

# USE AND MAINTENANCE MANUAL

## DEDICATED PUSH/PULLS

ORIGINAL INSTRUCTIONS

### INTRODUCTION

This manual includes instructions for assembly, maintenance (regular and extraordinary), and for possible faults with remedies.

The instructions provided in this manual do not replace but complement obligations for compliance with existing legislation on safety and accident prevention, which are the obligation of the User. The User is also bound to follow all instructions in this manual including training of personnel both in the use of the equipment and its maintenance.

### SPECIFICATIONS AND USE OF EQUIPMENT

Equipment to be attached to the forklift truck to handle loads placed on a pressed sheet of cardboard or plastic. It consists of a rear frame to be mounted on the forklift carriage with ISO 2328 profile; clamp controlled by hydraulic linear actuator to grip the sheet; front grid with ample visibility to optimise the grip of the sheet; pantograph controlled by hydraulic linear actuator to pull the load on the platforms; platforms, secured to the rear frame, that fully support the load.

### SYMBOLS USED



Hazardous situation for operator safety.



Mandatory procedures to be carried out.



Notes to be read carefully.

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## 1. ADVICE FOR THE EQUIPMENT'S USE

### 1.1. PROHIBITED HANDLING

Transporting a load that is unstable, off centre or on one platform only, too bulky reducing visibility, with weight greater than the specified capacity, moving a load already deposited using the load to be deposited, using the equipment for purposes other than those specified, or when the same has deformed structure or operating anomalies.

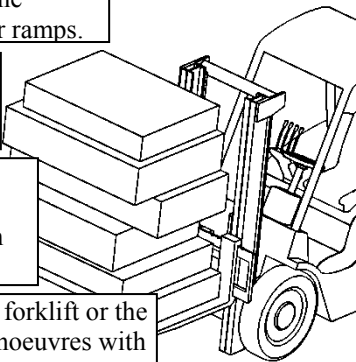
Proceeding at high speed in the presence of uneven ground or ramps.

Performing movements or manoeuvres with the load lifted high.

Performing lifting-lowering movements, tilting or lateral displacement of the load with the forklift moving.

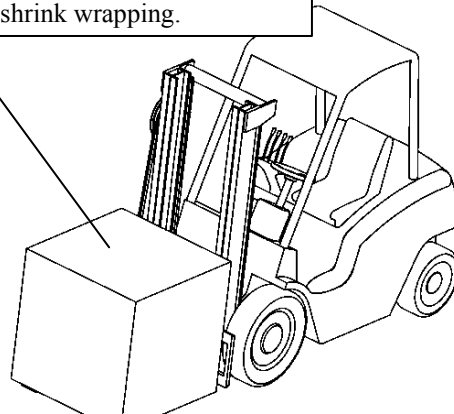
Transporting people with the forklift or the equipment or performing manoeuvres with people in the operating range.

Parking the forklift with the engine running and/or load lifted on uneven ground or ramps.



### 1.2. CORRECT HANDLING

The load must be stable, cross-layered or with heat-shrink wrapping.



When moving with the forklift, keep the mast tilted (the tip of the platform up), the load slightly off the ground and centred on the forklift, adjusting the speed according to the state of the road surface and any obstacles or presence of people along the route.

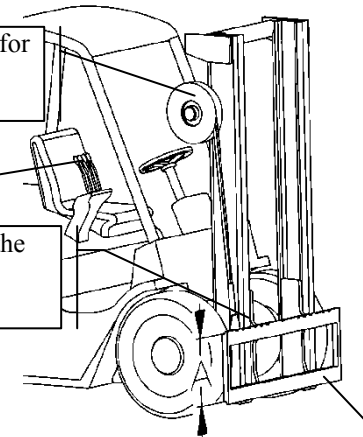
## 2. FORKLIFT CONTROLS

The forklift's hydraulic pump must have a min. capacity of 7 GPM and a max. of 8 GPM and max. pressure of 2000 PSI.

The recommended inner diameter for any additional supply system is at least 8 mm.

4-lever distributor for movements control.

The slots for positioning the forks must be intact and unobstructed.



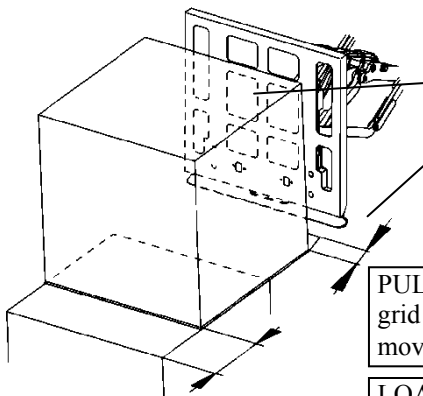
The fork carriage must be flat without protrusions on the front.



Dimension « A » ISO 2228 (mm) :

Class I	= min. 304 – max. 305
Class II	= min. 380 - max. 381
Class III	= min. 474.5 – max. 476
Class IV	= min. 595,5 – max. 597

### 1.3. LOAD PICKUP-DEPOSIT



Position the grid parallel and central to the load with the mast tilted forward.

The dimensions of the sheet (or pallet) must be equal to the size of the load with a minimum projection of 80 mm for pick-up.

**PULLING THE LOAD ON THE PLATFORMS:** With the grid in contact with the load, operate the return lever, and move forward with the forklift truck at the same time.

**LOAD DEPOSIT** Stop about 20 cm away from the deposit position, operate the extension lever backing up the forklift truck at the same time.

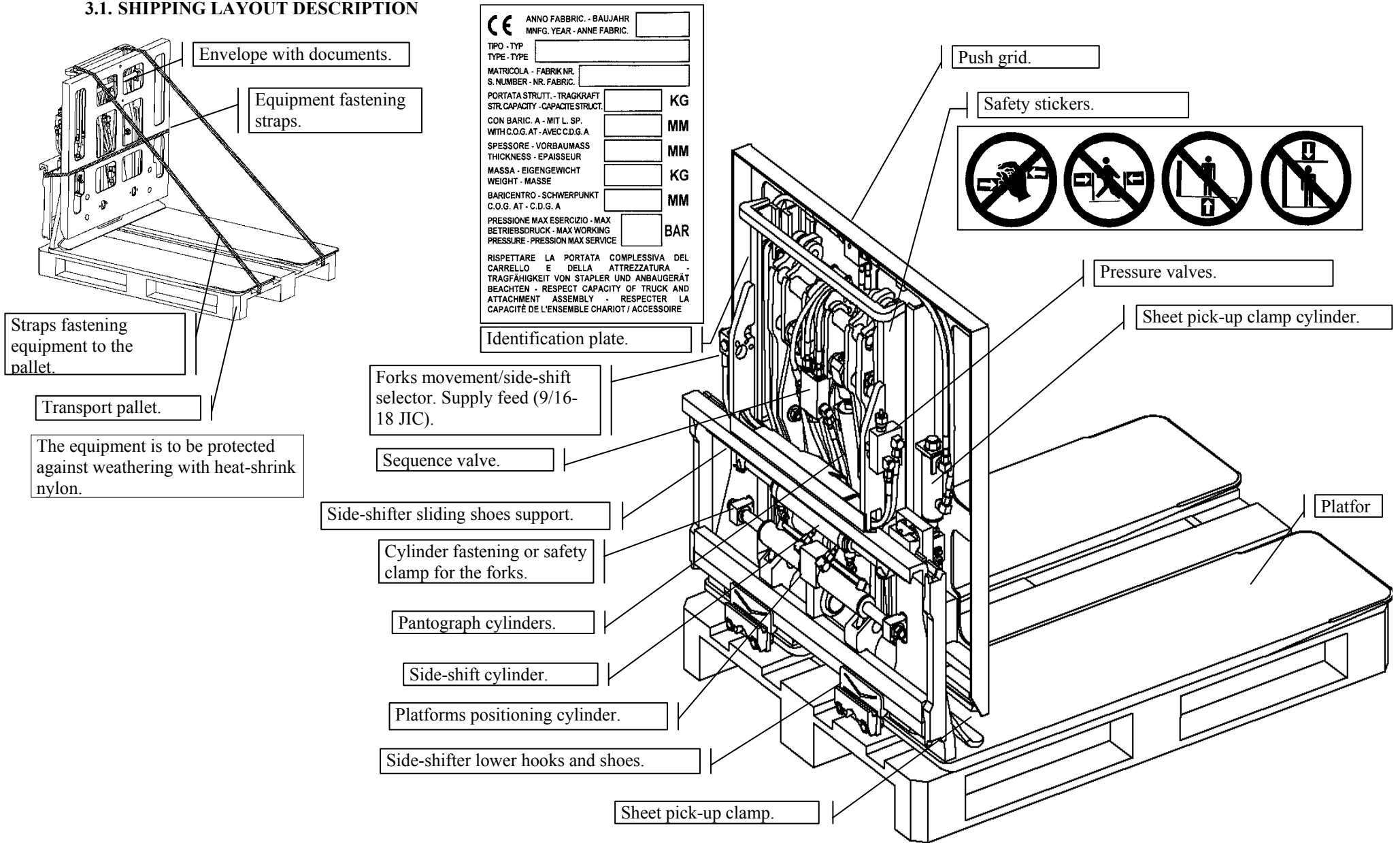
**! USE OF THE EQUIPMENT FOR PURPOSES OR HANDLING OTHER THAN INDICATED IS PROHIBITED.**

**! THE EFFECTIVE COMBINATION CARRYING CAPACITY BETWEEN THE FORKLIFT TRUCK AND THE EQUIPMENT IS THE RESPONSIBILITY OF THE FORKLIFT TRUCK MANUFACTURER AND MAY NOT CORRESPOND TO THAT INDICATED ON THE RATING PLATE. CONTACT THE MANUFACTURER OF THE FORKLIFT TRUCK FOR THE DEFINITIVE CARRYING CAPACITY.**

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## 3. EQUIPMENT DESCRIPTION

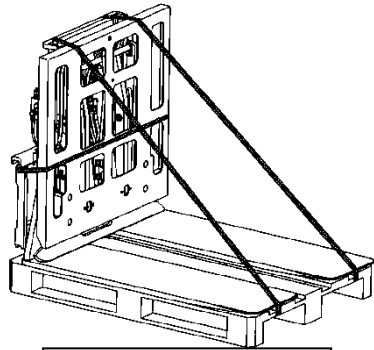
### 3.1. SHIPPING LAYOUT DESCRIPTION



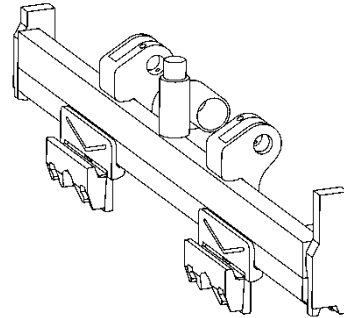
# USE AND MAINTENANCE MANUAL

## 4. COUPLING ON FORKLIFT

### 4.1. HOOK

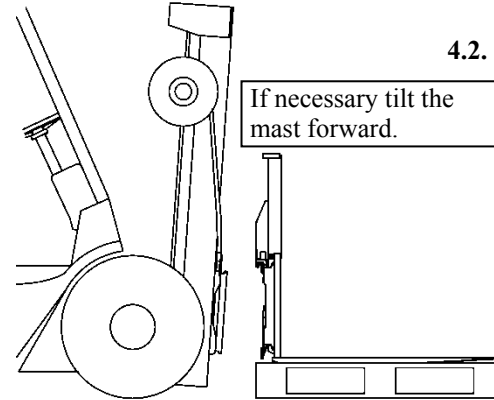


Remove the straps securing the equipment and nylon coating.



Remove the lower hooks.  
ISO 3318 24 mm wrench.

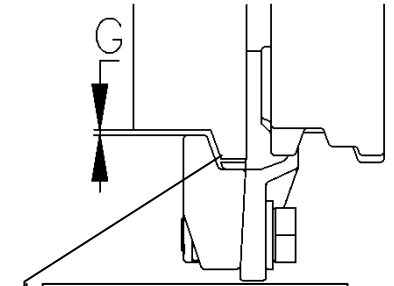
### 4.2. LOWER HOOK ADJUSTMENT



If necessary tilt the mast forward.

Connect the equipment to the forklift so that the central tooth of the shoe support engages the central notch of the forklift carriage.

Position the lower hooks as indicated below,  $G = 1-1.5 \text{ mm}$ .  
Tighten the screws 240 Nm.



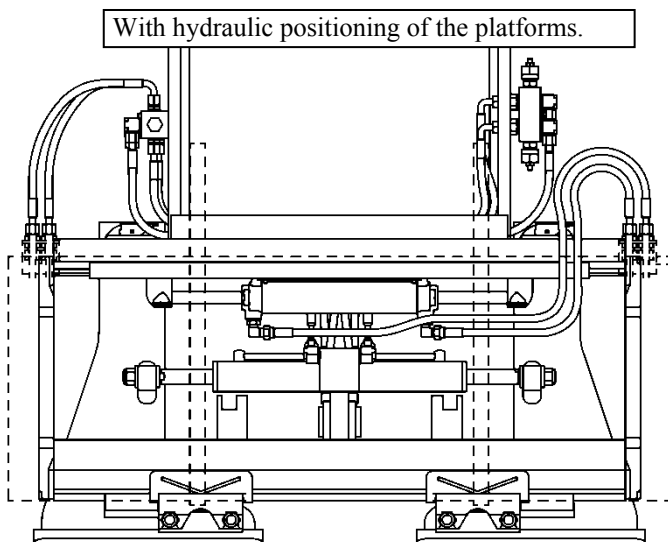
Check that the vertical guide shoe is inserted into its housing.

### 4.3. HOSES CONNECTION

**!** Before connecting/disconnecting the hydraulic hoses, vent any pressure from the forklift's feed system according to the manufacturer's instructions.

**!** Possible oil leakage. Prepare a container to collect fluid.

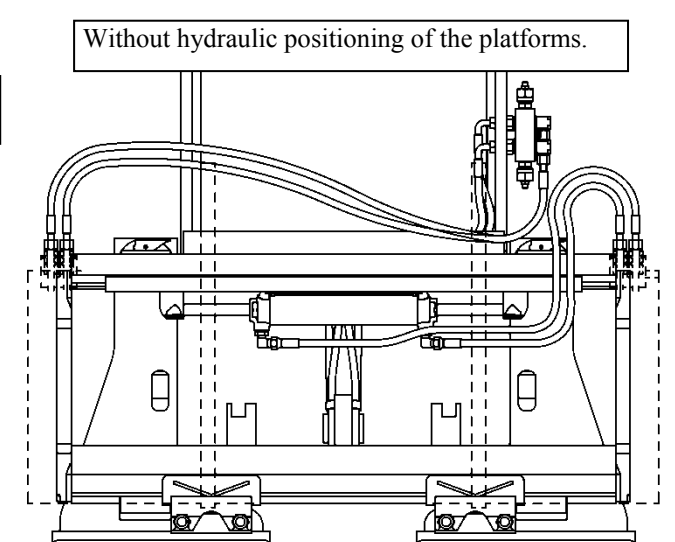
**!** The connection hoses between the valve and the forklift system are optional.



With hydraulic positioning of the platforms.

**!** Perform a few manoeuvres without any load to check the seal of the hydraulic connections.

**!** The frame with the fork positioning cylinder, move sideways left and right; during the pipe connection of the hoses, ensure that the hoses allow the movement and do not rub against fixed parts.



Without hydraulic positioning of the platforms.

# USE AND MAINTENANCE MANUAL

## 5. HYDRAULIC SYSTEM

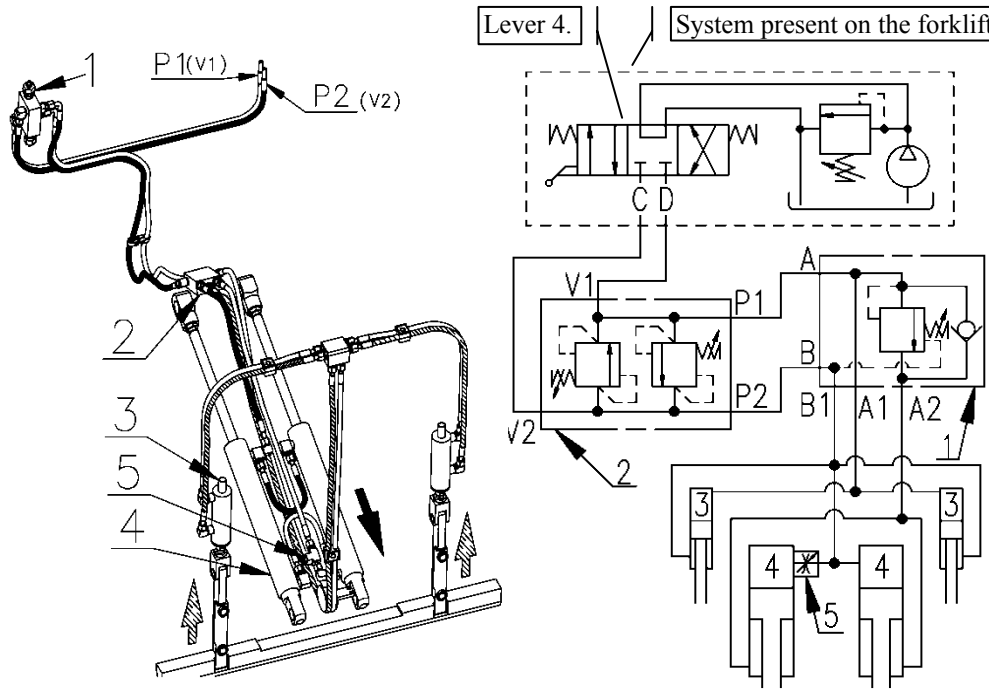
### 5.1. CONNECTION, LAYOUT AND MOVEMENT CONTROL

#### 5.1.1. PUSH/LOAD-PULL

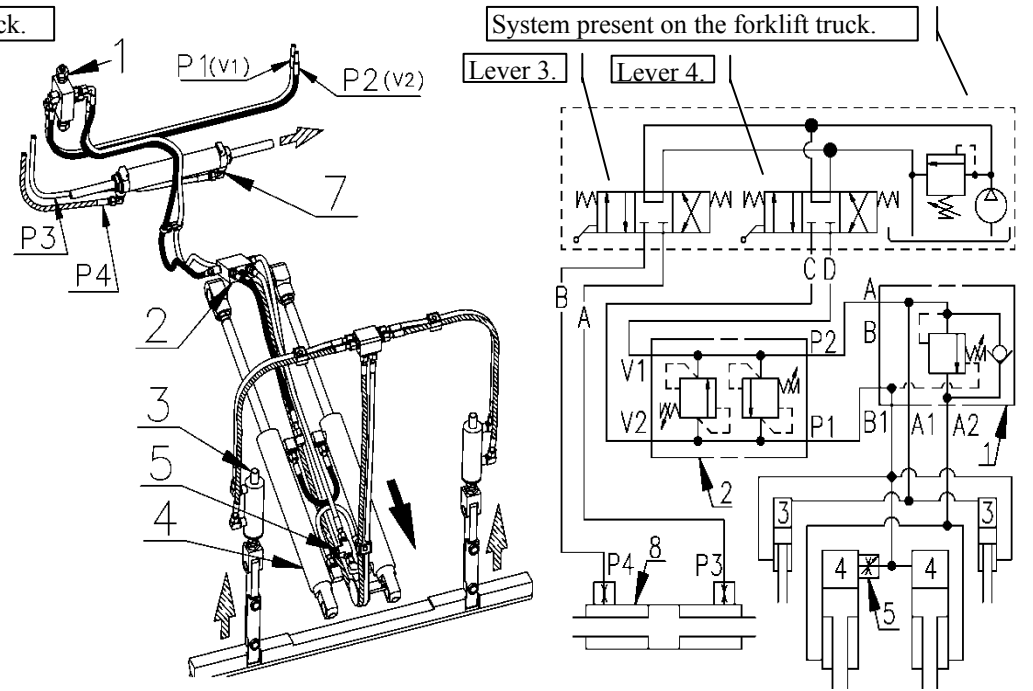
#### 5.1.2. PUSH/LOAD-PULL WITH SIDE-SHIFTER

**!** Before connecting/disconnecting the hydraulic hoses, vent any pressure from the forklift's feed system according to the manufacturer's instructions.

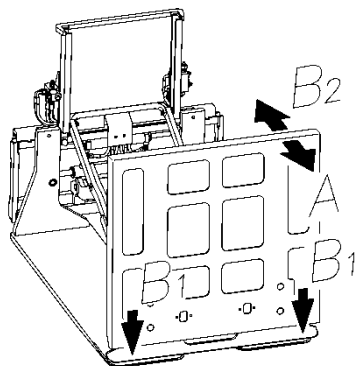
**!** Possible oil leak. Prepare a container to collect fluid.



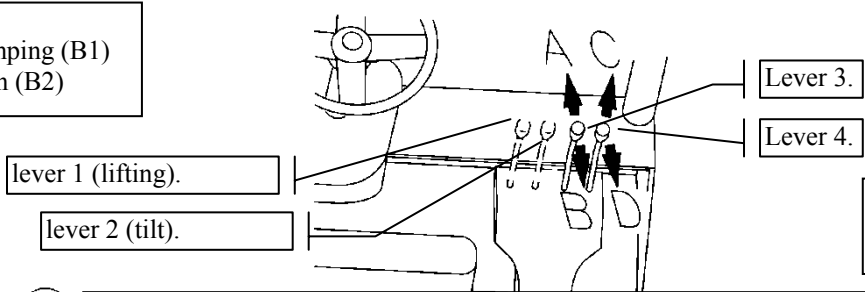
MOVEMENT CONTROL



MOVEMENT CONTROL

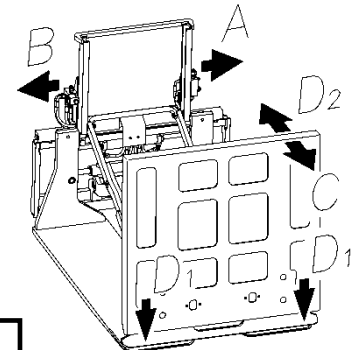


Sequence:  
Sheet clamping (B1)  
Grid return (B2)



lever 1 (lifting).  
lever 2 (tilt).

Sequence:  
Sheet clamping (D1)  
Grid return (D2)



**!** Perform a few manoeuvres without any load to check the seal of the hydraulic connections.

# USE AND MAINTENANCE MANUAL

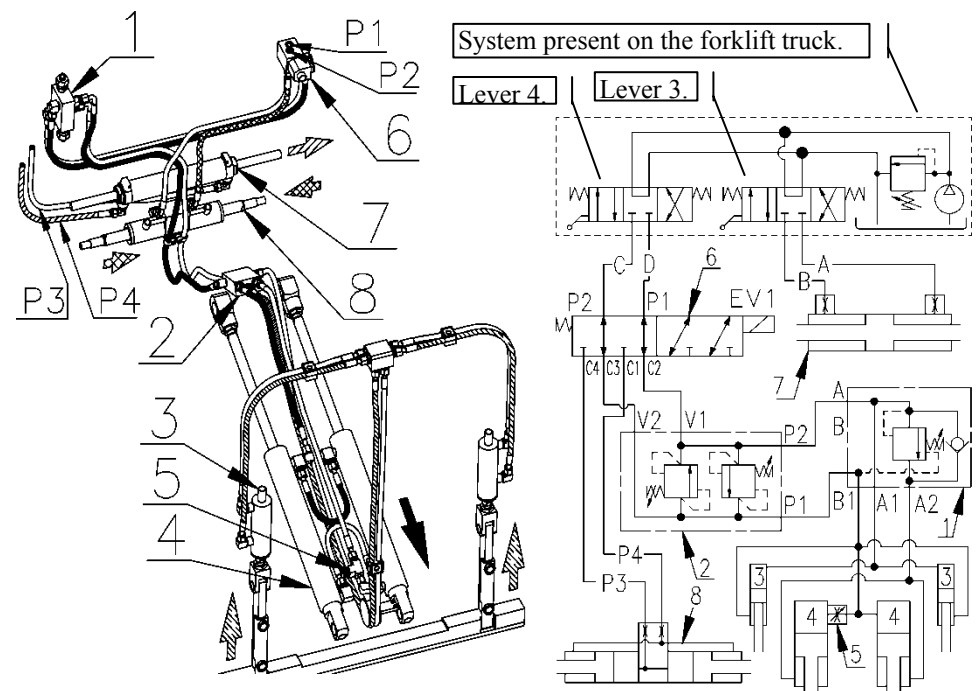
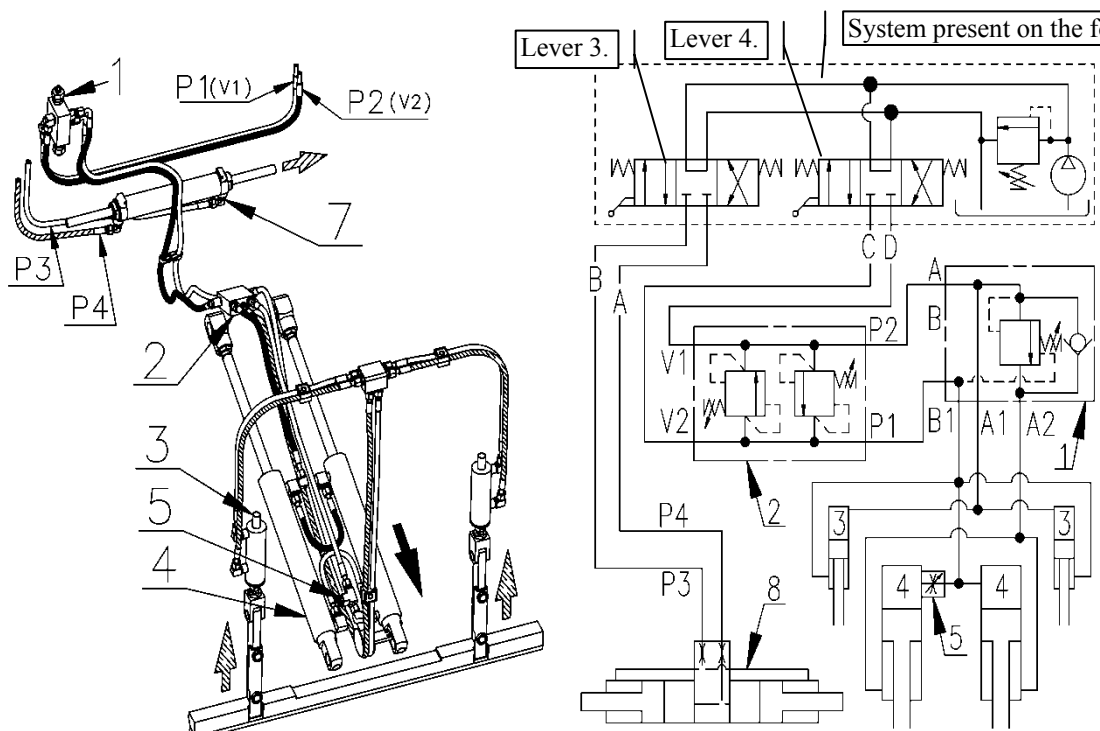
## 5.1.3. PUSH/LOAD PULL WITH HYDRAULIC FORKS

## 5.1.4. PUSH/LOAD PULL WITH HYDRAULIC FORKS AND SIDE-SHIFTER

**!** Before connecting/disconnecting the hydraulic hoses, vent any pressure from the forklift's feed system according to the manufacturer's instructions.

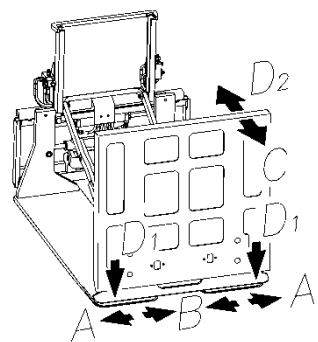
**!** Possible oil leak. Prepare a container to collect fluid.

**!** Choose between pantograph and platforms positioning with the selector (pos. 6) at the feed input.

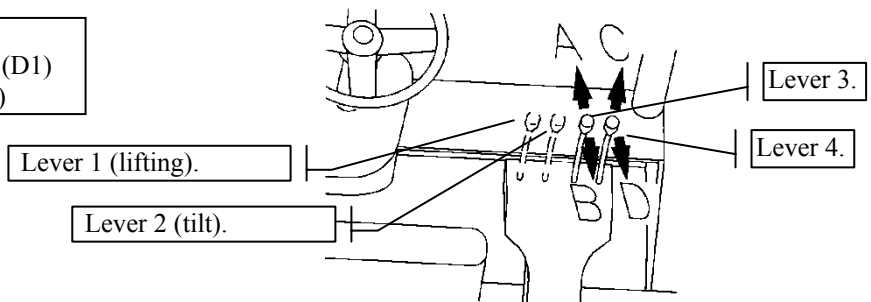


MOVEMENT CONTROL

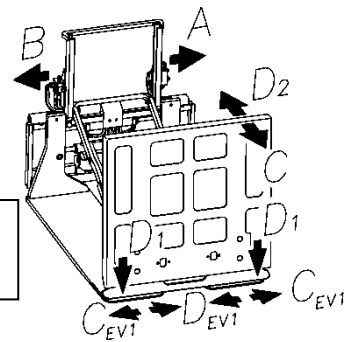
MOVEMENT CONTROL



Sequence:  
Sheet clamping (D1)  
Grid return (D2)



Sequence:  
Sheet clamping (D1)  
Grid return (D2)



**!** Perform a few manoeuvres without any load to check the seal of the hydraulic connections.

# USE AND MAINTENANCE MANUAL

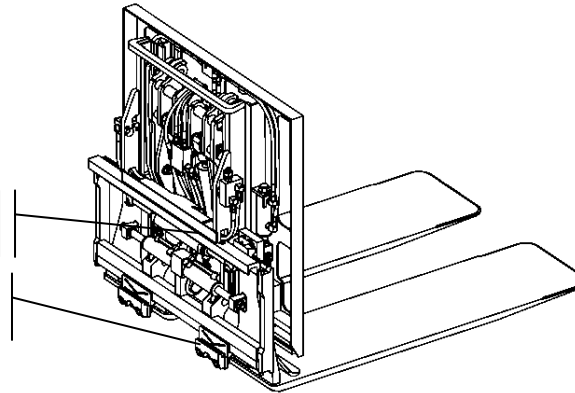
## 6. DAILY CONTROLS



At the beginning of the shift check the points indicated below and report any problem to the maintenance personnel.

The centre stop of the cylinder support must engage the central notch of the forklift carriage.

Lower hooks correctly positioned and secured, see point 4.2. ADJUSTMENTS.



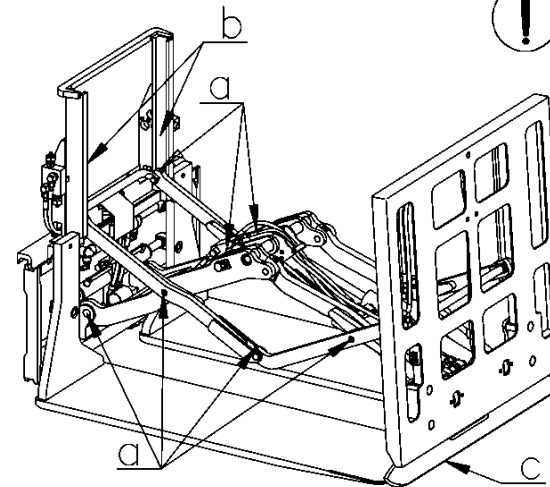
Check for oil leaks from the cylinders or from the hydraulic system.

Verifying the integrity and cleanliness of the sheet clamp, blade and plastic shoe, as well as the

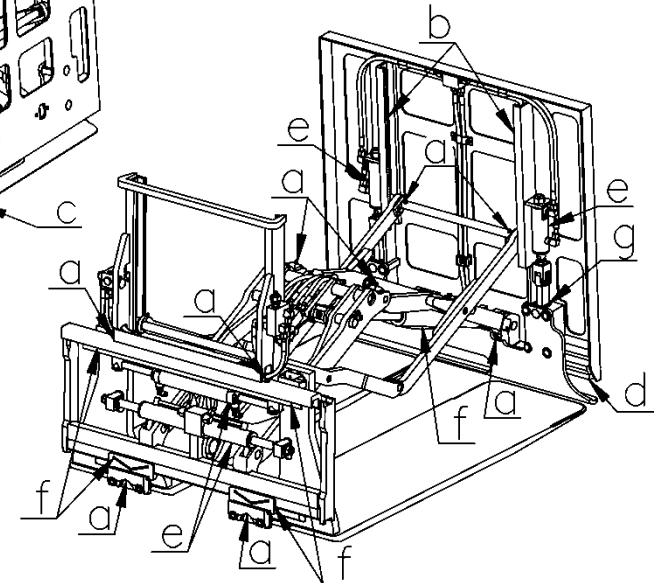
## 7. ROUTINE MAINTENANCE

### PERIODIC MAINTENANCE SCHEDULE

OPERATIONS	Working hours	
Lubrication in point "a".	500	
Cleaning and lubrication in points "b".		
Control of bolts tightness and hydraulic connections.		
Control of platform trim.		
In addition to the operations every 500 working hours, carry out:		
Control of the platforms and blade in pos."c". Remove any deformations or dents.	1000	
Check the condition of the sheet contact shoe "d". Replace in case of wear greater than 4 mm.		
Check the cylinder stems "e" and hydraulic seals.		
Check the condition of the side-shift shoes (f) and sheet clamp guide (g).		
Control the condition of the mobile hoses.	2000	
In addition to the operations every 500 and 1000 working hours, carry out:		
Replacement of shoes for side-shift "f".		
Control of the bushings and ball joints in the fulcrum of the arms.		
Examination for deformation or break in the structure or welds.		



Before connecting/disconnecting the hydraulic hoses, vent any pressure from the forklift's feed system according to the manufacturer's instructions.



Position "a" grease nipple UNI 7763-AM6-5.8

#### Recommended lubricant:

Internal use: ISO X M2 (SHELL ALVANIA GREASE R2).

External use: ISO CB 32 (ESSO NUTO32).

**THE WORKING HOURS SHOULD BE HALVED WHEN USING THE EQUIPMENT IN DUSTY, DAMP OR CORROSIVE ENVIRONMENTS.**

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## 8. EXTRAORDINARY MAINTENANCE

### 8.1. REMOVAL OF SIDE-SHIFTER



Before connecting/disconnecting the hydraulic hoses, vent any pressure from the forklift's feed system according to the manufacturer's instructions.



Possible oil leak from tubes. Prepare a container to collect fluid.



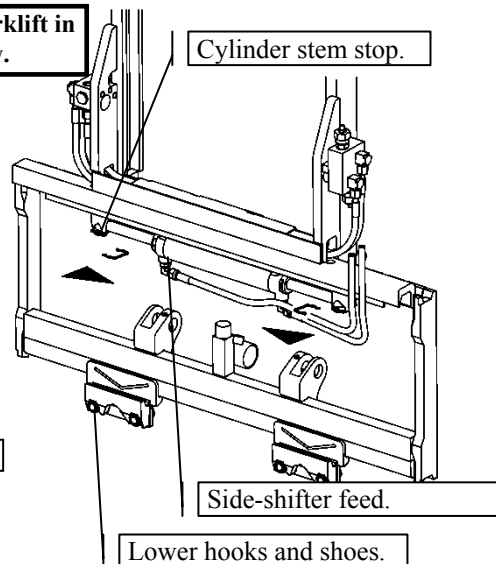
The equipment must be dismantled from the forklift in order to perform the operations indicated below.

- 1) Remove the lower hooks, ISO 3318 wrench Class2 24 mm – Class3 27 mm
- 2) Disconnect the side-shifter and equipment feed hoses, ISO 3318 17 mm wrench.
- 3) Disconnect the equipment from the forklift and place it on the ground.
- 4) Remove the cylinder stem stops.



The cylinder/shoes support block is free to drop.

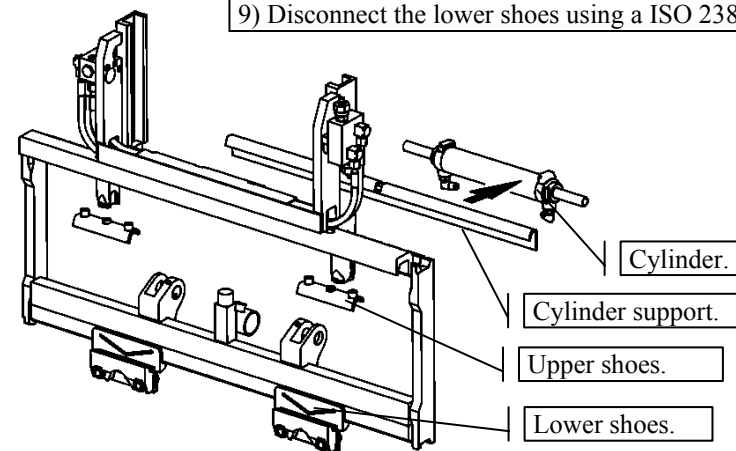
- 5) Dismantle the cylinder block and shoes support.
- 6) Disconnect the cylinder from the support.



### 8.2. DETACHMENT OF CYLINDER

8) Extract the upper shoes using a DIN 6450 5mm punch.

9) Disconnect the lower shoes using a ISO 2380 screwdriver.

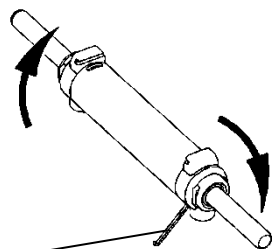


### 8.3. CYLINDER DISASSEMBLY AND REPLACEMENT OF GASKETS

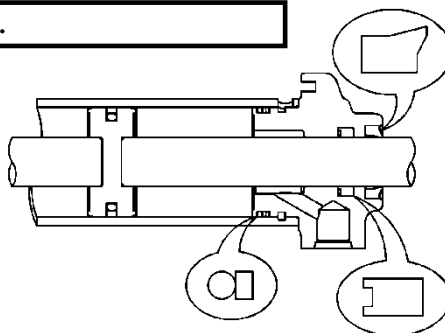


Possible oil leak. Prepare a container to collect fluid.

Rotate the cap until the circlip is completely out.



Cap circlip.

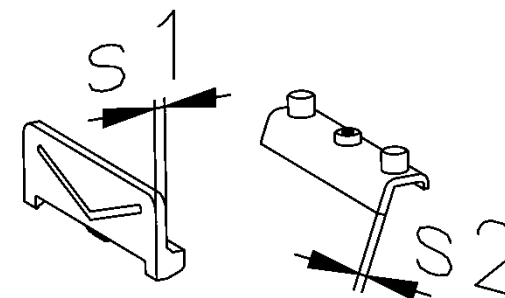


Respect assembly direction when replacing the seals and work in a dust-free environment.



TO REASSEMBLE THE PARTS REMOVED, PERFORM THE PROCEDURE IN REVERSE ORDER.

### 8.4. SHOES CONTROL



Replace the shoes if there are cracks, permanent deformations or the thickness is less than: s1 2 mm; s2 3 mm.



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## 8.5. DETACHMENT OF THE PUSH GRID

## 8.6. DISASSEMBLY OF THE SHEET CLAMP CYLINDER

**!** Before disconnecting-connecting the hydraulic hoses, discharge any pressure from the forklift's feed system following the manufacturer's instructions.

**!** Possible oil leakage. Prepare a container to collect fluid.

1) Support the grid with a cable or strap.

2) Disconnect the 2 lower couplings, ISO 3318 19mm wrench, from the hydraulic offtake block.

3) Remove the hoses fixing bracket, ISO 3318 10 mm, ISO 2936 5 mm wrenches.

4) Remove the 8 screws, ISO 3318 19 mm wrench.

**!** At this stage the clamp shoe is not guided and can fluctuate.

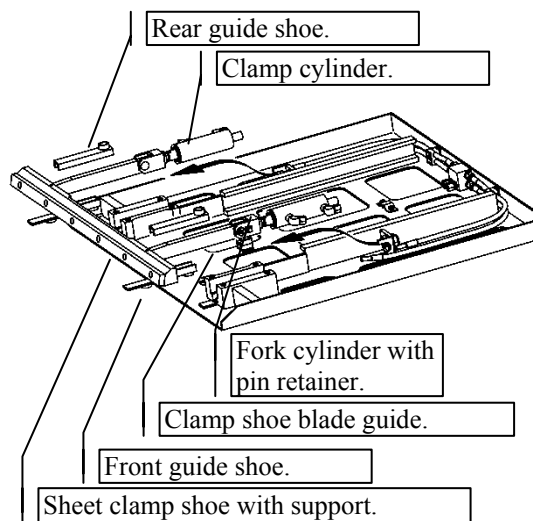
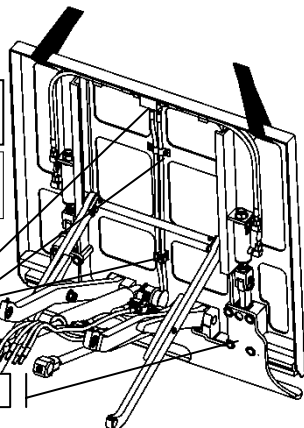
5) Lift until the rollers are completely detached from the guide and move it forward.

6) Position the grid as illustrated on the ground or on a work bench.

Hydraulic offtake block.

Hose fixing brackets.

Grid fixing screws.



7) Remove the self-locking nuts, ISO 3318 30 mm wrench, and remove the cylinder group, guides and clamp shoes.

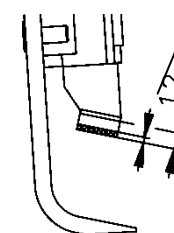
8) Use an ISO 3318 10 mm wrench to disconnect the cylinder fork from the guide; remove the stop and extract the pin.

9) Use a DIN 6450 5 mm punch to remove the sheet clamping blade.

10) Use a ISO 2936 5 mm wrench to remove the sheet clamp shoe from the support.

Replace shoes with max. wear of 4 mm.

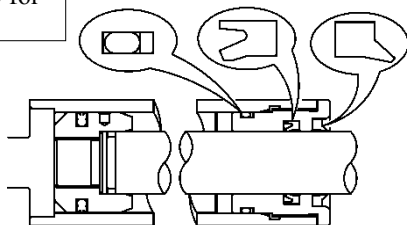
Maximum wear.



**!** TO REASSEMBLE THE PARTS REMOVED, PERFORM THE PROCEDURE IN REVERSE ORDER.

## 8.7. REPLACEMENT OF GASKETS

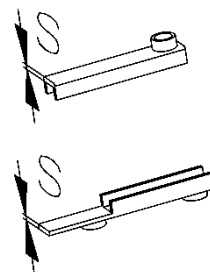
Pin wrench DIN 1810 for diameters 45-50 mm.



**!** Respect assembly direction when replacing the seals and work in a dust-free environment.

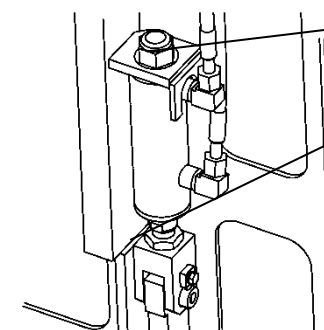
**!** Possible oil leakage. Prepare a container to collect fluid.

## 8.8. SHOES CONTROL



Replace the shoes if there are cracks, permanent deformations or the thickness is less than 3 mm.

## 8.9. FASTENING OF CYLINDER AND ADJUSTMENT OF SHEET CLAMP



**FASTENING OF CYLINDER;** tighten the nut until the Belleville washer is fully pressed; loosen by 180°.

**CLAMP ADJUSTMENT:** loosen the locking nut, ISO3318 30 mm wrench. Rotate the stem, ISO3318 22 mm wrench.

The length of the cylinder is increased by turning counter-clockwise, and decreases by turning clockwise.

**!** With adjustment complete, tighten the locking nut at 90 Nm.

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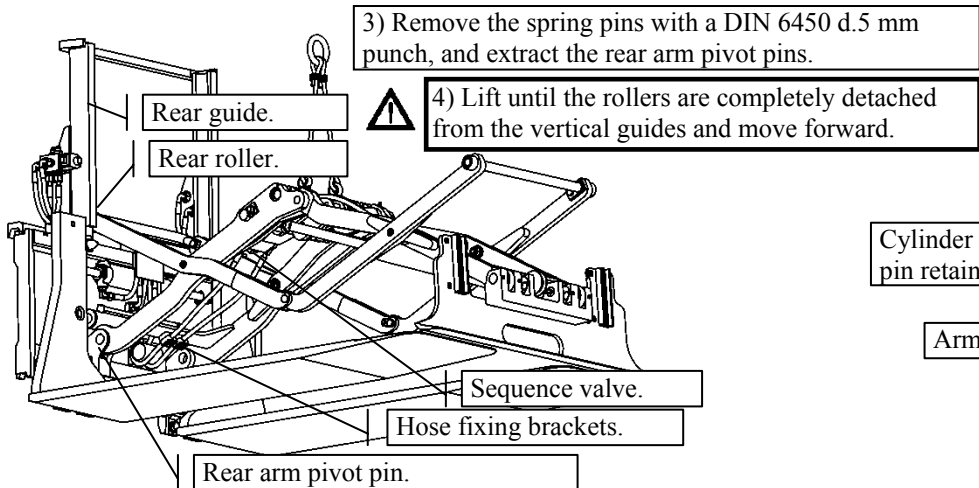
## 8.10. DETACHMENT OF THE PANTOGRAPH

**!** Possible oil leak. Prepare a container to collect fluid.

**!** Before connecting/disconnecting the hydraulic hoses, vent any pressure from the forklift's feed system according to the manufacturer's instructions.

**!** At this stage the pantograph loses stability and may move suddenly.

- 1) Support the pantograph with cables or straps.
- 2) Disconnect the feed hoses, ISO 3318 19 mm wrench, from the sequence valve and remove the fixing brackets to the rear arm, ISO 2936 5 mm wrench.

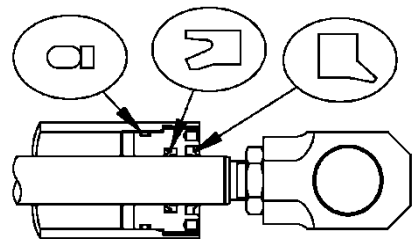


**!** TO REASSEMBLE THE PARTS REMOVED, PERFORM THE ABOVE PROCEDURE IN REVERSE ORDER.

## 8.12. GASKET REPLACEMENT AND CYLINDER ADJUSTMENT

**!** Follow assembly order when replacing the gaskets and work in a dust-free environment.

**WRENCHES TO USE:**  
 3318 22-mm Allen wrench  
 3318 30-mm Allen wrench  
 Fork wrench for diameters of 14 to 60 mm. ISO 2380 screwdriver to release the fork locking nut.



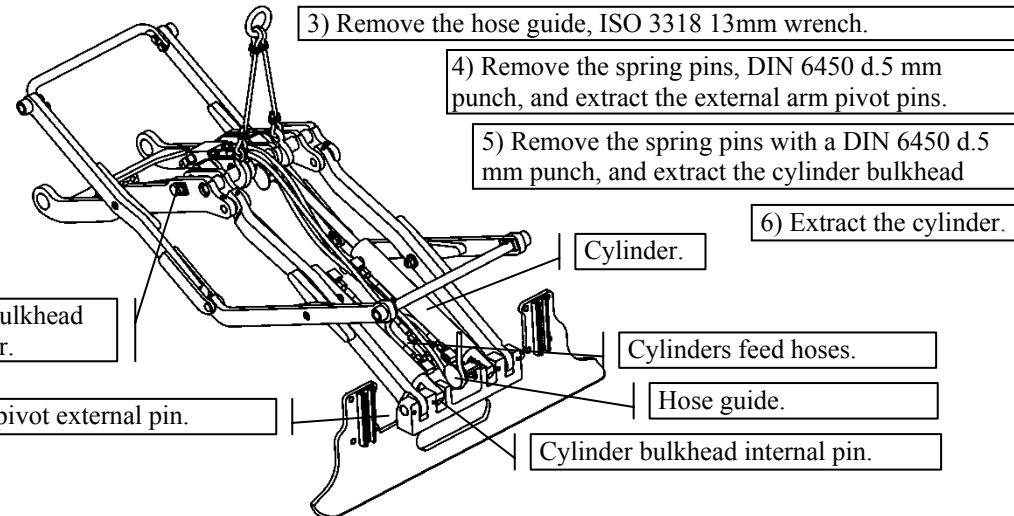
**!** Possible oil leak. Prepare a container to collect fluid.

## 8.11. DISASSEMBLY OF PANTOGRAPH CYLINDERS

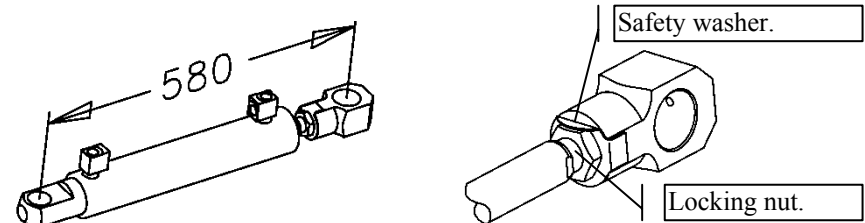
**!** Place on the ground and support with cable or strap.

- 1) Disconnect the hoses from the cylinders, ISO 3318 19 mm wrench.
- 2) Remove the stop, ISO 2936 8 mm wrench, and remove the fork pin.

**!** In this phase, the cylinder rotates freely on the bulkhead pin.



**!** With the replacement of the gaskets completed, restore the dimensions of the closed cylinder, tighten the locking nut (570 Nm) and block deforming the washer with an ISO 2380



# USE AND MAINTENANCE MANUAL

## 8.13. ARMS DISASSEMBLY

**⚠ At this stage the pantograph is unstable and may move suddenly.**

- 1) Position the arms resting on the right side, see figure to the side.
- 2) Disconnect the hoses from the valve, ISO 3318 19 mm wrench.
- 3) Remove the external arms guide shoes and rollers.
- 4) Disconnect the valve, ISO 2936 6 mm wrench.
- 5) Remove the rear spacer from the external arms and remove the front spacer fixing screws, ISO 3318 17 mm wrench.

**⚠ Proceed with the disassembly of the arms on the left side.**

6) To remove the front external arm: remove the screw and pin retainer, ISO 3318 10 mm wrench, and remove the pin from the link with the rear external arm, remove the central fixing nut and washer, ISO 3318 22 mm wrench, and extract the arms until they are completely released.

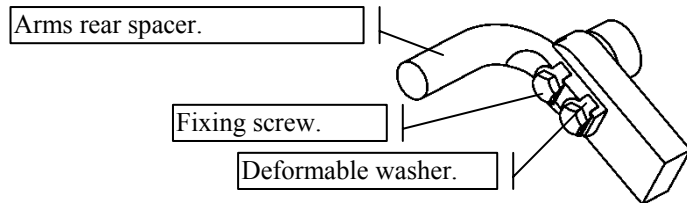
7) To remove the rear external arm: remove the central fixing nut and washer, ISO 3318 22 mm wrench, and extract the arm until completely free.

8) To remove the front internal arm: remove the spring pin with a DIN 6450 5 mm punch, and extract the pin.

**⚠ Repeat steps 6), 7) and 8) to disassemble the right arms.**

**⚠ TO REASSEMBLE THE PARTS REMOVED, PERFORM THE ABOVE PROCEDURE IN REVERSE ORDER.**

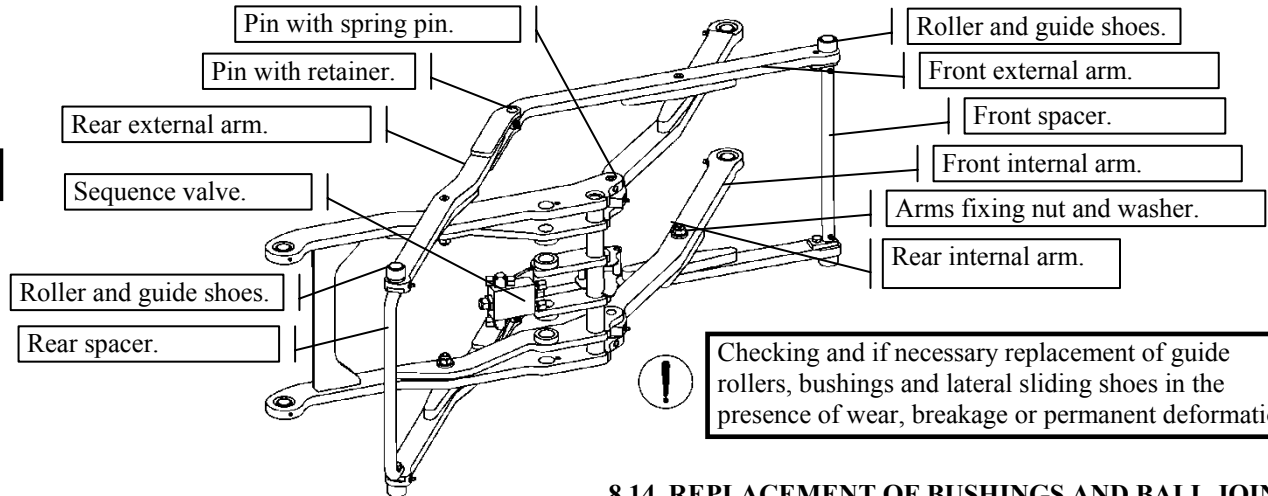
## 8.15. TIGHTENING OF FRONT AND REAR SPACER SCREWS



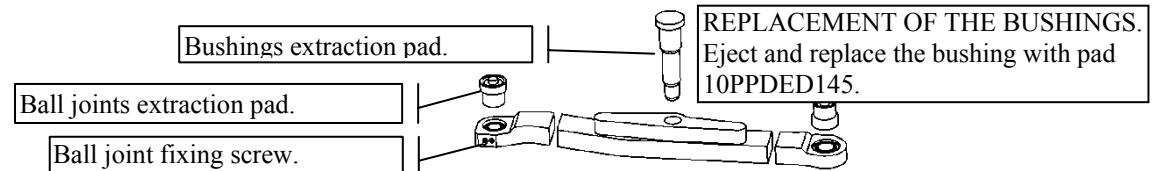
Tighten with a ISO 3317 17 mm wrench (46 Nm) and secure the screws deforming the washer with a ISO 2380 screwdriver.

**⚠ Possible oil leak. Prepare a container to collect fluid.**

**⚠ Washers of different thickness have been inserted at the pivot points of the arms to limit lateral movement. Their position, number and thickness must be maintained in the assembly after maintenance.**



## 8.14. REPLACEMENT OF BUSHINGS AND BALL JOINTS

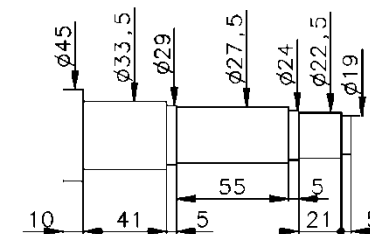


**REPLACEMENT OF BALL JOINTS.** Remove the ball joint fixing screw, ISO3926 3 mm wrench, and extract the worn ball joint with pad 10PPDED144. Introduce and position the new part at the centre of the spacer. Tighten the screw in contact with the outer ring without forcing, use LOCTITE 243 blocking agent.

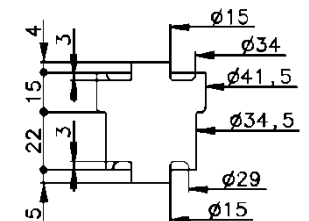
## 8.16. BUSHINGS AND BALL JOINTS PADS

REF. 10PPDED145

**USABLE FOR ALL THE BUSHINGS AND BALL JOINTS**



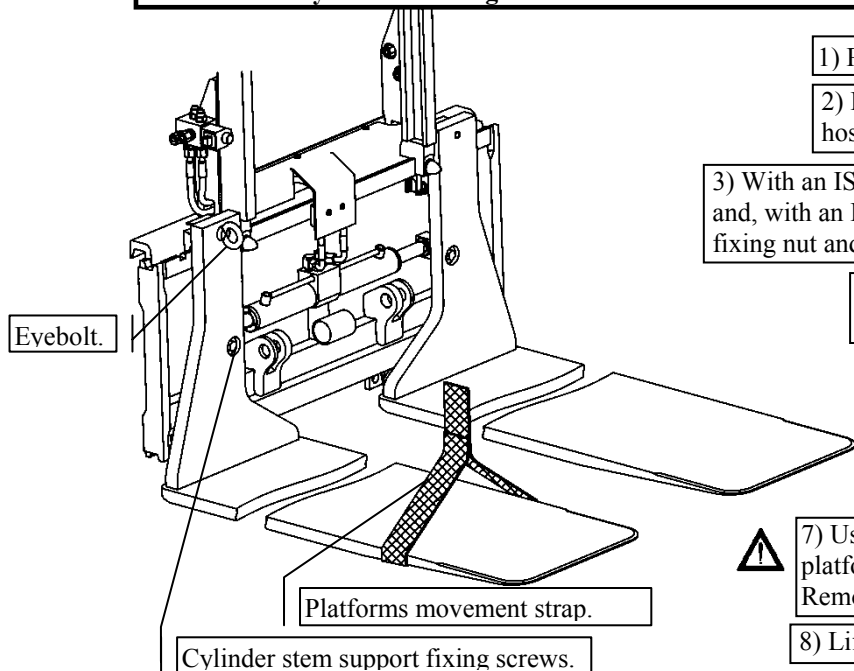
## REF. 10PPDED144



# USE AND MAINTENANCE MANUAL

## 8.17. PLATFORMS AND POSITIONING CYLINDER DISASSEMBLY

**!** Before connecting/disconnecting the hydraulic hoses, vent any pressure from the forklift's feed system according to the manufacturer's instructions.



1) Position the platforms at minimum

2) Disconnect the positioner cylinder feed hoses, ISO 3318 13 mm wrench.

3) With an ISO 3318 22 mm wrench, fasten the stem and, with an ISO 1174 24 mm wrench, remove the stem fixing nut and related internal and external washers.

4) Move the platforms manually until engaging the cylinder stem coupling.

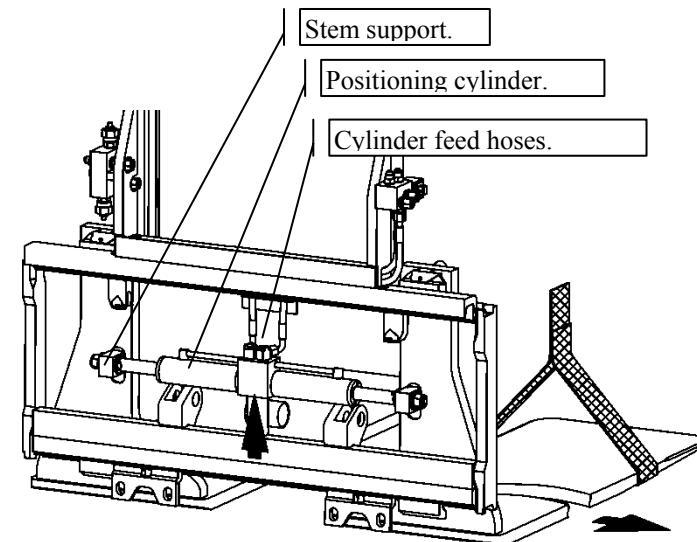
5) Connect the M12 eyebolts to the front upper part of the platforms.

6) Disconnect the stem support with ISO 3318 21 mm wrench.

**!** 7) Use UNI ISO 4479 hooks to hook the platform to the eyebolt and platform strap. Remove the platform sideways.

8) Lift the cylinder until engaging the pin.

**!** Possible oil leak. Prepare a container to collect fluid.

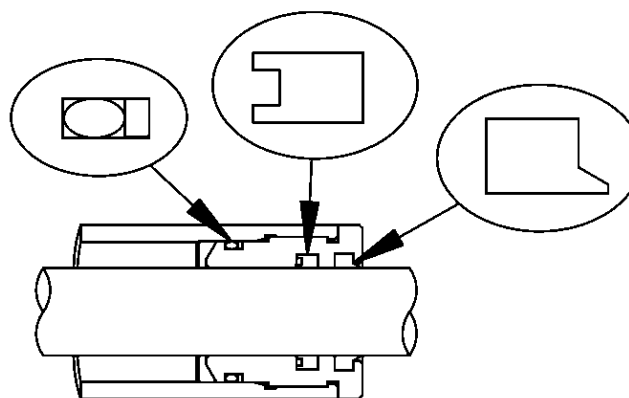


**!** TO REASSEMBLE THE PARTS REMOVED, PERFORM THE ABOVE PROCEDURE IN REVERSE ORDER.

## 8.18. REPLACEMENT OF SEALS

**!** Replace the gaskets in a clean, dust-free environment.

**WRENCHES TO USE:**  
- Pin wrench DIN 1810 for diameters 45-50 mm.



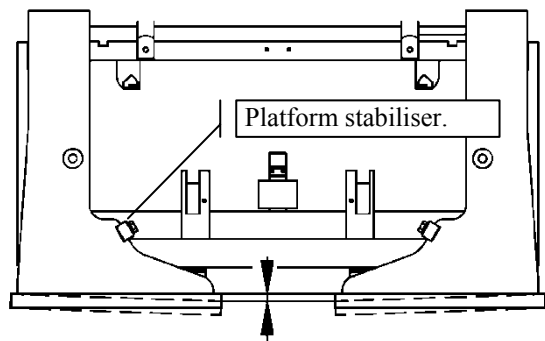
**!** Follow the order of assembly when replacing the gaskets.

**!** Possible oil leak. Prepare a container to collect fluid.

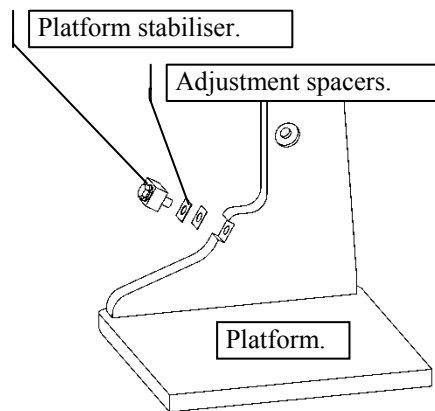
# USE AND MAINTENANCE MANUAL

## 8.19. PLATFORM STABILISERS ADJUSTMENT

**!** The platforms are to be adjusted without any load. Check after 20-30 handling



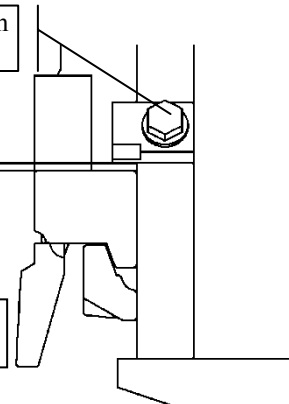
Standard adjustment 0-2 mm. Intervene with 4-6 mm maximum.



Remove the screw, ISO 3318 19 mm wrench, and stabiliser.

Remove or replace the spacers until 0.2-0.3 mm is achieved.

With adjustment complete, tighten the screw 70 Nm.



## 8.20. ELIMINATION OF SIDE-SHIFTER

**!** Before connecting/disconnecting the hydraulic hoses, vent any pressure from the forklift's feed system according to the manufacturer's instructions.

**!** The equipment must be dismantled from the forklift in order to perform the operations indicated below.

**!** Possible oil leak. Prepare a container to collect fluid.

1) Disconnect the side-shifter and equipment feed hoses, ISO 3318 17 mm wrench.

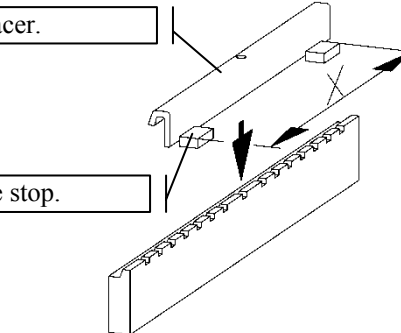
2) Remove the lower hooks, ISO 3318 wrench Class2 24 mm – Class3 27 mm

3) Disconnect the equipment from the forklift and place it on the ground.

4) Remove the cylinder stem stops.

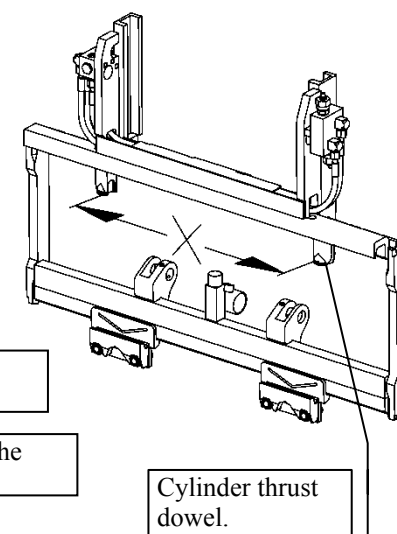
5) Attach the spacer to the forklift carriage ISO 2328 with the central tooth inserted into the notch at the centre of the carriage.

6) Attach equipment to the spacer, ensuring that its lateral stops are inside the cylinder thrust dowels, see "X".



7) Connect the hoses to the side-shifter cylinder and to the feed of the forklift.

8) Replace the lower hooks and make the adjustment as in point 4.2.



Cylinder stem stop spring.

Cylinder feed.

Lower hook.

**!** The cylinder/shoes support block is free to drop.

**!** Perform a few manoeuvres without any load to check the seal of the hydraulic connections.

# USE AND MAINTENANCE MANUAL

## 9. LIST OF POSSIBLE FAULTS WITH CAUSES AND REMEDIES

### 9.1. SIDE-SHIFTER AND PLATFORMS UNIT

Platforms do not shift to the side and/or move	Insufficient oil pressure and/or flow rate	Control and/or regulation of the forklift's hydraulic pump
	Sliding tracks dirty or deformed	Clean, eliminate the deformation and grease
	Malfunction of solenoid valve EV1 (only for platforms movement)	Check electric contacts, magnet and mechanical movements
	Hydraulic circuit blocked or broken	Eliminate obstruction or replace damaged hose
	Faulty cylinders	Control or replacement of the seals and the stem guides or cylinders
Slow or irregular platform side-shifting and/or movement	Pads and/or sliding tracks not greased	Clean and grease
	Insufficient oil pressure and/or flow rate	Control and/or regulation of the forklift's hydraulic pump
	Sliding tracks dirty or deformed	Clean, eliminate the deformation and grease
	Faulty cylinders	Control or replacement of the seals and the stem guides or cylinders
	Residual air in the hydraulic circuit	Control of the oil level in the tank of the forklift. Bleed the air

### 9.2. PANTOGRAPH UNIT

Do not extend and/or return the front grid	Insufficient oil pressure and/or flow rate	Control and/or regulation of the forklift's hydraulic pump
	Malfunction of the pressure relief valve	Adjustment of the valve setting
	Malfunction of solenoid valve EV1	Check electric contacts, magnet and mechanical movements
	Sliding roller tracks dirty or obstructed.	Clean, eliminate the obstruction and grease
	Hydraulic circuit blocked or broken	Eliminate obstruction or replace damaged hose
	Faulty cylinders	Control or replacement of the seals and of the cylinders or stem guides
The extension and/or the return of the front grid occurs slowly and/or irregularly	Insufficient oil pressure and/or flow rate	Control and/or regulation of the forklift's hydraulic pump
	Sliding roller tracks dirty or obstructed.	Clean, eliminate the obstruction and grease
	Faulty cylinders	Control or replacement of the seals and of the cylinders' stem guides
	Cylinder flow control valve not adjusted correctly	In order to optimise the speed, screw or unscrew the adjuster. Lock after making the adjustment.
	Residual air in the hydraulic circuit	Control of the oil level in the tank of the forklift. Bleed the residual air in the hydraulic circuit.

### 9.3. GRID UNIT WITH SHEET CLAMP

Does not clamp the load supporting sheet (or pallet)	Sheet (or pallet) incorrectly inserted in the clamp	Check the load overhang and sheet straightness
	Insufficient oil pressure and/or flow rate	Control and/or regulation of the forklift's hydraulic pump
	Sliding tracks dirty or obstructed	Clean, eliminate the obstruction and grease
	Hydraulic circuit blocked or broken	Eliminate obstruction or replace damaged hose
	Faulty cylinders	Check or replace the gaskets and the stem guides of the cylinders
The clamp does not perform the sequence of movements and/or does not hold the sheet during the return of the grid	Insufficient oil pressure and/or flow rate	Control and/or regulation of the forklift's hydraulic pump
	Sequence valve malfunction	Adjustment of the valve setting
	Faulty cylinders	Check or replace the gaskets and the stem guides of the cylinders
	Contact clamp shoe dirty or worn	Clean the surface of the shoe. Replace if worn

**IN CASE OF PROBLEMS OTHER THAN THOSE DESCRIBED ABOVE, PLEASE CONTACT OUR SERVICING DEPT.**

# USE AND MAINTENANCE MANUAL

## 10. NOISE EMISSION



**THE FOLLOWING SPECIFICATIONS APPLY TO THE FORKLIFT-EQUIPMENT UNIT.**

- Sound pressure level of the weighted emission A in the workplace, where this exceeds 70 dB (A); if said level does not exceed 70 dB(A), it must be indicated.

-Maximum weighted instantaneous sound pressure C in the workplace, where this exceeds 63 Pa (130 dB relative to 20 µPa).

- Weighted sound power level A emitted by the machine, if the sound pressure level of the weighted emission A in workplaces exceeds 80 dB (A).

Replaced parts should be disposed of, as in the case of complete destruction, separately depending on the nature of the material and in compliance with the requirements of the law on the disposal of solid industrial waste.

NB: The pieces not mentioned in the table are made of steel.

## 11. RECYCLING

Transport pallet	Wood
Retaining straps and covering for shipment	Polyethylene and heat shrink
Side-shifter and grid shoes	Nylon
Hoses / connectors	Nylon / steel
Bushings	Bronze / Teflon
Cylinder caps	Cast iron
Cylinder gaskets	Polyurethane and NBR
Paint	Epoxy polyester
Hydraulic oil	Dispose of in compliance with local regulations
Hose fastenings	Nylon

## 12. WARRANTY

The manufacturer guarantees all its products for 12 months or 2000 working hours (whichever occurs first) from the date of shipment.

If used more than 8 hours per day the warranty period shall be reduced proportionately.

The warranty is limited to the replacement, ex-factory of the manufacturer, of those parts identified as being defective due to defects in materials or workmanship; it does not include the cost of labour or travelling expenses for the replacement of such parts.

It is further understood that recognition of the warranty is void if the anomaly results from the inappropriate use of the product, if the implementation was not carried out according to the manufacturer's specifications or if non-original parts have been used for modifications or replacement.

The equipment is not guaranteed for uses that exceed the performance indicated on the rating plate and in the documentation.

All equipment is covered by insurance for any damage caused to third parties by defective parts or their malfunction; damage caused by improper use or misuse is not included.

## 13. FACSIMILE OF THE EC CONFORMITY CERTIFICATE

Dichiarazione CE di Conformità

Noi NOME COSTRUTTORE

INDIRIZZO COSTRUTTORE

XXXXXXXXXXXXXXXXXXXX

Dichiariamo sotto la nostra esclusiva responsabilità che il prodotto:

Tipo YYYYYYYYYYYYYYYYYY

Marca XXXXXXXXXXXXXXXXXX

Modello NNNNNNNNNN

Matricola JJJJJJJJJJ

Anno di fabbricazione VVVV

è conforme alle disposizioni della Direttiva Macchine 2006/42/CE e alle disposizioni della norma EN 1726-2

Persona autorizzata a coostituire il fascicolo tecnico

Nome Pietro

Cognome Foroni

Posizione Direttore Ufficio Tecnico

Indirizzo 29027 Casoli di Podenzano - Piacenza (Italy)

Persona autorizzata a redigere la dichiarazione

Nome Claudio

Cognome Carnieletto

Posizione Direttore Assicurazione Qualità e Post Vendita



Piacenza, 10 dicembre 2009