



Delo[®] 400 SLK SAE 15W-40

Low-SAPS Heavy Duty Diesel Engine Oil

Product Data Sheet

Customer benefits

Minimizes operating costs

Exceptional soot dispersancy keeps soot in suspension, minimizing filter plugging, cylinder head sludge, abrasive polishing wear and oil thickening. Robust wear and corrosion protection of engine components due to effective antiwear additive system. Improves equipment durability and reliability while reducing equipment downtime.

Maintain emission control system performance

Formulated with latest generation "low-SAPS" (sulfated ash, phosphorus and sulfur) technology containing reduced levels of metals, phosphorus and sulfur, it maximizes the life of sensitive catalyst metals and the cleaning intervals of diesel particulate filters.

Reduces inventory costs

Balanced formulation provides excellent overall performance in mixed fleets of different engine designs, (including modern low emission diesel engines) allowing one oil for many services and reducing the chance of product misapplication. Backward compatible with previous API Oil Service Categories and engine models.

Applications

- Commercial road transport, including the latest engines fitted with exhaust cleanup devices of all types.
- Vehicles meeting the most recent exhaust emissions standards, including US EPA 2002, 2007 and 2010, 2017 greenhouse gas (GHG 17) Euro IV, V and VI, and Australian ADR 80/02 and ADR 80/03 (for heavy duty)
- Mixed fleets of both old and new equipment from European, North American and/or Japanese OEMs
- Stop-and-go vehicles in high soot loading service such as buses and waste collection trucks
- Most light duty vehicles with diesel engines
- Off-highway vehicles and plants including agricultural equipment
- Many heavy-duty gas-fueled vehicles
- Mobile hydraulic systems (where oil type and viscosity are appropriate)
- Diesel engines utilizing diesel fuels with up to 20% biodiesel (B20)

Product features:

- **Delo 400 SLK SAE 15W-40 with ISOSYN Advanced Technology** is a premium quality "low-SAPS" heavy-duty diesel engine oil specifically designed to lubricate a wide range of high speed diesel engines requiring API CK-4, CJ-4, CI-4 PLUS / SN, or ACEA E9 performance lubricants operating under the most severe service conditions.

- It is formulated using the latest generation additive technology to provide outstanding protection for on and off-highway applications, including those with the low emission diesel engines fitted with Diesel Particulate Filters (DPF), and those fitted with Selective Catalytic Reduction (SCR) and / or Exhaust Gas Recirculation (EGR) emission control technologies.

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Typical key properties

DELO® 400 SLK	TEST METHOD	
SAE Grade	ASTM	15W-40
Product Code		505502
Base No., mg KOH/g	D2896	8.5
Base No., mg KOH/g	D4739	7
Sulphur, m %		0.32
Sulfated Ash, m %	D874	1.0
Kinematic Viscosity, mm ² /s @ 100°C	D445	14.7
mm ² /s @ 40°C	D445	107
Viscosity Index	D2270	141

1120

Performance standards

- API CK-4, CJ-4, CI-4 PLUS, CI-4, CH-4
- Cummins CES 20086
- Detroit Fluids Specification (DFS) 93K222
- Renault RLD-3
- Volvo VDS-4.5
- Mack EOS 4.5

Meets the following specifications

- API SN
- ACEA E9
- Caterpillar ECF-3
- Daimler MB-Approval 228.31
- DEUTZ DQC III-10 LA, DQC III-18 LA
- Ford WSS-M2C171-F1
- MAN M 3775
- MTU Category 2.1



Service Considerations

“Low SAPS” engine oils tend to have lower Base Numbers than “conventional” heavy duty diesel engine oils. Used in conjunction with today’s low, very low or ultra-low sulfur content fuels this is of no consequence. However, In situations where very high sulfur (>0.5%) fuels are in use this may to some extent limit achievable drain intervals. Fuel sulfur levels have declined significantly over the past decade but are still relatively high in some countries.

For applications where fuel Sulphur is higher, other products from the Caltex Range like Delo 400 MGX SAE 15W-40 are recommended.

While the level of phosphorus is low by heavy duty diesel engine oil standards, it is somewhat higher than permitted by certain recent standards for passenger car motor oils, e.g. ILSAC GF-5, and the ACEA “C” standards. Optimum life of catalytic emission control systems will be achieved by using oils of the performance standard recommended by the vehicle manufacturer.

When using with bio-diesel blended fuel meeting ASTM D7467 (B6 – B20) or equivalent it is critical to monitor the engine oil level and performance.

When using with biodiesel blends containing >6% B100, monitoring oil condition is critical. Fuels with higher biodiesel content increase the risk of fuel dilution in the engine oil. This reduces the oxidation stability of the engine oil as biodiesel tends to oxidise more rapidly thus directly impacting the oil drain intervals. Biodiesel contents greater than B5 have a lower energy content than diesel fuel, which may result in slight horsepower loss and slightly increased fuel consumption.

Always follow OEM recommendation for appropriate fuel and engine oil selection.

ENVIRONMENT, HEALTH and SAFETY

Information is available on this product in the Material Safety Data Sheet (MSDS) and Customer Safety Guide. Customers are encouraged to review this information, follow precautions and comply with laws and regulations concerning product use and disposal. To obtain a MSDS for this product, visit www.caltex.com.

This bulletin was prepared in good faith from the best information available at the time of issue. While the values and characteristics are considered representative, some variation, not affecting performance, can be expected. It is the responsibility of the user to ensure that the products are used in the applications for which they are intended.

Produced by:
Chevron Global Lubricants
– Asia Pacific