



Author & Automotive Expert James D. Halderman



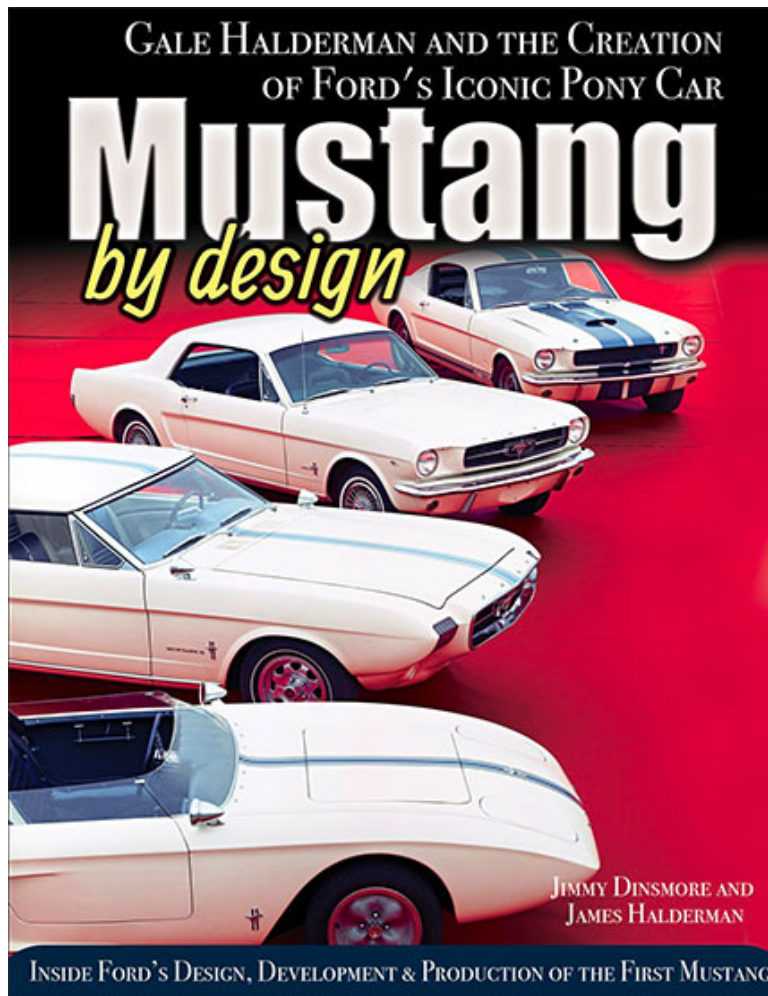
Connect with me:



Halderman newsletter

December 2018

What's new with Jim?



You may be aware of my "side" project, which is another book. But it's not a textbook, but more of a passion project. On this one, I collaborated with my friend Jimmy Dinsmore. Our book, Mustang by Design, tells the story of my cousin Gale who was the designer of the original Ford Mustang. He put in 40 years at Ford as a designer. His legacy on the automotive industry is noteworthy, but he's also someone our entire family is so proud of. Our fathers were brothers. And in the book, there's a mention of advice my father gave to Gale as he started his job at Ford. This type of wisdom was a

### IN THIS ISSUE

- [Auto Trivia](#)
- [FAQ](#)
- [Sample ASE](#)
- [Tech Tip](#)
- [Straight Talk](#)

### Where's Jim?

Jim does not have any travel plans for December and is looking forward to time with family.

Keep up with me at:  
[www.jameshalderman.com](http://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 drive axles and differentials.

**Drive Axle and Differential Diagnosis and Service**  
Chapter 13

**ACROSS**

- 4 An important requirement while replacing the pinion shaft seal is to not disturb the drive \_\_\_\_\_ adjustment.
- 6 \_\_\_\_\_ is usually checked by using a dial indicator with the stylus on a solid gear tooth.
- 7 The bearing spacer will be either a collapsible \_\_\_\_\_ or a fixed length solid spacer.
- 8 \_\_\_\_\_ is usually caused by a faulty 12 bolt differential case or an improper mounting of the ring gear onto the case.
- 9 \_\_\_\_\_ places enough pressure on the carrier bearings to hold the ring gear in proper mesh with the pinion gear without putting unnecessary load and sag on the bearings.
- 10 A tooth \_\_\_\_\_ test is an excellent method for checking proper drive pinion depth as well as proper backlash between the drive pinion and the ring gear.
- 11 \_\_\_\_\_ is used to find the tooth contact pattern.

**DOWN**

- 1 After installation of the pinion depth shims (also seal and new bearing) the \_\_\_\_\_ is placed on the pinion shaft and the pinion gear is installed in the carrier.
- 2 A drivetrain clunk during a power change can be caused by too much frame \_\_\_\_\_.
- 3 Because gear "runout" will cause backlash to change, it is sometimes referred to as \_\_\_\_\_.
- 5 The production shims are normally replaced with a fixed size \_\_\_\_\_ and a selective size shim when the carrier is adjusted.

foundational part of who I am today. And it's such a point of pride for me and my entire family to have Gale's story told. So, for anyone who is a car nut on your holiday shopping list, please add Mustang by Design to your list. It's available nationwide at major booksellers, Amazon and directly from the publisher [here](#). I would be honored if you added Mustang by Design to your book collection. Merry Christmas!

## Auto Trivia

Where is the gas filler on this car?



- a. Behind the license plate above the rear bumper
- b. On the passenger side rear quarter panel
- c. Behind the driver's side tail fin at the rear
- d. Behind left (driver's side) tail light

**Answer at the bottom of this page!**

## FAQ

### What Is the Difference Between Horsepower and Torque?

As Carroll Shelby, the well-known racer and business owner, said, "Horsepower sells cars, but torque wins races." Torque determines how fast the vehicle will accelerate, and horsepower determines how fast the vehicle will go.

### Sample ASE certification-type question

**Question:**

A vehicle owner complained that a severe vibration was felt throughout the entire vehicle at highway speeds. What is the least likely cause?

- a. Excessive drive shaft working angles
- b. A bent drive shaft
- c. Worn CV joints
- d. A defective rear tire(s)

**Answer/Explanation**

The correct answer is c. Worn CV-joints are not likely to cause a vibration at highway speeds even though they could cause noise. Answers a, b, and d can all create a vibration at highway speeds.

## Tech Tip

### Take the Owner on the Test Drive

Everyone drives differently. By having the vehicle owner along, he or she can better point out when the fault occurs and under what conditions. Sometimes, the owner should drive so the technician can verify the concern.

## Straight Talk

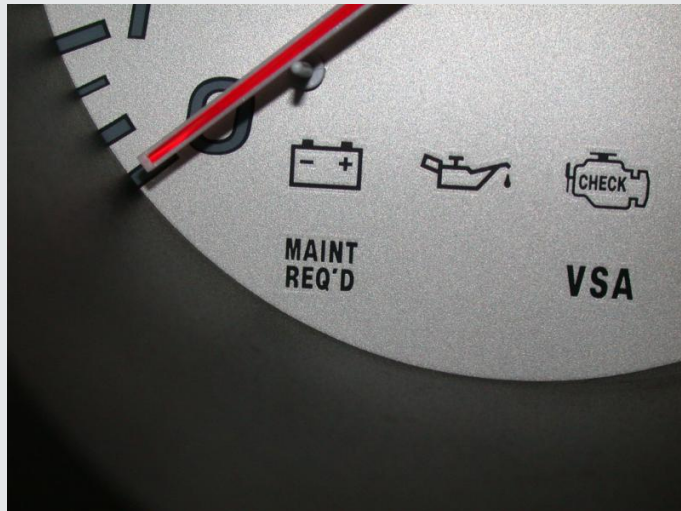
From the November 24, Wheels section of Dayton Daily News

### Reader Has Questions about a "Traction Control System" Warning Light

**Wheels:**

Steve writes by email:

"I read your column in the Dayton Daily News. A few weeks ago, I was out of town with my 2011 Honda Odyssey when the traction control system light came on, which is labeled VSA. I checked the owner's manual and it appeared not to be a crisis since it was summer and I wouldn't even hit any rain for the trip home. The engine operated normally for the 230-mile trip home. My repair shop checked the code and the problem was a bad spark plug. They replaced the plugs and the warning light went away. The car had about 130,000 miles on it when this happened and the plugs had been replaced at about 100,000 miles, plus all the coils replaced at about 125,000 miles. I don't get the connection between the spark plugs and the traction control system. I hope you can help. Thanks. "



**Halderman:**

My guess is that a misfire code was set and caused the VSA system to turn off because of an "engine power" related issue. I can't find anything in service information that says the VSA will be disabled with a misfire, but the exact same thing happens if there are other engines-related problems. It seems that the Powertrain Control Module (PCM) monitors engine operating condition and disables the VSA when it detects an abnormality. There have been reports with issues with some Odyssey engines with sticking piston rings. This causes oil consumption issues, and misfires due to fouled plugs. My concern for this particular vehicle is that it has piston ring problems (resulting in misfires, plugs, coils) and is probably using oil. Honda has issued a technical service bulletin 13-081 that gives more details.

Have an automotive question? Please write to Jim with your questions at [jjm@jameshalderman.com](mailto:jjm@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 [Pearson Education](#). He is an ASE-certified Master Technician with more than 20 years instructional experience.*

JDH Marketing, 5461 Edger Dr, Cincinnati, Ohio 45239

[SafeUnsubscribe™ carl@graphichome.com](#)

[Forward this email](#) | [Update Profile](#) | [About our service provider](#)

Sent by [jim@jameshalderman.com](mailto:jim@jameshalderman.com) in collaboration with

**Constant Contact** 

Try it free today

Copyright © 2003-2019. All rights reserved.