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## COMPETITOR BULLETIN

**Divisions: Limited Sportsman**  
**Effective Date: December 18, 2023**

### Shock Absorbers

1. Shock absorbers and components must be from an approved manufacturer. The approved shock absorbers will be of the revalvable, rebuildable, gas pressurized, mono-tube, deflective disc valve type with an integral gas reservoir. Shock absorbers must provide a resultant force dependent upon piston velocity and must be acceptable to Track Officials. Shock absorbers and components must be used as supplied by the manufacturer and all components must be used in only their respective manufacturers shock absorber. Modifications or changes to the shock absorber and internal components will not be permitted. Shock absorbers and components must be available to all Competitors and must meet the following requirements. As per local Track Rules, oil type shock absorbers will be permitted. Specifications and rules for these oil type shock absorbers will be developed, implemented, governed and enforced by the individual Track Rules.
2. **The approved shock absorbers and components are as follows:**
  - Penske 7500 Series with only the approved Penske Linear and High-Flow Pistons
  - Bilstein ASN, SN or AS2 Series with only the approve Bilstein Linear U37T Series Pistons #423171 and #403556
  - C2P NAEX Series with only the approved Linear #62070 and Hi-Flow #40094 Pistons
  - Advanced Racing Suspensions 4000 Series with only the approved #40094 Piston
  - PRO PG Series with only the approved Linear/Linear #63 Piston
  - JRI ST/08 Series with only the approved #3803-15 Piston
  - Blackmajic Shocks (Shadow Racing Products) BML Series with only the approved BML Linear Piston
3. Changes in shock absorber force must not be made by the position of the shock absorber shaft, only by the velocity of the shaft through the compression and rebound stroke.
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5. Track Officials may use a shock absorber and internal components provided by the respective manufacturer as a guide in determining whether a Competitor's shock absorber and internal components conforms to the specification of the Rule Book.

6. The only shock absorbers and internal components permitted will be those approved by NASCAR and Track Officials.

NOTE: The internal bore of the shock absorber body must remain as supplied by the manufacturer. The internal bore diameter of the shock absorber body must be the same from top to bottom. Tapers, steps, grooves and other misalignments will not be permitted. Modifications which provide position sensitive piston travel will not be permitted.

- ~~7. A single manual external shaft bleed adjustment through a tapered needle into a fixed orifice in the hollow shaft, acceptable to Track Officials will be permitted on the shock absorbers.~~
8. Shock absorber base valves will not be permitted.
9. "Steel" deflective disc valve shims must seal the primary metering faces of the single piston in the main shock body. The only shims permitted will be those manufactured, produced and/or recommended by the specific shock absorber manufacturer. Shims must be used in only their respective shock absorbers. Ring shims and bleed shims will be permitted. Floating shims will not be permitted. The shim stack must be of the single pyramid type with the exception that multiple shims of the same size may be stacked together. The inside diameter of the shims must match the shaft diameter with the exception of the outer ring of the ring shim.
10. Only a single one-piece piston is permitted in the main body with one (1) shim stack on the compression side, and one (1) shim stack on the rebound side. A maximum of three (3) bleed holes may be drilled in the piston. If bleed holes are drilled into the piston, they must be drilled into the port of the piston only. The only pistons permitted are the Linear and High-flow pistons that were submitted by the manufacturer and approved by NASCAR. The piston band must be the original band for the approved manufacturer's piston. The piston band and piston band groove in the piston must remain the standard size and must not be altered.
11. One-piece open style jets that bleed equally in both compression and rebound will be permitted. One-piece jets that control flow in compression only or rebound only will be permitted. Solid plugs in place of open jets will be permitted. Plugs with fixed bleed holes will be permitted. Check ball jets that control flow in compression or rebound only will be permitted.
12. The gas reservoir maximum outside diameter must not exceed 2.300 inches. External shock absorber gas reservoirs will not be permitted.
13. The single floating divider piston in the integral gas reservoir must be installed to the manufacturer's specifications without any modifications.
14. The gas reservoir must not be filled with any material other than in an inert gas form. Oils or any other types of liquid or materials that are not approved by NASCAR or Track Officials will

not be permitted in the gas reservoir side of the shock absorber divider piston.

15. The shock absorber nitrogen gas pressure must not be less than 50 psi or greater than 150 psi. Gas pressure will be measured at ambient temperature (not to exceed 100 degrees Fahrenheit) by temperature monitoring devices used by Track Officials. Gas pressure will be checked with the shock absorber removed from the race vehicle and fully extended. After being charged, at any time, the shock absorbers must fully compress and fully extend the entire length of the shock absorber shaft with the external adjustment (if used) set in any position without any type of mechanical assistance. An external Schrader valve, needle valve, etc. will be required to pressurize the shock absorber with gas. The competitor must have the equipment required to adapt to the technical inspection equipment to check the gas pressure in the shock absorber.
16. Oils that the viscosity can be changed by any type of electro-magnetic field or by any other means will not be permitted.
17. Shock absorber shaft diameter must not exceed 0.630 inch and the shaft must not have any sleeves or spacers that could limit the travel of the shaft into or out of the main body. Shock absorber shafts must be solid on all non-adjustable shock absorbers. When single adjustable shock absorbers are used hollow shock absorber shafts will be permitted.
18. Suspension travel must not be limited by the shock absorber and/or components, or shock absorber mounting location.
19. Coil over shock absorbers will be permitted.
20. Remote or electronically controlled shock absorbers will not be permitted.
21. A maximum of one (1) shock absorber per wheel will be permitted.
22. Quick disconnect shock absorber mounts will not be permitted. The shock absorber must be attached with positive nut and bolt mounting fasteners. Adjustable shock absorber mounts of any type will not be permitted. Shock absorbers must be mounted on the vehicle with the gas reservoir to the top. Shock absorber eyelets of different length will be permitted but must not limit the travel of the chassis.
23. Shock absorbers will not be permitted inside of the front or rear coil springs, with the exception of the coil over type springs.
24. All rear shock absorbers must be mounted behind the rear axle housing
25. The rear shock absorbers must not angle inboard towards the center of the vehicle more than 30 degrees from vertical.
26. Heating pads and/or blankets will not be permitted for warming the shock absorbers.

27. Shock absorbers and internal components are subject to inspection at any time by Track Officials.
28. It is the responsibility of the driver, not NASCAR or Track Officials, to ensure the shock absorbers are used in accordance with the manufacturer's instructions and specifications.