Like

Author & Automotive Expert James D. Halderman

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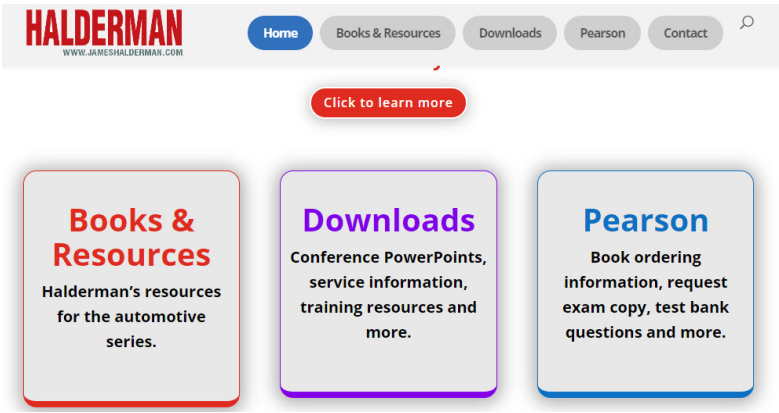
Halderman newsletter **September 2019**

What's new with Jim?



It's almost Labor Day and the unofficial end of summer and the beginning of the school year. To help automotive instructors this year, my website has been totally updated to make finding what you need quickly and easily. It is now designed to be easily access using any device including:

- Desktop computers
- Laptop computers
- Tablets
- Smartphones

The site rearranges itself to match the size of the screen. Try it yourself. Visit www.jameshalderman.com using a desktop or laptop. Once the home page is on the screen, widen the home page to show everything side-by-side. Then, narrow the homepage and watch the display change from being side-by-side to one over the other as the site rearranges itself to match the size of the display screen.
Visit the site often and show students what resources are included (FREE) on the site including:

- Animations-over 700 full color animations are all sorted by chapter content tomake it easy to find)
- Videos- Over 2,200 videos are all sorted by chapter.
- Task sheets- ASE-correlated task sheets are all sorted by chapter.
- Power Points
- Puzzles- both crossword and word search puzzles that use the key terms in each chapter are included.

Enjoy!

IN THIS ISSUE

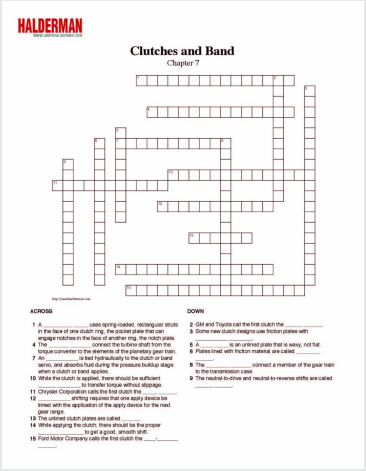
Where's Jim?

September 27-28, 2019- Attending the ASTE event in Cary, NC.

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 link and test your students knowledge on clutches and bands.



Downloads

Conference PowerPoints
Presentations Jim has given at conferences throughout the country.

Favorite Resources
Resources gathered together and grouped by ASE area.

Service Information
Forms, charts and diagrams all gathered in one place for easy locating and use.

Training Resources
A collection of useful training materials and websites.

Auto Trivia

The emblem shown was used on the _____
a. Hummer
b. Hupmobile
c. Hudson
d. Holden

Answer at the bottom of this page!

FAQ

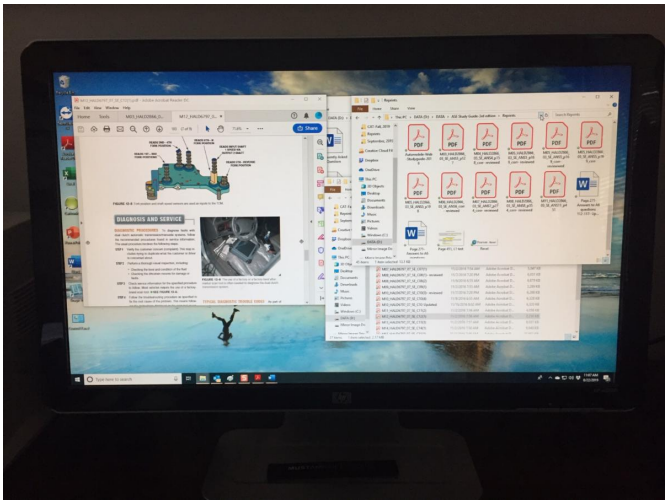
Why Is the TCM Using the Position of the Steering Wheel?

The steering wheel position (SWP) sensor information is sent to the transmission control module (TCM) over the network to prevent the transmission from upshifting when cornering. This helps the driver by allowing the vehicle to be accelerated when exiting a corner. If the steering wheel position was not part of the shift program, the transmission might likely upshift to a higher gear as the vehicle slows then the transmission may have to downshift again when the vehicle exits the corner.

Behind the Scenes

Behind the scenes of textbook writing is, of course, a good computer and a large monitor. Using a large monitor allows me to split the screen and work on two or more images or text files at the same time. This is especially helpful when reviewing page proofs where I can place the low-res PDF on one

side of the screen and the original Word document on the other side, I can compare them as I review the page proof.



Sample ASE certification-type question

Question:
A transmission fluid temperature (TFT) sensor wire was broken during an accident. Which is the most likely result?
a. The transmission/transaxle will start in second gear and shift normally after that
b. The overdrive and the torque converter clutch may be inoperative
c. No symptoms or change in shifting will be noticed
d. The transmission/transaxle will not engage in drive or reverse

Answer/Explanation
The correct answer is b. An open transmission fluid temperature (TFT) sensor wire would be interpreted by the computer as very cold fluid temperature. The computer often delays the operation of overdrive and the torque converter clutch until the transmission fluid reaches a certain pre-determined value in an attempt to get the fluid up to normal operating temperature as soon as possible. Answer a is not correct because the fluid temperature sensor fault is not major enough to cause the computer to command a default gear selection, such as second gear only. Answer c is not correct because even though no symptoms may be noticed by the average driver, the computer will usually attempt to raise the very low fluid temperature by delaying the application of the torque converter clutch and overdrive in many cases. Answer d is not correct because the transmission systems are still intact enough to allow almost normal operation of the automatic transmission.

Tech Tip

Air Testing Tip

Some technicians use an air gun that is modified with a piece of rubber tubing for hard-to-reach locations. An eraser with a hole drilled through the center can be used to seal passages. This makes air testing at the valve body easy.

Straight Talk

From the August 31 Wheels section of Dayton Daily News

Reader Asks About Tires

Jim of Dayton asks:
I had my 2010 Chevrolet truck in a shop for service (oil change and air and cabin filter). When I picked it up, the shop manager showed me a check list showing that everything looked good except that my rear tires were at 4/32 inch of tread depth and the front tires had 6/32. He said that I should consider purchasing new tires soon. He said that while they are within acceptable tread depth, they are also almost ten years old and most vehicle manufacturers recommend replacing tires that old regardless of tread depth. Is this true?
Halderman: Yes. In fact, many automotive experts recommend replacing tires when they are six years old, regardless of tread depth and Consumer Report magazine states that they recommend tires not be used after ten years. Your shop was doing the right thing by bringing this to your attention. The legal limit for tire tread depth is 2/32 inch. All tread depth is measured in 32nds of an inch and includes the following:

- New tires- 9/32 to 11/32 inch, depending on the tire. High-performance tires usually come new with 9/32 inch of tread depth whereas luxury car tires often have as much as 11/32 inch of thread depth.

- 4/32 inch- the depth where many experts recommend that the tire be replaced. Use a quarter coin and if you can see the top of Washington's head, it is less than 4/32 inch. If at or less than this depth, new tires are recommended.
- 2/32 inch- the legal limit for the tread depth. Use a penny coin and if you can see the top of Lincoln's head, it is less than 2/32 inch. If at or less than this depth, new tires are required.

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

Trivia question answer: B.

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 Pearson Education. He is an ASE-certified Master Technician with more than 20 years instructional experience.