Forklift Hydraulic Pumps

Normally used within hydraulic drive systems; hydraulic pumps could be either hydrostatic or hydrodynamic.

Hydrodynamic pumps could be considered fixed displacement pumps. This means the flow through the pump for each and every pump rotation could not be changed. Hydrodynamic pumps can even be variable displacement pumps. These models have a much more complicated assembly that means the displacement is capable of being altered. Conversely, hydrostatic pumps are positive displacement pumps.

Most pumps are working within open systems. Normally, the pump draws oil from a reservoir at atmospheric pressure. For this process to function efficiently, it is essential that there are no cavitations happening at the suction side of the pump. In order to enable this to work properly, the connection of the suction side of the pump is bigger in diameter than the connection of the pressure side. Where multi pump assemblies are concerned, the suction connection of the pump is typically combined. A general preference is to have free flow to the pump, meaning the pressure at the pump inlet is a minimum of 0.8 bars and the body of the pump is often in open connection with the suction portion of the pump.

In a closed system, it is acceptable for there to be high pressure on both sides of the pump. Frequently, in closed systems, the reservoir is pressurized with 6-20 bars of boost pressure. In the case of closed loop systems, normally axial piston pumps are used. In view of the fact that both sides are pressurized, the pump body requires a separate leakage connection.