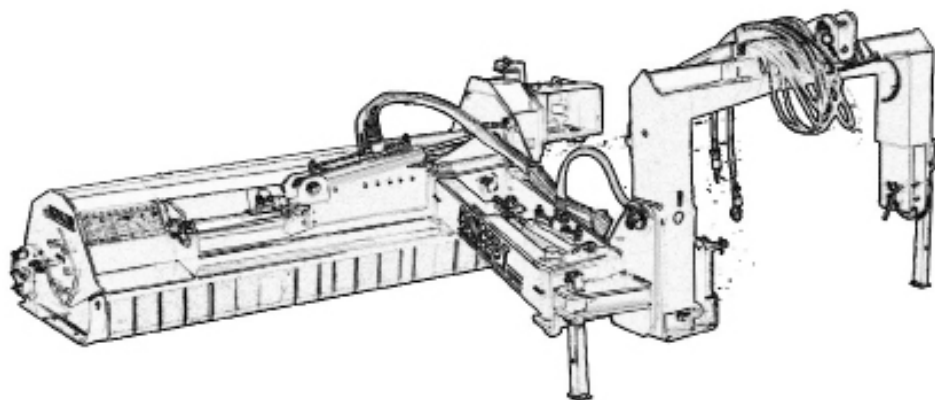


# **CONCEPT** **PERUGINI**

## **VERGE FLAIL MOWERS**



### **INSTRUCTION BOOK**

Manufactured by  
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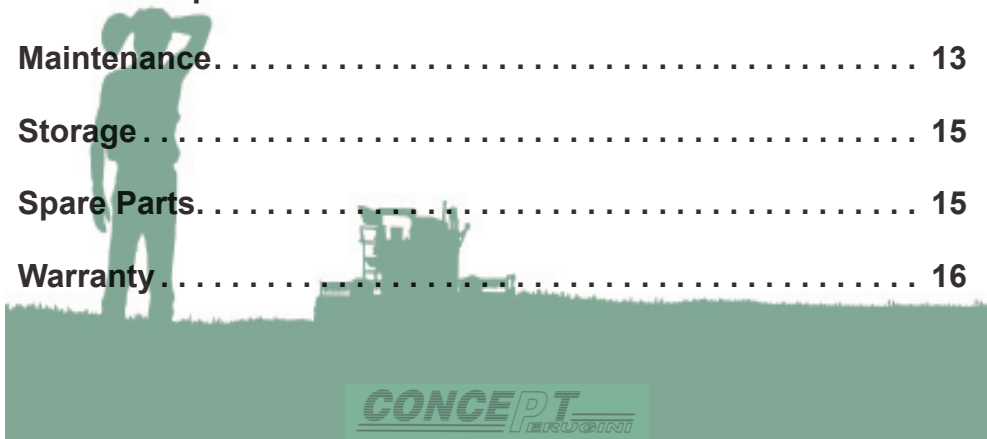


**CONCEPT PERUGINI**

CONCEPT PERUGINI S.R.L. RESERVES THE RIGHT TO MODIFY THEIR  
PRODUCTS WITHOUT PRIOR NOTICE AND THE COMMITMENT TO UPDATE  
THIS MANUAL

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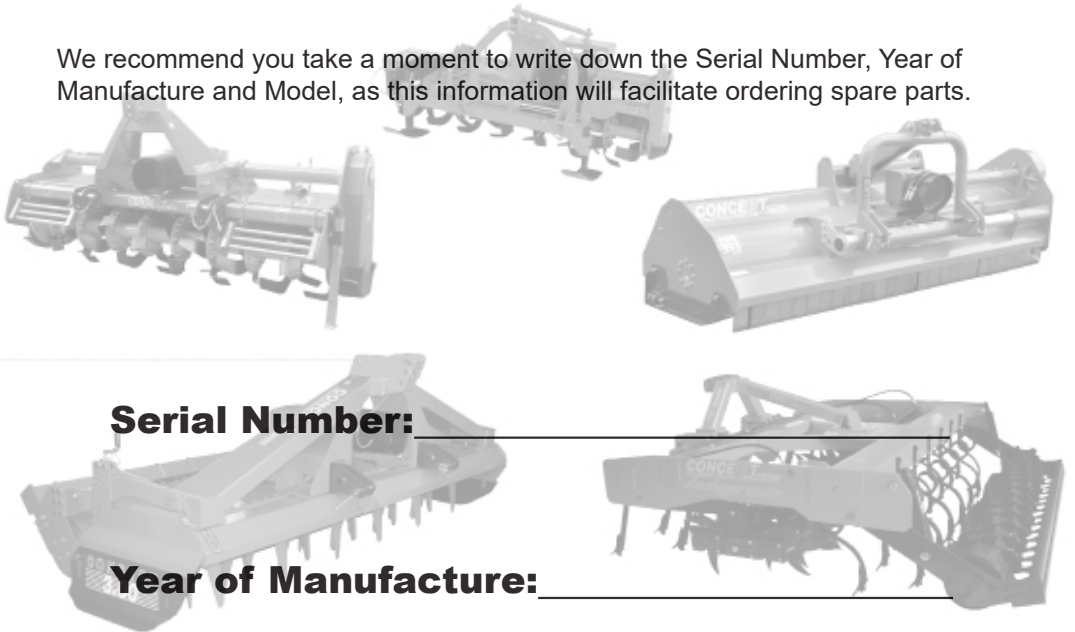
## Introduction

Concept Perugini S.R.L would like to thank you for purchasing this Flail mower and offer their support and assistance throughout its productive life.

We strongly recommend that this booklet is read and understood before using your new machine, and that regular maintenance is carried out as described further in the booklet. If any doubts arise then don't hesitate to contact your local dealer or the company via the options provided on the front page or via Facebook @ Concept Perugini.



We recommend you take a moment to write down the Serial Number, Year of Manufacture and Model, as this information will facilitate ordering spare parts.



**Serial Number:** \_\_\_\_\_

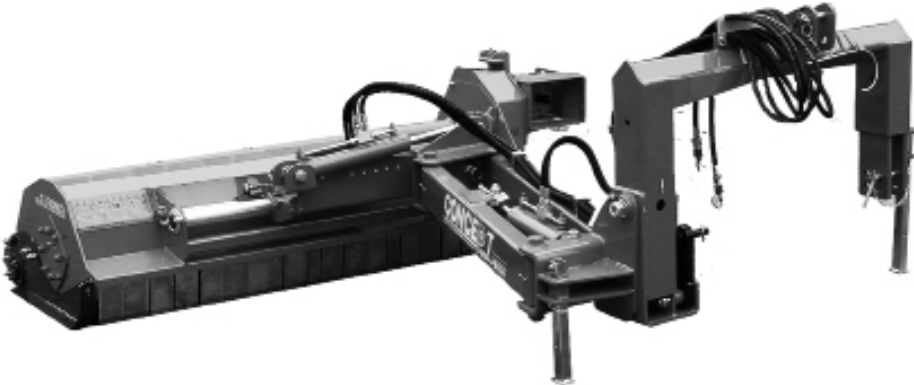
**Year of Manufacture:** \_\_\_\_\_

**Model:** \_\_\_\_\_

# Instruction Manual

The aim of this manual is to help you (the user) understand how to use and how to maintain the machinery. This booklet covers the following models : **DS SS MS**

## DS SS



**MS**

## Identification

The identification plate, attached to the machine shows the following information:

<b>CONCEPT</b> TRUCCINI 47014 MELDOLA - (FOI) - ITALIA		CE	
1 ANNO DI FABBRICAZIONE	2 ANNEE DE FABRICATION	3 ANNEE DE FABRICATION	4 ANNEE DE FABRICATION
5 ANNO DI FABBRICAZIONE	6 ANNEE DE FABRICATION	7 ANNEE DE FABRICATION	8 ANNEE DE FABRICATION
9 N° DI MACCHINA	10 NUMÉRO DE MATRIÈRE	11 SERIAL NUMBER	12 FABRIKSNUMMER
13 MODELLO	14 TYPE	15 TYPE	16 MODELLETYPE
KW	HP	min <sup>-1</sup>	
		±40	1000

- Manufacturer's Name
- CE mark
- Year of production
- Serial number
- Recommended tractor horsepower
- Overall weight
- P.T.O. speed and direction of rotation

These data are very important in order to check the compatibility between the machine and the tractor and when ordering spare parts

## Before operation

At the factory each machine is carefully inspected to guarantee proper functioning. In addition, the dealer, before delivering the machine should have carried out a pre delivery inspection. However as a precaution measure check:

- Oil level in the gearbox
- Grease all those components provided with grease nipples
- Air pressure in the tractor's tyres, length of lift arms
- Tractor PTO speed to match the machine transmission speed

## Safety

### Symbols

In this booklet three different symbols are used to highlight danger levels or important information



#### DANGER

To draw the operator's attention to situations which could endanger his or other people safety.



#### CAUTION

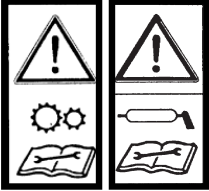




To draw the operator's attention to situations which could affect the machine performances but not his or other people safety.



#### IMPORTANT

To draw the operator's attention to situations which do not affect the machine performances and his or other people safety.

It is important to comply with the instructions given by the safety stickers, which must always be on the machine. If new ones are required, contact your dealer.

	<b>SYMBOL</b>	<b>DESCRIPTION</b>
1		<p>Before operation, adjusting or servicing the machine, it is important that each operator carefully reads the following instructions. Servicing lubrication etc. should be carried out with the engine stopped, the brakes applied and locked and the starter key removed.</p>
2		<p>Anybody who is near the machine when working, must keep at a safe distance. During operation keep away from rotating parts and PTO shaft. Do not remove safety guards whilst the machine is working or with engine running.</p>
3		<p>Danger of injury to lower body parts. Anybody who is near the machine when working must keep a safe distance at all times.</p>
4		<p>Danger of injury to limbs. Anybody who is near moving parts must be aware of where his body is in relation to the machine and keep at a safe distance. Do not remove safety guards.</p>
5		<p>Any servicing should be carried out with the tractor off and the correct parking procedures should be followed out as advised by the manufacturer. Should the machine need to be raised it should be supported securely.</p>



When lifting the machine always use the appropriate lifting gear and always use the lifting points indicated by the yellow and black stickers as shown in picture.

## General Safety Instruction

- During operation keep away from rotating parts and PTO shaft, do not remove safety guards during operation or with the engine running.
- Servicing should be carried out with the engine stopped, the brakes applied and locked and the started key removed. Once the machine is raised do not work underneath unless supported securely.
- When travelling on the public road disconnect the PTO shaft and carefully follow the traffic regulations of your country.
- Always lift the machine from the lifting points.
- The operator should be experienced and in good health in order to avoid injury to his person and others.
- The operator must wear the correct safety garments.
- Do not work when dark unless suitable lighting is available

## Operator's Prerequisites

To avoid danger to himself and others, the operator must be:

- **Physically sound**
- **Mentally sound**
- **Trained**

We advise that the operator read and understand this booklet before using the machinery. If there are any doubts then contact your dealer or **CONCEPT PERUGINI S.R.L**

## Work Clothing

The operator must wear the following:

- Working gloves
- Overalls of appropriate size
- Working boots
- Protective glasses
- Protective helmet

**ALWAYS MAKE SURE THE TRACTOR IS TURNED OFF, P.T.O IS DISENGAGED AND MACHINE IS MADE SAFE**

## **Attaching the machine to the Tractor**

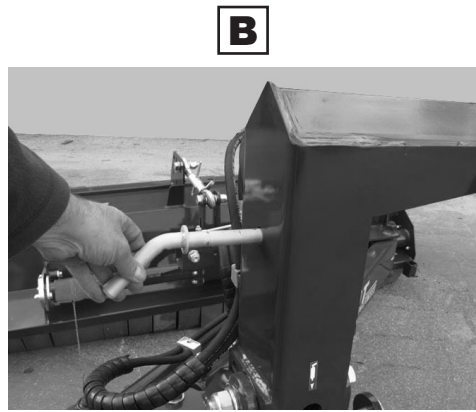
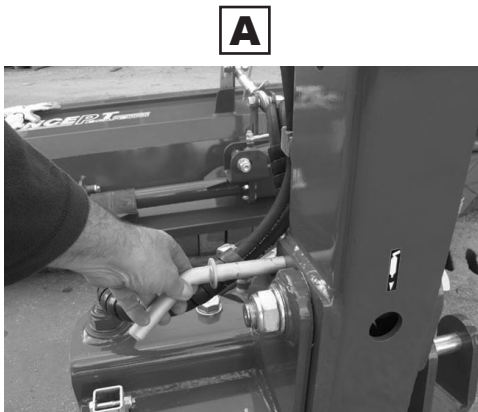
Concept Perugini Flail toppers can be linked up to any tractor with a category 1 or 2 three point linkage.

Read the tractor's instruction manual before attempting to attach the machine to the tractor.

- Adjust the width of the tractor arms to match the lower brackets on the machine.
- On a flat surface reverse the tractor up to the machine.
- Firstly attach the lower links and do the necessary adjustments to limit sideways movement.
- Lengthen and attach the top link in order to have the headstock perpendicular to the ground once attached.
- **Refit all hitch pins with the safety pins.**

**Adjust check chains or links in order to allow only minimum sideways movement.**

Once PTO shaft is connected and the guards' chains are properly secured then **remove parking legs** and **remove parking pin A** and place in its storage hole **B**.

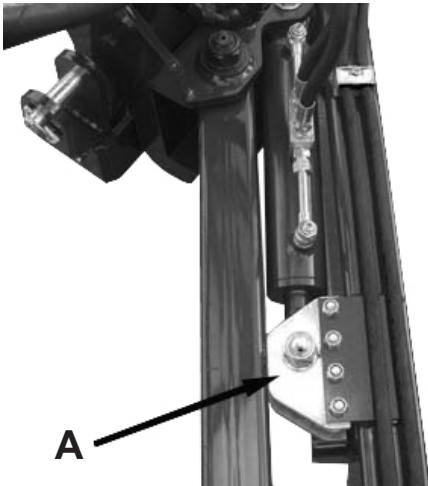




## PTO Shaft

If necessary, cut the PTO shaft to the right length following the shaft manufacturer instructions. Prior to cutting the shaft ensure that a minimum of 100mm overlap is achieved and the 2 half shafts do not “bottom” when in use.

When attaching the PTO shaft to the machine and tractor make certain that if the PTO shaft is fitted with an overrun clutch this must be installed on the implement. When connecting to the tractor verify that the locking pin is correctly located and secure in place. Before use make sure all the chains and guards are correctly fitted.

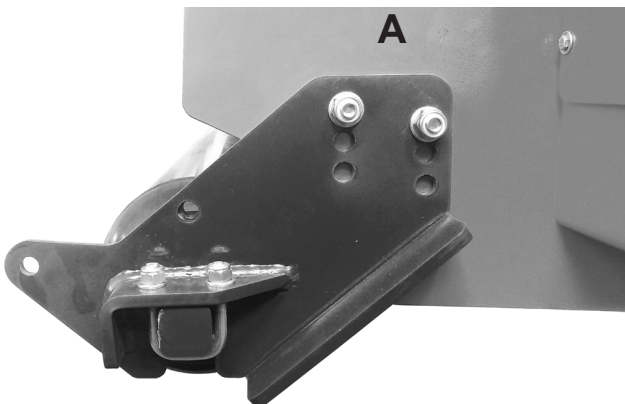


Depending on the tractor linkage and PTO position, when the DS-SS-MS are fully side shifted there is the possibility that the PTO shaft interferes with parts on the machine and could get damaged. It is important to adjust the amount of side travel in order to avoid damages and malfunctions.

Remove the four bolt holding the plates A and reposition the plates, by reversing them and/or using other holes to limit the side travel. Try the machine in all possible working positions to make sure that the PTO does not touch anything. Reposition the plates A if necessary.

## Working Depth

The height of the machine from the ground is controlled by the rear roller, skids and top link. Before using the flail mower make sure that the flails do not hit the ground, this will result in extreme wear and will damage the rotor.



### DS SS

- Remove bolts **A**
- Position roller bracket to the desired height
- Replace and tighten bolts **A**
- Repeat on opposite side



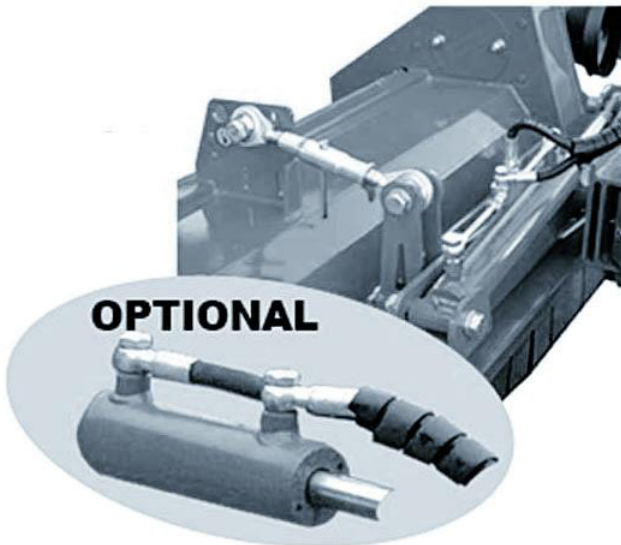
**MS**

- Slacken bolt **A**
- Remove bolts **B** and reposition skid in the desired position
- Replace **B** and tighten **A**
- Repeat on opposite side

### Tilt Adjuster

This unique feature of the **DS SS MS** enables to adjust the tilt position of the cutting unit in order to fine set the cutting height.

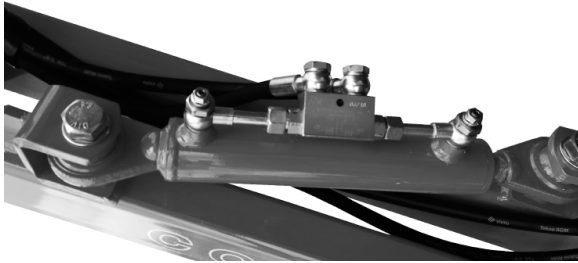
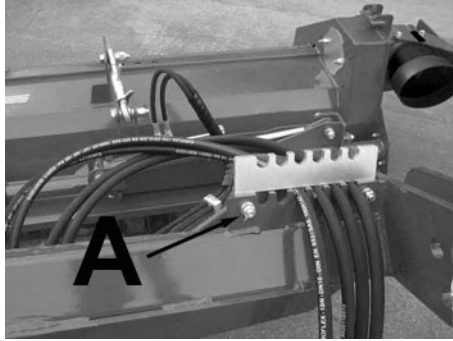
Turn the turnbuckle to the required position and lock it. As an optional the machine can be fitted with an hydraulic ram which can be operated from the tractor during use.



**DO NOT SET THE MACHINE TOO LOW. BLADES TOUCHING THE GROUND CAN DAMAGE THE ROTORE AND CAUSE DANGER.**

## Hydraulics

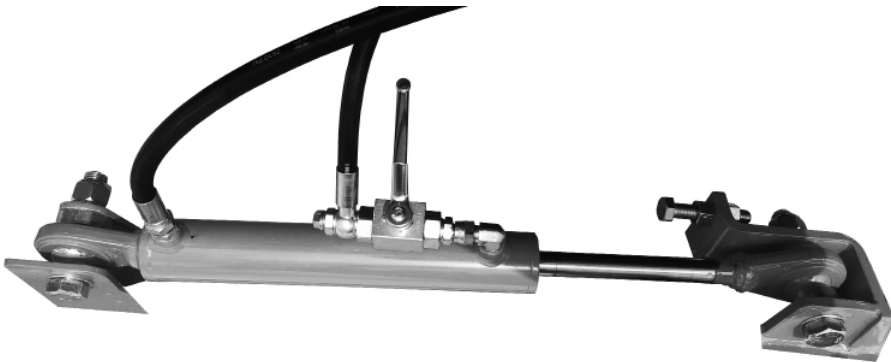
To use your verge mower firstly connect the hydraulic hoses to the tractors double acting spool valve. The **DS SS MS** have a housing bracket on the headstock **A** to place hoses when the machine is not in use and to stop the hoses getting trapped or damaged during use.



## Ram Adjustment

When the machine is connected for the first time to the tractor the oil flow must be regulated to get the desired movement speed. The machine should not move too quickly but must move steadily to avoid hitting obstacles and damages.

To adjust the oil flow undo the counter nut with a 13mm spanner and adjust the centre screw with an allen key, tightening the centre screw will reduce oil flow and loosening it will increase oil flow. **ADJUST** all adjusters fitted to the rams.



The tap on the machine ram must be opened during use and closed during transport. This acts as a safety block, restricting oil flow and therefore locking the implement in its position. During transportation the mower should never be in the upright position.

**N.B** The flow restrictors should never be adjusted with the oil under pressure. This will lead to personal injury and damage the machinery. Always lift the machine off the ground before using the hydraulic movements.

## **In the Field**

Once the machine has been attached to the tractor, adjusted and inspected then it can be operated in the field.

- Lower the machine to approximately 10 cm from the ground.
- Engage the tractor PTO and slowly increase the speed to 540 rpm.
- Lower the machine to the ground, engage a forward moving gear and commence forward motion.

**Always drive in a straight line, when turning lift the machine off the ground to avoid straining the parts in contact with the ground.**

**NEVER START THE MACHINE WHEN AT 90°  
ALWAYS ENGAGE PTO WHEN ROTOR IS PARALLEL TO THE  
GROUND**

**IF THE MACHINE IS PROVIDED WITH AN OPENING  
TAILGATE, THIS CAN BE OPENED ONLY WITH THE  
MACHINE STOPPED. FOR NO REASON CAN THE MACHINE  
BE USED IN THE FIELD WITH THE TAILGATE OPEN.**

## **Road Transport**

When transporting the implement attached to a tractor on public roads ensure that you comply with the relevant regulations.

- Class of roads permitted for travel may be restricted.
- Transport may be restricted to daylight or off peak traffic hours.
- Signs indicating width may be required.
- Lights indicating vehicle width may be required for the hours of darkness.
- Disengage PTO when transporting.
- Ensure all hitch pins are correctly fitted with retaining pins.

## Maintenance

The maintenance for the Concept Perugini flail mowers is very straight forward.

### Lubrication

#### Every 10 working hours:

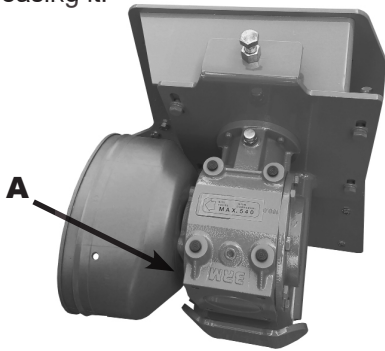
- Grease side shift sliding parts with **Agip 33/FD** or equivalent

#### Every 50 working hours:

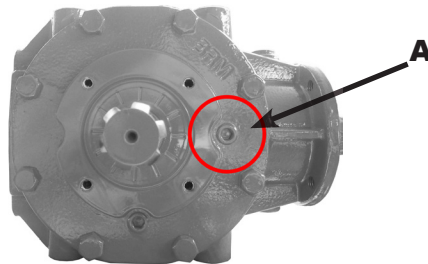
- Check the gear box and side shaft oil level. If necessary top up with gear oil **EP90**

#### Every 250 working hours or once a year:

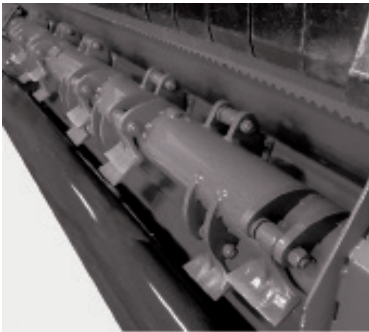
- Change the oil in the gear box and the side shaft
- Grease the rear roller bearings. **DO NOT OVER-GREASE** the bearings, this will lead to the seal braking causing dirt to enter the bearing and eventually ceasing it.



To control the oil level in the gearbox use tap **A** located behind the plastic guard. The guard must be removed in order to access tap **A**.



## Rotor



Maintenance on the rotor is very important. Before and After each use check to see if the rotor and flails are damaged. If the rotor is damaged it will cause it to become unbalanced creating unwanted vibrations. If the rotor is damaged then contact your local dealer.

Check the bolts for tightness and the flails for wear and breakages. Replace all broken, bent or worn blades.



To replace the blades machine must be lifted and the blades replaced from underneath, make sure the machine is properly supported and made safe.

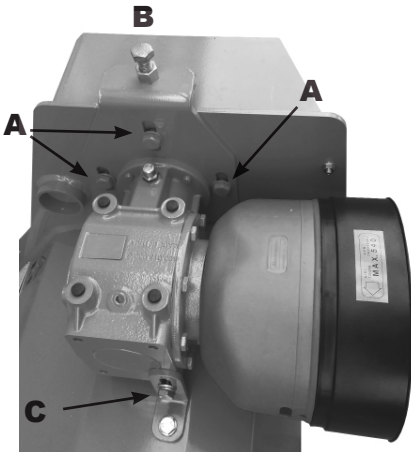
Belt tension observation slot



### Transmission

The transmission on all Concept Perugini flail mowers is belt driven. After the first 2/3 hours of use check the tension in the belts and every 40 hours thereafter via the slot on the belt guard, there should be 5 mm play when 10kg are applied.

Should the belts need tensioning or replacing, the procedure is very simple:

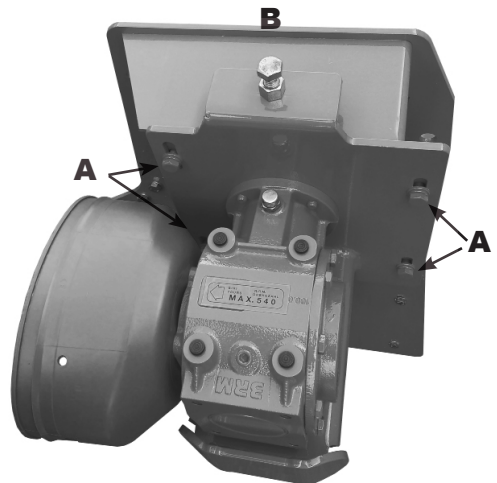


### INTERNAL GEARBOX

- Slacken the bolt **C**
- Slacken the bolts indicated **A**
- Adjust the tension by either tightening or slackening bolt **B**, **NB**. Loosen the counter nuts on **B** before tightening or slackening
- When the belts are taught tighten the counter nuts on **B** and tighten **A** and **C**

### EXTERNAL GEARBOX

- Slacken the 4 bolts indicated **A**
- Tighten or loosen bolt **B** to reach the optimum tension. **NB** loosen counter nut on **B** before either tightening or slackening
- Once the tension has been made tighten all bolts **B** and **A**



## Stone Guards

The front stone guards are very important for the protection of the tractor driver. Under no circumstances should the machine be used without the front stone guards. If the guards are bent, worn or broken they should be immediately replaced, failure to do so can result in severe injury and in certain cases can cause death.

The picture shows the comparison between a used worn and bent stone guard (top) and a new guard (bottom).

If the machine is properly set up, set at the correct height and the top tractor link is adjusted accordingly then the stone guards should be able to hang freely and not dig into the ground.

**ALL MAINTENANCE MUST BE CARRIED OUT WITH THE TRACTOR ENGINE OFF, P.T.O DISENGAGED AND THE MACHINE PROPERLY SUPPORTED. FAILURE TO DO SO CAN RESULT IN SERIOUS INJURY**

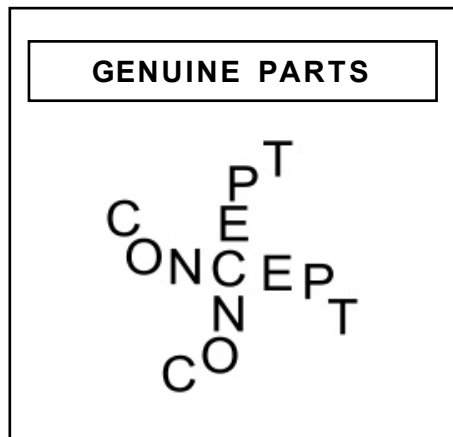
## Storage

Before storing the flail mower after it's seasonal use it is recommended that a thorough check and clean is carried out. Remove all dirt and address any severely worn parts or broken parts. Treat any areas of the machine where the paint has worn off with a rust inhibitor and store in a dry place out of the elements to insure a longer life span. Grease the P.T.O shaft following the manufacturers recommendations.

## Spare Parts

For the correct spare parts contact your local dealer and ensure that you have the all of the identification data and correct codes of the parts required.

Always use **genuine Concept spare parts**



**THE USE OF NON GENUINE PARTS WILL NULLIFY THE  
WARRANTY**

### **Warranty**

During the warranty period the appropriate maintenance should be carried failure to do so will breach any cover necessary,

Concept Perugini S.R.L covers warranty with the exemption of wearing parts, providing that the fault is due to defects in workmanship or material and is in any way or to any extent not attributable to misuse, lack of reasonable care and general wear or to the fitting of spares, replacements or extra components which are not supplied or approved by Concept Perugini S.R.L. failure to comply will void warranty and should any problems arise Concept Perugini S.R.L is not held responsible and is not required to answer to any warranty claims.

**CONCEPT** MADE IN ITALY  
**FARM MACHINERY** **PERUGINI**