

Name _____

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

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

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

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

4) 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.

5) What are the steps to perform a neutral run-up test?

Answer Key

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- 1) Using a strobe balancer to check for driveline vibration requires that an extension be used on the magnetic sensor. Tall safety stands are used to support the rear axle to keep the driveshaft angles the same as when the vehicle is on the road.
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- 2) Vibration can be measured using a reed tachometer or an electronic vibration analyzer (EVA).
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- 3) 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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- 4) Driveshaft balance is more important than front drive axle shaft balance because a driveshaft rotates much faster. A typical driveshaft rotates about three times faster than the drive wheels due to the gear reduction in the differential. Drive axle shafts rotate at the same speed as the drive wheels.
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- 5) With the transmission in Neutral or Park, slowly increase the engine RPM and with a tachometer, observe the RPM at which the vibration occurs.
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