Small reservoir refill filter
Model 84013 and 84013A
Safety

Read and carefully observe these operating instructions before unpacking and operating filter. Filter must be operated, maintained and repaired exclusively by persons familiar with operating instructions. Local safety regulations regarding installation, operation and maintenance must be followed.

Operate filter only after safety instructions and this service manual are fully understood.

Explanation of signal words for safety

NOTE
Emphasizes useful hints and recommendations as well as information for efficient and trouble-free operation.

DANGER
Indicates a dangerous situation that can lead to death or severe injury if precautionary measures are ignored.

Specifications

<table>
<thead>
<tr>
<th></th>
<th>Model 84013</th>
<th>Model 84013A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collapse pressure</td>
<td>600 psi (41.4 bar)</td>
<td>600 psi (41.4 bar)</td>
</tr>
<tr>
<td>Screen size</td>
<td>250μm</td>
<td>500μm</td>
</tr>
<tr>
<td>Inlet</td>
<td>1/2 in NPTF</td>
<td>1/2 in NPTF</td>
</tr>
<tr>
<td>Outlet</td>
<td>1/2 in NPTF</td>
<td>1/2 in NPTF</td>
</tr>
<tr>
<td>Maximum working pressure</td>
<td>5 000 psi (344.7 bar)</td>
<td>5 000 psi (344.7 bar)</td>
</tr>
<tr>
<td>Maximum flow rate</td>
<td>1 gallon/minute</td>
<td>1.25 gallons/minute</td>
</tr>
<tr>
<td></td>
<td>(3.8 liters/minute)</td>
<td>(4.7 liters/minute)</td>
</tr>
</tbody>
</table>

Description

Model 84013 and 84013A are grease filters for refilling small reservoirs of pumps such as model 203 QuickLub pumps.
Installation

1. Shut off all grease flow into grease reservoir.
2. Apply Teflon-based thread sealant to all threaded connections.
3. Connect grease delivery pump outlet hose to 1/2 in NPTF refill filter inlet (11).
4. Connect 1/2 in NPTF refill filter outlet (12) to hose leading into grease reservoir.

NOTE
Filter 84013 and 84013A should be mounted between delivery pump and grease reservoir being refilled. Maximum flow rate into filter should not exceed flow rate in specification.

Operation

Grease flows into inlet (11) and exits through outlet (12) under normal conditions while filtering out any impurities exceeding 250 microns in size (500 micron for 84013A)*. Under such conditions, bypass pin (2) is in extended position (Fig. 1, A).

As contaminants are filtered out by filter assembly (1), fluid pressure within filter, or differential pressure increases. When differential pressure from grease filter exceeds 200 psi (13.8 bar) due to trapped contaminants, bypass pin (2) retracts into filter body (8) and fluid bypass is activated, releasing grease through outlet (13) (Fig. 1, B).

* Indicates change.
Disassembly and cleaning

Release of grease through bypass outlet (13) (Fig. 1, B, pg. 3) indicates bypass filter element assembly (14) should be removed and cleaned to restore refill filter to normal operation.

1. Shut off any grease flow to refill filter.
2. Unscrew cap (5).
3. Remove bypass filter assembly (14 and 15) (Fig. 2).

Filter cleaning option 1
1. Submerge bypass filter assembly (14) in mineral spirits.
2. Brush contaminants from screen of bypass filter assembly (14).

Filter cleaning option 2
1. Using a parts washer, direct flow through rear opening (15).
2. Brush contaminants from screen of bypass filter assembly (14).

Filter cleaning option 3
Dislodge contaminants from screen of bypass filter assembly (14) using compressed air.

NOTE
Bypass filter assembly (14) includes filter element (1) with precision tolerated to operate in filter body (8). The sliding cylinder (15) that is loctited to the bypass filter assembly is a one to one match with the filter body. As a consequence, filter assembly (1) is not available as a service part.

Disassembly of bypass filter assembly (14) is not recommended, except in the case of bypass pin replacement.

Use care when handling bypass filter assembly (14).

DANGER
Do not use mineral spirits without personal protective equipment. Failure to comply may result in death or serious injury.
Bypass pin replacement

Removal
1. Using a 5/32 in t-handle hex wrench, remove hex screw (6) *(Fig. 2, page 4)* from bypass filter assembly (14) via opening (15).
2. Remove bypass pin (2).

Installation
1. Apply one drop of Loctite 243 to inside threading of bypass pin (2).
2. Using a 5/32 in hex wrench, hand tighten hex screw until bypass pin (2) is firmly against filter assembly (1).
3. Place cap (5) back as shown in Fig. 3 and screw back into filter body. Make sure indicator is being pushed in while screwing cap to avoid indicator pin turning with cap.
4. Verify indicator pin slides freely with no binding when flush with cap.

Filter assembly tips

1. To aid bypass filter assembly alignment, insert a rod-like tool, such as a t-handle hex wrench, through outlet (11) of filter body (8) into bypass filter assembly (14) via spring (7) *(Fig. 3)*.
2. Tighten cap (5) into filter body (8), periodically depressing bypass pin (2) to ensure it slides freely within filter body (8).

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**NOTE**
After assembling bypass filter assembly (14), allow at least 24 hours for Loctite to cure before use.

**NOTE**
Lubricate o-ring (3) prior to assembling for smooth travel of indicator pin. Leave o-ring slightly behind grease bypass slots when placing indicator assembly into cap.
Parts list

<table>
<thead>
<tr>
<th>Item number</th>
<th>Description</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Filter element assembly(^1)(^2)</td>
<td>276645</td>
</tr>
<tr>
<td>2</td>
<td>Bypass pin</td>
<td>276540</td>
</tr>
<tr>
<td>3</td>
<td>O-ring</td>
<td>243631</td>
</tr>
<tr>
<td>4</td>
<td>Gasket</td>
<td>31002</td>
</tr>
<tr>
<td>5</td>
<td>Cap</td>
<td>276539</td>
</tr>
<tr>
<td>6</td>
<td>Hex screw</td>
<td>279039</td>
</tr>
<tr>
<td>7</td>
<td>Spring</td>
<td>276641</td>
</tr>
<tr>
<td>8</td>
<td>Filter body(^1)</td>
<td>276641</td>
</tr>
<tr>
<td>9</td>
<td>Washer</td>
<td>276915</td>
</tr>
<tr>
<td>10</td>
<td>Retaining ring</td>
<td>276643</td>
</tr>
<tr>
<td>15</td>
<td>Slide(^1)</td>
<td>276534</td>
</tr>
</tbody>
</table>

\(^1\) Not available as a service part.
\(^2\) Alternative filter element assembly 276645A (500 um).
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Warranty

The instructions do not contain any information on the warranty. This can be found in the General Conditions of Sales, available at: www.lincolnindustrial.com/technicalservice or www.skf.com/lubrication.