# Author & Automotive Expert James D. Halderman





# Halderman newsletter

# What's new with Jim?

During these trying times, my team has reached out to help automotive instructors to offer their student's online assignments and technical information. I am offering the following resources:

- A full year now for just \$79 (\$119 a year starting September 1, 2020 a \$149 value). Follow the link on site if paying with a credit card. If you want to use a purchase order and need a quote or a W9 form, please email Glen at glen@jameshalderman.com.
- For three (3) or more instructors from the same school, we offer a 20% discount.

The resources on the website include all sorted by content area such as disc brakes, making it easy to use and download to the learning Management System (LMS):

- Power Points
- Task sheets
- Puzzles (using the key terms)
- Animations (Over 700 in movie mode making it easy to download and view
- Videos-over 2.200 all sorted by content area (chapter)
- Online assignments, five per chapter (680 total) for the big book's 136 chapters. In PDF format so they can be filled out electronically and emailed back to the instructor.

# **Coming soon:**

- Quizzes ready to go- Each chapter will have four (4) quizzes including two multiple choice questions, one short answer quiz and one matching type quiz with answer keys.
- Super Power Points- Starting with the big book (Automotive Technology-6th), the Power Points will include the animations (over 700) and videos (over 2,200) making these presentations a total learning experience for the students.

### Quizzes

There are three different types of quizzes. Multiple Choice, Short Answer and Matching. All quizzes are in PDF format and may be downloaded below.

Multiple Choice A - with answer key

Multiple Choice B - with answer key

Short Answer

Matching

# IN THIS ISSUE

Auto Trivia

Sample ASE

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# Where's Jim?

Due to the Coronavirus, all events have been canceled and I have no travel plans for the summer.

July 2020

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 tires and wheels.







This is the front view of what Mustang?

- a. 2006 Mustang GT Shelby- Hertz
- b. 2007 Mustang GT California special
- c. 2012 Mustang GT Bullitt
- d. None of the above

### Answer at the bottom of this page!

# FAQ

# What Does GVW Mean?

GVW, gross vehicle weight, is the weight of the vehicle plus the weight of all passengers the vehicle is designed to carry (× 150 lb. each), plus the maximum allowable payload or luggage load. Curb weight is the weight of a vehicle when wet, meaning with a full tank of fuel and all fluids filled, but without passengers or cargo (luggage). Model weight is the weight of a vehicle wet and with passengers. The GVW is found stamped on a plate fastened to the door jamb of most vehicles. A high GVW rating does not mean that the vehicle itself weighs a lot more than other vehicles. For example, a light truck with a GVW of 6,000 lbs. will not ride like an old 6,000-pound luxury car. In fact, a high GVW rating usually requires stiff springs to support the payload; these stiff springs result in a harsh ride. Often technicians are asked to correct a harsh-riding truck that has a high GVW rating. The technician can only check that everything in the suspension is satisfactory and try to convince the owner that a harsh-ride is the result of a higher GVW rating.

# Sample ASE certification-type question

### Question:

A "dry park" test to determine the condition of the steering components and joints should be performed with the vehicle

- a. On level ground
- b. On turn plates that allow the front wheels to move
- c. On a frame contact lift with the wheels off the ground
- d. Lifted off the ground about 2 inches (5 cm)

### Answer/Explanation

The correct answer is a. The vehicle must be on level ground when conducting a dry park test; with the vehicle weight on the front wheels, resistance is applied to the steering linkage. Answers b, c, and d are not correct because these methods will allow the front wheels to move and not apply a load on the steering linkage

# Case Study

# The Had-Steering Chevrolet

The owner of a Chevrolet complained that the steering wheel was harder to turn after the battery was jump started. The tow truck driver did not know what to do and advised the owner to take it to a shop to have it looked at, but the driver did not think that jump starting the vehicle could affect the power steering. A technician at the shop determined that the electric power steering did not work because of a blown fuse. Apparently, the vehicle was jump started by connecting the positive jump cable to the

main terminal toward the rear of the engine compartment instead of the terminal designed to be used to jump start the vehicle as the battery is located at the rear of this vehicle. After the blown fuse was replaced, the electric power steering worked correctly. Summary:

- Complaint-Owner complained that the steering felt stiff after the vehicle was jump started.
- Cause-The jump start cables were connected to the wrong terminal which caused the fuse that controlled the electric power steering to blow.
- Correction-The blown fuse was replaced and the power steering system operation was restored to normal.

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INCORRECT TERMINAL

TERMINAL THAT SHOULD BE USED TO JUMP START

# Straight Talk

From the June 27 Wheels section of Dayton Daily News

# **Reader Has One Question and One Concern**

# Wheels:

Steve C. asks: "I have a question and a concern. My concern is that when I get my car serviced or repaired, there is an extra charge for shop supplies. Aren't shop supplies a part of doing

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business? Why am being charged for shop towels and grease?

My question has to do with plugging in an electric car. I am concerned that if I buy an electric car that my electricity bill will be a lot higher than what I am paying for gasoline with my current vehicle. How much does it cost to recharge an electric car at home?"

### Halderman:

Thanks for your question and your concern.

- The shop supply charge by shops and dealerships is not new but as you said, it does cause some customer complaints. All repair shops use shop supplies that are difficult and almost impossible to account for on each repair so that it is common operating procedure to charge a percentage of the labor to help cover the cost instead of trying to itemize the use of each ounce of brake cleaner or each disposal shop cloth used during the service or repair procedure. While the shop could simply raise the labor rate to cover these costs, most shops are up front and charging a simple to use percentage which corresponds to the relative number of consumable products used during the course of the repair.
- Regarding the cost to recharge an electric car, it is usually a lot less expensive to charge an electric vehicle compared to paying for gasoline. If electricity costs \$0.11 per kWh and the vehicle consumes 34 kWh to travel 100 miles, the cost is about 4 cents per mile. Therefore, charging an EV with 24 kWh will cost about \$2.64 to reach a full charge. If the price of gasoline is \$2.00 per gallon and the vehicles gets 20 miles per gallon, the cost per mile \$0.10 or about double the cost of recharging an electric vehicle.

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

Trivia question answer: a.

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 <u>here</u> or visit <u>my website</u>. 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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