



SHELL ROTELLA® T4 Triple Protection® Heavy Duty Engine Oil

Introducing the next evolution of hard working protection.



The Engine Oil That Works As Hard As You.™

Shell
ROTELLA

SHELL ROTELLA® T4 Triple Protection® Heavy Duty Engine Oil



Improved technology. Same hard work

Shell ROTELLA® T4 Triple Protection® Heavy Duty Engine Oil builds upon the heritage of Triple Protection® you have come to depend on. Today, it's more advanced than ever, designed to provide hard working protection that adapts to driving conditions resulting in:

- Enhanced protection against oxidation
- Enhanced wear protection
- Improved deposit control/cleanliness
- Sustained emission control system durability in particulate filters and after-treatment systems.

(Compared to prior Shell ROTELLA® Triple Protection® 15W-40.)

RELATIVE PROTECTION*



VS



* The number of oil droplets indicates relative performance.

For every hard working need

Shell ROTELLA® T4 Triple Protection® is suitable for a wide range of heavy duty engine applications. With its wide range of specifications, and approvals from many of the world's leading engine makers, it is an excellent choice for on-highway fleets, general haul, construction, agriculture, public-transport operators and diesel pick-up trucks, including high-power vehicles where resistance to increased heat and stress is required.

The most technically advanced Shell ROTELLA® formulation ever

It is designed to effectively sustain emissions control system durability, where diesel particulate filters and after-treatment systems are used. Plus it provides enhanced protection against viscosity loss due to shear and improved oil aeration. The exclusive low-ash formulation helps protect the exhaust catalysts and diesel particulate filters found on the latest low-emission vehicles. Shell ROTELLA® T4 Triple Protection® is suitable for virtually all modern low-emission heavy duty engines* and older, hard working diesel engines.

* Consult your owner's manual for heavy duty engine oil recommendations.

Triple Protection® technology

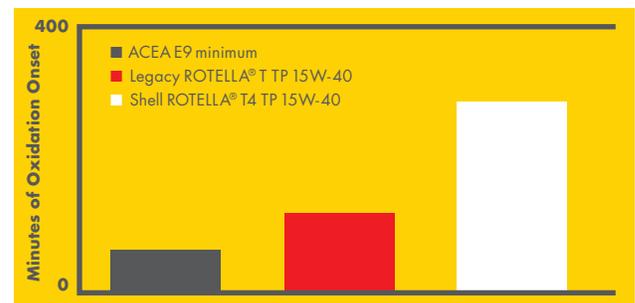
With millions of miles of real world testing, Shell ROTELLA® T4 Triple Protection® oils use a proprietary formula exclusive to Shell. They are designed to protect under the most severe engine conditions found in modern low-emission and older, hard working diesel engines.

Bring on the heat

Shell ROTELLA® T4 Triple Protection® Heavy Duty Engine Oil shows significantly improved resistance to oil breakdown under high temperatures. Tests prove that Shell ROTELLA® T4 Triple Protection® resists oxidation up to 50% longer than the previous generation of Shell ROTELLA® T Triple Protection®. The result? Shell ROTELLA® T4 Triple Protection® protects against wear and deposits and keeps engines running long, clean and operating efficiently.*

* Shell ROTELLA® T4 demonstrates strong wear protection in CK-4 engine tests including the Cummins ISM and ISB.

MINUTES TO OXIDATION ONSET

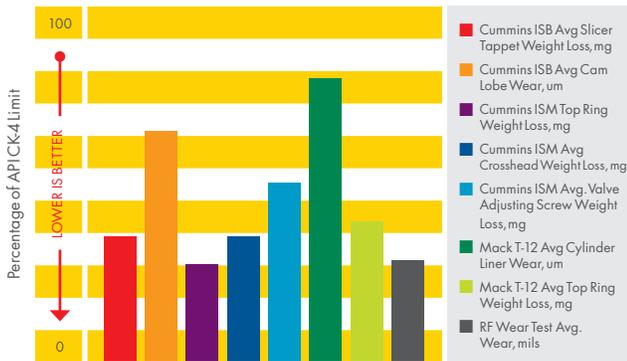


■ CEC reproductibility for PDSC CEC L-085-99 Oxidation Onset Time is 29 minutes
■ PDSC CEC L-085-99 is required for ACEA E9 specification

Wear protection beyond CK-4 standards

In API industry wear tests, Shell ROTELLA® T4 Triple Protection® 15W-40 didn't just meet CK-4 specs, it delivered an average of 50% more wear protection than required. That's protection where it matters most—on the road.

EXCELLENT WEAR PROTECTION



At 590,826 miles this 2014 Detroit Diesel DD15 exhibits excellent wear protection.



* New Bearing shown for comparison. Note very little evidence of wear or corrosion on the left side after almost 600k miles.

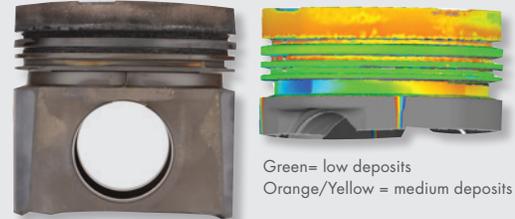
Improved protection against deposits

Shell ROTELLA® T4 Triple Protection® Heavy Duty Engine Oil defends against deposits* and helps keep engines cleaner over the oil drain interval.

* Shell ROTELLA® T4 Heavy Duty Engine Oil delivers reduced deposits in CK-4 engine tests including Caterpillar 1N and OM 501 industry standard tests.

PROTECTION AGAINST DEPOSITS

2013 Paccar MX engine with 613,458 miles. Reveals very low levels of land and groove deposits.



Green= low deposits
Orange/Yellow = medium deposits

Cleaner filters. Optimum efficiency

Shell ROTELLA® T4 Triple Protection® helps control vehicle emissions in two ways: 1) by reducing the rate of lubricant-related DPF blockage and 2) by virtue of the improved wear and exceptional cleanliness, helping engines maintain efficient combustion. Minimizing DPF blockage also helps maintain fuel economy, thus further helping control exhaust-gas emissions.



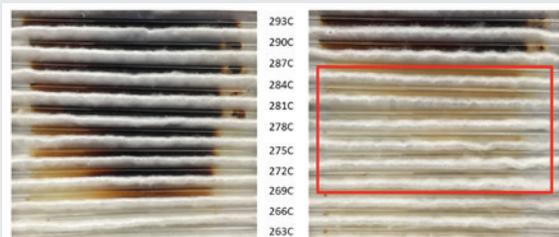
LEFT: Section of DPF showing channels blocked by lube-ash deposits from high-ash oil (white areas.)



RIGHT: Similar section from engine using ~1% ash oil, such as Shell ROTELLA® T Triple Protection® showing less blockage (fewer white areas.)

Shell ROTELLA® T4 Triple Protection® 15W-40 is formulated to provide increased protection at high engine temperatures

- Shell ROTELLA® T4 Triple Protection® 15W-40 provides improved deposit protection at higher temperatures compared to prior formula Shell ROTELLA® T Triple Protection® 15W-40 in Shell deposit demonstration test.



Shell ROTELLA® T Triple Protection® 15W-40 (CJ-4)

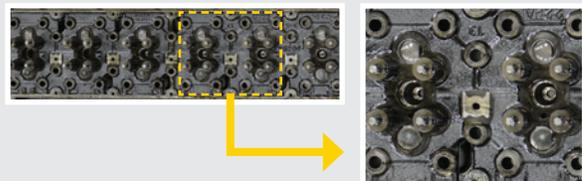
Shell ROTELLA® T4 Triple Protection® Heavy Duty Engine Oil (CK-4)

- Shell proprietary test method - 20 hour heating cycle with measured deposits each hour
- Cleaner tubes = fewer deposits

Excellent sludge control

Our unique formula contains optimized dispersants for outstanding sludge control and cleanliness.

The results speak for themselves in this 2013 DDC DD15 valve deck after 590,826 miles. It is rated 9.75 out of 10, clearly showing an impressive level of cleanliness.



Our complementary range

In addition to a full range of Shell ROTELLA® Heavy Duty Engine Oils, Shell Lubricants offers a complete portfolio of lubricants for every part of your equipment, including Shell SPIRAX® gear/axle oils and transmission fluids, Shell GADUS® greases, Shell ROTELLA® ELC Extended Life Coolant/Antifreeze, and Shell HD Antifreeze/Coolant.

Health, safety and environment

Shell ROTELLA® T4 Triple Protection® oils are unlikely to present any significant health or safety hazard when properly used in the recommended application, and when good standards of industrial and personal hygiene are maintained.

Avoid contact with eyes, skin or clothing. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

For further guidance on product health and safety, refer to the appropriate Shell Safety Data Sheet or visit www.epc.shell.com.

Protect the Environment: Take used oil to an authorized collection point. Do not discharge into drains, soil or water.

Advice: Advice on applications not covered in this leaflet may be obtained from your Shell Lubricants Representative.

For more information, contact your local Shell Lubricants Representative or visit www.rotella.com

The term 'Shell Lubricants' collectively refers to individual Shell Group companies engaged in the lubricants business throughout the world. These are separate and distinct entities. The collective expressions 'Shell' and 'Shell Lubricants' may be used herein for convenience where reference is made in general to those companies or where no useful purpose is served by identifying any particular company or companies.

SPECIFICATIONS AND APPROVALS Shell ROTELLA® T4 15W-40

API, CK-4, CJ-4, CI-4 PLUS, CI-4, CH-4; ACEA E9, JASO DH-2, MA/MA 2; Caterpillar ECF-2, ECF-3; Cummins CES 20086; DDC DFS 93K222; Deutz DQC III-10 LA; MACK EOS-4.5; MAN M3575; MB-Approval 228.31; MTU Category 2.1; Volvo VDS-4.5

PRODUCT MATERIALS & PACKAGE SIZE

PRODUCT	12x1 Quart	3x1 Gal Jug	2x2.5 Gal Jug	5 Gal Pail	55 Gal Drum	275 Gal Tote	Bulk
T4 15W-40 (CK-4)	550045141	550045126	550045127	550045128	550045148	550045142	500010048