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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 17477-2012

**Automotive gear lubricant viscosity classification
(English Translation)**

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Foreword

This Standard was drafted as per the rules specified in GB/T 1.1-2009.

This Standard replaced GB/T 17477-1998 Axle and Manual Transmission Lubricant Viscosity Classification. Compared with GB/T 17477-1998, this Standard has the major changes as follows.

- The standard name was changed from "Axle and Manual Transmission Lubricant Viscosity Classification" to "Automotive Gear Lubricant Viscosity Classification"; keep consistent with the standard name of reference standard SAE J306-2005 Automotive Gear Lubricant Viscosity Classification.
- Add "NB/SH/T 0845 Determination of Viscosity Shear Stability of Transmission Lubricants Using the Tapered Roller Bearing Rig" (see Clause 2);
- Increase four viscosity grades of 80, 85, 110 and 190 (see Table 1 in Clause 4 of this Edition; Table 1 of Clause 4 of 1998 Edition);
- Add footnote c "after the test of NB/SH/T 0845 (20h), it shall also meet the limit requirements" (see Table 1 of Clause 4);
- Replace the connection symbol of the multi-level oil of "/" by "-" (see 3.2.2);
- Delete the Appendix A (prompt appendix) "Typical Gear Lubricant Low Temperature Viscosity (Brookfield Viscosity) - Temperature Chart" (see Appendix A of 1998 Edition).

This Standard was prepared on the reference of American Society of Automotive Engineer SAE J306. 2005 Automotive Gear Lubricant Viscosity Classification (English

Version); its technical contents are consistent with SAE J306. 2005.

This Standard was proposed by National Technical Committee for Standardization of Petroleum Products and Lubricants (SAC/TC 280).

This Standard shall be under the jurisdiction of Petroleum Fuels and Lubricants Subcommittee of National Technical Committee for Standardization of Petroleum Products and Lubricants (SAC/TC 280/SC 1).

Drafting organization of this Standard. Sinopec Research Institute of Petroleum Processing.

Drafting staff of this Standard. Xu Shuyan.

This Standard was first-time published in August 1998.

Automotive Gear

Lubricant Viscosity Classification

1 Scope

This Standard specifies the viscosity grade, code instruction, detailed classification of automotive gear lubricant.

This Standard is applicable to the viscosity classification and marking of automotive gear lubricant.

The viscosity grades in the Table 1 only specify the classification limits for automotive gear lubricants from the aspects of rheological properties, other lubricant characteristics are not considered.

2 Normative References

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) are applicable to this document.

GB/T 265 Petroleum Products - Determination of Kinematic Viscosity and Calculation of Dynamic Viscosity

GB/T 11145 Standard Test Method for Measurement of Low-Temperature

Viscosity of Lubricants - Brookfield Viscometer Method

NB/SH/T 0845 Determination of Viscosity Shear Stability of Transmission

Lubricants Using the Tapered Roller Bearing Rig

3.1 Viscosity grades

This Standard classifies the viscosity grades according to the lubricant viscosity at the high and low temperature.

3.2 Code instructions

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