

NSW HYUNDAI/KIA ADDENDUM

This Addendum is closely based on the “Group 3C PRC Regulations – Attachment A – Excel Rally Cars” and modifications have only been made to support the NSW Hyundai/Kia Rally Series Category. The predominant changes are to Vehicle Eligibility.

1. PREAMBLE

- (a) These regulations have been drawn up by ~~Motorsport Australia in consultation with the National Excel Series Committee~~ the NSW Rally Panel and are based on Attachment A – Excel Rally Cars of the Group 3C PRC Regulations. The regulations apply to each NSW Competition where Excel Hyundai/Kia Rally Cars are eligible, ~~including each state based Excel Rally Series~~. To be eligible for awards and points in ~~an Excel~~ a Hyundai/Kia Rally Series Event, each Automobile is required to comply with these regulations.
- (b) Each Automobile in the Excel Hyundai/Kia Rally Cars class must comply with PRC regulations except where a variation is explicitly authorised or required by these regulations. An automobile complying with these regulations is eligible in any Competition for which the PRC group is also eligible.
- (c) These regulations foresee DOHC and SOHC Automobiles competing directly against each other. No freedoms are provided with a view to achieving ‘performance parity’.

2. ELIGIBILITY

- ~~(a) Each Hyundai Excel X3 model manufactured by Hyundai Motor Company between 1 July 1994 and 31 June 2000 and sold in Australia is eligible. This includes all GX, GL and GLX, Sprint, 3, 4 and 5 door models. Both the 1495cc double overhead camshaft (DOHC) and single overhead camshaft (SOHC) engines with the following engine number prefixes; G4EK, (SOHC) and G4FK, G4EC (DOHC) are eligible.~~
- (a) Each Hyundai or Kia model manufactured by the Hyundai-Kia Automotive Group that meet **ALL** the following criteria are eligible:
 - front wheel drive only
 - a swept engine capacity of 0-1600cc
 - an advertised standard production factory power output of 83kW or less
 - originally sold in Australia through the respective new car dealer network

For example, this precludes the 1.6L Gamma I DOHC VVT (G4FC - 91 kW) and the 1.6L Gamma II DOHC VVT (G4FD – 103kW) typically found in the Hyundai Accent RB2, RB3, RB4, RB5 or Hyundai i20 PB. These two examples of precluded engines are not comprehensive.

- ~~(b) Each Automobile must remain in standard specification as detailed in FIA Homologation paper number A5554 and N5554 or the Hyundai Factory Excel Workshop Manual/s, except where modification from standard specification is permitted by these regulations. If there is a discrepancy between the FIA Homologation paper and the Workshop Manual, the FIA Homologation will be the definitive document.~~
- (b) Each Automobile must remain in standard specification as detailed in FIA Homologation paper number A5554 and N5554 for the Excel X3, respective FIA Homologation papers for other models or the Hyundai/Kia Factory Workshop Manual/s, except where modification from standard specification is permitted by these regulations. If there is a discrepancy between the FIA Homologation paper and the Workshop Manual, the FIA Homologation will be the definitive document.

3. GENERAL

Parts for any Australian specification ~~Excel X3~~ model may be used on ~~an Excel~~ a Hyundai/Kia Rally Car as long as each part can be clearly identified as a standard ~~Excel~~ replacement part listed for the specific model of each vehicle available from an Australian Hyundai/Kia dealer or is an aftermarket part that is identical in appearance and function to the standard part which it replaces.

4. ENGINE

- (a) Cylinder bore size may be increased over the standard dimension (as specified in the applicable FIA Homologation papers or the relevant Hyundai/Kia Factory Workshop Manual/s for that vehicle) by a maximum +0.6mm as long as the resultant swept engine capacity does not exceed 1600cc ~~The standard bore size is 75.5mm.~~
- (b) A replacement piston must be standard in material and in each functional dimension. No post-manufacture machining of the piston is permitted.
- (c) The camshaft profile (lobes and their position) must remain standard. The timing of camshafts relative to each other must remain standard.
- (d) Undersized crankshaft bearings may be used. Crankshaft stroke must remain standard ~~(83.5mm)~~ as specified in the applicable FIA Homologation papers or the relevant Hyundai/Kia Factory Workshop Manual/s for that vehicle.
- (e) The cylinder head mounting face may be machined. The valve seats are free. Other than these exceptions, no modifications, machining addition or removal of material from the cylinder head is permitted.
- (f) Only normal engine reconditioning procedures are permitted within the mechanical specifications and compliance with ~~FIA Homologation paper number 5554 and the workshop manual~~ the applicable FIA Homologation papers or the relevant Hyundai/Kia Factory Workshop Manual/s for that vehicle. These specifications must be deemed to include factory approved and recommended methods of assembly as well as specific component measurements and finish standard.
- (g) Engine mounting bushes are free; however, the location and number of engine mounts is not.
- (h) Lubrication System: With the exception that an engine oil cooler may be installed, the engine lubrication system must remain standard.
- (i) **Only engines that were standard or an option in Australia to the specific model of vehicle as sold new through the Hyundai/Kia Dealer Network can be used. For example, a "1.4L Gamma I DOHC VVT" [G4FA] engine (i20 PB) cannot be fitted to a Getz TB.**

4.2 COOLING SYSTEM

- (a) The radiator and its method of fixing are free provided that the original radiator fittings on the Automobile are utilised.
- (b) The fitment of an additional electric fan is permitted. The operation of the fan may be by manual switch or thermostatic control.
- (c) Each radiator hose is free.
- (d) A screen may be fitted in front of the radiator.

5. FLYWHEEL AND CLUTCH

- (a) The clutch assembly may be replaced by an alternative assembly of the standard type.
- (b) The clutch and pressure plate assembly weights must comply with the following:
 - (i) Clutch Plate ~~1.06Kg Standard / 0.901Kg minimum~~ weight as per the applicable FIA Homologation papers or the relevant Hyundai/Kia Factory Workshop Manual/s for that vehicle. The minimum weight must not be less than 85% of the standard weight.
 - (ii) Clutch Pressure Plate ~~3.70Kg Standard / 3.145Kg minimum~~ weight as per the applicable FIA Homologation papers or the relevant Hyundai/Kia Factory Workshop Manual/s for that vehicle. The minimum weight must not be less than 85% of the standard weight.
 - (iii) The flywheel weight as per the applicable FIA Homologation papers or the relevant Hyundai/Kia Factory Workshop Manual/s for that vehicle. The minimum weight must be not

less than ~~6.3kg~~ 97% of the standard weight. This is to accommodate machining of the friction surface only for the purpose of standard servicing procedures.

6. INDUCTION

- (a) The air filter system is free upstream of the throttle body.
- (b) No modifications are permitted to the throttle body or inlet manifold.
- (c) Any type of forced induction is prohibited.

7. EXHAUST

The exhaust is free after the exit from the exhaust manifold, subject to specific local requirements. It may not project in any way beyond the coachwork (in plan). The exhaust system must not be provisional. Exhaust gases may only exit from the end of the system which must be within 10cm of the perimeter of the Automobile and aft of a vertical plane passing through the centre of the wheelbase. Parts of the chassis must not be used to evacuate exhaust gases. Adequate protection must be provided to prevent heated exhaust pipes from causing burns.

8. FUEL SYSTEM AND FUEL

- (a) Each fuel injector, electronic control unit and ignition computer must be an original and unmodified Hyundai/Kia ~~Excel~~ part for ~~a~~ that specific model sold in Australia.
- (b) The original fuel pump may be replaced by an external electric type.
- (c) The fuel lines, fuel pump wiring and relay system may be replaced or relocated.
- (d) An additional fuel pump and/or surge tank may be added.
- (e) Fuel must be Commercial Pump Fuel as specified in Schedule G of the Manual.
- (f) The fuel tank must be maintained in standard location. Protection for the fuel tank may be installed.

9. TRANSMISSION

- (a) The original gear selector mechanism may be modified to reduce free play. Any modification to the selector mechanism may not alter the pattern of gear selection.
- (b) A gearbox oil cooler may be installed.
- (c) Gearbox ratios must remain standard.
- (d) ~~Either a 3.842 or 3.656~~ Any factory fitted final drive ratio originally available with the specific vehicle model is permitted.
- (e) Limited slip or locked differentials are not permitted.

10. CHASSIS

- (a) The safety cage structure must be constructed in compliance with Schedule J.
- (b) Seam welding of the body shell is permitted. Strengthening of the shell may only be conducted in accordance with the PRC regulations.

11. WHEELS AND TYRES

- (a) The wheel diameter must be ~~13"~~ a diameter originally fitted as standard to that model series. Wheels are otherwise free, provided that each complete wheel and tyre is housed within the original bodywork.
- (b) Subject to compliance with Schedules E, tyres are free.

12. STEERING

- (a) The steering mechanism must use either
 - (i) a standard Hyundai/Kia ~~Excel~~ power steering rack; or
 - (ii) a non-assisted steering Hyundai/Kia ~~Excel~~ rack.
- (b) Power steering may be added or removed.
- (c) The steering wheel is free save that it may not contain any wood.

13. BRAKES

- (a) Brake friction material is free.
- (b) The brake lines are free.
- (c) The rear drum brakes, **where fitted from the factory**, must be standard, except that the backing plate may be modified for the purpose of allowing access for adjustment without disassembly.
- (d) Brake lines may be rerouted, and damage protection may be added.
- (e) The standard handbrake may be converted to 'fly off' for use in special stages.
- (f) A functional parking brake mechanism must be fitted.
- (g) The disc brake backing plate may be removed.
- (h) Each disc brake rotor must be standard. Cross drilling and/or slotting is not permitted.

14. SUSPENSION

- (a) Springs are free provided their type and location are unchanged. Where a "coil-over" design is fitted, it may be modified to enable the adjustment of ride height
- (b) Dampers which are externally adjustable for bump and/or rebound may be fitted. External reservoir designs are not permitted. The number and location of dampers must remain standard.
- (c) Each bump stop is free.
- (d) Each bush used at a suspension pivot point may be replaced by another. Spherical bearings are not permitted, except in the top strut mount.
- (e) The suspension may be modified so that camber and caster can be adjusted through the use of eccentric camber pins or washers and caster bush kits.
- (f) The use of replacement adjustable strut tops is permitted, providing that each utilise the standard body shell mounting points exclusively. The removal of metal from the suspension tower is prohibited, except that the hole in each rear strut tower may be enlarged to a maximum of 60mm diameter. This hole must remain circular and concentric with the original opening.
- (g) Anti-roll bars may be removed or changed provided original sway bar mountings to the chassis are used exclusively. The anti-roll bar link/s is free.
- (h) A strut brace may be fitted between the front suspension towers provided it only links the strut towers. The rear suspension towers may be braced by either the safety cage or a strut brace.
- (i) Suspension components may be strengthened and/or modified in accordance compliance with Motorsport Australia PRC regulations.
- (j) The origin of each standard suspension part must remain clearly identifiable.

15. ELECTRICAL EQUIPMENT

- (a) The spark plugs and high tension leads are free.
- (b) A standard Hyundai/Kia ECU, applicable to the engine fitted to the Automobile, from **any eligible model** ~~Excel the specific vehicle model~~, must be used.
- (c) No replacement or piggyback ECUs, ECU reprogramming or modifications to the ECU wiring harnesses or sensors is/are permitted.
- (d) The ECU OBD-II diagnostic port must remain fully serviceable so that ECU sensor readings and other information can be accessed electronically.
- (e) ~~An Event organiser may require each Competitor to take part in a ballot for ECUs prior to an Event. If any Competitor requests a Ballot, it must be conducted after the completion of scrutineering and prior to the Drivers Briefing. Where such a ballot takes place, it is a requirement that ECUs be exchanged in accordance with the results of the ballot.~~

16. BODY AND COACHWORK

- (a) All coachwork must comply with the workshop manual specifications except that interior items such as carpet, underfelt, hood lining, rear seat, radio, speakers, console and rear parcel shelf may be removed as outlined in accordance with the PRC Regulations.
- (b) Supplementary gauges may be fitted within the cabin.
- (c) Pedal settings may be modified for position. The original mounting fixture points to the body structure must not be changed.

- (d) An air vent/scoop may be fitted in the roof of the Automobile in accordance with the PRC regulations.
- (e) Any rubber bush may be changed for another bush made of an elastomeric material as long as the new bush has dimensions the same as the original.
- (f) A rear wing may be fitted that meets the following requirements:
 - (i) The wing must be made of fibre glass.
 - (ii) The wing aerofoil must be fixed and not be able to be adjusted with tools.
 - (iii) The wing must be the ~~standard~~ Hyundai/Kia ~~low wing, Hyundai Part# 87211-22200 or 87211-22500 or Talon High wing part #HYU25~~ wing available as standard fitment or a factory fitted option for the specific model of vehicle or a wing identical to it. The intention is to limit the wing options such that all Automobiles look similar as they would from the factory.
 - (iv) A rear wing made of glass-reinforced plastic may be fitted provided that the wing aerofoil is fixed in position and cannot be adjusted and that the wing is identical to one available as standard fitment or a factory fitted option for the specific model of vehicle.
- ~~(g) the standard Hyundai 'low wing' part number 07211-22200;~~
- ~~(h) the standard Hyundai 'low wing' part number 07211-22500;~~
- ~~(i) the Talon 'High Wing' part number HYU25; or~~
- ~~(j) a part identical in design, material, construction and installation as any one of the above three acceptable parts.~~

17. WEIGHT

- (a) The minimum weight of the Automobile at any time during an Event is 960kg. This weight is the real weight of the Automobile, without driver and co-driver nor their equipment and all apparel.
- (b) The minimum weight of the Automobile with driver, co-driver and their equipment, at any time during an Event, is 1,120kg (960kg as per ~~14.1~~ 17(a) + 160kg). This weight is the real weight of the Automobile, driver, co-driver and all their equipment and apparel.

18. MISCELLANEOUS

Air conditioning may be added or removed.