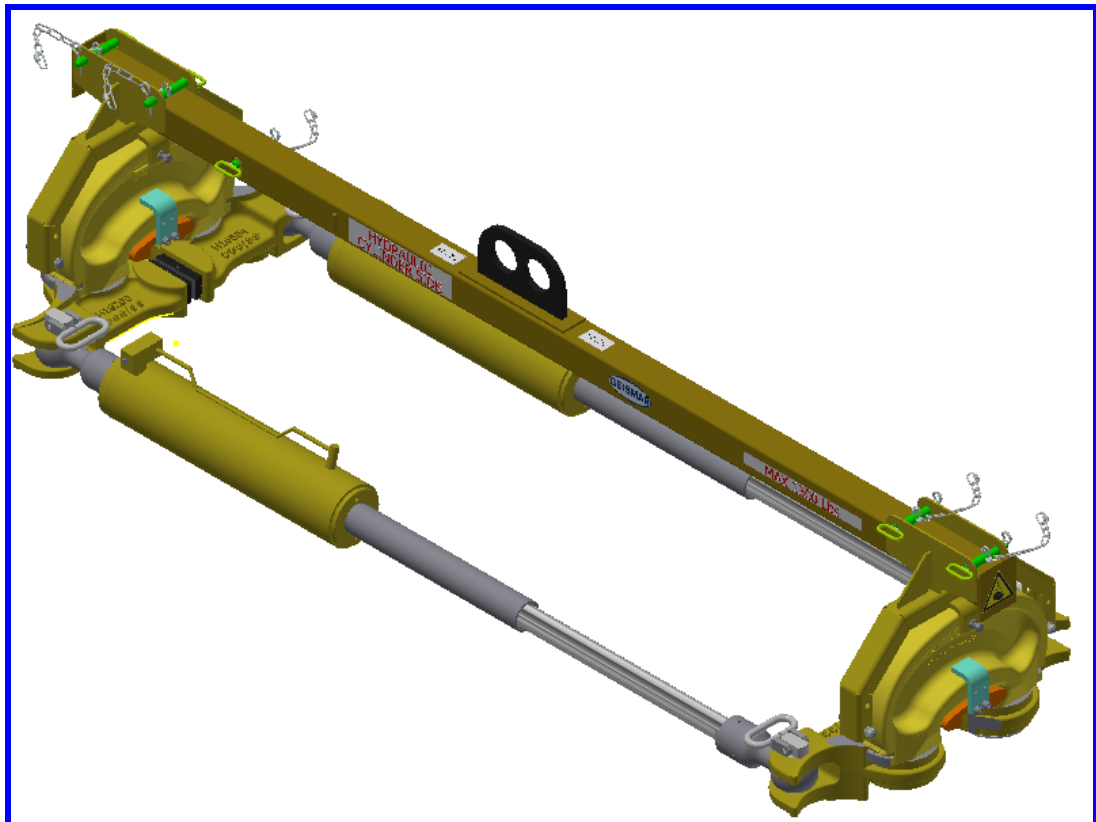


OPERATION & MAINTENANCE INSTRUCTIONS



Model **HYDRAULIC RAIL TENSOR**
Type **TH 120 STP**

CODE : **H77549_0416**

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HYDRAULIC RAIL TENSOR

TYPE TH 120 STP

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H77549_0416	HYDRAULIC RAIL TENSOR TYPE TH 120 STP SUMMARY
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Tensor Marking





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.

Non contractual photographs illustrations



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 tensioner

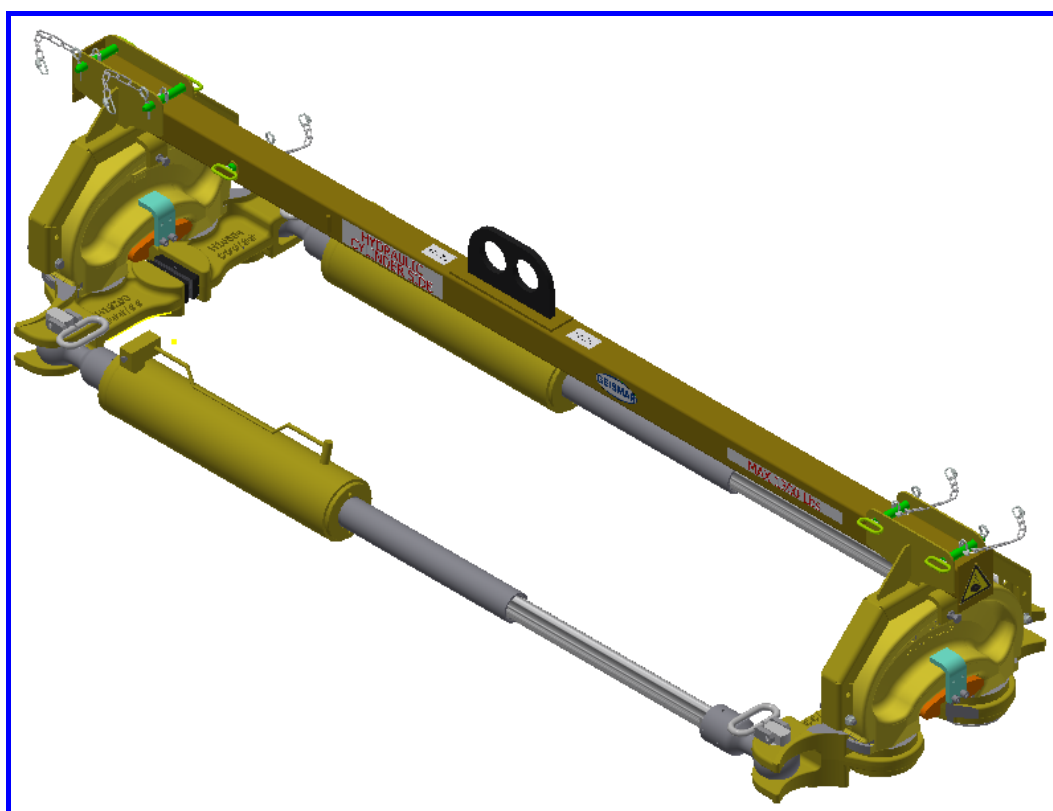
2 – 1 General presentation

Manufacturer

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

Name of the equipment

Model HYDRAULIC RAIL TENSOR
Type TH 120 STP



2 – 2 General

Hydraulic tensor TH 120 STP is intended for use in railway trackside works. It is designed to release LWRs (Long Welded Rails). These replace thermal expansion by mechanical distortion which remains within the elastic range.

2 – 3 Operating conditions

The TH 120 STP hydraulic tensor can be used to:

- reduce gaps when repairing rails or broken welds
- prevent rail retraction when replacing a defective, but not broken, weld, or when creating a bonded joint in the track.

The tractive force can be modified at any time according to variations in ambient temperature, therefore that of the rail, by adjusting the hydraulic pressure.

The traction exerted on the ends of the rails helps keep them in the correct position, horizontally and vertically, thus preventing any deformation during welding operations and eliminating shrinkage tension in the weld.

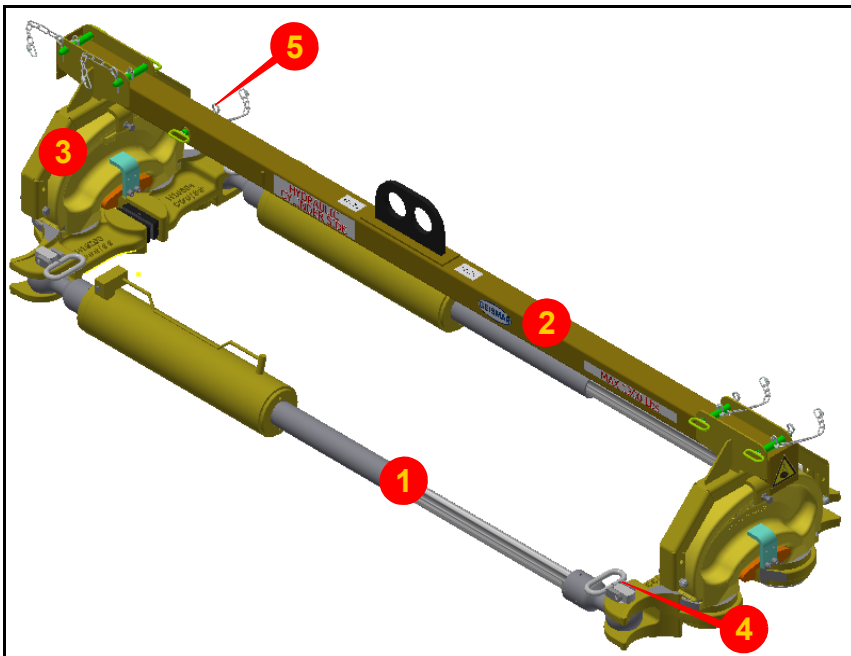
The TH 120 STP hydraulic tensor is equipped to work on 60E1 (UIC 60) rails or rails with a similar height (please contact us for other profiles.)



The TH 120 STP hydraulic tensor must only be used for pulling. It is not configured for pushing.

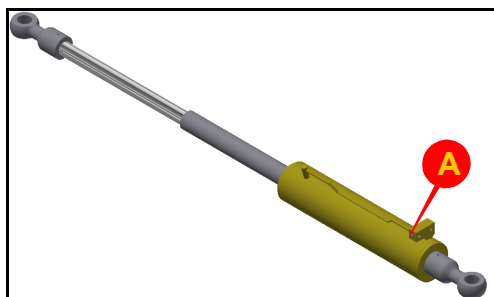
2 – 4 Composition

The TH120 STP hydraulic tensor comprises:



1	Hydraulic cylinder (2x)
2	Holding crossbar (1x)
3	Clamping assembly (2x)
4	Cylinder securing pins (4x)
5	Holding crossbar securing pins (4x)

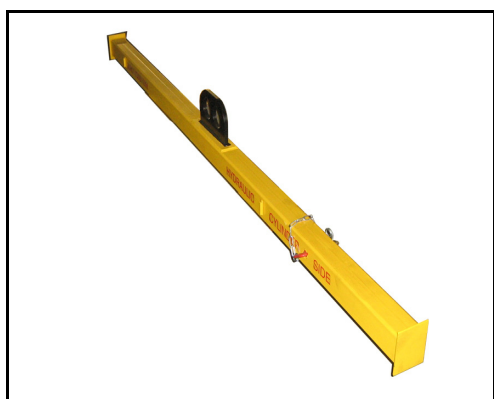
HYDRAULIC CYLINDERS (ITEM 1)



The hydraulic cylinders are two-way and used to exert traction on the rail of 120 short tons.

They are fitted with bleed valves (A).

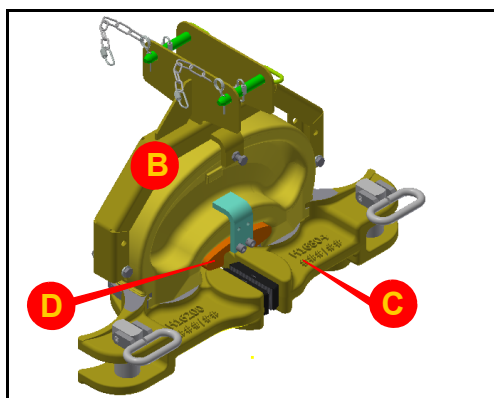
LIFTING BEAM (ITEM 2)



The lifting beam is only used for putting the tensor into position.

2 lifting points are available depending on the position of the moving clamp assembly (see instructions).

CLAMPING ASSEMBLIES (ITEM 3)



Each consists of 2 removable assemblies:

B	Lifting beam mounting bracket (1x)
C	Eccentrics fitted with jaws (2x)
D	Shim adapted to the height of the rail (1x)

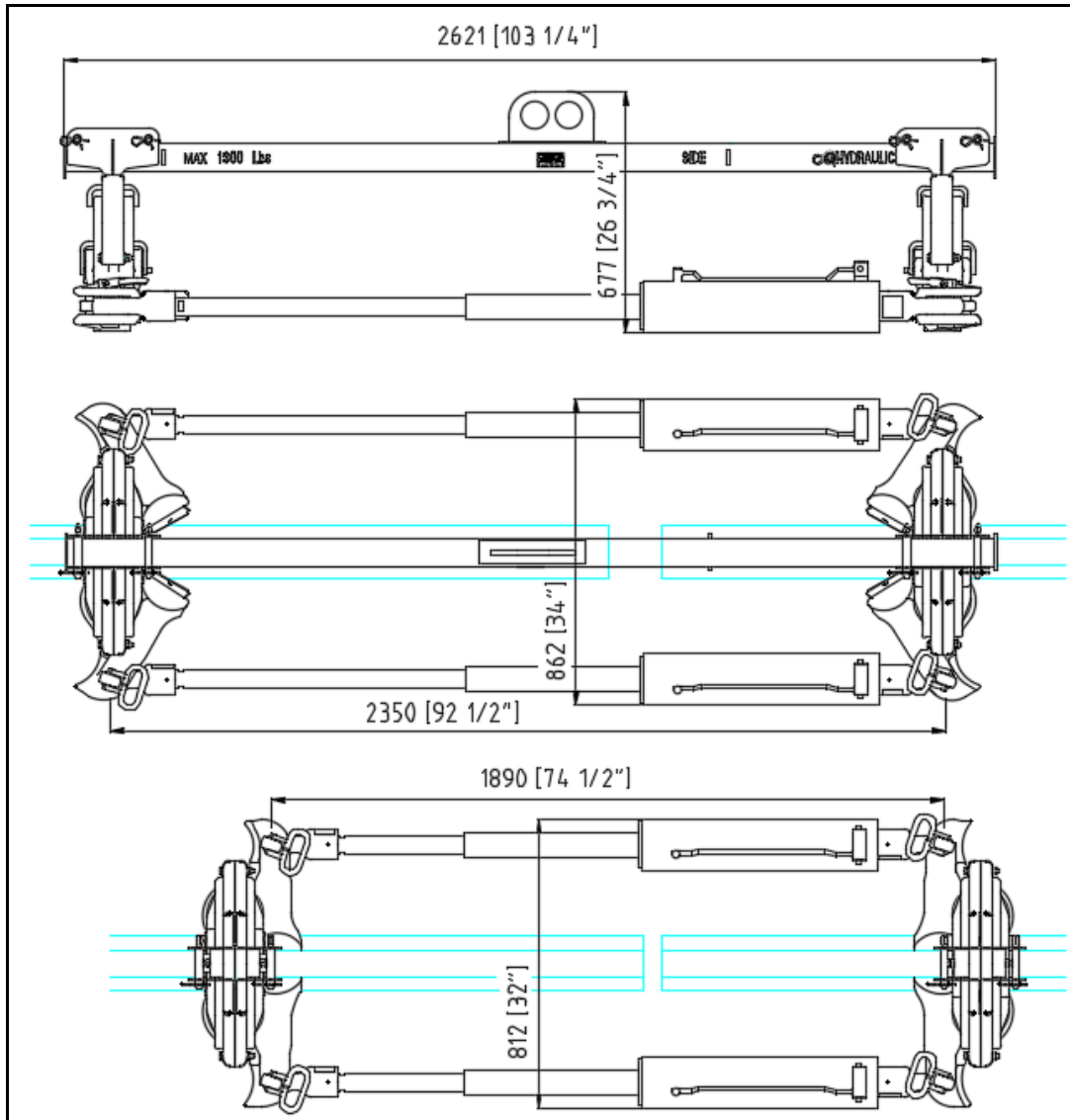
The rail is grasped by the eccentrics, the action of which, resulting from the force transmitted by the cylinders is exerted on the rail web.

Chapter 3 – Technical specifications rail tensioner

3 – 1 General specifications

Manufacturer	Société des Anciens Établissements L.GEISMAR
Address	5, rue d'Altkirch 68000 COLMAR
Machine	HYDRAULIC RAIL TENSOR
Type	TH 120 STP
General specifications	
Maximum pressure (rod side)	9865 PSI (680 bar)
Flow rate	5 gal (18.9 l) max
Max. tractive effort	120 SHORT/TON (1090 kN)
Cylinder travel	18.15" (460 mm)
Weights	
Cylinder (single)	192 lbs (87kg)
Clamping assembly (single)	352 lbs (160kg)
Lifting beam	62 lbs (28kg)
Total weight	1224 lbs (555kg)

3 – 2 Overall dimensions



Chapter 4 – Operating instructions rail tensioner

4 – 1 1st Use, assembly

Before use, we recommend that you read chapters:

1-3 General safety regulations

1-4 Particular safety regulations

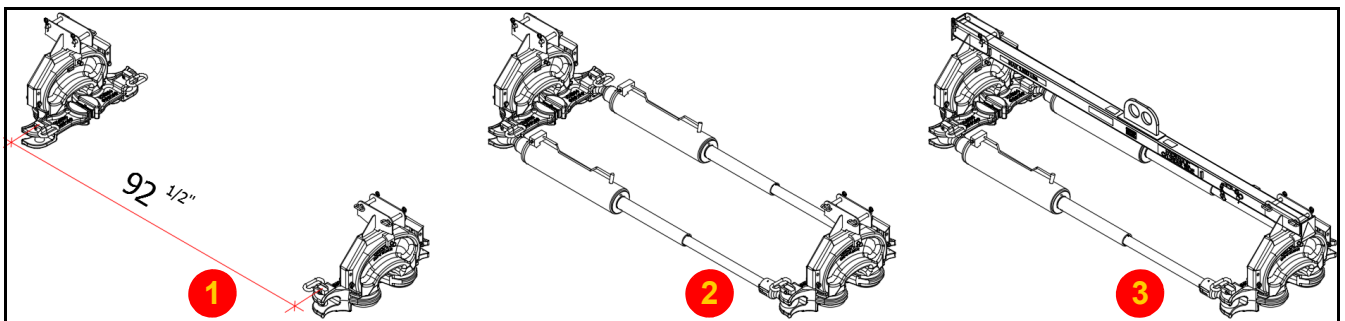
The TH 120 STP is delivered in subassemblies. When assembling the equipment you must:

- have lifting equipment available,

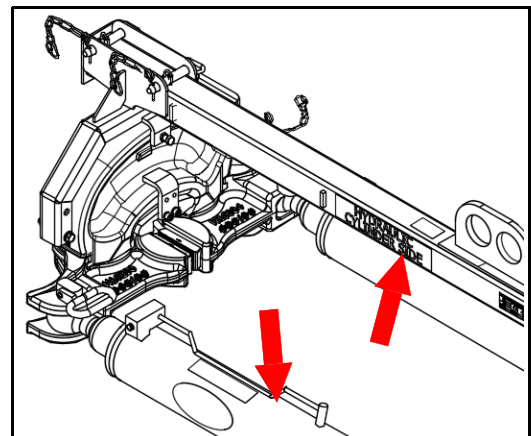
Take all necessary safety precautions when using lifting equipment.



- carry out assembly in the following order;



- 1 Place the clamping assemblies (jaws open facing inwards), on clean ground approximately $92 \frac{1}{2}''$ (~2,350mm) apart
- 2 Position the cylinders and insert the securing pins (body end of the cylinder towards the clamping assembly fitted with the pressure amplifier).
- 3 Position the lifting beam (check the position of the lifting beam relative to the markings on the cylinders) and insert the securing pins.

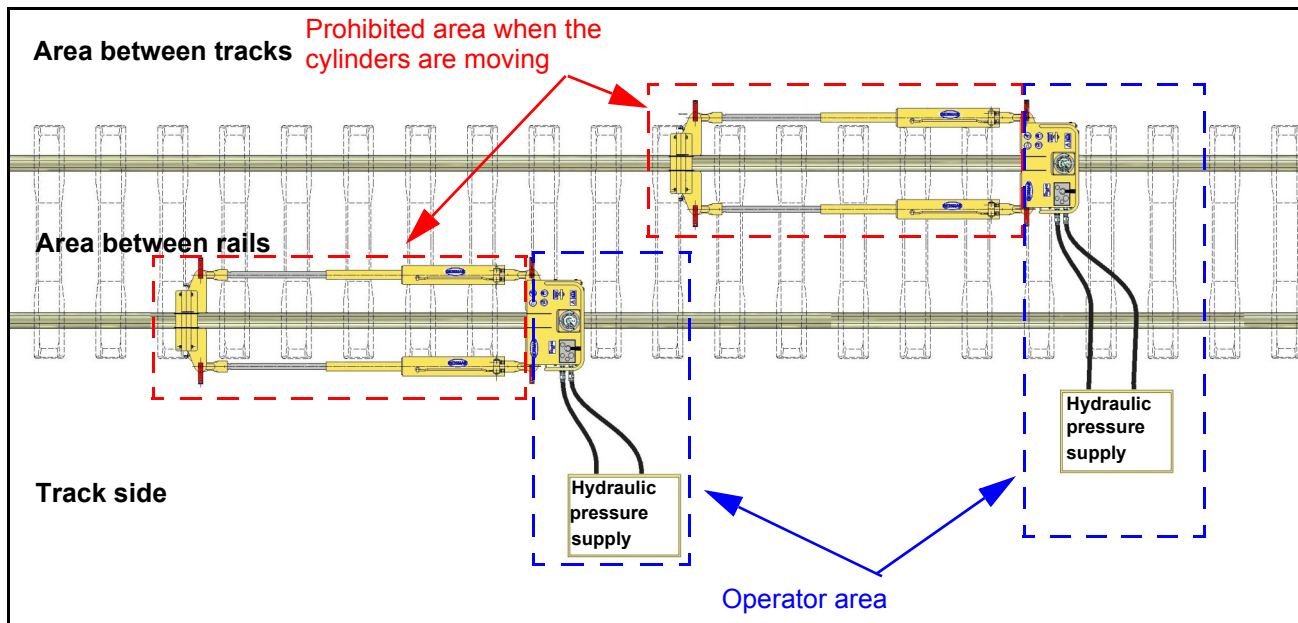


Check fixings and safety devices (screw, securing pins and safety clips)

4 – 2 Precautions for use

4 – 2 – 1 Determining the limits of the equipment

The tensor(s) are placed on one rail of the track.



When the track is located between two other tracks, install the hydraulic pressure supply between the rails.



It is essential to prohibit traffic movement on the track involved while work is being carried out.



The usual safety rules for track working must be applied and complied with.

4 – 2 – 2 Checks to be carried out before use



- Check the machine each time before using it.
- The following checks must be carried out away from hazardous areas
- If anomalies or deterioration are found, do not use the machine and return it to the workshop for repair
- It is essential to prohibit traffic movement while work is being carried out

4 – 2 – 3 Checking machine-welded assemblies

- Visually check that there are no external faults, deformations, superficial cracks, areas of wear or corrosion marks.
- Inspect the condition of welds, check there are no cracks.
- Check the attachments (bolts, screws), retighten if necessary.

4 – 2 – 4 Checking hydraulic equipment

HYDRAULIC SYSTEM

- Visually inspect the tightness of the hydraulic circuit, particularly around the connectors, and the condition of the hoses, which must not show any traces of wear or cuts.

BLEEDING THE CYLINDERS

See § 5.2 Emergency procedure for releasing pressure within the cylinders

HYDRAULIC CYLINDERS

- In different positions (rod retracted and extended)
- Check there are no leaks at the rods
- Check the general condition of the cylinder (no corrosion, cracks, wear)

HYDRAULIC CONNECTIONS

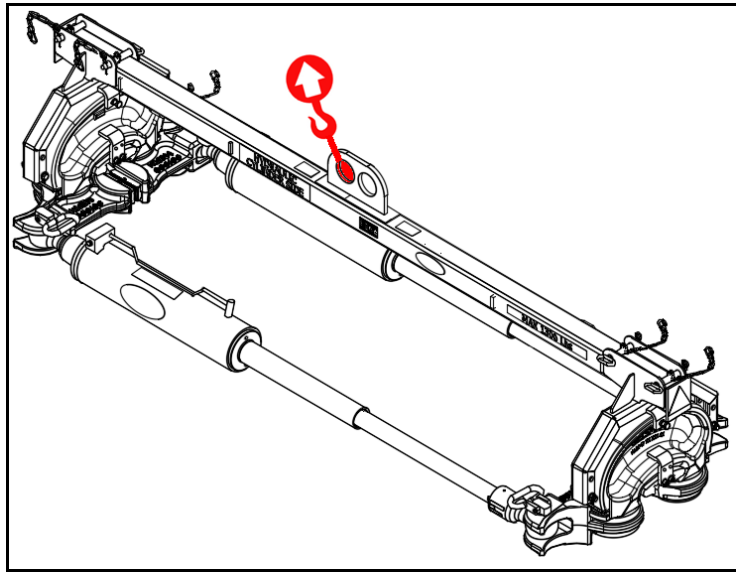
For problem-free functioning of the system, it is essential for the energy source - hose - cylinder connection to be made at "zero pressure" using quick-release couplers.

To ensure this is the case, you must check that the ball-valve coupling can be pushed (press on it with your thumb).

- Never disconnect the couplers under pressure
- Ensure the couplers are clean before connecting
- Check the couplers are connected correctly
- Protect disconnected hydraulic couplers with their caps



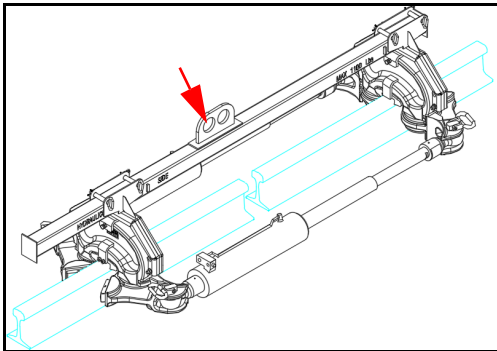
4 – 2 – 5 Handling - lifting



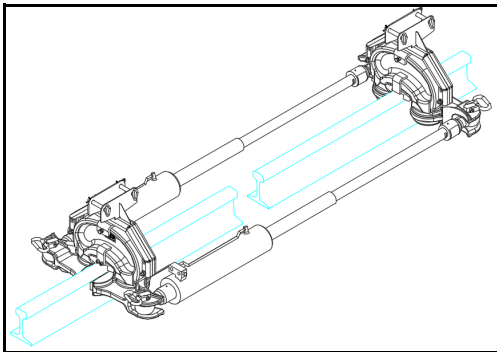
– Fit with cylinder rods extended, jaws open (hook to the lifting beam at the cylinder end).

4 – 3 Operating instructions

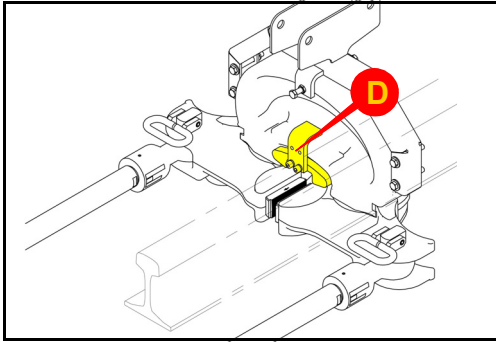
4 – 3 – 1 Installing the tensor on the rail



Using lifting equipment, place the tensor (jaws open) on the rails (cylinder rods extended).

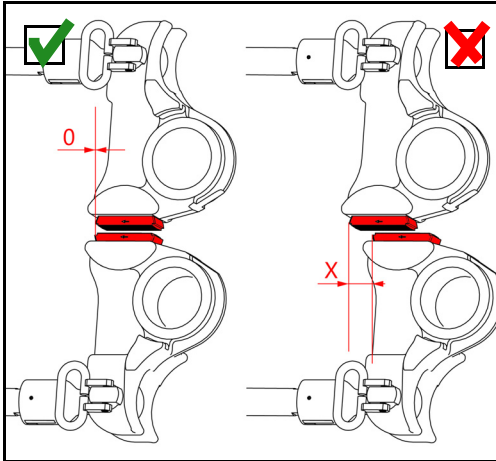


Position the lifting beam, check the positioning of the pins connecting the cylinders to the clamping assemblies



The shims (**D**) must correspond to the height of the rail to be worked on.

Connect the tensor to the hydraulic pressure supply using the two hoses provided (see § 4.3.2) without restricting the flow (by reducers, adaptors etc.). Position the 2 clamping assemblies so as to place the jaws in contact with the rail webs and use the full travel of the cylinders.

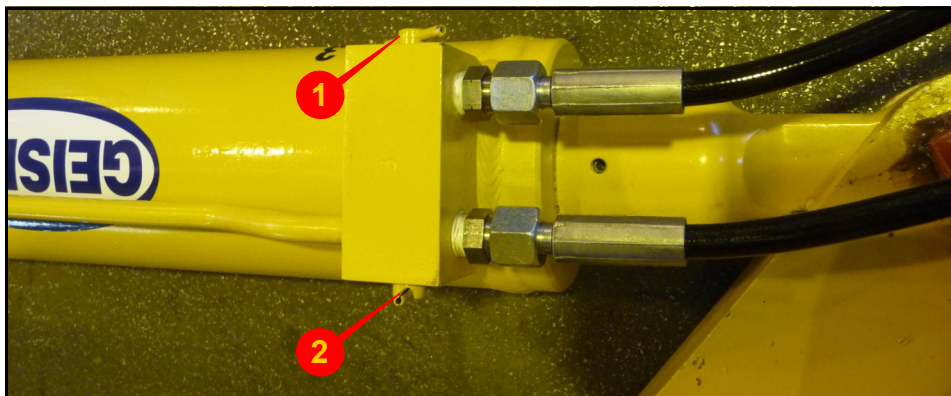


Check that the jaws are correctly opposed with the mounting brackets perpendicular to the rail. This configuration, shown in the diagram opposite, is required for the tensor to operate correctly.

Chapter 5 – Troubleshooting

5 – 1 Emergency procedure for releasing pressure within the cylinders

If none of the situations given in the above table enable the cylinder rods to be moved, operate one of the bleed valves installed on one of the cylinders (1) to retract the rod, (2) to extend the rod.



To do this:

- the hydraulic feed system must be stopped
- the operator must wear PPEs
- provide a screen (cloth, cardboard, etc.) to place between the operator and the bleed valve
- using pincers, slacken the purge valve 1/8 of a turn
- wait for the pressure to drop
- fully slacken the 4 connectors to the 2 cylinders
- remove the cylinders and 2 assemblies separately using the crane

Chapter 6 – Maintenance

6 – 1 General maintenance instructions

Before starting operations, the parts which will be in contact with the equipment 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 apply

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

6 – 1 – 2 Cylinders

Check the leaktightness and general condition of the cylinders periodically. Replace the oil in the cylinders every two years by disconnecting a cylinder connection.

Do not remove cylinder couplings or hoses when the pistons are at their limit of travel (rods retracted or extended) but only when they are in intermediate position.



6 – 1 – 3 Mechanical parts (U-bolts, jaws, etc.)

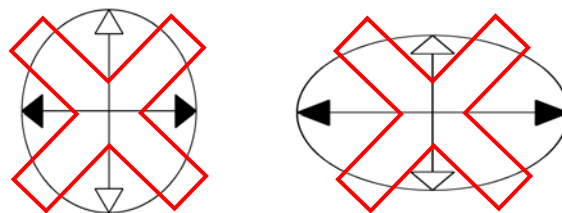
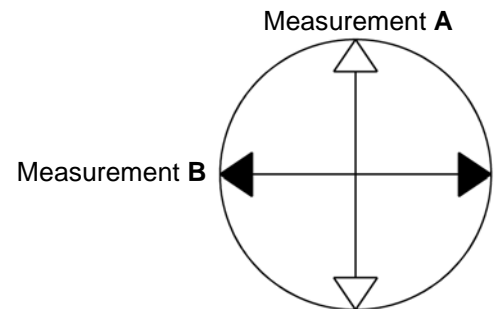
Check the general condition of the parts (cracks, material torn off, etc.).

Keep all joints in good condition, coating them regularly with lubricant to protect them from oxidation.

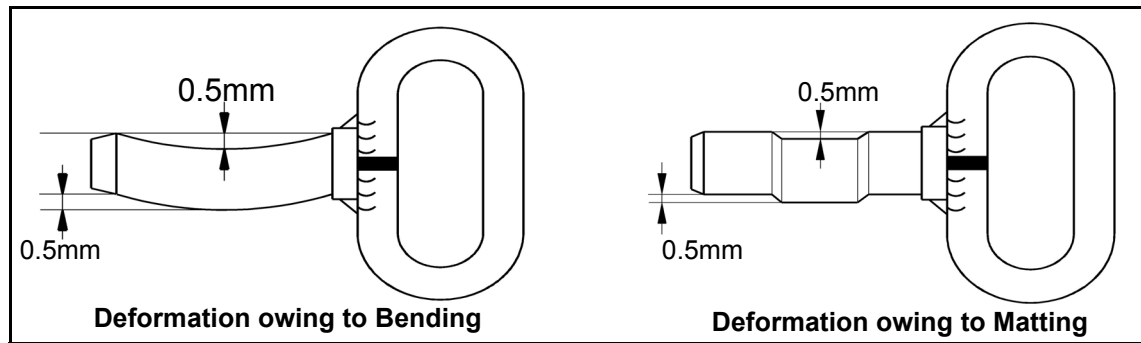
6 – 2 Checks

MEASUREMENT OF OVAL DEFORMATION OF THE CLEVISES

When the difference between measurements A and B, measured at 90° in the same boring, exceeds 0.5 mm, replace the part displaying this oval deformation.

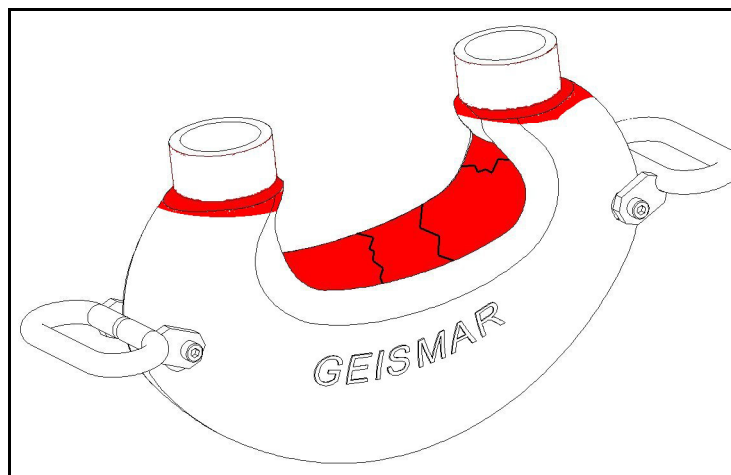


MEASUREMENT OF PIN DISTORTION



All pins which are out of true by 0.5 mm or more must be replaced with an original spare.

LOOK FOR CRACKS IN THE MOUNTING BRACKETS.



Proceed with a visual inspection to detect any cracks. This verification may be limited to areas indicated in red

If cracks are noted, please contact us to determine the procedure to follow.

6 – 2 – 1 Circuit

- Check fittings and hoses
- Systematically change the hydraulic oil: every 2 years or after 1,000 hours of use (approximately)

6 – 2 – 2 Bleeding the hydraulic circuit

When used for the first time or after work is carried out on the hydraulic circuit, air must be carefully bled from the system.

6 – 3 Maintenance of the tensor

6 – 3 – 1 Inspection

- Check the tightness and general condition of the cylinders periodically
- Replace the oil in the cylinders every year by disconnecting a cylinder coupling
- Check seals and the tightness of connections
- Replace hoses as soon as it is noted that a hose has been cut or torn

6 – 3 – 2 Cleaning

Regular cleaning is a form of inspection, during which leaks, unevenness or damage may be detected, which can be repaired before it causes a breakdown or incident.

6 – 3 – 3 Greasing

Grease spindles, pins, clevises and screws using a paint brush.

6 – 3 – 4 Hydraulic oil

Recommended hydraulic oil: **TOTAL EQUIVIS ZS32**

Characteristics:

- Viscosity at 40°C: 32.3 Cst
- -Viscosity index: 160
- Pour 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 HYPIN AWH M32
BP	BARTRAN HV32
MOBIL	MOBIL DTE 11M

Hydraulic oil is a harmful product. Avoid all skin and eye contact. In the event of spray into the eyes, wash immediately with large quantities of water and consult a doctor.



This advice is not restrictive. Continuous monitoring and well-organised preventive maintenance can only extend the service life of the device. It is absolutely essential to record and report all anomalies or deteriorations observed.



Ensure that this equipment is kept in good condition, user safety depends on it.

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 is made up of coded plates comprising a list and a drawing.

IN THIS EXAMPLE

We wish to replace **Cylinder 8 (1)** of subassembly **H82607_NO**

Rep	Qté	Désignation	Code	Éc: 12/11
CHARIOT DE TRANSLATION				
H82607_NO				
1	1	CHÂSSIS.....	H72576	
2	1	RONDELLE.....	H00721	
3	2	BAGUE.....	H00722	
4	1	AXE.....	H00723	
5	1	TIRANT AVEC BAGUES.....	H29911	
6	2	AXE.....	H02030	
7	4	AXE.....	H09091	
8	1	VÉRIN DE PINCE À RAILS.....	V10016_NO	
9	4	VIS.....	C00331	
10	4	RONDELLE.....	C02221	
11	1	BRAS DE PINCE INTÉRIEUR.....	H54214	
12	1	BRAS DE PINCE EXTÉRIEUR.....	H54215	
13	4	GALET Ø 60 MONTÉ.....	H20037	
14	1	RONDELLE.....	D03505	2
15	1	ÉCROU.....	D03485	
16	4	GOIJON.....	H71641	
17	1	SUPPORT VÉRIN.....	H12526	
18	4	ÉCROU.....	C00143	
19	2	VIS.....	C00802	
20	4	ÉCROU.....	C00120	
21	1	VIS.....	C02088	

H82607_NO

Détail Pince

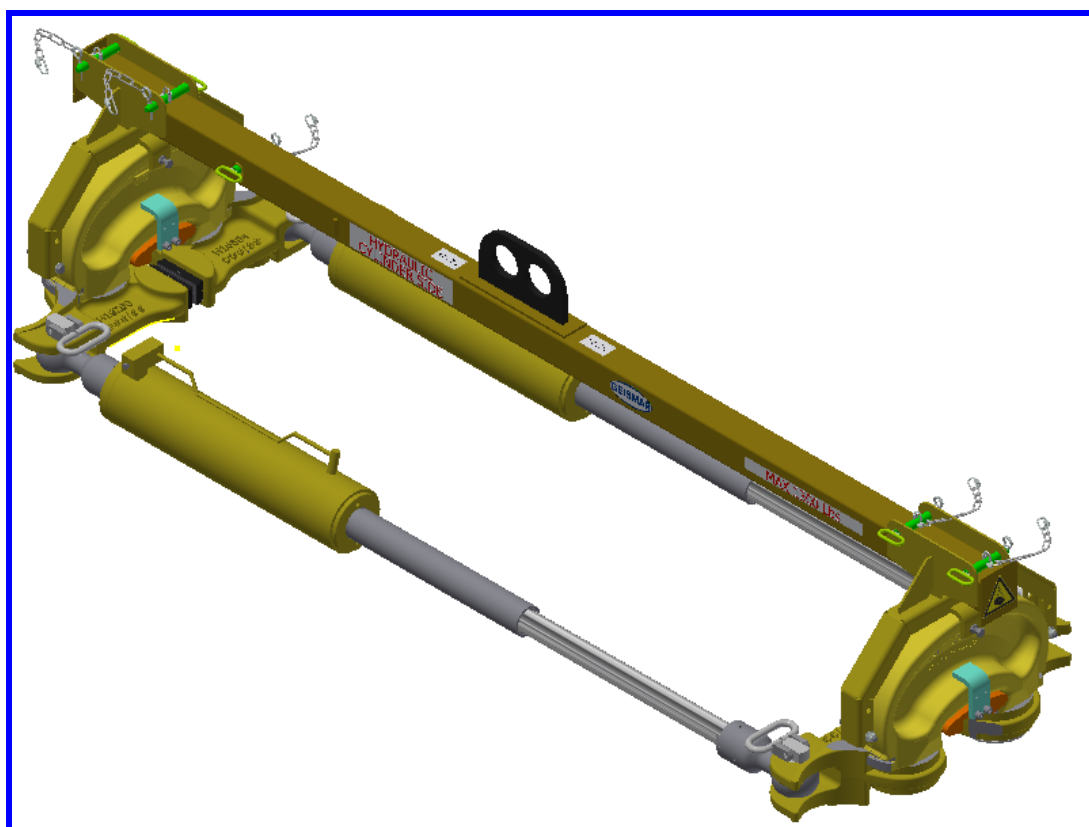
Folio: 1/1

You will find the code for this cylinder (**V10016_NO**) in parts list (2).
Enter this information on your parts replacement request.

8 – 2 After-sales service contact 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 STP**

Code: **H77549_0416**

SECTION A—MECHANICAL COMPONENTS

HYDRAULIC RAIL TENSOR TH 120 STP	H77549_NO	6
CLAMPING DEVICE WITH SPINDLE	H76706_NO	8
HYDRAULIC CYLINDER TH 120	V10013_NO.....	10
HOLDING CROSSBAR	H64338_NO	12
INSTRUCTION PLATE	H102538_NO ..	14

HYDRAULIC RAIL TENSOR

TYPE TH 120 STP

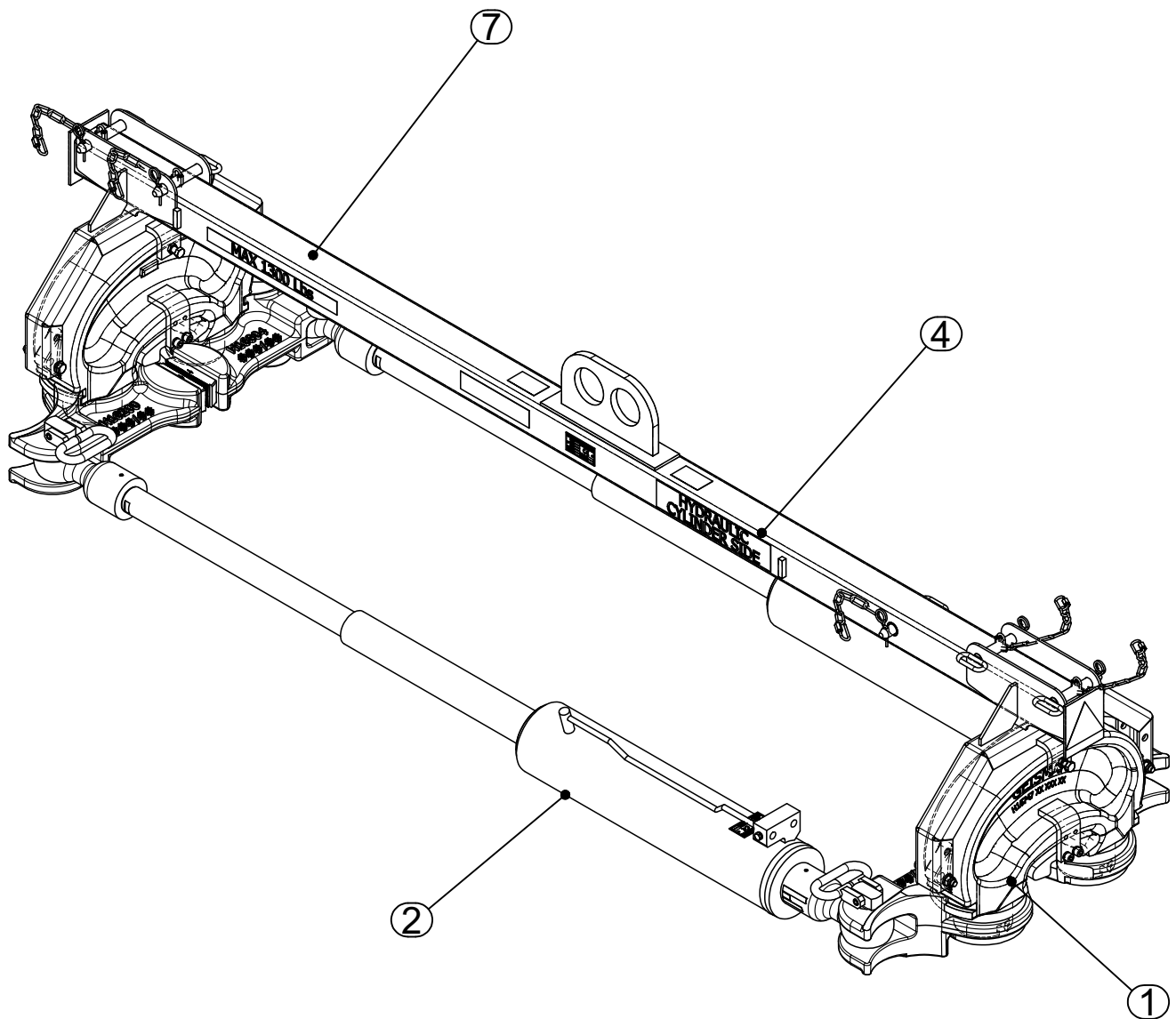
SUMMARY**H77549_0416**

Section A–Mechanical Components

Item	Qty	Description	Code	Ed 04/16
		HYDRAULIC RAIL TENSOR TH 120 STP	H77549_NO	
1	2	CLAMPING DEVICE + SPINDLE	H76706_NO	
2	2	HYDRAULIC CYLINDER TH 120	V10013_NO	
4	1	HOLDING CROSSBAR	H64338_NO	
7	1	IDENTIFICATION PLATE SET	H102540	



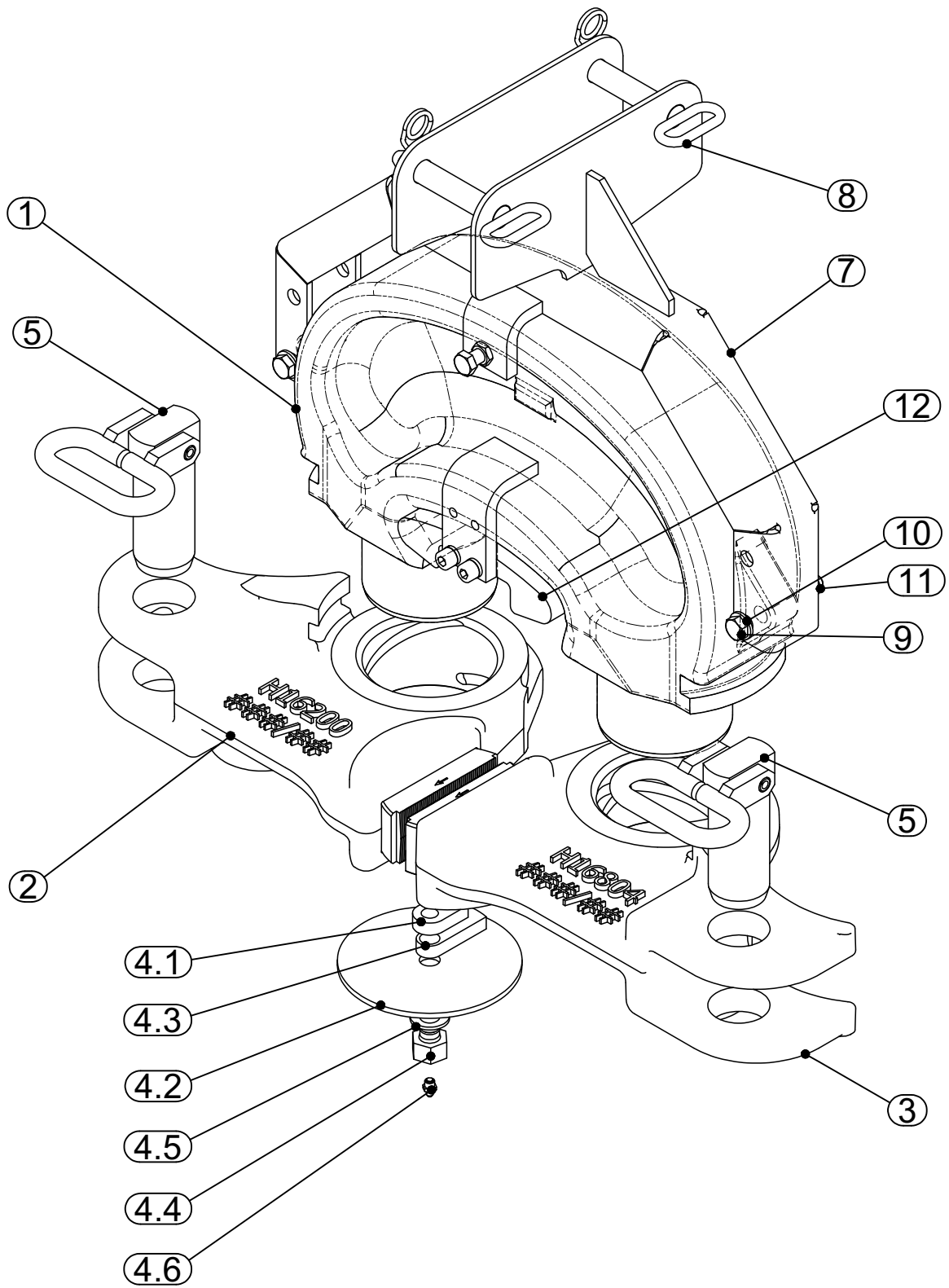
IMPORTANT : To allow prompt and correct delivery of spare parts, always state : Fabrication year and n° of the machine - Serial number - Order n° and description of spare parts



Item	Qty	Description	Code	Ed 04/16
CLAMPING DEVICE WITH SPINDLE			H76706_NO	
1	1	STRAP	H16747	
2	1	RIGHT ECCENTRIC - COMPLETE.....	H68826	
3	1	LEFT ECCENTRIC - COMPLETE	H68827	
4	2	RETAINING ASSEMBLY	H76707	
4.1	1	NUT	H76714	
4.2	1	WASHER	H76713	
4.3	1	INTERMEDIATE ELEMENT	H76712	
4.4	1	SCREW	H76715	
4.5	1	WASHER	C01818	
4.6	1	GREASE NIPPLE	D00592	
5	2	SPINDLE	H107686	
7	1	SUPPORT	H68861	
8	2	SPINDLE	H61331	
9	2	SCREW	C00381	
10	4	WASHER	C01038	
11	2	NUT	C00144	
12	1	SHIM ASSEMBLY	H83982	



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



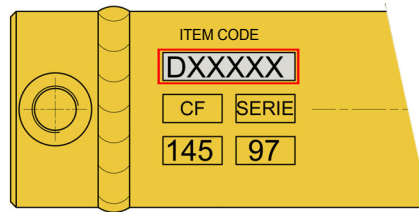
Item Qty Description

Code

HYDRAULIC CYLINDER TH 120

V10013_NO

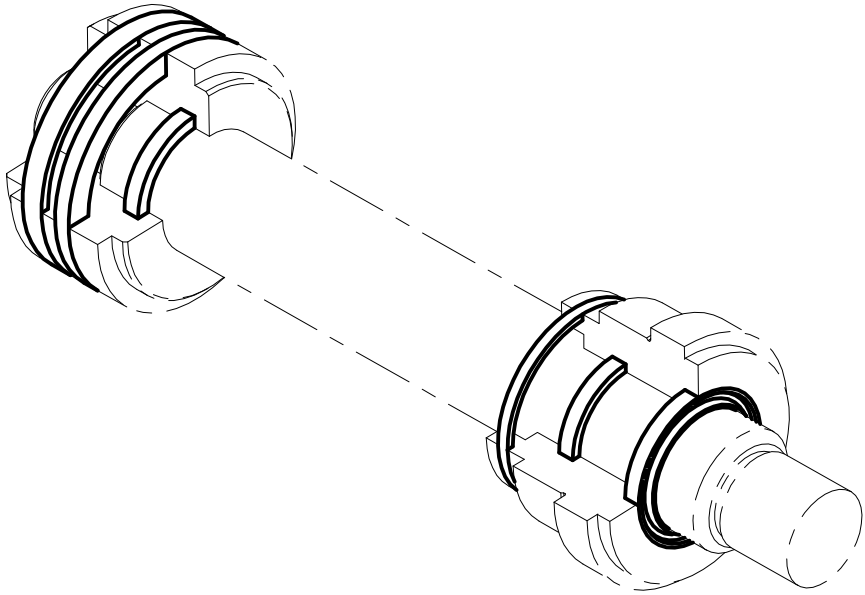
NOTA : for cylinders spare parts give the indication of the code number incrustated on the cylinder body, then refer to the following table for reference batches of parts (**A, B, C,..**)



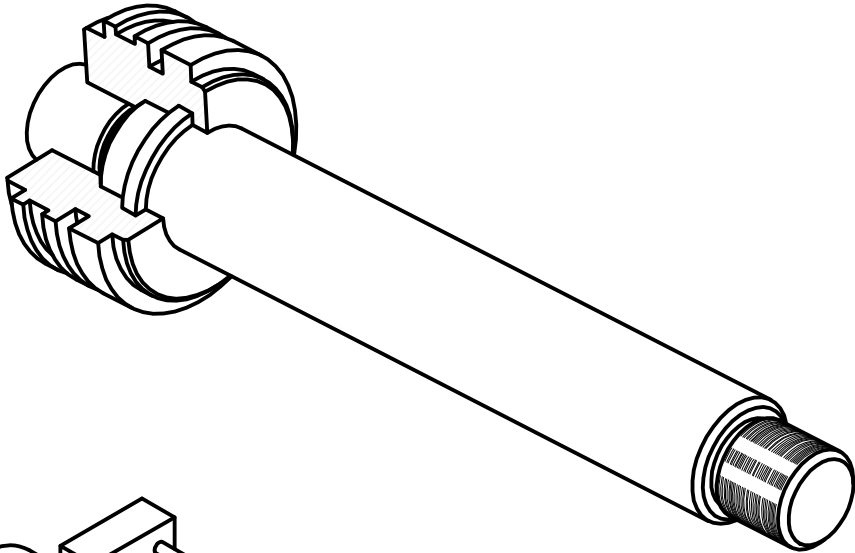
CODE HYDRAULIC CYLINDER	GUIDING BUSH CODE A	PISTON KIT CODE B	SET OF SEALS CODE C	ARTICULATION FORK CODE D	DRAIN SCREW CODE E	PROTECTION STEM CODE F
D15834	D16127	D16128	D16126	(2X) H64336	D16137	D16384
D18151	D19035	D19040	D19036	(2X) H64336	D19038	D19034
D18874	D19057	D19061	D19058	(2X) H64336	D19062	D19059
D18744	D19033	D19037	LXG	(2X) H64336	12765	12786



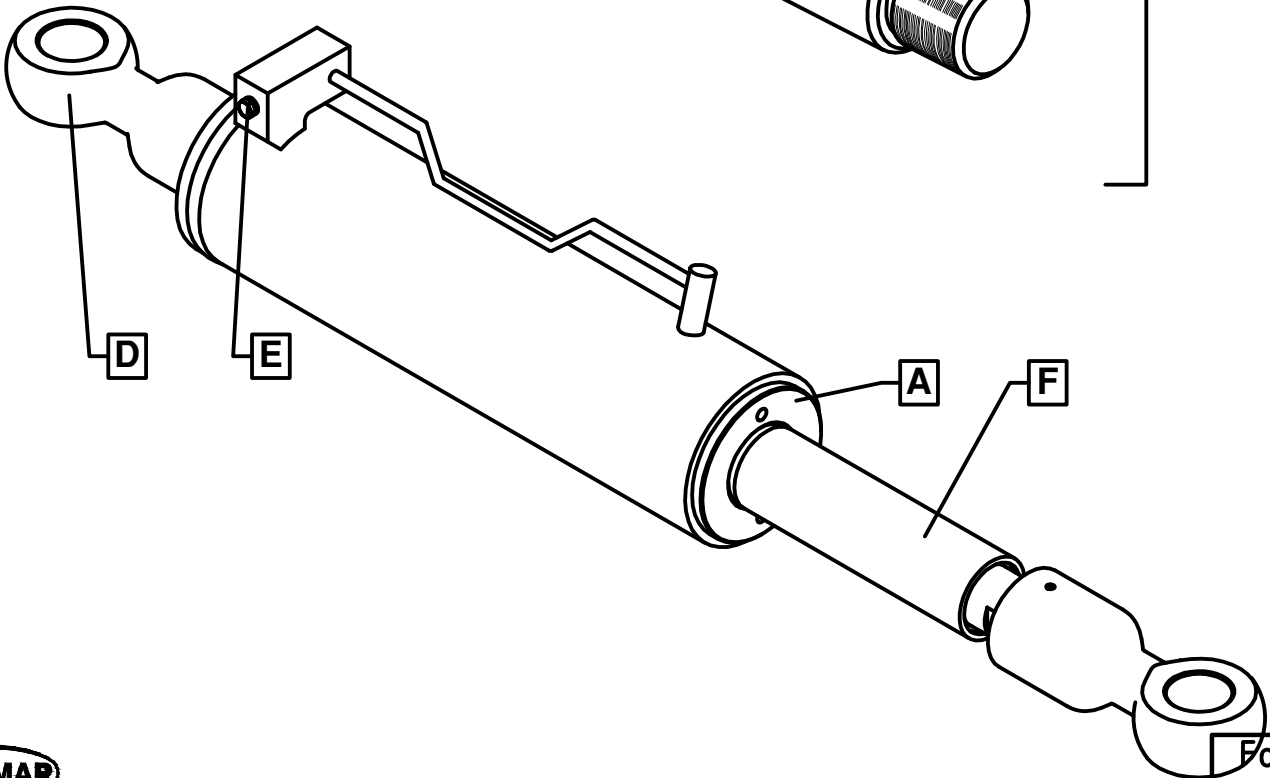
IMPORTANT : To allow prompt and correct delivery of spare parts, always state : Fabrication year and n° of the machine - Serial number - Order n° and description of spare parts



C



B



D

E

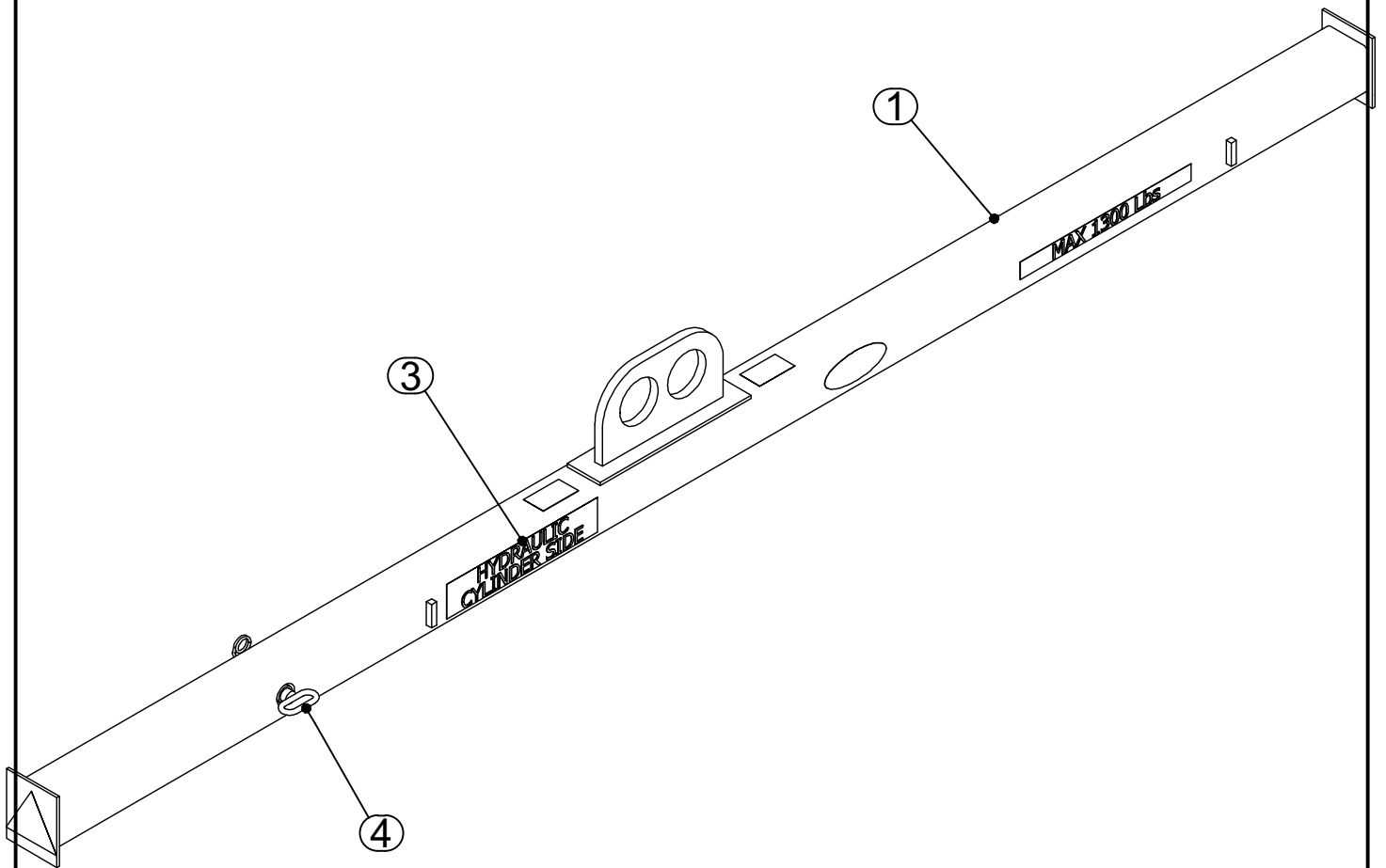
A

F

Item	Qty	Description	Code	Ed 01/16
		HOLDING CROSSBAR	H64338_NO	
1	1	BAR	H61329	
3	1	INSTRUCTION PLATE.....	H102538_NO	
4	1	PIN COMPLETE	H61331	



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	Ed 06/14
		INSTRUCTION PLATE	H102538_NO	
1	2	LABEL "MAX 1300 LBS"	H82360	
2	2	LABEL "HYDRAULIC CYLINDER"	H102539	
3	1	PLATE PERSONAL PROTECTIVE EQUIPMENT	H102541	
5	1	LABEL «SIDE»	H95713	
6	1	LABEL «SIDE»	H95714	
7	2	WARNING TRIANGLE	D15083	



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

