

OPERATION & MAINTENANCE INSTRUCTIONS



Model **HYDRAULIC RAIL TENSOR**
Type **TH 120-SVL**

Code : **H48560_0414**

DECLARATION OF CONFORMITY



(original declaration)



The undersigned manufacturer :

SOCIETE DES ANCIENS ETABLISSEMENTS L. GEISMAR
Boîte Postale 50327
5, rue d'Altkirch
68006 COLMAR CEDEX
FRANCE

declares that the machinery listed below :

Designation :	HYDRAULIC RAIL TENSOR
Type :	TH 80-GVL
Code :	H(,) * \$\$\$ (%
Serial Number:	

is compliant with :

- the regulatory requirements in the Machinery Directive 2006/42/EC,
- the regulatory requirements in the following Directives :

-
-
-

- the following Standards :

-
-
-

Body who carried out the EC type-examination :

Only the société des anciens établissements L. GEISMAR is authorized to compile a technical file.

Established in COLMAR, the

Technical Manager
M. LOLL

Anciens Etablissements L. GEISMAR
Service Technique

IMPORTANT : All changes made to the machinery without the written approval of the manufacturer, shall render this declaration null and void.

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H48560_0414	HYDRAULIC RAIL TENSOR TYPE TH 120-SVL SUMMARY
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Marking of rail tensioner





Warnings

THE MANUFACTURER WILL ACCEPT NO LIABILITY IN THE FOLLOWING CASES

- Improper machine use, contrary to the instructions given in the operation and maintenance manual.
- Failure to comply with the periodical checking requirements stipulated by the manufacturer.
- Use by unauthorised persons and/or persons lacking the requisite professional skills.
- Consequences resulting from a misunderstanding of the operation and maintenance manual by the user.
- Failure to comply with the maintenance rules specified herein.
- Modifications or repairs not authorised by the manufacturer
- Use of spare parts whose quality and reliability do not match those of parts supplied by the manufacturer
- Use of lubricants, fuels and consumables different from those recommended in this maintenance manual.
- Exceptional or unforeseeable events.

USE OF THE OPERATION AND MAINTENANCE MANUAL

- The operation and maintenance manual is intended for heads of operations and staff in charge of servicing the machine as well as all workers having to carry out repairs. Their attention is drawn in particular to the chapters dealing with safety at work.
- The operation and maintenance manual provides the necessary information for correct use of the work equipment as intended by the manufacturer.
- The manual provides operation and maintenance instructions for the work equipment. It does not exempt the staff using the equipment from a proper training.
- The operation and maintenance manual is an integral part of the work equipment. It must be kept until the decommissioning of the machine.
- The operating and maintenance manual must be kept in a safe place inside the control station in order to always be at hand when needed.
- In case of loss or destruction of this manual, the user is bound to order a copy from the manufacturer.
- Users may ask the manufacturer to provide additional information and supplement the operation and maintenance manual in their possession with updates. Once provided, these items will become integral part of the operation and maintenance manual.
- If the work equipment is transferred, the user is requested to inform the manufacturer of the new owner's details.
- The user is required to deliver this operation and maintenance manual with the work equipment to the new owner.

In order to ensure permanent compliance with the legislation in force, the manufacturer reserves the right to make improvements to the work equipment and to the operating and maintenance manual without having to update previous editions.



Dear customer,

Thank you for purchasing this equipment which has been manufactured by the **GEISMAR** group of companies.

We trust your confidence in us is rewarded and that you are completely satisfied with the equipment.

In order to guarantee the quality of its products and in accordance with its commitment to respect the Quality Assurance Procedures ISO 9001, the **GEISMAR** group tests all its products.

If the machine that you have just received is fitted with an hour meter which already displays a number of operating hours, this is due to all the tests and trials which have been carried out prior to its delivery.

Please pay detailed attention to the recommendations contained in this document.

To ensure this equipment continues to provide satisfaction care should be taken to use and maintain it in accordance with the instructions in this manual.

GEISMAR draws your attention to these essential points

- Respect the maintenance periods and use the lubricants recommended
- Use only original parts and do not make any modifications

Failure to do so may affect your warranty rights.

Furthermore, **modification of the machine without our written authorization** could result in the loss of conformity with the relevant standards.

The Group "**GEISMAR**" reminds you that accuracy in ordering of spare parts will enable prompt supply, and consequently ensure the productivity of your equipment.

Our equipment is designed and manufactured in accordance with the latest advanced techniques, and should provide you with the services that you expect.

We remain fully at your disposal.

Société des Anciens Établissements L. GEISMAR

Chapter 1 – Safety

1 – 1 Foreword

Regulations in force in the country of use take precedence over the guidelines for operation and safety listed herein. It is the responsibility of the person in charge of the equipment to check the accordance between the guidelines and the regulations.

The person in charge of safety on customer's side will supplement these instructions with any guideline he will consider applicable.

Compliance with the Safety Instructions below is necessary to ensure persons and goods' safety during equipment operations. Three pictograms are used to call users' attention.

This symbol signals potentially hazardous conditions that might result in serious or fatal accidents if safety instructions are ignored.



This symbol points out to situations or events that might result in injury if safety instructions are ignored.



This symbol reminds users of safety rules or of hazardous situations that might occur when such rules are broken.



All persons involved in the operation, maintenance, storage or ownership of this equipment are required to read and comply with these Operation & Maintenance Instructions.

A user involved in an accident while infringing on these instructions risks being held liable with regard to the consequences of the accident.

This Operation and Safety Instructions Manual is intended for users and persons in charge of the equipment and its maintenance. It might refer to various options of the machine and illustrations included in this handbook may differ from actual details and accessories of your equipment. Basic equipment features may be similar, but the GEISMAR Group reserves the right to make improvements to the equipment.

For additional information on your equipment or this handbook, please contact the GEISMAR Group.

When ordering spare parts, or requesting information or service, please provide equipment reference details, including equipment type, code and serial number.

This information can be found on the nameplate. The nameplate shall be kept in good condition.

1 – 2 Warning

Proper training, skills and tools are mandatory to use, maintain and repair correctly this work equipment. Before any use of the work equipment including its maintenance, it is obligatory to be familiar with its manual of instructions of use and maintenance, with its appendices and with safety regulations in force on the work site.

Strict compliance with the general instructions given by the person in charge of safety on the work site, especially if works are carried out without interruption of the traffic, is mandatory.

Technical documentation and the instructions will usefully come to supplement the knowledge acquired during training courses. Yet they can in no case replace a formal theory and practice training, given in a workmanlike manner.

If the owner does not feel able to ensure correctly the aforementioned training of his personnel, the GEISMAR Group is at its disposal for any assistance about the content of this training.

The training must cover the explanation with the various functions of the material, the instructions of use, maintenance and the safety regulations to be observed, as well as some practical exercises.

1 – 3 General safety instructions

The equipment shall be used under normal operating conditions and it shall be adequately maintained.

We recommend a familiarisation phase with equipment prior to its operational use.

Before starting using this equipment, make sure this can be done in optimal safety conditions.

If you have questions about equipment operation or work tasks, get additional information from qualified personnel.

Never use the equipment for ends other than those it is intended for.

To prevent accidents or injuries, It is compulsory to wear individual protection clothing and equipment in accordance with safety regulations of the work site (refer to chapter “**Markings**”)

Keep away from moving parts until the equipment has stopped or reached a safe state.

All moving parts of this equipment entail risks of crushing or shearing

Equipment shall be cleaned on a regular basis, liquid or grease in excess shall be removed.

All safety signs shall be kept clean and readable at all times; missing or illegible sign plates shall immediately be replaced.

STARTUP AND OPERATION/MAINTENANCE/REPAIRS.

Maintenance work must be performed by qualified personnel in control of the safety requirements applying to the operations to carry out.

Establish a program of inspection and record all maintenance operations.

Replace any damaged or worn element.

Never alter the equipment without study and authorization by the manufacturer.

DURING PHASES OF OPERATION

Get to know the work area and its features, restrict admission to personnel directly involved in operation only

Observe the general and particular conditions of safety applicable to the work area and keep a constant safety awareness during all phases of operation.

Get to know rescue plans in the event of incident or accident and safety instructions to follow during all operation phases.

Never disable safety or limiting devices

Check that nobody stands within operating range of the machine.

Do not park the machine on a track section with slope.

The track clearance profile must be large enough for the equipment

The lanes must be in a condition allowing progression of the equipment without risks.

The use of this machine is permitted only when visibility conditions allow for easy sight of the work and operation area

In the absence of contrary notice, this machine is not protected against lightning; it should not be operated under adverse weather conditions.

FOLLOWING A PROLONGED NON- USE OR DURING A PERIODIC CONTROL

Check the tightening and connections of the fasteners.

If a deformation or an abnormal wear is noted, the parts must be replaced.

HANDLING OF FLUIDS

The handling of fluids (fuels, coolants, battery fluids, cleaning fluids, oils, etc...) and their storage has to comply with the regulations in force.

Carefully read the product label (precautions of use and storage).

In any case, these fluids must be sorted by nature in tight containers and clearly marked.

Fluids can be harmful. Avoid any contact with skin or eyes. In case of splatter, rinse copiously the soiled areas with clean water without delay and visit a doctor.



1 – 4 Special safety instructions

1 – 4 – 1 Equipment with a combustion engine

Never start the combustion engine otherwise than with the device provided for this purpose.

Exhaust gases are harmful, avoid exposure to them and always start or use the machine with the combustion engine in a well-ventilated environment.

During fuel refill or fuel handling, the operator must make sure that he operates in optimal safety conditions.

In the event of spillage, clean the tank with dry clean cloths.

Always perform refill of fuel or maintenance liquids with the combustion engine switched off and cold and abide by the label warnings and safety precautions. These operations must be carried out far from any heat source; mobile phones must be switched off. A spark could trigger an explosion and cause grievous bodily harm or death. Fuel splatters or fuel leakage onto electrical components or hot surfaces can lead to fire.





Unless otherwise specified, do not carry out adjustments with the engine running

1 – 4 – 2 Equipment with electrical devices

Personnel intervening on a machine with electrical devices must be trained and authorized. Protection measures must be implemented to ensure optimal safety conditions for their work marking of the intervention; electric insulation of the equipment, posting safety precautions for works on or close to the machine, supply of individual protection equipment when needed....

OBSERVE FOLLOWING GUIDELINES

- Never bridge the terminals of the starter or of the batteries. This bypass might disable the emergency shutdown switch and damage electronics or electrical circuitry;
- Keep the switch box from water and humidity (might cause several accidents with harm to persons or material damages);
- Do not bypass open fuses, respect the current limitation;
- Periodically check the good state of battery contacts;
- Keep batteries away from all heat sources and sparks (danger of explosion or fire);
- Keep the polarity of the electrical circuit. An incorrect connection can seriously damage electronics or electrical circuitry and start a fire;
- When using jump-start cables, always connect the plus-cable (+) onto the plus terminal of the battery and the minus-cable (-) of the auxiliary source onto the engine block so as to avoid any explosion or fire risk;
- Safety devices (emergency switch, circuit breaker...) are positioned on the equipment. Take notice of their positions and check their functional status prior to any use of the equipment.

1 – 4 – 3 Equipment with hydraulic devices

Never deform or hit the high-pressure hydraulic pipes.

Carefully check all hydraulic pipes. Do not use bare hands to look for leaks; use instead a piece of wood or cardboard.

Replace damaged or deformed hydraulic pipes.

Make sure that the hydraulic circuit is free of any residual pressure before disconnecting hydraulic components (danger of whiplash injury or fluid splatters).

1 – 4 – 4 Lifting equipment

TESTS AND CONTROLS

The regulation in force stipulates checks and controls under load when the equipment is brought into service and periodical checks later on.

The persons in charge of intervening onto lifting equipment must be trained and authorized for this type of equipment. Prior to any use of the machine, they have to control that all checks have been carried out according to the prescriptions given in the Chapter "maintenance".

The equipment must be controlled and tested under load to guarantee the safety of users and machines.

DURING WORK

Before handling a load, make sure that this operation presents no danger.

Do not start handling a load before the clearance zone (no circulation under the load) has been clearly defined and marked.

Check that the load is correctly and safely strapped, with fixations (cables, ropes ...) in accordance with safety norms.

Do not lift heavier loads than the limit given on the WLL plate.

The load should be permanently followed visually by the machine driver; if this is not possible, he shall be assisted by a maneuvering head.

Never leave a hanging load unattended.

Remain permanently aware of the possible consequences of inertia on a hanging load.

Chapter 2 – Presentation Rail Tensor

2 – 1 General presentation

Manufacturer

Société des Anciens Établissements L. GEISMAR
Boite Postale 50327
5 rue d'Altkirch
68006 COLMAR CEDEX FRANCE

Description of equipment

Model : **HYDRAULIC RAIL TENSOR**

Type : **TH 120-SVL**



2 – 2 General information

The TH 120-SVL hydraulic tensor, easy to install because of the assembly of its various components by articulation forks and pins, is particularly designed to obtain, through controlled mechanical traction, the equilibrium (release) of long welded rails (LWR's).

The hydraulic tensor can also be used for :

- reducing gaps during operations of repairing rails or broken welds;
- avoiding the removal of bars in the case of replacement of a defective weld that has not broken or in the case of the creation of a bonded joint on the track;

At any time the traction of thrust force can be modified according to variations in ambient temperature, and therefore that of the rail, by adjusting the hydraulic pressure.

The traction exerted on the ends of the rails helps to maintain the correct position of the latter in the horizontal and vertical planes, thus preventing any deformation during the welding operation and eliminating contraction tensions in the weld.

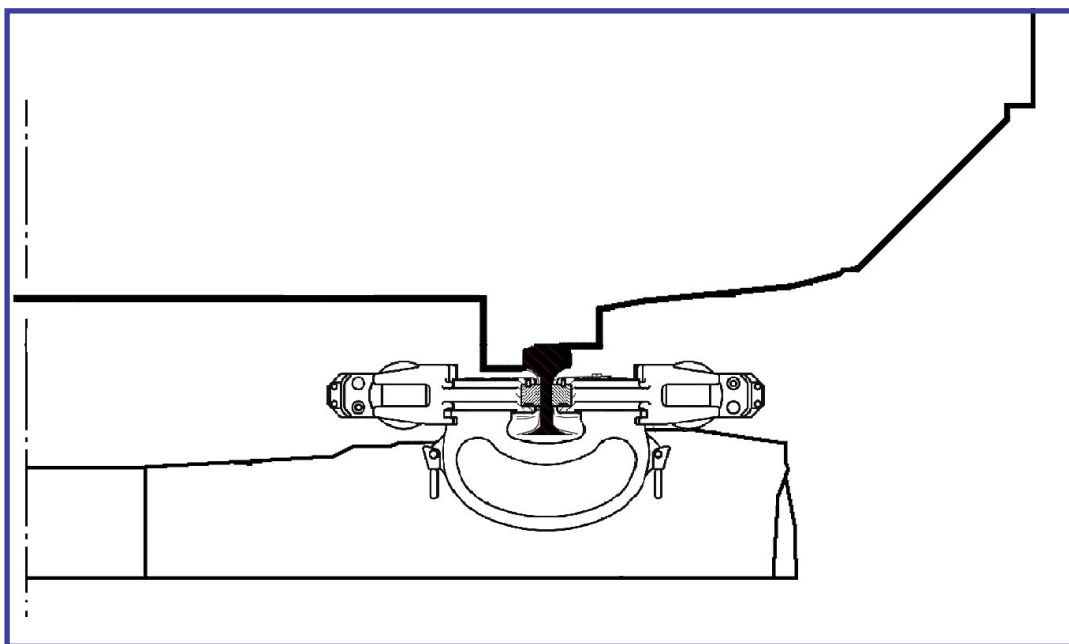
Thanks to the double-acting cylinders, the hydraulic tensor can also cancel out the internal stresses in the rails, thus making it possible to carry out sawing and cutting without risk to the users, preventing jamming of the tools.

Chapter 3 – Technical characteristics Rail Tensor

3 – 1 General characteristics

Manufacturer	SOCIÉTÉ DES ANCIENS ÉTABLISSEMENTS L.GEISMAR
Address	5, RUE D'ALTKIRCH 68000 COLMAR
Machine	HYDRAULIC RAIL TENSOR WITH POWER PACK
Type	TH 120-SVL
Performance	
Operating pressure	515 BAR
Maximum pressure	667 BAR
Maximum pulling force	109 T (107 KN \approx 120 SHORT TON)
Maximum pushing force.	109 T (107 KN \approx 120 SHORT TON)
Travel of cylinders	380 MM
Weight Table (in unit KG)	
Cylinder (x2)	59 KG
Stirrup with eccentric (x2)	135,5 KG
Flexible set (x1)	5,65 KG
Tie Rods (x2)	36,5 KG
Fitting Appliance (x2)	5,1 KG
Total weight	477,85 KG

3 – 2 Registration in the gauge



Low structure gauge of the track Annex B / Norm EN 13977:2005

Chapter 4 – Equipment Rail Tensor

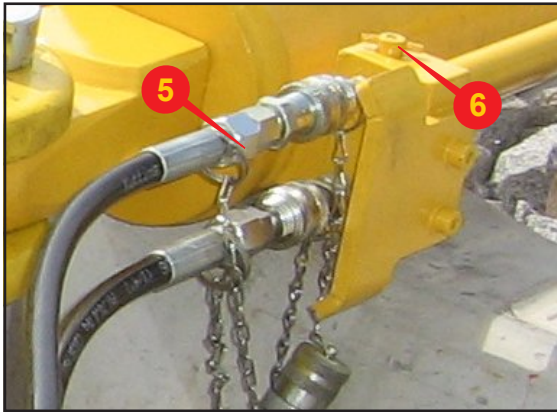
4 – 1 Location of principal organs

The TH 120-SVL tensor consists of :



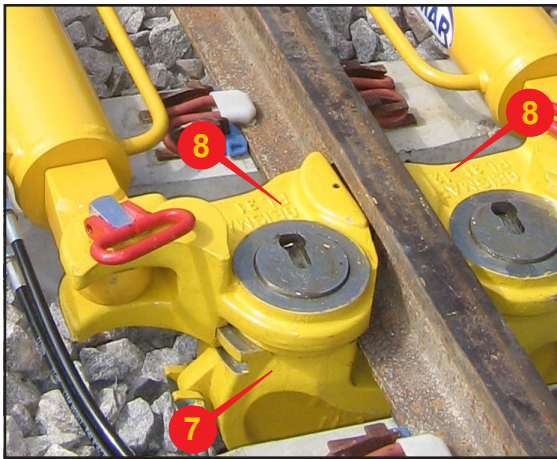
- 2 double-acting hydraulic cylinders (1).
- 2 clamping assemblies (2).
- 2 tie rods (3).
- 2 fitting appliance (4).
- 1 set of flexible hose (5).

DOUBLE-ACTING HYDRAULIC CYLINDERS



Double-acting, these make it possible to exert on the rail either a traction or a compression. They are equipped with quick screw couplings (5) and 2 drain screws (6).

CLAMPING ASSEMBLIES



These each consist of 3 parts removable without tools :

- 1 stirrup (7).
- 2 eccentrics provided with floating serrated jaws (8).

The rail is gripped by means of 2 facing jaws that grip the rail web.

TIE RODS



For working in traction, these are connecting components that transmit the traction force from the cylinder rods to the other clamping assembly. At least one pair is used to leave clear a sufficient working area during welding operations. The number of tie rods not being limited, it is possible to frame a piece of rail introduced into an LWR and to carry out connecting welds in the same interception of traffic on a straight portion.



Never use tie rods in thrust work.

FITTING APPLIANCES

The 2 fitting appliances make it possible to position vertically, with great ease, the serrated jaws of the clamping assemblies as close as possible to the neutral axis of the rail. This gives a clamping force perfectly at right angles to the rail web.



This equipment must be removed during the actual work.



Chapter 5 – Operating instructions Rail Tensor

5 – 1 Handling instructions

Before any use, we recommend that you refer to chapters :

1-3 - General safety regulations.

1-4 - Special safety instructions.

5 – 1 – 1 Preamble

When the TH120-SVL is used, the stirrup deforms elastically in order to return to its initial shape after work. The clamping assemblies are designed for a maximum load exerted by the cylinders (maximum pressure of the hydraulic unit obtained with a factory-calibrated pressure limiter).

If the load exceeds this value accidentally (incident or through faulty manipulation, etc.), permanent deformation of the clevis may occur. It is necessary to carry out an inspection in order to check whether it is suitable for fulfilling its function.

Before use ! Visually check that there are no exterior defects, distortion, surface cracks, wear or corrosion marks (see § 6-2 for inspections).



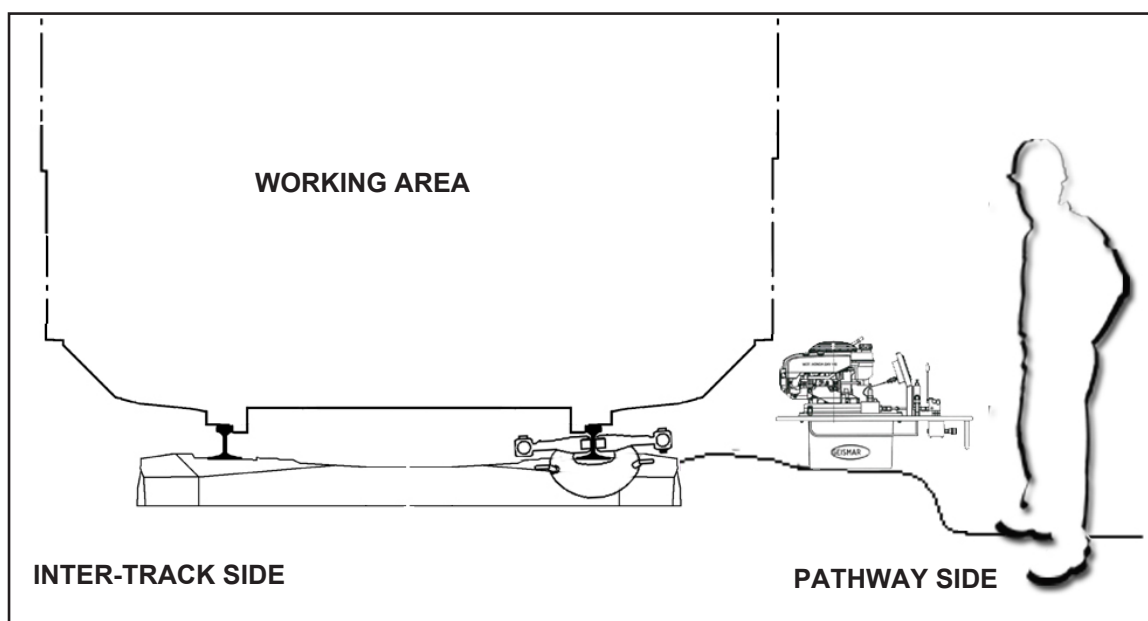
5 – 2 Installation of tensioner

5 – 2 – 1 Above all

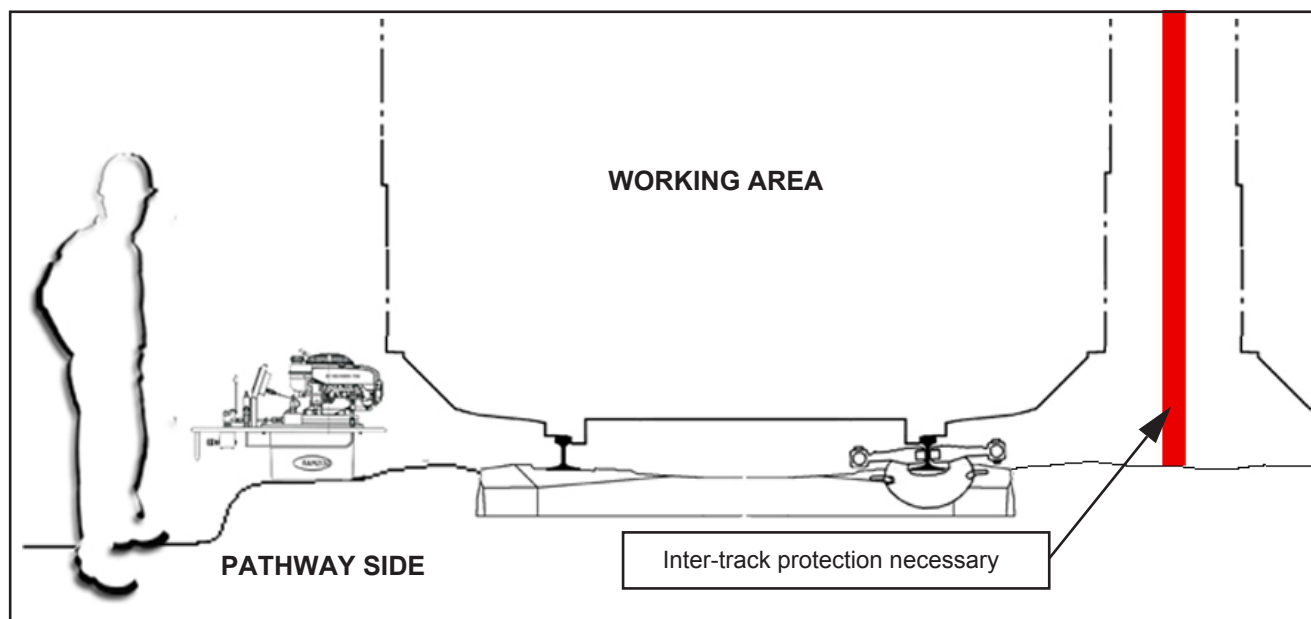
Protect the working area for fitting the TH 120-SVL tensor according to the safety instructions in force on the railway where working. Once the tensor is on the track and under tension and the fitting accessories removed, it is possible for the site machinery to travel. Please leave free the gauge where traffic is permitted.



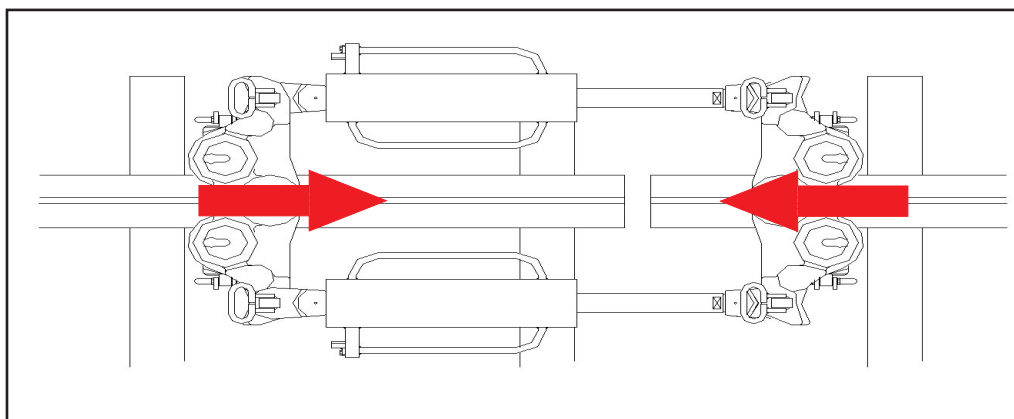
5 – 2 – 2 Placing of tensioner on the rail track on the outside



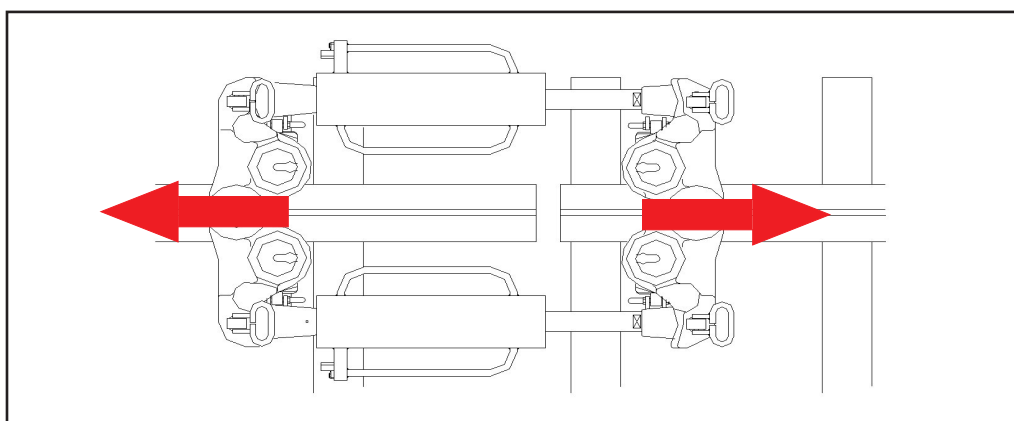
5 – 2 – 3 Placing of tensioner on the stretch of rails in the inter-track side



5 – 3 Working method



Work in Traction to reduce the gap between 2 rails.



Working under thrust to increase or maintain the gap between 2 rails.

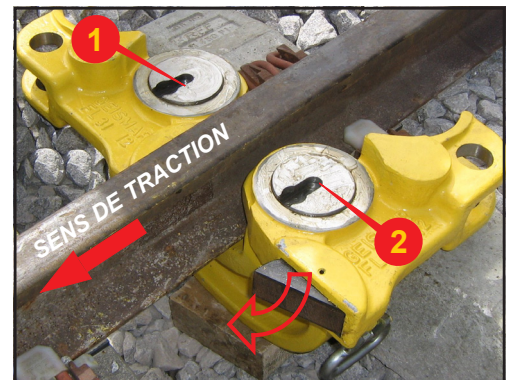
5 – 3 – 1 Fitting of the tensioner in traction phase

- Clear away ballast to enable the stirrup to be positioned under the rail.

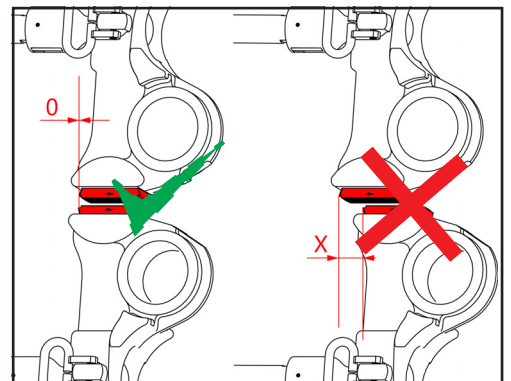
If necessary wedge the stirrup to facilitate the placing of the eccentrics.



- Engage the eccentrics under the journals on the stirrups (1-2).
- Pivot the eccentrics until the serrated jaws come into contact with the rail web.
- Pay attention to the orientation according to the working method chosen : traction, bits striated towards the interior.



- Align the jaws properly to avoid faulty gripping of the rail.



- Using the 2 fitting appliances, position the serrated jaws of the clamping assemblies vertically as close as possible to the neutral axis of the rail.





–Fit the cylinders and tie rods using the pins.

The distance between the tensile rods is 1520 mm, so that the tensor can be set up without any need of moving the sleepers. The sleeper spacing irregularities are compensated for by a very long stroke of the rams.



–Connect the rams on the stirrup.

To couple the cylinders and tie rods, connect the hoses to the hydraulic unit, ensuring that they pass under the rail and do not engage the lower gauge.

Tighten the rings of the hydraulic couplings.

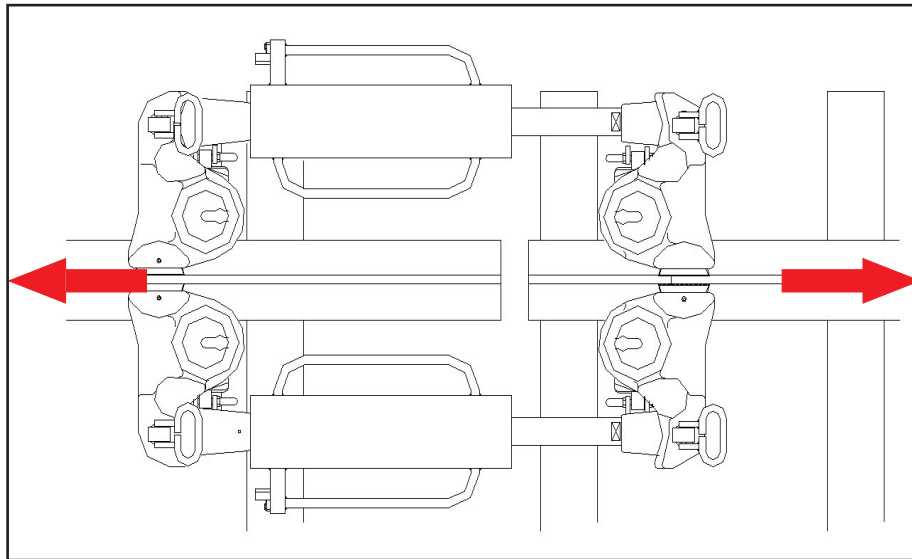


Deploy the cylinder rods to the maximum extent to leave working travel. Fit the pins.

– Connect the rams on the tie rods.

5 – 3 – 2 Fitting the tensioner in thrust phase

First retracted the cylinders rods, same process as for putting under traction. **The tie rods are not used** and the clamping assemblies are mounted in the other direction.



The tensor TH 120-SVL is only intended for use «stirrup under the rail». It is forbidden to use the tensor upside down (stirrup positioned above the rail).



5 – 4 Connection to the energy group

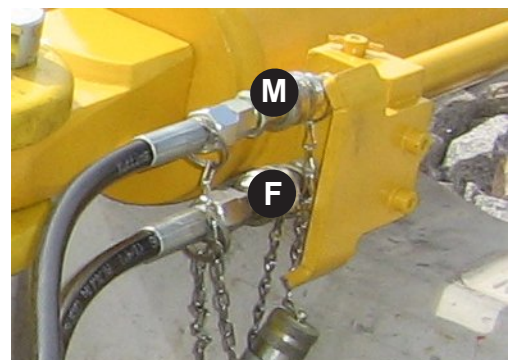
- Never disconnect pressurized hydraulics couplings.
- Tighten securely hydraulics couplings.
- Protect the hydraulic couplers disconnected by their caps.



The hydraulic tensor TH 120-SVL is used in combination with a hand pump or a motorized hydraulic group.

The hydraulic connection is carried out very easily and very quickly by means of the quick couplings fitted on each flexible hose end. The feed piping - cylinder bottom side - for the outgoing of the piston rods is provided with male half-couplings (M). The feed piping-cylinder-cylinder rod side for the bringing in of the piston rods is provided with female half couplings (F). Such an arrangement prevents any inversion and any connection error.

- In standard mode, always have the hydraulic hoses pass under the rail to prevent bottom gauge fouling.
- Connect the hoses to the cylinders and tighten the knurled ring.





For the handling of the hydraulic tensor TH 120-SVL with his energy group, refer to the instructions for use and maintenance of the groups record.



Use only a pump specifications corresponding to the instructions (in particular the pressure and flow).

5 – 5 Connection «outside pressure»

To make the pressure drop :

- Retract the piston rods.
- Inverting the distributor lever.
- Give one or two strokes in this position.
- Unscrew the two bleed screws before removing the couplers.

Chapter 6 – Servicing Rail Tensor

6 – 1 General maintenance instructions

Before starting operations, the parts which will be in contact with the machine must be cleaned carefully as well as the neighbouring zones, to prevent impurities from getting into the machine's mechanisms.

6 – 1 – 1 Rules to be followed

- Draw up an inspection schedule and record all maintenance operations.
- Replace any suspicious or worn parts.
- Never neutralise the prevention or limiting equipment.

To take care to maintain this equipment in good state, it conditions the safety of the users.

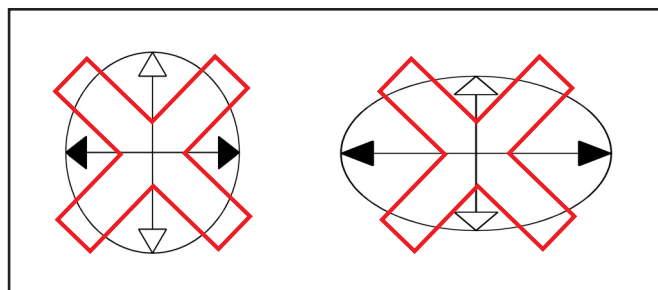
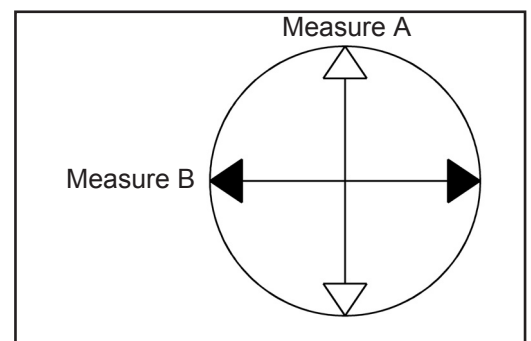


6 – 2 Controls

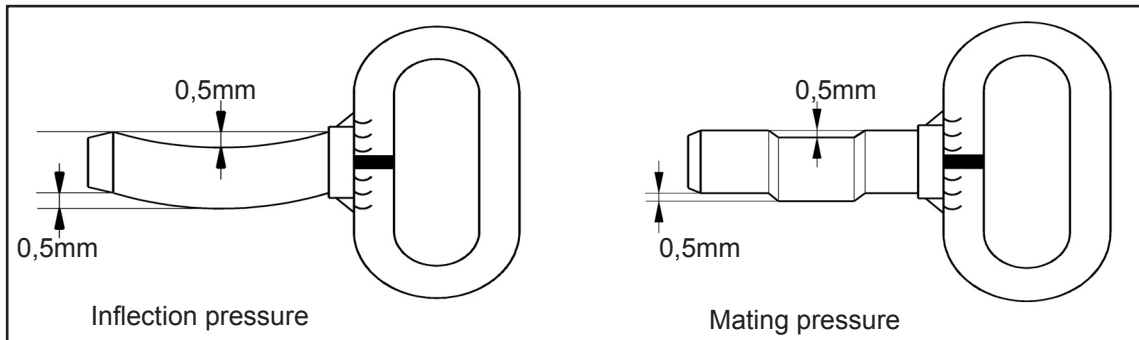
- To check bores of : clevises, tenons and eccentrics (ovalization defect).
- To check the pins (deformation defect).
- To check the Stirrup (search for cracks, deformation).

MEASURE OF OVALIZATION DEFECT

When the difference between 2 dimensions measured (A and B) at 90° in the same bore exceeds 0.5 mm, it is essential to replace the part having this ovalization defect.

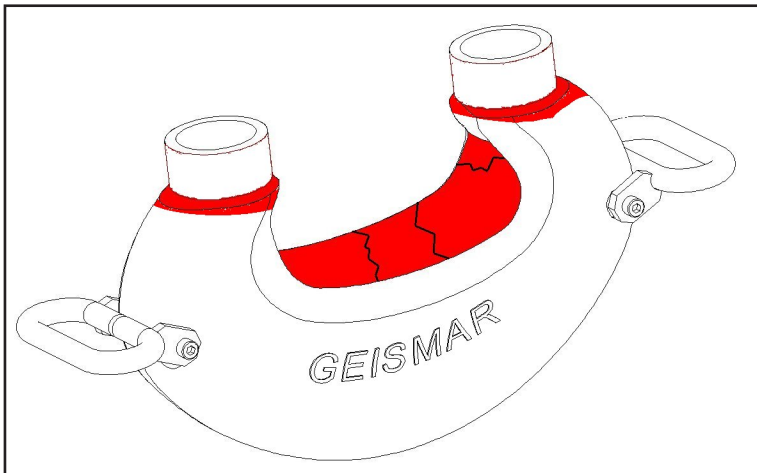


MEASURE OF DEFORMATION DEFECT



Any pin having a straightness defect equal to or greater than 0.5 mm must be replaced by an original part..

PERIODIC CHECKING OF STIRRUP



Carry out a visual check to detect any cracks. This check may be limited to the areas shown in red.

If cracks are found, please contact us to determine the procedure to be followed.

6 – 3 Maintenance

6 – 3 – 1 Controls

- Check the fluid tightness and general state of the cylinders periodically.
- Replace the oil in the cylinders every year by disconnecting one coupling on the cylinder.
- Check that the couplings are fluid tight and properly tightened.
- Replace the hoses as soon as damage to or a tear on the hose has been noticed. Ensure that they are maintained in good condition since the safety in use of the tensor depends on this equipment.

6 – 3 – 2 Cleaning

As far as maintenance is concerned, the term cleaning is to be taken in its widest sense and it includes all routine maintenance operations, such as lubrication and tightening. Regular cleaning is a form of inspection, during which those involved can discover leaks, irregularities and damage at an early stage and will be able to deal with them before these deteriorations lead to a breakdown or an incident.

6 – 3 – 3 Greasing

To lubricate, using a brush, them : axes, pins, covers and screw.

6 – 3 – 4 Hydraulic oil

Approved hydraulic oil : **TOTAL EQUIVIS ZS32**

Technical features :

- Viscosity 40°C: 32,3 Cst
- Viscosity index: 160
- Flow point: - 39°C

6 – 3 – 5 Table of equivalences for hydraulic oils

TOTAL	EQUIVIS ZS32
ELF	VISGA 32
TEXACO	RANDO OIL HD Z-32
SHELL	TELLUS T 15
CASTROL	CASTROL HYSPIN AWH M32
BP	BARTRAN HV32
MOBIL	MOBIL DTE 11M

Hydraulic oil is harmful. Avoid contact with skin and eyes. In case of contact, immediately wash the affected areas with plenty of water and seek medical.



These recommendations are not restrictive. Continuous monitoring and well-organised preventive maintenance can only extend the service life of the machines.

It is absolutely essential to record and report all anomalies or degradations observed.



Chapter 7 – Storage and recycling

7 – 1 General storage instructions

During periods when work equipment is not being used, it is essential to store it so as to maintain its integrity. Badly stored equipment risks being damaged when commissioned. It is therefore important for the staff in charge of storage operations to carry out this storage carefully and to abide by the measures laid down.

7 – 1 – 1 Choice of storage conditions

The choice of storage conditions depends on 2 main factors

- the storage duration and the storage type ("sheltered" storage building, closed shed, open shed, canopy, etc...).

7 – 1 – 2 Storage premises

As a general rule, premises intended for storage of work equipment must provide full protection against

- dusts, exhaust gases, dampness;
- direct sunlight;
- rapid temperature variations.

7 – 1 – 3 Putting into storage

The condition of the work equipment when put to work after storage depends on how well it was prepared and protected before being placed in storage

Before resuming work after storage, clean the equipment (when cleaning, protect the moving parts with grease).

A technical inspection should be carried out to uncover any possible anomalies.

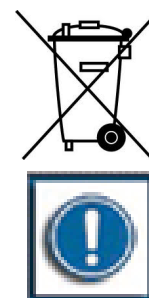
7 – 2 Decommissioning - Disassembly - Disposal

When work equipment presents a state of aging that may cause risks, there is a requirement for the user to ensure the disposal of this equipment, namely putting out of work.

Decommissioning or disposal requires to remove used fluids which will be given to a relevant department.

IMPORTANT In addition to those listed in the instruction manual, some precautions must be taken into account when decommissioning this work equipment to avoid any risk during dismantling and transport, and to minimize a possible environmental impact of its sub-parts or products.

The equipment must be disposed of by an approved body complying with the local standards in force for recovery of waste.



Chapter 8 – Spare parts

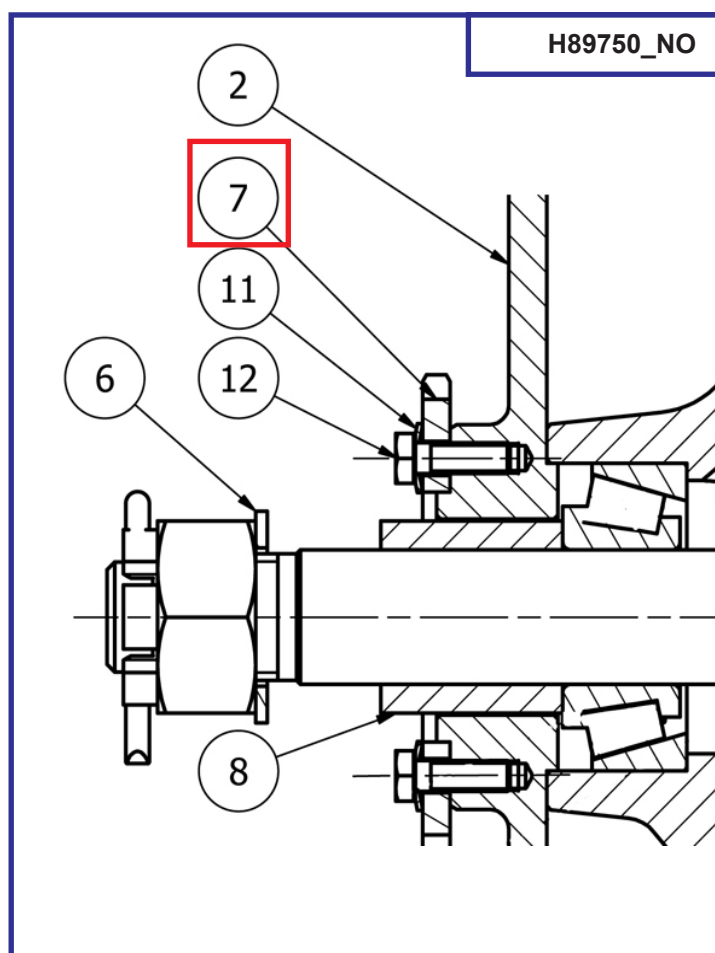
8 – 1 Foreword

The spare parts catalogue includes all the components of the machine. The latter is considered as an assembly broken down into sub-assemblies, which are themselves broken down into individual spare parts.

You can consult it and go directly to the plate N° for the part which interests you. This plate consists of a list of parts with a drawing.

IN THIS EXAMPLE


We want to replace the **pinion ref. 7** in assembly **H89750_NO**



You will find the **Code** for this pinion in the parts list for this plate (here **H89750_NO**). Simply note the indications on your part replacement request form.

EXAMPLE FOR ORDERING A SPARE PART

Rep	Qté	Désignation	Code
Ed : 03/10			
		MONTAGE ROUE MOTRICE	H89750_NO
1	1	ROUE USINEE DIAM 250	H89574
2	1	FLASQUE	H89298
3	1	AXE	H89549
4	1	OBTURATEUR	H02191
5	1	SEGMENT ETANCHE	H02192
6	3	RONDELLE	H02193
7	1	PIGNON	H89550
8	1	ENTRETOISE	H89548
9	2	ROULEMENT	D03370
10	2	ECROU	C00185
11	4	RONDELLE	C01811
12	4	VIS	C00341
13	4	VIS	C00722
14	2	GOUPILLE FENDUE	C01260
15	1	GRAISSEUR	D00598



IMPORTANT : Afin que votre commande de pièces de rechange soit suivie d'une livraison prompte et correcte, il faut indiquer le N° et année de fabrication de la machine, le N° de série, la désignation ainsi que le Code des pièces de rechange

Designation and Code for part (1)
Plate code (2)

Pinion code
Assembly

H89550
H89750_NO

8 – 2 After Sales Service Details

Tel **+ 33 (0) 3 89 80 41 90**
 Fax **+ 33 (0) 3 89 80 42 28**
 E-mail **sav@geismar.com**

SPARE PARTS CATALOG



Model **HYDRAULIC RAIL TENSOR**
Type **TH 120-SVL**

Code : **H48560_0414**

Description	Code	Page
SECTION A—MECHANICAL COMPONENTS		
HYDRAULIC RAIL TENSOR TH 120 SVL.....	H48560_NO.....	6
TIGHTENING ASSEMBLY + SPINDLE	H16795_NO.....	8
HYDRAULIC CYLINDER TH 120	V10026_NO.....	10
ECCENTRIC SETTING DEVICE	H16759_NO.....	12
SECTION B—HYDRAULIC COMPONENTS		
HYDRAULIC FLEXIBLE HOSE SET	H59872_NO.....	16

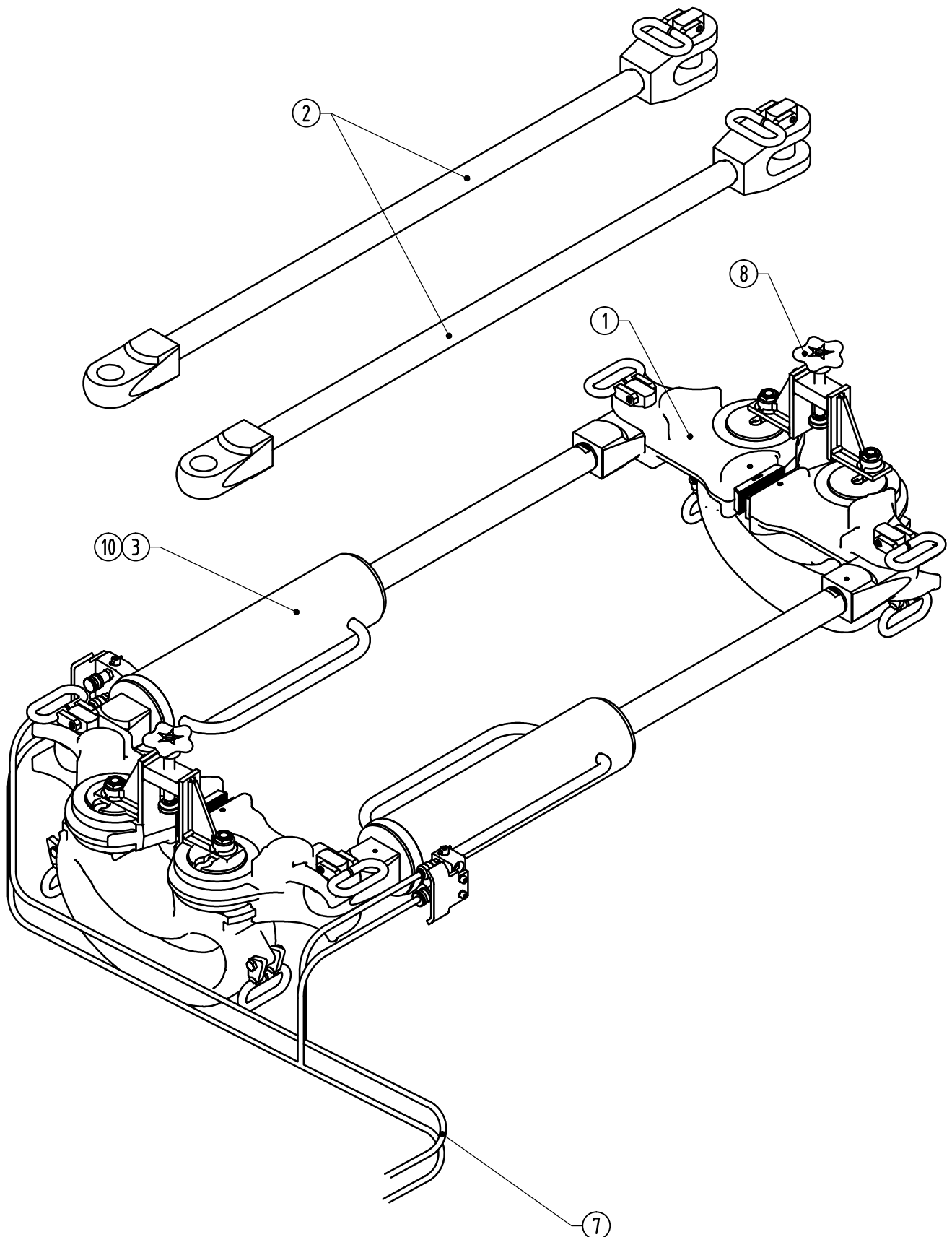
HYDRAULIC RAIL TENSOR TYPE TH 120-SVL SUMMARY	H48560_0414
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Section A–Mechanical Components

Item	Qty	Description	Code	Éd : 04/14
		HYDRAULIC RAIL TENSOR TH 120 SVL	H48560_NO	
1	2	TIGHTENING ASSEMBLY + PIN	H16795_NO	
2	2	ROD WITH PIN.....	H59764	
3	2	HYDRAULIC CYLINDER.....	V10026_NO	
7	1	SET OF FLEXIBLE HOSES	H59872_NO	
8	2	EXCENTRIC SETTING DEVICE	H16759_NO	
10	1	INSTRUCTION PLATE.....	H102540_NO	



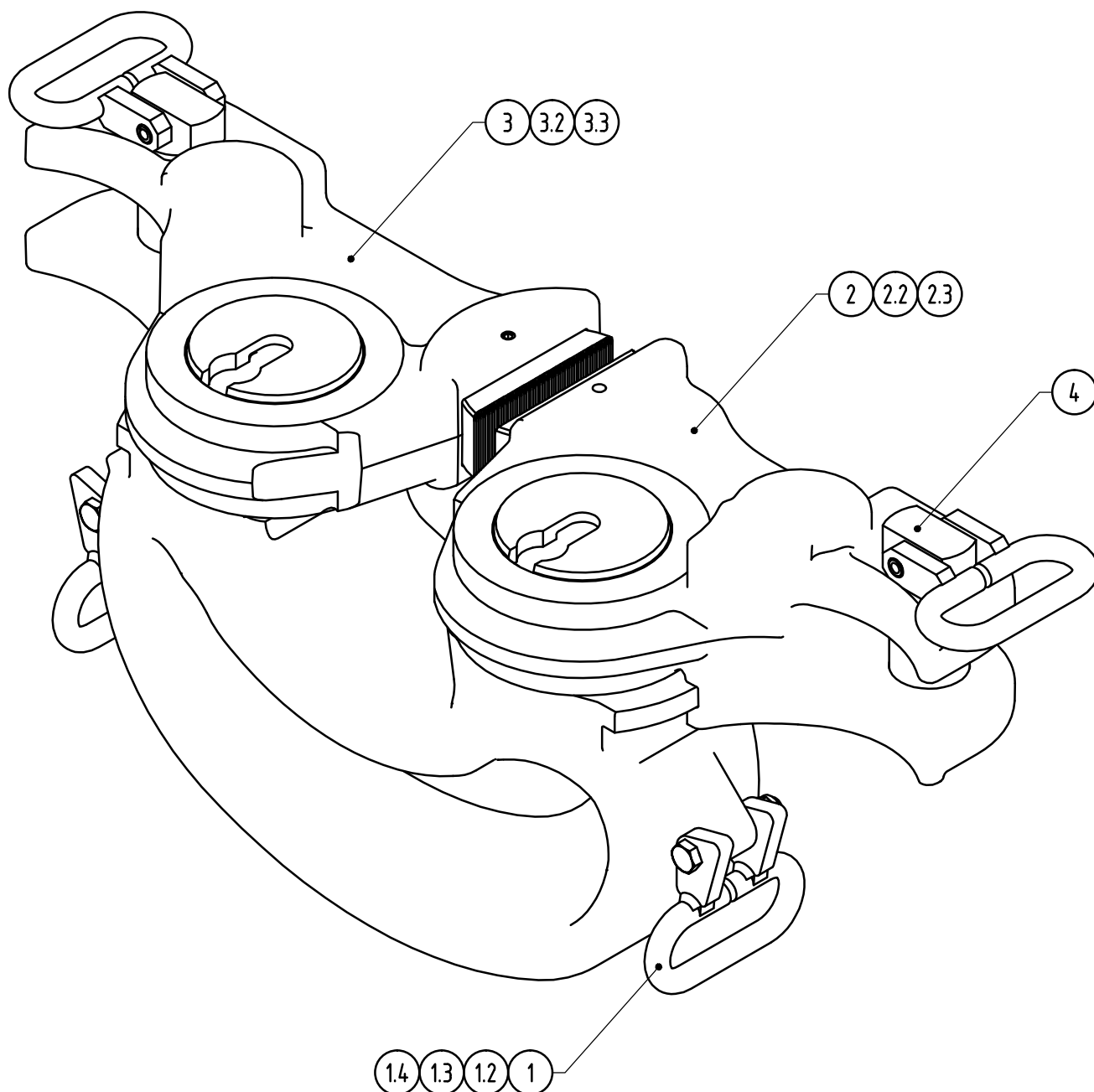
IMPORTANT : To allow prompt and correct delivery of spare parts, always state : Fabrication year and n° of the machine - Serial number - Order n° and description of spare parts



Item	Qty	Description	Code	Éd : 07/12
TIGHTENING ASSEMBLY + SPINDLE			H16795_NO	
1	1	STRAP	H16798	
1-2	2	HAND-GRIP	H16789	
1-3	2	SCREW	C00378	
1-4	2	NUT	C00144	
2	1	RIGHT ECCENTRIC.....	H16206	
2-2	1	JAW	H08930	
2-3	1	SCREW	C00807	
3	1	LEFT ECCENTRIC	H16203	
3-2	1	JAW	H08930	
3-3	1	SCREW	C00807	
4	2	SPINDLE	H16777	



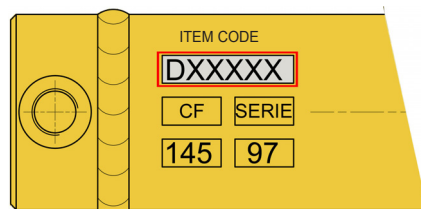
IMPORTANT : To allow prompt and correct delivery of spare parts, always state : Fabrication year and n° of the machine - Serial number - Order n° and description of spare parts



HYDRAULIC CYLINDER TH 120

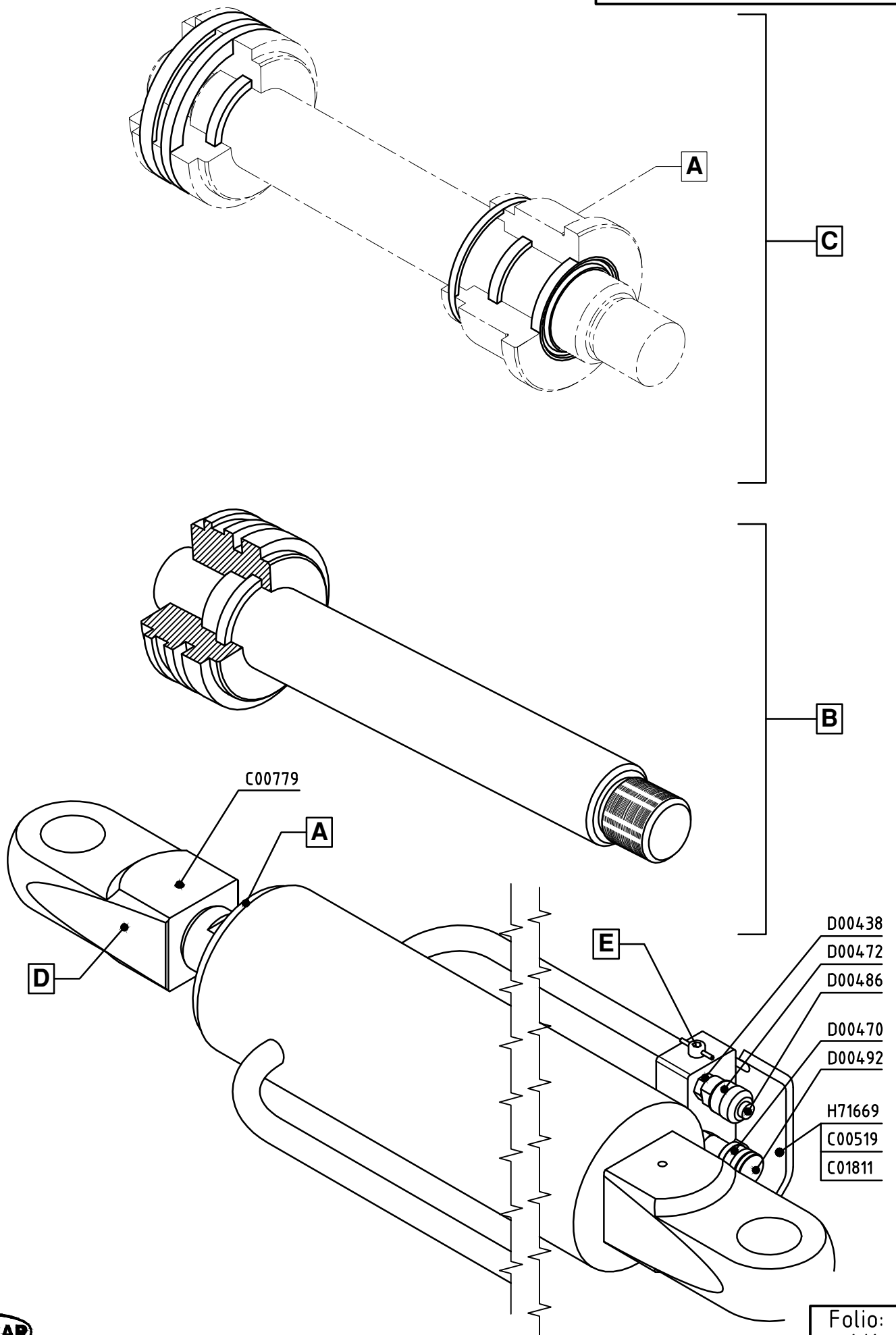
V10026_NO

NOTA : for cylinders spare parts give the indication of the code number incrusted on the cylinder body, then refer to the following table for reference batches of parts (**A, B, C,...**)



CODE HYDRAULIC CYLINDER	GUIDING BUSH CODE A	PISTON KIT CODE B	SET OF SEALS CODE C	ARTICULATION FORK CODE D	DRAIN SCREW CODE E
D15392	D16746	D16744	D16126	H59766	D02809 + D02152
D19678					

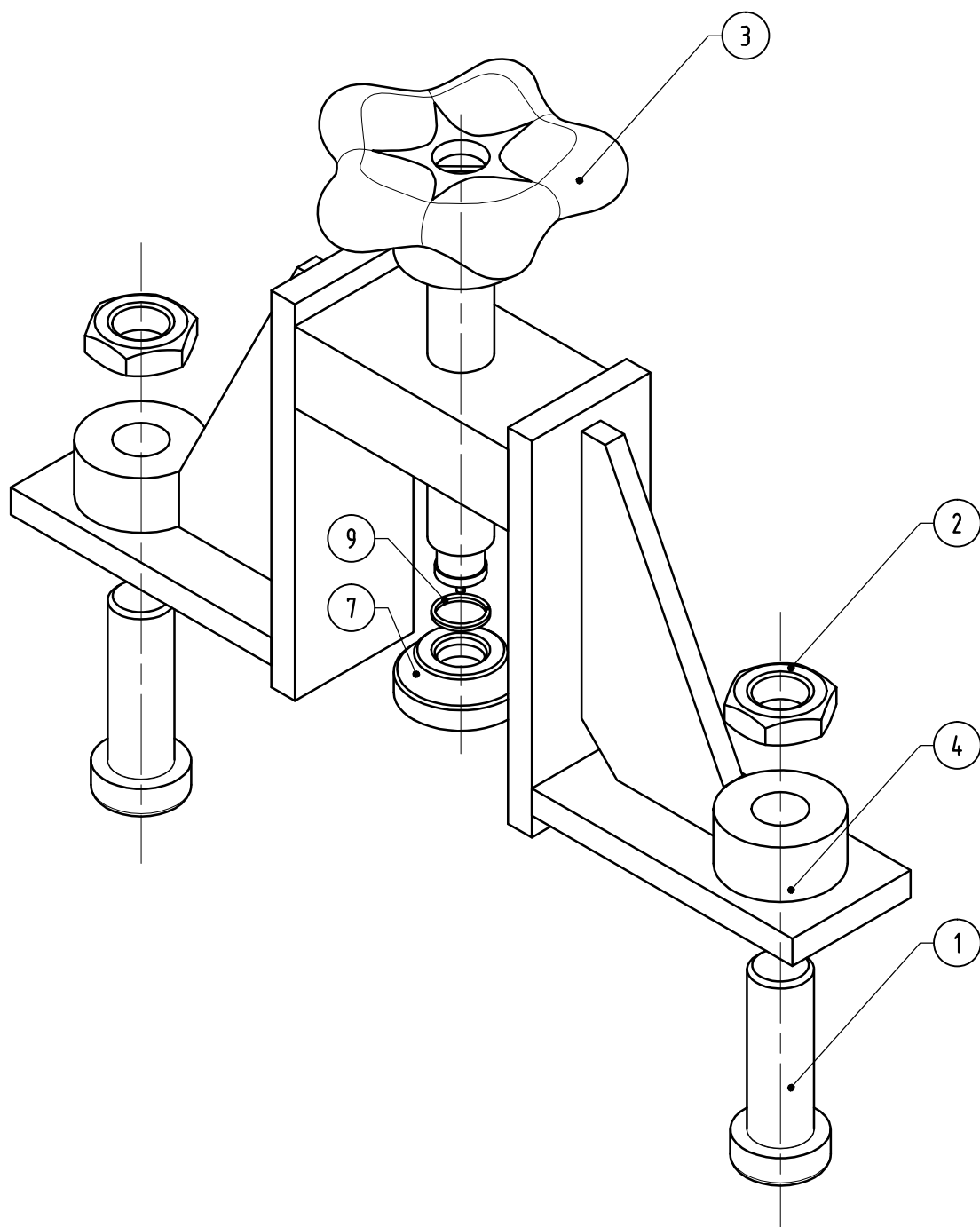
V10026 _ NO



Item	Qty	Description	Code	Éd : 10/90
		ECCENTRIC SETTING DEVICE	H16759_NO	
1	2	NUT	C01648	
2	2	SCREW	C01794	
3	1	MANIPULATING SCREW	H06423	
4	1	STRAP	H16762	
7	1	SILL-WASHER	D04522	
9	1	ELASTIC PIN.....	C01153	



IMPORTANT : To allow prompt and correct delivery of spare parts, always state : Fabrication year and n° of the machine - Serial number - Order n° and description of spare parts



Section B—Hydraulic Components

1	1	HYDRAULIC FLEXIBLE HOSE – MALE –	H102452_NO
1.1	3	MALE HALF COUPLING	D00470
1.2	3	MALE STUD COUPLING	D00179
1.3	1	EQUAL TEE COUPLING	D00299
1.4	1	HYDRAULIC FLEXIBLE HOSE	D19692
1.5	2	HYDRAULIC FLEXIBLE HOSE	D19693
1.6	3	CAP	D00492

2	1	HYDRAULIC FLEXIBLE HOSE – FEMALE –	H102453_NO
2.1	3	FEMALE HALF COUPLING	D00472
2.2	3	FEMALE STUD COUPLING	D13722
2.3	1	EQUAL TEE COUPLING	D00299
2.4	1	HYDRAULIC FLEXIBLE HOSE	D19690
2.5	2	HYDRAULIC FLEXIBLE HOSE	D19691
2.6	3	PLUG	D00486



! IMPORTANT : To allow prompt and correct delivery of spare parts, always state : Fabrication year and n° of the machine - Serial number - Order n° and description of spare parts

