Author & Automotive Expert James D. Halderman



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January 2018

Halderman newsletter

What's new with Jim?

I am pleased to announce that Jimmy Dinsmore and I have completed the manuscript for the Gale Halderman book, "Mustang by Design", which tells the inside story of the birth of the first Mustang. It has been a busy year and we both learned a lot not only about the



original Mustang itself but also about the people involved. Both of us spent many hours at the Halderman barn museum interviewing my cousin Gale and others who were involved including the legendary Hal Sperlich. We also traveled to the Henry Ford Museum to see and take photos of Gale with the first Mustang built. We also visited the Mecum Auction in Indianapolis where Gale had a table set up to sign autographs to those attending for the auctioning of the second Mustang built, VIN #0002. "Mustang by Design" will be out around August 1, 2018.

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Where's Jim?

I will be attending the following events in January.

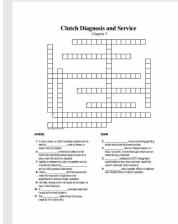
January 5-6- KOI Expo in Cincinnati, Ohio

January 14-16- Detroit Auto Show-Press preview days

Keep up with me at: www.jameshalderman.com Email Jim Facebook

Puzzle of the month

Find this month's puzzle of the month at this <u>link</u> and test your students knowledge on transmissions.



Auto Trivia

What year is the Mustang shown?



- a. 1964 ½
- b. 1965
- c. 1966
- d. 1967

Answer at the bottom of this page!

FAQ

What is a "Pre-Filled" Hydraulic Clutch System?

Hydraulic clutch systems can be difficult to bleed the air out of system. Some systems are available as a complete assembly including:

- * Clutch master cylinder
- * Slave cylinder
- * Line between the master and slave cylinder
- * Pre-filled with fluid and bled

Using a pre-filled hydraulic clutch system makes replacement easier.

Sample ASE certification-type question

Question:

A pickup truck equipped with a diesel engine has been towed to the shop. The engine speed increases when the driver depresses the accelerator pedal and releases the clutch pedal, but the vehicle does not move. Technician A says the clutch may be defective. Technician B says the dual-mass flywheel may be defective. Which technician is correct?

- a. A only
- b. B only
- c. Both Technicians A and B
- d. Neither A nor B

Answer/Explanation

The correct answer is C. Both technicians are correct. Technician A is correct because a defective or excessively worn clutch can cause the engine to increase in speed and not power the vehicle when the clutch is engaged (pedal up). Technician B is correct because a dual-mass flywheel consists of a primary section attached to the engine and the secondary section, which is attached to the clutch separated by springs and dampers. If these dampening devices fail, torque is not transferred from the engine to the clutch. Answers a, b, and d are not correct because both technicians are correct.

Tech Tip

Test drive tips

When test driving a vehicle trying to pinpoint the location of a noise, perform the following:

- 1. Drive next to park cars- This causes any noise to be reflected off the other vehicle and is more likely to be heard.
- 2. Drive over bumps in the road- This will cause the suspension to move up and down and also places stresses on the body and frame that might create a noise not heard in normal driving on smooth roads.
- 3. Drive into and out of driveways- This causes the suspension and steering to be stressed as well as weight transfer that could create noises that are not normally heard.
- 4. Drive in reverse- This action causes the forces to be reversed from normal driving and may cause noise that may not be heard during a normal test drive.

Straight Talk

From the December 30, Wheels section of Dayton Daily News

New SAE OW-16 perplexes some

Wheels:

Sue writes by email:

"I have a new Camry and no one seems to carry the oil required for my engine. The owner's manual specifies SAE 0W-16 and no shop has heard of this viscosity and they want to use SAE 0W-20 instead. My questions are where can this oil be purchased and would it be okay to use SAE 0W-20 instead of SAE 0W-016?"

Halderman:

The lower viscosity oil (SAE 0W-16) is new this year although it has been used in Japan for several years. I was able to purchase it, but I had to visit a Toyota dealer and it cost over \$7.00 a quart. Check the owner's manual where I think



you will find that you can use a commonly available SAE 0W-20 if SAE 0W-16 is not available, but it will likely recommend that the thinner oil be used at the next service interval. There is a trend in the automotive field toward lower viscosity oil to help improve fuel economy and reduce exhaust emissions. Look for SAE 0W-12 and SAE 0W-8 in the future.

Have an automotive question? Please write to Jim with your questions at jim@jameshalderman.com

Trivia question answer: C.

Please let me know what you think of the newsletter. I would love to include any of your automotive news, trivia questions or any tech tips you might have. Send me your suggestions! You can email me here or visit my website. You can connect with me on Facebook, Twitter and LinkedIn too (links above). Regards,

Jim Halderman

James D. Halderman writes automotive technology textbooks for <u>Pearson Education</u>. He is an ASE-certified Master Technician with more than 20 years instructional experience.

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