

A regenerative circuit is used to speed up the extending speed of a double acting hydraulic cylinder.

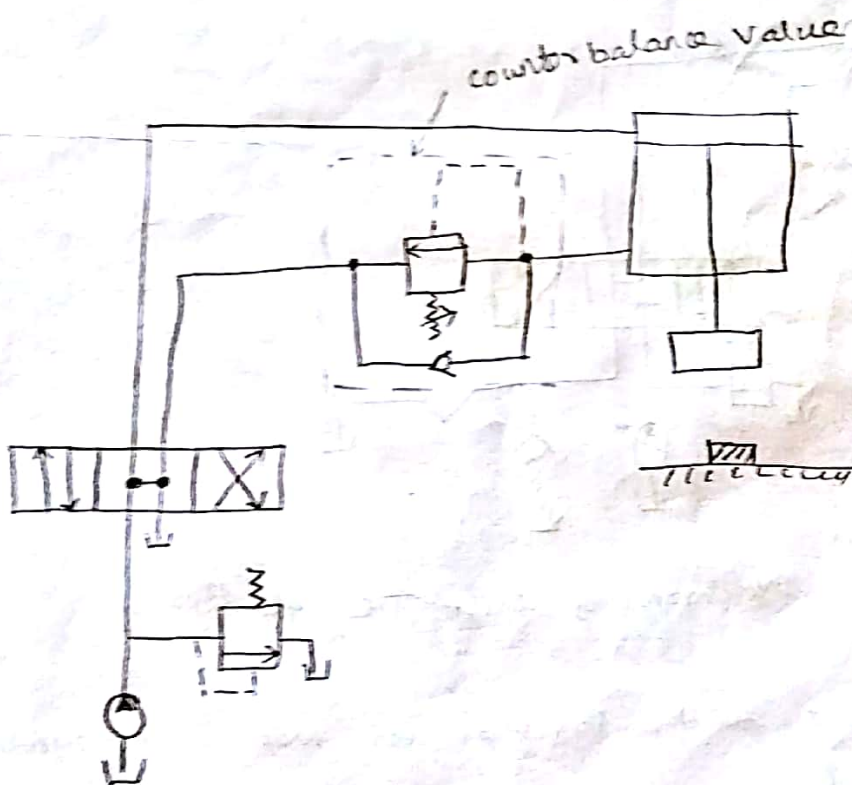
Both ends of the hydraulic cylinder are connected in parallel so that one port of the four way valve is blocked.

Right mode → retract

Left mode → extends

Counter balance valve circuit:

The use of a counter balance valve is to keep a vertically mounted cylinder in the upward position.

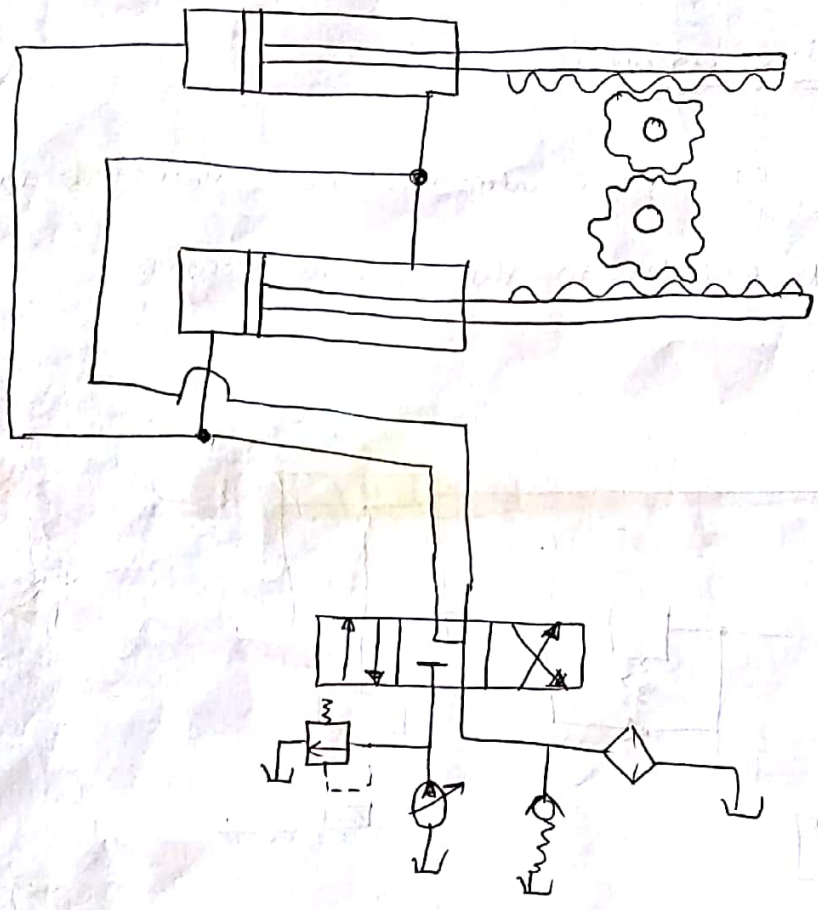


The pressure setting of the valve is somewhat higher than the pressure necessary to prevent the cylinder load from falling.

Synchronizing circuit

many times in hydraulic machines, some object platform is to be lifted with the help of two (or) more hydraulic cylinders respectively. (both the cylinders move in unison)

Tie cylinders



Synchronising with Tie cylinders.

* cylinders tied together for mechanical synchronisation are perhaps the most advantageous in action.

* This arrangement works well on heavy equipment when the mechanical linkage is rigid.

* Rack and pinion connections are good if the mesh is proper and backlash is not present.

* This method is limited to cylinders which move in the same direction.