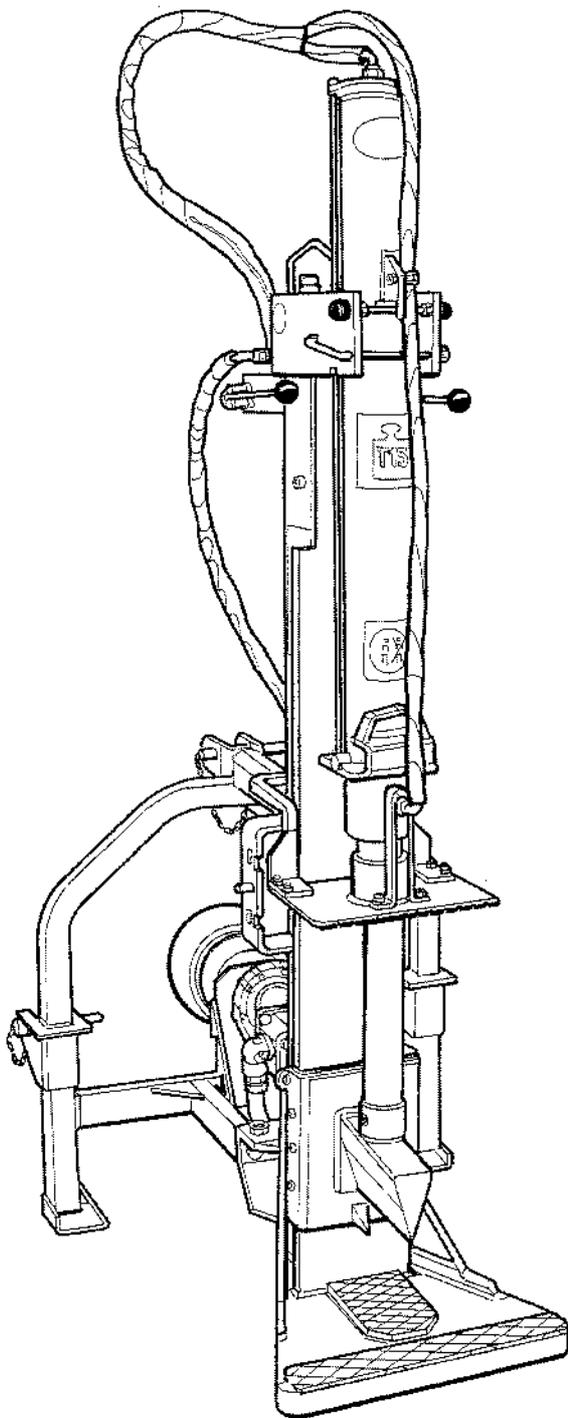


# Farmer Special series



**GB**

**Operator use and maintenance**  
*"Contains CE conformity declaration"*

**mod: 13 Ton HV**  
**mod: 15 Ton HVP/V.PF**  
**mod: 18 Ton V.PF**



Read this manual carefully before using the machine

# Index

INTRODUCTION.....	3
WARRANTY .....	4
MACHINE INFORMATION.....	5
OPTIONAL ACCESSORIES .....	7
SAFETY PLATES and SYMBOLS.....	8
SAFETY INFORMATION.....	9
CONTROL and SAFETY DEVICES.....	11
RECOMMENDATIONS IN CASE OF PROBLEMS .....	12
INSTALLATION.....	13
BEFORE THE WORKING CYCLE.....	15
WORKING CYCLE.....	16
OPERATIONS AND MANOEUVRES FOR END-OF-WORK AND TRANSPORT .....	17
MAINTENANCE .....	18

## INTRODUCTION

---

**T**his manual provides you with all the necessary information for the use and maintenance of your machine. It will work well and last for a long time if it is maintained well and used carefully.

Before leaving the production plant, this specific model was subjected to rigorous testing so as to warranty maximum reliability. However, it is necessary to check that the machine has not suffered any structural damage during transport that could jeopardize its functioning and safety.

This manual is to be considered an integral part of the machine and must accompany it until it is broken up.

If it is lost or damaged, ask **Ricca Andrea & Co.** for a replacement copy.

This manual was written in accordance with the European Directive 2006/42/CE, a directive concerning the machines' safety, which substituted the Machines Directive 98/37/CE and entered into force since December 2009. These guidelines prefigure the furnishing of all safety systems already in the planning phase, in order to avoid risky and dangerous situations for the users' health.

The technical information contained in this manual is the property of **Ricca Andrea & Co.** and must be considered confidential.

Reproduction of the graphics, text and diagrams, even in part, is forbidden by law.

Certain details shown in the diagrams in this manual could be different from those on your machine. Certain components might have been removed in order to make the diagrams clearer.

To make this manual easy to consult, it is divided into different sections, each one with a different symbol.

The topics discussed in this manual are those expressly required by the "EU Machine Directive 2006/42/CE" and subsequent modifications and the technical data given is that supplied by the manufacturer at the moment of writing.

This manual must be kept in a place which is accessible to all the staff in charge of operating and maintaining the machine.

In case of any dispute, the Cuneo Law Court in Italy will have jurisdiction.



**In case of any problems, our technicians are at your complete disposal.**

**Tel. 0171.946709 - Fax 0171.946719**



**If the machine is sold to another party, this manual must be given with it !**

**CONDITIONS AND LIMITATIONS**

**A**ll our machines have been subjected to careful testing and are covered by a 24-month warranty for private and DIY use and a 12-month warranty for industrial use or for hiring from the date of production against manufacturing defects.

The warranty starts from the purchase date indicated on the warranty card enclosed with the manual. When the card has been duly and completely filled in, it must be sent to the manufacturer within 10 days of the first use of the machine.

The warranty is not valid if the machine is repaired by unauthorized third parties or if equipment or accessories are used which have not been supplied by “**Ricca Andrea & Co.**”, or which have not been recommended or approved by the above, or if the serial number has been removed or altered during the warranty period.

“**Ricca Andrea & Co.**” undertakes to repay or replace free of charge any parts which, within the warranty period, prove to have manufacturing defects.

Repairs are carried out exclusively in our factory or in a Technical Service Centre that we indicate and must arrive free port (with transport costs paid by the user unless agreed otherwise).

The warranty does not provide for any cleaning of working parts.

Defects which are not clearly attributable to the material or manufacture will be examined in our factory or in a Technical Service Centre that we indicate.

If the claim should prove to be unjustified, all repair and/or replacement costs of parts will be charged to the purchaser.

The fiscal purchase document must be shown to the technical personnel carrying out the repairs or must accompany the machine if sent for repair.

The following are excluded from the warranty: accidental damage caused by transport, by negligence or inadequate treatment, by improper use not corresponding to the directions given in the instruction book and any phenomenon non dependent on the normal operation or use of the machine.

“**Ricca Andrea & Co.**” declines all responsibility for any damage to persons or things caused by wrong or improper use of the machine.

For any dispute, the Cuneo Law Court in Italy will have jurisdiction.

 **Failure to send the card nullifies the warranty !!**



## 1.1 Machine description

This series of models, which could be described as semi-professional, is ideal for those who use wood for heating (fireplaces, stoves, wood-fired boilers).

The **Farmer Special** models, 15 Ton or 18 Ton, are described in this manual.

The company has designed and built these models to guarantee a high degree of safety.

The various log-splitter models differ due to their power and feed-type which can be with a cardan joint (V.PF), a hydraulic pump (HVP) or with simple tractor hydraulic drives (HV).

Every model is supplied strictly following the regulations in force in the various international markets.

## 1.2 Manufacturer's identification data

Ricca Andrea & C. Snc

Via Vecchia di Cuneo, 57

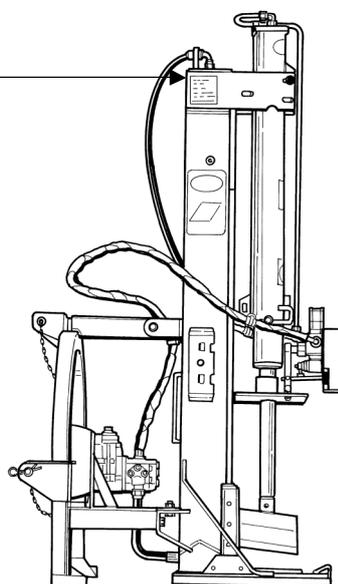
12022 BUSCA (CN) - ITALY

Tel. 0171.946709 - Fax 0171.946719

## 1.3 Machine identification plates

For any contact with the manufacturer it is always necessary to quote the data given on the machine identification plate.

COSTRUTTORE RICCA ANDREA & C. Snc 12022 Busca (CN) Italy		
Modello :		
Serie :		
Matricola :		
Pressione bar :	P.s.i. :	
P.t.za n.le assorbita :		
Corrente n.le :	50 Hz	
Tensione n.le :	<input type="checkbox"/> 230 <input type="checkbox"/> 400	
Grado di protezione : IP	<input type="checkbox"/> 54 <input type="checkbox"/> 44	
P.t.o. max G/M :	<input type="checkbox"/> 540 <input type="checkbox"/> 1000	
Massa : Kg.		
2001	Codice 100.029	



## 1.4 Designed use

These specific wood-splitter machine models have been designed, built and protected only for cutting fire-wood logs of various sizes depending on the model. (See technical data table).

Furthermore the log splitter has been built only for breaking logs longitudinally with respect to the wood fibres.

Use of the machine other than that specified by the purchaser's order and/or by the manufacturer's technical specifications is considered to be IMPROPER.

## 1.5 Permitted environmental conditions

So as to guarantee correct operation, the machine must be sheltered from atmospheric elements (rain, hail, snow, fog, suspended particles of dust, etc.) with a working environmental temperature between -15° and 45° and relative humidity no greater than 70%.

The working environment must be clean, sufficiently bright and in the absence of an explosive atmosphere.

## 1.6 Noise level

Noise meter trials carried out on these models show a continuous acoustic pressure of less than:  $L_{pa} < 80 \text{ dB}$ .

### **WARNING**

For the VS models (with piston motor), however, it is advisable to use protective earplugs or headphones.

## 1.7 Qualitative characteristics

Double-acting hydraulic cylinder with return safety block.

Return hydraulic cylinder.

Electric system with safety magnetothermal switch.

Long-lasting epoxy paint.

Interchangeable slide guides.

Anti-capsizing front and rear supports.

Very high quality materials and components.

Strict component and final quality testing.

## 1.8 Storage

Remove all foreign parts from the machine and clean the surfaces.

Using a brush, coat all the mechanical parts, including the fastening devices, with a protective lubricant to be removed in case of reinstallation with alkaline degreaser.

Lubricate the mechanical parts and coat the surfaces with a protective lubricant.

Follow the machine handling instructions and store the whole machine in a sheltered place between 0° C and 40° C. Protect the parts from the build-up of dust.

## 1.9 Scrapping

If the machine is to be scrapped, it must be disposed of in appropriate dumps, respecting the regulations in force.

Collect any used oil and dispose of it in the special oil collection centre. Do not dispose of the oil in the environment as, according to the laws in force, it is classified as dangerous refuse.

Before scrapping the machine, it is necessary to separate the plastic or rubber parts and the electric material.

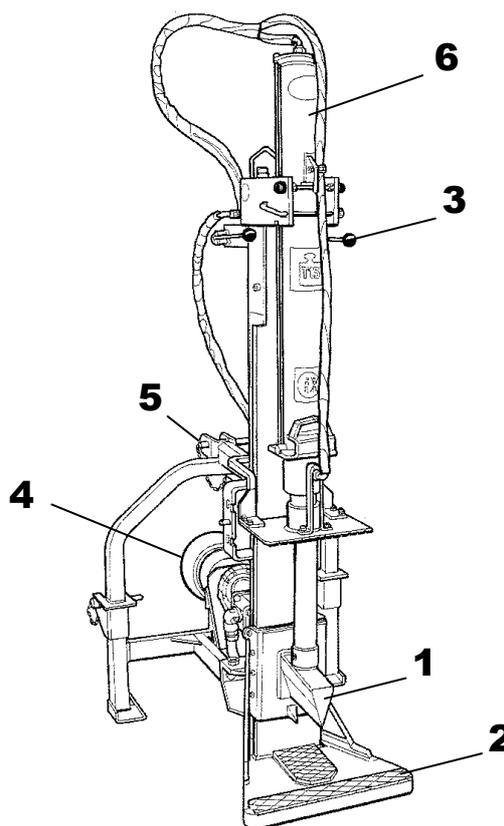
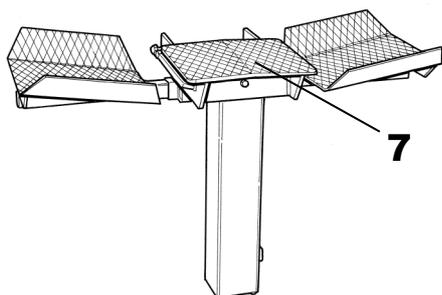
Those parts made solely of plastic, aluminium and steel can be recycled if taken to special collection centres.

## 1.10 Overall dimensions / Technical data

Refer to the technical table enclosed for the overall dimensions and technical data.

## 1.11 Identification of the main components

- 1) CUTTER
- 2) LOG SUPPORT BASE (cm 100)
- 3) LEVER CONTROLS
- 4) POWER UNIT
- 5) 3<sup>rd</sup> POINT 1st - 2nd CAT. JOINT
- 6) HYDRAULIC CYLINDER
- 7) LOG SUPPORT BASE (cm 35)

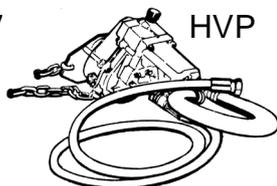


NB: this diagram represents the V.PF model.

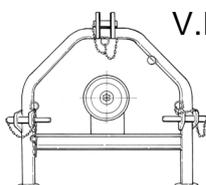
Power unit:



HV



HVP



V.PF

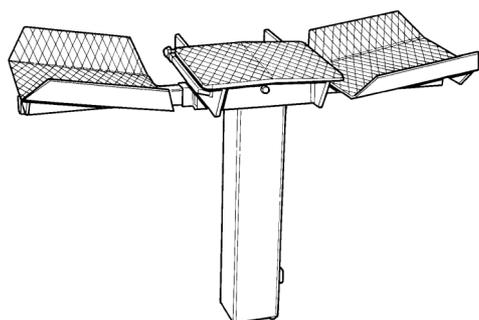


## OPTIONAL ACCESSORIES



Cross cutter

Cod. 845.086.K



Log support base (cm 50) with side extensions

Cod. 845.162.K



## SAFETY PLATES and SYMBOLS

Self-sticking labels with safety symbols and/or messages are applied to the machine. The nature of the danger and the position of the labels on the machine are indicated in this chapter.



**ATTENTION:** Ensure that all safety messages are legible. Clean them using a cloth, soap and water. Do not use solvents, naphtha or petrol. Ask Ricca Andrea & C. Snc. for replacement labels if necessary and replace any damaged labels. If there is a label on a part which is to be replaced, ensure that a new label is affixed onto the new part.

*NB: for place reasons, the warning and attention pictograms got grouped in one single self-sticking label positioned in the plate (A).*



Read the manual carefully before using the machine or before carrying out a maintenance operation.



Read the manual carefully before carrying out maintenance operations on the hydraulic system.



Disconnect the power supply before carrying out any maintenance operation.



Electrocution hazard. Operate in dry places.



Shearing hazard. Do not approach the wedge when in motion.



Crushing hazard. Stand at safety distance.



Crushing hazard. Do not approach your hands.



Beware of hot surfaces (oil tank, engine, oil pump).



Objects-throwing hazard. Keep at safe distance.



Power down the tractor before carrying out any maintenance operation.



Do not stand between the tractor and the machine.



Use safety gloves.



Use ear muffs.



Use safety glasses.



Use the overalls.



Use safety shoe



Plate (B)  
CE label.

Plate (C)



(for EL or Kombi models)  
Rotation sense.

(for HVP or Kombi models)

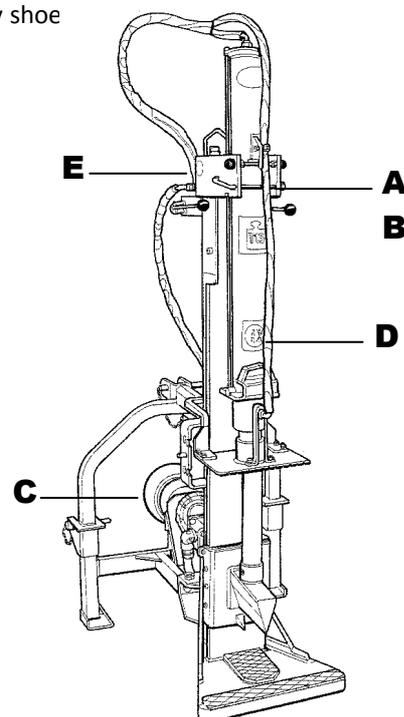
Max. rotation speed of 540 revs./min.



Plate (D)  
Two persons must not work on this machine together.



Plate (E)  
Coupler position for lifting.



**SAFETY INFORMATION**

According to the work-safety Unified Code 81/2008 (which substituted the Law 626/94), the company safety manager is obliged to inform workers about the risks connected with the use of the machine. Nevertheless, he is obliged to provide workers' training so that they are able to guarantee their safety and the safety of others.

Furthermore, he is obliged to provide workers' training so that they are able to guarantee their safety and the safety of others.

Failure to observe the basic safety standards or precautions could lead to accidents during machine operation, maintenance and repair. An accident can often be avoided by recognizing potentially dangerous situations before they occur. The operator must be careful about the potential dangers and must have the training, expertise and instruments necessary to carry out these duties correctly.

**Ricca Andrea & Co.** cannot in any case be held responsible for accidents or damage resulting from machine use by personnel not suitably trained or personnel that used the machine in an inappropriate way. Nor can it be held responsible for the failure, even partially, to observe the safety standards and intervention procedures in this manual.

The safety precautions and warnings are indicated in this manual and on the product itself.

If attention is not given to these danger warnings, the operator may incur accidents with serious consequences for himself and other people.

The safety messages are indicated with the following symbols:

 **ATTENTION**

If these messages are not observed, they could be harmful to the operator.

 **WARNING**

If these messages are not observed, they could cause damage to the machine.

The warnings in this manual and on the products regard dangerous situations which are reasonably predictable and do not take into account any deliberate modifications or alterations to the safety devices and the correct working procedures.

If equipment, procedures, work methods or working techniques not expressly recommended by **Ricca Andrea & Co.** are used, it is necessary to ascertain that there is no danger for the operator and for others.

**Use original spare parts only**

**Ricca Andrea & Co.** declines every responsibility for the use of non-original spare parts..

• **Safety rules**

 **ATTENTION**

The following indications cannot protect the operator from every danger that he can meet operating the machine. They must be supplemented by the operator's common sense and experience, the only indispensable measures for accident prevention. Further safety rules specific to the various operations are listed in every section.

 **WARNING**

In using electrical machines it is necessary to observe the safety rules so as to exclude the risks of fire, electric shock and harm to persons.

Read this manual carefully before operating the machine.

If any instruction is not clear, contact the dealer or the manufacturer immediately.

If this manual is damaged or lost, ask the dealer for a replacement copy.

The log-splitter is designed only for normal use in agricultural, domestic or forestry work. Any other use of the machine is to be considered unsuitable.

The manufacturer will not answer for damage resulting from improper use.

**Structural damage, modifications, alterations or improper repairs can alter the machine's protection capability thus annulling this certification.**

Any modification operations must be carried out exclusively by technicians authorized by **Ricca Andrea & Co.**

**The EL 230-volt models are supplied with a condenser. Any operation on the machine can be carried out by a specialized technician approximately 1 minute after disconnecting the plug from the mains supply.**

**Never open the electrical panel without first disconnecting the plug from the mains supply.**

**Check the electrical wires and the flexible pipes of the machine periodically and, if they are damaged, have them replaced by a specialized technician.**

**Check your extension cables periodically and, if they are damaged, replace them.**

**Ensure that the switch is off when the plug is inserted into the socket.**

Check that the cardan transmission shaft guards are in good condition.

In case of breakage or damage to the cardan shaft guards, replace them immediately.

When the machine is not coupled to the power unit, the cardan shaft must be positioned on the special support.

Detach the machine from the tractor only on a firm and level terrain and check that it is stationary and stable.

The cardan machine models can be used only if connected to the tractor's 3-point connector.

Make sure that the hydraulic tubes are connected correctly observing the IN-OUT direction arrows. It should be remembered that if the direction is reversed, this will cause actions opposite to those intended.

When the hydraulic tubes are disconnected from the tractor they must always be covered with their special protection.

In the case of models powered by a piston motor, read the relative manual enclosed carefully and remember:

Not to leave inflammable materials such as petrol, oils, etc. near the motor when it is running.

**If any petrol spills out, clean the area completely and ensure that the fumes have completely dissipated before starting the motor.**

**To fill the tank in well-ventilated areas and when the motor is off and cold.**

Never use the machine in closed or badly ventilated rooms as the exhaust gases of the engine emit carbon monoxide, a gas which has no smell, no colour and is poisonous.

Check that the machine is not damaged in any way.

Keep the machine, and in particular the working board, free from external materials such as deposits.

Always stop the machine when cleaning, maintenance and transport operations are to be carried out. For electrical models, disconnect from the mains.

**The log-splitter must not be left unattended whilst it is running.**

The log-splitter must be used exclusively by expert operators who are aware of any possible dangers.

Strictly prevent under-age persons from using the machine.

**Two persons must never carry out cutting operations simultaneously.**

**Sudden distractions could cause physical harm to the person helping.**

Do not allow unauthorized personnel near the machine when it is being used.

Ensure that the operating area is well lit.

Do not use the machine in damp places or in adverse weather conditions (snow, rain, etc.).

Always use the log-splitter in places which are as level as possible and which are provided with appropriate safety footwear, working gloves and protective eye screens.

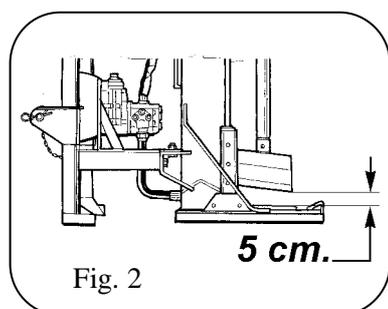
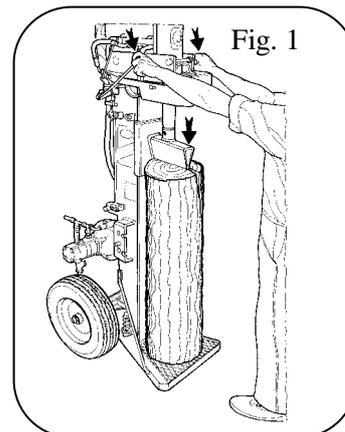
Do not wear loose-fitting clothing or protruding articles which might become entangled in the controls or moving parts of the machine.



## CONTROL and SAFETY DEVICES

**THE MACHINE IS DESIGNED TO BE USED BY A SINGLE OPERATOR WHO MUST BE POSITIONED IN FRONT OF THE LOG SPLITTER CONTROL LEVERS!** (Fig. 1)

THE VARIOUS MACHINE MODELS ARE EQUIPPED WITH A LEAD-SEALED HYDRAULIC SAFETY VALVE DURING TESTING WHICH GUARANTEES THE OPERATOR AND THE HYDRAULIC SYSTEM AGAINST THE RISK OF EXPLOSIONS!



THE BLADE IS PRESET TO STOP AT APPROXIMATELY 5 cm FROM THE LOWER SUPPORT BASE OR THE MOVING BOARD. (Fig. 2)

### ATTENTION

**STROKE STOPS ARE PROVIDED FOR THE 35 cm CUTTING BOARD.**  
ALWAYS MOUNT THE STOPS BEFORE USE!

IN CASE OF ANY EMERGENCY, RELEASE ONE OF THE TWO CONTROL LEVERS IMMEDIATELY; THE BLADE WILL BE LOCKED AUTOMATICALLY WHERE IT IS IN THAT MOMENT.

THE MACHINE IS FITTED WITH A DEVICE WHICH STOPS THE CUTTING BLADE IN THE LIFTING PHASE ALWAYS IN THE HIGH END-OF-STROKE POSITION.

### WARNING

- DO NOT TAMPER WITH THE DOUBLE SAFETY CONTROL SYSTEMS AND THE STOP SYSTEMS.
  - DO NOT TAMPER WITH THE SETTING OF THE LEAD-SEALED HYDRAULIC VALVE.
  - TWO PERSONS MUST NEVER WORK AT THE CONTROLS OF THE SAME MACHINE AT THE SAME TIME.
  - WITH THE **HV MODELS** BE CAREFUL NOT TO INVERT THE DELIVERY PIPE AND DRAIN PIPE WHEN CARRYING OUT CONNECTIONS TO THE QUICK PLUGS FOLLOW THE IN-OUT HYDRAULIC FLOW ARROWS. WITH THE HV MODELS NEVER DISCONNECT THE HYDRAULIC PLUGS WHEN THE SYSTEM UNDER PRESSURE.
  - WITH THE **HVP AND V.PF MODELS** NEVER STOP THE CARDAN WHEN THE MACHINE IS UNDER STRESS OR PRESSURE.
- **WITH THE HVP and V.PF MODELS: NEVER USE THE 1000-REVOLUTION POWER TAKE-OFF.**
- FOR REASONS OF STABILITY NEVER USE THE **TRACTOR MODELS** WITHOUT ENSURING THAT THE MACHINE HAS BEEN SUITABLY CONNECTED TO THE THREE-POINT CONNECTORS.
  - PAY A LOT OF ATTENTION TO THE SUITABLE CONNECTIONS OF THE TRACTOR'S CARDAN TRANSMISSION AND FOLLOW THE INSTRUCTIONS GIVEN ON PAGE 20.

- FOR ROAD TRANSPORT AND POSITIONING DURING THE WORKING STAGE FOLLOW THE INSTRUCTIONS GIVEN ON PAGE 20.
- **CHECK PERIODICALLY THAT THE SCREWS AND HYDRAULIC PIPE FITTINGS ARE TIGHT AND THE FLEXIBLE HYDRAULIC PIPES ARE IN A GOOD STATE.**

**• THE FLEXIBLE HYDRAULIC PIPES MUST BE REPLACED EVERY 5 YEARS.**

- IT IS ADVISABLE TO USE THE **CROSS-BLADE CUTTER** ONLY FOR LOGS OF **APPROXIMATELY ONE METRE** IN HEIGHT AND WITH STRAIGHT-FILAMENT WOOD.
- DO NOT LEAVE THE MACHINE IN UNCOVERED AREAS EXPOSED TO RAIN AND SNOW AFTER FINISHING WORK.
- ALWAYS WEAR SUITABLE SAFETY FOOTWEAR, WORK GLOVES, PROTECTIVE GLASSES.



## RECOMMENDATIONS IN CASE OF PROBLEMS

The machine is equipped with an anti-crush sensor in the return phase.

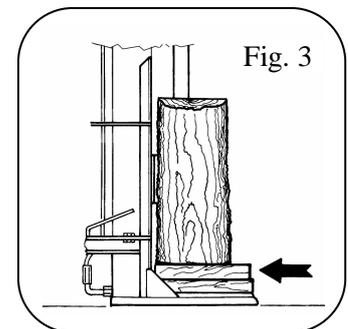
**The log could be blocked in the cutter after or during the cutting operation. During upward movement this will touch the sensor which will automatically block any movement.**

In order to release the blocked wood, the following operations must be carried out:

- Using the two control levers bring the cutter to the lowest position and then release the controls;
- Position the controls in the central position (i.e. in neutral);
- At this point all cutter movements will be blocked;
- Use iron levers, sledges or hammers to release the log hitting hard downwards until it is completely freed.

### *OTHER USEFUL TIPS TO FREE TRAPPED PIECES*

- Being extremely careful, raise the blocked log together with the cutter by about 10 cm, block the controls in the central neutral position, insert one or more sturdy wooden boards between the base of the frame and the log!
- Use the two levers to lower the log until is completely cut.
- Use the two levers for the return phase and continue with normal work operations.



### **WARNING**

The cross cutter might become trapped in the main cutter because of the stress it is subjected to. In this case, after loosening and removing the safety screw, strike the cutter (the cross cutter) with a piece of wood or with a hammer so as to release it from its original position.



Remove any packaging and transport residue.

Clean the machine.

Check that the hydraulic pipes and the pipe fittings are in a good state and have not been damaged during transport and handling.

Cardan model connections (please observe the following instructions with great care).

#### Tractor lifting capability and stability check:

Before carrying out connection between the machine and the tractor it is obligatory to check the lifting capability and the stability of the tractor so as to avoid overturning and/or loss of grip of the wheels used for steering.

Check the tractor's lifting capability and the stability by using the formula on page 20 and, if necessary, apply ballast at the front.

#### Connections to the tractor's 3-point connector:

The HV, HVP and V.PF models can be used only if attached to the tractor's 3-point connector. The Kombi machines can be used even if disconnected from the tractor only if an electrical power supply is used.

There is a danger of injury from crushing and cutting in the tractor's rear power-lift arm linkage area.

Do not use the external control for equipment lifting.

In the transport position lock the side stop of the linkage.

Bring the tractor near to the log splitter until the power-lift bars coincide with the machine's 3-point connector and connect them using the pivots supplied. Insert and lock the safety pins in the hole of the pivots and make sure that they are locked.

Connect the third point to the upper connector and adjust the length so as to position the log splitter parallel to the ground.

Insert and lock the safety pins. Lock the anti-unscrewing device of the third point.

#### Cardan shaft installation:

After connecting the machine to the tractor, connect the cardan shaft to the tractor's power connector (this operation must be carried out when the engine is off and the key of the tractor is disconnected).

Before using the cardan shaft, read the accompanying use and maintenance booklet.

Should the cardan shaft supplied together with the machine not be used, check that the machine and tractor casings overlap the cardan shaft protection by at least the amount provided for by the laws in force (5 cm).

Clean and lubricate the power connector.

Grease the cardan shaft periodically following the instructions supplied by the cardan manufacturer. (See the cardan shaft manual).

Couple the anti-rotation chains.

Make sure that the anti-release safety lock (switch and ring nut) is correctly inserted and locked in its housing.

Check the rotation direction and that the tractor's power connector speed adjustment is at 540 rev/min as the machine is designed for this speed.

The cardan shaft must always be connected last to the tractor's power connector and disconnected first after use.

For correct and safe machine use, use exclusively cardan shafts with the CE mark. Only use cardan transmission shafts with protection intact.

The length of the cardan shaft must be suitable to the type of tractor used.

When the cardan shaft is detached from the tractor's power connector, it must always be placed so as to rest on the special support.

**Ricca Andrea & C.** accepts no liability for damage caused by an incorrect assembly and use of the cardan transmission.

### Hydraulic connections:

Before connecting the hydraulic coupling (quick coupling) to the tractor's distributors, make sure that the circuits on the tractor side are not under pressure by operating the distributor levers in both directions when the engine is off.

Every time the machine is used, check that there are no cuts or abrasion on the hydraulic tubes. In the event of cuts and abrasion being discovered, replace the tubes with others supplied by the manufacturer.

Liquids under pressure, especially oil in a hydraulic circuit, can cause serious injury and lead to infection. In the event of injury, consult a doctor.

Before carrying out any operations on the hydraulic system, stop the engine and remove pressure from the circuit.

Make sure that the hydraulic tubes are coupled correctly observing the IN-OUT direction arrows. It should be remembered that if the direction is reversed, this will cause actions opposite to those intended.

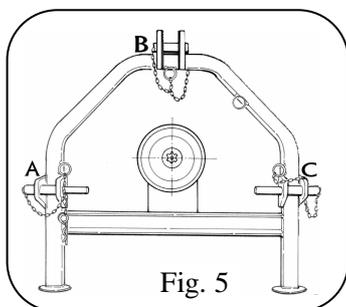
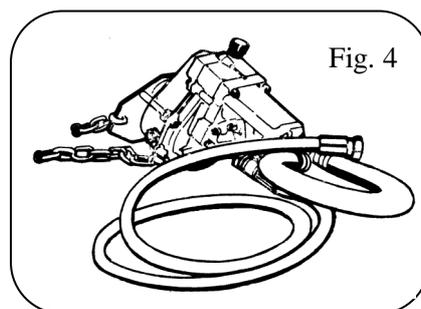
Release the pressure in the hydraulic system of the tractor and the machine before carrying out coupling. When the hydraulic tubes are disconnected from the tractor, they must always be covered with their special protection.

### Road transport:

Before transport from one place to another with the machine attached to the tractor, it is necessary to ensure that the power connector is disconnected.

#### HVP model connections (Fig. 4)

- Attach the log-splitter to the tractor at the hoist connection points and lock it using the locking split pins provided.
- Assemble the pump on the tractor's PTO shaft and fasten it to side points with the special chains provided.
- Ensure that the rotation sense is correct.



#### V.PF model connections (Fig. 5)

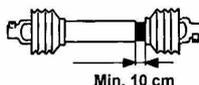
- Attach the log-splitter to the tractor at points A, B and C and lock it using the locking split pins provided.
- Mount the cardan shaft and check its exact length.
- Ensure that the rotation sense is correct.

**Recommended rotation speed 450 - 460 revs./min (MAX 540 revs./min)**



### **WARNING**

- When the cardan shaft is inserted, it must have a minimum clearance of at least 10 cm in the shortest point of its articulation. In the longest point it must in any case have an overlap of at least 10 cm.
- Fix the external protection of the Cardan joint with the special chains and make sure the protection does not rotate together with the internal shaft.
- Make sure that during operation the Cardan joint does not exceed rotation angles of 30°.
- After operation, couple the cardan shaft to the third point (B) with with the special coupler so that the articulated connections do not touch the ground while parked.





## BEFORE THE WORKING CYCLE

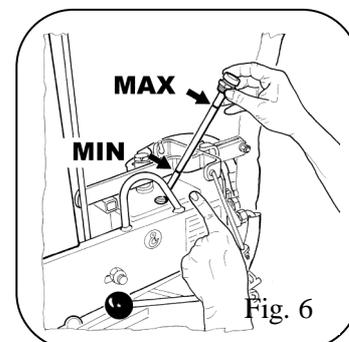
**After the winter storage, and therefore before the working cycle and before every subsequent use of the machine, respect the following procedures.**

Before starting work, check that the flexible hydraulic pipes are in a good state every time. If you are not sure about them, have them replaced by a specialized technician.

Besides, before starting the working cycle, check the oil level using the special stick for the HVP and V.PF models.

The oil tank is pre-filled by the manufacturer with Sae 46 hydraulic oil in the quantities shown in the technical data. (Fig. 6)

No oil reserve is scheduled for the HV models.

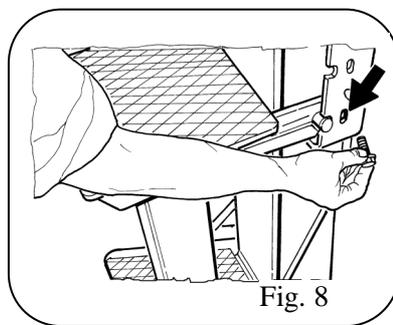
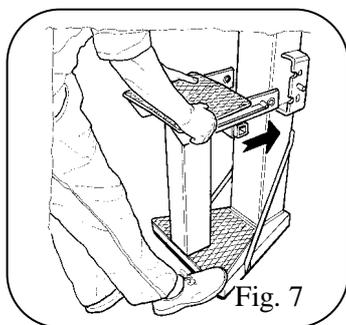


**Note:** After carrying out the operations described in the “Installation” section, proceed as follows in order to start the log-splitter:

- For the HV, HVP and V.PF models, lock the tractor with the parking handbrake, position the tractor's power take-off start lever at 540 revs./min.
- Check that the control levers (see fig. 13) are in a central neutral position.
- Connect the hydraulic flow for the HV models to the tractor's hydraulic connectors following the direction of the IN-OUT arrows.
- Fix the cardan (VPF model) or the pump (HVP model) following the instructions on page 14. Run the machine for about a minute with the motor at half speed for function tests and carry out 4-5 cycles no-load. Then take the motor revolutions to a higher speed using the hand accelerator.
- **THE RECOMMENDED P.T.O. ROTATION SPEED IS 450 - 460 REVS./MIN.**

**To insert the upper board** carry out the following operations:

- Raise the blade to the highest stop point.
- Fix the board to the frame with the special screws supplied (vedi fig. 7 - 8).
- Assemble the clamp (chain) to adjust the stroke.



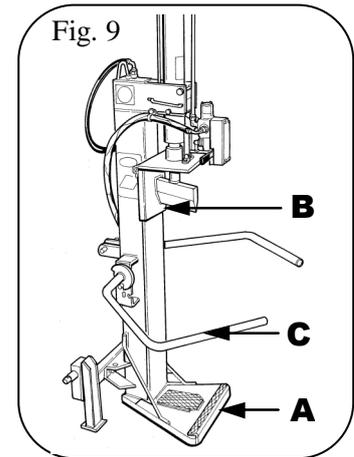
## WORKING CYCLE

For cutting 1-metre long pieces, always position the side support arms in the correct design position (Point **C**) or assemble the board for short pieces (see instructions on pag. 15)

To cut the log it is necessary to rotate it on the base of the lower frame (point **A**) or raise it (a small piece) onto the upper working board.

To block it, push the log against the fixed centring bit (point **B**) with a quick movement.

In this way even logs cut slantwise will always be locked in a correct position.



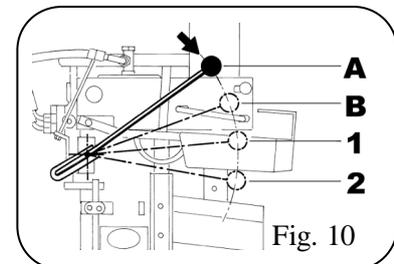
### **⚠ ATTENTION**

- **KEEP BOTH HANDS ON THE SIDES OF THE LOG SO AS TO AVOID INJURY CAUSED BY THE CENTRING BIT!**
- Always position the log with the fibre direction of the wood the same as the cutting direction so as to ease breaking. The machine will make less of an effort during the cutting operation thus avoiding excessive wear of the mechanical parts with a consequent increased working life.
- **It is recommended that the cross-blade cutter only be used for logs of approximately one metre in height and with straight-filament wood.**

The machine is pre-set with two cutting speeds and one return speed.

The second descent speed represents approximately half the cutting force of the first speed (see the technical data tables).

- A** = Return position;
- B** = Neutral rest position at stroke end;
- 1** = First cutting speed and MAX power;
- 2** = Second cutting speed and MIN power.



Push the two levers downwards at the same time as far as the lower Max point of the stroke. In this way the cutting blade will be brought quickly into contact with the log to be cut.

If the breaking force is sufficient in this position, keep the two levers down until the end of the log cutting operation.

Or

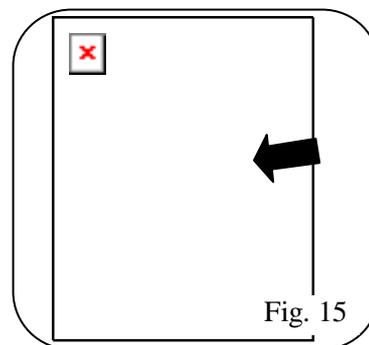
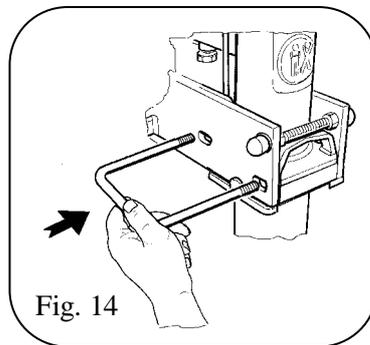
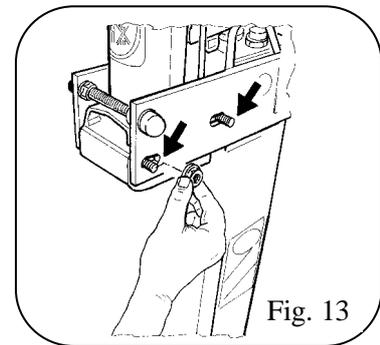
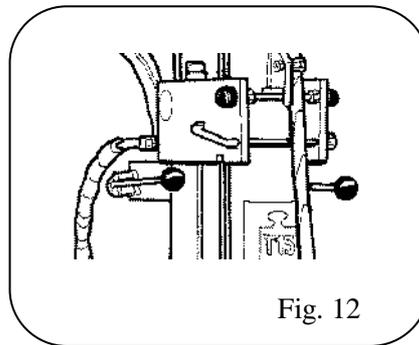
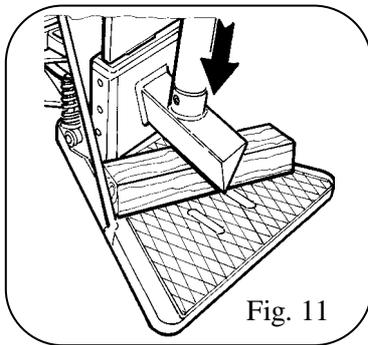
Release the pushing force of both hands upwards slightly on both levers (so as to allow a small settling of the valve). In this way, the position of the oil flow will go to the **lower speed/MAX power** stage to transmit the effective power of 13 Ton (200/Bar) or 15 Ton (250/Bar) to the cutting blade.

For the end-of-cycle stage push both levers to position **A** and the blade will return to the highest end-stroke position.

## **OPERATIONS AND MANOEUVRES FOR END-OF-WORK AND TRANSPORT**

**TIPS for the correct positioning of the hydraulic cylinder and the cutter for final transport operations.**

- If the hydraulic cylinder is to be lowered to its minimum position for transport (max h. 190 cm) proceed as follows:
  - Dismantle the intermediate board, if positioned, and also the board stop.
  - Lower the cutter to stroke end onto the log positioned transversely between the blade and the frame base without forcing it too much. (Fig. 11)
  - Lock the control levers in a central position. (Fig. 12)
  - Loosen the two M14 nuts with the special 22 spanner supplied. (Fig. 13)
  - Remove the M14 U-bolt (screws). (Fig. 14)
  - Lower the hydraulic cylinder until it touches the front catch. (Fig. 15)



- If the machine board is mounted and it is sufficient to lower the hydraulic cylinder only about halfway, proceed as follows:
  - Lower the cutter onto the log positioned transversely between the blade and the base of the board without forcing it too much.
  - Lock the control levers in a central position. (Fig. 12)
  - Loosen the two M14 nuts with the special 22 spanner supplied. (Fig. 13)
  - Remove the M14 U-bolt (screws). (Fig. 14)
  - Lower the hydraulic cylinder as far as the stop without releasing the transverse piece of wood.

### **⚠ ATTENTION**

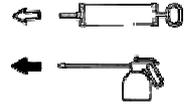
**Failure to respect the manoeuvres described above will release the manufacturing company from any commitment to replace parts under warranty and from any reimbursement for damage to persons and/or things.**



Due to its simplicity, the machine does not require special maintenance operations.

It is necessary periodically to:

- Check the flexible pipes of the hydraulic system periodically and replace them **every 5 years**.
- Grease the guides' sliding surfaces every two working hours approximately.
- Lubricate the articulated joints of the handles.



All these maintenance operations must be carried out when the machine is not in motion and the tractor engine is off.

Before starting work on the V.PF model, grease the crosses of the cardan joint itself and the other moving members. Subsequently carry out this operation every two working hours.

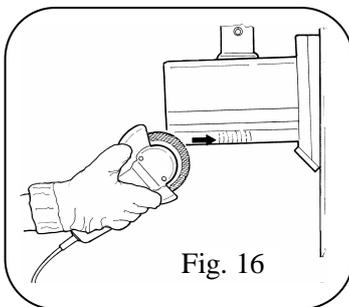


Fig. 16

- Sharpen the cutting blade periodically with a portable grinding stone. (Fig. 16)

- It is advisable to change the hydraulic oil after the first 150 working hours. The hydraulic oil can be drained by removing the 3/8" cap placed under the column. (Fig. 17) Subsequently the hydraulic oil must be changed approximately every 500 working hours about.
- It is advisable to dismount and clean the magnetic filter whenever the oil is changed. (Fig. 17)

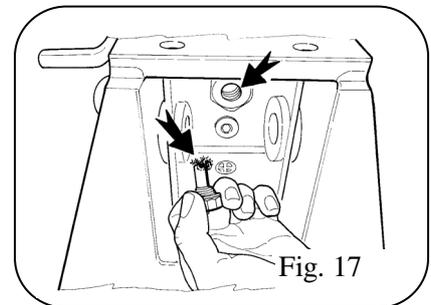
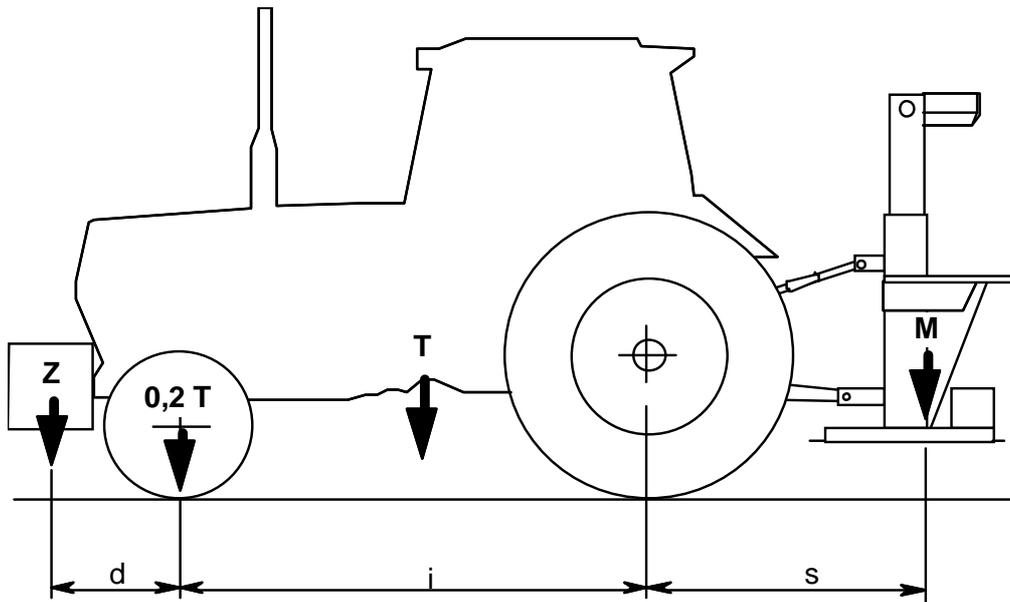


Fig. 17

- Also, replace the oil in the mechanical overdrive placed in front of the hydraulic pump approximately every 500 working hours.  
Use SAE 90 oil for the oil change.  
The capacity of this mechanical machine part is approximately 0.2 litres.
- After the first 2 to 3 working hours check the hydraulic union tension and thereafter every 100 - 150 hours approximately.
- It is advisable to place the machine in the shade after use as the strong sunlight in summer damages the surface layer of rubber of the flexible pipes and limits its working life!!

**N.B.** FOR ECOLOGICAL REASONS, DISPOSE OF USED OIL IN SPECIAL OIL COLLECTION CENTRES!!

## Lifting capacity and stability check for tractor coupled to carrying equipment



$$M \times s \leq 0,2 \times T \times i + Z \times (d + i)$$

If the equipment is mounted on farm tractors type-tested and registered before 6 May 1997, it is also necessary to respect the following condition:

$$M \leq 0,3 \times T$$

- i** = tractor wheel wheel-base
- d** = distance of the front axle from the ballast
- s** = overhang of the rear axle of the operating machine
- T** = mass of the tractor + 75 kg (operator)
- Z** = mass of the ballast
- M** = mass of the operating machine