



Technical Service Bulletin

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Product Description: AMSOIL SG Series Synthetic EP Gear Oils

Subject: DIN 51517 Part 3 (CLP) Specification Update

OBJECTIVE:

Define changes to the DIN 51517 industrial gear oil standard, and provide the best-suited AMSOIL Synthetic Gear Lubes that meet it.

ISSUES:

DIN 51517 provides a specification for end users, original equipment builders, gear manufacturers and lubricant suppliers. It contains minimum performance guidelines for lubricants used with enclosed and open gearing installed in general industrial and power transmission applications. DIN 51517 was updated in 2004 to more closely align it with current International Organization for Standardization (ISO) standards.

DESCRIPTION:

DIN 51517 describes three types of industrial gear oils depending on application and severity: Part 1 (C), Part 2 (CL) and Part 3 (CLP).

Part 1 (C) gear oils are primarily recommended for constant circulation and immersion lubrication in applications requiring only modest lubrication (additive-free lube oil raffinate).

Part 2 (CL) gear oils are primarily recommended for constant circulation lubrication; they are formulated with age-resistant and anti-corrosion properties enhanced by rust and oxidation additives.

Part 3 (CLP) gear oils are primarily recommended for constant circulation and immersion lubrication, and are most commonly used in enclosed industrial gear boxes. In addition to anti-corrosion and counteroxidant properties, they have excellent anti-wear characteristics.

The DIN 51517 changes are restricted to Part 3 (CLP) gear oils:

1. The addition of the FE8 bearing test, which tests for re-

duced friction and wear and measures gear lube film thickness.

2. A change to the ASTM D2893B oxidation procedure. This severe oxidation test runs for 312 hours at 121°C (250°F), and is equivalent to the U.S. Steel 224 S-200 oxidation test.

3. The inclusion of specified limits for the elastomer compatibility test, which tests SRE-NBR 28 rubber seal compatibility.

RECOMMENDATIONS:

AMSOIL SG Series Synthetic EP Gear Lubes pass all three severe DIN 51517 Part 3 (CLP) tests with ease. AMSOIL recommends the proper ISO grade SG Series Oil for DIN 51517 Part 3 (CLP) specifications.

Submitted By: KD

Reviewed By: DP

Approved By: AA

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