



**ATI3** MATERIAL  
HANDLING

# INSTRUCTIONS MANUAL FOR USE

LOAD STABILIZER

TYPE 951

# INDEX

## LOAD STABILIZER TYPE 951



**READ THIS MANUAL VERY CAREFULLY BEFORE STARTING-UP THE MACHINE**

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# 1 SAFETY RULES



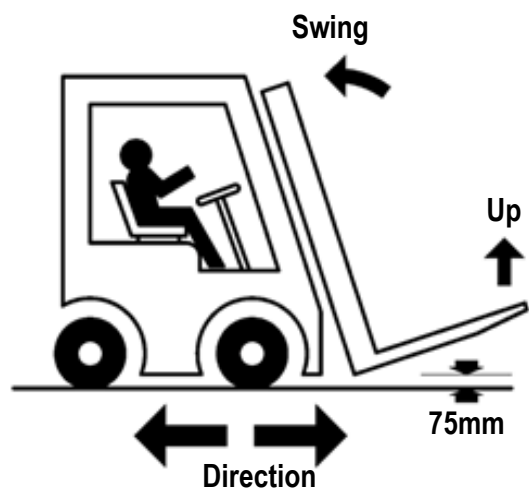
Don't carry the passengers



Don't cross the mast



Don't pass under the load



## 2 INTRODUCTION

### 2.1 Use and upkeep of this manual

This “User Manual” (hereinafter referred to as Manual) is supplied together with the A.T.I.B.– “LOAD STABILIZER TYPE 951” pursuant the CE DIRECTIVE 2006/42/CE date 17/05/2006 and amendments.

The information contained here are imperative for the correct use of the attachment and must be known by the personnel who install, use, maintain and repair it.

This manual must be considered integral part of the attachment and must be kept as long as the attachment is in use on any machine in an accessible place, protected, dry and available for immediate consultation.

Should this manual be lost, the operator can apply for the supply of further copies from the manufacturer.

**The manufacturer reserves the right to modify this Manual without notice and without the obligation to update the copies previously distributed.**

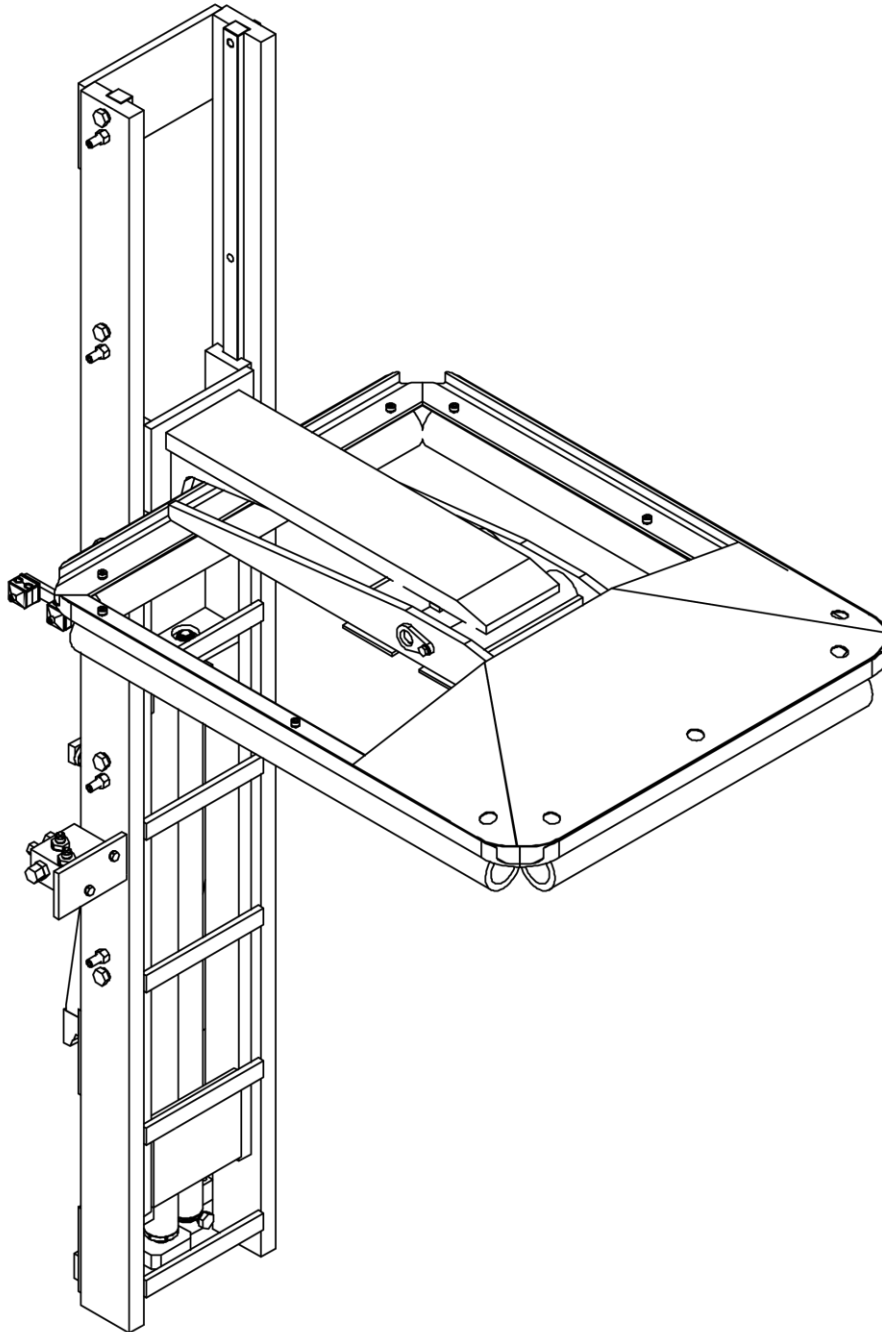
#### **The manufacturer is not liable in cases of:**

- Improper use of the attachment;
- Use by untrained personnel;
- Use contrary to current national and international laws;
- Lack of recommended maintenance;
- Non authorised modifications and repairs;
- Use of non original spare parts or parts for other models;
- Failure to adhere, either totally or partially, to these instructions;
- Exceptional circumstances.

**The Nominal Capacity of the forklift / Equipment combination is established by the original manufacturer of the forklift and may be lower than that indicated on the identification plate.**

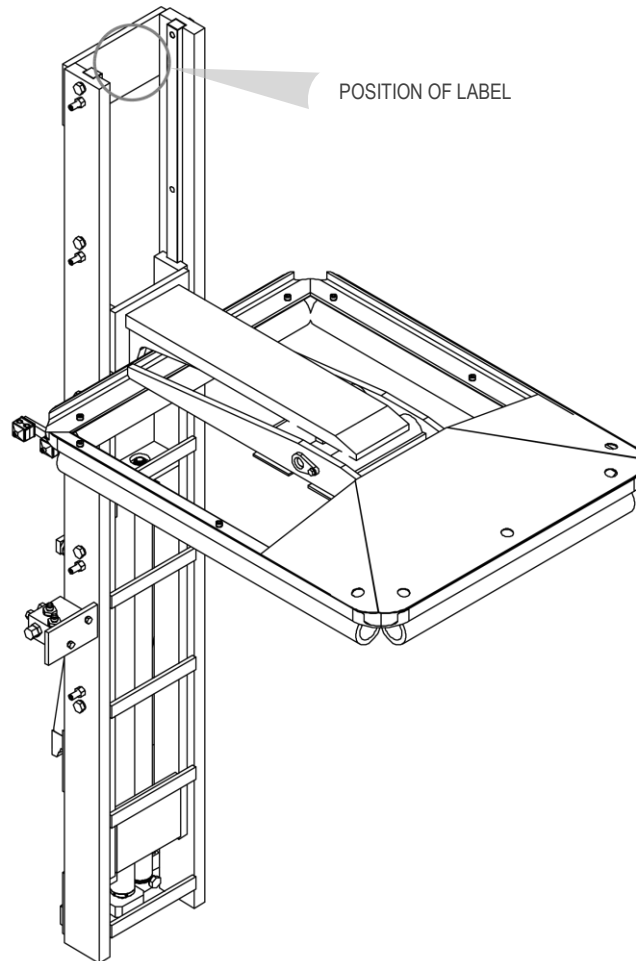
**Consult the plate of the forklift (Directive 2006/42 / EC).**

## 2.2 Description of equipment





All the A.T.I.B. - "LOAD STABILIZER TYPE 951" are identified by means of a sticky identification label on attachment (

Tab 1) position of identification label on equipment (Picture 1, the position of the identification plate may vary based on the type of equipment). always refer to the serial number.



Picture 1

1. TYPE	8. NOMINAL CAPACITY	kg/mm	11. MAX. TORQUE	daN m
2. CODE	9. CLAMPING CAPACITY	kg/mm	 	<b>A.T.I.B. S.r.l.</b> Via Quinzanese snc, 25020 Dello (BS) - ITALIA +39 030/9771711 info@atib.com - atib.com
3. SERIAL N°	10. MAX. OPERATING PRESSURE	bar		
4. YEAR OF MANUFACTURE	<b>WARNING: RESPECT THE RATED CAPACITY OF TRUCK AND ATTACHMENT COMBINED</b>			
5. WEIGHT				
6. THICKNESS				
7. CENTER OF GRAVITY				

Tab 1

### 1. TYPE

It identifies the model of the equipment as shown in the catalogue.

### 2. CODE

It identifies the equipment order code.

### 3. SERIAL N°

It progressively identifies the individual equipment.

The series number has been stamped should the tag go missing or be damaged. Always refer to the series number for any kind of information.

### 4. YEAR OF CONSTRUCTION

It indicates the year of construction.

### 5. WEIGHT

It indicates the weight of the equipment in kg.

### 6. THICKNESS

It indicates the thickness of the equipment in mm.

### 7. CENTER OF GRAVITY

It indicates the distance in mm of the equipment CG center of gravity from the fork holding plate table (CG1 closed position and CG2 open position).

### 8. NOMINAL CAPACITY

It indicates the maximum load applicable to the hoisting equipment and the maximum barycentric distance of the load itself.

### 9. CLAMPING CAPACITY

Not applicable to this equipment.

### 10. MAX OPERATING PRESSURE

It indicates the maximum pressure applicable to the equipment.

### 11. MAX COUPLE

Not applicable to this equipment.

The A.T.I.B. - "LOAD STABILIZER TYPE 951" it has been conceived, designed and built to allow the stabilization of unstable, bulky or stacked loads on pallets.

his equipment must be applied on the fork holding plate of the lift truck or on equipments (sideshift, double/triple sideshift, fork positioner, rotator, ecc.) and connected to the distributor by means of a hydraulic circuit.

The attachment performs the following function:

- Load locking: the movement related to the load containment plate is achieved through the use of a pair of hydraulic cylinders.

The coupling components of the fork holding plate are manufactured in compliance with the ISO 2328 norm.

### 3 INSTALLATION

#### Verify the nominal capacity of equipment

To check the nominal capacity of equipment, consult the identification label (



Make sure that the operator of the forklift is aware of the maximum capacity of the attachments, so as NOT to pose a danger to himself and to the people who work in his vicinity.

The forklift manufacturer is responsible for calculating the residual capacity of the forklift /equipment assembly.

Tab 1 pag.5).

#### Check operating pressure and flow rate of oil

A.T.I.B. advises to respect the hydraulic flow rates and operating pressures shown in *Tab 2*, in order to optimize the operation of the equipment and avoid problems during the work or commissioning phases. The values are indicative and may vary depending on the equipment.

TYPE and ISO	PORTATA (l/min)			Max. operating pressure (Bar)
	Min.	Max.	Recommended	
219 (ALL)	10	30	15	175

Tab 2



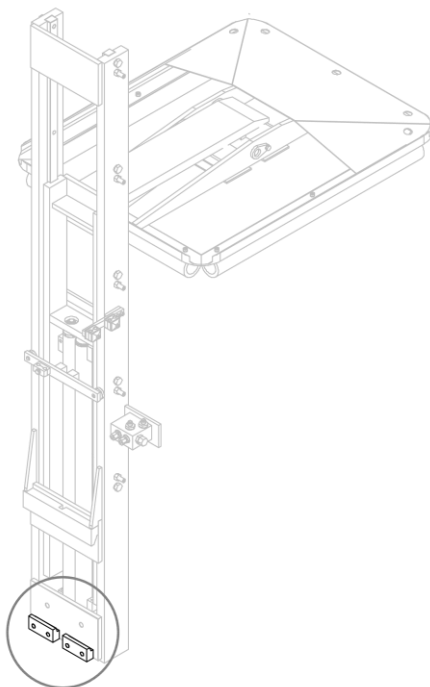
**RESPECT THE MAXIMUM WORKING PRESSURES INDICATED**



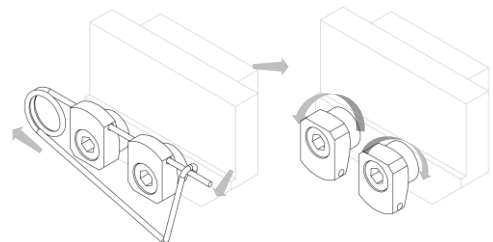
## 3.1 Installation

### 3.1.1 Attachment Installation

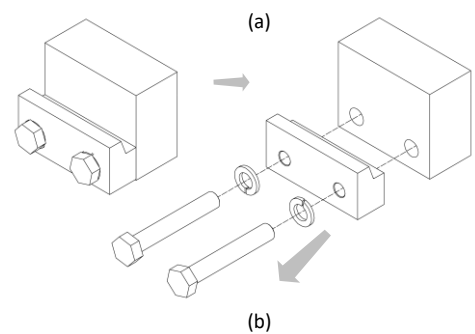
1. Before installation, verify the condition of the fork carriage, ensuring that it is not deformed.
2. Also make sure that the profiles of the fork holding plate are not deformed, in order to allow a good coupling with the equipment.  
**NOTE.** install the forks externally to the equipment.
3. Check the condition of the pipes, replacing those that are in a bad condition.
4. Unscrew the lower hooks of equipment (*Picture 2*).



If there are quick releases, simply remove the split pin and rotate them downwards (a).

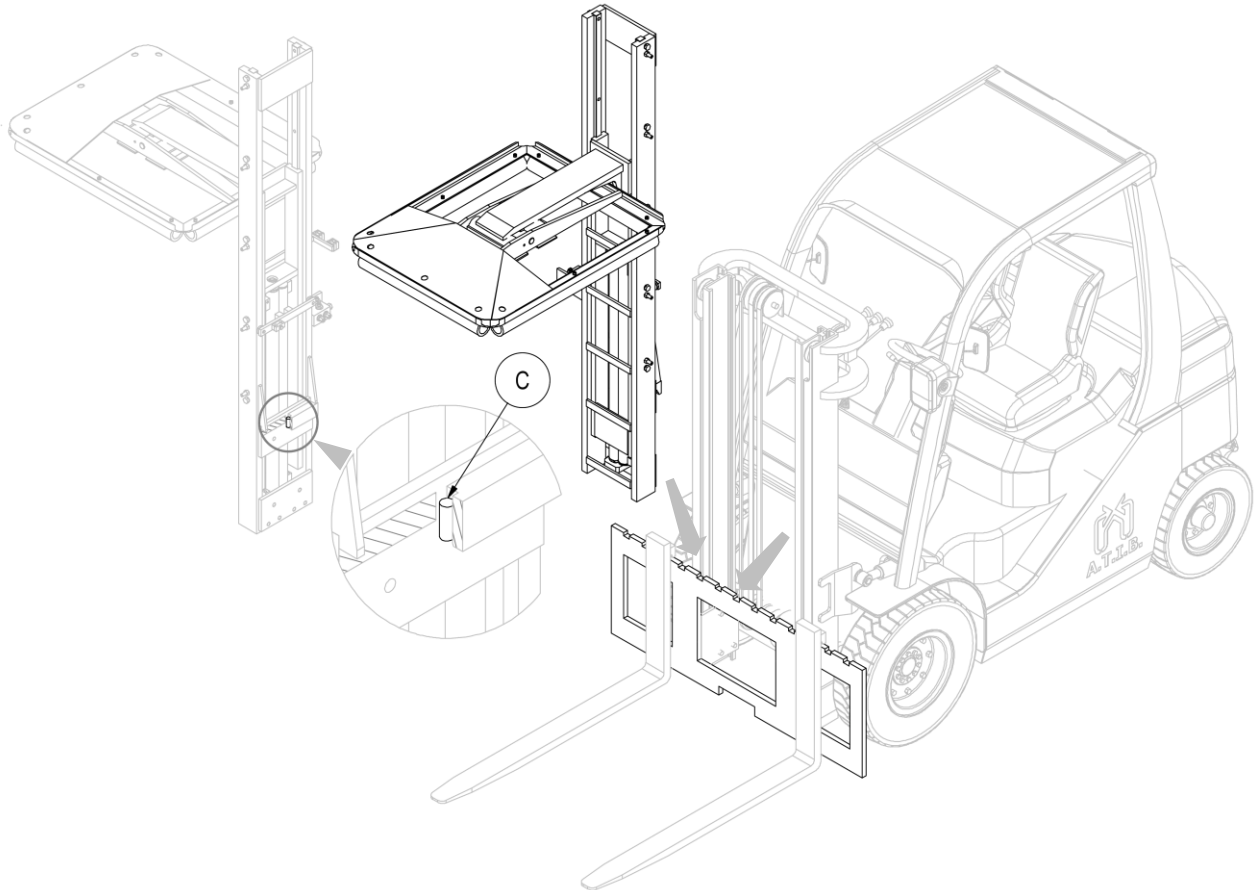


If the standard hooks are present, remove the screws, with the relative washers, which support them (b).



Picture 2

5. For handling, use belts or chains appropriately sized for the weight of the equipment, indicated on the identification plate (*Picture 1 and*
6. *Tab 1 pag.5*).



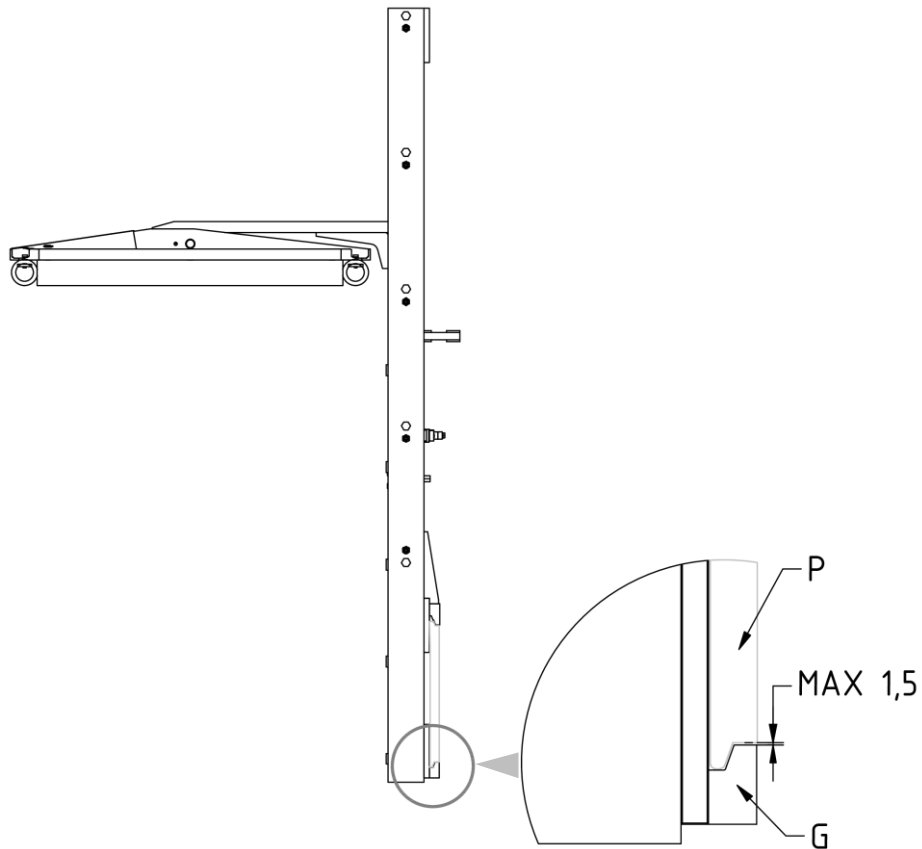
Picture 3

7. With an overhead crane or with a hoist of sufficient capacity hook the attachment to the fork carriage, placing the centring tooth **C** into the central notch (*Picture 3*).

8. Screw the two bottom hooks **G** with bolts so that the attachment is safely mounted on the fork carriage **P** (with a tolerance max. 1,5mm, *Picture 4*), reaching to the following torques *Tab 3*.

ISO 2328	THREAD	TORQUE
ISO II	M12	90 Nm

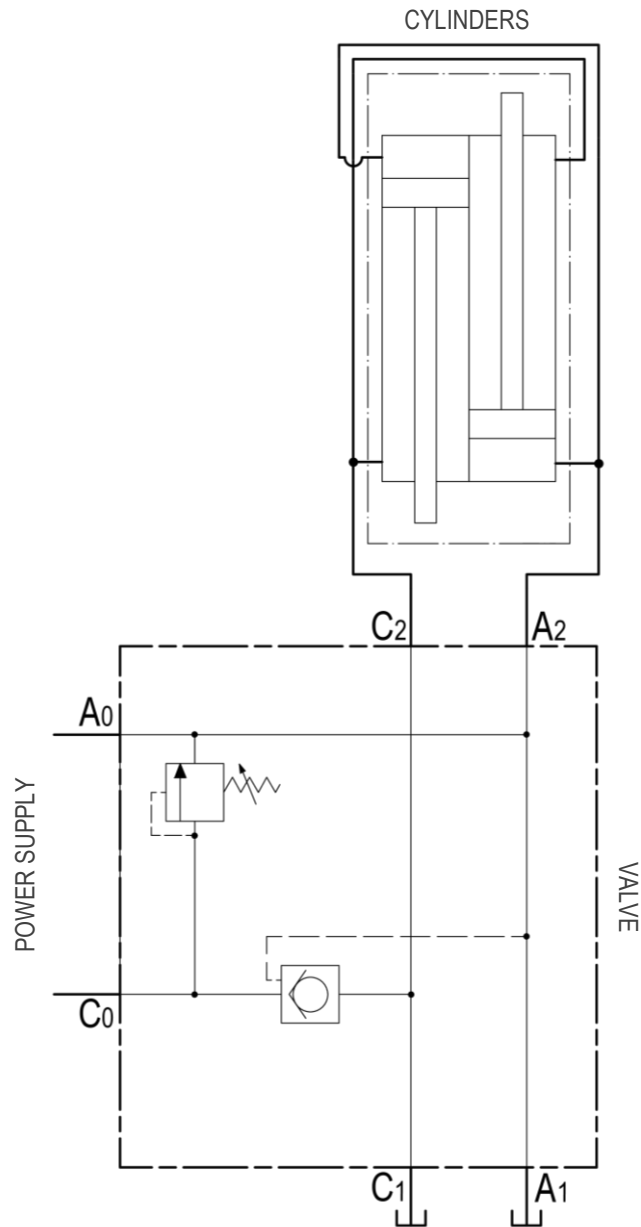
Tab 3



Picture 4

9. Lubricate the contact parts (*Lubrication pag.24*).
10. Connect the hydraulic circuit, making sure that the operating pressure of the pipes is higher than or equal to that indicated on the identification label (*Picture 1*
11. *Tab 1 pag.5*).

## 4 HYDRAULIC SYSTEM



Picture 5

## 5 USE RULES

Before using the equipment, check the tightness of the pipes and the correctness of assembly and connection by performing about ten preliminary operations.

When using the equipment, it is necessary to follow the instructions listed below:

1. Observe the capacity limits of the equipment.
2. Do not use the equipment when people or animals are within the range of action of the forklift.
3. Do not try to move loads sideways by sliding them on the ground.
4. Do not exceed the maximum pressure value indicated on the identification plate.
5. Azionare l'attrezzatura dal posto di guida del carrello tramite un unico operatore.
6. Operate the equipment from the driver's seat of the forklift by a single operator.
7. Any operation relating to installation, use and maintenance must be performed by specialized personnel equipped with appropriate equipment for the type of intervention to be carried out.
8. Carry out maintenance and / or repair operations with the forklift stopped and with the hydraulic circuit not active, using suitable protective equipment (gloves, safety shoes, etc.).
9. Operate the piston rods only when they are correctly mounted on the equipment; Otherwise, the piston rods could be violently ejected by the oil pressure.

The considered acoustic pressure level is lower than 70 dB (A).

The nominal capacity of the forklift / equipment combination is established by the original manufacturer of the forklift and may be lower than that indicated on the equipment plate.

Refer to identification plate (Directive 2006/42/CE).

## 6 PERIODIC MAINTENANCE

Failure to adhere to the norms and established times for maintenance operations, will be detrimental to the good functioning of the equipment and will annul the guarantee conditions.

**All maintenance operations must be carried out with the forklift motionless and the hydraulic circuit not activated, perimeter the entire maintenance area, using the necessary protective devices and, if it is necessary to disassemble the cylinders, always using a tray or container to recover the oil still present in the cylinder itself.**

To avoid problems regarding the use of the equipment, A.T.I.B recommends changing the hydraulic oil and its filters regularly and trying to keep the system as clean as possible during maintenance operations.

### ⚠ WARNING ⚠

The hydraulic parts can be very hot. Use adequate protections.

Beware of any leaks. Oil under high pressure can damage the eyes and skin. Always wear protective goggles on the sides as well.

Never remove valves, hoses or other potentially pressurized parts when it is active.

### 6.1 Maintenance every 100 hours

1. Check the conditions of the hydraulic connections (pipes and fittings), replacing, if necessary, the worn parts.
2. Check the tightening torque of the bolts of the lower sealing hooks of the equipment, verifying that it is as indicated in *Tab 3* (pag. 10) and, if necessary, intervene on the tightening of the screws that support them.
3. Check the clearance between the lower part of the fork holder plate and the lower hooks of the equipment, verifying that it is as indicated in *Picture 4* (pag.10) and, if necessary, intervene on the tightening of the screws that support them.
4. Clean and lubricate all sliding parts (*Picture 13* pag.24).

### 6.2 Maintenance every 300 hours

1. Check the condition of upper and lower sliding devices if an excessively worn component is found, A.T.I.B. recommend to replace the entire assembly of the component in question.
2. Check the condition of the plate of the load stabilizer, if an excessively worn component is found, A.T.I.B. recommend to replace the entire assembly of the component in question.
3. Also carry out the operations listed in the previous point (point 6.1).

### 6.3 Maintenance every 1000 hours

1. Check the condition of upper and lower sliding devices if an excessively worn component is found, it is recommended to replace the entire assembly of the component in question.
2. Also carry out the operations listed in the previous point (points 6.1, 6.2).

### 6.4 Maintenance every 2000 hours

1. Proceed with a thorough inspection of the equipment; this, possibly, must be performed by qualified personnel, able to identify any problems that could compromise the safety and efficiency of use of the equipment. The defects that can be found can be many:
  - Check the condition of all equipment components (cylinders, hooks, gaskets, fittings, grease nipples, etc.), verifying that their conditions are optimal and, if there are worn components, proceed with their replacement / repair.
  - Check the condition of the sliding and working surfaces and proceed with their replacement / repair if they are damaged.

For further possible problems (and relative solutions) refer also to *Tab 4* , pag.23.

2. Disassemble the cylinders and check the condition of the rods and seals, if there is a damaged or excessively worn seal, it is always recommended to replace the entire assembly seals.
3. Replace the seals even in the event of oil leaks and the rods if scratched (the cylinders must always be tested inserted in the equipment in order to avoid the sudden expulsion of the rods).
4. Also carry out the operations listed in the previous points (points 6.1, 6.2 and 6.3).

*Please Note: Intensify interventions in case of use in particularly severe conditions*

## 7 DISASSEMBLY PROCEDURE

All maintenance operations must be carried out with the forklift stopped and with the hydraulic circuit not activated and not under pressure, surrounding the entire maintenance area, using the necessary protection devices and, if it is necessary to disassemble the cylinders, always using a tray or container to recover the oil still present in the cylinder itself.

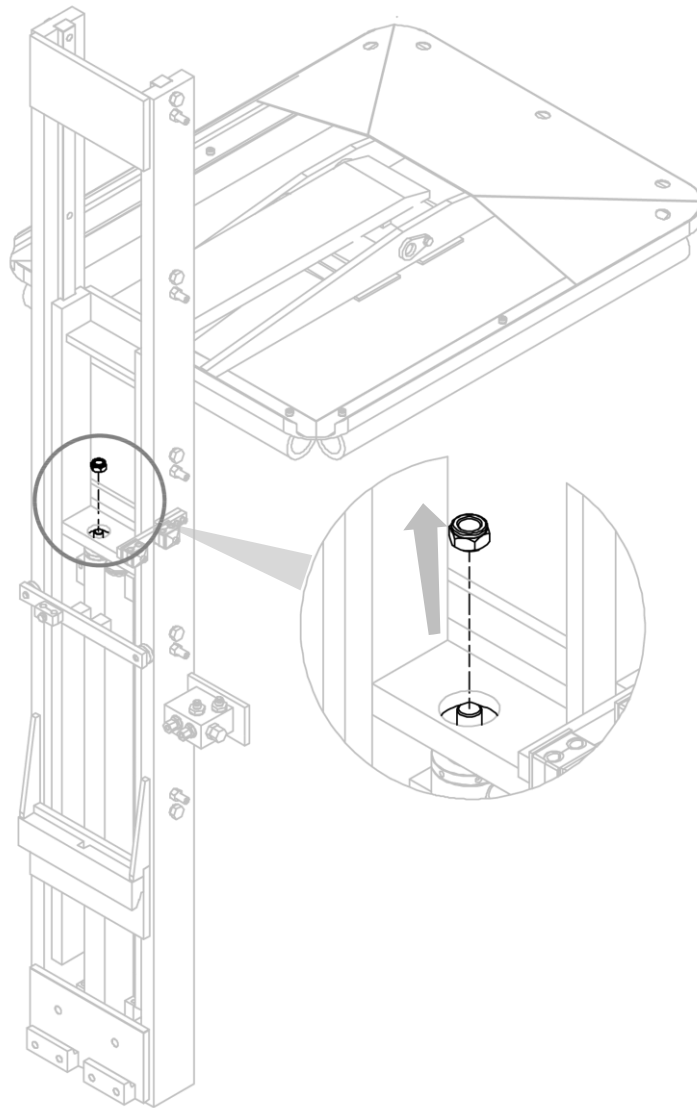
### 7.1 Equipment disassembly from forklift

1. Relieve the pressure of the hydraulic system.
2. Unscrew the lower hooks of equipment (*Picture 2 pag.8*).
3. For handling, use belts or chains appropriately sized for the weight of the equipment, indicated on the identification plate.
4. With an overhead crane or with a hoist of sufficient capacity hook the attachment and taking care to position the equipment correctly (*Picture 3 pag.9*).



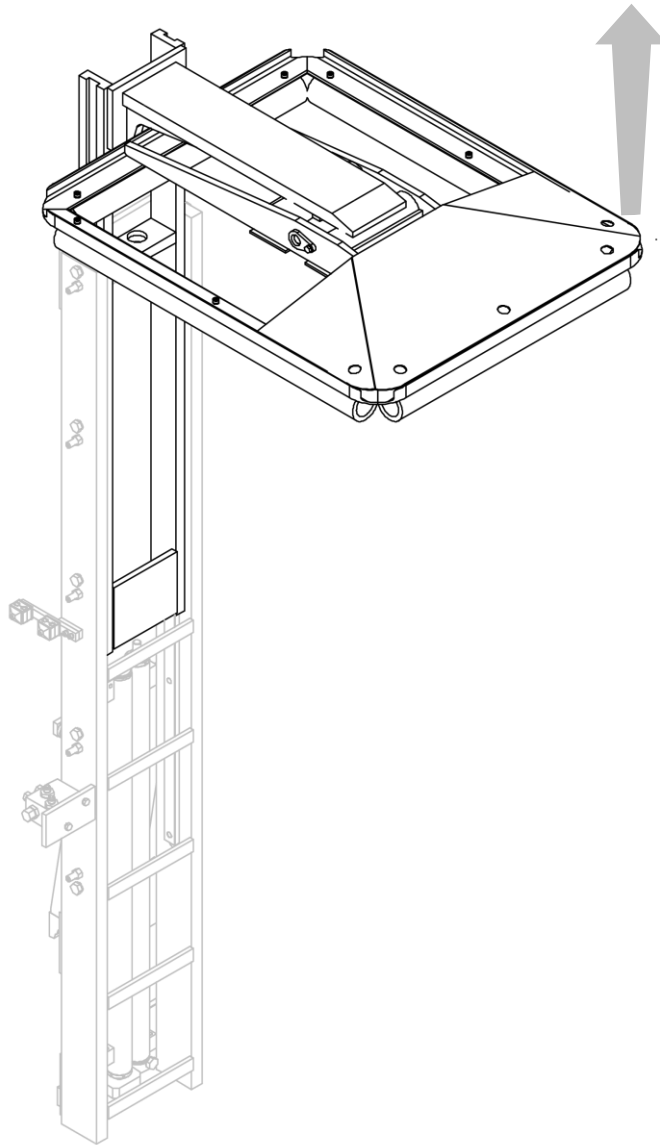
## 7.2 Removal of the mobile structure from the attachments

1. Relieve the pressure of the hydraulic system and disconnect the pipe.
2. Remove the nut that secures the mobile structure to the cylinders (*Picture 116*).



Picture 6

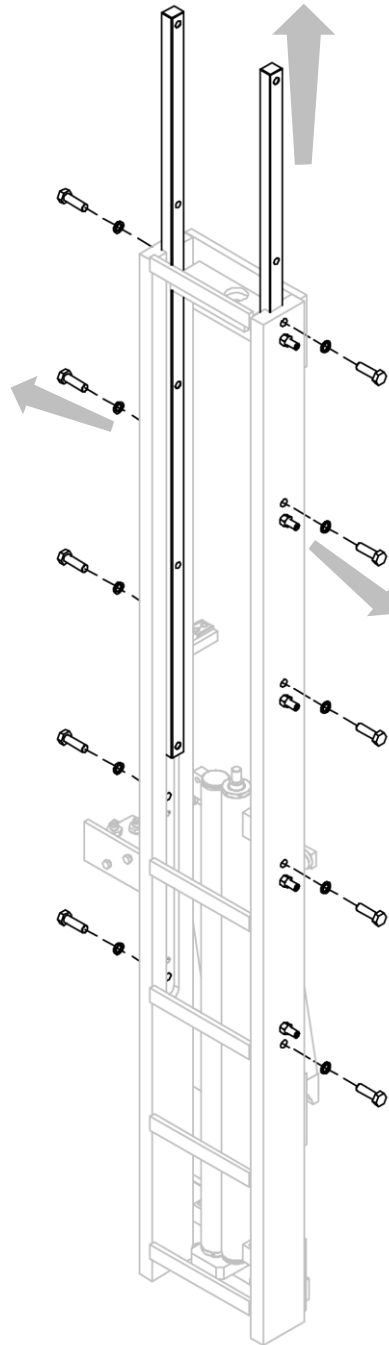
3. Remove the mobile structure from his seat (Picture 7).



Picture 7

### 7.2.1 Removing the sliding bushing of the mobile structure

1. Relieve the pressure of the hydraulic system and remove the pipes.
2. Remove the mobile frame as indicated in the previous chapter.
3. Removing the slide after loosening the dowels and unscrewing the relative screws that lock them (*Picture 8*).

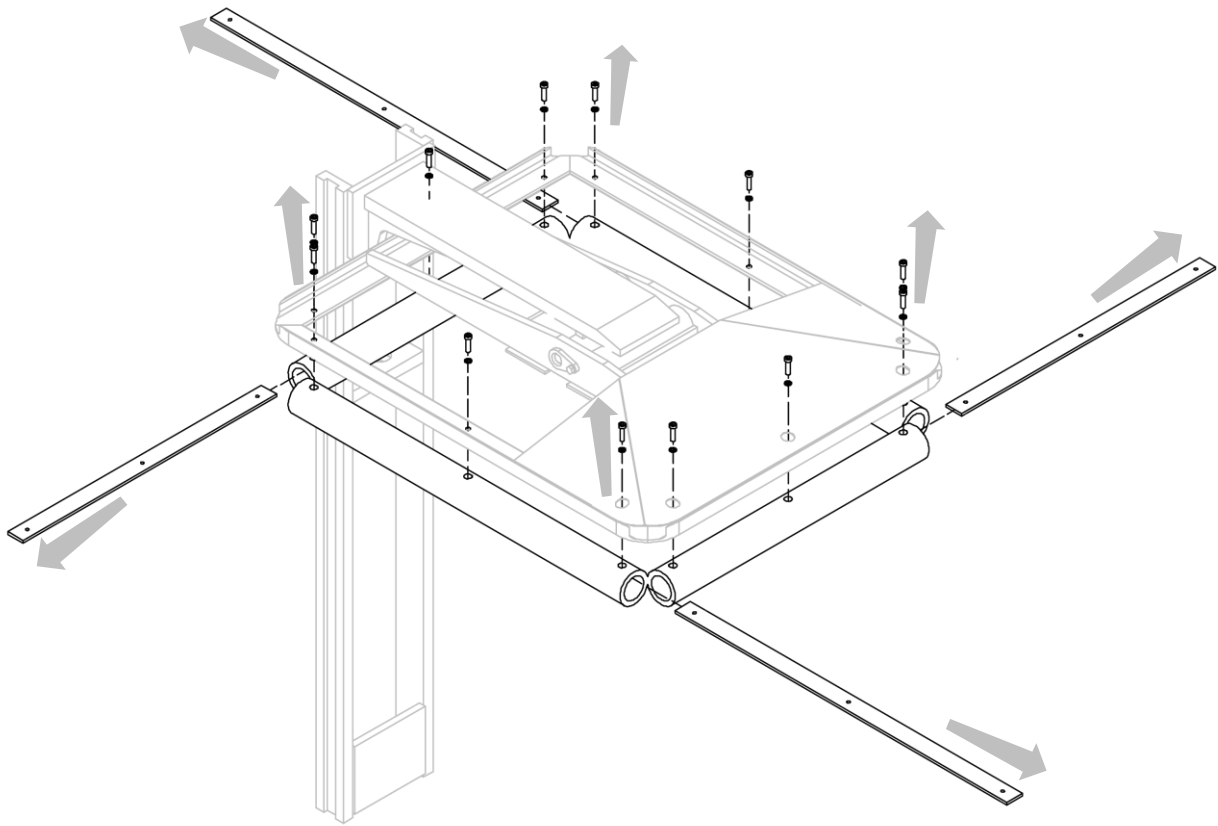


Picture 8

## 7.3 Plate of the load stabilizer disassembly

### 7.3.1 Rubber tubular removal

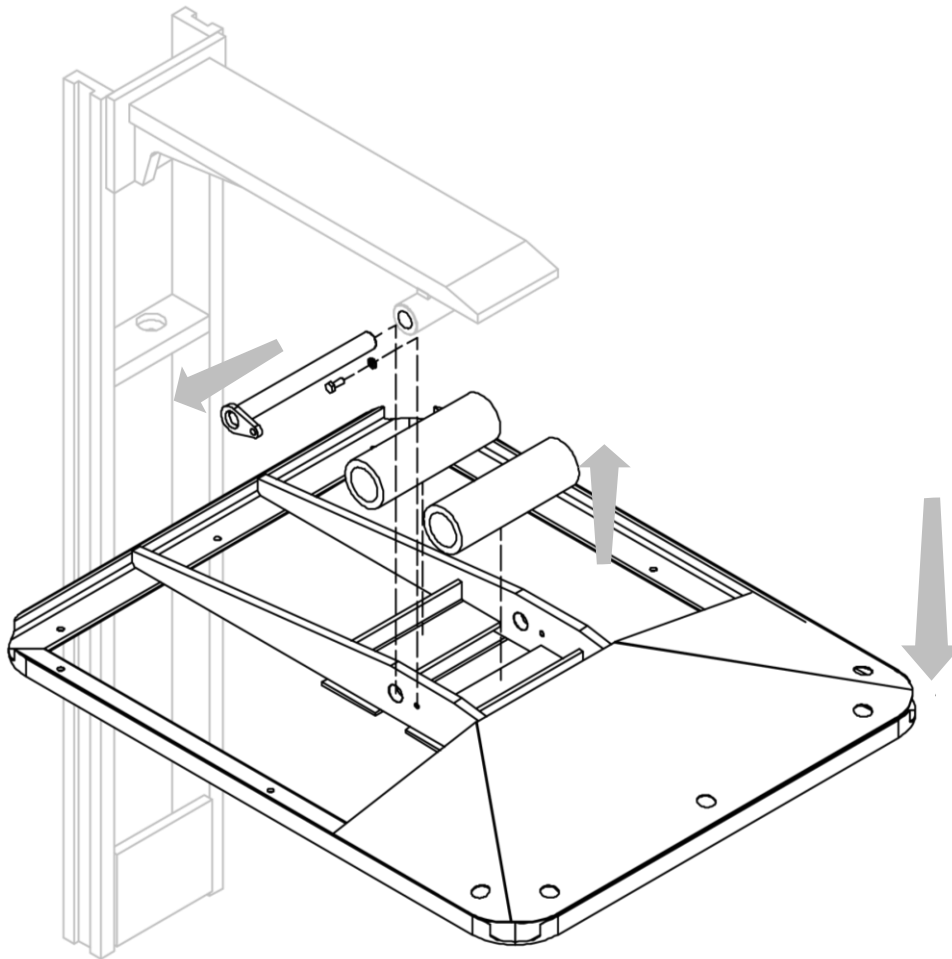
1. Relieve the pressure of the hydraulic system and remove the tubes.
2. Remove the mobile structure (point 7.2R).
3. Remove the rubber hoses after removing the relative fixing plates (*Picture 9*).



Picture 9

### 7.3.2 Plate removal

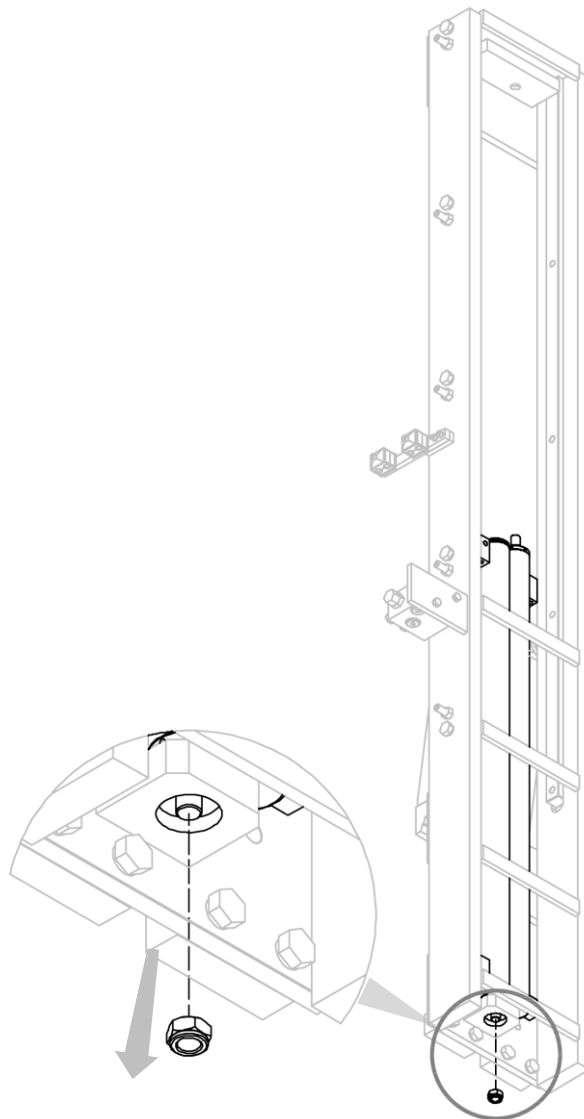
1. Relieve the pressure of the hydraulic system and remove the pipes.
2. Remove the mobile frame as indicated in the chapter 7.2.
3. Remove the rubber hoses as indicated in the previous chapter.
4. Remove the plate (with relative rubber houses) from mobile structure after removing the relative pin that locks it (*Picture 10*).



Picture 10

## 7.4 Pressure cylinder removal

1. Relieve the pressure of the hydraulic system and remove the pipes.
2. Remove the mobile frame as indicated in the chapter 7.2.
3. Remove the cylinders after unscrewing the nut that binds the cylinders to the structure of the equipment (*Picture 11*).

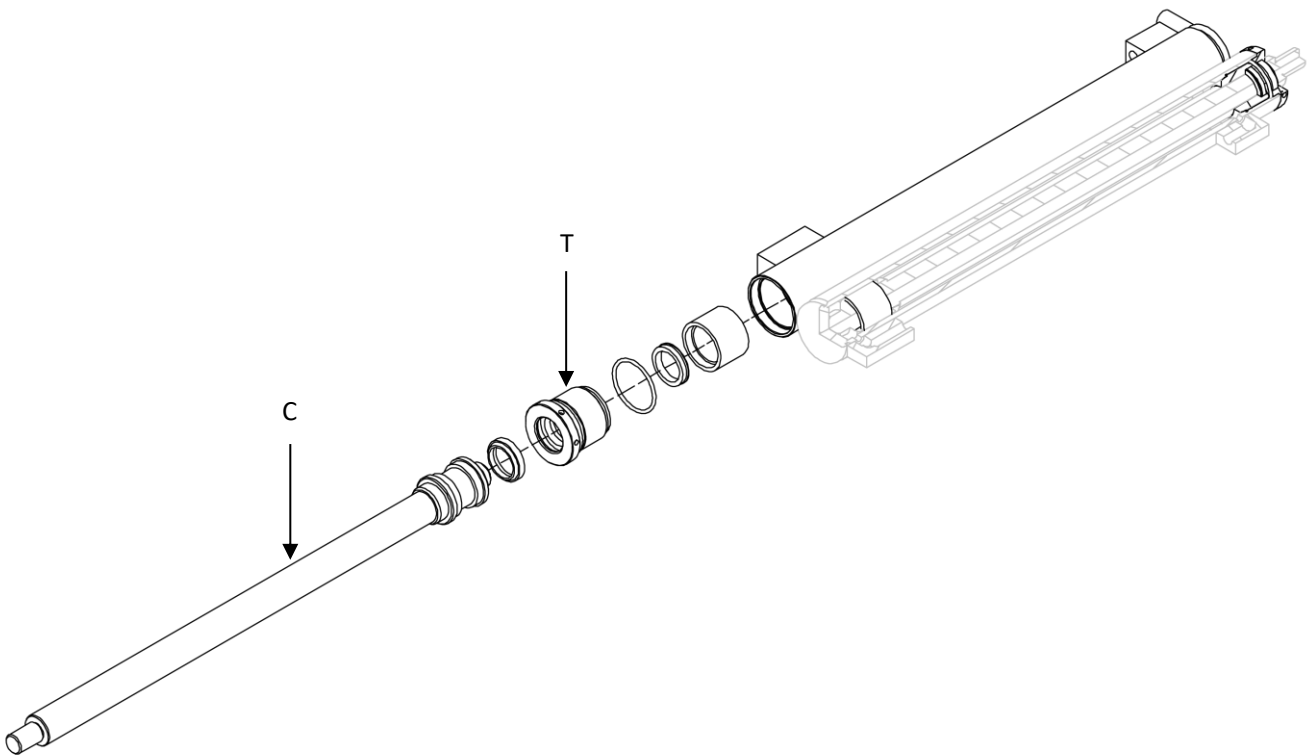


Picture 11

### 7.4.1 Pressure cylinder Disassembly and reassembly

If it is necessary to replace the entire cylinder, reassemble everything following the instructions listed in the previous point in reverse, if you also need to replace some cylinder component, proceed as indicated below:

1. Clamp the cylinder in a vice with rubber jaws (taking care not to deform the housing).
2. With a sector wrench unscrew the cup **T**.
3. If you find it difficult to unscrew the cap, it is necessary to slightly heat the area of the thread concerned to facilitate unscrewing.
4. Remove the stem **C** (the rod can be either welded or screwed to the piston).
5. Disassemble / separate the rest of the components and seals from each other.
6. Replacing the worn components, follow the previous steps in backwards, re-lock the cap applying a medium strength thread locker.
7. If there is a damaged seal, it is advisable to replace the entire kit.
8. Refer to *Picture 12*.



Picture 12

## 8 BREAKDOWNS AND SOLUTIONS

### 8.1 Breakdowns and solutions

FAILURE	CAUSE	SOLUTION
Insufficient strength	Too low setting of the maximum pressure valve	Increase the pressure without exceeding the maximum limit
	Insufficient pressure	Contact the forklift manufacturer
	Worn Pump	Replace
	Worn cylinder seals	Replace
	Lack of oil in the tank	Top up
Loss of pressure	Leakage of oil from the pipes and joints	Tighten the joints or replace them
	Leakage of oil from the cylinders	Replace the seals or, if necessary, the cylinders
	Loss load while sideshifting	Lower the side shift pressure
Slow opening and closing	Low oil flow	Check the tank level and the pump Bottlenecks in the system: Search and delete them
	Insufficient pressure	Set the maximum pressure valve
	Mechanical deformations of some parts	Repair or replace
	Worn cylinder seals	Replace
	Lack of oil in the tank	Top up
Irregular sideshift	Presence of air in the hydraulic system	Bleed the hydraulic system
	Worn slide parts	Replace
	Excessive friction between the sliding parts	Clean and lubricate the sliding parts
	Worn cylinder seals	Replace
	Lack of oil in the tank	Top up

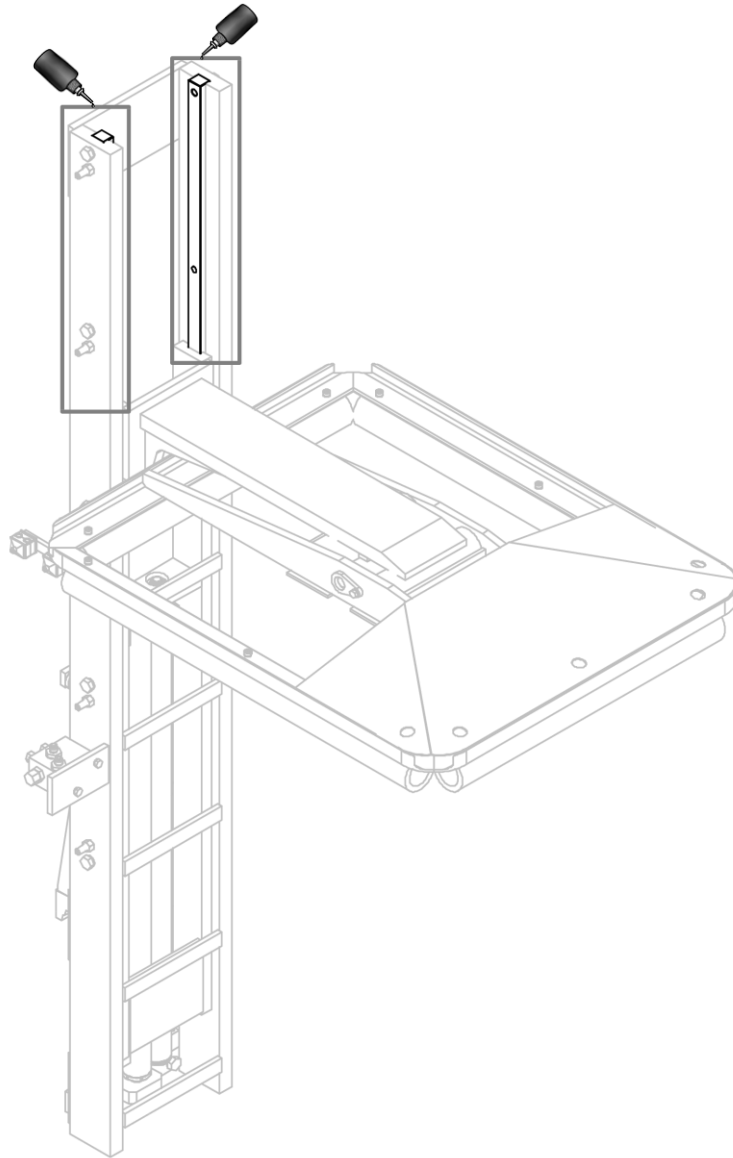
Tab 4

Should there be other problems, please contact A.T.I.B. S.r.l.



## 8.2 Lubrication

1. Clean and lubricate all sliding parts.



Picture 13

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