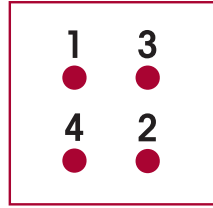


Technical Procedure Publication Quiz

- 1) What three items have the greatest influence on tire wear?
 - a) Toe
 - b) Air Pressure
 - c) Camber
 - d) Thrust Angle
- 2) Caster may be increased or decreased using shims or wedges.
True or False
- 3) Cross caster may be changed using shims or wedges.
True or False
- 4) You may bend a STEERTEK axle to correct for improper camber settings.
True or False
- 5) In an unladen vehicle the correct toe setting for the STEERTEK axle is?
 - a) 0 to negative $\frac{1}{16}$ "
 - b) 0 to positive $\frac{1}{32}$ "
 - c) Positive $\frac{1}{32}$ " to positive $\frac{3}{32}$ "
 - d) Positive $\frac{1}{16}$ " to 0
- 6) When reducing wheel cut on the STEERTEK axle it is necessary to check the steering gear box poppets.
True or False
- 7) The torque requirement for the M20 front hanger and shackle bracket eyebolts are the same.
True or False
- 8) The shackle brackets are interchangeable from right to left.
True or False
- 9) When servicing the clamp group a technician should always replace the following items.
 - a) M20 hex bolts and locknuts
 - b) Bottom axle wrap liner.
 - c) Upper axle wrap liner, if removed.
 - d) All of the above.
- 10) What is the clamp group final torque?
 - a) 310 ft. lbs. (420 Nm)
 - b) 505 ft. lbs. (685 Nm)
 - c) 398 ft. lbs. (540 Nm)
 - d) 254 ft. lbs. (344 Nm)

11) What is the torque sequence for the clamp group? See Figure below.



- a) 1,3,2,4
- b) 1,4,2,3
- c) 1,2,3,4
- d) The torque sequence does not matter.

12) For a vehicle equipped with a STEERTEK axle it is an acceptable practice to tow vehicle using a chain wrapped around the axle.

True or False.

13) When re-bushing the front spring eye it is necessary to:

- a) Heat the spring eye
- b) Press the bushing in and out.
- c) Remove the front spring hanger.
- d) Spring bushings are not serviceable.

14) To remove the STEERTEK knuckle you must.

- a) Drive the king pin out of the axle bore.
- b) Remove the locking pins before driving the king pin out.
- c) Remove the two $\frac{5}{8}$ " socket head cap screws and separate the knuckle assembly.
- d) None of the above.

15) What is the maximum allowable range for lateral movement of the steering knuckle?

- a) 0.001" - 0.006"
- b) 0.75" - 1.00"
- c) 0.008" - 0.011"
- d) No more than 0.015"

16) When AIRTEK ride height is checked, it is not necessary to cycle the leveling valve before check the ride height.

True or False

17) Worn king pins are easily removed and replaced.

True or False

18) The lower shock eyebolt mounting torque is:

- a) 150 ± 50 foot pounds.
- b) 200 ± 30 foot pounds.
- c) Not critical
- d) None of the above

19) When replacing the shackle bracket bolts the new bolts should be installed.

- a) From the outside facing in
- b) It does not matter what direction the bolts are facing
- c) From the inside facing out
- d) None of the above

- 20) The STEERTEK axle combined with the clamp group and stiff front spring limb help to make the AIRTEK torsionally rigid and reduce body roll.
True or False
- 21) How many grease points are there on the STEERTEK axle?
a) 2
b) 6
c) 8
d) None
- 22) Although the AIRTEK is low maintenance, it is recommended to do a visual inspection on the axle and suspension every _____ miles.
a) 100,000 or 1 year
b) 50,000 or 6 months
c) Never
- 23) It is acceptable to replace a failed shock absorber with any brand that will fit.
True or False
- 24) A shock that is misting is classified as a leaking shock and should be replaced immediately.
True or False
- 25) Prior to performing a total vehicle alignment the following components must be inspected.
a) Front and rear spring mounts
b) Steer axle tires
c) Ride height
d) All of the above
- 26) Wheel bearing adjustment has no impact on tire wear.
True or False
- 27) When the clamp group is disassembled the use of a cutting torch is acceptable to help remove seized bolts and nuts.
True or False
- 28) Prior to steering knuckle re-assembly it is critical that residual Loctite be removed from the upper steering knuckle.
True or False
- 29) AIRTEK is available exclusively with the STEERTEK axle.
True or False
- 30) Are the Thrust Bearings different on each side of the axle?
a) Yes
b) No
- 31) When performing a shock absorber heat test, the vehicle should be driven for fifteen minutes at a moderate speed over rough terrain.
True or False

- 32) The combination of the air spring and mechanical spring support 100% of the vertical load on the AIRTEK suspension. What is the load ratio distribution between the two springs?
- 25% air spring - 75% leaf spring
 - 80% air spring - 20% leaf spring
 - Ratio will fluctuate with load
 - None of the above
- 33) If the king pin bushing is worn, then both bushings on that knuckle need to be replaced.
- True or False
- 34) The unique packaging of the steering knuckle will allow up to _____ degrees of wheel cut on the STEERTEK axle.
- 50°
 - 32°
 - 87°
 - None of the above
- 35) A pre-alignment inspection reveals a tie rod end is worn out of specification. What is the correct action needed to complete the alignment.
- Fill the tie rod with grease to absorb excessive play.
 - Replace the tie rod and reset toe before alignment.
 - Perform alignment and then replace tie rod end and reset toe.
 - Align vehicle and do not repair tie rod end.
- 36) The air spring height for the 12,000/12,500 pound capacity and the 13,200/14,600 pound capacity are the same.
- True or False
- 37) The shackle assembly requires lubrication at what interval?
- 15,000 miles
 - 30,000 miles
 - 45,000 miles
 - Never
- 38) The seal on the thrust bearings are installed facing down.
- True
 - False
 - Doesn't matter
- 39) How many fasteners are required to mount the 12,000/12,500 pound capacity air spring?
- 4
 - 3
 - 2
 - None

- 40) The air spring is located directly over the center of the axle for:
- a) good ride
 - b) good handling
 - c) load distribution
 - d) not over center of axle
- 41) At proper ride height, the reference measurement for the 13,200/14,600 pound capacity is set at
- a) 7 $\frac{3}{4}$ "
 - b) 7 $\frac{7}{8}$ "
 - c) 8"
 - d) 8 $\frac{1}{8}$ "
- 42) Which side of the axle is the composite thrust bearing located?
- a) Right
 - b) Left
 - c) Both
- 43) What steering alignment setting is affected by improper ride height?
- a) Toe
 - b) Caster
 - c) Camber
 - d) No affect
- 44) When servicing tie rod ends it is not necessary to have the part number located on the tie rod tube to order tie rod end service kits.
True or False
- 45) Dual height control valves are standard equipment on all Volvo AIRTEK equipped vehicles built after March 2005. A new ride height gauge is necessary to check the ride height on vehicles equipped with dual height control valves.
True or False

CERTIFICATE

Hendrickson will provide a personalized AIRTEK Technical Procedure Quiz Achievement Certificate to candidates scoring 80% or higher on the quiz. Simply complete the quiz and fill in the enclosed answer sheet or on a separate sheet with the return address, name, phone number, and company name, as it will appear on the award to:

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