



Standard Classification and Specification for Automotive Service Greases^{1,2}

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^{€1} NOTE—Editorial corrections were made throughout in April 2000.

INTRODUCTION

This specification describes current categories of lubricating greases for automotive service-fill applications. A specific designation is assigned to each category. The system is open ended, that is, new designations are assigned for use with new categories as each new set of grease performance characteristics is defined. Grease categories are referenced by automotive manufacturers in making lubrication recommendations and used by grease suppliers and users in identifying products for specific applications.

1. Scope

1.1 This specification covers lubricating greases suitable for the periodic relubrication of chassis systems and wheel bearings of passenger cars, trucks, and other vehicles.

1.2 This specification defines the requirements used to describe the properties and performance characteristics of chassis greases and wheel bearing greases for service-fill applications.

1.3 The test requirements (acceptance limits) given in this specification are, as the case may be, minimum or maximum acceptable values for valid duplicate test results. No additional corrections for test precision, such as described in Practice D 3244, are to be applied inasmuch as the precision of the test methods was taken into account in the determination of the requirements.

1.4 The values stated in SI units are to be regarded as the standard. The values given in inch-pound units are for information only.

2. Referenced Documents

2.1 ASTM Standards:

- D 217 Test Methods for Cone Penetration of Lubricating Grease³
- D 566 Test Method for Dropping Point of Lubricating Grease³
- D 1264 Test Method for Water Washout Characteristics of

Lubricating Greases³

- D 1742 Test Method for Oil Separation from Lubricating Grease During Storage³
- D 1743 Test Method for Corrosion Preventive Properties of Lubricating Greases³
- D 2265 Test Method for Dropping Point of Lubricating Grease over Wide Temperature Range³
- D 2266 Test Method for Wear Preventive Characteristics of Lubricating Grease (Four-Ball Method)³
- D 2596 Test Method for Measurement of Extreme-Pressure Properties of Lubricating Grease (Four-Ball Method)³
- D 3244 Practice for Utilization of Test Data to Determine Conformance with Specifications⁴
- D 3527 Test Method for Life Performance of Automotive Wheel Bearing Grease⁴
- D 4170 Test Method for Fretting Wear Protection by Lubricating Greases⁴
- D 4175 Terminology Relating to Petroleum, Petroleum Products, and Lubricants⁴
- D 4289 Test Method for Compatibility of Lubricating Grease with Elastomers⁴
- D 4290 Test Method for Determining the Leakage Tendencies of Automotive Wheel Bearing Grease Under Accelerated Conditions⁴
- D 4693 Test Method for Low-Temperature Torque of Grease-Lubricated Wheel Bearings⁵

2.2 SAE Standards:⁶

- AMS 3217A Standard Elastomer Stock-Test Slabs
- AMS 3217/2A Test Slabs, Acrylonitrile Butadiene (NBR-L)-Low Acrylonitrile, 65-75

¹ This classification and specification is under the jurisdiction of ASTM Committee D-2 on Petroleum Products and Lubricants and is the direct responsibility of Subcommittee D02.B0.04 on Automotive Greases. Current edition approved Sept. 10, 1995. Published November 1995.

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² This classification and specification was developed as a cooperative effort among the American Society for Testing and Materials, the National Lubricating Grease Institute (NLGI), and the Society of Automotive Engineers (SAE).

³ *Annual Book of ASTM Standards*, Vol 05.01.

⁴ *Annual Book of ASTM Standards*, Vol 05.02.

⁵ *Annual Book of ASTM Standards*, Vol 05.03.

⁶ Available from Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA 15096.