

DDC13 Scuffing Task Force
May 7th 2013
Lubrizol – Wickliffe, OH
Meeting Minutes

Attendance-See attached sign in sheet; Scott Richards via phone

Agenda

Introduction

Video from Bob Shureb outlining need for DDC Scuffing test.

Talking Points

PC11 Objectives

- Fuel Economy
- Equal Engine Protection
- Durability
- Reliability

Concerns

- Need to demonstrate no increase in warranty claims
- Increased oil temperature → lower oil viscosity

PC11 Success

- No impact on mean time to overhaul
- no increase on warranty costs
- demonstrated improvement in boundary and mixed film lubrication

Presentation - Jim Matasic

Presentation is available on the TMC website at this link: [5-7-13 DD13 Scuffing Update.pdf](#)

Q: Control on torque instead of throttle?

- Considering it, wait to see build variation.

Review of hot soak. Implemented because suspect that hot soaks may play a role in scuffing events. Also to make procedure more consistent.

Q: Oil add?

- External oil sump (oil charge 34.4 kg) setup on fitting on bottom of pan
- last 3 tests 35 g/hr oil consumption

No break in being done. Will be implemented in the future.

Uncoated rings used to simulate aged engine.

Test #3 was first using cylinder liner with carbon scraper

Test #4 issue with coolant temperature control circuit. Coolant and oil temp lower than previous tests. Oil temp averaged 20C lower across the test. Need to tighten control of coolant and oil temperatures

Discussion about copper spike in test #3. Suspect that copper comes from oil cooler.

Additional Analysis

No cavitation seen on outside of cylinder liners

Next Steps

Intertek installing engine built up by Lubrizol

Closing Comments and Questions

Attempt was made to secure 2.9 HTHS oil that had issues in the field. Oil supplier is not willing to supply oil and Daimler not willing to push the issue.

Daimler working with TEI to setup parts distribution.

There was a general discussion about the number of uncoated top rings to purchase. As this is the only non production part it was generally agreed upon that the more rings that could be purchased up front the better for the test going forward.

-Action item was taken by Lubrizol, Daimler and TEI to work out an acceptable number of top rings to purchase

Meeting was adjourned

Detroit DD13 Task Force Attendance

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