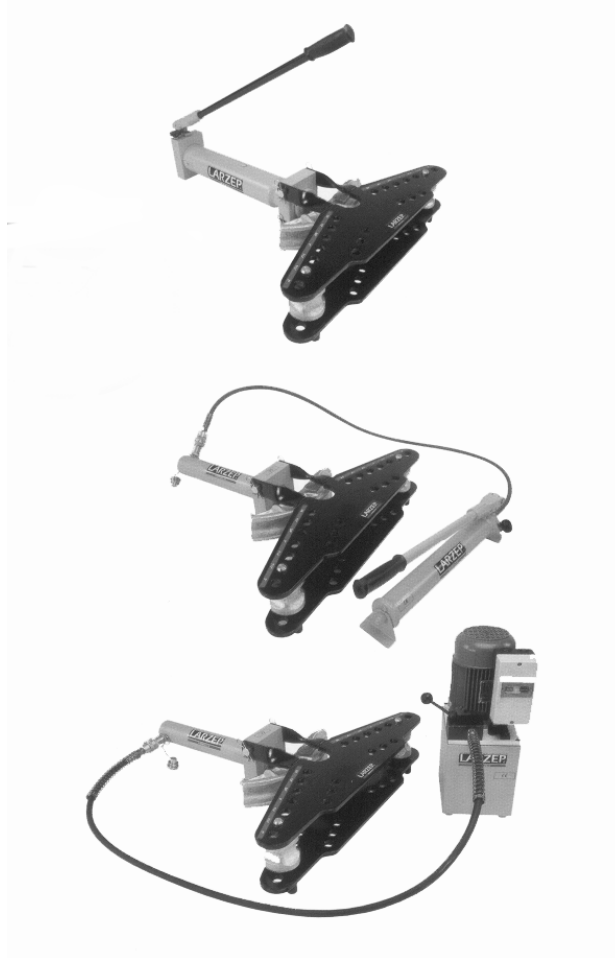




HYDRAULIC BENDER

“VC1535” “VA1535”



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INDEX

1. BEFORE USING THE EQUIPMENT AND SAFETY...2
2. TECHNICAL FEATURES..... 2-3
3. START-UP3
4. MAINTENANCE.....4
5. PROBLEMS AND SOLUTIONS4
6. WARRANTY4
7. DECLARATION OF CONFORMITY.....5
ANNEX

- GENERAL DRAWINGS.

1. BEFORE USING THE EQUIPMENT AND SECURITY.

LARZEP hydraulic benders are designed in accordance with internal quality standards, in compliance with the ISO 9001 regulation. 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 repair the fault.



Never use hydraulic equipment that is damaged or suspected to be in poor conditions.

The tools are designed for the applications described in this manual. Any other use may pose a risk to the equipment and result in hazardous situations for the operator. The manufacturer accepts no responsibility for damage resulting from the improper use of the tool.



Do no store or leave the hydraulic bender where is can be accessed by the children.



The operator should be fully aware of the risks inherent in the use of high-pressure hydraulic tools, and should act responsibility in accordance with that described in this manual, ensuring both his/her own safety as well as the safety of others located in the vicinity of the working zone.



Boots



Helmet



Glasses



Gloves



Clothes

Never modify the tool or add elements that may affect its safety, without express authorisation from the manufacturer.

Before using, check for:

- 1- There are not operators standing around dangerous area.
- 2- Ensure that the equipment it's located over firm ground.
- 3- Do not work around dangerous area.
- 4- The commands have been operated with the hands.
- 5- Damaged or dirtied connections or coupler.
- 6- The flexible hydraulic hoses are not twisted.
- 7- The commands are in neutral position.



Check that the working pressure is less than the 80% of nominal capacity

Specialist personnel should only carry out repairs and maintenance operations, etc. Always use original LARZEP spare parts.

Carry out maintenance operations on a regular basis, as indicated in this manual.

Once you have finished using the tool, disconnect it, clean it and store it in a clean, safe place.

2. TECHNICAL FEATURES.

The supplied benders in standard equipments are the ones indicated in the enclosed board below. The obtained radius bending the tube 90° (long radius benders) is also included

TUBE	INCHES	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
	DIAMETER (mm)	21	27	34	42	48	60	75	88
RADIUS		40	60	80	100	115	165	245	290
ANGLE		90	90	90	90	90	90	90	90



All the models include not only a complete bender seal kit in order to fit them in the piston but also two bending rollers with their corresponding grooves to fit in the tube.

They also include the structure with the upper and lower and also the axles corresponding to the bending rollers.

MODEL	VC1535	VA1535
DESCRIPTION	Bender with cylinder and electro pump	Bender with cylinder and manual pump
CYLINDER	Double acting and spring return. Ref. SM01535.	Double acting and spring return. Ref. SM01535.
PUSH CAPACITY	16 Ton 700 Kg./cm ²	16 Ton 700 Kg./cm ²
PISTON STROKE	355 mm.	355mm.
PUMP	Hydraulic electro pump. Ref.: YAM1112	Hand pump Ref.: W20607
TANK CAPACITY	2 Litres	660 cm ³
OIL DISPLACEMENT	0.35 L/min.	700 Kg./cm ² . 2. Cm ³
POWER	0.37 Kw.220 V. 50Hz 3ph.	-
WEIGHT	75 Kg.	120 Kg

3. START UP.

The bender is packed in a sturdy wooden box, which protects it from the knock damage throughout the transportation. Once the tool is used, clean it and keep it into the box, to be stored until next usage.

Unpack the equipment assuring that all the parts indicated in the drawing provided in the manual are found and the material has not been damaged.

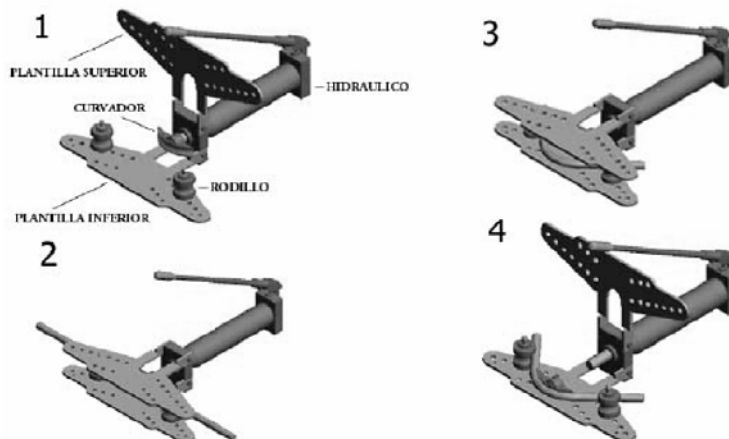
The hydraulic part is provided threaded to the structure plate of the grounds. Mount in this plate the lower and upper grounds. (Stick with the tube measures up faced) with the axles and clips. Checking that the upper ground tilts free.

MODEL VC1535	MODEL VA1535
1- Connect through the hose and the rapid coupler, the electro pump to the cylinder, assuring a perfect connection	1-. Connect trough the hose and the rapid coupler.
2- Substitute the transport plug of the electro-pump by the work plug.	2- Connect the pump to the cylinder, assuring a perfect connection.
3-. Assure that the net voltage corresponds to the machine and that the engine turn is the one marked by the arrow	3- Give some strokes to the pump through the lever with the screw lightly opened (turn to the left) in order to drain the circuit.
4- With the manual distributor control in tank position (lever towards the engine), push the button engine to start up the engine.	4- Close with the hand the screw (turn to the right), after giving some strokes.
5- Assuring that the work area is free and all the parts perfectly fitted put the distributor lever in open position turning 90°.	5- The cylinder will advance.
6- The piston has to advance.	6- Opening again the screw the piston is closed helped by a spring.
7- With the manual distributor control in tank position (lever towards the engine), the piston will return helped by the spring of the cylinder.	

BENDING.

Once we know the tube to bend dimensions, act in the following way:

- Lift the upper ground up to the vertical. (1)
- Put the axles in the holes corresponding to the measure of the tube and indicated in the sticker.
- Put the rollers in the axles in the position corresponding to the tube to bend. See the marks in the rollers
- Put the bender corresponding to the tube in the prominent part of the piston.
- Close the upper ground fitting all the parts.
- Introduce the tube to bend by a lateral side, between both of the grounds taking care of not turning the rollers from their correct position and maintaining the bender in the piston top (2)
- Act over the hydraulic part according to what is described in the previous point.
- Make the piston go outside only the necessary to get the required bending angle, taking into account the elasticity of the tube. (3)
- Take away pressure from the hydraulic part. The piston will return and it will let the tube free. Lift the ground and remove the tube. Normally the bender could be pressing the tube. Use the plastic hammer to separate it. (4)





Instruction Manual
Hydraulic Bender “VC1535” “VA1535”

4. MAINTENANCE.

1. Make sure that the machine is switched off and not under pressure before carrying out any maintenance operation
2. Use always original **LARZEP S.A.** parts
3. Check always the equipment visually before using, check the oil level, damage in the hydraulic element (scratched piston, threads, leaks, etc.), accessories situation (hose, rapid coupling, etc.).
4. After using clean always the equipment and keep the critical areas greased threads, axis, rollers inside, piston, etc. before keeping in the case.
5. In case of severe usage, substitute periodically the hoses and the couplings, although they do not seem damaged at first sight.
6. Periodically (minimum once a year), substitute the tank oil by clean oil. Use always **LARZEP S.A.** oil.

MODEL	VC1535	VA1535
OIL FILLING UP	It's made through the plug. Check the oil quantity in the level. Use LARZEP S.A. Ref. AZ8902 oil.	It's made through the plug. . Check the level, placing the pump in vertical and with the head downwards. Use LARZEP S.A. Ref. AZ8901 oil.

5. PROBLEMS, DAMAGES AND SOLUTIONS.

MODEL VC 1535		
PROBLEM	DIAGNOSTIC	SOLUCIÓN
1- Piston does not extend.	- Not enough oil in the pump.	1. Check the level and refill up.
	- Tank empty.	2. Clean the work plug.
	- Prime fewer pumps.	3. Feed the pump keeping it started some minutes.
	- Filter is dirty.	4. Remove and clean it properly.
	- Cylinder pressure retainer damaged.	5. Substitute the retainer.
	- Pump pressure relief valve unrated.	6. Rate again the valve.
	- Wrong hose connection.	7. Check the connection.
2- Cylinder does not reach pressure	- Distribution valve damaged.	8. Repair or substitute the valve.
	- Pressure retainer damaged.	See Solution 5.
	- Distribution valve damaged.	See solution 8.
3- Cylinder does not retract.	- Leaks by the retaining balls of the pump.	9. Repair the seat and substitute the balls.
	- Pressure relief valve unrated.	See solution 6.
	- Distribution valve ball stacked.	10. Remove the valve and move the ball.
	- Twisted piston.	11. Repair or substitute the piston.
	- Damaged spring.	12. Substitute the spring.

MODEL VA 1535		
PROBLEM	DIAGNOSTIC	SOLUTION
1- Piston dos not extend	- Oil lack or excess in the tank.	1. Check the level and refill up.
	- Dirty filter.	2. Remove the pump and clean.
	- Oil leak by the admission ball in the pump.	3. Repair the seat and substitute the ball.
	- Cylinder pressure collar damaged.	4. Substitute the retainer.
	- Pump cap damaged.	5. Substitute the collar.
	- Pressure relief valve unrated.	6. Rate again the valve.
	- Hose wrong connection.	7. Check the connection.
2- Cylinder does not reach pressure.	- Cylinder pressure collar damaged.	See Solution 4.
	- Oil leak by the ball of the pump starting up screw.	See Solution 3.
	- Oil leak by the retaining ball in the pump.	See Solution 3.
3- The cylinder does not retract.	- Starting up screwball stacked.	8. Remove the screw and move the ball.
	- Piston twisted or damaged.	9. Repair or substitute the piston.
	- Damages spring in the cylinder.	10. Substitute the spring.
	- Oil excess in the tank.	See Solution 1.

The solutions in black will be carried out by an authorized dealer or specialized staff.

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 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

ÖVERENSSTEMMELSESERKLÄRING

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

ERKLÆRING OM OVERENSSTEMMELSE

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, Tyypki.

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

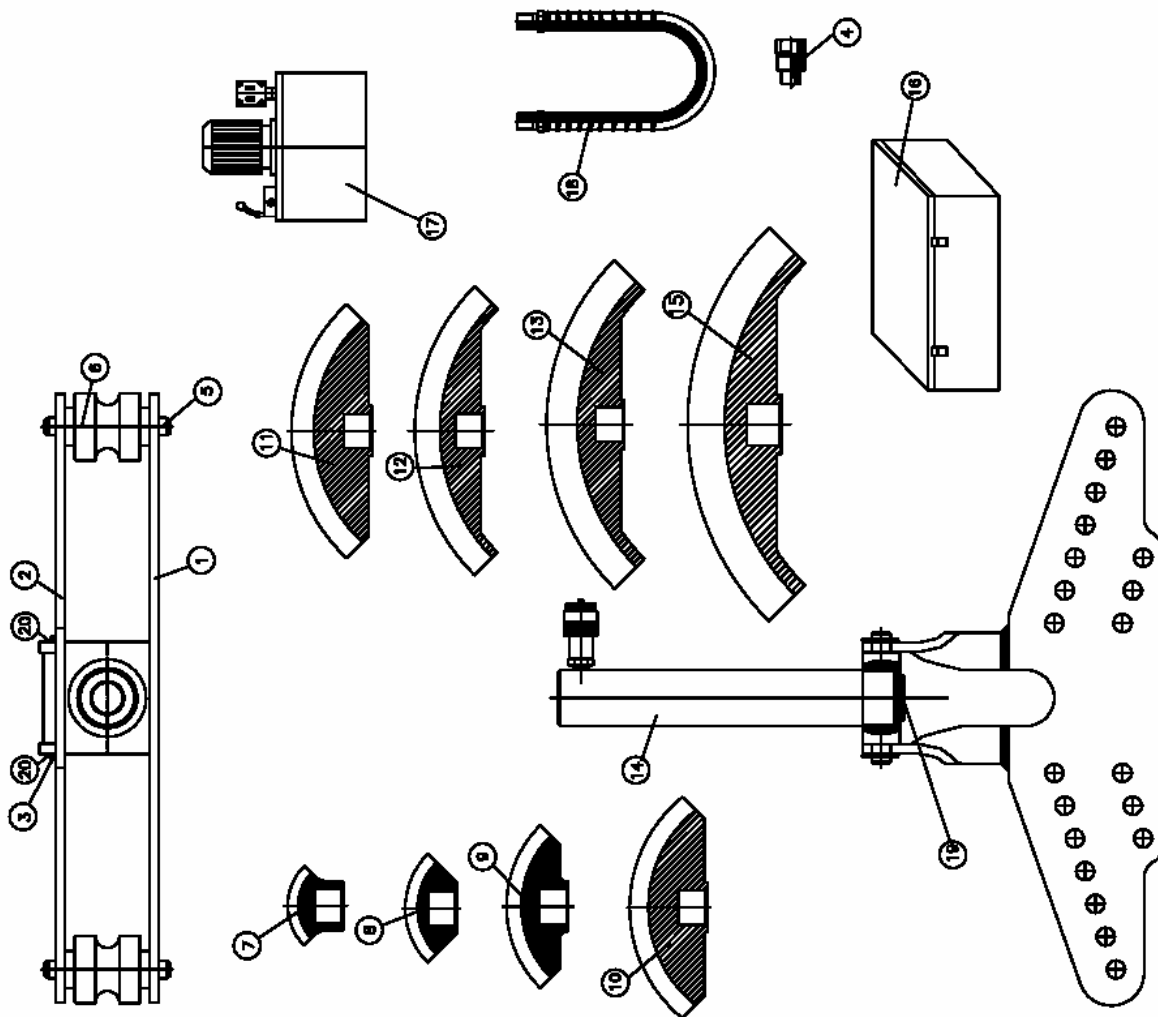
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LARZEP, S.A.

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.

VC1535

N	DENOMINACION	CODIGO	N PARTES
1	PLANTILLA INFERIOR	24K0239	1
2	PLANTILLA SUPERIOR	24K0240	1
3	EJE FIJACION PLANTILLAS	15K0266	1
4	ENCHUFE MACHO	AZ3120	1
5	EJE	15K0269	2
6	RODILLO	24M0043	2
7	CURVADOR 1/2"	24K0241	1
8	CURVADOR 3/4"	24K0242	1
9	CURVADOR 1"	24K0243	1
10	CURVADOR 1 1/4"	24K0244	1
11	CURVADOR 1 1/2"	24K0245	1
12	CURVADOR 2"	24K0246	1
13	CURVADOR 2 1/2"	24K0247	1
14	CILINDRO 151mm	SM01535	1
15	CURVADOR 3"	24K0248	1
16	CAJA DE MADERA	25C0007	1
17	BOMBA ELECTRICA	YAM1125	1
18	MANGUERA	AP2015	1
19	CAJEZA CURVADORA 3"	56E0066	1
20	ANILLO ELASTICO	14D0016	2



VA1535

N°	DENOMINACION	CODIGO	N°
1	PLANTILLA INFERIOR	24K0239	1
2	PLANTILLA SUPERIOR	24K0240	1
3	EJE FUNCION PLANTILLAS	15I0288	1
4	ENCHUFE MACHO	AZ3120	1
5	EJE	15I0289	2
6	RODILLO	24M0043	2
7	CURVADOR 1/2"	24K0241	1
8	CURVADOR 3/4"	24K0242	1
9	CURVADOR 1"	24K0243	1
10	CURVADOR 1 1/4"	24K0244	1
11	CURVADOR 1 1/2"	24K0245	1
12	CURVADOR 2"	24K0246	1
13	CURVADOR 2 1/2"	24K0247	1
14	CILINDRO 15Tm	SM01535	1
15	CURVADOR 3"	24K0248	1
16	CAJA DE MADERA	CU3000	1
17	BOMBA MANUAL	W20607	1
18	MANGUERA	AP2015	1
19	CAJEZA CURVADORA 3"	56ED088	1
20	ANILLO ELASTICO	14DD016	2

