



## **COLUMN PRESS 30 ton WITH ELECTRIC PUMP “EE03116-CE”**



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**ANNEX**

**❖ GENERAL DRAWING**

**1. BEFORE USING THE EQUIPMENT.**

Before unpacking the equipment check for:

1. Oil leaks, sign of corrosion.
2. Damages in the hydraulic cylinder or line.
3. Damages in the frame and the accessories.
4. Damages or lack of screws and connections.
5. Bad connection of accessories.

If you observe any fault or damage in the equipment, avoid its use and store it in a safety place until it be repaired by an authorized service dealer.



**Never use damaged or bad condition equipment.**

Familiarize the operators with the equipment before using the machine. Read and observe exactly the instructions and the recommendations included in the packaging. Any inadequate use of the equipment not observed in the present manual or the omission of this one, may cause serious personal and material damages, which **LARZEP, S.A.** will not be responsible in any case.



**Do not loose the instruction manual.**

Do not work with the equipment near of the flames, explosives, heat sources or any other source that may produce fire or cause damages in the equipment. The equipment must not be exposed to temperatures greater than 60° C in use as in storage.



If you are using a pump or cylinder with the press, assure that you are having a good combination before making the assemble. We recommended asking professional advice to our technicians.

When you have located a good place for the press, assure that it is in solid and flat ground; all the base of the press must be supported. If there is any doubt about the stability, it is recommended distributing the weight in a bigger area placing a steel flat under the base of the press. Store the press with the piston fully retracted. We recommended protecting the cylinder with a plastic or locating the press in a clean place not to damage the components and in order to have the press correctly storage.

**2. TECHNICAL FEATURES.**

**HYDRAULIC CYLINDER**

MODEL	EE03116-CE
Max. Pushing Capacity (ton)	30
Working Pressure (bar)	700
Hydraulic Stroke (mm)	160
Effective area (cm <sup>2</sup> )	44, 1
Oil capacity (cm <sup>2</sup> )	706, 5
Approaching speed, without load (mm/sg)	11, 3
Working speed at 700 bar (mm/sg)	2, 1

**ELECTRIC PUMP REF. HAM7244B**

MODEL	HAM7244
Oil Tank capacity (Litres)	5 L
Oil Flow in low pressure. Rapid advance	4 L/min
Oil Flow in high pressure. Working	0,36 L/min
Max. Working Pressure	700 bar
Max. Pressure in return	100 bar
Valve	Hand: 4 way/3position
Motor	0, 75 kW 400V 50 Hz 3 Ph

**FRAME:** Welded-Mechanized frame, mobile table and anchor bolt system.

MODEL	EE03116-CE
Max. working height (mm)	930
Min. working height (mm)	30
Sequence of bed positioning (mm)	150
Working width (mm)	500
Total weight (Kg)	135

### 3. ESSENTIAL SAFETY REQUIREMENTS.



Due to the functional reasons, "dangerous area" is considered to be the space between the columns, the bed and the hydraulic cylinder piston. Due to the material pressed, "dangerous area" is supposed to be the 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 the 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 faces and feet from metal pieces being ejected during pressing.



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



In any case, the hydraulic oil is toxic if it takes contact in the bloodstream, so that NEVER PLACE THE FINGERS OVER ANY HOLE THAT MAY CAUSE A FILTRATION.

- ❖ The start and stop operations of the motor is made with the commands of IP55 electric box. The commands are supplied with a 24 V. tension.
- ❖ The advance and return movements of the cylinder are made by the hand lever located in the pump. This lever actuates over a directional valve.
- ❖ The command have not maintaining action device due to the kind of operation that the equipment makes, the operator sometimes must place its hands over the material to be treated. So that it forces to the operator to know the inherent risks and operating of the equipment.
- ❖ The starting up of the motor is carried out by the green button located on the electric box.
- ❖ The rest of operating devices are activated manually from the directional valve on the cover of the pump.
- ❖ To get cylinder movements, it is necessary to push the green button.
- ❖ The red emergency push button stops the machine completely, in a safe way. To re-start it is necessary to unblock the emergency button.
- ❖ It can be stopped too from the remote control.
- ❖ If you stop pressing the green push button, the motor stops and with it the cylinder movements.
- ❖ The machine is equipped with the fuse and a thermo-magnetic switch for its protection.
- ❖ The machine is equipped with supporting plates in the columns for a perfect stability. The machine gets operated without fixing onto the floor, but it is strongly recommended to do it by drilling the plates in the place of your choice.
- ❖ 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
- ❖ It is operator's responsibility to wear special protective clothes and attachments in both feet and face to prevent any damage as a result of accidental fallings and breakings of metal pieces under operation or machine components in touch with.
- ❖ Risks due to surfaces, bends and angles: The frame of the machine does not cause to be dangerous in that sense.
  - **Risk due to mobile components in the setup stage:** The table can be positioned in several fixing points. In the EE03116 model, the movement of the table must be performed manually (weight of the table 21, 5 Kg). It is operator's responsibility to wear safety shoes in any case.
  - **Risk due to mobile components during service:** The operator must either move the directional valve lever to "C" position or leave pushing the remote control to stop the advance of the piston of the hydraulic cylinder. It can be stopped too with the red button head in the switch box to fully stop the movement of the piston.

#### SAFETY PREVENTIVE ACTIONS AGAINST OTHER RISKS

- ❖ Risk due to power supply: The machine is equipped with the fuse and a thermo-magnetic switch for its protection.
- ❖ Risk due to hydraulic power: The hydraulic pump is equipped with an internal security valve in the tank, out of operator's control and rated at 700 bar, as well as with a pressure relief valve on the tank cover adjustable by the operator (as per instruction in start-up chapter ) from 0 to 700 bar. The hydraulic cylinder is also furnish with a pressure relief valve, rated at 700 bar which prevents the retraction chamber of the cylinder from overpressures in case of obstruction of the return way.
- ❖ All the maintenance operations must be performed while the machine is stopped, thus 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 in the frame and its access is very easy. To disassemble the pump, unscrew the bolts in the tap cover. In order to disassemble the cylinder it is required to first disassemble the piping.
- ❖ Isolation of the power supply: Release the terminal wiring to disconnect the power supply. Previously you should unplug the pin.
- ❖ Handling by the operator: The machine is designed to assure that all maintenance tasks are performed by the operator in an easy and safe way. All the components that would require any maintenance operation are easy accessible.
- ❖ In the valve, you can find several marks depending on the position of the lever:
  - "A" for extension of the cylinder piston.
  - "B" for retraction of the cylinder piston.
  - "C" for holding the pressure without piston movement.

The press, the cylinder and the electric 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 coupling from any damage.



The machine is stable enough to operate without fixing, but if it 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 CONNECTIONS**

- ❖ Bear in mind the voltage indicated in the motor.
- ❖ Make sure that the directional valve is in "C" position (neutral). Make sure that the motor is rotating in the direction indicated by the arrow. In the opposite case, change the position of the cables and terminals of the motor. The last operation must be performed with the machine disconnected.

##### **REPLACEMENT OF THE TRANSPORT PLUG**

You should replace the transport plug on the tank cover by the pressurized plug supplied with the press (in the small plastic bag next to the lever of the distributor).

##### **INSTALLING THE GAUGE**

- ❖ Replace the threaded plug in the top of the cylinder by the gauge which is supplied separately. Tighten the gauge cone to the gauge adaptor seat by using a flat wrench size 22. 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.
- ❖ There is an alternative gauge port in the electric pump with a 3/8" BSP thread.

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

1. Turn the lever of the pump direction valve to "C" position and turn the main switch to 1.
2. Press the start button (green) for an instantaneous current.
3. Verify the rotation direction of the motor.
4. If the direction is opposite to the narrow indicated in the motor, you should reverse the electric phases of the power supply. When doing this, machine should be unplugged.
5. Turn the pump direction valve lever to "A" position. Pushing de green button constantly, the piston should move forwards (extension). Check the extension speed and maximum stroke.
6. Once the piston is fully extended run the pump to increase the pressure. Check the working pressure in the gauge. Verify that there are no oil leaks in the connections, gauge, etc.
7. Turn the direction valve lever to "C" position to check that the pressure in the cylinder does not drop.
8. Turn the direction valve lever to "B" and push the green button to retract the piston. Check the retraction speed.
9. Test the emergency button. Unblock it and with de motor stopped, turn the directional valve lever "A" to "B" to depressurize the cylinder. Turn the lever to "C" position and turn "0" the main switch.

Once all the steps have been completed, the machine is ready to be used. Repeat the sequence as many times as required to get the knowledge on how to work the machine.

#### **5. START-UP.**

Operate the machine as per the preciously mentioned indications.

##### **Repositioning the table height**

Model EE03116.

Choose the right height and lift or descend the bed manually alternatively (from one column to the other one) and from hole to hole. Do it slowly to avoid the fall of the bed.



**VERY IMPORTANT WARNING:** THE TABLE POSITIONING SYSTEM IS NOT CONCEIVED TO BEAR THE FORCE THE CYLINDER CAN DEVELOP. IT MUST BE USED JUST TO POSITION THE TABLE.

##### **Regulation of the maximum working pressure**

- ❖ The maximum pressure developed by the hydraulic system is 700 Kgr/cm<sup>2</sup>. An internal security valve discharges when the system reaches that pressure. In order to operate at a lower working pressure, you should proceed like follows:
- ❖ You can find the pressure regulation screw on the tank cover. Loosen the nut lock and unscrew the regulation screw. Check gradually the pressure with the gauge and after reaching the required pressure tight again the nut lock to prevent the system from undesired vibrations.

## 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: AZ8902)**. The electric 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 water 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.

	<b>PROBLEMS</b>	<b>POSIBLE CAUSE</b>	<b>SOLUTIONS</b>
1	Piston dos not extend	1.1 Prime less pump	1.1 Maintain the pump on for some minutes in "C" position.
		1.2 Filter is dirty.	1.2 Remove and clean it properly.
		1.3 Not enough oil in the tank	1.3 Check the oil level.
		1.4 Pressure retainer damaged.	<b>1.4 Replace the retainer.</b>
		1.5 Cylinder body damaged.	<b>1.4 Repair the cylinder body.</b>
		1.6 Distribution valve damaged.	<b>1.5 Repair the valve.</b>
		1.7 Electric problem	1.7 Check the installation
2	Cylinder does not reach pressure.	2.1 Internal valve unrated	<b>2.1 Rate again the valve.</b>
		2.2 Pressure retainer damaged.	<b>2.2 Replace the retainer.</b>
		2.3 Cylinder body damaged.	<b>2.3 Repair the cylinder body.</b>
3	Cylinder does not hold pressure.	3.1 Pressure retainer damaged.	<b>3.1 Replace the retainer.</b>
		3.2 Distribution valve damaged	<b>3.2 Repair the valve.</b>
4	Cylinder does not retract.	4.1 Pressure retainer damaged.	<b>4.1 Replace the retainer.</b>
		4.2 Distribution valve damaged.	<b>4.2 Repair the valve.</b>

**Solutions written in bold face should be done by specially trained staff.**

## 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****E**LARZEP, S.A.  
Dirección: Avda. Urtiaga, 6  
48269 Mallabia ESPAÑADeclaramos bajo nuestra exclusiva responsabilidad la conformidad de los productos a los que refiere esta declaración, con las disposiciones de la directiva:  
2006/42/CE**DECLARATION DE CONFORMITE****F**Nous, LARZEP, S.A.  
Adresse: Avda. Urtiaga, 6  
48269 Mallabia SPAINDéclarons sous notre seule responsabilité que les produits auxquels se réfère cette déclaration sont conformes aux dispositions des Directives:  
2006/42/EC**DECLARAÇÃO DE CONFORMIDADE****P**Nós, LARZEP, S.A.  
Endereço: Avda. Urtiaga, 6  
48269 Mallabia SPAINDeclaramos, sob nossa única responsabilidade, que os seguintes produtos, incluídos nesta declaração estão em conformidade com o disposto na Directiva:  
2006/42/EC**ÖVERENSSTEMMELSESERKLÆRING****DK**Vi, LARZEP, S.A.  
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Anschrift: Avda. Urtiaga, 6  
48269 Mallabia SPAIN

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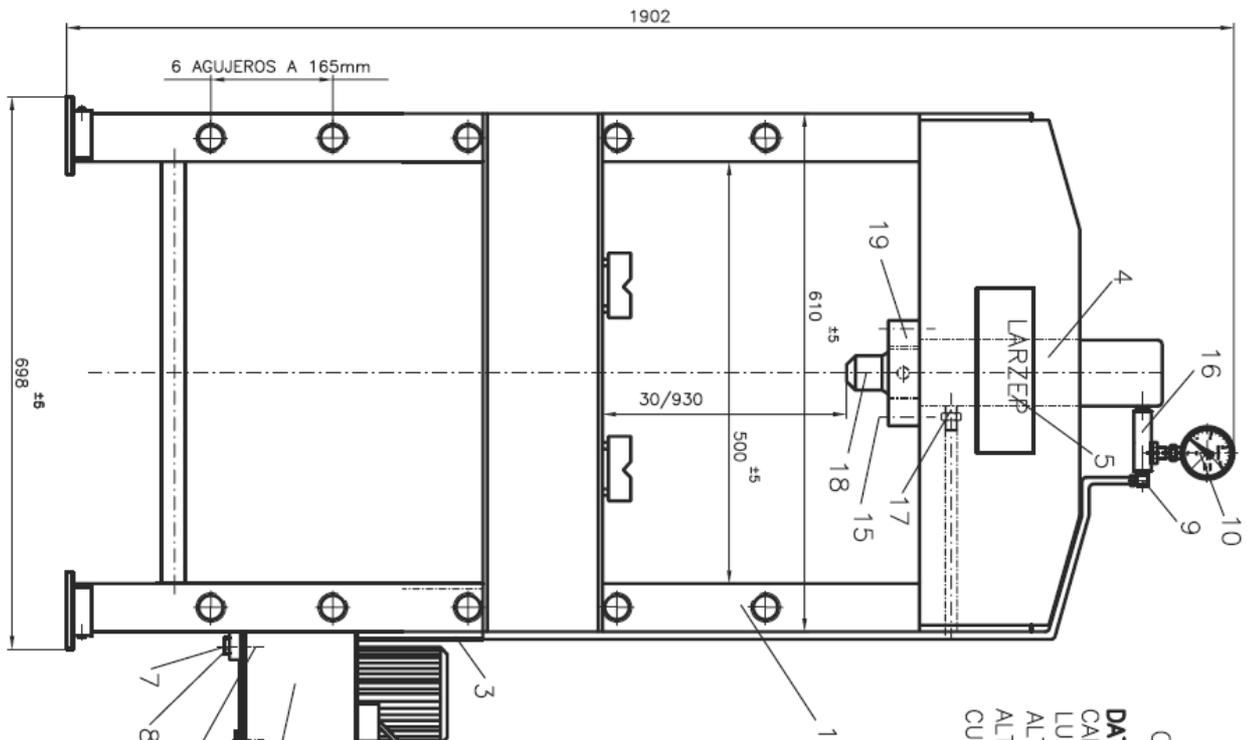
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Mallabia, ESPAÑA 2009 / 12 / 29

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****GB**We, LARZEP, S.A.  
Address: Avda. Urtiaga, 6  
48269 Mallabia SPAINDeclare under our sole responsibility that the following products to which this declaration relates conform with the provisions of Directives:  
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2006/42/EC**VERKLARINGVAN OVEREENKOMST.****NL**Wij, LARZEP, S.A.  
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**PRENSA HIDRAULICA DE COLUMNA**

Codigo estructura: **EE03116**

**DATOS DE LA PRENSA:**

CAPACIDAD 30 Tm  
LUZ ENTRE COLUMNAS 500 mm  
ALTURA MINIMA TRABAJO 30 mm  
ALTURA MAXIMA TRABAJO 930 mm  
CURSO HIDRAULICO: 160 mm

N	DENOMINACION	CODIGO	N
1	ESTRUCTURA	25A0003	1
2	ELECTROBOMBA	YAM6344	1
3	TUBO EST-35 D-10*5	04C0043	1.36 m.
4	CILINDRO	D03016	1
5	PEGATINA LARZEP	30A0049	1
6	TORNILLO M10x15	14A0036	2
7	TUERCA M10	14B0007	2
8	ARANDELA Ø10	14C0002	4
9	RACORD EN L	15J0012	3
10	MANOMETRO	AY03008	1
11	TORNILLO M10x25	14A0019	2
12	PLATAFORMA	24K0026	1
13	PROTECTOR ROSCA	15L0018	1
14	ESPARRAJO	14F0014	1
15	TORNILLO ALLEN M10x30	14A0068	4
16	RACORD ACOMP.L.MANOM.	AZ1501	1
17	RACORD	15J0011	1
18	CABEZA	56E0075	1
19	SOPORTE CILINDRO	24K0024	1

