LUBER-FINER®
UNIVERSITY

FUEL YOUR BRAIN

OIL FILTER TRAINING MODULE

LUBER-FINER®
BUILT TO DO MORE™

Luber-finer Oil Filters

The efficient operation of a heavy-duty engine relies on many systems. One of the most critical is the lube/oil system. In addition to providing lubrication, oil is also responsible for the transfer of engine heat. Luber-finer has been the leader in By-Pass filtration since 1936. This valuable experience provides dependable oil filtration, an essential component for providing health and efficiency for a heavy-duty engine.

Luber-finer filters are Built To Do More™.

Luber-finer Oil Filters

The purpose of the heavy-duty Lube Oil System is to promote long engine life and to protect moving engine components from heat and abrasion. Oil service intervals are determined by engine manufacturers (OEMs) and are designed to provide the maximum engine protection under a wide variety of conditions.

Scheduling regular oil maintenance and filter changes are the best ways to protect your engine. Oil filters will remove contaminants from the oil before they generate wear on engine component surfaces. The benefits of a quality oil filter are:

- **Extended Engine Life**
- **Reduced Engine Wear**
- **Reduced Downtime**
- **Reduced Operating Costs**

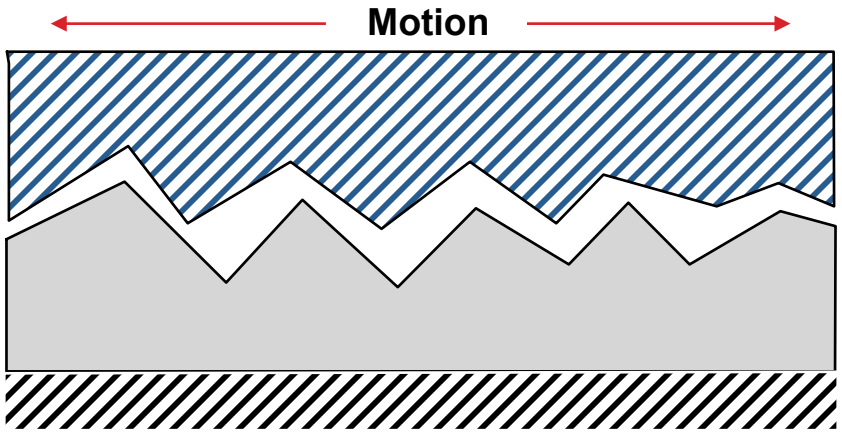
It is critical to keep clean oil in the lubricating oil system at all times. Clean, quality oil provides many benefits:

- **Heat removal**
- **Corrosion resistance**
- **Sealing**
- **Scrubbing/cleansing**

The Role Of Oil In Lubricating Oil System

Separate moving surfaces to:

- Reduce friction
- Reduce wear



Severe Service Conditions

Luber-finer Lube filters are designed and tested using the latest SAE and OE testing measurements for on-highway and off-road applications. All Luber-finer lube filters meet or exceed OE requirements for service life, efficiency and contaminant removal.

Luber-finer oil filters can provide the essential filtration necessary to cope with severe service conditions such as frequent idle time, extensive highway driving, heavy towing or weight loads, or ascending steep hills and mountains.

Heavy-duty engines are especially vulnerable while operating in sub-zero climates, or while travelling on dusty, dirty and/or gravel roads. A quality Luber-finer lube filter is the critical, main line of defense for engine oil.

Filter By-Pass Valve –

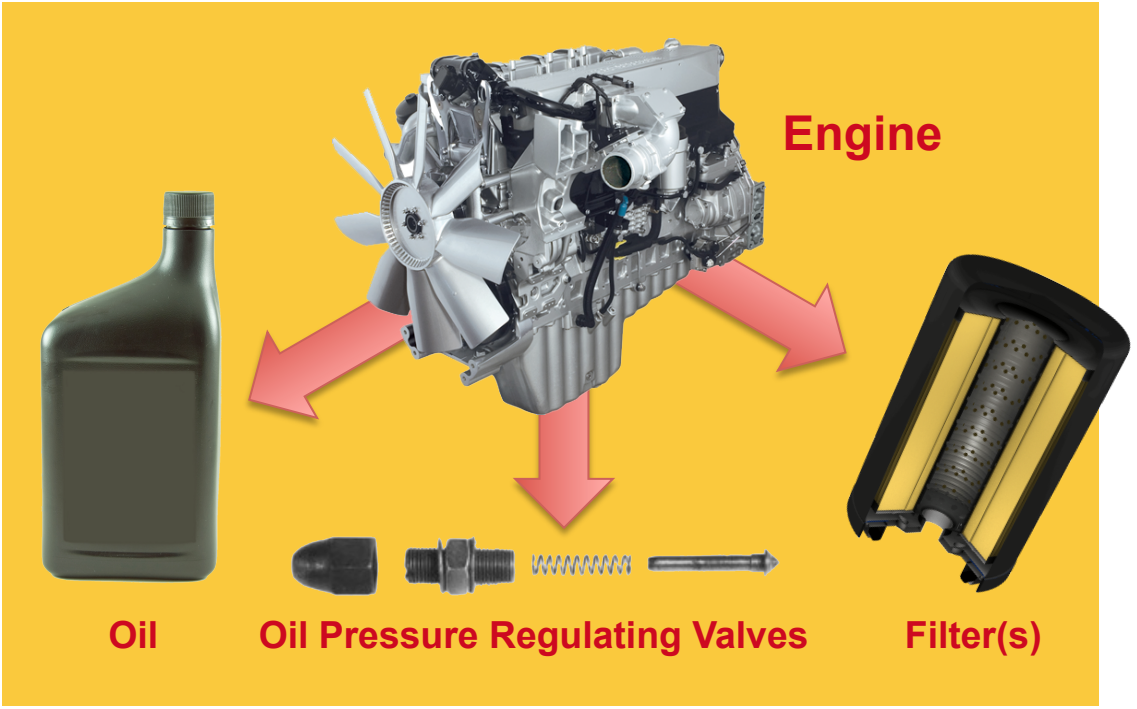
- Diverts oil flow around the full- flow filter in the case of a filter plug or during cold starts.

Pressure Regulating Valve

- Maintains consistent oil pressure to all engine components.

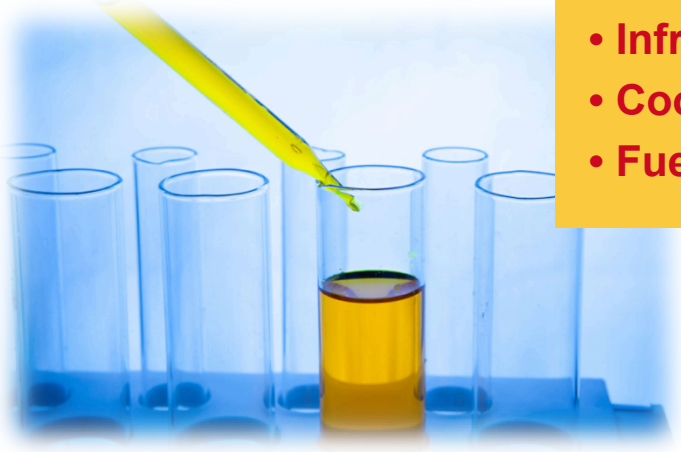
High Pressure By-Pass (Relief) Valve

- If oil pressure spikes, maintains safe oil pressure.



Oil Testing

Testing is an essential part of heavy-duty preventative maintenance programs. LOSK 3 oil testing includes analysis of the Total Base Number (TBN) and the Total Acid Number (TAN). Oil analysis is the only way to determine the scheduled service cycle of internal combustion engines. Standard LOSK 1 oil testing includes analysis of:



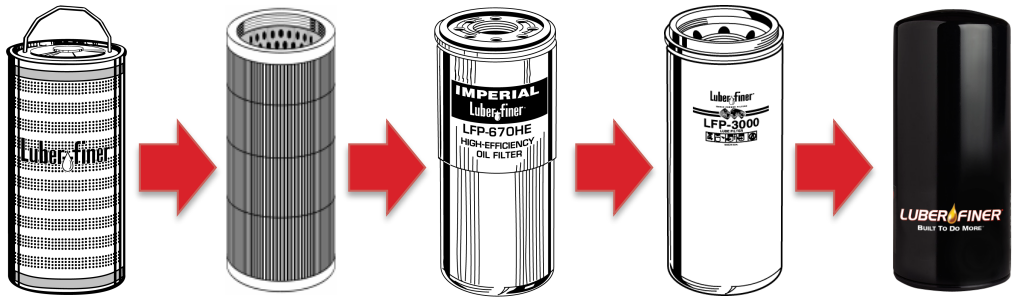
- **Viscosity**
- **Infrared Analysis**
- **Coolant Presence**
- **Fuel Dilution**

Types Of By-Pass Filters

Luber-finer invented the by-pass filter in the 1930s. This particular filter removes a small (10%) portion of the full-flow of oil for fine filtration and adds the cleansed oil back into the existing primary oil body.

Ever since Luber-finer created the by-pass filter, several improvements have been achieved by Luber-finer. Original Equipment Manufacturer quality-type filters by Luber-finer now include: Full-Flow, Full-Flow By-Pass, High-Efficiency and Extended-Life.

- **By-Pass Filter (1930s- 40s)**
- **Full-Flow (1950s)**
- **Full-Flow Plus By-Pass (1960s)**
- **Combination Full-Flow/By-Pass (1987)**
- **New By-Pass Technology (2004 to present)**



1930's-40's | 1950's | 1960's | 1987 | 2004

21st Century Full-Flow Lube Filters

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By constantly utilizing innovative and modern technological advances, Luber-finer is still the leader in filtration solutions. The use of different filter medias such as Cellulose, Blended and Synthetic, can provide targeted benefits aimed at specific engine challenges.

Cellulose Media Filters –

Made from biological materials and cost effective

Blended Media Filters –

Constructed from cellulose and man-made materials. Combines cost-effectiveness and a higher degree of filtration than cellulose filters

Synthetic Media Filters –

The ultimate protection for severe or extended service performance – found in Luber-finer “XL” filters

21st Century Full-Flow Lube Filters

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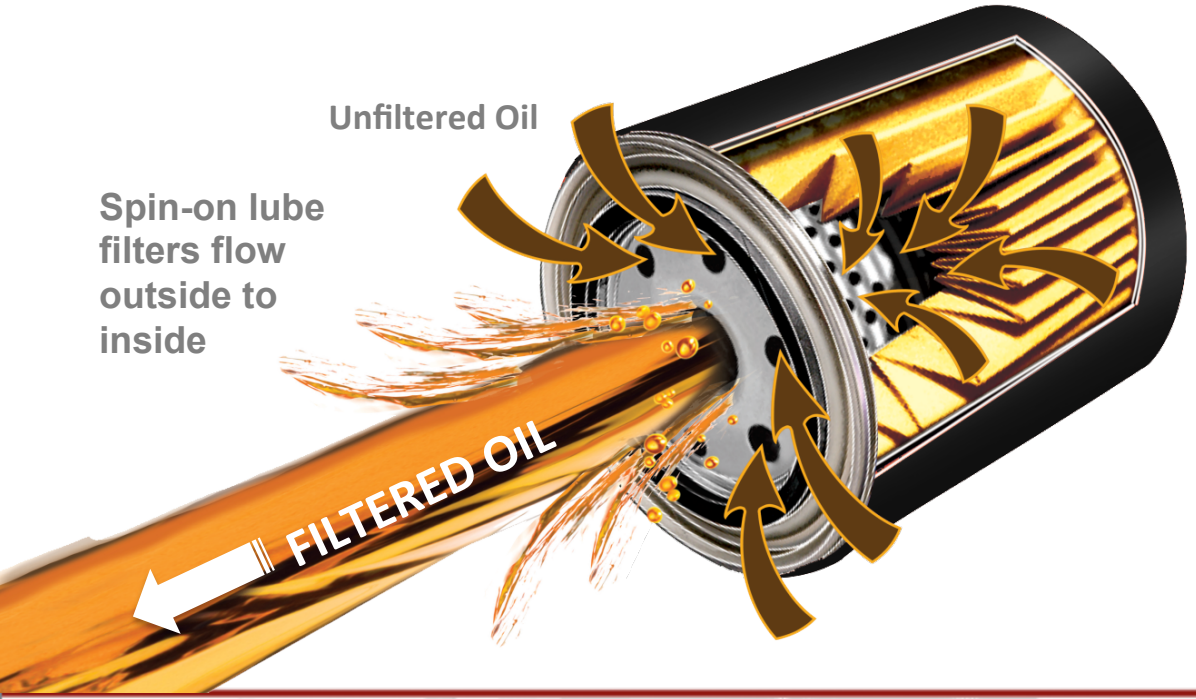
A modern oil filter will provide 100% filtration before any oil reaches the bearings. Unlike a by-pass filter, it provides a greater degree of free-flow of oil and will remove all particles large enough to cause immediate damage.

Lube Filters Have Evolved Over Time



The effective and efficient oil filter cannot be too restrictive or the engine could be starved for oil. These full-flow systems make use of by-pass valves or safety valves that open under high differential pressures. The Luber-finer spin-on filter design is easy to install and it allows flow of oil moving from the outside to the inside of the filter.

Hotline, Full Web and Mobile Support

- Call the filter hotline at 1-800-882-0890
- Online filter look-up capabilities on our website www.luber-finer.com
  - Includes installation instructions
  - Distributor locator
  - Product images
  - Service minutes and change interval recommendations
- Android App and Mobile site parts look-up capabilities