

EXCEL CUP SERIES RULES 2015 (version 1.5: updated 8/03/2015)

The aim of the Excel Cup is foremost to provide a safe low cost entry level Circuit Racing format that is fun and provides a competitive environment where drivers are able to improve their race craft. The drivers' time will improve through learning car control and basic vehicle setup.

*If you have any questions regarding these specifications, please contact
Lloyd Evans 0415 742 542 or Brett Peters 0429 528 400*

1.1 VEHICLE BODY SHELL

- Hyundai Excel - 1986 to 2000, any number of doors.
- Body to be unmodified - no cutting of any bracing, if the roll cage is positioned between the two rear strut towers this WILL not be considered bracing, rather under the specifications of the roll cage requirements 1.12
- All bracing including bonnet to remain stock
- Signwriting is encouraged
- The strut towers must NOT be modified - no redrilling top of towers front or rear
- Seam welding is not permitted except for the bracket that attaches the front lower control arm to the body

1.2 ENGINE SPECS

As per 1.1 Excel 1986 - 2000

- See Figure 1 for Twin Cam
- See Figure 2 for Single Cam

1.3 DRIVELINE

- Stock auto or manual excel gearbox
- Limited slip and locked diffs are not permitted
- A Heavy duty clutch is permitted, but must be of similar design to the original clutch, race clutches are not permitted
- The flywheel must remain the original weight

1.4 BRAKE SPECS

Stock brakes – no later model vehicle brakes are to be fitted e.g Getz or Lantra or part thereof.

- Stock excel brakes (rear drums)/front disc rotors
- Front disc pads and rear brake linings are free
- Cross drilled rotors are not permitted
- Steel brake lines must be original equipment but it is permitted to replace flexible brake hoses with approved stainless steel flexible hoses. Contact us for permitted stainless steel hose list.
- Optional slotted front brake rotors DBA Part #DBA 44515 are the only permitted replacement other than the standard rotor

1.5 EXHAUST/INTAKE

- Exhaust Manifold is standard. The exhaust is free after the first juncture but is subject to noise requirements (95DB) at Lakeside.
- Extractors are expressly forbidden.
- Intake manifold is to be original excel, the rest of the air intake is free before the original throttle body and air flow meter.
- Pod filters are permitted
- Throttle body is to be standard - factory as per model (i.e. Twin-Cam throttle body on twin cam motor)
- Forced Induction is not permitted, Either by way of ducting or body / panel removal
- Air boxes are permitted although no ducting is allowed to feed into the air box.

1.6 FUEL AND IGNITION

- Carbies and injection is to be factory - Excel as per the model of car
- Injectors are to be factory - Excel as per the model of car
- Ignition is to be factory - Excel as per the model of car, a push start arrangement can be fitted
- Spark plugs and leads are free
- Computer (where fitted) is to be factory – i.e Twin Cam has Twin Cam computer, Single Cam to use Single cam computer - 1.8 for further clarity
- Fuel regulators on fuel injected models are to be standard
- Fuel pumps are to be factory Excel as per model of the car
- Fuel lines are to be factory
- Surge Tanks / Swirl Pots are not permitted

1.7 BATTERY

- The Battery can remain in the factory position or be relocated to the inside of car and to be secured and placed within a battery box
- Battery type is free
- Positive Battery terminals must be insulated
- Battery location must be marked with Blue triangle

1.8 COMPUTER CHIPS AND MODULES

Chipping and wiring harness modifications are not permitted

- At any time during any track attack event, (which includes practise, qualifying or racing) the series scrutineer can check your vehicles computer
- Any vehicle found to contain any after-market performance enhancing device will be removed from the event and will incur up to a twelve month ban from any Track Attack event
- Any driver to be found to be in control of a race car regardless of ownership to be found to contain any after-market performance enhancing device will be removed from the event and can also incur up to a twelve month ban from all Track Attack events.

1.9 FUEL

- Racing fuel is not permitted
- Fuel additives are not permitted
- Octane boosters are not permitted
- Fuel must be available from the bowser at most service stations in SEQ. Octane levels 91, 95, 98 and 100 are permitted. Bowser Ethanol blended fuel is permitted, for example E10

1.10 AERODYNAMICS

- The factory Hyundai Excel low profile rear wing may be maintained or fitted.
- All other aerodynamic aids are not permitted

1.11 STEERING

- Power steering is permitted
- Steering wheels are free but must meet ADR, FIA or SFI standards.
- Power Steering coolers are permitted

1.12 STRUT BRACES

- Front strut braces is permitted
- The rear suspension towers may be braced by either the safety cage or a strut brace.

1.13 LIGHTS

- The original headlights, brake lights, tail lights and indicators are to be kept in place,
- brake lights are to be functional, no spray tint or dark film is to be applied
- indicators are to be in position but are not required to be functional
- The fitment of a Hi Vis rain light on the centre of the rear boot/hatch, mounted centrally to the rear key access point is recommended.
- Head lights MAY be covered by either a clear or coloured transparent tape/film – but must be functional, and if required to be used will need a clear film before being allowed on track.

Note:

During rain events headlights must be illuminated during the event, the direction of same will be at the digression of the race controller – if working head lights are not in place your exclusion from the race will be enforced.

1.14 INTERIOR

- The front door trims must remain in place. Suitable safe replacements are permitted
- The original dash is to be retained. Newly built cars must have an excel dash of that model, dash mat glued down. If no original dash's are available, approval will be required for fibreglass replacement before assembly.
- Race seat and harness are mandatory. Replacement seats and harness must comply with a suitable design standard, eg ADR, SFI, FIA. The seats and harness must be suitable for motorsports applications. Fitting must be to the manufacturers recommendations. Seats are to be fixed back style. Four point harnesses are a minimum safety requirement. Minimum fitment standards are to adhered too
- Original bolts must be used – no less than GR 8.8 bolt tensile
- Original bolt mounting holes must be used to secure mounting plates if required to floor
- A minimum of four (4) mounting points must be in use at all times, seat to mounting plate or seat to sub frame
- Minimum of 50 mm or 2 inch diameter plate must be in use on the underside of both hex bolt and hex nuts
- Minimum thickness of ANY mounting plates is to be five (5) mm, preferably 50 x 50 x 5 angle

1.15 ROLL CAGES

- Roll cages must be 6 point for racing. (4 point minimum for Sprints)
- Driver's intrusion bars must be fitted.
- All bars must be contained within the Cabin.
- Bar-work must be welded in.
- Steel must be CDS or CDW.
- Molly cages are not permitted.
- Cages must be manufactured to SFI, FIA, Andra, CAMS or other suitable specifications.
- CAMS approved Bolt in Roll Cages that have full certification are allowed.

1.16 MINIMUM WEIGHT

- Minimum wet weight is to be 999kg for TWIN CAM
- Minimum wet weight is to be 945kg for SINGLE CAM

1.17 GLASS

- ADR compliant Glass must be maintained
- Use of light weight window materials is not permitted. No Perspex (polycarbonate) materials
- Vehicles must not have any tint on any side windows or the rear windscreen.

1.18 TELEMETRY

- Live telemetry is not permitted
- Stored Video & other GPS style telemetry is permitted - eg performance box or video box etc.
- Water temp and Oil pressure gauges or warning lights are permitted
- After - market Tacho may be fitted
- Pit to car radio communication is permitted
- Race control radio devices are to be positioned on person not to car, not to the vehicle or part there of

1.19 COOLING

- Oil Coolers are permitted
- A Larger radiator may be fitted provided that the original fixing points are used
- Radiator Hoses are free

1.20 TYRES

- The Hankook RS3 195/50R15V is the mandatory control tyre.
- The discounted price for this tyre will be \$130.00 inc GST fitted and balanced (if required) at Z Car Racing Pty Ltd premises at 14 Kenway Drive Underwood Qld 4119. While during the normal course of changing tyres unwanted tyres will incur a \$3.00 fee to dispose of, if left at the premises. To purchase tyres, please contact Z Car Racing Pty Ltd on (07) 3808 2755
- Tyre Buffing is allowed.
- Wet weather tyres of a different brand are not permitted.

1.21 WHEELS

- Wheels must be maximum 15" diameter
- There is no restriction on wheel width
- Alloy wheels are permitted
- Wheel Spacers are permitted however must not be diecast. We recommend aluminium wheel spacers which can be purchased through Track Attack Australia.

1.22 SUSPENSION

- Racing suspension is not permitted
- Coil over suspension is allowed, however together with the following,
Camber must not exceed 4.0 degrees negative and minimum ride height including driver must be 100mm excluding exhaust. Ride height will be measured with all tyres inflated to 40 pounds. The use of a wheel spacer is allowed up to a maximum width of 10mm.
- After-market springs are permitted provided that they are readily available at retail outlets
- After-market shocks are permitted provided that they are readily available at retail outlets
- Adjustable suspension is not permitted
- Camber pins are permitted to achieve negative camber
- Original mounting points must be maintained for all components
- Bottom of struts may be slotted but must be reinforced by locating washers to be welded to strut ears

1.22

1.22 SUSPENSION con't

- Longer wheel studs must be fitted if using wheels spacers
- Track Measure: centre to centre of tyre on the ground
- Max front track is 1515mm – re. Cars fitted with Coil Over, refer to 1.22 section regarding wheel spacers
- Max rear track is 1485mm
- Cut springs are allowed
- It is permissible to fit off set caster bushes

1.23 SWAYBARS

- It is permissible to install readily retail available after market sway bars up to 18mm in thickness on the rear and 22mm thick on the front
Original mounting points must be maintained for all components - Sway bars must be non-adjustable.

1.24 RACE SEAT

- Fixed back race seat to SFI, FIA or Australian Standards
- Seat mountings to a minimum ADR requirements and 1.14 section of this document

1.25 RACING HARNESS

- Minimum 4 point racing harness to SFI, FIA or Australian Standards
- Mountings to ADR requirement

1.26 WINDOW NETS

- Are mandatory and may be installed on the driver's door (when installed on the driver's door the door must be able to be opened with the window net in place). However, it is recommended that the window net be attached at top and bottom to the roll cage, not the body of the vehicle.

1.27 APPAREL

- Minimum Roll over Protection must meet AS/NZ Standards AS 1636.1-1996
Helmets must comply with, or exceed, the standards AS1698.
- Full face helmet, goggles or visors must be worn in open cars – no glass is permitted in accord with AS 1609-1981
- Must wear one piece overalls, socks, shoes, balaclavas and gloves, made of Nomex or a similar a flame protecting material to FIA Standard 1986 or Australian Standards
Please be aware that HANS's devices are mandatory at Queensland raceway and Lakeside Park.

1.28 OIL CATCH CAN

- Oil catch cans are mandatory, preferably within a drain back to the sump.
- A minimum holding capacity of one eight hundred ml's (800) is required
No plastic vessels are permitted,
Must be of a steel construction – with a minimum of two mounting points, - no plastic ties allowed
Please contact us for info about plumbing set ups.

1.29 BATTERY ISOLATOR/ENGINE KILL SWITCH

- Battery isolator/ignition kill switch must be fitted and must isolate the battery and kill the engine simultaneously
- Battery isolator/ignition kill switch must be able to be operated by the driver when in normal seated position
- Battery isolator/ignition kill switch must be fitted with a remote cable which is to be located near the drivers A pillar and be able to operate from the exterior of the vehicle remote battery isolator/ignition kill switch cable must be identified by a blue triangle with red lightning bolt sticker

1.30 TOW POINTS

- Suitable tow points to front and rear are required – **ENSURE FRONT TOW HOOKS CAN BE REACHED BY RECOVERY VEHICLES**
- Tow points to be marked with red tow stickers

1.31 RACE NUMBERS

- Race numbers are mandatory and are to be supplied by the competitor. Refer to the table below for details.

Item	Size	Colour	Positioning
Race Number Panel	350mm Wide x 350mm High	White with black border	Front edge of both doors. It may be angled to suit car livery but must retain dimensions. Any other position requires approval from both Track Attack and Queensland Raceways
Race Number	230mm High x 230mm Wide	Must be Helvetica Bold (font), and black	Centred on number panel
Race Number	150mm high, with “C” if running coil overs	Yellow	Top left windscreen

1.32 SPONSORS

- Sponsorship (Keema & Hankook) decals must be displayed in the designated positions directed by the race promoter. Competitors are not permitted to modify or change sponsorship decals.
- Any modification made to sponsorship decals will result in the competitor being stripped of all championship points. Furthermore, competitors engaging in these activities will be permanently banned from the QLD Excel Cup Series

1.33 COMPLIANCE INSPECTION

- All vehicles must pass a compliance inspection

Any other changes or modification from the standard state of the vehicle that is not mentioned or permitted within these regulations are not allowed. Any questions regarding car specifications which are not previously addressed in this document must be directed to Track Attack Australia for clarification. Please be aware that there will be penalties for any cars which do not pass compliance inspections.

Engine & Gearbox seals are used for scrutineering purposes.

1. It is required that all competitors have their engines & gearboxes sealed.
2. All new competitors must have both Engine & Gearbox seals.
3. If you wish to seal or break a seal, you **MUST** notify our category scrutineer by calling him on 0415 742 542
4. Be aware that if you do not notify before you break the seal, you will incur a championship points penalty. If re-sealing is required at a location/time other than a scheduled race meeting, this will be done at the competitor's expense.

Excel Cup 2014 – Engine Specs – Twin Cam

1	Bore	76.0mm
2	Stroke	83.5mm
3	Piston above Block	Std
4	Block Thickness Limit for correction of cylinder block upper face distortion	.010
5	Piston Dish - Volume	Std
6	Inlet Value Insert Max – throat	25mm
7	No machining within 12mm of value guide tip	
8	Valves may have back cut 3 angle	
9	Valve Stem diameter	6mm
10	Value Springs	Std Part No. 22221- 22010
11	Inlet Valve – no larger than	28.2mm
12	Inlet Port	Std
13	Inlet Manifold	Std
14	Inlet Manifold Throats	Std
15	Exhaust Value – no larger than	25.1mm
16	Exhaust Value throat insert max.	22.5mm
17	Exhaust Port	33.7mm
18	Exhaust Manifold	35mm
19	Exhaust Manifold Outlet	40.1mm
20	Exhaust Pipe Flange	39.4mm
21	Valve Springs set height/ permissible to shin	
22	Throttle body	Std
23	Cylinder Head Thickness – Minimum 145.5mm	No angle milling permitted 145.5mm
24	Cylinder head combustion chamber capacity	37.0cc
25	Camshaft – Std with base circle of 36mm	36mm
26	Flywheel thickness	29.9mm
27	Flywheel weight inc. pressure plate & bolts	10.5kg
28	Gearbox ratios & final drive ratio as per no. of camshafts i.e. single cam, single cam gearbox & final drive ratio.	
29	Weight piston with pins & rings	318grams
30	Crank pin diameter	Std
31	Crank journal diameter	Std
32	Spark plug	Free
33	Crank Shaft Weight – minimum	11kg
34	Conrod weight includes piston, rings, pin, conrod with bolts and nuts and bearing	839.5 +/- 30g
	It is permitted to machine valve seats and throats but they must be machined with cutter concentric to the valve guide. No hand finishing is permitted.	
	Please note new engine regs will change to CAMS rules in Jan 2016	

Excel Cup 2014 – Engine Specs – Single Cam

Please note new engine regs will change to CAMS rules in Jan 2016

1	Bore	76.0mm
2	Stroke	83.5mm
3	Piston above Block	.0015mm
4	Block Thickness Limit for correction of cylinder block upper face distortion	.010
5	Piston Dish - Volume	26.75m
6	Inlet Value Insert Max – throat	25mm
7	No machining within 12mm of value guide tip	
8	Valves may have back cut 3 angle	
9	Valve Stem diameter	6mm
10	Value Springs	Std Part No. 22221- 22010
11	Inlet Valve	27.5mm
12	Inlet Port	Std
13	Inlet Manifold	Std
14	Inlet Manifold Throats	Std
15	Exhaust Value	32.0mm
16	Exhaust Value insert max.	30.9mm
17	Exhaust Port	30.2mm
18	Exhaust Manifold	32mm
19	Exhaust Manifold Outlet	30mm
20	Exhaust Pipe Flange	32.16mm
21	Valve Springs set height/ permissible to shin	
22	Throttle body	Std
23	Cylinder Head Thickness	No angle milling permitted 2.941 in=/ .020th
24	Cylinder head combustion chamber capacity	33.0c
25	Camshaft	Inlet Max Lift .353 Ex Max Lift: .374 Std
26	Flywheel thickness	34.86mm
27	Flywheel weight inc. clutch & disc & bolts	Std
28	Gearbox ratios & final drive ratio as per no. of camshafts i.e. single cam, single cam gearbox & final drive ratio.	
29	Weight piston with pins & rings	Std
30	Crank pin diameter	Std
31	Crank journal diameter	Std
32	Spark plug	
33	Crank Shaft Weight	11.5635kg
34	Conrod weight includes piston, rings, pin, conrod with bolts and nuts and bearing	840g +/- 30g