

TECH TIPS

REAL-LIFE SOLUTIONS YOU WON'T FIND IN A FACTORY MANUAL



Nitrogen Vs. Shop Air

Dear Motor Age,

I read the recent article titled "Cure your EVAP Headache," written by Vince Mow (June 2005, page 34). It provided great information for our shops.

I did have one question. We are being told that the EVAP systems should be tested using nitrogen so not to introduce air to the fuel system. I do not recall reading anything on this topic in your article and was curious as to what your research has determined whether or not to use shop air vs. nitrogen.

Any comments would be greatly appreciated.

Thank you,
William Lee, via e-mail

Dear Mr. Lee,

I wrote a companion piece to that article and it appeared in the June/July issue of the Hot Auto Products supplement. Here is what I had to say about using nitrogen:

"Another essential consideration is to make sure your equipment is capable of using an inert gas such as nitrogen because of the known hazards involved with gasoline vapor leaking into an oxygen-rich environment. One area of special concern involves diagnosis of vent or purge valve malfunctions. Because it is common to apply 12 volts externally to the solenoid valves during diagnosis of OBDII system faults, imagine what happens if you have an explosive mixture coming out of the valve while your test leads are sparking.

But even when using an inert gas in your smoke machine, there is no substitute for a careful review of your equipment manufacturer's instructions and precautions, not to mention common sense when it comes to thinking about flammability hazards."

Vince Mow, Contributing Editor

Dear Mr. Lee,

Nitrogen is used for leak testing an EVAP system because it does not present or support a fire hazard. An extremely precise pressure regulator is needed because you're pressurizing the system to only a few inches of water. Because the only place the EVAP and fuel systems meet is the gas tank, it's nearly impossible to introduce nitrogen, air or any other gas into the fuel system at such low pressure.

Testing with nitrogen and a flowmeter will tell you if there is a leak. Testing with smoke will show you where the leak is located.

Jacques Gordon, Technical Editor

IT'S YOUR TURN



Motor Age will publish its annual Tech Tips issue in November

2005, but you're running out of time. Deadline for submissions is July 31, 2005.

We want to fill the pages of *Motor Age* with YOUR experience... your best fix ... brightest ideas ...

or hard-won victory with a particularly unusual service problem. Readers will vote for their favorite tip in each category. The most popular entries in each category will walk away with some neat stuff: tools, books and other great prizes. Now's your chance. don't let it slip by.

E-MAIL YOUR ENTRY TO:
motorage@advanstar.com

ENTRIES MAY BE MAILED ON DISK (FLOPPY, ZIP OR CD) TO:

Motor Age Top 100 Tech Tips
100 W. Monroe St., Ste. 1100
Chicago, IL 60603

SUBMISSIONS CAN BE MADE ONLINE:
Visit the *Motor Age Online* Web site @
www.motorage.com.

1. The competition is open to automotive service professionals, such as technicians, shop owners, service writers, apprentices, etc. *Motor Age* employees, as well as our advertisers and their employees, are not eligible.
2. Entry deadline is **July 31, 2005**.
3. Your entry must include your name, title, place of employment, address and phone number in case we need to contact you. *Motor Age* reserves the right to exclude any entry that does not provide this information.
4. Your entry should be no longer than 250 words in length. Keep it as short as possible.
5. Entries can be submitted under the following categories: Brakes, Engine/Mechanical, Transmission, Suspension/Steering, HVAC, Electrical, Diagnostics, Tools, Fuel and Emissions, Shop Management, or General. Tips can be model-specific, but you must include the category at the beginning of each tip submitted.
6. Entries can include a photo, but it must be submitted as a high-resolution (minimum 300 dpi @ 4 inches wide) .jpg, .eps, or .tif digital file. We cannot accept photos embedded in Word documents; they must be sent as separate files.
7. There is no limit to the number of tips you may enter; however, *Motor Age* reserves the right to limit the number of entries per person in a single category.
8. All submissions are subject to publication and may be edited for grammar and space.