B) BENDING OF PIPES

- **B1**. The upper screw for oil filling must be half-opened for use. It only must be completely closed for transport.
- **B2**. Close the valve ($n^{o}50$).
- **B3**. With the superior plate withdrawn, place both resting forms in their corresponding housings of the interior plate according to the size of the pipe bent.
- **B4**. Select the form corresponding to the resting form in the end of the piston.
- **B5**. Place the corresponding form in the end of the piston.
- **B6**. Insert the pipe to be bent, housing it between the form and the resting forms.
- **B7.** Cylinder rotation blocking system for increasing machine stability during pipe bending process. Tight the screwed pin for avoiding rotation. Loosing screwed pin enables cylinder rotation.
- **B8**. Insert and actuate the bar, inside the housing of the big piston (left) and we will actuate it fast untill the pipe contacts with the bending form. At this moment smooth-bending speed will start, which enables bending with minimal effort.
- **B9**. Once the bend is gotten, the (n°50) will be oppened and by making this action, the piston will go back automatically.

B10. Raise the superior plate and withdraw the form together with the bent pipe, removing it from the same.





- a) The piston does not move forward: check the upper screw (Fig. B1) is half-opened and the returning valve ($n^{o}50$) is closed.
- b) **The piston does not fully move back**: check the pipe is not blocked by lateral resting forms. It can be solved with some smooth knocks. Check too the upper screw (Fig. B1) is half-opened.
- c) **Oil is leaking from front zone**: the reason for this is the continous friction of the internal o-ring. This o-ring must be from time to time changed according to following way:
- 1. Drain the oil tank through the upper screw.
- 2. Loosen the piece N° 27 with a hexagonal key.
- 3. Loosen the hexagonal piece N° 27 with a wrench.
- 4. Loosen the piece N° 28 with a hexagonal key.
- 5. Extract the piston N°30 piece with the hand.
- 6. Replace o-ring of the piston (piece N°39) , making sure it is correctly positioned.
- 7. Introduce the piston with smoothness to avoid to damage the o-ring.
- **8.** Introduce and tighten the piece N°28 with a hexagonal key.
- **9.** Introduce and tighten the piece N°33 with key.
- **10.** Introduce and tighten the piece N°27 with a hexagonal key.

