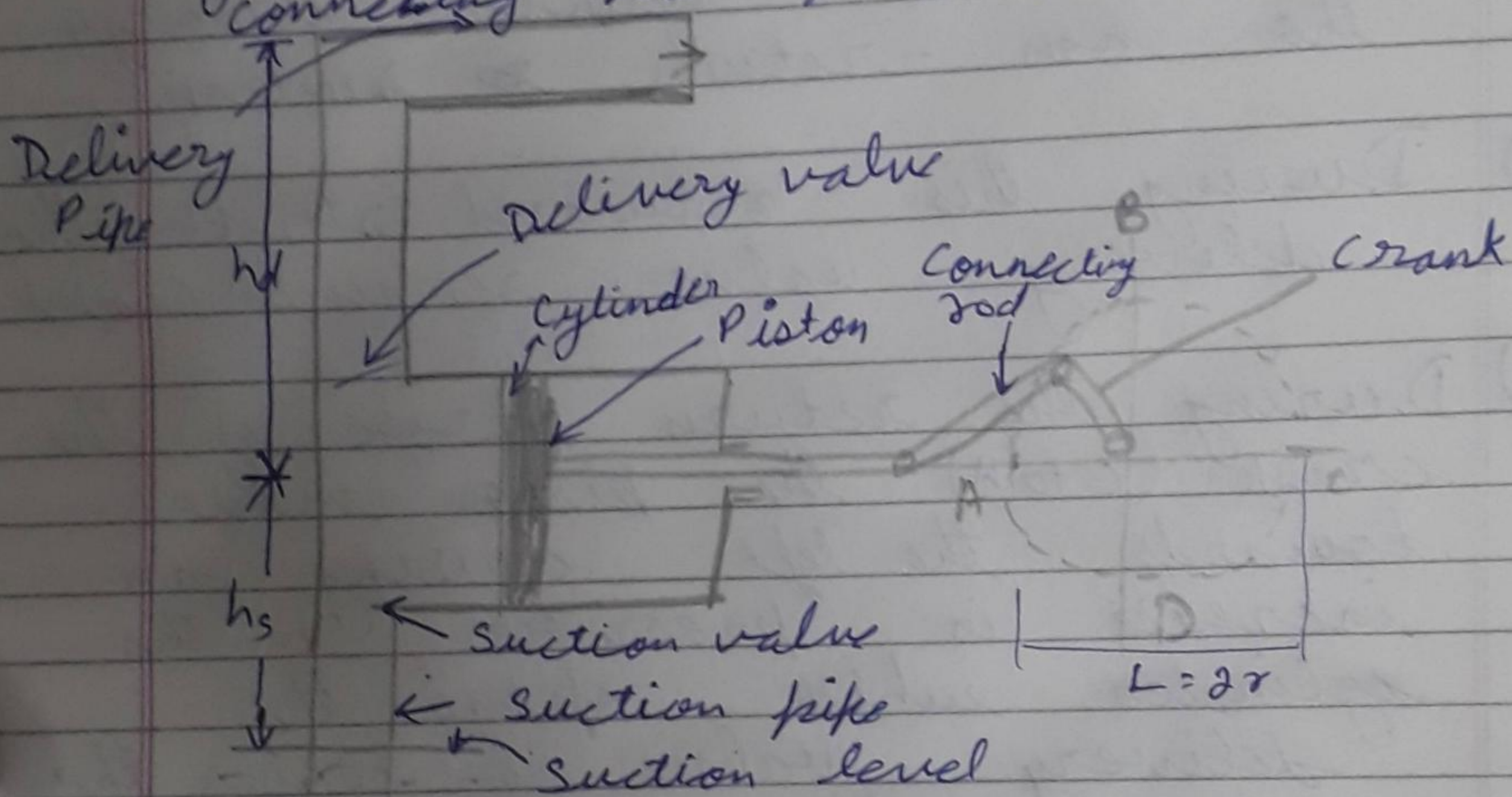


Q2 Reciprocating pump \Rightarrow If mechanical energy is converted into pressure energy by means of reciprocating motion of a piston into a cylinder then pump is known as reciprocating pump.

B) Components : Main parts a reciprocating pump are

1. Cylinder with piston, piston rod connecting rod & a crank



C) Working Principle

D) A reciprocating pump consists of a piston or a plunger executing

reciprocating motion inside a cylinder.

- 2) As the crank moves outwards the piston moves towards right in the cylinder causing a vacuum in the cylinder.
- 3) Due to the pressure difference between the sump and the cylinder liquid is drawn into the cylinder through the inlet valve into the cylinder through the non-return suction.

4) During this outward stroke the delivery valve remains closed.

5) During the return stroke of the crank (C to A) the piston moves towards the left causing an increase in pressure in the cylinder which opens the delivery inlet valve & closes the inlet valve.

The liquid is forced into the delivery pipe & is raised to a required height.