



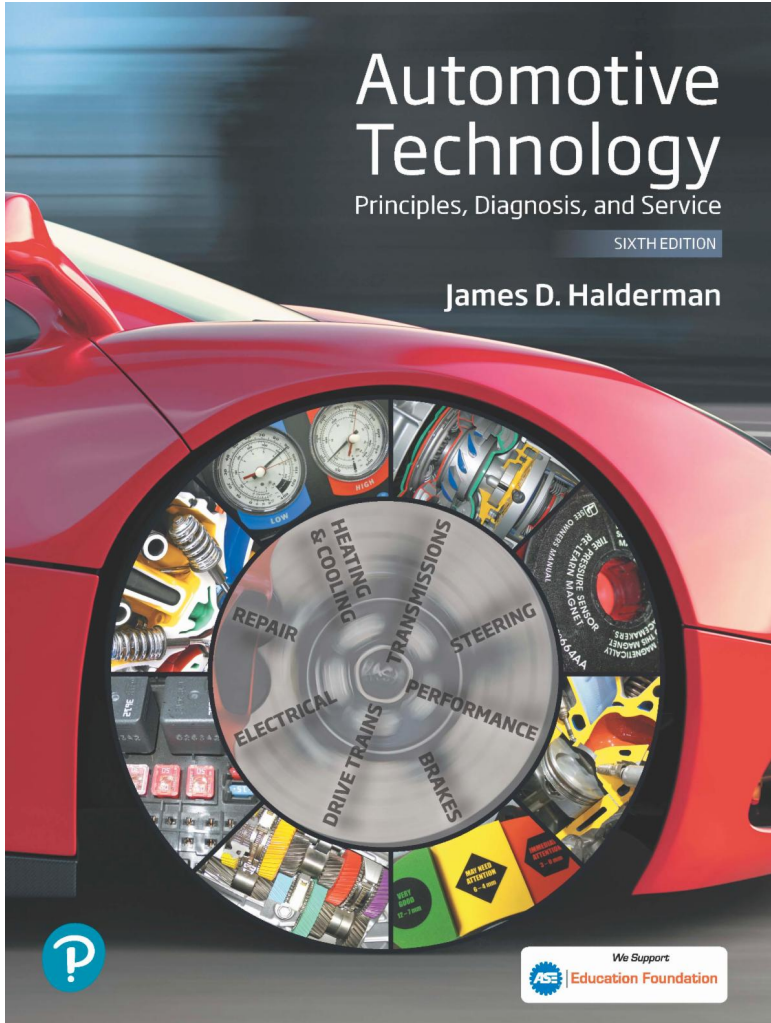
Connect with me:



Halderman newsletter

October 2019

What's new with Jim?



I am pleased to let everyone know that my new big book is available in digital format. This means that the cost is reduced for the students and can often be purchased at the college and paid for as part of the tuition bill. According to Curt Ward, my co-author on several automotive textbooks, he thinks it is great that "every one of my students had a textbook on the first day of the semester." Some of the many advantages besides the reduced costs allows the students to:

- access their text material on any device (desktop, laptop, tablet or smartphone)
- search for words and phrases
- Highlight important information

IN THIS ISSUE

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

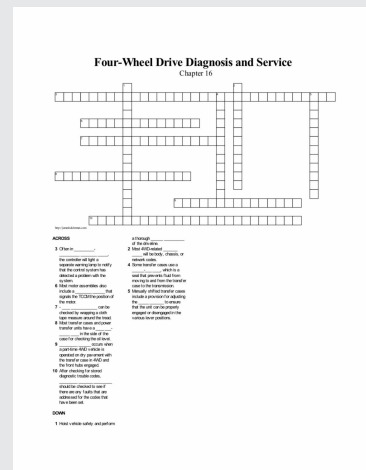
Where's Jim?

- Oct. 4** - Technological Studies Department advisory committee meeting at Ohio Northern University.
- Oct. 5** - Halderman Barn Museum for Ford Power Show/Red Mustang Registry Car show to promote [Mustang by Design](#).

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 four-wheel drive.





The vehicle shown is a _____

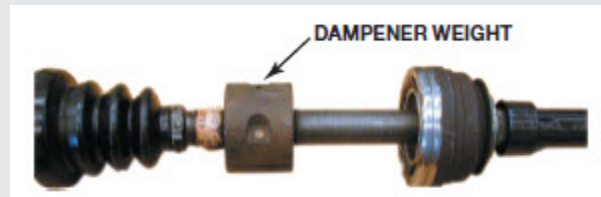
- a. Pontic Fiero
- b. Alfa Romeo
- c. MG
- d. Jaguar

Answer at the bottom of this page!

FAQ

What Is That Weight for on the Drive Axle Shaft?

Some drive axle shafts are equipped with what looks like a balance weight. It is actually a dampener weight used to dampen out certain drive line vibrations. The weight is not used on all vehicles and may or may not appear on the same vehicle depending on engine, transmission, and other options. The service technician should always try to replace a defective or worn drive axle shaft with the exact replacement. When replacing an entire drive axle shaft, the technician should always follow the manufacturer's instructions regarding either transferring or not transferring the weight to the new shaft.



Case Study

The Case of the Hard-Shifting Honda

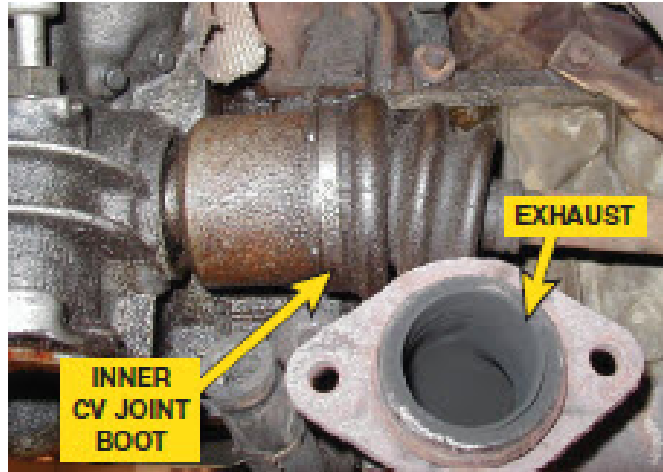
A Honda Civic (140,000 mi) came in with a hard-shifting concern. A road test confirmed that the car shifted hard into every gear. There was no grinding that would indicate a clutch problem. The fluid level was good, and seemed to be SAE 5W-30 engine oil. The technician drained, flushed, and filled the transaxle with Honda manual transmission fluid (MTF), and this fixed the hard shift problem.

Summary:

- * Complaint-Owner complained of hard shifting.
- * Cause-Appeared to have had engine oil instead of Honda manual transmission fluid.
- * Correction-Replaced the transaxle fluid with the specified fluid.

Behind the Scenes

The key to an excellent automotive textbook is not just the facts and figures that are presented but also the inclusion of the "real world" experiences of the author. Also having a camera (or a smartphone) handy when things are noticed in the shop are also important. Many times, a student or another service technician would come up to me when I was taking a photo and asked "why are you taking a picture of that?" Then when I pointed out what I was seeing and mentioning that it was very important was truly a teaching moment for both of us.



Sample ASE certification-type question

Question:

Technician A says that too much clutch pedal free play can cause the clutch to shudder during rapid acceleration. Technician B says that too little clutch pedal free play can cause the clutch to slip. Which technician is correct?

- a. Technician A only
- b. Technician B only
- c. Both Technicians A and B
- d. Neither Technician A nor B

Answer/Explanation

The correct answer is *b*. Technician B is correct because a lack of free play at the clutch pedal causing the clutch to slip because it could be partially released. Technician A is not correct because excessive clutch pedal free play will not cause the clutch to shudder because while it may not fully disengage making shifting difficult, a shudder is usually caused by a fault with the clutch disc causing it to grab and release causing the shudder. Answers c and d are not correct because only Technician B is correct.

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 September 28 Wheels section of Dayton Daily News

Reader Asks About Continuously Variable Transmissions

Wheels: An e-mail from Bob D. asks:

"What are your thoughts on continuously variable transmissions (CVT)? I saw an article that had a listing of low-cost vehicles. Some of them listed were equipped with a CVT transmission. What are your thoughts on CVT transmissions relative to initial cost, fuel economy, durability (will they last 200,000 miles), distinct advantages to the CVT, and are there different types? Do you think this is the wave of the future?"

Halderman: Thanks for writing with a good question. Without a doubt, a CVT transmission offers better fuel economy than a conventional automatic transmission and this is one of the reasons that it is being used by more vehicle manufacturers. It has some advantages and disadvantages just as any transmission design.

Advantages:

1. Very smooth without any jerking because it doesn't actually shift gears like a conventional automatic transmission.
2. Allows the vehicle to achieve fuel economy close to that of a manual transmission.

Disadvantages:

1. Earlier CVT transmissions tended to be noisy and had unknown long-term durability, but that has changed over the past few years, and they are now as durable as other types of automatic transmission.
 2. While many minor repairs and some wear items such as solenoids and valves are commonly serviced by most shops. However, if the main chain and pulleys wear or are damaged, this usually requires the replacement of the entire unit similar to a conventional automatic transmission if there is serious damage to the internal components.
- What do I think about a CVT? I do like the smoothness. I do not like the occasional high engine speed when accelerating rapidly or when climbing a long hill. I prefer a conventional automatic transmission, especially if it is a six or more speed automatic.



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.