



HYDRAULICS

COLUMN PRESS 60 ton WITH HAND PUMP

“EM06018”



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INSTRUCTION MANUAL
Column Press with Hand Pump "EM06018"


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➤ **GENERAL DRAWING**


1. BEFORE USING THE EQUIPMENT.

Upon removing the protective packaging from the crane, carefully inspect it. Check for: Oil leaks, signs of corrosion; damage to the hydraulic cylinder, line, frame and the hydraulic attachments to the frame, and 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 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 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 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.


2. TECHNICAL FEATURES.

HYDRAULIC CYLINDER	SM06018
• Capacity (ton.)	60 ton
• Maximum pressure (Kg/cm ²)	700 Kg/ cm ²
• Stroke (mm.)	180 mm
• Effective area (cm ²)	86.59 cm ²
• Oil capacity (cm ²)	1558 cm ²
• Free advance speed (mm/sg)	1.5 mm/sg
• Maximum pressure advance speed	0.25 mm/sg

HAND PUMP	W23007
• Tank capacity (cc)	3.000 cc
• Maximum pressure (Kg/cm ²)	700 Kg/ cm ²

FRAME: MECHANIZED-WELDED	EM06018
• Working height (mm.)	935 mm
• Working width (mm.)	860 mm
• Total weight of the machine (Kg.)	455 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.

- ❖ In order to start the equipment is necessary to connect the pump to the cylinder.
- ❖ The cylinder movements are made when we act the lever of the pump.
- ❖ When we pump, the cylinder will moves forward, and when we open the release screw of the pump, the cylinder will return.
- ❖ 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.
- ❖ 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.

RISKS DUE TO HYDRAULIC ENERGY: The pump is equipped with an internal security valve in the tank, out of operator's control and rated at 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, 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.

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 pallet. For its 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: Release the plug of the coupler; 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 solidarity with the thread.

CHECKING THE RIGHT OPERATION OF ALL DEVICES AND MECHANISM

Select the working maximum pressure. In manual presses 700 Kg./cm². With the hand on the lever, pump several times and check the cylinder advances.

Open the release screw of the pump and check that the cylinder piston returns by the internal spring.

To retract or stop the cylinder is necessary let the lever without movement.

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.)

To retract the cylinder and eliminate the installation pressure, open the release screw to the left. The piston returns by the internal spring. The return may be slower at the end of the backstroke. Put the material to be treated in the press and act as explained regarding all the safety rules.

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 NO 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.

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

In a **FREQUENT INSPECTION**, check for: Piston wearing, oil leaks, signs of corrosion or incorrectly assembled accessories

Wear or damage to the cylinder or pump. Cracks, dents or any other damage to the frame, cylinder attachments, work table and its supports

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 at the oil. Fill reservoir with degreasing homologated liquid and thoroughly circulate it through the hydraulic equipment. After completely purging the liquid 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

PROBLEMS	CAUSES	SOLUTIONS
1. The piston does not advance.	The pump's relief valve is open.	1. Close the relief valve.
	Air is trapped in the circuit.	2. Open the pump's relief valve; with the pump vertically (head down) pump the several times.
	No oil in the reservoir.	3. With the piston fully retracted and the pump vertically (head down) remove the oil tank plug and fill it.
	Dirt has accumulated in the circuit.	4. Clean the hydraulic as described in chapter 5.
	Worn or damaged check valve.	5. Take the press to an authorized service dealer.
2. The piston advances in spurts.	Improperly connected line	6. With the piston fully retracted, ensure connection.
	Air is entrapped in the circuit.	See Solution 2.
3. The piston will not fully extend.	Deformed piston.	See Solution 5.
	Low oil level.	See Solution 3.
4. The piston advances slowly.	Deformed piston.	See Solution 5.
	Air is entrapped in the circuit.	See Solution 2.
	Dirt has accumulated in the circuit.	See Solution 4.
	Worn or damaged check valve.	See Solution 5.
	Improperly connected line	See Solution 6.

6. 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

7. 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 OF CONFORMITE

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

Declarons 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 bestemmelserne i Direktiv: 89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

DK

ERKLÆRING OM OVERENSSTEMMELSE

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

Erklærer på eget ansvar, at følgende produkter som dekkes 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

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.

SM / SH / SP / SMP / SX / SMX / ST / STX / SL / SMA / SHA / SSR / T / TE / TD / D / DH /
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

VERKLARING VAN 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: 89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

NL

FÖRSÄKRAN OM ÖVERESSTÄMMELSE

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

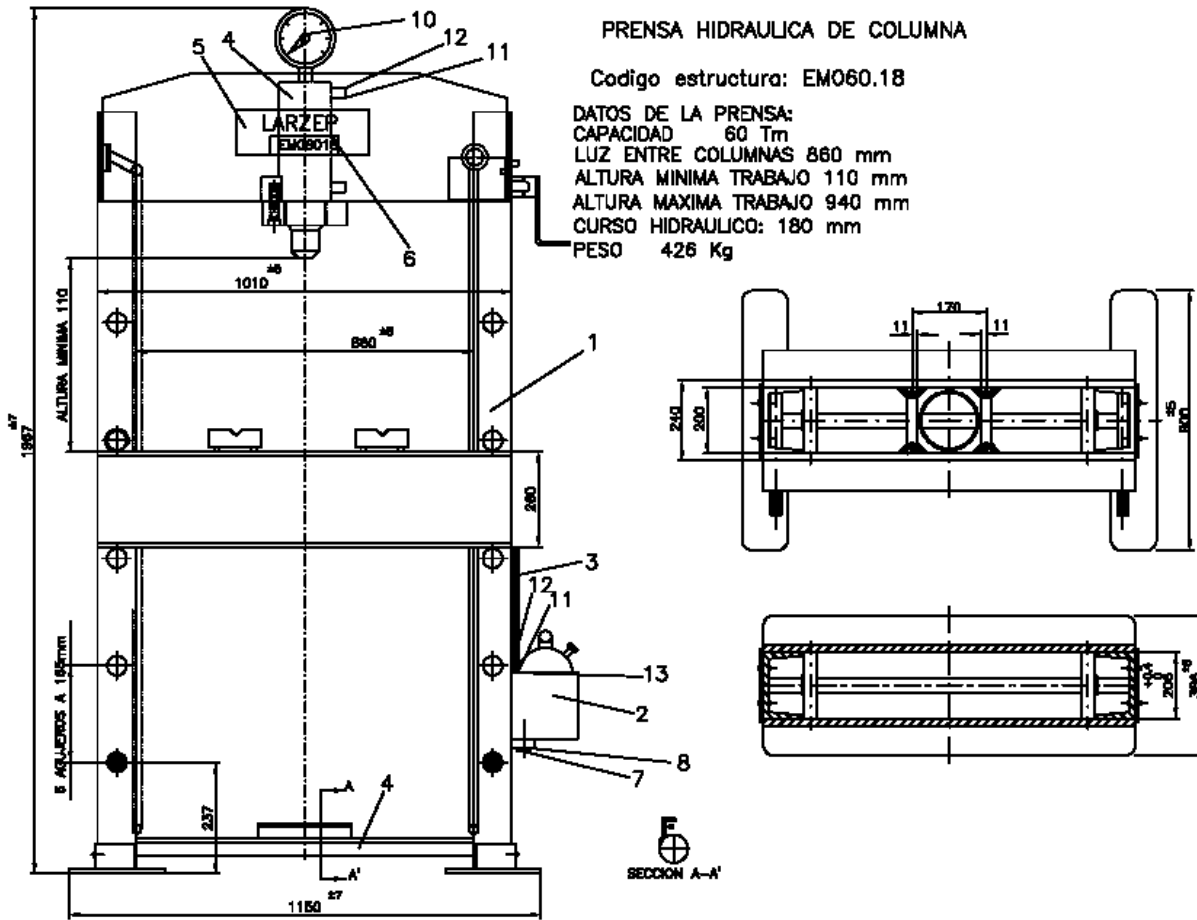
Försäkrar under eget ansvar att följande produkter som omfattas av denna försäkran är i överensstämmelse med villkoren i Direktiv: 89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

S

LARZEP, S.A.

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

GENERAL DRAWING



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 ϕ 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