# CIRCUIT Excel Racing Association Inc

# Meeting Minutes

6/04/2022 20:02 AEST Meeting held via Zoom conference call

1. Call to order

Invitees: John Broadbent (President), Andrew Young (Treasurer / Secretary), Shane Beikoff, Shannon Williams, Tim Rowse, Tom Hamlett, Craig Twining, Neville Blight, Nick Scaife, Les Sharpe, Jamie Augustine, Gavyn Croft

1. Roll call

The following persons were present: John Broadbent (President), Andrew Young (Treasurer / Secretary), Shannon Williams, Tim Rowse, Neville Blight, Craig Twining, Les Sharpe, Shane Beikoff and Gavyn Croft

Apologies: Nick Scaife

1. **Approval of minutes from last meeting.** . Approved Les Sharpe, Second Shannon Williams
2. Business arising From Previous Minutes:

Sway Bars. Victoria Delegate to forward information on alternative off the shelf Sway Bar options to Secretary via email.

Gearbox Forks CAD Model. Secretary reported that after approaching several contacts that it was not able to source a new 3rd / 4th Gearbox fork. Secretary made a phone conversation with a Hyundai dealer it was discovered that this part is now referenced in the Hyundai catalogue has been no longer available. President asked the group that if anyone can source one, please inform the group.

Spring sizes and specifications: Crow Cams no longer supply valve spring as per part number in Technical Guide. Alternative springs will need to be identified do that dimensions and specifications can be confirmed.

Expression of Interest form for Bathurst: Toyota 86s have taken the spot allocated to Excels for the Bathurst 12 hour event. The form was completed in delegates and secretaries but was now null and void due to the situation at the 12 hour. Victorian President also advised the group that Excels did not get the normal invite to the Winton supercars event, Porsches had taken the place.

1. President’s Report:

President Spoke previously about the Bathurst 12 Hour situation and will try to contact MA and chat about the situation. Reiterated the current situation with Supashock.

1. **Secretaries Report:**

Secretary received emails from Victoria, Queensland and Western Australia for the rules / regulation review. The contents of these emails along with feedback from other states were compiled into a register that has been sent out to all delegates.

Correspondence from SA that will be addressed in general business.

Secretary also mentioned communications with Supercars representative to assist those that had booked camping for the 12-hour event to organise a refund due to the Excel being removed from the event.

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1. **Treasurers Report:**

Treasurer informed the meeting that there had been no change to the bank account since the previous meeting in March, so the standing balance had not changed from $1,308.44.

1. Technical Delegate Report

Currently almost out of seals so more will have to be ordered in the near future.

Still waiting to receive sealing sheets out of both Western Australia and Victoria. Technical Delegate asked State Delegates to assist in this process.

1. General Business

President informed the group that at the next meeting there will be a vote on the inclusion of Tasmania into CERA as a full voting rights member. Please take this back to clubs ang comities for their consideration and approval. Tasmania are a fully affiliated Motorsport Australia Club and an associated incorporation. Feedback about the process from Consumer Affairs Victoria was explained that there would be no need to change the constitution, it is the process of adding a new member.

Feedback from SA committee about the 103% rule was asked to be taken back to CERA. the concern being that the lap record would have been set during an optimum point in time so therefore at a wet race meeting someone could win race and still be outside of the 103%. The feedback from SA is that the 103% should be based upon the fastest lap at that race event/ meeting. President presented information from recent race meetings held in WA, Victoria and Qld. Qld 42 competitors at the meeting and 26 went below the 103% time. In WA 7 of the 16 competitors breached the 103% time. With Victoria 16 out of the 27 competitors were under the 103% time. In the hot months this loosely comes to around 50% of the field that would need to have sealed engines. It was also mentioned that if a club is wanting to, they can ask any competitor at any time to present an engine for an inspection. President also spoke about in reference to feedback from WA in the rules register is that the term wrecker engine no longer exists. We either have fully sealed engines or unsealed engines. If a wrecker engine breaks 103% it will need to be fully inspected and measured to confirm compliance to regulations. This is to aid eligibility processes at race meetings, it was also stated that it is a responsibility of the competitor to produce sealing records when required. It was agreed to leave 103% rule in place and evaluate at the end of the year.

Victorian Delegate asked what would be the issue if someone lost they Seal sheet? Technical Delegate answered with the fact that the Engine Sealer should have a copy and therefore should have sent that on to the National Body, it is the responsibility of the competitors to maintain records. Sealing sheets need to be similar to that of logbooks for the competitors to keep on hand and present when required. Victorian President suggested the use of a photo as a copy and this was agreed as an alternative measure and back up of the original sealing sheet.

1. Proposed Rule Amendments

President discussed general consensus from previous meetings that CERA avoid making a lot of rule changes. There is a general reluctance to change engine rules as this would incur costs to the competitor base.

Topics taken from the document *CERA Regulation Review Issue Register 2022.*

Submissions from Victoria

* *Rule 4.2 CYLINDER BLOCK/ CRANK / RODS / PISTONS (e) (ii) A minimum of one of the respective pistons and conrods must remain standard and have no material removed.* Contradicts engine balancing procedures. Outcome - Delegates to take this back to the clubs for feedback.
* Valve Springs - previously discussed in actions. Outcome - Technical Delegate gather all samples and check sizes, rates, specifications and manufacturer data.
* Rule 4.3 CYLINDER HEAD / CAMSHAFT / VALVES (d) It is permitted to regrind the valve seats, including over cuts and undercuts, the purpose of which is to obtain the desired valve seat width. The top cut of the valve seat is limited to a maximum overall diameter of 29.0mm for exhaust and maximum overall diameter of 32.0mm for the inlet valve seats. *Suggest a small tolerance here (0.1-0.2). Rational; heads are right on the maximum or over, depending on who and how they the head is measured. Suggest using a no go gauge to eliminate any doubt.* Outcome:Allow use of no go gauge and supply gauges to all State Sealers. agreed not to change current dimensions as this would incur costs to competitors. Victorian delegate to look at the production of no go gauges and then look at getting them certified.
* Rule 6 TRANSMISSION (h) It is permitted to use an A4AF2 Automatic gearbox. Suggest adding a gear ratio chart in the appendix Appendix 2 *Add table with automatic transmission ratios.* Outcome - add gear ratios into appendix.
* Rule 11 SUSPENSION (i-vi) *Rear anti roll bar rule needs to be defined better:* Outcome – Bars must be commercially available. Delegates to take this back to the clubs for feedback. Discussed in previous meeting.
* Rule 12.1 GENERAL (ELECTRICAL EQUIPMENT) (f) No modification to the engine wiring harness or under-dash wiring loom is permitted. It is not permitted to add any additional covering to the wiring loom (e.g. heat shrink, electrical tape, cloth tape or conduit) other than to the minimum amount required to repair a damaged wiring loom. Any wiring loom repairs must be able to be exposed for eligibility checks. *What are we trying to achieve here? This rule tends to contradict itself. Considering these cars are over 20 years old, you could say that most have had the wiring loom under the dash modified in some form or another. Another thing to note, the wiring harness are different between the models. Automatic transmission vs manual, single cam vs twin cam, cars with electric windows and other features vs those without.* Outcomes - maintain current rule and if repairs are made they are not re-wrapped So that they can be easily inspected. Intent of the rule is to aid eligibility. Suggestion to add word to under dash wiring.
* Ballast position: Delegates to take this back to the clubs for feedback.
* Rule 13.3 INTERIOR (ix) It is permitted to fit a drivers footwell floorplate with maximum floor lift height of 25mm and maximum dimensions of 730mm x 530mm*. Suggest allowing the height to be more than 25mm to allow for people with short feet.* Outcome – Leave rule as is.
* Appendix 1 Body width – Front 1611mm (+/- 15mm) *Has this been increased to allowed for the wheel to fit under?* Outcome – Look developing a guard width and final track size. States to take measurements.

Submissions from South Australia.

* Production of 3D CAD Models and allow the CNC machining of the of Gearbox selector forks. Outcome - as discussed in previous meeting try and get a new sample so that it can be measured and a CAD model produced.
* Rear Suspension Camber Stops: Outcome - information on stops to be sent out to all state delegates and feedback sort from clubs.
* Headlight and indicators replacement with useable mounting points. Outcome - information on replacement to be sent out to all state delegates and feedback sort from clubs. Technical Delegates will chase up one piece prototype option currently being developed in QLD.

Submissions from Queensland.

Point of Sway Bar, Gearbox forks and Headlight replacement already discussed.

Submissions from Western Australia.

* Rule 4.1 GENERAL (ENGINE) (f) The fitment of an engine crankcase breather catch can discharging to atmosphere, compliant with schedule B is permitted. Hoses connecting the engine to the catch can must be a maximum inside diameter of 13mm. These hoses shall only be connected to the engine via the original engine breather connections. The PCV valve internal components may be removed. *WA Comments; 13mm ID is too small and restrictive for engines revving over 6000rpm on a racetrack, restriction by use of unmodified connections to cam cover is adequate. Suggested wording “The fitment of an engine crankcase breather discharging to a catch can, compliant with schedule B is permitted. Hoses connecting the engine to the catch can shall only be fitted to the original engine breather connections, The PCV valve internal components may be removed”* Outcome – Previously discussed and decision made in 2021.

Appendix 5 *WA Comments; Can this be enhanced to include eligibility officers.* Outcome – Motorsport Australia does not include eligibility officers in regulations

Many points brought up by WA were discussed and resolved in a previous year’s rule regulation reviews. president reminded the group that it's a responsibility of the delegates to pass information back to state committees and members. Secretary stated it was evident from last year that newsletters produced by CERA and updates issued by Supashock were sent out to all delegates and clubs were not passed on. It was obvious then that some clubs did not pass these newsletters and Supashock updates on to members.

All states need to continue conversations with committees and members over the five-year plan.

Conversation moved to the current situation with the Supashock supply and how each state was going to deal with it. Once again the outcome was emphasised that each state will deal with it depending upon the situation that they are in.

Victorian delegate brought up issues with slight variance in the bottom mounts to where the control suspension mounts to the clevis. Outcome here was CERA are having continued conversations with super shock about these variations.

Next meeting the 11th of May.

1. Adjournment

John Broadbent adjourned the meeting at 21:56 AEST Minutes submitted by: Andrew Young

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| Proposed Rule change or clarification | Nominating State  | Dealt with in past reviews  |
| Crow Cams - Part No. 0513-1 valve springs no longer available, they suggest using the Part No 0615 as a replacement | Vic |  |
| Rule 4.2 CYLINDER BLOCK/ CRANK / RODS / PISTONS (e) (ii) A minimum of one of the respective pistons and conrods must remain standard and have no material removed. *Contradicts engine balancing procedures.* | Vic | Yes  |
| Tolerance on valve pockets. | Vic | Yes  |
| Headlight and indicators replacement with useable mounting points. | SA  |  |
| Production of 3D CAD Models and allow the CNC machining of the of Gearbox selector forks.  | SA |  |
| Rear Suspension Camber Stops  | SA |  |
| Rule 4.3 CYLINDER HEAD / CAMSHAFT / VALVES (d)It is permitted to regrind the valve seats, including over cuts and undercuts, the purpose of which is to obtain the desired valve seat width. The top cut of the valve seat is limited to a maximum overall diameter of 29.0mm for exhaust and maximum overall diameter of 32.0mm for the inlet valve seats. *Suggest a small tolerance here (0.1-0.2). Rational; heads are right on the maximum or over, depending on who and how they the head is measured. Suggest using a no go gauge to eliminate any doubt.* | Vic | Yes |
| Rule 6 TRANSMISSION (h) It is permitted to use an A4AF2 Automatic gearbox. *Suggest adding a gear ratio chart in the appendix*Appendix 2 *Add table with automatic transmission ratios* | Vic |  |
| Rule 11 SUSPENSION (i-vi) *Rear anti roll bar rule needs to be defined better* | Vic | Yes |
| Rule 12.1 GENERAL (ELECTRICAL EQUIPMENT) (f) No modification to the engine wiring harness or under-dash wiring loom is permitted. It is not permitted to add any additional covering to the wiring loom (eg heat shrink, electrical tape, cloth tape or conduit) other than to the minimum amount required to repair a damaged wiring loom. Any wiring loom repairs must be able to be exposed for eligibility checks. *What are we trying to achieve here? This rule tends to contradict itself. Considering these cars are over 20 years old, you could say that most have had the wiring loom under the dash modified in some form or another. Another thing to note, the wiring harness are different between the models. Automatic transmission vs manual, single cam vs twin cam, cars with electric windows and other features vs those without.* | Vic | Yes |
| Rule 13.3 INTERIOR (ix)It is permitted to fit a drivers footwell floorplate with maximum floor lift height of 25mm and maximum dimensions of 730mm x 530mm *Suggest allowing the height to be more than 25mm to allow for people with short feet.* | Vic | Yes |
| Appendix 1 Body width – Front 1611mm (+/- 15mm) *Has this been increased to allowed for the wheel to fit under?* | Vic | Yes |
| Preamble : *Current August 2020 produced tech guide is essentially just sealing document. In Sept 2020 a draft Tech Guide that offered further guidance for sections within the circuit excel regulations was produced. CERA to review previous draft and consider as basis for update to accompany the 2023 regulations.* | WA |  |
| Rule 2 ELIGIBILITY (b)Each engine and transmission shall be sealed only by a person as detailed in Appendix 5 of these regulations and in accordance with the sealing requirements as described in the CERA Technical Guide prior to the commencement of any competition where any the following applies:(i) at a National level event i.e. (Supercar Event, Bathurst, Shannons Nationals and Excel Nationals)(ii) before the next event that the vehicle is entered into, after an event in which the automobile, during qualifying or a race, records a lap time less than 103% of the official lap record published by CERA on the official CERA website*WA Comments;** *This is a step backwards for the category, this category is not just about policing the top 5-10 cars. Every competitor deserves to have the certainty that they are competing against equal machinery regardless of if they are in the top 5 or fighting for 15th or 16th.*
* *Tech Committee summary of the discussions held to support this 103% rule change required.*
* *It is believed this originally was intended to ensure that engines competing for race wins had been subject to a full inspection when sealed. Allowed for recognition also legacy sealed engines that do not have head to block seal could be bought upto the full sealing spec.*
* *Result of rule as included in 2022 rules is the majority of the race field now need no sealing at all.*
* *WA Comments supplied to CERA in 2021 were ignored and need to be considered to clarify this rule. See 2021 suggestion below.*

*If a competitor is within 103% of the lap record during any competition or competes at a National level event ie; (Supercar Event, Shannons Nationals and Excel Nationals) the competitor must ensure their engine is “fully” sealed in accordance with the Circuit Excel Regulations. Any Partially sealed “Wrecker” engine will be subject to full sealing inspection prior to being fully sealed, any competitor who achieves a lap time within 103% of lap record for the first time and is not fully compliant will have until the next event to comply with the fully sealed requirement.* | WA | Yes |
| Rule 3. COMPONENTSAny component of any Australian specification Excel X3 model may be used unless otherwise specified in these regulations.A list of replacement components, that may comply with these regulations, can be found in the 3E Circuit Excel Technical Guide.*WA Comments;** *Tech Guide only has Engine Components, review Tech Guide for any further components for inclusion.*
* *Do we need to include replacement oil pumps, non-Hyundai replacements in use?*
 | WA | YES |
| Rule 3.2 NON-GENUINE PARTSThere is no restriction on the use and source of supply for all fasteners, belts, gaskets, seals, flexible hoses, piston rings, liquid carrying coolant pipes, mechanical cables, bearings, clamps, spark plugs and spark plug leads, filters, batteries and battery cables, globes and LEDs, fuses and electro mechanical relays and windscreen glass provided no modification is made to facilitate the fitment of the replacement part, and on condition that the new part has no additional function relative to the original part.*WA Comments;** *Noted that 2021 comments from WA on these proposed revisions not addressed in CERA discussions prior to rule changes being implemented.*
* *Piston Rings are controlled by Rule 4.2 (f) so no need to restrict in section 3.2, rules control type, size, material of rings, why supply? For deletion of piston rings from unrestricted supply we should be specify allowable suppliers and part numbers however backwards compatibility if we control suppliers may be an issue. Deletion was unnecessary*
* *Addition of “Coolant” to liquid carrying pipes, CERA to provide logic for this change, non-Coolant lines that should be allowed to be covered by original rule are Oil Cooler Lines, Replacement Fuel Hose, Power Steering hose if still in use, vacuum hoses.*
 | WA | Yes |
| Rule 4.1 GENERAL (ENGINE) (f)(f) The fitment of an engine crankcase breather catch can discharging to atmosphere, compliant with schedule B is permitted. Hoses connecting the engine to the catch can must be a maximum inside diameter of 13mm. These hoses shall only be connected to the engine via the original engine breather connections. The PCV valve internal components may be removed.*WA Comments;**13mm ID is too small and restrictive for engines revving over 6000rpm on a racetrack, restriction by use of unmodified connections to cam cover is adequate.* *Suggested wording “The fitment of an engine crankcase breather discharging to a catch can, compliant with schedule B is permitted. Hoses connecting the engine to the catch can shall only be fitted to the original engine breather connections, The PCV valve internal components may be removed”* | WA | Yes |
| Rule 4.2 (b) 4.2 CYLINDER BLOCK/ CRANK / RODS / PISTONS~~Any replacement piston must be standard in material and in each functional dimension.~~ Pistons are free, provided they are manufactured from cast alloy and the same as OE pistons in each functional dimension, which as a minimum will include outside diameter, crown height, dome height and shape, pin diameter, overall height, and shape and height of the original cast area including the valve reliefs. Forged pistons are not permitted. Flat top Pistons are not permitted, either original or aftermarket. Machining of any pistons is not permitted, except for the purpose of balancing. Removal of material must only be from the underside of the piston, and a minimum of one piston must remain unmodified.*WA Comments;**Pistons Free? However, we define the brand of allowable replacement piston in Tech Guide, review rule wording, Outside diameter listed as same as OE piston, we do however allow use of oversize pistons which is controlled by dimensions in Appendix 1. Somewhat contradictory to control OD but allow oversize pistons on rebuild.* | WA | Yes |
| Rule 4.2 (e) (ii) 4.2 CYLINDER BLOCK/ CRANK / RODS / PISTONSA minimum of one of the respective pistons and conrods ~~components or individual aspects of the component being balanced~~ must remain standard and have no material removed.*WA Comments;**Review conrod rule against the practical methodology and engine building established practice of conrod balancing, engine building input from Tech Committee required.* | WA | Yes |
| Rule 11 SUSPENSION (a) (iv) The front control Supashock suspension units, including top bearing assemblies, shall only be installed in the orientation as specified by Supershock, with the camber adjusting slots following the east-west plane of the vehicle (vehicle lateral y-axis).*WA Comments;**Section needs reformat and general tidy up. Previously the package serial number was listed in Appendix 3 to provide a clear part number reference, this section should include part/number, or supplier reference, to define the package.* | WA | Yes |
| Rule 11 SUSPENSION (I) (vi) It is permitted to disconnect one front and one rear sway bar link.*WA Comments;**Refer to WA Submission to CERA on Sway bars from Feb 2022.**CERA records do not document the required due diligence review was performed to change fundamental principle that adjustable rear sway bars were previously legal; and were made illegal for 2022.**In order to make rules clear and enforceable if adjustable sway bars are confirmed as illegal, item (iv) should be reinstated to read “Adjustable sway bars of any type are ineligible”**Review of (v) wording to confirm how free we want links to be.* |  |  |
| Rule 12.1 GENERAL (12. ELECTRICAL EQUIPMENT)(a) A standard Australian Delivered manual Hyundai ECU, applicable to the engine type (DOHC or SOHC) must be used. No modification or addition to the ECU is permitted. The ECU diagnostic port must remain fully serviceable so that ECU sensor readings and other information can be accessed. It is recommended that the ECU ~~may~~ be relocated to the right front kick-panel or the steering column provided no modification to the ECU harness is made. The ECU may be interchanged with another ECU of a competing automobile or sample ECU at any time during competition.*WA Comments;** *Some vehicles have been noted with ECU’s relocated to centre or left of car, can this be done without modification to ECU Harness?*
* *Noted that TRACK ATTACK rules state “For ease of removal it is helpful but not mandatory to mount your ECU on the side of tunnel or firewall of passenger side” Need to understand suitability of vehicles transferring between competitions, are TRACK ATTACK cars getting harness mods to allow this?*
 | WA | Yes |
| Rule 13.3 (f) (ix) INTERIORIt is permitted to fit a drivers footwell floorplate with maximum floor lift height of 25mm and maximum dimensions of 730mm x 530mm.*WA Comments;** *Footwell floorplates have been in use since inception of the category, why was this dimensional constraint introduced for something that is a non-performance item and potentially means an existing competitor may now have an illegal floor tray. Some competitors have trays formed to address ergonomic issues to suit their own physical characteristics.*
 | WA | Yes |
| Appendix 1*WA Comments;** *Where is the technical discussion on revised tolerances in this table recorded/minuted, what was cause for these changes.*
 | WA |  |
| Appendix 5 *WA Comments;** *Can this be enhanced to include eligibility officers*
 | WA |  |
| Appendix 7 *WA Comments;** *Add picture including machined down bearing cap for information*
 | WA |  |
| The third fourth gear selector | Qld |  |
| Replacement front indicator and headlight assembly | Qld |  |
| Replacement controlled engine wiring harness | Qld |  |
| Fix sway bar rule | Qld |  |