

# PRACTICE EXAM 13: ASE A4 SIMULATION

## (40 QUESTIONS)

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### STEERING SYSTEMS DIAGNOSIS AND REPAIR (Questions 1–12)

1. A steering column service requires airbag removal. BEFORE any other step, the technician must:

- A. Remove the steering wheel retaining nut with a calibrated torque wrench
- B. Disconnect the negative battery cable and wait the specified discharge time
- C. Rotate the steering wheel to full lock to access the airbag mounting bolts
- D. Turn the ignition key to the accessory position to release the column lock

2. AFTER disconnecting the negative battery cable for SRS service, the technician must:

- A. Wait the manufacturer-specified capacitor discharge time before any further work
- B. Immediately remove the airbag module from the steering wheel hub area
- C. Disconnect the positive battery cable to fully isolate the electrical system
- D. Remove the steering wheel before accessing the airbag connector underneath

3. DURING clockspring installation, the technician must:

- A. Rotate the clockspring clockwise to its hard stop before wheel installation
- B. Install the clockspring connected to the battery to verify electrical function
- C. Center the clockspring mechanically with the road wheels pointing straight ahead
- D. Rotate the clockspring counterclockwise to its hard stop before wheel installation

4. BEFORE performing a power steering pressure test, the technician should:

- A. Disconnect the negative battery cable to prevent EPS module activation during test
- B. Drain the power steering fluid from the reservoir to install the test equipment
- C. Turn off the engine and remove the high-pressure hose from the pump outlet
- D. Verify the fluid is at the correct level and warm the system to operating temperature

5. During a recirculating ball gearbox over-center preload adjustment, the pitman arm must be:

- A. Installed and torqued to final specification before the preload measurement
- B. Removed from the sector shaft to isolate the gear during preload adjustment
- C. Loosely attached with the retaining nut finger-tight for the preload measurement
- D. Installed with the steering wheel at full lock during the preload adjustment

6. AFTER installing a new rack and pinion assembly, the technician must perform the following step BEFORE road test:

- A. Fill and bleed the power steering system per manufacturer procedure
- B. Perform an EPS initialization procedure using the manufacturer scan tool
- C. Replace the power steering pump along with the rack for matched service
- D. Disconnect the battery for 30 minutes to reset all related modules completely

7. BEFORE reconnecting the battery after SRS service, the technician must:

- A. Turn the ignition key to the run position to pre-energize the SRS module
- B. Connect a scan tool to read any DTCs that may have been stored during service
- C. Verify the airbag connectors are secure and no personnel are in the vehicle
- D. Apply a voltage to the SRS circuit with a test light to verify circuit integrity

8. DURING power steering system bleeding, the engine should initially be:

- A. Running at 2,500 RPM while the wheel is cycled lock-to-lock repeatedly
- B. Running at idle with the wheel held at the full-lock position for 30 seconds
- C. Running with the reservoir cap removed and a vacuum pump applied briefly
- D. Off, with the wheel slowly turned lock-to-lock several times to expel air

9. AFTER replacing the battery on an EPS-equipped vehicle, the technician must:

- A. Perform the manufacturer-specified EPS initialization procedure if required
- B. Replace the EPS control module because the power interruption damaged it
- C. Disconnect the battery for an additional 30 minutes to allow module reset
- D. Replace the steering angle sensor because its calibration was lost with battery

10. BEFORE removing a tie rod end from the steering knuckle, the technician should:

- A. Loosen the jam nut on the tie rod and mark its current position with paint
- B. Reference-mark the tie rod position and count the number of threads exposed
- C. Apply heat to the taper with a torch to break the tie rod free from the knuckle
- D. Hit the knuckle with a hammer to break the taper fit before using a puller tool

11. DURING tie rod end installation, the castellated nut should be:

- A. Left hand-tight and then the cotter pin is inserted to prevent over-torque
- B. Torqued to specification, then loosened slightly to align the cotter pin hole
- C. Torqued to approximately half of specification and the cotter pin is installed
- D. Torqued to specification, then tightened further to align the cotter pin hole

12. AFTER installing a new clockspring, BEFORE reconnecting the battery, the technician should:

- A. Rotate the steering wheel lock-to-lock several times to verify proper clockspring function
- B. Turn the ignition key to the run position to pre-energize the clockspring circuit
- C. Verify all airbag and steering wheel control connectors are securely seated in place
- D. Apply voltage through a test light to the clockspring to verify internal continuity

### **SUSPENSION SYSTEMS DIAGNOSIS AND REPAIR (Questions 13–24)**

13. BEFORE lifting a vehicle equipped with air suspension, the technician must:

- A. Disable the air suspension system per the manufacturer's specified procedure
- B. Start the engine and run the compressor to full rated system pressure level
- C. Release the air from all four air springs by disconnecting the air lines
- D. Cycle the ignition key three times to reset the ride height control module

14. DURING coil spring compression using a spring compressor, the technician must:

- A. Stand directly in front of the spring to monitor compression during the service
- B. Engage the compressor in the manufacturer-specified geometric plane of the spring
- C. Compress the spring until the coils bottom out against each other during service
- D. Apply heat to the spring to soften the metal before compression begins to service

15. BEFORE adjusting torsion bar ride height, the vehicle must be positioned:

- A. On a two-post hoist with the wheels hanging free to unload the torsion bars
- B. On jack stands placed under the lower control arms at their pivot points
- C. At curb weight on level ground with all four wheels firmly on the ground
- D. On a four-post lift with the wheels on ramps at the rated service height

16. AFTER replacing a load-carrying ball joint, BEFORE releasing the vehicle, the technician should:

- A. Replace the opposite ball joint to maintain matched wear characteristics
- B. Drive the vehicle for 100 miles to allow the new ball joint to break in properly
- C. Verify the vehicle ride height is within specification after the installation
- D. Perform a wheel alignment and inspect other front-end components for wear

17. DURING leaf spring U-bolt installation, the U-bolts should be:

- A. Torqued in a crisscross pattern per manufacturer's specified torque value and sequence
- B. Tightened with an impact wrench until they stop rotating for adequate clamping
- C. Torqued beyond specification to ensure maximum clamping force during operation
- D. Left hand-tight to allow the spring pack to settle before final torquing later

18. BEFORE beginning a wheel bearing replacement, the technician should:

- A. Disconnect the battery to prevent ABS module damage during bearing service
- B. Verify the axle nut torque specification and whether it is torque-to-yield type
- C. Release the parking brake and allow the wheel to rotate freely for bearing removal
- D. Drain the differential fluid to prevent contamination during bearing replacement

19. DURING subframe reinstallation, the centering pins should be inserted:

- A. After the subframe bolts have been fully torqued to final specification limit
- B. Only if the alignment does not correct within specification after initial torque
- C. Before the subframe is positioned on the body for accurate initial placement
- D. After the subframe is in position but before the mounting bolts are fully torqued

20. BEFORE replacing adaptive dampers on a vehicle with MagneRide, the technician should:

- A. Verify the wiring harness condition between the module and the affected damper
- B. Drain the MR fluid from the damper reservoir before removing from the vehicle
- C. Apply a magnetic field to the damper to test its internal operation before service
- D. Disconnect the battery for 30 minutes to prevent module damage during service

21. AFTER replacing a stabilizer bar end link, the technician should torque the fasteners:

- A. With the vehicle on a two-post lift with the wheels hanging freely from the ground
- B. At ride height with the suspension loaded to the vehicle curb weight specification
- C. At intermediate suspension travel approximately halfway between full droop and full compression
- D. Beyond specification using thread locker to prevent loosening during the service life

22. DURING multi-link suspension service, if a bushing is cracked but the link itself is not damaged, the technician should:

- A. Replace only the damaged bushing if it is separately serviceable from the link
- B. Repair the cracked bushing with high-strength adhesive to restore original function
- C. Leave the cracked bushing in service if it still provides adequate suspension function
- D. Replace the complete link — modern bushings are typically not separately serviceable

23. BEFORE removing a cartridge wheel bearing from a hub assembly, the technician should:

- A. Verify the correct bearing tool is available for press installation and removal procedures
- B. Drain the transmission fluid to reduce load on the bearing during removal from hub
- C. Apply heat to the hub assembly to expand it before bearing removal using a press tool
- D. Disconnect the ABS wheel speed sensor and remove it completely from the hub

24. AFTER installing new coil springs on a vehicle, the technician should:

- A. Drive the vehicle for 500 miles to allow the springs to settle before any measurement
- B. Wait 24 hours to allow the springs to settle before taking final ride height readings
- C. Verify ride height is within specification and perform a wheel alignment before release
- D. Replace the shock absorbers along with the springs to maintain balanced damping

**WHEEL ALIGNMENT DIAGNOSIS, ADJUSTMENT, AND REPAIR (Questions 25–35)**

25. BEFORE taking any alignment measurements, the technician must:

- A. Perform a caster sweep to record initial caster values at both front wheels first
- B. Complete wheel runout compensation on each wheel to correct clamp offset errors
- C. Adjust front toe to approximately zero to establish a measurement baseline reference
- D. Jounce the suspension three times to settle components before the initial readings

26. DURING an alignment, the correct adjustment sequence is:

- A. Rear toe to center thrust line, then front caster, front camber, and front toe last
- B. Front toe first to center the steering wheel, then camber, caster, and rear toe
- C. Front caster and camber before rear toe, then front toe last after all other angles
- D. Rear camber first, then rear toe, then front toe, caster, and camber last in sequence

27. BEFORE adjusting front toe, the technician must:

- A. Adjust front camber and caster to within their specification tolerance ranges
- B. Lock the turn plates to prevent any wheel rotation during toe adjustment
- C. Loosen the tie rod jam nuts and allow the tie rods to rotate freely for adjustment

D. Center the steering wheel and hold it in position with a steering wheel holder tool

28. AFTER completing an alignment where the steering wheel was re-centered during toe adjustment, the technician must:

- A. Replace the steering angle sensor because it was disturbed during the re-centering
- B. Drive the vehicle at highway speed for 30 minutes to trigger automatic SAS relearn
- C. Perform the manufacturer-specified SAS calibration and typically ADAS camera calibration
- D. Reset the tire pressure monitoring system using a scan tool to clear pressure data

29. DURING a caster sweep, the turn plates must:

- A. Remain locked to prevent wheel rotation during the caster measurement process
- B. Be unlocked to allow the wheels to rotate through the sweep angle freely
- C. Be removed from under the front wheels to allow direct wheel measurement
- D. Be inverted to reverse the sweep direction during caster angle measurement

30. BEFORE performing an alignment on a vehicle equipped with lane-keep assist, the technician should:

- A. Physically move the forward camera to the alignment rack reference position
- B. Disconnect the forward camera from the wiring harness to prevent interference
- C. Reset the ADAS system using a scan tool to clear the existing calibration values
- D. Verify the ADAS camera will require calibration after the alignment is completed

31. AFTER re-centering the steering wheel during alignment, BEFORE final toe adjustment, the technician should:

- A. Release the steering wheel holder to allow the wheel to find its natural position

- B. Tighten the intermediate shaft pinch bolt to prevent rotation during toe setting
- C. Verify the steering wheel is physically centered and the holder is locked in place
- D. Disconnect the power steering line to eliminate pressure effects on toe measurement

32. DURING ride height measurement, the vehicle must be:

- A. At curb weight on level ground with correct tire pressures at all four wheels
- B. On a two-post hoist with the wheels hanging free for accurate measurement
- C. With the driver seated in the vehicle to simulate normal operating conditions
- D. With full fuel tank and rear cargo area loaded to maximum specification weight

33. BEFORE releasing a vehicle after alignment service, the technician should:

- A. Document the alignment readings on a printout and attach to the repair order
- B. Perform a tire rotation to equalize wear patterns after the alignment service
- C. Recheck the tire pressures at all four wheels against the placard specification
- D. Road test the vehicle to verify tracking, steering wheel position, and freedom from noise

34. DURING a pre-alignment inspection, the technician identifies a worn tie rod end. The correct action is:

- A. Complete the alignment first, then replace the tie rod end during the next service
- B. Replace the tie rod end before performing the alignment to ensure valid measurements
- C. Adjust the alignment around the worn component and document the condition on printout
- D. Tighten the tie rod end castellated nut to remove the play temporarily for alignment

35. AFTER replacing front struts on a vehicle, the technician should:

- A. Drive the vehicle for 500 miles before performing the wheel alignment service

- B. Wait 24 hours for the suspension to settle before alignment measurements are taken
- C. Skip the alignment if the struts are installed to factory specification for torque
- D. Perform a wheel alignment immediately to verify camber, caster, and toe are in spec

**WHEEL AND TIRE DIAGNOSIS AND SERVICE (Questions 36–40)**

36. BEFORE mounting a new tire on a wheel, the technician should:

- A. Apply a generous coating of tire mounting lubricant to the entire tire surface
- B. Remove any existing wheel weights from the rim to establish a baseline balance
- C. Inspect the wheel rim and bead seat for damage or debris that would affect sealing
- D. Inflate the new tire to maximum sidewall pressure to verify structural integrity

37. DURING tire bead seating, the maximum safe pressure is:

- A. Forty psi for standard passenger tire applications on passenger vehicle wheels
- B. Sixty psi for standard passenger tire applications on passenger vehicle wheels
- C. The maximum pressure listed on the tire sidewall for operating conditions use
- D. Whatever pressure is needed to seat the beads completely against the wheel

38. AFTER replacing a TPMS sensor on a vehicle, the technician must:

- A. Drive the vehicle at highway speed for 30 minutes to trigger automatic relearn
- B. Perform the vehicle-specific TPMS relearn or programming procedure for service
- C. Disconnect the battery for 30 minutes to reset the TPMS module memory completely
- D. Replace all four TPMS sensors with new units for matched service characteristics

39. BEFORE installing a wheel hub assembly with a torque-to-yield axle nut, the technician should:

- A. Lubricate the axle nut threads with anti-seize compound for easier future removal
- B. Reuse the original axle nut if it is not visibly damaged from the initial service
- C. Install the axle nut and torque to specification using a standard torque wrench
- D. Obtain a new axle nut because torque-to-yield nuts are not designed for reuse

40. DURING wheel-and-tire assembly balancing, the correction weights should be:

- A. Placed at the manufacturer-specified inner and outer rim positions for service
- B. Placed at the closest accessible position regardless of the balancer indication
- C. Applied only to the outer rim edge for improved balance reading at all speeds
- D. Placed at the spoke locations for cosmetic reasons during the service event

## Practice Exam 13: Answer Key and Explanations

1. B — SRS service always begins with disconnecting the negative battery cable. This is the first and non-negotiable step because the SRS module's backup capacitor can still fire the airbag for several minutes after power is removed. All other steps — wheel removal, column access, airbag handling — only occur after the battery is disconnected and the discharge time has elapsed.

2. A — After disconnecting the battery, the technician must wait the manufacturer-specified capacitor discharge time (typically 1–10 minutes depending on vehicle) before proceeding. Skipping this wait allows the backup capacitor to retain enough charge to deploy an airbag during service. The wait time is specific — always reference service information for the exact duration.

3. C — Clocksprings must be mechanically centered with the road wheels pointing straight ahead before steering wheel installation. This positions the internal ribbon cable at the middle of its travel range. Installing with the clockspring off-center (at a hard stop) positions the cable near one of its limits, causing it to break the first time the driver turns toward that limit.

4. D — Before performing a power steering pressure test, verify the fluid is at the correct level and warm the system to operating temperature. Cold fluid has higher viscosity and produces artificially high readings. Warm operating-temperature fluid provides accurate measurements that compare validly against manufacturer specifications. Skipping this step invalidates the test results.

5. B — Sector shaft over-center preload is always measured with the pitman arm removed. Installing the pitman arm transfers linkage loads through the gear, producing false readings during the measurement. Pitman removed + steering wheel centered = the only correct setup for over-center preload adjustment. This is a heavily tested A4 rule.

6. A — After rack replacement, the system must be filled with specified fluid and bled per manufacturer procedure before any road test. Air in the system causes whining, foaming, and erratic assist — the "new rack feels wrong" complaint. Bleeding is mandatory before validating the repair. EPS initialization and pump replacement don't apply to hydraulic rack service.

7. C — Before reconnecting the battery after SRS service, the technician verifies all airbag connectors are secure AND no personnel are in the vehicle. This is because an unsecured connector or accidental SRS system activation during power restoration could trigger unexpected airbag deployment. Personnel safety comes first during the re-power sequence.

8. D — Power steering bleeding begins with the engine OFF and the wheel slowly turned lock-to-lock several times. This draws air out of the rack and into the reservoir without pressurizing the system. Only after this manual step is the engine started — and then only at idle. Running at high RPM during bleeding pressurizes trapped air and makes it harder to remove.

9. A — After battery replacement, many EPS-equipped vehicles require the manufacturer-specified initialization procedure to restore full assist. The system loses certain learned values during power loss and operates in reduced-assist mode until the procedure is performed. Skipping this is one of the most common causes of post-battery-service EPS warnings.

10. B — Before removing a tie rod end, reference-mark the tie rod position and count the exposed threads. This allows precise reinstallation to the same toe setting, minimizing disturbance to the alignment. Without marking, the new tie rod end is installed at a random position, guaranteeing the alignment will be significantly off until a full alignment is performed.

11. D — The correct castellated nut procedure is: torque to specification, then tighten further (never loosen) to align the cotter pin hole. Loosening a torqued suspension fastener is never acceptable because it reduces the designed clamping force. New cotter pins are always used on reassembly — never reuse the old one.

12. C — Before reconnecting the battery after clockspring installation, verify all airbag and steering wheel control connectors are securely seated. Loose connectors cause intermittent operation, resistance faults, and SRS warning lights. Checking connections BEFORE applying power is the standard safety practice that prevents re-diagnosis after the initial installation.

13. A — Air suspension systems must be disabled per manufacturer procedure before lifting. With the wheels off the ground, ride height sensors report extreme droop, and the system may try to release air or inflate springs, potentially overextending components. Disabling — not draining or battery disconnect — is the specified safety procedure.

14. B — Spring compressors must be engaged in the manufacturer-specified geometric plane. Improper engagement allows the spring to slip or rotate during compression, potentially releasing with fatal force. Standing in the release path, coil-bottoming, and heating the spring are all unsafe practices. Correct plane of engagement is the core safety requirement.

15. C — Torsion bar ride height adjustment must always be performed with the vehicle at curb weight on level ground, with all four wheels firmly planted. This positions the suspension in its normal loaded state. Adjusting on a lift, jack stands, or ramps produces incorrect preload because the suspension is not in its operational position.

16. D — After replacing a load-carrying ball joint, a wheel alignment is required because the removal and reinstallation disturbs suspension geometry. Additional front-end components should also be inspected — a failed ball joint often indicates other age-related wear. Alignment plus inspection is the complete post-ball-joint service sequence.

17. A — U-bolts must be torqued in a crisscross (diagonal) pattern per manufacturer specification. Sequential torque on one side at a time produces uneven clamping; impact wrench tightening produces inconsistent torque; over-torque damages threads; hand-tight allows the spring pack to shift. Crisscross torque in stages is the correct practice.

18. B — Before wheel bearing replacement, verify the axle nut torque specification and whether it is torque-to-yield (single-use). This determines whether a new nut is required and what the final torque procedure will be. Starting the job without this information risks reusing a TTY nut or using wrong torque values — both producing bearing failure.

19. D — Centering pins are inserted after the subframe is positioned but before the mounting bolts are fully torqued. The pins align the subframe to its design position; the bolts are then tightened while the pins hold the position. Inserting pins before positioning is impossible; inserting after full torque defeats the centering function.

20. A — Before replacing adaptive dampers, verify the wiring harness condition between the module and the affected damper. A wiring fault (chafed insulation, loose connector) can produce the same DTCs as a failed damper. Replacing the damper without verifying the wiring can result in a successful-looking repair that immediately throws the same fault because the wiring is still at fault.

21. B — Stabilizer end link fasteners with rubber bushings must be torqued at ride height with the suspension loaded to the vehicle curb weight. Torqueing at full droop preloads the bushings in a twisted position, accelerating wear. The ride-height torque rule applies to any suspension fastener passing through a rubber bushing.

22. D — On modern multi-link suspensions, bushings are typically not separately serviceable — the complete link must be replaced when a bushing is damaged. Repairing with adhesive or leaving damaged bushings in service are not acceptable repair approaches. Link replacement is the standard repair, often in pairs for matched characteristics.

23. A — Before removing a cartridge wheel bearing, verify the correct bearing tool is available. Bearings are press-fit components; using the wrong tool damages the hub, the bearing, or both. Bearing service requires specific tooling — attempting to use improvised tools risks damaging expensive components and creating rework.

24. C — After installing new coil springs, verify ride height is within specification and perform a wheel alignment before releasing the vehicle. New springs slightly change ride height and suspension geometry; alignment is mandatory to restore proper camber and toe. The "500 miles to settle" or "24 hour wait" approaches are not required on modern OE-spec springs.

25. B — Wheel runout compensation is the mandatory first step before any alignment measurement. Without compensation, every reading is offset by a fraction of a degree due to the clamping device's offset from the wheel's rotation axis. Skipping this step invalidates the entire alignment; it must be done first, before initial measurements.

26. A — The universal modern alignment sequence is: rear toe first to center the thrust line, then front caster, then front camber, then front toe with the steering wheel centered. This order exists because front toe is set relative to the thrust line — setting it before rear toe would require redoing it. This sequence is non-negotiable.

27. D — Before adjusting front toe, center the steering wheel and hold it with a steering wheel holder tool. Without this, the position at the moment of toe adjustment becomes the "baked-in" straight-ahead reference, potentially leaving the wheel off-center. Locking the turn plates happens earlier in the procedure; tie rod loosening is part of the adjustment itself.

28. C — Alignment that re-centers the steering wheel invalidates the SAS's learned zero-point, requiring calibration. On ADAS-equipped vehicles, the forward camera also typically requires calibration because the lane-keep system depends on accurate vehicle geometry. The manufacturer-specified procedure for both is mandatory — not an automatic relearn drive.

29. B — During a caster sweep, the turn plates must be unlocked so the wheels can rotate through the sweep angle freely. The sweep moves each wheel through a specified arc (typically 10° each direction); locked plates prevent the rotation that makes the sweep possible. Plates are locked during static measurement, unlocked for the sweep.

30. D — Before performing alignment on a lane-keep-equipped vehicle, verify the ADAS camera will require calibration afterward. This allows the technician to schedule the calibration, quote the complete service accurately, and obtain the necessary specifications. Physical camera movement, disconnection, and pre-alignment reset are not standard practices.

31. C — After re-centering the steering wheel during alignment, before final toe adjustment, verify the wheel is physically centered and the holder is locked in place. Any movement during final toe setting produces off-center results. The holder locks the position so the adjustment reference remains stable throughout the final toe measurement.

32. A — Ride height measurement must be taken at curb weight on level ground with correct tire pressures at all four wheels. The vehicle must be in its normal operating state. Wheels-hanging, driver-loaded, or maximum-loaded conditions all produce incorrect readings. The pre-alignment ride height check follows specific positioning requirements.

33. D — Road testing the vehicle to verify tracking, steering wheel position, and freedom from noise is the mandatory final step before release. Documentation, tire rotation, and pressure recheck are important but secondary — road test confirms the alignment is actually correct under real driving conditions, not just numerically in spec on the rack.

34. B — A worn tie rod end must be replaced before performing the alignment. Alignment measurements taken through worn components are invalid — the component moves during driving, changing the effective toe setting. The "alignment first, replace later" approach produces an alignment that's wrong the moment the vehicle leaves the rack.

35. D — After replacing front struts, a wheel alignment must be performed immediately to verify camber, caster, and toe are in spec. Strut replacement disturbs suspension geometry even when installed to factory torque. Waiting 24 hours or 500 miles delays customer receipt of a correctly aligned vehicle and is unnecessary on OE-spec components.

36. C — Before mounting a new tire, inspect the wheel rim and bead seat for damage or debris. Damaged bead seats prevent proper sealing; debris traps air and causes slow leaks. Inspection and cleaning are the first steps before lubricating or mounting. Inflation testing before mounting is unusual and can damage an unmounted tire.

37. A — Forty psi is the maximum safe pressure for seating tire beads on standard passenger tires. Exceeding this risks sudden bead failure that can cause catastrophic injury. If beads won't seat at 40 psi or less, dismount and investigate — don't over-pressurize. This is a documented shop safety requirement, not a guideline.

38. B — After replacing a TPMS sensor, perform the vehicle-specific TPMS relearn or programming procedure. Universal sensors often require programming to the vehicle first; even OE sensors need the relearn to associate the sensor ID with the wheel position. Without this, the system continues reporting the old sensor — or reports nothing.

39. D — Torque-to-yield axle nuts are single-use fasteners. Always obtain a new nut before installation. Reusing a TTY nut cannot produce proper preload because the designed stretch has already occurred on the first torque cycle. Anti-seize and using standard torque practice don't address the fundamental issue — the nut must be new.

40. A — Correction weights must be placed at the manufacturer-specified inner and outer rim positions indicated by the balancer. Each weight position corresponds to a specific correction plane (inner edge controls one imbalance, outer edge controls the other). Closest-accessible, outer-only, or spoke-location placement all produce incorrect balance regardless of how they appear cosmetically.