



# COLUMN PRESS 30 Tn WITH HAND PUMP

## “EM03012”



### **LARZEP, S.A.**

Avenida Urtiaga, 6  
48269 MALLABIA, SPAIN

Tel. +34 943 171200

Fax. +34 943 174166

e-mail: [sales@larzep.com](mailto:sales@larzep.com)

[www.larzep.com](http://www.larzep.com)

### **LARZEP AUSTRALIA PTY. LTD.**

104 Wedgewood Road,  
HALLAM, VIC. 3803 AUSTRALIA

Tel. +61 (3) 9796 3744

Fax. +61 (3) 9796 5964

e-mail: [sales@larzep.com.au](mailto:sales@larzep.com.au)

[www.larzep.com.au](http://www.larzep.com.au)

### **LARZEP GB LTD.**

3 Commerce Way - Leighton Buzzard  
BEDS LU7 4RW UNITED KINGDOM

Tel. +44 1525 377819

Fax. +44 1525 851990

e-mail: [sales@larzep.co.uk](mailto:sales@larzep.co.uk)

[www.larzep.co.uk](http://www.larzep.co.uk)

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- GENERAL DRAWING

### **1. BEFORE USING THE EQUIPMENT.**

Upon removing the protective packaging from the crane, carefully inspect it. Check for:

- 1- Oil leaks.
- 2- Signs of corrosion.
- 3- Damage to the hydraulic cylinder and hydraulic line.
- 4- Cracks or dents on the frame and the hydraulic cylinder's attachments to the frame.
- 5- Loose or damaged screws or joints.
- 6- Damaged or incorrectly assembled accessories.

If you find any damage or fault with the product, clearly label it and place it in a location where it will not be available for use until an authorized service dealer has repaired the fault.



**Never use hydraulic equipment that is damaged or suspected to be in poor condition.**

Familiarize yourself and your co-workers with the equipment. Before you begin using the jack, carefully read and observe all instructions and recommendations enclosed in the packaging.

Your negligence in this matter may cause personal injury or material damage.



**Do not loose the instruction manual.**

Do not operate hydraulic equipment near open flame, explosives, sources of intense heat or any other hazard, which could cause a fire or the damage equipment. The hydraulic equipment should not be exposed to temperatures greater than 60°C when in use or when stored.



If purchasing just a cylinder or pump for use in a press, ensure that you are using the proper combination of pump, cylinder and press frame before assembling the unit. We recommend you seek professional advise on the matter.

When choosing a place for the press, ensure that it will be located over firm, level ground such that the entire base of the press contacts the ground. If any doubt exists as to whether the ground will be able to support the press and the additional weight it will see when in use, distribute the weight over a larger area by placing rigid steel beams or planks under the base of the press.

Store the press with the cylinder's piston fully retracted.

We recommend you wrap the cylinder in a protective plastic or place it in a location free of dirt, dust, steel shavings and other foreign matter, which can enter into the cylinder and damage its components.



**Do no store or leave the press where is can be accessed by the children.**

## 2. TECHNICAL FEATURES.

### HYDRAULIC CYLINDER

MODEL	EM03012
• Capacity (Tn.)	30 Tn
• Maximum pressure (Kg/cm <sup>2</sup> )	700 Kg/ cm <sup>2</sup>
• Stroke (mm.)	125 mm
• Effective area (cm <sup>2</sup> )	44.16 cm <sup>2</sup>
• Oil capacity (cm <sup>2</sup> )	552 cm <sup>2</sup>
• Free advance speed (mm/sg)	3 mm/sg
• Maximum pressure advance speed	0.5 mm/sg
• Cylinder	SM03012

### HAND PUMP

MODEL	W00807
• Tank capacity (cc)	800 cc
• Maximum pressure (Kg/cm <sup>2</sup> )	725 Kg/ cm <sup>2</sup>

### FRAME : MECHANIZED-WELDED

MODEL	EM03012
• Working height (mm.)	930 mm
• Working width (mm.)	500 mm
• Total weight of the machine (Kg.)	120 Kg

## 3. ESSENTIAL SAFETY REQUIREMENTS.

### 3.1 GENERAL CONSIDERATIONS

#### **DANGEROUS AREA**



Due to the *FUNCTIONAL REASONS* it is considered to be the space between the columns, the bed and the hydraulic cylinder piston.  
Due to the *MATERIAL PRESSED* it is supposed to be surrounding area to the machine in case of metal parts being ejected during pressing.

The speed of the hydraulic cylinder during its extension is less than 30 mm/second. Therefore then machine should be considered by the application of ANNEX V of the Declaration of CE Conformity.

Operators standing in the dangerous area around the machine should protect their feet, faces and hands from metal pieces being ejected during pressing.



Feet protection



Face protection



Hands protection

Used materials and components are not for the health and safety of operators. The hand pump contains LARZEP hydraulic oil ISO: HV46.



**HIDRAULIC OIL IS TOXIC IF IT ENTERS THE BLOODS STREAM. NEVER PLACE A FINGER OVER ANY ORIFICE OR LEAK, WHICH COULD BE PRESSURIZED, SUCH AS THE HYDRAULIC LINE, AS THIS COULD CAUSE OIL TO BE INJECTED INTO BLOOD STREAM.**

### 3.2 SECURITY IN COMMANDS

- ❖ The cylinder advances when we act the lever of the pump.
- ❖ The pump is provided with two positions, advance and return.
- ❖ In order to start the equipment is necessary to connect the pump to the cylinder.
- ❖ To stop the cylinder advance, stop handling the lever of the pump. For a new start up, it will be necessary act the lever again.

### 3.3 SAFETY PREVENTION ACTIONS AGAINST MECHANICAL RISK

- ❖ The construction of machine has been calculated to bear without any breaking under conditions of foreseen utilization and for the whole life of the machine. The hydraulic components have been designed and calculated in compliance with the ANSI B30.1, and have been proved to 875Kg./cm<sup>2</sup> of pressing.
- ❖ The frame of the machine does not cause to be dangerous in that sense.

### 3.4 SAFETY PREVENTION ACTIONS AGAINST OTHERS RISKS

#### **RISKS DUE TO HYDRAULIC ENERGY**

The hydraulic pump is equipped with an internal security valve in the tank, out of operator's control and rated at 700 Kg./cm<sup>2</sup>

### 3.5 SECURITY IN MAINTENANCE

- ❖ All the maintenance operations must be performed while the machine is stopped avoiding this way any potentially dangerous situation. A poor maintenance program of the press does not increase the risk, but obviously will revert in a lower performance.
- ❖ The hydraulic pump is mounted out of the frame and access is very easy. To disassemble the pump unscrew the cover screws. In order to disassemble the cylinder it is required first to disassemble the hoses and this from the frame.

#### **ISOLATION OF THE POWER SUPPLY**

Disconnect the rapid coupler from the pump.

### 3.6 INDICATIONS

#### **INFORMATION DEVICES**

- ➔ In the pump: Oil level and oil filling tap
- ➔ In the cylinder: A gauge in order to know the operating pressure anytime.

The press, the cylinder and the pump have their corresponding serial numbers marked on them. In addition to it, you can find a sticker label showing the commercial reference, capacity, working pressure, name and address of the manufacturer.

## **4. TRANSPORT AND INSTALLATION.**

The machine is delivered properly packed in a wooden ballet. For it's handling, it is recommended to use a forklift truck or a crane. In the last case, it is necessary to make the slings trespass the arc of the frame. When doing this operation, you should be cautious and prevent the flexible hoses and couplings from any damage.



The machine is stable enough to operate without fixing, but if is placed in an area commonly operated by mobile machinery (cranes, lifting equipment...) it is strongly recommended to fix it to the desired place by drilling the supporting plates.

#### **HYDRAULIC CONNECTION**

Unscrew the rapid coupler site in the cylinder, and connect the hose, screwing the rapid coupler to the limit with the hand.

#### **INSTALLING THE GAUGE**

- 1-Replace the threaded tap in the top of the cylinder by the gauge, which is supplied separately.
- 2-Tighten the gauge cone to the gauge adaptor seat by using a flan wrench size 22.
- 3-Hold the gauge screen by hand during threading process and after reaching a comfortable reading position set the gauge screen free so that it turns the last quarter solidarily with the thread.

#### **CHECKING THE RIGHT OPERATION OF ALL DEVICES AND MECHANISM**

- 1°- Select the working maximum pressure. In manual presses 700 Kg./cm<sup>2</sup>.
- 2°- Put the hand in the lever.
- 3°- Push the lever several times.
- 4°- Check the cylinder advances.
- 5°- Check that the cylinder piston goes back pushed by the internal spring. In both cases, to maintain the movement is necessary let the lever without movement.
- 6°- Without put anything in the press, repeat the advance movement, until reaching the cylinder full stroke. In that moment the pressure will start to be increased and we can observe it now in the gauge. This pressure will go on increasing until reaching the installation maximum pressure, previously chosen. In this stage, the cylinder maintains the reached pressure, (the gauge maintains the reading). Check there are no leaks in the installation (gauge intake, couple, etc.)
- 7°- To retract the cylinder and eliminate the installation pressure open the washer turning it to the left. The piston retracts pushed by the internal spring. The return may be slower at the end of the backstroke.
- 8°- Put the material to be treated in the press.

## **5. MAINTENANCE.**

The hydraulic circuit of the press is closed, so in normal conditions no oil leakage should be coming up.

In case of oil leakage, after the proper repairing work, you should fill up the tank with hydraulic oil by LARZEP (Ref. AZ8901); the pump is equipped with an oil level indicator to control the need quantity of oil.

As far as a non-continuous use of the press is concerned (1 hour per day), oil replacement should be done once a year.



To empty the tank, you should remove the cover and take the oil out to another container. Please, bear in mind the existing rules for waste processing when handling the used oil. Keep greasy and lubricated the pin bearings, the piston and in general all the parts that might be in friction

#### **USE ONLY LARZEP HYDRAULIC OIL**

Other grades of oils or types of hydraulic fluid (such as brake fluid) may affect the performance of the equipment or cause the deterioration of the seals.



DO NOT ATTEMPT TO FILL THE PUMP WITH OIL WHILE IT IS CONNECTED TO A CYLINDER WHICH IS SUSTAINING A LOAD BECAUSE IT MAY OVERPRESSURIZE THE RESERVOIR WHEN THE PISTON RETRACTS AND CAUSE DAMAGE OR INJURY

Always use the original LARZEP parts to prolong the service life of your hydraulic equipment. **LARZEP S.A.** or your authorized dealer can supply you with original parts for simple maintenance work.

**TYPE OF INSPECTION**

**FREQUENT:** a visual inspection carried out before and after each operation.

**PERIODIC:** a thorough examination of the equipment, both externally and internally. The equipment is labelled with the inspection date and the date is logged in a register.

**PARTS TO INSPECT**

In a **FREQUENT INSPECTION**, check for:

- Piston wear
- Signs of corrosion
- Wear or damage to the cylinder or pump
- Cracks, dents or any other damage to the frame, cylinder attachments, work table and its supports
- Oil leaks
- Loose or damage screws or joints
- Damaged or incorrectly assembled accessories

In a **PERIODIC INSPECTION**, check for the same problems as in a frequent inspection but in addition, the hydraulic equipment should be disassembled and cleaned by an authorized service dealer so that it may be examined internally.

Periodically clean and relubricate the press's moving parts, such as the piston, winch, pumping mechanism, etc. This is especially important when working in salty or humid environments.

Hydraulics equipment, which is subject to the very severe environmental conditions mentioned, previously should be cleaned and relubricated after each use.

To clean the hydraulic equipment, begin by removing the pump's oil reservoir plug and draining all the oil. Fill reservoir with kerosene and thoroughly circulate it through the hydraulic equipment. After completely purging the kerosene out of the hydraulic circuit, align the pump vertically with the head down and fill the reservoir with the new hydraulic oil until the oil level rises to the orifice

**6. PROBLEMS, DAMAGES AND SOLUTIONS.**

<b>6. PROBLEMS</b>	<b>CAUSES</b>	<b>SOLUTIONS</b>
1. The piston does not advance.	- The pump's relief valve is open.	1. Close the relief valve.
	- Air is trapped in the hydraulic circuit.	2. Open the pump's relief valve, align the pump vertically with its head down, and pump the oil several times so that the air is purged out of the hydraulic circuit.
	- No oil in the reservoir.	3. With the piston fully retracted, align the pump vertically with its head down, remove the oil reservoir plug and fill the oil reservoir until the oil level reaches the plug's orifice.
	- Dirt has accumulated in the hydraulic circuit.	4. Clean the hydraulic circuit with kerosene as described previously. If the problem persists, take the press to an authorized service dealer.
	- Worn or damaged check valve.	5. Take the press to an authorized service dealer.
	- Improperly connected hydraulic line	6. With the piston fully retracted, ensure that the hydraulic line is properly connected to the pump and cylinder.
2. The piston advances in spurts.	- Air is entrapped in the hydraulic circuit.	See Solution 2.
	- Deformed piston.	See Solution 5.
3. The piston will not fully extend.	- Low oil level.	See Solution 3.
	- Deformed piston.	See Solution 5.
4. the piston advances very slowly.	- Air is entrapped in the hydraulic circuit.	See Solution 2.
	- Dirt has accumulated in the hydraulic circuit.	See Solution 4.
	- Worn or damaged check valve.	See Solution 5.
	- Improperly connected hydraulic line	See Solution 6.

**7. WARRANTY.**

**LARZEP, S.A.** guarantees its products against all design and manufacturing defects for the durations of two years from the date of purchase. This guarantee does not include the ordinary wear of both metal and non-metal parts, abuse, using the equipment beyond its rated capacity and any wear or damage incurred as a result of using a hydraulic fluid which is not recommended by **LARZEP, S.A.**

Please note that if the equipment is disassembled or serviced by anyone other than an authorized service dealer or by **LARZEP, S.A.**, this guarantee is rendered null and void.

In the event of a warranty claim, return the equipment, to **LARZEP, S.A.** or the authorized dealer which sold you the hydraulic equipment, **LARZEP, S.A.** will repair or replace the faulty equipment, whichever is deemed most appropriate. **LARZEP, S.A.** shall not be held liable for any consequential damages or losses, which may occur as a result of faulty equipment

**8. DECLARATION OF CONFORMITY.****DECLARACION DE CONFORMIDAD**

LARZEP, S.A.  
Dirección: Avda. Urtiaga, 6  
48269 Mallabia ESPAÑA

**E** Declaramos bajo nuestra exclusiva responsabilidad la conformidad de los productos a los que refiere esta declaración, con las disposiciones de la directiva:  
89/392/CEE, 91/368/CEE, 93/44/CEE, 93/68/CEE, 98/37/CEE

**DECLARATION DE CONFORMITE**

Nous, LARZEP, S.A.  
Adresse: Avda. Urtiaga, 6  
48269 Mallabia SPAIN

**F** Déclarons sous notre seule responsabilité que les produits auxquels se réfère cette déclaration sont conformes aux dispositions des Directives:  
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

**DECLARAÇÃO DE CONFORMIDADE**

Nós, LARZEP, S.A.  
Endereço: Avda. Urtiaga, 6  
48269 Mallabia SPAIN

**P** Declaramos, sob nossa única responsabilidade, que os seguintes produtos, incluídos nesta declaração estão em conformidade com o disposto na Directiva:  
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

**ÖVERENSSTEMMELSEERKLÄRING**

Vi, LARZEP, S.A.  
Adresse: Avda. Urtiaga, 6  
48269 Mallabia SPAIN

**DK** Erklærer på eget ansvar, at følgende produkter som er omfattet af denne erklæringen, er i overensstemmelse med bestemmelserne i Direktiv:  
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

**ERKLÄRINGOM ÖVERENSSTEMMELSE**

Vi, LARZEP, S.A.  
Adresse: Avda. Urtiaga, 6  
48269 Mallabia SPAIN

**N** Erklærer på eget ansvar, at følgende produkter som dekkes av denne erklæringen, er i overensstemmelse med bestemmelserne i Direktiv:  
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

**ÜBEREINSTIMMUNGSERKLÄRUNG**

Wir, LARZEP, S.A.  
Anschriřt: Avda. Urtiaga, 6  
48269 Mallabia SPAIN

**D** Erklären auf eigene Verantwortung, daß folgende Produkte, auf die sich diese Erklärung bezieht, mit den Bedingungen der Direktiven 89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC übereinstimmen.

Tipo, Type, Typ, Tyyppi.

**SM / SX / SP / SMX / SMP / SH / DH / D / SL / STX / TE / T / SMA / SHA / SS / DD / ST / KC / CT / C / CY / W / X / WA / XA / WH / WI / Z / YA / YG / YZ / A / AB / AC / AF / BL / B / F / HN / EC / EE / EG / EM / EZ / CC / CN / CK / CD / VA / VB / VC / VZ / CA / CS / DL / DP / DLG / AA / AU**

Mallabia, ESPAÑA 2000 / 01 / 01

Lugar y fecha, place and date, lieu et date, plats och datum, paikka ja päivämäärä, udstedelsessted og-dato, ort und datum, plaats en datum, local e data, luogo e data.

**DECLARATION OF CONFORMITY**

We, LARZEP, S.A.  
Address: Avda. Urtiaga, 6  
48269 Mallabia SPAIN

**GB** Declare under our sole responsibility that the following products to which this declaration relates conform with the provisions of Directives:  
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

**DICHIARAZIONE DI CONFORMITÀ**

Noi, LARZEP, S.A.  
Indirizzo: Avda. Urtiaga, 6  
48269 Mallabia SPAIN

**I** Dichiariamo sotto la nostra esclusiva responsabilità che i prodotti ai quali questa dichiarazione si riferisce sono conformi quanto previsto dalle Direttive:  
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

**VAATIMUSTEMUKAISUSVAKUUTUS.**

Me, LARZEP, S.A.  
Osoite: Avda. Urtiaga, 6  
48269 Mallabia SPAIN

**FIN** Vakuutamme yksinomaan omalla vastuullamme, että seuraavat tuotteet, joihin tämä vakuutus liittyy, ovat seuraavien Direktiivien vaatimusten mukaisia:  
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

**VERKLARINGVAN OVEREENKOMST.**

Wij, LARZEP, S.A.  
Adres: Avda. Urtiaga, 6  
48269 Mallabia SPAIN

**NL** Verklaren geheel onder eigen verantwoordelijkheid dat de volgende producten, waarop deze verklaring heeft in overeenstemming zijn met de bepalingen van Richtlijn:  
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

**FÖRSÄKRAN OM ÖVERESSTÄMMELSE**

Vi, LARZEP, S.A.  
Adress: Avda. Urtiaga, 6  
48269 Mallabia SPAIN

**S** Försäkrar under eget ansvar att följande produkter som omfattas av denna försäkrans är i överensstämmelse med villkoren i Direktiv:  
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

**LARZEP, S.A.**

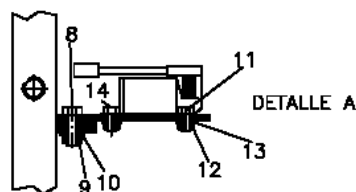
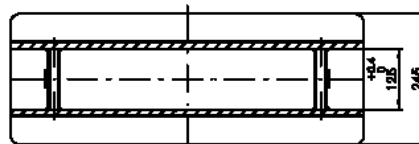
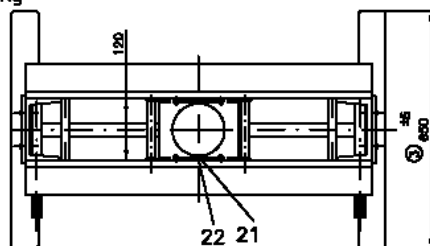
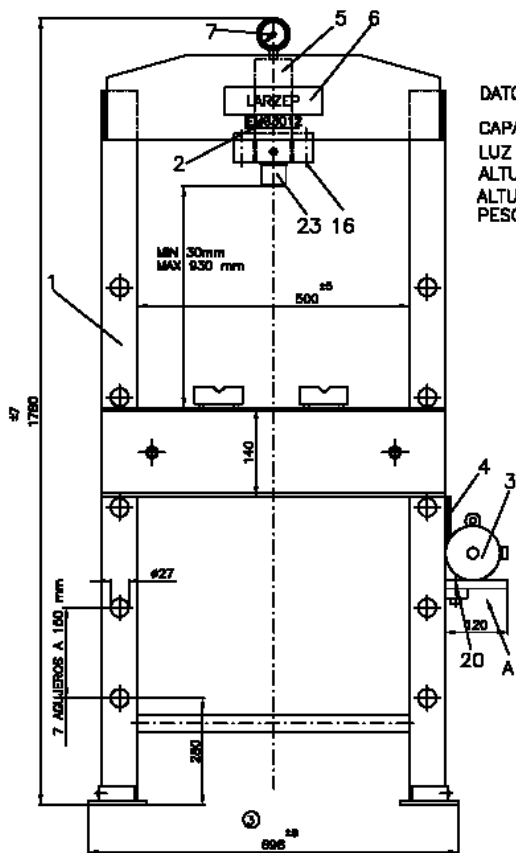
Nombre y firma, name and signature, nom et signature, namn och underskrift, nimi ja nimikirjoitus, navn og underskrift, name und underskrift, naam en handtekening, nome e assinatura, nome e firma.

PRENSA HIDRAULICA DE COLUMNA

Ref. Comercial: EM03012

DATOS DE LA PRENSA:

CAPACIDAD 30 Tm  
LUZ ENTRE COLUMNAS 500 mm  
ALTURA MINIMA TRABAJO 30mm  
ALTURA MAXIMA TRABAJO 930 mm  
PESO: 111 Kg

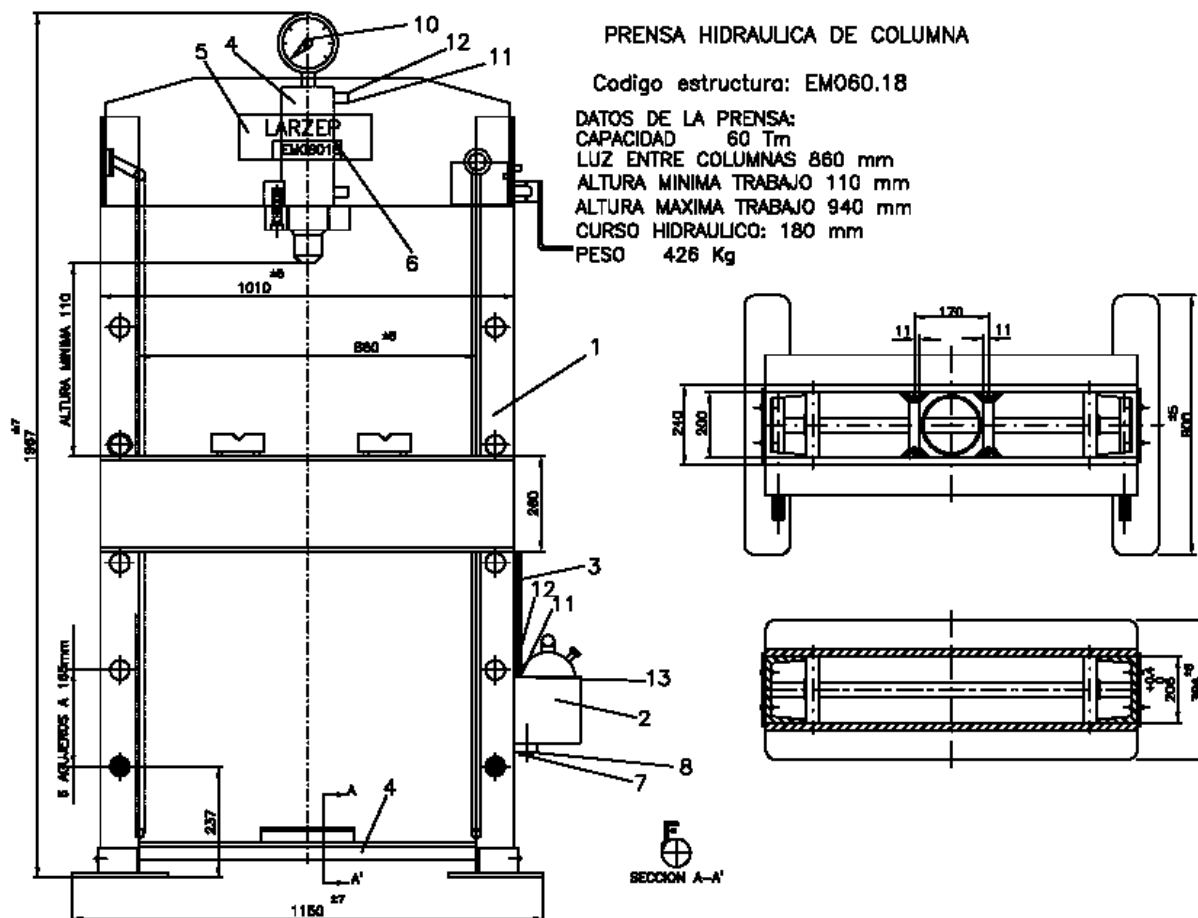


N	DENOMINACION	CODIGO	N
			Piezas
1	ESTRUCTURA	25A0003	1
2	ETIQUETA ADH.	30A0052	1
3	BOMBA HIDRAULICA	W00807	1
4	TUBO ESTIR.ST-35 D-10*5	04C0043	1,36 m.
5	CILINDRO	SM03012	1
6	ETIQUETA ADHESIVA	30A0049	1
7	MANOMETRO	AY03008	1
8	TORNILLO M10x30	14A0068	2
9	TUERCA M10	14B0007	2
10	ARANDELA Ø10	14C0002	2
11	TORNILLO M8x25	14A0026	2
12	TUERCA M8	14B0006	3

13	ARANDELA Ø8	14C0009	3
14	TORNILLO M8x20	14A0032	1
15	RACORD EN L	15J0012	1
16	TORNILLO ALLEN M10x30	14A0068	4
17	TUERCA BICONO	14B0012	2
18	BICONO PARA D=10	15F0004	2
20	PLATAFORMA	24K0025	1
21	PROTECTOR ROSCA	15L0018	1
22	ESPARRAGO	14F0014	1

23	CABEZA	56A0016	1
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N	DENOMINACION	CODIGO	N Piezas
1	ESTRUCTURA	25A0004	1
2	BOMBA	W03007	1
3	TUBO ESTIR.ST-35 D-10*5	04C0043	1,9 Kg
4	CILINDRO	SM06018	1
5	PEGATINA LARZEP	30A0049	1
6	ETIQUETA ADHESIVA	30A0053	1
7	TORNILLO M10x20	14A0035	2
8	ARANDELA $\phi$ 10	14C0002	2
9	RACORD EN L	15J0012	1
10	MANOMETRO	AY06010	1
11	TUERCA BICONO D=10 M18x1.5	14B0012	2
12	BICONO PARA D=10	14F0004	2