

OPERATION & MAINTENANCE INSTRUCTIONS



Model **HYDRAULIC RAIL THREADER**
Type **MPR – M**

H90461 / NO 10055

Version : 03/11

CHAPTER - 1 SAFETY

1 – 1 FOREWORD	1
1 – 2 WARNING	2
1 – 3 GENERAL SAFETY INSTRUCTIONS.....	2
1 – 3 – 1 TRANSPORT – STORAGE.....	3
1 – 4 SPECIAL SAFETY INSTRUCTIONS.....	4
1 – 4 – 1 EQUIPMENT WITH A COMBUSTION ENGINE	4
1 – 4 – 2 EQUIPMENT WITH ELECTRICAL DEVICES	4
1 – 4 – 3 EQUIPMENT WITH HYDRAULIC DEVICES	4
1 – 4 – 4 LIFTING EQUIPMENT	5

CHAPTER - 2 PRESENTATION

2 – 1 GENERAL PRESENTATION.....	7
2 – 2 GENERAL INFORMATION	8

CHAPTER - 3 TECHNICAL CHARACTERISTICS

3 – 1 GENERAL CHARACTERISTICS.....	9
3 – 2 DIMENSIONS OF THE RAIL THREADER.....	11
3 – 3 LOCATION IN LOADING CLEARANCE.....	12

CHAPTER - 4 EQUIPMENTS

4 – 1 LOCATION OF THE MAIN UNITS	13
4 – 2 HYDRAULIC UNIT	14
4 – 4 HYDRAULIC CONTROLS	15
4 – 5 MOTORISED TROLLEYS	16
4 – 5 – 1 TRAVEL TROLLEY	17
4 – 6 MAIN FRAME	19
4 – 7 ELETRICAL UNIT	21
4 – 7 – 1 ELECTRICAL ENCLOSURE	21
4 – 7 – 2 BATTERY COMPARTMENT	22
4 – 7 – 3 LINING TRACK	23

CHAPTER - 5 OPERATING INSTRUCTIONS

5 – 1 HANDLING INSTRUCTIONS	25
5 – 2 PREAMBLE	25
5 – 2 – 1 REMINDER OF TERMS USED IN THIS CHAPTER	25

Version 03/11	HYDRAULIC RAIL THREADER TYPE MPR – M SUMMARY	H90461 / NO 10055
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5 – 3 PUTTING THE RAIL THREADER ONTO THE TRACK	26
5 – 4 POSITION ON THE SITE	26
5 – 4 – 1 TRACK REPLACEMENT SITE	26
5 – 4 – 2 PROCEDURE	27
5 – 4 – 3 SITE FOR REPLACING TWO RAILS	29
5 – 5 SPECIFIC HANDLING INSTRUCTION	31
5 – 6 PUTTING OFF TRACK	32

CHAPTER - 6 SERVICING

6 – 1 GENERAL MAINTENANCE INSTRUCTIONS	33
6 – 1 – 1 RULES TO BE FOLLOWED	33
6 – 1 – 2 MAINTENANCE OPERATION	34
6 – 2 PREVENTIVE MAINTENANCE TIME TABLE	34
6 – 2 – 1 DAILY MAINTENANCE	35
6 – 3 INTERVENTIONS AFTER COMMISSIONING	35
6 – 4 PREVENTIVE MAINTENANCE OPERATIONS	36
6 – 5 MAINTENANCE	37
6 – 5 – 1 INTERVENTIONS AFTER COMMISSIONING	37
6 – 5 – 2 CLEANING	37
6 – 6 PROCEDURE FOR CHANGING A WHEEL	38
6 – 7 HYDRAULIC OIL	39
6 – 8 TABLE OF EQUIVALENCES FOR HYDRAULIC OILS	40

CHAPTER - 7 STORAGE AND RECYCLING

7 – 1 GENERAL STORAGE INSTRUCTIONS	41
7 – 1 – 1 CHOICE OF STORAGE CONDITIONS	41
7 – 1 – 2 STORAGE PREMISES	41
7 – 1 – 3 PUTTING INTO STORAGE	41
7 – 2 DECOMMISSIONING - DISASSEMBLY - DISPOSAL	41

CHAPTER - 8 SPARE PARTS

8 – 1 FOREWORD	43
8 – 2 AFTER SALES SERVICE DETAILS	44

Version 03/11	HYDRAULIC RAIL THREADER TYPE MPR – M SUMMARY	H90461 / NO 10055
------------------	---	--------------------------

WARNINGS



THE MANUFACTURER WILL ACCEPT NO LIABILITY IN THE FOLLOWING CASES :

Machine use contrary to the instructions given in the operating and maintenance manual.
Failure to abide by the periodical checking requirements stipulated by the legislation in force in the country where the work equipment is used.
Use by unauthorised persons and/or persons without the requisite professional skills.
Consequences resulting from a misunderstanding of the operating and maintenance manual by the user.
Use contrary to the stipulations of the standards mentioned herein.
Failure to carry out the running-in procedure.
Power supply faults.
Failure to comply with specified servicing rules. Alterations or repairs not authorised by the manufacturer.
Use of spare parts not supplied by the manufacturer.
Use of different lubricants, fuels and consumables to those recommended in this maintenance manual.
Exceptional or unforeseeable events.

USE OF THE OPERATING AND MAINTENANCE MANUAL :

The operating and maintenance manual is intended for heads of operations and staff responsible for servicing the machine as well as all workers required to carry out actions. Their attention is drawn in particular to the parts relating to safety at work.

The operating and maintenance manual provides the necessary information for correct use of the work equipment as intended by the manufacturer.

The manual provides operating and maintenance instructions for the work equipment. It does not dispense the staff using the equipment from training.

The operating and maintenance manual forms an integral part of the work equipment. It must be kept until the machine has been written off.

The operating and maintenance manual must be kept in a safe place inside the control station in order to be instantly available if required.

If destroyed or lost, the user will be obliged to order a copy from the manufacturer.

Users may ask the manufacturer to provide additional information and supplement the operating and maintenance manual in their possession with updates. Once provided, these items will become integral parts of the operating and maintenance manual.

If the work equipment is transferred, the user is asked to inform the manufacturer of the new owner's details.

The user is required to deliver this operating 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,

You have just acquired of equipment of work of the Group **GEISMAR**.

We thank you for confidence that you testify to us and wish that this acquisition give you whole satisfaction.

The Group **GEISMAR** requires of you to give a very detailed attention to the recommendations contained in this document.

A permanent availability of the material and its use under the best conditions of safety require a control and a regular maintenance. The lifespan of a machine is directly a function of the care taken to its control and its maintenance.

To ensure you a maintenance of the characteristics of the equipment of work, the Group **GEISMAR** draws your attention to the essential points:

- Respect the periodicities of maintenance,**
- Use the lubricants recommended,**
- Replace the defective elements by original parts,**
- Not to make any modification,**

This constitutes in many cases, one of the conditions to take advantage of your rights of guarantee and a maintenance of conformity to the regulations in force.

The Group "GEISMAR" recalls you that precision of your order of spare parts, depends a fast forwarding, and consequently, the productivity of your equipment of work.

By hoping that our material designed and worked out according to the last advanced techniques, gives you the services that you expect some.

Dear Client, we remain fully at your disposal.

Société des Anciens Établissements L. GEISMAR

DECLARATION OF CONFORMITY



The undersigned manufacturer :

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

Declares that the machinery listed below :

Designation : **HYDRAULIC RAIL THREADER**

MPR – M

Code **H90461 / NO 10055**

Serial number

Is compliant with :

- the regulatory requirements defined in the Machinery Directive 2006/42/CE,

Person authorized to prepare the technical file :

Project Manager :

D. FURSTOSS

Chief Technical Officer










J. LOLL

Anciens Etablissements L. GEISMAR
Service Technique

COLMAR, the 15/03/2011

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

Marking

COMPANY PLATE ENABLING IDENTIFICATION OF THE PRODUCT	
PLEASE READ THE OPERATING AND MAINTENANCE MANUAL	
IT IS MANDATORY TO WEAR SAFETY SHOES	
IT IS MANDATORY TO WEAR PROTECTIVE GLOVES	
IT IS MANDATORY TO WEAR A HELMET	
WARNING: DO NOT STAND CLOSE TO THE LOAD	
WARNING: RISK OF INJURY BY CRUSHING	
DANGER: INFLAMMABLE PRODUCTS	
POWER VOLTAGE	



STOP POWER VOLTAGE	
RISK OF ENGAGING THE GAUGE	
DO NOT PARK IN THE WORK ZONE	
TORQUE SETTING	
LIFTING POINT	
MAXIMUM PAYLOAD	



Chapter 1 – Safety

1 – 1 Foreword

Please review the Safety Instructions below applicable to 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 result when such rules are broken.



All persons involved in the operation, maintenance, storage or purchase of this equipment are required to read and apply these Operation & Maintenance Instructions. These instructions are intended for all Users in charge of equipment operation and maintenance.

Instructions 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** Company reserves its right to make improvements to the equipment.

These instructions may refer to various equipment options.

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

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

It is necessary to have the formation, competences and the tools necessary to use, maintain and repair correctly this equipment of work.

Before any use of the equipment of work, including in maintenance, imperatively to take note of its note of instructions of use and maintenance, of its appendices and regulations of safety in force on the work place.

Scrupulously to respect the general instructions of safety of the building site which are given by the person in charge of the building site, particularly if work proceeds without interruption of the traffic.

The use, the maintenance and the repair of the equipment of work could be realized only by qualified personnel having received a thorough formation as a preliminary. Technical documentation and the instructions will usefully come to supplement the knowledge acquired at the time of training courses. But, they cannot in no case to replace a formal training and practical qualifying, exempted according to the rules of Article.

If the owner does not feel able to ensure correctly the aforementioned formation his personnel, which falls on to him, the **GEISMAR** Company, is at its disposal for councils relating to the program of this formation. The formation must cover the explanation with the various functions of the material, the instructions of use, maintenance and the safety regulations to be respected, as well as the practical exercises.

1 – 3 General safety instructions

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

Do not use or carry out maintenance operations without adequate training delivered by qualified personnel, preferably with additional work placement period to get familiar with the equipment.

Do not start using this equipment unless you know and master all safety features and conditions, for yourself and for others.

If you have question about equipment operation or work tasks, contact qualified personnel for information.

Never use the equipment for tasks other than those intended for this equipment.

To prevent accidents or injuries, wearing individual protection clothing and equipment conforming to safety regulations of the site is required.

The following protection equipment is required:

- Girdle or reflective jacket.
- Boots with steel ends and non-skid soles.
- Helmet.

Or any other equipment required on the building site or for operating the equipment.

Always keep hands away from moving parts until the equipment is out of service or in a safe condition. All moving parts of this equipment can crush or shear lower/upper limbs.

Equipment shall be cleaned on a regular basis, with liquid or grease dirt removed.

All safety signs shall be kept clean and readable at all times; sign plates shall never be removed of the equipment.



1 – 3 – 1 Transport – Storage

Handle carefully, to avoid the shocks, to use the suitable means.
Respect the instructions of storage if they exist, not to pile up in particular if there is risk of deformation. Not to store in an abnormal position, to envisage chocks at the time of transport.
Protect from the external corrosion and aggressions.

IMPLEMENTATION/MAINTENANCE/INTERVENTIONS.

Make a program of inspection and to record all maintenances.
Replace any deteriorated or worn element.
Never not to modify the material without study and authorization of the manufacturer.
Work of maintenance must be completed by qualified personnel controlling the safety requirements corresponding to the operations to carry out.

FOLLOWING NONA PROLONGED USE OR AT THE TIME OF A PERIODIC CONTROL.

If a deformation or an abnormal wear is noted, the parts must be replaced.
Check the tightening and connections of the fasteners.

IN PHASE OF WORK.

Know the working area and its characteristics, not to admit there that personnel necessary to the operations.
Respect the general and particular conditions of safety, applicable to the working area and to keep a constant sedentary vigilance during all the phases of the operations.
Know plans of intervention in the event of incident or accident and instructions of prevention to be carried out during different the operates.
Never not to use an apparatus in bad condition, (wear, deformation...).
In the case of an abnormal behavior, to warn the qualified people.
Not to cause brutal contacts on the apparatus.
Never not to use the equipment for the transport of people.
Never not to neutralize the limitation or safety devices.
Check that nobody is in the zone of evolution of the material.
Station the material on a way not presenting a slope.
The lanes must have a sufficient gauge.
The lanes must be in a sufficient state to allow the evolution of the material without risks.
Always use the material except by advancing special regulations of use.

IMPORTANT!

These operation and safety instructions shall never be in conflict with official regulations in force in the User Country. The person in charge of the equipment operation shall check that these instructions match local regulations.
In addition, the person in charge of Customer safety shall add any other provision, as required to improve information of personnel.



1 – 4 Special safety instructions

1 – 4 – 1 Equipment with a combustion engine

Never start the combustion engine other than from the device provided for this purpose. The exhaust gases from combustion engines contain products of combustion which may prove harmful. Always start or use the combustion engine in a well-ventilated environment. Avoid working positions where the exhaust gases could come into contact with protected or unprotected parts of the body. All mobile telephones must be switched off when filling with or handling fuel. Fill the tank with fuel or maintenance liquids when the combustion engine is switched off and cold. During filling, keep away from any source of heat (cigarette, flame, welding machines, cutting machines, etc.). In the event of spillage, clean the tank. All fuels, most maintenance liquids and emptied fluids are flammable. They must be stored in special closed containers which are clearly labelled and kept out of reach of unauthorised persons. Any fuel sprays or leakages onto electrical components or burning surfaces may cause fires. Unless indicated otherwise, never carry out adjustments while the combustion engine is running. The additive for the cooling circuit contains alkalis. These may cause injury to the body. Avoid all contact with the skin and eyes. For the disposal of emptied liquids, comply with the legislation in force. Pressurised liquids from the combustion engine can penetrate under the skin and cause serious injury.

1 – 4 – 2 Equipment with electrical devices

Maintenance works on electrical installations must imperatively be carried out by qualified persons, while complying with the electrical safety regulations specific to the type of intervention. Never bridge the terminals of the starter or batteries. Bridging carries the risk of making the emergency stop devices inoperative and of damaging the electrical or electronic circuit. Keep electrical cabinets away from any moisture which could give rise to a short-circuit and at worst cause a fire, or which could cause dangerous malfunctions and damage electronic and electrical components. Never shunt faulty fuses, and never replace them with higher-amp fuses. This leads to a risk of fire. Periodically check the condition of the battery contacts, which could be a source of malfunction. Always keep the battery away from flames or possible sources of sparks: risk of explosion and fire. The liquid contained in the battery (sulphuric acid) is toxic and corrosive. In the event of contact with the skin or eyes, immediately rinse with water. Consult a doctor immediately. Respect the polarity of the electrical circuit. Incorrect installation may cause serious damage to electrical and electronic equipment and may cause a fire. Incorrect connection of booster cables may cause an explosion. When using booster cables, always connect the positive cable (+) to the positive terminal (+) of the battery and the negative cable (-) of the auxiliary source to the combustion engine block.

1 – 4 – 3 Equipment with hydraulic devices

Never deform or strike the high-pressure hydraulic pipes. Replace deformed or damaged hydraulic pipes. Carefully check all hydraulic pipes. Do not use a bare hand to look for leaks; instead, use a piece of wood or cardboard. Replace any suspect part. If it is necessary to disconnect hydraulic pipes, there is a risk of whirls or sprays of liquid. Sprays of liquid can cause serious injury. The hydraulic circuit may be



pressurised. The residual pressure may give rise to uncontrolled movements of the equipment.

1 – 4 – 4 Lifting equipment

According to the regulations in force, the equipment must be checked and load-tested by skilled personnel during commissioning and periodically thereafter. Never lift a load greater than that indicated on the load plate CMU (apart from when following test instructions). Never hold a load above people. Do not walk or stand close to a suspended load. Do not leave a load suspended without supervision. When lifting a load, check before starting that the operation can be carried out without any risk. Check that the load is correctly attached, be aware of dangers due to the effects of inertia of a suspended mass. The load must always be followed visually by the driver; if this is not possible, the driver must seek the assistance of a dispatcher.



Chapter 2 – Presentation

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

<u>Model</u>	HYDRAULIC RAIL THREADER
<u>Type</u>	MPR – M
<u>Code</u>	H90461 / NO 10055





2 – 2 General information

The MPR-M Rail Threader is a track work machine used on renewal and replacement sites.

A single operator can easily operate the self-propelled device, which moves on variable gauge track, with the different handling operations controlled hydraulically.

It has three distinct functions:

- track renewal
- rail replacement



Chapter 3 – Technical characteristics

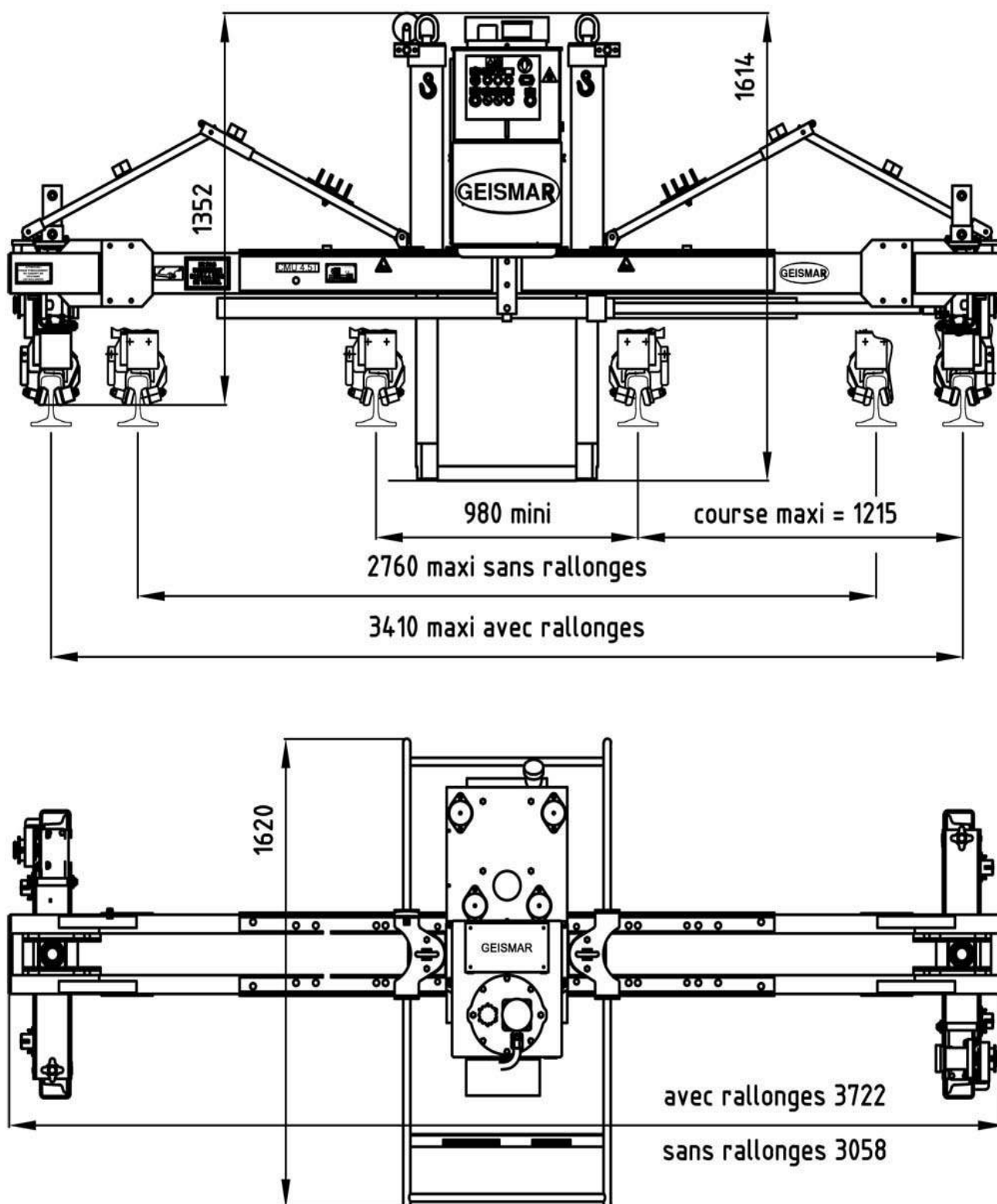
3 – 1 General characteristics

Manufacturer	Société des Anciens Établissements L.GEISMAR
Address	5, rue d'Altkirch 68000 COLMAR
Machine	HYDRAULIC RAIL THREADER
Type	MPR – M
Code	H90461 / NO 10055
Series n°	
Creation date	03/11
General characteristics	
Overall length with extensions:	3722 mm
Overall length without extensions:	3058 mm
Overall width:	1620 mm
Height of retracted lifting cylinder rods:	1352 mm
Height of extended lifting cylinder rods:	1614 mm
Lifting cylinder travel	500 mm
Weight:	1125 Kg
Number of wheels:	4 (non-isolated)
Wheel diameter:	100 mm
Number of drive wheels:	2
Clamp lighting:	2 x 15 W
Performance	
Motorised trolley travel speed	0 to 3.5 km/h
Shifting cylinder thrust	1000 DaN (1 t)
Shifting cylinder tensile strength	500 DaN (0.5 t)
Lifting capacity	WLL 4500 Kg



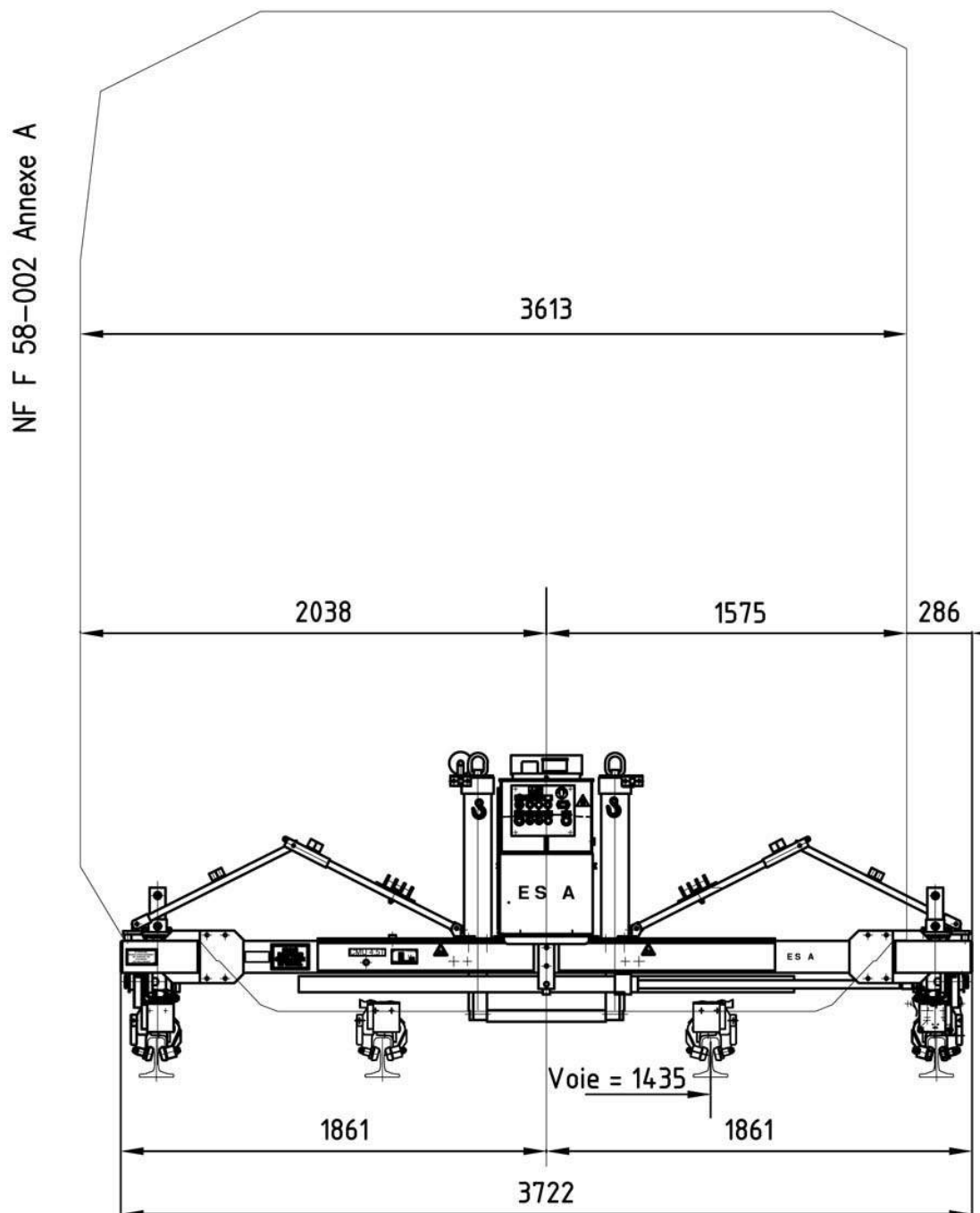
IC engine	
Type	Diesel
Manufacturer	HATZ
Model	1-D42C
Cycle	4 stroke
Cooling	Air
Tank capacity	15l
Rated power	5.2 kW at 3000 rpm.
Mean sound pressure level LpA	(at the controls) 85 dBA
Acoustic power LwA	(at the controls) 95 dBA
Vibration level	0.58 m/s ²
Hydraulics	
Tank capacity	50l
Service pressure	50 bar
Dual-body pump	6+6 cm ³ /rev.
Electricity	
Service voltage	12 volts
Number of batteries	1
Battery characteristics	12 V to 60 A/h

3 – 2 Dimensions of the Rail Threader





3 – 3 Location in loading clearance



The Rail Threader type MPR-M does not fit into loading clearance such as defined in appendix A of procedure NF F 58-002. Track installation must be carried out in accordance with regulations.



Chapter 4 – Equipments

4 – 1 Location of the main units

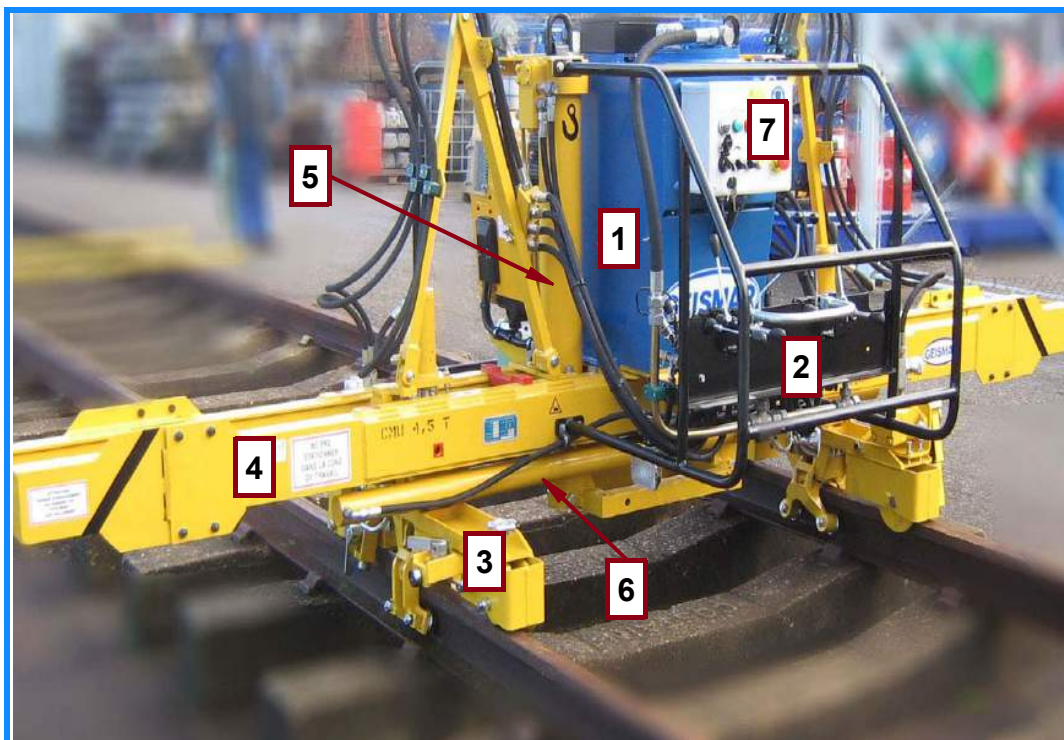


Fig : 1

The Rail Threader (fig. 1) is composed of:

- A hydraulic power unit **(1)**
- A set of hydraulic controls **(2)**
- Two motorised carriages equipped with hydraulically-controlled rail clamps, each equipped with two drive units for travel, one of which is motorised and detachable **(3)**
- A double beam forming the main frame **(4)**
- Two lifting cylinders with rods connected by the support frame **(5)**
- Two shifting cylinders **(6)**
- An electrical unit **(7)**



4 – 2 Hydraulic unit

The hydraulic power unit (fig. 2) includes:

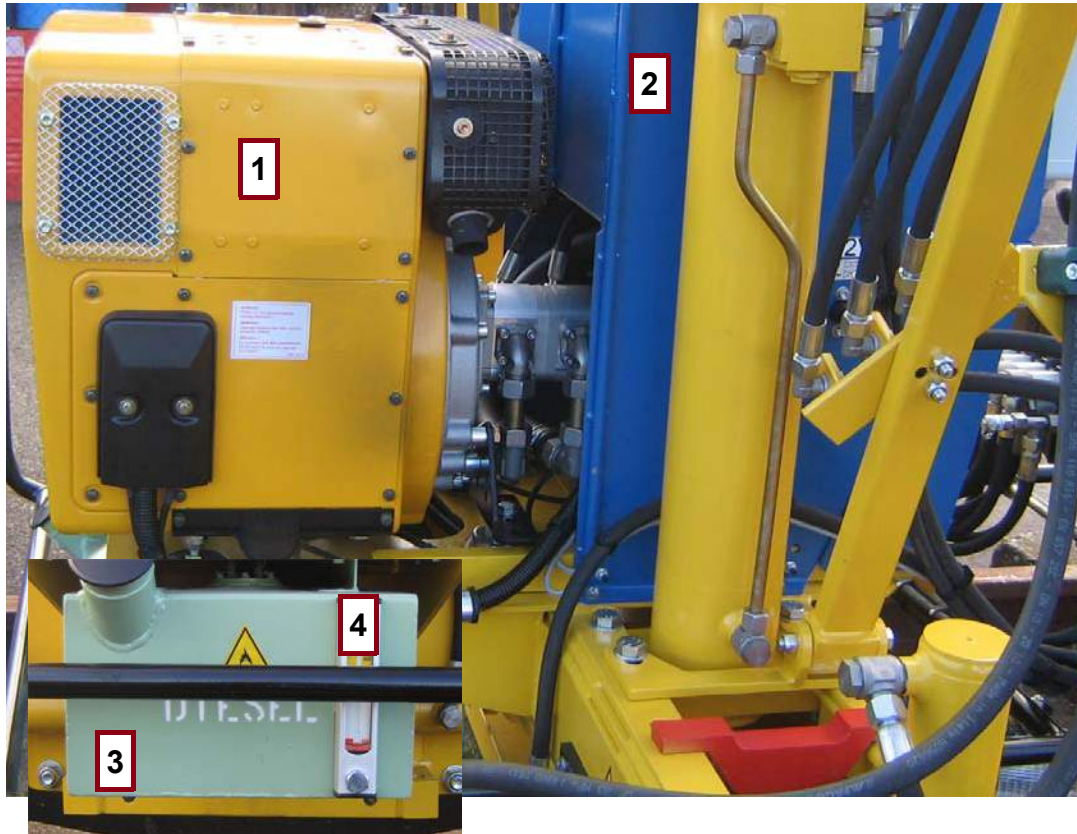


Fig : 2

- A thermal motor (1) equipped with an elastic coupling and a triple-body pump. This unit is mounted on shock absorbers to reduce the motor vibrations in the whole Rail Threader.
- A 50 l hydraulic oil tank (2) equipped with a suction filter, a filler cap with filter and breather, a filter on the return circuit, a drainage plug and a visual hydraulic oil level indicator.
- A 15 l diesel tank (3) equipped with a level (4).

4 – 4 Hydraulic controls

The hydraulic controls (fig. 3) consist of three manually-controlled hydraulic distributor blocks with built-in pressure limiter. The left-hand unit includes 5 controls, the central one 4 and the right-hand unit only 1.

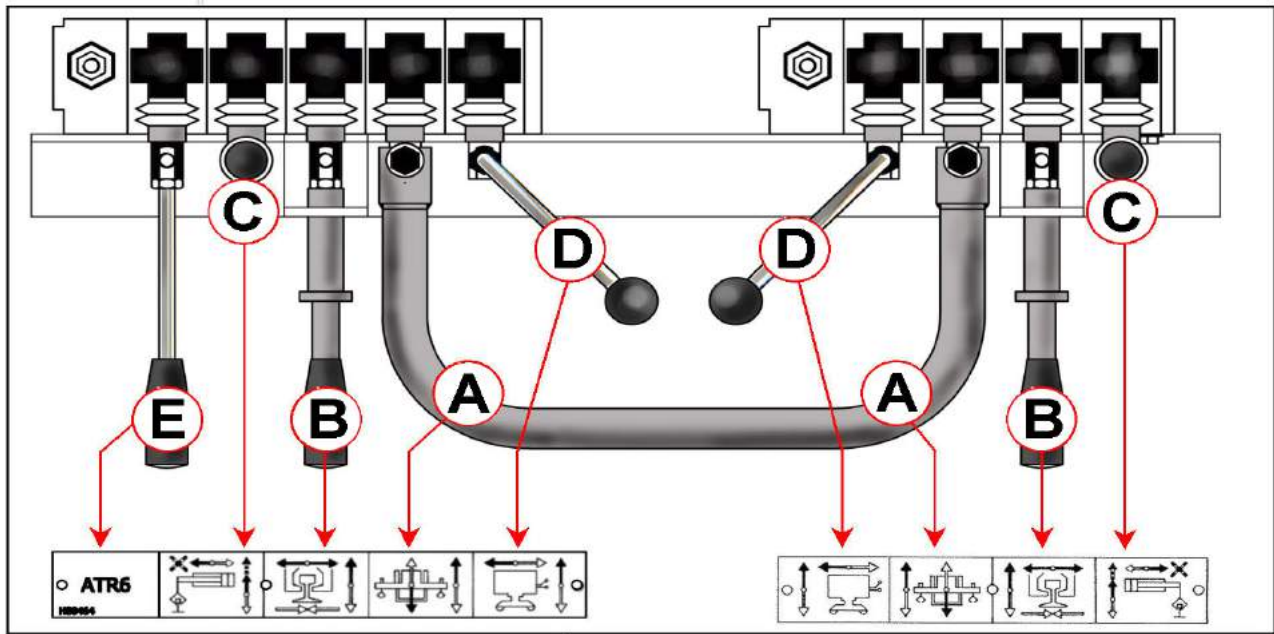


Fig : 3

The central levers (**D**) control travel. They can be activated separately or simultaneously with one hand by the operator.

The handle (**A**) controls both lifting cylinders simultaneously. (Part with open centre).

The 2 intermediate horizontal levers (**B**) each control opening and closing a rail clamp. (Part with closed centre).

The 2 vertical levers (**C**) are used for independent shifting of the motorised carriages in the double beam. When moving the Rail Threader forwards along a track with variable distance, you must push these two levers (**C**) as far as they will go in order to move the motorised trolleys freely along the track (Open centre).

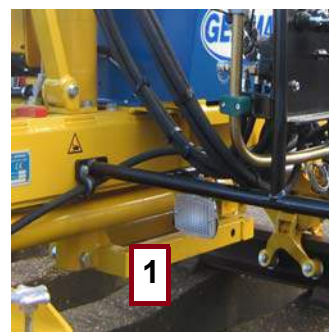
The lever on the extreme left (**E**) is used to control the rail puller (6t force) which will be linked to the distributor by 2 hoses equipped with quick-release couplings.



The lifting circuit is equipped with guided duel flapper valves fulfilling the following functions:



- Prevent the Rail Threader from falling accidentally.
- Hold the supporting frame (1) in its high position when the Rail Threader is moving along the track. This frame connecting the two lifting cylinder rods serves as a base for the Rail Threader and is in contact with a tie during lifting and shifting of the rails to be replaced. (fig. 4)

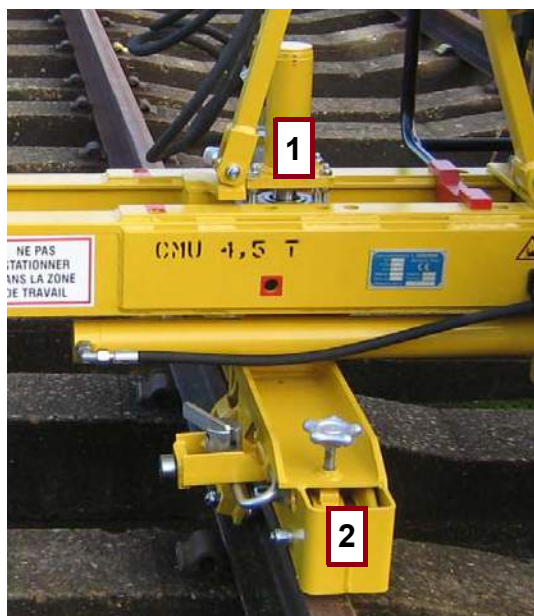


(for further details, see the catalogue contents and plates **NO 00015-8-20** and **NO 00015-8-25**)

Fig : 4

4 – 5 Motorised trolleys

The motorised trolleys (fig. 5), are composed of two assemblies:



- The shifting trolley (1) which moves in the double beam.
- The travel trolley (2) which moves along the track.

Fig : 5

4 – 5 – 1 Travel trolley

Each travel carriage (fig.6) includes:

Two travel units each equipped with a cushion roller mounted on a sealed ball bearing (1). One of these two travel units is motorised and has a disengaging mechanism, the other is equipped with a manual screw brake.

Four guide plates on rollers which guide the rails during installation (2)

One hydraulically-controlled rail clamp. The rail clamp is mechanically locked and therefore cannot open, even if the hydraulic pressure drops (3).

The rail clamps must be raised to cope with obstacles.

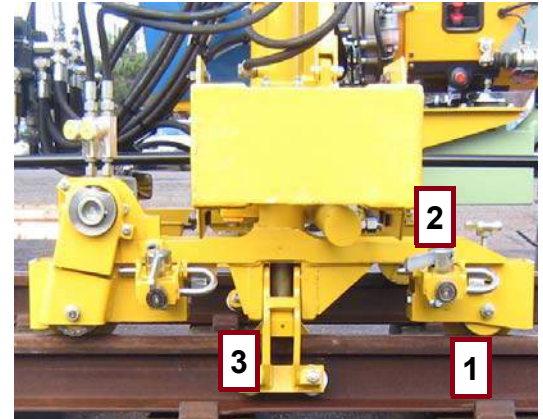


Fig : 6

THE DISENGAGEMENT SYSTEM:

The disengagement system (fig.7) is used to disengage the Rail Threader to move it manually along the track. To use it:

Pull the disengagement system wheel towards you and turn it clockwise until it locks.

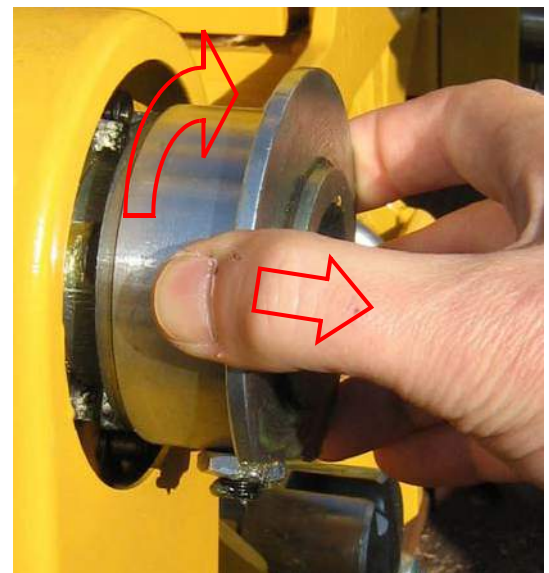
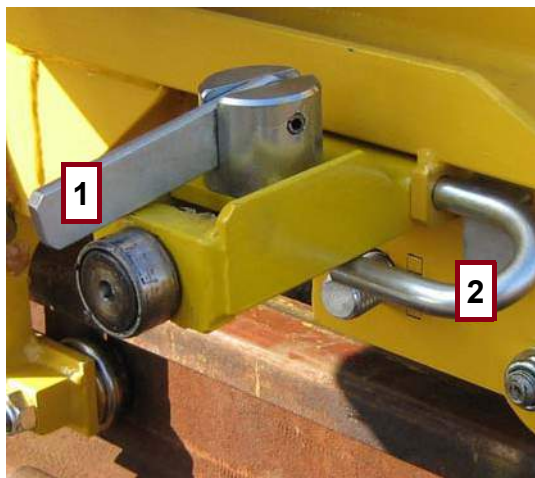


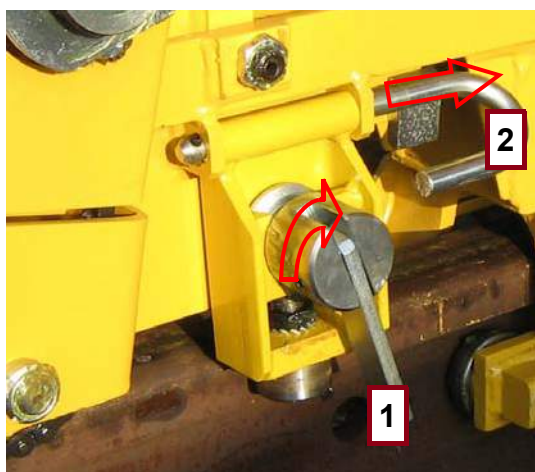
Fig : 7

To engage the system, turn the wheel anticlockwise until it engages in its initial system.

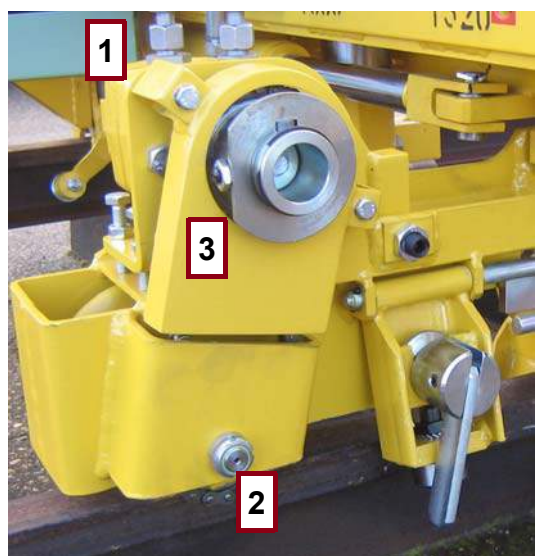
THE GUIDE PLATES WITH ROLLERS:

The guide plates with rollers (fig.8) must be lifted to get over obstacles.

The nut for adjusting these plates (1) is then unscrewed, the plates set in high position and held up by the sliding pin (2).

Fig : 8

Once the obstacle has been passed, they must be lowered by pulling on the sliding pin (2) and positioned just on the rail using the adjustment screw (1) (fig.9)

*Fig : 9***THE TRANSMISSION:**

The transmission (fig.10) consists of a slow hydraulic motor (1) which engages the roller via a chain (2). The Rail Threader has a motor roller on each travel carriage. The transmission chains are protected by a removable casing (3).

Each hydraulic motor is mounted on a swivelling plate so that the chain tension can be adjusted.

Fig : 10

When the rails are removed, the Rail Threader can be moved via the hydraulic transmission at a speed varying between 0 and 3.5 km/h. When the control levers are not activated, the Rail Threader is automatically braked by the hydraulic motors.

4 – 6 Main frame

The Rail Threader main frame consists of a double beam (1) and two movable extensions (2) which enable the Rail Threader to be moved along a 3,330 mm track.

When fitting the extensions, make sure that the assembly screws are greased and respect the torque setting. (fig. 11)

(for the grease characteristics, see § 6.2.1
TABLE OF EQUIVALENCES OF OILS AND LUBRICANTS)

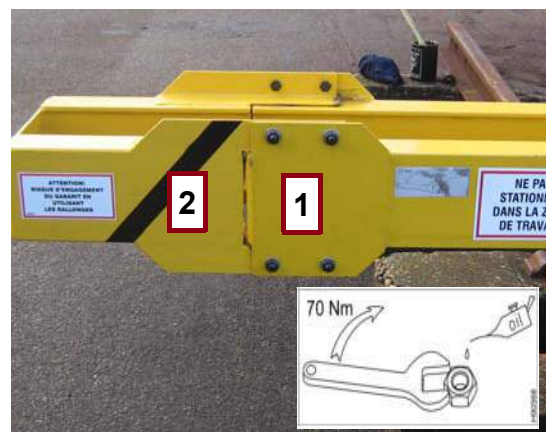


Fig : 11

For work under difficult conditions (in tunnels, on slopes or with reduced centre distances, etc.) the extensions can be replaced with closing plates (1).

The double beam then measures 3,058 mm and no longer exceeds the UIC circulation gauge if the Rail Threader is centred on the site track. (fig. 12)

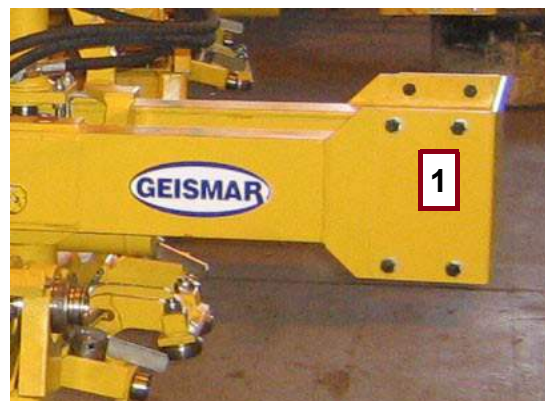


Fig : 12



Warning! risk of the limit being engaged using the extensions. Take the necessary measurements.



The Rail Threader is equipped with a protective frame (1) and two lifting rings (2). (fig. 13)



Fig : 13

The Rail Threader is equipped with a toolbox (1) equipped with the tools needed to service the Hatz motor (fig.14)



Fig : 14

4 – 7 Eletrical unit

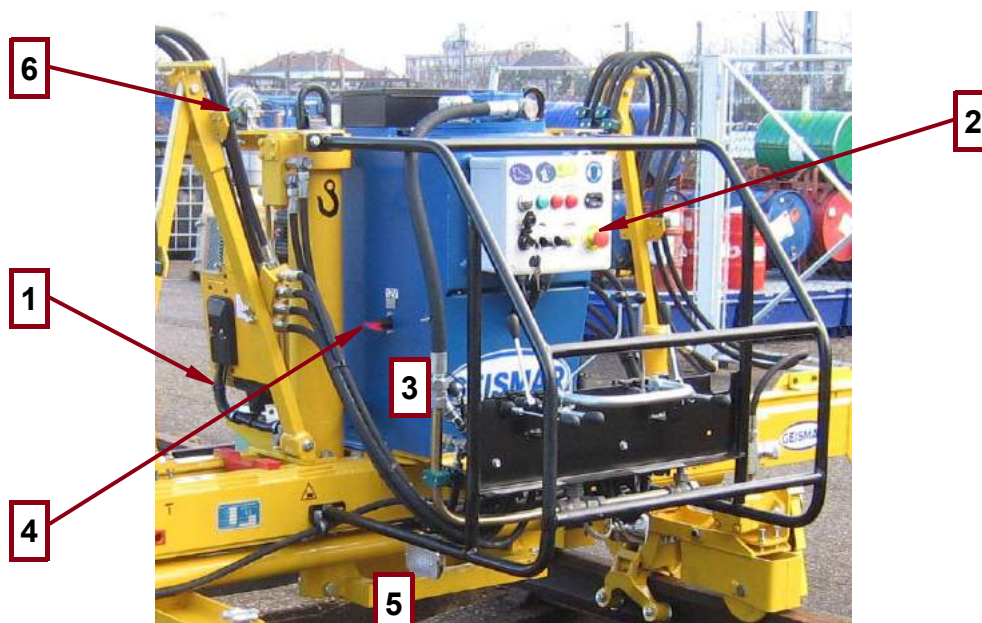


Fig : 15

The Rail Threader (fig.15) is equipped with a motor with built-in starter and electric accelerator (1), an electrical enclosure (2), a battery compartment (3), a battery cut-out (4), two headlights for illuminating the work zones (5) and a buzzer (6)

4 – 7 – 1 Electrical enclosure

The electrical enclosure (fig.16) groups all the Rail Threader functions and controls.

- 1 – Motor starter
- 2 – Preheating indicator
- 3 – Battery charge
- 4 – Oil pressure
- 5 – Return filter clogging
- 6 – Hour-meter
- 7 – Emergency stop
- 8 – Warning buzzer
- 9 – Clamp lighting: 2 x 15 W
- 10 – Slow / Max.



Fig : 16



4 – 7 – 2 Battery compartment

The Rail Threader is equipped with a 12V - 60A/h battery (fig.17) housed in its compartment. To access this, remove the butterfly screws on the sides of the casing (1).



Fig : 17

TO REMOVE THE BATTERY:

- Remove the screws (2)
- Remove the bracket (3)
- Pull the drawer (4) towards yourself



The Rail Threader is equipped with a battery cut-out (1). When the Rail Threader is stopped, if work is being done on it, make sure that the battery cut-out is always horizontal (OFF) (fig.18)



Fig : 18



4 – 7 – 3 Lining Track

Once the rails have been fastened onto the sleepers, particularly in case of track renewal, the Rail Threader can be used as a track liner to straighten the track. To use the machine as a track liner, a removable frame is fixed under the bearing base with driftpins. This removable frame rests on the ballast between two sleepers. The two drifts (**A**) (fig.19) are removed from the double beam to keep the two transfer carriages apart.

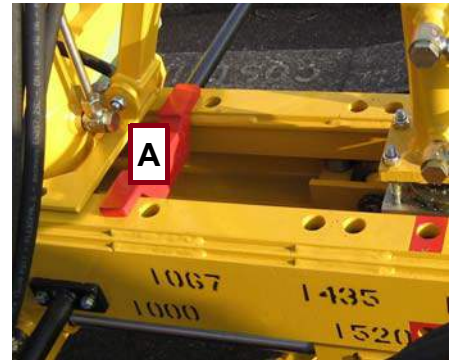


Fig : 19

Chapter 5 – Operating instructions

5 – 1 Handling instructions

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

1.3 - General safety regulations.

1.4 - Particular safety regulations

5 – 2 Preamble

The Rail Threader is manipulated by a single operator; travel must always be in a forward direction relative to it.

5 – 2 – 1 Reminder of terms used in this chapter

For all manipulation of the Rail Threader, use the following terminology (fig. 20) :

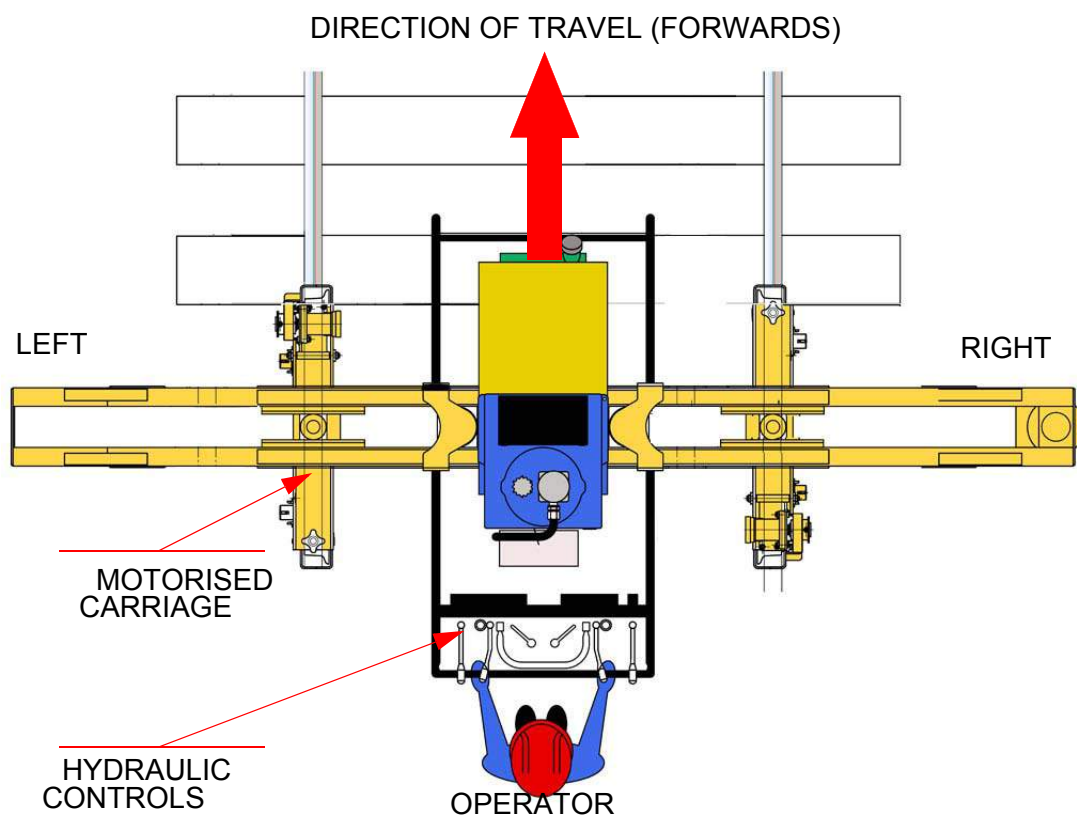


Fig : 20

Before starting a job, make sure that the direction of travel of the Rail Threader meets this requirement during renewal or replacement operations, so as to guarantee the operator's safety.





5 – 3 Putting the Rail Threader onto the track

Set the Rail Threader onto the site track using a lifting device or the optional equipment provided for the purpose (see appendix **Optional equipment**) Switch the battery On (see § 4 fig. 4.7.3.b). Start the motor (in cold weather, use the manual preheating, see Hatz service instructions) The equipment is ready to work.

5 – 4 Position on the site

5 – 4 – 1 Track replacement site

The Rail Threader follows the team laying ties using hydraulic gantries and precedes the team which fastens the rails.

The rails to be laid act as a track for the hydraulic gantries used to lay ties as well as the Rail Threader. They are laid with wide spacing (3330 mm). The Rail Threader is used to pick up these rails and lay them on the ties at the rated gauge (fig. 21)

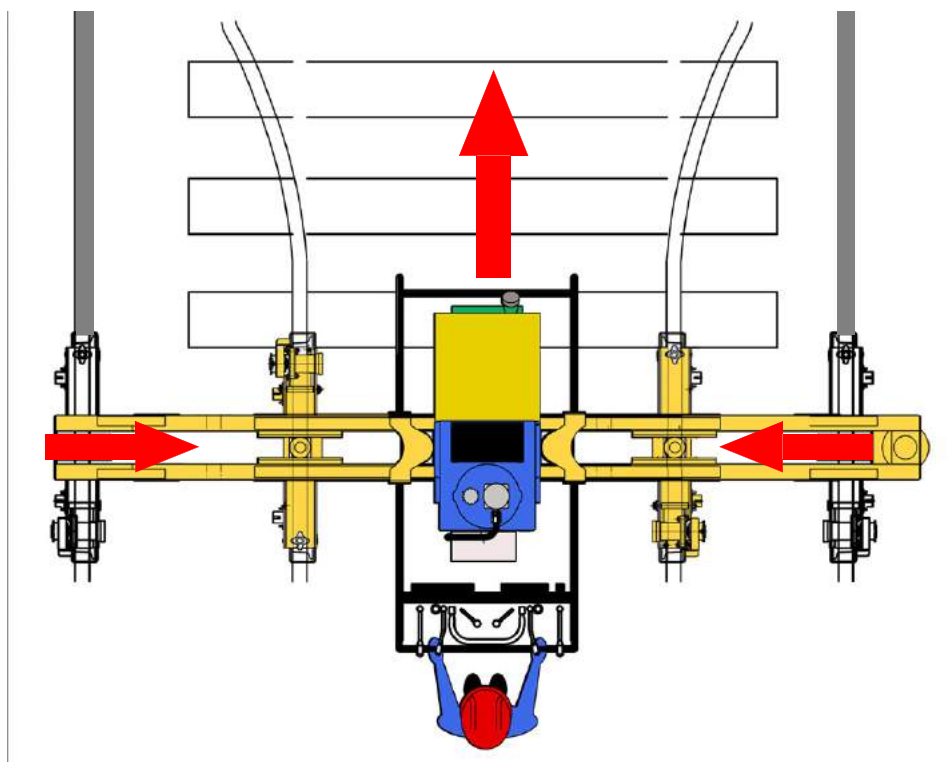


Fig : 21



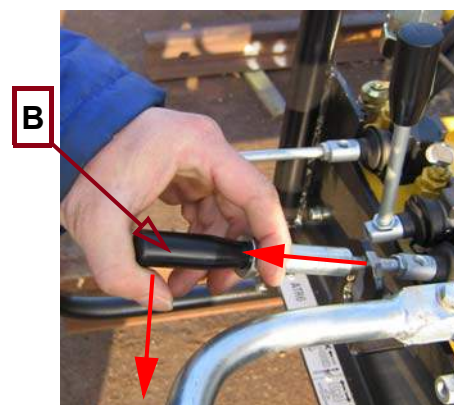
During this operation is is PROHIBITED for anyone to move around in front of and beside the Rail Threader. Any operation to be carried out in front of or beside the machine must take place with the motor off and the parking brake locked.

5 – 4 – 2 Procedure

(For control lever function, see § 4.3.)

Lock the clamps using the levers (**B**). These levers are equipped with safety devices, so to activate them you must pull the locking sleeve towards yourself and lower the lever (fig.22)

Fig : 22



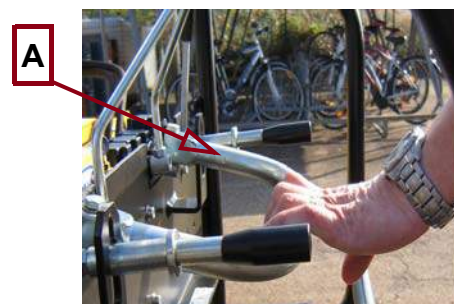
Check visually to ensure that the clamps and guide plates are properly positioned. (fig. 23)

Fig : 23



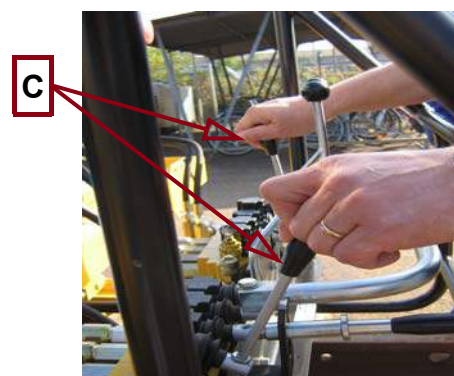
Lower the handle (**A**); the frame is lowered, take hold of a tie and lift the whole carriage and rails to the limit of travel. (fig. 24)

Fig : 24

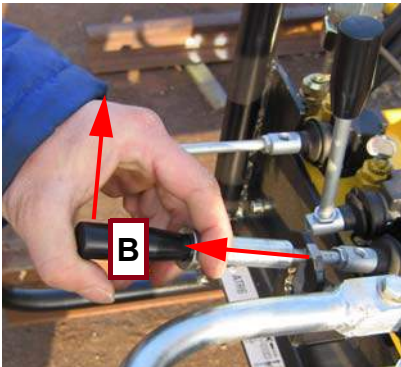


Pull or push the levers (**C**) for the shifting operation. (fig. 25)

Fig : 25



Lift the handle (**A**), the unit is lowered and the rails are set on the tie housing and the contact frame is raised. (fig. 24)



Release the clamps using the levers (**B**), pull the locking sleeve towards yourself and lift the lever (fig. 26)

Fig : 26



The carriage is moved by the levers (**D**) in the forward direction of the unit on the rails, the spacing of which increases (fig. 27)

Fig : 27

After travelling for 5 to 8 m, the same operations are repeated

5 – 4 – 3 Site for replacing two rails

The Rail Threader follows the team laying CWR and precedes the team which fastens the rails.

The new rails are unloaded onto the track. The bolts are removed from the old rails. The Rail Threader picks up the rails and lays them so that the new rails can be positioned. There are two possibilities:

The new rails are unloaded inside the track.

The bolts are removed from the old rails; the Rail Threader uses the new rails as a track to move along, lifting the old rails and placing them ahead of the ties or outside the track (fig. 28) Once the old rails have been removed, the operation is repeated at the starting point where the pile of rails removed is, in order to lay the new rails at the rated gauge ready for fastening.

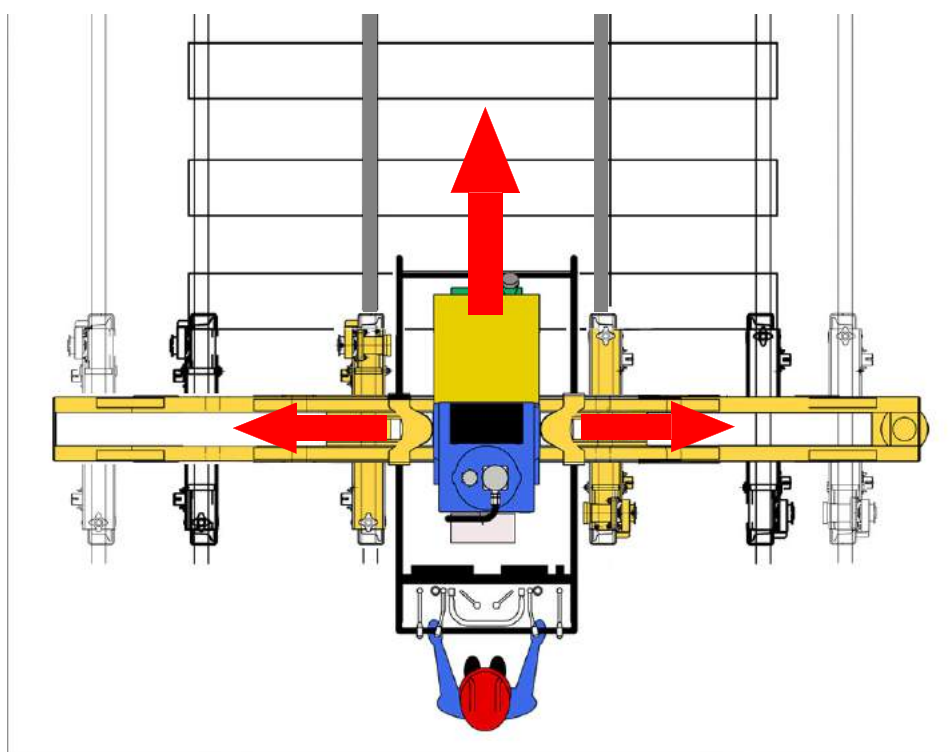


Fig : 28

During this operation is is **PROHIBITED** for anyone to move around in front of and beside the Rail Threader. Any operation to be carried out in front of or beside the machine must take place with the motor off and the parking brake locked.





THE NEW RAILS ARE UNLOADED OUTSIDE THE TRACK.

The bolts are removed from the old rails; the Rail Threader uses the new rails as a track to move along, lifting the old rails and placing them inside or outside the track (fig. 29)

Once the old rails have been removed, the operation is repeated at the starting point where the pile of rails is, to have the new rails at the rated gauge ready for fastening.

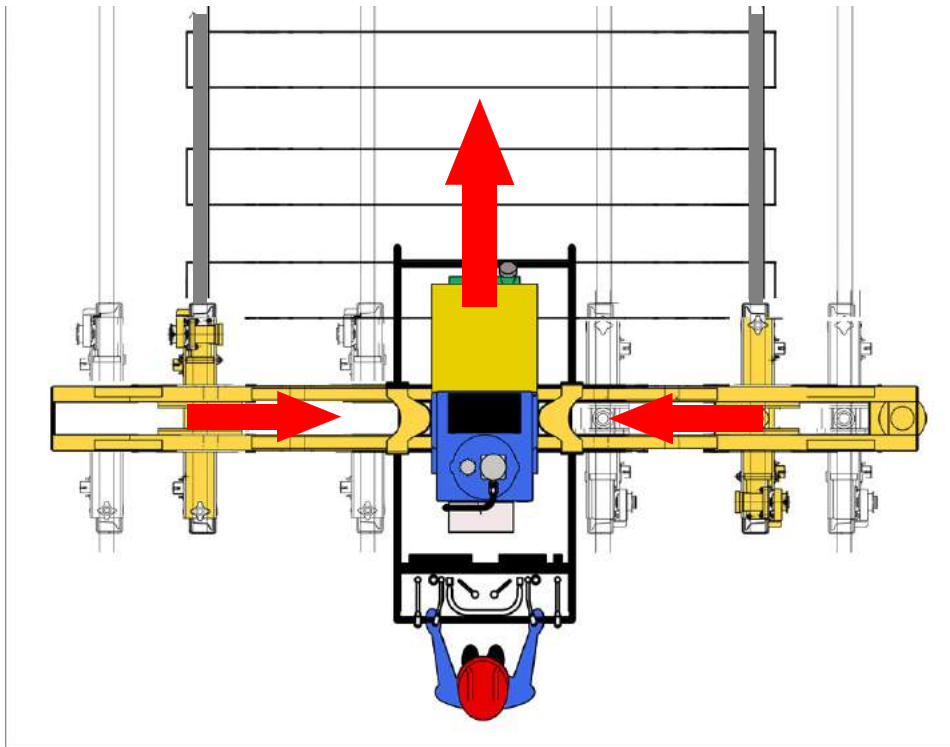


Fig : 29

These operations are the same as those described in § 5.4.3 Procedure.



During this operation is PROHIBITED for anyone to move around in front of and beside the Rail Threader. Any operation to be carried out in front of or beside the machine must take place with the motor off and the parking brake locked.



To maintain a good balance for the Rail Threader, always make sure to handle two rails simultaneously and check that the various movements remain symmetrical with the Rail Threader axis.

fig. 5.4.3.a



5 – 5 Specific handling instruction

On a double-track line, the end of the double beam may extend into the circulation limit of the adjacent track, particularly on sloping sections.

To guarantee the maximum safety during movement phases, the shifting levers (C), in neutral position, lock the shifting carriages.

(For control lever function, see § 4.3.)

When the Rail Threader is moved along a track with an expanding spacing, immobilise the shifting carriage on the external row; and the shifting carriage on the internal row for a track with retracting spacing.

If, during execution of the work, you fear that the double beam is encroaching on the adjacent track space, you must remove the extensions and insert the end plates. If this operation cannot take place, take the necessary regulatory steps.



WARNING: It is prohibited to activate different functions simultaneously (lifting or lowering with the clamps or shifting, for example), as this could damage the Rail Threader. (For control lever function, see § 4.3.)

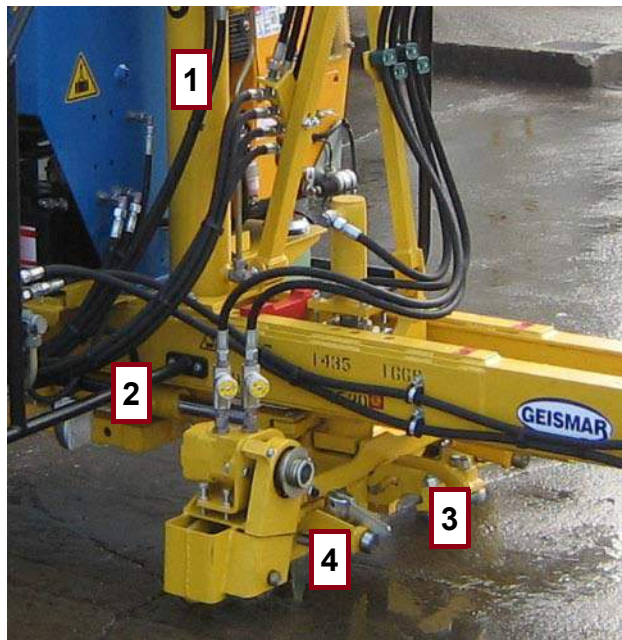
LIFTING: (Plate NO 80102-11 of the Optional equipment)

This equipment is essential for laying RS or SL concrete ties. The lifting device is fixed by quick-release pins under the Rail Threader contact frame. It can also be used to contact the ballast between two ties.

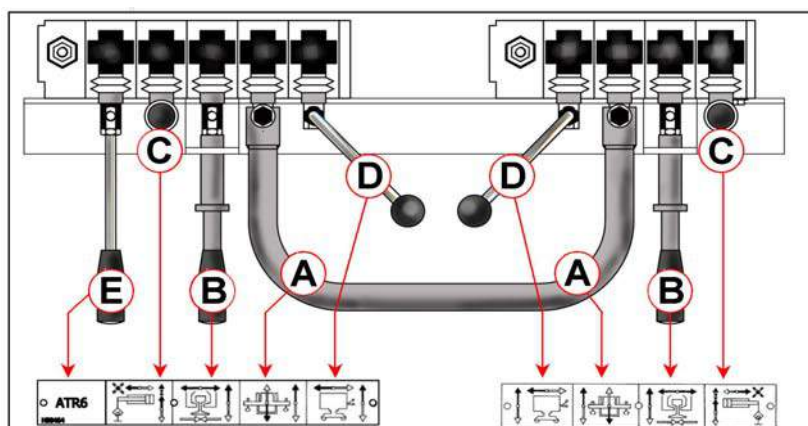


5 – 6 Putting off track

Before putting Off Track, make sure that:



- the lifting cylinders are in retracted position (1) - handle (A)
- the shifting cylinders are in retracted position (2) - The 2 levers vertical (C)
- the single rail handling cylinder is in retracted position (3) - Lever (F)
- the rail clamps are open (3) - Levers (B)
- the guide plates with rollers are raised (4).



Proceed in the opposite order of operations to that used for putting on track.
(To use optional equipment, see the documentation in the appendix **Optional equipment**)

Chapter 6 – Servicing

6 – 1 General maintenance instructions

Before starting operations, the parts which will be in contact with the Rail Threader 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.
- Never use the machine as an "earth" for welding operations.

HYDRAULIC TANK

Check the oil level in the hydraulic tank regularly, with cylinder rods retracted (this level must be at three-quarters on the tank level indicator (fig. 6.1.1.a). Top up if necessary.

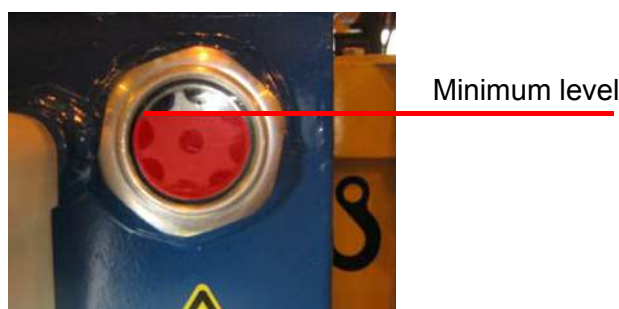


Fig : 31

Drain the tank after 1000 hours of operation (max. 1 year).

HYDRAULIC HOSES

Check the water-tightness and tightening of couplings. Replace hoses as soon as a bruise or tear is reported. You must keep them in good condition, because operational safety depends on this equipment. Keep all the joints in good condition, coating them with lubricant regularly to protect them against rust.

INTERNAL COMBUSTION ENGINE

For basic engine verifications and servicing the motor, use the "preventive maintenance timetable" below. For further details on engine servicing, see the instructions provided by the manufacturer.



6 – 1 – 2 Maintenance operation

NB: See the plates described in this paragraph in the **Spare Parts Catalogue** appendix (consult the contents)

ONCE A WEEK:

Greasing the:

	Plate	Ref. Nos.
Travel trolley	NO 07183-3-1	2-6-7-11-12
Shifting carriage		NO 06180-3-210
Motor drive unit	NO 04110-3-3	3-9-11
Disengageable pinion	NO 76071-100-3	3
Braked drive unit	NO 04110-3-4	3-9-11-16

ONCE A MONTH:

Hydraulic tank: (plate **NO 00015-4**)

Replace the filter cartridge on the return. This cannot be cleaned because it is made of paper, but must be replaced urgently if the clogging indicator light comes on (see § 4.7.1 **Electrical enclosure**)

ONCE A YEAR (OR AFTER 1000 HOURS OF SERVICE)

Empty the tank completely (do not reuse the oil)
Clean the tank
Clean the filters
Close the tank
Add new oil 50 I TOTAL EQUIVIVIS ZS 32 or equivalent.

6 – 2 Preventive maintenance time table

ELEMENTS	TYPE OF OPERATION	PERIODICITY				
		Before each start up	After the 1st month, or 20 hours	Every 3 months or 50 hours	Every 6 months or 100 hours	Every year or 300 hours
Engine oil	Level	X				
	Oil change		X		X	
Spark plug	Check and clean - Replace if necessary				X	
Play in valve tails	Verify - Adjust					X (2)
Petrol tank - Filter	Clean					X (2)
Gasoline line	Check - Replace if necessary	Every two years				
Air filter	Check	X				
	Clean			X (1)		

(1) Increase cleaning frequency if the atmosphere is dusty.

(2) This servicing should be done by an approved Hatz dealer unless the operator owns the required tools and is mechanically qualified.



This advice is not restrictive. Permanent monitoring of the device as well as preventive maintenance can only extend its operating life.



6 – 2 – 1 Daily maintenance

PUMP UNIT

For motor servicing, see the HATZ service brochure included in the appendix

Grease used: **IMPERATOR LC 3002 Multifunction Grease**

TABLE OF FILLING SPECIFICATIONS

TANK	VOLUME	QUALITY TYPE
MOTOR FUEL HATZ 1-D41C	15 L	DIESEL
MOTOR GREASING HATZ 1-D41C	1.2 L	SEE SPECIFIC MANUAL
HYDRAULIC OIL	50 L	SEE TABLE OF OILS AND LUBRICANTS

CORRESPONDENCE TABLE OF OILS AND GREASES

BRAND	HYDRAULIC OIL	GREASING
MOBIL	DTE 13M	
BP	BARTRAN HV32	ENERGREASE LC 2
CASTROL	HYPIN AWH M32	LM GREASE
SHELL	TELLUS T 32	ALBIDA HD 2
TEXACO	RANDO OIL HD Z-36	HYTEX EP 2
ELF	VISGA 36	MULTIPLEX
TOTAL	EQUIVIS ZS 32	MULTI COMPLEX EP 2

6 – 3 Interventions after commissioning

AFTER THE FIRST 10 OPERATING HOURS

Make sure all the bolts are tight

Check the hydraulic oil level (fig. 6.1.1.a), and top up if necessary.

AFTER THE FIRST 25 OPERATING HOURS

Drain the motor oil with the motor hot to facilitate flow, and change the oil filter.
(see brochure provided in the appendix)

AFTER THE FIRST 50 OPERATING HOURS

Replace the cartridge in the hydraulic circuit.

Start the pump unit supplying the hydraulic circuit.

Run it for 10 minutes and make sure there are no oil leaks in the hydraulic circuit:
connectors, pipes, hoses, hydraulic components, pumps and wheel motors.

Switch off the hydraulic power unit.

Remove the cartridge from the hydraulic circuit return filter



Fit the new cartridge reference **D01348**. Check the hydraulic oil level in the circuit.

6 – 4 Preventive maintenance operations

OPERATIONS EVERY 50 HOURS OF RUNNING

Remove the used grease from the moving parts.

Grease the moving parts by swabbing, using a brush. Wipe away the excess grease using clean cloths.

Inspect to see there are no suspect traces of oil on the hydraulic circuit (hoses, connector).

Check the general condition of the moving parts.

Carry out a check of the attachments (bolts, screws), re-tighten if necessary.



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



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

OPERATIONS EVERY 1000 HOURS OF RUNNING

REPLACING THE RETURN FILTER

(plate **NO 84121-4-18**)

Unscrew the lid ref. 11

Remove the unit ref. 30

Unscrew the lower nut, remove the washer and spring

Remove the cartridge ref. 6

Clean the central magnetic core ref. 4

Fit a new cartridge ref. 6

Put the lower spring, washer and nut back in place on the same side as before disassembly.

Replace the unit ref. 30, making sure the seals are properly seated

Put the upper spring back in place and tighten the lid.



NB: If you have to remove a hydraulic connector or a hose, first unscrew the filter lid to cancel the effect of communicating chambers, otherwise the oil will siphon out.



6 – 5 Maintenance

6 – 5 – 1 Interventions after commissioning

AFTER THE FIRST 50 OPERATING HOURS

Visually check the general condition of the Rail Threader. Carry out a check of the attachments (bolts, screws), re-tighten if necessary.

Remove the used grease from the moving parts.

If deformation or abnormal wear is noted, the parts must be replaced: use the **original parts of Geismar**.

6 – 5 – 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 – 6 Procedure for changing a wheel

Removing a drive wheel (fig. 31, see plate **NO 04110-3-3**):

- Remove the protective cap from the motor unit and remove the chain.
- Unscrew the nut ref. 20
- Remove the strut ref. 19, then the shaft ref. 16, holding the roller ref. 15 and struts ref. 22 and 17 to prevent them from falling.
- Take out the bearings ref. 21 and 48 and the struts ref. 18

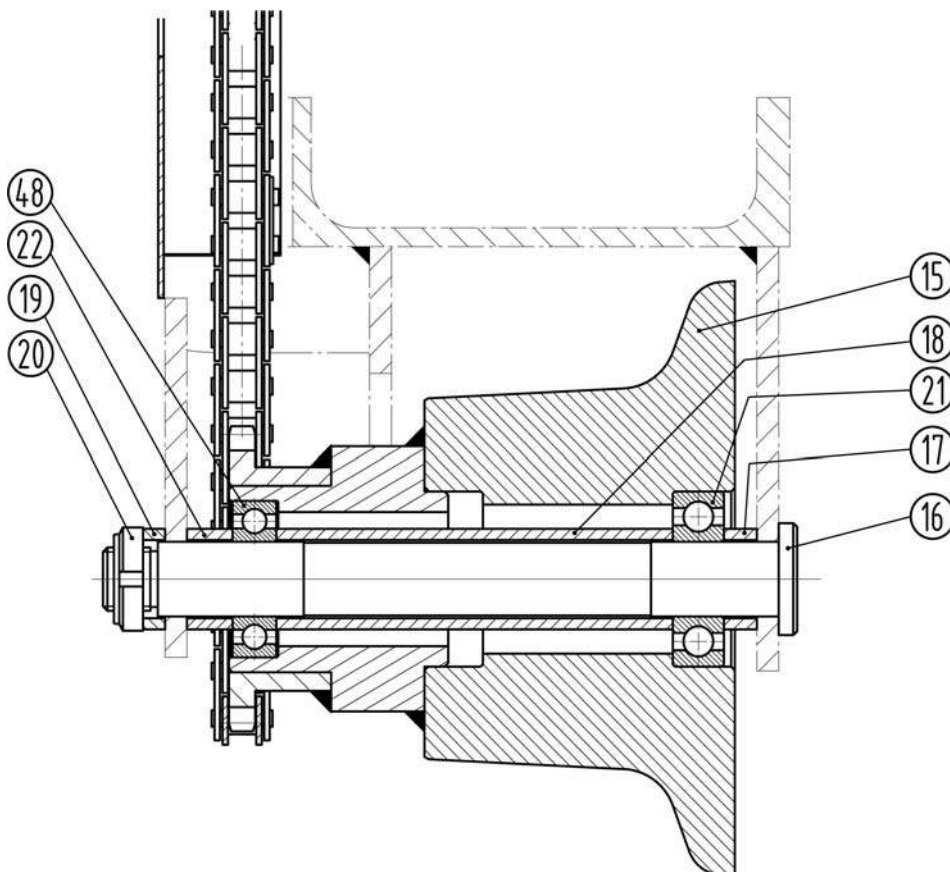


Fig : 31

Remove a braked wheel (fig. 32, see plate **NO 75035**):

- Unscrew the nut ref. 7
- Remove the strut ref. 5, then the shaft ref. 6 holding the roller ref. 1 and the struts ref. 4 to prevent them from falling.
- Take out the bearings ref. 3 and struts ref. 2

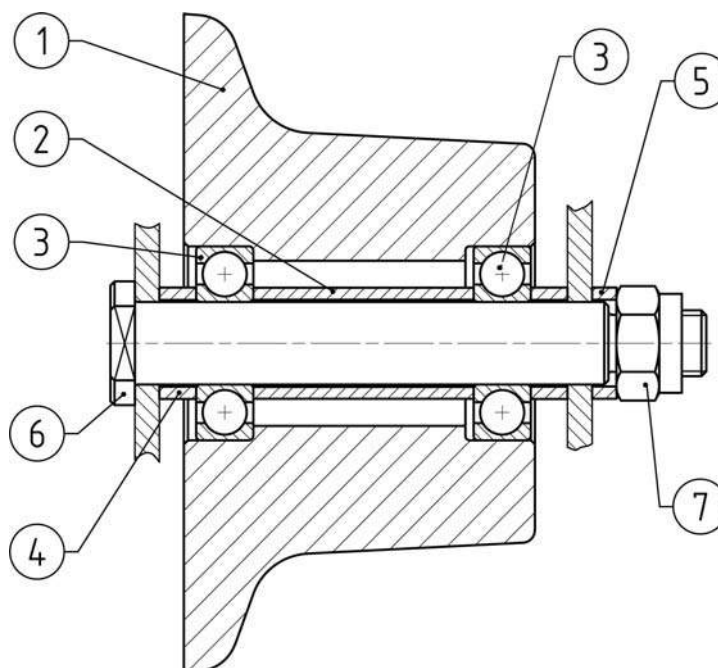


Fig : 32

6 – 7 Hydraulic oil

Approved hydraulic oil: **TOTAL Equivis ZS 32**

Technical features:

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

If you must use another sort of oil: carefully the properties correspond and totally empty the machine beforehand.

Check the unit's pressure rating every month. A pressure drop of ~ 5% for 1 hour is acceptable. Beyond this value the valves must be checked and/or changed.



6 – 8 Table of equivalences for hydraulic oils

TOTAL	EQUIVIS ZS32
ELF	VISGA 36
TEXACO	RANDO OIL HD Z-36
SHELL	TELLUS T 32
CASTROL	HYSPIN AWH M32
BP	BARTRAN HV32
MOBIL	MOBIL DTE 13M



Chapter 7 – Storage and Recycling

7 – 1 General storage instructions

During periods when an item of operational equipment is not being used, it is essential to store it so as to maintain its integrity. Badly stored equipment risks deterioration when it is commissioned. It is therefore important for the staff in charge of storage operations to take the greatest possible care with what they do and to adhere scrupulously to the measures laid down.

Operational equipment must only be put into storage after it has been run in. Provisions must be made, so as to enable easy access around the equipment to carry out maintenance operations.

7 – 1 – 1 Choice of storage conditions

The choice of storage conditions depends on 2 main factors:
the length of storage and the storage conditions ("unsheltered" storage, exposure to bad weather or "sheltered" storage, building, closed shed, open shed, canopy, etc.).

7 – 1 – 2 Storage premises

Generally, premises intended for storage of operational equipment must enable the best possible protection against:

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

7 – 1 – 3 Putting into storage

The condition of the operational equipment, when it is recommissioned after storage, depends on the way it was prepared and protected before being placed in storage:

cleaning the equipment (when cleaning, protect the moving parts with grease);
technical inspection to note any possible anomalies.

7 – 2 Decommissioning - Disassembly - Disposal

Decommissioning or disposal requires removal of the used grease, so as to hand it over to the competent service for destruction. The bolt-breaking machine must be recycled by an approved body, which complies with the local standards for recovery of waste. When the equipment is in a dilapidated condition, which is likely to cause risks, the user has an obligation to ensure the disposal of this equipment, that is: making it unusable, if necessary disassembly and recycling of the equipment with an approved body.

The electrical and electronic components must be recovered and recycled in compliance with the European Union WEEE (Waste Electrical and Electronic Equipment) directive. Approach an approved body to carry out these operations.

Chapter 8 – Spare parts

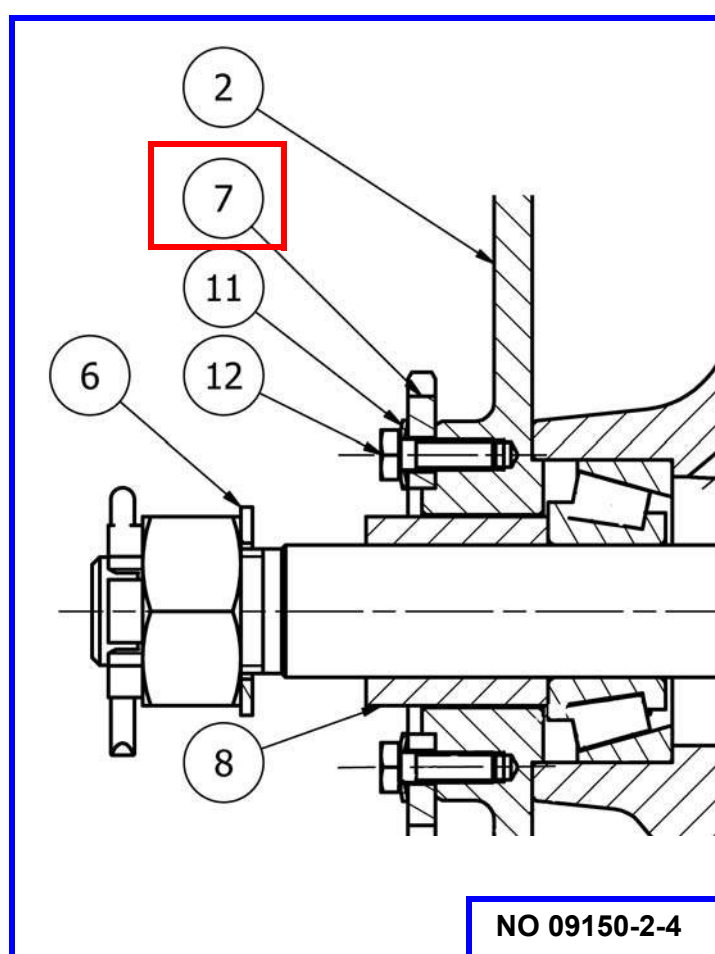
8 – 1 Foreword

The spare parts catalogue has all the component parts 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 **NO 09150-2-4**



You will find the **Code** for this pinion in the parts list for this plate (here **NO 09150-2-4**). Simply note the indications on your part replacement request form.



EXAMPLE FOR ORDERING A SPARE PART

Rep	Qté	Désignation	Code	N°Dessin
Ed : 03/10			H89563	NO 09150-2-4
		MONTAGE ROUE MOTRICE		
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)

: Pinion code H89550

Plate code.(2)

: Assembly H89563

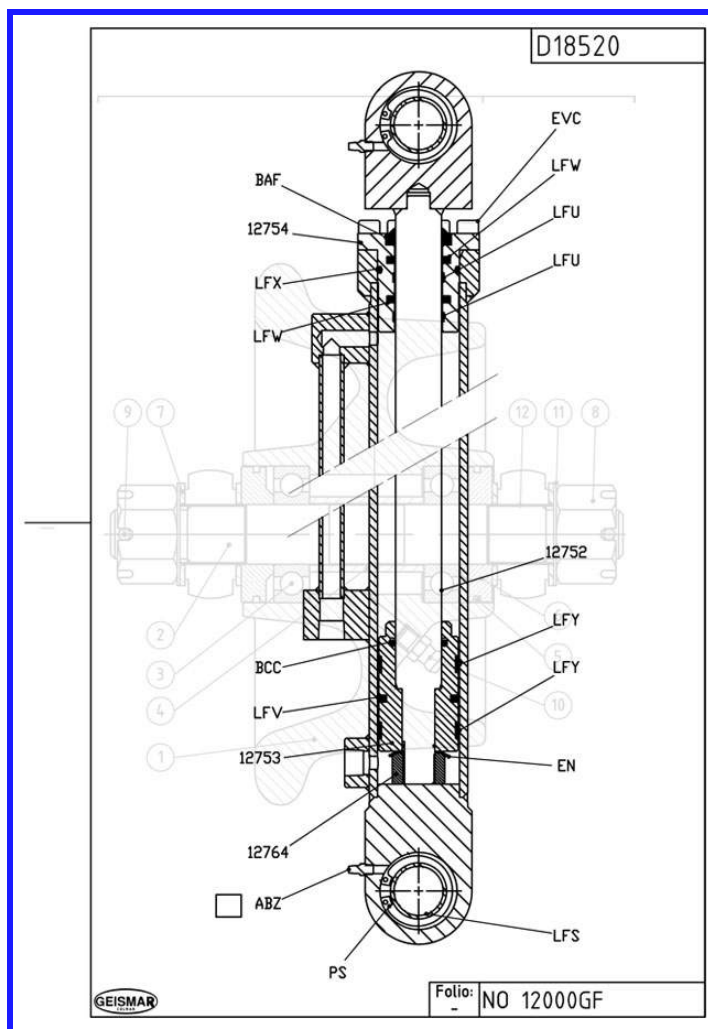
Review date (3)

: 03/10

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 THREADER**
Type **MPR – M**
Serial

H90461 / NO 10055

Version : **03/11**

HYDRAULIC RAIL THREADER	H90461	NO 10055
FITTED FRAME.....	H90476	NO 10055-1
LIFTING CYLINDER RAM.....	D18062	NO 06180-1-12
SLEWING CYLINDER RAM	D18064	NO 06180-1-13
LOWER FRAME	H02035	NO 80102 - 7
ENGINE/PUMP UNIT	H78414	NO 00015 - 2
MOTORISED CARRIAGE	H82606	NO 07183-3
LOWER CARRIAGE.....	H82607	NO 07183-3-1
HYDRAULIC RAM	D18037	NO 07182-1
TRANSFERRING CARRIAGE.....	H79629	NO 06180-3-2
DRIVING AND DISENGAGEABLE ROLLER UNIT	H72571	NO 04110-3-3
DISENGAGEABLE PINION, COMPLETE	H03650	NO 76071-100-3
FREE ROLLER UNIT	H72572	NO 04110-3-4
ASSEMBLED ROLLER Ø 100, NOT INSULATED.....	H00102	NO 75035
OIL TANK	H60897	NO 00015 - 4
RETURN LINE FILTER	D01324	NO 84121-4-18
RECAPITULATIVE LIST OF THE HYDRAULIC CIRCUITS.....	H90467	NO 10055- 8
RIGHT SLEWING SUPPLY CIRCUIT	H72556	NO 04083-8-1
LEFT SLEWING SUPPLY CIRCUIT.....	H10143	NO 88004 - 8 - 30
RIGHT LIFTING SUPPLY CIRCUIT	H70852	NO 00015 - 8 - 25
LEFT LIFTING SUPPLY CIRCUIT	H70853	NO 00015-8-20
DISTRIBUTION BLOCKS FITTING	H90470	NO 10055-8- 5
SAFETY LOCKING DEVICE	H88460	NO 10055-8-5-5
FEED AND RETURN CIRCUIT	H91435	NO 10055-8-6
RAIL PULLER SUPPLY CIRCUIT	H10147	NO 88004 - 8 - 70 B
HYDRAULIC MOTOR SUPPLY CIRCUIT	H10146	NO 88004-8-60 C
RAIL GRIP SUPPLY CIRCUIT	H10145	NO 88004 - 8 - 50
ELECTRIC EQUIPMENT.....	H60254	NO 00155
ENGINE CIRCUIT	H60257	NO 00155 - 3
ENGINE STARTER CIRCUIT.....	H60258	NO 00155 - 4
ACCESSORIES CIRCUIT	H60259	NO 00155 - 5
INSTRUMENT PANEL FUNCTIONS	H60260	NO 00155-6
BATTERY SLIDING SUPPORT	H78375	NO 04110-7
HYDRAULIC FLEXIBLE HOSES HOLDER.....	H10127	NO 88004 - 16
GAS-OIL ALIMENTATION.....	H60892	NO 00015 - 23
DESCRIPTIVE PLATE ASSY	H88463	NO 10055-30

Version 03/11	HYDRAULIC RAIL THREADER TYPE MPR – M SUMMARY	H90461 / NO 10055
------------------	---	--------------------------

ÉD : 01/11

HYDRAULIC RAIL THREADER

H90461

NO 10055

1	1	FITTED FRAME	H90476	NO 10055-1
2	1	ENGINE/PUMP UNIT.....	H78414	NO 00015-2
3	2	MOTORISED CARRIAGE.....	H82606	NO 07183-3
4	1	HYDRAULIC OIL TANK.....	H60897	NO 00015-4
5	1	HYDRAULIC DIAGRAM.....	H90467	NO 10055-8
6	1	ELECTRIC EQUIPMENT	H60254	NO 00155
7	1	BATTERY SLIDING SUPPORT	H78375	NO 04110-7
9	1	ACCESS DOOR	H09644	
10	2	SUPPORT DE FLEXIBLES.....	H10127	NO 88004-16
11	2	EXTENSION	H79633	
15	1	GAS-OIL ALIMENTATION	H60892	NO 00015-23
17	4	WASHER	C01811	
18	4	SCREW.....	C00340	
19	8	WASHER	C01036	
20	2	SCREW.....	C02203	
21	16	SCREW.....	C00355	
22	40	WASHER	C01037	
24	14	NUT	C00143	
26		PROJECTOR.....	E04216	
27		WASHER	C02156	
28		NUT.....	C00142	
30	1	DESCRIPTIVE PLATE ASSY	H88463	NO 10055-30

MANIPULATORS FUNCTION :

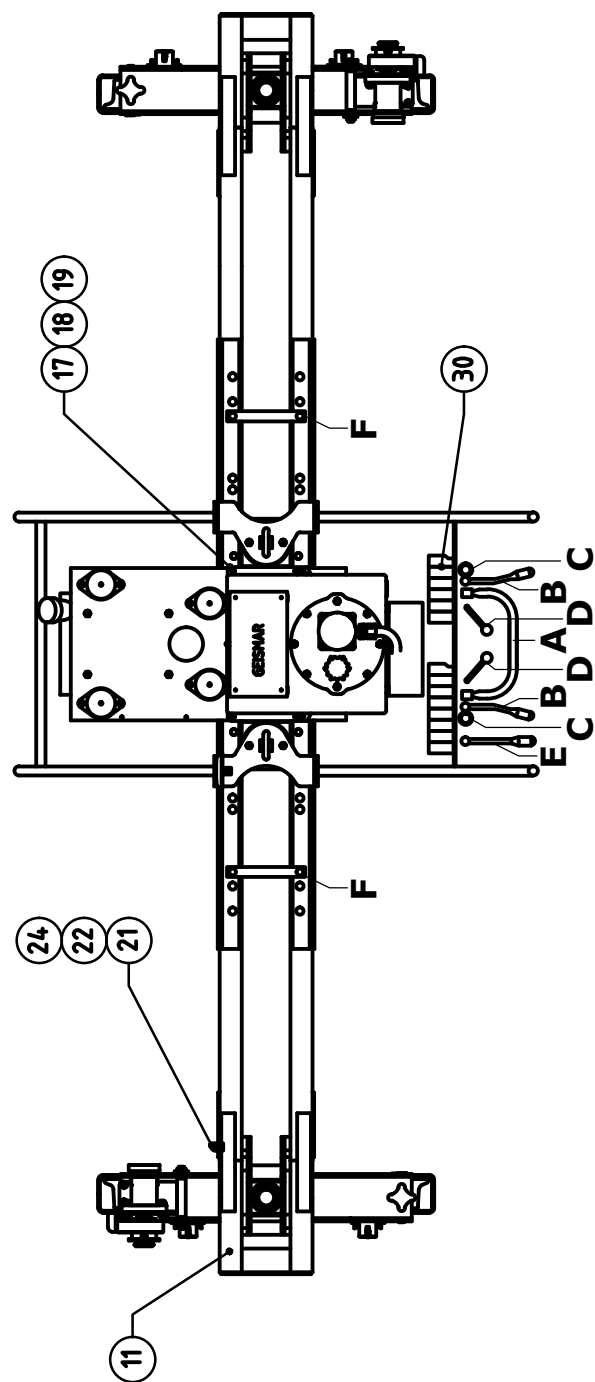
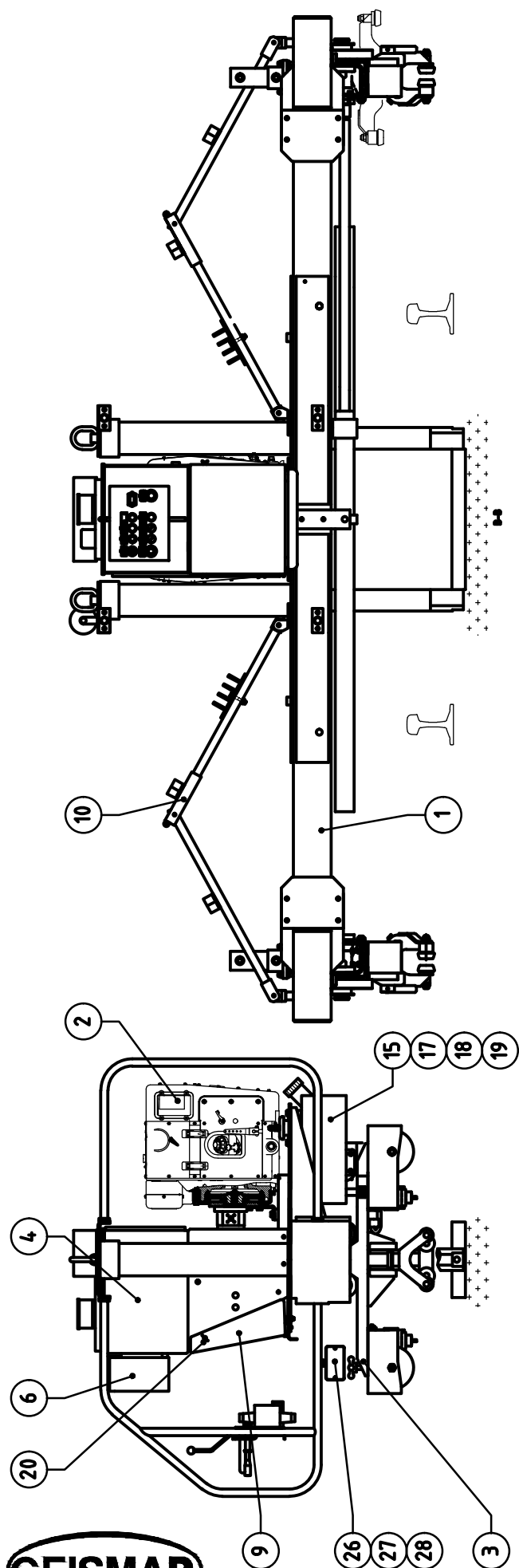
- A** LIFTING
- B** RAILS GRIPS
- C** SLEWING
- D** DRIVING
- E** ATR-6
-
- F** DOUBLE BEAM DRIFTS

HYDRAULIC RAIL THREADER TYPE MPR – M



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

H90461



GEISMAR
COLMAR

NO

10055

ÉD : 06/00

FITTED FRAME

H90476

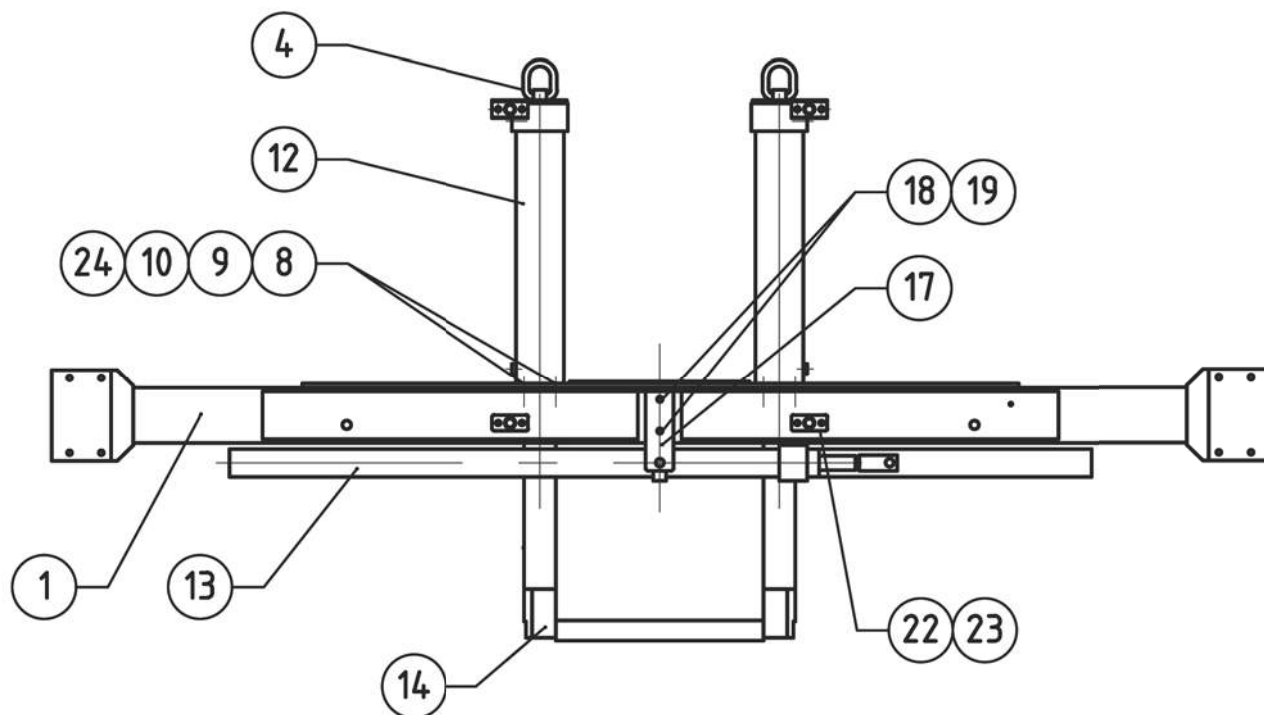
NO 10055-1

1	1	BARE FRAME.....	H79624	
2	1	PROTECTION FRAME - ENGINE SIDE.....	H78368	
3	1	PROTECTION FRAME – DISTRIBUTION SIDE	H72552	
4	2	HOISTING RING.....	H78406	
5	12	SCREW.....	C00357	
6	12	WASHER	C01813	
7	12	NUT.....	C00143	
8	8	SCREW.....	C00401	
9	8	LOCKING NUT	C00146	
10	8	WASHER	C01040	
12	2	LIFTING CYLINDER.....	D18062NO 06180-1-12
13	2	SLEWING CYLINDER	D18064NO 06180-1-13
14	1	LOWER FRAME	H02035NO 80102-7
15	2	DOUBLE BEAM DRIFT.....	H80667	
16	2	COVER PLATE.....	H78408	
17	2	FIXING LUG.....	H78409	
18	4	SCREW.....	C00370	
19	4	WASHER	C01817	
22	8	SCREW.....	C00341	
23	8	WASHER	C01811	
24	4	SCREW.....	C00400	
25	2	COLLAR	D00608	
26	1	COLLAR	D07091	
27	2	SCREW.....	C00510	

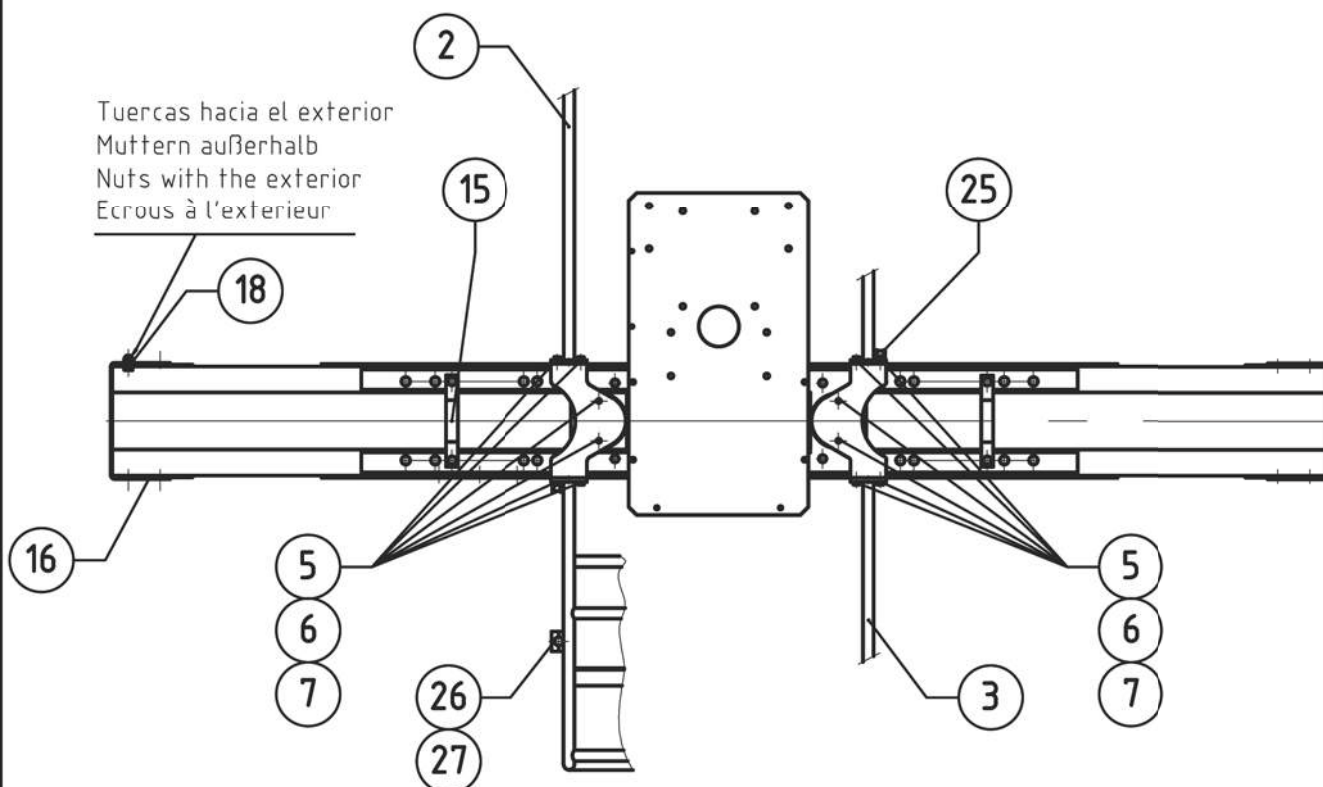
HYDRAULIC RAIL THREADER TYPE MPR – M



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



Tuercas hacia el exterior
Muttern außerhalb
Nuts with the exterior
Ecrrous à l'exterieur



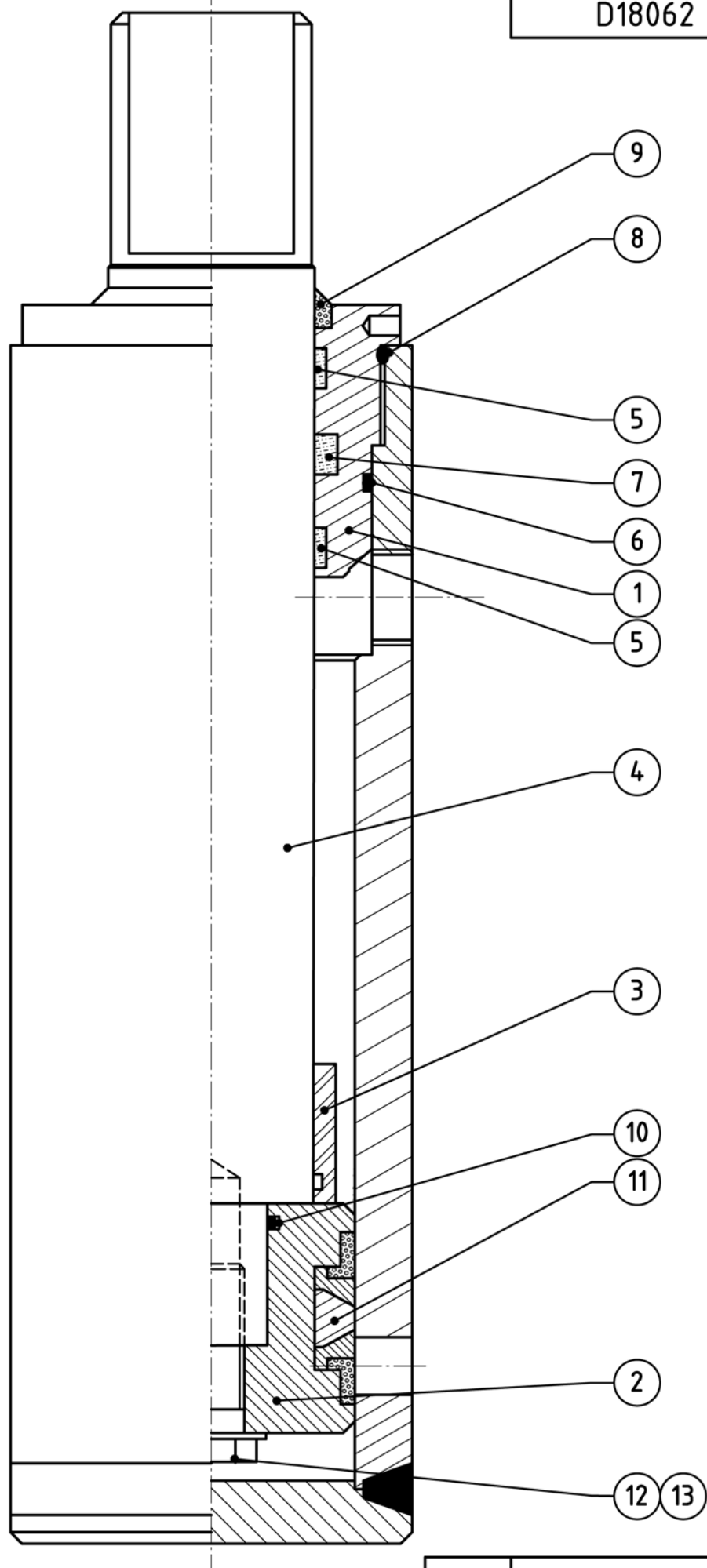
Item	Qty	Description	Code N°	Drawing
ÉD : 10/07				
		LIFTING CYLINDER RAM	D18062	NO 06180-1-12
1	1	GUIDING RING.....	D18066	
	1	PISTON ROD KIT INCLUDED	D18068	
2	1	PISTON		
3	1	SPACER WITH O-RING		
4	1	PISTON ROD		
8	1	O-RING		
12	1	WASHER		
13	1	SCREW		
	1	SEALS KIT INCLUDED	D18067	
8	1	O-RING		
9	1	WIPER SEAL		
10	1	ROD SEAL		
11	1	O-RING		
12	1	PISTON SEAL		
13	1	O-RING		

HYDRAULIC RAIL THREADER TYPE MPR – M



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

D18062



GEISMAR
COLMAR

No 06180-1-12

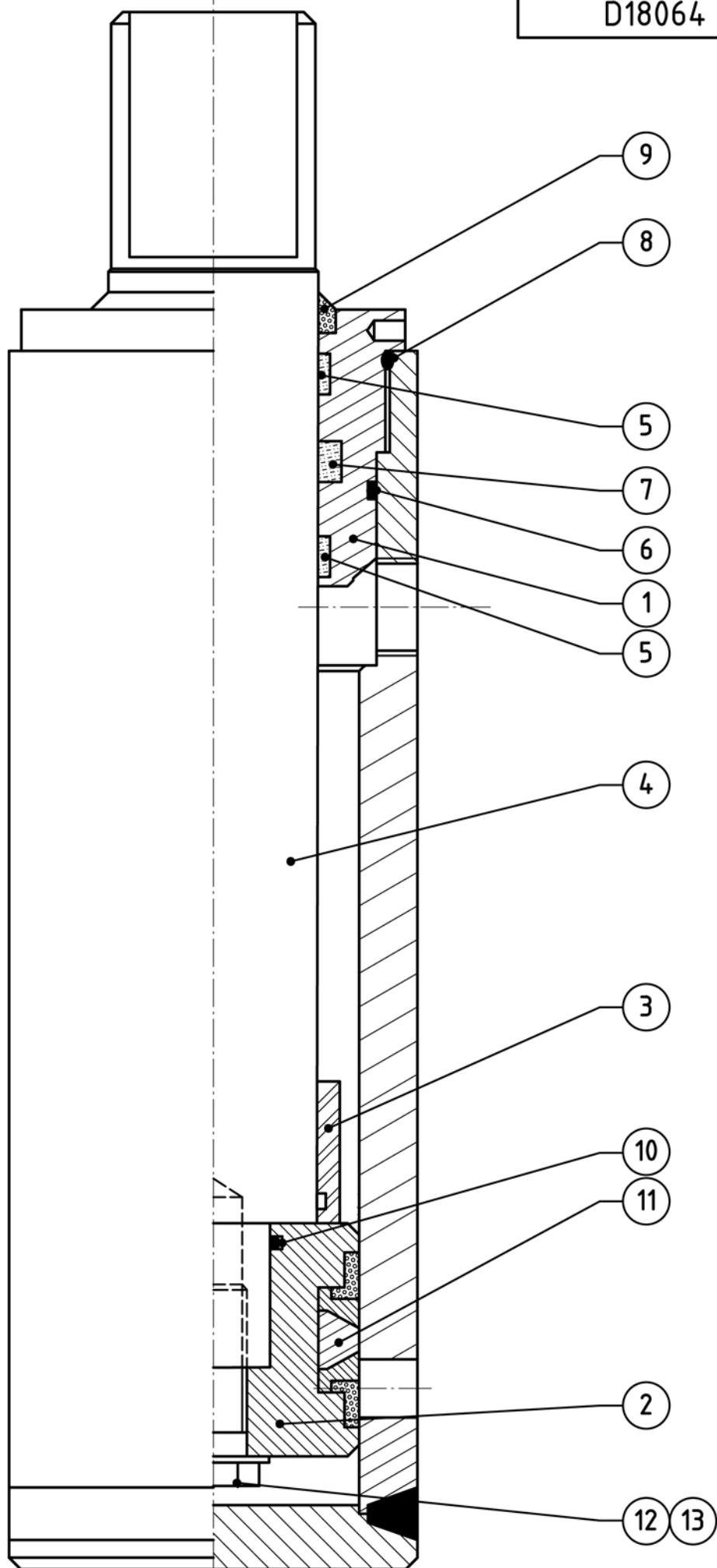
Item	Qty	Description	Code N°	Drawing
ÉD : 10/07				
		SLEWING CYLINDER RAM	D18064	NO 06180-1-13
1	1	GUIDING RING.....	D18071	
		PISTON ROD KIT, INCLUDED :	D18069	
2	1	PISTON		
3	1	SPACER WITH O-RING		
4	1	PISTON ROD		
10	1	O-RING		
12	1	WASHER		
13	1	SCREW		
		SEALS KIT, INCLUDED :	D18070	
5	2	ROD SEAL		
6	1	O-RING		
7	1	ROD SEAL		
8	1	O-RING		
9	1	WIPER SEAL		
10	1	ROD SEAL		
11	1	PISTON SEAL		

HYDRAULIC RAIL THREADER TYPE MPR – M



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

D18064



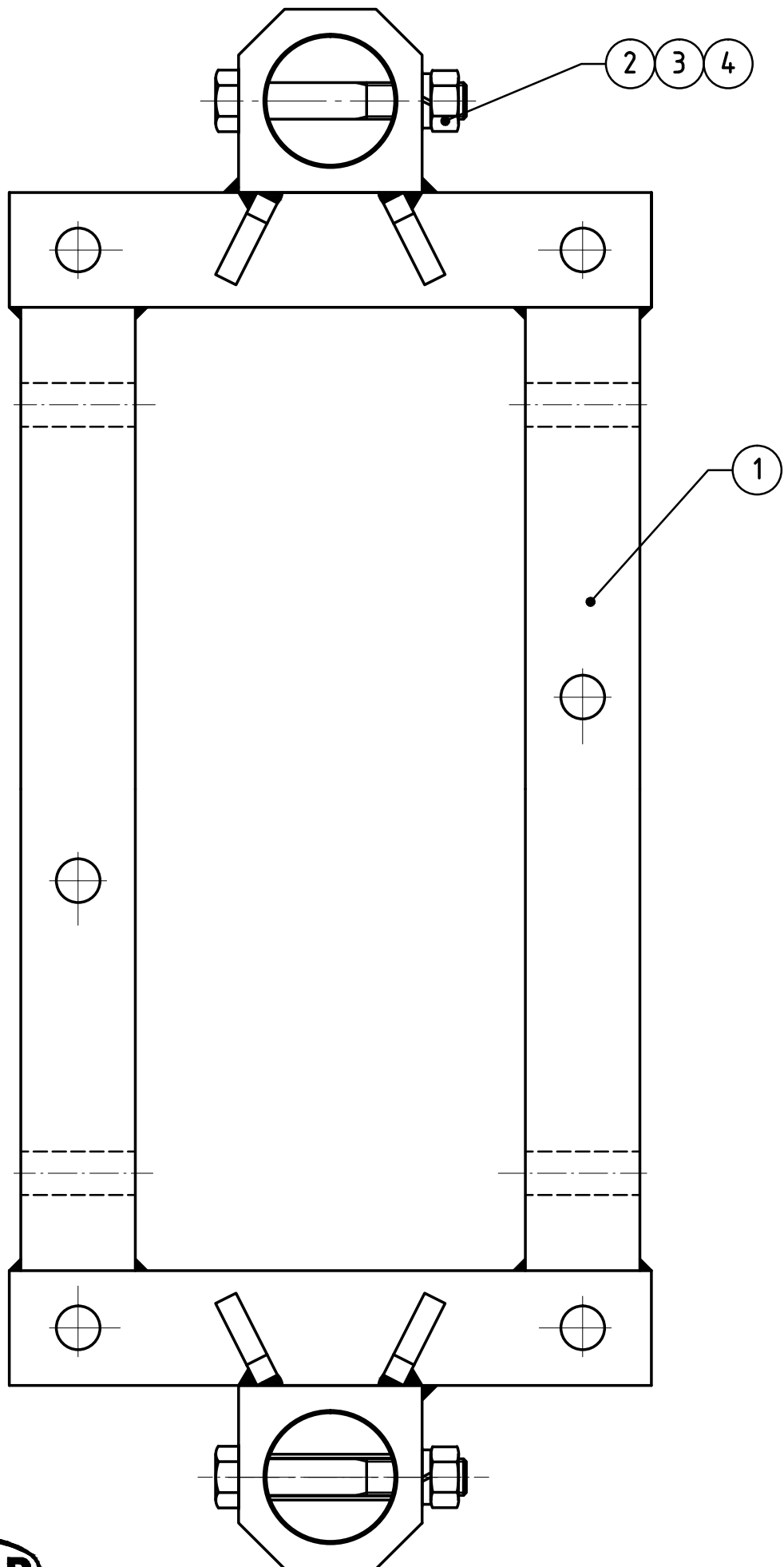
Item	Qty	Description	Code N°	Drawing
ÉD : 06/07				
		LOWER FRAME	H02035	NO 80102 - 7
1	1	LOWER FRAME	H15451	
2	2	SCREW.....	C00692	
3	2	LOCKING NUT	C00148	
4	2	WASHER	C01042	

HYDRAULIC RAIL THREADER TYPE MPR – M



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

H02035



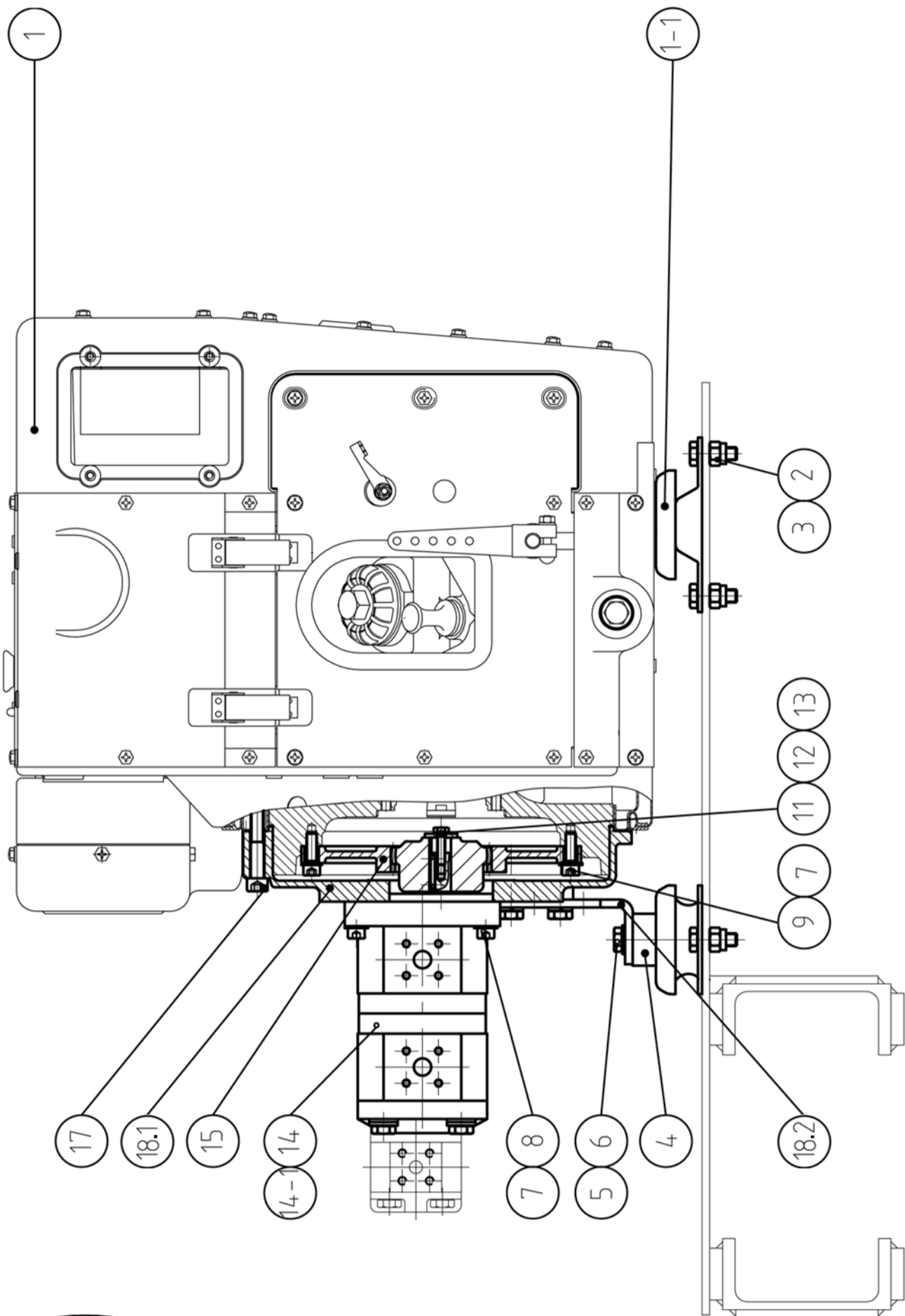
Item	Qty	Description	Code N°	Drawing
ÉD : 04/08				
ENGINE/PUMP UNIT			H78414	NO 00015 - 2
1	1	DIESEL ENGINE HATZ 1 D 42C	D18860	
1-1	1	SET OF 4 ELASTIC STUDS	D12589	
2	8	HEXAGON SCREW	C00355	
3	8	SELF LOCKING NUT	C00143	
4	2	SPACER	H59472	
5	2	CONICAL WASHER	C01813	
6	2	HEXAGON SCREW	C00359	
7	10	CONICAL WASHER	C01811	
8	4	HEXAGON SOCKET HEAD CAP SCREW	C00522	
9	6	HEXAGON SOCKET HEAD CAP SCREW	C00520	
11	1	HEXAGON SCREW	C00333	
12	1	LOCK WASHER EXTERNAL TEETH	C01067	
13	1	BACK-UP WASHER	H54479	
14	1	HYDRAULIC PUMP	D04931	
14-1	1	SET OF SEALS	D18001	
15	1	COUPLING	H59768	
17	6	HEXAGON SOCKET HEAD CAP SCREW	C00544	
18-1	1	COUPLING CLUTCH	H59473	
18-2	2	MOTOR BASE	H59474	

HYDRAULIC RAIL THREADER TYPE MPR – M



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

H78414



Item Qty Description

Code N°

Drawing

ÉD : 06/08

MOTORISED CARRIAGE

H82606

NO 07183-3

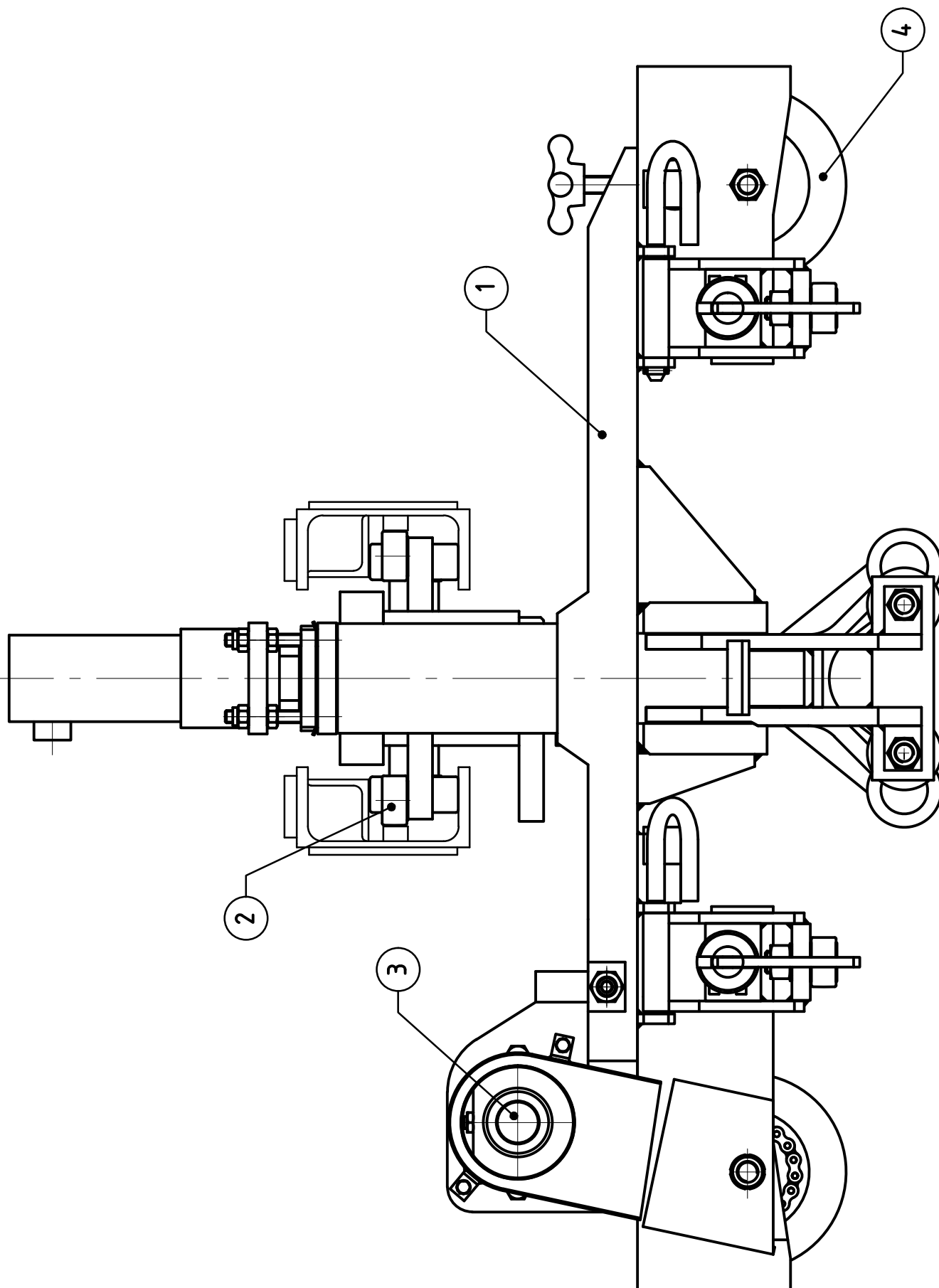
1	1	LOWER CARRIAGE	H82607	NO 07183-3-1
2	1	TRANSFERRING CARRIAGE	H79629	NO 06180-3-2
3	1	DRIVING AND DISENGAGEABLE ROLLER UNIT	H72571	NO 04110-3-3
4	1	FREE ROLLER UNIT	H72572	NO 04110-3-4

HYDRAULIC RAIL THREADER TYPE MPR – M



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

H82606



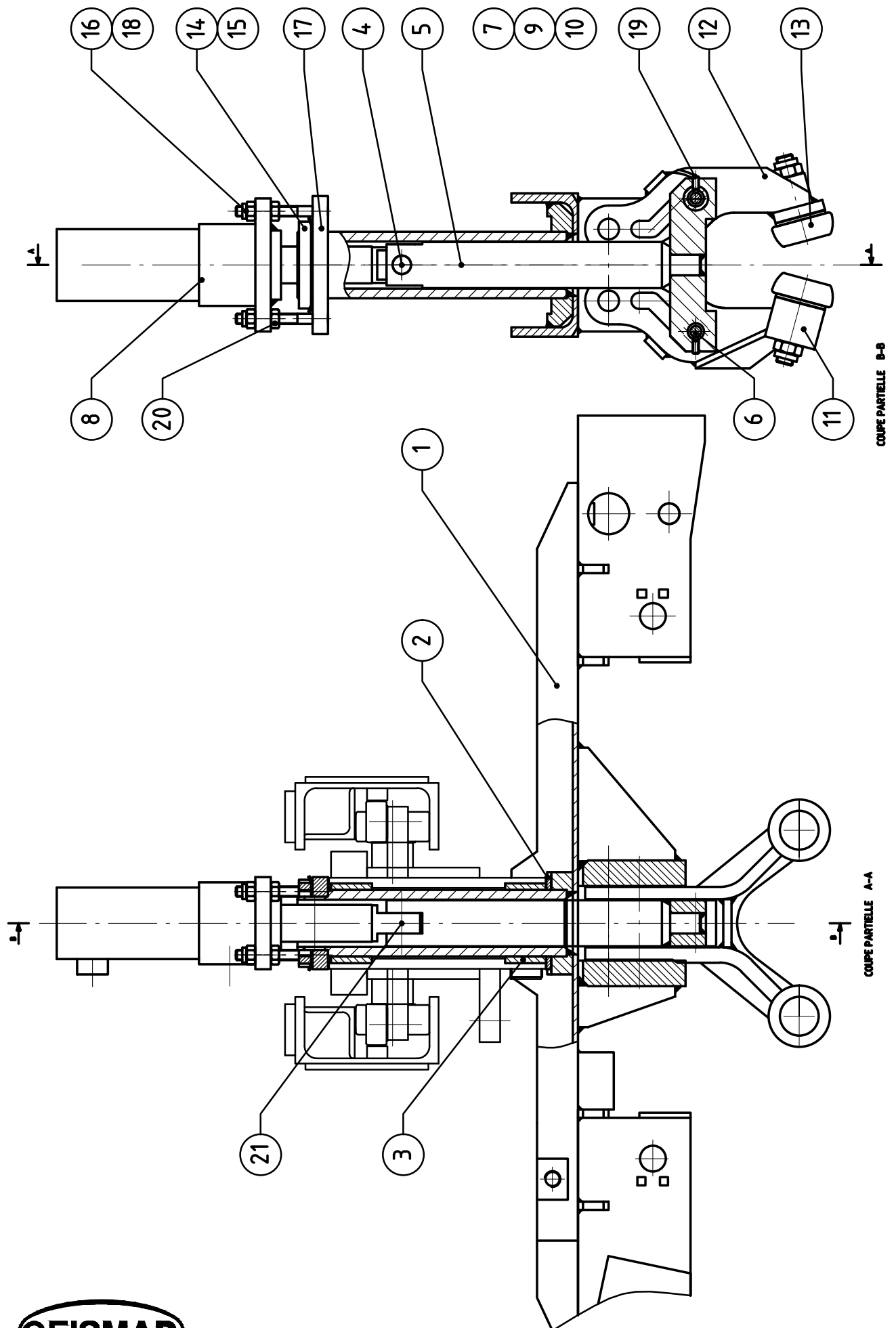
Item	Qty	Description	Code N°	Drawing
ÉD : 06/08				
LOWER CARRIAGE			H82607	NO 07183-3-1
1	1	FRAME	H72576	
2	1	BRASS WASHER	H00721	
3	2	BEARING BUSH	H00722	
4	1	SHAFT	H00723	
5	1	ROD WITH BEARING BUSHES	H29911	
6	2	SHAFT	H02030	
7	4	SHAFT	H09091	
8	1	RAIL GRIP CYLINDER	D18037NO 07182-1
9	4	SCREW	C00331	
10	4	WASHER	C02221	
11	1	INNER GRIP ARM	H54214	
12	1	OUTER GRIP ARM	H54215	
13	4	ASSEMBLED ROLLER Ø 60	H20037	
14	1	WASHER	D03505	
15	1	NUT	D03485	
16	4	GUDGEON	H71641	
17	1	CYLINDER SUPPORT	H12526	
18	4	LOCKING NUT	C00143	
19	2	SCREW	C00802	
20	4	NUT	C00120	
21	1	SCREW	C02088	

HYDRAULIC RAIL THREADER TYPE MPR – M



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

H82607



Item	Qty	Description	Code N°	Drawing
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ÉD : 10/07

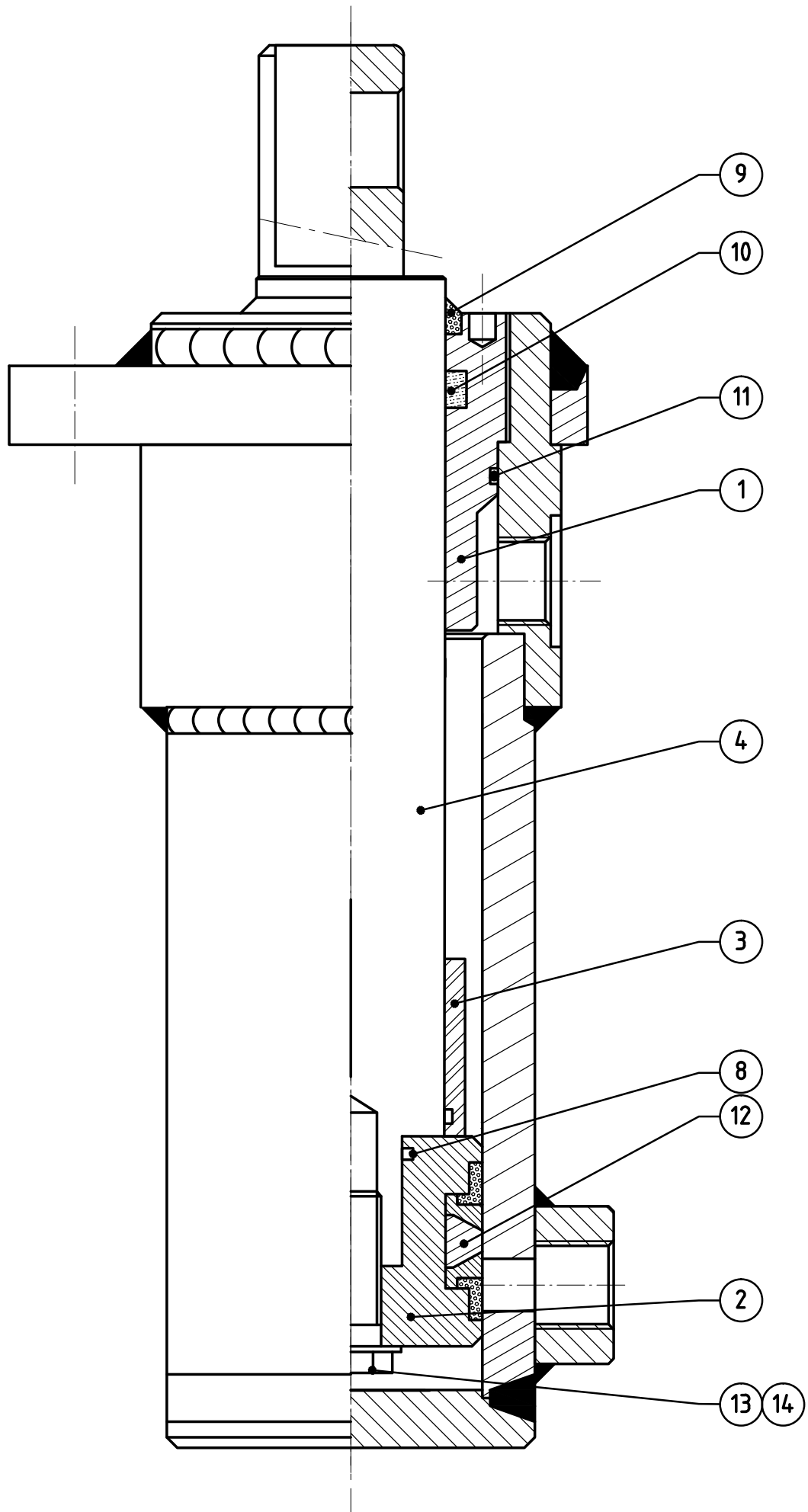
		HYDRAULIC RAM	D18037	NO 07182-1
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1	1	GUIDING RING.....	D18043	
	1	PISTON ROD KIT INCLUDED :	D18042	
2	1	PISTON		
3	1	SPACER		
4	1	PISTON ROD		
8	1	O-RING		
13	1	WASHER		
14	1	SCREW		
	1	SEALS KIT INCLUDED :	D18044	
8	9	O-RING		
9	1	WIPER SEAL		
10	1	ROD SEAL		
11	1	O-RING		
12	1	PISTON SEAL		

HYDRAULIC RAIL THREADER TYPE MPR – M



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



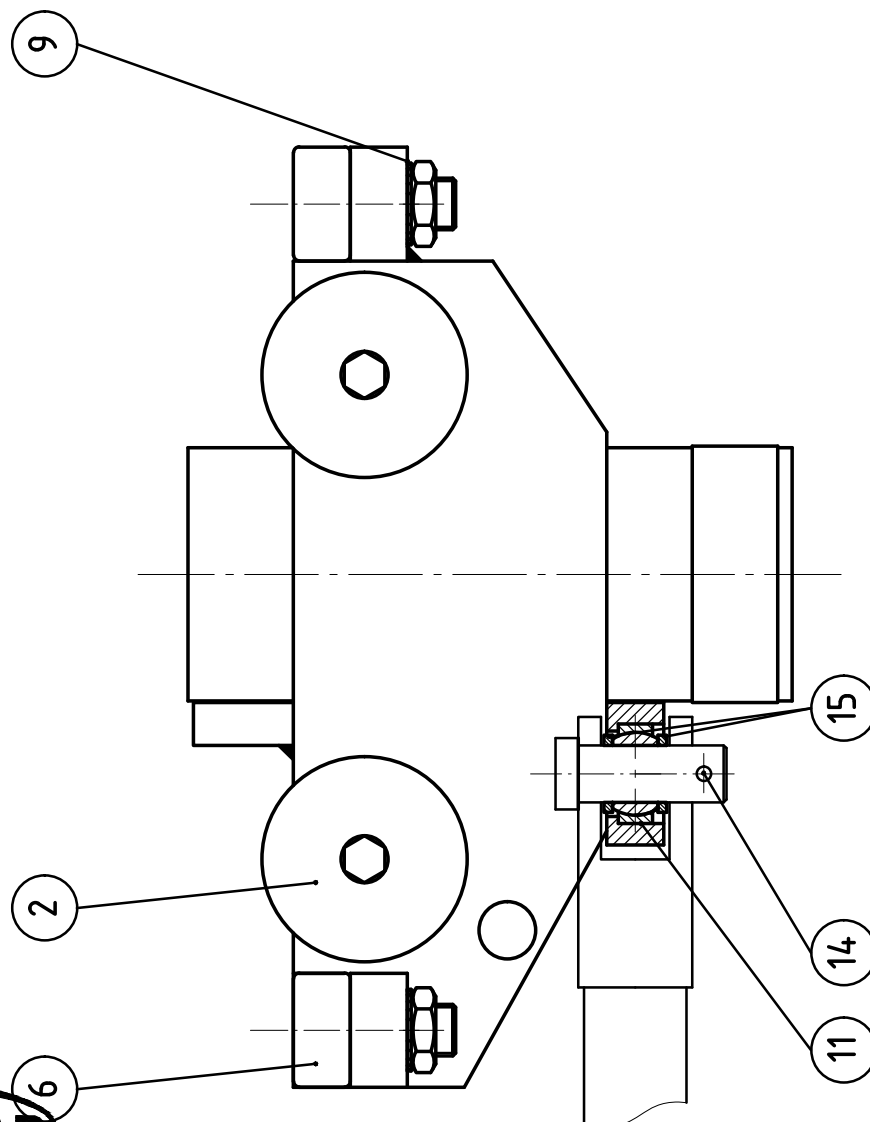
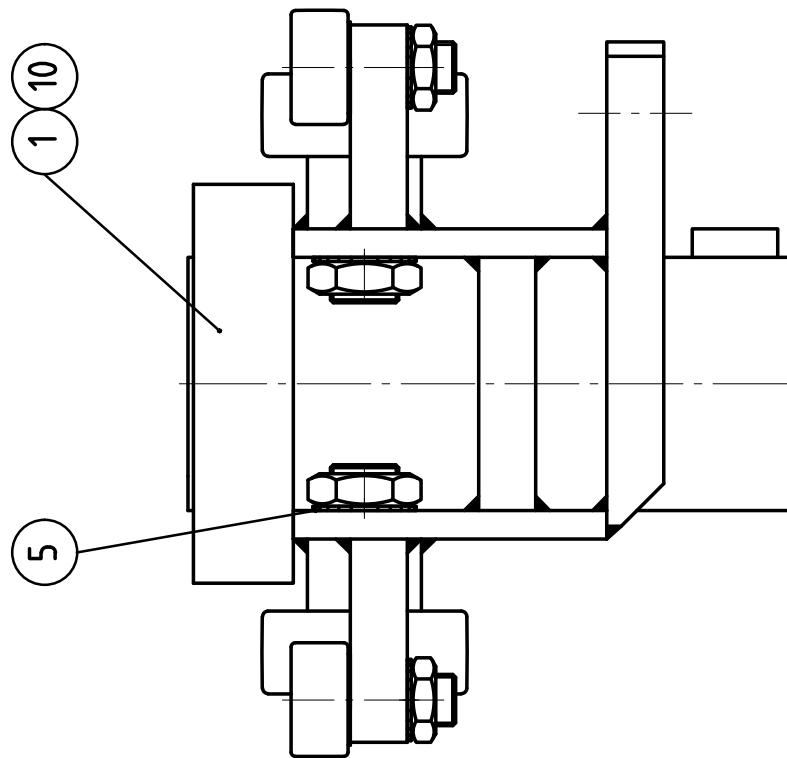
Item	Qty	Description	Code N°	Drawing
ÉD : 01/07				
		TRANSFERRING CARRIAGE	H79629	NO 06180-3-2
1	1	FRAME	H79630	
2	4	CAM ROLLER.....	D03422	
5	4	WASHER	C01075	
6	4	CAM ROLLER.....	D03418	
9	4	WASHER	C01073	
10	1	GREASE NIPPLE	D00587	
11	1	SWIVEL BEARING	D03518	
14	1	PIN	C01244	
15	2	WASHER	H05127	

HYDRAULIC RAIL THREADER TYPE MPR – M



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

H79629



GEISMAR
COLMAR

NO

06180-3-2

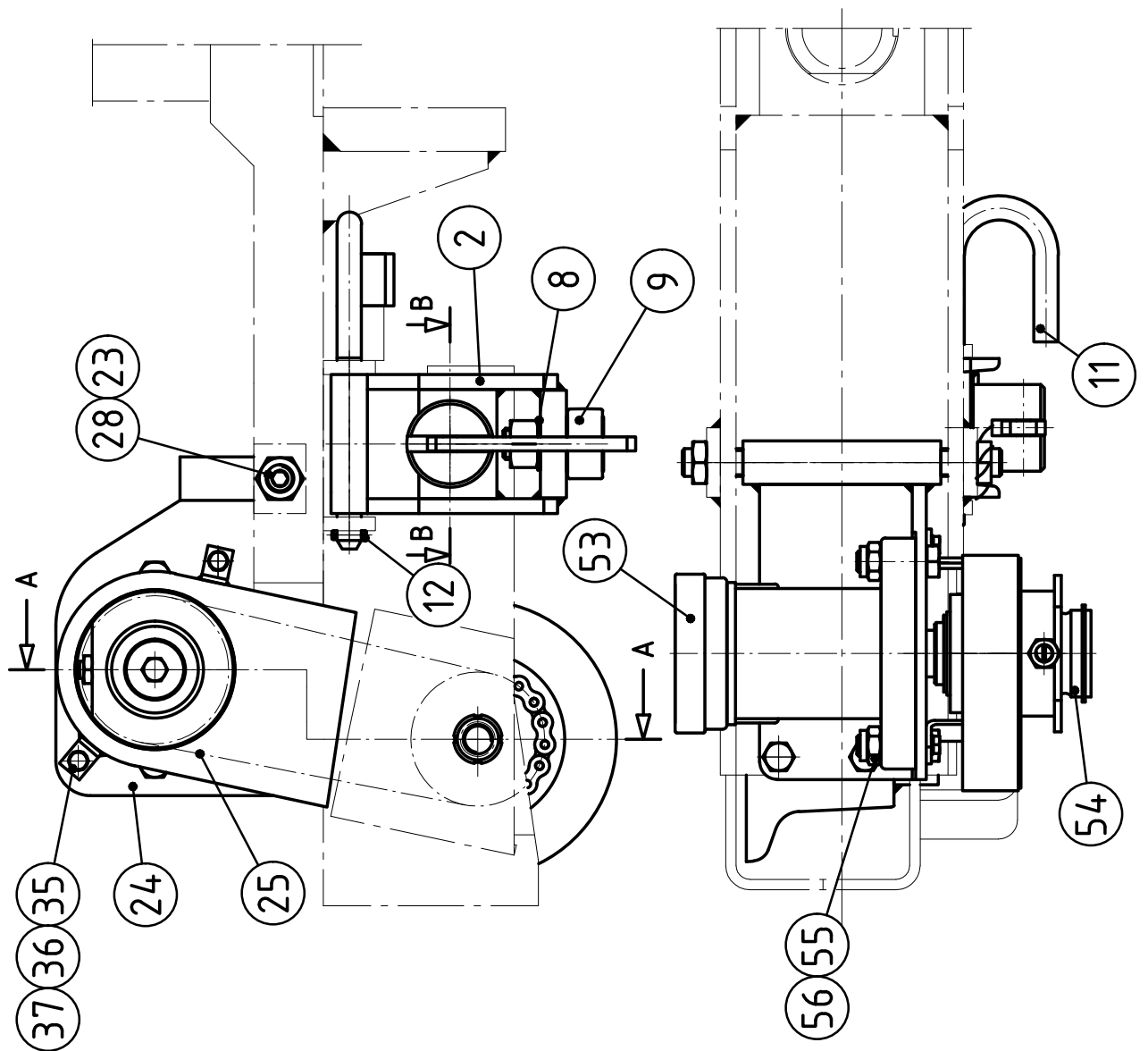
Item	Qty	Description	Code N°	Drawing
ÉD : 06/08				
DRIVING AND DISENGAGEABLE ROLLER UNIT			H72571	NO 04110-3-3
2	1	GUIDING PLATE	H00884	
3	1	SCREW.....	C00441	
4	1	LOCKING ELEMENT	H00781	
8	1	WASHER	C01073	
9	1	CAM ROLLER.....	D03418	
11	1	SPINDLE.....	H03648	
12	1	PIN	C01175	
13	1	SCREW.....	C00381	
14	1	LOCKING NUT	C00144	
23	1	AXEL	H79132	
24	1	MOTOR SUPPORT	H79126	
25	1	PROTECTION	H13341	
28	2	LOCKING NUT	C00087	
35	2	LOCKING NUT	C00141	
36	2	SCREW.....	C00330	
37	4	WASHER	C01816	
53	1	HYDRAULIC MOTOR.....	D12245	
54	1	DISENGAGEABLE PINION	H03650NO 76071-100-3
55	2	SCREW.....	C00372	
56	2	LOCKING NUT	C00144	

HYDRAULIC RAIL THREADER TYPE MPR – M



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

H72571



ÉD : 06/08

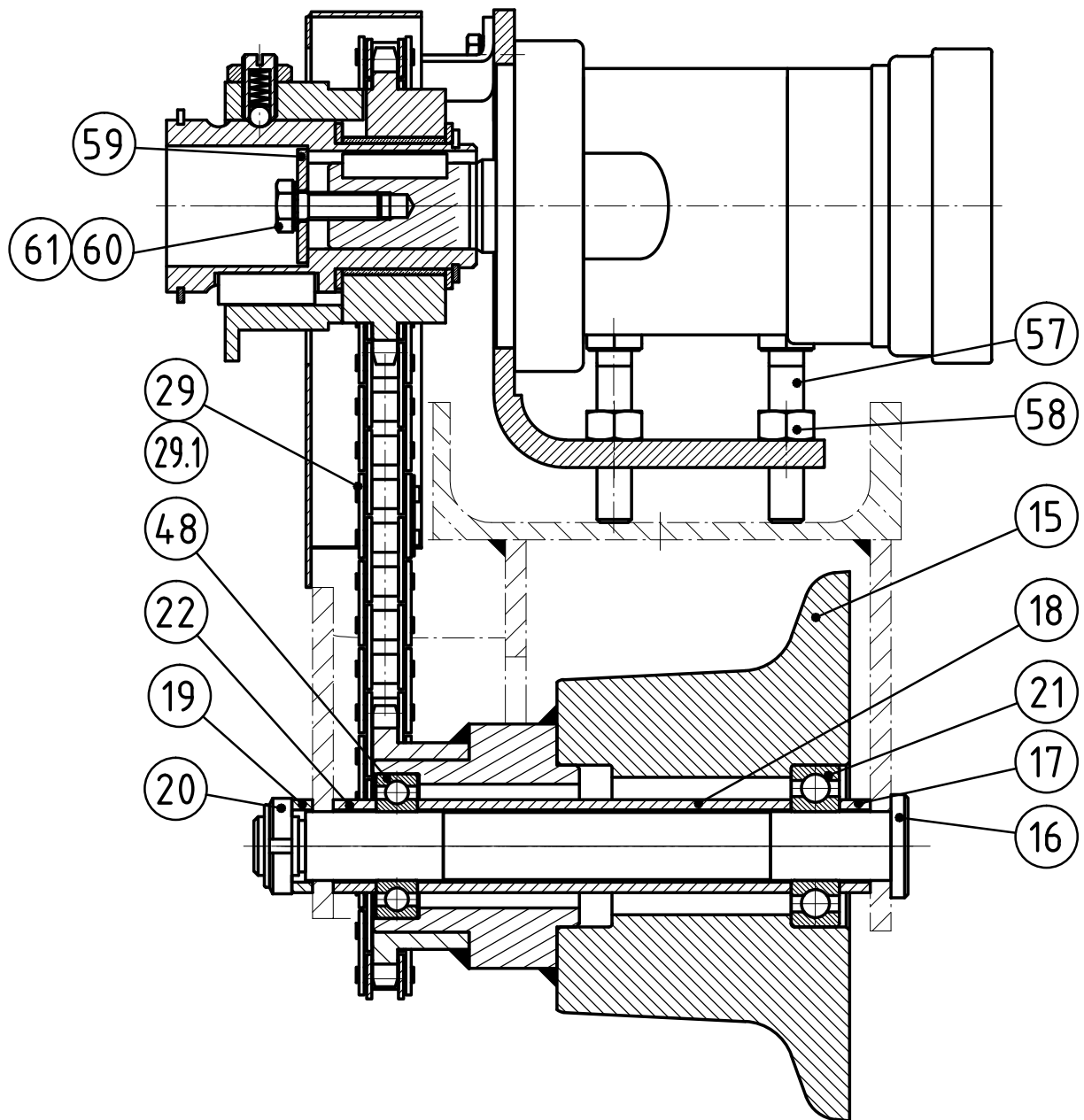
DRIVING AND DISENGAGEABLE ROLLER UNIT (FOLLOWING)

15	1	DRIVE ROLLER.....	H09090
16	1	AXEL.....	H09103
17	1	SPACER	H02914
18	1	SPACER	H13338
19	1	WASHER	H02915
20	1	LOCKING NUT	C00159
21	1	BALL BEARING	D03142
22	1	SPACER	H13336
29	1	CHAIN WITH SHACKLE	D08166
29-1	1	CONNECTING LINK	D03070
48	1	BALL BEARING	D03193
57	2	SCREW.....	C00263
58	2	NUT.....	C00120
59	1	WASHER	H01197
60	1	SCREW.....	C00341
61	1	WASHER	C01811

HYDRAULIC RAIL THREADER TYPE MPR – M

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

A-A



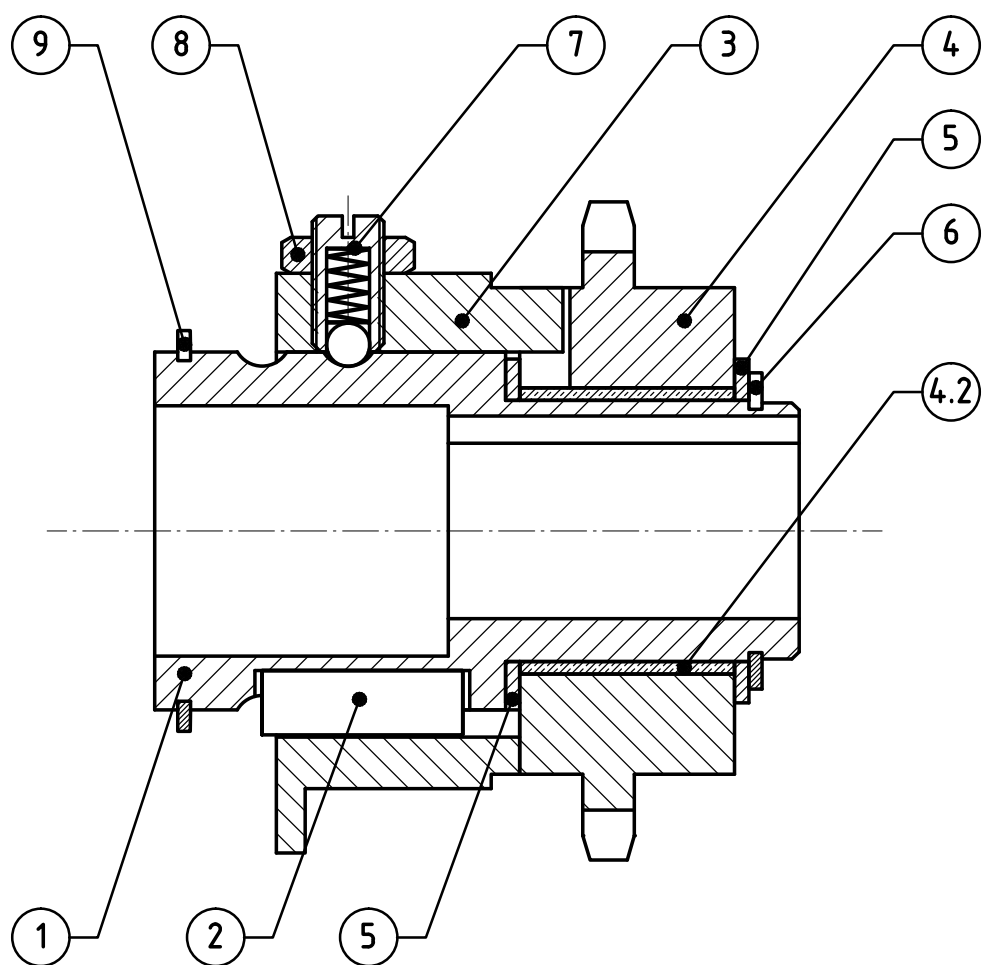
Item	Qty	Description	Code N°	Drawing
ÉD : 09/06				
DISENGAGEABLE PINION, COMPLETE			H03650	NO 76071-100-3
1	1	INTERMEDIATE SHAFT.....	H01193	
2	1	KEY	C01427	
3	1	CLAW PINION	H01194	
4	1	PINION WITH BEARING BUSH	H03651	
4.2	1	BEARING BUSH	H01196	
5	2	BRONZE WASHER	H01195	
6	1	OUTER CIRCLIP	C01320	
7	1	SPRING BUSH BUTTOM	D04520	
8	1	NUT	C00084	
9	1	OUTER CIRCLIP	D11297	

HYDRAULIC RAIL THREADER TYPE MPR – M



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

H03650



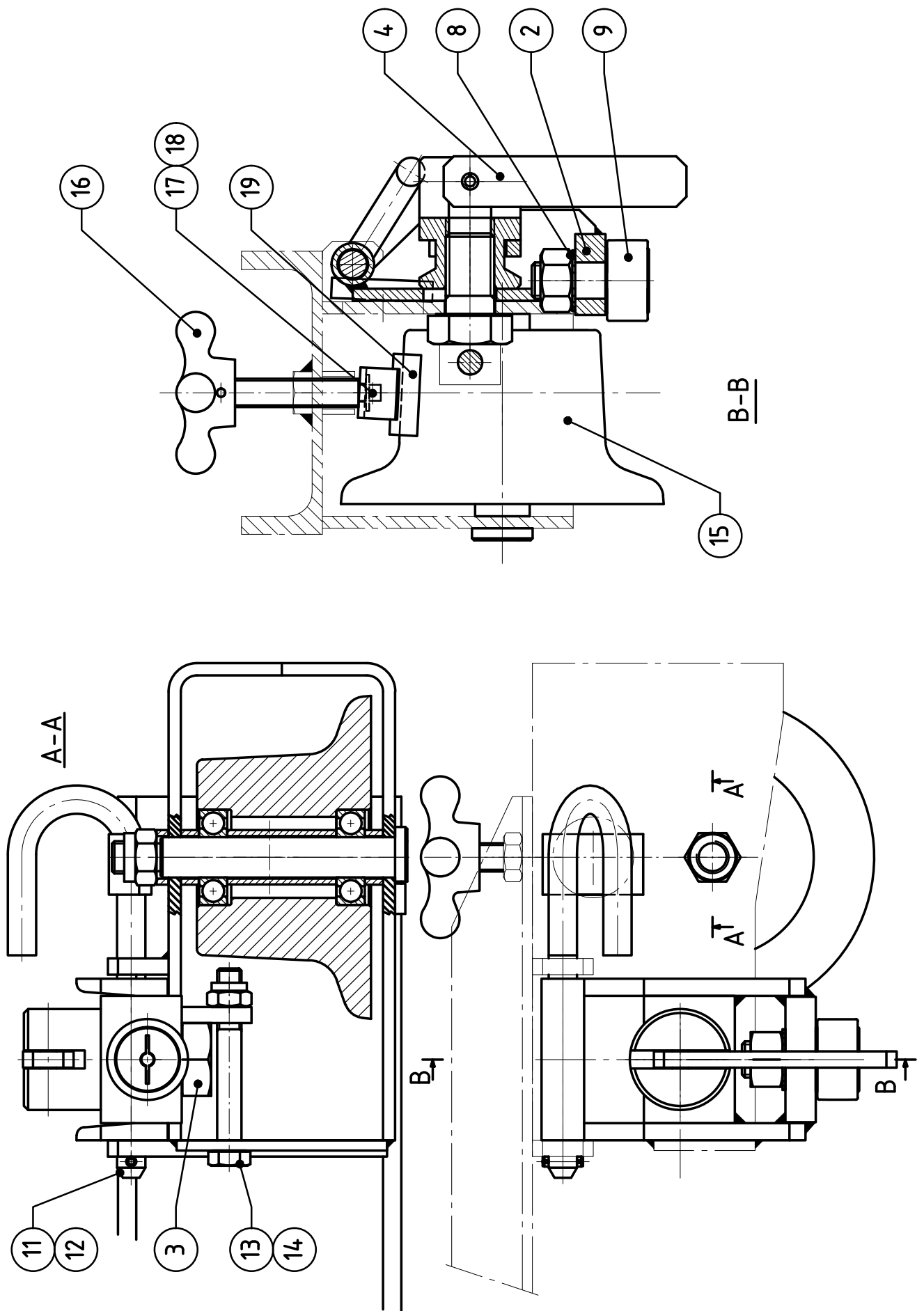
Item	Qty	Description	Code N°	Drawing
ÉD : 09/06				
		FREE ROLLER UNIT	H72572	NO 04110-3-4
2	1	GUIDING PLATE	H00884	
3	1	SCREW.....	C00441	
4	1	LOCKING ELEMENT	H00781	
8	1	WASHER	C01073	
9	1	CAM ROLLER.....	D03418	
11	1	SPINDLE.....	H03648	
12	1	PIN	C01175	
13	1	SCREW.....	C00381	
14	1	LOCKING NUT	C00144	
15	1	ASSEMBLED ROLLER Ø 100	H00102NO 75035
16	1	HAND BRAKE.....	H59261	
17	1	WASHER	C01036	
18	1	ELASTIC PIN	C01156	
19	1	BRAKE SHOE.....	H02640	

HYDRAULIC RAIL THREADER TYPE MPR – M



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

H72572



Item	Qty	Description	Code N°	Drawing
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ÉD : 02/94

		ASSEMBLED ROLLER Ø 100, NOT INSULATED	H00102	NO 75035
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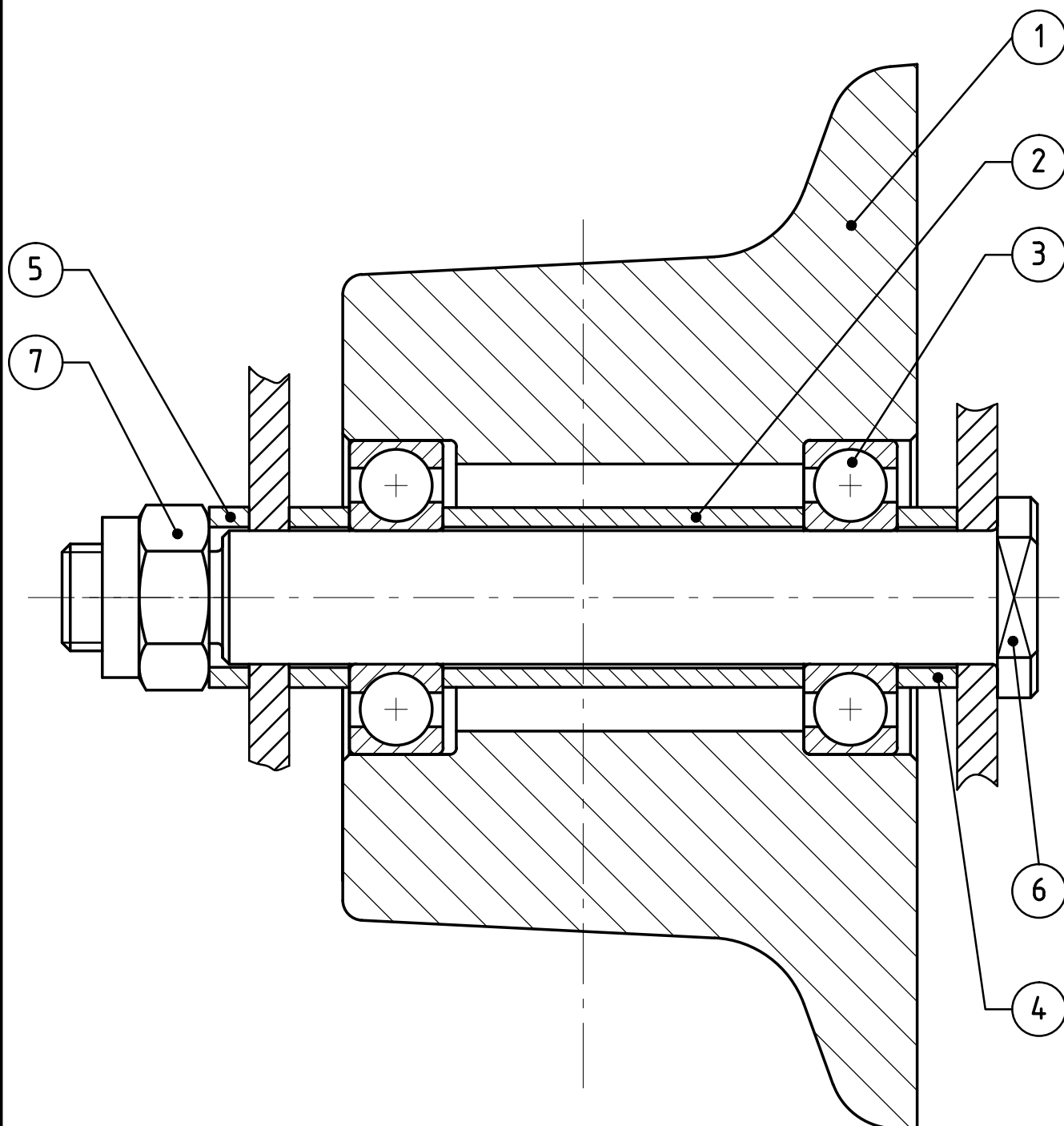
1	1	BARE ROLLER.....	H00101	
3	2	BEARING.....	D03142	
	1	ROLLER INNER PART KIT	H21842	
		INCLUDED :		
2	1	SPACER		
3	2	BEARING		
4	2	SPACER		
5	1	SPACER		
6	1	SHAFT		
7	1	LOCKING NUT		

HYDRAULIC RAIL THREADER TYPE MPR – M



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

H001202



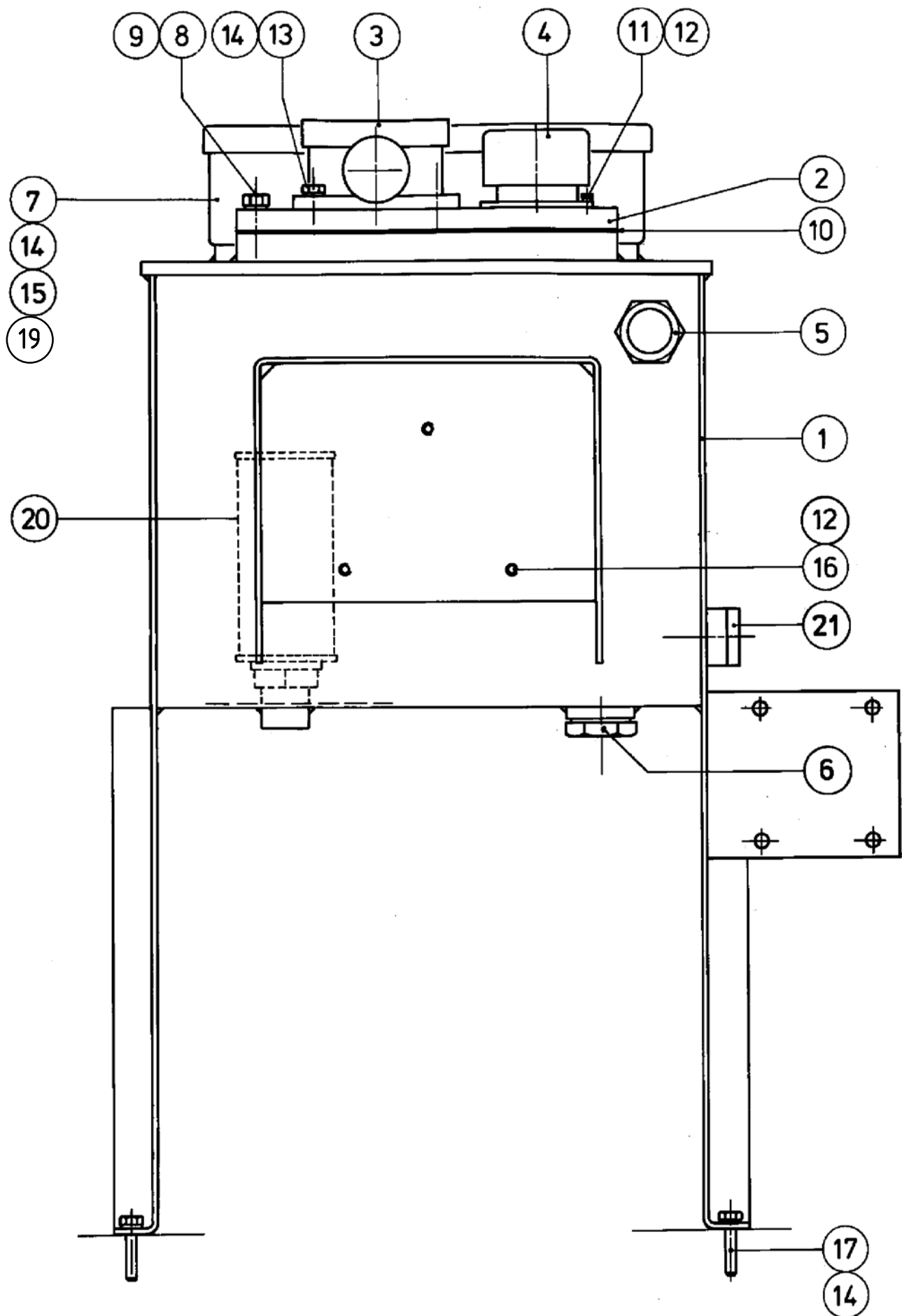
Item	Qty	Description	Code N°	Drawing
ÉD : 01/07				
		OIL TANK	H60897	NO 00015 - 4
1	1	TANK	H59435	
2	1	COVER	H09668	
3	1	RETURN LINE FILTER.....	D01324	NO 84121 - 4 - 18
4	1	FILLING PLUG.....	D00980	
5	1	OIL LEVEL	D03347	
6	1	EMPTYING PLUG	D00363	
7	1	CHEST	H01688	
8	8	SCREW.....	C00355	
9	8	WASHER	C01813	
11	6	SCREW.....	C00326	
12	6	WASHER	C01066	
13	4	SCREW.....	C00340	
14	12	WASHER	C01068	
15	4	SCREW.....	C00338	
17	4	SCREW.....	C00345	
19	1	PADLOCK.....	D01196	
20	2	SUCTION STRAINER.....	D01336	
21	1	BLANKING END	D00361	
25	1	CLOGGING INDICATOR.....	D18719	

HYDRAULIC RAIL THREADER TYPE MPR – M



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

H60897



RETURN LINE FILTER			D01324	NO 84121-4-18
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1	1	HOUSING		
6	1	FILTER CARTRIDGE.....	XD01348	
8	1	BY-PASS SPRING.....	X84121-4-18-8	
9	1	SPRING	X84121-4-18-9	
11	1	COVER	X84121-4-18-11	
12	4	GUDGEON		
13	4	WASHER		
14	4	NUT		
15	1	FUNNEL		
30		INSIDE PART	X.....	84121-4-18-30
		INCLUDED :		
2	1	BRIDGE PIECE		
4	1	MAGNET COLUMM		
5	1	ROD		
8	1	BY-PASS SPRING		
9	1	SPRING		
19	1	CUPEL		
20	1	NUT		
50		SET OF SEALS	X.....	D06512
		INCLUDED :		
3	1	O-RING		
10	1	O-RING		
16	1	TANK SEAL		
18	1	O-RING		

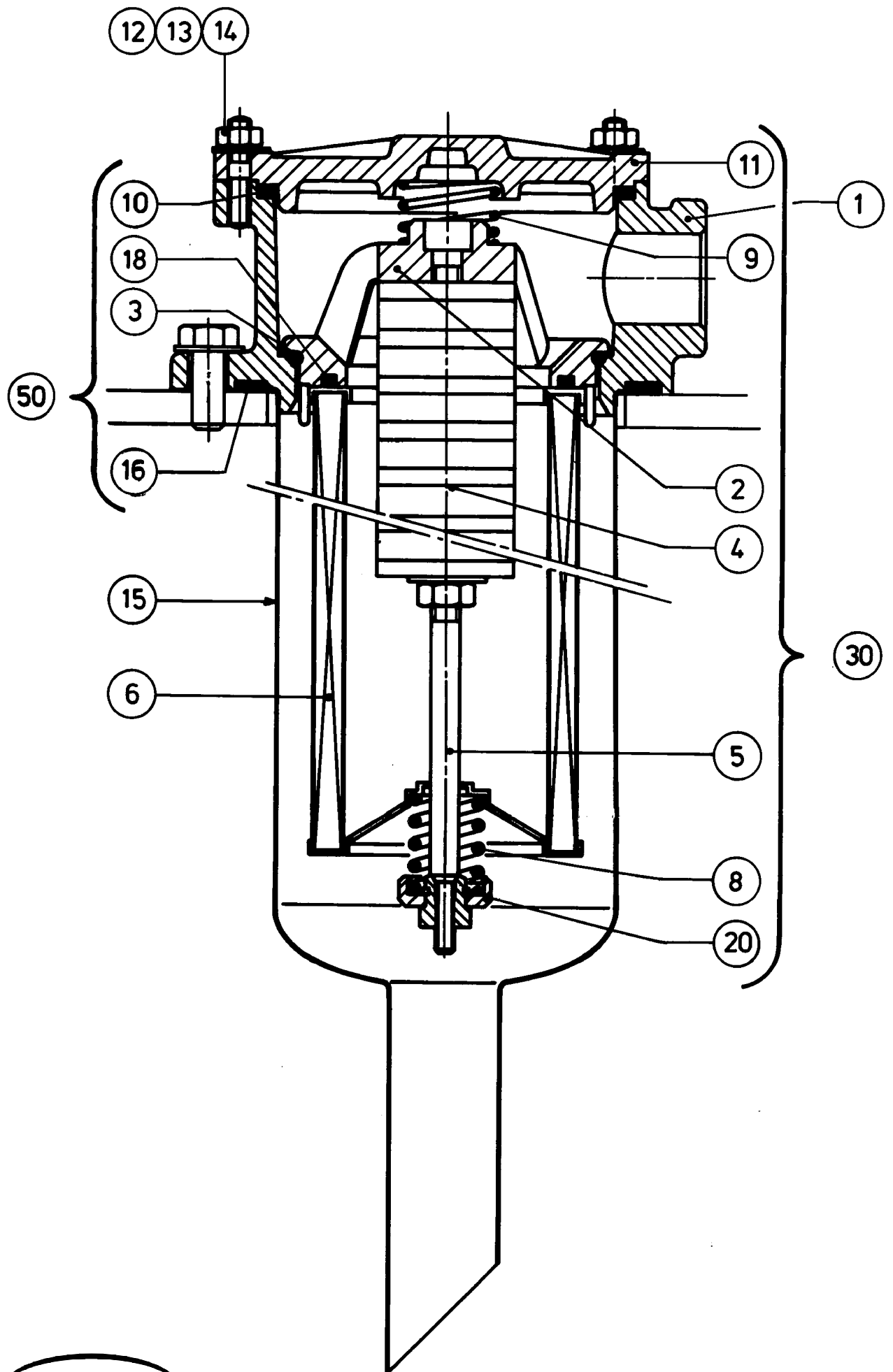
CONSIDERATION :
 ONLY PIECES MARKED X CAN BE SUPPLIED
 AS SPARE PARTS.
 HOUSING ITEM 1 IS NOT AVAILABLE AS SPARE
 PART AND CAN ONLY BE SUPPLIED WITH THE
 RETURN LINE FILTER COMPLETE.

HYDRAULIC RAIL THREADER TYPE MPR – M



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

D01324



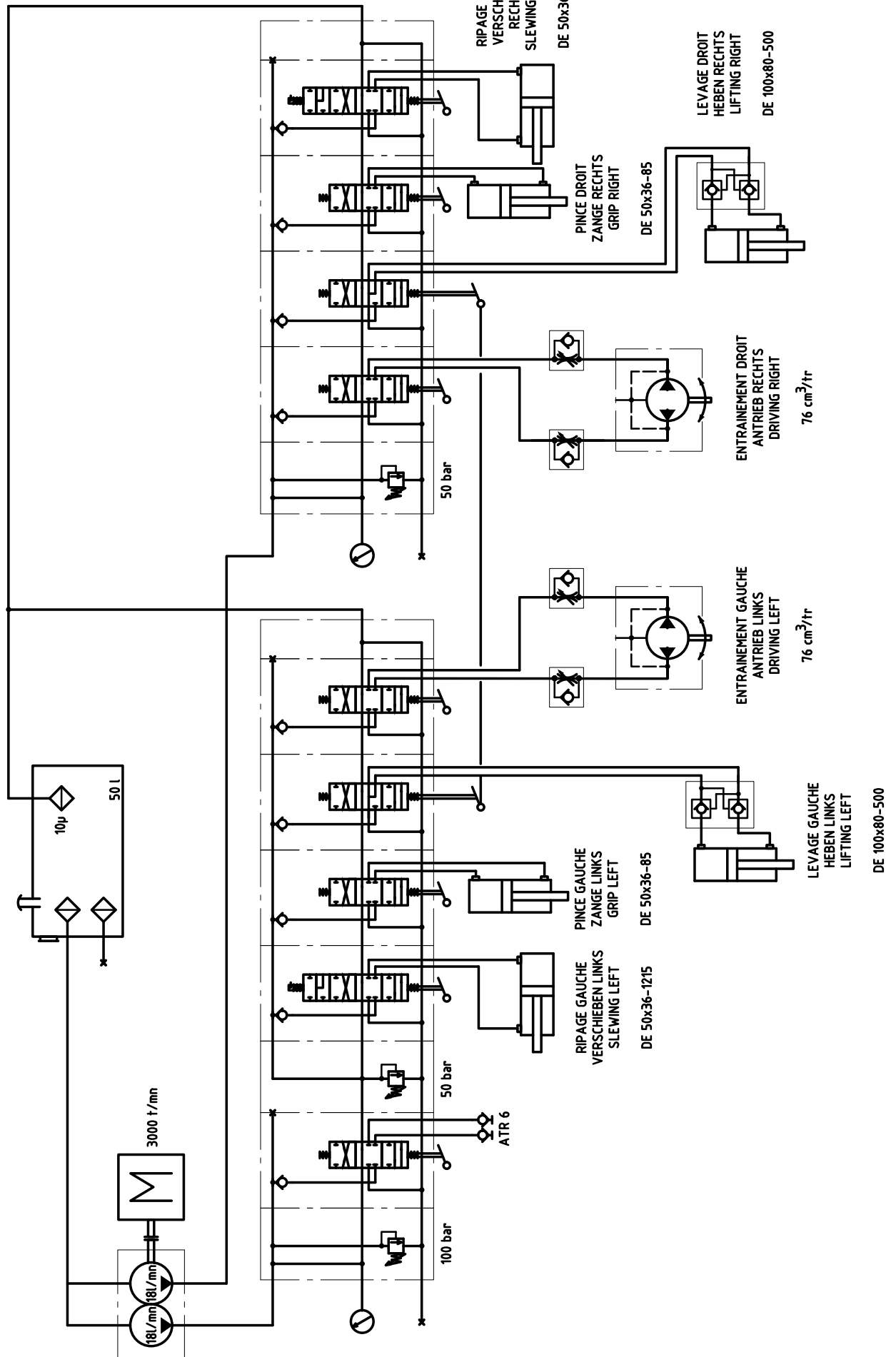
RECAPITULATIVE LIST OF THE HYDRAULIC CIRCUITS H90467**NO 10055- 8**

1	RIGHT SLEWING SUPPLY CIRCUIT.....	H72556	NO 04083-8-1
1	LEFT SLEWING SUPPLY CIRCUIT	H10143	NO 88004-8-30
1	RIGHT LIFTING SUPPLY CIRCUIT	H70825	NO 00015-8-25
1	LEFT LIFTING SUPPLY CIRCUIT	H70853	NO 00015-8-20
1	DISTRIBUTION BLOCKS FITTING	H90470	NO 10055-8-5
1	FEED AND RETURN CIRCUIT	H91435	NO 10055-8-6
1	ATR-6 CIRCUIT	H10147	NO 88004-8-70
2	MOTOR CIRCUIT	H10146	NO 88004-8-60
2	RAIL CLAMP CIRCUIT	H10145	NO 88004-8-50

HYDRAULIC RAIL THREADER TYPE MPR – M

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

H90471



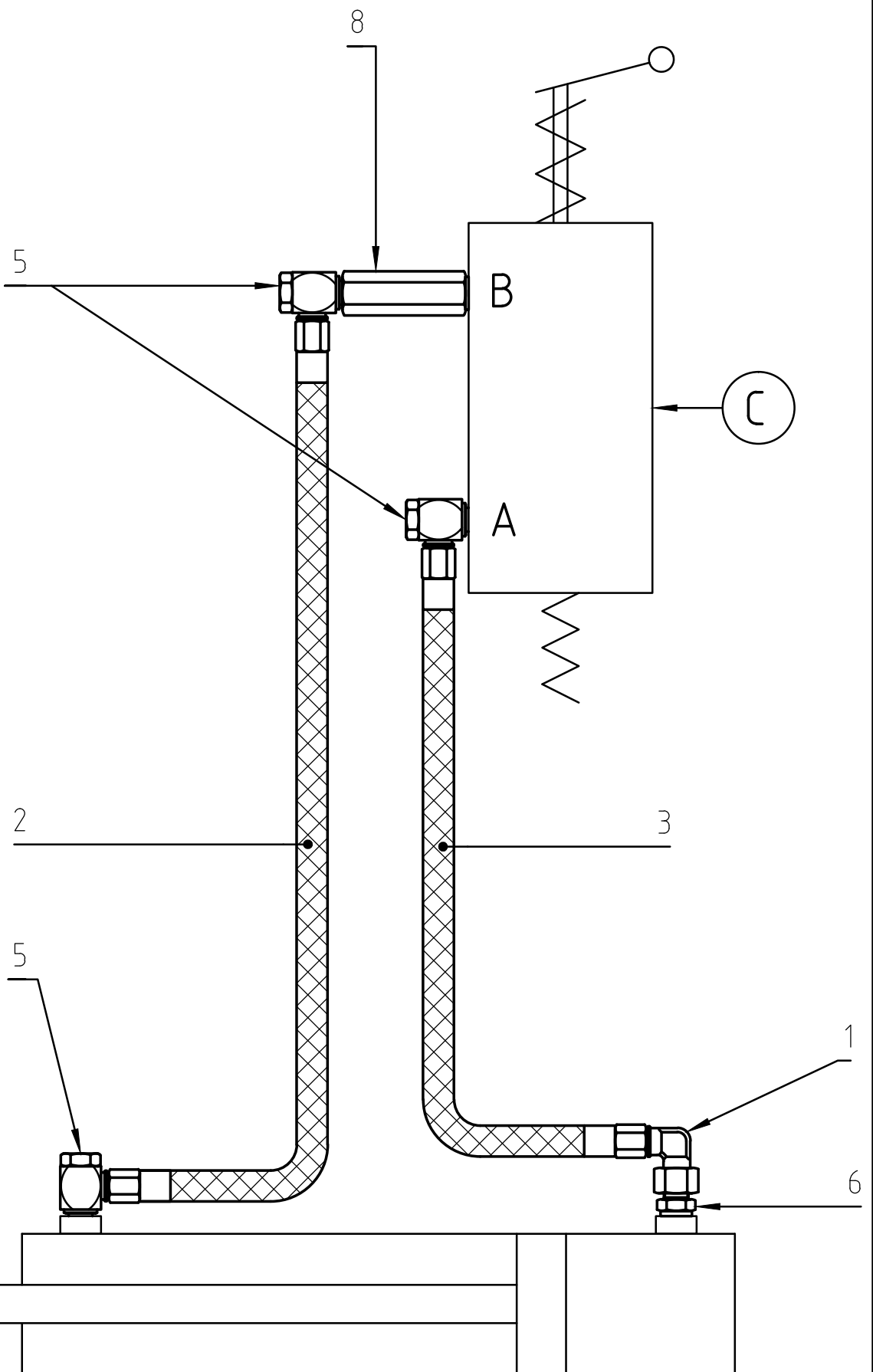
Item	Qty	Description	Code N°	Drawing
ÉD : 06/04				
RIGHT SLEWING SUPPLY CIRCUIT			H72556	NO 04083-8-1
1	1	MALE STUD COUPLING.....	D00185	
2	1	HYDRAULIC FLEXIBLE HOSE	D00833	
3	1	HYDRAULIC FLEXIBLE HOSE	D00859	
4	3	SWIVEL COUPLING.....	D16767	
6	1	SWIVEL ANGLE	D00115	
7	1	EXTENSION PIECE	D13699	

HYDRAULIC RAIL THREADER TYPE MPR – M



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

H72556

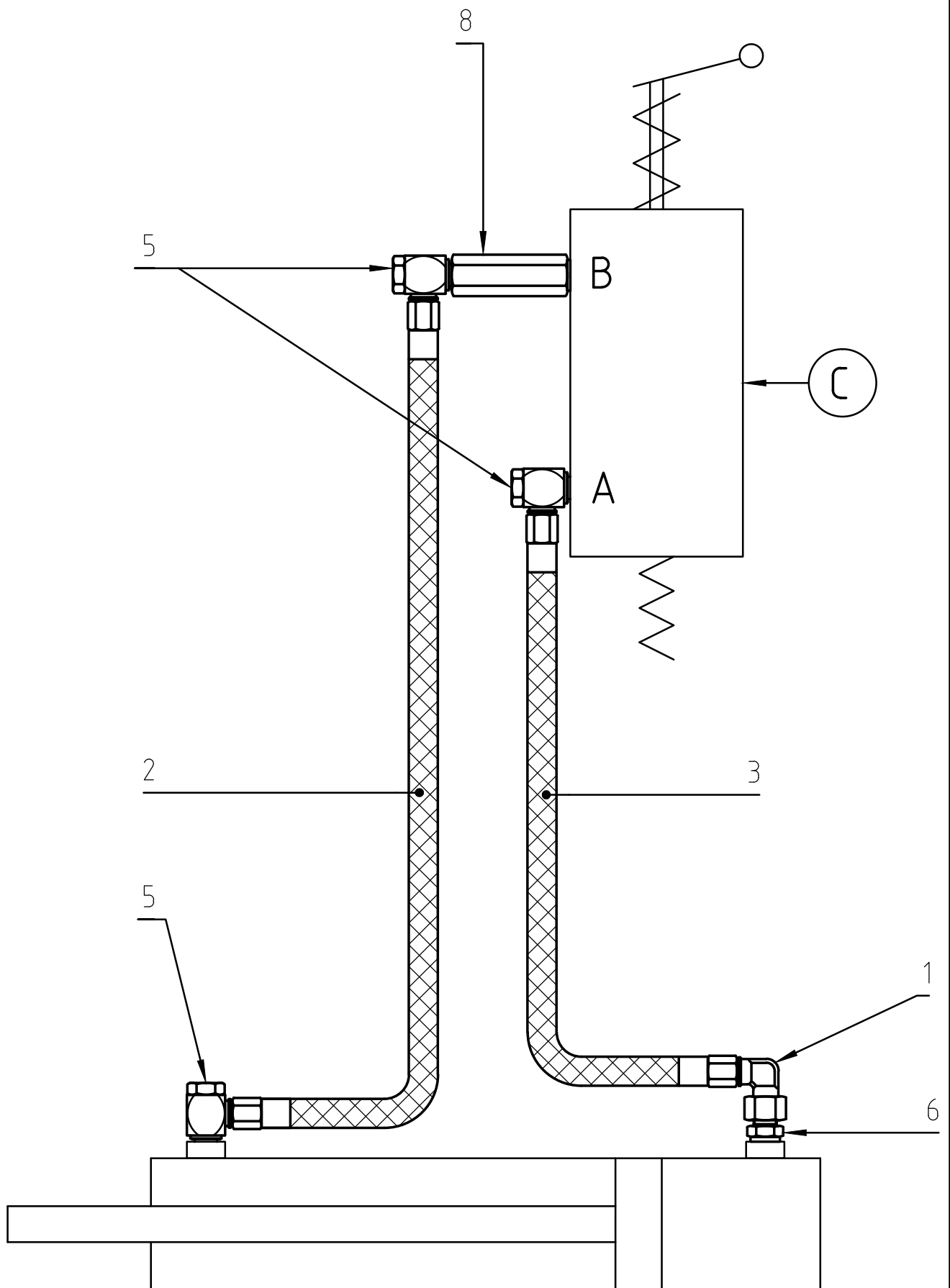


Item	Qty	Description	Code N°	Drawing
ÉD : 07/05				
		LEFT SLEWING SUPPLY CIRCUIT	H10143	NO 88004 - 8 - 30
1	1	SWIVEL ANGLE	D00115	
2	1	HYDRAULIC FLEXIBLE HOSE	D00846	
3	1	HYDRAULIC FLEXIBLE HOSE	D00867	
5	3	SWIVEL COUPLING	D16767	
6	1	MALE STUD COUPLING	D00185	
8	1	ADAPTER	D13699	

HYDRAULIC RAIL THREADER TYPE MPR – M



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 N°

Drawing

ÉD : 06/04

RIGHT LIFTING SUPPLY CIRCUIT

H70852

NO 00015 - 8 - 25

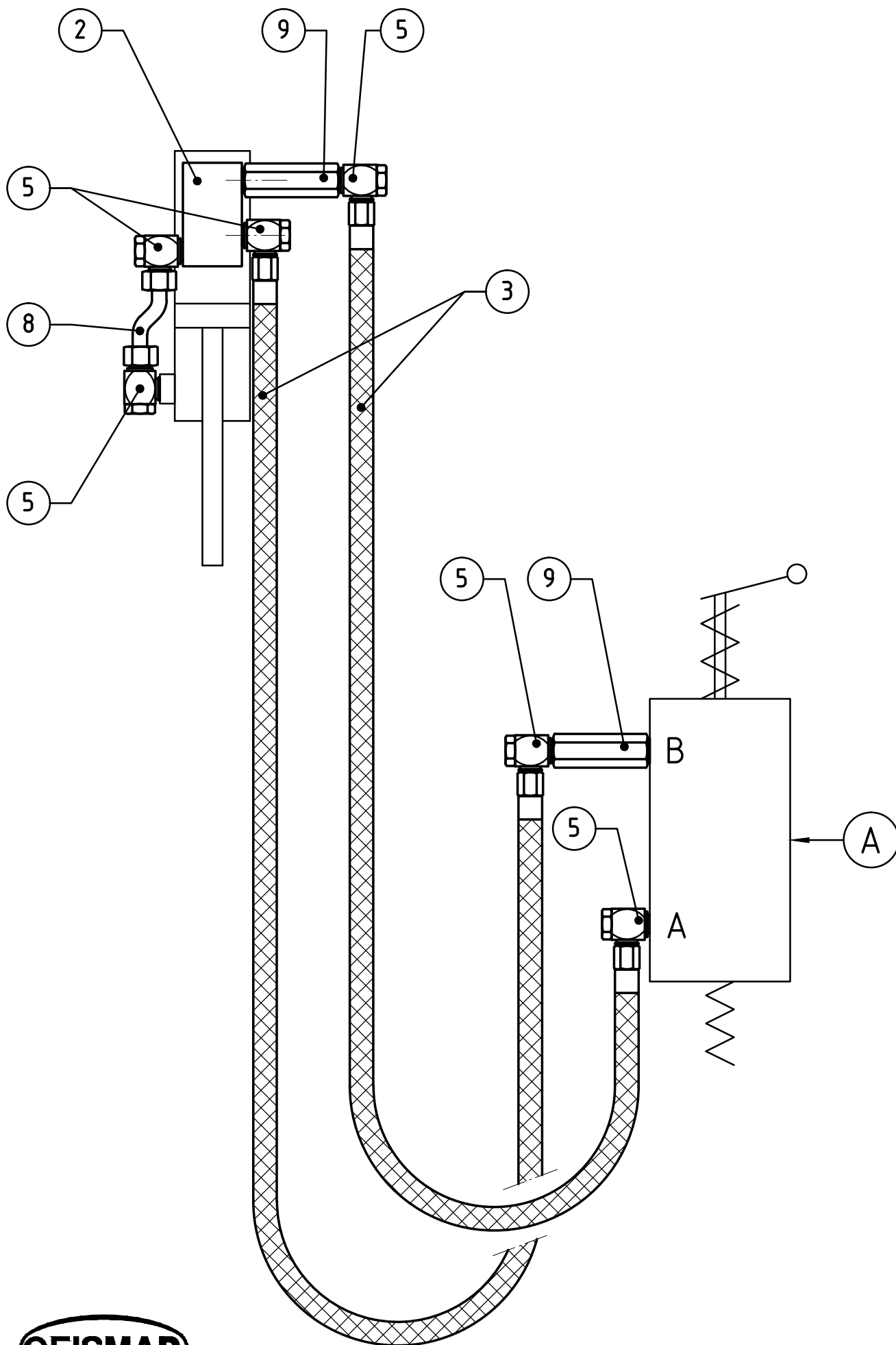
2	1	CHECK-VALVE	D01410
3	2	HYDRAULIC FLEXIBLE HOSE	D00846
5	6	SWIVEL ANGLE	D16767
8	1	HYDRAULIC PIPE	H09552
9	2	ADAPTER	D13699

HYDRAULIC RAIL THREADER TYPE MPR – M



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

H70852



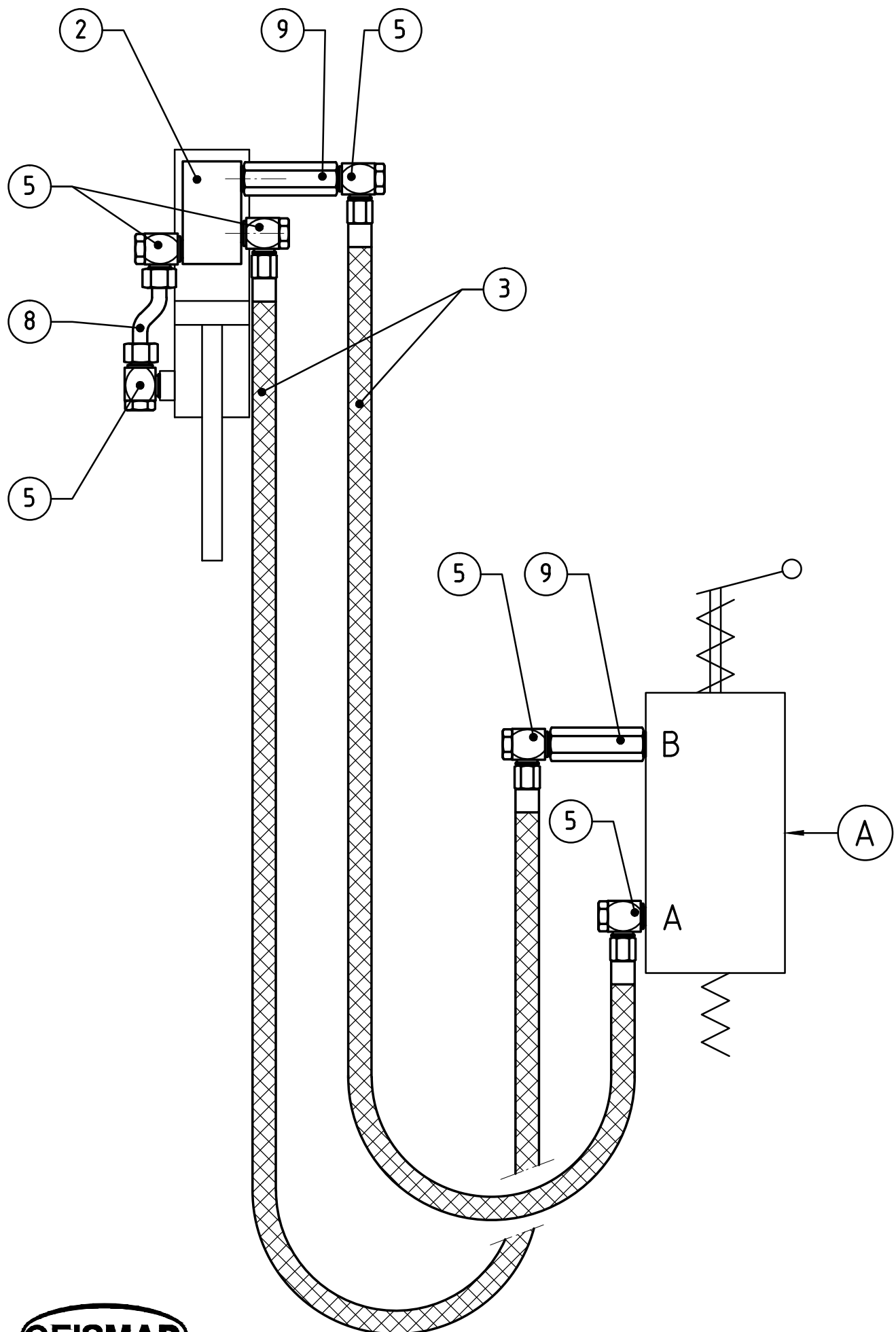
Item	Qty	Description	Code N°	Drawing
ÉD : 06/04				
LEFT LIFTING SUPPLY CIRCUIT			H70853	NO 00015-8-20
2	2	CHECK-VALVE.....	D01410	
3	2	HYDRAULIC FLEXIBLE HOSE	D00846	
5	6	SWIVEL COUPLING.....	D16767	
8	1	HYDRAULIC PIPE	H09552	
9	2	ADAPTER	D13699	

HYDRAULIC RAIL THREADER TYPE MPR – M



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

H70853



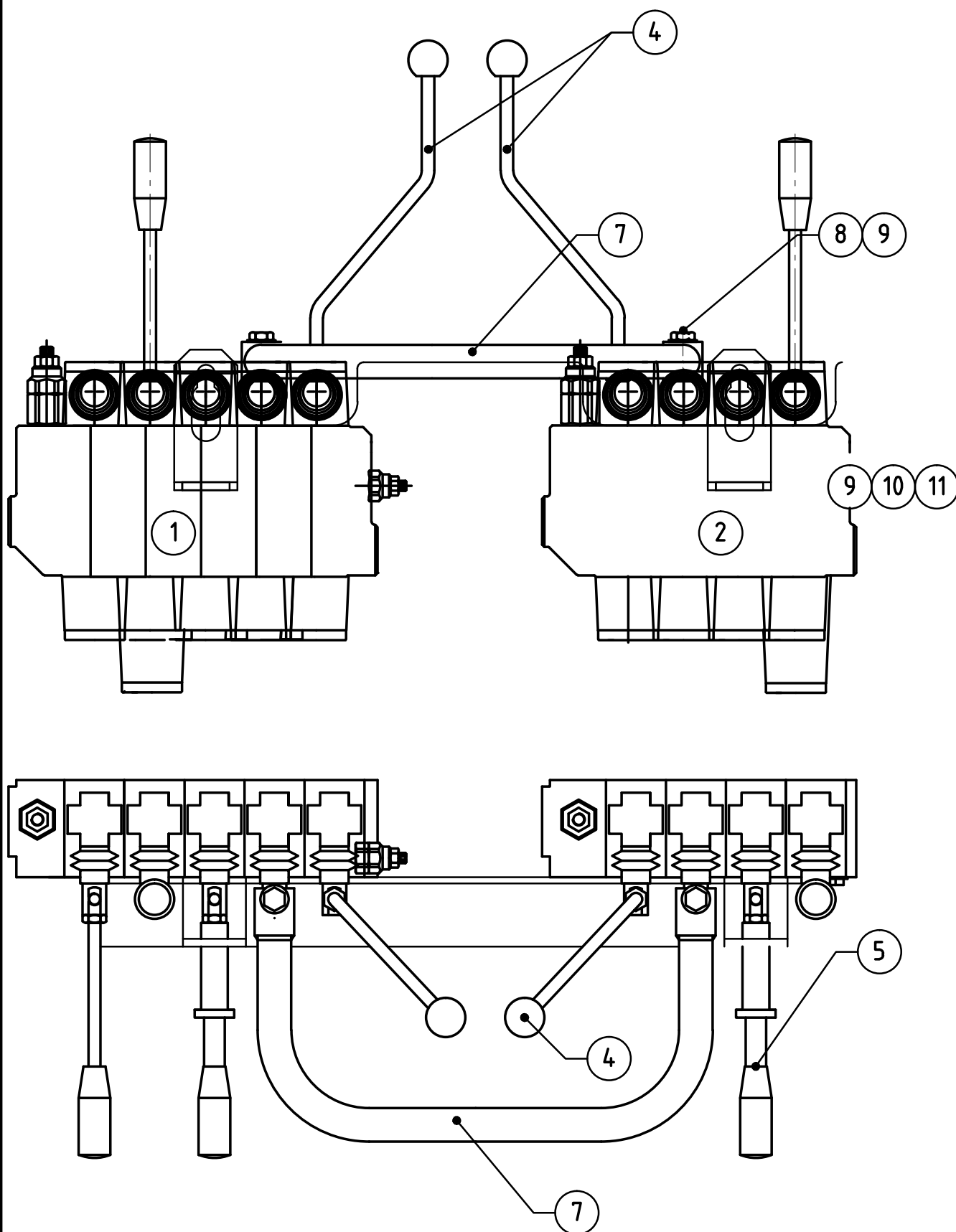
Item	Qty	Description	Code N°	Drawing
ÉD : 02/11				
DISTRIBUTION BLOCKS FITTING			H90470	NO 10055-8- 5
1	1	DISTRIBUTION BLOCK.....	D18674	
2	1	DISTRIBUTION BLOCK.....	D18672	
4	2	LEVER	H72540	
5	2	SAFETY LOCKING DEVICE.....	H88460NO 10055-8-5-5
7	1	HANDLE	H72535	
8	2	SCREW.....	C00343	
9	6	WASHER	C01036	
10	4	SCREW.....	C00347	
11	4	NUT.....	C00142	

HYDRAULIC RAIL THREADER TYPE MPR – M



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

H90470



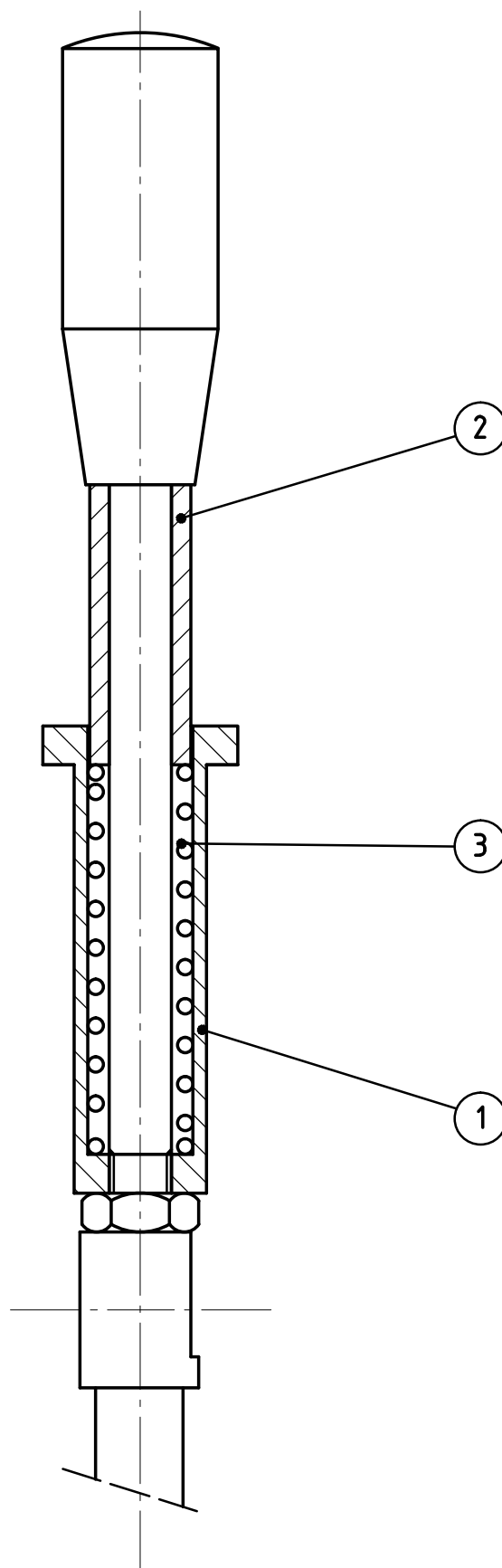
Item	Qty	Description	Code N°	Drawing
ÉD : 02/11				
		SAFETY LOCKING DEVICE	H88460	NO 10055-8-5-5
1	1	LOCK	H72534	
2	1	SPACER	H88459	
3	1	SPRING	H00025	

HYDRAULIC RAIL THREADER TYPE MPR – M



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

H88460

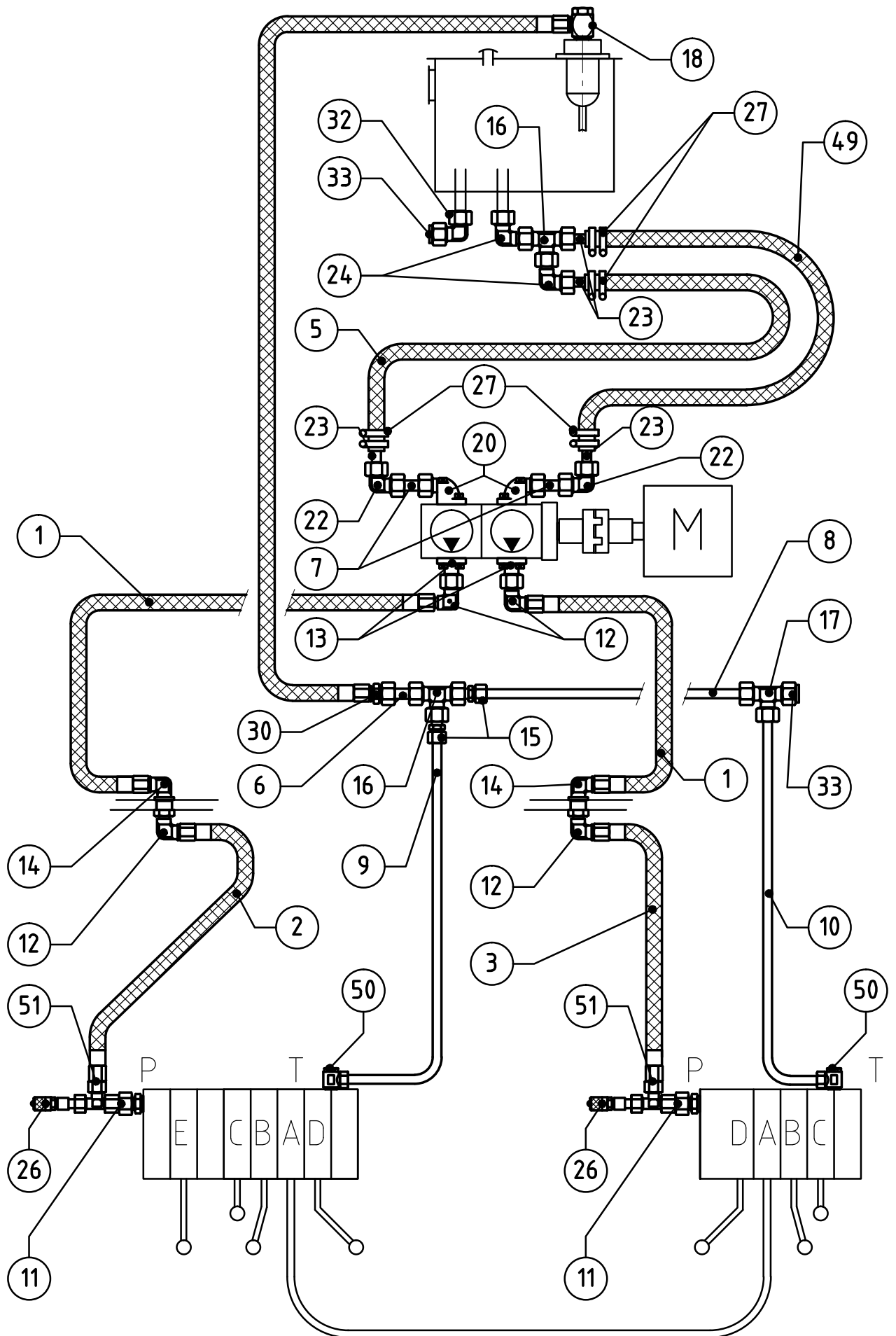


Item	Qty	Description	Code N°	Drawing
ÉD : 01/11				
FEED AND RETURN CIRCUIT			H91435	NO 10055-8-6
1	2	HYDRAULIC FLEXIBLE.....	D04955	
2	1	HYDRAULIC FLEXIBLE.....	D15642	
3	1	HYDRAULIC FLEXIBLE.....	D00833	
4	1	HYDRAULIC FLEXIBLE.....	D00793	
5	1	PIPE LG 600	H33218	
6	1	HYDRAULIC PIPE	H09546	
7	2	HYDRAULIC PIPE	H09547	
8	1	HYDRAULIC PIPE	H09548	
9	1	HYDRAULIC PIPE	H09549	
10	1	HYDRAULIC PIPE	H09550	
11	3	MALE COUPLING	D00185	
12	4	ORIENTABLE COUPLING.....	D00115	
13	2	ELBOW FLANGED COUPLING	D04913	
14	2	EQUAL ELBOW COUPLING	D00340	
15	2	REDUCTION COUPLING	D00278	
16	2	EQUAL ELBOW COUPLING	D00307	
17	1	EQUAL ELBOW COUPLING	D00305	
18	1	ORIENTABLE COUPLING.....	D00049	
20	2	ELBOW FLANGED COUPLING	D04914	
22	2	EQUAL ELBOW COUPLING	D00324	
23	4	BUT	H09714	
24	2	EQUAL ELBOW COUPLING	D00122	
26	2	PRESSURE INTET	D04849	
27	8	COLLAR.....	D06518	
30	1	DOUBLE COUPLING.....	D00146	
32	1	EQUAL ELBOW COUPLING	D00322	
33	2	OBTURATOR	D00367	
49	1	PIPE LG 550	H33219	
50	2	ORIENTABLE COUPLING.....	D00046	
51	2	ORIENTABLE COUPLING.....	D00082	

HYDRAULIC RAIL THREADER TYPE MPR – M



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 N°	Drawing
ÉD : 11/90				
RAIL PULLER SUPPLY CIRCUIT			H10147	NO 88004 - 8 - 70 B
1	1	FEMALE HALF COUPLING.....	D00485	
2	1	PROTECTION PLUG.....	D00491	
3	1	MALE HALF COUPLING	D00484	
4	1	PROTECTION CAP	D00497	
6	2	MALE STUD COUPLING.....	D00185	
7	2	SWIVEL ANGLE	D00115	
9	2	ORIENTATION COUPLING.....	D00063	

HYDRAULIC RAIL THREADER TYPE MPR – M

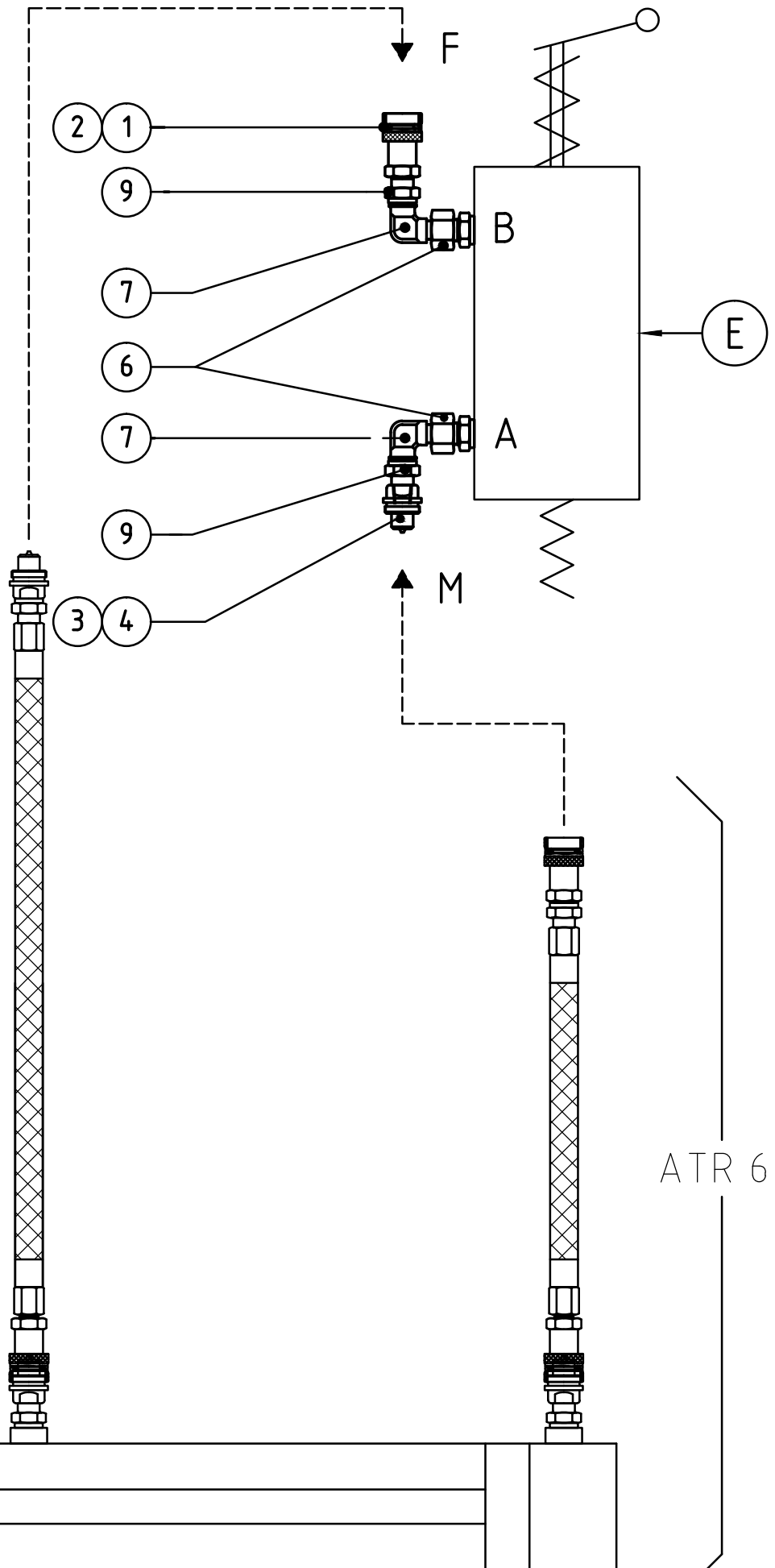


IMPORTANT : To allow prompt and correct delivery of spare parts, always state : Fabrication year and n° of the machine - Serial number - Order n° and description of spare parts

H10147

ATR 6

ATR 6



ÉD : 05/03

		HYDRAULIC MOTOR SUPPLY CIRCUIT	H10146	NO 88004-8-60 C
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1	2	HYDRAULIC FLEXIBLE HOSE	D00846
2	2	HYDRAULIC FLEXIBLE HOSE	D00867
3	1	ADAPTER	D13699
4	2	MALE STUD COUPLING.....	D00188
5	2	SWIVEL COUPLING.....	D00040
7	2	BULKHEAD ELBOW COUPLING	D00340
8	2	ORIENTATION COUPLING.....	D06693
9	2	MALE STUD COUPLING.....	D00185
10	2	RETRICTOR VALVE.....	D02328

HYDRAULIC RAIL THREADER TYPE MPR – M



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 N°

Drawing

ÉD : 06/04

RAIL GRIP SUPPLY CIRCUIT

H10145

NO 88004 - 8 - 50

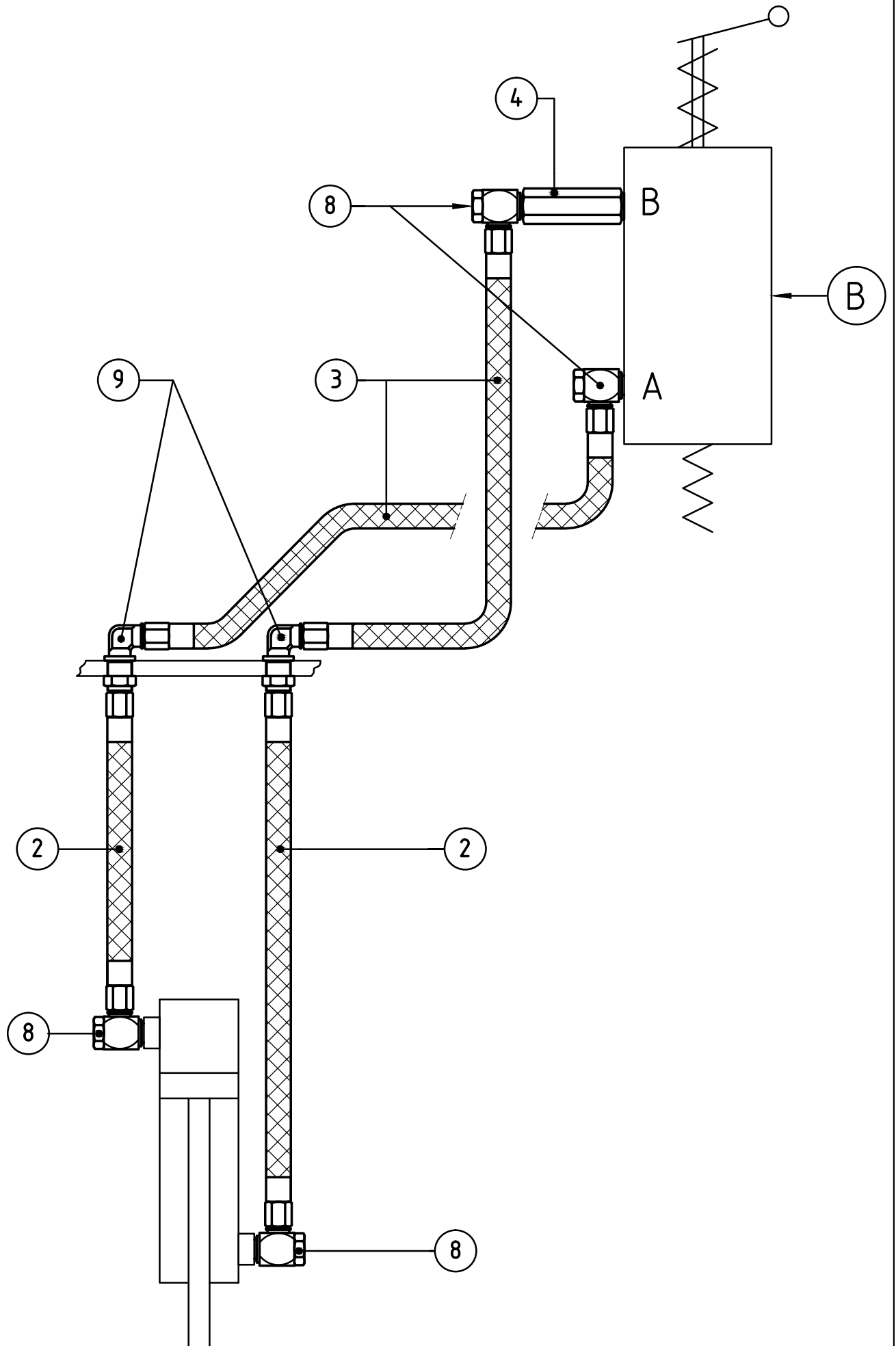
2	2	HYDRAULIC FLEXIBLE HOSE.....	D00864
3	2	HYDRAULIC FLEXIBLE HOSE.....	D15642
4	1	ADAPTER	D13699
8	4	SWIVEL COUPLING	D16767
9	2	BULKHEAD ELBOW COUPLING	D00340

HYDRAULIC RAIL THREADER TYPE MPR – M



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

H10145



Item Qty Description

Code N°

Drawing

ÉD : 09/05

ELECTRIC EQUIPMENT

H60254

NO 00155

3	1	ENGINE CIRCUIT	H60257	NO 00155 - 3
4	1	ENGINE STARTER CIRCUIT	H60258	NO 00155 - 4
5	1	ACCESSORIES CIRCUIT	H60259	NO 00155 - 5
6	1	BOX LOCATION	H60210	NO 00155 - 6

HYDRAULIC RAIL THREADER TYPE MPR – M



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 N°	Drawing
ÉD : 06/00				
		ENGINE CIRCUIT	H60257	NO 00155 - 3
1	1	BATTERY ISOLATOR SWITCH	E00382	

HYDRAULIC RAIL THREADER TYPE MPR – M



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 N°	Drawing
ÉD : 11/00				
ENGINE STARTER CIRCUIT			H60258	NO 00155 - 4
1	1	CIRCUIT BREAKER	E03308	
2	1	PILOT LIGHT	E05433	
3	3	BULB	E00058	
4	2	PILOT LIGHT	E05400	
5	1	EMERGENCY STOP	E05428	
6	1	LABEL	E05010	
7	1	HORAMETER	E05952	

HYDRAULIC RAIL THREADER TYPE MPR – M



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 N°	Drawing
ÉD : 06/04				
ACCESSORIES CIRCUIT			H60259	NO 00155 - 5
1	2	SELECTOR BUTTON	E01157	
2	1	PUSH-BUTTON	E05030	
3	2	PROJECTOR	E04216	
4	2	BULB	E00053	
5	1	HORN	E00076	

HYDRAULIC RAIL THREADER TYPE MPR – M



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 N°	Drawing
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ÉD : 09/05

		INSTRUMENT PANEL FUNCTIONS	H60260	NO 00155-6
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- | | |
|----------|----------------------------------|
| A | FUEL PREHEATING |
| B | BATTERY LOAD |
| C | OIL PRESSURE |
| D | RETURN FILTER CLOGGING INDICATOR |
| E | STARTER CONTACT |
| F | ENGINE RATING |
| G | RAIL GRIP LIGHT |
| H | HOOTER |
| I | EMERGENCY STOP |
| J | HORAMETER |

HYDRAULIC RAIL THREADER TYPE MPR – M



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

ÉD : 09/06

		BATTERY SLIDING SUPPORT	H78375	NO 04110-7
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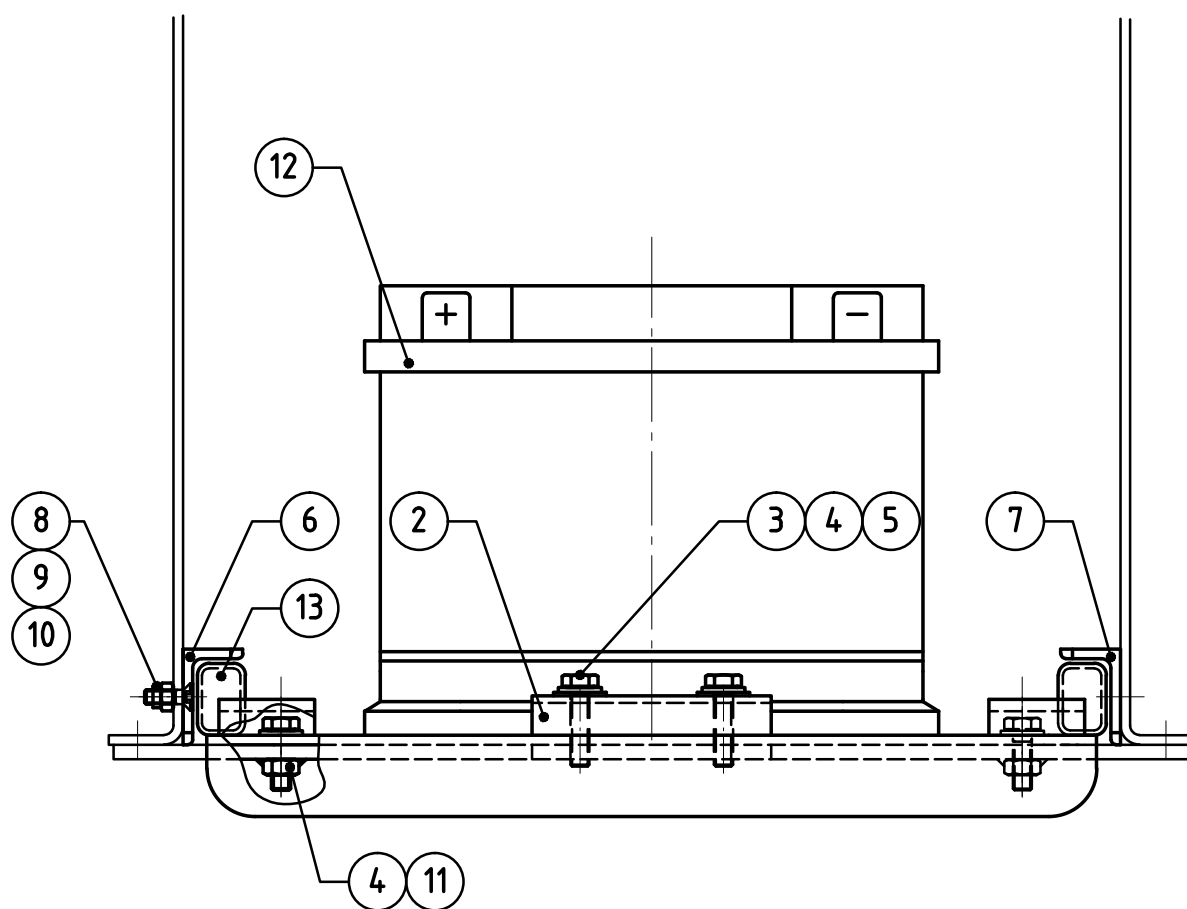
2	1	FLANGE.....	H78377
3	2	SCREW.....	C00343
4	4	WASHER	C01811
5	2	WASHER	C01053
6	1	ANGLE STEEL	H78379
7	1	ANGLE STEEL	H78411
8	6	SCREW.....	C00343
9	6	LOCKING NUT	C00141
10	6	WASHER	C01035
11	2	SCREW.....	C00341
12	1	BATTERY	E06312
13	4	PLUG	D17717

HYDRAULIC RAIL THREADER TYPE MPR – M



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

H78375

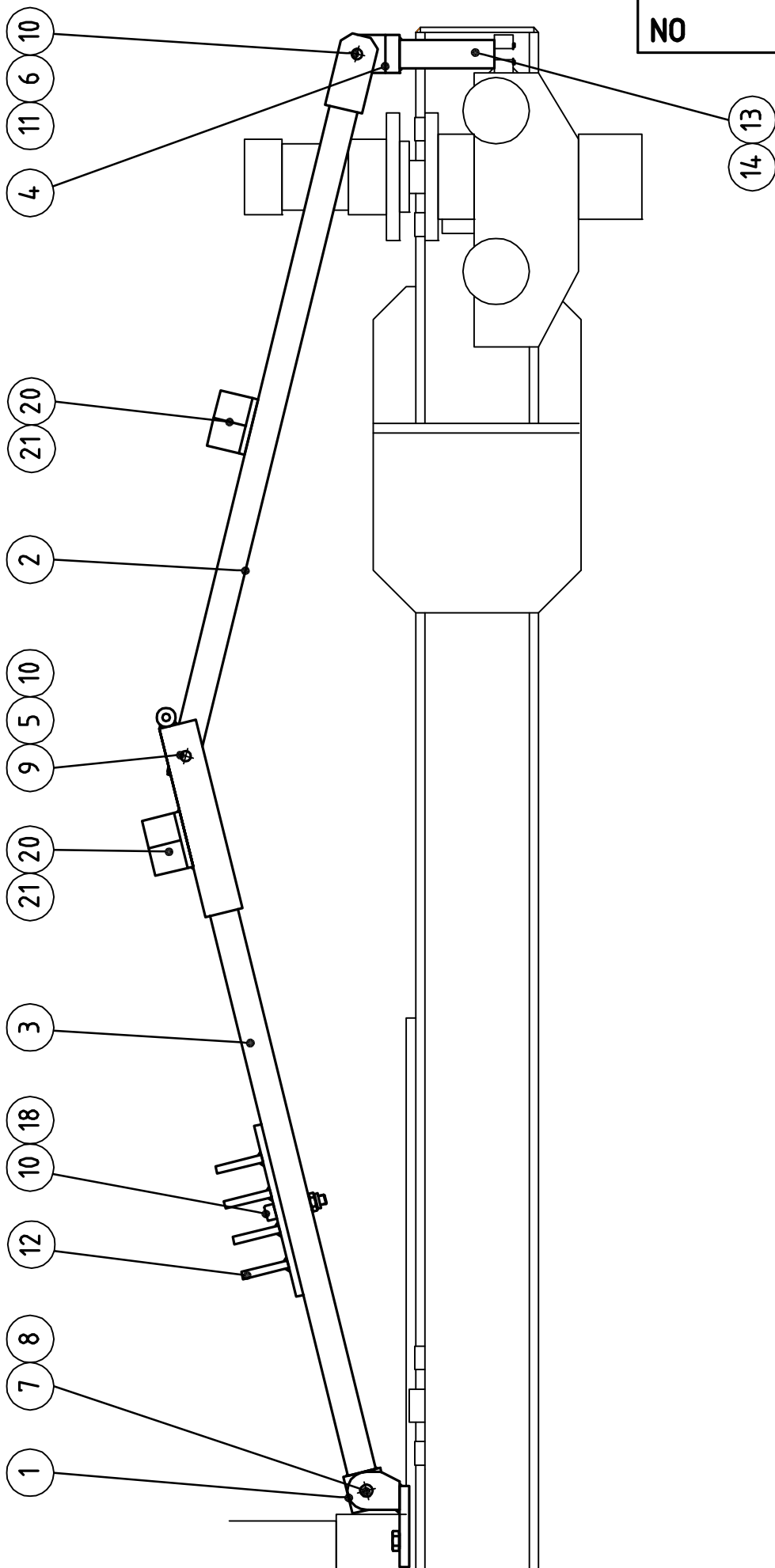


Item	Qty	Description	Code N°	Drawing
ÉD : 06/04				
		HYDRAULIC FLEXIBLE HOSES HOLDER,	H10127	NO 88004 - 16
1	1	SUPPORT.....	H10128	
2	1	ARM.....	H10129	
3	1	ARM.....	H10130	
4	1	ADAPTATION SUPPORT.....	H10131	
5	2	WASHER.....	H10132	
6	2	WASHER.....	H10133	
7	1	SCREW.....	C00382	
8	1	NUT.....	C00144	
9	1	SCREW.....	C00364	
10	4	NUT.....	C00143	
11	1	SCREW.....	C00361	
12	1	GUIDE.....	H10134	
13	2	SCREW.....	C00358	
14	2	WASHER.....	C01813	
18	2	SCREW.....	C00543	
20	8	COLLAR.....	D16838	
21	16	SCREW.....	C00511	

HYDRAULIC RAIL THREADER TYPE MPR – M



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NO

NO i 88004-16

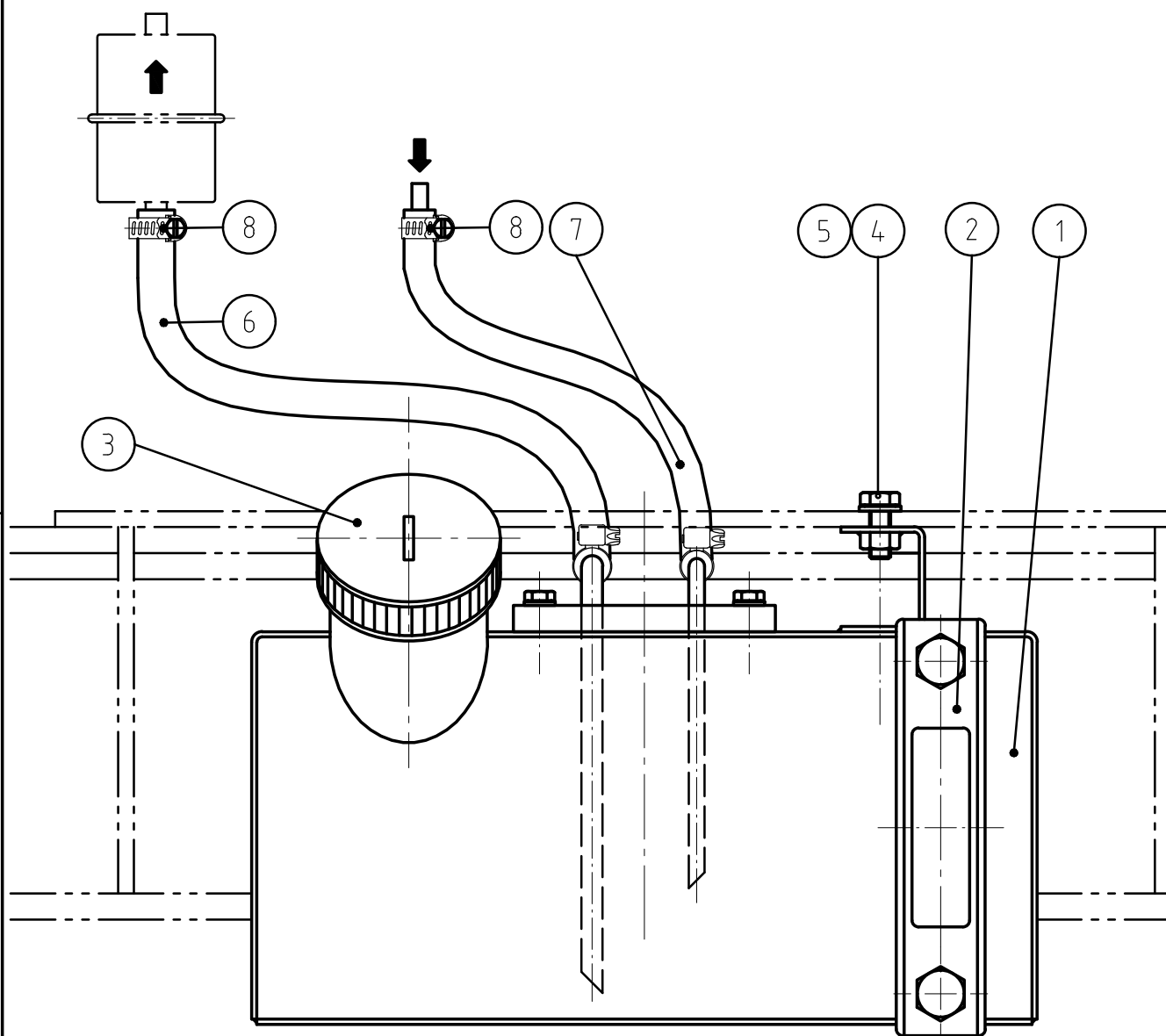
Item	Qty	Description	Code N°	Drawing
ÉD : 11/00				
		GAS-OIL ALIMENTATION	H60892	NO 00015 - 23
1	1	GASOIL TANK CAPACITY 15 LITERS.....	D14900	
2	1	GASOIL LEVEL INDICATOR.....	D14899	
3	1	FILLING CAP	D14897	
4	4	HEXAGON SCREW.....	C00340	
5	4	WASHER	C01811	
6	1	TUBE	H60893	
7	1	TUBE	H60894	
8	5	COLLAR.....	D00969	

HYDRAULIC RAIL THREADER TYPE MPR – M



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H60892



ÉD : 01/11

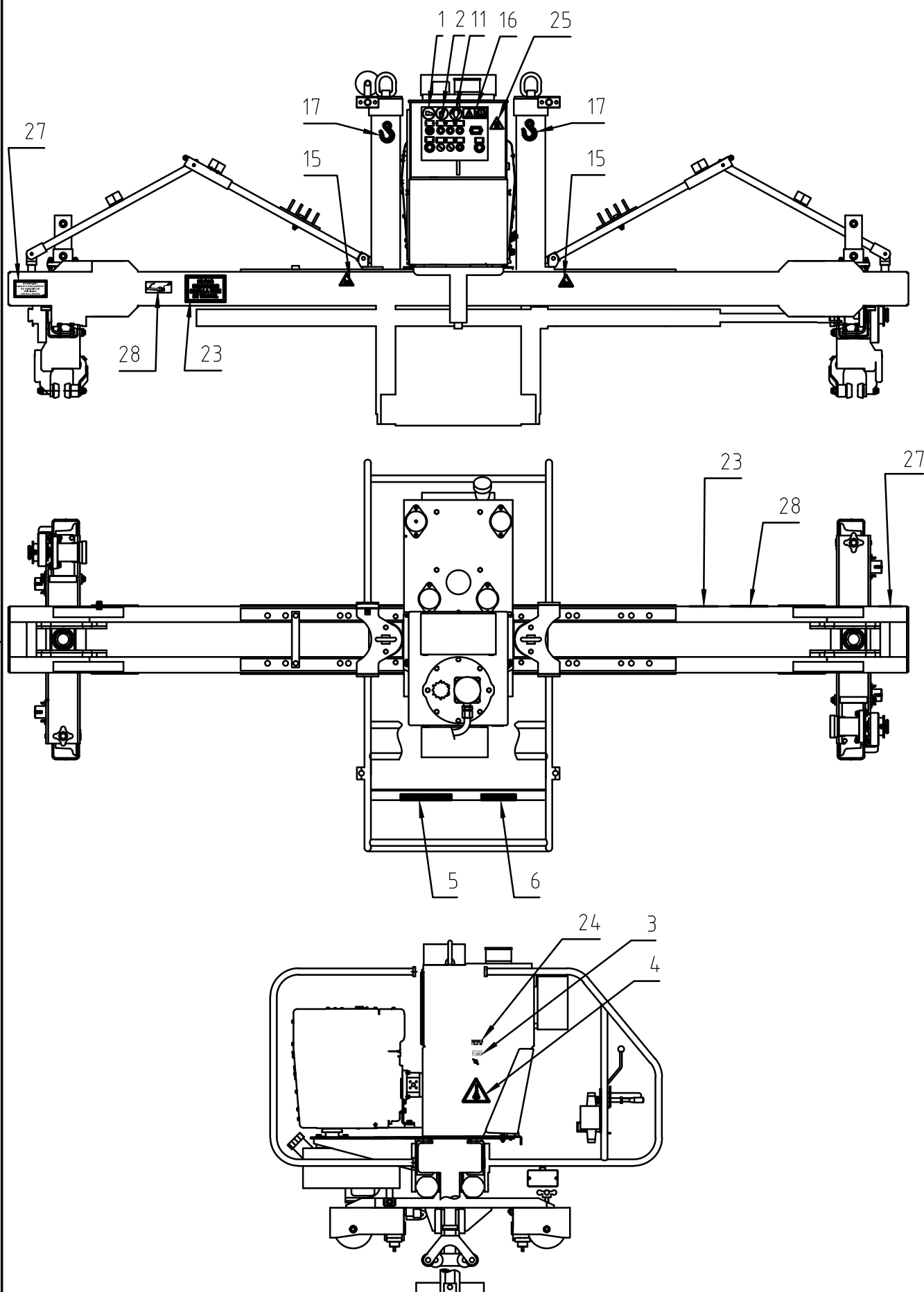
DESCRIPTIVE PLATE ASSY**H88463****NO 10055-30**

1	1	PICTOGRAM «SAFETY SHOES»	D17924
2	1	PICTOGRAM «PROTECTIVE GLOVES»	D15127
3	1	PICTOGRAM «SWITCH BATTERY»	H02436
4	2	PICTOGRAM «INFLAMMABLE PRODUCTS»	D15083
5	1	PICTOGRAM «HYDRAULIC FUNCTION »	H88464
6	1	PICTOGRAM «HYDRAULIC FUNCTION»	H03333
11	1	PICTOGRAM «HEADSET»	D12311
15	4	PICTOGRAM «RISK CRUSHING»	D18186
16	1	PICTOGRAM «READ MANUAL»	D16591
17	2	PICTOGRAM «LIFTING POINT»	H83014
23	2	DESCRIPTIVE PLATE «DO NOT PARK IN THE WORK ZONE» ...	H50034
24	1	DESCRIPTIVE PLATE «POWER VOLTAGE»	H88450
25	2	PICTOGRAM «INFLAMMABLE PRODUCTS»	D18700
27	2	DESCRIPTIVE PLATE «RISK OF ENGAGING THE GAUGE»	H90427
28	2	DESCRIPTIVE PLATE «TORQUE SETTING»	H90568

HYDRAULIC RAIL THREADER TYPE MPR – M

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H88463





Nous nous réservons le droit d'apporter toute modification aux caractéristiques du matériel ainsi qu'à sa mise en œuvre, son mode d'entretien et sa liste de pièces détachées.

We reserve the right to make any alteration or improvement to the specification, operating and maintenance instructions as well as to spare parts list.

Die von uns durch technischen Fortschritt bedingten Änderungen und Verbesserungen an der Ausführung, Wartungsart und Ersatzteilliste, werden vorbehalten.

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