

# **LARZEP**

**HYDRAULIC**

# **INSTRUCTION MANUAL FOR THE SAFE USE AND MAINTENANCE OF HYDRAULIC JACK                      B20042**

**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.**

27 Metcalf Street  
DANDENONG SOUTH VIC., 3175 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)

## TECHNICAL SAFETY WARNINGS FOR THE MAINTENANCE AND USE OF THE HYDRAULIC TROLLEY JACK.

This manual contains all the necessary instruction for the correct and safe use of the product and should be complied will in all respects. The instructions are intended to enable the User to be in possession of the knowledge which will ensure safe installation and use of the equipment, without any risk as well as safety during the service and maintenance of the equipment.

These instructions are essential to the correct and safe use of the equipment, and must always accompany the equipment, even if the equipment is resold by the original owner or any subsequent owner. The owner and/or the operator of the jack shall understand the product operating instruction and warnings before operating the equipment. If the operator is not fluent in English, the product operating instruction and warnings shall be read and discussed with him/her, in the operator's language, making sure that he/she understands the contents.

Incorrect operations on the equipment or of its accessories and the non-observance of the warnings of the possible damages may cause serious injuries to people of damages to equipment/vehicle worked upon. The complete system is supplied for operating only after all protections detailed in these instructions are complied with.

The company **LARZEP and its officially appointed agents** shall not be liable for any direct and/or consequential injury or damage which may occur as a result of misuse in any manner or form or of the lifting loads in excess of the designed capacity resulting in failure of the equipment.

The following sections give him necessary guidelines for the efficient and safe operation of the equipment.

Section 9 of this Manual covers the broad subject of maintenance and efficient operation as well as trouble shooting and the necessity for repairs to be carried out by specialised personnel.

**THE COMPANY LARZEP AND ITS OFFICIALLY APPOINTED AGENTS ARE THE ONLY AUTHORISED PROVIDERS OF TECHNICAL SUPPORT AND MAINTENANCE OF THE EQUIPMENT INCLUDED IN ITS WARRANTY.**

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## SECTION 1

### *DESCRIPTION OF THE JACK AND GENERAL PRINCIPLES OF CONTENTS.*

Hydraulic trolley jack for the lifting stated capacity loads. Complete with hydraulic oil, and removable handle for quick and easy transport. Equipped with automatic end stroke valve and overload safety valve.

The jack and all its components have been built in accordance with the following safety rules:

| <b>RULE</b>         | <b>DESCRIPTION</b>   |
|---------------------|--|
| <b>UNI EN 292-1</b> | = Safety of the machinery: fundamental concepts, general principles of design.<br>Part. 1: Terminology, basic methodology.           |
| <b>UNI EN 292-2</b> | = Safety of the machinery: fundamental concepts, general principles of design.<br>Part. 2: Theoretical specification and principles. |
| <b>UNI EN 294</b>   | = Safety of the Machinery: safety distance to avoid reaching dangerous area with the upper limbs.                                    |
| <b>EN 349</b>       | = Safety of the Machinery: Minimum room to avoid crushing of any part of the human body.   |
| <b>EN 414</b>       | = Safety of the Machinery: rules for the design and the introduction of the safety rules.  |
| <b>EN 418</b>       | = Safety of the Machinery: emergency stopping device, functional aspects, and principles of design.                                  |
| <b>EN 953</b>       | = Safety of the Machinery: the necessary requirements for the design and the construction of Protection (Fixed, mobile).             |
| <b>EN 983</b>       | = Safety of the Machinery: safety requirements for system/components with fluid and pneumatic energy                                 |
| <b>Pr EN 1050</b>   | = Evaluation of the risk.  |

## SECTION 2

### *TECHNICAL CHARACTERISTICS OF THE HYDRAULIC TROLLEY JACK*

| TYPE   | CAPACITY ON THE PLATE | VEHICLE CAPACITY | A   | B   | C    | D   | E   | WEIGHT KG. |
|--------|-----------------------|------------------|-----|-----|------|-----|-----|------------|
| B20042 | 20                    | 25               | 180 | 600 | 1910 | 430 | 290 | 180        |

SUMMARY: A = MIN. HEIGHT - B= MAX HEIGHT - C=MAN LENGTH - D= MAX WIDTH - E= MIN. HEIGHT OF FRAME

## SECTION 3

### *DESIGNED CHARACTERISTICS AND USE OF THE JACK.*

Hydraulic trolley jack for lifting of stated capacity loads. Solid and strong structure fitted with four wheels: two fixed and two swivel. Guarantees stability in all the operating positions.

While being designed mainly for the lifting of loads such as cars, and small vans and trucks, the jack can be employed for lifting any other kind of load within the rated capacity of the jack.

**WARNING: in case of lifting hazardous goods (explosive materials, chemical-toxic substances etc.) it is necessary to take proper precautionary measures according to the kind of goods lifted.**

**IMPORTANT: the jack is designed for the lifting of loads and not for continued support, for which you have to use the correct supporting stands.**

The hydraulic trolley jack is designed for use in normal conditions of temperature and humidity. In situation with exceptional temperatures, above or below 50° degrees centigrade from zero, the jack may show some failure due to the altered viscosity of the hydraulic oil.

## SECTION 4

### *MOVEMENT, TRANSPORT AND PACKING.*

The jack is shipped together with all its accessories (plate and handle) and packed in plastic bubble wrap. The packing material can be recycled. The handle is removable.

## SECTION 5

### *ASSEMBLING AND DISASSEMBLING OF THE JACK.*

The hydraulic trolley jack does not need any assembling or additional hydraulic oil, as it is ready for use.

Before using it, it is necessary to adhere to the instruction and warnings specified in the following section (no.6).

## SECTION 6

### *PREPARATION OF THE JACK FOR PUTTING IN TO SERVICE.*

Before operating the hydraulic trolley jack, it is necessary to check that it is complete, and does not show any evidence of damage. It is particularly necessary to check that the handle fits correctly in its correct position.

It is also necessary to check that the handle is straight and that no other components and parts of the jack have been damaged.

## SECTION 7

### *PUTTING INTO SERVICE AND USE OF THE JACK*

- 1) Remove the jack from its package. The packing material can be recycled. Check also that no components have been damaged.
- 2) Insert the handle in its correct position, and fix with screws.
- 3) Test the jack lifting first without a load, then with the plate in the middle of the load.

**IMPORTANT: This easy operation must be done every time in order to have a safe and correct lifting position.**

- 4) Use the central pedal for a quick approach of the lifting arm to the load, and put the plate in a secure position (in the middle), then start pumping with the handle.

**WARNING: NEVER use the foot pedal for lifting. The pedal is only to make a quick approach and NOT for lifting.**

- 5) To release the jack, push the side pedal.

**IMPORTANT: DO NOT OVERLOAD THE JACK. OVERLOAD CAN CAUSE DAMAGE OR FAILURE TO THE JACK.**

## SECTION 8

### *CLEANING OF THE JACK*

The jack must be kept clean and lubricated. Once a month clean it with proper unoxidized detergent.

**WARNING: Never use water to clean the jack. Most of its component are made from steel and can oxidize.**

**SECTION 9**  
**MAINTENANCE AND REPAIR**

- 1) The jack must be kept clean and lubricated, in order to be ready for use.
- 2) Check the oil level monthly.
- 3) Grease the pin every 4 months.

**REPAIR OF THE HYDRAULIC TROLLEY JACK.**

Owners and operators of the hydraulic trolley jack must be aware that repair of this equipment may require specialized knowledge and facilities. It is recommended that an annual inspection of the trolley jack must be made by supplier's authorized specialist and that dangerous, defective or damaged parts must be replaced with original spare parts supplied by our company. (See spare parts list).

| <b>PROBLEM</b>                             | <b>POSSIBLE CAUSE</b>  | <b>REMEDY</b>   |
|--|--|---|
| 1) The jack does not lift the load         | 1) There's no oil in the pump<br>2) Release valve is damaged<br>3) Worn Seal<br>4) Release pedal damaged | 1) Add oil in the pump<br>2) Change the release valve<br>3) Replace the Seal<br>4) Change the release pedal |
| 2) The jack does not reach the max. height | 1) Oil level is low or there is no oil in the pump   | 1) Add oil in the pump  |
| 3) The jack does not sustain the load      | 1) Release valve damage<br>2) Worn Seal<br>3) Release pedal damaged                                      | 1) Change the release valve<br>2) Replace the Seal<br>3) Change the release pedal                           |
| 4) Erratic operation                       | 1) Dirty oil   | 1) Change the oil   |
| 5) Oil leaking                             | 1) Worn Seal   | 1) Replace the Seal   |

**USE HYDRAULIC OIL TO ISO HM 32 SPECIFICATIONS. NEVER USE BRAKE FLUID.**  
**WARNING: DO NOT OVERFILL AS A SURPLUS OF OIL WILL DAMAGE COMPONENTS.**

**SECTION 10**  
**GENERAL AND SPECIFIC SAFETY RULES.**

- 1) Visual inspection must be made before each use of the trolley jack, checking for leaks, damage, missing or worn parts.
- 2) Before lifting any loads, be sure that the load is positioned in the middle of the plate.
- 3) The jack is to be used only to lift loads and NOT to support them. In this case use proper supporting stands.
- 4) The jack is designed for use only on strong level surfaces capable of sustaining the weight of the load.

**WARNING: The use on soft or uneven flooring can result in trolley jack instability or possible loss of the load.**

- 5) The safety valve is calibrated and sealed by our company. It is absolutely forbidden to tamper with this valve or change its calibration.
- 6) The operating conditions must guarantee safety of the operator who must not work under or very closed to the vehicle before supporting stands are in place.

**WARNING: DO NOT EVER LIFT LOADS GREATER THAN THE NOMINAL CAPACITY OF THE JACK, AS THIS MAY CAUSE ITS FAILURE OR LOSS OF THE LOAD.**

**IMPORTANT: THE NON OBSERVANCE OF THESE RULES MAY CAUSE DAMAGES TO THE JACK AND LOSS OF THE LOAD WITH CONSEQUENTIAL INJURIES TO PEOPLE AND DAMAGES TO OBJECTS.**

## SECTION 11

### *PART NUMBERS AND NAMES OF THE JACK BODY PARTS*

| PART NMR. | NAME                   | PART NMR. | NAME                    | PART NMR. | NAME              | PART NMR. | NAME              |
|-----------|------------------------|-----------|-------------------------|-----------|-------------------|-----------|-------------------|
| 1         | Plate                  | 12/28     | Nut                     | 24        | Fixed wheel       | 40        | Spring            |
| 2         | Pin                    | 13/26     | Washer                  | 25        | Circlip           | 43        | Nut               |
| 3         | Pin                    | 14/45     | Washer                  | 29        | Handle            | 44        | Swivel wheel      |
| 4         | Plate work place       | 15/42     | Frame (left and right)  | 33        | Knob              | 45        | Washer            |
| 5         | Pump cover             | 16        | Axle front wheel        | 34        | Pedal             | 50        | Handle work place |
| 6/22      | Springs                | 17        | Nut                     | 35        | Handle pin        | 100       | Lifting arm pin   |
| 7         | Lifting Arm            | 18        | Screw                   | 36        | Pin               | 101       | Spring work place |
| 8/10      | Lifting arm connection | 19        | Washer                  | 37        | Pin               | 102       | Handle stop       |
| 9         | Washer                 | 20/41     | Nut                     | 38        | Piston connection | 103       | Spring work place |
| 11/27     | Screws                 | P-23      | Hydraulic unit complete | 39        | Washer            |           |                   |

## SECTION 11

### *PART NUMBERS AND NAMES OF THE PUM PARTS*

| PART NMR. | NAME             | PART NMR. | NAME                     | PART NMR. | NAME                     | PART NMR. | NAME              |
|-----------|------------------|-----------|--------------------------|-----------|--------------------------|-----------|-------------------|
| 60        | Cylinder         | 68        | Seal work place          | 75        | Overload safety valve    | 83        | Base              |
| 61        | Oil tank         | 69        | O-ring                   | 76        | Seal for safety valve    | 84        | O-ring            |
| 62        | O-ring           | 70        | Piston                   | 77        | Pumping element          | 85        | Steel ball        |
| 64        | Cylinder head    | 71        | Release valve connection | 78        | Seal                     | 86        | Pawl              |
| 65        | Nut              | 72        | O-ring                   | 79/80     | O-ring                   | 89        | Release valve     |
| 66        | Washer           | 73        | O-ring work place        | 81        | Cylinder pumping element | 91        | Oil plug          |
| 67        | Main piston seal | 74        | Steel ball               | 82        | Pawl                     | 92        | Seal for oil plug |

## SECTION 12

### *DECOMMISSIONING, DISMANTLING, RECYCLING.*

All damaged, over used or worn jacks should be removed from service.

Concerning the destruction of the jack, please note the following instruction:

- 1) Drain the oil from the pump and recycle it according to laws in force.
- 2) All the other components are made from steel, and can be recycled.

