DESCRIPTION

The fluid transfer system consists of a collection of tubes attached to major machine components where hydraulic oil leaks occur—each line connects to a small centralised holding reservoir from which an air-powered vacuum is generated. Escaping oil is siphoned through individual tubes to the centralised reservoir. When oil volume in the reservoir reaches a pre-arranged level, a contact switch creates a « blowdown » condition within the container. This action expels collected oil through a special discharge port in the reservoir. The recovered oil is normally delivered through a single feed tube to a remote collection point for recycling.

OPERATION

During vacuum operation, the « blowdown » solenoid valve is not activated. Vacuum solenoid valves mounted on top are energised to an open position. Incoming airflow through the vacuum generator pulls a vacuum within the reservoir. Fluid is drawn into the reservoir through the open vacuum valves. As fluid level rises into the reservoir, the switch float moves upward to eventually make a high level contact. This closes the « blowdown » and vacuum valves and creates a directional change airflow. Incoming air now flows through the vacuum generator and feed line into reservoir pressurising the container. As pressure builds up, spring force on check valve is overcome and oil is expelled from reservoir through the « blowdown » line. Liquid levels in reservoir drop to make low level switch contact which actuates « blowdown » and vacuum valves to change airflow back to their original operating conditions. Siphon function commences and hydraulic oil recovery cycle begins operation. These cycles will be repeated throughout machine operation.

System outline:

Ordering instructions

Oil recovery system: Ref 247448
CHARACTERISTICS:

Voltage: ...........................................................................................................24 VDC

Power rated: ..............................................................................................1.8 A. Max

Lubricant to be used: ...........................................................................all types, 150 Cst max

Operating pressure: ...........................................................................5 to 10 bar max

Air flow: ..................................................................................................20 NL/mn. (0.74 SCFM)

Reservoir capacity: ..............................................................................0.12 L

Number of points to connect: ..............................................................4 x 4 max

Siphon tube: ................................................................................................

- Ø 2.7 x 4 lg. 1.5 m max
- Ø 4 x 6 lg. 10 m max
- Ø 6 x 8 lg. 15 m max

Electrical low level switch:

Power rating: ...........................................................................3 VA. / 250 VDC or 48 VCA max
TECHNICAL DRAWING, OIL RECOVERY UNITS:

- Air inlet 1/4 NPTF
- Oil outlet 1/4 NPTF
- Vacuum ports 1/8 NPTF
- 4 rooms
- Reservoir