

Author & Automotive Expert James D. Halderman



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What's new with Jim?



Spring is in the air and the final push is on for Curt Ward and me to get the "Light Vehicle Diesel Engine" manuscript done and to the publisher, Pearson Education. Curt and I first started to discuss this project in June, 2013 so it has been a long process. Along the way the following has occurred:



1. Curt has flown to Dayton where we met at my shop for a few days to discuss the breadth and depth of the project.
2. We met with Tony Webster, the portfolio manager for the automotive series at Pearson to discuss the manuscript.
3. We submitted several chapters to be sent out to be peer reviewed in the summer of 2015.
4. The suggested changes were made and work continued with a contract awarded in August, 2016.
5. Curt and I have worked independently and together taking thousands of diesel photos for this project.

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Puzzle of the month

Find this month's puzzle of the month at this [link](#) and test your students knowledge on brakes (A5).

HALDERMAN Disc Brakes
Chapter 12

ACROSS

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Helpful links

Click this [link](#) to find helpful service information links on things like:

- Technical service bulletins (all vehicles)
- Wiring diagrams (all vehicles)
- Oil light reset procedures
- TPMS relearn procedures
- Lug nut torque specs
- Wiring Diagrams

6. The project is due this summer and then it takes 6-8 months in the production process (drawings rendered, copy-editing, page layout, etc.)

We are very pleased with the way everything is coming together and look forward seeing it finally in print in early 2018.

Auto Trivia

General Motors produced their first Saturn Corporation vehicle in which year?

- a. 1988
- b. 1990
- c. 1993
- d. 1997

Answer at the bottom of this page!

FAQ

When was ABS first used?

Antilock brake systems were first used in the 1950s on aircraft, and then first used on a 1970 Lincoln Continental using a rear-wheel braking system called "Sure Track" as an option. Also in 1970, General Motors Corporation offered a rear-wheel antilock brake system on selected rear-wheel-drive vehicles, which was called "Track Master" made by AC Electronics Division of GM. In 1971, Chrysler Imperial offered a three-channel system that used four wheel speed sensors built by Bendix Corporation, called "Sure Brake" by Chrysler.

Sample ASE certification-type question

Question:

Most brake experts and vehicle manufacturers recommend replacing brake lining when the lining thickness is worn to _____.

- a. 0.030 in. (0.8 mm)
- b. 0.040 in. (1.0 mm)
- c. 0.050 in. (1.3 mm)
- d. 0.060 in. (1.5 mm)

Answer/explanation

The correct answer is a. Most vehicle manufacturers specify that brake lining be replaced when the lining thickness has been worn to thirty thousandths of an inch (0.030 in.) (3/32 in.) or less. Answers b, c, and d are not correct because even though some vehicle manufacturers recommend that the brakes be replaced when the lining thickness is less than the amount in the answer, most manufacturers' state 0.030 in. as the minimum allowable lining thickness.

Tech Tip

Using "Loaded Calipers" Saves Times

Many technicians find that disassembly, cleaning, and rebuilding calipers can take a lot of time. Often the bleeder valve breaks off or the caliper piston is too corroded to reuse. This means that the technician has to get a replacement piston, caliper overhaul kit (piston seal and boot), plus the replacement friction pads and hardware kit.

To save time (and sometimes money), many technicians are simply replacing the old used calipers with "loaded calipers." Loaded calipers are remanufactured calipers that include (come loaded with) the correct replacement friction pads and all the necessary hardware. Therefore, only one part number is needed for each side of the vehicle for a complete disc brake overhaul.

Reader asks advice about purchasing a vehicle

Wheels: David B asks by email:

"I am a company service representative and travel a lot (about 40,000-50,000 miles a year). I do not want to purchase a new vehicle because it would soon be out of warranty, and in my opinion, a waste of money. However, I am not comfortable trying to find a good used car because I do not know what to look for when inspecting a used vehicle. Any advice would be welcome. Thanks".

Halderman: I think the best plan of action is to purchase a used vehicle that has been returned after three-year lease and is "certified" by the dealer and the factory. Being a certified used car, it has to meet stringent requirements and be free from any mechanical, body, or interior faults and be accident free (have a clean "Car Fax").

Did you know that everyone drives a used vehicle? As soon as a new vehicle is driven out of the dealership, it is used and its value drops. Used vehicles including cars, trucks, and SUVs are less expensive to purchase, and if three years old, can often be purchased for half of what it cost when new.

Things to consider when purchasing a used vehicle include:

- A used vehicle often is sold as a certified used vehicle, especially those returned after a lease, and offered with a warranty that is often longer than the original factory warranty.
- Many high cost options are included at a fraction of their original cost and often at no additional cost at all. Therefore, if a potential vehicle buyer wants some or many of the high cost options, such as heated and cooled seats, navigation or radar cruise, backup camera, purchasing a used vehicle can be a wise decision.
- The selection is almost as good as, and often better, than purchasing a new vehicle. While this does not seem right, Automotive News stated that 95% of new vehicle purchases are made from the selection on the dealer's lot. While purchasing used does not allow the buyer to select the exact vehicles and color wanted, often the selection is very good.

Most people cannot tell what year a vehicle is so if it is clean and well maintained, no one will know that it was purchased used. For those of us that like to keep as much of our hard-earned money as possible, purchasing a used vehicle is truly the wise choice.

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.



