

Paper Number: ICR0192

Title of Paper: Vehicle A/C System Compressor Slugging Noise Reduction

Presenter: Y.H Zheng, J. Yarrish, Visteon Climate Systems
Engineering, USA

Session: B2-1

Person Contributing Discussion or Question: Perevozchikov, M., Copeland Corp., 1675 West Campbell Rd., P.O. Box 669, Sidney, OH 45365

Comment or Question: (1) What did happen with compressor efficiency, when charge amount was reduced? (2) What was the oil circulation for baseline and for reduced charge?

Presenter's Reply: 1) Isentropic efficiency will be slightly impacted, but within "3% range. 2) The baseline oil in circulation is around 4.8% at worst running conditions. 4.2% in 4207 R134a charge that is the lowest charge in this experiment.

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Person Contributing Discussion or Question: Prasad Manohar, Prof. Mech. Egg., IIT, Kanpur, India

Comment or Question: (1) How did you come to figure 5.6EC temperature difference? (2) Whether you maintained this temperature difference by external means?

Presenter's Reply: (1) The temperature differential 5.6EC is the typical situation when the vehicle AC starts to have slugging. That's why we chose this number. 2) The temperature differential can be held just very few moment. So need to catch the test right away.

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Person Contributing Discussion or Question: Amr Gado, CEEE, Univ. of Md,
2181 Glenn Martin Hall, College Park, MD 20742

Comment or Question: How was the oil charge chosen for every refrigerant
charge?

Presenter's Reply: Based on the compressor oil in circulation requirement, the
oil charge amount is decided.