



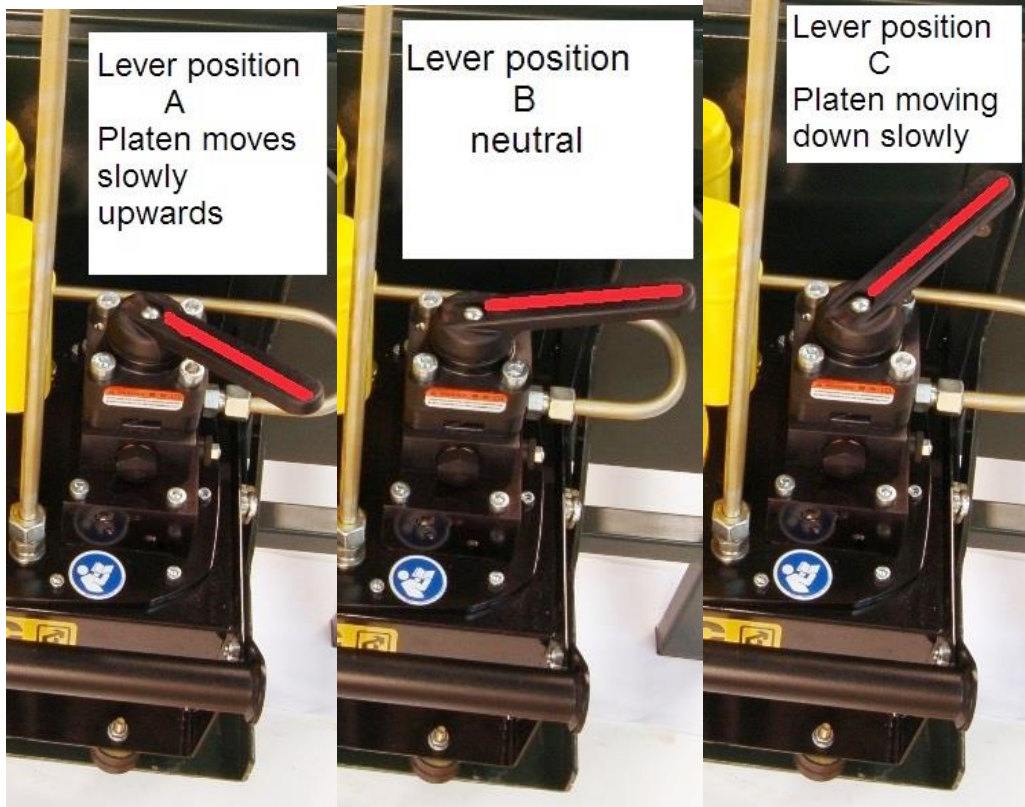
User Instructions for Relief Press VPLEV

These electric hydraulic presses are powered by an electric motor that drives an "oil-pump". This oil pump activates the hydraulic cylinder that in its turn, moves the platen up and down. The action of this hydraulic cylinder is controlled by a manually operated three way valve.

1. When the machine is turned on, it is advisable to have the lever of the valve in neutral position. (on the images below; position B). However, if you do not work on the machine, the pump will only pump the oil round in the system, so it is better to turn off the motor.
2. The hydraulic pump is activated by turning the switch, that is attached to the electric motor. If the lever of the valve is in neutral position, nothing will happen. There will be only a certain vibration of the hydraulic pump.
3. When the lever of the valve is turned into "position C", the platen will come down slowly. Please be careful when you do this. Verify that there are no strange objects between the two platens. If there are such objects, this may lead to damage of the press and even accidents. The platen will continue to go down until it reaches the "printing sandwich" or the lower platen. As soon as it hits the sandwich the oil pressure in the system will rise, as can be read on the gauge. The pressure can go up until the maximum allowable pressure is reached (700 bar). At this point the top platen exercises a force of 25 tons (25.000 kgs) The pressure will never exceed this point because an "overflow" valve starts to function.
4. This overflow valve will in this system also be used as a means to limit the pressure, if that is necessary for a certain print. If a print is small, only a fraction of the 25 tons is needed. Also the proportion of the surface that is actually in contact with the paper is important. A print with only lead type needs far less pressure than a general woodcut of the same size.
5. In a try out session the correct pressure should be determined. The overflow valve needs to be adjusted then in such a manner that it starts overflowing when the desired pressure is reached.
6. If this is accomplished the whole series of that same print can be done without re-adjusting the pressure between the printing cycles.
7. When the top platen reaches the printing sandwich, and the desired pressure is reached, the overflow valve will start its function. At this point it is wise to switch the valve back into neutral position. In this neutral position the system keeps its pressure. If the pump remains too long in the "overflow mode" it may lead to overheating of the oil. In the neutral position the oil will not heat up! Sometimes it is better for the transfer of the ink to the paper if the pressure is maintained for a few seconds. This system allows you to do that.
8. When the platen must come up again, turn the valve slowly into position A. This needs to be done slowly, especially if high pressures are involved. A sudden release of the pressure produces a "shock" in the system. This is not dangerous in any way, it is only uncomfortable. (the gauge is filled with oil, to neutralize the shock in its mechanism).
9. The platen will go up until it reaches the long screws (metric 16mm). These screws can be turned up and down. (you will have to climb on the machine to do it however.) These two screws have to be always on equal heights. If your printing sandwich is normally only 3 cm thick, you do not need the maximum space of 14 cm between the platens. This will only be inefficient. With the two screws at the right position you can limit the upwards movement of the top platen.

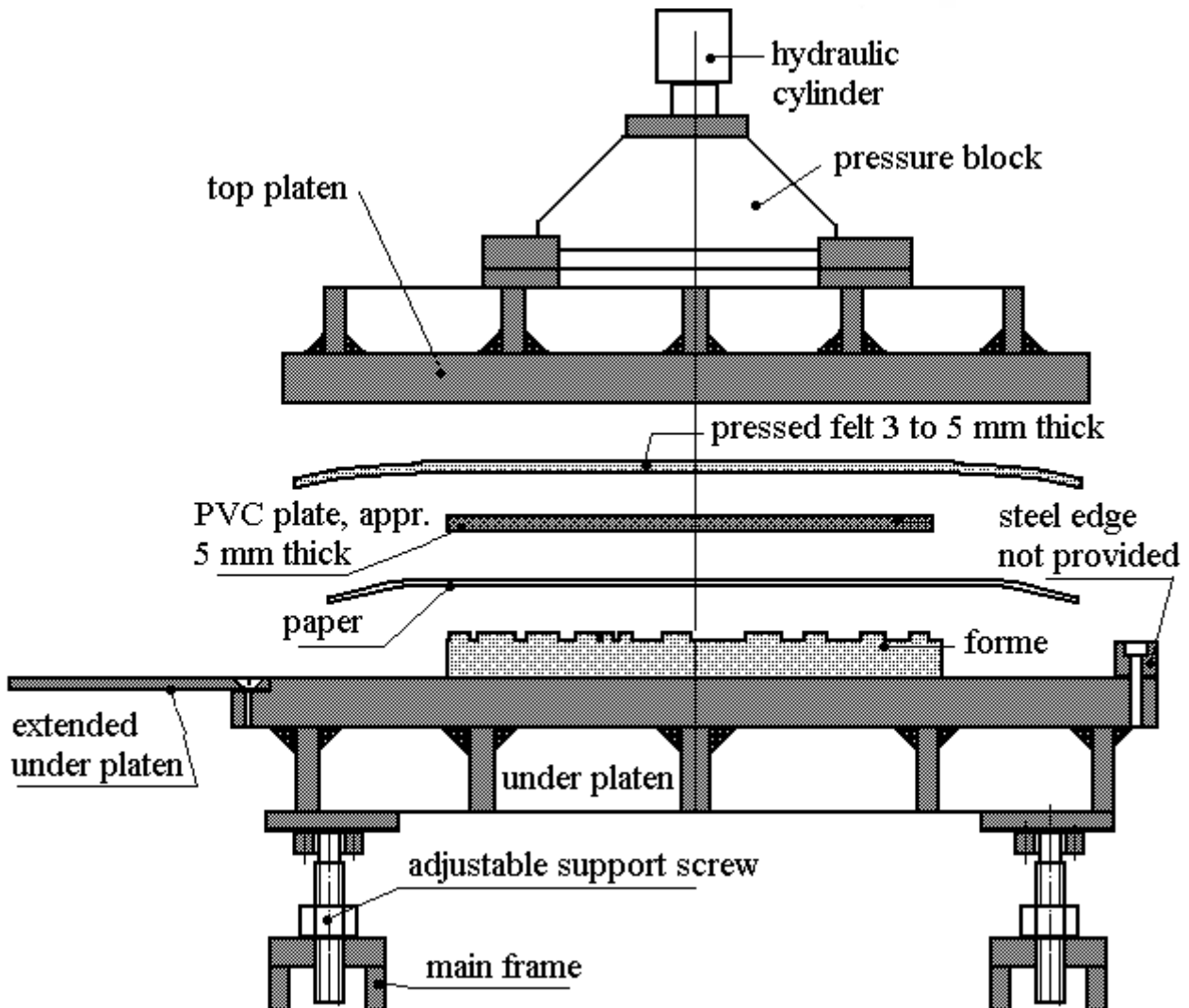
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Maintenance:

- Hydraulic system. The hydraulic cylinder that lowers the top platen, is driven by an electrically driven hydraulic pump. This pump has a reservoir where the oil comes from that is pumped into the hydraulic cylinder. After a few years, some of the oil will disappear (evaporate, leak, etc.) and it therefore needs to be checked every few years to see if there is still enough oil in the reservoir of the pump. If oil is required, a thin (more liquid) hydraulic oil can be used.
- The surfaces of the platens must be kept clean. Any irregularities on the surfaces may show in the print.