



E36 Race Series Regulations 2021

SPECIFICATIONS OF AUTOMOBILES ALL VEHICLES IN RACES AND OTHER SPEED EVENTS MUST COMPLY WITH THE GENERAL REQUIREMENTS OF AUTOMOBILES (SEE “GENERAL REQUIREMENTS FOR CARS AND DRIVERS” IN THE MANUAL OF MOTORSPORT).

1. Philosophy

- 1.1. The intent of the following regulations is to enable competitors to adequately prepare a production BMW 318is for competition. The E36 Race Series is intended to be a circuit racing group for BMW E36 318is vehicles that have controlled parameters installed to promote and easily manage parity for performance and other componentry. The E36 Race Series is aimed at Club level competitors as an entry level motorsport class operated under AASA guidelines and requirements.
- 1.2. Our philosophy and aim is to develop a more cost-effective grassroots motorsport series in Australia. Modifications permitted to the vehicle/s are outlined within these regulations; **ANY MODIFICATION NOT OUTLINED WITHIN THESE REGULATIONS IS DEEMED ILLEGAL AND IS NOT PERMITTED.**
- 1.3. Technical Service Bulletins, or TSBs, document recommended procedures for repairing vehicles and are issued by the series Technical Department when there are several occurrences of an unanticipated problem. TSBs can range from vehicle-specific, to covering race inspired improvements and upgrades where the specified repair is a step-by-step process. While some issues addressed will cover a technical process change, certain problems may have more than one cause and therefore often there is sometimes more than one way to fix a problem. This may result in multiple TSBs for the same problem. TSBs may have multiple reference names for different things. All TSBs must be approved by the E36 Race Series Committee Members.

2. Definition

- 2.1. The present regulations apply to Australian Delivered BMW 318is vehicles fitted with either a M42B18 or M44B19 engine.

3. Eligibility

- 3.1. To be eligible for the E36 Race Series, the automobile must be an BMW E36 318is and of Australian delivery.
- 3.2. All controlled items as listed must be purchased from an appointed supplier or through the E36 Race Series Club.

4. Racing Weight

- 4.1. Defined in the Motorsport Specifications of Automobiles, each competitor must comply with the E36 Race Series Racing Weight. The National E36 Race Series Racing Weight is a minimum of 1200kg with Driver and Driver Safety Equipment at race end.
- 4.2. Competitors may be requested at any time to participate in vehicle/driver weight check. Refusal by any competitor will automatically exclude them from the round. Any competitor found to be underweight will be relegated to the rear of the grid for the next race (or in case of the final race of the round, they will be excluded from the race results.)

5. Non-Genuine Parts

- 5.1. Freedom of source of supply is granted for all fasteners, belts, gaskets, flexible hoses, liquid carrying pipes, mechanical cables, bearings, clamps, spark plugs and spark leads, filters, batteries and battery cables, globes and LEDs, fuses and electromechanical relays and windscreen glass provided no additional modifications are made to facilitate the fitment of the replacement part.

6. Safety Cage

- 6.1. Each vehicle must be fitted with a full safety cage. Each safety cage must be in compliance with the General Requirements for Cars and Drivers in the Manual of Motorsport. Both weld-in and bolt-in cages are compliant.

7. On Board Camera

- 7.1. Each competitor must install and maintain in working order a video camera (GoPro type) on the side of the main roll bar with clear vision of the steering wheel at all times. Nothing may obstruct the camera picture and it is the responsibility of the competitor to ensure the functionality of the camera system at all times. The camera must be operating at all times that the car is on the race track and it is the competitor's responsibility to ensure that the SD card is installed at these times. Access to the data on the SD card must be given to any race official, DSO or President of the E36 Race Series on request.

8. Engine

8.1. General

- 8.1.1. Unless specified otherwise below, tolerances for machining, finishing and weighting of engine components will be in accordance with the General Requirements for Cars and Drivers (Motorsport Manual). All plastic shrouding located in the engine bay, the sole purpose of which is aesthetic, may be removed. Soundproofing material and trim fitted to the underside of the bonnet that is not visible from the outside may be removed.

8.2. Mounts

- 8.2.1. The dampening material of the engine mounts is free provided the mount is not solid (steel) material, location position and orientation of the engine mounts remains standard.

8.3. Engine Block

- 8.3.1. It is permitted to increase the cylinder block up to a maximum of 0.50mm over the standard bore size. Re-sleeving the cylinder is permitted providing that the same material is used.
- 8.3.2. Decking or milling the block is permitted providing that the piston does not protrude past the top of the block by 0.10" max and 10.1 compression ratio is maintained.

8.4. Cylinder Head

- 8.4.1. It is permitted to remove material from the face of the head providing that the overall minimum cylinder height is 139.00mm
- 8.4.2. It is permitted to re-grind valve seats providing the process does not remove the cylinder head casting.
- 8.4.3. Valve timing and operation shall be standard BMW for both M42 and M44.
- 8.4.4. Only OEM cylinder heads fitted to M42 and M44 to be used, swapping of heads from M42 to M44 and vice versa is not allowed.
- 8.4.5. Camshafts MUST be genuine BMW OEM, no reprofiled cam allowed.
- 8.4.6. Head gasket is free, providing maximum 10.1 compression ratio is maintained.
- 8.4.7. NO grinding or cleaning up of intake or exhaust ports, must be in as cast surface finish.

8.5. Crankshaft

- 8.5.1. Crankshaft must be the original BMW OEM, M42 fitted to M42 block and M44 fitted to M44 block only.
- 8.5.2. Maximum amount of material permitted to be removed to any crankshaft journal is 0.25mm.
- 8.5.3. Crankshaft balancing is allowed.

8.6. Conrods

- 8.6.1. Only standard BMW OEM conrods to be used.

8.7. Pistons

- 8.7.1. Pistons may be replaced but must either OEM or pistons that match OEM requirements.

8.8. Piston Rings

- 8.8.1. Piston rings must be OEM or other manufacturers that match OEM size and material.

8.9. Lubrication

- 8.9.1. No modifications allowed to sump, oil cooler is allowed.
- 8.9.2. Moving of engine oil dipstick is permissible.

8.10. Throttle/Fuel System

- 8.10.1. Fuel rail and injectors must be OEM, and original injectors for the motor designation must be retained.
- 8.10.2. Throttle body to be replaced with series specification ITB setup including plenum available through the E36 Race Series Club.

- 8.10.3. Dual immersed fuel pumps are allowed but must be original BMW standard or like item and must run standard fuel pressure regulator.
- 8.10.4. Air intake downstream of controlled plenum is free.

8.11. Pulleys

- 8.11.1. Ancillary pulleys (power steering/alternator/water pump etc...) are free providing OEM size and belt width is retained.

8.12. ECU (Electronic Control Unit)

- 8.12.1. ECU is a controlled item through the E36 Race Series Club, this is tuned and locked. The E36 Race Series Club may at times remove a competitors ECU and replace it with a club ECU.

8.13. Cooling System

- 8.13.1. Radiator is free providing original mounting points used and hoses inlet/outlet remain in OEM position.
- 8.13.2. Thermostat and water pump are free, but must still be belt driven, see 7.11.
- 8.13.3. Thermo fans are free.
- 8.13.4. Engine/transmission and final drive coolers are free providing their sole purpose is to cool the oil.
- 8.13.5. All coolers and fittings must remain inside the body work of the vehicle.

8.14. Exhaust System

- 8.14.1. OEM headers must be retained.
- 8.14.2. Exhaust is free downstream of the first flange.

8.15. Air Conditioning

- 8.15.1. Any part of the air conditioning system may be removed.

9. Transmission

9.1. Mounts

- 9.1.1. Mounts are free providing they are not solid (steel) type construction and the original position is retained.

9.2. Gearbox

- 9.2.1. Original gearbox to be used, no modification to gearbox other than shortening of gear lever and fitment of oil cooler.

10. Differential

- 10.1. Differential must be OEM, 3.45 ratio is the only ratio permitted.
- 10.2. Differential is allowed to be open only.
- 10.3. Differential bushes are free providing they are of elastomer construction
- 10.4. Differential must be sealed in accordance with the Differential Sealing Process TB E36SP-01. This requirement must be adhered to prior to the competitors first event of the 2021 race season.

11. Flywheel

- 11.1. Dual mass flywheel may be retained, lightweight flywheel is permitted, only 1 brand/make of lightweight flywheel acceptable, purchased through the E36 Race Series Club.

12. Clutch

- 12.1. Clutch driven plates are free providing the number of plates remains standard and not made from carbon material. Pressure plate may be replaced with another assembly, to fit either dual mass or lightweight flywheel.
- 12.2. Slave cylinder must remain OEM style, lengthening pushrod is permitted for lightweight flywheel.

13. Suspension

- 13.1. Suspension is a controlled item available from Suspension Concepts for the E36 Race Series.
- 13.2. Revalving of shocks is not allowed, spring rates must not be changed.
- 13.3. Front shocks must have 2 springs (main and helper) fitted at all times.
- 13.4. Strut Braces are free for front and rear, but can only tie shock towers together, cannot tie or mount back to body or firewall.
- 13.5. Bushes are free but must be of elastomer material.
- 13.6. Sway Bars must be original E36 front and rear, only sizes allowed are Front -25mm standard or 26mm Sport. Rear - 14mm standard or 16mm Sport. Sway Bar Links must be OEM type.
- 13.7. BMW E36 M3 Lower Control Arms are not allowed.
- 13.8. No modification of suspension mounting points allowed.

14. Brakes

- 14.1. Standard OEM front and rear calipers must be retained.
- 14.2. Brake pads are free
- 14.3. Rotors are free but must be OEM diameter.
- 14.4. ABS may be made non-operational.
- 14.5. Brake bias is permissible.
- 14.6. Brake lines are free.

15. Steering

- 15.1. Standard E36 steering rack to be retained.
- 15.2. No quick ratio racks allowed (purple tag)
- 15.3. It is permissible to disable power steering.
- 15.4. Steering lock should be rendered inoperative.

16. Wheels

- 16.1. Wheel shall be 17" diameter
- 16.2. Width 7" rim to 8" maximum
- 16.3. Any road style wheel permissible but must be 1-piece construction
- 16.4. Wheel spacers are allowed.

17. Tyres

- 17.1. Series tyre is Kumho V70 225/45/17 medium compound available through Prime Race Tyres only. Tyres not purchased and recorded to the E36 Race Series Club will be deemed ineligible.

Series Suppliers

Suspension Package

Suspension Concepts
Unit 2 / 3 London Drive
North Wyong NSW 2259
sales@suspensionconcepts.com.au
<http://www.suspensionconcepts.com.au/>

Independent Throttle Bodies, ECU & Lightened Flywheel

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Tyre Package

Prime Race Tyres
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