

Delo® 400 SLK SAE 10W-30

Low-SAPS Heavy Duty Diesel Engine Oil

Product features:

- Delo 400 SLK SAE 10W-30 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 or ACEA E11 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.

Customer benefits

- **Helps minimize 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. Helps improve equipment durability and reliability while reducing equipment downtime.
- **Improved efficiency:** Lower viscosity reduces churning losses and internal fluid friction offering potential fuel saving. Improved low temperature fluidity reduces energy consumption at start-up and protects engine components from wear and tear by reaching critical components faster.
- **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 helps maximize the life of sensitive catalyst metals and the cleaning intervals of diesel particulate filters.
- **Reduces inventory costs:** Balanced formulation helps provide 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.

Application

- 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, India BS IV/ 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 Indian 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)

*Note: * When using Biodiesel blended fuel meeting ASTM D7467 (B6 – B20) or equivalent and higher blends when blended with B100 as per ASTM D6751 or equivalent. When using >B6 biodiesel it is critical to monitor the engine oil level and performance. Refer OEM recommendation for oil selection and drain intervals when using biodiesel.*

Performance standards

Has the following OEM/ Institutional approval/ license

- API CK-4, CJ-4, CI-4, CH-4, CI-4 Plus
- Cummins CES 20086

- Detroit Fluids Specification (DFS) 93K222
- MAN M 3775
- Renault RLD-3
- Volvo VDS-4.5
- Mack EOS 4.5
- Daimler MB-Approval 228.31
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Meets the following specifications

- ACEA E11
- DEUTZ DQC III-18 LA
- Caterpillar ECF-3
- Ford WSS-M2C171-F1

Typical Key Properties

Delo® 400 SLK	Test Method	
SAE Grade	ASTM	10W-30
Product Code		505503
Base No., mg KOH/g	D 2896	8.1
Base No., mg KOH/g	D 4739	7
Sulphur, m %		0.3
Sulfated Ash, m %	D874	1.0
Viscosity, mm ² /s @ 100°C	D 445	11.7
Viscosity, mm ² /s @ 40°C	D 445	77.8
Viscosity Index	D 2270	144

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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 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.