

Automotive Engines 10th

Quiz 20A

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1. What service operation is *most* important on engines equipped with a turbocharger? 1. _____
 - A) Replacing the air filter regularly
 - B) Replacing the fuel filter regularly
 - C) Regular oil changes
 - D) Regular exhaust system maintenance

2. The types of superchargers include _____. 2. _____
 - A) Rotary and reciprocating
 - B) Roots-type and centrifugal
 - C) Double and single acting
 - D) Turbine and piston

3. What is the purpose an intercooler? 3. _____
 - A) To reduce the temperature of the air entering engine
 - B) To cool the turbocharger
 - C) To cool the engine oil on a turbocharged engine
 - D) To cool the exhaust before it enters the turbocharger

4. Technician A says that a wastegate is used on most turbocharger systems to limit and control boost pressures. Technician B says that a relief valve is also used to keep the speed of the turbine wheel from speeding up during engine deceleration. Which technician is correct? 4. _____
 - A) Technician A only
 - B) Technician B only
 - C) Both technicians A and B
 - D) Neither technician A nor B

5. Boost pressure is generally measured in _____. 5. _____
 - A) inch Hg
 - B) PSI
 - C) inch H₂O
 - D) inch pounds

6. Which type of relief valve used on a turbocharged engine is noisy? 6. _____
 - A) Bypass valve
 - B) Blow Off Valve (BOV)
 - C) Dump valve
 - D) Both B and C

7. Which of these is defined as the mass or weight of a substance in a given amount of space? 7. _____
 - A) Volumetric efficiency
 - B) Density
 - C) Mass
 - D) Energy

8. The delay between acceleration and turbo boost is called _____. 8. _____
- A) boost
 - B) turbo lag
 - C) waste gate delay
 - D) blowout valve delay
9. Technician A says that a turbocharger uses the normally wasted heat energy of the exhaust to turn an impeller at high speed. Technician B says that there is only one type of supercharger, the roots-type. Which technician is correct? 9. _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians A and B
 - D) Neither technician A nor B
10. Technician A says that a bypass valve is used to control the boost pressure on most factory installed superchargers. Technician B says that an intercooler is used on many turbocharged and some supercharged engines to reduce the temperature of air entering the engine for increased power. Which technician is correct? 10. _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians A and B
 - D) Neither technician A nor B

Answer Key

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