

*Laboratory
Performance
Tests for*
**AUTOMOTIVE
GEAR
LUBRICANTS**
*Intended for
API GL-5 Service*



STP 512A



INTERNATIONAL
Standards Worldwide

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Corrections – STP 512A

Introductory Information

- | | |
|---------|---|
| Page 3 | Third paragraph – Change MIL-L-2105C to MIL-L-2105D |
| Page 4 | Table 2 – Change RGO 124 to RGO 125 |
| Page 5 | Table 3 – Title change MIL-L-2105C to MIL-L-2105D |
| Page 14 | 5.2.2 – U.S. Motors 1.1 should be KW... (delete words, should be) |
| Page 22 | Noted Items:

Item 2 – Change “Hub O.D.” to “Hub I.D.”

Item 3 - Change “Hub I.D.” to “Hub O.D.” |
| Page 29 | Asterisk at bottom of page refers to location 4, axle housing cover |
| Page 46 | Note 3 – Change ...controlled at $220 \pm 3^{\circ}\text{F}$

to ...controlled at $200 \pm 3^{\circ}\text{F}$ |
| Page 51 | 11.1.2 – Reference oils ...are designated RGO 103 and <u>RGO 105</u> |
| Page 68 | Note 3, 3.5.1. – Change (573m ³) to (5.7L) |
| Page 71 | 5.2.4 - ... speed to 400rpm change to ... speed to 385rpm |
| Page 71 | 5.2.9 – Add statement “recharge with test oil” |
| Page 79 | Figure 1 – Change 3/8” (1.0mm) to 3/8” (10mm) |
| Page 85 | 2.1 – Change 0.3 gallon/hour to 0.3 cubic feet/hour |
| Page 85 | 2.1 – Change “of oil...” to “of air...” |
| Page 86 | 3.1.5 – Change “gallon/hour” to “cubic feet per hour” |
| Page 89 | 5.7 – Sentence should read “Install the air-box thermocouple in the |

	air-box cover so that the tip is 3 inches..."
Page 89	6.2 – Change "0.3 gallon/hour" to "0.3 cubic feet/hour"
Page 92	First Line – Change "lubricant" to "lubricants"
Page 95	Heading – "Test Oil Viscosity..." change to "AST.1 D445" to "ASTM D445"
Page 95	Last Line – Change "Benzene Insolubles (uncoagulated) to "Toluene Insolubles (uncoagulated)"
Page 71	5.3.1 Line 2 ...200°F (93.3°C) [for low viscosity oils e.g., grades 75W, 75W-90, 175°F (79°C)] and with...
Page 71	Note 6, Line 2 ...(93.3°C); 175°F (79°C) for 75W type oils...
Page 72	5.3.6 Add second sentence "For low viscosity oils, e.g., grades 75W, 75W-90, use water spray on axle housing to control rate of temperature rise. Commence shock loading when oil temperature drops to 200°F (93°C) with a maximum rise of 5.5 to 8.3°C."
Page 75	Sequence IV The word "Alloy" should be "Allow"

**LABORATORY PERFORMANCE TESTS FOR
AUTOMOTIVE GEAR LUBRICANTS
INTENDED FOR API GL-5 SERVICE***

Sponsored by:
ASTM Committee D-2 on Petroleum Products and
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Section III on Gear Lubricants

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RELATED ASTM PUBLICATIONS

ASTM and other specifications for Petroleum Products and Lubricants, 4th Edition 1985.

FOREWARD

This report is made available for those interested in the performance of lubricating oils as a material of engineering. The procedures are part of the technical language used for describing the performance of automotive gear lubricants which will satisfy manual transmission and axle requirements of modern passenger cars and trucks.

The information contained herein has not been subjected to ASTM's full consensus balloting and review procedures, and the test methods described have no official status as ASTM Standards. The technical review of these test procedures was accomplished through simultaneous balloting by ASTM Section D02.B03 on Gear Lubricants and Subcommittee D02.B on Automotive Lubricants.

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