

Name _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

1) Why is the balance of a driveshaft on a rear-wheel-drive vehicle more important than the balance of a front-wheel-drive axle shaft?

2) Explain the terms *cycle* and *Hertz*.

3) Explain how to check and balance a driveshaft on a rear-wheel-drive vehicle.

4) What are two types of frequency-measuring instruments?

5) How can you tell if the source of a vibration is at the front or the rear of a vehicle during a test-drive?

Answer Key

Testname: MDA8_SHORT17

- 1) The balance of a drive shaft is more important on a rear-wheel drive vehicle because the drive shaft rotates about three times faster than the drive wheels because of the gear reduction that occurs in the differential. On a front-wheel drive vehicle, the drive axle shafts revolve at the same speeds as the drive wheels. The lower speed makes balancing less critical.
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- 2) The number of times a complete motion cycle takes place during a period of one second is called frequency and is measured in Hertz (Hz), formerly called cycles per second.
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- 3) A drive shaft should be checked for runout using a dial indicator at three locations along the length of the drive shaft. A strobe balancer can be used to locate the heavy part of a drive shaft and stainless steel hose clamps can be used to balance the shaft.
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- 4) Vibration can be measured using a reed tachometer or an electronic vibration analyzer (EVA).
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- 5) If the vibration is felt or seen in the steering wheel, dash, or hood of the vehicle, the problem is most likely to be caused by defective or out-of-balance front wheels or tires. If the vibration is felt in the seat of the pants or seems to be all over the vehicle, the problem is most likely to be caused by defective or out-of-balance rear wheels or tires. In a rear-wheel-drive vehicle, the driveshaft (propeller shaft) and related components might also be the cause.
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