

**Turbo-Coking and close crankcase  
task-force report to HDEOCP on  
February 19<sup>th</sup> 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's opinion on filter use or open crankcase for test.
- ◆ Caterpillar's opinion on test with closed crankcase
- ◆ 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.**

