Author & Automotive Expert James D. Halderman

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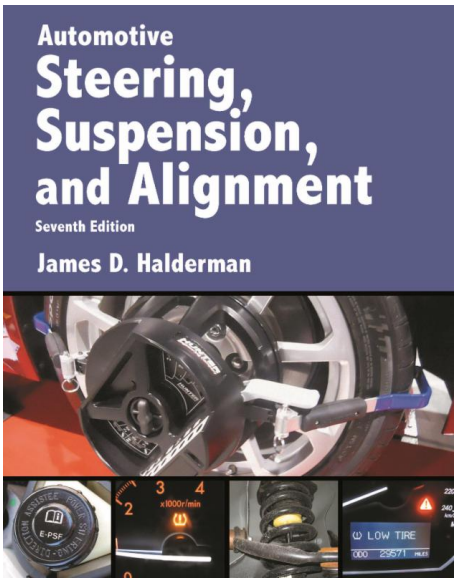
Halderman newsletter **April 2016**

What's new with Jim?



I am happy to announce that the latest edition (7th) of Automotive Steering, Suspension and Alignment (ISBN 0-13-407365-7) is now available to order for summer or fall classes. Here is what is new in the updated edition:

- The content has been updated throughout to reflect the changes in the industry and to meet the latest NATEF/ ASE standards.
- Many new full-color photos and line drawings have been added to this edition.
- New Case Study elements which include the "three Cs" (Complaint, Cause, and Correction) have been added to many chapters.
- New content on tire selection, chrome clad wheels, and using a pin plate to balance wheels has been added in Chapter 3.
- Additional content on snap-in and clamp-on TPMS sensors plus updated relearn procedures has been added in Chapter 4.
- Additional content on various wheel weight materials plus wheel flange information has been added to the totally updated Chapter 5.
- New information on "Hi Per strut" has been included in Chapter 7.
- The chapter on power steering has been split into two separate chapters-"Hydraulic Power Steering Systems" (Chapter 13) and "Electric Power Steering Systems" (Chapter 14)-making teaching and learning these topics easier.
- Discussion related to resetting the steering angle sensor after an alignment has been added to Chapter 18.

To request an exam copy, visit my website

IN THIS ISSUE

Find Jim online

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WHERE'S JIM?
Shows Jim will be attending this month.

April 7-10- Auto Tech Expo in Northern Kentucky (attending)
April 30- California Automotive Teachers (CAT)- Modesto, California (Presenting "Teaching Tires and Wheels") with special guest Brad Halderman (my son) who is a tire engineer

www.jameshalderman.com and click on the "request exam copy" under the "Pearson" pull-down menu.

Please continue to follow me on LinkedIn, Facebook and Twitter for up-to-the-minute updates and for the fantastic interaction I receive from many of you.

Sincerely,
Jim

Auto Trivia

Looking at the VIN, what model year (MY) is this vehicle?
a. 2010
b. 2012
c. 2013
d. 2015

Here is the chart that shows what the model year is as shown by the tenth character of the VIN.
A = 1980/2010
B = 1981/2011
C = 1982/2012
D = 1983/2013
E = 1984/2014
F = 1985/2015
G = 1986/2016
H = 1987/2017
J = 1988/2018
K = 1989/2019

L = 1990/2020
M = 1991/2021
N = 1992/2022
P = 1993/2023
R = 1994/2024
S = 1995/2025
T = 1996/2026
V = 1997/2027
W = 1998/2028
X = 1999/2029
Y = 2000/2030
1 = 2001/2031
2 = 2002/2032
3 = 2003/2033
4 = 2004/2034
5 = 2005/2035
6 = 2006/2036
7 = 2007/2037
8 = 2008/2038
9 = 2009/2039
The pattern repeats every 30 years.

Answer at the bottom of this page!

Sample ASE question

Question:
The airflow from the vents slows down after the vehicle has been driven for a while. Which is the most likely cause?

a. Low on refrigerant
b. Lack of airflow through the condenser
c. Defective compressor
d. Icing of the evaporator

Answer:
The correct answer is d. An icing evaporator is the most likely cause to reduce the airflow and the heat load, which causes both low- and high-side pressures to be lower than normal. A fault in the temperature control is the most likely cause for the icing of the evaporator. Answer a is not correct because even though a low refrigerant level could cause both pressure gauges to read lower than normal, it would not cause the airflow to decrease after operating for a while. Answer b is not correct because even though a lack of airflow through the condenser would cause a lack of proper cooling, this condition would create an increase, rather than a decrease in the high-pressure side and could not cause a decrease in airflow through the vents inside the vehicle. Answer c is not correct because even though a defective compressor could cause lower than normal pressure gauge readings, it could not cause a reduction in airflow through the vents.

Tech Tip

Quick and easy belt noise test

With the engine running at idle speed, use a spray bottle and squirt some water on the belt and listen for a noise change.

- If the noise increases, there is a belt tension problem.
- If the noise decreases but then returns, there is a belt alignment problem

Straight Talk

From the March 26, Wheels section of Dayton Daily News

Reader asks about vehicle's cabin filter

Wheels: Gary of West Carrollton writes by e-mail, "I purchased an in the cabin air filter for my 2004 Avalanche yesterday. After I took the cover off that goes over the fan and etc. under the dash on the passenger side. Next I got a flashlight and started looking for the clip which must be released to open a long plastic door so the old filter can be taken out and the new one installed. The only problem is I see no screws or a clip to release the door. As best I can tell, I do not have a door to open and may not have an inside the cabin air filter? I guess I am confused since the parts book at the auto parts store shows I have such an air filter."

Halderman: This is a great question because I found many places where the filter is sold, including part numbers and prices on the Internet. I checked service information and did not find any mention of where it is located. However, I did discover a technical service bulletin (TSB) that mentioned that starting in 2003, due to the design of the instrument panel, a cabin air filter is no longer an option. The term used by General Motors Corp. for this filter is "passenger compartment air filter." Therefore, even though you purchased a cabin air filter listed for your truck, it cannot be used because your vehicle does not have a filter for the cabin air.

Wheels: If a vehicle is equipped with a cabin air filter, how often should it be replaced?

Halderman: When the cabin air filter is replaced depends on how dusty or dirty the driving conditions. If the vehicle is being driven on dirt roads, replacing the filter every year may be wise. For normal driving conditions, most vehicle manufacturers recommend replacing the filter every two or three years. For best results, use the style that was used in the vehicle when new. For example, many vehicle manufacturers use a filter that has activated charcoal on the filter to trap odors and fumes. Some less expensive replacement filters do not have this feature. The filter that has charcoal cost more and goes for $30 to $50.

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

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.