



## 4.1 OEM Style Superchargers.

RULEBOOK REFERENCE: 4.7.1 – SUPERCHARGERS, page 223

### RULE SUBMISSION INTENT:

To clarify supercharger requirements for late model superchargers using Eaton style rotors and to remove the need for Aluminium bolts, burst panels and supercharger restraints as required by the current rulebook.

There are ANDRA competitors who are currently building cars that will run low 8's, high 7's (similar to the Factory Stock cars in the NHRA) and there are no commercially available SFI restraints or burst panels to suit OEM style superchargers.

NHRA has identified that these superchargers are different to the old-style alcohol injected engines and has specific rules to these superchargers that don't require restraints.

### PROPOSED ADMENDMENT:

Add a clause under section 4.7.1 Superchargers.

OEM style superchargers with Eaton Rotors do not require burst panels, restraints or Aluminum retention bolts.

“OEM style” in this case means 1900, 2300, 2650, 2.9lt, 3.0lt, 4.0lt superchargers manufactured by companies like Magnuson, Whipple, Harrop and some OEM's for use on later model EFI vehicles.

Overdrive limits for 'Roots Superchargers' also need to be removed for the OEM style as Eaton have a maximum 'recommended' rotor speed but is not referred to in any NHRA documentation.

Example, if engine RPM is 8,000 rpm, and max rotor speed is 22,000 rpm.

Overdrive is therefore 275% and not the 70% max overdrive (or 15% for 18/71.) as currently listed in the rules.

Overdrive should be class specific.

Proposed Text (additional NOTE):

**NOTE: OEM style superchargers with Eaton Rotors do not require burst panels, restraints or Aluminum retention bolts. 'OEM-Style' relates to 1900, 2300, 2650, 2.9lt, 3.0lt, 4.0lt superchargers manufactured by companies like Magnuson, Whipple, Harrop and some vehicle OEMs for use on late model EFI vehicles.**

**NOTE: Overdrive limits for 'Roots Superchargers' do not apply to OEM superchargers as Eaton apply a maximum recommended rotor speed. For example, if the engine RPM is 8,000 rpm, the maximum rotor speed is 22,000 rpm., therefore overdrive is 275% and the 70% maximum overdrive (or 15% for 18/71) does not apply.**

### CLASSES AFFECTED:

Super Street, Super Sedan, Top Sportsman, Modified and possibly in the future, Super Stock and Competition Eliminator.

## 4.1 OEM Style Superchargers.

### *How does this rule protect the safety of participants and spectators?*

At the moment, according to the rule book, Roots style superchargers (of which Eaton Rotor Superchargers are classified) are required to have SFI Supercharger Restraints, Burst Panel, Aluminium mounting bolts and specific minimum thickness end plates.

These Supercharger Rotors have been developed by Eaton and manufacturers like Magnuson, Whipple, Harrop and OEM's use the rotors in their engine/vehicle specific housings for road going vehicles like the LSA equipped HSV's (1900 rotors) and the latest 2650 Rotor pack developed for the Corvette and used in the Copo Camaro in the NHRA and NMCA Factory Stock Showdown class.

By allowing EFI vehicles using these Superchargers as supplied by the manufacturer without Restraints, Burst Panel and Aluminium Bolts is going to allow many street cars to get a Tech Inspection (there are many running in the 9sec zone now without these items and ANDRA Tech.)

It should be understood that the 1900 LSA Superchargers are being modified (ported) for airflow improvement, but does not appear to impact the strength or risk of damage to the Supercharger.

### *How is this rule a positive step for the sport?*

By updating the rules on Superchargers to allow for technological progress in Superchargers where vehicles running these Superchargers don't require the additional safety features, or specific thickness front and rear plates as the Superchargers are not modular.

It is updating the rule for racers who are currently running quicker than 10 seconds with an OEM Style Supercharger without the additional safety features required by the Rule Book and older style Roots Superchargers designated 10/71, 12/71, 14/71, etc.

SFI certified Supercharger Restraints and Burst Panels are not available for these Superchargers as the NHRA do not require them in the USA.

The NHRA specifically refer to OEM type Screw Superchargers do not require restraint. (Noting the Eaton Rotor pack by definition is not a Screw Supercharger.)

'If' the Superchargers find their way into Group 2, overdrive limits can be specified as they are in the Factory Stock Showdown class.

### *What is the positive impact of the rule on other classes and brackets?*

Allows vehicle to legally compete at ANDRA sanctioned events without the additional features currently required by the ANDRA Rule Book.

### *How does the rule ensure increased opportunity for even competition?*

By allowing OEM Superchargers to compete 'as manufactured' on Modern Street Cars, or Modern Engines in older Sedans as well as Dragsters and Altered's to compete without the safety equipment that is required by the rules, but is not available for these Superchargers.



*Describe how the rule is practical and enforceable.*

The Current Supercharger Rule is not being enforced now as there are MANY Modern Street Cars running faster than 10.00 seconds WITH ANDRA TECH and no Supercharger Restraints, Burst Panel and Aluminium mounting bolts.

Tech Inspectors will not have to check for these items when inspecting a vehicle with an OEM Style Supercharger.

*Describe how the cost of complying with the rule is reasonable for competitors.*

If a racer was to comply with the current rules there is a significant cost to have custom SFI Supercharger Restraints made. (No off the shelf SFI Restraints are currently available.) There is no way to fit a Burst Panel on OEM Style Supercharger case and Metric Aluminium bolts would need to be sourced and fitted to the Supercharger to Intake Manifold mounting.

By clarifying the rule so that OEM Style Superchargers do not require these items, racers will save money. (I don't believe any competitor running faster than 10.00 has tried to fit these items yet.)