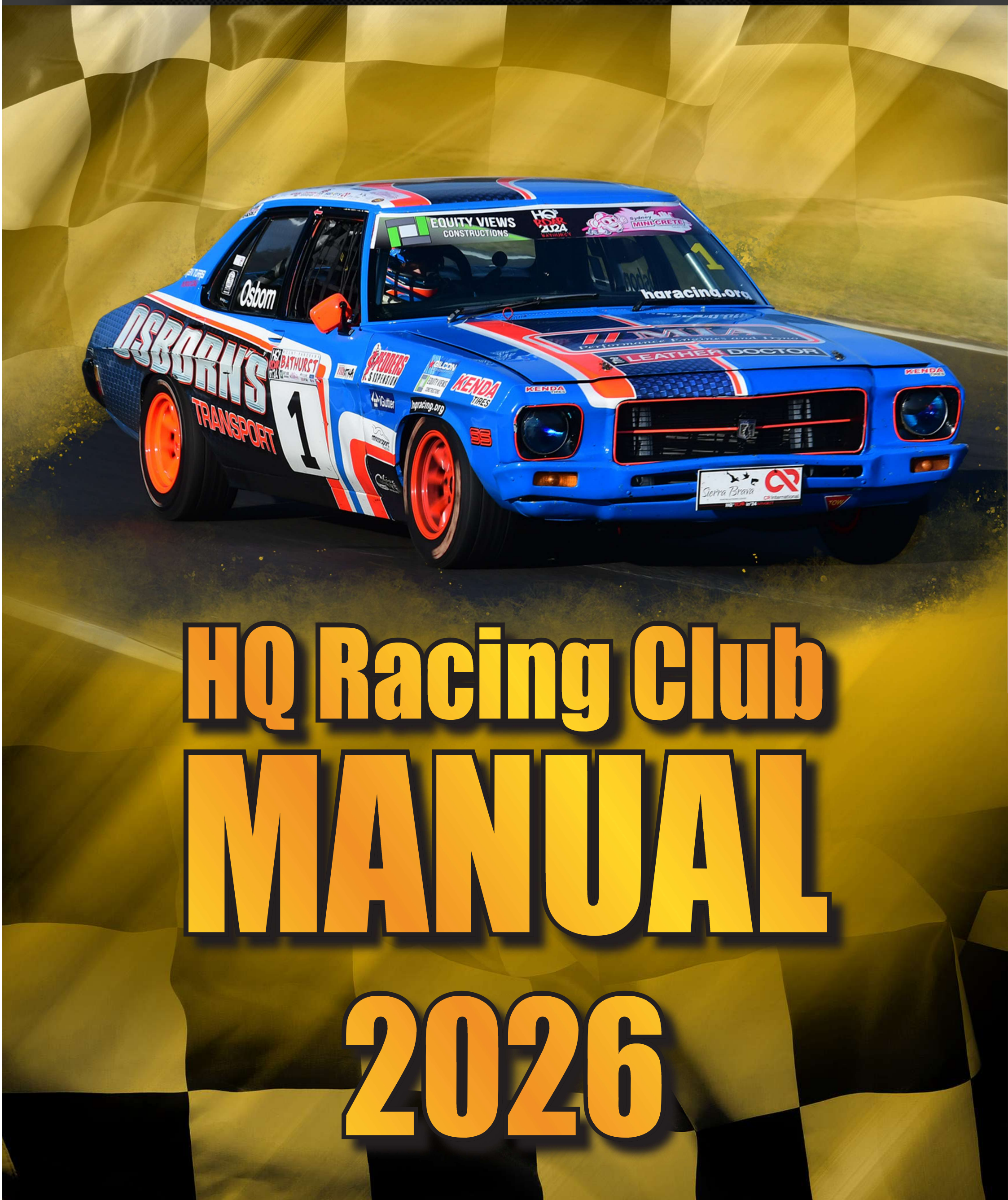
AUSTRALIA

HQ RACING



HQ Racing Club

MANUAL

2026

CONTENTS

OBJECTIVES

- To foster and promote the sport of circuit motor racing in Australia with particular emphasis on the HQ Holden Category recognised by Motorsport Australia as 3H HQ Holdens.
- To promote the HQ Holden Category as a low cost, properly and well organised circuit motor racing category.
- To police the HQ Holden Category strongly to provide fair competition for all.
- To always keep the regulations of the HQ Holden Category simple, straightforward, and adhering to the principal that “The vehicles are to remain standard unless specifically stated otherwise”.
- To never allow any freedom within the regulations of the HQ Holden Category that will allow the category to deviate from its roots of providing low cost circuit motor racing.
- That no points be awarded in any state championship conducted on the same weekend as the Nationals, except for the host state who may make that decision to suit their unique circumstances.
- To seek out its own sponsorships and at all times be self funding and financially independent of any other club or organization, save for the relationship with each State Association listed in rule number 16.2.1 (sixteen point two, point one).
- To support the members of HQRA and facilitate negotiation with circuit motor racing promoters (if required) and Motorsport Australia as the Controlling Body of the sport for the benefit of the HQ Holden Category.
- To provide the means by which anyone wishing to enter, continue or re-enter circuit motor racing can do so at a very realistic cost.
- To regularly review the suitability and sustainability of the HQ Holden Category for circuit motor racing in Australia.

LIFE MEMBERS

Les Morrall
Robert Kramer
Ian Beechey
Dale Youd
Colin Roper
Graham Boulter
Gavin Porteous
David Ling

PAST CHAMPIONS

Year	Track	Driver
1989	Winton	***Richard Whyte***
1990	Winton	***Bruce Williams***
1991	Winton	***Geoff Manson***
1992	Bathurst	***Peter Hopwood***
1993	Symmons Plains	***John Talbot***
1994	Lakeside	***Paul Ramano***
1995	Mallala	***David Lines***
1996	Wanneroo	***David Lines***
1997	Baskerville	***Neville Haley***
1998	Not Held	
1999	Bathurst	***Peter Dane***
2000	Lakeside	***Craig Yates***
2001	Hidden Valley	***Peter Holmes***
2002	Not Held	
2003	Wanneroo	***Tony James***
2004	Mallala	***Steve Laybourn***
2005	Winton	***Peter McNiven***
2006	Hidden Valley	***Layton Crambrook***
2007	Willow bank	***Gary Bonwick***
2008	Baskerville	***Gary Bonwick***
2009	Eastern Creek	***John Wood***
2010	Wanneroo	***Gavin Porteous***
2011	Mallala	***Bruce Heinrich***
2012	Sandown	***John Wood***
2013	Hidden Valley	***John Wood***
2014	Morgan Park	***Bruce Heinrich***
2015	Symmons Plains	***Rod Raatjes***
2016	Wakefield	***Brett Osborn***
2017	Wanneroo	***Brett Osborn***
2018	Phillip Island	***Rod Raatjes***
2019	The Bend	***Joel Heinrich***
2020	Not held	
2021	Not held	
2022	Hidden Valley	***Phil Ashlin***
2023	Morgan Park	***Brett Osborn***
2024	Baskerville	***Brett Osborn***
2025	SMSP	***Brett Osborn***

ADMINISTRATION

National Administrator	***Sue Ashlin***	5 Hannah Court OLD BEACH TAS 7017 (M) 0438 516 370 hqraus@gmail.com.au
Secretary	***Kirk Porter***	(M) 0409 705 435 director@kkjphaulage.com.au
Treasurer	***Darren Parker***	(M) 0405 198 642 dparker@skyzer.co.nz
National Eligibility Officer	***Laurie Griffin***	(M) 0407 946 944 laurence-griffin@outlook.com

STATE CONTACTS

- QLD	***Kirk Porter*** (Vice President)	(M) 0409 705 435 secretary@hqraq.com.au
- VIC	***Rod Rattjes*** (Delegate)	(M) 0422 233 266 rodraatjes@gmail.com
- South Aust	***Darren Jenkins*** (Delegate)	(M) 0438 270 640 oldreynellacrash@bigpond.com
- West Aust	***Michael Howlett*** (Delegate)	(M) 0421 185 076 delegate@hqracingwa.com
- NT	***Peter Anderson*** (Delegate)	(M) 0404 125 287 pjtecanderson@live.com.au
- TAS	***Wayne Nichols*** (President)	(M) 0439 354 606 parkside@bigpond.net.au
- NSW	***Gordon Macleay*** (President)	(M) 0413 935 957 gordonmacleayhq47@gmail.com

SOCIAL MEDIA POLICY

Social networking, media and content sharing sites are online tools that allow people to communicate via the internet. This includes, but is not limited to:

- External social networking sites (e.g. Facebook, Twitter).
- Online discussion forums and blogging sites.
- Video and photo sharing websites (e.g. Flickr, YouTube).
- Any other websites that allow individual users to publish information. In online social networks it can be difficult to draw the boundaries between public and private and your personal and professional views. As our sponsors, national bodies, members and the public may have access to the information you publish, it is essential that you apply good judgement and common sense when using social networking media to ensure HQRA's reputation is not harmed. HQRA does not wish to control your personal use of social networking media. However, HQRA requires that you comply with this policy if you:

- Make reference to HQRA, either directly or in a manner that could be easily inferred as referring to HQRA, its operations, members, events or executive board.
- Identify yourself as a person who is a member of HQRA in these instances you are required to.
- Only post information using your own name, and not use the identity of any other person (including name, nickname etc).
- Not use HQRA's logos in your postings (unless properly authorised to do so by HQRA).
- Only disclose information that is publicly available. You must not comment on or disclose confidential HQRA information (e.g. Information obtained in the course of your membership at HQRA, other members information, information about HQRA's operations or executive board etc).
- Ensure that any content you publish is factually accurate and complies with any applicable HQRA policies (e.g. Privacy and Confidentiality Policy) and any applicable laws (e.g. Copyright).
- Behave in a polite and respectful manner, and ensure that you do not cause damage to HQRA or bring its reputation into disrepute (e.g. Disparage or speak adversely about HQRA, including its members, sponsors, promoters, events, national bodies or executive board).

- You should speak with your State Delegate before you post information on the internet if you are unsure if the content would breach this policy.
- You must not purport to speak on behalf of HQRA (or its affiliated associations) through social media channels unless you are authorised, or you have the express prior written approval from the HQRA Executive Board. Members are reminded that this policy not only applies to those who may be the original publisher of the comment or information, but also to any member who subsequently responds or replies to any social media post in a manner that contravenes this policy. This policy applies to all persons who are members of a State Association which is affiliated with HQRA.

REGULATIONS

In accordance with the Motorsport Australia rules pertaining to Group 3H HQ Holden's, the regulations for the 3H HQ Holden's are ONLY as published in the Motorsport Australia manual

8.16-2026-Group-3H-HQ-Holden-V2-1.pdf

INTERPRETATIONS

All regulations must be strictly adhered to, and unless a modification or departure from a standard HQ Holden is specifically allowed in the Motorsport Australia Group 3H – HQ Holdens regulations, then it is prohibited.

All components must remain as originally manufactured unless specifically allowed in the regulations. The manufacturers sitting and integrity of components must be respected unless specifically allowed in the regulations.

The following process will apply when seeking amendments to the Motorsport Australia Group 3H regulations

All requests for amendments/ must be made in writing to the State Clubs for discussion and consideration prior to the State Delegate presenting it to the AGM/Delegates meeting for further discussion at the AGM.

The Minutes of the AGM/Delegates meeting will reflect the discussion on component and rule changes and will be distributed as soon as practical, after the meeting.

If approved HQRA will request the change to the Group 3H rules from Motorsport Australia. Note; changes to rules only occur once a year. The HQRA National Administrator will submit any proposed changes by September for the following years implementation. This is in accordance with the Motorsport Australia rules.

If required the regulation that led to the need for interpretation should be subject to revision via consultation with Motorsport Australia.

TECHNICAL ADVISER & State Based Eligibilty/Technical Officer

Selection Criteria

- A sound working knowledge of the Motorsport Australia Manual of Motor Sport and have a Motorsport Australia General Official Accreditation.
- Be conversant with the application of the General Requirements and Specifications of the Motorsport Australia Group 3H HQ Holdens
- To have an intimate knowledge of, be able to interpret and apply the specifications contained in the Motorsport Australian Group 3H HQ Holden Regulations and to be thoroughly familiar with the workshop and parts manuals as published by General Motors-Holden Automotive Ltd.
- The applicant must have a mechanical background. They should have a thorough knowledge of engine building procedures and specifications and mechanical repairs.
- They must be conversant with and be capable of using specific measuring devices for measuring such dimensions as bore, stroke of crankshafts, engine blocks, camshafts, cylinder heads and flywheels etc.
- Where possible, they should have a racing (competition or preparation) knowledge of the sport so as to be able to better understand and relate to competitors in explaining the rules as laid down in the Motorsport Australia manual of motor sport.
- For Technical Adviser it is preferable that they have served as an HQ Eligibility / Technical Officer for a period of at least 12 months with an HQ Racing Association within the last 3 years.
- The State based Eligibility / Technical Officer should be able to attend most race meetings in his or her State of residence.
- If present at interstate race meetings, he or she may be called on in conjunction with, or in the absence of, that State's Eligibility / Technical Officer to carry out their duties.
- Prior to the commencement of practice or competition each day at any race meeting they intend to exercise their authority, they may make themselves known to the Chief Scrutineer of the meeting and advise of their intentions in regard to that meeting.
- In conjunction with the Chief Scrutineer, the State based Eligibility / Technical Officer shall carry out such eligibility checks as they deem necessary.
- The State based Eligibility / Technical Officer can be called upon to give evidence or interpretations at any Steward's or any other judicial enquires.
- In the event of any matter requiring interpretation not covered within the Motorsport Australian Group 3H HQ Holden it should be referred to the State Eligibility / Technical Officer who in turn may contact the National Technical Adviser.
- They should make himself available to competitors and Motorsport Australia alike at their convenience to answer technical questions at the questioner's expense.
- They should train an understudy as their eventual equal or replacement
- It is preferred that an appointed Technical Adviser / Eligibility Officer not currently be competing in Group 3H or have any allegiance or links to a Group 3H team or vehicle, or be a Group 3H car constructor or engine builder.

SEALING

COMPONENT SEALER

- Each State Association is to appoint at least one or more Group 3H component sealer as is required by member numbers and member's location.
- The sealer should be readily available for the purpose of after hour sealing within reason.
- The sealer should be available to attend most race meetings in his or her state of residence where Group 3H are competing.
- A component sealer must have a mechanical background. They should have a thorough knowledge of engine, gear box and differential building procedures, specifications and mechanical repairs.
- They must be conversant with and be capable of using specific measuring devices for measuring such dimensions as bore, stroke of crankshafts, engine blocks, camshafts, cylinder heads and flywheels etc.
- It is preferred that an appointed sealer not be a current competitor or have an allegiance or links to a current competing Group 3H racing team.
- A component sealer will not have the authority to seal ANY Group 3H race car component the he or she has had any involvement in the assembly or repair of.
- Component sealing and sealing procedures are to be in line with the process as outlined in this Club Manual
- A component sealer must keep a log of all seals, date and placement of the seal.
- This log must be forwarded to the HQRA National Administrator on a regular basis.
- Distribution of component seals to the State appointed component sealers will be by liaison between the State Based HQRA Delegate and the National Technical Commissioner.
- Cost of seals and sealing wire will be borne by HQRA Inc.

PROCEDURES

- The following scrutineering procedures apply to all racing HQ HOLDEN's and must be carried out by registered sealers.
- Prior to any HQ component being sealed the competitor MUST supply their current HQRA Membership Card, the vehicle Log Book and the current HQRA seal sheet as is related to the components to be sealed.
- On completion of scrutineering (ie: component assembly), approved seals as supplied by HQRA, are the only seals that shall be recognised for this purpose are 'Roto Seals', are to be secured by the sealer on the approved sealing wire, so as to ensure that key engine, transmission and differential parts cannot be modified or replaced without removing the seals.
- All relevant sealing documents must be made available upon request, failure to produce seal sheet will result in a penalty of $50.00

SCRUTINEERING

POLICY AND AUTHORITY

- The following policy and authority applies to the scrutineering of HQ Holdens for eligibility.
- The state Technical Officer may at any race meeting he attends, advise the Chief Scrutineer of the meeting on matters relating to eligibility.
- Engines, gearboxes and diffs are to be sealed in accordance with the sealing procedures in this manual.
- Persons eligible to seal engines, gearboxes and diffs will be appointed by each State Association.
- Each State Association will publish, for the benefit of their members, the names and addresses of authorized sealers, and will notify the Technical Manager at Motorsport Australia.
- No sealer shall engage in collusion to seal an engine/gearbox or diff to provide a material advantage to a particular competitor.
- Seals and approved sealing wire shall be provided by HQRA Executive., HQRA Inc shall keep records of seals going to each sealer.
- The sealer will be issued with the approved paperwork necessary for him to record the required information. The paperwork will record the number and location of every seal, the number of the camshaft, and any comments the sealer feels necessary to record. The paperwork will be in triplicate, the top copy going to the owner, the second copy to be forwarded to the State Association monthly, and the third copy is to be retained by the engine sealer. An audit is to be made annually of all seals, this audit is to be carried out by an Association approved person who will sign and date the sealers records if found to be correct.
- It is the responsibility of the competitor to maintain the condition of a competition vehicle to a standard satisfactory to race scrutineers.
- The seals and sealing books will always remain the property of HQRA and HQRA retain the right to remove seals from a race vehicle.

Check that all components comply with the Motorsport Australia Group 3H = HQ Holdens published regulations

ENGINES

All engine measurement must be carried out with the components at ambient temperature to avoid errors arising from differential expansion.

CHECKING THE INTERNAL COMPONENTS OF THE ENGINE

Before assembling examine all parts for signs of modification, e.g. addition or removal of material, polishing, grinding etc., other than which is constant with normal automotive general machining practices, reconditioning procedures and balancing.

It is not permitted to apply coatings to any component.

Bead blasting is an accepted method of cleaning.

GEARBOXES

- Check the cluster and ratios
- The original three-speed manual gearbox may be used.
- The extension housing may be replaced by an extension housing sourced from a four speed M20 or M21 gearbox.
- Late model bell housing can be used.
- Check that there have been no modifications carried out.

CYLINDER HEAD ASSEMBLY

- Check cast numbers
- Check that the head has not been angle planed.
- The valve guide boss must not be modified (diagram 1/**A**).
- The area around the spring seat can be machined to obtain the correct height (diagram 1/**B**).
- Under the valve seat check that the throating leaves a minimum of 50.8mm (2”) valve guide boss length (diagram 1/**C**).

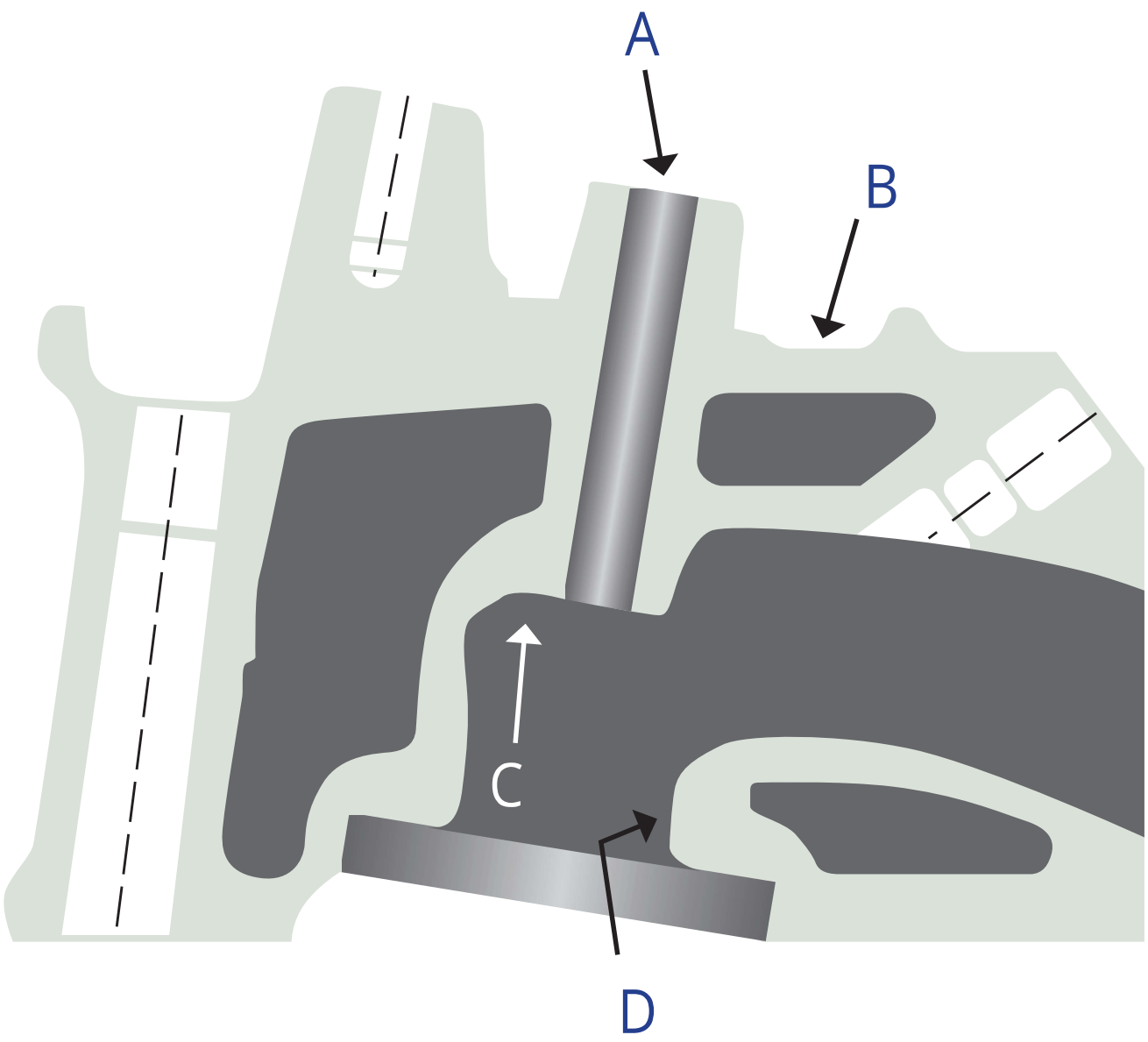
No further modification is permitted except for re-radiising in the top of the throat. (diagram 1/**C**)

No burrs etc. formed by the cutters are to be removed by any means.

Examine closely the combustion chamber, the inlet and exhaust ports of the cylinder head to ensure that no modification, (other than which is permitted) has been carried out.

Where the throat meets the port a distinct edge is formed, it cannot be modified (diagram 1/**D**)

DIAGRAM 1



Unswept Volume Procedure

1 Start with CLEAN (as in spotless) heads.

2 Be sure to use the same type of spark plugs for CCing that you intend to run.

3 Block the head up so that the head surface is flat and even.

4 Coat the periphery of the combustion chamber with grease – white heat-resisting brake grease is easy to see and works very well.

5 Place the HQRA approved Plexiglas plate over the chamber, with the hole on the high side and the counter sink up. Press evenly and firmly to insure a perfect seal.

Carefully assemble the burette, stand and clamp.

Specification of Burette 'Cat No: 13918, ISO 9001-14001certified'

6 Using blue kerosene as a measuring fluid, fill the burette to the "O" line. NOTE: The surface of the column of fluid will appear to be concave (or sunken) in the center. This is known as meniscus. For accurate results, align the marks on the burette with the lowest (sunken) portion of the fluid for all measurements.

7 With the burette positioned over the countersunk hole, and the head FIRMLY blocked, slowly open the stop-cock and begin filling the chamber. Watch for leaks at the seal of the plate and the head surface (this is where the white grease helps). If a leak develops, be very patient and START OVER.

8 Fill the chamber until the fluid just touches the BOTTOM of the hole. Be sure ALL air bubbles are out.

9 Carefully read and record the amount of liquid metered into the chamber. (Remember what was mentioned about meniscus.)

CHECKING OF CAMSHAFTS

This check should be carried out by ALL engine sealers.

To carry out this check you will need the following:

1 A dial indicator with magnetic base.

2 A plate that will mount onto the head using the rocker cover attaching studs.

The following is the procedure to be used.

1 Mount the plate on the side of the head so the dial indicator when sitting on the plate can reach the push rods of any cylinder.

2 From the cylinder you choose, remove the rocker arms and let the dial indicator rest on the inlet pushrod.

3 Turn the motor over so that you are sure the lobe of the cam is in the fully closed position.

4 Zero the dial indicator, turn the motor over in the correct direction of rotation until the indicator reads .035".

5 Remove the indicator from the inlet valve pushrod and install it on the exhaust pushrod, zero the indicator, continue to rotate the motor until the indicator stops moving, it should read between .029" - .031".

6 Alternatively, you can use the measurement of .070" for the inlet valve and .010" for the exhaust.

7 If after carrying out the above check you cannot get the correct readings, contact Crow CAMS straight away.

8 In the event of any discrepancy, the camshaft is to be held by the engine sealer pending further action.

DIFFERENTIALS

- Check that no modifications have been made to any of the diff gears or the diff gear carrier.
- The sun and planetary gears must rotate freely with the sealers hands without further use of tooling, with the axles withdrawn from the diff centre, prior to sealing of the diff and once the diff assembly is complete the suspended wheel must rotate freely at all times.
- Differentials must only be checked and sealed with the axles withdrawn from the diff centre, to verify the sun and planetary gears turn with fingers or thumbs.
- Method for initial testing of diff gear freedom is as follows:
- Vehicle to be jacked up to allow both rear wheels to rotate, either wheel is be rotated by hand and opposite wheel to be observed, opposite wheel is to remain stationary or rotate in opposite direction to rotated wheel. Failure to comply is to result in further investigation.

ATTACHING SEALS

2.5.1 Seals are to be attached as per Roto seal instruction sheet. The seal, and/or the part the seal is sealing on to the vehicle, are not to be able to be removed without breaking the seal.

2.5.2 Components to be sealed are;

2.5.3 Engine (head, sump, timing cover and/or oil pump) Gearbox and Differential.

When sealing the head, a hole is to be drilled through the casting, which is on the right hand side in the centre of the head. A hole will be drilled in the casting, which is situated between the side cover plates on the block.

The sealing wire will be threaded through the hole in the head, passed through the hole in the block, and the seal is to be fitted with the ends in the seal.

2.5.4 To seal the sump on the right hand side, a hole is to be drilled in the cast web (vertical) of the engine mount front bolt, and a hole in the edge flange of the sump. Again, a wire is to be threaded between these two components and the seal fitted. To seal the sump on the left hand side do the same as above, but drill the front horizontal web, this makes it easier to read the seal when the motor is assembled and in the vehicle. Alternative methods of sealing sumps is acceptable save that the sump must be sealed on both sides.

2.5.5 To seal the camshaft, seal the timing cover on by drilling the heads of the two bolts located just below and to the drivers side of the water pump inlet or seal the oil pump on by drilling the heads of two pump to block attaching bolts.

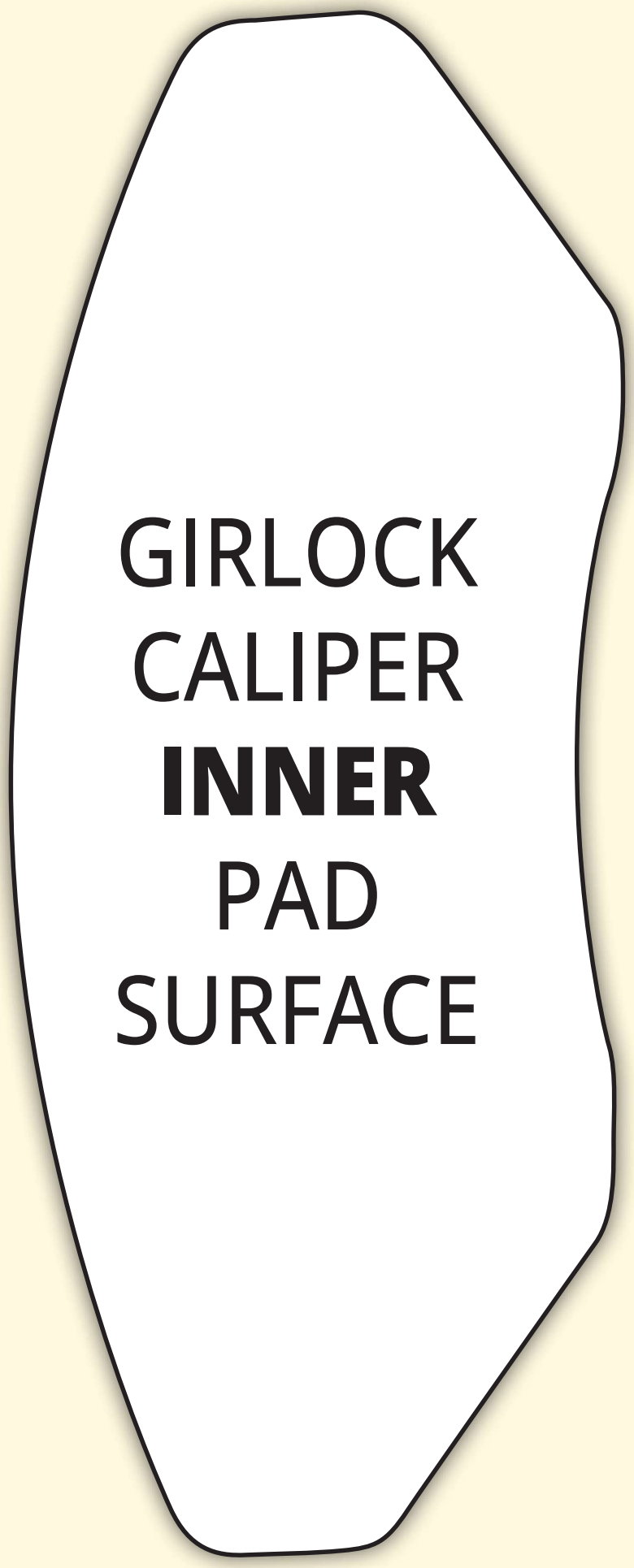
2.5.7 To seal the gearbox drill two holes in two side cover attaching bolts,

or two bolts on the extension housing.

2.5.8 To seal the diff drill two holes in the retaining bolts/nuts on either the rear cover (Salisbury) or the retaining bolts (Banjo).

PBR
CALIPER
INNER
PAD
SURFACE

PBR
CALIPER
OUTER
PAD
SURFACE


GIRLOCK
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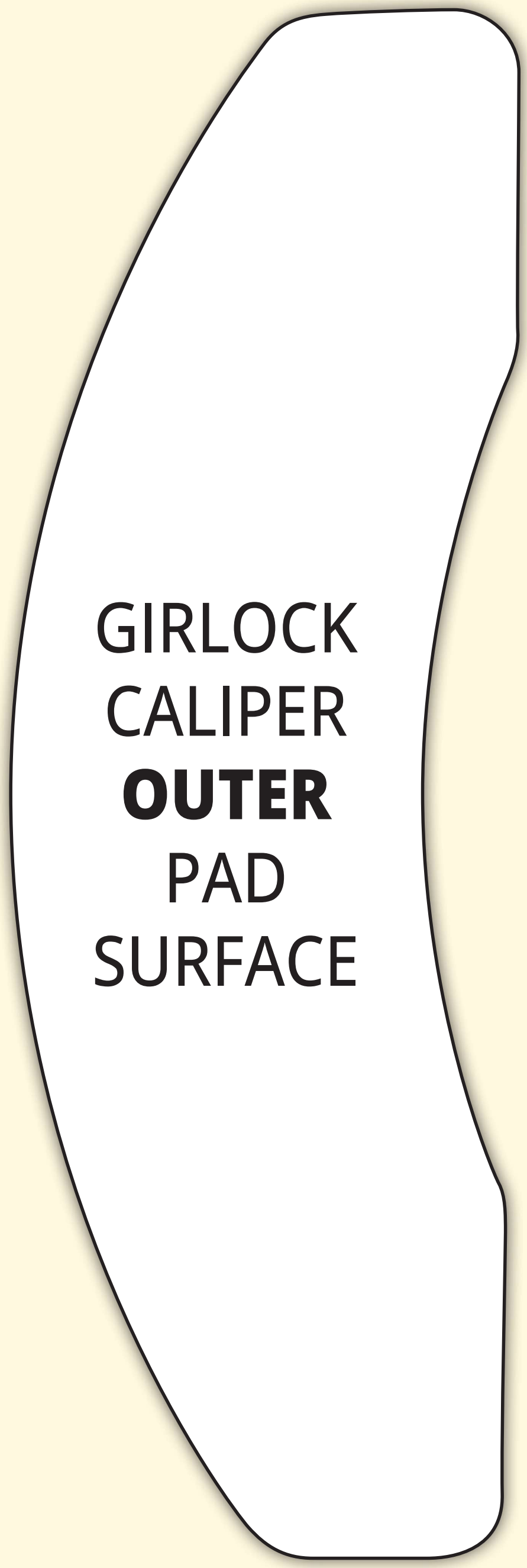
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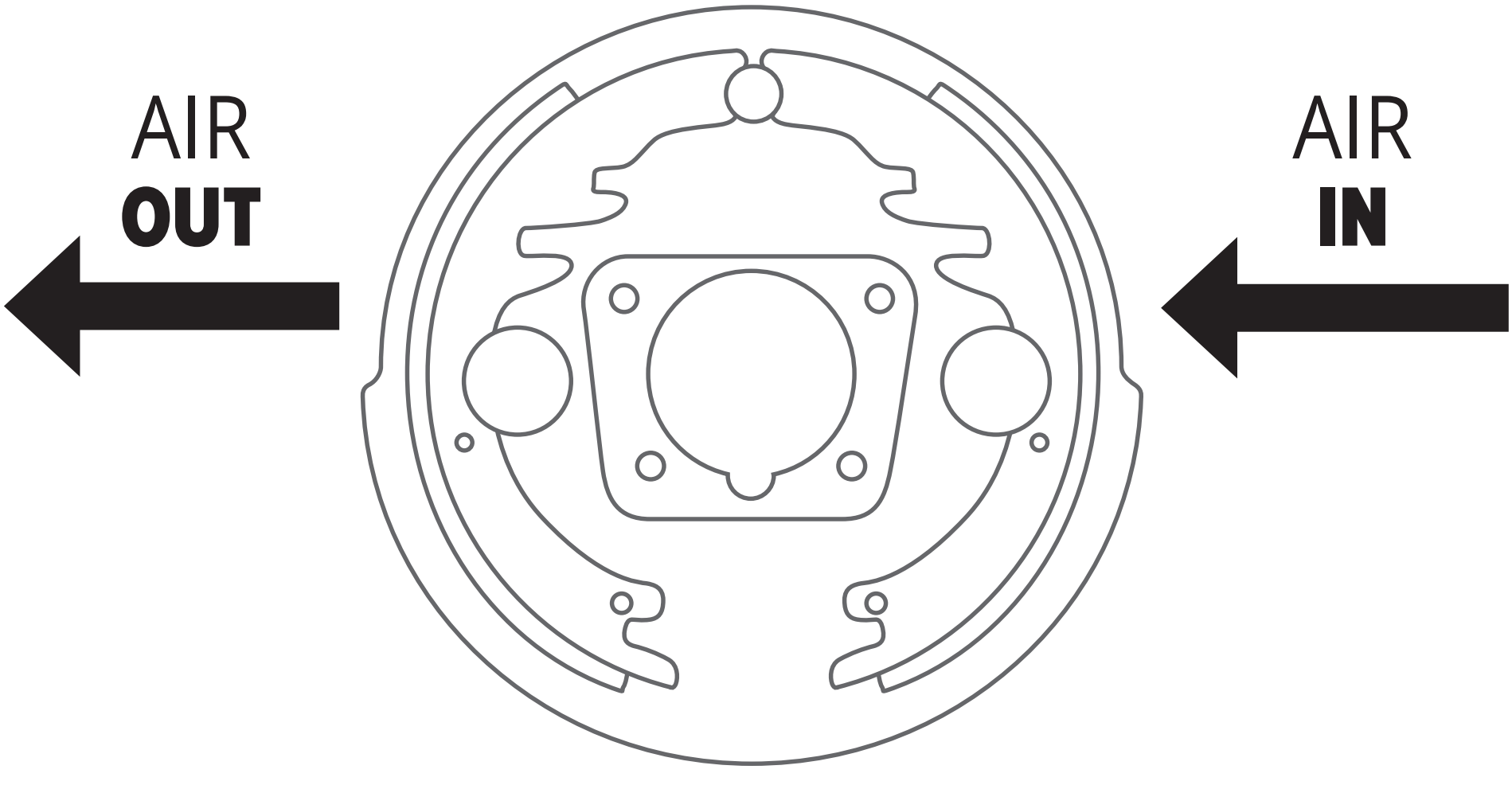
BRAKE DIAGRAMS

Optional Rear Brake Cooling

Inlet and outlet holes will have metal removed by drilling or other suitable method to a maximum diameter of 40mm.



Centre line of inlet and outlet holes to be in line with center of backing plate in a horizontal plane plus or minus 10mm.

Centre of inlet and outlet holes to be 80mm from center of backing plate plus or minus 5mm.

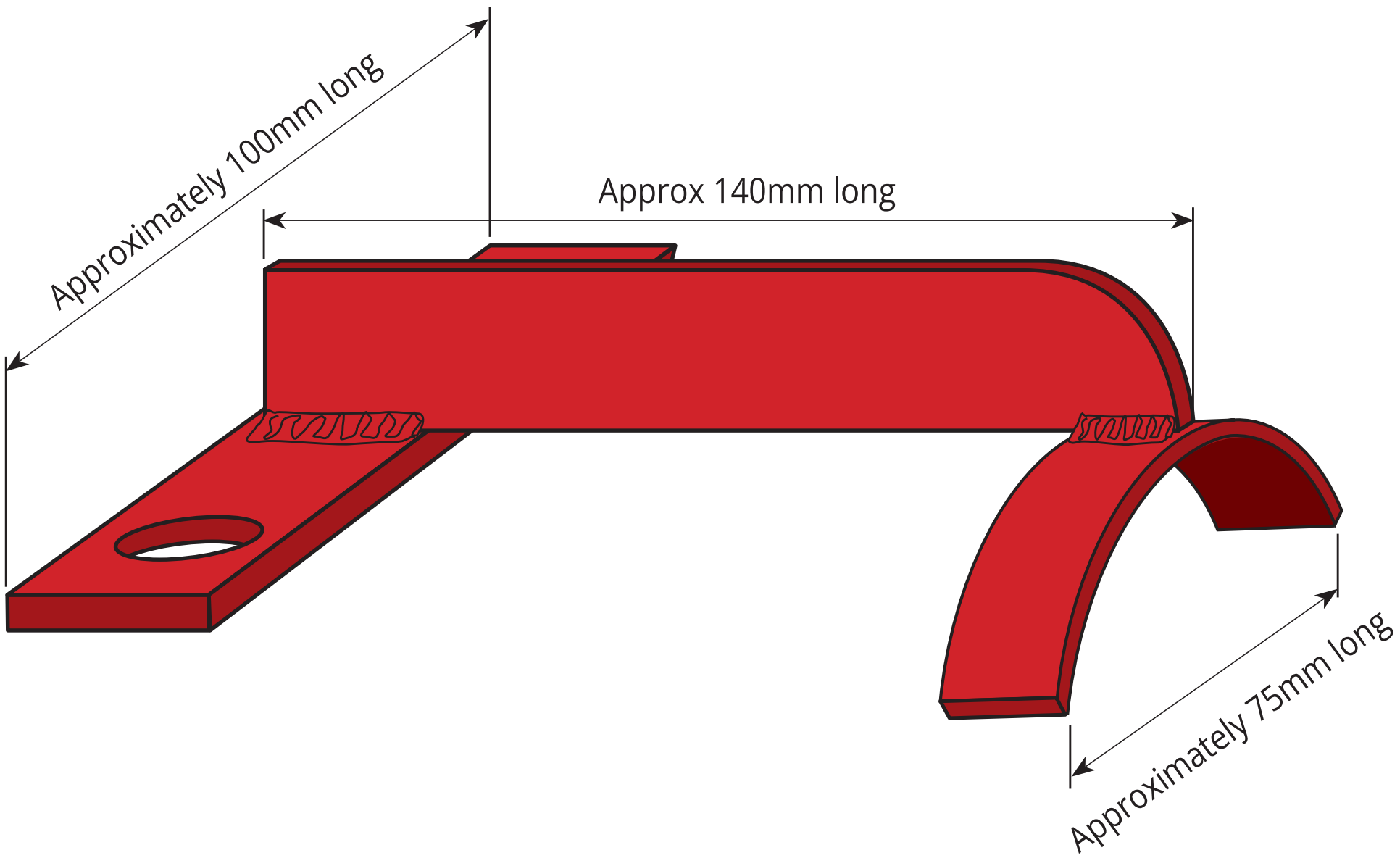
Air inlet hole with 40mm OD tube welded to rear of backing plate.

Length of tube between 40mm and 80mm, for inlet and/or outlet hole.

Optionally, the same specified area of inlet and outlet holes may be drilled with any combination of smaller holes to provide additional strength, although not necessary.

Brake ducting allowed to existing rule sizes. Suggested clamping point is to lower spring saddle area.

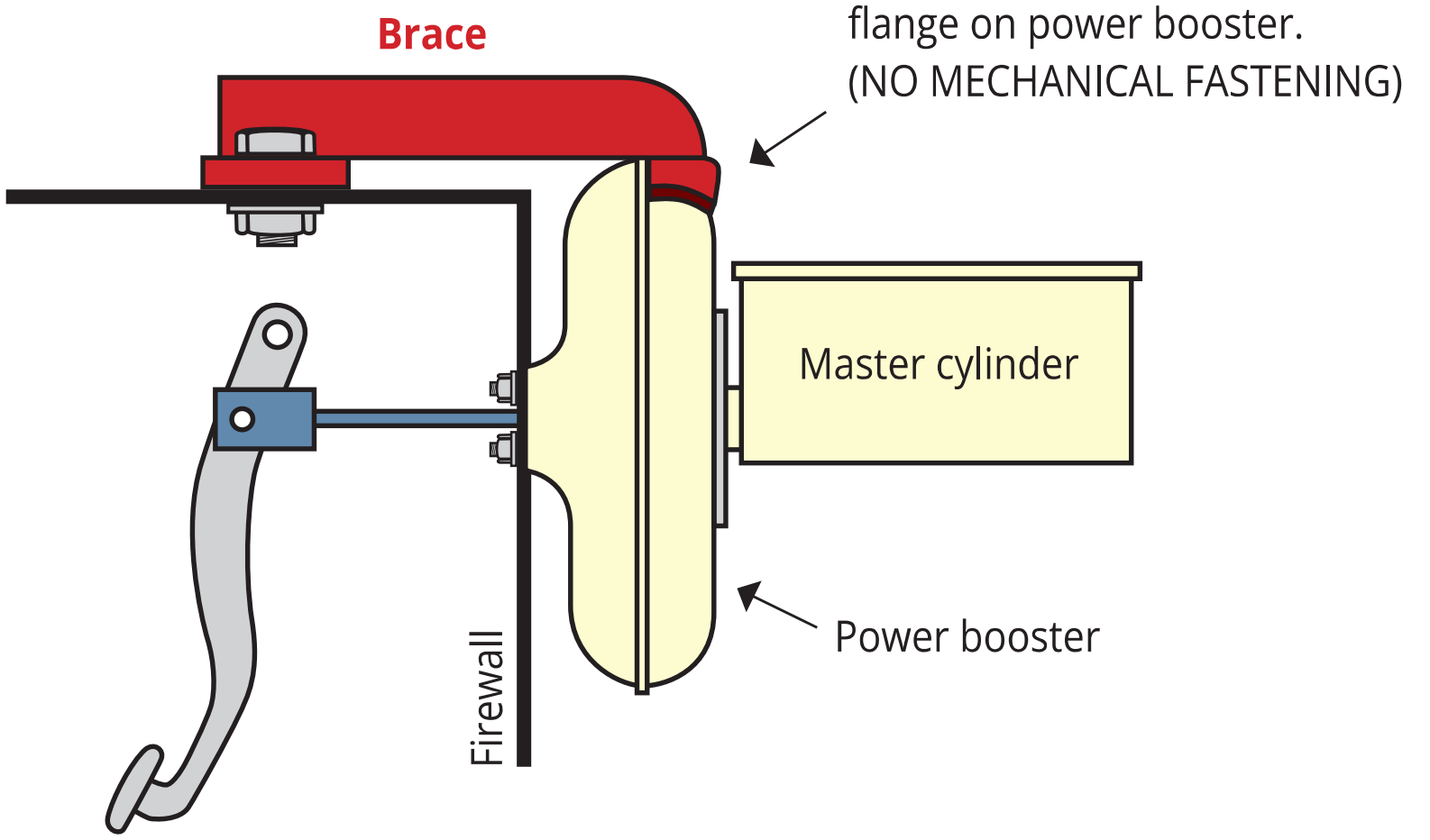
It is permitted to fit a brace to the scuttle panel to restrict movement of the power booster.



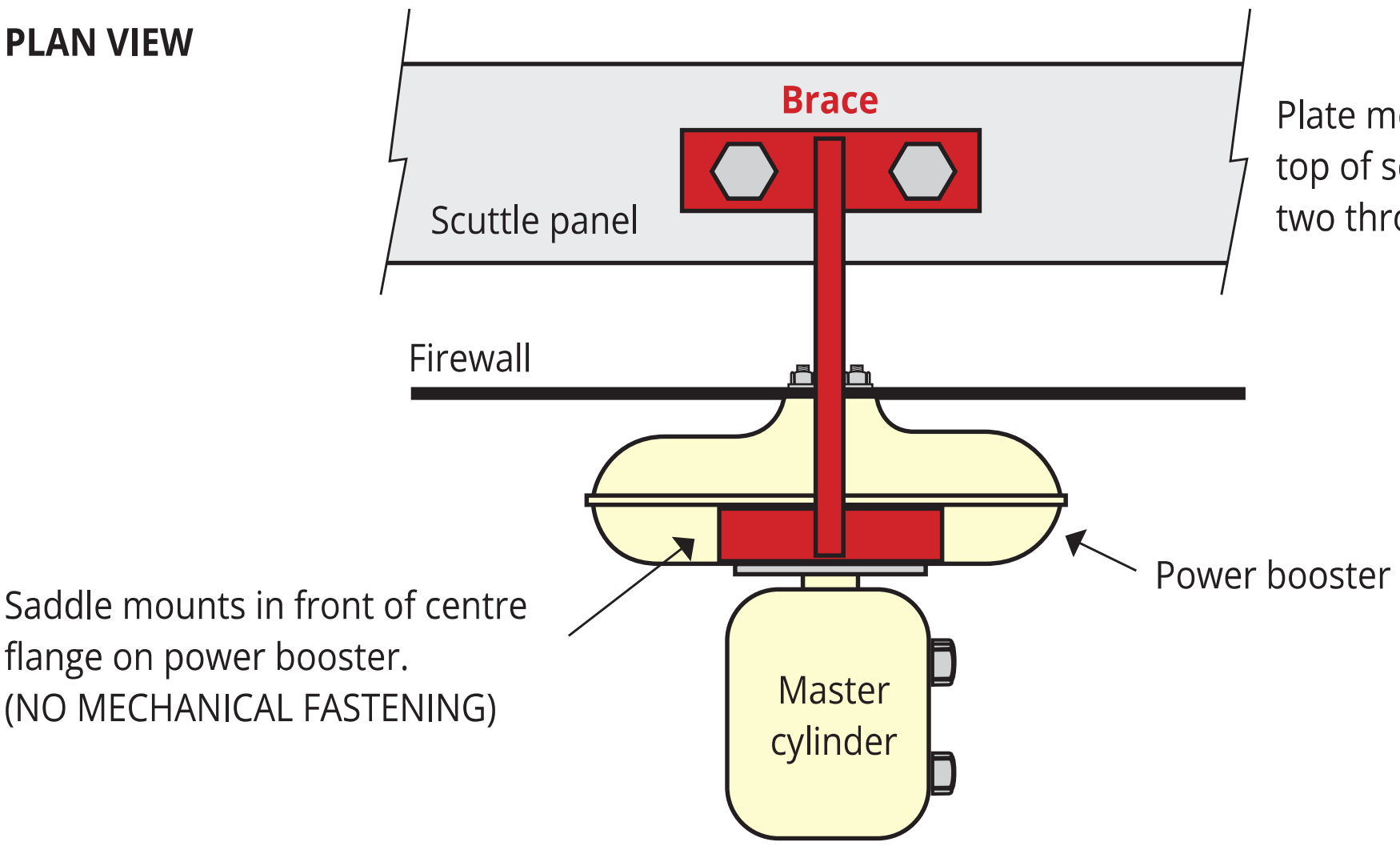
Brake Booster Bracing.

Fitment of a simple bracket is optional. This diagram is the preferred design but not mandatory.

SIDE VIEW



PLAN VIEW



KENDA sticker
above headlights on front grill

KENDA sticker
between tail lights and
number plate bracket

KENDA sticker
front guard - above fold

PEDDERS sticker
front guard - above fold

CROW CAMS sticker
front guard - below **PEDDERS**