



HYDRAULICS

COLUMN PRESS 120 ton WITH ELECTRIC PUMP “EE12018”



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ANNEX

- GENERAL DRAWING

1. BEFORE USING THE EQUIPMENT.

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

- 1- Oil leaks, signs of corrosion.
- 2- Damage to the hydraulic cylinder and hydraulic line.
- 3- Cracks or dents on the frame and the hydraulic cylinder’s attachments to the frame.
- 4- Loose or damaged screws or joints.
- 5- 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, and 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 grater 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 advice 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 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.

2. TECHNICAL FEATURES.

HYDRAULIC CYLINDER

MODEL	EE12018
• Capacity (ton)	120 ton
• Maximum pressure (Kg/cm ²)	700 Kg/cm ²
• Hydraulic stroke (mm.)	180 mm.
• Effective area (cm ²)	176.71 cm ²
• Oil capacity (cc)	3180.8 cc
• Free advance speed (mm/sg)	3 mm/sg
• Advance speed at maximum pressure	0.5 mm/sg
• Cylinder	D12018

POWER PACK REF.: 7AM7344

MODEL	HAM7344
• Tank capacity (cc)	10 Litres
• Volume in low pressure. Approaching	4 l/min.
• Volume in high pressure. Working.	0.36 l/min
• Maximum return pressure (Kg/cm ²)	700 Kg/ cm ²
• Maximum working pressure (Kg/cm ²)	100 Kg/ cm ²
• Distributor valve	Manual valve: 4 ways, 3 positions.
• Motor	0.75 kW Tension: 400V. 50 Hz.3 ph.

WELDED-MECHANIZED FRAME: mobile table and table’s anchorage by support in two bolts.

MODEL	EE12018
• Working height maximum (mm)	910 mm
• Working height minimum (mm)	80 mm
• Displacement of the table (mm)	165 mm
• Working Width (mm)	880 mm
• Total weight (Kg)	750 Kg

3. ESSENTIAL SAFETY REQUIREMENTS.

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.

- ❖ The start and stop devices are made by means of the commands located in the electric cabinet IP55.
- ❖ The advance and return of the cylinder are made by means of a manual command located in the pump. The command acts over a directional valve.
- ❖ The command is NOT maintaining drive, because due to the type of applications of the machine, the operator must put the hands over the material to be treated, so the exposed personnel must know the machine’s function and the inherent risk of the equipment.
- ❖ The electrical cabinet is provided with stopping and starting switches.
- ❖ Only the starting switch, locate din the electrical cabinet, allows the feeding of the machine’s electrical organs.
- ❖ To make its components movements, it will be necessary to act over the directional valve’s command.
- ❖ The machine is provided with a red switch, locate din the electrical cabinet, that allows the total stop of the machine in safety conditions.
- ❖ For a new start, it will be necessary to act the start switch, locate din the same electrical cabinet.
- ❖ The stop of the cylinder is produce putting the command of the directional valve in position “C”.
- ❖ 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./cm² of pressing.
- ❖ The frame of the machine does not cause to be dangerous in that sense.
- ❖ **Mobile elements during the preparation phase:**
 - The table can be displaced between the different points of anchorage. The table’s weight is 21,5 Kg. The personnel exposed will be protected with safety shoes.
 - The EE12018 model is provided with a towing winch to displace the table. The frame is provided with two pins in the inferior angles of the columns, which avoid the table’s fall to the ground in case of break of the towing winch’s cable.
- ❖ **Mobile elements during working phase:**
 - The exposed personnel must put the directional valve’s command in position “C” or push the red switch of the electrical cabinet to stop the advance of the hydraulic cylinder’s piston.
- ❖ The machine is provided with a protective device for a motor in accordance to the rules: IEC 947-1, 947-2, 947-4-1.
- ❖ The hydraulic pump is equipped with an internal security valve in the tank, out of operator’s control and rated at 700 Kg./ cm².
- ❖ Also, in the pump’s metal lid, there is a pressure regulation valve rated on factory at 700 Kg./ cm² and it could be rated by the operator, as we explained in the start up chapter, from 0 till 700 Kg./ cm².
- ❖ 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 unscrews the bolts in the tap cover. In order to disassemble the cylinder it is required first to disassemble the hoses. Support the cylinder with a crane, by means of an eye bolt, and unscrew the joints of the lid.
- ❖ Release the cables of the terminal, to disconnect the electrical source, first disconnect the stud.
- ❖ There are different positions of the distributor lever, it is labelled:
 - “A”: For the cylinder advance movement.
 - “C”: The piston does not advance, but the reached pressure is maintained.
 - “B”: The piston returns.

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.

ELECTRIC CONNECTION

Bear in mind the voltage indicated in the terminal box of the motor.

Assure that the directional distributor valve's command is in position "C".

Check that the motor rotates in the sense of the arrow labelled in the electrical motor. In opposite case, change the position of two cables between themselves in the terminal and try again. This operation will be made with the equipment depressurized.

SUBSTITUTION OF THE TRANSPORT PLUG

Replace the plug of transport located in the cover of the tank, by the pressurized plug given with the press. (Plastic bag in the lever of the valve).

INSTALLING THE GAUGE

1-Replace the threaded tap in the top of the cylinder by the gauge. (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.

4- The hydraulic system also includes a gauge adaptor with 3/8 "BSP thread.

CHECKING THE RIGHT OPERATION OF ALL DEVICES AND MECHANISM

1. Put the distributor valve's command in position "C" and push the start switch button (black) of the electrical cabinet.
2. Check the rotate of the motor.
3. If the rotate sense is the opposite of the labelled arrow in the motor, change the phases of the electrical connection. Disconnect the equipment for this operation.
4. Put the distributor valve's command in "A" position. The cylinder's piston advances, familiarize with the speed.
5. Guide the piston to the end of the stroke and submit to pressure, check the reading of the gauge and that there is not oil leaks.
6. Put the distributor valve's command in "C" position to assure that the cylinder maintains the pressure.
7. Put the distributor valve's command in "B" position to return the piston, familiarize with the speed.
8. Push the stop switch (red) of the electrical cabinet, to stop the motor. Move the command from "A" position to "B" position to depressurize the cylinder and finally let the distributor valve's command in "C" position.

5. START UP.

Connect the machine as explained in the previous point.

Displacement of the table's height:

MODEL EE122018
Choose the wished height.
Elevate the table rotating the lever of the winch to the right, until let free the pins and extract them.
Put the table in the wished height, let free the holes of the columns in order to introduce the pins.
Descend the table by means of the winch, until the table is perfectly supported in the pins and the cables of the winch must be without tension.



VERY IMPORTANT! THE POSITIONING SYSTEM OF THE TABLE IS NOT DESIGNED TO RESIST THE FORCE THAT THE CYLINDER IS ABLE TO DO. THE USE IS ONLY IN ORDER TO POSITIONING THE TABLE.

Regulation of the maximum working pressure:

The maximum pressure developed by the hydraulic system is 700 Kg/cm². An internal limiter valve races in the moment that the installation reaches the pressure.

If the working pressure wished is inferior, act in the following sense:

1. In the cover of the power pack is located the pressure regulation screw.
2. Release the lock nut and go releasing the regulation screw. Go checking with the gauge and once the pressure wished is reached, tighten the lock nut to avoid that the vibrations deregulate the system.

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6. 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 RETRACS 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

PROBLEMS	POSSIBLE FAILLURES	SOLUTION
1. The piston does not advance.	- Prime less pump.	1. Feed the pump keeping it started some minutes.
	- Dirty accumulated in the filter.	2. Extract and clean it.
	-No oil in the reservoir.	3. Check the level.
	- Cylinder pressure retainer damaged.	4. Replace the retainer.
	-Directional valve damaged.	5. Replace the valve.
	- Cylinders body damaged.	6. Repair the body of the cylinder.
	- Pneumatic problem.	7. Check the installation.
2. The cylinder does not reach pressures.	- Pressure relief valve unrated.	8. Rate the valve.
	- Cylinder pressure retainer damaged.	See Solution. 4.
	- Cylinders body damaged.	See Solution. 6.
3. The cylinder does not maintain pressure.	- Cylinder pressure retainer damaged.	See Solution. 4.
	- Directional valve damaged.	See Solution. 5.
4. The cylinder does not retract.	- Damaged return spring.	9. Replace the spring.
	- Directional valve damaged.	See Solution. 5.

The solutions marked in black must be carried out by specialized personnel, for it, go to an authorized distributor that sold you the equipment or to LARZEP, S.A., we have original spare part kits as well as the necessary personnel, do not doubt in contacting to us, we are to yours disposition.

Always use original spare parts LARZEP, you will extend the life utility of the equipment, in opposite case the company will not become person in charge of the possible failures, damages or losses that take place.

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
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

E

DECLARATION DE CONFORMITE

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

F

DECLARAÇÃO DE CONFORMIDADE

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

P

ÖVERENSSTEMMELSEERKLÄRING

Vi, LARZEP, S.A.
Adresse: Avda. Urtiaga, 6
48269 Mallabia SPAIN
Erklærer på eget ansvar, at følgende produkter som er omfattet af denne erklæringen, er i overensstemmelse med bestemmelsene i Direktiv:
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

DK

ERKLÄRINGOM ÖVERENSSTEMMELSE

Vi, LARZEP, S.A.
Adresse: Avda. Urtiaga, 6
48269 Mallabia SPAIN
Erklærer på eget ansvar, at følgende produkter som dekkes av denne erklæringen, er i overensstemmelse med bestemmelsene i Direktiv:
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

N

ÜBEREINSTIMMUNGSERKLÄRUNG

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

D

Tipo, Type, Typ, Tyyppi.

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DDR / Z / ZR / W / X / YA / YG / YZ / HM / HE / HG / HZ / HS / WI / CK / CC / CN / FU / FV /
FZ / FA / CY / AA / AU / CT / C / KC**

**A / AB / AC / BL / B / AF / F / HN / DLG / DL / DP / VA / VB / VC / VZ / EC / EE / EG / EM /
EZ / CA / CS**

Mallabia, ESPAÑA 2005 / 04 / 27

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
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

GB

DICHIARAZIONE DI CONFORMITÀ

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

I

VAATIMUSTEMUKAISUUSVAKUUTUS.

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

FIN

VERKLARINGVAN OVEREENKOMST.

Wij, LARZEP, S.A.
Adres: Avda. Urtiaga, 6
48269 Mallabia SPAIN
Verklaren geheel onder eigen verantwoordelijkheid dat de volgende producten, waarop deze verklaring heeft in overeenstemming zijn met de bepalingen van Richtlijn:
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NL

FÖRSÄKRAN OM ÖVERESSTÄMMELSE

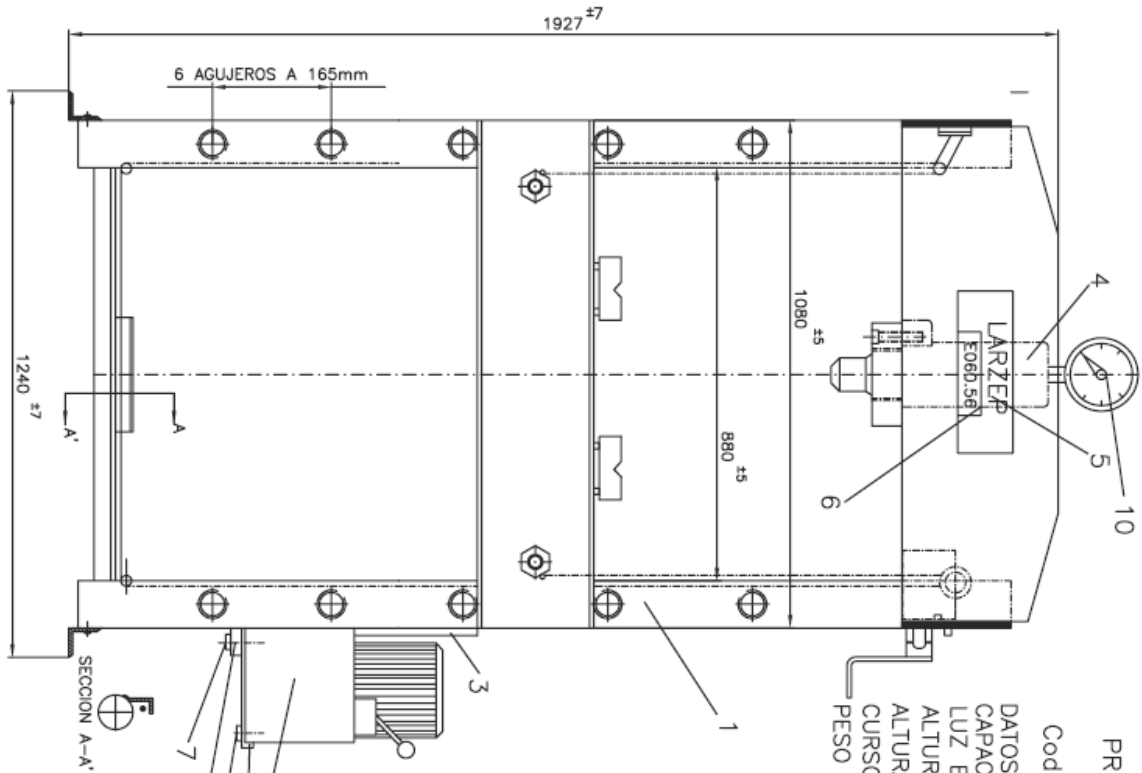
Vi, LARZEP, S.A.
Adress: Avda. Urtiaga, 6
48269 Mallabia SPAIN
Försäkrar under eget ansvar att följande produkter som omfattas av denna försäkrans är i överensstämmelse med villkoren i Direktiv:
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

S

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.

Instruction Manual
Column Press with Electric Pump "EE12018"



PRENSA HIDRAULICA DE COLUMNA

Codigo estructura: EE12018

DATOS DE LA PRENSA:
CAPACIDAD 120 Tm
LUZ ENTRE COLUMNAS 880 mm
ALTURA MINIMA TRABAJO 260 mm
ALTURA MAXIMA TRABAJO 900 mm
CURSO HIDRAULICO: 180 mm
PESO 720 Kg

N	DENOMINACION	CODIGO	N
1	ESTRUCTURA	25A0005	1
2	ELECTROBOMBA	YAM6344	1
3	TUBO ESTIR-ST-35 D-10*5	04C0043	4,2 m.
4	CILINDRO	D12018	1
5	PEGATINA LARZEP	30A0049	1
6	ETIQUETA ADHESIVA	30A0055	1
7	TUERCA M10	14B0007	2
8	ARANDELA ϕ 10	14C0002	4
9	RACORD EN L	15J0012	2
10	MANOMETRO	AY12010	1
11	PLATAFORMA	24K0026	1
12	TORNILLO M10x25	14A0019	2
13	TORNILLO M10x15	14A0036	2
14	BICONO PARA M-10	15F0004	4

