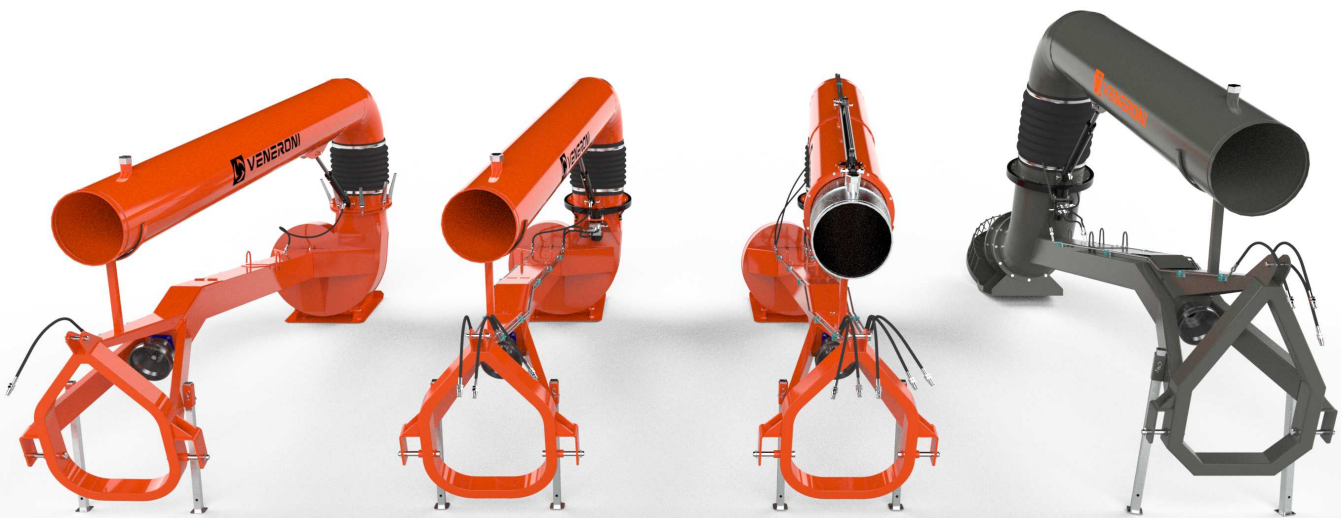


MANUAL FOR USE AND MAINTENANCE

**PUMPS TYPE AT - ET**



**BEFORE USING THE MACHINE, CAREFULLY READ THIS MANUAL FOR THE CORRECT AND SAFE USAGE OF THIS MACHINE.**



*We congratulate you for having chosen our machine.*

*We are sure that following the instructions contained in this manual, you will come to highly value our product.*

*For a correct use of the machine it is compulsory, both for the operator and for all the people who will have to operate on it, to read it attentively and to conserve it carefully; for any doubt about the use of the machine, please contact the manufacturer.*



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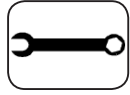
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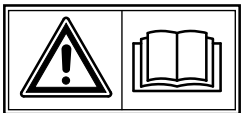


## 2 SYMBOLS

The following warnings are used in this manual.



**WARNING:** *Important safety message!*



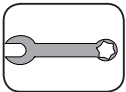
**READ** *consult the manual carefully before using the machine*



**WARNING:** *use safety gloves*



*Wear safety glasses or visor, gloves and safety clothes*



*Follow very carefully all indications for repair shown in this manual!*

### 3 SUMMARY OF MACHINE PARTS

#### 3.1 Key

1. Type **AT**: mobile pump with tubular frame that attaches to the hydraulic lifting apparatus of the tractor.

Es.: **AT30/4**

**AT** = mobile pump type **AT**

**30** = tube exit diameter in cm

**4** = Nominal frame length in meters

2. Type **ET**: mobile pump with tubular frame that attaches to the hydraulic lifting apparatus of the tractor high yield rotor.

Es.: **ET50/5**

**ET** = mobile pump type **AT**

**50** = tube exit diameter in cm

**5** = Nominal frame length in meters

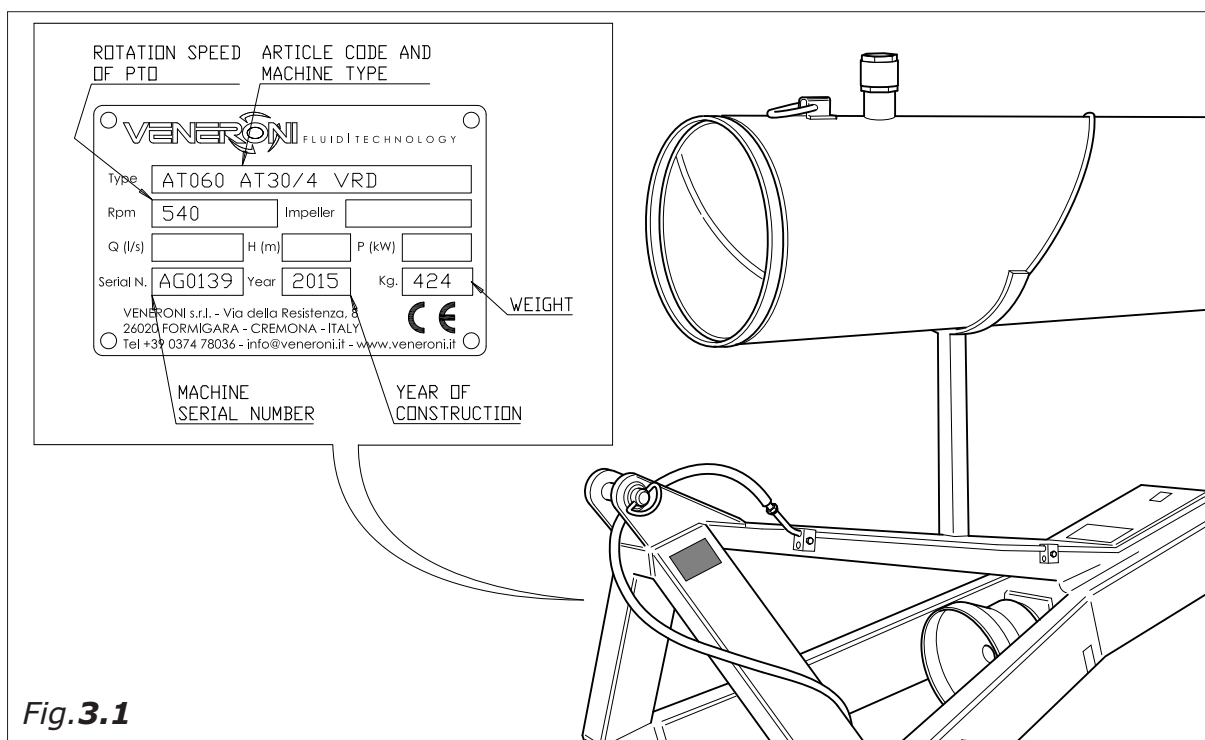
#### 3.2 Contact information

If necessary or in response to specific instructions from this manual,

We kindly ask you to contact:

Manufacturer: **VENERONI s.r.l.**  
Via della Resistenza, 8  
26020 Formigara (CR) - ITALY  
Tel. (0374) 78036 - Fax (0374) 78314

Refer to the machine using the Declaration of Compliance. The machine's details are also visible on the machine's CE plate positioned on the front of the frame (Fig.3.1).



**Fig.3.1**



## **4 UTILISATION ET CONSERVATION DU MANUEL**

The reseller is obliged to consign this manual along with the machine as it is an essential part of it, regarding the health and safety of the user.

### **4.1 User**

The copy of this manual supplied with the machine must be read, preserved and kept in a safe place by the machine or maintenance operators.

Upon receipt of the machine, the manufacturer recommends that the Customer read the attached manual in full, or in any case, before proceeding with any work on the machine.

### **4.2 Purpose**

The purpose of the information contained in the manual as presented in the various sections, is to indicate how the machine must be used as well as to provide instructions concerning transport, movement, installation, assembly, adjustment, operation, personnel training, maintenance work, spare parts ordering and risks.

### **4.3 Limits of Use**

This manual has been designed and prepared to provide all necessary instructions, indications and warnings that the user may need to familiarise himself with the machine, to understand the principles behind it and its operational limits and to be appropriately prepared to use it safely.

Together with the instructions contained in this manual, we would like to remind you of the regulations that must be observed.

This User Instruction Manual must be considered a part of the machine and preserved for all future reference until such times as the machine is definitively dismantled.

### **4.4 Where and how to preserve the manual**

To correctly preserve the manual, it must be kept in a safe dry place out of the way of dust and the rays of the sun.

A copy of the manual must always be available for consultation in the vicinity of the machine or nevertheless on request of whoever may have to work on the machine.

### **4.5 Updates, amendments and replacements**

In the event that the manual is damaged or lost, a new copy can be requested from the Manufacturer or the Distributor.

The Manufacturer advises that the manual reflects the state of machine at the time when the machine was distributed and cannot be considered inadequate only because it may have to be updated in line with new knowledge acquired. The Manufacturer reserves the right to update production and its manual, without any obligation to update earlier manuals or production, unless in exceptional circumstances regarding the security and the safety of persons or property.

If the Client would like to receive additional information or make suggestions for the manual, they can directly contact the manufacturer or the reseller.

If the machine is sold, the client is requested to inform the constructor or reseller of the new owners address so that any new manuals can be sent to them.



***The manufacturer informs the client that it takes no responsibility for:***

1. The improper use of the machine;
2. Usage that goes against established laws
3. Incorrect installation
4. Lack of maintenance
5. Unauthorised repairs or modifications
6. The use of non original or non specific spare parts
7. Not following the instructions in this manual
8. Other exceptional circumstances





## 5 MACHINE DESCRIPTION

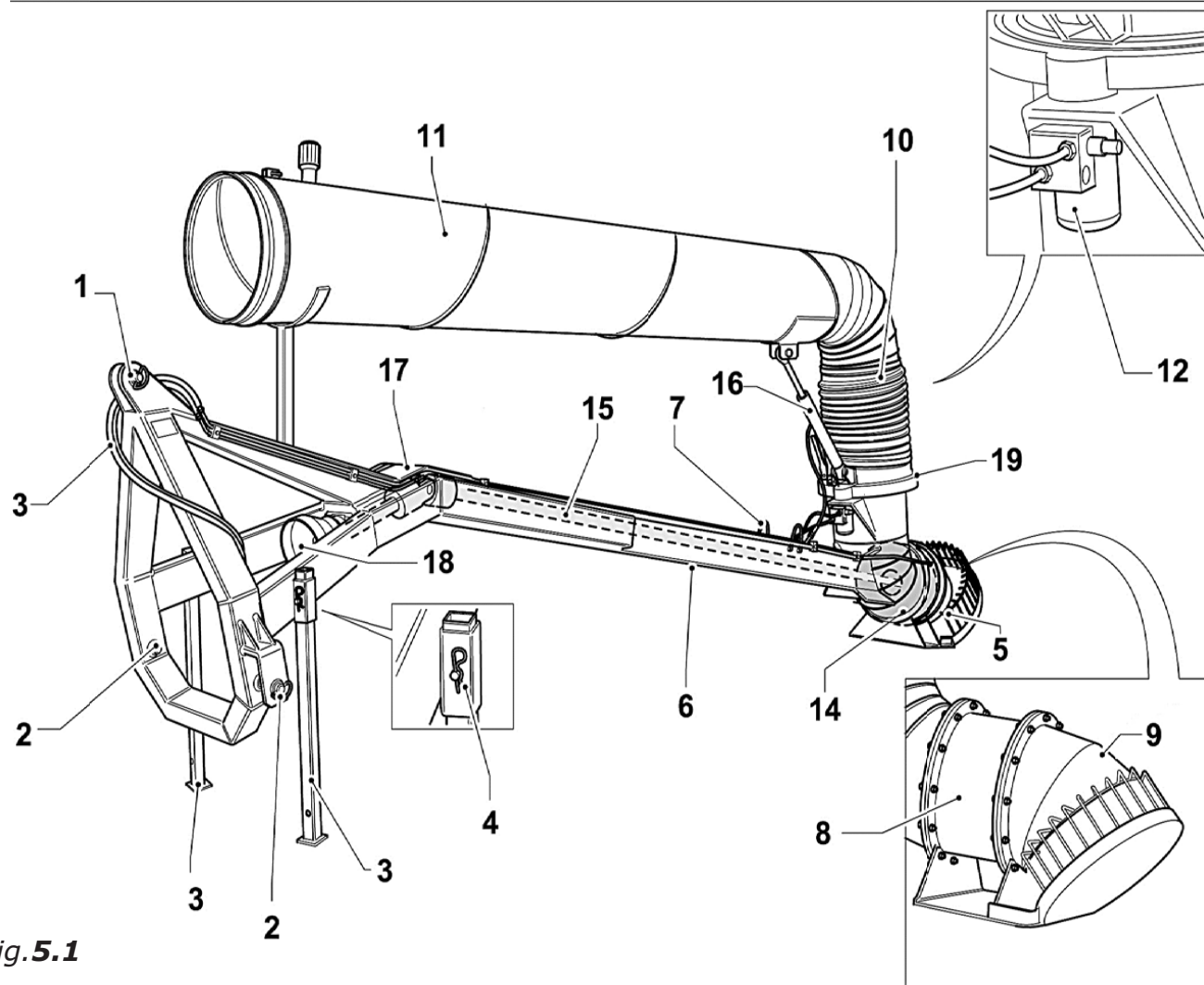
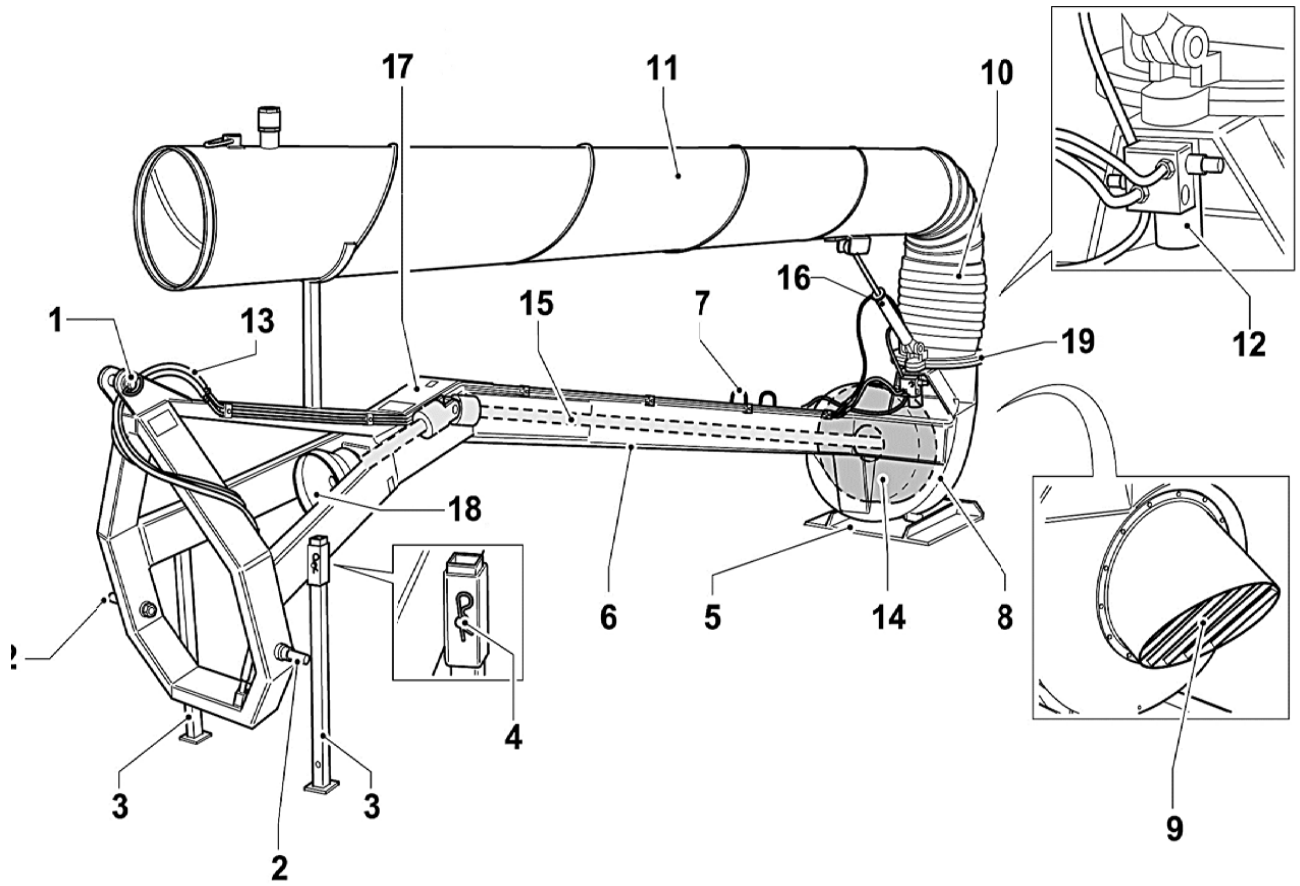
**AT-ET** pump type for mobile installations.

The Pumping machine type **AT-ET** is made up essentially of the following components, see figure **5.1**:

1. Attachment "third point"
2. Parallel attachments
3. Supporting feet
4. Blockage pin supporting foot
5. Supporting plate
6. Tubular frame
7. Machine lifting rings
8. Pump body
9. Suction pump with grill
10. Shiftable curve
11. Delivery tube
12. Hydraulic motorization (automatic rotation)  
Curve regulation lever (manual rotation)
13. Dynamic oil tubes
14. Rotor
15. Transmission
16. Hydraulic jack  
Shock absorber (on request)
17. Carter for double joint protection
18. Cover for power takeoff coupling protection
19. Carter for rim and pinion protection (automatic rotation)

IN PARTICULAR THE SAFETY DEVICES OF WHICH THE MACHINE IS FURNISHED ARE:

9. Grate on the pump suction
17. Carter for double joint protection
18. Cover for power takeoff coupling protection
19. Carter for rim and pinion protection (automatic rotation)



**Fig. 5.1**



## 5.1 Technical Data

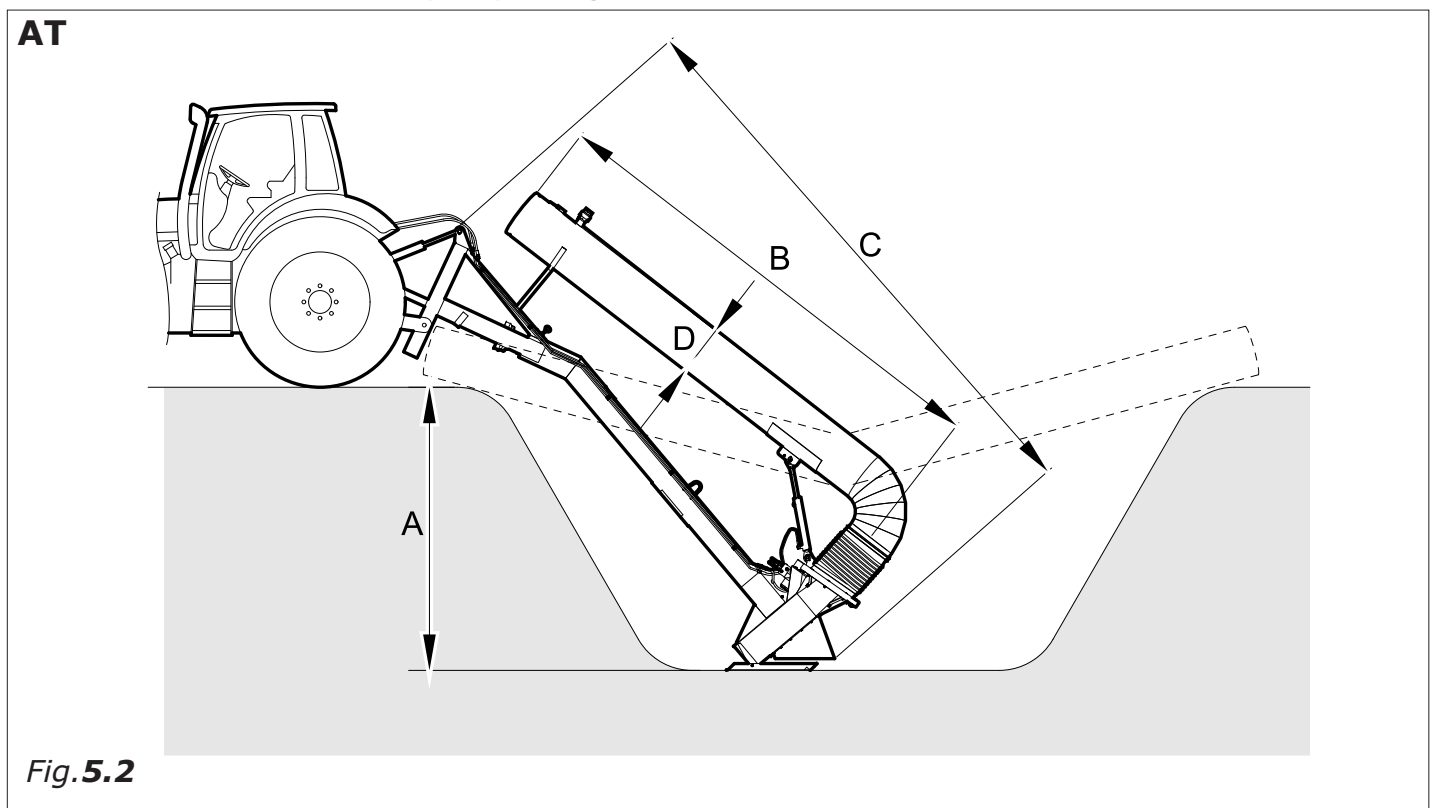
### Technical characteristics and performance.

#### AT type pump performance

Model		C	A	B	D	Max load*		Power absorbed*	Min/turns
		mm	mm	mm	mm	l/s	mc/h	kW	P.T.O. Power take-off
<b>AT 25/</b>	<b>3</b>	3350	1800	2810	250	220	972	21	540
	<b>4</b>	4350	2700	3810					
	<b>5</b>	5350	3600	4810					
	<b>6</b>	6350	4500	5810					
<b>AT 30/</b>	<b>3</b>	3400	1800	2825	300	300	1080	26	540
	<b>4</b>	4400	2700	3825					
	<b>5</b>	5400	3600	4825					
	<b>6</b>	6400	4500	5825					
<b>AT 35/</b>	<b>3</b>	3540	1800	2800	350	400	1440	34	540
	<b>4</b>	4540	2700	3800					
	<b>5</b>	5540	3600	4800					
	<b>6</b>	6540	4500	5800					
<b>AT 40/</b>	<b>3</b>	3590	1800	2855	400	500	1800	40	540
	<b>4</b>	4590	2700	2855					
	<b>5</b>	5590	3600	4855					
	<b>6</b>	6590	4500	5855					
<b>AT 50/</b>	<b>4</b>	4680	2700	3950	500	750	2700	72	540
	<b>5</b>	5680	3600	4950					

\* With 3 m head

**Note:** The machine's noise emissions are less than those of the tractor it is connected to. Therefore for noise emission information consult the manual for the relative tractor. The information refers to a pump using clean water without air suction.



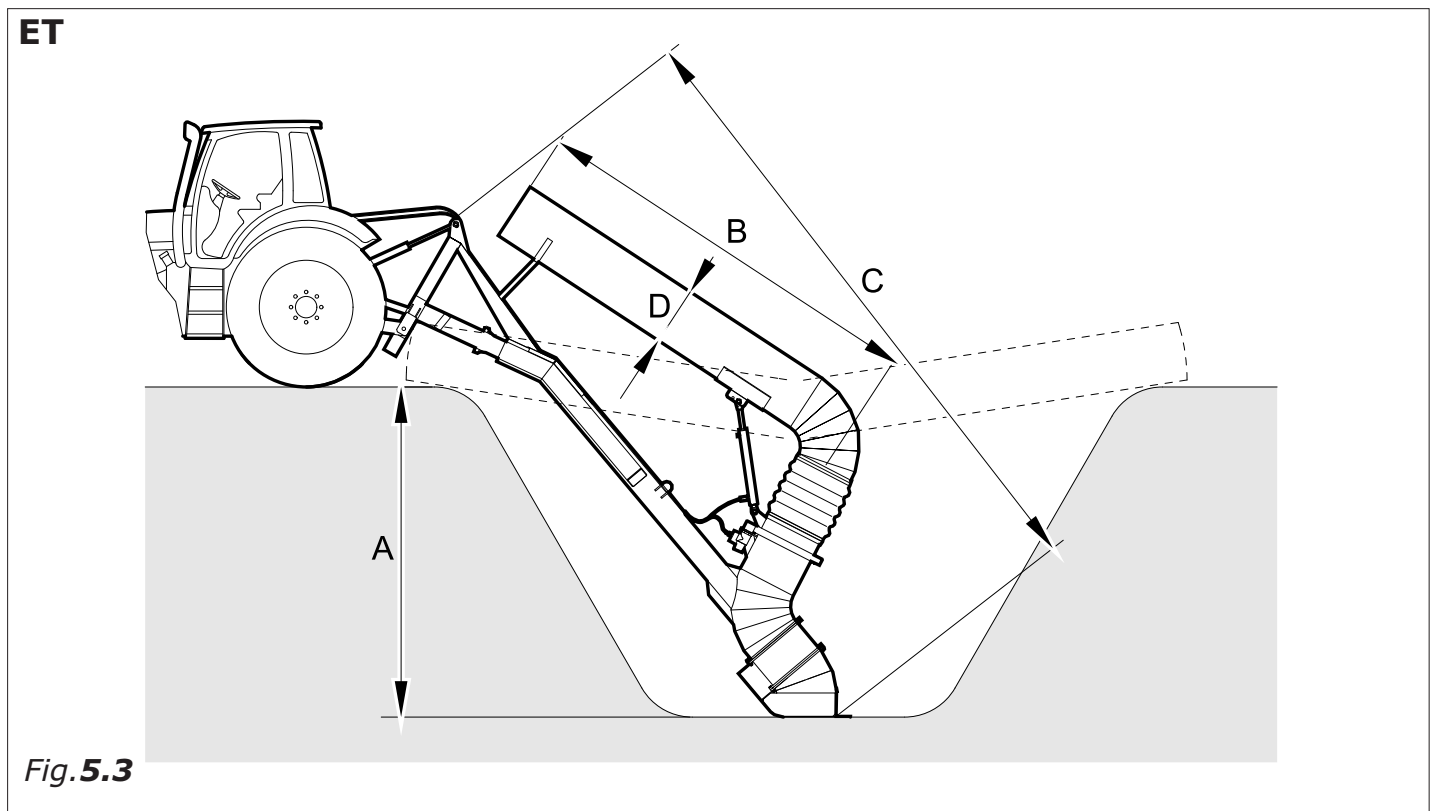


## ET/50 type pump performance

Model		C	A	B	D	Max load*		Power absorbed*	Min/turns
		mm	mm	mm	mm	l/s	mc/h	kW	P.T.O. Power take-off
<b>ET 50/</b>	<b>5</b>	5340	3300	3450	500	800	2880	40	750
	<b>6</b>	6340	4000	4450					

\* With 4 m head

**Note:** The machine's noise emissions are less than those of the tractor it is connected to. Therefore for noise emission information consult the manual for the relative tractor. The information refers to a pump using clean water without air suction.



**Ensure that the tractor unit that the pump is hooked up to, is provided with the appropriate mass and power capacity suitable enough to support the pump in question.**

LUBRICANTS	
Oil	VG 78
Grease	Type - 2 lithium



## 6 LUBRICATION

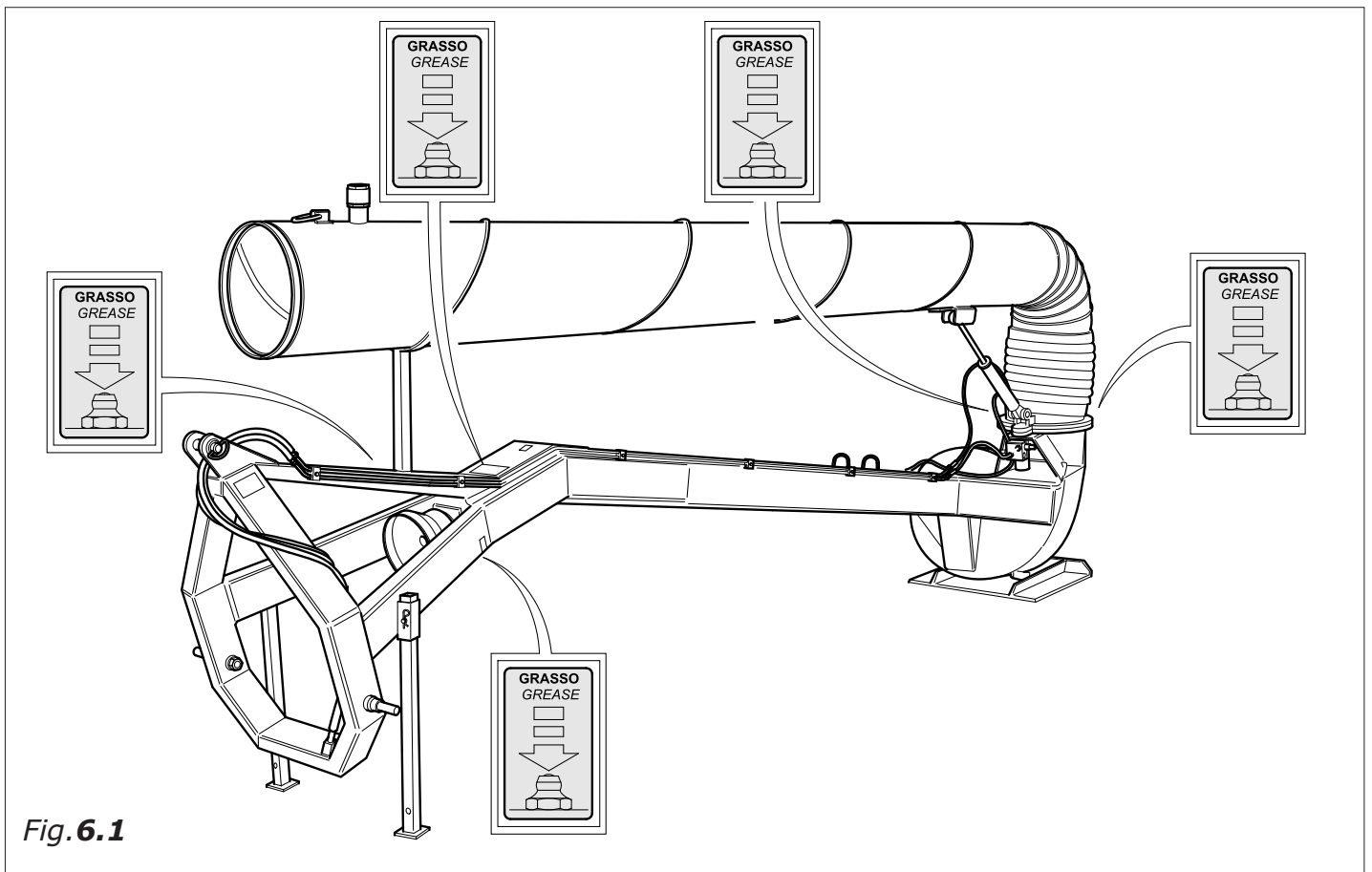
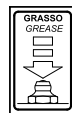


Fig. 6.1



Lubricate all points indicated with the symbol (see fig 6.1), with the pump switched off.

For when and how to lubricate consult chapter 15 MAINTENANCE INSTRUCTIONS on page 36.



### **WARNING: !**

**During the lubrication ensure that the transmission is switched off.**

To carry out a proper lubrication of the rotation, use the lubricators placed on the flange of the articulation.

By rotating slowly the delivery pipe in both directions of rotation, grease simultaneously so that the whole surface of the gear gets properly lubricated.

## 7 SECURITY WARNINGS

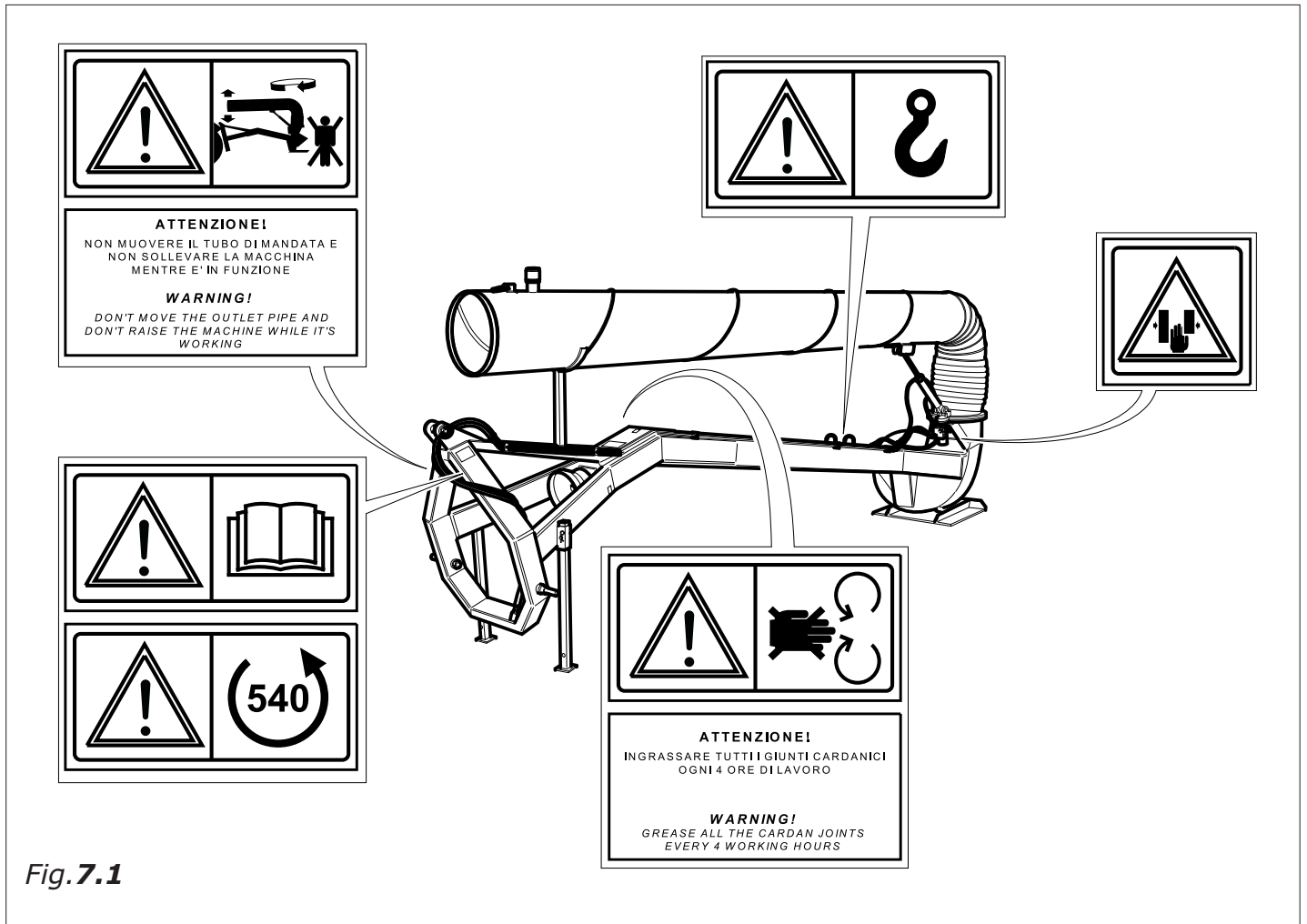


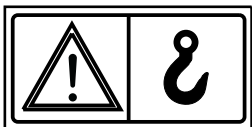
Fig. 7.1



*Keep hand away from this area: Danger of being crushed*



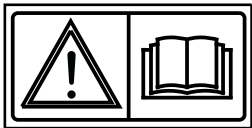
*Keep at a safe distance: Cardan joint in use*



*Attachment points for lifting*



*Keep at a safe distance: Moving parts*



*Read the operating manual before starting this machine*



*Rotation speed of the power take-off*



## 8 ACCIDENT PREVENTION REGULATIONS

### 8.1 Incorrect usage.



***The machine must NOT be used if safety devices are NOT installed, NOT connected; NOT calibrated, voluntarily removed or inefficient as this can lead to being caught, dragging or breakage.***

The machine must not be activated for pumping liquid where there are solid external materials

(gravel, wood, etc.), this may cause the blockage and breakage of the machine.

The machine must not be operated on unstable or un level ground as this could cause breakage or the machine could tip.



***WARNING: !  
Switching on in unsafe scenarios***

Before switching the machine on ensure that there are no persons nearby that could be endangered.

If the machine stops for any reason, before approaching it ensure that the on switch is deactivated, to avoid any unexpected restart.



***WARNING  
Stop – Emergency stop.***

Wait until the machine is completely still before any intervention.

The rotor movement and the release of the liquid contained in the tube can take a few seconds to halt, leaving the machine in motion for a few seconds.



***WARNING  
Breakdown of electrical and command circuits.***

If the machine stops for any reason, before approaching it ensure that the machine is switched off, to avoid any unexpected restart.



***WARNING  
Stability***

The machine can be unstable if the ground on which it travels is not smooth, shifting, sloping or yielding.



***WARNING  
Breakage of Cardan shaft.***

Release the accelerator of the machine as quickly as possible. Check for overhead danger stop the machine by pressing the emergency stop button.



**WARNING**  
***Sharp corners and edges.***

Exercise caution when in contact with the machine because on impact these parts can cause bruising or injury but otherwise the machine's surface is not dangerous to handle.



**WARNING**  
***Mobile elements.***

Do not lean on the cardan shaft during the machine's operations: there is a danger of being dragged (see the user manual and maintenance booklet of the cardan). Do not go near the turning unit when it is still moving: as there is a risk of being cut, sliced or grabbed.



**WARNING**  
***Safety devices.***

If the safety features are removed or ignored there is a risk of being crushed, caught, dragged, cut or burned.

Momentary removal of devices is permitted only if the machine is still, disconnected from the cardan shaft and must be put back before operating the machine.



**WARNING**  
***Maintenance – Calibration.***

Perform maintenance and calibration only when the machine is still



**WARNING**  
***Electrical Isolation***

To ensure isolation from the power supply, remove the cardan shaft or switch off the tractor.



**WARNING**  
***Operator intervention***

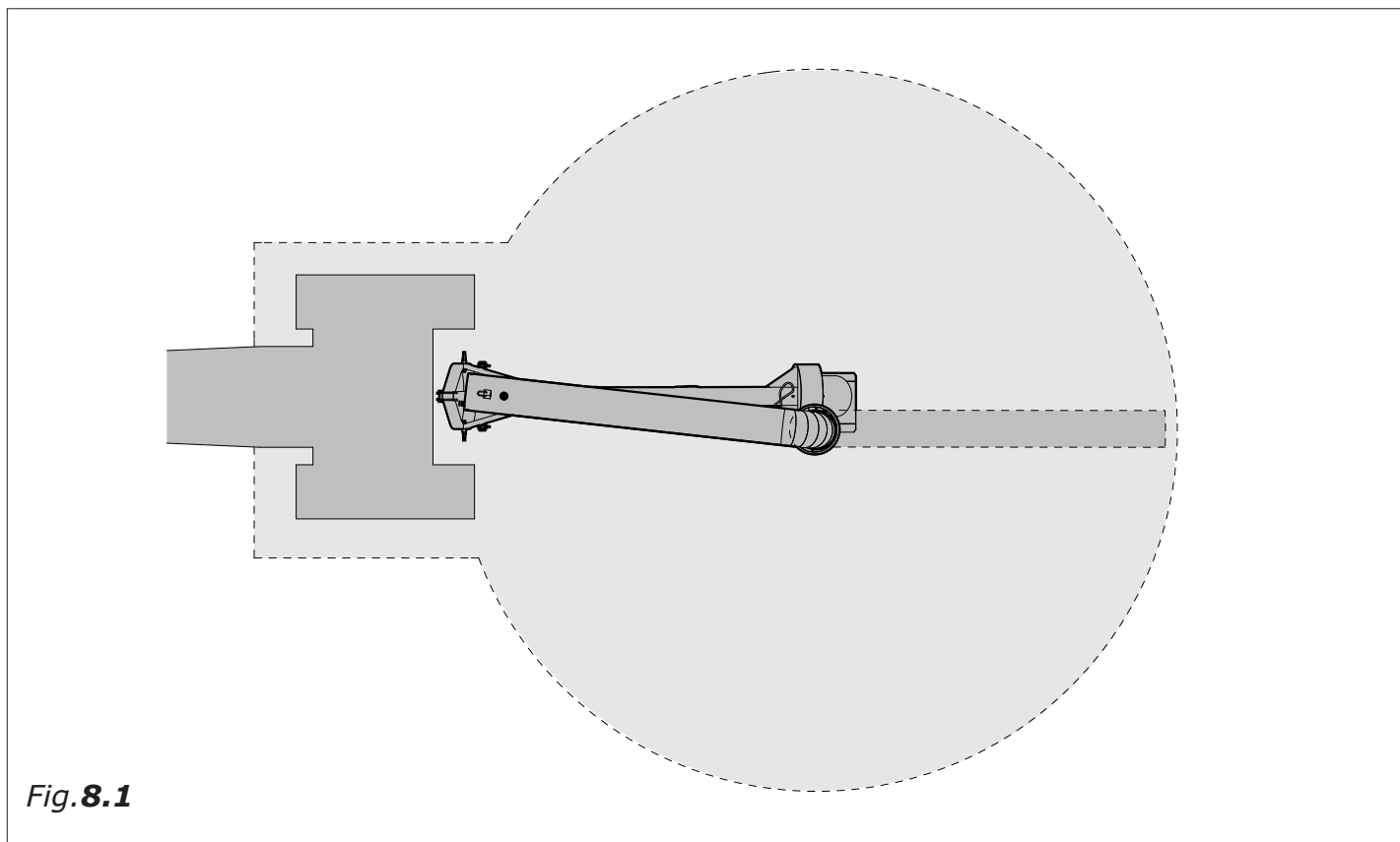
The operator can intervene only after having completely read this manual in order to be completely aware of all dangers linked to any intervention.



**WARNING**  
***Cleaning internal parts.***

The cleaning of internal parts must only be performed when the machine is still: otherwise there is a risk of being cut, sliced or caught in the machine





**Fig. 8.1**



**WARNING**

When the pump is activated ensure that no persons are near the: tube there is a risk of being crushed



**WARNING**

When the pump is switched off the delivery tube is lifted into the rest position: ensure that there are no persons in the effected area: there is a danger of being crushed.

Respect all necessary safety distances from the moving machine as shown in the figure **8.1**.

## 9 MACHINE'S USES

*Areas of operation:* direct irrigation, lifting and transporting water.

*Water used:* clean or dirty (containing mud) water

*Function :* attach to tractor using a cardan shaft

*Usage:* the pump is connected to the hydraulic lifter of the tractor.

### 9.1 Technical description of functions.

The machine pumps water using the dip caused by the giant rotor that is moved by the tractor engine via the cardan shaft.

The rotation speed of the rotor pump determines the quantity of the liquid extracted.

By shifting the output tube the water can be placed in the desired direction.

In the version with the shock absorber, the delivery tube rests automatically on the ground when it's full of water.

Mounting the device is achieved using the tractor's hydraulic lifting device. The pump's rotor is always immersed in water during operation therefore to access water it is simply a matter of rotating the transmission shaft.

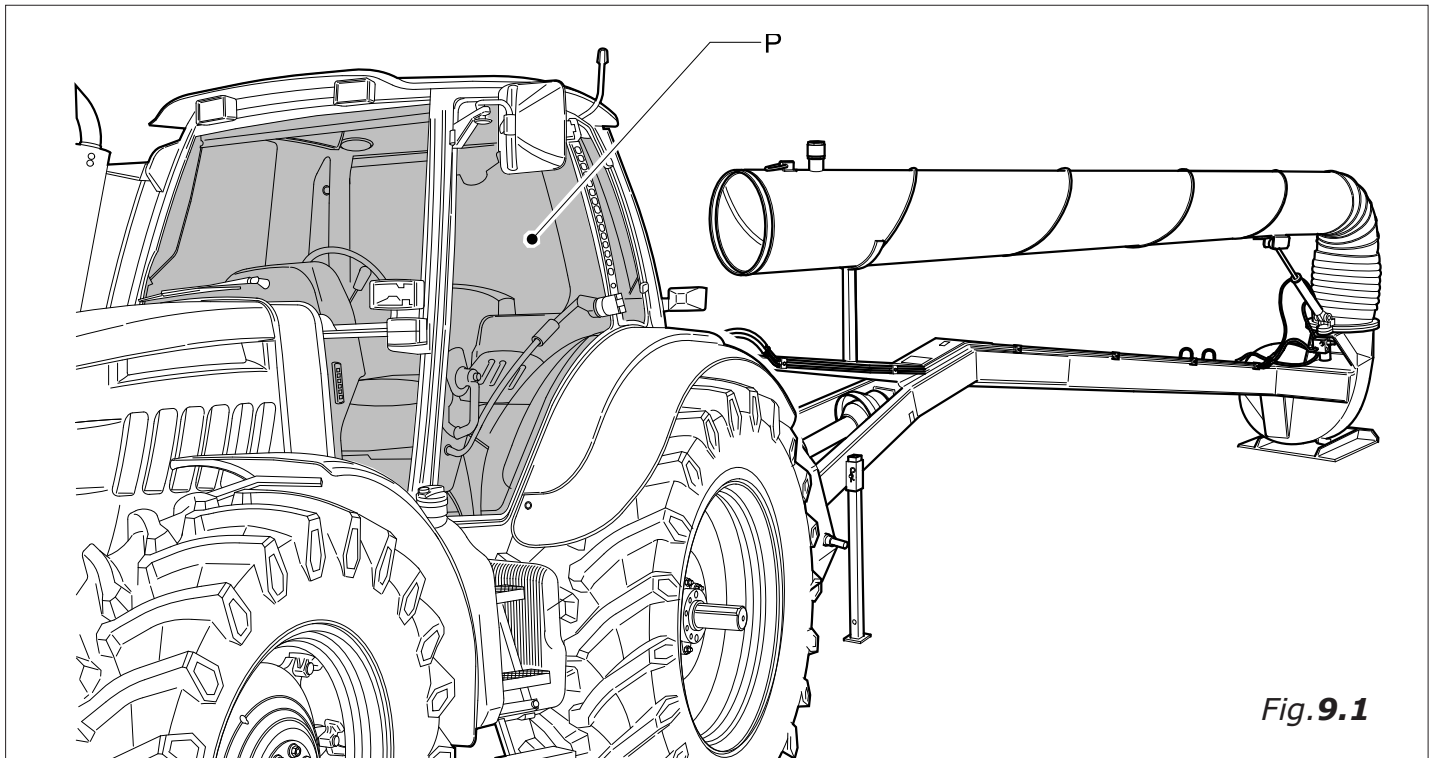
*Working conditions:* the pumps water extraction is regulated should be regulated according to the quantity desired.

*Delivery tube:* for all types, the delivery tube rotates horizontally and its height can be regulated.

The rotation can be manual or hydraulic. The height regulation can be done automatically using the shock absorber or manually with the simple to use hydraulic jack.

The machine is designed and built to be controlled by an operator who positions, installs, activates and deactivates the power take off to operate the pumps engine using the cardan shaft.

### 9.2 Work place.



**Fig.9.1**

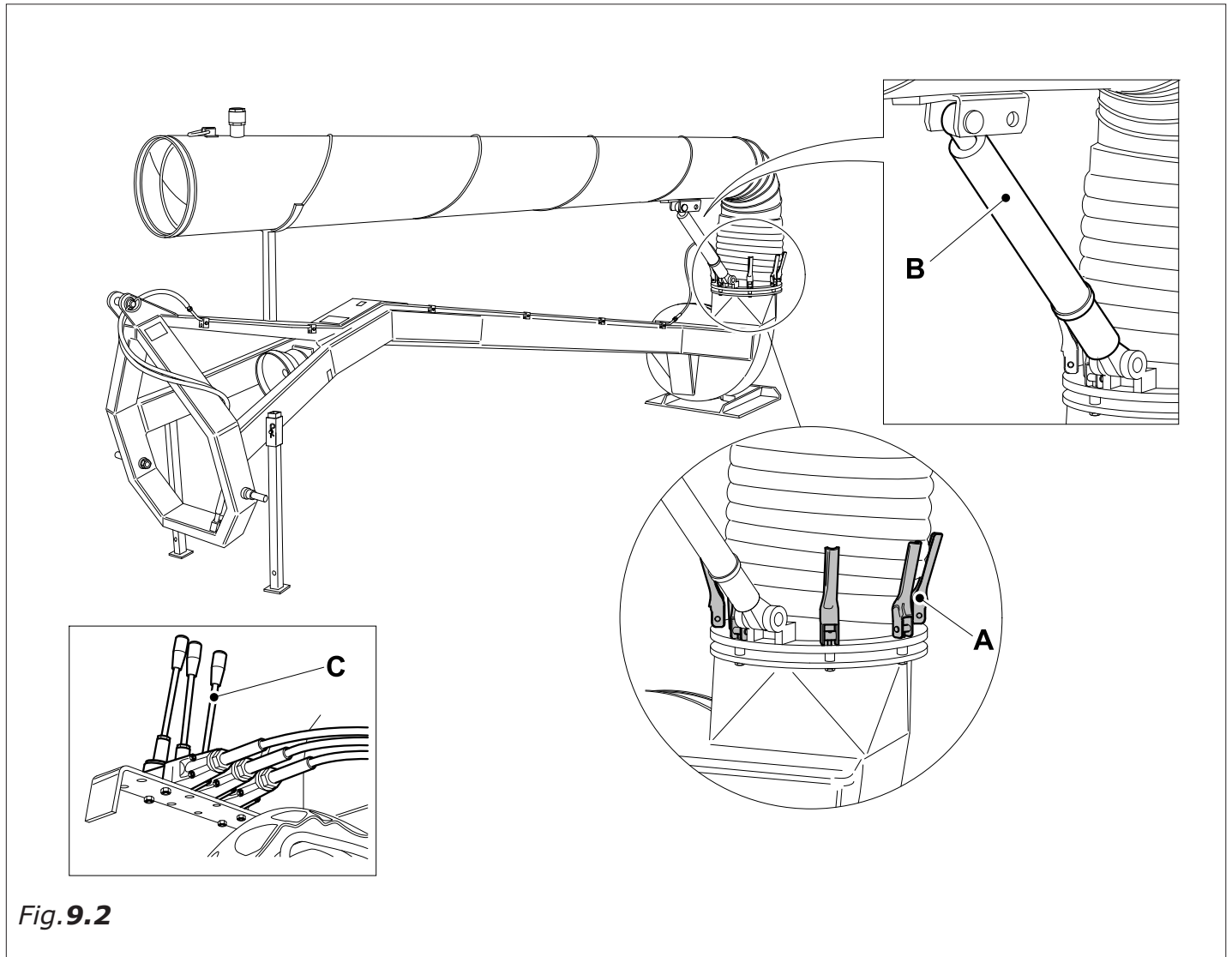
The working temperature of the machine is 0°C to +40°C. The operator's working location is indicated by the letter P in the figure, corresponding to the tractor cabin (fig. 9.1).

This area must not cause the operator to have physical or mental stress (such as from loud noise, blinding lights etc).



When installing the machine it is important to consider the minimum room needed for to access the operator's cabin, for the adjustment and operation of the cardan shaft, the calibration of the pump and the delivery tube.

### 9.3 Controls and operation.



The machine **AT-ET** has the following commands (Fig. 9.2):

1. Blockage and release turning flange levers for manual curve calibration (**A**) only (**AT**) (**AT50** and **ET50** rotate hydraulically);
2. Screws for the calibration of the shock absorber (**B**) (only **AT** without hydraulic jack);
3. Control lever (**C**) for the automatic movement of the delivery tube (only for machines with hydraulic jack and/or hydraulic motorization). These commands are present on the tractor therefore consult the tractor manual.



**WARNING**

Refer to section 8 of this manual before operating the command controls.

## 10 MACHINE ACCESSORIES AND COMPONENTS.

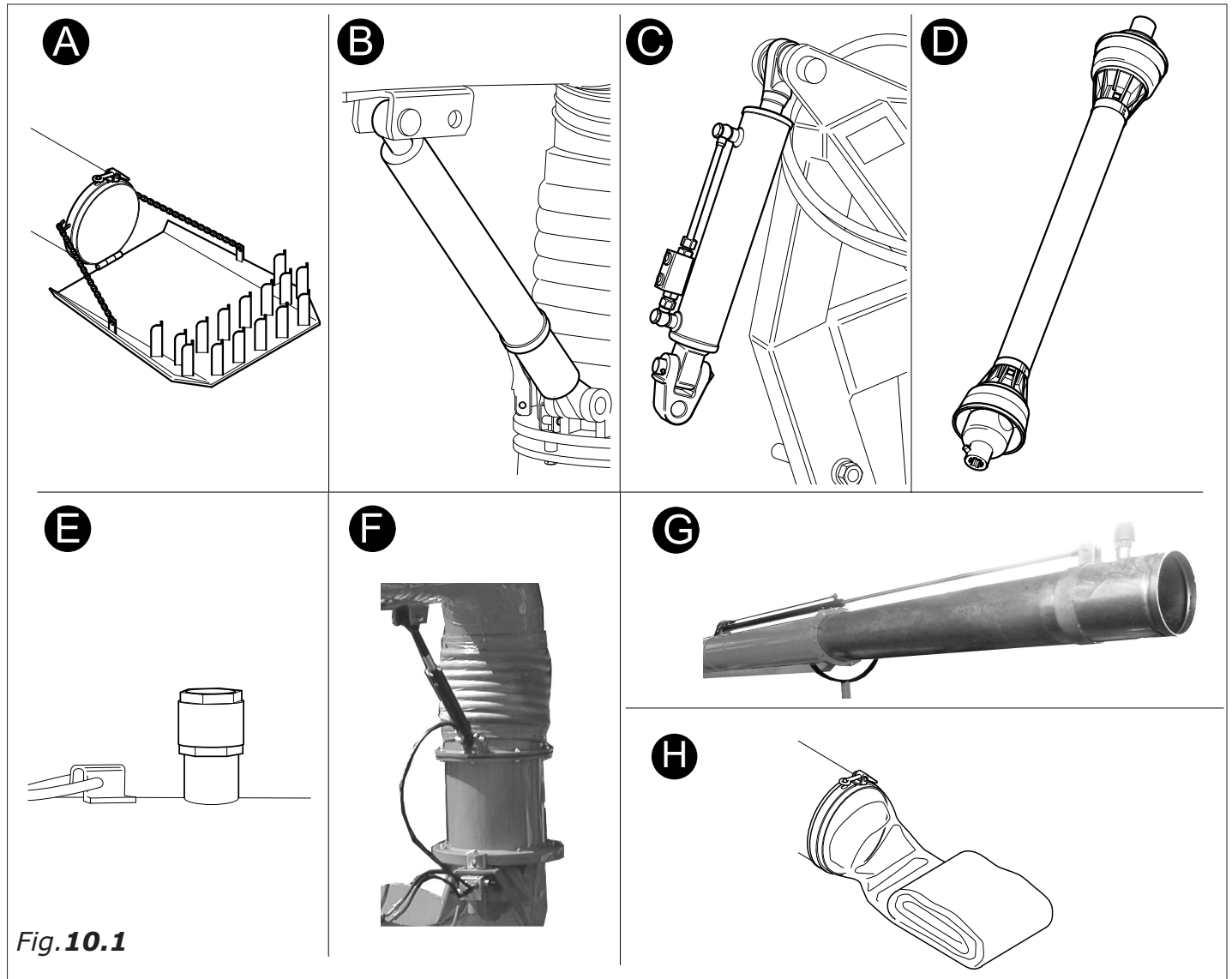


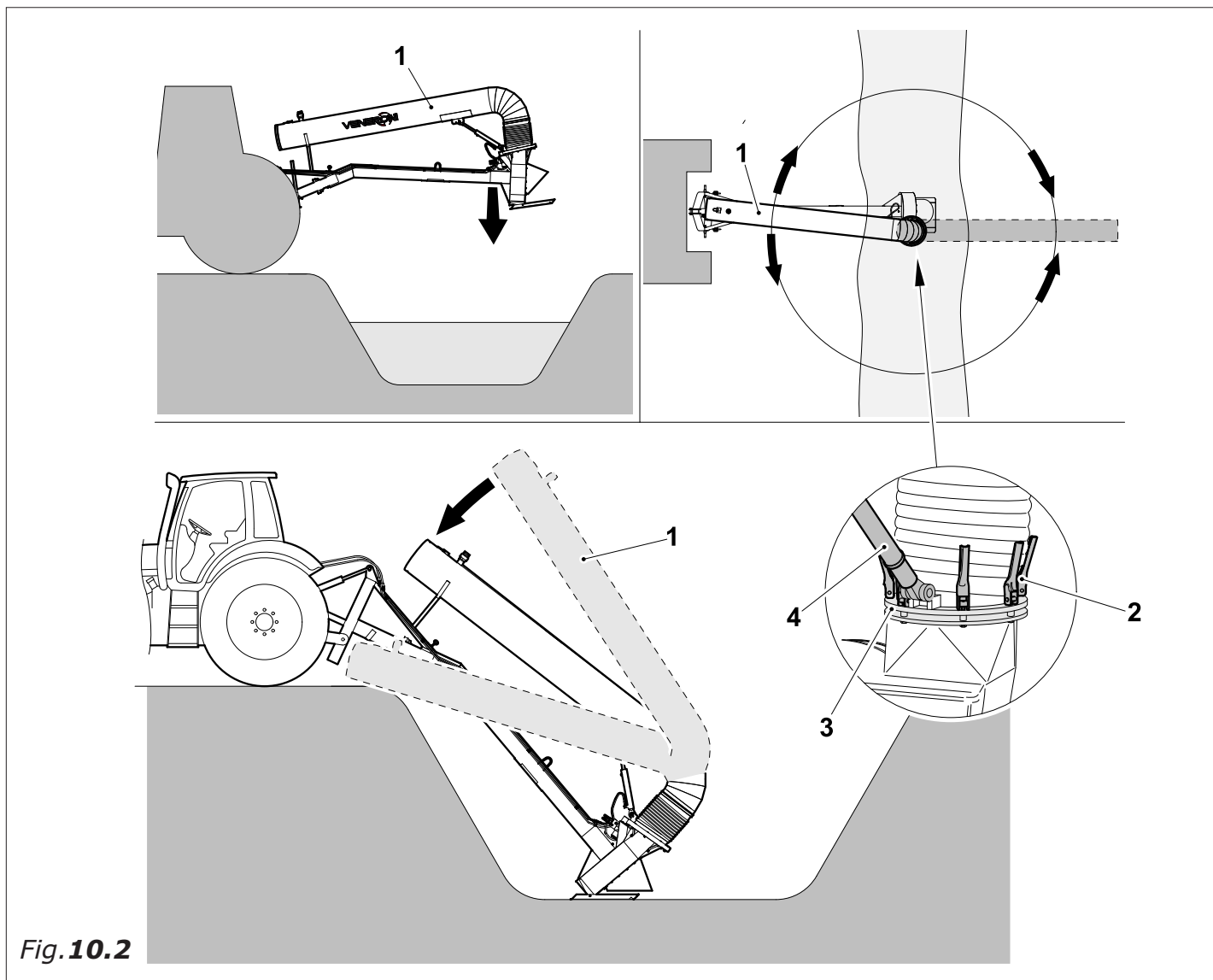
Fig. 10.1

### 10.1 AT machine accessories.

- A. Flow protection
- B. Shock absorber (usually the hydraulic jack but if requested the shock absorber is available for all pumps, apart from the **AT35**, **AT40** and the 6m **AT50**).
- C. 3° hydraulic point
- D. Cardan shaft connecting the machine to the tractor
- E. Pressure release valve
- F. Rising outlet pipe
- G. Hydraulic telescopic pipe
- H. Hose

### 10.1.1 ET machine accessories.

- C. 3° hydraulic point
- D. Cardan shaft connecting the machine to the tractor
- E. Check valve
- H. Hose



**Fig.10.2**

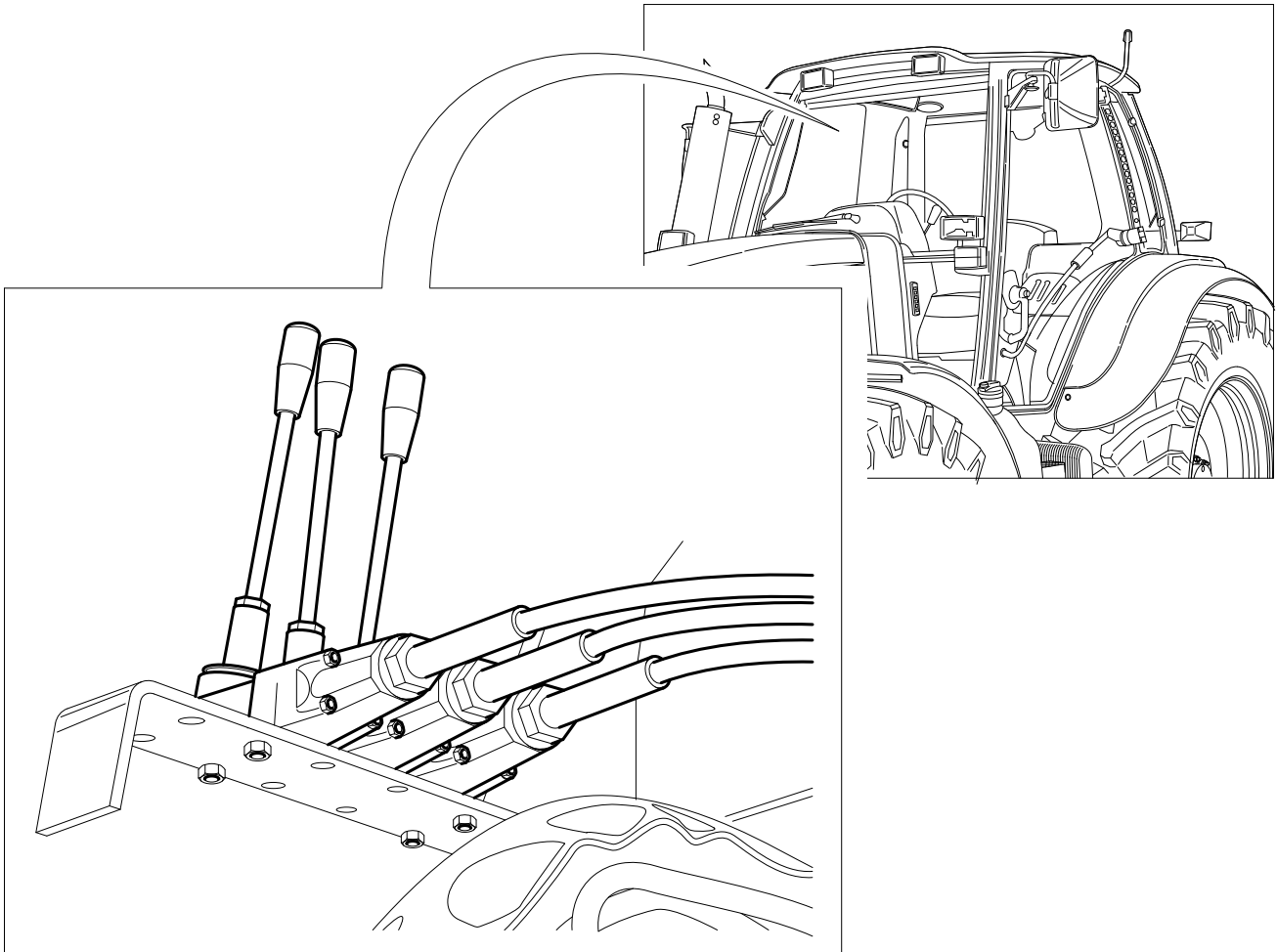
### **10.2 Position of delivery curve (fig. 10.2)**

The rotation is obtained manually pushing the tube (1) after releasing the lever (2) of the turning flange (3).

### **10.3 Delivery curve with shock absorber**

When the tube (1) is filled with water, it automatically lowers until it leans on the ground. The shock absorber (4) stops the tubes movement and puts it into the rest position using a spring. Calibrate the screws to vary the rest position of the tube.

**Fig.10.3**



**10.4 Command for the activation of the hydraulic motor for automatic calibration of the delivery tube and the jack (pump type AT-ET with hydraulic rotation).**

The commands are on the tractor therefore consult its user manual for operation.

The hydraulic motor can rotate the delivery curve in both directions : 180° in the version with the hydraulic jack and without limitations in the version with the shock absorbers (fig.10.3)

Using the pump with the hydraulic jack is simple, the relative command lever can make the delivery tube lift while it returns to its original position due to the tubes own weight.

**10.5 Switching off – time and operation.**

The machine is switched off by turning off the transmission of the motor using the power take off of the tractor.

The rotor continues to turn for a few seconds after being switched off.

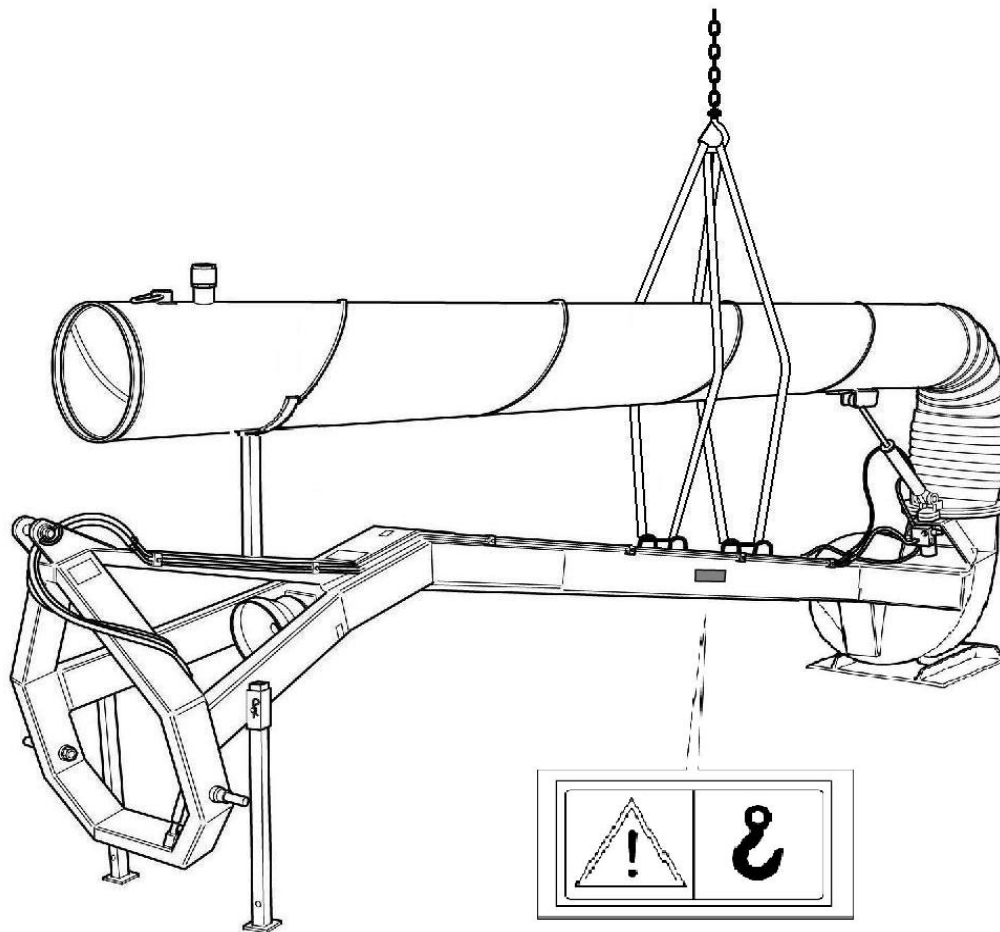
The liquid that is still in the tubes when the machine is switched off can cause the transmission shaft to move in the opposite direction as it flows away.

Before restarting the machine please wait that the transmission is completely still.

**Before moving or lifting the machine, wit that the delivery tube is completely empty.**



## 11 SHIFTING THE MACHINE.



**Fig.11.1**

The persons who are in charge of transporting and consigning the machine must be authorized by the manufacturer or reseller. Lifting the machine must be done on a carrier vehicle with an appropriate chord that meets requirements of safety laws that can sustain a maximum load of:

AT Pump	Kg 1200
ET Pump	Kg 1500

The point where the chord must be attached for lifting is indicated in figure **11.1**.

The centre of gravity point where it is appropriate to lift from is indicated by a plate with an image.



***Before lifting the machine, check that is well balanced.***

**Regarding the machine street transport on long distance, charge it on a proper vehicle and follow the above-mentioned instructions.**

**Don't use the tractor for transporting the machine on street for long distance.**





During storage the machine must be kept in the position indicated in figure **6.1**.  
If moved, the machine must be connected to the parallel and third point of the tractor (fig **11.2**) the pins must be equipped with releasing split pins (Fig. **11.3**)

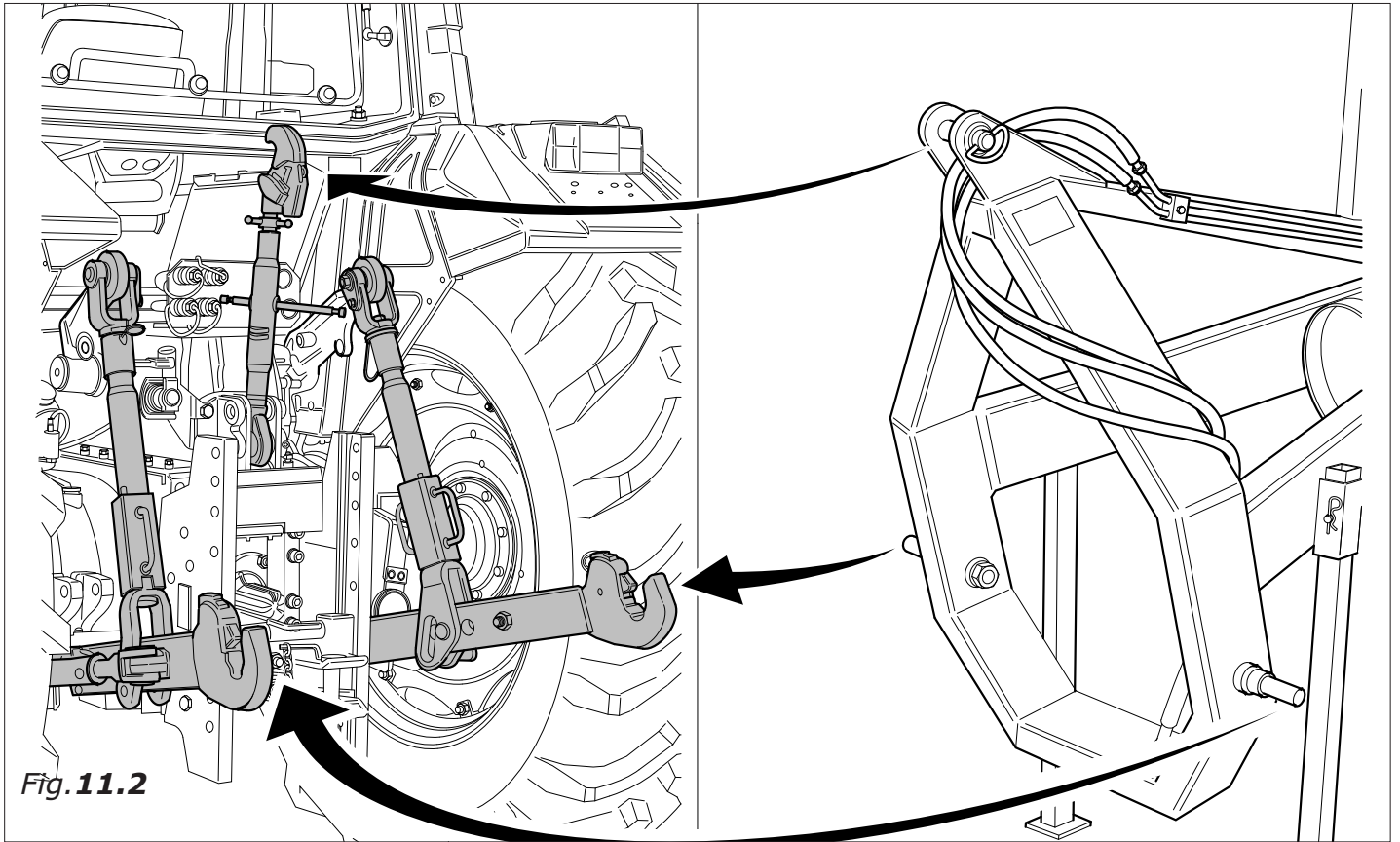


Fig.11.2



**Ensure that the tractor unit that the pump is hooked up to, is provided with the appropriate mass and power capacity suitable enough to support the pump in question:for verify see the table at pag.40 of this manual.**

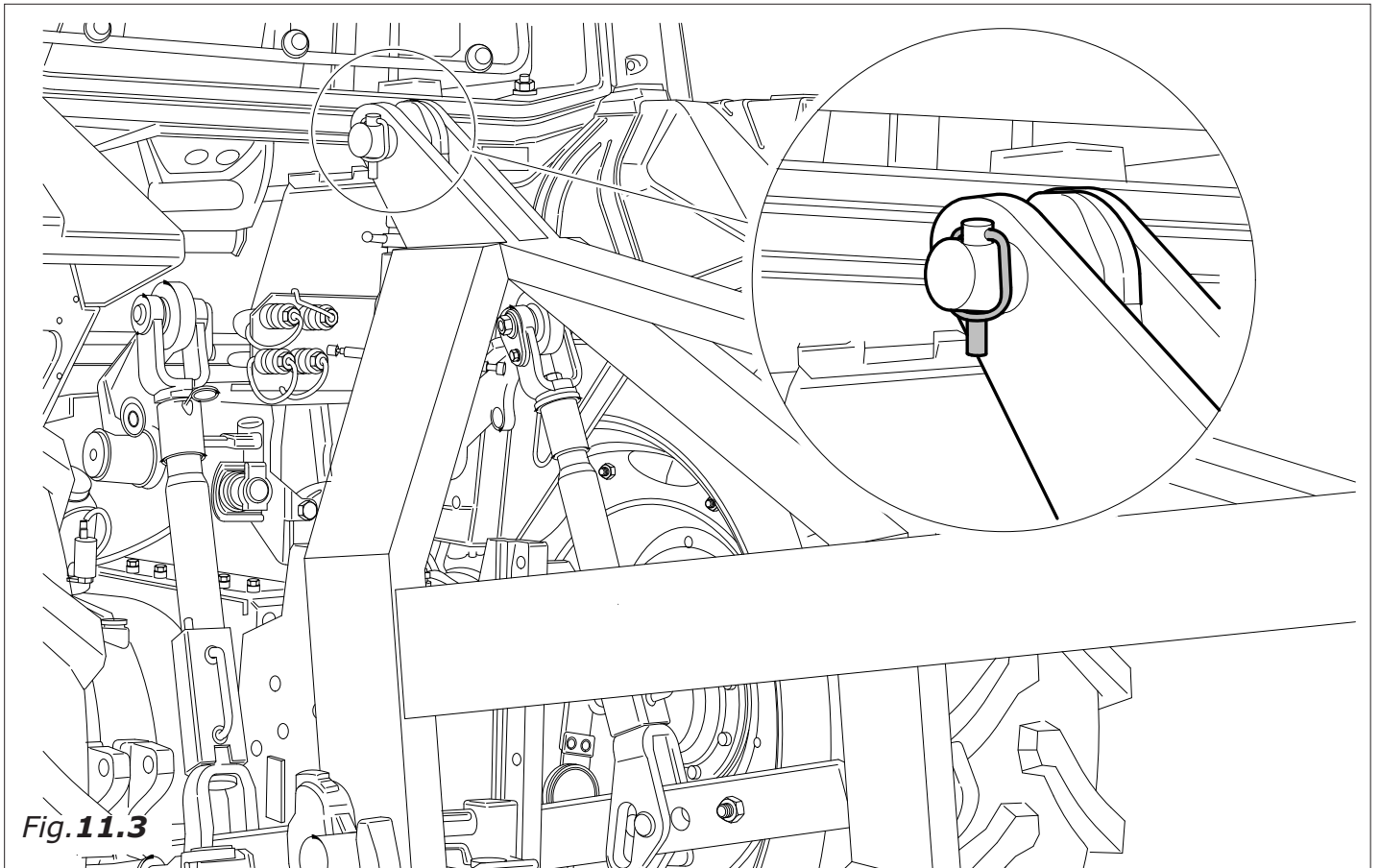


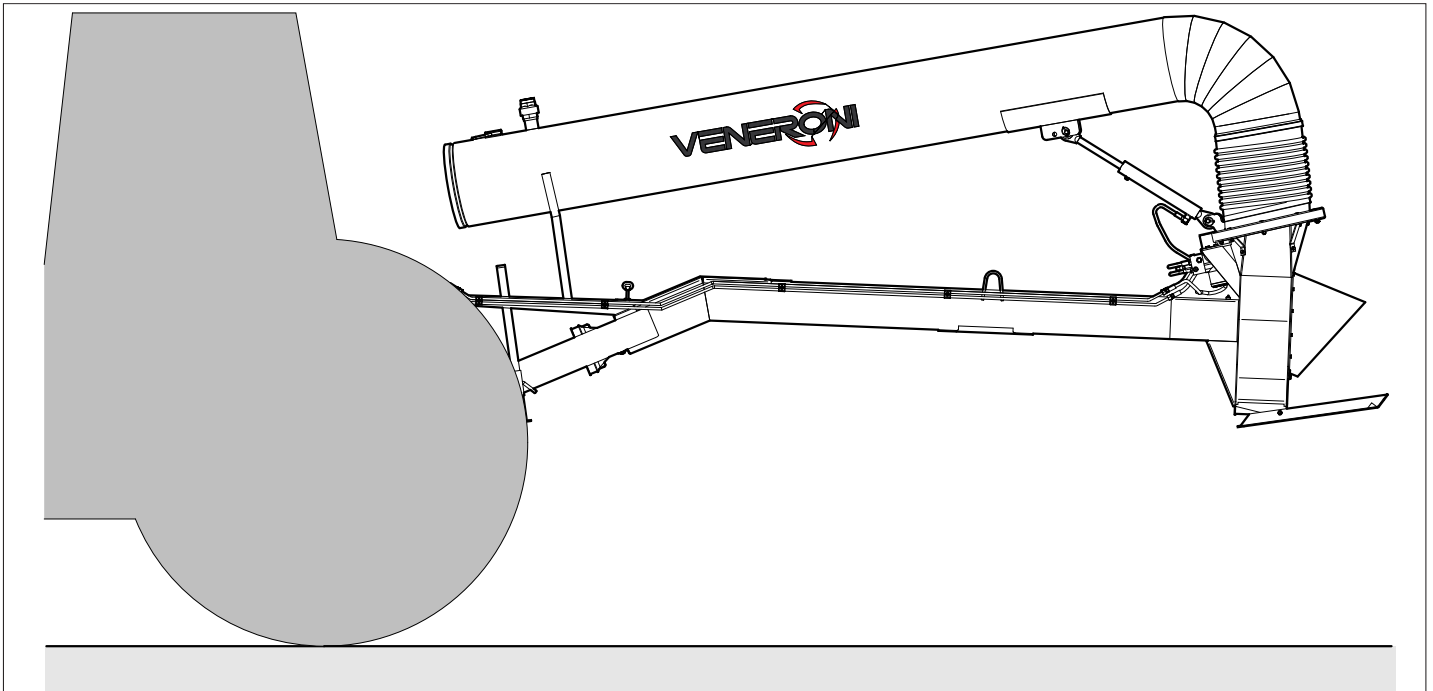
Fig.11.3



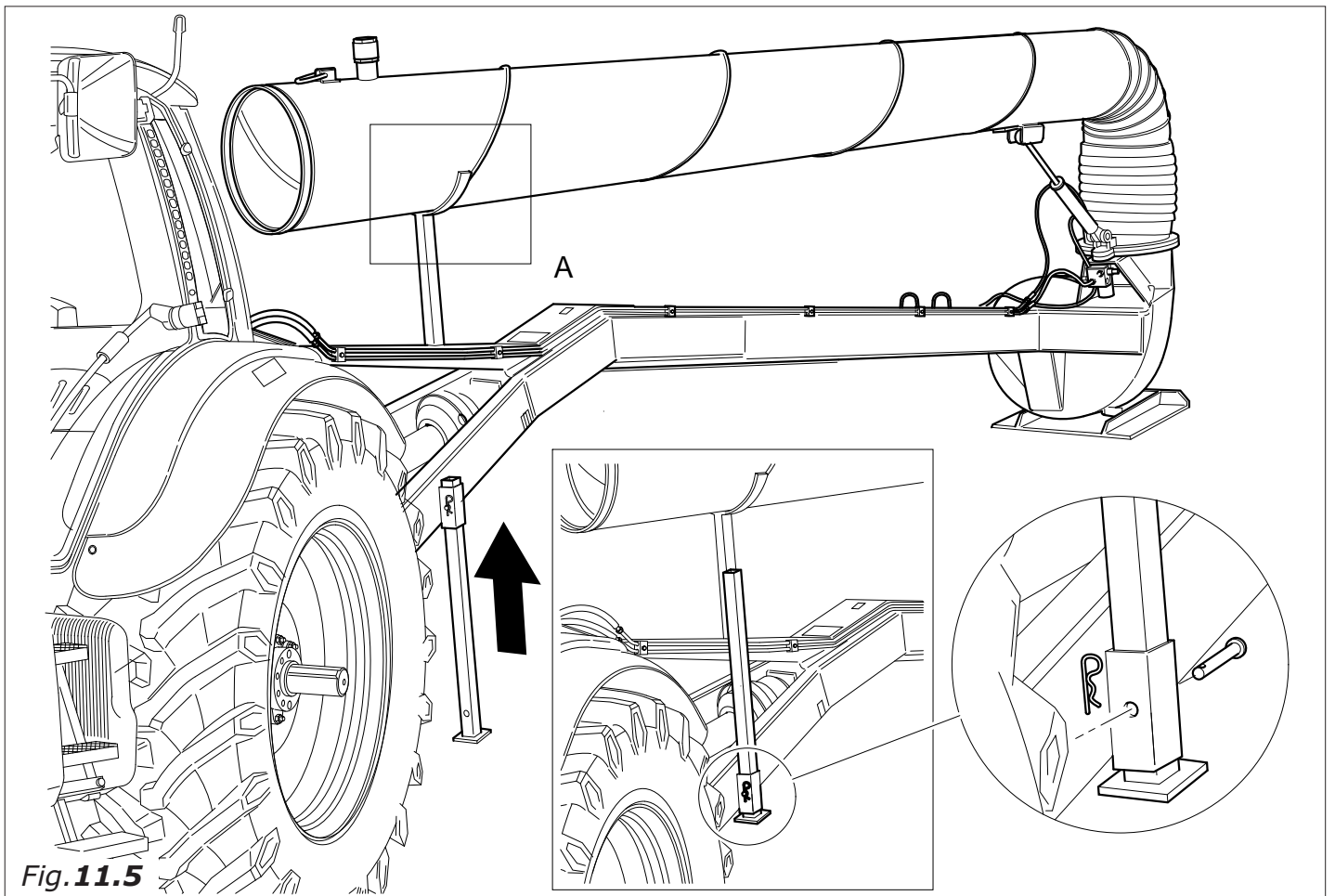


Lift the machine with the hydraulic lifter of the tractor so that the position is similar to figure **11.4**.

Remove the pins as indicated in figure **11.5** and lift the supporting feet, reinserting the pins.



**Fig. 11.4**



**Fig. 11.5**



**During transport, make sure always that the delivery pipe is resting firmly on the storage facility (pos. "A" fig. 11.5).**



## 12 POSITIONING AND OPERATION

### 12.1 Operation, materials and equipment for usage

The machine, as supplied, does not need any specific materials or equipment to be used. A single person can attach or detach the machine from the parallel bar and the third point of the tractor.

The operator must ensure that there is enough space for the safe movement of the machine considering the length when it is connected to the tractor as well as the steering circumference of the tractor.

The machine must be installed following the operations in the following chapter.



### 12.2 Positioning and use

The person employed for the operations of positioning and using (the same operator, too) must be necessarily instructed and trained and has the obligation of reading and following what is foreseen by the present Manual of instructions and use.

Referring to the figures, the operations necessary to position and use the machine safely are described below:

1. The machine must be attached to the hydraulic lifter of the tractor (parallel bar and third point) (fig. 11.2 and fig. 11.3);
2. Mount the cardan shaft (Fig. 12.1 and Fig. 12.2);



**WARNING – This must occur while the engine is off.**

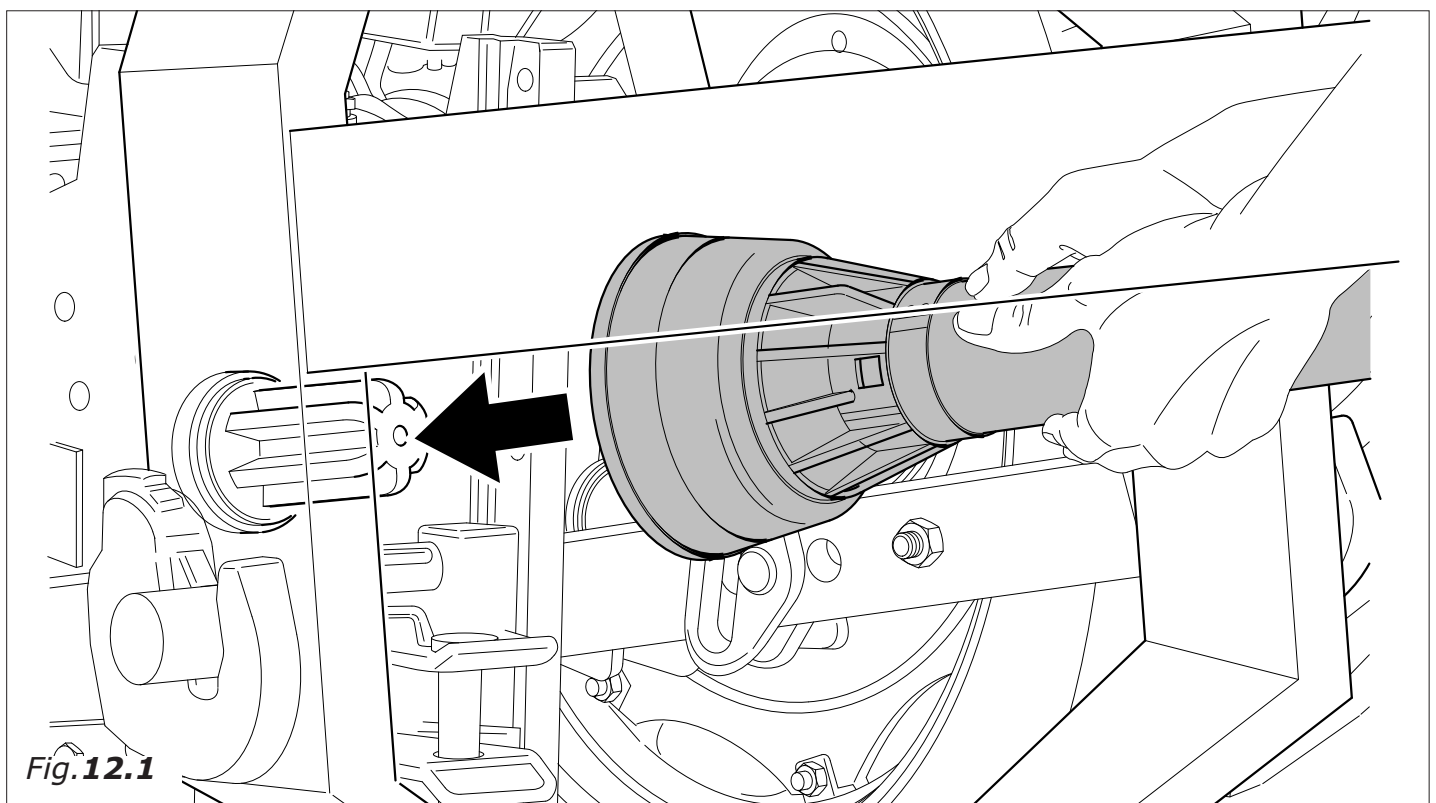
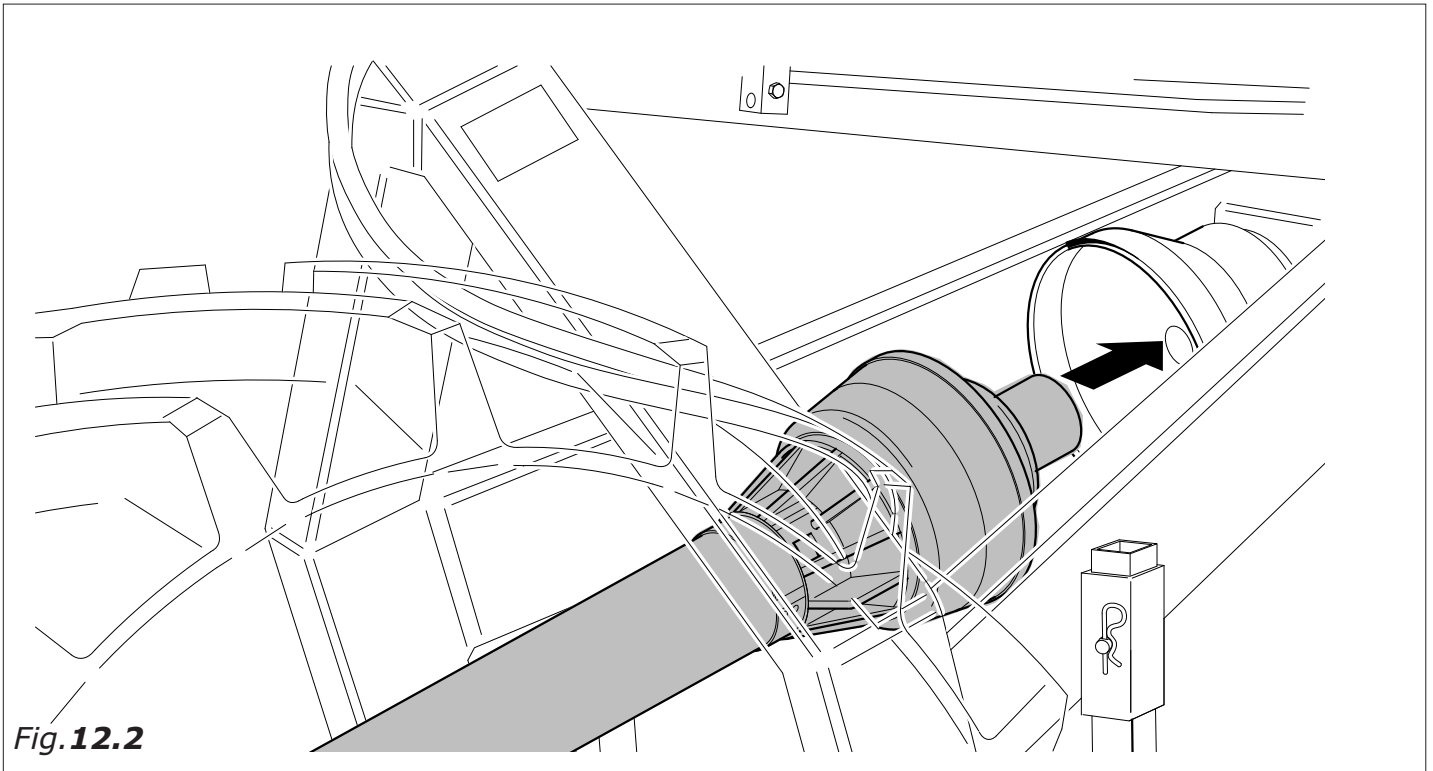
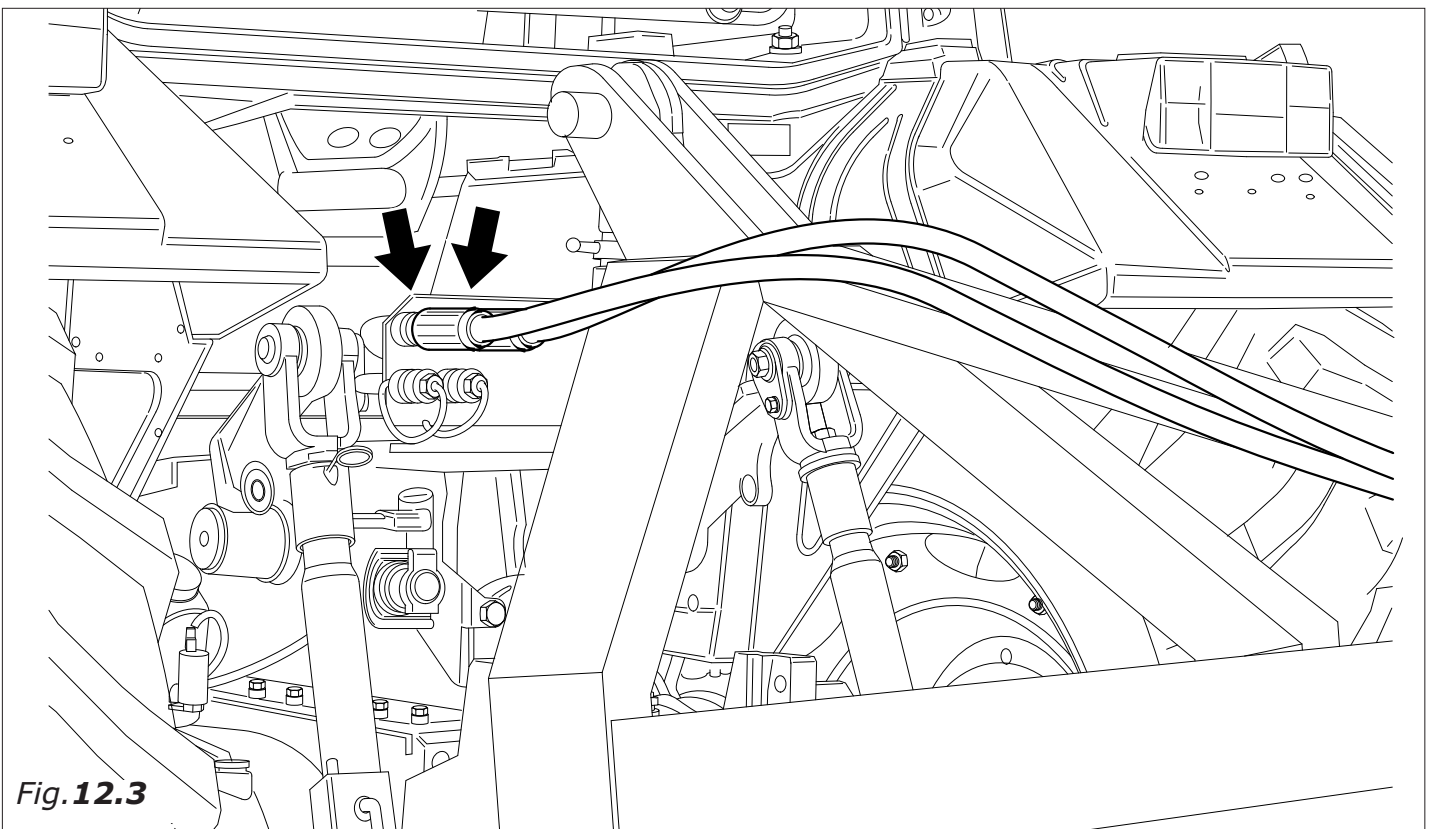


Fig. 12.1



**Fig. 12.2**

3. Insert the couplings of the hydraulic tubes if the pump is equipped with hydraulic equipment, in the appropriate position mounted on the tractor (Fig. **12.3**);
4. If the pump is supplied with a hydraulic distributor with remote control, put the commands in the tractor;



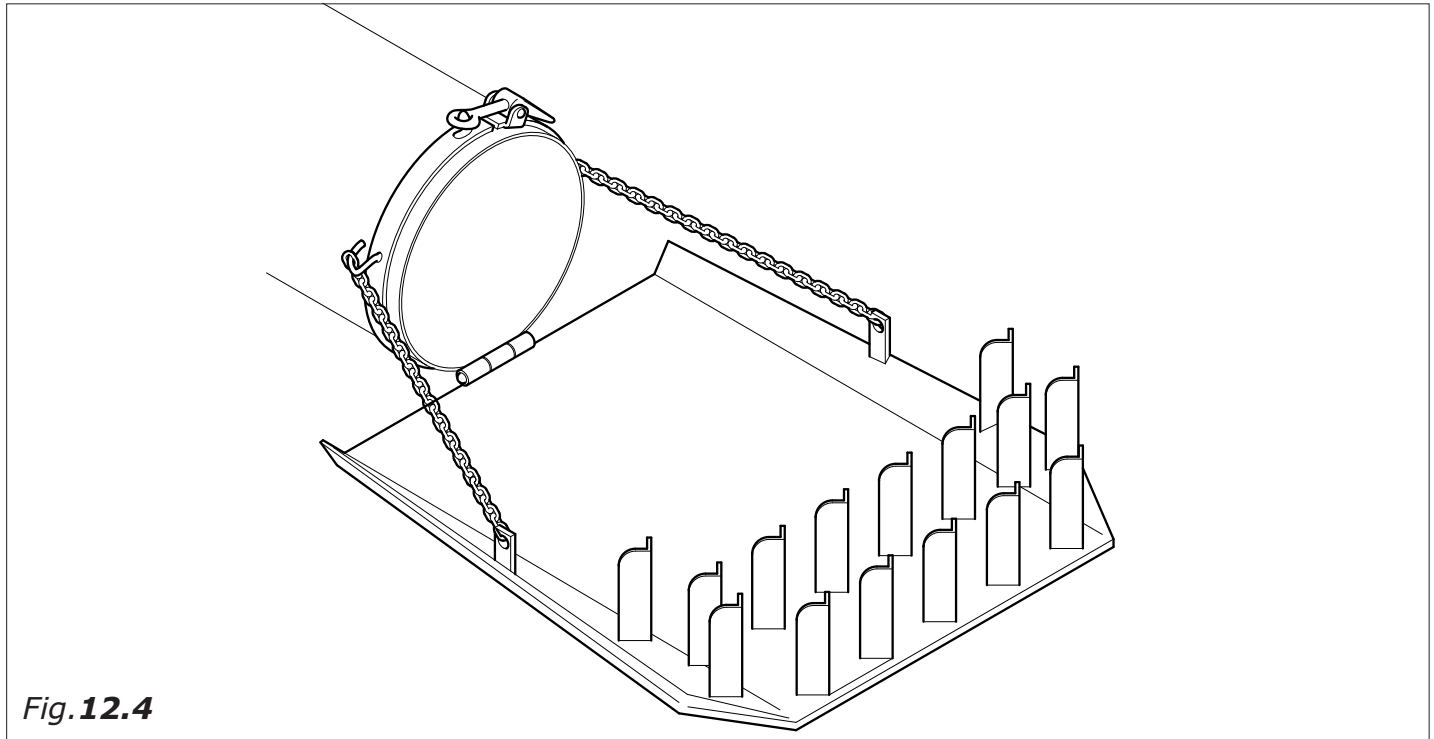
**Fig. 12.3**



**WARNING! Danger of collision, damage or breakage: movement operate carefully and at a moderate speed. Remember that the longer the pump, the more dangerous it is to shift.**

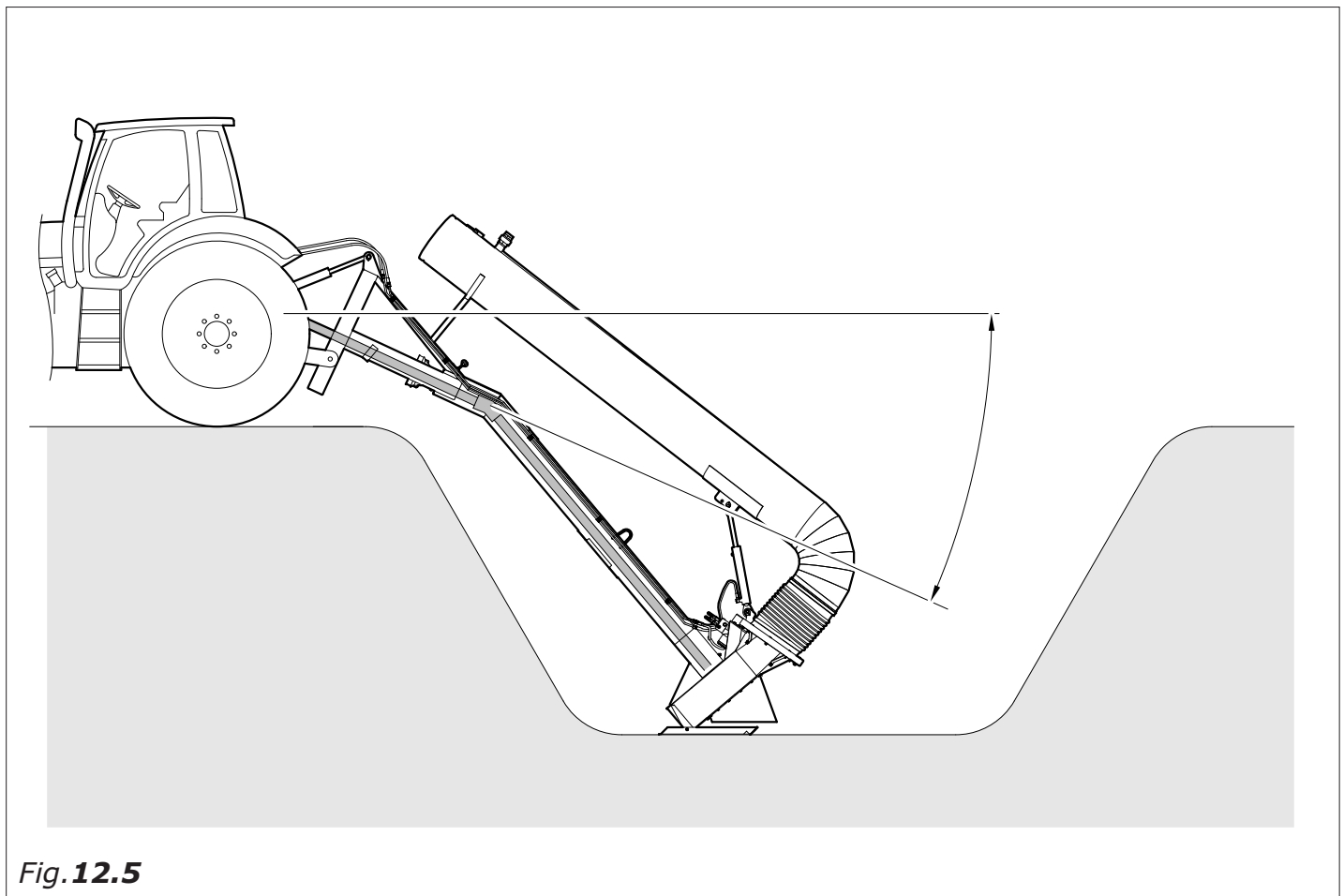


- When arrived on location position the delivery tube in the desired location, as described in paragraph 10.3, before positioning the pump into the irrigation canal. For pumps equipped with hydraulic rotation of the delivery tube, the calibration can be done from the machine in position



**Fig.12.4**

- Position any flow protection device in the work position, as indicated in fig. **12.4**;



**Fig.12.5**

- Install the pump using the tractor's hydraulic lifter. In order to regulate the working angle of the cardan shaft, calibrate the third point (fig. **12.5**);



Fig.12.6



**WARNING! Danger of damage or breakage**  
**During the machine's operation check that the delivery tube always rests on the ground, as shown in fig.12.6.**



**WARNING Danger of damage or breakage: height difference of power takeoff.**

Align the two power takeoffs, motor and pump, so that the working angle of the cardan shaft is equally distributed between both spiders. Refer to the cardan shaft manual. If the installation is incorrect the machine will function irregularly, possibly damaging the pump or the cardan shaft.

8. If necessary apply the extension to the tube output;
9. Break the tractor with the handbrake.



**WARNING! Danger of damage or breakage: position of machine.**

It is recommended to not position or use the machine in different ways of positions than those described by the manufacturer: this could cause damage to the machine and risks the safety of persons.



**WARNING! Danger of turning over.**

The working zone must not be unstable where the machine is moved the ground must not be tilted, irregular or unstable.



**WARNING! Danger of damage or breakage: handling.**

In case you have a hydraulic telescopic pipe (accessory G Fig.10.1), do not handle the delivery elbow with the telescopic pipe partially or completely extended.



**WARNING !**  
**NEVER DETACH THE THIRD POINT DURING THE MACHINE'S OPERATION WITHOUT A THIRD POINT, THE PUMP WILL INCLINE CAUSING THE BANK TO COLLAPSE, POSSIBLY CAUSING DAMAGE TO PERSONS AND THE MACHINE**





## 13 INSTRUCTIONS FOR THE USE, CALIBRATION AND STARTING OF THE MACHINE.

The operator must read this manual in its entirety and must follow the instructions listed therein.

When in doubt as to the correct action to take on the machine and if further information is required regarding the machine the operator can contact the manufacturer or the distributor whose addresses are listed in Section 2 of this manual.



***The operator must not run the machine if under the influence of drugs alcohol or substances that compromise his normal perception and response time.***

### 13.1 Instructions on calibration and final

**adjustments.** Before Installing the machine, check that:

1. All parts indicated have been lubricated (see Figure 6.1 on page 14);
2. The delivery pipe manual rotation blocking levers have been properly tightened
3. All protection safety devices (pos. 9, 17, 18, 19 picture 5.1 page 11) must be correctly positioned, complete and closed.



**WARNING!**

***Check that the delivery tube always rests on the ground when full of water.***



**WARNING!**

***Do not lift the pump when it is in operation.***



**WARNING!**

***Do not lift the pump when the delivery tube it is full of water.***

**Regulation:** the regulation of the pump load is regulated varying the engine: increasing/decreasing the number tractor motor effects the pump load.

**Stoppage:** To stop the pump disengage the transmission of the power take off of the tractor to which the machine is connected: the stop button is found on the tractor.



**WARNING!**

If the delivery tube is in PVC (coupling) it is necessary to slowly decrease the rotation velocity of the pump until it stops. In this way the sudden release of water will be avoided that risks damaging the tube. It is recommended to mount onto the delivery tube a release valve.

**Functioning:** During the machines operation ensure that the pump does not vibrate and the pump is in a stable position.



**WARNING!**

If the machine is used at night or in a low light area, it is essential to illuminate the working area so that the operator can perform all duties easily.

### 13.2 Instructions for finishing work

After switching the machine off ensure that it is totally still before restarting or performing any maintenance: the liquid in the tubes will release from the suction mouth due to the pull of gravity and can cause the rotor, transmission or cardan shaft to move in the opposite direction.



## 13.3 Maintenance of hydraulic system

### Tubes

Visually check the machine to ensure that there are no loose or broken tubes, scratches, dents or other signs of usage. Tighten loose parts and substitute the worn or damaged tubes.

### Substitution

Before removing a tube: Turn off the machine, close relative floodgates or system valves.

All safety measures must be in place before any maintenance takes place.

Before removing any hydraulic tube ensure that there is no pressure within the system.

Identify the damaged tube and loosen using the appropriate 2 point key be careful as lubricating fluid might leak.

Substitute the hydraulic tubes five years at the latest after the date of purchase.

Ensure that all the attachment points (threads, washers etc) are in perfect condition before installation of the new tube.

All safety measures must be in place before any maintenance takes place.

## 13.4 Risks, prevention measures and repair of breakages of the hydraulic system

**Composition of liquids:** petrol derivatives

### Identification of dangers:

The product, used appropriately does not present a risk for the user.

If a repeated and prolonged contact to this product occurs, combined with poor personal hygiene, can cause the rashes, irritation and dermatitis on contact.

### First aid measures

- Contact to skin: wash with water and soap
- Contact with eyes: wash abundantly with flowing water, seek medical assistance.
- Inhalation: breath open air, seek medical assistance.
- Ingestion: Do not provoke vomiting, seek the immediate assistance of a doctor.
- Product intake to lungs: transport victim to hospital immediately.

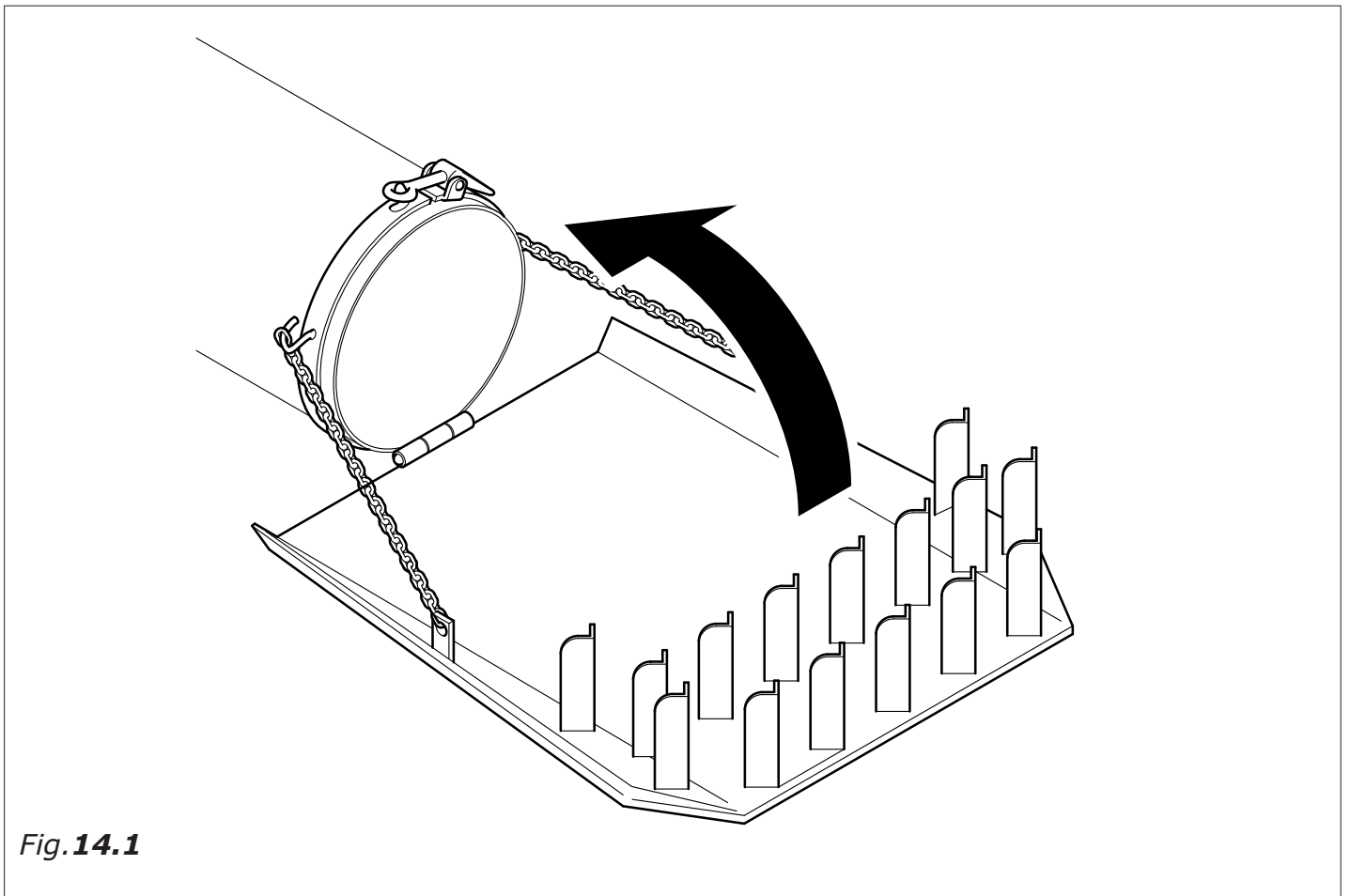
## 14 INSTRUCTIONS FOR DISASSEMBLY AND STORAGE



### 14.1 Disassembly instructions

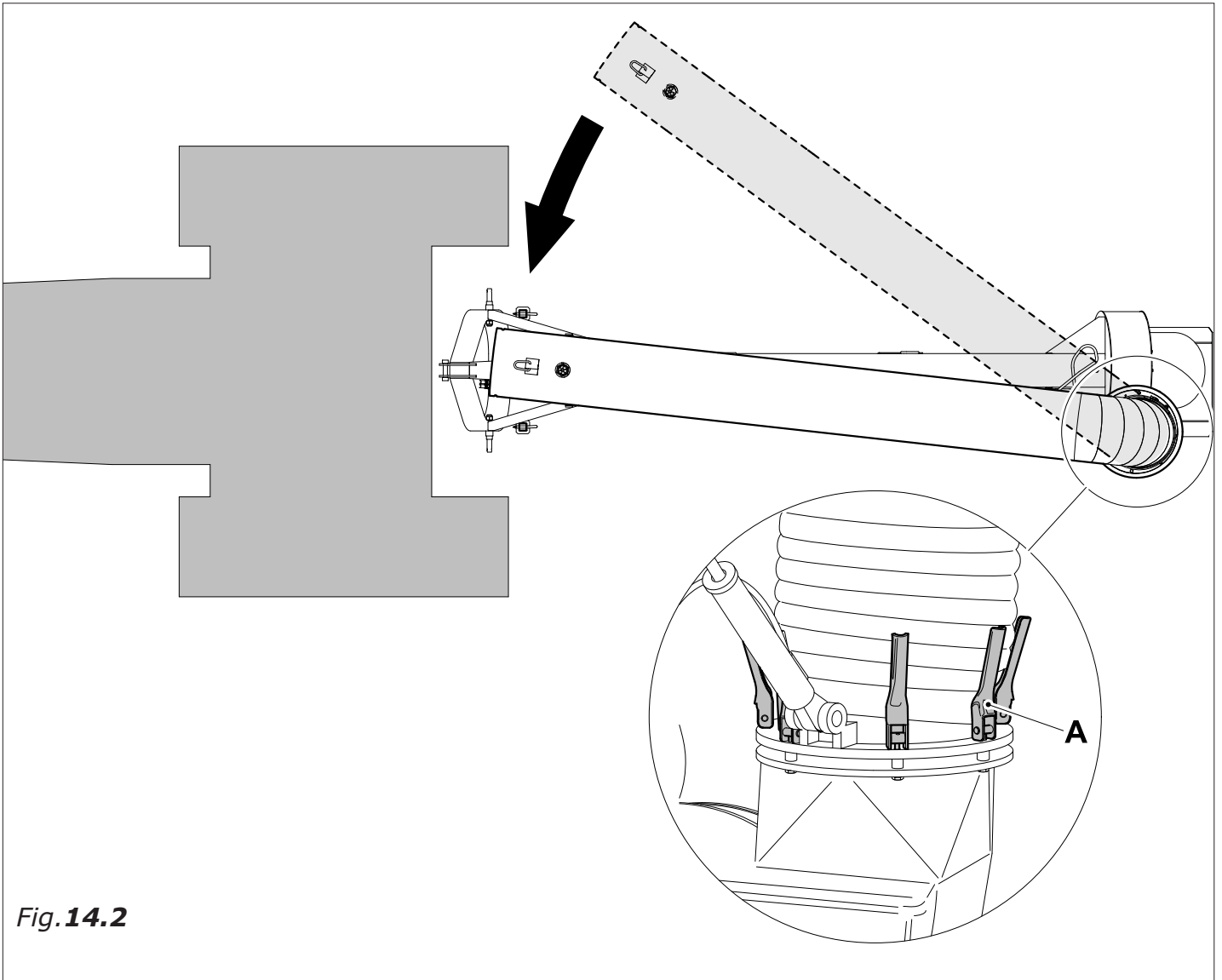
The person who is responsible for disassembling the machine (or the operator) is obliged to read and follow the instructions presented in this manual. Referring to the figures, the operations necessary to disassemble the machine safely are described below:

1. Wait until the delivery tube is completely empty;
2. Lift the pump with the tractor's hydraulic lifter;



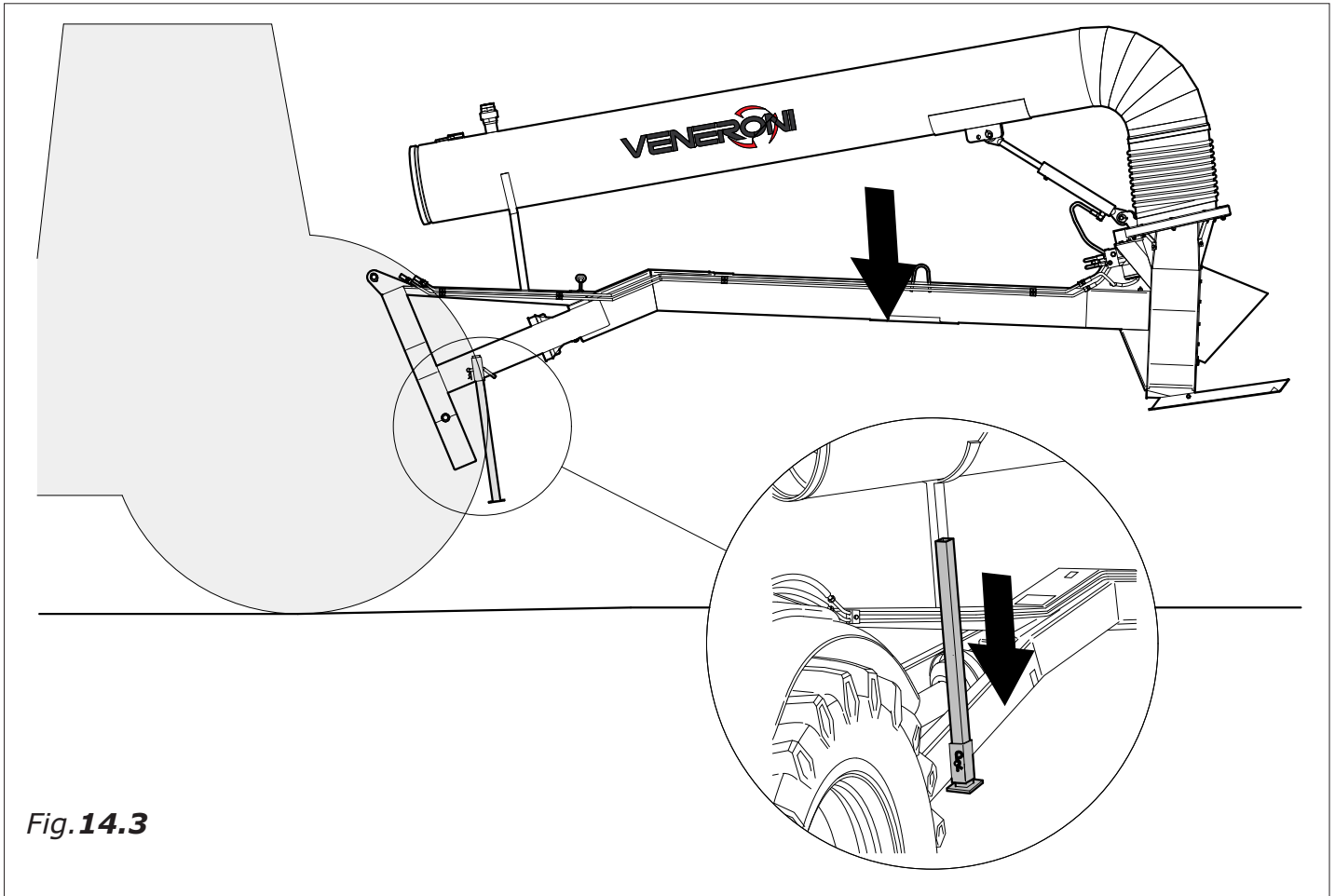
3. Put the flow protection diffuser in the transport position attaching it with the appropriate hooks (fig. **14.1**).





**Fig.14.2**

4. Put the tubes in the transport position using levers (**A**) figure **14.2**;
5. Pumps with hydraulic delivery tube rotation should be moved using the command levers of the hydraulic motor to bring the tubes to the transport position;



**Fig.14.3**

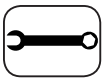
6. Take the machine into the warehouse;
7. Lower the feet of the pump operating the appropriate pins (fig. **14.3**);
8. Lower the pump until it rests on the floor;
9. Remove the cardan shaft;
10. Unhook the parallel bar and third point after removing the safety release pins.

## **14.2 Storage instructions**

If the machine must stay inactive for a long period it must be covered, clean and dry.

If it remains uncovered for a long period in a humid location damage can be caused to the mechanical parts.

The rolling bearings do not require maintenance during storage, the rotation of the shaft (a few turns per month) helps to prevent corrosion and the hardening of the grease. It is recommended also to grease the transmission parts at the end of the season (for lubrication points see figure **6.1** on page 14).



## 15 MAINTENANCE INSTRUCTIONS



**WARNING:** use safety gloves

The person who is responsible for disassembling the machine (or the operator) is obliged to read and follow the instructions presented in this manual. When maintenance is performed on the machine, it must be still and disconnected from the tractor (removal of cardan shaft).

The maintenance points are as follows :

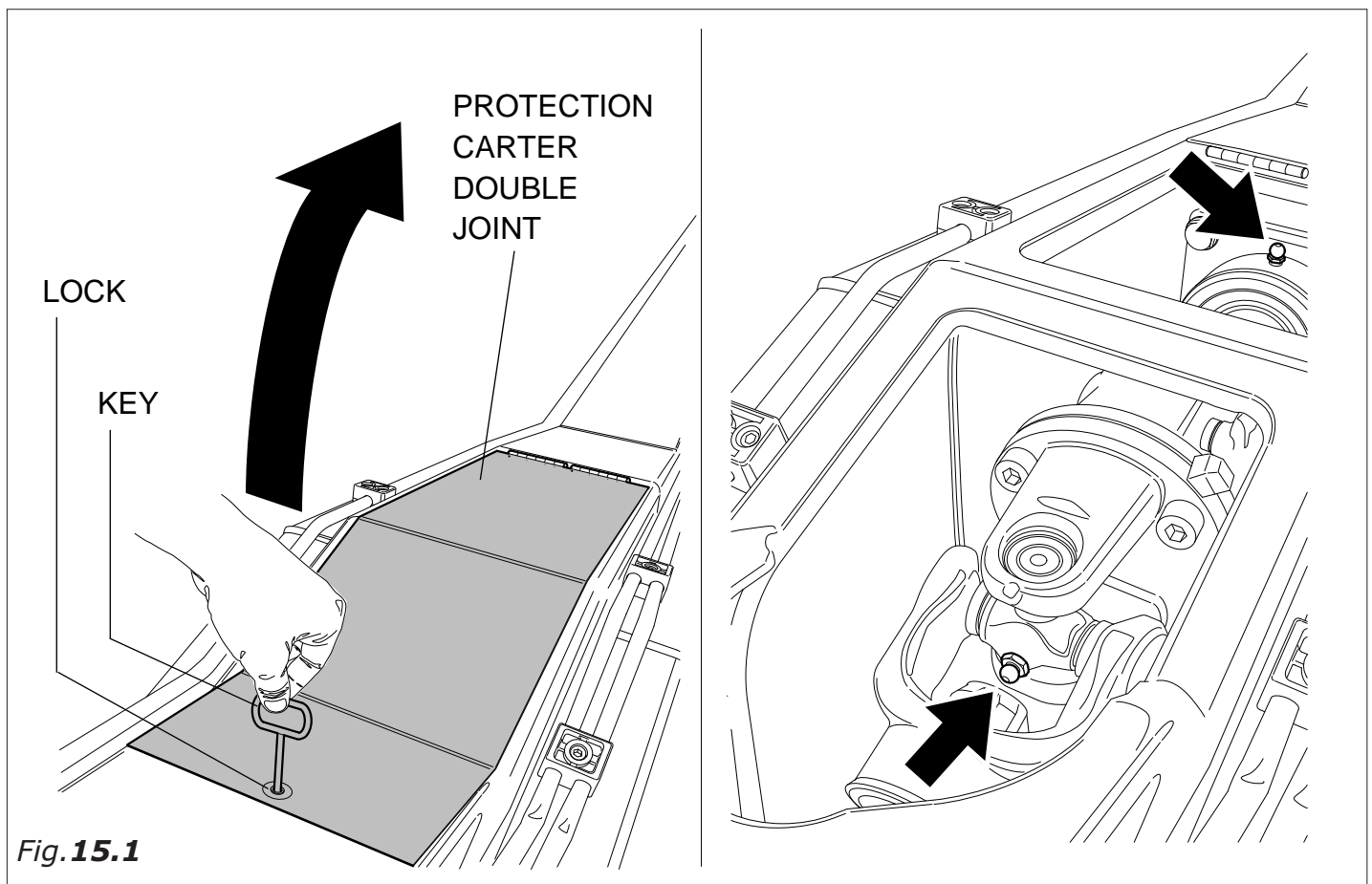
### 1. Transmission shaft and ground support:

Periodically control the functionality of the transmission (supports, bearings, double joints) and lubricate every 8 hours.

After this operation apply grease to all lubrication points as shown in figure **15.1** and Fig. **6.1** on page 14.

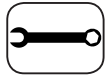


**Use grease as indicated on pag. 13.**



In particular for the double joint greasing:

- Pick up the proper key from the guarded site in which it is conserved;
- Insert the key in the lock, rotate it of 1/4 rotation, unlocking the lock (the key will remain inserted in its seat);
- Lift up the protection carter and proceed with the greasing;
- Once the operation is terminated, pull down the carter and block the lock in the initial position so that the key can be expelled from its seat;



**NOTE: if the key is not automatically expelled from its seat, this is probably caused by a bad working of the closing lock of the protection carter: in this case there are dangers for the safety of the operator (see chapter 8 page 16). DO NOT USE the machine and directly contact the Manufacturer or the Seller.**

- Once the closing has taken place, verify its correct positioning; put back the key in its guarded site.

2. Rubber coupling :

Periodically control the functionality of the rubber and avoid exposing it to sun light for long periods.

3. Shock absorber :

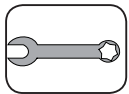
Periodically check the functionality of the shock absorber.  
When it is worn, contact the manufacturer or reseller.



**WARNING!**

***Do not attempt to repair the shock absorber by opening it. there is a danger for persons who are in the vicinity during disassembly.***

4. Dynamic oil tubes :



Periodically check the functionality of the tubes and substitute if necessary (pump type **ET** or **AT** rotation of delivery tube and hydraulic jack is hydraulically operated)

**16 TRAINING PERSONNEL**

The machine is simple to use and does not require specific training to use, but the operator must have completely read this manual.

When in doubt as to the correct action to take on the machine and if further information is required regarding the machine the operator can contact the manufacturer or the distributor whose addresses are listed in Section 2 of this manual.

**17 DISASSEMBLY OF THE MACHINE**

The machine must be disassembled following appropriate disassembly laws.

**Indications for the correct disposal of waste**

**Metal materials**, aluminium, copper; are to be taken to the nearest recycling centre for processing.

**Plastic and rubber**; are to be taken to the nearest recycling centre for processing.



## 18 WARRANTY

The warranty only applies to products that have been exclusively purchased from our central office and according to the law lasts for 12 (twelve) months from the date of consignment (according to the Legislative decree n.2 02/02/2002 EUROPEAN WARRANTY) only if the following measures are taken:

- That any issue with the machine is put in writing and sent by registered post within ten days after being discovered, indicating the type of product, serial numbers, the problem discovered and the proof of purchase (date and document number).
- That the transport, treatment and storage were appropriate.
- That the installation was performed correctly in appropriate environmental conditions.
- That all operators were competent and trained by qualified personnel.
- That periodical maintenance was performed.
- That no repairs were attempted before the product is checked by VENERONI srl or their representatives.
- That the client is up to date with all payments.

If any irregularities occur with the product, it must be taken to PORT FRANCO to our warehouse in Formigara CR in order for the problem to be identified and for repairs or substitution to occur. The material will be returned to the PORT and assigned to the client.

All damages caused by normal usage, improper usage of the machine overuse and modifications made by the buyer are excluded from the warranty.

The warranty does not include any costs relative to the disassembly, reassembly, transport, transferral board and accommodation of technical if required by the client.

The warranty services will take place exclusively in the main VENERONI srl office or that of authorized resellers.

The request for technical assistance for machines under warranty must be made directly to VENERONI srl and performed by technicians from the company or that are authorized in writing, otherwise the warranty will be void.

The warranty only covers the product sold and VENERONI srl is not responsible for damage to persons, equipment or systems, profits lost or any other damages that emerge.

# DECLARATION CE OF COMPLIANCE

(all. II 1.A Dir. 2006/42/CE)

Translation of the original statement  
**MANUFACTURER**

**Veneroni srl**

Via della Resistenza, 8  
26020 FORMIGARA (CR) - ITALIA



**DECLARES THAT THE MACHINE**

**IS CONFORM WITH THE FOLLOWING DIRECTIVES**

Directive 2006/42/CE of the European Parliament and of the Council of 17 May 2006 on machinery and amending Directive 95/16/CE.

Directive 2014/30/UE of the European Parliament and of the Council of 26 FEBRUARY 2014 on the harmonization of the Members States relating to the electromagnetic compatibility

Directive 2014/35/EU of the European Parliament and of the Council of 26 FEBRUARY 2014 on the harmonization of the Members States relating to the making available on the market of electrical equipment intended for use within certain voltage limits.

Standards and/or technical specifications, or parts of them, applied to this declaration of conformity:

UNI EN ISO 12100-2010    CEI EN 60204-1    CEI EN 61439-1

VENERONI SRL undertakes to transfer in response to a request properly supplied by the national authorities, information on the machine

**VENERONI SRL AUTHORIZE** Mr. Pietro Veneroni  
Via della Resistenza, 8 - 26020 FORMIGARA (CR) - ITALIA  
**TO SET UP THE THECNICAL FILE FOR IT**

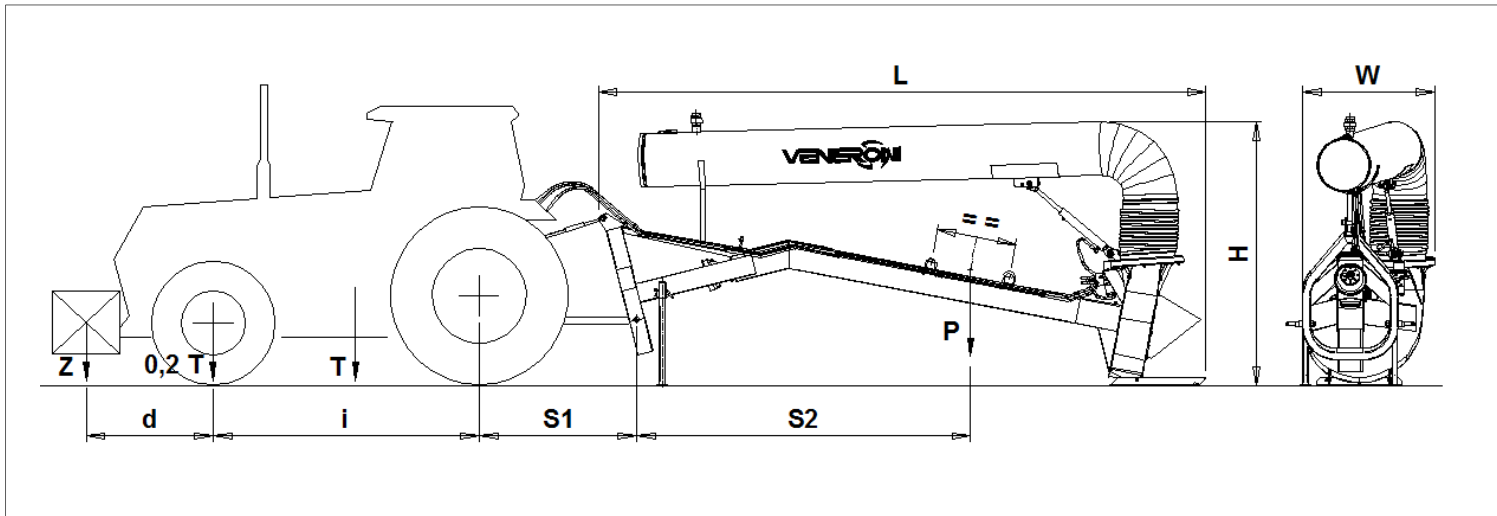
**The administrator VENERONI SRL**

Pietro Veneroni



## 19 TABLES

Here following the formula for the control of the tractor's stability with coupled machine during circulation:



$$P \times (S1 + S2) \leq 0,2 T \times i + Z \times (d + i)$$

In which:


- i** tractor axial wheel base
- d** distance between center of the front axl and barycenter of the ballasts
- S1** distance between center of the rear axl and center of the attachment inferior points
- S2** distance between center of the inferior attachment points and barycenter of the machine
- T** weight of the tractor plus 75 kg (operator medium weight)
- Z** ballasts weight (if not available, consider the value Z=0)
- P** machine weight



**IF THE CONDITION PROVIDED BY THE ABOVE SPECIFIED FORMULA IS NOT OBSERVED, CIRCULATION IS FORBIDDEN.**

The values **S2** e **P** are provided by the manufacturer of the machine and indicated in the following table ( values L, W and H do not refer to the formula, they are provided because characteristics of the machine)

The values referred to the tractor are not provided by the manufacturer of the machine.

 <b>VENERONI</b> <small>ADVANCED FLUID MOTION</small>						
<b>DIMENSIONI E PESI POMPE AT/ET</b>						
<i>DIMENSIONS AND WEIGHT FOR AT/ET PUMPS</i>						
MOD.		L	W	H	P	S2
		LUNGHEZZA	LARGHEZZA	ALTEZZA	PESO	
TYPE		LENGTH	WIDTH	HEIGHT	WEIGHT	mm
		mm	mm	mm	kg	
AT25	3	3350	810	1700	340	1940
	4	4350	810	1700	390	2340
	5	5350	810	1700	450	2855
	6	6350	810	1700	510	3420
AT30	3	3400	810	1700	390	1840
	4	4400	810	1700	440	2350
	5	5400	810	1700	540	2800
	6	6400	810	1700	620	3450
AT35	3	3540	950	2000	480	2050
	4	4540	950	2000	570	2470
	5	5540	950	2000	650	2970
	6	6540	950	2000	740	3530
AT40	3	3590	950	2000	520	2075
	4	4590	950	2000	600	2495
	5	5590	950	2000	670	2995
	6	6590	950	2000	770	3485
AT50	4	4680	950	2500	890	2350
	5	5680	950	2500	1030	2950
ET50	5	5360	950	2600	960	2580
	6	6380	950	2600	1230	3060





VENERONI PRODUCES ITS MACHINES  
USING CLEAN ENERGY.  
WE SUPPORT RENEWABLE ENERGIES.

*Timbro rivenditore o centro assistenza  
Resellers stamp or assistance centre  
Tampon revendeur ou centre assistance  
Stempel des Händlers oder des Wartungsdienstes*

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[info@prom-nasos.pro](mailto:info@prom-nasos.pro)

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ENGINEERING

 **VENERONI**  
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