V8 DIRT MODIFIEDS

SPECIFICATIONS

2017/2018

RULE BOOK DISCLAIMER

This Dirt Modified Australia specification book, as amended, supersedes the previous year's book and shall remain in effect until it is superseded by the next annual Dirt Modified Australia specification book.

The rules and regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events.

The rules and regulations shall govern the condition of all events and by participating in these events, all participants are deemed to have complied with these rules and regulations.

NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM THE PUBLICATIONS OF, OR COMPLIANCE WITH THESE RULES AND REGULATIONS.

NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM SUCH ALTERATION OF THESE RULES AND REGULATIONS.

THEY ARE INTENDED AS A GUIDE ONLY FOR THE CONDUCT OF THE SPORT AND ARE IN NO WAY A GUARANTEE AGAINST INJURY OR DEATH TO A PARTICIPANT, OFFICIAL OR SPECTATOR.

ANY DEVIATION FROM SPECIFICATIONS, CAR WEIGHTS AND ENGINE PARTS OR ANY NEW CONCEPTS THAT DEVIATE FROM THE NORM WILL BE SUBJECT TO APPROVAL BY THE DMA. HOWEVER, SHOULD ANY APPROVAL PROVE TO BE AN UNFAIR ADVANTAGE TO THE OVERALL COMPETITION, DMA RESERVES THE RIGHT TO RESCIND ANY APPROVAL IT MIGHT HAVE GIVEN WITH ONE WEEKS NOTICE. DMA RESERVES THE RIGHT TO PERMANENTLY CONFISCATE PARTS FOUND TO BE ILLEGAL.

FORWARD

Dirt Modifieds Australia officials attempt to be fair and maintain consistency with the application of these specifications. Our objectives are fairness and safety. For an organisation to be successful, it must have good rules and enforce them fairly. Cooperation between officials and competitors will assure our sport a bright future.

PREFACE

After a race car has passed scrutineering, it may not be altered to any specification that would make it illegal. Any race car that has passed scrutineering may still be subject to further inspection and may be excluded from the event.

Please be advised that all rules will be applied as per this specification book. Please do not try and bring a race car that is out of specs, you will have to bring it back to specs at the track before being permitted to compete. Scrutineering is required to ensure that all race cars are safe and evenly matched. It is in YOUR OWN INTERESTS to present a LEGAL and SAFE race car.

DMA DIRECTORY

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MISSION

To promote Dirt Modified Racing through development and implementation of uniform National Policy.

OBJECTIVES

1: Unify, strengthen and expand V8 Dirt Modifieds in Australia.

2: Cost effective racing for all members.

3: Safety – proactive approach to protect members.

4: Entertainment – close competition – drivers/promoters/fans

5: Promote positive and progressive thinking to further the Division.

CONTENTS

DIRT MODIFIEDS

MOD LITES

Some wording in this edition of the DMA Specification Book have been amended to assist in a precise understanding and interpretation of the V8 Dirt Modified specification requirements. These are highlighted in bold.

Words importing the masculine gender shall include the female gender and visa versa

1 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 (eg. Facebook, Twitter);
- Online discussion forums and blogging sites;
- Video and photo sharing websites (eg. 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 DMA's reputation is not harmed.

DMA does not wish to control your personal use of social networking media. However DMA requires that you comply with this policy if you:

- Make reference to DMA, either directly or in a manner that could be easily inferred as referring to DMA, its operations, members, events or executive board; or
- Identify yourself as a person who is a member of DMA

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 DMA's logos in your postings (unless properly authorised to do so by DMA);
- Only disclose information that is publicly available. You must not comment on or disclose confidential DMA information (eg. Information obtained in the course of your membership at DMA, other members information, information about DMA's operations or executive board etc);
- Ensure that any content you publish is factually accurate and complies with any applicable DMA policies (eg. Privacy and Confidentiality Policy) and any applicable laws (eg. Copyright);
- Behave in a polite and respectful manner, and ensure that you do not cause damage to DMA or bring its reputation into disrepute (eg. Disparage or speak adversely about DMA, 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 DMA (or its affiliated associations) through social media channels unless you are authorised, or you have the express prior written approval from the DMA 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 DMA.

PENALTIES

A member is guilty of Misconduct if they breach this policy and engage in conduct, which in the absolute discretion of DMA, would or would likely bring the member, the sport of speedway racing, DMA or an Affiliated Association into disrepute.

The maximum penalty imposed on a member guilty of Misconduct shall be:-

(a) a $5,000 fine; and/or.
(b) Two (2) year Suspension.

This penalty will be in addition to any penalty which may be imposed by Speedway Australia.

2 CONCEPT

The aim of the DMA is to produce a vehicle that is upright in design, centre line drive and open wheeled. Wheelbase to be 2290mm (90") minimum and 2693mm (106") maximum, wheel Track Width to be 2185mm maximum, Body Width to be 1500mm minimum and 1730 maximum, stiffening ribs included. Body shape and configuration as per current seasonal specification book, powered by a 361 ci maximum V8 pushrod engine with cast iron block and cast iron heads and a maximum compression ratio of 11.5 to 1, and running on methanol fuel only.

3 GENERAL

3.1 **National Number System**

3.1.1 Two sets of numbers will be allocated between two Zones, Zone 1: QLD and NSW and Zone 2: VIC, SA and WA. The Numbers will be managed by a Zone Administrator, contact your State Association and they will direct you to the zone administrator to acquire a racing number.

3.1.2 Numbers will remain the property of the DMA and cannot be sold privately.

3.1.3 Numbers will not be transferable between Competitors without the DMA's consent.

3.1.4 An approved number holding Fee of **$100 per year** will be paid to the DMA, to hold a particular number for a maximum of 1 year. A RACE CAR MUST COMPETE IN TWO RACE MEETINGS IN THE FOLLOWING YEAR TO RETAIN THER RACE NUMBER.

3.1.5 A waiting list is to be maintained. i.e.:- Anytime a number becomes available the 1st name on the list with that number as their preference will have first option on that number.

3.2 **DMA Structure**

DMA ADMINISTRATOR

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STATE DELEGATES

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NATIONAL TECHNICAL COMMITTEE
(STATE TECHNICAL OFFICERS)

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CLUB SCRUTINEERS

3.2.1 The interpretation, implementation and maintenance of these Specifications will be the responsibility of the DMA, National and State Technical Officers & Club Scrutineers.
3.2.2 Nothing contained in or omitted from these Specifications constitutes permission to run an unsafe vehicle.

3.3 **Race Car Construction**
3.3.1 All vehicle construction is to be carried out in a professional manner using top grade materials.
3.3.2 **No Titanium to be used within the racecar, with the exception of rule 14.1.11**

3.4 **Race Car Registration**
3.4.1 Only registered vehicles will be permitted to compete.
3.4.2 *Vehicles may only be registered after the appointed scrutineer is satisfied that the vehicle complies with these specifications and has a manufacturers chassis ID tag permanently affixed to the left hand front windscreen pillar with name and date of manufacture.*
3.4.3 All cars are to be registered with a DMA affiliated club, in the state and where the car is maintained or garaged for the most part of the racing season.
3.4.4 Tow money will be paid from where the race car is maintained or garaged for the most part of the racing season.

3.5 **Race Car Specification Disputes**
3.5.1 Driver/car owner raise issue with Club Scrutineer - unresolved
3.5.2 Club Scrutineer will refer (in writing) to State Technical Officer- unresolved
3.5.3 State Technical Officer will refer to the Chairman National Technical Committee - unresolved
3.5.4 Chairman National Technical Committee will refer to National Technical Committee for debate, resolution will be based on a majority vote - unresolved
3.5.5 Chairman National Technical Committee will refer to DMA for resolution.
3.5.6 DMA decision is FINAL

4 PENALTIES

4.1 **Enforcement**
PENALTIES WILL BE ENFORCED BY THE DMA ON ADVISEMENT FROM THE NATIONAL TECHNICAL COMMITTEE. (EXCLUDING ITEM 4.12 WHICH WILL BE ENFORCED DIRECTLY BY THE DMA.)

4.2	**Engines - components**	MAXIMUM - 12 MONTHS
4.3	**Engines - cubic capacity**	MAXIMUM - 12 MONTHS
4.4	**Engines - compression**	MAXIMUM - 12 MONTHS
4.5	**Traction control**	LIFE
4.6	**Adjustable controls**	MAXIMUM – 12 MONTHS
4.7	**Rear Axles / Spools**	MAXIMUM - 12 MONTHS
4.8	**Fuel - fuel**	MAXIMUM - 12 MONTHS
4.9	**Fuel - induction**	MAXIMUM - 12 MONTHS
4.10	**Unauthorised Communications**	MAXIMUM - 12 MONTHS
4.11	**General Non Compliance**	MAXIMUM - 12 MONTHS
4.12	**MISCONDUCT- including Unruly Behavior or Bringing the Sport into Disrepute**	MAXIMUM – 24 MONTHS
4.13	**Consistent Under Weight**	MAXIMUM - 12 MONTHS

The following penalties #3.14 & #3.15 will be enforced by the Chief Steward at the race meeting.

4.14 **Under Weight -** LOSE ALL POINTS FROM THAT HEAT or FEATURE RACE, and NO FINISHING POSITION RECORDED.

2nd Offence at Same Meeting – EXCLUDED FROM ALL POINTS AND POSITIONS and EXCLUDED FROM RACE MEETING. (NO APPEAL)

4.15 **Over-Width -** TO BE RECTIFIED BEFORE RACING or if found to be racing on track with Over- Width - NO POINTS AND NO POSITION RECORDED FOR THAT RACE.

4.16 In addition to the penalties outlined in this document, any person who participates in a race meeting in any capacity whatsoever is subject to Speedway Australia's Australian Speedway Rules and Regulations. Speedway Australia may impose penalties on individuals in addition to any penalties which may be applied by DMA.

5 CHASSIS & ROLLCAGE

NOTE!

Specification changes relating to tubing sizes will became effective 1st July 2009 and will apply to newly constructed chassis only.

Existing cars will be as per rule book at time of construction with the exception of rule 5.3.5.

5.1 **General**

5.1.1 All joints to be notched to accommodate corresponding parts for sound welding.

5.1.2 No holes allowed in chassis or roll cage unless sleeved and welded.

5.1.3 All new chassis's must be inspected by the relevant club scrutineer BEFORE painting or powder coating. All imported cars both new and used must supply proof of materials used by original manufacturer and will be ultrasound tested. For Australian built cars, DOM / chrome moly must be etched with size and wall thickness as per text on diagram 1 & 2.

MEASURE WALL THICKNESS ON TUBING BEFORE USE.

ERW (and any other material) will be ultrasound tested for diameter and wall thickness as per text on diagram 1 & 2.

5.1.4 The driver, when fitted with an ambulance backboard, must be able to be removed through the roof opening in emergency cases.

5.1.5 Minimum helmet clearance inside roll cage to be 80mm minimum from all roll bars including 80mm vertical clearance from the top of the top roll cage bars measured left to right. Must be checked when car is scrutineered for Registration.

5.1.6 No engine offset within chassis rails is permitted.

5.2 **Wheel Base**

5.2.1 Minimum = 2290mm (90") Maximum = 2695mm (106")

5.3 **Chassis Construction & Design ALL V8 Dirt Modifieds**

5.3.1 Chassis construction is to include sound triangulation in its design.

5.3.2 The chassis will incorporate a bar behind the seat for the seat belts to pass over or mount to. – refer to Diagram 2, bar 16

5.3.3 A protective plate is to be fitted below the seat. – refer Rule 10.2

5.3.4 The chassis will incorporate a 'lower back' seat bar to prevent the rear axle housing intruding on the driver. – refer Rule 10.2.2

5.3.5 An overhead intrusion bar is to be fitted left to right of overhead rollbars approximately one third from front rollbar OR a "V" brace in the top of the roll cage as per diagram 2, but MUST comply with Rule 5.1.4

5.3.6 A 3mm aluminium floor plate is to be fitted, extending from front firewall (engine plate) to at least the front edge of the drivers seat and out left and right to connect up with the chassis rails box sections. Floor plate may have 4 x 25mm holes for drainage.

5.3.7 Front Shock towers to extend a maximum of 200mm (8") above the top of highest cross chassis brace between towers.

5.4 **Chassis Rails**

5.4.1 The chassis rails are defined as - from the rear torsion bar rack (or extension) or where the roll cage down tube intersects with the chassis rail (coil over car) forward to the front crossbar of the nose cone mounting.

5.4.2 The chassis rails will incorporate box sections and will start no more than 355mm in front of rear axle centre line and finish at no less than front of the radiator.

5.4.3 Box sections to be constructed of 100mm x 50mm x 3mm RHS or 100mm x 50mm x 2.8mm RHS. HIGH SIDE MUST BE VERTICAL. Exception made for cars manufactured before 01/07/2009 or registered before 01/07/2012 will be accepted with 75mm x 50mm x 2.8mm RHS Rails, unless the chassis has been brought to the attention of the Technical Committee.
5.4.4 Balance of chassis rails to be constructed from tubing as per Diagram 1.
5.4.5 Chassis rails are to be equal distance from the centre line.
5.4.6 Right hand bottom chassis rail may be stepped out forward of the radiator to accommodate the shock tower.
5.4.7 Chassis rails are to be 700mm MINIMUM / 1000mm MAXIMUM width at the rear of the box section and 650 mm MINIMUM / 1000mm MAXIMUM width at the front of the box section measured from outside to outside of the section.
5.4.8 **Optional DirtCar Intrusion bar -** *A piece of tubing, a minimum of 1-1/4" in outside diameter and .-095"-inches in thickness, may be installed vertically and must extend through the car into the bottom frame rail or extend back to the union at the top of the door and rear main hoop joint. The tubing must be installed in a manner that does not impede the driver exiting the cockpit. The tubing must be mounted a minimum of 9"-inches and a maximum of 12"-inches on the roof bar from the existing rear roll cage hoop. This must be installed symmetrically on both sides of the roll cage. Consult State Technical Officer for further details.*

5.5 **Roll Cage – low/mid bar**
5.5.1 Only round steel tubing to be used for roll cage.
5.5.2 Front and rear roll cage bars must be connected at the top in a cage type configuration.
5.5.3 The roll cage is to be gusseted at all four upper corners.
5.5.4 Front and rear roll cage bars must extend to the chassis rails.
5.5.5 The external width of the roll cage bars at the chassis rails must at least be maintained for the full vertical height.
5.5.6 The box section must connect to rear roll cage hoop or "A" bracing.
5.5.7 Front and rear roll cage hoops are to be braced in an "A" configuration.
5.5.8 Rear roll cage hoop bracing is to extend to chassis rails.
5.5.9 Front roll cage hoop bracing is to extend as low as possible and then supported to the chassis rails.
5.5.10 The rear roll cage hoop must have at least 600mm MINIMUM internal width. (Measured at deck height)
5.5.11 The rear of rear roll cage hoop will be supported by an "A" frame. The centres of the top of the "A" frame bars are to be 90mm apart and the bars are to extend down toward the chassis rails as far as possible and attach to a substantial member.
5.5.12 The "A" frame construction must prevent the seat from passing through.
5.5.13 A round horizontal side bar between front and rear hoops is compulsory. To be no higher than 500mm below the lower edge of the top roll cage bar.
5.5.14 Construction materials as per Diagrams 1 & 2

5.6 **Roll Cage – High bar**
5.6.1 High bar assembly may be used, incorporating a single unbroken top rail from the torsion bar rack up to the rear roll cage upright, forward to the front roll cage upright and then down to at least the radiator support uprights.

5.6.2 The unbroken top rail will be braced in an "A" configuration, front and rear, with braces extending down to the chassis rails.
5.6.3 Chassis design to include triangular construction in conjunction with high bar configuration.
5.6.4 Construction materials as per Diagrams 1& 2

6 PUSH BARS

6.1 **General**
6.1.1 The centre line of front and rear bars to be 450mm to 550mm from ground level.
6.1.2 Vertical spacing of front and rear push bars, measured at centre line of bars. Minimum - 200mm Maximum - 300mm
6.1.3 All bars are to have corners with radiuses and be fully returning to the chassis.
6.1.4 All bars are to be securely fastened to the chassis.
6.1.5 No sharp edges, bolts or pins that may damage other vehicles

6.2 **Front Bar**
6.2.1 Front push bars are to have 2 horizontal hoops and up to 3 vertical uprights with no bracing whatsoever. Bottom horizontal bar may return to top horizontal bar.
6.2.2 Front push bar top hoop is to be chassis width for entire length. Lower hoop may be narrower to suit chassis design - minimum width 350mm.
6.2.3 Front push bar must be in-line with the front edge of the nose cone.

6.3 **Rear Bar**
6.3.1 Rear push bars must have 2 horizontal bars.
6.3.2 Rear push bar minimum width will be the chosen body width (measured at point F), but may extend to a maximum of 75mm outside the body on each side. The rear push bar must return to the chassis from the outer edge of the bar work. A brace within 100mm of chassis mounting sleeve is considered chassis.
6.3.3 Rear push bar must extend rearward to a minimum of 1225mm and a maximum of 1320mm from the centre line of the rear axle to the rear of the bar.

6.4 **Construction Sizes**
6.4.1 Front**:** -Min: 25mm OD x 3mm ERW or DOM tubing
Max: 32mm OD x 2.5mm ERW or DOM tubing
6.4.2 Rear: - Min: 32mm OD x 2.5mm ERW or DOM tubing
Max: 38mm OD x 2.5mm ERW or DOM tubing

7 SIDE NERF BARS

7.1 **General**

7.1.1 Right Hand side nerf bars must NOT protrude outside any tyre. They are to be NO more than 100mm inside a straight line measured from the outside front edge of the front tyre to the outside front edge of the rear tyre with the front wheels in the straight ahead position.

7.1.2 Front top edge to be between 300mm and 450mm from ground level.
7.1.3 Rear centre line of side nerf bars to be between 450mm and 550mm from ground level.
7.1.4 All bars to have corners with radiuses and be fully returning to the chassis.
7.1.5 All bars to be securely fastened to chassis.
7.1.6 **Double rails are not to be used on the RH side of the car. Double rail side bars may only be fitted to the LH side of the car.**
7.1.7 The LH nerf bar may extend a maximum of 50mm outside the LR tyre sidewall.
7.1.8 Maximum distance outside-to-outside of double rail side nerf bars is 250mm
7.1.9 A maximum of three mounting points, from the side bar, may protrude through the side panel in a single plane.

7.2 **Constructional Sizes:-**
7.2.1 Single rail: - Min: 32 mm x 2.5 mm ERW or DOM tubing
Max: 38 mm x 2.5 mm ERW or DOM tubing.
7.2.2 Double rail – LH ONLY: - Min: 32 mm x 2.5 mm ERW or DOM tubing
Max: 38 mm x 2.5 mm ERW or DOM tubing
7.2.3 Corresponding size 4130N chrome moly in 0.095' wall thickness is allowed

8 TAIL SHAFTS

8.1 **All drive shafts must be painted white.**

8.2 **Open Tail Shafts**

Front Hoop = open tail shaft

8.2.1 Front tail shaft hoop is compulsory.
8.2.2 It must consist of a hoop, welded or sleeved & bolted to a substantial cross member.
8.2.3 When attached, must provide 360º protection and be situated 100mm to 150mm behind centre line of front uni and provide minimal clearance around tail shaft.
8.2.4 Material = 25mm OD x 3mm ERW or DOM tubing or 1"x ·095" 4130N chrome moly
8.2.5 Bolts = 2 x 5/16 grade 5.

OR

Combined front hoop/scatter shield

8.2.6 Cars with open tail shafts may combine front hoop and scatter shield into one by encasing tail shaft inside steel tubing.
8.2.7 Steel tubing will be securely bolted to the rear of the gearbox and continue rearward and be securely attached to the seat -front support bar. Tubing may be slotted at the rear to allow for tail shaft drop.
8.2.8 Steel tubing must cover drive flange, front uni joint and tail shaft.
8.2.9 Material = 3mm wall thickness as a minimum.

Rear Loop = open tail shaft

8.2.10 Rear tail shaft loop is compulsory. It must be securely fixed to the diff torque arms or chassis.
8.2.11 It must consist of plate or steel bar, bent into a loop. Plate to be attached using a minimum of 2 x 3/8" grade 5 bolts. Bar to be threaded and attached by nuts on both sides of torque arm.
8.2.12 It must be situated 100mm to 150mm forward of the centre line of the rear uni.
8.2.13 When attached, it must provide 360° protection.
8.2.14 Material - 50 x 6mm steel plate or13mm (½") steel bar
8.2.15 Alternatives to the norm must seek approval prior to use.

8.3 **Torque Tube**
8.3.1 Torque tube driveline must still use a compulsory front tail shaft hoop.
8.3.2 The tubing of the torque tube is considered to be the scatter shield.

8.4 **Torque arms = 2 arms – 1 fitted *each side* of tail shaft**
8.4.1 Race cars using 2 separate torque arms must be fitted with 2 steel safety rings.
8.4.2 Rings must be bolted to each torque arm by a minimum of 2 x 3/8 grade 5 bolts.
8.4.3 One ring must be positioned 100mm to 150mm behind the front uni joint and the other ring positioned 100mm to 150mm in front of the rear uni joint. Both torque arms must be covered by the uni joint scatter shield. see Rule 8.2
8.4.4 Safety rings material 50mm X 6mm steel plate.

OR

8.5 **Torque Arm – 1 arm fitted on *one side* of tail shaft**
8.5.1 Race cars using a single torque arm, that protrude into driver's cockpit, must be contained, limiting travel and preventing contact with the drivers lower body.
8.5.2 Method 1 -- fitted with a steel cable (¼''or more in diameter) connecting to a substantial cross member or front tail shaft hoop. Cable to be attached within 150mm of the front edge. Cable attachment to be spliced eyes & shackles or accepted cable clamps.
8.5.3 Method 2 – steel tubing welded or sleeve/bolted as a hoop to a substantial cross member and/or front tail shaft hoop, positioned within 150mm of the front edge and maintaining minimum clearance to torque arm. This hoop must be between the torque arm and drivers foot.
8.5.4 Material = 25mmOD x 3mm ERW or DOM tubing or 1" x ·095" 4130N chrome moly.

9 SCATTER SHIELDS

9.1 **Bell Housings**

Race cars not using an aftermarket racing gearbox (Bert - etc) must be fitted with an approved aftermarket competition steel bell housing. Bell housings are to be free of holes.

Only hole allowed is for clutch fork operation and this is to be kept to a minimum.

9.2 **Universal Joints**

9.2.1 All cars with open drive shafts must have a 180 degree scatter shield, made from a minimum of 3mm steel and extending from the front edge of the seat to the back of the transmission, covering the uni joint, front flange, driveshaft, and torque arms.

9.2.2 It must be free of holes and extend completely down to the floor plate and be held in place with a minimum of 4 x 3/8" bolts at the bottom connecting to substantial cross members.

9.2.3 The only opening allowed is for gear lever/linkages and this is to be kept to a minimum.

10 SEATS

10.1 **Seat**

Full Containment seats are MANDATORY for use in all V8 Dirt Modifieds.

Containment seats must as a minimum include;

- Head Supports on both sides
- Shoulder Support on both sides
- Rib Support on both sides

10.1.1 The seat must be fabricated from aluminium only.

10.1.2 Seat is to be secured with a minimum of "four (4) x 3/8 grade 5" high tensile bolts, with large diameter steel flat washers under their heads.

10.1.3 The seat must be prevented from protruding thru the rear roll hoop "A" support bars.

10.2 **Seat Protection**

A Protective plate (refer item ###) is to be fitted to the seat using 4 x 5/16" High Tensile Bolts, it is to be affixed using two of the seat bolts detailed in 10.1.2 to the front seat support bar in accordance with Rule 5.1.2. A plate may be welded to the seat support bar as an alternative means of attachment as shown in Figure 7 (Tailshaft H

10.2.1 **oops and Shatter Shields).**

Material = 3 mm steel or 6 mm aluminium plate x 200 mm Minimum wide.

10.2.2 The chassis construction will incorporate a lower back seat bar to prevent the diff from intruding on the driver, through the seat in the event of an accident. This bar is to be located at the bottom / rear apex of the seat and welded to chassis. If chassis design does not allow this bar to be suitably positioned, the bar may be positioned up to 150 mm up the rear of the seat, but the protective seat plate (Clause **Error! Reference source not found.**) must extend p to this bar and meet the above requirements.

Minimum size = 25 mm OD x 2.5 mm tubing

11 FIREWALLS & COCKPIT SIDE PANELS

11.1 All firewalls and cockpit side panels to be a Minimum of 1·2mm aluminium or 0·8mm steel
11.2 All firewalls/side panels are to be free of holes.

11.3 **Front Firewall**
11.3.1 An Effective firewall is to be fitted between the engine and the driver, all gaps are to be sealed.
11.3.2 All pipes, hoses and wiring are to be grommeted or sealed.
11.3.3 Slot for accelerator linkage must be kept to a minimum.
11.3.4 Width to be outside edge of front roll bars and connect with cockpit side panels and extend down and connect with engine plate.

11.4 **Rear Firewall**
11.4.1 An Effective firewall is to be fitted between the driver and the fuel tank.
11.4.2 Firewall to be directly behind driver.
11.4.3 The top edge of the firewall must connect up with the deck panel.
11.4.4 Width to be the outside edge of the rear roll bars and to connect with the cockpit side panels and must extend down as far as the bottom of the seat.

11.5 **Cockpit Side Panels**
11.5.1 Cockpit internal side panels must extend from the front edge of the front roll bar to the rear edge of the rear roll bar and up to the decking panel and down to the lower chassis rail.

12 V8 DIRT MODIFIED BODY

12.1 **Body**
12.1.1 Body panels (all 12.* items) are to be fabricated in either fibreglass, aluminium or steel, Minimum thickness - ·8mm aluminium & steel. - 1·5mm fibreglass.
12.1.2 All panels are to be single skin only.
12.1.3 Maximum width 1730mm, Minimum width 1500mm, measured at point "F".
12.1.4 Body must be mounted on the centre line of the chassis only (no offset) with 50mm minimum of both rear tyres exposed at all times.

12.2 **Bonnet**
12.2.1 A Bonnet is to be fitted and securely mounted using WINGED BUTTERFLY DZUS FASTENERS.
12.2.2 Bonnet length must be from the windscreen mesh to no more than 400mm forward of the centre line of the front axle.

12.3 **Nosecone**
12.3.1 Nose cone will be from 830mm to 930mm wide for entire length, and parallel to the centre line of the chassis.
12.3.2 Must protrude forward 500mm to 600mm of the centre line of the front axle and no further back than the centre line of the front shock absorber mounting point.
12.3.3 Nose cone panelling = MAX IMUM thickness - 3mm.

12.3.4 Metal end plates must be fully welded and smoothed round. The nose cone may have a lip and/or flange a maximum of 51mm on both sides following the contour of the nose cone (maximum thickness 3mm) The end plates cannot protrude forward of the front edge of the nose cone.
12.3.5 Soft plastic (MAXIMUM thickness - 2 mm) may be used for endplates and above nosecone profile, and follow the profile of nosecone face and be no more than 50mm higher.
12.3.6 Any framework used to support the nose cone may incorporate the front nerf bar mounting points and be constructed from material no larger than 38mm OD x 3mm wall thickness and no smaller than 25mm OD x 3 wall thickness.
12.3.7 No 'V' or cross bracing to protrude further forward than 400mm from the centre line of the front axle.
12.3.8 Any framework or chassis rails used to support the nose cone, must be covered by bodywork or panelling.
12.3.9 The front lower edge may be level with or up to 75mm above the bottom of the chassis rail.

12.4 **Roof**
12.4.1 To be a length of 1200mm only, measured at all points.
12.4.2 Width (measured under roof lip in front of ¼ panel) to be 300mm minimum / 400mm maximum narrower than the chosen body width (measured at point F).
12.4.3 Angle to be 10 degrees.
12.4.4 Must be removable and secured using quick release fasteners.
12.4.5 Must be mounted on the centre line of the body.
12.4.6 May be flat or may have a maximum 75mm convex.
12.4.7 Roof lip (or edges) are to be a maximum of 50mm.
12.4.8 Any framework used to support the roof panel must be constructed in such a manner that it cannot protrude into the driver cockpit of any car in an accident.
12.4.9 The back edge of the roof (measured at outside edge) is to be 125mm rearward from the centre line of the rear axle.

12.5 **Side Panels**
12.5.1 Both sides must be identical, except for wheel arches, and must be completely flat.
12.5.2 Front pillars are mandatory on both sides and are to be 50mm wide only.
12.5.3 The body contour must be a straight line from "A" through "H" to "F".
12.5.4 The body contour at "A" – "B" must be vertical and measure between 700mm minimum and 800mm maximum, measured from the bottom of the chassis rail.
12.5.5 "B" – "C" to be middle of the bottom chassis rail. This measurement may include a maximum of 150mm vertical plastic exposed up from the"B" – "C" line. The plastic thickness will be a maximum of 2mm and an overlap of 50mm to secure is permitted.
12.5.6 "D"-"E" May have plastic, thickness to be a maximum of 2mm and an overlap of 50mm to secure is permitted. Body panel at point "D" of rear panel = "C" + 100mm and "E" = "C" + 200mm. Plastic may be installed at "D"-"E" line, where "D" and "E" = "C"
12.5.7 A corner radius or bevel of 75mm maximum at point "A" if desired.
12.5.8 A corner radius of 50mm maximum at points B", "C", "D" and "E" if desired.

12.5.9 A MAXIMUM of 4 supports each side are allowed above the interior sheet metal panels to brace the body side panels. These supports must have rounded ends and cannot exceed sizes of -- 25mm x 3mm flat plate or 10mm tubing.

12.5.10 Side panels must be flat and mounted in a vertical position. They shall remain flat with no louvers, holes or protrusions from top to bottom. The exception being for rub rails. They may have a maximum of a 25mm long lip at a 45 degree outward angle 13mm away from the sheet metal for the purpose of reinforcement. This will be allowed at the top and bottom of the panels.

12.5.11 Kick Ins are permitted in the side panels, not to extend rearward more than 1525mm from the centre of the rear axle and 355mm above B-C line. Shown in Figure 4.

12.6 **Interior Panelling**

12.6.1 Interior horizontal panelling will include full rear decking extending to the "F - E" line, with the horizontal panels continuing forward to a maximum of 100mm back from the "A – B" line.

12.6.2 A rear deck spoiler is permitted at point "F" only. Must not protrude above the top of rear quarter panel and must continue rearward to the "E" – "F" line.

12.6.3 A maximum of 4 vertical 2mm thick ribs may be used to brace the spoiler to the rear deck. These ribs can be up to a Maximum of 250mm in length, and height must not protrude above the 1/4 panel.

12.6.4 The interior sheet metal panels must be a flat single plane across the inside of car, covering the area from points "A" – "F", however the line from "A" – "F" may be contoured.

12.6.5 No protrusions or apertures (openings) allowed whatsoever in the interior sheet metal panels with the only exception being for the steering drop arm and wheel tubs and fuel filler access.

12.6.6 Fuel access is to be covered and secured using quick release fasteners.

12.6.7 No fabricated structures are permitted above the interior horizontal sheet metal panels. Helmet air blower, brake master cylinder reservoirs and rear axle housing breather/filler are permitted above horizontal panels, but must be within the confines of the roll cage rear "A" bracing.

12.6.8 Any cross bars used to support interior panelling/rear decking/spoiler must be capped with at least :- 40mm x 40mm x 2mm plate or :- 40mm x 40mm x 2mm angle running the length of the body side panels covering all cross bars.
Front and rear firewalls are compulsory. Refer Rules 11.3, 11.4, 11.5.

12.7 **Dirt Deflecting Panel**

12.7.1 A dirt deflecting panel may be fitted to the cockpit.

12.7.2 This panel is not to exceed the height of the lower edge of the windscreen.

12.7.3 Must be secured with quick release fasteners to allow easy removal.

12.8 **Windscreen/Rock Guard**

12.8.1 Screen mesh is to be 75mm x 50mm maximum hole size and 3mm minimum steel bar mesh.

12.8.2 Must be full width of the roll cage and secured by welding, bolting or worm drive (or better) hose clamps.

12.8.3 The minimum vertical height of the windscreen mesh is from the bottom edge of the roll cage front cross bar to the top of the bonnet/scoop surface. This must be a minimum of 200mm.

12.9 **Rear Fuel Tank Panel**

12.9.1 Rear panel is compulsory from the decking panel to the bottom of the fuel tank and as wide as the chassis.

12.9.2 If side panels are fitted, there must be a 2 x 150mm diameter fire extinguisher access holes above the fuel tank , 1 on the left side and 1 on the right side - or - 1 x 150mm diameter fire extinguisher access hole above the tank in the rear.

12.9.3 Body styles which do not allow for the preceding fire extinguisher access holes may apply for special consideration; Bicknell Racing Products 2014 + body style (Figure 1) and Teo Pro Car bodies 2015+ (Figure 2) have received approval and must be in accordance with illustrations.

12.10 **Window Styles**

3 styles only are permitted - refer

FIGURE 3

12.10.1 Only the clear window area is permitted to be made of poly-carbonate, with the rest of the window panel fabricated from fiberglass, aluminium or steel.

Figure 1: Bicknell Racing Products body 2014+

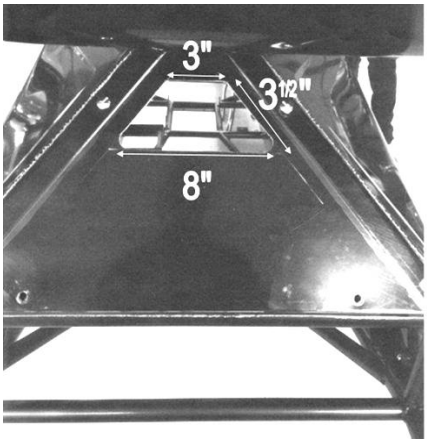


Figure 2: TEO Pro Car Body 2015 +

13 SIGNWRITING

13.1 All vehicles are to be presented for racing in good condition and with a neat gloss paint job.

13.2 Allocated numbers and additional sign writing are to be professionally done in contrasting colours to that of the background.

13.3 Race cars will display their State initials and the drivers Surname in both rear quarter panel windows.

- State initials at the top in 50 mm high block letters. eg: QLD
- Drivers SURNAME in 75mm high block letters or Surname in 75mm high Block letters, below the window but within the confines of the ¼ panel.

13.4 Side panel numbers are to be located forward of the rear wheels only, and numbers are to be a Minimum 500mm high x 75mm wide.
13.5 A 100mm tall state prefix is mandatory for all racing numbers and to be located **at the leading corner of side numbers**. eg. "Q" for QLD registered cars, "V" for VIC registered cars, "N" for NSW registered cars, "W" for WA registered cars and "S" for SA registered cars.
13.6 Roof numbers are to be facing forward and outward. Minimum 300mm high x 50mm wide.
13.7 A rear panel number, 100mm high to be located on the right side of the rear bodywork. – refer Figure 4
13.8 No other sign writing over or into the numbers. Exemption is Australia 1 and State Title Holders see 13.9 for details.
13.9 State Title Holders are permitted to change their side panel number and front nose number only to show #1 with the respective title state written through the number, leaving the normal racing number on the roof and rear of the car.
13.10 DMA approved Fuel tap sticker to be applied to top of internal decking panel adjacent to fuel tap. Sticker to be readable from outside. (Uniform fuel tap sticker will be supplied with race car registration)
13.11 Ignition or magneto kill switch to be clearly marked as IGNITION or IGN and OFF in contrasting colour vinyl.
13.12 **Every Car must have affixed DMA supplied weight designation stickers to both sides of the engine cowl.**

14 ENGINES

14.1 **General**
14.1.1 All engines must be V8 configuration, pushrod type valve operation, cast iron block and cast iron cylinder heads, using carburetion only.
14.1.2 Capacity – 361 cubic inch absolute maximum.
14.1.3 Compression – 11·5 to 1 maximum compression ratio, tested with a whistler. **Bore diameter and stroke length must be provided by the car owner when being tested with a whistler.**
14.1.4 After legally complying with capacity and compression specifications, the engine may be sealed. Seal number to be recorded in vehicle log book **prior to competing at any state or national title events.**
14.1.5 The opposing front bolts on each side of the inlet manifold **must** be drilled for lock wire, where a DMA seal will be fitted **prior to be presented for engine testing.**
14.1.6 As long as this seal is intact and not tampered with, the engine will be legal to use without further testing, unless a paid protest is lodged. Reference rule 14.3
14.1.7 No engine offset within chassis rails.
14.1.8 Engine must be parallel to chassis rails and the centre of the engine block must be forward of the centre line of wheelbase.
14.1.9 No computer engine management systems.(Rev Limiters/Tell Tale Tachometers are not considered engine management).
14.1.10 **NO TRACTION CONTROL DEVICES ALLOWED UNDER ANY CIRCUMSTANCE. INCLUDES ON-BOARD & REMOTELY CONTROLLED DEVICES**

REFER PENALTIES - PAGE 8

14.1.11 No titanium engine components allowed, except for Valve train components.

14.1.12 Any type of engine oiling system is permitted.

14.1.13 The engine crankcase cannot make a vacuum by either the engine or mechanical pump, an effective breather to atmosphere must be fitted to the tappet cover with a minimum breather i.d. of 25mm (1") or a breather tank/catch-can may be utilised. The tank/catch-can must be mounted in the engine bay and easily accessed for inspection. Oil Baffle plate inside rocker cover is permitted.

14.2 **Cylinder Heads**

14.2.1 Cast iron only.

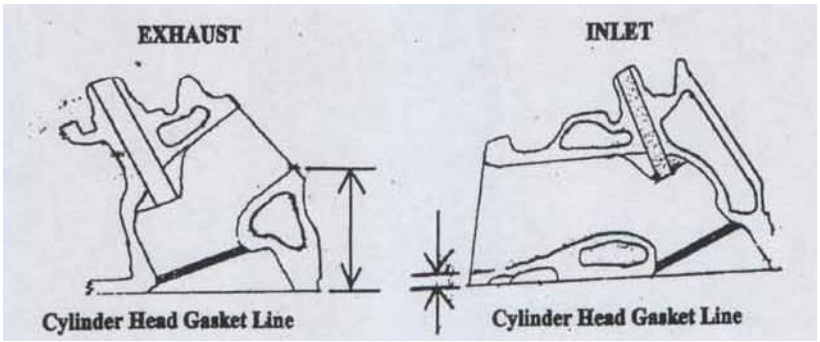
14.2.2 One inlet and one exhaust valve per cylinder.

14.2.3 No raised inlet or exhaust port runners.

14.2.4 No material may be added to the combustion chambers, inlet or exhaust ports with the only exception being, if it is necessary to repair the head.

14.2.5 Standard valve angles must be maintained.

Chevrolet - 23 deg.
Chrysler - 18 deg.
Holden - 10 deg.
Ford Windsor - 22 deg.
Ford SVO - 10 deg.
Ford Cleveland - 22 deg.



14.2.6 Port measurements are to be taken from the head gasket surface to the bottom of the port.

Chevrolet	55 - 60mm	Chevrolet	5 - 8mm
Ford Cleveland	25 – 29mm	Ford Cleveland	13 – 17mm
Ford Windsor	40 – 50mm	Ford Windsor	6 – 10mm
Ford SVO	62 - 64mm	Ford SVO	8 – 12mm
Chrysler	Unknown	Chrysler	Unknown
Holden	Unknown	Holden	Unknown

14.2.7 The following part numbers relate to bare head castings and are the only Aftermarket Cylinder heads permitted.

CHEVROLET

Must be 23 degrees.
Must meet port specifications detailed above.

FORD

World Products	**Part #**	**Description**
Windsor JR	053030B	58cc/1·940" x 1·600"/170cc Intake Runners
Windsor	053020B	64cc/2·020" x 1·600"/197cc Intake Runners
Pro Top Line	F2204000215	

SVO	**Part #**	**Description**
	M-6049-E351	64cc/2·020" x 1·600"/197cc Intake Runners
Sportsman	M-6049-N351	64cc/2·020" x 1·600"/195cc Intake Runners

DART	**Part #**	**Description**
	5302	
Dart Head for Ford formerly E351		64cc/2.020" x 1·600"/197cc Intake Runners

CHRYSLER

Chrysler	W2 Cast Iron

14.3 **Engine Protest**

A protest fee of $750 is to be paid to the governing body by the protesting competitor before any engine is pulled down. The engine is to be dismantled by a qualified engine builder or the owner and in the presence of the Chairman of the Technical Committee or his approved Delegate.

If the engine is found to be illegal, the money will be refunded to the protesting competitor and the owner of the illegal car will NOT be compensated for any loss incurred. A fine of $1000 and a mandatory suspension of 12 months will be imposed on the car owner and any cars owned by that car owner. DMA can request engine testing at ANY time. Any refusal to test an engine will be deemed to be an illegal engine and all penalties will apply.

The DMA retains the right to request that any V8 Dirt Modified engine undergo whatever testing is deemed necessary, at any time, to determine the compliance of the engine with these specifications.

15 DIRTCAR 358 SPEC ENGINE

ANY COMPETITOR WISHING TO COMPETE WITH THIS SPECIFICATION ENGINE SHOULD CONTACT THEIR STATE TECHNICAL OFFICER FOR RULE CLARIFICATIONS AND GUIDANCE..

15.1 **Engines General and Location**

15.1.1 Conventional stock type V-8 engines (OEM American with cast iron blocks and Brodix Aluminium Cylinder Heads. Aluminium engine blocks will not be permitted. The following are the approved cast iron engine blocks permitted for competition.

- OEM Chevrolet and Bow Tie Performance
- OEM Chrysler and R Performance
- OEM Ford and SVO Performance
- DART Performance (Little M)
- DART Rocket Block 31121111
- DART SHP Block 31161111 4"-inch bore

15.1.2 ALL engines must maintain stock bore and stroke combinations. Engine Maximum Overbore Cubic Inches (C.I.):

- Chevrolet 350 C.I. 4,00" bore x 3.480" stroke + .070 maximum over bore = 363
- Chrysler 360 C.I. 4,00" bore x 3.578" stroke + .020 maximum over bore = 364
- Chrysler 340 C.I. 4,04" bore x 3.313" stroke + .060 maximum over bore = 350
- Ford 351 C.1. 4.00" bore x 3.500" stroke +.060 maximum over bore = 363

15.1.3 Reverse rotation engines will not be permitted.

15.1.4 The engine must be centred in the front of the chassis and placed in an upright position.

15.1.5 Engines must not pump more than the specified cubic inch.

15.1.6 Only normally aspirated engines will be permitted.

15.2 **Engine blocks**

15.2.1 Only stock OEM and cast iron performance blocks including the Chrysler (R) Block, Chevrolet Bow-Tie, Ford-SVO and/or DART Blocks will be permitted. Aluminium blocks will not be permitted.

15.2.2 Lightening and/or machining of engine blocks will not be permitted. The engine block must remain as received from the manufacturer. Any alteration will not be permitted.

15.3 **Cylinder Heads**

15.3.1 Brodix 'Spec' Aluminium Head Option; One (1) degree angle mill will be permitted. The cylinder head must remain as manufactured by the manufacturer. Only the specified intake manifold part numbers will be permitted. Oil lines and/or brackets must not be mounted in front of the cylinder heads for ease of inspection and measuring the dowel pin holes. Matching and/or porting of the cylinder heads will not be permitted. The cylinder heads and intake manifold must remain as manufactured by the manufacturer. A magnetic steel or aluminium oil pan will be permitted.

15.3.2 The maximum compression ratio on any aluminium cylinder head package will be 10.5:1.
15.3.3 All Brodix 'Spec' Cylinder Heads will be supplied with CNC bowl blend and CNC combustion chamber and intake port matching.
15.3.4 Grinding and/or blending or CNC work will not be permitted.
15.3.5 Grinding and/or polishing anywhere on the cylinder head casting will not be permitted.
15.3.6 The use of substances that may change and/or alter the shape, finish and/or size of the ports and/or combustion chamber will not be permitted.
15.3.7 The maximum intake valve size of 2.080"-inches and a maximum exhaust valve size of 1.600"-inches will be permitted for all Brodix 'Spec' Cylinder Heads.
15.3.8 Titanium valves, titanium valve train components will not be permitted. Titanium retainers and/or keepers will be permitted.
15.3.9 Alterations to the valve seats and/or valve guides will not be permitted. The valve seats and/or valve guides must remain as manufactured in their cast positions.
15.3.10 Valve stem angles must remain as manufactured. The original valve seat centre location(s) as provided by the cylinder head manufacturer (Brodix) must not be altered. Any valve repair job will only be permitted on steel seat concentric to the guide. Justifiable and reasonable enlargement of the valve seat concentric to the valve guide as the result of a valve repair job will be permitted, but the combustion chamber must retain the stock OEM dimensions as cast by the 'Spec' head manufacturer (Brodix).
15.3.11 Tapering and/or reshaping of the valve guide(s) will not be permitted.
15.3.12 Only 11/32"-inch diameter valve stems will be permitted. Neck down type valves will be permitted.
15.3.13 Brodix 'Spec' Cylinder Head serial/ part, ID, markings and/or numbers must remain unaltered. Defacing and/or altering of the part identification information will not be permitted.
15.3.14 Brodix, as the 'Spec' Cylinder Head manufacturer may repair cylinder heads with authorization from the DMA.

Any deliberate 'Spec' Cylinder Head rules infraction may result in a suspension from all DMA race meetings. In post-race inspection The DMA has the option of removing cylinder heads for inspection purposes. Failure to co-operate in removing cylinder heads for the purpose of inspection will result in an immediate disqualification from the event and may result in additional penalties as set forth by the DMA. The DMA reserves the right to pull down an engine for further inspection to determine legality. See DMA rule part 4 Penalties.

15.4 **Intake Manifold (General)**

15.4.1 Casting and/or part numbers must remain visible and must not be altered in any manner.
15.4.2 The following are the approved intake manifolds;

- Chevrolet 350 C.I. Brodix Part # HV1000
- Chrysler 360 C.I. and 340 C.I. Edelbrock Part # 2915
- Ford 351 C.I. Edelbrock Part # 2981 9.5"-inch deck height
- Ford 351 C.I. Edelbrock Part #2980 9.2"-inch deck height

15.5 **Exhaust - Muffler and Sound Reduction Devices**

15.5.1 Only Schoenfeld headers will be eligible for competition. The following are the approved Schoenfeld headers:

Chevrolet	– 1-3/4" to 1-7/8" Schoenfeld Part # 1124 BV
	– 1-5/8" to 1-3/4" Schoenfeld Part # 1122 BV SH – 3
Chrysler	– 1-3/4" to 1-7/8" Schoenfeld Part # 4124 BV SH
	– 1-5/8" to 1-3/4" Schoenfeld Part # 4122 BV SH – 3
Ford	– 1-3/4" to 1-7/8" Schoenfeld Part # 3124 BVN
	– 1-5/8" to 1-3/4" Schoenfeld Part # 3122 BVN – 3

Only Schoenfeld magnetic steel exhaust headers will be permitted. The four (4) primary pipes going into one collector. Stainless steel, iron lung, tri-y type, merge collectors and/or any other type exhaust header design will not be permitted. Ceramic coating and/or any other type coatings will not be permitted.

15.5.2 All approved Schoenfeld Headers must be able to be separated from the rest of the exhaust system for the purpose of inspection.

15.5.3 The complete exhaust system must be sealed. Any type of add on, return system and/or exhaust evacuation system will not be permitted.

15.6 **Carburettor**

15.6.1 Only one (1) equivalent carburettor to the **750 cfm** Holley carburettor for methanol will be permitted.

15.6.2 The carburettor must maintain the stock venture and throttle bore dimensions; the primary venture 1.25" and the secondary venture will be 1.3125".

15.6.3 The carburettor must maintain all stock dimensions, including mounting and stud location on intake manifold.

15.6.4 The booster height must remain stock OEM from Holley. Cutting, tumbling and/or polishing will not be permitted.

15.6.5 Visible modifications will not be permitted.

15.6.6 The maximum height of the carburettor when measured from the bottom of the carburettor and/or the throttle plate to the machined horizontal surface of block will be in 7"-inches in both the front and rear of the block. Any carburettor spacer may be used to maintain the height with nothing going below the top of the machine surfaced of the intake manifold. Turtles, air dams and/or any type of similar device will not be permitted.

15.6.7 The following alterations will be permitted;

a) Holes drilled in the throttle plate for proper idle.
b) Drilling, tapping and plugging of unused vacuum ports.
c) Welding of throttle shaft to linkage arm.
d) Drilling of idle and/or high speed air correction jets.
e) Milling of centre carburettor body metering block surface, maximum of .015" on each side.
f) Removal of choke plate and shaft.
g) The jets may be changed as needed.

15.6.8 Gauge measurements (go/no-go) must be met at all times, regardless of carburettor temperature.

15.6.9 Heat shield devices of any type, around the carburettor and/or under the hood or cowl that encompass and/or cover the entire engine or carburettor will not be permitted. A shield may be used under the air filter base and must remain on top of the carburettor main body (venturi opening) in an attempt to seal off the air cleaner area. Any type of shield that covers the engine compartment area will not be permitted. A shield may be attached to the hood or air filter base plate for the purpose preventing dust and/or exterior elements being introduced into the air breather. Any shields new in design must be submitted to the DMA for approval.

15.7 **Camshaft**

15.7.1 The camshaft must maintain stock location and position in engine block. Design and/or manufacturer may vary.
15.7.2 Gear and/or belt drives will not be permitted.
15.7.3 Overhead cams will not be permitted.
15.7.4 Roller and/or shaft rockers will be permitted.
15.7.5 Stud girdles will be permitted.
15.7.6 Lifters must retain stock diameters, angles and positions. Re-bushing for wear will be permitted.
15.7.7 Lash caps will not be permitted.

15.8 **Pistons, Connecting Rods, Crankshaft and Vibration Dampeners**

15.8.1 Any steel and/or cast iron crank shaft maintaining stock stroke dimensions for the engine block that is used will be permitted.
15.8.2 OEM stock production and/or aftermarket magnetic, solid steel rods with a maximum length of 6"-inches will be permitted.
15.8.3 Titanium and/or aluminium rods will not be permitted.
15.8.4 Only 3-ring, flat top aluminium pistons will be permitted.
15.8.5 Engines with connecting rods longer than 6"-inches must maintain stock OEM specifications and measurements.
15.8.6 Only one (1) magnetic steel or cast iron stock OEM and/or aftermarket dampener (balancer) will be permitted.
15.8.7 Only one-piece constructed dampeners and the fluid and/or friction dampeners meeting the SFI 18.1 specifications will be permitted for competition. The following have been approved for competition;

a) Fluidampr – 62260D
b) Fluidampr – 620101
c) Fluidampr – 720101

15.8.8 Bolt and/or snap-ring assemblies will not be permitted.
15.8.9 Safety snap rings will be permitted
15.8.10 Rubber-lined dampeners will be permitted.

15.9 **Ignition**

15.9.1 Only DIRTcar approved MSD Box Part #64316-MSD/DIRT 6ALN fixed 7600 will be permitted for Brodix 'Spec' Cylinder head engine options. The ignition box must remain unaltered. Only one (1) approved MSD Box will be permitted per car. The ignition box must be in operating and working condition before, during and after the racing event.

15.9.2 The ignition amplifier box ("rev box") and coil must be mounted under the hood (out of the driver's reach) and must be clearly visible for ease of inspection. Mounting under the hood includes behind the instrument gauge cover at the rear of the hood area. All wires from the ignition amplifier box must have a clear and direct path to their connections. The shortening of wires will be permitted to accomplish this. Bare wires and/or exposed wiring and/or tape(d) and/or wire looms of any type will not be permitted.
15.9.3 Ignition boxes must remain as manufactured. Internal and/or external alterations and/or modifications will not be permitted. Crank trigger systems of any type will not be permitted.
15.9.4 The ignition must be mechanically driven in the stock OEM location.
15.9.5 Only one ignition coil will be permitted on the car.
15.9.6 The wiring must remain as specified by the ignition amplifier box manufacturer.
15.9.7 OEM stock firing order must be maintained for all engines.
15.9.8 Ignition amplifier boxes may be confiscated and/or exchanged at any time.

15.10 **Lubrication/Oiling System/Oil Cooler**
15.10.1 Only a single wet sump oil pump will be permitted. Dry sump oil systems will not be permitted.
15.10.2 The oil pan may be magnetic steel or aluminium. The oil pan must have a 1"-inch diameter inspection hole for inspection of connecting rods. The hole must be in the left side of the oil pan. If the inspection hole is not present, removal of the oil pan will be required for inspection.
15.10.3 External type oil pumps and/or vacuum pumps will not be permitted.
15.10.4 Accu Sumps will not be permitted.
15.10.5 Oil coolers will be permitted.
15.10.6 Oiling evacuation (EVAC) systems from the valve covers to the exhaust system will be permitted.

15.11 **Fuel System**
15.11.1 Only mechanical and/or belt driven fuel pumps will be permitted. Fuel injection system(s) and/or electrical fuel pumps and/or any type of pressurized fuel system will not be permitted

16 FUEL SYSTEM

16.1 **Carburettor and Manifold**
16.1.1 Intake manifolds are to be of a cast iron or cast aluminium construction only.
16.1.2 No forced Induction allowed.
16.1.3 No chemical supercharging allowed.
16.1.4 One carburettor only.
16.1.5 To be based on a Holley 4150/4160 Series carburettor.
16.1.6 Must have Four (4) venturis and Four (4) butterflies. Venturis to be 1·375" + 0 ·040" maximum.
16.1.7 The carburettor throttle mechanism must be fitted with a minimum of two (2) return springs in addition to the manufacturers standard throttle shaft return spring.
16.1.8 A half stirrup type toe clip must be fitted to the accelerator pedal to enable the manual closing of the throttle by the accelerator pedal.
16.1.9 Throttle is to be controlled by a mechanical linkage. Refer rule 16.1.8

16.2 **Fuel**
16.2.1 Methanol only.
16.2.2 Maximum specific gravity 0·820.

16.3 **Fuel Tanks**
16.3.1 The use of a fuel cell is Mandatory, from 1 July 2012 onwards, ALL newly built or imported cars must have an approved methanol fuel cell or plastic fuel tank that meets SFI 28.1 installed.
16.3.2 Fuel Tank Capacity: – 95 litre maximum
16.3.3 All fuel tanks will have a 4mm static strap fitted to the filler neck retaining bolts to earth to chassis frame.

16.4 **General**
16.4.1 DMA approved "FUEL TAP" sticker to be applied in contrasting vinyl to top of internal decking adjacent to the fuel tap, and readable from the outside.
16.4.2 Fuel tanks must be fitted with a positive sealing cap.
16.4.3 Fuel tanks must be fitted with an anti spill device (non return valve) to prevent fuel escaping in the event of a roll over. Anti spill device must be installed at top of tank in a vertical position.
16.4.4 Mechanical fuel pumps only.

16.5 **Tank Mounting**
16.5.1 Fuel tank is to be mounted in a cradle and metal tanks are to be suitably insulated from both the cradle and retaining straps to prevent chafing.
16.5.2 Mounting straps to be steel or stainless steel only. Minimum 2 straps 25mm wide material: steel = 3mm thick, stainless steel = 2mm thick.
16.5.3 Mounting straps are NOT to be welded to tank.
16.5.4 Fuel tank is to be mounted inside the chassis rails and be adequately protected by the rear bar work.
16.5.5 Any fuel tank that projects 100mm or more above the rear bar work must have a vertical or horizontal hoop with two (2) braces to protect the fuel tank, filler neck, cap and fittings from being damaged in the event of an accident. Hoop is to be made of 25mm x 3mm ERW or DOM or 1" x .095" chrome moly.

16.6 **Hoses**
16.6.1 Braided or hydraulic style hoses with swaged or reusable fittings are recommended. Worm drive hose clamps are to be used as a minimum.
16.6.2 Fuel lines are to be run through cockpit and not over exhaust system.
16.6.3 A quick action lever type fuel tap is to be fitted between fuel tank and fuel pump. The tap must isolate the fuel tank when closed. Fuel tap control must be within easy reach of the driver when secured for racing.

17 EXHAUST SYSTEM

17.1 Mufflers are to be fitted, engine noise emissions are not to exceed 95 DBA, or track requirements.
17.2 Must exit in the rear 2/3 of the body side panels. (Over-axle exhausts are not permitted as of 2015/16 Racing Season)
17.3 Must be directed away from the driver and the fuel tank

17.4 To be suitably insulated from the driver and exit outside of the cabin.
17.5 Mufflers are to be suitably retained in the vehicle should they break loose.
17.6 Exhaust pipes incl. collectors, joining pipes and mufflers must be retained together as one (1).
17.7 Slip joins held together by exhaust system u-bolt type clamps are *not acceptable* as being retained.
17.8 Mufflers are to be suitably retained in the vehicle should they break loose.
17.9 Speedway Australia recommends the following mufflers:

- "The Hurricane" - part number HPM-0289 (3" outlet)
- Spintech series 1545 (3" outlet)
- Flowmaster 10 series (3" outlet)

All mufflers must have a 90 degree turndown exit

18 COOLING SYSTEM

18.1 All radiators must be under the bonnet and in front of the engine and between the chassis rails.
18.2 A pressure release radiator cap or valve, with overflow or pressure vent pipe extending to the lower chassis rail level is mandatory.
18.3 All hose clamps are to be of automotive quality or better. (eg:- Worn drive clamps)
18.4 All radiator style oil coolers must be under the bonnet or nose cone.
18.5 Engine Cooling Fans must have an effective finger guard, which must extend atleast the width of the fan at the top and fill the gap from the back of the radiator to the back of the fan blades.

19 TRANSMISSION/GEARBOX

19.1 Must be fitted with working forward and reverse gears, capable of moving the vehicle off under its own power. (ALL WITHIN ONE GEARBOX)

20 BATTERY & ELECTRICS

20.1 Sealed batteries ONLY - to be used. **a maximum of 12 volts will be permitted. The battery voltage must not measure more than 14.3 volts.**
20.2 **Lithium Ion batteries are not to be used.**
20.3 Batteries are to be mounted in a cradle and securely attached to the chassis.
20.4 Batteries exposed below driver's seat are to be covered to prevent contact between seat belts and terminals.
20.5 Ignition or magneto kill switch must be clearly marked IGNITION or IGN and OFF in contrasting vinyl.
20.6 Ignition or kill switch must be accessible to driver when secured for racing.
20.7 All holes for cables and wiring are to have grommets fitted at possible chafing points.
20.8 If a battery isolation switch is fitted to the car it is to be located on the left hand side above the deck on the front cockpit panel

21 BRAKES

21.1 **General**
21.1.1 Foot operated hydraulic, air cooled brakes only.
21.1.2 Brakes on 3 wheels are to be operational at all times.
21.1.3 Outside front brake may only be removed.
21.1.4 Rear brakes must consist of two (2) separate units consisting of a minimum of one (1) operating calliper and rotor per unit.
21.1.5 Inboard brake rotors must be made of steel or ventilated cast iron only.
21.1.6 NO TITANIUM or CARBON FIBRE rotors.
21.1.7 ***Manual brake shut offs will not be permitted, with the exception of the right front brake.***
An electronic brake shut off switch will also be allowed on the right front only.
21.2 **Hoses/Lines**
21.2.1 Steel, braided or approved aftermarket nylon lines only to be used and must be fixed to chassis.
21.2.2 All flexible brake line joins are to be fixed to chassis.

22 STEERING

22.1 **General**
22.1.1 Steering joints – namely: - steering arms (stub axle), track rod (wheels), drag link (s/box-s/arm) are to be suitably locked with split pins, locknuts or tie wires.
22.1.2 Heim joints to be free from play or wear. Heim joints to be minimum of 1/2" mounting bolt x 5/8" thread.

22.2 **Steering Wheel**
22.2.1 A quick release steering wheel is mandatory.
22.2.2 Steering wheel to have a minimum 3 spoke centre.

22.3 **Steering Box**
22.3.1 Knee guards are highly recommended.
22.3.2 Steering boxes must be adequately padded as a minimum.
22.3.3 Steering box must be in good condition and free from play.
22.3.4 It is recommended that the drop arm of the steering box be secured by a bolt and washer fitted to the end of the sector shaft.

23 SUSPENSION

23.1 **Stub Axles**
23.1.1 Aluminium (sprint car style) - stub axles allowed, however the bearing spindles must be steel or aluminium stubs with 2 7/8" – 73mm big bearing aluminium spindles.
23.1.2 Hollow king pins are allowed.
23.1.3 Aluminium or alloy king pins are NOT permitted.
23.2 **Front Axles.**
23.2.1 Beam axle type front ends only.
23.2.2 Beam axles are to be fabricated from high grade steel tube with a minimum of 50mmOD x 4mm wall thickness or chrome moly 2" OD x 0·120" wall thickness.

23.2.3 Maximum wheel track allowed is 2185mm at all times or Race Ready. (Measured from outside of tyre to outside of tyre at axle height as car sits on the ground).

23.3 **Rear Axles**

23.3.1 Full floating hubs or live axles only to be used.

23.3.2 Live steel axles only. (No aluminium axles).

23.3.3 Enclosed axle type diff housings to have solid aluminium or steel SPOOL fitted with both drive axles to be of solid or gun drilled steel. Both axles are locked together at all times.

23.3.4 Enclosed axle type diff housings may use aluminium axle tubes.

23.3.5 Cars with enclosed axle type diff housings must be inspected at registration to verify fitment of a spool. The representative for the car will do whatever is necessary to verify to the scrutineer that a spool is fitted. Spool must be visually sighted.

23.3.6 Once the spool is verified, the diff housing will be sealed by lockwire and DMA seal and noted in vehicle log book.

Methods:

1 - drill hole in bolt head and hole in bolt thread behind nut.
2 – Drill holes in bolt heads of opposing bolts-left and right.
3 – Drill holes in opposing webbing ribs of each side cover.

23.3.1 Maximum wheel track = 2185mm - measured same as RULE – 23.2.3

23.3.2 8" Ring and Pinion Differentials are not allowed

23.4 **Shock Absorber/Springs**

23.4.1 Only 1 conventional style shock absorber permitted to be used for each wheel.

23.4.2 Shock absorbers that utilise remote reservoirs or canisters are not permitted.

23.4.3 Coil springs are to be located in spring seats and fastened to same. If spring seats have no cut outs, fasteners do not apply.

24 TYRES

24.1 Only racing tyres can be used.

24.2 Right rear control tyre: - AMERICAN RACER 34/17 (MC2, MC3), or 32/13 (SD44 & SD48).

24.3 Control tyres must have all brand, size and compound marking as produced by the manufacturer on both sides. (If no markings, the tyre will not be permitted to be used in competition).

24.4 Minimum of 50mm of both rear tyres to exposed beyond the body side panels.

25 WHEELS & WHEEL HUBS

25.1 **Wheels**

25.1.1 Wheels must be competition type or aluminium or steel.

25.1.2 Flat plate centres are to be a minimum of –

Steel = 8mm
Aluminium = 16 mm

25.2 **Wheel Hubs**

25.2.1 Front hubs = MINIMUM of three (3) x 16mm / 5/8" studs with locknuts.

25.2.2 Front hubs may also use an approved aftermarket Direct Mount hub system – Minimum 250mm stud base circle.
25.2.3 Rear hubs = MINIMUM of 5 x 16mm / 5/8" studs with locknuts.
25.2.4 Knock-ons are permitted but must screw on in the reverse direction, and are to have a MINIMUM of three (3) x 16mm / 5/8" pins on the front and a MINIMUM of five (5) x 16mm / 5/8" drive pins on the rear. Drive pins may be stepped down to 13mm / 1/2" where they screw into the hub.

26 VEHICLE WEIGHT

26.1 Minimum weight of 1065kg including driver for all new (Australian or imported) cars as of 1/7/12. Previously imported cars are to weigh 1065kg including driver, previously built Australian cars that have been re-manufactured from the original spec's will weigh 1065kg including driver. All others will be 980kg including driver.
26.2 Random weight checks are to be made when a car comes off the track after a race.
26.3 **Ballast**
26.3.1 Ballast is to be declared at scrutineering and recorded in the log book for future inspections.
26.3.2 All weights and/or ballast must be positively fastened and mounted within the vertical planes formed by the frame rails and must remain stationary during competition.
26.3.3 All weight(s) must have a minimum of two (2) ½"-inch diameter. Grade 5 bolts and/or studs passing completely through the weight. Bolts and/or studs must be anchored to a suitable clamp to fasten it to the frame. Bolts and/or studs welded to the frame will not be permitted.
26.3.4 All weights must be painted white and clearly labeled with the car number on it. For the period of one event, competitors may label their weight with white duct tape with the car number clearly labelled on the duct tape.
26.3.5 Ballast and/or weight may not be mounted to the roll cage above any part of the deck.

27 DRIVER ADJUSTABLE CONTROLS

27.1 NO driver controlled or / and remotely controlled on board adjusters are permitted.
27.2 Panhard adjusters are to be located below, and NOT protrude thru, deck panels.

28 TRANSPONDERS

28.1 Transponder mounting bracket. Centre mounting line will be 3150mm from the rear of the front axle, no higher than 400mm above the ground with direct line of sight to the ground, preferably on the left hand side.

29 SAFETY EQUIPMENT

Safety specs compulsory on July 1- 2008

ALL SAFETY EQUIPMENT MUST CARRY SFI or FIA LABEL

29.1 **Driving Suits**

29.1.1 Driving suits = minimum specifications of SFI 3.2A/5 or FIA 8856-2000.

29.1.2 Fireproof underwear must be worn under ALL suits. Underwear includes Socks and Balaclava.

29.1.3 Fireproof Underwear = minimum specifications SFI 3.3 or FIA 8856-2000

29.1.4 Undergarments worn under fireproof underwear should be cotton and no under wires on bras for females.

29.1.5 There must be no jewellery or synthetic attire worn while competing.

29.1.6 Drivers should be aware of the potential FIRE danger from incorrectly applying sew-on patches to driving suits.

29.2 **Other**

29.2.1 Gloves must be worn = minimum specifications SFI 3.3 or FIA 8856-2000, recommended to be gauntlet style and must not be modified in any way.

29.2.2 Racing boots must be worn = minimum specifications SFI 3.3 or FIA 8856-2000

Arm restraints must be worn - behind the shoulder harness straps, attached at the buckle, and able to be released in the same motion as the seatbelts.

29.3 **Helmets**

29.3.1 All drivers must wear a Snell approved full face helmet.

29.3.2 Helmet must meet minimum standard of either:

- Snell SA-2010
- Snell SA-2015

29.3.3 The dates in 29.3.2 29.3.1apply unless the helmet has dents, star fractures, cracks, damaged lining or padding, deterioration of chinstrap rivets or declared unserviceable by scrutineers.

29.3.4 NO DATE = NO USE

29.3.5 Helmet blowers can be mounted above the deck, behind the seat and must be fully inside the confines of the rear roll bar 'A Frame' when viewed from the rear of the car. Blowers must be mounted so that the highest part of the blower is no closer than 200mm from the top of the Rear rollcage hoop.

29.4 **Head & Neck Restraints** compulsory from July 1-2008

29.4.1 Head and Neck Restraint = minimum specifications SFI 38.1.

29.4.2 If head and neck restraint systems are used, they must be used and mounted as per that manufacturers instructions. Instructions must be shown to the scrutineer.

29.4.3 Speedway Australia Statements regarding Head and Neck

Only FIA (approved by the Federation Internationale de l'Automobile) and SFI 38.1 (approved by the SFI Foundation) head and neck restraints will be allowed in line with the Speedway Safety Advisory Committee (SSAC) recommendations ratified by the Speedway Australia Board.

As of July 1st 2013 the following devices are SFI approved (in no particular order):

- *HANS Performance Products - HANS Device (All Series)*
- *Leatt Brace - MRX Device*
- *NecksGen Device*
- *Simpson R3 Device*
- *Simpson R3 Rage Device*
- *Simpson Hybrid Pro Device*
- *Simpson Hybrid Pro Rage Device*
- *Simpson Hybrid/Hybrid Rage Device*
- *Simpson Hybrid X Device*

29.5 **SEATBELTS**

29.5.1 5-point Seatbelts - Compulsory minimum = minimum specifications SFI 16.1

29.5.2 SFI 16.5 approved 2"shoulder straps are recommended for use with Hans head and neck restraint device.

29.5.3 The useful life of the webbing in a race harness shall NOT EXCEED TWO (2)years from the date of manufacture and must be replaced at or before that time. A harness that has been re-webbed and recertified will be accepted.

29.5.4 NO DATE = NO USE

Seatbelts to meet these criteria:

29.5.5 Minimum width 75mm.

29.5.6 Metal to metal over centre lever action quick release buckle only.

29.5.7 Any seatbelt not incorporating a duckbill style latch/lever is to be fitted with a Velcro latch guard device or similar capable of preventing the accidental release of the seatbelt by the arm restraints or other. The device shall not alter the single action motion to release the buckle mechanism.

29.5.8 The belts must come through the seat sides near the bottom of each side, thereby wrapping and holding the pelvic area over the greatest possible area. Belts must NOT pass over seat sides.

29.5.9 Seat belt webbing that can come into contact with any sharp or unrolled metal edge must be protected from that edge by push-on grip vinyl trim.

29.5.10 MINIMUM roll of metal edges = 3mm.

Installation

29.5.11 It is mandatory that shoulder harness straps should be attached to, or pass over, a strong structural member, 5° above to 5° below the horizontal.

Material size = 25mm OD x 3mm ERW or DOM tubing or
chrome molly 1"X .095"- MINIMUM

29.5.12 Shoulder harness straps must be securely attached to a strong structural member at 100mm to 150mm centres.

29.5.13 Head and Neck restraint devices may specify different specs to rules 27.5.10 & 27.5.11, seat belts must be mounted as per head and neck restraint specifications.

29.5.14 Seat belts must NOT pull at 90° to top mounting plate.

29.5.15 "LOCKING" the seatbelts in slide adjuster is critical, follow steps shown in Figure 6

30 PADDING

Any bars or projections etc. in the cabin area, which could be contacted by the driver, must be adequately padded. Includes roll bars, braces and supports around the drivers head area with the exception being full containment seats.

31 RADIO COMMUNICATIONS

COMPULSORY FROM JULY 1-2007

31.1 One-way radios will be allowed to drivers.
31.2 Chief Steward to drivers only.
31.3 Chief Steward/official to advise radio frequency at drivers briefing and also do radio check for drivers.
31.4 All radios to be of an approved type by DMA technical committee.
(Recommend the use of Raceceiver 1600 as used by other divisions).
31.5 **NO UNAUTHORISED RADIO COMMUNICATION ALLOWED AT ANY TIME.**

32 CUBIC INCH TESTER

This tool should be kept very clean. Before using, the nylon piston and tube should be well lubricated with fine oil, such as top oil or very light mineral oil. This should be done each time it is used, or, if cars are being checked, one after another, it should be given a shot of oil approximately every tenth (10th) car checked. WD-40 CRC 556 or light oil is recommended. If you get dirt or sand in the tube, clean it immediately. This tube is ground glass (.001 tolerance).

32.1 **Operating Instructions**
32.1.1 Have car under protest, remove all spark plugs, and also remove one rocker cover and both push rods out of any given cylinder.
32.1.2 Screw adaptor that matches spark plug thread size and length into spark plug hole in cylinder where push rods have been removed.
32.1.3 Make sure that the nylon piston is as far down the tube as possible (3/4 of the way or better). Insert rubber marker ring on top of the piston, making sure it is in straight. With tick edge towards piston attach rubber hose to the adaptor and to the Tester.
32.1.4 Have someone turn the engine over with the starter approximately 10 times at cranking speed, or, in cases where the car does not have a starter, push the car in high gear fast enough to imitate cranking speed. The piston will start travelling up and down the tube. The piston should travel down far enough each time to open the small valve on the bottom of the tube case. If this does not occur, stop cranking and push piston down again. This valve gives the piston a common starting point each time the engine piston comes up. It makes a kind of "pop" "pop" sound every time the piston goes to the bottom of the tube. As long as you are able to hear this noise, even if it is so slight, you are getting a correct reading.
32.1.5 The number of cubic inches is marked on the face of the tube, so the underside of the rubber ring would be the reading in cubic inches of the cylinder. Multiply by the number of cylinders and it will give you the total cubic inches of the engine.

NOTE: These readings will be absolutely correct if the engine is cold. By this we mean,

the same temperature as the outdoor temperature or room temperature, where the work is being done. The chart attached is for engine temperatures warmer that outdoor temperature where we have to use a calibration percentage factor. The reason for this is, the warmer the engine the less cubic inches the Tester will read. We have used the calibration many times, and know it to be accurate within three (3) cubic inches over the whole engine. When checking temperature, insert thermometer until the tip is into the combustion chamber.

Engine Internal Temperature

Fahrenheit

180 degrees……add 8 %
160 degrees……add 6 %
140 degrees……add 4½ %
120 degrees……add 3 %
100 degrees……add 2½ %

If you are off on your reading, it will always be on the short side, never on the long side. Two pistons are furnished. The one marked with "X" is the undersized one to be used in real hot weather when normal sized pistons might stick from expansion.

32.2 **Measuring Combustion Chamber with Katech Whistler**

32.2.1 Prepare engine for measuring by removing any convenient spark plug.
32.2.2 Crank engine with starter for a few seconds with ignition off.
32.2.3 Engine should then be rotated to get piston near top dead centre (TDC) with both valves closed.
32.2.4 Purge any remaining fuel vapours from combustion chamber using a nozzle and compressed air.

32.2.5 Plug in air supply and adjust regulator until flow meter on front of instrument reads 20 SCFH. (Flow meter must be vertical to set flow.)
32.2.6 Screw whistle adapter into spark plug hole.
32.2.7 At this time, check internal engine combustion chamber temperature. A reading of plus or minus 5 degrees is close enough. If a thermometer or other temperature measuring device is not available, the engine water temperature may be used.
32.2.8 Plug whistler in. Display should read all "8"s for a moment and then 350.0. Set three switches on front of instrument as follows:
Left Hand: Set 4, 6, or 8 cylinders.
Centre: Up position to read out compression ratio.
Middle position to adjust and display engine capacity.
Down position to adjust and display combustion chamber temperature.
Right Hand: Move switch up or down until display shows correct engine capacity and c/c temperature.
NO OTHER CALIBRATION IS NECESSARY.
32.2.9 Insert whistle probe into spark plug adapter, and set Centre switch to "CR" / UP position.
32.2.10 Whistle probe should make an audible noise and display will read compression ratio.

32.2.11 Rotate engine slowly in either direction to determine if it is at TDC.
32.2.12 Display will read highest compression ration when piston is at TDC.

32.3 **Basic Rules for Accurate Reading**

32.3.1 You must know the capacity of the engine being checked to determine CR accurately. The engine capacity entered into the computer's memory is the number that the compression ratio is calculated on.
32.3.2 The temperature setting must be correctly set. Temperature will affect the compression ratio reading.
32.3.3 Purge the chamber being checked with compressed air before measuring. Any fuel or vapours in chamber can drastically affect the "CR" reading.
32.3.4 Whistle probe must be inserted all the way into spark plug adapter, and holes on the rear of the whistle probe must not be obstructed.

In Case of Difficulty

No tone from whistle, unsteady reading Whistler
One or more valves open - engine not at TDC on compression stroke
Bent valve or other leak in chamber
Piston too far away from TDC
If you cannot get a steady tone from whistle, try another cylinder
Check tubing between whistle tube and whistle for bends or obstructions
Do not obstruct air exiting back of whistle tube with hand

************IMPORTANT*************

ANY MODIFICATION OF THE WHISTLE OR SPARK PLUG ADAPTER WILL RESULT WITH AN IMPROPER READING ON THE L.E.D DISPLAY.

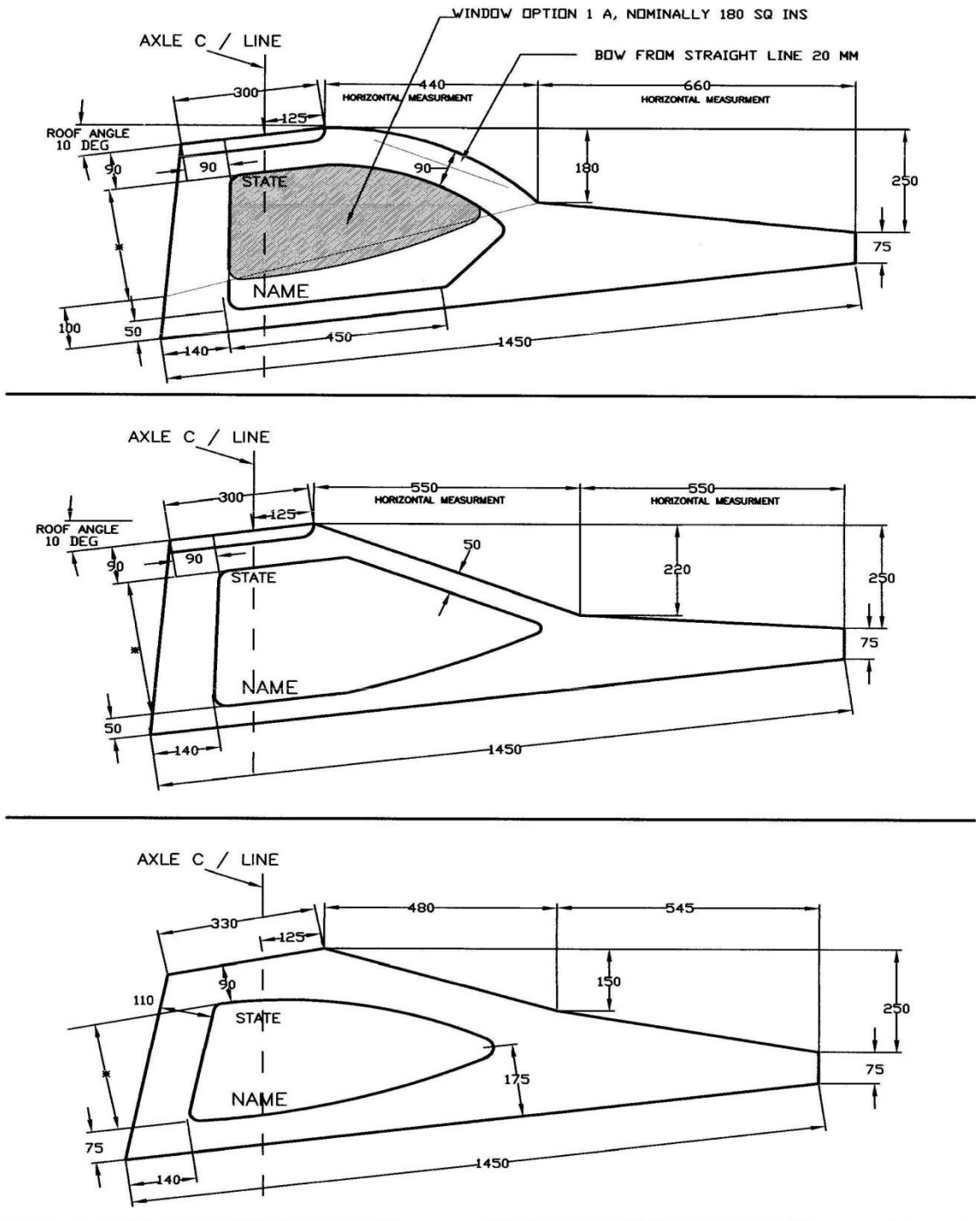


FIGURE 3: WINDOW STYLES

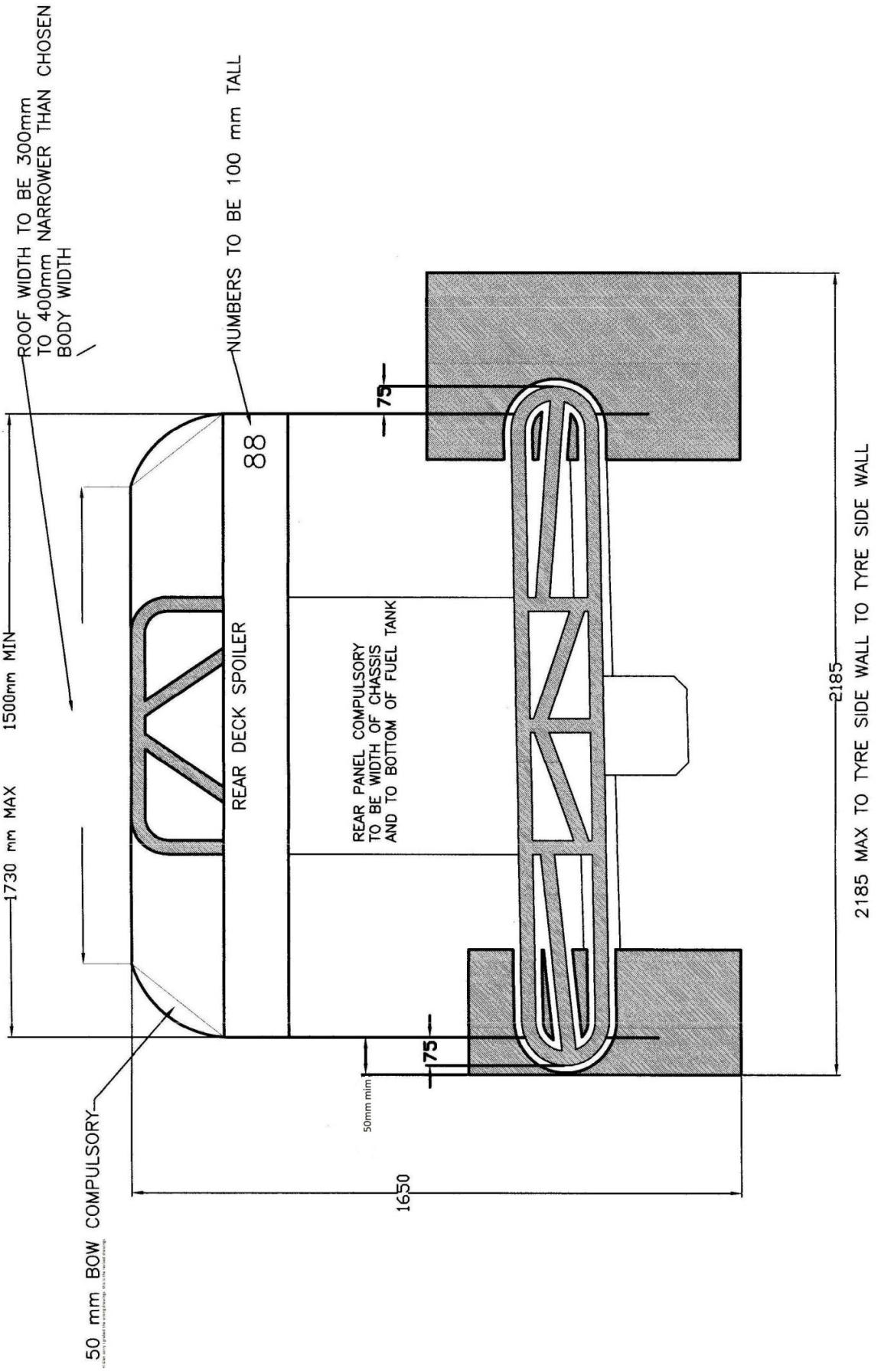


FIGURE 4: VEHICLE DIMENSIONS

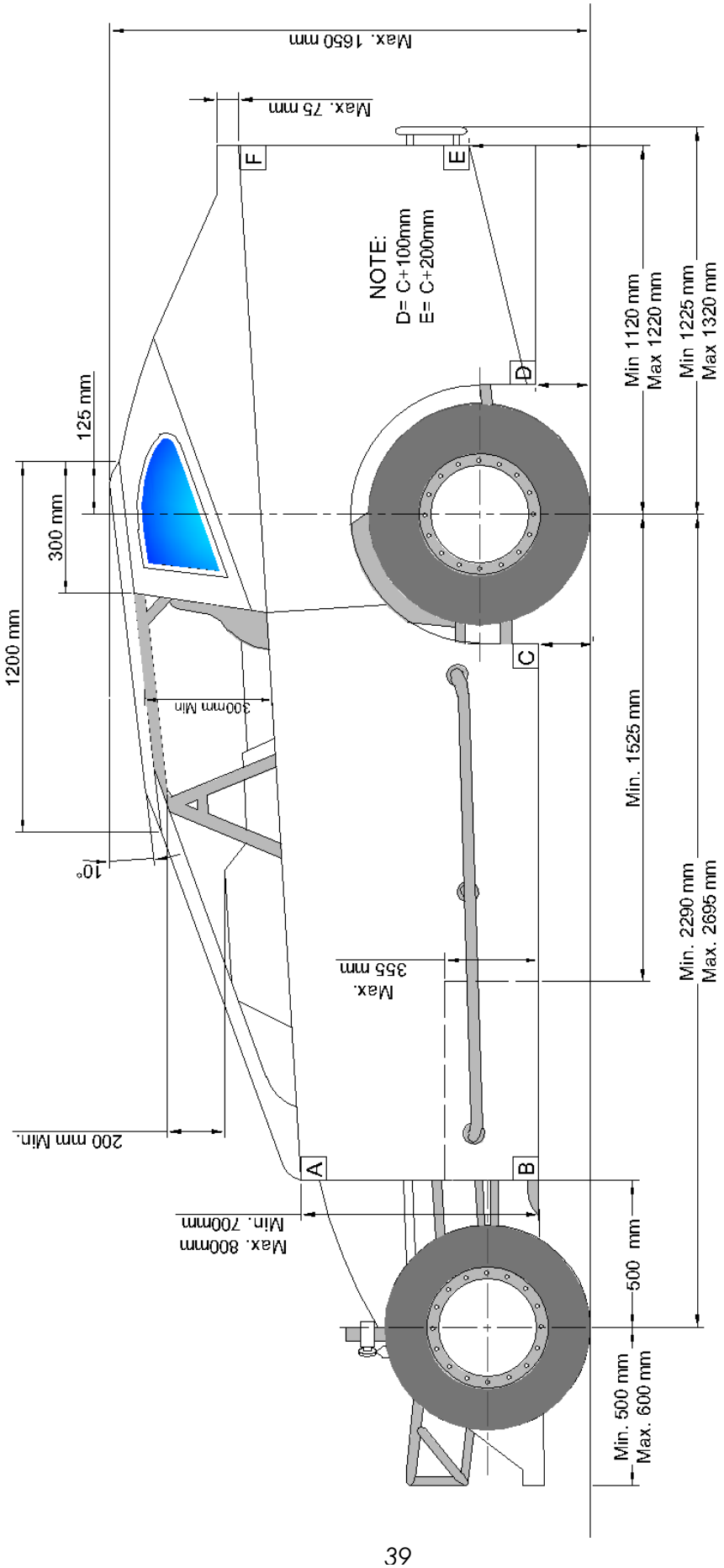


FIGURE 5: VEHICLE SILHOUETTE AND MAJOR DIMENSIONS

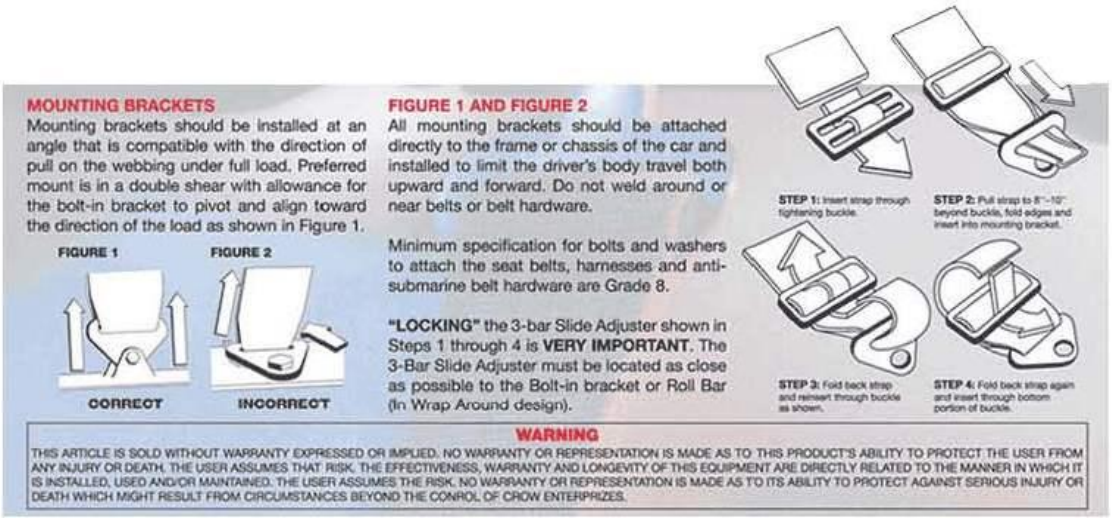


FIGURE 6: SEAT BELT LOCKING

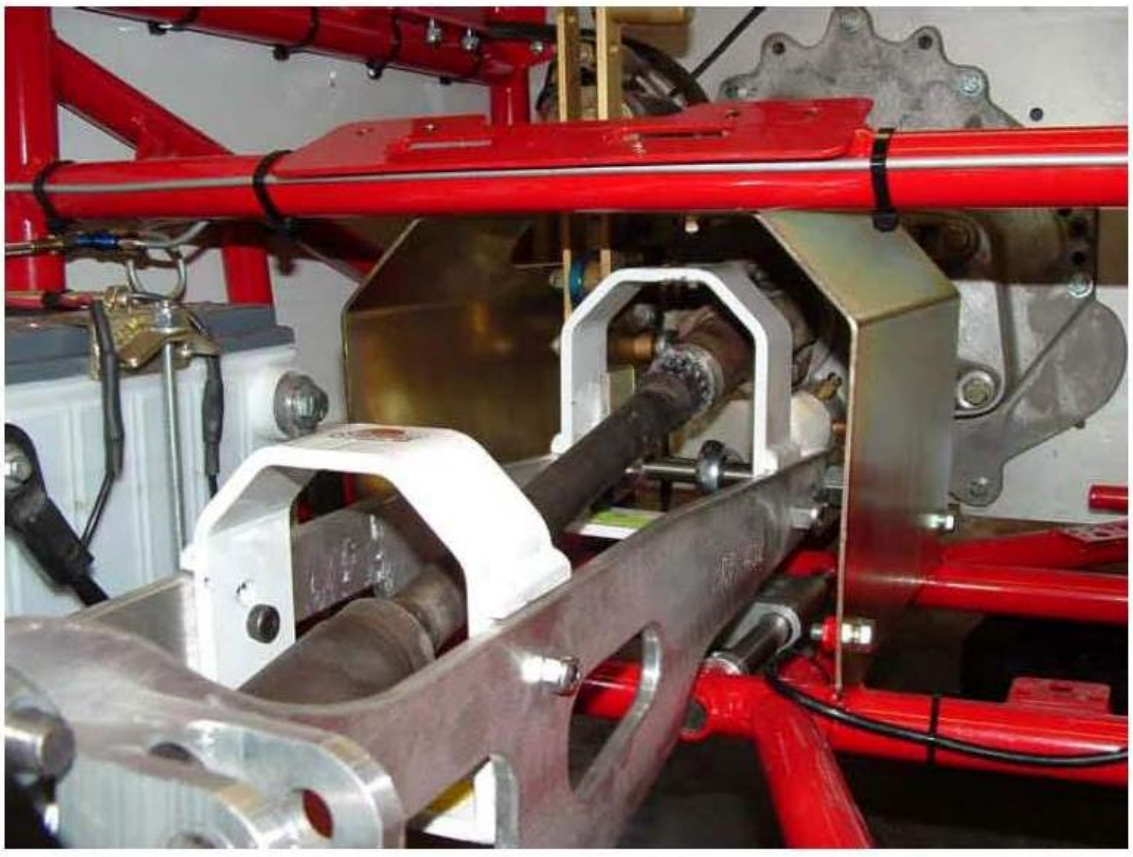
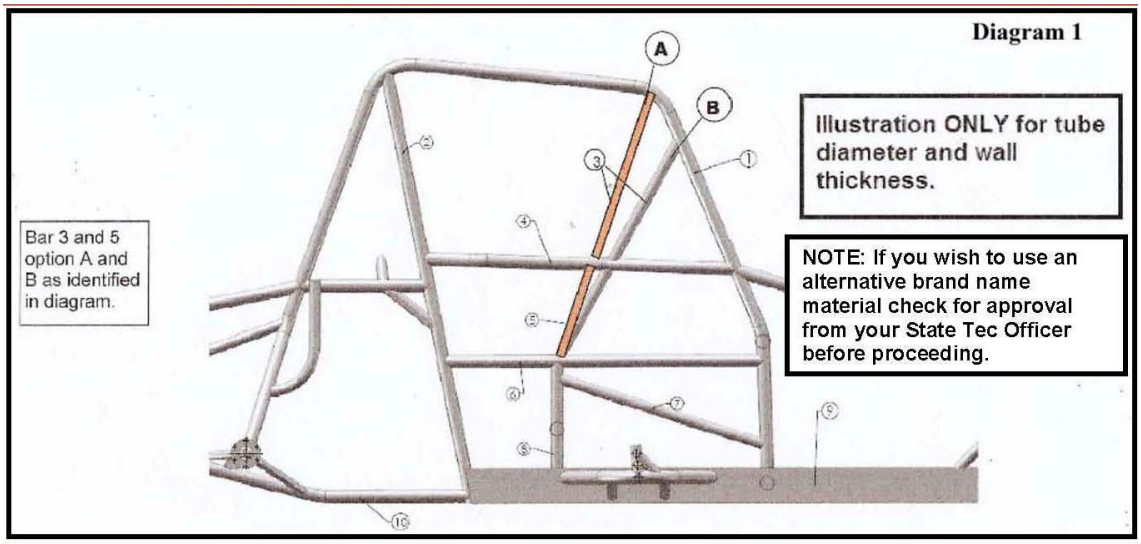


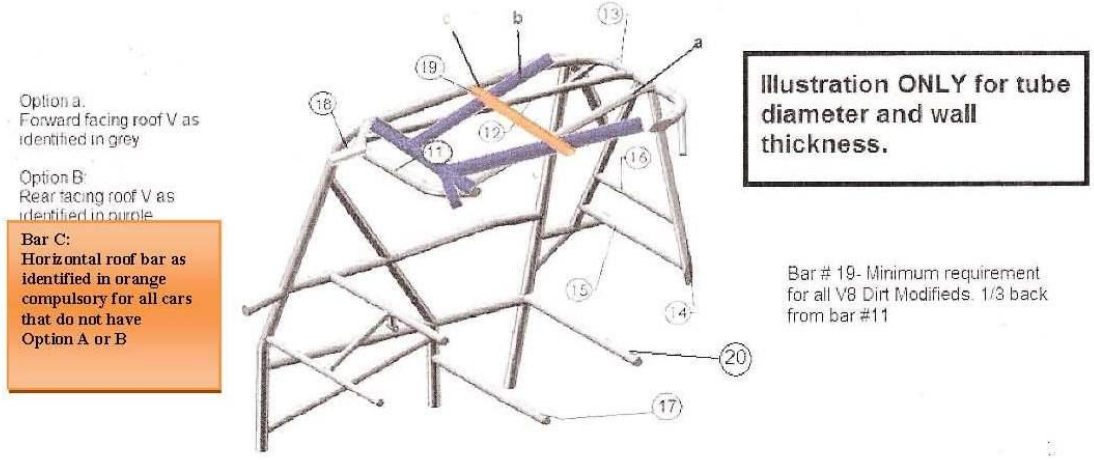
FIGURE 7: TAILSHAFT HOOPS AND SCATTERSHEILD

Diagram 1



Bar Number	R/Marked DOM	R/Marked 4130 C/Moly	ERW
1	1.5 x 0.120 Wall	1.5 x 0.095 Wall	38mm x 3mm
2	1.5 x 0.120 Wall	1.5 x 0.095 Wall	38mm x 3mm
3	1.25 x 0.095 Wall	1.25 x 0.095 Wall	32mm x 3mm
4	1.5 x 0.095 Wall	1.5 x 0.095 Wall	38mm x 3mm
5	1.25 x 0.095 Wall	1.25 x 0.095 Wall	32mm x 3mm
6	1.5 x 0.095 Wall	1.5 x 0.095 Wall	38mm x 3mm
7	1.25 x 0.095 Wall	1.25 x 0.095 Wall	32mm x 3mm
8	1.5 x 0.095 Wall	1.5 x 0.095 Wall	38mm x 3mm
9	100mm x 50mm x 2.8mm RHS		
10	1.5 x 0.095 Wall	1.5 x 0.095 Wall	38mm x 3mm

Diagram 2



Bar Number	R/Marked DOM	R/Marked 4130 C/Molly	ERW
11	1.5 x 0.120 Wall	1.5 x 0.095 Wall	38mm x 3mm
12	1.25 x 0.120 Wall	1.25 x 0.095 Wall	32mm x 3mm
13	1.5 x 0.095 Wall	1.5 x 0.095 Wall	38mm x 3mm
14	1.25 x 0.095 Wall	1.25 x 0.095 Wall	32mm x 3mm
15	1.25 x 0.095 Wall	1.25 x 0.095 Wall	32mm x 3mm
16	1.25 x 0.095 Wall	1.25 x 0.095 Wall	32mm x 3mm
17	1.25 x 0.095 Wall	1.25 x 0.095 Wall	32mm x 3mm
18	1 x 0.095 Wall	1 x 0.095 Wall	25mm x 3mm
19	1.5 x 0.120 Wall	1.5 x 0.095 Wall	38mm x 3mm
20	1 x 0.095 Wall	1 x 0.095 Wall	25mm x 3mm

33 SPORTSMAN

33.1 **Objectives**

The aims of the Sportsman Division are to provide affordable racing that encompasses new and existing competitors, including junior and other drivers who are new to Dirt Modified competition, to learn the necessary driving and setup skills to advance to a higher level.

33.2 **In General**

33.2.1 These "Introductory" Sportsman Specifications may be amended as necessary to promote fair competition.
33.2.2 "Sportsman" replaces all references to the terms B/Grade, Division 2 or 2nd Tier in any printed or electronic media or any other promotions.
33.2.3 The Sportsman Division will be regulated by the DMA and its appointed Sportsman Committee, so the domination of the division by any one driver does not occur.
33.2.4 Successful Sportsman competitors will be encouraged to move up into the Open V8 Dirt Modified Division, however some competitors may choose to remain as Sportsman competitors indefinitely.
33.2.5 Sportsman racing is to be run in conjunction with other Dirt Modified events unless authorized by the DMA.
33.2.6 By entering an event, Sportsman competitors agree to compete in the "Spirit of the Rules" and also abide by all written rules.
33.2.7 Some ***"Temporary"*** concessions to these specifications may be granted during the establishment of the Sportsman Division. Competitors must apply for any concessions in writing to the DMA Sportsman Committee prior to competing. Any concessions approved will be on a case by case basis and will be for a period as determined by the Sportsman Committee and only apply to the competitor making the application.
33.2.8 Sportsman competitors will be eligible to compete for Trophies, Championships, Contingencies or Prizemoney when provided.
33.2.9 There will be no recognition at State or National Titles until "Sportsman" is established in all participating states.
33.2.10 Sportsman may become a 602 Crate engine "only" division after the end of the 2019 racing season, after which time, the use of the Option B engines will be reviewed and possibly phased out

33.3 **GM 602 Crate Engine (Option A)**

33.3.1 Chevrolet Performance Parts (Formally GM Performance Parts) part numbers 19258602 or 88958602 also known as CT350/350 are the only crate engines permitted.
33.3.2 The engine must use a maximum rev-limiting chip of 6,000 RPM.
33.3.3 Rebuilding, balancing, blue printing or any other alteration to the engine, in an attempt to gain a performance advantage is not permitted.
33.3.4 **The engine and all of its components must remain in their original configuration as manufactured by GM, this includes rocker arms**
33.3.5 The ignition distributor type must remain the same type as supplied with the engine from GM.

33.3.6 An MSD Soft Touch Rev Control Box must be used. MSD part number 87286 is recommended however part number 8728 may also be used, but must have a Deutsch Connector fitted (See **MSD Rev Control Box** below for details)
33.3.7 A crankshaft, belt driven water pump, fitted in the stock location must be used.
33.3.8 An effective cooling fan for the radiator must be mounted in the stock location on the front of the water pump. (Electric Fans are permitted but only in addition to the engine driven fan)
33.3.9 A factory style, pushrod operated fuel pump, bolted to the stock location must be used. (No electric or other style pumps are permitted)

33.4 Crate Engine Repair Procedure

33.4.1 Sportsman competitors must contact their State Technical Officer regarding any repair that requires the removal of the engine seals, they will provide you with information on who to contact regarding the necessary repairs.
33.4.2 Based on the details of the repairs, the DMA officials will authorize if the repairs may be made or recommend, if a replacement engine should be fitted.
33.4.3 The judgment and determination of any such decision will be at the sole discretion of the DMA.
33.4.4 If a repair is approved, an authorized DMA Inspector must inspect the engine and collaborate with the repairer throughout the duration of the repair to ensure that the engine remains within the GM Specifications.
33.4.5 All parts used in the repair must be OEM spec replacement parts.
33.4.6 Upon completion of the repairs, the engine will be 'resealed' by the DMA Inspector before being eligible for competition.
33.4.7 All repairs to a 602 Crate engine will be noted in the race cars log book and by the DMA.

33.5 Open Engines (Option B)

33.5.1 All competitors are encouraged to use the GM Crate Engine (Option A) whenever possible as the Option B engine "will be phased out" at some time in the future.
33.5.2 Any engine that complies with the 2016-2017 DMA Specifications will be permitted to compete in Sportsman with the following conditions, up till the end of the 2016 racing season, after which time their use may be reviewed.
33.5.3 Option B open engines must also use a maximum rev-limiting chip of 6,000 RPM, however if, it is proven that competitors with these engines have a performance advantage as compared to the 602 Crate engine then further restrictive measures will be applied.
33.5.4 Engines that are currently fitted with a MSD 6AL or similar may continue to use them with a 6000 RPM limiting chip fitted, however for cars fitted with a Magneto or other ignition system that cannot be easily or economically RPM limited, a points or inductive ignition style distributor must be fitted and used with a MSD rev control box, part number 87286 or 8728 (See MSD Rev Control Box below for details)
33.5.5 When utilizing an H.E.I. ignition system, the coil must remain stock in appearance and remain in the distributor cap.

33.6 **Common Engine Rules (Option A & B)**

33.6.1 All engines are to be sealed with either DMA Numbered Seals or GM Performance tamper-proof bolts.
33.6.2 Engine and Seal Numbers will be recorded in the race cars logbook for identification purposes.
33.6.3 The distributor vacuum and mechanical advance may be made inoperable if desired.
33.6.4 One only 12 volt battery, maximum battery voltage must not measure more than 14.3 volts. Step up transformers or any other device designed to increase voltage are not be permitted.
33.6.5 4 into 1 Extractors only, Tri-Y's are not permitted.

33.7 **MSD Rev Control Box**

33.7.1 The MSD rev control box must be mounted **using the approved Quick Release Mounting Plate,** under the hood, in clear view and easily removed for tech purposes.

(For more information contact your local Scrutineer or the DMA Sportsman Committee)

33.7.2 All MSD Rev Control wiring is to be exposed, clearly visible and traceable.

NOTE:- The negative/ground wire of the MSD Rev Control must be securely connected directly to the engine with a 3/8" bolt.
WARNING:- Failure to do so may result in a loss of performance or damage to the engine.

33.7.3 The RPM limiting chip must face up and be **secured with a DMA Engine Seal with the Seal number recorded in the Race Car Log book.**

(For more information contact your local Scrutineer or the DMA Sportsman Committee)

33.7.4 The box and the chip must remain in working condition, prior to, during and after all Sportsman racing events.
33.7.5 DMA officials reserve the right to confiscate, analyse or swap rev control boxes and/or rev chips at any time.
33.7.6 MSD Rev Control Box, Part # 87286 is made specifically for "DIRT" Sportsman 602 Crate engined Modifieds in the US and is supplied with a 4 pin DT Series Deutsch Connector and wiring harness to connect directly to the 602 HEI distributors.
33.7.7 MSD Rev Control Box, Part # 8728 may also be used but must be retrofitted with the same 4 pin DT Series Deutsch (Male) Plug as per the wiring code below, no other type of connector is permitted.
33.7.8 The length of the harness from the exit point of the housing to the further most end of the connector will be no more or less than 130mm + or – 5mm

(Please contact the DMA Sportsman Committee for any additional information)

Wire	Receptable Location	Connects to
Black	1	Connects to ground on the engine
Red	2	Connects to a switched 12 volt source
Green & White	4	Connects to the coil negative (-) terminal
Violet	3	This wire is not used
NOTE: For Ford and Chrystler applications, the White wire shall be cut and insulated		

Signwriting

The authorised Sportsman Sticker will be affixed next to the race cars number to identify that competitor as a Sportsman.

2017/18 MODLITES AUSTRALIA INC.

RULES OF COMPETITION

MODLITES

MODLITES AUSTRALIA INC Sanctioning Program "A" Tracks and or clubs choosing to operate under a stock engine program will promote their events with the "MODLITES AUSTRALIA INC Program A Rules" structure that limits their competitors to:
MODLITES AUSTRALIA INC

1. Stock engines weighing a minimum of 1280#
2. Spec engines weighing a minimum of 1345#
3. Open engines weighing a minimum of 1375#

No other engine modifications allowed
All other MODLITES AUSTRALIA INC Rules remain as written.

Tracks and or clubs have the option to alter rules to meet the needs of their competitors.

As of 1st July 2016

MODLITES AUSTRALIA INC shall hereafter be referred to as MA throughout the rules and descriptions. The rules and/or regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events. These rules shall govern the condition of all events, and by participating in these events, all participants are deemed to have complied with these rules. No expressed or implied warranty of safety shall result from publications of or compliance with these rules and/or regulations. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to a participant, spectator or official. By competing in MA sanctioned events, all participants agree to abide by the rules that are listed below and agree to the MA official's decision or penalties set forth by these rules.

The national tech committee is empowered to permit reasonable and appropriate deviation from any of the specifications herein or impose any further restrictions that, in his opinion, do not alter the minimum acceptable requirements. No expressed or implied warranty of safety shall result from such alteration of specifications. Any interpretation or deviation of these rules is left to the discretion of the officials. Their decision is final.

GENERAL RULES

1. MODLITES AUSTRALIA INC. race rules shall apply to all MODLITES AUSTRALIA INC. Sanctioned events.

2. The car must be registered with MODLITES AUSTRALI INC and the Driver must hold a current SPEEDWAY AUSTRALIA competition license in order to receive points, awards, and purses.

3. All MODLITES AUSTRALIA INC. vehicles are subject to inspection at any time.

4. Approval of a MODLITES AUSTRALIA INC. vehicle by the inspector shall mean only that the vehicle is approved for participation in a competitive event and shall not be construed in any way to mean that the inspected MODLITES AUSTRALIA INC. vehicle is guaranteed mechanically sound. Be it further declared that the inspector shall not be liable, nor shall the sanctioning body, for any mechanical failure not for any losses, injuries or death resulting from same.

5. MODLITES AUSTRALIA INC has a right to ask and compel any car owner if they feel that car is showing to have a significant advantage over its competitors to dismantle the engine at the owner's expense. Modlites Australia's technical crew will then check that vehicle for legality , should the engine be completely legal with OEM parts then the cost of reassembly will be met by the Club concerned. That engine will and must be reassembled in front of the technical crew and then sealed and the matter will be at an end.

SPECIFICATIONS

1 BODY STYLES

Any car specifications not covered in these body specs are subject to MA interpretation. Any significant performance advantage will be addressed on an individual basis. MA reserves the right to determine what constitutes an unfair advantage.

1.1 1928-1948 American-made production vehicles only, 5/8 scale, two door sedans, coupes, or pickup trucks. These are to be known as Classic Modified body styles.
1.2 Bodies resembling a Midwestern IMCA modified shall compete as a **MA IMCA MODLITE.**
1.3 Bodies resembling a North Eastern Dirt Car Modified shall compete as a **MA MODLITE.**

2 BODY REQUIREMENTS AND SPECIFICATIONS

2.1 **CLASSICS**

2.1.1 Body must be 5/8 scale, stock appearing. Maximum outside tire width 60", Cars must pass freely through a hoop 60 1/2" wide by 50" high, 73" wheelbase plus or minus 1".
2.1.2 Must have grill shell or simulated open radiator matching original body style, any material.
2.1.3 Doors, windows, and cowlings must retain stock appearance. Hood louvers allowed for cooling, but must maintain stock contours.
2.1.4 Engine compartment must conform to scale and match contour of body. Hole may be cut for breather clearance only. Ram air induction system prohibited.

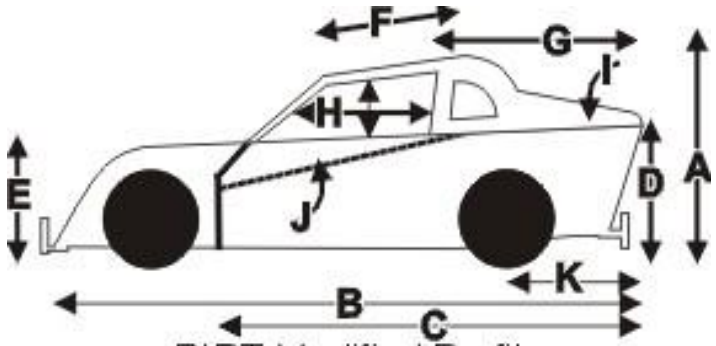
2.1.5 Must have closed trunk lid or fully enclosed trunk access panel conforming to original bodylines. Louvers allowed no holes.
2.1.6 No fenders.
2.1.7 No wings or spoilers.
2.1.8 Ram air induction system prohibited.
2.1.9 Body will be metal construction, 26-gauge steel or .040" aluminium minimum. Fiberglass or plastic grill shells allowed.
2.1.10 All exposed edges must be folded or trimmed over. Legends cars may be allowed under local rules. No lips or spoilers of any kind.
2.1.11 NO open top cars (roadsters, convertibles).
2.1.12 No panel trucks, station wagons, or specialty cars.

Classic Overall Dimensions

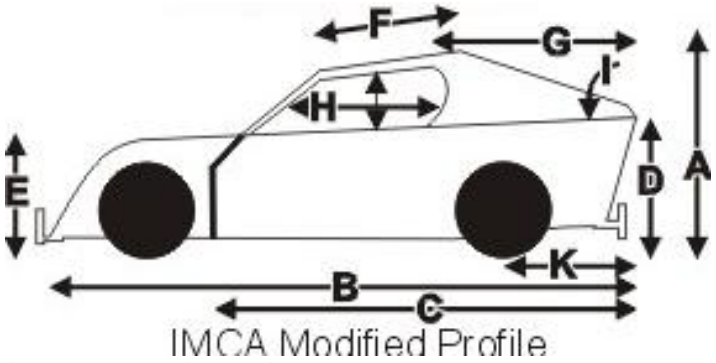
2.1.13 NO car over 50" tall, top to ground. Body height maximum 44", bottom edge to top (including frame rail).
2.1.14 Maximum body width: 38" Maximum frame width 34"; min 30.
2.1.15 Roof hatch entrance allowed.
2.1.16 Frame ride height must not let car bottom out on track.
2.1.17 Driver's door must be operational and equipped with secure latch.
2.1.18 Fasteners on hood, trunk, or panels must be positive, locking type.
2.1.19 124" maximum total length, bumper to bumper.
2.1.20 Kick outs or side nerf bars must be mounted at three points and run full length between tires. 1¼" max .125 wall thickness. Cannot stick out beyond 1" from the side of the tire.
2.1.21 No new classic or registration that has expired more than 12 months will be permitted after 2015 unless continual registration has been held.

2.2 MA MODIFIED LITE DIVISION

The intent of these preceding specifications is to follow the bodyline and design of a North Eastern Dirt Car Modified race car body style.



DIRT Modified Profile



IMCA Modified Profile

MA Modified Lite Overall Dimensions

2.2.1 42" min 50" max from ground - total car height. Body may be a maximum of 44" from the bottom of the frame rail to the highest point of roof of car.

2.2.2 128" maximum total length, bumper to bumper.

2.2.3 **SIDES AND REAR QUARTER PANEL**

A. 85" max body length from front door edge to rear quarter panel including rear spoiler and mounts.
B. No part of body may extend beyond the width of the rear tires.
C. 30" min 38" max - side height of rear quarter panel from the ground. 30" max height of quarter panel.

2.2.4 **HOOD**

A. 20" min 27" max - hood height excluding breather protectors (bottom of frame rail to top of hood).
B. Must have winged dzus clips on the bonnet for easy excess in emergency
C. Ram air induction system prohibited.
D. Rear of hood becomes part of windshield area rules.
E. Front Nose - No part of nose section (in front of spindle centerline) may be wider than a maximum of 24".
F. Panels on nose area may have raised lips maximum ½" tall.
G. Panels replicating a DIRT Northeast Modified allowed.

2.2.5 **ROOF PANEL**

A. 40" min 48" max - length of roof panel. 36" min 42" max - width of roof.
B. No part of roof panel may have more than 14° of angle rake.
C. No deflector of any type on upper sides or rear of roof panel.
D. Roof entrance hatch Optional.

2.2.6 **REAR UPPER QUARTER PANEL**

A. 20" min 38" max rear upper side panel may contain Plexiglas.
B. Side panels maybe no higher than 3" at the rear of the straight line of quarter panel top edge.

C. Side panel may be no higher than an imaginary line from the rear edge of roof panel to 3" above the top edge of the rear quarter panel.

D. Both left and right panels must be identical in size and shape

2.2.7 **SIDE WINDOW**

A. 18" min side opening length. 10" minimum side opening height front and rear.

2.2.8 **INTERIOR**

A. 46" min 50" max - width of rear shelf and body panels.
B. Rear shelf may have no more than a 5 degrees max rake and may not be concave or convex in design.
C. No lips or spoilers of any kind.
D. The rear frame area from the rear shelf downward a minimum of 16" must be completely enclosed the width of the frame.
E. Louvers allowed - no holes.

2.2.9 **ADDITIONAL INTERIOR SPECIFICATIONS**

A. 36" min 56" max - length of right side pod area with max 30 degrees. Left side pod may be altered for driver access.
B. Cockpit cover with a max of ½" lip will be permitted providing the on/off cutoff switch is reachable from outside the car by safety personnel.
C. Deck lid height from ground 30" minimum, 36" maximum with NO rear lip extending upward.
D. Side pod may not extend rearward past the centerline of rear axle.
E. Body must be centred on lower frame rails.
F. All body dimensions will be checked + or – ½" unless otherwise specified.
G. Rear quarter distance from centre of rear 20" min 30" max.

2.2.10 **REAR SPOILER**

A. Must be single blade Lexan or Aluminium and mounted to the rear of the interior body shelf and be no wider or higher than the inside of rear quarter panels. 50" max.

B. Maximum height of spoiler may not exceed 4".

C. May be mounted at any angle but may not extend beyond or above the rear quarter panel and may not be hinged or adjustable.

D. No bracing or supports on top, front, or back of spoiler blade permitted.

2.3 MA IMCA MODLITE DIVISION

The intent of these preceding specifications is to follow the bodyline and design of a Midwestern IMCA modified race car body style.

MA IMCA Modlite Overall Dimensions

A. 42" min 50" max from ground - total car height. Body may be a maximum of 44" from the bottom of the frame rail to the highest point of roof of car.
B. 128" maximum total length, bumper to bumper.

2.3.1 SIDES AND REAR QUARTER PANELS

A. 85" max body length from front door edge to rear quarter panel including rear spoiler and mounts.
B. Body side panels'
   i. Lower rear wheel opening may taper out toward the outside edge of rear tires.
   ii. Maximum body width can be no more than 58".
   iii. Side panels must maintain 50" maximum width at the front edge of doors, top edge of doors, and rear edge of quarter panels
C. Side nerf bars may be mounted on the inside or outside of the doors panels.
D. 30" min 38" max - side height of rear quarter panel from the ground. 30" max height of quarter panel.

2.3.2 HOOD

A. 20" min 27" max - hood height excluding breather protectors (bottom of frame rail to top of hood).
B. Ram air induction system prohibited.
C. Rear of hood becomes part of windshield area rules.
D. No part of nose section (in front of spindle centerline) may be wider than a maximum of 24". This area may have a maximum raised ½" lip on each side.
E. Hood may taper wider from the center line of spindles to the outer front edge of the front door panels.
F. Must have winged dzus clips on the bonnet for easy excess in emergency

2.3.3 ROOF PANEL

A. 40" min 48" max - length of roof panel. 36" min 42" max - width of roof.
B. No part of roof panel may have more than 14o of angle rake.
C. No deflector of any type on upper sides or rear of roof panel.
D. Roof entrance hatch optional.

2.3.4 REAR UPPER QUARTER PANEL

A. 20" min 38" max rear upper side panel may contain Plexiglas.
B. Side panels maybe no higher than 3" at the rear of the straight line of quarter panel top edge.

C. Side panel may be no higher than an imaginary line from the rear edge of roof panel to 3" above the top edge of the rear quarter panel.
D. Both left and right side panels must be identical in size and shape

2.3.5 **SIDE WINDOW**

A. 18" min side opening length. 10" minimum side opening height front and rear.

2.3.6 **INTERIOR**

A. 46" min 50" max - width of rear shelf and body panels.
B. Rear shelf must be level and fastened to the rear quarter panel.
C. No lips or spoilers of any kind.
D. Louvers allowed - no holes.

2.3.7 **ADDITIONAL INTERIOR SPECIFICATIONS**

A. Side pod and rear shelf location must follow the same line and be level with the top edge of the door panels and not extend beyond the front edge of the door or beyond the rear edge of the rear quarter panel.
B. Cockpit cover with a max of ½" lip will be permitted providing the on/off cut off switch is reachable from outside the car by safety personnel.
C. Deck lid height from ground 30" minimum, 36" maximum with NO rear lip extending upward.
D. Side pod may not extend rearward past the centre line of rear axle.
E. Body must be centred on chassis.
F. All body dimensions will be checked + or – ½" unless otherwise specified.
G. Rear quarter distance from centre of rear wheel 20" min 30" max.

2.3.8 **REAR SPOILER**

A. Must be single blade Lexan or aluminium and mounted to the rear of the interior body shelf and be no wider or higher than the inside of rear quarter panels. 50" max.
B. Maximum height of spoiler may not exceed 4".
C. May be mounted at any angle but may not extend beyond or above the rear quarter panel and may not be hinged or adjustable.
D. No bracing or supports on top, front, or back of spoiler blade permitted.

3 WEIGHT

3.1 All cars following MA "MA Stock Engine" program must weigh a minimum of 1280 lbs, with driver after race.
3.2 All cars following MA "MA Spec Engine" program must weigh a minimum of 1345 lbs, with driver after race.

3.3 All cars following MA "MA Open Engine" program must weigh a minimum of 1375 lbs, with driver after ace.
3.4 All weight must be fastened to chassis in a secure manner using a minimum of 3/8 **High Tensile** bolt and be painted white with the car number painted in black
3.5 No weight outside of car body, i.e. on nerf bars
3.6 Hood will be clearly marked as the following:
  3.6.1 STOCK 1280#
  3.6.2 SPEC 1345#
  3.6.3 OPEN 1375#
3.7 This weight program will be monitored for parity and competitiveness and may be changed at the discretion of MA.

4 BUMPER DIMENSIONS

4.1 **Front:**
  4.1.1 Bumper face must be vertical
  4.1.2 maximum width 30"
  4.1.3 Bumper height 6" to 8" with 2-bar loop.
  4.1.4 Ground to top of bumper: 12" minimum, 16" maximum.
  4.1.5 May not extend more than 12" forward of front tires

4.2 **Rear:**
  4.2.1 Maximum width 56" with 3 vertical bars.
  4.2.2 Bumper height 6" to 8" with 2-bar configuration.
  4.2.3 Ground to top of bumper: 12" minimum, 18" maximum.
  4.2.4 May not extend more than 8" behind rear body panels.

4.3 Bumpers must be hollow with max wall thickness of .125". A hoop is allowed on the top side of the rear bar no wider than 300mm and 200mm high made of the same material of the rear bar. This is an option for push car protection only

5 FIREWALL

5.1 Firewall must be metal and must completely separate engine compartment from cockpit.
5.2 Engine protruding into cockpit must be enclosed.
5.3 Rear Firewall of driver's compartment must be metal construction.

6 WINDSHIELD

6.1 Wire mesh 2"x 2", or protection bars (1"x1" highly recommended.) Protection bars optional
  6.1.1 No Glass. All other cockpit areas must remain open.
6.2 Deflectors may be used in front of driver.
  6.2.1 May be no wider than roll bar area.

7 NERF BARS

7.1 Full length nerf bars between front and rear tires mandatory.
7.2 Maximum outside diameter of 1.25" and .125" maximum thickness. Must be hollow.
7.3 May not extend out beyond tread width more than 1" at the rear only.

8 SEAT

8.1 Seat must be high-backed aluminium, racing type.
8.2 All cars will have a permanent bar located behind top of seat at shoulder level.
8.3 Bottom of seat will not be more than 65" back measured from upper ball joint.
8.4 Seat may be tilted back for added driver head clearance and allow for full-containment seat bracing. However, no portion of the seat may be back more than 74" as measured above.
8.5 Seat must be bolted in 4 places, 2 on the back and 2 on the base with 3/8 minimum grade 5 bolts using nyloc nuts also using minimum ¾ diameter washers on both sides
8.5.1 If the seat is bolted to the floor the floor must be welded to the chassis

9 NUMBERS AND GRAPHICS

9.1 Car number must be minimum 12" in height and 2" stroke.
9.2 Must be displayed on each side panel in front of the rear wheel and roof or trunk.
9.3 Numbers in 4" size should be on front and rear of car to help with line-ups.

10 WHEELS AND TIRES

10.1 Steel wheels only, minimum wall thickness .090", 13" only, Wheel width max. 8".
10.2 **Hoosier Racing Tires plated UDRA, TUSA, TUSA-S or TUSA-M mandatory at all MA Championship Cup events. 40-durometer minimum before race for dirt and 50-durometer before the race for asphalt. Clubs or special events may mandate tire selection.**
10.3 Tires may not be altered from the original construction properties as per rubber consistency or tire construction specifications
10.4 Tires may be grooved, syped, and/or buffed.
10.5 Bead lock rims are Mandatory on right rear, optional on all others.

11 ENGINE SPECIFICATIONS

There will be 3 weight divisions:

11.1 **"STOCK" ENGINES - weight requirement 1280#**

*1000 cc or less Water-cooled engines produced between 2000 and 2012 may compete in this program

Engines eligible for this program: Suzuki GSXR 1000, Honda CBR1000, and RR1000, Yamaha YZFR1-1000, and Kawasaki ZX10-1000 up to and including 2012. All other engine requirements apply from section 11(c).

11.1.1 All engine components must remain stock per **ORIGINAL ENGINE MANUFACTURER** (OEM). For the make and year of engine. No interchanging of parts allowed

11.1.2 Aftermarket air box allowed with stock OEM venturi rubber boots and mounting system only.

A. May change air filter with direct replacement.
B. Secondary butterflies are optional.

11.1.3 Gaskets may be aftermarket.

11.1.4 Oil pans may be changed or altered.

11.1.5 OEM electronic system only with no additions. Reflashing or programing is allowed

11.1.6 Fuel: Gasoline only with an octane rating no higher than 98 is allowed.

11.1.7 Transmissions – All gears must be operational.
All Suzuki engines from 2012 and all Kawasaki engines from 2011 must run at a weight requirement of 1345#.

11.2 **"SPEC" ENGINES - weight requirement 1345#**

*1000 cc or less Water-cooled engines produced between 2000 up to and including 2012 may compete in this program.

Engines eligible for this program: Honda CBR1000 and RR1000, Yamaha YZFR1-1000, Suzuki GSXR 1000 up to and including 2011, Kawasaki ZX10-1000 up to and including 2010. All other engine requirements apply from section 11(c).

Engine components maybe swapped with parts within the year range allowed if it is a bolt on application with no machining or altering of parts permitted. All parts must remain OEM specs and must be of same series. As long as it is with in the engine eligibility program (If unsure check with national scrutineer prior to assembly)
i.e Suzuki 2000-04. 2005-08. 2009-11.

11.2.1 All engine components must remain stock per **ORIGINAL ENGINE MANUFACTURER** (OEM)

11.2.2 All head components must remain stock (except cam sprockets may be adjustable type).

A. Cams must be (OEM) meeting specs as per manufacturer and in stock location.

11.2.3 Only OEM ECU type boxes, electronically reflashing or programing is allowed**.** One additional fuel metering device, which has no other capabilities permitted (power commander or similar).

A. No Other modules or programs of any kind allowed

B. No switching devices of any kind may be attached in any way to the electronics of an engine.
C. All fuel monitoring devices must be mounted in the cowl area for inspection and may not be within the driver's control or reach.

11.2.4 Engine must retain its stock fuel induction system with no other form of fuel delivery. Secondary butterflies are optional.
11.2.5 Fuel: Gasoline only with an octane rating of no greater than 98 is allowed
11.2.6 Alternator recommended but not mandatory
11.2.7 After market air boxes with optional velocity stacks are allowed. No ram type air induction.
11.2.8 Oil Pans, after market or cut modification allowed

11.3 **"OPEN ENGINES" – Weight 1375#**

No OPEN ENGINES new or registration that has expired more than 12 months will be permitted after 2016/17 unless continual registration has been held

Open engines will run as per the 2015/16 rule book

11.4 **"General Motor" Specifications:**

11.4.1 Four cycle, four cylinders maximum only.
A. Must have working transmission, clutch, and starter with all parts in place.
B. Complete Clutch assembly must remain in engine.
11.4.2 Charging system optional.
11.4.3 Battery powered ignition system only.
11.4.4 Alternator cover allowed.
11.4.5 No auxiliary starters.
11.4.6 Engine setback:
A. The "square of the engine" (rear fins of the jugs) may not extend rearward more than 17" from the center of front spindle.
B. No part of the engine or transmission may extend rearward more than 21 inches from center of front spindle.
11.4.7 No aftermarket fuel injection and no turbo system.
A. No nitro or nitrous oxide.
B. OEM fuel injection must remain stock. reflashing or programming allowed
11.4.8 Engine must be cooled by original intent.
A. May use extra fan or oil cooler.
11.4.9 Engine exhaust must include muffler. Tail pipe must face downward on a 45 degree angle
A. All muffler devices must include baffles.
MUFFLER MUST MEET LOCAL TRACK REGULATIONS,

11.4.10 No form of traction control permitted.
11.4.11 Oiling system may not include a dry sump system.

11.4.12 No increasing or decreasing of engine stock stroke in any way

11.5 **Engine Tech Procedures**

11.5.1 Cylinder cranking compression- minimum 100p.s.i., Maximum 220 psi per cylinder average of 4 cylinders, no variance, measured with a Snap-On compression gauge, part number EPV303A, with adapters EEPV304A, EEPV306A or MT26J200, after ten (10) compression revolutions of cranking, 15-45 minutes following feature event.
11.5.2 Carburettors or Fuel Injection and all 4 spark plugs must be removed before checking compression.
11.5.3 Cylinder bore and stock dimensions per OEM spec sheet
11.5.4 Remove cam cover for cam inspection – OEM specification only
11.5.5 Remove clutch cover for crank, rod, and piston inspection unaltered OEM parts only
11.5.6 Remove injectors for visual intake runner inspection- no altered OEM runner configuration or valve bowl area permitted
11.5.7 Visual fuel injection inspection – all parts must be unaltered OEM only
11.5.8 Visual wiring harness inspection
11.5.9 Transmissions – all gears must be operational

The goal of the MA committee members is to provide a controlled set of engine specifications to move our division forward. These rules and regulations are set with the spirit and intent We must be aware of the existing supply of engines and adjust our rules to maintain parity within our program to ensure the growth of our sport. We all need to make concessions and sacrifices to keep our sport cost effective and competitive.

12 BATTERY, FUEL SYSTEM & RADIATOR

12.1 Battery and fuel pump must be mounted outside driver compartment.
12.1.1 Battery must be secure and held with non- rubber strap.
12.1.2 Electric fuel pump allowed and must cut off in the event of a roll over.

12.2 Fuel cell mandatory, maximum 5 gallons, located in trunk area.
12.3 Reinforced or steel braided line must be used in all high-pressure areas.
12.4 A direct manual cut off switch wired to ground circuit will be installed on the right rear shelf or rear fire wall within 6" of the corner formed by the rear deck and rear fire wall.
12.4.1 Switch will be located over the right shoulder of the driver.
12.4.2 The emergency electrical cut off switch will be clearly located and marked.
12.5 Forward facing radiator hoses must be covered when the radiator is mounted behind the drivers head

13 DRIVE TRAIN

13.1 Must use steel drive shaft from transmission to automotive rear end.
13.1.1 Minimum 2.50" x .083" or 2" x .120". (2.50" x .083" is recommended)
13.1.2 Must be painted white.
13.2 Quick change rear ends allowed with steel tubes only.
13.3 Drive shaft tunnel must have minimum of 2 (3 recommended) 360degree hoops between firewall and seat back.
13.3.1 Must be fabricated of minimum .1875" X 1.5" steel bar. 1" X .095" steel tube highly recommended.
13.4 Rear must be locked or have a solid spool.

14 MA MODLITE CHASSIS

If MA or state scrutineer deem a car unsafe on structural grounds due to age or after an accident the owner must get a mechanical/structural engineer to certify it is structurally safe and complies with the current MA rule book before it can be approved for racing.

Chassis consists of 4 components areas with upright design.

14.1 **Main Frame Rail Specifications**
14.1.1 Main frame members must be minimum of 1" X 2" x .120" wall rectangular steel tubing or 40mm x 40mm x 3mm square tubing only.
14.1.2 Main frame rail consist of the length between the front lower arm cross member and the rear main roll bar upright.
A. Rear frame must be a maximum of 34" to 30" minimum outside dimensions. May taper to a maximum of 24" to 20" minimum from the front of the driver's seat to the firewall.
B. Main frames must have a minimum of 3 cross members between firewall and back of seat fabricated of same material as frame rails.

14.2 **Centre Roll Cage**
14.2.1 All roll cage material must be DOM steel minimum 1.25" x .083" (.095 recommended) in all cars manufactured from 12/98 on. Clubs can Grandfather older cars with 1" x 0.65" tubing. Cross bracing or diagonal strongly recommended in hoop over drivers head.
14.2.2 Must consist of 4 upright roll bars forming loops to create a perimeter upper cage over driver area.
14.2.3 Roll bars must be fastened directly to and the same dimension as the lower frame rails (Maximum of 34" and minimum of 30").
14.2.4 Uprights must be connected by a minimum of 2 bars on each side of the driver (from the front roll bar to the rear bar) by the same tubing material as the roll bars.
14.2.5 Any outrigger components fastened to the roll cage uprights are considered part of the chassis and must follow rule #4.

14.2.6 Roll cage may not be more than 44" from bottom of frame to top of cage.

14.3 **Front Clip** (In front of the front firewall)

14.3.1 Lower frame rails must be a minimum of 1" X 2" x .120" wall rectangular or 40mm x 40mm x 3mm square steel tubing only from the front firewall to the lower suspension cross member.

14.3.2 Lower frame rails must be a maximum of 24" and 20" minimum width outside dimensions.

14.3.3 Material used in the upper rails or supports are at the discretion of the manufacturer.

14.3.4 No part of the nose area may be more than 24" wide.

14.3.5 Front clip must be centred on the main frame.

14.3.6 Rear Clip (Area behind Rear Roll Bars)

14.4 Must have a minimum of 2 parallel rails extending rearward from the roll cage using a minimum of 1 ¼" DOM .083 tubing.

14.5 Additional bracing or mounting at manufacturers discretion.

14.6 Minimum head clearance must be 1.5 inches.
A halo bar may be added to give drivers sufficient clearance but must be noted in the log book and signed off by the scrutineers at daylighting

15 ADDITIONAL CLASSIC RULES

15.1 All cars must have cage bars installed across door openings on both sides.

15.1.1 Bars should be welded in place as part of roll cage.

15.1.2 Minimum size 1" x .065". (1.25" x .095" recommended). Classic cars with bars mounted on doors should have full doorframe and minimum of 2 horizontal cross bars. Minimum 1" x .083".

15.1.3 Classic cars with bats mounted on doors must have 1/4" x 2" steel stops welded in on each side of opening, totalling a minimum of 4" on each end of door.

15.2 It is required to have a steel bar with a minimum size of 1" x .065" from doorpost to doorpost, under the dash.

15.2.1 Steel plate on driver's door bars recommended

15.3 It is recommended that, if using rivets, body panels attach to tabs welded onto cage instead of drilling multiple holes into cage bars.

15.4 No down tube frame cars allowed.

15.4.1 Any bars going from cowl area to snout must remain below the upper line of hood.
Classic pickups may have two (2) bars going from upper rear roll cage down to rear clip.

16 SUSPENSION

16.1 Front suspension must not extend rearward past the most forward panel of the firewall
- 16.1.1 Aluminium spindles are optional.
- 16.1.2 Coil over shocks must be attached directly to the lower a-arm and upper front chassis.

16.2 Rear trailing arm/radius rod specifications:
- 16.2.1 Arms may have a maximum length of 30".
- 16.2.2 Torque-absorbing devices are permitted.
- 16.2.3 Maximum 3 radius rods or 3 link suspension:
- 16.2.4 One trailing rod must be attached to each side of the rear housing by a bracket; either clamped or welded directly to rear housing.
- 16.2.5 No "birdcage" type mounting of any kind permitted.
- 16.2.6 No linkages of any kind permitted. Third radius rod must be mounted in a way to control the rotation of rear housing only.
- 16.2.7 This rod may be adjustable but have no other function.
- 16.2.8 A torque-absorbing device may be used in this location.
- 16.2.9 A lateral panard or "J" bar will be used to maintain rear housing position in chassis of car.
- 16.2.10 No Cantilever or linkage suspension in front or rear permitted. Shock with spring must be attached directly to rear housing mounts.

16.3 Wheel offsets are allowed.

16.4 Hub offsets are NOT allowed.
- 16.4.1 Hubs front and rear must be within 1/2" distance from mainframe rail on either side of car, measured from center of rotor to vertical plane of frame rail.

16.5 Coil-over shocks are the only allowable means of supporting the chassis. One shock and spring per wheel only. Shock and spring must remain as one unit.

16.6 Shocks must be steel bodied with no alterations to the external body of the shock.

16.7 No driver shall have the ability to adjust suspension from inside car.

16.8 Straight front axles are prohibited. No leaf springs.

16.9 No birdcage type rear linkage.

16.10 Anti-roll (sway) bars permitted front or rear. Must be connected without adjustments to arm location.

16.11 No torsion bar suspension system of any type allowed.

16.12 The use of carbon fibre or titanium in any way is prohibited.

17 STEERING

17.1 All steering components must have safety fasteners such as cotter pins or self-locking nuts.
17.2 Manufactured quick-release steering wheel hubs mandatory.
17.3 Rack and pinion steering is mandatory.

18 BRAKES

18.1 All four wheels must have callipers, rotors and brake pads.
18.2 Rotors and callipers:
  18.2.1 Steel rotors mandatory, .225 minimum thickness.
  18.2.2 Steel OEM callipers or aluminium callipers allowed.
  18.2.3 Cutting & scalloping of rotors will be allowed with no rotor surface being less than 3/4" in width in the upper scalloped area.
  18.2.4 Drilling of rotors is permitted.
18.3 Adjustable brake bias and wheel shut offs allowed.
18.4 Competition-type master cylinders allowed.
18.5 All four wheel brakes must be operational at time of scrutineering

19 SAFETY EQUIPMENT

19.1 Fire bottle system HIGHLY recommended.
19.2 Drivers uniform to comply with standards set out in Speedway Australia rules
  19.2.1 Fire suit (double layer minimum, one piece).
  19.2.2 Full set of fire proof underwear
  19.2.3 Fireproof gloves.
  19.2.4 Fireproof shoes.
  19.2.5 Approved helmet with Snell 2010 or higher.
  19.2.6 Full-face helmet.
  19.2.7 Head and neck restraint systems mandatory.

Hans device or equivalent (to suit 3" belts) mandatory for the start of the 2017/18 season.

19.3 Car must be equipped with 5-point safety harness, no more than 2 years old, with minimum of 3-inch belts.
19.4 Aluminium, high-backed racing seat mandatory.
19.5 Arm restraints mandatory. Window nets optional.

20 COMMUNICATION & TRANSPONDERS

20.1 NO two-way radios. One-way communication from officials only is allowed.

21 VISUAL AIDS

21.1 NO mirrors allowed.

22 DRIVER QUALIFICATIONS

22.1 All drivers must be a minimum of sixteen (16) years of age. All drivers under 18 years of age MUST have a signed waiver by parent or guardian. All drivers must hold a current Speedway Australia "B" licence this rule will be governed by track regulations.

23 GENERAL REGULATIONS

23.1 The rules and/or regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish the minimum acceptable requirements for such events.

These rules shall govern the condition of all events, and, by participating in these events, all participants are deemed to have accepted and complied with these rules.

NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATION OF OR COMPLIANCE WITH THESE RULES AND REGULATIONS.

They are intended solely as a guide for the conduct of the sport and are in no way a guarantee against injury or death to a participant, spectator, or official. Any interpretation or deviation of these rules is left to the discretion of MA and the decision is final.

NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM SUCH DEVIATION OF SPECIFICATIONS.

23.2 No intoxicating spirits or controlled substances are to be consumed before or during race events by anyone entering the pit area of tracks.
23.3 MA reserves the right to reject or allow entry of any driver or car.
23.4 Abuse or confrontation at any racetrack or MA official and/or use of abusive language is strictly prohibited.

FAILURE TO ABIDE BY THIS RULE MAY RESULT IN SUSPENSION, LOSS OF POINTS, WINNINGS, RECORDS, AND/OR CASH FINE.

23.5 Any disputes involving qualifying times, lap scoring, finishing position is under the jurisdiction of the hosting track officials. MA officials will address winnings, points, or rules interpretations. Any disputes or discussions of this nature are to be held with MA officials only.
23.6 **THE DRIVER ASSUMES RESPONSIBILITIES FOR THE ACTIONS OF THEIR PIT CREW AND GUESTS.**

23.6.1 Drivers, owners, and/or crew shall have no claims or actions of any kind against or cause of action for damages of any kind, expenses, or otherwise against MA, any track owner, promoter, or official by reason of disqualification or damage to either car, driver, or both. This regulation shall be deemed a covenant not to sue made by each driver, owner, and/or crewmember to MA, any track owner, promoter, or official with respect to any alleged act or omission or agreement by any of them.

23.6.2 MA or track officials at any time for safety, mechanical, or rules compliance may inspect any car.

23.7 **ANY RULES OR REGULATIONS NOT COVERED IN THIS BOOKLET WILL BE DETERMINED ON A TIMELY BASIS BY MA AND THE DECISION IS FINAL.**

23.8 Any violations for MA engine rules may result in loss of all accumulated points for the season and a one-year suspension for both owner and driver of said vehicle.

The MA Advisory Board will determine all additional penalties.

23.9 **GENERAL GUIDELINES FOR CONDUCT PERTAINING TO RULES INFRACTIONS ENGINE INFRACTION**

23.9.1 Anyone found to be out of compliance with any of the current engine rules (bore, stroke, illegal head modifications, etc. as per current 2016 MA rule book) will be assessed the following fines and penalties:

23.9.2 **FIRST OFFENSE**: Competitor (driver) will be disqualified for the race program of record and all points for the season will be expunged from the records to that date. Money won for that night's race program will also be forfeited. In addition, the racer will be suspended for no less than 6 additional races beyond that race (rain outs will not count), with the possibility of a fine being levied if the committee feels it is a blatant infraction.

23.9.3 **SECOND OFFENSE**: Competitor (driver) will be suspended for the remainder of the season, SA license will be forfeited, and all points for the season will be expunged from the records. In the event that an engine is found to be out of compliance, the engine numbers will be noted and that engine will be henceforth no longer deemed legal to run at any MA race regardless of whether it has been reconfigured to be legal or not.

23.10 **MISC. INFRACTIONS** (Weight, Illegal Parts, Metal Material, etc.)

Anyone found to be out of compliance with the rules of driver and car overall weight requirements, illegal suspension, weight, blatant illegal parts or part material, safety, etc. (as per current rule book for the MA 2016 racing season) will be assessed the following penalties:

23.10.1 FIRST OFFENSE: Forfeit of points and monies for the race program of record and warning to have the violation corrected before being allowed to compete at the next event.

23.10.2 SECOND OFFENSE: Driver will incur the same fines and penalties as first offence but will subsequently earn an additional race suspension.

23.10.3 THIRD and SUBSEQUENT OFFENSES: Driver will incur same fines and earn an additional 2 race suspension and forfeit all points earned to date.

23.11 **MINOR INFRACTIONS:**

These are non-performance enhancing infractions however these dimensional based rules need to be followed for the following items and please note the penalty offence:

1. Body Measurement
2. Wheelbase Measurement
3. Brake Rotor Thickness
4. Bumper Dimensions

23.11.1 FIRST OFFENSE: Assessed 5 Finishing Position Penalty both points and payout. (After 11th place finish there is only a $10.00 and 10 point reduction penalty due to payout and point structure). Warning to have the violation corrected before being allowed to compete at the next event.

23.12 **REFUSAL TO SUBMIT TO TECH PROCEDURES:**

23.12.1 Any driver or car owner that refuses to be tech'd by the MA will result in a maximum suspension of 6 races and loss of points to date. The length of the suspension will be solely at the discretion of the MA committee members and will be voted upon by the entire committee after a meeting is convened to discuss the matter. All decisions are binding and final; no appeals or changes may be made after the issue is settled. The meeting shall not be conducted on the night of the program in question.

**** Race cancellations will not be counted towards the suspension period earned by the offending driver.

EFFECTIVE DATE OF THESE RULES July 1, 2016.

ENGINE RACING IS A DANGEROUS SPORT AND MAY RESULT IN INJURY, BODILY HARM, OR DEATH.