



J1000 Technical Regulations

Valid 01.01.2024

The Motorsport Ireland Forest Rally Championship Sub commission are the organisers of the MI Forest Rally Championship which includes J1000 cars running in Class 21. Regulation for this series and personnel are listed in Appendix 32, "Championship Organisers".

The Motorsport Ireland Junior Rally series, "MIJRS" is a mixed surface championship including Forest Rallies, Tarmac and Gravel Rally Sprints. This dual surface series is organized and run by a working group, regulation for this series and personnel are listed in Appendix 36, "Championship Organisers".

All cars must have completed "Pre-season Technical Compliance checks for J1000 Category Cars" prior to their 1st event from January 2024. This may be carried out at an organised Technical Compliance Inspection day or by appointment through Motorsport Ireland Technical Commission.

Any queries in relation to J1000 Technical regulations should be directed via the MI J1000 Technical Liaison, contact details below.

1. GENERAL

1.1 The whole aim of this class is to inspire and promote young talent. We do not want to find anyone in contravention of these regulations. You are given fair warning that from 2024 onwards the checks on cars will be much more stringent and much more regular. If you have any queries regarding anything within these regulations, please get in contact via the MI J1000 Technical Liaison.

1.2 We have said many times, if these pages don't say you can do it then assume you can't. The Championship Organisers reserve the right to require a competitor to take their car to an approved rolling road for a power check at any time. This will be at the registered competitors' expense.

1.3 The following pages give specific details regarding all aspects of the Technical Regulations please take time to read them. For the purpose of these regulations Championship Organisers recognize that models from different manufactures such as the Toyota Ago, Citroen C1, VW Up and Seat Mii share common components. Only components standard to the original manufacture's specification for the model and date of manufacture maybe used i.e. a component of a differing specification is not permitted unless explicitly provided for within these regulations.

1.4 The following regulations are in addition to Appendix 2 and Appendix 29.1 of the current Motorsport Ireland Yearbook. Championship Organisers may require any engine, transmission or any other part fitted to the car to be dismantled for the purpose of carrying out eligibility checks. Component Sealing may be carried out with a view to dismantling such components at a later date for inspection. Refusal to allow this will result in all championship points up to and including the date of the request being forfeited. The cost of any stripping will be borne by the competitor.



2. ENGINES

2.1 Engines must have a maximum swept volume capacity of no more than 1000cc. There is no re-bore allowance. If your engine is worn or suffers a failure, then a replacement engine of the same type and of the correct capacity and of the same related model may be fitted. The fitting of a later engine from a newer model is not allowed, e.g. a Micra K11 engine cannot be fitted to a K10. If such a replacement is not available, then re-boring for the purposes of re-lining the engine to the correct capacity and stroke is allowed. Re-boring an engine and short stroking by swapping or modifying the crank in any way so as to achieve the correct engine capacity is strictly forbidden.

2.2 It may be permitted to transplant a sub 1000cc engine into an originally higher specification car e.g. Nova GTE with a sub 1000cc Vauxhall engine. (Please if you think this may apply to you then contact via the MI J1000 Technical Liaison for clarification before you spend time and money).

2.3 Carburetor or fuel injection is only permitted as originally fitted to the sub 1000cc engine. This includes fuel injectors which must remain the standard injectors fitted to that specification of engine by the manufacturers, larger injectors or injectors from a different model or engine are forbidden. Carburetor and throttle bodies must also remain as standard and contain all the components as the car left the factory. The machining, enlarging or any other type of modification is not allowed. The diameter of the throttle body and any butterflies or bridges must remain within the manufacturer's tolerances for that model and year of car. The carburetor/throttle body may not be replaced with any such item from a different model of that car or any other car in the manufacturers range.

2.4 Air filters must be fitted, open ram pipes are not allowed. Air filter and trunking are free but must be fitted. These may be modified to aid air flow, but all incoming air must pass through the air filter, i.e. no bypass systems. Filters must not be outside the body area of the car or protrude through any part of the body, grille or bumper area of the car.

2.5 Cold air boxes may be fitted.

2.6 Carburetor/s may be set up to optimise jetting.

2.7 Fuel pumps are free.

2.8 Adjustable fuel pressure regulators may be fitted.

2.9 The inlet manifold must be of a type fitted to the model of engine concerned and must be original and unmodified in any way.

2.10 The exhaust manifold/pre-exhaust pipe must be of a type fitted to the model of engine concerned and must remain standard and unmodified in any way up to the entry of the catalytic converter or other junction whichever is sooner.

2.11 The routing of exhaust pipes and silencers is free from the exit of the Catalytic converter. A Catalytic converter, where fitted, must remain in its original location as fitted by the manufacturer and be of a similar design and specification or an aftermarket item of the same specification. Catalytic converters must remain on cars manufactured after 31/12/99. Catalytic converters must remain fully functional, exhaust/catalytic converter bypass systems are not allowed.

2.12 Modifications of any kind to the engine block, any internal engine parts or rotating masses are not allowed except as detailed in the cylinder head section of these regulations. Non-original steel cranks or bottom ends are not allowed. Modifications such as balancing and or lightening are not allowed. The lightening or balancing of con rods and or crankshafts is forbidden. The use of nonstandard pistons and or gudgeon pins is forbidden. Only a flywheel as supplied as original equipment for that model of car is allowed or an aftermarket items of the same specification.



2.13 The machining and or lightening of flywheels is forbidden.

2.14 Oil coolers may be fitted. These must be contained within the profiles of the body, grille and bumper area.

2.15 Radiators may be modified and increased or decreased in either size or number. Location may be altered from the standard position but must remain in the engine bay.

2.16 Rev limiters whether electronic, fuel or mechanical are to remain unchanged from standard specification for that make and model of car. The rev limiter must operate within the range and limits as specified for that make and model of car. NO tolerance will be given for cars that do not comply and the penalty for this will be exclusion.

2.17 The drilling and or machining of any parts of the engine and any of its ancillaries other than to facilitate the application of a seal is expressly forbidden. This is deemed as lightening and includes any grinding or machining of lips ridges or any other webs or excess metal on any engine parts.

2.18 Engines, or any other component in the vehicle where specifications apply must be made available for sealing at any time that the Championship Organisers, event organisers, or Motorsport Ireland so request. See Appendix 2 Art 28.6 and 28.6.1 for sealing requirements (This should also include manifolds, carburetor, throttle body, engine electronic control unit etc. as well as rocker cover/cylinder head bolts). For any engine which carries a seal that needs to be replaced, approval must be sought via the MI J1000 Technical Liaison before any changes can occur.

2.19 Diesel engines are not allowed.

2.20 Rotary (Wankel) engines are not allowed.

2.21 Hybrid cars are not allowed.

2.22 Forced induction in any form is not allowed.

3. CYLINDER HEADS

3.1 It is permitted to skim the cylinder head up to a maximum of 0.635mm (0.025"). Should a cylinder head fail after it has been skimmed then a replacement must be obtained, this may then also be skimmed within the same tolerances. The cylinder head must be the correct cylinder head for the family of engine fitted.

3.2 Any machining or polishing of any part of the cylinder head other than that detailed in 3.1 is also forbidden. In particular, any part of the inlet and or exhaust ports or chambers, the valve seats and or chambers.

3.3 Inlet and exhaust valves must be the standard size type and fitment for the cylinder head fitted. Any machining lightening of the valves or any part of the valve is forbidden. The fitting of modified or oversize valves is forbidden. Valves from any other specification of engine are also forbidden.

3.4 Valve springs, rockers and any part of the valve operating mechanisms must be as standard fitment for the make and model of car or an aftermarket items of the same specification.

3.5 Camshafts must be the original standard equipment camshaft(s) for the for the family of engine fitted. No reprofiling of cam lobes and or bearings and or carriers is allowed. The use of uprated or modified camshafts is strictly forbidden.

3.6 It is permissible to adjust camshaft(s) to bring valve timing back to standard after the head has been skimmed as per 3.1.



4. Engine Control Units (ECU's)

4.1 ECU's must be standard and unmodified in any way from the original ECU for the family of engine fitted. With the exception of items listed below at 4.5 (traction control) and 6.2 (ABS), alarm and immobilisers.

4.2 The modification of any engine and or ancillary control unit for the engine is forbidden. Especially to raise the rev limiter of the car, and or fuel mapping, and or ignition timing.

4.3 The fitting of any auxiliary and or piggyback chips or ECU is not allowed.

4.4 The fitting of any electronic device to attempt to increase the performance of a car is not allowed. i.e. aftermarket plug in chips. All sensors that effect engine performance must remain in their original position and operate to standard manufacturers tolerances. No inline resistors or similar to attempt to disrupt signals to any engine sensors or ECU's are permitted.

4.5 Removal of certain functions such as anti-yaw, traction control etc. as outlined in these regulations may only be carried out. No alterations to the engine mapping may be carried out.

4.6 The ECU must be securely fitted to the body or frame of the competing car. The unit must be bolted or screwed securely with a minimum of two fixings. No temporary fixings such as Velcro, tie wraps or double-sided tape will be permitted.

4.7 All ECU's shall carry an MI official seal.

4.8 ECU's may be removed at any time and sent away to confirm they are standard to the manufacturers specification to an MI Approved Agent or nominated test company.

4.9 If an ECU is tested and found to not comply with these regulations in any form no matter how small and whether it provides any performance advantage or not, then the competitor will be deemed to have run that ECU since the date the Motorsport Ireland seal was applied and will forfeit all points scored from that date, up to and including the time the unit was tested.

4.10 The Championship Organisers or MI reserve the right to ask any competitor to run an ECU provided by the Championship Organisers or MI at any time during the season or at any time during an event.

4.11 If an ECU is suspected to infringe these regulations and is removed as per 4.8 and is found to not comply with regulations in any way other than modifications that are allowed in these regulations, the cost of the ECU being checked will be borne by the competitor.

4.12 Championship Organisers or MI reserve the right to attach any type of data logging equipment to a car. The data collected will be shared with the competitor, Championship Organisers and Motorsport Ireland. The Motorsport Ireland approved agent or nominated company for ECU checking will interpret the data and decide whether any further tests are required.

4.13 All cars must have the manufacturers OBD/OBD II or diagnostic socket mounted in such a way that easy access is available to attach diagnostic or ECU reading equipment by event scrutineers or Motorsport Irelands approved agent or nominated company for ECU checking.

4.14 The wiring loom is free and maybe modified and redundant wires removed. However the engine loom wiring and connections to both ECU and ODB and or diagnostic port must remain. Removal of wires to either of these items that results in scrutineers and or the MI approved ECU checker or their representatives not being able to communicate fully with the ECU will be taken as the ECU having been modified and penalties applied as per 4.9.



5. BODYSHELLS

- 5.1 The body shell of the car may be freely strengthened including roll cage and suspension areas.
- 5.2 Gusset/Triangulations panels or similar, seam weld and weld on braces are all permitted.
- 5.3 Bolt on strut braces across suspension turrets are permitted.
- 5.4 Carpets, headlining's and sound deadening may be removed.
- 5.5 All body shell panels shall be of the original material as specified by the manufacturer for the age and model of your car. These panels should be of steel unless a composite material was used in the cars original manufacture. The replacement of standard steel items by composite or GRP is not allowed.
- 5.6 Additional or alternative instruments are permitted as are interior accessories e.g. intercom, trip meter etc.
- 5.7 Under body guards are permitted.
- 5.8 Strengthening, adding or replacement of engine and/or gearbox mounts is permitted.
- 5.9 Brake and fuel lines are free and their positioning can be changed.
- 5.10 Bonnet and boot fastenings are free, all doors (except tailgate) must retain the original manufacturers fastening and all doors must be able to be opened from both inside and outside the car.
- 5.11 All glass areas MUST remain glass. The replacement by any other material than glass is NOT permitted. Glass must remain original factory thickness. All side glass must be covered with protective film as per Motorsport Ireland Yearbook Appendix 2 Scrutiny Requirements.
- 5.12 A minimum of four rear view mirrors must be fitted to all cars. They will consist of two interior rear view mirror and two door mirrors. The first interior rear view mirror location may be moved to allow free vision after the fitting of a roll cage, it must however be in such a position that it can be used by either competitor when seated in the driver's side seat. The second interior mirror is for the use of the navigator only and must be mounted in such a position that it can be used whilst that person is seated and belted in the car.
- 5.13 Lightening of the body shell is not permitted, however in the interest of safety and for the purpose of fitting equipment, removal or alteration of internal trim, mountings and brackets is not considered as lightening. Bonnets, boots/tailgates and doors must not be lightened and any strengthening bars MUST NOT be moved from standard position in the vehicle or removed altogether. Trim removal and drilling to affix handles or fittings are not considered lightening.
- 5.14 The dashboard and instrument panel must remain in their original positions and must not be removed. The edges of the dashboard may be cut to allow the fitting of a roll cage. The dashboard (dash top) must be the original for the car; this item cannot be substituted for an aftermarket item. Except in the case of inverting driver position Ref to 8.3
- 5.15 Indicator and wiper/washer's switches must remain in the original positions on the steering column and operate in such a position. It is permitted to fit secondary switches for wipers/washers/horn that can be operated by the navigator. Except in the case of inverting driver position Ref to 8.3.
- 5.16 Heaters must be fitted in all cars and shall be the original item for the car. The heater specifically MUST be able to blow warm air onto the screen of the car through the manufacturers original dash top outlets or vents. The system must be capable of keeping at least 80% of the cars windscreen clear at all times. This applies even if a heated screen is fitted and must meet this criteria even with the screen



element turned off.

5.17 Air conditioning systems including pumps, condensers and or radiators may be removed.

5.18 The removal of the roof anti flex bar is allowed. The removal of the glove box is permitted.

5.19 The battery must remain fitted in the original position. The method of strapping the battery is free and the size of battery fitted is free.

5.20 Bumpers are not classed as trim and are not allowed to be lightened. The original steel back plates, or crash bars must be fitted. The drilling of holes in the bumpers themselves and or the steel backing or crash bars will be classed as lightening and is not allowed.

5.21 Only spoilers or aerofoils as fitted originally to that model of car, by the manufacturer of the car concerned are permitted. No aftermarket or altered versions are allowed.

5.22 Bonnet vents, scoops or any other modification to the bonnet area is not allowed. A bonnet vent will only be allowed if it was fitted as standard to the make and model of car entered.

5.23 A roof mounted vent pod is allowed.

5.24 Door cards must be fitted to doors; original door cards can be replaced with carbon fibre or such other parts (reference Appendix 2, Art 14.3). The original interior release handle must be retained and operational.

5.25 Tinted windows are allowed within the limits as laid down in Appendix 2 Art 19.2 of the current MI Yearbook.

5.26 The radiator grille or bumper air intakes must be fitted. It is permissible to replace these with another material to increase air flow but they must be fitted.

5.27 The removal of or replacement using a lighter material of the petrol filler cap or flap is not permitted.

5.28 The profile of the bodyshell must remain as standard, no modification to wings or wheel arches (i.e. widening) is allowed.

5.29 The minimum weight of the complete car inclusive of crew and equipment and a maximum of 1 spare wheel is 950kg. IT IS YOUR RESPONSIBILITY TO ENSURE YOUR VEHICLE/CREW IS OVER THE MINIMUM WEIGHT AT ALL TIMES, FROM THE START OF PRE-EVENT SCRUTINEERING UNTIL AFTER POST EVENT SCRUTINEERING.

6. BRAKES

6.1 Pads, Linings and fluids are free.

6.2 ABS systems may be disabled or removed. If this is required to be done by altering the software within the ECU, then this is permissible.

6.3 All major mechanical components of the braking system must remain as standard for the make and model entered, or a direct bolt on replacement from another model in the range. You may fit brakes of a higher specification model, but they must not be aftermarket products.

6.4 Extending the parking brake lever is allowed. The extension must be no more than 200mm in length and must follow the line of the existing lever (NO BENDS). The parking brake must continue to work as per NCT requirements.

6.5 Hydraulic Handbrakes are not permitted.



6.6 A brake bias valve may be installed however it must be positioned in such a way that neither the driver nor co driver can operate said valve whilst seated in the car with harnesses fastened ready to race.

7. TRANSMISSIONS AND DIFFERENTIAL

7.1 No modifications or machining to the standard gearbox are permitted.

7.2 All internal parts including gears MUST be standard showroom specification for the make and model entered. The transmission unit must be complete as originally supplied by the manufacturer for the make and model of the competing car or an aftermarket item of the same specification.

7.3 Up rated gear linkages are permitted.

7.4 Replacing an automatic gearbox with a manual gearbox is permitted.

7.5 Limited slip or torque biasing differentials are not permitted.

7.6 Clutch linings, covers and release bearings are free.

7.7 Drilling or machining on any external or internal parts of the transmission, gearbox casing, differential casing or any of its ancillaries other than to facilitate the application of a seal is expressly forbidden.

7.8 The gearbox from a Toyota Aygo, Citroen C1 or Peugeot 108 with a final drive other than 3.550 to 1 (introduced from May 27th 2014) must not be fitted to any Aygo, C1 or 107 manufactured before this date.

7.9 The fitting of a Toyota Yaris final drive to any Aygo, C1 or 107 is forbidden.

7.10 Volkswagen Up, Skoda Citigo and Seat Mii models may only use the standard gearbox with 4.17 final drive. No other gearbox is acceptable for these models.

7.11 Final drive and gearbox ratio checks will be carried out at pre season technical compliance inspection.

7.12 Up rated drive shafts and or CV joints are permitted providing there is no modification to the gearbox output to allow this.

8. STEERING

8.1 Aftermarket steering racks of higher ratio than standard are not permitted.

8.2 Power Steering may be added or removed.

8.3 Inversion of the driving position is permitted i.e. conversion from RHD to LHD and vice versa.

9. SUSPENSION

9.1 Suspension bushes may be changed for polymer material.

9.2 No all metal spherical, or composite or similar joints are allowed except as defined in rule 9.7.

9.3 Strut top mounting hole movement is permitted to optimise caster, camber or tracking angles.



9.4 All suspension-mounting points MUST be kept in the same position as standard showroom specification, other than item 9.3 but may be strengthened.

9.5 Springs and dampers are free, however remote reservoir dampers are not permitted.

9.6 Struts, springs and dampers may be changed for an up rated version but MUST be attached to the original fixing points on the car and suspension components.

9.7 Heavy/duty fabricated strut top mounts or similar are permitted, including spherical joints. These MUST fit in the standard body shell location.

9.8 Rear coilovers are permitted as long as the top and bottom mounting of such items mount to the car body and other suspension components in the original way.

9.9 Strengthening of a standard front lower suspension arm is permitted for the sole purpose of durability only.

10. SAFETY EQUIPMENT

10.1 All cars must comply with Motorsport Ireland safety regulations – Reference Appendix 2 of MI Yearbook.

11. WHEELS

11.0 Wheels are free provided they are not in contravention of Motorsport Ireland Yearbook Appendix 2 Art 8.1

11.1 Permissible wheel sizes are as follows: 13-inch wheels. These wheel sizes are the only wheel sizes permissible for the Championship.

12. TYRES

12.0 Only tyres listed by the Championship Organisers are permitted. For gravel events the tyre is the Pirelli 165/80R13 GM8. There is no control tyre in place for tarmac events in MIJRS J1000 Championship, but competitors registered for both the MIJRS and MI Forest Rally Championship must use Pirelli tyres.

12.1 The use of tyre warmers is not allowed.

13. FUEL

13.0 Only commercially available pump fuel (petrol) will be permitted. Maximum of 98 Octane. Checks will be carried out on events as per App 2 28.2

13.1 Bio ethanol fuel is not permitted.

13.2 Only fuel tanks supplied and fitted by the manufacturer or an alternative supplier which must be fitted in the original position of the vehicle concerned are allowed.

14. SEALS

14.1 The Championship Organisers or MI reserve the right to seal any item on a vehicle that they choose.

14.2 Any seal placed on a vehicle will have the sealed item inspected for compliance with these



regulations in accordance with Appendix 28.9.1 of the MI yearbook and these Technical Regulations.

14.3 If any sealed item is found to be in contravention of these regulations, the vehicle crew in question will be excluded from the round where that the seal was fitted and any subsequent round started with this seal in place.

14.4 Any item which is inspected and found to be in compliance with these regulations will be sealed so as to ensure no future modifications may be carried out on such item. Any breaking of these seals without written permission via the MI J1000 Technical Liaison will result in the respective crew being excluded from the Championship.

14.5 Any MI seal which needs to be removed for the purpose of maintenance may only be removed with permission via the MI J1000 Technical Liaison. This component must be reinspected and sealed prior to being refitted to the car.

MI Forest Rally Championship	Motorsport Ireland Junior Rally series (MIJRS)
John Quill	John Quill
johnsquill@gmail.com	johnsquill@gmail.com
087 929 9590	087 929 9590

MI J1000 Technical Liaison
Ed Muldoon
ed.muldoon@outlook.com
083 419 5085