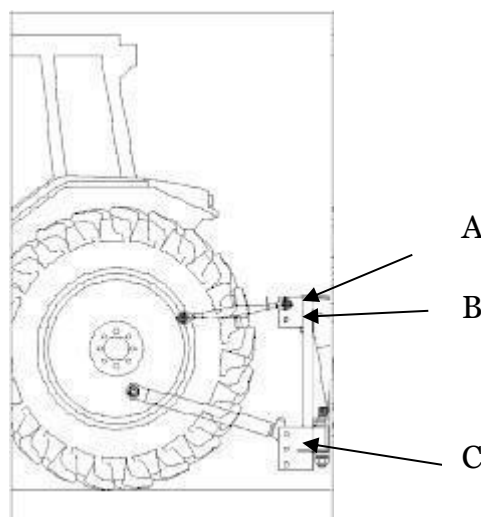


Fig 6.1 The top link must be higher on the machine side than on the tractor side!

When the machine is in working position, the tractors power lift must be in the position that is half automatic draft control and half position control, in this way there will be enough



pressure on the rear tyres of the tractor to get enough grip and the working depth does not change when suddenly encountering a hard subsoil. .( see the manual of the tractor). Only connect the hydraulic hoses when the hydraulic system of the tractor and that of the Grassland Aerator are pressure less. Also see to it that the connections are made according to the function. Put the machine in lifted position and remove the support legs. Adjust the check rods or chains of the tractor correctly to prevent lateral sway.

## 6.2 Dismounting and storing

- Make sure that the tractor hydraulic is set to position control.
- It is important to thoroughly clean the machine with water.
- The bearings and joints should also be greased as prescribed in chapter 9 Maintenance.
- Dispose of old oils and grease as prescribed by law.
- When the machine is in lifted position, place the support legs under the machine.
- Let the machine rest on a flat soil.
- Only disconnect the hydraulic hoses when the hydraulic system of the tractor and that of the Grassland Aerator are pressure less
- Make sure the machine has enough stability.
- Dismount the machine from the tractor.
- Grease the rams of the cylinders to prevent corrosion.



## 7. ADJUSTING GRASSLAND AERATOR.

### 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

The working depth of the grassland aerator with the blades is controlled by the hydraulics of the tractor (please consult your tractor manual for this)

The machine is also adjustable to vary the aggressiveness of the blades in order to prevent damage to the sod.



Adjustable rotor angle

#### **Important:**

Make sure that the machine is completely horizontal, if this is not the case it can be adjusted with the top link.

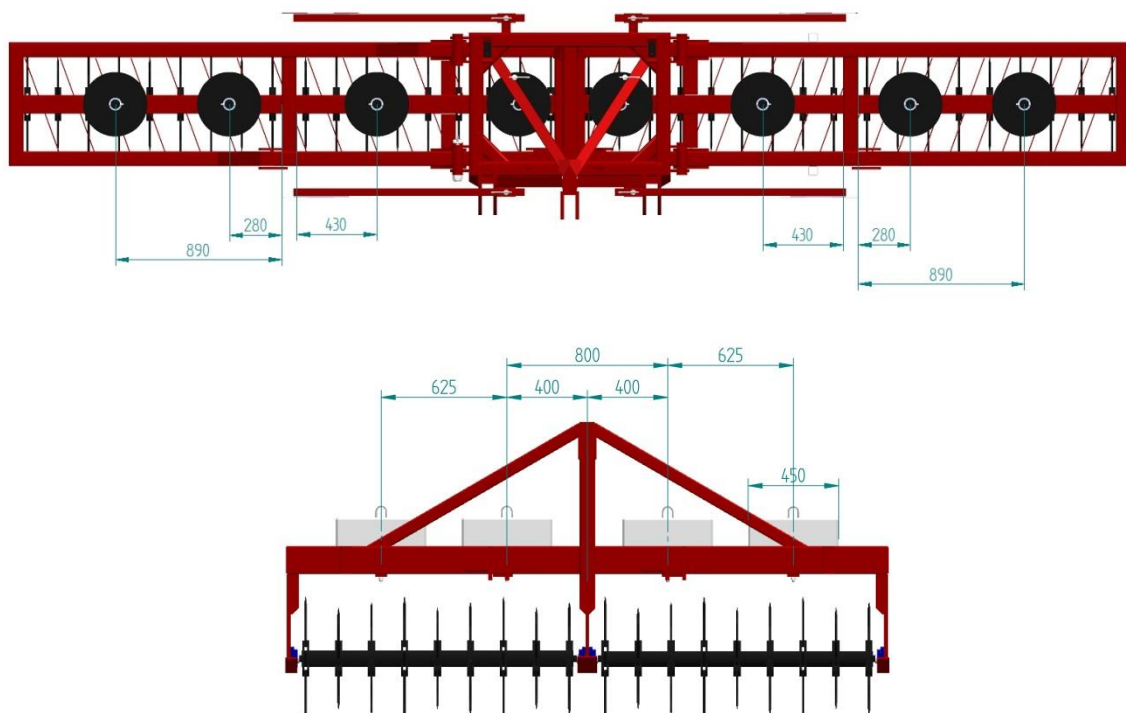


## 8. INSTRUCTIONS FOR USE

- It is forbidden to make tight turns with the machine in working position.
- The GBL version is only owned for light types of soil.
- It is not advisable to use the Sward splitter on ground where there are a lot of heavy stones (stones >15cm)
- It is not advisable to use the GBL-3 Sward splitter on ground where are stones in it.
- The machine can only work properly 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 shares, axle and bearings.
- When lifting the machine out of the soil, this is best achieved whilst moving the tractor slightly backwards.
- It is not allowed to exert additional pressure/weight on the machine by means of the 3-point linkage of the tractor for all types of grassland slitters.

### 8.1 instructions for weight spindles

Weights 3 and 6 mtr. machines mounting dimensions in MM (Steel/concrete weight)





## 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.
- Also check the bearings of the roller regularly.
- After maintenance always check that the bearings are remounted correctly.
- Check the hydraulic hoses, pipes and all connections regularly and replace them if there is any deterioration or damage.
- Clean the machine with water after every use.
- When the machine has been in contact with manure, the bearings of the roller must be filled with grease, to counteract the aggressive influence of ammonia.
- It is important to thoroughly clean the machine with water. It is recommended to grease the rams of the cylinders to prevent corrosion!



After using the machine and/or after cleaning the machine with water, grease the rams of the cylinders to prevent corrosion!



The disc blades are sharp. Avoid wrenches slipping when working near the disc blades. Avoid climbing on machine above the disc gangs 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 bearings of the share axle.
- b) The bushes of hydraulic cylinders.
- c) The bushes/pins of the hinged joints

- a) Every 20 working hours

The bearings must be topped up with grease every 20 working hours, after cleaning the grease nipples, with a properly working manual grease gun, until pressure is clearly felt. Usually two strokes of the gun will suffice. Directly after greasing, the disc must be turned at least one revolution. Never use a compressor gun. Too high pressure can damage the grease sealing ring, causing fine soil particles to enter the bearing housing. When the machine is not to be used for any length of time, it is recommended that coat of grease or oil is applied, particularly when the machine has been in contact with manure. Dispose of old oils and grease as prescribed by law.

- b) Twice a year
- c) Twice a year



## 10. TECHNICAL SPECIFICATIONS

Technical specifications Sward slitter:

Type	GB-2.5	GBL-3	GB-3	GB-5	GB-6	GBW-6
Number of blades	60	54	72	112	144	144
Working depth max (cm)	20	20	20	20	20	20
Version	mounted	Mounted	mounted	mounted	mounted	trailed
Tyres						400/60-15.5
Working width (cm)	250 cm	300	300 cm	500 cm	600 cm	600 cm
Transport width (cm)						
Tractor power (minimum HP)	50	50	60	90+	100+	100
Tractor power (minimum kW)						
Linkage category	3L	3L	3L	3L	3L	On demand
Weight (kg)	495	410 KG	535	940	1350	

The noise level of the grassland Sward lifter 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), this information 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.



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

**EG-VERKLARING VAN OVEREENSTEMMING**  
**EC-DECLARATION OF CONFORMITY FOR MACHINERY**  
**EG-MASCHINENÜBEREINSTIMMUNGSERKLÄRUNG**  
**DÉCLARATION DE CONFORMITÉ "CE" POUR MACHINES**

*Fabrikant/Manufacturer/Fabrikant/Fabricant:*

**EVERS AGRO B.V.**

*Adres/Address/Adresse/Adresse:*

**Bedrijvenpark Twente 326**  
**7602 KL Almelo**  
**The Netherlands**

*Verklaart hier mee dat/Herewith declares that/Erklärt hiermit das/Déclaré ci-après que*

*Machine type/Machine type/Maschine Type/Type de machine:*

**Ordernummer/Order number/Bestellnummer/Numéro de commande** :  
**Naam/Name/Name/Nom** :  
**Machine/Machine/Maschine/Machine** :  
**Product identificatie nummer/Product identification number/**  
**Produkt Indintifikation Nummer/ Numéro l'identification de produit** :  
**Gewicht/Weight/Gewicht/Masse** :

- *Voldoet aan de bepalingen van de Machinerichtlijn (Richtlijn 2006/42/EG, zoals laatstelijk gewijzigd) en de nationale wetgeving ter uitvoering van deze richtlijn;*
- *Is in conformity with the provisions of the Machine Directive (Directive 2006/43/EC, as amended) and with national implementing legislation;*
- *Konform ist min den einschlägigen Bestimmungen der EG-Maschinerichtlinie (EG-Richtlinie 2006/42/EG), inclusive deren Änderunge, sowie mit dem entsprechenden Rechtserlaß zur Umsetzung der Richtlinie in nationales Recht;*
- *Est conforme aux dispositions de la Directive "Machines" (Directive 2006/42/EC telle que dernièrement modifiée) et la législation nationale adoptée en application de ladite directive.*

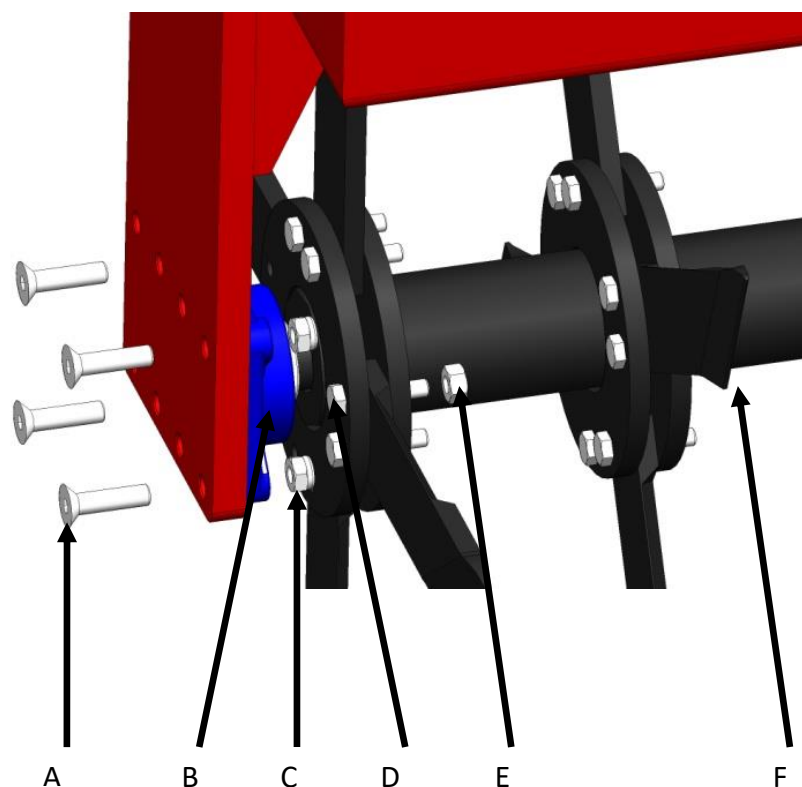
**Almelo, november '14**

**G.J. Kamp,**  
**Director**



## APPENDIX I: PARTS LIST

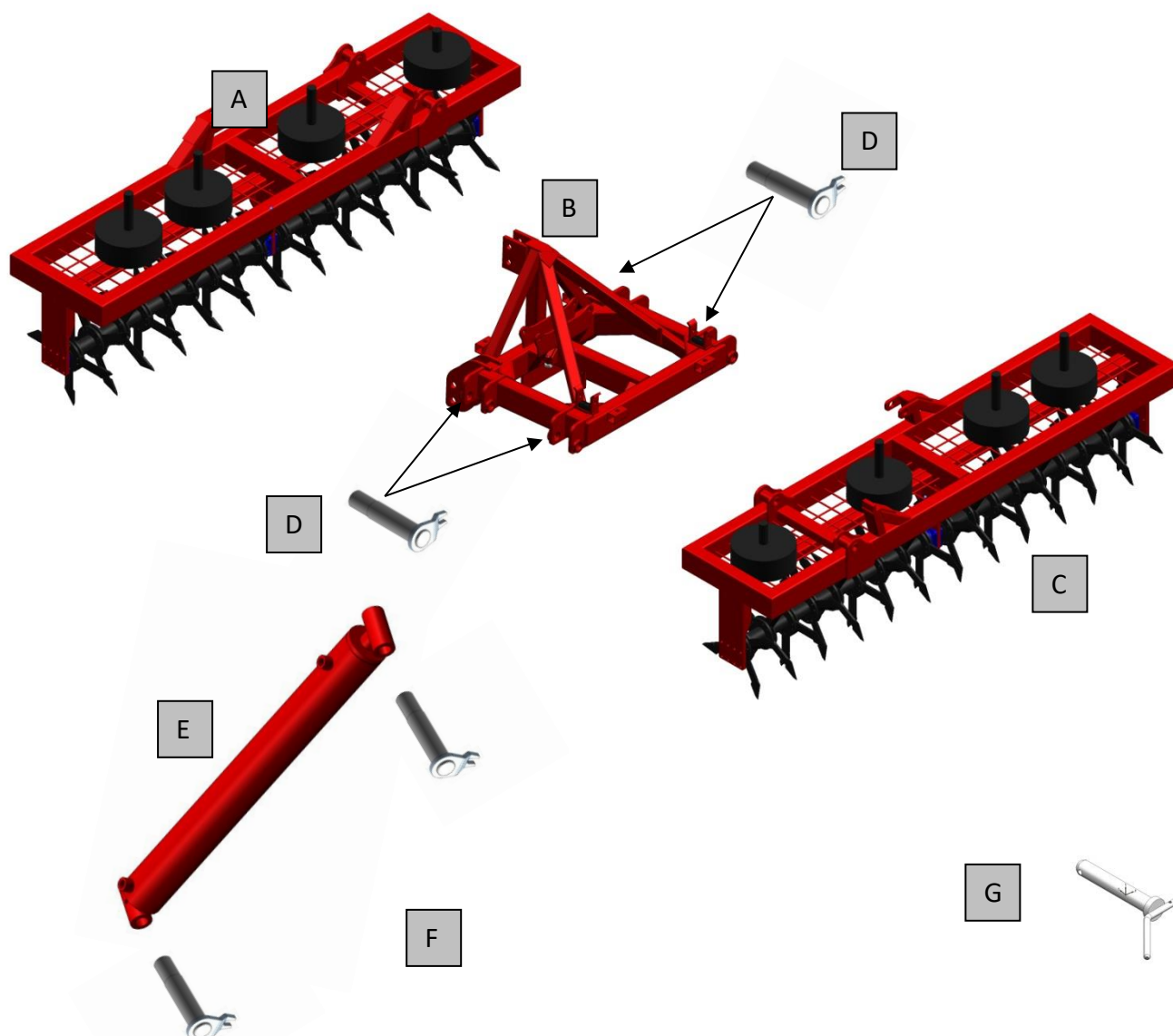
### I.1 Blades and Roller:



Pos.	Part no.	Description
A	121205	Countersunk head bolts M12X50
B	990500	Heavy Duty Bearing, shaft Ø35 mm
C	100112	Prevailing torque type hexagon nut with plastic insert M12
D	131005	Hexagon head bolt M10x50
E	100610	Prevailing torque type hexagon steellock nut M10
F	990243	Blades L=250 mm



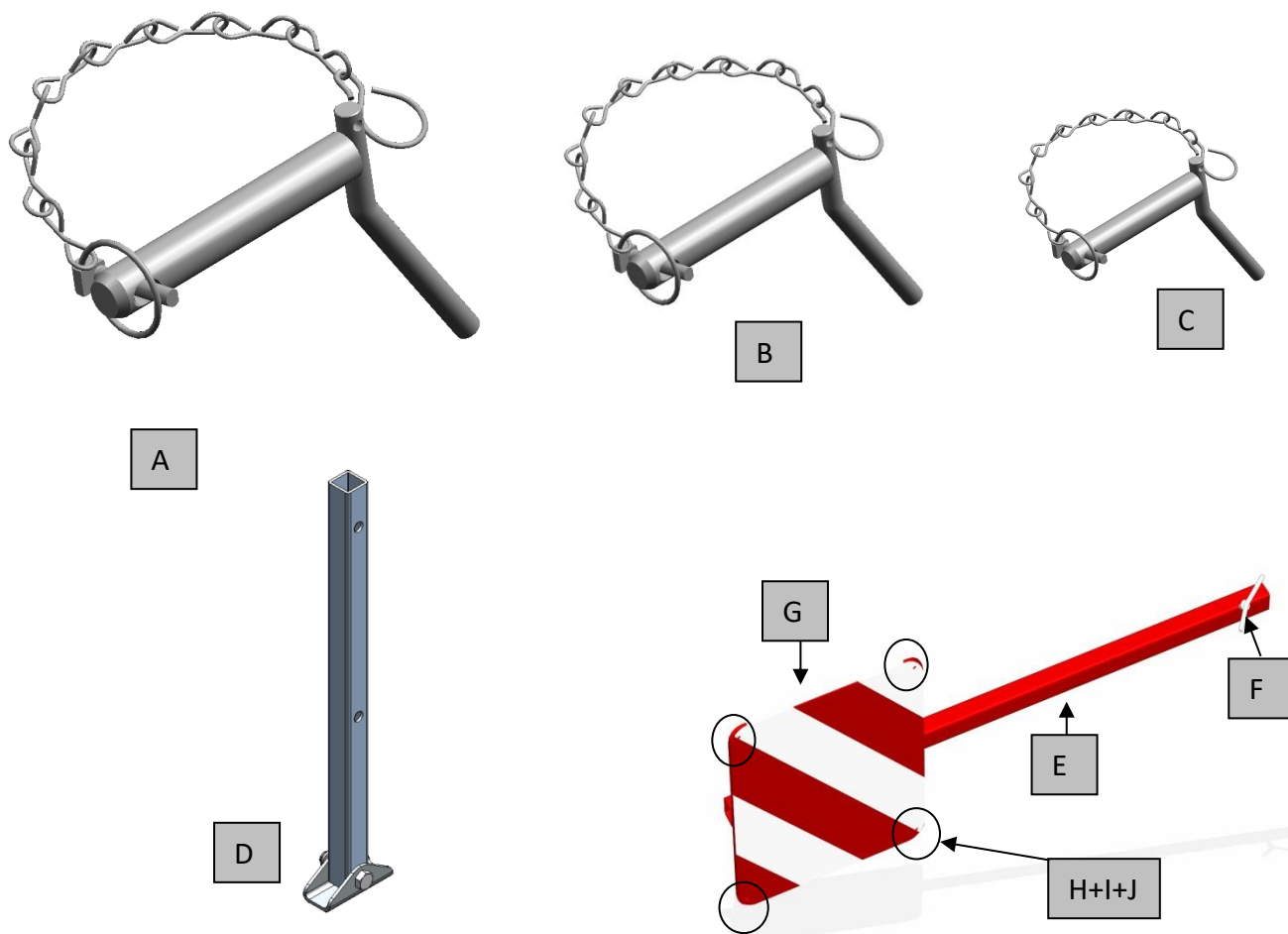
## I.2 Blades and Roller:



Pos.	Part no.	Description
A	GB6002	Folding frame Left (without weights and axle/bearings)
B	GB6001	Main frame
C	GB6003	Folding frame Right (without weights and axle/bearings)
D	GB6004	M33 Bolt Ø 35 mm L=230 mm
E	991219	Cylinder D35-70
E*	990878	Sealing kit for cylinder
F	102418	Hexagon head bolt M24x180
F*	100124	Prevailing torque type hexagon nut with plastic insert M12
G	992206	Lock pin folding frames



## I.3 General-purpose :



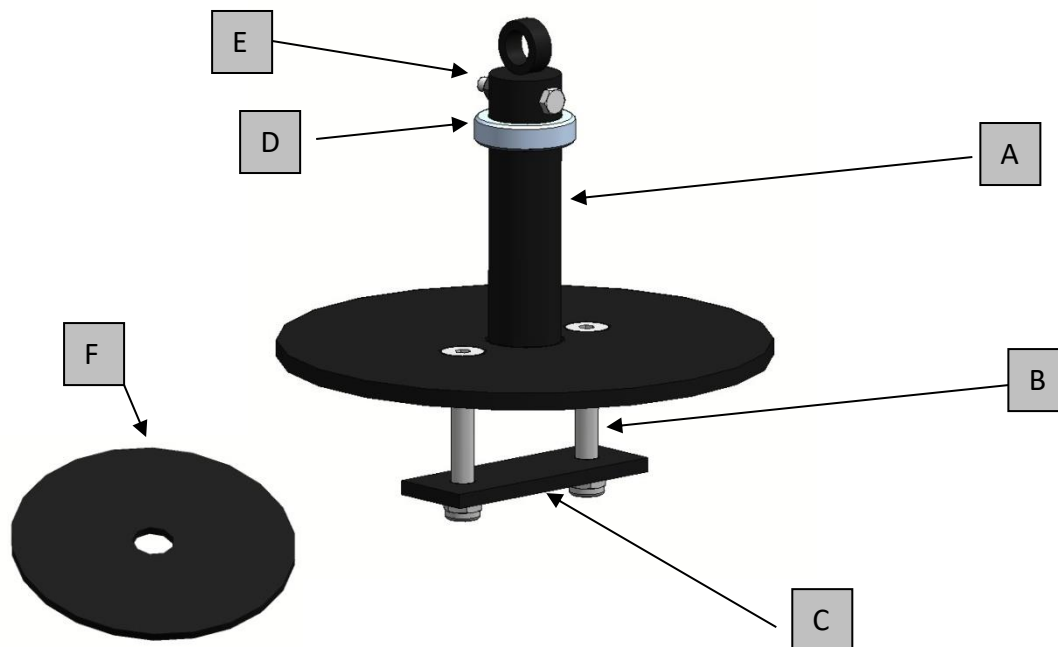
Pos.	Part no.	Description
A	992204	Lower hitch pin Ø 28mm Cat. 2
A*	992208	Lower hitch pin Ø 36,5 mm Cat. 3
A**	992198	Lower hitch pin Ø 28 – 36,5 mm Cat. 2/3
B	992205	Top link pin Ø 25 mm
B*	992207	Top link pin Ø 31,5 mm
B**	992195	Top link pin Ø 25 - 31,5 mm Cat. 2/3
C	992206	Support leg pin Ø 20mm
D	AB.0049	Support leg for GB-5 / GB-6
D*	AB.0065	Support leg for GB-2.5 / GB-3
E	901100	Bracket for warning panel
F	992065	Wing nut M10x25
G	990084	Warning panel 423x423
H	180625	Allen head bolt ( 4x)
I	100506	Washer M6 (8X)
J	100106	Prevailing torque type hexagon nut with plastic insert M6 (4x)







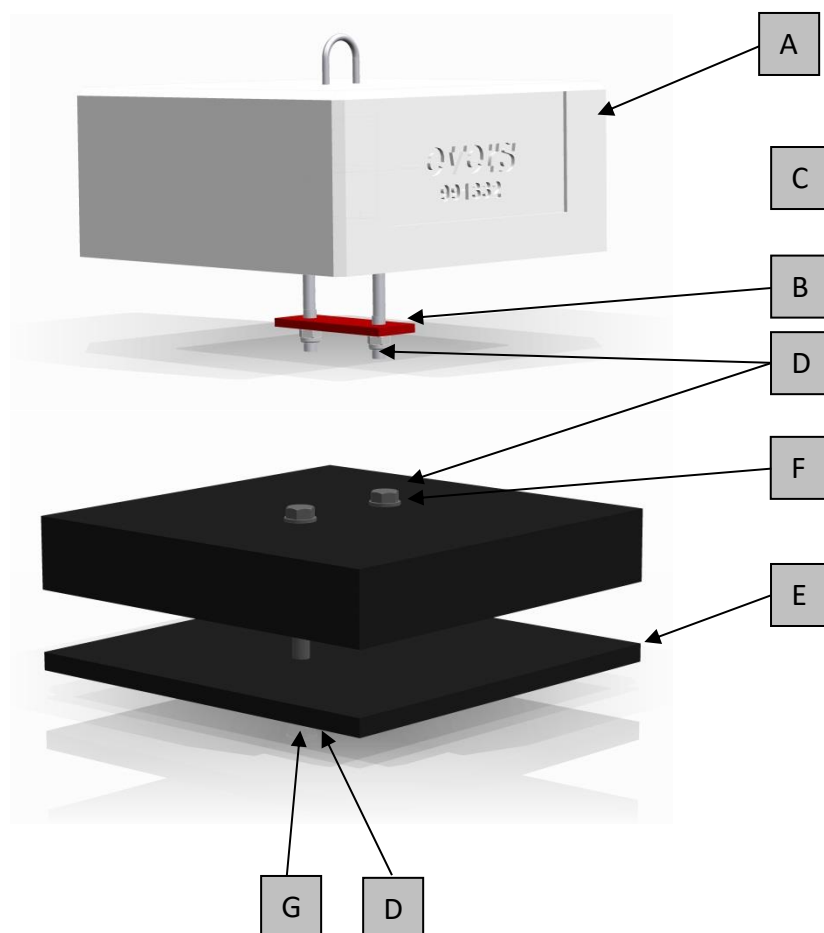
## I.4 Weight spindles (old)



Pos.	Part no.	Description
A	901001	Spindle holder (part) shaft L=200
A*	901010	Spindle complete (+/- 100kg weight 13 plates )
B	121612	Counter sunk bolts M16X120
C	901002	Mounting plate 60x10 Ø 18mm
D	994045	Adjusting ring Ø50 mm
E	101007	Hexagon head bolt M10x70
F	901003	Plate hole Ø50mm



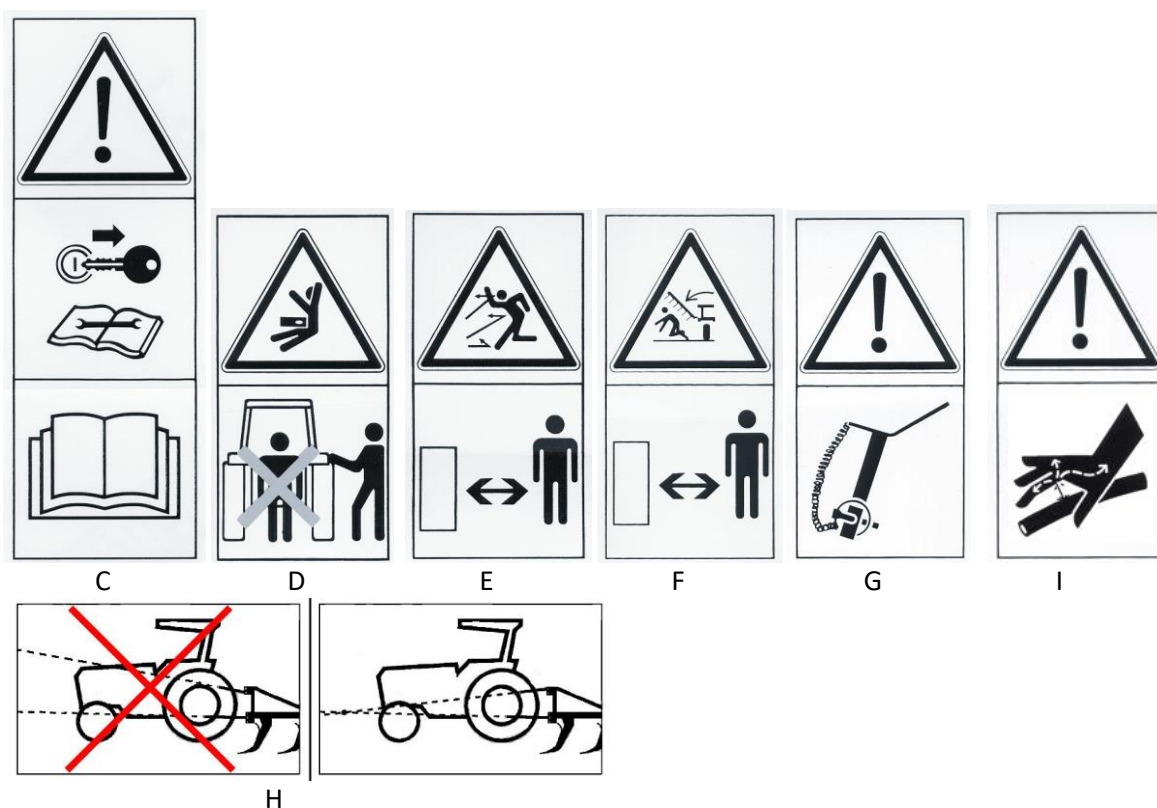
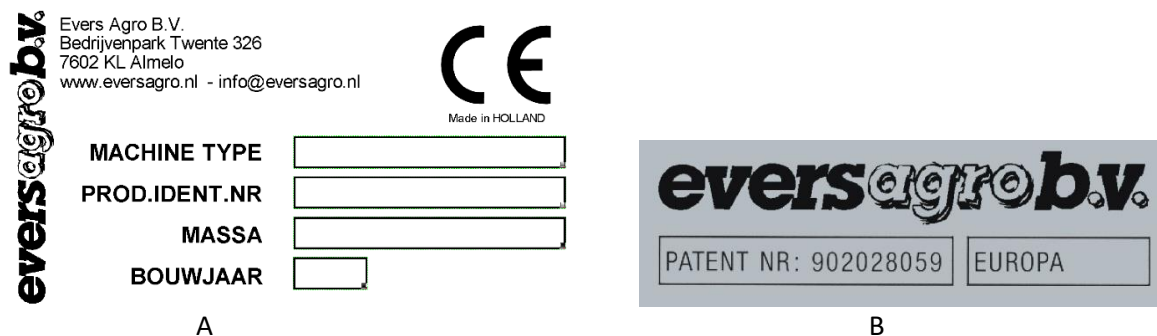
## I.5 Concrete Slitter weights (new)



Pos.	Part no.	Description
A	991332	Concrete slitter weight
B	991792	Mounting plate 175x60x15 Ø 18mm
C	101612	Hexagon head bolt M16X120 8.8 qlty
D	100216	Washer M16
E	993412	Steel plate 400x17,5 L=400 (6x)
F	101618	Hexagon head bolt M16X180 8.8 qlty
G	100116	Prevailing torque type hexagon nut with plastic insert M16



## I.6 Identification plate, patent plate and safety decals:



Pos.	Part no.	Description
A	992061	Identification plate
B	992062	Patent plate, Evers disc harrow Vario-Disc
C	992054	Safety decal "Read operation and safety instructions"
D	992055	Safety decal "Do not stay between tractor and machine"
E	992056	Safety decal "Keep clear"
F	992057	Safety decal "Keep away from folding parts"
G	992058	Safety decal "Fix locking pins with inserted retaining clip"
H	992066	Attention decal "Correct mounting topline between tractor and machine"
I	992063	Safety decal "Watch out for hydraulic leaks"