

HPU-01

HYDRAULIC POWER UNIT

- diesel engine power pack
- open loop & closed loop systems
- constant pressure, LS & cut-off controllers
- variable displacement pumps with proportional flow regulators
- flow & pressure indication
- filtration system



Diesel engine – Caterpillar 3306 – 325 HP (242 kW) @ 2200 rpm

Open loop system

- Denison variable displacement piston pump – Q=370 lpm @ 2100 rpm; $p_{max}=350$ bar (5000PSI)
- Denison fixed displacement vane pump – Q=190 lpm @ 2100 rpm; $p_{max}=210$ bar (3000PSI)
- Total maximum flow for open loop $Q_{max}\sim 550$ lpm @ 2100rpm; $p_{max}=210$ bar

Closed loop system

- Denison variable displacement piston pump – Q=270 lpm @ 2100 rpm; $p_{max}=250$ bar (3600PSI)

High pressure pump: hand type pump– $q=4$ cm³; $p_{max}=600$ bar (8700PSI)

Filtration system

- Return line filter Hydac – 10 μ m; $p_{max}=16$ bar; filter element 1300 R 010 BN4HC
- Bypass filtration Hydac - 5 μ m; $p_{max}=25$ bar; filter element 0660 R 005 BN4HC

Oil tank capacity - 2400 dm³

Diesel tank capacity - 700 dm³

Dimensions: container 20' (W-2450, L-6000, H-2600)

Weight: without oil and fuel – approx. 5000 kg

Functions

- Manual and electronic control of flow and pressure
- Open loop – proportional flow regulator, constant pressure regulator, LS regulator, cut-off
- Closed loop - proportional flow regulator, cut-off
- Filtration unit for flushing of hydraulic systems
- Power pack for different applications
- Pressure testing of hydraulic systems

Equipment

- heat exchanger, pressure indication, flow indication (open loop), bypass filtration, oil level sensor, oil temperature sensor, pressure transducers, thermostat

Hydraulic connections

Open loop – G1”BSP / SAE1 ½” 6000PSI ; SAE1 ½” 6000PSI / SAE2” 3000PSI

Closed loop – G1” BSP / SAE 1 ½” 6000PSI

High pressure – G1/2” BSP

Pilot pressure – G1/2” BSP

Return line/Tank – SAE2” 3000PSI

Leak line/Tank – G1 ¼”BSP / SAE2” 3000PSI