

3.10 SUPER STOCK ELIMINATOR

- ◇ **NOTE:** A limit of only two (2) classes per Eliminator per season may be contested.
- ◇ **NOTE:** Except where permitted by Class Regulations, any competitor found to be employing reactive traction systems or devices by any means will be subject to a twelve (12) month suspension and a fine of \$15,000.
- ◇ **NOTE:** Competitors wishing to avoid having their engines inspected at events are encouraged to have their engines verified and sealed prior to the event by an ANDRA Official.
- ◇ **NOTE:** For D/MSA and E/MSA engines must be sealed prior to competition due to level of engine restrictions.

3.10.1 MODIFIED SEDAN

CLASS DESIGNATION: /MS, /MSA

CLASS HANDICAP SYSTEM - FULL TREE START

ELIMINATOR: JACKIE WATT CONSULTING/ FARDELLA RACING SUPER STOCK



Super Stock Eliminator, Modified Production – Tim Triantafillou, #6383
 (Cackling Pipes Photography)

C & R

motorsport developments

Engine Dynamometer Facility

Superflow SF902 Dyno

Perth, Western Australia

Geoff Chaisty 0417 922 879

Jodi Racco 0477 646 464

crmd@tpg.com.au

Class Description;

Cars in Modified Sedan are street appearing production cars available to the general public, maintaining the appearance of a highly modified street car. Only vehicles originally fitted with an assembly line fitted V8 engine are eligible to compete in this class. Other than D/MSA and E/MSA, H/MS and H/MSA V8 engines with a single carburettor must be used.

Modified Sedan is for true "back half cars" only, and all major modifications can only occur behind the front door.

The original floor pan /chassis rails must remain unmodified forward of the rear of the front door, other than modifications permitted in the following class regulations.

Liberal rear suspension modifications are permitted, within the limits provided by the regulations.

Proposed body dimensions for a vehicle competing in this bracket, along with standard dimensions for that model must be forwarded to the ANDRA Head Office by the competitor, before competing, or prior to the issue of, or renewal of the Vehicle Logbook. The onus is on the competitor to supply all relevant body dimensions.

Class compliance is incumbent on the following class regulations being met in their entirety.

Any information found to be incorrect may result in Tribunal Action.

Class Designations;

A/MS, A/MSA, B/MS, B/MSA, C/MS, C/MSA, D/MSA, E/MSA, H/MS, H/MSA

Class Details / Weightbreaks (including driver);

Designation	Weightbreak
A/MS & A/MSA	207.60 kg/litre (7.50 lbs/cube) or more, Minimum weight 1451.50 kg (3200 lbs)
B/MS & B/MSA	260.19 kg/litre (9.40 lbs/cube) or more, Minimum weight 1315.42 kg (2900 lbs)
C/MS & C/MSA	314.17 kg/litre (11.35 lbs/cube) or more, Minimum weight 1315.42 kg (2900 lbs)
D/MSA	200.67 kg/litre (7.25 lbs/cube) or more Minimum weight 1381.18 kg (3045 lbs) Engine size restricted to 420.00 to 460.00 cubic inches Maximum rpm limit is 9200 rpm
E/MSA	249.12 kg/litre (9.00 lbs/cube) or more Minimum weight 1387.99 kg (3060 lbs) Engine size restricted to 340.00 to 365.00 cubic inches Maximum rpm limit is 9200 rpm
H/MS & H/MSA	260.19 kg/litre (9.40 lbs/cube) or more Minimum weight 1406.13 kg (3100 lbs) Restricted to VT to VF Holden Commodores or derivatives of the VT to VF Commodores. Sedan, Utility (Ute), Station Wagon and Coupe bodies of VT to VF Commodores are acceptable

The suffix A denotes vehicles using OEM planetary transmissions (refer Definitions, "OEM Planetary Transmission") and torque converters, which will use a different Class Handicap.

Class Regulations;

Camshaft: A/MS, A/MSA, B/MS, B/MSA, C/MS and C/MSA permitted to use roller cams. Maximum roller cam core diameter is 55mm. Tie bar lifter only. Maximum lifter diameter is 0.904-inch.

D/MSA and E/MSA restricted to maximum 55mm diameter core. D/MSA restricted to 0.900 maximum valve lift and E/MSA restricted to 0.800 maximum valve lift (both measured at the valve). D/MSA and E/MSA Roller Lifters permitted with a maximum 0.904 inch diameter.

H/MS and H/MSA may use solid or hydraulic roller tappet camshaft.

Cylinder Heads:

A/MS, A/MSA, B/MS, B/MSA, C/MS and C/MSA;

Permitted any mass produced OEM Cast Iron cylinder head, or any of the following aftermarket Cast Iron cylinder heads are permitted.

1. Chevrolet: GM Cast Iron Bowtie (all), World Products- Sportsman II 011150, Casting # I-037 and S/R Casting # I-052
2. Chrysler: Mopar Performance - W2 (all)
3. Ford: World Products - 053030, Casting # I-056 and # I-057
World Products - 053040, Casting # I-061.

A/MS, A/MSA;

May use the following Aluminium cylinder heads.

1. Chevrolet: Part No 14044861-2 (Casting No 14044861),
Part No 14011076 (Casting No 14011077),
Part No 12363410 (supersedes 14011076-7)
Part No 19331427
2. Chrysler: Part No P4529335 (Stage V1), Part No 4349600.
3. Ford: Part No TFS-A460 or M-6049-B460,
Part No M-6049-A429 or M-6049-B429.

B/MS, B/MSA, C/MS and C/MSA;

The following aftermarket Aluminium cylinder heads are permitted.

1. Chevrolet: Brodix Dragon Slayer DS225 P/N: 1320000
Brodix Race Rite RR200 P/N: 1010002 A (Angle Plug)
and 1010003 S (Straight Plug)
2. Chrysler/Mopar: Brodix B1 BA 195 P/N: 3180000
Trickflow Specialties P/N: TFS-6141T783-C00
Indy 360-1, Indy 360-2
3. Ford Cleveland: Edelbrock Performer RPM P/N: 61629
Trickflow Specialties P/N: TFS-51616203-C00
4. Ford Windsor: Air Flow Research P/N:1492 or 1422
Brodix IKF P/N: 1501000
Edelbrock Performer RPM P/N: 60259
5. Holden: Edelbrock Performer RPM P/N: 61379
Speedmaster P/N: SM 3072
Torque Power #TP-200

D/MSA;

Any OEM or non-billet aftermarket cylinder head permitted.

E/MSA;

Any OEM or non-Billet aftermarket inline valve cylinder head permitted (Canted valve, Splayed valve or Billet cylinder heads not permitted).

H/MS and H/MSA;

Limited to cathedral OEM LS1 and LS2 cylinder heads, casting numbers #241, #853, #243 and #799.

- ◇ **NOTE: Any cylinder heads not listed may be submitted to ANDRA for approval.**

All permitted cylinder heads must have a standard port configuration and valve angle as well as having a direct relationship to the brand of engine block and engine series (e.g. engines available in that particular model of car from OEM production). Angle milling of cylinder heads permitted.

Inlet and exhaust ports may be enlarged, but no material (metallic or otherwise) may be added to the casting inside the ports or combustion chamber, except in the case of genuine repairs where material may be added with the only purpose to replace the original metal.

Details of all genuine repairs must be submitted to technical@andra.com.au for approval prior to commencement of the repair. Details must include clear images of the type of damage and the intended repair method. Images of the final repaired cylinder head must also be provided to demonstrate that the repair has not significantly altered the configuration of the cylinder heads for purposes of increasing performance. Genuine repairs are defined as a repair for the intent of maintaining original design specifications, and must be localised to the specific area of the fault. Replacement of valve guides and seats is permitted.

Sealing agent, gasket or any other material must not protrude, into any inlet or exhaust port past the original face.

Exhaust flange adaptor plates may be fitted to the original exhaust faces, but no part of the adaptor, header flange, flange gasket, or exhaust may protrude in to the port past its original outside face.

Engine: The engine must be based on an assembly line V8 maintaining the original configuration, including bore spacing, deck height, camshaft height and pan rail width, with a recognised connection between the manufacturer of engine and body used. Competitors are advised that in addition to the configuration guidelines listed above, any aftermarket blocks with any alterations in design from the original OEM design require approval from ANDRA Technical prior to use. This applies to all /MS classes.

H/MS and H/MSA vehicles are limited to OEM LS1 and LS2 Aluminium cylinder blocks, with engine numbers submitted to ANDRA prior to competition. FWD vehicles produced after 1st January 1986, and generally available in Australia, may be converted to RWD.

The grouping of models will be considered the same for classification purposes, e.g. Holden - HK to HG, HQ to HZ, Commodore VB to VL, Falcon - XR to XY, XD to XF. Use of a different capacity engine is permitted. In all cases, the make of engine is determined by the cylinder heads fitted.

Any aftermarket Cast Iron engine block of original configuration is permitted. Oversize engines of a different configuration may be fitted in A/MS and A/MSA provided the recognised connection to manufacturer is maintained.

D/MSA and E/MSA permitted to use OEM Aluminium blocks but only in combination with original configuration and bolt pattern LS heads.

D/MSA permitted to use any aftermarket cast iron or alloy non-billet block, but must maintain OEM bore spacing for make and engine brand / family. Only permitted in D/MSA to allow for large cubic inch small block configurations used across the different engine brands - but must still maintain a recognised connection between the manufacturer of engine and body used.

D/MSA engine size restricted to 420.00 to 460.00 cubic inches. Maximum Bore Size 4.300.

E/MSA engine size restricted to 340.00 to 365.00 cubic inches. Maximum Bore Size 4.080.

Maximum rpm limit for D/MSA and E/MSA is 9200 rpm.

D/MSA and E/MSA vehicles must have the ability to provide evidence of compliance with rpm limit, which may be checked by ANDRA Officials at any time at their discretion.

D/MSA and E/MSA wet sump only, external oil pump permitted but limited to either single stage pump with separate vacuum pump or two stage wet / vacuum pump.

Exhaust: Any extractor or exhaust system may be used, terminating at sill panel level, with the gases being directed away from the car and tyres. Maximum of four outlets permitted. Exhaust may exit through inner fenders, but these may not be trimmed for more than 50 mm (2 inches) clearance around pipes.

Fuel: All classes except D/MSA and E/MSA restricted to Ethanol, Methanol or Petrol only. D/MSA and E/MSA restricted to any ANDRA approved Unleaded Fuel Only (no E85 or Alcohol).

Ignition: Any distributor ignition system permitted with the exception of magnetos.

Induction System: Excepting D/MSA and E/MSA, H/MS and H/MSA vehicles using EFI, all classes restricted to a maximum of one carburettor with a maximum of four venturis. Tunnel ram plenum type manifolds are not permitted. H/MS and H/MSA utilising EFI permitted to use OEM or aftermarket manifolds retaining OEM configuration, maximum of a single 105 mm throttle body / blade or a single 4 barrel type throttle body using a carburettor style base when fitted to a mass produced cast manifold permitted. Any ECU permitted.

D/MSA and E/MSA restricted to a maximum of one carburettor with a maximum of four venturis or **EFI using a Singular (1) Throttle Body. Both carburettor and EFI limited** to maximum of 4150 for E/MSA and 4500 for D/MSA Holley bolt pattern spacing, mass produced cast aluminium manifold only, internal porting and welded repairs of minor damage permitted. Tunnel Ram plenum type manifolds not permitted.

Power Adders: Not permitted.

Bellypan: Not permitted.

Electronic Management: Electronic gear shifting devices permitted. Refer Electrical, ECU Software.

Delay Devices: Not permitted. Refer Electrical, Computers, Delay Devices.

Electrical: Each car in this class must have a full working wiring harness.

Fuel System: Fuel Systems: Fabricated fuel tanks permitted, mounted in rear / boot area permitted, front accessory tanks mounted in engine bay permitted but must draw its fuel supply from rear tank.

Radiator: Must run full stock size radiator. The radiator may be relocated forward of original position without unnecessary removal of supports and surrounding panels.

Instruments: Each car must have a full stock dashboard, original instruments may be replaced with aftermarket components within factory dash arrangement and addition supplementary instruments may also be installed.

Upholstery / Seats: Original trim shall be maintained. Door trims may be modified for minimal clearance for the rollage. Carpet and roof lining are optional.

Customised seats permitted providing the front seats are replaced with no less than two bucket seats that are fully upholstered.

Rear seat optional.

Driver Location: Driver must be in stock location.

Windshield and Windows: Must be in good condition and may be fully operative. All non operative windows must be permanently closed.

Polycarbonate of a minimum of 3.0 mm (1/8 inch) thickness may be used in any window to replace the original glass.

Windscreen if replaced must be clear colourless Polycarbonate not less than 3.0 mm (1/8 inch) thickness and installed using factory type mouldings.

Bonnet Scoops: Permitted in all /MS classes, minimal modifications are permitted for induction clearance only. Otherwise, bonnet scoops must not exceed 254 mm (10 inches) in height. Refer Section "Bonnet Scoops".

Chassis: **The OEM stock automobile frame (chassis rails) for body used must be retained, (and may not be removed/replaced/reconstructed) forward of the rearmost point of the front door.**

Chassis may be reconstructed rearward of the rearmost point of the front door. Suitable material for chassis construction can be found in section "Material Designation".

A maximum of two front to rear frame strengthening members may be added to any Unibody constructed car and may be up to 50 mm (2 inches) x 75 mm (3 inches) material, or any permitted material suitable for construction in "Material Designation", running longitudinally between the **OEM stock front frame (chassis rails)** and rear sub frame (**back half**).

If material passes through the floor they must be welded to the floor leaving no holes.

The fitment of any additional floor bars and/or floor reinforcement (including floor bracing rollcage components) forward of the rearmost point of the front door lower than sill height, are deemed to be floor/chassis strengthening members and will render the vehicle non-compliant for Modified Sedan.

Body: Must be an OEM production car body.

Modifications altering the contour of the body are not permitted.

Original grille must be retained, but may be covered from behind to prevent air from passing through.

Full stock headlights and tail lights must be retained, but need not be operative.

The replacement of panels with fibreglass or composite material, Aluminium or other materials is only permitted for pre-1986 vehicles and limited to bonnet and front guards, otherwise not permitted except as noted in these rules.

Floor may be reconstructed from rearward of the rear most point of the front door, in Steel of the same gauge as original.

OEM floor from forward of the rearmost point of the front door may only be removed and reinstalled* (using the same techniques and material as the OEM) for rollcage installation and/or any necessary repairs required after an accident causing damage to the floor and/or genuine rust repairs.

*reinstalled can mean either of the following;

- Reinstalled and reconstructed using the same OEM parts that have been removed from the race vehicle.
- Reinstalled and reconstructed using OEM parts from a same year/make/model donor car.

In all cases, where the floor from forward of the rearmost point of the front door is removed and reinstalled, an application in writing, along with the relevant images and measurements, to technical@andra.com.au is required prior to any floor work starting. The images and measurements provided must then be verified by an ANDRA Official afterwards when the floor work is completed to confirm class compliance.

Inner front wheel arch area may be clearanced to accommodate industry standard front tyres up to 26 inches (660 mm) in diameter.

Front transmission tunnel may be removable and reconstructed forward of the front universal joint. The new transmission tunnel should attempt to maintain appearance of original contour with allowance given for swapping between transmission types and makes. The maximum length of any reconstructed tunnel is 44 inches (1117 mm) from the rear of the engine block and any alterations to the existing tunnel is limited to the area within 44 inches (1117 mm) from the rear of the engine block.

Convertibles, Panel Vans, Utilities (Utes) and closed Sports Cars may compete in this class providing all requirements are met. All competitors utilising a Utility (Ute) type body configuration must ensure that the tailgate remains closed during competition.

Aftermarket panels must retain OEM appearance and OEM shape. Single or multi-piece front clips prohibited.

Bumpers: Stock front and rear bumpers with over-riders or exact replicas in fibreglass or composite material, with proper bracing are required.

Weight Removal: The removal of inner panels from bonnet, boot lid and other areas is strictly prohibited. Bonnet hinges may not be removed and may only be modified for clearance of ancillary components.

Ballast: Permitted.

Rear Axle: Any production automobile rear axle assembly permitted. Track may be narrowed. Spool may be fitted.

Wheelbase: Must meet manufacturer's specifications, and must not vary from left to right more than 25 mm (1 inch).

Steering: Properly fitted rack and pinion steering may replace other types. Left or right hand drive permitted.

Parachute: Required where Class Record exceeds 140 mph (225 km/h).

Self Starting: Required. Push starts not permitted. Refer Support Group, Self Starting.

Night Lighting: Required.

Clutch: Multi-Stage / Lock-Up clutches prohibited.

Clutch must be manually operated by the driver's foot.

Electronics, pneumatics, hydraulics or any other device may in no way affect the clutch system, and the throwout bearing must release all fingers, levers or stages simultaneously.

Staged or variable release clutches of any description prohibited.

Transmission: Aftermarket or OEM manual transmissions to a maximum of four forward speeds permitted in the relevant classes. Transmissions must remain in conventional location determined by engine used. Clutchless manual transmissions prohibited. Gearboxes using split sliders not permitted. Automatic transmissions using a clutch in place of the torque converter are acceptable in manual classes.

D/MSA and E/MSA automatic transmission only.

All automatic classes limited to automotive based OEM planetary transmission (refer Definitions, "OEM Planetary Transmission") of up to three speeds using a torque converter.

Lock up convertors prohibited in all /MSA classes.

Wheels / Tyres: Rear tyres may not protrude more than 50 mm (2 inches) past a 50 mm (2 inch) flared guard measured at top of tyre.

Fenders may be cut to accommodate tyres. Refer Wheels and Tyres.

D/MSA and E/MSA tyre size may be no larger than 275/60R15 or 28x10.5 radial as labelled by manufacturer.

30x9x15 slick or radial slick is optional. No "W" tyres permitted.

Absolute dimensions with tyre at 15 lbs pressure and raised off ground shall be 275/60 and 28"x10.5" sizes: tread width = 10.5 inches, diameter = 28.5 inches. 30"x9" size: tread width = 9.5 inches, diameter = 30.5 inches.

Brakes: Four wheel hydraulic brakes required as a minimum.

Suspension: Front suspension may be raised or lowered and limiters may be used, but all pivot points must remain unaltered.

Replacement of suspension components with stronger units permitted, but lightening of original units not permitted.

Sway bar may be removed. Crossmembers / K-Frame may be replaced or the original may be modified for adequate sump / ancillary clearance, where strength is not compromised and suspension mounting points remain in their original positions relative to the vehicle.

Original suspension components may be strengthened.

Rear suspension must be operative automotive type equipped with a minimum of one hydraulic shock absorber per wheel. Fabricated rear suspensions permitted.

Wheelie Bars: Wheelie Bars are prohibited in D/MSA and E/MSA only.

Rollcage: The fitment of an SFI specification chassis/rollcage, will render the vehicle non-compliant for Modified Sedan due to the addition floor bracing required for SFI compliance.

Licence Requirement: Group 2 UDL as a minimum.

Technical Inspection and Vehicle Logbook: Required.