

Forklift Hydraulic Pumps

Forklift Hydraulic Pump - Hydraulic pumps can be either hydrostatic or hydrodynamic. They are commonly used in hydraulic drive systems.

Hydrodynamic pumps can be considered fixed displacement pumps. This means the flow through the pump per each pump rotation could not be altered. Hydrodynamic pumps could also be variable displacement pumps. These types have a much more complicated construction which means the displacement is capable of being adjusted. On the other hand, hydrostatic pumps are positive displacement pumps.

The majority of pumps are functioning in open systems. Normally, the pump draws oil at atmospheric pressure from a reservoir. For this method to function efficiently, it is essential that there are no cavitations occurring at the suction side of the pump. In order to enable this to function right, the connection of the suction side of the pump is bigger in diameter as opposed to the connection of the pressure side. With regards to multi pump assemblies, the suction connection of the pump is normally combined. A common choice 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 okay 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 utilized. As both sides are pressurized, the pump body needs a different leakage connection.