



**INSTRUCTIONS & MAINTENANCE SHEET**  
**PORTABLE HYDRAULIC PUNCHING HEAD**  
**PH045**



**DECLARATION OF CONFORMITY****DECLARACION DE CONFORMIDAD**

**E** 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: 2006/42/CE

**DECLARATION DE CONFORMITE**

**F** 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: 2006/42/EC

**DECLARAÇÃO DE CONFORMIDADE**

**P** 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: 2006/42/EC

**ÖVERENSSTEMMELSESERKLÆRING**

**DK** 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: 2006/42/EC

**ERKLÆRINGOM OVERENSSTEMMELSE**

**N** 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: 2006/42/EC

**ÜBEREINSTIMMUNGSEERKLÄRUNG**

**D** 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, 2006/42/EC Übereinstimmen.

**DECLARATION OF CONFORMITY**

**GB** 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: 2006/42/EC

**DICHIARAZIONE DI CONFORMITÀ**

**I** 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: 2006/42/EC

**VAATIMUSTEMUKAISUUSVAKUUTUS.**

**FIN** 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: 2006/42/EC

**VERKLARINGVAN OVEREENKOMST.**

**NL** 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: 2006/42/EC

**FÖRSÄKRAN OM ÖVERESSTÄMMELSE**

**S** 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: 2006/42/EC

Tipo, Type, Typ, Tyyppi.

**SM / SH / SP / SMP/ SPR / SX / SMX / ST / STR / STX / SL / SAM / SAH / SAT / SATM / SSR / T / TE/ TD / D / DH / DDR / DAH / DDA / DM / DI / JM / JH / JP / Z / ZR / W / WP / X / HAM / HAE / HAZ / HAG / HAS / HFM / HFE / HAP / HAT / WI / CK / CC / CN / FU / FV / FZ / FA / CY / AA / AU / CT / C / KC / LAS / LAX  
A / AB / AC / B / AF / F / HN / HL / DLG / VA / VB / VC / VZ / ECE / ECM / ECZ / EE / EM / EZ / CA / CS  
AZ / AP / AR / AV / AS / AT / AX / AY / AM**

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.

**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.

### 1. TECHNICAL CHARACTERISTICS

Maximum punching capacity:	I, L, T section steel plate Maximum thickness of 16 mm
Min / Max. hole diameter:	∅ 5 / 24 mm
Max. yield strength:	37 kg/mm <sup>2</sup>
Punching force:	450 kN
Operating pressure:	700 bar
Punch travel speed:	3.4 mm/sec (flow rate of 0.55 l/min)
Dimensions:	450 x 140 x 298 mm
Indentation:	110 mm
Weight:	32 kg

### 2. OPERATING RANGE

- I, L, T section steel plate with a maximum thickness of 16 mm
- Maximum yield strength of the materials to be punched: 37 kg/mm<sup>2</sup>
- Recommended applications:
  - ∅5 to 24 mm round holes in 16 mm steel plate.
  - Square, oval and rectangular holes in 16 mm steel plate.

### 3. PREPARATION FOR START-UP

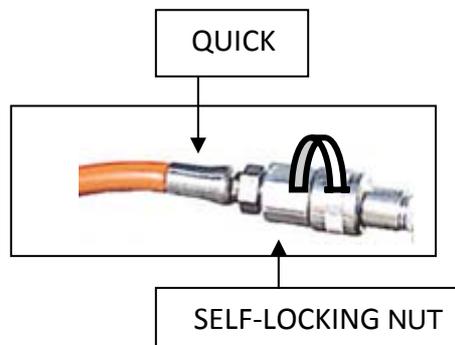
#### 1. Operating area

Before starting the punching process, the operator must ensure that the area occupied by the bar to be cut is free from obstacles and that there is nothing to obstruct the copper or aluminium bar punching process.

#### 2. Ensure that the hydraulic hose is correctly connected to the machine

Ensure that the hose quick coupling is correctly connected to the tool quick coupling. This connection must be secured with the self-locking nut before work starts.

**WARNING!**  
BEFORE USING THE TOOL,  
CHECK THAT THE QUICK  
COUPLING HAS BEEN  
CORRECTLY SECURED

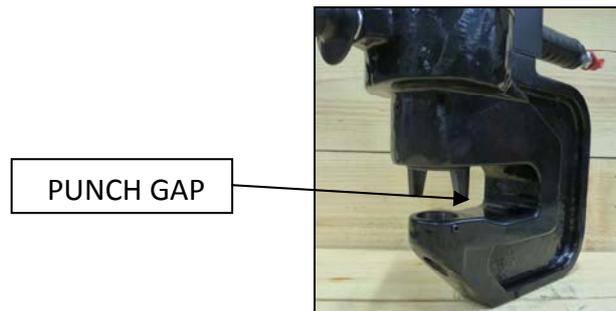


#### 4. START-UP

Before operating the tool, please ensure that you have read the general safety instructions and also the tool set-up instructions.

**WARNING! For any bar punching operation, you must completely follow the procedure described below.**

1. Select the sheet metal to be punched.
2. Insert the sheet metal in the punch gap



3. Activate the hydraulic system and start to punch the flat copper or aluminium bar.
  - If using the WP01207 Foot pedal operating pump, the pump pedal must be pressed until the cutting operation has been completed. Then the pump release lever is used to make the punch retract.
  - If using the Z12107 Air hydraulic pump, you should bear in mind that this pedal has three positions, each with a different function. To start the unit, press down whilst in the “pressure” position and the punching operation is performed. The punch retracts when the “Release” position is pressed. If no pedal is pressed, the unit remains at a dead point. Therefore, the punch advance or retract can be stopped at any time during operation
  - If using the Hydraulic electric pump, the drive pedal has three positions and two different pedals. Pressing pedal nº 1, the punch advances to perform the cutting operation. Pressing pedal nº 2, the punch retracts. If no pedal is pressed, then the unit remains at a dead point. Therefore, the punch advance or retract can be stopped at any time during operation.
4. End of the punching process. Press the release pedals to cause the punch to retract, remove the punched bar and follow the procedure described above.

#### 5. Punching procedure

Independently of the drive system used, the pedal needs to be pressed until the punch comes in contact with the sheet metal. Then, position the punch at the spot where the hole is to be made (the punch has a tapered tip for this purpose, so that it is easy to view the operation). The punching operation can then be performed. Once the hole has been punched, the pressure release pedals on the various pumps are pressed to retract the punch to the home position in order to continue punching or to remove the flat bar.

## 5. PUNCH AND DIE CHANGE

**WARNING!** Before mounting the punch and die and starting work, check that the punch and die Dimensions match. If this is not the case, the tool could be seriously damaged.

**Order of procedure:**

1. When mounting the punch and die: First, mount the punch and then insert the die.
2. When replacing the punch and die: First, remove the die and then remove the punch.

### Procedure

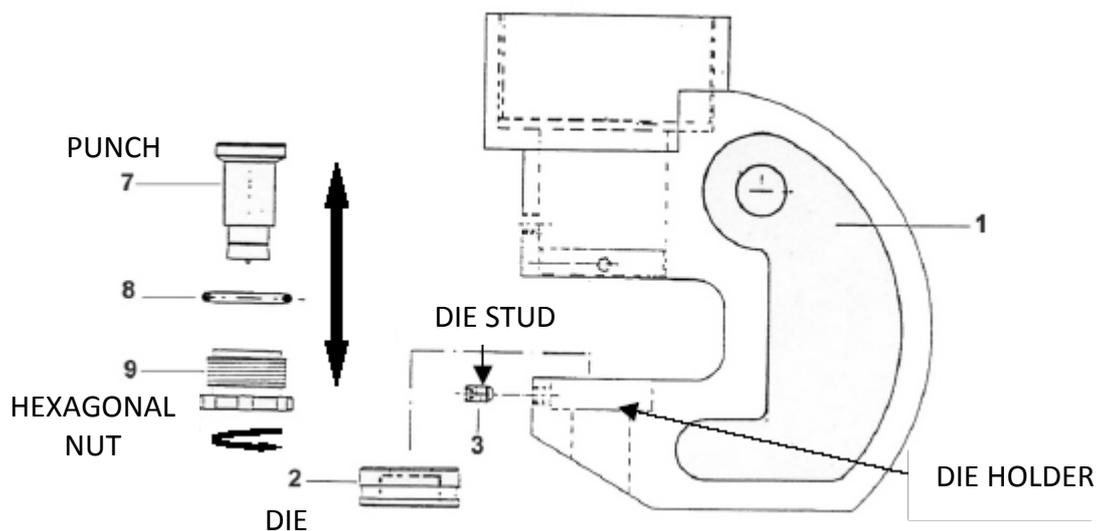
Loosen the hexagonal slotted nut (no. 9) and remove it completely. Insert the punch and secure firmly with the hexagonal spanner supplied with the tool.

To mount the die, loose the die stud (no. 3) and insert the die in the holder and secure firmly with the stud. **It is important that you firmly tighten the die stud since this stud ensures that the punch is centred.**

To remove the punch and die, loose the stud (no. 3) securing the die and remove the die.

Loose the hexagonal slotted nut (no. 9) and remove completely, then take out the die.

**Regularly grease the punch and die**



## 6. TROUBLESHOOTING

Before carrying out any work on the tool, ensure that it has been disconnected from the drive system and that it is not under hydraulic pressure.

**WARNING! If you should require any additional services than those detailed below, please consult your nearest Technical Service centre.**

### 1. Punch or die breakage.

- Incorrect position of the sheet metal. It does not form a 90° angle with the punch.
- The flat bar is not secured when the piston retracts
- Die positioned on the widest side of the hole
- The die and punch are of different dimensions
- Material to be punched is not copper or aluminium or has a greater yield strength than the maximum strength indicated (37 kg/mm<sup>2</sup>)
- Flat die, punching curved sheet metal and vice versus, curved die punching flat sheet metal.

*Solution:* Replace the punch and die. We would recommend always replacing both items at the same time.

### 2. Oil loss.

Oil on the piston. Damaged o-rings or piston scratched by some external projection.

*Solution:* Send the tool to the nearest Technical Service centre for repair.

### 3. The piston does not retract to its home position

- Piston retract spring fatigued or damaged

*Solution:* replace spring

- Dirty or damaged quick coupling

*Solution:* replace coupling

- Mal function of the drive system used to operate the tool

*Solution:* repair drive system

In all cases, we would advise sending the machine to the nearest Technical Service centre for repair.

**If you have any doubts or require a clarification, please do not hesitate to contact the LARZEP, S.A. Technical Department.**

**Always use original spares. Any other part type could seriously damage the tool and void the guarantee.**

If despite the above, the tool still does not work correctly, return it to the nearest Technical Service for repair and fine tuning by specialised personnel.

## 7. CARE AND MAINTENANCE

Before performing any work on the machine, disconnect the hydraulic hose quick coupling.

- **Hose and quick couplings:** Both, the hose and quick couplings must be maintained in an optimum condition and should be inspected regularly.
- **Spring cover (Safety cover):** Check that the retract spring protective cover is perfectly secured with fixture screws. If any irregularity is detected, replace it immediately.  
**For your safety, NEVER operate the tool without the spring cover perfectly secured in the correct position.**
- **Piston:** It is advisable to maintain the thrust piston walls clean in order to prevent possible scratches to the cylinder sleeve walls.
- **Punch and Dies:** Ensure that they have no deformations or burrs, if so replace immediately. It is advisable to grease the punch and die regularly.
- **Cylinder body disassembly:** When disassembling the hydraulic circuit, never insert sharp objects such as screwdrivers, tips,... between the cylinder sleeve walls. Pay particular attention to replacing o-rings and other plastic items. Always use plastic materials for this purpose.
- **Let a specialist take care of repairing and maintaining the equipment:** All repairs should be performed by a specialist and only original spares should be used.

## 8. WARNINGS

- **Hose and quick couplings:** Both, the hose and quick couplings must be in optimum working order. Inspect the hose for damage and ensure that the quick couplings are clean and free from particles. Regular inspections should be carried out.
- **Quick couplings:** We would recommend that the couplings be disconnected as little as possible since, although minimal, a slight oil loss will in fact occur. NEVER disconnect a quick coupling when there is pressure still in the circuit. That is, you must first release the pressure from the circuit otherwise, apart from the resulting personal injury, the cylinder will lock and this is very complicated to correct.

## 9. RETRACT SPRING ASSEMBLY INSTRUCTIONS. IMPORTANT.

1. Once the springs have been mounted, they need to be tightened gradually
2. Start up the tool and check very carefully that when the machine comes to the end of its travel, the spring does not become compressed in one block, if this should occur the spring would be projected outwards and could cause an accident.
3. This operation should be performed by skilled personnel or by the Official Technical Service.



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