

# **Turbo-Coking and close crankcase task-force**

**February 18 th 2003**



# Brain Storming Ideas

- ◆ **OM 441LA and MTU deposit test**
- ◆ **Caterpillar C-12 with closed crankcase**
- ◆ **Caterpillar C-12: measure blow-by**
- ◆ **Caterpillar C-12: direct blow-by to a deposit surface**
- ◆ **Caterpillar C-12 filter system**
- ◆ **Caterpillar C-12 measures oil consumption**
- ◆ **Oil consumption effective by Noack**
- ◆ **DC TEOST test at 33 degrees C with oil mist and aluminum parts**

# Box-In with Chemical limits

- ◆ **13% Noack**
- ◆ **Possible chemical limits on Ash; P and S**
- ◆ **Limits oil formulating effects**
- ◆ **Focus is on deposits and oil consumption**



# Need OEM inputs

- ◆ **Caterpillar opinion on filter use or open crankcase for test.**
- ◆ **Cummins, Mack and Navistar's approach to the problem**
- ◆ **Literature search on the problem**
- ◆ **Cummin's Turbo charger group opinions**



# Action Items

- ◆ **Need to search data base on OM 441LA on good and poor performing oils in regard turbo-charger deposits.**
- ◆ **Need to correlate any bench test to engine test.**

