Winslow® Lube Oil
By-Pass – Type 3 Filters
Service Instructions

Parts List

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Cover</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>O-Ring</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Housing</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Plugs</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Filter Elements</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Internal Component Kit</td>
<td>See Ordering Information on Page 5</td>
</tr>
<tr>
<td>G</td>
<td>T-Bolt Kit</td>
<td></td>
</tr>
</tbody>
</table>

⚠️ CAUTION: These instructions are intended for use by professional mechanics who are trained in the proper use of power and hand tools, using appropriate safety precautions (including eye protection).
**Introduction**

Winslow® filter elements must be changed periodically to assure the high level of filtration efficiencies required by today's engines. By-pass filter elements should be serviced and changed based on comparative oil analyses. Significant changes in TBN/TAN (Total Base Number/Total Acid Number), oxidation, and nitration should be identified, monitored, and acted upon.

Lube filtration is much more sophisticated than hydraulic fluid filtration. Most engine filters not only combat particulate (wear) matter, but also chemical (corrosion) contamination. The main contributor for the chemical contaminants is combustion cylinder blow-by gas. These contaminants (oxides, nitrates, soot, acids, and water) are by-products of the combustion process and are able to flow past the piston rings and enter the oil sump. Since the Winslow bypass elements absorb these contaminants without a significant increase in restriction, standard methods (a rise in restriction) used to determine an element's life cannot be used on these applications.

An increase in element restriction can be used as an indicator of a plugged element in applications with an extremely high solid contamination (for example, hydraulic and machine tool fluids). For these applications, the elements should be changed out when the increase in restriction reaches 3 PSID (20.7 kPa) above the clean element restriction, however elements should be changed, at minimum, once a year.

**Servicing the Filter**

**Removing the Filter Elements**

1. Shut off the flow to the filter. Isolate the filter, if possible, by closing the main upstream valve and then the main downstream valve.
2. Shut off electrical power to any accessories attached to the vessel.
3. Remove the air vent plug to equalize the pressure in the tank.
4. Remove the "dirty oil" drain plug (upper plug) and completely drain the filter chamber.
5. Loosen the nuts on the cover until the T-bolts are free to swing out of position.
6. Lift the cover STRAIGHT UP.

⚠️ **CAUTION** To prevent damage to the cover gasket and the sealing surfaces, **DO NOT SLIDE THE COVER OFF.**

![Figure 4 – Lifting the Cover Off](image)

7. Place the cover UPSIDE DOWN on a clean work surface. Be careful not to nick or scratch the bottom edge of the sealing surface.

8. Loosen the hex nuts on the element support posts to free the internal components.

![Figure 5 – Freeing the Internal Components](image)

9. Loosen and remove the internal components, including the dirty elements (components vary according to housing – see page 1). Pull the elements straight up to remove. Dispose of the elements in an environmentally responsible manner, according to state and/or federal (EPA) recommendations.

⚠️ **CAUTION** To prevent damage to your engine or equipment, do not allow dirt to fall through the opening of the element support post and into the clean outlet area.

![Figure 6 – Removing the Internal Components](image)
Reassembling the Filter

10. Reinstall the internal components, including the new elements. Note the direction of the arrow on each element and insert the proper end into the housing first. If seal cups are included as part of the internal components, they must be reinstalled, as well.

12. Replace the O-ring cover seal. (If necessary, as long as there are no permanent surface deformations, swelling, nicks, and cracks present, the seal can be reused.)

11. Replace the hex nuts onto the element support posts and tighten until the threads bottom-out.

13. Seat the O-ring cover seal into the flange groove.

14. Carefully replace the cover STRAIGHT DOWN and align the bolt slots in the cover flange with the slots in the housing flange.

⚠️ CAUTION To prevent damage to the cover gasket and the sealing surfaces, DO NOT SLIDE THE COVER ON.
15. Swing the T-bolts into position and tighten all the nuts in a star pattern (similar to replacing lug nuts on an automobile wheel) to assure a uniform seal.

17. Refill the filter manually or by slowly opening the main upstream valve.

18. Once the vessel is full, reinstall the vent plug.

16. Reinstall the “dirty oil” drain plug.

19. Increase the pressure in the filter slowly. Inspect for leaks around the cover gasket area. If no leaks are visible, increase to operating pressure.

20. Inspect for leaks again.

21. Reconnect electrical power to any accessories.

22. Slowly open the downstream valve, if applicable, placing the unit in service.

23. Read and record the pressure differential of the clean elements.

24. The filter is now operational.

Suggested Preventive Maintenance

Every Filter Change – Replace the O-ring cover seal.

Every 12 Months – Check all fittings for leaks.

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Ordering Information

<table>
<thead>
<tr>
<th>C</th>
<th>A</th>
<th>B</th>
<th>D</th>
<th>E Filter</th>
<th>Number of</th>
<th>F Internal</th>
<th>G T-Bolt</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Housing</td>
<td>Cover</td>
<td>O-Ring</td>
<td>Plugs</td>
<td>Element</td>
<td>Elements</td>
<td>Component Kit</td>
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<tr>
<td>95633A</td>
<td>Q80660A</td>
<td>Q79058</td>
<td>Q69217</td>
<td>82377A</td>
<td>7</td>
<td>990440K</td>
<td>990449K</td>
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<td>Q80660A</td>
<td>Q79058</td>
<td>Q69217</td>
<td>82377A</td>
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<td>990441K</td>
<td>990449K</td>
</tr>
<tr>
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<td>Q80660A</td>
<td>Q79058</td>
<td>Q69217</td>
<td>82377A</td>
<td>21</td>
<td>990442K</td>
<td>990449K</td>
</tr>
</tbody>
</table>

* Designed for 75 lb/in² (517.1 kPa) continuous operating conditions.

Table corresponds to Parts List on cover page.
Replacement Filter Element

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>82377A</td>
<td>$\beta_s = 75$ Full-Flow Lube Depth Element</td>
</tr>
</tbody>
</table>

Filter Specification

Densely ram-packed cotton provides $\beta_s = 75$ solid contamination control.

Specifications

<table>
<thead>
<tr>
<th>Housing Part Number</th>
<th>Filter Oil Volume qt (L)</th>
<th>Flow Rate* gal/min (L/min)</th>
<th>Element Number</th>
<th>Number of Elements</th>
<th>Efficiency (Particulate Control)</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>95633A</td>
<td>86 (81.4)</td>
<td>3.0 (11.4)</td>
<td>82377A</td>
<td>7</td>
<td>$\beta_s = 75$</td>
<td>Capacity Exceeds SAE Time Constraints</td>
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<tr>
<td>95733A</td>
<td>128 (121.1)</td>
<td>5.6 (21.2)</td>
<td>82377A</td>
<td>14</td>
<td>$\beta_s = 75$</td>
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</tr>
<tr>
<td>95833A</td>
<td>170 (160.9)</td>
<td>8.2 (31.0)</td>
<td>82377A</td>
<td>21</td>
<td>$\beta_s = 75$</td>
<td></td>
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</tbody>
</table>

* Flow rate based on 30 SAE oil at 180 °F (82.2 °C) at 55 lb/in² (379.2 kPa).

Notes:
1. Designed for 75 lb/in² (517.1 kPa) continuous operating conditions.
2. By-pass filter elements can be changed each time full-flow elements are changed or with every other full-flow element change. Specifications subject to change without notice.

Mounting/Dimensions

* Designed for 75 lb/in² (517.1 kPa) continuous operating conditions.