

1. Modern air brake systems combines three different systems. They are the service brakes, the parking brakes and the:

- a.  S-S-cam brakes.cam brakes.
- b.  Drum brakes.
- c.  Foot brakes.
- d.  Emergency brakes.

2. Oil and water usually collect in compressed air tanks. If you do not have an automatic tank drain, when should you drain the air tanks?

- a.  After every working day.
- b.  After every four hours of service.
- c.  Once a week.
- d.  Every other week.

3. Why drain water from the compressed air tanks?

- a.  To keep from fouling the air compressor oil.
- b.  Water can freeze in cold weather and cause brake failure.
- c.  The low boiling point of water reduces braking power.
- d.  Water over cools the compressor.

4. Air brake equipped vehicles must have:

- a.  A supply pressure gauge.
- b.  An air use gauge.
- c.  At least two brake heaters.
- d.  A backup hydraulic system.

5. What can legally hold a parking or emergency brake in position for a truck, truck tractor or bus?

- a.  Fluid pressure
- b.  Air pressure
- c.  Spring pressure
- d.  Any of the above

6 Air loss in a straight truck or bus should not be more than \_\_\_\_\_ with the engine off and the brakes on.

- a.  1 psi in 30 seconds
- b.  1 psi in one minute
- c.  2 psi in 45 seconds
- d.  3 psi in one minute

7 To make an emergency stop with air brakes, using the stab braking method, you should:

- a.  Pump the brake pedal rapidly and lightly.
- b.  Brake hard until the wheels lock, and then get off the brakes for as much time as the wheels were locked.
- c.  Brake as hard as you can, get off the brakes when the wheels lock, get back on the brakes when the wheels start rolling again.
- d.  Press hard on the brake pedal and apply full hand valve until you stop.

8 You should know that your brakes are fading when:

- a.  Pressure on the brake pedal is released and speed increases.
- b.  You have to push harder on the brake pedal to control your speed on a downgrade.
- c.  The brake feels spongy when pressure is applied.
- d.  Less pressure is needed on the brake pedal for each stop.

9 To check the free play of manual slack adjusters on s-cam brakes you should:

- a.  Park on level ground, chock the wheels, and release the parking brakes.
- b.  Stop on level ground and apply the parking brakes.
- c.  Park on level ground and drain off air pressure before adjusting.
- d.  Park on a slight grade, release the parking brake, apply the service brakes, and check for vehicle movement.

10 If the air compressor should develop a leak, what keeps the air in the tanks?

- a.  The tractor protection valve
- b.  The emergency relay valve
- c.  The one way check valve
- d.  The air compressor

11 When driving down a long steep hill you should:

- a.  Use stab braking.
- b.  Begin braking when you are 10 M.P.H. above your safe speed.
- c.  Release the brake when you are 5 M.P.H. below your
- d.  Use the trailer brakes.

12 The brake system that applies and releases the brakes when the driver uses the brake pedal is the:

- a.  Service brake system.
- b.  Emergency brake system.
- c.  Parking brake system.
- d.  None of the above.

13 The most common type of foundation brakes found on heavy vehicles is the:

- a.  Disc brakes
- b.  Wedge drum
- c.  S-cam drum
- d.  None of the above

14 Vehicles with air brakes must have:

- a.  At least two air tanks.
- b.  An air pressure gauge to show the pressure available for braking.
- c.  An air pressure gauge, to show air used by the brake chambers for braking.
- d.  None of the above.

15 The driver must be able to see a warning that is given before air pressure in the service air tanks falls below:

- a.  80 psi
- b.  40 psi
- c.  20 psi
- d.  60 psi

16 Which of the following makes the total stopping distance for air brakes longer than that for hydraulic brakes.

- a.  Brake lag distance.
- b.  Action distance.
- c.  Perception distance.
- d.  Effective braking distance.

17 Of the choices below, the first thing to do when a low air pressure warning comes on is:

- a.  Open the air supply control valve.
- b.  Adjust the brake pedal for more travel.
- c.  Stop and safely park as soon as possible.
- d.  Up-shift.

18 The braking power of the spring brakes:

- a.  Can only be tested by highly trained brake service people.
- b.  Depends on the adjustment of the service brakes.
- c.  Increases when the service brakes are hot.
- d.  Is not affected by the condition of the service brakes.

19 The air compressor governor controls:

- a.  When air is pumped into the air tanks.
- b.  Air pressure applied to the brakes.
- c.  The speed of the air compressor.
- d.  When the brake chambers release pressure.

20 The application pressure gauge shows the driver how much pressure:

- a.  Has been used on the trip.
- b.  Is in the air tanks.
- c.  None of these.
- d.  Is being applied to the brakes.

21 If your vehicle has an alcohol evaporator, every day during cold weather you should:

- a.  Clean the air filter with alcohol.
- b.  Check and fill the alcohol level.
- c.  Change the alcohol from a new bottle.
- d.  Check the oil for alcohol content.

22 During normal driving, spring brakes are usually held back by:

- a.  Spring pressure
- b.  Bolts or clamps
- c.  Centrifugal force
- d.  Air pressure

23 Air braking takes more time than hydraulic braking because air brakes:

- a.  Need to have airflow through the lines to work.
- b.  Use different brake drums.
- c.  Require heavier return springs.
- d.  All of the above.

24 In air brake vehicles, the parking brakes should be used:

- a.  To hold your speed when going downhill.
- b.  Whenever the vehicle is parked.
- c.  As little as possible.
- d.  Only during pre and post trip inspections.

25 The brake pedal in an air brake system:

- a.  Is to be used as a footrest during normal driving.
- b.  Controls the speed of the air compressor.
- c.  Controls the air pressure applied to put on the brakes.
- d.  Is connected to slack adjusters by a series of rods and linkages.

26 If your truck or bus has dual parking control valves it means that you can use pressure from a separate tank to:

- a.  Balance the service brake system.
- b.  Release the spring brakes to move a short distance.
- c.  Stay parked without using up service air pressure.
- d.  Apply more brake pressure if the main tank is getting low.

27 A straight truck or bus air brake system should not leak at a rate of more than \_\_\_\_\_ PSI per minute with the engine off and the brakes released.

- a.  4
- b.  3
- c.  2
- d.  1

28 If your vehicle has an alcohol evaporator, it is there to:

- a.  Reduce the risk of ice in air brake valves in cold weather.
- b.  Eliminate the need for daily tank draining.
- c.  Rid the wet tank of alcohol that condenses and sits at the bottom.
- d.  Boost tank pressure the same way that superchargers boost.

29 If you must make an emergency stop, you should brake so that you:

- a.  Use the full power of the brakes and lock them.
- b.  Can steer hard while braking hard.
- c.  Stay in a straight line and can steer.
- d.  Use the hand brake first.

30 Your truck or bus has a dual air brake system. If a low air pressure warning comes on for only one system, what should you do?

- a.  Reduce your speed and drive to the nearest garage for repairs.
- b.  Continue at normal speed and find a garage before the brakes lock.
- c.  Reduce your speed and test the remaining system while under way.
- d.  Stop. Safely park, and continue only after the system is fixed.