



# Delo<sup>®</sup> Syn-Gear HD SAE 75W-90

## High performance synthetic heavy-duty gear oil

(Supersedes Syn-Star GL SAE 75W-90)

### Product description

Delo Syn-Gear HD SAE 75W-90 is a high performance synthetic heavy-duty gear oil suitable for use in heavy duty driven axles and differentials. It is designed with a long-drain capability of 450,000 km and formulated with a combination of synthetic base oils and high performance additives.

### Customer benefits

- Extended drain capability of 450,000 km
- High level oxidation stability mitigates against in-service oil thickening, helping to keep gear cases and seals free from deposits
- High Viscosity Index and good low temperature fluidity help contribute to component protection across a wide temperature range
- Effective EP additive technology contributes to critical wear protection under low speed high torque and shock load operations
- Mild EP additive formulation assists in corrosion resistance in vulnerable copper-alloy components
- Up to 3% proven fuel economy improvement compared to conventional gear lubricants when used with Delo Syn-AMT XV SAE 75W-80 in transmissions



### Product highlights

- Long-drain capability of 400,000 km
- High performance synthetic technology
- Wide temperature range component protection
- Effective wear and corrosion resistance
- Proven 3% fuel economy when used with Delo Syn-AMT XV SAE 75W-80

#### Selected specification standards include:

API	Bosch
DAF	Dana Spicer
Iveco	Mack
MAN	Mercedes-Benz
Meritor	Renault Truck
SAE	Scania
Volvo	ZF

## Applications

- Delo Syn-Gear HD SAE 75W-90 is formulated for extended drain in heavy duty final drives (driven axles and differentials) in on- and off-road vehicles. It is suitable for use in severe operating conditions, and in extremely cold or hot environments. The exceptional EP performance allows Delo Syn-Gear HD SAE 75W-90 to be used in many applications where an SAE 140 oil would normally be required
- Low frictional losses in the lubricant film and minimal churning losses due to lower bulk oil viscosity lead to reduced operating temperatures when compared to conventional gear lubricants.
- In addition to its formal OEM approvals, field trial data has been amassed demonstrating its capability for extended drain in numerous other truck applications. Field trial vehicles include those manufactured by MAN, Mercedes, Scania and Volvo
- In the USA, this product has been successfully field tested for long drain intervals in class 8 on-highway trucks using axles made Meritor, DAF, Daimler, Dana, MAN and Scania.

The friction characteristics of Delo Syn-Gear HD SAE 75W-90 makes it generally unsuitable for use in synchronized manual transmissions and transaxles, and it should not be used in these applications unless a GL 5 fluid is specifically recommended

## Approvals, performance and recommendations

### Approvals

- |          |  |
|----------|--|
| • DAF    | Rear axle without hub reduction <sup>[1]</sup> |
| • DAF    | Rear axle with hub reduction <sup>[2]</sup>    |
| • MAN    | 342 Type M2 <sup>[3]</sup>                     |
| • SAE    | J2360 <sup>[4]</sup>                           |
| • Scania | STO 1:0 <sup>[5]</sup> *                       |
| • Volvo  | Transmission oil 97312 <sup>[6]</sup>          |

### Performance

- |           |                          |
|-----------|--------------------------|
| • API     | GL-5                     |
| • API     | MT-1                     |
| • Bosch   | TE-ML 08 <sup>[9]</sup>  |
| • Mack    | GO-J                     |
| • Meritor | O76-N Extended Drain     |
| • ZF      | TE-ML 07A <sup>[8]</sup> |

### Recommendations

- |                 |                                     |
|-----------------|-------------------------------------|
| • Dana Spicer   | SHAES 256 Revision A <sup>[7]</sup> |
| • Iveco         | Axles                               |
| • Mercedes-Benz | MB 235.8                            |
| • Renault Truck | Axles                               |
| • ZF            | TE-ML 05A                           |
| • ZF            | TE-ML 12B                           |
| • ZF            | TE-ML 17B                           |
| • ZF            | TE-ML 19C                           |
| • ZF            | TE-ML 21A                           |

\* Approval on this formulation obtained under previous name – Syn-Star GL SAE 75W-90.

<sup>[1]</sup> May be used with extended changing interval for vehicle/axle combinations where DAF allows this option.

<sup>[2]</sup> Including those circumstances where DAF mandates a synthetic oil according to SAE J2360 75W-90.

<sup>[3]</sup> MAN approval number: TUC 7880/08.

<sup>[4]</sup> Approval number: PRI GL 0871.

<sup>[5]</sup> Approved for use in gearboxes; also permitted in some lightly-loaded long-haul axle applications (trucks - operation types 0 and 1; busses - operation type 1). Other axle applications require higher viscosity fluids.

<sup>[6]</sup> Volvo approval number 020

<sup>[7]</sup> This version of the specification is now obsolete

<sup>[8]</sup> Products meeting the necessary requirements for this specification are approved without listing.

<sup>[9]</sup> List formerly administered by ZF. Products meeting the necessary performance requirements are approved for use, but there is no product listing.

Typical test data		
Test	Test methods	Results
<b>Shelf Life: 60 months from date of filling indicated on the product label.</b>		
Density, 15°C, kg/l	ASTM D1298	0.867
Flash Point COC, °C	ASTM D92	192
Pour Point, °C	ASTM D5950	-45
Viscosity, Kinematic, 100°C, mm <sup>2</sup> /s	ASTM D445	15.1
Viscosity, Kinematic, 40°C, mm <sup>2</sup> /s	ASTM D445	108
Viscosity, Brookfield, -40°C, mPa.s	ASTM D2983	137,500
Viscosity Index	ASTM D2270	146

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This supersedes all previous editions and information contained in them.

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