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This symbol is followed by user tips and particularly useful information.

- This pressure unit is for use with hydraulic power or lube systems only.
- All repair, maintenance, installation and commissioning work must be carried out by trained personnel.
- Operate this pressure unit in accordance with hydraulic power or lube system operating instructions.
- Ensure the pressure unit is sufficiently cool before handling.
- This pressure unit is suitable for use with hydraulic or lubricating fluids only.
- It is the responsibility of the operator to comply with local water regulations.

CAUTION!

This symbol denotes safety precautions, the non-observance of which can endanger persons and the environment.

- Observe proper venting procedures to avoid the formation of air pockets.
- Caution: Pressurized unit. Purge system pressure before performing any work on the pressure unit.
- Under no circumstances must any modifications (welding, drilling, or opening by force...) be carried out on the pressure unit. Any modifications will void the warranty.
- Statutory accident prevention regulations, safety regulations and safety data sheets for fluids must be observed.
- When working on or near hydraulic systems, avoid exposure to open flames and spark generating equipment. Do not smoke near equipment.
- Comply with all regulations with regard to the disposal of used oil and waste.
- Wear proper protective clothing and guards to avoid injury or scalding due to high pressure or high temperature oil.
- Filter housing must be grounded.
- Disconnect all electrical power to the system and other electrical components, prior to working on filter clogging indicators.
3. Element Replacement

3.1. Element Removal

1. Turn lever through 90°, filtration is switched over to the other filter side.
2. Open vent valve on the side not currently in use to release pressure
   Note: Flow path is always indicated by the “L” shaped engraving on top of the transfer valve spindle. Leg of “L” not pointing to inlet/outlet indicates side in operation. Opposite side is non-operational.
3. Remove oil drain plug (if present) from the side not currently in use. Drain oil into a suitable container.
4. Swing bolts away from lid. Loosen finger knobs. Swing bolts away from lid. Turn cover plate through 30 degrees and lift off.
5. Remove filter element. (examine surface of element for dirt residue and larger particles; these can indicate damage to the components).
6. Replace filter element.
7. Clean housing and cover plate, if necessary.
8. Examine filter, especially sealing surfaces, for damage.
9. Check O-rings and replace parts as necessary.

3.2. Element Installation

1. Lubricate sealing surfaces on the filter housing and cover plate, and the seals, if necessary, with clean operating fluid.
2. When installing a new element, verify that the designation corresponds to that of the old element.
3. Place filter element carefully onto the element location nozzle inside the filter housing (note position of handle on element).
4. Apply silver grade anti-seize (per Mil-PRF-907E) to threads. Reposition cover plate, pivot swing bolts upward and tighten hand knobs over end of swing bolts. Tighten alternately.
5. Turn transfer valve handle to center position. Fill filter side up until oil seeps past the vent screw (do not reuse oil previously drained unless it is cleaned first).
6. Once a steady stream of fluid (without air) emerges from the vent port, tighten the vent screw back onto the lid.

Note: Filter elements which cannot be cleaned must be disposed of in accordance with environmental regulations.
### 4. Spare Parts

#### 4.1 NFHD 1300-2600

<table>
<thead>
<tr>
<th>Item</th>
<th>Consists of</th>
<th>Designation</th>
<th>1300-2600</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Filter element</td>
<td>See point 5 Replacement elements</td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Filter element</td>
<td>According to order</td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>O-ring</td>
<td>97.8 x 5.33</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Number of elements per filter side/size</td>
<td>1 x 1300 R.../1 x 2600 R...</td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>Clogging indicator or indicator plug VD 0 A.1</td>
<td>See Filter Clogging Indicator brochure 00305932</td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>Profile seal ring</td>
<td>VA</td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>O-ring</td>
<td>15 x 1.5 (13.5 x 1.5, pre-2002 - both seals included in kit)</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>SEAL KIT-E VD/VM/VR</td>
<td>00319648</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>SEAL KIT-E VD/VM/VR /-V</td>
<td>00319638</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Handle for change-over valve</td>
<td>01205525</td>
<td></td>
</tr>
<tr>
<td>5.*</td>
<td>SEAL KIT NFHD 1300/2600 NBR</td>
<td>02068665</td>
<td></td>
</tr>
<tr>
<td>5.*</td>
<td>SEAL KIT NFHD 1300/2600 FKM</td>
<td>02065044</td>
<td></td>
</tr>
<tr>
<td>5.1</td>
<td>O-ring (element)</td>
<td>97.8 x 5.33</td>
<td></td>
</tr>
<tr>
<td>5.2</td>
<td>O-ring (cover plate)</td>
<td>158.34 x 3.53</td>
<td></td>
</tr>
</tbody>
</table>

Other spare parts available on request. Bold items can be ordered.

-O-Ring durometer can range from 70-80Sh. EPR Seal Kits available on request.

*Note - Included but not listed here are clogging indicator, bleed valve, head/tube, and vent seals.
5. Replacement Element Model Code

Size
1300 - for housings: 1300
2600 - for housings: 2600, 5200, 7800, 10400

Filtration Rating (micron)
1, 3, 5, 10, 15, 20 = ON
3, 5, 10, 20 = ECON2
25, 74, 149 = W/HC

Element Media
ON, BN4AM, ECON2, AM, W/HC, P/HC

Seals
(omit) = Nitrile rubber (NBR) (standard)
V = Fluorocarbon elastomer (FKM)
EPR = Ethylene propylene rubber (EPR)

Bypass Valve
(omit) = 43 psid (3 bar) (standard)
B1 = 14.5 psid (1 bar)
B6 = 87 psid (6 bar)
KB = no bypass

Supplementary Details
SO263 = Modification of elements for Skydrol or HYJET phosphate ester fluids
SFREE = Element specially designed to minimize electrostatic charge generation

6. Clogging Indicator Model Code

Indicator Prefix
VM = G 1/2 3000 psi

Trip Pressure
2 = 29 psid (2 bar) (optional)
5 = 72 psid (5 bar)

Type of Indicator
A = No indicator, plugged port
BM = Pop-up indicator (manual reset)
C = Electric switch - SPDT
D = Electric switch and LED light - SPDT

Modification Number

Supplementary Details
Seals
(omit) = Nitrile rubber (NBR) (standard)
V = Fluorocarbon elastomer (FKM)
EPR = Ethylene propylene rubber (EPR)

Light Voltage (D type indicators only)
L24 = 24V
L110 = 110V

Thermal Lockout (VM, VD types C, D, J, and J4 only)
T100 = Lockout below 100°F

Underwriters Approval (VM, VD types C, D, J, and J4 only)
cRUus = Electrical Indicator with underwriter’s recognition

(For additional details and options, see Section G - Clogging Indicators.)

6. NOTE

The information in this brochure relates to the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant technical department. Subject to technical modifications.
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