

Forklift Hydraulic Pumps

Forklift Hydraulic Pump - Commonly used within hydraulic drive systems; hydraulic pumps could be either hydrodynamic or hydrostatic.

Hydrodynamic pumps can be considered fixed displacement pumps. This means the flow through the pump for every pump rotation could not be adjusted. Hydrodynamic pumps could also be variable displacement pumps. These types have a much more complicated assembly which means the displacement can be changed. On the other hand, hydrostatic pumps are positive displacement pumps.

The majority of pumps work as open systems drawing oil from a reservoir at atmospheric pressure. It is vital that there are no cavities occurring at the suction side of the pump for this process to function well. So as to enable this to function properly, the connection of the suction side of the pump is bigger in diameter than the connection of the pressure side. With regards to multi pump assemblies, the suction connection of the pump is usually combined. A common alternative is to have free flow to the pump, meaning the pressure at the pump inlet is at least 0.8 bars and the body of the pump is often within 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. Often, in closed systems, the reservoir is pressurized with 6-20 bars of boost pressure. In the case of closed loop systems, usually axial piston pumps are used. Since both sides are pressurized, the pump body requires a different leakage connection.