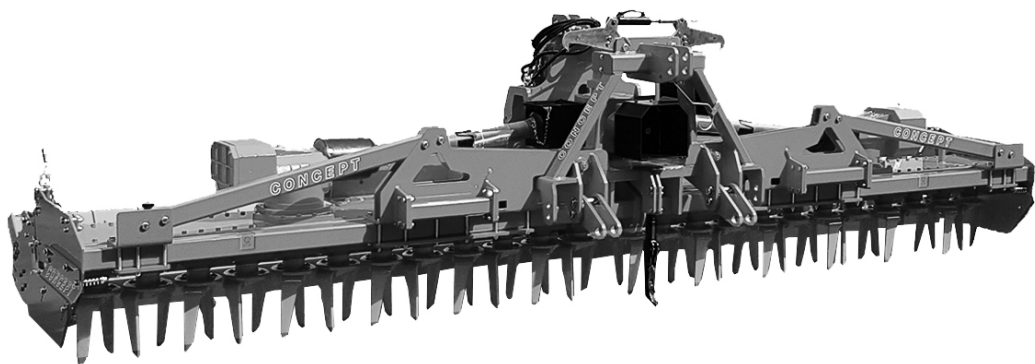


CONCEPT **PERUGINI**

POWER HARROW



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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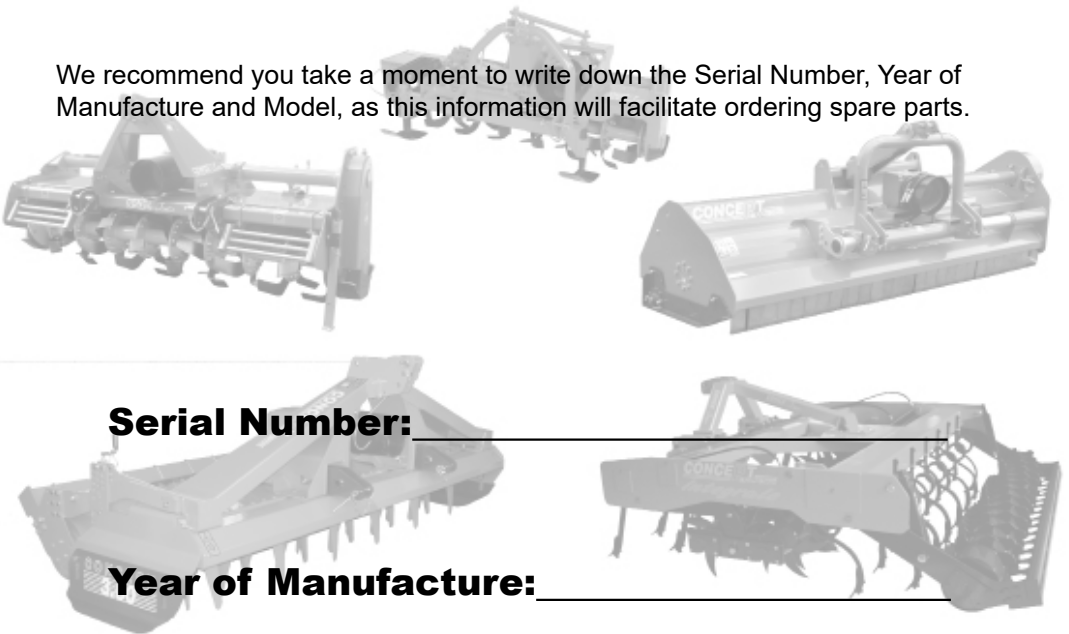
Introduction

Concept Perugini S.R.L would like to thank you for purchasing this Power Harrow 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: _____

Identification

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

CONCEPT ELETTORELLI MACCHINARI 47014 MELDOLA - (PO) - ITALIA		CE	
① ANNO DI FABBRICAZIONE	② MANIFATTURA YEAR		
③ ANNÉE DE FABRICATION	④ DE LAJOUR		
⑤ N° DI IMMATRICOLA	⑥ SERIAL NUMBER		
⑦ NUMÉRO DE MATRICULE	⑧ FABRIKNUMMER		
① MODELLO	② TYPE	③ TYPE	④ MODELLE/SERIE
KW	HP	 min^{-1}	
		<input type="checkbox"/> 440 <input type="checkbox"/> 5000	<input type="checkbox"/>

- 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

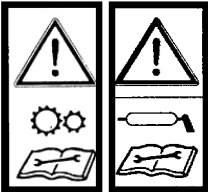




To draw the operator's attention to situations which could affect the machine performances but not his or other people safety.



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.

	SYMBOL	DESCRIPTION
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

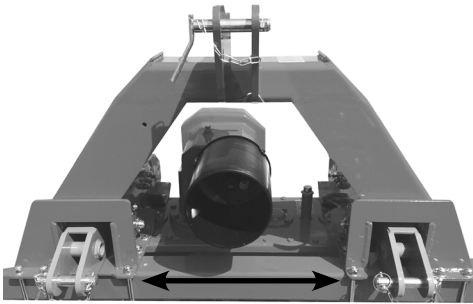
ALWAYS MAKE SURE THE TRACTOR IS TURNED OFF, P.T.O IS DISENGAGED AND MACHINE IS MADE SAFE

Attaching the machine to the Tractor

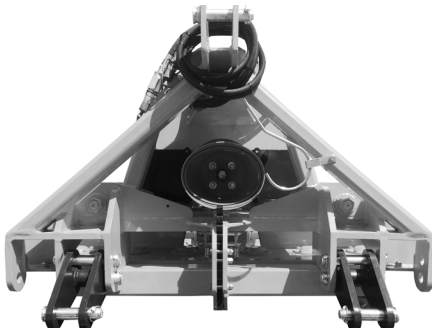
Concept Perugini Power Harrows can be linked up to any tractor with a three point linkage.

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

- Adjust the width of the lower brackets on the machine to match the tractor arms distance.
- 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 machine parallel to the ground once attached
- **Remember** to fit all the locking pins and that the machine is safely secured to the tractor
- **FOLDING MODELS** Attach the hydraulic hoses to the tractors hydraulic ports. One of the hoses for the folding rams, is fitted with a flow adjuster to set the oil flow in order to have smooth movement when unfolding the machine. Adjust it if necessary. **NOTE** if the flow adjuster is too closed the machine will not unfold.



Adjusting the lower linkage on **Rigid** models is very simple:
Remove the pins and swap the brackets from left to right.

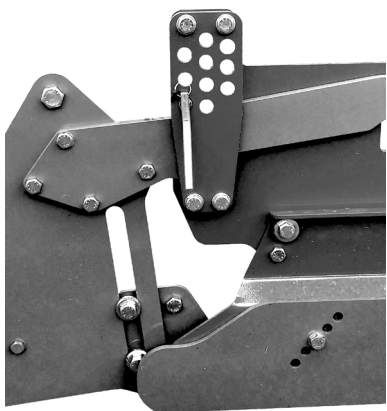


On **Folding** models move the brackets between the appropriate plates to match your tractor linkage category

Working Depth

The working depth of the machine is controlled by the rear roller. The more the roller is raised the deeper the machine will work.

Roller Adjustment



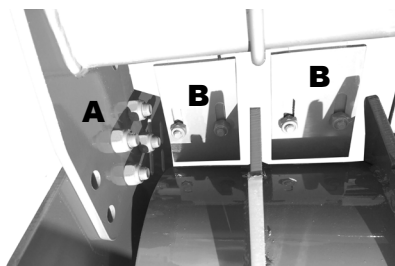
To adjust the height:

- Lift the machine with tractor
- Insert the pin in one of the holes according to the desired height
- Repeat on both sides of the roller

For folding models the 2 rear rollers are independent which must be both set following the procedure above

THE WORKING DEPTH ADJUSTMENT MUST BE CARRIED OUT IN THE FIELD WITH THE ENGINE STOPPED, PTO DISENGAGED, PARKING BRAKE APPLIED AND THE MACHINE LOWERED ONTO SUITABLE SUPPORTS.

Depending on the requirements our machines can be fitted with various types of rollers. When the machine is fitted with packer rollers the scrapers must be adjusted.



- Loosen bolts **A**
- Reposition the scraper bar in order to leave a 5mm gap between the scraper and the roller
- Tighten bolts
- To replace worn scrapers undo bolt **B**

Levelling Bar Adjustment

To vary the degree of soil tillage the machine is fitted with an adjustable rear levelling bar. To adjust the height of the bar either relocate the pins making sure to use the same hole on each side or if your machine is fitted with adjusters then simply wind the handle. Measure the position of the indicator to certify that both adjusters are at the same height.

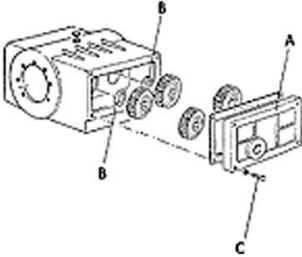
Folding models have two independent bars which must be both set accordingly and both to the same height.

Centre Tine Adjustment

Folding models are fitted with a centre tine to eliminate the ridge between the two units. The tine height can be adjusted by removing the three bolts and repositioning the tine to the desired height.

Rotor Speed Change

It is possible to change the rotor speed to suit the soil condition and achieve the desired tilth.



- Remove screws **C** and remove back plate **A**
- Remove the gears and combine the correct gearings to obtain the desired rotor speed
- Certify that the spacers **B** are in the correct position
- Re-assemble

Before Use

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 gearbox
- Grease all components provided with grease nipples
- Air pressure in tractor's tyres, length of lift arms
- Tractor PTO speed to match the machine's transmission speed
- Guards and Safety Devices are in position and working
- The tractor hydraulics are in Position Control
- The PTO drive shaft does not exceed an angle of 20° and the Harrow is set to lift only 10-20 cm off the ground
- The side adjustment for the bottom links is set into the right position
- Tractor PTO guards are fitted correctly
- The top link is set so that the machine is in a horizontal position when working
- PTO shaft doesn't bottom and has enough overlap to work safely

Tilth

Should the tilth be too **coarse** the operator should increase the blade speed, decrease tractor speed, lower the levelling bar or work the soil when it presents itself in a drier condition.

If the tilth is too **fine** reduce the blade speed and increase the tractor speed.

In the Field

Rigid Models

After all the adjustments have been carried out and the machine is properly connected to the tractor the machine is ready to be used.

- Lower the machine to 5cm off the ground
- Engage the tractor's PTO and start the machine
- Lower the machine
- Increase the engine speed to obtain a PTO speed of 540 rpm or 1000 rpm depending on the model and recommendations
- Engage a suitable gear and start to move forward

Folding Models

- Fully close the wings
- Open the safety catches
- Unfold the wings
- Lower the machine to 5cm off the ground
- Engage the tractor's PTO and start the machine
- Lower the machine
- Increase engine speed to obtain a PTO speed of 540rpm or 1000rpm depending on the model and recommendations
- Engage a suitable gear and start to move forward

Road Transport

When transporting the implement on public roads ensure to follow the highway code of the country you are in.

Secure the Power Harrow for transport.

- Disengage the PTO during transport
- Ensure all hitch-pins are correctly fitted with retaining pins
- Mechanically secure hydraulic cylinders to prevent creeping

Folding models:

- Fold the wings
- Engage the safety catches

Operational Information

By varying the rotational speed of the blades, the cultivation depth and the forward speed of the tractor a range of tithes can be achieved. Various cultivation techniques and a variety of tasks can be handled by the machine. It is however best suited to producing seedbeds with moisture retained in the lower soil layers, quickly and economically.

As a general principal fine tiths are produced by a combination of fast blade rotation and slow tractor travel speeds. Conversely slower blade rotation and faster tractor travel produces progressively coarser tithes.

It should be noted that slower blade rotational speeds require less power. High blade rotational speed increase blade wear and may damage soil structure.

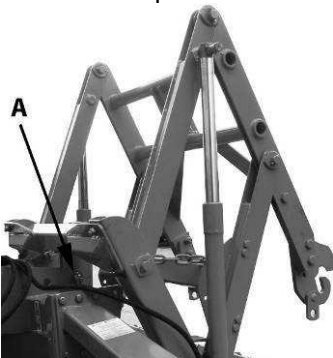
A high travel speed and fast blade rotation should be used only for preparing shallow seedbeds on previously broken ground.

Avoid cultivation when the soil is excessively wet or dry. If moisture levels are high this can cause the soil to ball and clog the blades, if moisture levels are low a lot of dust is produced causing premature wear on the blades.

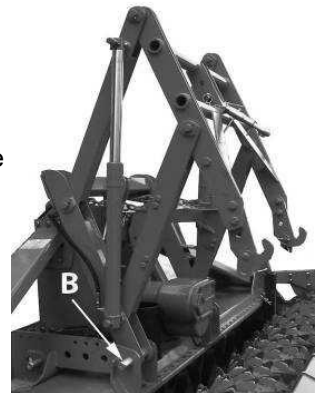
Attachments

Hydraulic Hitch

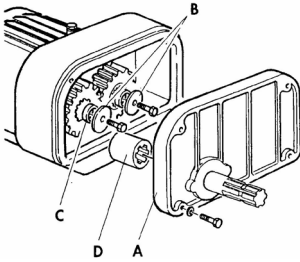
The hydraulic hitch may be fitted via the pins provided in order to then attach a second implement behind the power harrow.



- Attach the hitch to the machines via pins **A** and **B**
- Connect the hydraulic hoses
- Reposition the bottom linkage hooks to suit the implement linkage height and width, attach the second implement and adjust the length of the top link



Rear P.T.O



To install a rear P.T.O proceed as follows:

- Remove back plate **A**
- Remove washers and bolts **B**, remove spacers **C**
- Insert sleeve **D**
- Re-assemble the cover making sure that the P.T.O shaft is inserted into the sleeve **D**
- Tighten all bolts
- Re-assemble the drive shaft's guard

Maintenance

When the machine is moved, loaded or unloaded, always use the lifting eye C

Lubrication and Checks

Every 10 hours: Grease the pivot points on the folding frame.

Every 50 hours: Check the oil level in the gearbox. If necessary add oil using EP90 gear oil.

Every 250 hours or Annually: Change the gearbox oil. This operation must be performed at least once a year.

The trough is filled with permanent grease and does not require maintenance

Tines Replacement

Everyday check the bolts for tightness and the blades for wear and breakages. Replace all broken, bent or worn blades to avoid vibrations.

Secure the machine on appropriate supports before carrying out any work.

Bolt on Tines:

- Remove the bolts and replace the blade, tighten bolts and check after an hour that the bolts are correctly taught

Quick fit Tines:

- Remove the linchpin and pin and replace the blade

Blades should be replaced one by one in order to maintain the original position

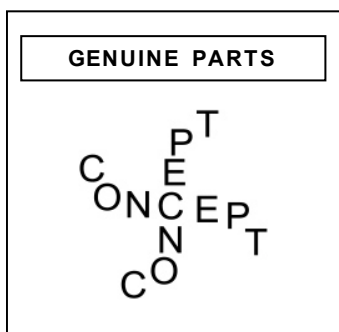
Storage

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 SPARE 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**

The logo features the word 'CONCEPT' in a large, bold, sans-serif font with horizontal stripes. Below it, 'FARM MACHINERY' is written in a smaller, solid sans-serif font. To the right, 'PERUGINI' is written in a large, bold, sans-serif font with horizontal stripes. Above 'PERUGINI', the words 'MADE IN ITALY' are written in a smaller, solid sans-serif font.