

# **ENGINEERED TO HELP REDUCE MAINTENANCE COSTS**



HEAVY-DUTY TIME RELEASE TECHNOLOGY (TRT™)
LUBE FILTERS

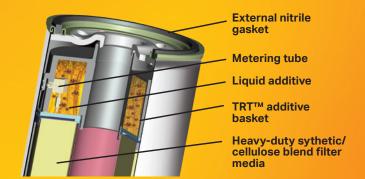
# NEW LUBER-FINER TIME RELEASE TECHNOLOGY (TRT™)

TRT™ filters are a breakthrough in oil management systems. Developed in the laboratory and perfected over more than a million fleet miles, Luber-finer TRT™ filters can help your fleet extend oil change intervals by impeding oil degradation in modern diesel engines.\*

Strict new emissions standards have been implemented to reduce soot and NOx levels in the air. However, design changes in emission-controlled, heavy-duty diesel engines have placed increased stress on engine oil. New Luber-finer TRT<sup>TM</sup> filters help maintain oil quality over the long haul. In fact, by helping to maintain oil quality, Luber-finer TRT<sup>TM</sup> filters are specifically engineered to help reduce escalating fleet maintenance costs.

## LUBER-FINER TRT™ FILTERS ARE SPECIFICALLY ENGINEERED TO HELP

REDUCE ESCALATING FLEET-MAINTENANCE COSTS.



The patent-pending Luber-finer TRT<sup>™</sup> release mechanism uses oil flow to create hydraulic pressure, which drives the liquid additive at a controlled rate through a metering tube, where it mixes with the oil. The specially formulated additive is CJ-4 and Cl-4 compatible.

# **CONTROLLED, LINEAR ADDITIVE RELEASE**

The Luber-finer TRT™ filter provides a controlled release of the highly concentrated liquid additive into the oil. To optimize the benefits of this additive package, the patent-pending release mechanism dispenses the additive in a linear manner, as shown in this chart, to help combat harmful acids that build up over the miles.



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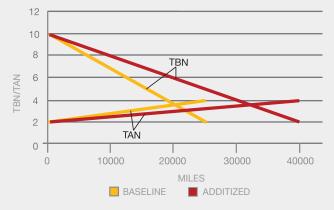
## **SLOWING THE DEGRADATION OF OIL**

An oil's Total Base Number (TBN) – its acid-neutralizing reserve – degrades over time and miles, especially in modern diesel engines that use exhaust gas recirculation (EGR). The Total Acid Number (TAN) measures the acidity level of the oil. The specially formulated liquid additive in Luber-finer TRT™ filters is continuously metered into the oil supply, helping the oil maintain its quality longer.

### MAINTAINS OIL QUALITY LONGER



#### ILLUSTRATION OF TBN/TAN BEHAVIOR OVER TIME





#### MACK T-12 DYNO TEST 350 -80 -70 300 60 250 50 200 40 150 30 100 20 50 10 **UPPER-ROD-BEARING WEIGHT LOSS TOP-RING WEIGHT LOSS** BASELINE ADDITIZED

## IMPRESSIVE MACK T-12 DYNO TEST RESULTS

Mack T-12 is an industry-standard dynamometer test used to determine an oil's ability to protect against engine wear in heavy-duty diesel engines that use EGR. Test results with the use of Luber-finer TRT™ filters show reduced top-ring and upper-rod-bearing weight loss. This reduced wear is directly attributed to the Luber-finer TRT™ filter's ability to retain oil TBN longer, extending the oil's useful life.

## THE LUBER-FINER ADVANTAGE

With Luber-finer TRT<sup>TM</sup> filters' additive package, which is designed to increase protection against oil degradation, and a regular regimen of oil analysis, fleets can maintain or even extend oil-drain intervals.\* It all boils down to this: Luber-finer TRT<sup>TM</sup> filters can help your fleet reduce maintenance costs.



\* Any decision to extend oil drain intervals must be based on oil analysis and adherence to OEM criteria for acceptable oil operating properties. Operating properties may include, but are not limited to, TBN, soot, viscosity and fuel dilution.





Engine Series	Luber-finer TRT™ Filter	Luber-finer Standard Filter
Caterpillar C13, C15 Series	LFP4005TRT	LFP4005
Detroit Diesel Series 60	LFP2160TRT	LFP2160
Cummins ISX, ISM	LFP9001TRT	LFP9001
Volvo VED12	LFP3191TRT	LFP3191
Mack ASET	LFP3236TRT	LFP3236

#### Find Your Filter With Our Digital Resources

Visit www.luber-finer.com or download our mobile app to get quick access to the information you need to find the right filter for a specific heavyduty application.

- Online Parts Catalog: Find the part number and specification details for any Luber-finer filter.
- Part Search: Enter a Luber-finer part number to obtain a part description, part dimensions and vehicle compatibility information.
- Cross Reference: Enter the part number of another brand's filtration product to obtain a part number and part description for a comparable Luber-finer filter.
- Distributor Locator: Enter your zip code and select a mile radius to find nearby distributors.

#### Warranty

Luber-finer filters are guaranteed to be free from defects in material and workmanship. In the event of an engine or equipment failure directly caused by a proven-defective Luber-finer filter, which was properly installed and changed following the engine or equipment manufacturer's recommended service intervals, Luber-finer will restore the engine or equipment to a condition equivalent to that existing just before the failure. Claims for engine or equipment repairs provided under this warranty must be submitted within 30 days after discovery of damage. Luber-finer Technical Services Department reserves the right to examine the engine or equipment and filter to determine the amount of damage and whether it was caused by a defective Luber-finer filter. This warranty gives you specific legal rights. You may have other rights which vary from state to state. Engine and equipment manufacturers' warranties remain in effect when Luber-finer filters are used.



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