PUSH/PULLS EASY-RIDER

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. Composed of a rear frame with a simple and fast device for coupling to the forklift truck plate 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 actuators to pull the load onto tines attached to the rear frame. The load, dragged on the platform, is supported by the forks attached to the forklift truck plate and positioned laterally to the rear frame.

SYMBOLS USED



Situation with possible risk to the operator's 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 fork 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 the uneven ground or uphill ramps.

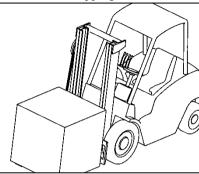
Performing movements or manoeuvres with the load lifted high.

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

Parking the forklift truck 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 truck, keep the mast tilted (the tip of the fork up), the load slightly off the ground, 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 internal diameter of hoses for any additional supply system is min. 8 mm.

4-lever distributor for movements control.

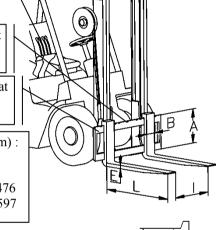
The fork positioning slots must be intact and not clogged.

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

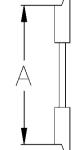
Dimension « A » ISO 2228 (mm) : Class I = min. 304 – max. 305 Class II = min. 380 - max. 381

Class III = $\min. 474.5 - \max. 476$

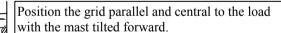
Class IV = min. 595,5 - max. 597



			Minimum	Maximum
	Α	mm	120	130
Fork dimensions	Е	mm	40 (recommended)	45
difficusions	L	mm	1050 (1100 recommended)	1200
Forks distance I		mm	575	585







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 PLATFORM: 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.

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

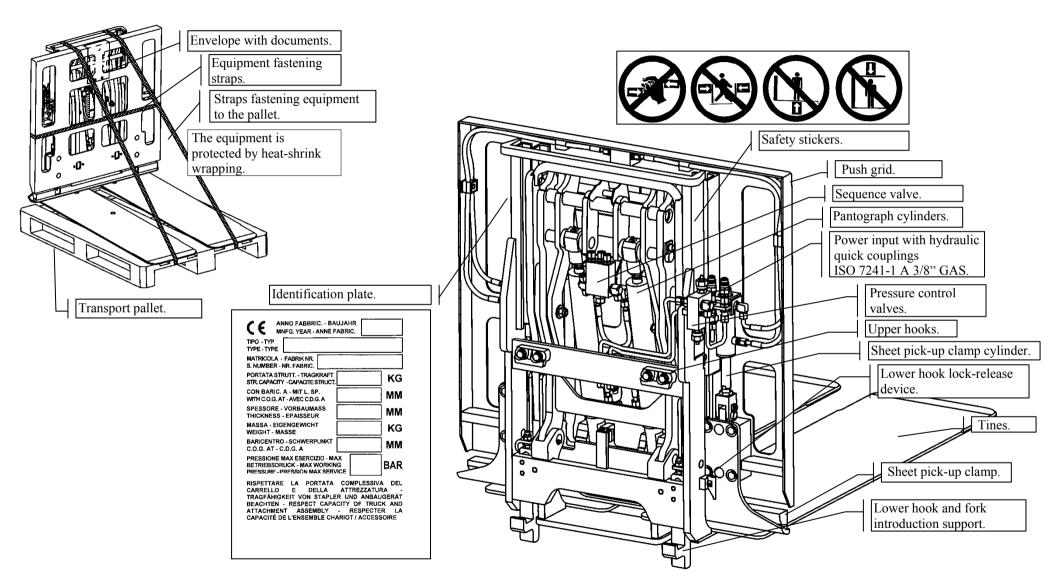
THE EFFECTIVE COMBINATION CARRYING CAPACITY BETWEEN THE FORKLIFT TRUCK AND THE EQUIPMENT IS THE RESPONSIBILITY OF THE FORKLIFT TRUCK MANUFACTURER AND MAY NOT CORRESPOND TO THAT INDICATED ON THE RATING PLATE. CONTACT THE MANUFACTURER OF THE FORKLIFT TRUCK FOR THE DEFINITIVE CARRYING CAPACITY.

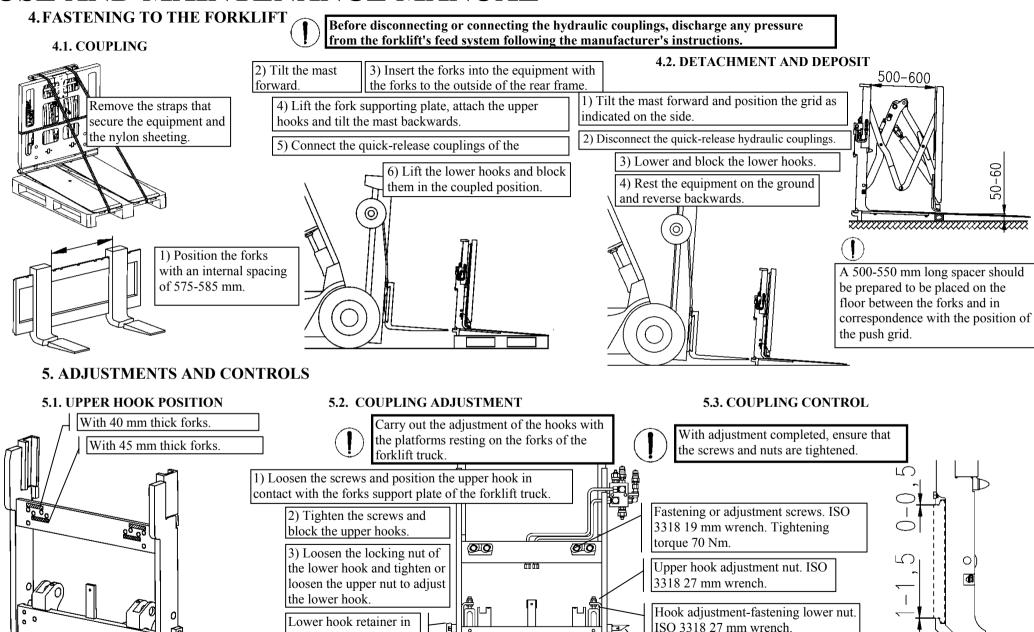
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3. EQUIPMENT DESCRIPTION

3.1. SHIPPING

3.2 LAYOUT DESCRIPTION





Lower hook retainer in

the released position.

UM-PPER-05-2008-R3

the blocked position

Equipment platform.

Forks of the forklift truck.

6. HYDRAULIC CONNECTIONS

Before disconnecting or connecting the hydraulic couplings, discharge any pressure from the forklift's feed system following the manufacturer's instructions.

Possible oil leakage. Prepare a container to collect fluid.

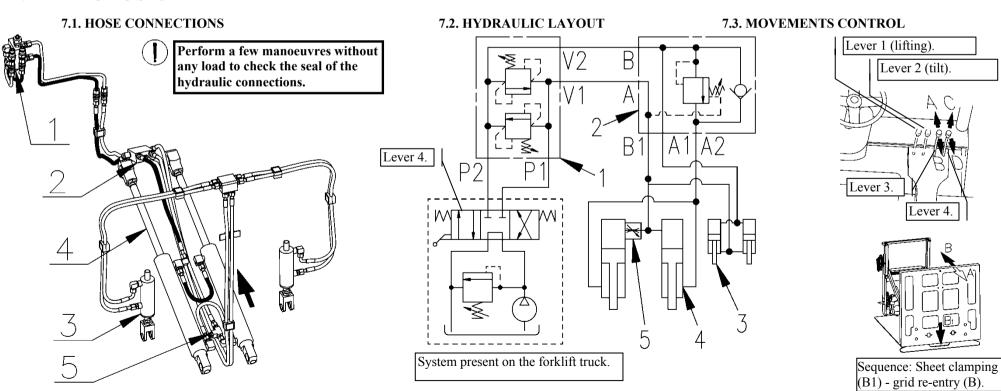
Perform a few manoeuvres without any load to check the seal of the hydraulic connections.

The system connecting hoses and quick couplings of the forklift truck are optional.

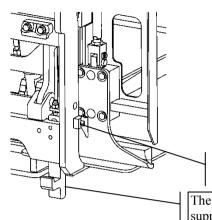
7. HYDRAULIC SYSTEM

Connection of the fourth lever

of the forklift truck distributor.



8. DAILY CONTROLS



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

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

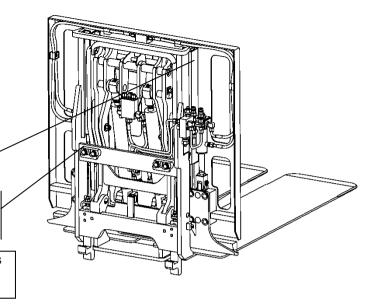
Quick couplings correctly connected.

Lower hooks fastening pins command lever in the indicated position.

The lower hooks raised to engage the supporting plate of the forklift truck forks and locked into place.

The upper hooks must be correctly positioned and secured with the screws.

Verifying the integrity and cleanliness of the sheet clamp, blade and plastic pad, as well as the platforms.

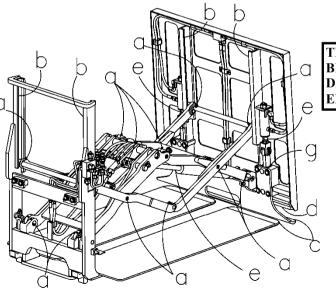


9. ROUTINE MAINTENANCE

PERIODIC MAINTENANCE SCHEDUI OPERATIONS	Working hours
Lubrication in point "a".	7 00
Cleaning and lubrication in points "b".	500
Control of bolts tightness and hydraulic connections.	
In addition to the operations every 500 working hours, ca	rry out:
Control of the platform and blade in pos."c". Remove any	
deformations or dents.	
Check the condition of the sheet contact pad "d". Replace in case	
of wear greater than 4 mm.	1000
Check the cylinder stems "e" and hydraulic seals.	
Check the condition of the clamp guide pads "g".	
Control the condition of the mobile hoses.	1
In addition to the operations every 500 and 1000 working hour	s, carry out:
Replacement of the clamp guide pads "g".	
Control of the bushings and ball joints in the fulcrum of the arms. 200	
Examination for deformation or break in the structure or welds.] =000



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



THE WORKING HOURS SHOULD BE HALVED FOR USE IN DUSTY, DAMP OR CORROSIVE ENVIRONMENTS.

Advised lubricants Internal: ISO X M2 (SHELL ALVANIA GREASE R2) External: ISO CB 32 (ESSO NUTO32)

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

10. EXTRAORDINARY MAINTENANCE

10.1. DETACHMENT OF THE PUSH GRID

10.2. DISASSEMBLY OF THE SHEET CLAMP CYLINDERS

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.



- 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.

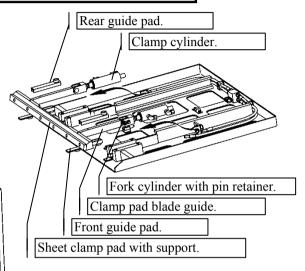
4) Remove the 8 screws, ISO 3318 19 mm wrench.

At this stage the clamp pad is not guided and can fluctuate.

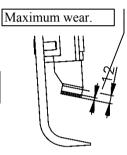
- 5) Lift until the rollers are completely detached from the guide and move it forward
- 6) Position the grid as illustrated on the ground or on a work bench.

Hydraulic offtake block.

Hose fixing brackets.



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



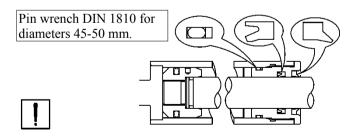
Replace pads with max. wear of 4 mm.

10.3. REPLACEMENT OF GASKETS

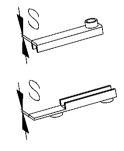
10.4. PADS CONTROL

Grid fixing screws.

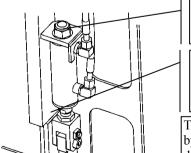
10.5. FASTENING OF CYLINDER AND ADJUSTMENT OF SHEET CLAMP



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



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



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

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

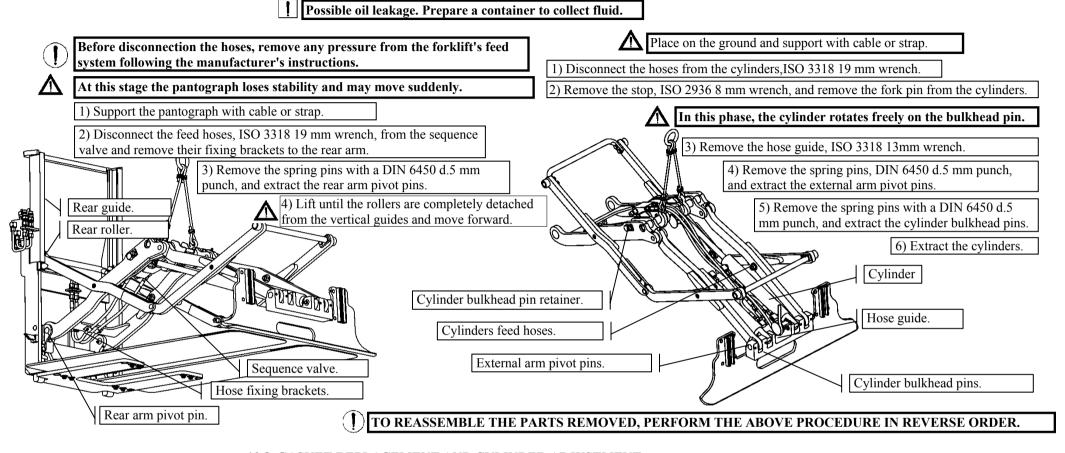
CLAMP ADJUSTMENT: loosen the locking nut, ISO3318 30 mm wrench. Rotate the stem, ISO3318 22 mm wrench.

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

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

10.6. DETACHMENT OF THE PANTOGRAPH

10.7. DISASSEMBLY OF PANTOGRAPH CYLINDERS

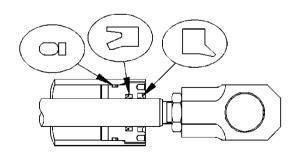


10.8. GASKET REPLACEMENT AND CYLINDER ADJUSTMENT

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

WRENCHES TO USE:

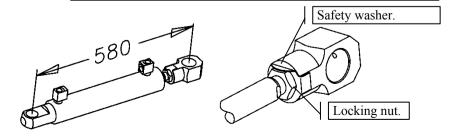
3318 22 mm Allen wrench.
3318 30 mm Allen wrench.
Fork wrench for diameters 45-60 mm.
ISO 2380 screwdriver to release the fork locking nut.



Possible oil leakage. Prepare a container to collect fluid.



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



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10.9. ARMS DISASSEMBLY

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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 pads 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 or 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.

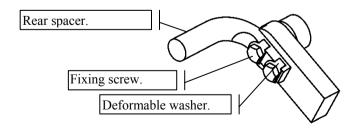


Repeat steps 6), 7) and 8) to disassemble the right arms.



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

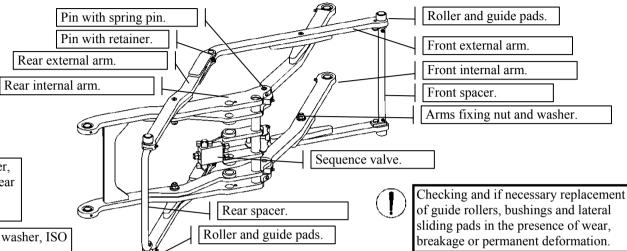
10.11. TIGHTENING OF FRONT AND REAR SPACER SCREWS



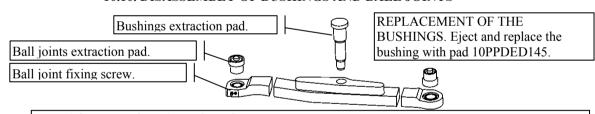
Tighten with a ISO 3318 17 mm wrench (46 Nm) and secure the screws deforming the washer with a ISO 2380 screwdriver.

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.

Possible oil leak. Prepare a container to collect fluid.



10.10. DISASSEMBLY OF BUSHINGS AND BALL JOINTS

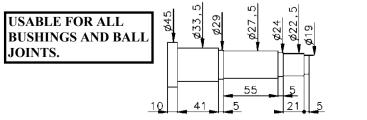


REPLACEMENT OF BALL JOINTS.

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.

11. BUSHINGS AND BALL JOINTS PADS

REF. 10PPDED145 REF. 10PPDED144



Ø15 Ø34 Ø41,5 Ø34,5 Ø29 Ø15

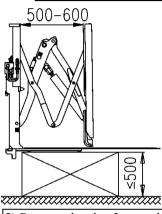
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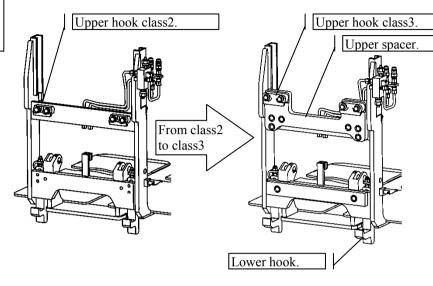
12. MODIFICATION OF THE COUPLINGS FROM CLASS 2 TO CLASS 3

1) Disconnect the equipment from the forklift truck, see points 1 - 2 - 3 4.2. DETACHMENT AND DEPOSIT, position it as indicated below.

lack

Check that the equipment is not off balance.





13. REPOSITIONING OF PLATFORMS

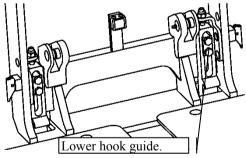
The repositioning of the platforms can be done with equipment attached to the forklift truck.

1) Position the equipment as illustrated.

Follow the manufacturer's instructions to eliminate any pressure from the forklift truck's feed system.

- 2) Disconnect the platforms with ISO 3318 19 mm wrench for the lower nut and ISO 2936 10 mm wrench for the upper nuts.
- 3) Position the platforms in correspondence with the outer holes and fix with screws and nuts.

- 2) Remove the class2 upper hooks, ISO3318 19 mm wrench.
- 3) Fix the upper and lower spacers, ISO 3318 19 mm wrench, with a torque of 100 N/m.
- 4) Secure the upper hook, ISO3318 21 mm wrench, and tighten at 180 N/m.
- 5) Disconnect the hook guide, ISO3318 19 mm wrench.
- 6) Remove the hook retainer, 2 ISO 3318 27 mm wrenches.

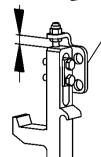


The hook is now free to fall.

- 7) To remove or insert the hook, move it down and tilt it.
- 8) Reposition the hook guide, ISO3318 19 mm wrench, and tighten at 100 N/m.
- 9) Secure the hooks to the lateral supports and adjust then as shown in the figure to the side.

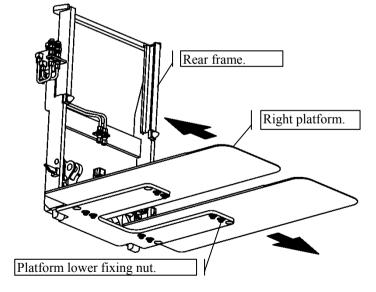


10) Adjust the hooks as of points 5.2.-5.3.



Lower hook retainer.

PRE-SETTING: Class 2 = 15 mm Class 3 = 17 mm



14. LIST OF POSSIBLE FAULTS WITH CAUSES AND REMEDIES

14.1. PANTOGRAPH UNIT

Do not extend and/or return the	Insufficient oil pressure and/or flow rate. Control and/or regulation of the forklift's hydraulic pump.	
front grid	Malfunction of the pressure relief valve	Adjustment of the valve setting
	Sliding roller tracks dirty or obstructed.	Clean, eliminate the obstruction and grease.
	Hydraulic circuit blocked or broken.	Eliminate obstruction or replace damaged hose.
	Defective cylinders	Control or replacement of the seals and of the cylinders or stem guides.
The extension and/or the return	Insufficient oil pressure and/or flow rate.	Control and/or regulation of the forklift's hydraulic pump.
of the front grid occurs slowly	Sliding roller tracks dirty or obstructed.	Clean, eliminate the obstruction and grease.
and/or irregularly	Defective cylinders	Control or replacement of the seals and of the cylinders' stem guides.
	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.

14.2. GRID UNIT WITH SHEET CLAMP

Does not clamp the load supporting	Sheet (or pallet) incorrectly inserted in the clamp	Check the load overhang and sheet straightness	
sheet (or pallet)	Insufficient oil pressure and/or flow rate.	Check and/or adjust 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.	
	Defective cylinders	Check or replace the seals and the stem guides of the cylinders	
The clamp does not perform the	Insufficient oil pressure and/or flow rate.	Check and/or adjust the forklift's hydraulic pump	
sequence of movements and/or does	Sequence valve malfunction	Adjustment of the valve setting	
not hold the sheet during the return	Faulty cylinders	Check or replace the gaskets and the stem guides of the cylinders	
of the grid	Contact clamp pad dirty or worn	Clean the surface of the pad. Replace if worn	

In case of problems other than those described above, please contact our sales service.

15. 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 μ Pa).
- 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).

16. RECYCLING

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.

Transport pallet	Wood
Retaining straps and	Polyethylene and heat
covering for shipment	shrink
Side-shifter and grid	Nylon
shoes	
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

17. WARRANTY

The manufacturer guarantees all its products for 12 months or 2000 working hours (whichever situation 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.

18. FACSIMILE OF THE EC CONFORMITY CERTIFICATE

	Dichiarazione CE di Conformità
Noi.	NOME COSTRUTTORE
	INDIRIZZO COSTRUTTORE
	xxxxxxxxxxxx
Dichiariamo sotto la nostra	esclusiva responsabilità che il prodotto:
Tipo	YYYYYYYYYYYYYYY
Marca	XXXXXXXXXXX
Modello	Windowskiew
Matricola	333333333
Anno di fabbricazione	vvvv
è conforme alle disposizion e alle disposizioni della n	i della Direttiva Macchine 2006/42/CE orma EN 1726-2
Persona autorizzata a costi	
Nome	Pietro
Cognotte	Poroni
Posizione Indirizzo	Direttore Ufficio Tecnico 29027 Casoni di Podenzano - Piacenza (Italy
Persona autorizzata a redig	ere la dichiarazione
Nome	Claudio
Cognone	Carnieletto
Posizione	Direttore Assicurazione Qualità e Post Vendita
Piacenza, 10 dicembre 200	