

# The Changing World of Automotive Cooling and Lubrication

This class will surprise and shock even the most experienced technicians and shop owners. If you don't believe me, take a short quiz to test your knowledge and see if you really know what you think you know.

email "crash@prodigy.net" or Call 209-873-1155 for the quiz

Instructor: **Kevin S. McCartney**

*Author of "Vehicle Lubrication Basics: Are You Helping OEM Dealerships Take Your Business" and Winner of the NARSA Excellence in Education Award, numerous Ford Certified Training Program awards and featured speaker at SAE, ASA, AASP, TST, CAT and other automotive education events across the country*

Presented by: **smithauto**

**Wednesday April 9, 2008**

## You'll learn about shocking changes in cooling & lubrication technology:

- New OEM warranty requirements prohibit the use of the oil you've been using.
- API and ILSAC approval fails to meet warranty requirements.
- Engine damage still occurs with 3,000 mile oil changes if you don't use approved oil.
- The realities of modern engine design and oil requirements.
- Flat Tappet camshafts now require special oil service ratings.
- The new generation of high velocity, balanced flow and reverse flow cooling systems.
- New cooling system issues in direct injection stratified charge engines
- Aluminum Oxide cooling system issues

## You'll learn about the cooling & lubrication service requirements of modern engines:

- The 8 basic ACEA oil service ratings.
- The 9 different currently required GM, Ford, Honda oil service ratings.
- The current (2005-present) API SX, CX and ILSAC oil service ratings that fail to meet OEM approval.
- The 14 different OEM required oil service ratings for common European cars.
- Cars that require silicates for proper water pump cavitation protection.
- OEMs that prohibit the use of silicates for proper water pump seal life.
- OEMs that prohibit the use of phosphates for proper corrosion prevention.
- The 9 different basic OEM HOAT, OAT and IAT coolant formulas.
- The 3 types of coolant that cover the field.
- Flushing techniques for repeat failure prevention.
- The three electrolysis tests that work and the reasons your coolant voltage test doesn't work.
- The real causes and preventions of repeat cooling system failures.

The trainer (Kevin McCartney) has worked in the automotive industry since 1974 as a Technician, Supervisor, Manager, Engineer, Trainer, Technical Writer and Editor. He has pioneered real world diagnostic techniques for OEM and independent technicians. Kevin frequently includes bonus information before the regular class starts, about special interest service topics. **SO GET TO CLASS EARLY!**

**Date & Time: Wednesday, April 9th 6pm-10pm - Dinner @ 5:30pm**

**Location: smithauto Training Room**

2545 N Blackstone Avenue – Fresno, CA (North of Clinton & Blackstone)

**Cost: \$49.00 per attendee**