



CANADIAN AUTOMOBILE SPORT CLUBS
ONTARIO REGION

2020 Race Regulations V0.99

Effective February 10, 2020

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2020 Race Regulations

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These regulations are intended to assist in the conduct of Competitions and to further general safety. They are a guide and in no way guarantee against injury or death to participants, spectators or others. No express or implied warranties of safety or fitness for a particular purpose shall be intended or result from publication or compliance with these regulations. By applying for a competition licence and/or by entering a competition event, all participants are deemed to have understood and accepted these terms, including that motorsport is inherently dangerous and it is each participant's obligation to meet and maintain compliance with all regulations to reduce the risk of death or injury to self or others, recognizing that such risk is inherent to the sport and cannot be completely eliminated.

Red bold, italics text indicates significant changes or amendments.

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1 Regulations

1.1 APPLICATION OF THESE REGULATIONS

These Race Regulations shall govern all race Events sanctioned by CASC-OR. The recognized classes and Appendix sections of this book are considered to be an integral part of this book.

1.2 ALTERNATION OF THESE REGULATIONS

These Regulations were established by CASC-OR which reserves unto itself the right at any time to alter these Regulations, develop special rules in emergency and periodically to revise any appendices hereto. Such alterations or additions will be published in the form of revised manuals or bulletins.

2 Events

2.1 ORGANIZATION OF EVENTS

2.1.1 COURSE LICENCE

- a) A Course Licence is required for each course approved for Competition.
- b) A permanent course shall have an annual Course Licence and a temporary course shall have an Event Course Licence.
- c) A permanent course shall be inspected prior to commencement of Competition each year in order to obtain a Licence.
- d) A temporary course shall be inspected prior to commencement of Competition in order to obtain a Licence.
- e) A request for inspection shall be made in writing to **ASN Canada FIA**.
- f) Fees for inspection and licences are available from **ASN Canada FIA**.
- g) A copy of the Course Licence, so long as it is in force, shall be displayed in a prominent position at the course and shall be made available for inspection by the Stewards of the Event.

2.1.2 APPLICATION FOR EVENT SANCTION

Every application for a CASC-OR Event Sanction shall be submitted for approval on the official form and a minimum of four (4) weeks prior to the event. In the case of an Application for Event Sanction at a course which is not already approved by **ASN Canada FIA**, the application shall be submitted at least two (2) months prior to the proposed Event and shall be accompanied by a full description of the course and facilities, including a scale map. Applications postmarked after the deadline shall be submitted with a late fee of 50 percent of the sanction fee.

Applications shall include:

- a) The name and address of the applicant;
- b) The organization, or person, on whose behalf the application is made, and the official position of the applicant;
- c) The date and place of the proposed Event;
- d) The nature and classification of the Event for which a sanction is requested;
- e) Copy of the entry form, Supplementary Regulations, and the schedule of events

- f) The applicable Sanction Fee per the CASC-OR Sanction Fee Schedule (available at the CASC-OR office.)

2.1.3 SUPPLEMENTARY REGULATIONS

The Supplementary Regulations shall contain the following information:

- a) The name, location, dates, nature and classification of the proposed Event;
- b) Type of sanction for the Event;
- c) An announcement conspicuously placed: "Held under the CASC-OR General Competition Rules";
- d) The name and address of the organizers;
- e) The CASC-OR symbol in a conspicuous location;
- f) The names of the required Officials;
- g) All other information necessary for the proper conduct of the Event with no repetition of any CASC-OR rules;
- h) The location of scrutineering and impound
- i) Definition of the paddock area
- j) The proposed schedule

2.1.4 ENTRIES

- a) Entries shall be submitted to the CASC-OR Registrar by completing the Registration Form available on-line at <http://casc.motorsportreg.com/>.
- b) When more than one driver is competing in the same car the "Driver Declaration" form shall be completed showing which driver will be in the car for each session.
- c) Any change to the drivers participating in a session from what was declared on the driver's declaration form shall be provided to the Clerk prior to the session in which the change is to take effect.
- d) CASC-OR will publish a driver declaration form which shall be used for this purpose.

2.1.5 OFFICIAL EVENT PROGRAM

Any program offered to the public by the organizers shall contain the following information:

- a) The words "Official Program" in prominent lettering and the CASC-OR emblem on the front cover;
- b) A conspicuous announcement: "Held under the CASC-OR General Competition Rules";
- c) The name of the organizer;
- d) Name, location and date of the Event;
- e) Schedule of proposed Competitions;
- f) The CASC-OR website address.

2.1.6 NUMBER OF ENTRIES TO BE STARTED IN RACES

- a) The maximum number of Cars, which may be on course at the same time, shall be 25 per mile, or proportion thereof.
- b) CASC-OR may authorize an increase in this number.

2.1.7 MINIMUM MEDICAL, FIRE AND RESCUE REQUIREMENTS

The following minimum requirements shall be in effect while a Competition is in progress:

- a) Medical, fire and rescue services as specified in Appendix F – Medical, Fire and Rescue, hereto;

- b) Fire equipment in the pits, false grid and impound area as specified in Appendix G – Rules of the Pits and Paddock, hereto;
- c) A written plan to cope with major emergencies;
- d) Driver Schools ONLY: The minimum requirements for these events are specified in Appendix A – Drivers Schools, hereto.

2.1.8 INSURANCE

ASN Canada FIA is the holder of a Master Policy for Motorsport Competitions of which CASC-OR and its member clubs and organizers and promoters are named insured.

CASC-OR requires that Public Liability and Participant Accident Insurance cover all sanctioned Competitions. For all Competitions, minimum coverage shall be \$5,000,000.00 Spectator Liability, \$5,000,000.00 Participant Legal Liability, \$25,000.00 Accidental Death and Dismemberment, and \$100.00/wk. for 104 wk. Weekly Indemnity. Details of coverage required may be obtained from CASC-OR.

A copy of the insurance certificate shall be provided to the CASC-OR office no less than seven (7) days prior to any sanctioned event organized by a CASC-OR club.

2.2 CLASSIFICATION OF EVENTS

Events sanctioned by CASC-OR shall be classified according to the persons eligible to take part, the categories of Cars eligible to participate, and the awards offered.

2.2.1 CASC-OR EVENTS

CASC-OR may grant sanctions to organize various classes of Events – including Races and Driver Schools - to be conducted in accordance with these Regulations:

2.2.2 CLASS GROUPING OF CARS

- a) With the exception of Vintage Historic cars as noted in 2.2.2 b), Open- and Closed-wheel Cars may not compete together.
- b) Vintage Historic (pre-1972 era) Open- and Closed-wheel Cars may compete together providing the individual maximum weight of the Closed-wheel Car does not exceed 2500 lbs. An exemption to compete with Open-wheel cars may be granted, on an individual basis, for Closed-wheel Cars that weigh more than 2500 lbs., which do not meet the G70+ safety requirements, providing the maximum calculated energy developed does not exceed 2.11 million Joules. The formula for the calculation of energy shall be $E = 0.5 \times M \times V^2$, where M is the mass expressed in kilograms and V is maximum velocity in meters per second. Application for any exemption shall be made to the [VARAC Race Director](#).
- c) Sports Racing Cars shall normally run with an open wheel grid unless otherwise classified by the Region Chief Scrutineer or designate.

2.3 GRIDGING AND STARTING

2.3.1 GRIDGING

- a) Gridging shall be by qualifying times or by the results of the previous heat Race. All qualifying laps shall be timed. Cars not timed in qualifying shall be placed at the back of the grid behind the slowest qualified car in the session in the order approved by the Clerk. The fastest car shall be on the pole position with subsequent slower cars behind it. It shall be the Car/Driver combination which qualifies for a starting position. In the case of a tie in qualifying times, the second fastest lap, then the third fastest lap, and so on will be used to break the tie.

If a back-up car is used, it shall start behind the last qualifier in the class. See Appendix P – Race Ontario Series Regulations, Section 5.3.

F1600 grids for the first race of an event shall be determined by qualifying times. Grids for the second race of an event will be determined by the fastest lap in race #1. Grids for the third race of an event will be determined by the fastest lap in race #2.

- b) Other methods of determining grid position may be approved by CASC-OR and shall be included in the Series or Supplementary Regulations.

The pole position shall be as follows:

- i. when the first turn after the start is to the right, the pole position shall be to the right;
 - ii. when the first turn after the start is to the left, the pole position shall be to the left.
- c) The pole position winner shall have the right to choose the outside pole position if he or she so desires. This request shall be made to the False Grid Marshal at least 5 minutes prior to Cars leaving the False Grid. Only the front row of the grid shall be affected by this choice, with all subsequent positions from 3rd back remaining unchanged.
 - d) Notification shall be shown on the False Grid indicating three minutes before Cars are released from the False Grid. The five, two and one-minute notifications should be given.
 - e) Cars arriving at the False Grid after the three-minute notification shall be gridded at the back of the grid or if the field has left, will be governed by 2.3.1f) below. When ordered by an official, Cars shall leave the False Grid and enter the Pits or Racetrack.
 - f) Cars unable to start when the field leaves the False Grid may be held at the starting line, at Pit Out, or dispatched on the pace lap to assume a position at the rear of the field, at the discretion of the Clerk. Cars held at the starting line or Pit Out shall be allowed to join at the rear of the field after the Starting Flag has been shown.
 - g) A driver who does not complete a timed lap in either practice or qualifying and who has never raced at the track where the event is being held must obtain permission from the Clerk before they may compete in a race.

2.3.2 STARTS

- a) There shall be two methods of starting:
 - i. A rolling start occurs when the Cars are moving at the moment the starting signal is given. To achieve a rolling start, the Cars may be led by a Pace Car until the starting signal is given. Rolling starts are the standard for all Races but CASC-OR may approve the use of a standing start on an individual Competition or Series basis.
 - ii. A standing start occurs when the Cars are stationary at the moment the starting signal is given.
- b) Drivers and Cars shall come under the order of the Starter at the time they leave the False Grid to enter the Course.
- c) To be considered a starter, a Car must enter the Track before the checkered flag is displayed.
- d) A false start has occurred when a Car under the Starter's orders improves its prescribed position before the start. In the case of a rolling start, this shall refer to moving out of line or passing prior to the start. In the case of a standing start this shall refer to moving forward prior to the start.

2.3.3 ROLLING START

- a) Cars may be held briefly on the grid or Racetrack as appropriate until ordered by the Starter to begin the pace lap. Races shall begin with a minimum of one pace lap. A Pace Car may be used to control the field. See Guidelines for Pace Car Starts, Section 2.4, below.
- b) On the pace lap the Car in pole position shall maintain a steady pace until the start flag is shown. Cars shall not move from their prescribed starting position, immediately behind the Car in front, before the start flag is shown. After the pace lap is underway, any vacant grid positions shall remain vacant.
- c) There shall be no overtaking during pace laps.
- d) During the pace lap the Starter shall remain motionless with the start flag hidden and no other flags visible. Upon determining that the approaching field is in satisfactory order the Starter

shall suddenly and continuously wave the start flag. The Race shall be underway the instant the start flag is waved.

- e) If the approaching field is not in order and a further pace lap is required, the Starter shall make no flag movement and at the same time shall shake his/her head in a negative manner. This shall inform the Drivers of a "No Start" and to proceed on another pace lap.
- f) Should drivers lose their original grid position as a result of a "non-start" they shall be allowed to resume that position on the additional pace lap without incurring any penalty provided such resumption of position is completed in a safe manner as soon as reasonably possible.
- g) Additional pace laps resulting from a "non-start" shall be scored as Race laps and in the case of elapsed time Races the clock shall start when the lead Car crosses the start finish line at the end of the prescribed pace lap.
- h) Cars, which fall out of position on the pace lap, shall relinquish their position and shall join the Competition at the rear of the field.
- i) Split rolling starts may be used when a large speed differential or large differential in cornering ability exists between two classes in the same Race.

2.3.4 STANDING START

- a) If a standing start is to be used, the procedure shall be described in Series or Supplementary Regulations and approved by CASC-OR.
- b) It is highly recommended that the standing start procedure and starting light system described in the current **ASN Canada FIA** Regulations be used.

2.3.5 STARTING LINE

- a) For a rolling start, the starting line shall be the line on the crossing of which the timing commences.
- b) For a standing start, the starting line shall be the line in relation to which the position of each Car is fixed prior to the start.

2.3.6 RAIN RACE PROCEDURE

- a) If a Race is started in the dry and it starts to rain, the Clerk may stop the Race by displaying the Checkered Flag if more than half the number of laps/amount of time specified in the Supplementary Regulations has been run.
- b) If the Race has not reached the halfway point the Black Flag with "ALL" may be displayed. Drivers shall complete the current lap and return to the pits. After 15 minutes to allow a tire change, Cars may be restarted in single file behind the Pace Car for one lap in the order in which the Cars passed the start/finish line on the leader's last completed lap prior to the black flags being displayed.

2.3.7 STOPPING A PRACTICE SESSION

To stop practice sessions a checkered flag may be shown at another location, specified in the Supplementary Regulations, in addition to the Start/Finish. Immediately upon receiving a checkered flag at these Stations, Competitors shall proceed directly to the Pits.

2.3.8 STOPPING A COMPETITION

If it is necessary to stop a Competition, the procedures outlined in Appendix H – Flag and Light Signals and Rules of the Road, Section 3.3 shall be used.

2.3.9 RESTARTS

The following procedure shall be followed to restart a Race after the display of the red flag:

- a) If the lead Car has completed less than two laps at the time the Red Flag is displayed, the original start shall be deemed null and void and the Competition shall be restarted according to the original starting positions and be run the complete scheduled length unless the length of the race is shortened due to time or other constraints. If some of the original Cars are unable to start, the grid shall be adjusted with no vacant spaces. Cars may be worked on in the pits

or on the grid. If work is carried out on the grid, this work shall be done in the car's correct grid position and shall in no way impede the restart.

- b) If the lead Car has completed two or more laps at the time the red flag is displayed, the Competition shall be re-gridded with the Cars in single file in the order in which the Cars passed the start/finish line on the leader's last completed lap prior to the red flag being displayed. No work or service may be performed on the cars unless otherwise permitted by the Supplementary Regulations or by the Clerk.

2.3.10 SHORTENED RACES

- a) A Race that is stopped at 50 percent or more of its scheduled distance/time and is not re-started shall be considered complete and shall be scored as of the last completely scored lap (even if that lap is less than 50% of the scheduled distance).
- b) A Race that is stopped at less than 50 percent of its scheduled distance/time and is not re-started shall be considered incomplete. Championship points shall not be awarded, and organizers shall not be required to distribute trophies or other awards.

2.3.11 DEAD HEATS

In case of a dead heat, the Competitors concerned shall share the awards allotted to their places in the results.

2.3.12 FINISHING

- a) The Starter shall show a "Last Lap" signboard at the appropriate time.
- b) A Race shall end after the prescribed number of laps has been completed or the allocated time has elapsed, and the checkered flag has been shown.
- c) The Checkered Flag normally shall be displayed first to the winner as he completes the prescribed distance of the course, and then to the other finishers as they cross the finish line.
- d) The winner shall be the Competitor who covers the prescribed distance of the Competition in the least time, or the greatest distance within the prescribed time of the Competition, unless the Race is shortened, in which case the leader at that point who takes the Checkered Flag is the winner provided that the Race is completed.
- e) In timed duration Races if the winning Car is not running at the expiration of the time specified for completion, the Checkered Flag shall be displayed to the highest placing Car still running, i.e., the winner is not required to take the Checkered Flag.
- f) Should the Checkered Flag be shown early, the Race shall end at that point.
- g) Should the Checkered Flag be shown late, the leader at the prescribed number of laps, or the allocated time, shall be the winner, and the finishing order shall be taken from that lap.
- h) The finish line extends across the track to the pit wall and includes the Pit Lane.
- i) In order to be considered a finisher, a car shall complete that number of laps equal to 50% of the class winner's laps. The number of laps completed shall be rounded down to the nearest whole integer.

2.3.13 SERVICE VEHICLES

Immediately following completion of any session and including cool down laps, Service vehicles, Wreckers, or Flatbeds may proceed onto the track from Pit Out and/or Emergency Vehicle stations around the track to remove disabled racecars.

2.3.14 TIMING AND SCORING

- a) For rolling starts, the timing and scoring shall commence when the leading Car crosses the control line.
- b) For a standing start, the timing and scoring shall commence at the starter's signal, or, if an automatic timing apparatus is used, at the moment it is operated.
- c) The completion of the first and subsequent laps shall be timed and scored when the car crosses the control line.

- d) All Race laps shall be timed.

2.3.15 CROSSING A CONTROL LINE

A Car crosses a control line when any portion of the Car first intercepts the vertical plane of the control line, as observed by the Officials assigned to record the passage, who may be aided by suitable automatic or semi-automatic equipment. The control line extends across the Course to the pit wall and includes the pit lane.

2.3.16 VICTORY LAPS

The Clerk may offer winning Drivers an opportunity to take a Victory Lap driven at non-racing speed with the Checkered Flag and may permit suitably equipped Cars to carry a passenger on the Victory Lap provided that the passenger is 18 years or older and has signed the insurance waiver. It is recommended that the passenger wear an approved helmet.

2.3.17 RESULTS

The results shall be titled "Provisional Results" and shall include the following.

- a) The location of event, date, name and/or logo of organizing club, CASC-OR logo, length of course and name and/or logo of series sponsor.
- b) The total number of entries, including DNF's and DNS's, the overall and class finishing positions for all entrants, the number of laps completed by all entrants, the overall time of each entrant (for races only), each entrant's time interval ahead of the next entrant, the fastest lap time for each entrant and new course records.
- c) The driver's full name, hometown, state/province, club affiliation, car number, car make & model, and sponsor.

Finishing positions shall be determined according to the number of laps completed regardless of whether or not a Car is running at the end of the Race. Cars finishing a given number of laps shall be ranked in the order in which they completed that number of laps. Cars shall be ranked on their last fully completed lap.

When a car is disqualified, excluded, or withdrawn, the results shall list that car at the bottom of the finishing order, below the DNF's and above the DNS's.

Provisional results for each race and qualifying session shall be posted in the paddock within 30 minutes of that race or qualifying session. Copies shall be made available to be picked up by Entrants at the track.

- d) Results shall be marked as Official after all outstanding protests and penalties have been dealt with and all Appeals have concluded.
- e) ***The Official results should be sent to the Regional Chief Points Keeper as soon as possible after the event completes.***

2.4 PACE/SAFETY CAR - GENERAL REQUIREMENTS

A suitable Pace/Safety Car and qualified staff to operate it shall be provided for each Event. Only working Officials shall be permitted in the Pace/Safety Car during a race or pace lap. The Pace/Safety Car shall have high intensity roof mounted flashing lights visible from both the front and rear, or carry a yellow flag, and shall have radio communication with Race Control.

Only the Clerk may order the dispatch of a Pace/Safety Car for safety reasons to slow down and close up the Cars. It shall remain on stand-by ready for dispatch at all times during Competition and may be used at any time to control the Cars if

- i. the Course is partially obstructed due to an accident; or
- ii. if it is necessary for the marshals to expose themselves to unusual danger, or other such condition that the Clerk feels warrants such a procedure.

- 2.4.1 It shall be referred to as the 'PACE CAR' for the start of the race and subsequently as the 'SAFETY CAR'.

2.5 GUIDELINES FOR PACE CAR STARTS

2.5.1 After the entire grid starts rolling behind the Pace Car, the Pace Car shall gradually speed up to approximately 80 – 100 km/h and shall try to maintain that speed unless otherwise directed by the Clerk to:

- Corner 7 Flagger's Station at Canadian Tire Motorsport Park;
- End of the back straight at Shannonville Motorsport Park;
- Corner 16 Flagger's Station at Calabogie Motorsports Park

At that point the Pace Car shall slow down to approximately 70 km/h and the cars shall form into the proper starting lineup. Cars shall not continue to weave.

2.5.2 At Canadian Tire Motorsport Park, the Pace Car shall reduce speed to approximately 60 km/h entering corner 9 and shall enter the pit entrance between Corners 9 and 10.

2.5.3 At Shannonville Motorsport Park, the Pace Car shall reduce speed to approximately 60 km/h entering Corner 13 and shall enter the pit entrance between Corners 13 and 14.

2.5.4 At Calabogie Motorsports Park, the Pace Car shall reduce speed to approximately 60 km/h entering Turn 17 and shall enter the pit entrance between Corners 18 + 19.

2.5.5 During the starting procedure the Pace Car shall not be passed on the track or entering the pit lane.

2.5.6 The front row of the grid shall continue at the speed set by the Pace Car until the starting signal is given.

2.6 RESTART PROCEDURE

2.6.1 When the Safety Car is used during Competition, the following procedure shall be followed:

- a) The Clerk shall order the display of double steady yellow flags at all marshal stations around the course.
- b) Appropriate flags shall be waved at the stations preceding the incident.
- c) When the yellow flags are displayed at all marshaling stations, the Safety Car may be dispatched.
- d) The Safety Car shall turn on the lights or display the yellow flag and endeavour to enter the Course directly in front of the lead Car. Should it fail to do so, and when so instructed by Race Control, the other Cars shall be waved past until the lead Car is directly behind the Safety Car. The other Cars shall carefully close up until they are running in single file behind the Race leader.
- e) Unless directed to do so by Officials in the Safety Car, no Car may pass the Safety Car.
- f) When a service vehicle is dispatched while the Safety Car is in use, the white flag shall be used in the normal way in addition to the yellow flags. In normal practice the white flag will not be used to indicate the presence of the Safety Car on the Course. However, it may be waved to indicate the back of the pack as an advisory to approaching race cars.
- g) Prior to a restart, the Safety Car shall extinguish the flashing lights, or withdraw the yellow flag, at least three (3) flag stations before the Start/Finish line, and at the same time, one (1) yellow flag shall be withdrawn at all marshal stations. The Safety Car shall exit to the pits upon reaching the pit entrance and the marshals shall withdraw their remaining yellow flag when the Starter shows the green flag.
- h) The Starter will show the green flag provided the field is in good order. If the starter does not show the green flag, the field will continue in single file behind the Race leader.

2.7 SCORING OF PACED LAPS

All laps under the control of the Pace/Safety Car shall be counted as Race laps.

3 ENTRANTS AND DRIVERS

3.1 CASC-OR RACE LICENCES

3.1.1 CASC-OR shall establish standards for granting CASC-OR Race Licences, including:

- a) CASC-OR Probationary Race Licence;
- b) CASC-OR Regional Race Licence.
- c) CASC-OR Temporary Race Licence

3.1.2 Procedures for application for and granting these licences are contained in Appendix E – Licences, hereto.

3.1.3 DISPLAY OF CASC-OR LOGO ON COMPETING VEHICLES

All vehicles competing in a CASC-OR sanctioned event shall display a CASC-OR logo in a position clearly visible in a front three-quarter view of the vehicle. Additional logos and/or positions may be required by subsequent rules and regulations.

3.2 PRESENTATION OF LICENCE

Drivers shall show their licence to an Official on demand.

3.3 PREFERRED NAMES

3.3.1 If a licence is requested in a preferred name, special application therefore shall be made to CASC-OR, which may if it sees fit, issue a licence in such name.

3.3.2 Persons granted a licence in an assumed name shall, so long as they hold a licence in that name, not take part in any Competition except under the name shown on such licence.

3.4 MEDICAL RESPONSIBILITY OF DRIVER

3.4.1 Drivers shall not compete in any Competition unless a physician has examined them within the period specified in Appendix E – Licences, hereto, and has been certified by the physician in writing to be medically fit to drive in Car Competition.

3.4.2 A licence holder who suffers an injury or is diagnosed with an illness that may reasonably have the potential to affect, or may progress to affect, his or her medical fitness to drive in Competition shall report the illness or injury to the CASC-OR Chief Medical Officer (CMO). In the absence of the CMO, the report shall be made to the CASC-OR Race Director exclusive of the specific detailed medical information. The Race Director shall, in consultation with the CASC-OR Board, arrange for a consultation with a CMO Designate to make the determination of medical fitness or a referral for a fitness assessment from a medical specialist who is acceptable to both the license holder and the CMO before competing in further competition. The CMO/CMO Designate/Race Director may require a medical certification of fitness to compete or a medical assessment.

3.4.3 A Driver involved in an incident in which their vehicle rolls over, collides with a stationary object hard enough to cause structural damage to the Car, or causes possible physical injury to the Driver, or who is directed by an Official to do so, shall report to the Chief Medical Officer at the event.

3.4.3.1 The Driver involved in the incident will require the Chief Medical Officer's (CMO) approval in writing to the Clerk before being permitted to re-join the competition.

3.4.4 A Driver who fails to report to the Chief Medical Officer at the Event in accordance with 3.4.3 above, may have his or her licence suspended by the Race Director until such time as he or she is determined to be medically fit to drive in Competition by the CASC-OR Chief Medical Officer, as set out in 3.4.2 above.

4 OFFICIALS

4.1 CHIEF OFFICIALS

4.1.1 The staff of Chief Officials, whose duty it may be to direct the control of the Event may include:

- a) Steward(s) of the Event;
- b) Clerk **of the Course**;
- c) Event Chief Medical Officer;
- d) Emergency Services Officer;
- e) Secretary of the Meeting;
- f) Chief Timekeeper;
- g) Chief Scrutineer;
- h) Chief Pit Lane Official;
- i) Chief Starter;
- j) Judges of Fact;
- k) Chief Course Marshal;
- l) Chief Grid Marshal;
- m) Chief Registrar;
- n) Event Chief Instructor

4.1.2 They shall be termed "Officials" and may have assistants to whom any of their duties may be delegated. Chief Officials shall be at least eighteen (18) years of age.

4.1.3 Clerks, Assistant Clerks, Stewards of the Event, Scrutineers, Pit Lane Officials and Marshals shall hold CASC-OR licences as outlined in Appendix E – Licences, of these Rules and Regulations.

4.2 REQUIRED OFFICIALS

4.2.1 REQUIRED OFFICIALS

- a) At an Event, other than Driver Schools, there shall be at least three Stewards of the Event, a Clerk, a Scrutineer, a Timekeeper a Judge(s) of Fact and an Event Chief Instructor. CASC-OR may, at their discretion, increase or reduce the number of Stewards required.
- b) At a Driver School, there shall be an Event Chief Instructor.

4.2.2 APPOINTMENT OF OFFICIALS

The Stewards of the Event shall be appointed by CASC-OR. The organizers, subject to the approval of CASC-OR, shall appoint all other Officials.

4.2.3 PLURALITY OF DUTIES

The same person may hold more than one Official position except for the Clerk and the Stewards of the Event who shall have no plurality of duties.

4.3 DUTIES OF THE CLERK **OF THE COURSE**

4.3.1 The Clerk **of the Course** shall be present throughout the competition in order to carry out the specified duties. In the case of an event comprising several competitions there may be a different Clerk for each competition.

He or she shall hold a Clerk's licence issued by CASC-OR and valid for that grade of event (see Appendix E – Licences, hereto) and is responsible for executing the event and other activities safely and in accordance with the regulations, by controlling drivers, their cars, the officials, and workers from

the commencement of activities until the time for protests from the last competition has expired. The Clerk shall also:

- a) ensure that all relevant regulations are complied with and that all the equipment needed to do so is at hand or in use as appropriate;
- b) ascertain whether Officials are at their posts, and report the absence of any of them to the Stewards of the Event;
- c) ensure that all Officials are provided with necessary information;
- d) prevent an ineligible Driver or Car from competing;
- e) ensure that a Competitor unable to produce any document necessary to prove his/her eligibility at an Event does not compete without the approval of the Stewards of the Event;
- f) ensure that accidents or incidents involving competing vehicles are reported to the Stewards of the Event and the Chief Scrutineer, and that the Chief Medical Officer is informed if any Competitor is injured;
- g) report to the Stewards of the Event before the start of the Event that the conditions of the permit and Course licence (where appropriate) have been fulfilled after the Clerk, or an appointed deputy, has inspected the Course and its installations;
- h) convey to the Stewards of the Event any proposal to modify the schedule of Competitions;
- i) receive protests from Entrants or Drivers and immediately transmit them to the Stewards of the Event;
- j) collect all reports and other official information necessary for the determination of results;
- k) prepare, or arrange with the Secretary of the Meeting to prepare, any information necessary to enable the Stewards of the Event to complete their report;
- l) convey to the Stewards of the Event a report of any breach of the Regulations or of any misbehavior of any Entrant, Driver, Crew, Official, or worker accompanied by a "Request for Action", if necessary;
- m) may assess the recommended minimum penalties defined in Appendix B – Fees and Minimum Penalties, Sections 2.4, 2.5 and 2.7 and in Appendix Q – Endurance Race Regulations, Section 11 for breaches of these regulations reported by a Judge of Fact. The penalty shall be Black Flag - Stop and Go unless otherwise specified. A written report, including any documentation, of these penalties shall be filed with the Stewards of the Event.
- n) make arrangements in conjunction with the Chief Medical Officer for medical checks to be carried out in respect of narcotics, dangerous drugs or alcohol;
- o) authorize removal of technical inspection stickers;
- p) direct Cars to be impounded at any time during the Event;
- q) at his/her discretion and without necessarily receiving a request to do so, order disassembly and inspection of any entered Car to ascertain its conformance with the Regulations.
- r) order the display of the Red or Black Flag when it is necessary to stop a Competition.

4.3.2 REQUEST FOR ACTION (RFA)

The Clerk may submit to the Stewards of the Event a "Request for Action" describing a suspected breach of the Regulations or of misbehavior by any Participant. The Stewards of the Event shall act on this request in the same manner as they would act on protest and shall have the same authority to levy penalties as in protest.

4.4 DUTIES OF THE SECRETARY OF THE MEETING

4.4.1 The Secretary of the Meeting shall be responsible for the organization of the Event as regards all planning required in connection therewith:

- a) the Secretary shall ensure that the Officials are acquainted with their duties and are provided with the necessary equipment;

- b) the Secretary shall be present throughout the Competition in order to assist the Clerk and the other Officials in running the Event;
- c) the Secretary shall be responsible for all paperwork prior to the Event;
- d) the Secretary shall maintain the official notice board;
- e) prior to the commencement of an event, the Secretary shall be responsible for supplying the Clerk with the Event Permit and Insurance and the Stewards of the Event with all appropriate documents including a copy of the Supplementary Regulations.

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4.5 DUTIES OF THE CHIEF TIMEKEEPER

4.5.1 The Chief Timekeeper shall be responsible for all timekeeping and lap scoring for the Competition.

The principal duties shall be:

- a) to use only such apparatus for timing as is approved by CASC-OR;
- b) to register such times as are appropriate having regard to the conditions of the Competition, or as required by the Clerk;
- c) to prepare and sign reports relating to the timing and lap scoring and to send them, with all necessary supporting documents to the Clerk;
- d) to send an electronic copy of the results of all sessions to the CASC-OR office by noon the day following the competition and, upon request, to send any and all timing or scoring supporting information to the CASC-OR office;
- e) to communicate any times or results only to the Stewards of the Event and the Clerk - or in accordance with their instructions;
- f) The Chief Timekeeper shall be the Judge of Fact in respect of timing and lap scoring matters.

4.6 DUTIES OF THE CHIEF SCRUTINEER

4.6.1 The Chief Scrutineer shall:

- a) ascertain that all Cars comply with the Regulations and that Driver Safety Equipment complies with the Regulations.
- b) when a Car is found to be ineligible, report the results of the weighing, inspection and disassembly, in writing, only to the Clerk and the Driver, or the designated representative of the Driver.
- c) report in writing to the Clerk any items of Driver Safety Equipment which do not comply with the Regulations.

4.7 DUTIES OF THE CHIEF PIT LANE OFFICIAL

4.7.1 The Chief Pit Lane Official shall ensure that pit procedures as laid down in the Regulations are adhered to, and shall specifically:

- a) observe all refueling and/or repairs of Cars during a Competition;
- b) ensure that the maximum number of Crew-members specified in the Regulations is not exceeded;
- c) immediately report to the Clerk any infringement committed by a Competitor;
- d) enforce all Pit regulations as specified in Appendices "G" – Rules of the Pits and Paddock, and "Q" – Endurance Race Regulations;
- e) set up and control pit speed measuring devices.
- f) The Pit Lane Officials shall be the Judges of Fact in respect of Pit Lane rule violations.

4.8 DUTIES OF THE CHIEF STARTER

4.8.1 The Starter shall operate directly under the supervision of the Clerk.

4.8.2 All competing Drivers shall be under the orders of the Starter at the time the Cars leave the False Grid to enter the course until the Competition is completed and all competing Cars have left the course.

4.8.3 It shall be the starter's responsibility to start the Competition with the starting flag and end the Competition with the checkered flag.

4.8.4 In the event of inclement weather and under instruction from the Clerk, the Starter shall display a "Lights On" sign and/or to display various other flags.

4.8.5 The numbers and letters used by Starters shall meet these standards:

- a) They shall be no less than 200mm (8in) high with a 38mm (1 1/2in) stroke;
- b) The distance between them shall be no less than the stroke of the digits or letters;
- c) They shall be shown on a contrasting background measuring 60cm x 80 cm minimum.

4.9 DUTIES OF THE CHIEF MEDICAL OFFICER

4.9.1 The Chief Medical Officer shall be a Physician and shall:

- a) Ensure that they - or the second Physician, Registered Nurse, EMT, Paramedic or equivalent – is always on call in Race Medical.
- b) Review the Event Emergency Plan and meet with the Emergency Services Officer.
- c) be familiar with the Coroner's Act of the Province.

4.10 DUTIES OF THE JUDGES OF FACT

- 4.10.1 Judges shall adjudicate on false starts; finishing order; violation of Pit Lane rules; blend line infractions; and any other facts to be judged as specified in the Supplementary Regulations.
- 4.10.2 A protest or appeal may not be made against the decision of a Judge, which shall be accepted as a fact and shall be final unless corrected as hereinafter provided.
- 4.10.3 The decision shall not constitute a statement of results, nor shall the Judge be empowered to impose a penalty.
- 4.10.4 Judges will report to the Clerk for the necessary action to be taken.
- 4.10.5 The Judge, with the approval of the Stewards of the Event, may correct a mistake by a Judge.
- 4.10.6 An Assistant Judge may be appointed to assist a Judge, or in the case of absolute necessity, to replace the primary Judge of Fact. In the Event of disagreement, the Judge shall give the decision.
- 4.10.7 In all cases where a penalty has been imposed as the result of a decision of a Judge, an appellant against the penalty shall be allowed full disclosure of all written or other evidence available.

4.11 DUTIES OF OBSERVERS

- 4.11.1 The Observers shall occupy posts along the Course assigned to them. Observers are under the orders of the Clerk, to whom they shall report by any means at their disposal (telephone, radio, courier, etc.) all incidents which occur on the section of the Course for which they are responsible.
- 4.11.2 Course Marshals may also act as Observers.

4.12 DUTIES OF THE CHIEF GRID MARSHAL

The Chief Grid Marshal shall be responsible for placing Cars in their grid positions on the False Grid and/or real grid. The Chief Grid Marshal shall ensure that all Cars entering the Track bear the scrutineering sticker indicating that they have entered and been scrutineered, and shall control entry to the Track at all times.

4.13 DUTIES OF THE CHIEF REGISTRAR

The Chief Registrar shall be responsible for checking, accepting and processing all entries and credentials for Drivers, crew, Officials, and all Participants, and for posting all required signs/placards in the registration area.

4.14 DUTIES OF THE CHIEF COURSE MARSHAL

- a) The Chief Course Marshal shall ensure that all corners are properly manned and equipped.
- b) The Chief Course Marshall shall convey any information deemed necessary to Race Control.
- c) The Chief Course Marshal shall ensure that copies of the telephone log are given to the Clerk.
- d) The Chief Course Marshal shall appoint senior marshals - who shall have documented records of experience – to each marshal Station and they shall be in complete charge of stations.

4.15 DUTIES OF THE EVENT CHIEF INSTRUCTOR

The Event Chief Instructor will fulfill all those duties described in Appendix E – Licences, Section 3.4 and/or as designated by the Regional Chief Instructor or CASC-OR Race Director.

4.16 DUTIES OF THE EMERGENCY SERVICES OFFICER

The Emergency Services Officer shall:

- a) Ensure that all medical and emergency services facilities and vehicles are adequately equipped and staffed in accordance with Appendix F – Medical, Fire and Rescue, hereto and the Event Emergency Plan.
- b) Ensure that all medical and emergency services staff are familiar with all requirements of the Event Emergency Plan.
- c) Review the Event Emergency Plan with the Chief Medical Officer.
- d) Obtain the approval of the Clerk for the locations of all emergency vehicles.
- e) Brief the crew of the Road Ambulance on relevant sections of the Event Emergency Plan and procedures on how to enter and exit the track.
- f) Ensure that Race Medical is open and operational.
- g) Report to the Clerk, when satisfied that all medical and emergency services are adequate for Competition to begin.

APPENDIX A – DRIVERS SCHOOLS

1 GENERAL PROVISIONS FOR DRIVER SCHOOLS

1.1 ORGANIZATION OF DRIVER SCHOOLS

CASC-OR and its member clubs may organize Driver Schools, which result in the granting of Competition licences. This section is a guide to the requirements and organization of such schools. These are minimum requirements only.

1.2 STUDENT REQUIREMENTS

1.2.1 In order to be eligible to participate in a CASC-OR Driver School, each prospective student shall:

- a) Be an affiliated member of a CASC-OR member club.
- b) Hold a valid provincial or state driver's licence.
- c) Have passed the specified ASN medical examination for a first-time applicant.
- d) Applicants who are 15 years old shall meet the following requirements:
 - Have achieved their fifteenth birthday - no exceptions.
 - Produce a valid karting licence issued by **ASN Canada FIA** or an ASN-affiliated kart club.
 - Proof of competing in at least two full seasons of ASN-sanctioned kart racing.
 - Have successfully completed an ASN-recognized Race driving school.

2 COURSE ORGANIZATION

2.1 REGIONAL CHIEF INSTRUCTOR

2.1.1 The Race Director shall appoint a Regional Chief Instructor.

2.2 THE DUTIES OF THE REGIONAL CHIEF INSTRUCTOR

2.2.1 The duties of the Regional Chief Instructor include:

- a) organize CASC-OR driving schools
- b) approve and monitor driving schools organized by CASC-OR member clubs
- c) approve licensing of race instructors
- d) evaluate performance of drivers seeking re-instatement of their competition licence or an upgrade of an existing Competition Licence.
- e) arrange mentoring for novice drivers
- f) on request from clerk/stewards arrange further evaluation of a driver
- g) appoint a qualified person to observe and evaluate driver schools run by CASC-OR member clubs

2.2.2 The Regional Chief Instructor shall report to the CASC-OR Race Director.

2.3 INSTRUCTORS

- 2.3.1 Instructors shall hold a current CASC-OR Instructor's licence.
- 2.3.2 The names and addresses of the proposed instructors, along with details of their experience and qualifications, shall be submitted to CASC-OR by the Regional Chief Instructor requesting the issue of instructor licences.
- 2.3.3 One of the instructors at each school shall be designated as the Event Chief Instructor and it will be his or her responsibility to ensure that the requirements of the CASC-OR curriculum are met.

2.4 PERMIT REQUIREMENTS

A permit is required from CASC-OR that shall be prominently displayed at the school.

2.5 CLASSROOM INSTRUCTION

A classroom session shall be held to instruct the students on the basic requirements such as documentation, rules and regulations, flag signals, duties of various Officials as described in the CASC-OR Regulations with a current copy provided to each student at the beginning of the school. Each student shall complete a written test at the end of the school.

2.6 PRACTICAL INSTRUCTION

The practical instruction of the students on the course shall be carried out simulating actual Competition conditions in Cars fitted with seat belts and with Drivers and Instructors wearing helmets meeting the current CASC-OR standards.

Cars with permanently fixed steel roofs but without roll cages will be permitted to enter the instructional portion of the school but are not permitted to participate in any form of wheel to wheel Competition, even if that Competition is included as part of the school.

2.7 COMPETITION LICENCE APPLICATION FOR GRADUATES

Students who have successfully completed the school may apply for a CASC-OR competition licence. This application shall be made within twelve months of completing the school.

3 REQUIRED SERVICES

- a) 1 ambulance with paramedic(s)
- b) 1 track services vehicle with brooms, speedy dry and spreader
- c) enough marshals to man stations giving line-of-sight around the track
- d) manned stations to be equipped with at least one 10lb fire extinguisher, a communication system in contact with control and a set of flags

4 PROFESSIONALLY ORGANIZED DRIVER SCHOOLS

4.1 APPROVAL OF PROFESSIONALLY ORGANIZED SCHOOLS

In addition to schools organized by CASC-OR and clubs, the Regional Chief Instructor may approve certain professionally organized driver training schools. Successful completion of the course at such approved schools

will qualify the student for a regional licence, subject to the provision that the applicant completes the CASC-OR written exam successfully.

4.2 AVAILABILITY OF PROFESSIONAL SCHOOL INFORMATION

A list of currently approved professional schools is available from CASC-OR.

4.3 APPLICATION FOR SCHOOL APPROVAL

Application for approval of a school shall be made in writing to the Regional Chief Instructor.

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APPENDIX B – FEES AND MINIMUM PENALTIES

1 FEES

1.1 PROTEST FEE

- a) The fee required to place a Protest is \$100.00
- b) The fee shall only be returned if the protest is deemed well founded or if so directed by the Stewards of the Event.

1.2 APPEAL FEE

- a) The fee required to place an Appeal is \$200.00
- b) The fee shall only be returned if the appeal is deemed well founded or if so directed by the Appeal Board.

1.3 SANCTION AND PERMIT FEES

For Sanction and Permit fees contact CASC-OR Office.

2 RECOMMENDED MINIMUM PENALTIES

More severe penalties than those listed herein may be assessed. Multiple/repeat offences may incur additional penalties. If the first and second offences occur in separate sessions on the same weekend, penalties shall be imposed as if three (3) offences had occurred. Listed penalties should normally be applied on a finding of rule contravention. Mitigated sanctions may be applied at the discretion of the hearing tribunal.

2.1 PASSING IN A YELLOW ZONE

2.1.1 DURING PRACTICE

- a) Upon first offence, the offending driver shall be placed behind the last qualified car in class for the next race.
- b) Upon second offence, the offending driver shall be excluded from the next qualifying session. If all qualifying has already occurred, the driver shall start from pit out, last in line to depart.
- c) Upon third offence, the offending driver shall be excluded from the event, and recommendation shall be made to CASC-OR to suspend competition privileges for at least 3 months.

2.1.2 DURING QUALIFYING

- a) Upon first offence, the offending driver shall be placed behind the last qualified car in the class.
- b) Upon second offence, the offending driver shall start their race from the pit lane last in line to depart.
- c) Upon third offence, the offending driver shall be excluded from the event and recommendation shall be made to CASC-OR to suspend competition privileges for at least 3 months.

2.1.3 DURING A RACE

- a) Upon first offence, the offending driver shall be moved to last finisher in the class.
- b) Upon second offence, the offending driver shall be excluded from the results.
- c) Upon third offence, the offending driver shall be excluded from the event and recommendation will be made to CASC-OR to suspend competition privileges for 3 months.

2.2 ILLEGAL SAFETY EQUIPMENT (CLOTHING)

- a) Upon first offence, a \$100 fine will be assessed for each and every item not meeting the regulations. The offending driver shall produce correct apparel to the Scrutineer before being allowed to compete again.
- b) Upon a second offence at the same event, the driver may be excluded from the event.

2.3 UNDERWEIGHT CARS

Cars found to be underweight shall be excluded from the results.

2.4 VIOLATION OF THE PIT OUT BLEND LINE

2.4.1 DURING PRACTICE

- a) Upon first offence, the offending driver shall lose their fastest qualifying time.
- b) Upon second offence, qualifying times set by the offending Driver will be excluded.

2.4.2 DURING QUALIFYING

- a) Upon first offence, the offending driver shall be placed behind the last qualified car in the class.
- b) Upon second offence, the offending driver shall start the race from the pit lane, last in line to depart.

2.4.3 DURING A RACE

The offending driver will be assessed a 1-minute penalty added to his or her overall race time, or brought into the Pits to serve a 30 second penalty for each offence.

2.5 VIOLATION OF THE PIT LANE SPEED LIMIT

2.5.1 DURING PRACTICE AND QUALIFYING

- a) Upon first offence, the offending driver will be moved one class position lower on the race grid.
- b) Upon second offence, the offending driver will be moved two class positions lower on the race grid.
- c) Upon third offence, the offending driver will be excluded from the event and a recommendation will be made to CASC-OR to suspend competition privileges for 3 months.

2.5.2 DURING A RACE

- a) Upon first offence, the offending driver shall be moved one class finishing position lower in the results. In endurance-type races the driver may be brought into the pits to serve a penalty equal in time to one second per km/h over the limit. (e.g. 78km/h = 18 seconds stop penalty)
- b) Upon second offence, the offending driver shall be moved two (2) class finishing positions lower in the results.
- c) Upon third offence, the offending driver will be excluded from the event and a recommendation will be made to CASC-OR to suspend competition privileges for 3 months.

2.6 FAILURE TO OBEY A BLACK FLAG

Drivers who ignore a black flag shown with the Car number for more than 1 lap may be excluded from the results of the Competition.

2.7 JUMP OR FALSE START

Drivers who are reported to the Clerk by the Judge of Fact for having gained an advantage at the start of the race and before the display of the Green Flag may receive a Black Flag from the Clerk to serve a Stop + Go Penalty.

2.8 REFUSING TO DISASSEMBLE

Failure to comply with an order for mechanical disassembly shall result in exclusion from the Competition or the Event, and any additional penalties deemed appropriate by the Stewards of the Event.

APPENDIX C - GLOSSARY

Accessible: Capable of being reached.

Airfoil: Any device or part of a Car, which has a principle effect of creating aerodynamic down force.

Associate: To join or connect together.

Bodywork: All parts of the Car licked by the air stream and situated above a plane passing through the center of the wheel hubs with the exception of the roll cage. For Formula and Sports Racing Cars further exceptions are those units definitely associated with the function of the engine or transmission.

Drive shaft: The mechanical drive train coupling between transmission and differential, which may allow an angular displacement of the driving and driven axes by the use of universal, constant velocity, flex or slide joints.

Duct: A pipe, tube or channel that conveys a substance.

Enclose: To close in, to surround.

Fairing: A member or structure whose primary function is to produce a smooth outline to reduce drag or air resistance.

Firewall: A metal bulkhead separating Driver's compartment from engine room preventing the passage of flame and debris. Metal ducts may penetrate the firewall but shall begin and end outside the Driver's compartment. No intakes are allowed in the firewall.

Intake: An opening through which fluid/air enters an enclosure.

Lubricant: A substance which can be interposed between moving parts of machinery to make surfaces slippery, reduce friction, and prevent sticking between the lubricated surfaces.

Metallic: Made of metal.

Outline: A line that marks the outer limits of an object or figure.

Production Car: A car which meets the North American Global Manufacturing standards.

Restrictive: Serving or tending to restrict or regulate.

Specification: A detailed precise presentation of something.

Surround: To enclose on all sides.

Suspension:

- a) MacPherson/Champion Strut: MacPherson/Champion Strut suspension consists of three pivoting attachment points including a single upper attachment point. The spindle is mounted on a telescoping post with no vertical movement at the top attachment point.
- b) Trailing Arm: Pivot points are forward of the axle center-line and are perpendicular to the longitudinal centerline.
- c) Semi-Trailing Arm: Pivot points are forward of the axle center-line with the forward pivot closer to the axle center-line than the outboard pivot.
- d) Suspension Components: Linkage connecting spindles, hub carriers or axles to the chassis allowing control of vertical movement and may carry longitudinal, lateral, and vertical loads.

Suspension Stabilizer: Linkage connecting axle or DeDion tube to the chassis, which controls lateral suspension location. (Some types of stabilizers may also serve as Suspension Components.)

Anti-roll Bar or Anti-sway Bar (ARB): A torsion bar or tube linked between the suspension and the chassis to control the chassis roll. (Some types of ARB may also serve as suspension component.)

Venturi: (Carburetor) A short tube or permanent part that is constricted in the center used for measuring airflow and thereby controlling fuel functions. It is not a jet.

Visible: Capability of being seen, perceptible to the eye, apparent, evident.

Wheel: Flange and rim.

Wheel Complete: Flange, rim, and tire.

Vehicle Track: Track is defined as the distance between the center-lines of the tire treads as raced, but without Driver, measured at a horizontal plane through the wheel hub center-line. (In practice, the average between the tread center-lines at the front and rear of the tires on the axle in question.)

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APPENDIX D – PROTESTS AND APPEALS

"THE SPECIFIC PROCEDURE FOR LODGING A PROTEST OR APPEAL ARE DEFINED IN THE CASC-OR GENERAL COMPETITION REGULATIONS."

1 PROTESTS AGAINST RACE OFFICIALS

A notice of intention to protest against a Race Official shall be lodged within twenty (20) minutes after completion of the Competition or notification of the Official's action or as agreed upon by the Protestor and the Stewards of the Event.

2 PROCEDURAL PROTESTS

A notice of intention to protest against any mistake or irregularity occurring while a Competition is taking place or on a matter that only becomes evident during the Competition shall be lodged within twenty (20) minutes after the finish time of the Competition, or within such further time as the Stewards of the Event may deem reasonable. The protest shall be lodged within a time limit agreed upon by the protestor and the Stewards of the Event and shall be subject to scheduling constraints. This time limit shall be not less than forty-five (45) minutes.

3 PROTEST OF RESULTS

A protest concerning a Competitor's results in an Event, or the make up of heats, shall be made within thirty minutes of posting, in a manner previously designated by the organizer, of that Competitor's results or the make up of heats, or within such further time as the Supplementary Regulations may allow, or such time as the Stewards of the Event may think justifiable in order to make the lodging of a protest physically possible.

4 TIME LIMITS

If the results of a Competition are not posted within thirty minutes of the completion of the final Competition of the first day of a two-day Event, then a Competitor of that competition may lodge a protest on the following day up to thirty minutes before the start of their next Competition.

5 PUBLICATION OF RESULTS

If results are not made available within one (1) hour of the conclusion of the Event then the protest shall be delivered to the CASC-OR office in person, by mail, courier, telegram or facsimile or other electronic means within seven (7) days of the postmarked date of the mailing of results to all Competitors.

APPENDIX E - LICENCES

1 RACE DRIVER LICENCES

1.1 PRESENTATION OF LICENCES

It is the Competitor's responsibility to present a valid Race licence at registration.

1.2 RESIDENCY REQUIREMENTS

Residents of Canada shall have a CASC-OR, an **ASN Canada FIA**, or other **ASN Canada FIA** authorized Territorial Race licence to compete in a CASC-OR sanctioned Event subject to Section 1.4 below.

Only members of a CASC-OR affiliated club may accumulate points towards a CASC-OR championship.

Members of CASC-OR clubs that may hold other accredited licences, (e.g. SCCA, IMSA, INDYCAR, USAC/PWC, USAC, PWC, RCNA), may also accumulate points with prior approval from the CASC-OR Race Director.

1.3 ACCUS RACE LICENCES

Race licences issued to residents of the USA by one of the following ACCUS sanctioning organizations will be honored at the same level as issued: SCCA, IMSA and IRL.

1.4 RACE LICENCES FROM OTHER SANCTIONING BODIES

A Competitor who holds a Race licence issued by another recognized racing association including Porsche Club of America and a BMWCCA licence, but not SCCA, may participate as a guest in a CASC-OR sanctioned Event by invitation and with the prior approval of the CASC-OR Race Director. Guests may not accumulate points towards a CASC-OR Championship.

1.5 PARENTAL PERMISSION

Applicants under the legal age of majority in their home province shall present permission from a parent or guardian on the prescribed form available from the CASC-OR office. The form shall be signed and witnessed.

1.6 MINIMUM AGE REQUIREMENTS

Applicants for a CASC-OR competition licence must meet one of the following:

- 1.6.1 Applicants for their first CASC-OR Race licence shall be 16 years old or older and possess a valid provincial or state driving licence, or meet the criteria of 1.6.2.
- 1.6.2 Applicants who are 15 years old shall meet the following requirements:
 - Have achieved their fifteenth birthday - no exceptions.
 - Produce a valid karting licence issued by **ASN Canada FIA** or an ASN-affiliated kart club.
 - Proof of competing in at least two full seasons of ASN-sanctioned kart racing.
 - Have successfully completed an ASN-recognized Race driving school.
 - Have passed the normal ASN medical examination for a first-time applicant.

If successful, applicants may be issued a Junior Regional Race Licence which makes them eligible to compete in F1200, F1600, or equivalents of no greater performance or closed wheel cars under 2000 cc which are naturally aspirated.

Cars driven by junior drivers shall be identified by a rearward facing sign 20 cm (8 in) in diameter with a white "J" on a red background. The sign shall be clearly visible to following vehicles.

1.7 REDUCTION OF GRADE, SUSPENSION OR WITHDRAWAL OF LICENCE

Any licence issued by CASC-OR may be reduced in grade, suspended or withdrawn for sufficient cause at its sole discretion.

1.8 UNLICENCED ENTRY IN COMPETITION

A Competitor who participates in a practice, qualifying or race session without a valid Race driver's licence shall be prohibited from competing in CASC-OR events for a period of up to 12 months.

1.9 EXPIRY OF COMPETITION LICENCES

All Race licences expire on December 31 and become due for renewal on January 1.

1.10 COMPETITION RECORD CARDS

CASC-OR competition record cards for probationary drivers and drivers seeking to upgrade their licence shall be signed by a Licenced CASC-OR Class 'A' Instructor. A signature by a Steward can verify participation at an event but shall not apply toward a licence upgrade. All other drivers may request a signature if they so wish.

1.11 ELIGIBILITY BY EVALUATION

- a) Any licence applicant who has previously participated in some form of motorsport competition may apply directly to the Regional Chief Instructor or, in the Instructor's absence the CASC-OR Race Director, for an evaluation of his or her experience and a decision as to what steps the applicant must take to receive a competition licence as set out in Section (c) below.
- b) The following information should be included in an application to the Regional Chief Instructor:
 - i. name and date of any motorsport school successfully completed with the certificate, if one was available;
 - ii. documentation providing the sanctioning body, number, type and date of competitions in which the applicant has competed. This may be in the form of a log card; finishing results/year-end standings; or a statement from a division director outlining the experience.
 - iii. an outline of any experience in motorsport as an official, crew-member, or any pertinent involvement;
 - iv. an application for the level of licence being requested.
- c) The decisions in these cases will be one, or a combination of, the following:
 - i. the applicant shall be issued a licence;
 - ii. the applicant shall be observed during the practice session of a race event and a decision made at that time as to whether a licence should be issued, or the applicant denied a licence at that time and therefore not allowed to continue in the competition;
 - iii. the applicant shall be directed to participate in an "open practice" or "test day" at which a licenced instructor approved by the Regional Chief Instructor is present who shall complete the "Observation Report" form. The applicant may also be directed to successfully complete the written exam for a race licence. A licence shall be issued, or not, based on a combination of the evaluation made by the instructor and the exam results;
 - iv. the applicant shall be directed to complete one of the available schools recognized by CASC-OR.
- d) Every effort shall be made to inform the applicant of any shortcomings which must be addressed before a licence can be issued.

2 RACE LICENCE MEDICAL CERTIFICATES

2.1 MEDICAL REQUIREMENTS FOR COMPETITION

Drivers shall not participate in any Competition unless they meet, and continue to meet, the medical requirements of the competition licence held.

2.2 MEDICAL EXAMINATION

Drivers shall submit the report of a medical examination performed by a medical practitioner at the time of the initial application for a driver's competition licence. Medical examination reports shall be submitted every five (5) years for drivers ages 15-35; every two (2) years for drivers ages 36-59; and every year for drivers age sixty (60) plus. The medical reports shall certify the applicant to be medically fit to drive a car in speed events.

In years not requiring a medical examination, drivers shall submit a self-declaration form attesting to their physical and mental fitness to participate in motorsports.

2.3 ACCEPTED DOCUMENTATION

A licenced medical practitioner using only a CASC-OR approved medical form shall complete all examinations. CASC-OR reserves the right to refer any submitted medical form to a licenced medical practitioner of its own choice for review.

2.4 VALIDITY OF MEDICAL CERTIFICATES

Medical certificates shall be valid for six (6) months from the date of issue.

3 RACE LICENCE GRADES

3.1 GRADE 'B': PROBATIONARY RACE LICENCE

A Probationary Race Licence is valid for Race Events sanctioned by CASC-OR. Drivers using a Probationary Licence will place a black triangle to the lower right-hand corner of each of their vehicle's numbers, clearly visible to race officials.

3.2 GRADE 'A': RACE REGIONAL LICENCE

A Regional licence is valid for Race Events sanctioned by CASC-OR.

3.3 GRADE 'TEMPORARY': RACE REGIONAL LICENCE

A Temporary Licence is valid only for the event for which it has been issued and authorized for by the CASC-OR Race Director.

3.4 RACE LICENCE REQUIREMENTS AND PROGRESSION

3.4.1 A Grade 'B' Probationary Licence may be issued to:

- a) Applicants who have graduated from a CASC-OR approved driver school or driver education program, passed a medical examination, and possess a current CASC-OR Club membership;
- b) Applicants following an evaluation by the Regional Chief Instructor, the Event Chief Instructor or, in the Instructors absence, the CASC-OR Race Director;
- c) As the result of a reduction in licence level from a Grade 'A' to a Grade 'B' as assessed by the Stewards, the Regional Chief Instructor, the Event Chief Instructor or the CASC-OR Race Director

- 3.4.2 Drivers may advance to a Grade 'A' Regional Race Licence only when they have been approved for an upgrade by the Regional Chief Instructor, the Event Chief Instructor or in their absence, the CASC-OR Race Director. Probationary Drivers must obtain a minimum of three (3) Event signatures on their Competition Record Cards before requesting an upgrade. Drivers who have had their licence down-graded from an 'A' to a 'B' must obtain a minimum of Two (2) Event signatures on their Competition record Cards or however many have been specified as being required at the time of the downgrade – whichever is greater.
- 3.4.3 An **ASN Canada FIA** National licence requires having completed three (3) Events as a Regional licence holder and having been approved for upgrade by the Regional Chief Instructor, in addition to the requirements of section 3.4.2 above.
- 3.4.4 A superior grade of licence is valid for all lesser categories.
- 3.4.5 A valid foreign Race licence may also be considered by CASC-OR as proof of adequate training for qualification for issuance of a CASC-OR Race licence, e.g. SCCA, MSA UK.

4 RACE LICENCE FEES

Licence fee information is available from the CASC-OR Office.

5 RACE OFFICIALS' LICENCES

Clerks, Assistant Clerks, Stewards of the Event, Scrutineers, Pit Lane Officials and Marshals shall hold CASC-OR Licences (See Race Regulations Section 4.1.3 Officials).

Details on the Curricula for all Race Officials are found in the CASC-OR Manual of Policies, Appendix A, found on the CASC-OR web site: <https://casc.on.ca/casc-or-documents/bylaws>.

5.1 OFFICIALS' LICENCE GRADES

There shall be two levels of licences for Clerks, Assistant Clerks, Stewards of the Event, Scrutineers and Pit Lane Officials:

- Grade A licence - Chief Race Officials.
- Grade B licence - Assistant Race Officials; Chief Race Officials - Drivers' Schools.

There shall be four levels of licences for Marshals:

- Probationary, Basic, Intermediate, Advanced.

5.2 OFFICIALS' LICENCE REQUIREMENTS

- 5.2.1 Licence holders shall be affiliated members of CASC-OR affiliated clubs.
- 5.2.2 Licence holders shall receive one signature on their Officials' Log Card from their department head or supervising Official per CASC-OR Race Event. One-day attendance shall qualify for a signature. Recognition for event experience as a Licence holder in these positions with other sanctioning bodies such as **ASN Canada FIA** or an **ASN Canada FIA** affiliated Region can also qualify.
- 5.2.3 Licence holders shall submit a copy of their Officials' Log Card as the record of events worked when renewing a licence.
- 5.2.4 Licence holders wishing to renew a licence and who do not have the required number of signatures, or who have been absent from the sport for some time, may apply to CASC-OR for individual evaluation. This evaluation shall be conducted by a senior official in the speciality appointed by the Race Director. The evaluation shall consist of:
- a) a verbal discussion of current rules and practices for the speciality, and
 - b) observation of performance.

Every effort shall be made to inform the applicant of any shortcomings which must be addressed before a license can be issued.

5.3 STEWARD, CLERK AND SCRUTINEER LICENCE REQUIREMENTS AND PROGRESSION

For a Grade B Licence the candidate shall:

- a) provide a written resume of his/her motorsport experience including personal skills which will aid in the function of a Steward, Clerk or Scrutineer.
- b) attend a CASC-OR Stewards', Clerks' or Scrutineers' training session.
- c) satisfactorily complete the written open-book test.

Details on the Curricula for Clerk of the Course are found in the CASC-OR Manual of Policies, Appendix A, found on the CASC-OR web site: <https://casc.on.ca/casc-or-documents/bylaws>.

For a Grade A Licence the candidate shall:

- a) perform the duties of a B licenced Official in a competent manner at a minimum of three events per year for a minimum of two years
- b) demonstrate a complete understanding of the role of a Steward, Clerk or Scrutineer at a CASC-OR Race Event.
- c) demonstrate leadership qualities.
- d) demonstrate an advanced knowledge of all CASC-OR rules and procedures.

To renew an A or a B licence the holder shall work as a licenced Official in a competent manner at a minimum of two regional level or higher Race Events per year with at least one in the specialty.

5.4 PIT OFFICIAL LICENCE REQUIREMENTS AND PROGRESSION

For a Grade B Licence the candidate shall:

- a) attend a CASC-OR Pit Official training class. Curricula for these training classes may be found in the CASC -OR Manual of Policies.
- b) satisfactorily complete the written open-book test.

Details on the Curricula for Pit Official are found in the CASC-OR Manual of Policies, Appendix A, found on the CASC-OR web site: <https://casc.on.ca/casc-or-documents/bylaws>.

For a Grade A Licence the candidate shall:

- a) perform the duties of a B licenced Official in a competent manner at a minimum of three events per year for a minimum of two years
- b) demonstrate a good understanding of the role of a Pit Official at a CASC-OR Race Event.
- c) demonstrate leadership qualities.
- d) demonstrate an advanced knowledge of Pit rules and procedures and all other rules which might apply to the pits.

To renew an A or a B licence the holder shall work in a competent manner as a licenced Official at a minimum of two CASC-OR Race Events per year with at least one in the specialty.

It is advantageous to attend some events organized by clubs other than the licence holder's club.

5.5 MARSHAL REQUIREMENTS AND PROGRESSION

5.5.1 The holder of a CASC-OR Race Marshal's licence shall be an affiliated member of a CASC-OR affiliated club.

5.5.2 The holder of a CASC-OR Race marshal's licence shall nominate and be accepted by one accredited marshaling club for the purposes of record keeping, log book issue, licence grading and training.

- 5.5.3 A Probationary licence requires attendance at both classroom and track-side schools approved by CASC-OR. Training shall include a basic fire training session. This grade of licence requires supervision while performing in the functions of flagging, phone/radio operation and safety. The accredited marshaling club's marshaling education committee shall keep written reports and evaluation for each event.
- Marshal education committees shall locally amend CASC-OR logbooks to include name and signature of corner senior / captain.
- Details on the Curricula for Marshals are found in the CASC-OR Manual of Policies, Appendix A, found on the CASC-OR web site: <https://casc.on.ca/casc-or-documents/bylaws>.
- 5.5.4 A Basic licence requires satisfactory reports from a minimum of 10 supervised race days as a Probationary licence holder. The accredited marshaling club's education committee shall review the written reports and judge if the marshal is capable of working with less supervision. In addition, the marshal shall pass a written, open-book test based on the CASC-OR Marshal's Training Manual with a reviewed and corrected mark of 100%.
- 5.5.5 An Intermediate licence requires:
- a) marshaling competently as a Basic licence holder for either a minimum of 40 race days at one track or 30 race event days including 6 race event days at another track
 - b) demonstrating the competency required, in all marshaling functions at Canadian race events (flags, phones and safety).
- 5.5.6 Advanced Licence
- a) An Advanced licence requires marshaling for at least 40 race event days, including at least 10 days at tracks other than their home track, as an intermediate licence holder. In addition, the licence candidate shall have demonstrated, in all marshaling functions at Canadian race events (flags, phones and safety), the level of competency required for high speed, high profile events.
 - b) Once the requirements of Section 5.5.6 a) have been met, an application for an advanced licence can be accepted by the accredited marshaling club's education committee. The candidate shall be observed and assessed for a period of one year and a minimum of 10 race event days before being considered by their marshaling education committee for an advanced licence.
 - c) The Candidate shall have knowledge of blue flagging, but no requirement exists to be qualified as a blue flagger.
- 5.5.7 Chief Course Marshal, Captain/Senior and Blue Flagger should be considered specialities and should not be tied to licensing advancement. Consideration should be given to training personnel who wish to take the training and who have proven that they are capable of handling these responsibilities. The decision as to who gets trained in these specialities rests with the marshaling clubs' education committees.
- 5.5.8 Requests for licence upgrades shall be submitted in writing, with the required documentation, to the accredited marshaling clubs' education committees. The education committee shall decide if the candidate meets the prerequisites and shall recommend approval or denial of the request to CASC-OR. The committee shall advise the applicant of the recommendation.
- 5.5.9 To maintain an Intermediate or Advanced licence grade requires marshaling at least 6 CASC-OR race days per calendar year or else a downgrade of 1 level may be applied by the marshaling club's education committee. A maximum of two (2) Ice Racing event days may be counted towards this requirement.
- 5.5.10 A marshal who does not perform marshal duties for a year may be required to attend a marshal's school before a licence is issued. An absence of 2 or more years shall require attendance at a marshal's school.
- 5.5.11 Either of the following can veto a licence change with reasons in writing:
- a) Marshaling Education Chair of an accredited marshaling club
 - b) CASC-OR
- 5.5.12 An appeal of a decision to veto a licence change shall be submitted to CASC-OR in accordance with the applicable GCR.
- 5.5.13 Marshal's logbooks shall be issued only by an accredited marshaling club.

5.6 ACCREDITED MARSHALING CLUB

5.6.1 An accredited marshaling club shall meet the following conditions:

- a) the club shall be a CASC-OR affiliated club.
- b) the club shall have demonstrated that it is capable of holding a marshals' training session.
- c) the club shall have established a marshaling education committee led by a marshal holding an advanced marshal's licence and including at least two other members holding Intermediate or higher marshals' licences.
- d) the club shall have a procedure for the general operation of its marshaling program, including issuing and reviewing logbooks and approving licence upgrades.

5.6.2 A club shall apply to the CASC-OR Race Committee for accreditation as a marshaling club.

5.6.3 The following clubs are currently accredited:

- Canadian Race Communications Association (CRCA)
- Motorsport Marshaling Services (MMS)
- Motorsport Club of Ottawa (MCO)

6 Definitions

6.1.1 CASC-OR Race Event: A CASC-OR sanctioned road racing event.

6.1.2 Marshal Duties: Duties as described in Section 5.5 above, including Chief Course Marshal, Tower Phone for any FIA, FIM, RACE (or affiliate) sanctioned road racing event.

APPENDIX F – MEDICAL, FIRE AND RESCUE

1 EQUIPMENT, VEHICLES AND PERSONNEL

During all Competition the following minimum emergency vehicles, equipment and personnel are mandatory:

- a) One physician to act as Chief Medical Officer and one trained medical person. A second physician, Registered Nurse, EMT, Paramedic or equivalent, trained in and equipped for life support procedures, may be approved by the CASC-OR Race Director as the trained medical person.

The physician and second medical person shall be available at Race Medical; they shall not participate in any Competition;

- b) One fully equipped Advanced Life Support (ALS) Ambulance, provided by an ambulance service licenced **to perform urgent patient transfers** by the Ministry of Health in the Province of Ontario.

If the ALS Ambulance is unavailable, then one Basic Life Support (BLS) Ambulance may be used ONLY if the Chief Medical Officer has access at the racetrack facility to the required medications for pain control and airway control.

- c) Fire/rescue/medical vehicles, equipment and crew as defined below.

2 OPERATING RULES

- 2.1.1 On track emergency vehicles dispatching methods shall be agreed upon prior to Competition.
- 2.1.2 The Chief Medical Officer shall be familiar with regulations, as dictated by the Provincial Coroner or Medical Examiner, pertaining to deaths which may occur during Competition.
- 2.1.3 Medical/ Rescue personnel should be identifiable by some means other than the usual passes to permit them to be clearly recognized.
- 2.1.4 All emergency equipment shall be readied and all on track emergency vehicles' engines shall be running for the first lap of all Competition. The crew shall be fully suited and within arms' reach of the vehicle while cars are on the track.

3 MEDICAL, FIRE AND RESCUE – MINIMUM REQUIREMENTS

3.1 MINIMUM REQUIRED VEHICLES

- 3.1.1 There shall be a minimum of the following vehicles:

- a) Fire Vehicles shall be stationed so that, on an open track, under ideal conditions, the elapsed time from the moment the vehicle starts to move until it reaches the location of the next fire vehicle, at speeds not to exceed 80kph will not exceed one minute.
- b) One Recovery Vehicle ("Wrecker") capable of recovering any Car used in the Event is required.
- c) Track Ambulances may be used to transport the injured from the scene to Race Medical.

NOTE: A vehicle may be equipped and used for more than one purpose to meet the above requirements, e.g. one vehicle may be equipped as a Fire and Rescue vehicle, as a Track Ambulance and Rescue Vehicle, as a Track Ambulance and Fire Vehicle, or as a Fire and Rescue Vehicle and Track Ambulance.

3.1.2 PURSUIT VEHICLES

Pursuit vehicles shall not be used.

3.1.3 FIRE, RESCUE, AND MEDICAL VEHICLES – MINIMUM PERSONNEL

Each first response vehicle shall have at least two personnel with CASC-OR approved training in the use of the on-board equipment.

3.2 MINIMUM EQUIPMENT FOR FIRE VEHICLES

3.2.1 FIRE VEHICLES

Four 9Kg ABC fire extinguishers and two aqueous foam BC fire extinguishers per vehicle are required. At Events where Cars are fueled by alcohol or methanol, an additional two 11-liter pressurized water extinguishers per vehicle are required.

3.3 MINIMUM EQUIPMENT FOR RESCUE VEHICLES

3.3.1 RESCUE VEHICLES

- a) The following medical supplies are required:
 - i. cervical stabilization;
 - ii. oral airways;
 - iii. ambu-bag;
 - iv. bandages and dressings;
 - v. personal protective equipment;
 - vi. 1 pair industrial gloves per crew member;
 - vii. eye protection for each crew member.
- b) The following Hydraulic Equipment is the minimum required:
 - i. 1 shear 90mm minimum jaw opening;
 - ii. 1 rescue kit (expansion) 8/10 tonne capacity;
 - iii. 1 wedge (small spreader) 750Kg, 90mm maximum jaw opening;
 - iv. 1 large spreader 750Kg, 300mm maximum opening.
- c) Hydraulic equipment shall be fitted with common male and female couplings.
- d) The following Hand Tools are required:
 - i. 1 quick release knife per crew member;
 - ii. 2 hacksaws and non-breakable blades;
 - iii. 1 small axe;
 - iv. 2 pairs tin shears curved, one right pair and one left pair;
 - v. 1 pair pliers;
 - vi. 1 pair side-cutters;
 - vii. 1 crowbar, 1m long;
 - viii. 1 pair bolt cutters;
 - ix. 1 pair vice grips;
 - x. 1 Halligan tool.

3.4 MINIMUM EQUIPMENT FOR TRACK AMBULANCES

3.4.1 TRACK AMBULANCES (WHERE USED)

Track ambulances (where used) shall be equipped with the following:

- a) stretcher;

- b) full backboard;
- c) short backboard;
- d) cervical stabilization;
- e) airway management kit;
- f) oxygen;
- g) suction;
- h) bandage kit;
- i) burn kit;
- j) splints.

3.5 MINIMUM EQUIPMENT FOR CORNER STATIONS

3.5.1 CORNER STATIONS

Corner stations shall each be equipped with one 9kg or two 4.5kg ABC fire extinguishers.

4 RACE MEDICAL

4.1.1 THE MINIMUM REQUIREMENTS FOR THE MEDICAL ROOM ARE:

- a) to be secure;
- b) to be heated;
- c) to be well lit;
- d) to be equipped with a working toilet;
- e) to have working hot and cold water;
- f) to have a working refrigerator with ice;
- g) to have a working telephone;
- h) to be equipped with a stretcher or equivalent;
- i) to be equipped with an additional bed;
- j) to have adequate electrical supply;
- k) to have communication access to race control;
- l) A shower is recommended.

APPENDIX G – RULES OF THE PITS AND PADDOCK

1 PITS

1.1 PROVISION OF PITS

A pit shall be provided for Cars, equipment, and Crew. Cars shall remain in the pits when not actually in Competition. During a Qualifying Session or a Race, repairs that cannot be performed safely in the pit area may – at the request of the Team Representative or Race Official – be performed in the paddock area only after requesting, and receiving, permission from the Clerk. This includes cars retired from Competition. Cars, which retire to the paddock, shall be ineligible to return to the Competition in progress unless the Series or Supplementary Regulations allows this, or permission is received from the Clerk.

1.2 CHILDREN

Children younger than 16 years of age are not permitted in the pit lane, with the exception of drivers holding a Junior Regional Race Licence.

1.3 ACCESS

Only Participants with proof of having signed the insurance waiver may be track-side, or in any posted restricted area.

1.4 RACE START

At the start, or re-start, of a Race, only the pit marshals are permitted in the pit lane.

1.5 APPAREL

All personnel in the pit lane shall have their body covered. All clothing shall be appropriate to the environment, e.g. shoes that allow movement, support and protection for the foot, with no exposed skin; shirts with sleeves; long pants; socks, etc. In addition, individuals designated as Pit Officials shall wear a fire-retardant, high visibility lime green or bright orange vest or coveralls.

1.6 SMOKING

Smoking is forbidden behind the pit counter, in pit lane and in any open stands immediately above the pits.

1.7 SPACE ALLOTTED

Cars, crews and equipment may not occupy more space than that designated as that Car's pit.

1.8 CARS OVERSHOOTING THE PIT

Cars shall not back up under their own power. They shall be pushed back by hand, or continue for another lap.

1.9 FIRE EXTINGUISHER REQUIREMENTS

4.5kg ABC fire extinguishers shall be placed at 15-meter intervals along the pit lane. The location shall be visible to people in pit lane. In addition, when alcohol fueled cars are on track, two water extinguishers shall be available in one of the first pits at pit entry.

1.10 PETS

Pets are prohibited in the pits.

1.11 PIT LANE SPEED LIMIT

A speed limit of 60kph shall be observed in the Pit Lane zone, demarcated by the first and last radar devices used to measure the speed or as specified in the Supplementary Regulations.

1.12 PHOTOGRAPHY

Photography is not permitted in the pit lane except by the specific permission of Clerk.

1.13 BLEND LINE

- 1.13.1 A blend line shall be marked on the track from Pit Out extending on to the track. The purpose of this line is to assist in the safe entry to the track.
- 1.13.2 Drivers exiting the pits shall ensure that none of their tires touch this blend line.
- 1.13.3 Drivers on the track shall ensure that none of their tires touch this blend line.

1.14 AUXILIARY POWER

Only Cars equipped with permanent externally mounted receptacles may use auxiliary power (battery assist) during Competition.

1.15 EMERGENCY/SERVICE VEHICLES IN PIT LANE

Moving emergency or service vehicles may not be passed in the pit lane unless directed by an Official.

1.16 DRIVER CREW AT PIT WALL

At any time a Car is on the course, two persons may be at the wall separating the racecourse from pit lane for the purpose of signaling the driver in the Car.

1.17 DRIVER CREW DURING PIT-IN

One person may go over the pit counter to signal their Car to its pit for a pit stop. All other team members shall remain behind the counter until the Car comes to a complete stop.

1.18 DRIVER CREW DURING PIT STOP

No more than five team members may be over the wall to perform service on a Car at any time. Not counted in this number is:

- a) a driver seated in the Car;
- b) a driver preparing to get in the Car (when allowed by Series Regulations);
- c) the signal persons at the wall separating the track from the pits provided these persons do not move from this position;
- d) the team fire extinguisher person (when allowed by Series Regulations).

1.19 JACK STANDS

No work shall be performed under a car unless the car is supported by jack stands or on-board jacking system with positive mechanical locks.

2 FUEL STORAGE AND REFUELING

Fuel Transfer – ANY transfer of fuel must include a separate designated person whose sole function shall be to oversee the refueling process while holding an appropriate and armed fire extinguisher. Refueling will not be performed under an awning or where fumes could accumulate.

3 STORAGE CYLINDERS FOR COMPRESSED GAS

3.1.1 ANY STORAGE CYLINDERS FOR COMPRESSED GAS SHALL:

- a) be secured in position during transportation, storage or use
- b) if stored on their side be chocked or wedged to prevent motion
- c) have the valve protection cap in position when not in use
- d) have a valve protection cage in position when in use
- e) when containing acetylene always be in a valve end up position
- f) shall not be in Pit Lane
- g) Portable air tanks and fire extinguishers are exempt from the above regulations but shall be handled and stored in such a manner as to avoid damage to the unit.

4 PADDOCK

4.1 FACILITIES

A paddock area with sanitary facilities shall be provided for the use of Competitors.

4.2 PETS

All pets shall be leashed to an adult or a fixed location with a maximum 3-meter line or be kept in an enclosed space.

4.3 CHILDREN

Parents and guardians are responsible for the safety of their children.

4.4 NOISE REGULATION

Control of Cars, Competitors, children, pets and excessive noise shall be exercised in both the paddock area and the camping area. Noise will be regulated as described in the Event Supplementary Regulations.

4.5 RACETRACK PERMISSION

Vehicles are not permitted on the Racetrack at any time except by permission of the Clerk or the Track Manager. This includes before, during and after an Event.

4.6 PADDOCK ROADS

Paddock roads shall be kept clear of Cars in order to provide unhampered access for tow trucks and/or service vehicles. A speed limit of 10 km/h shall be enforced. Burnouts, donuts and other extreme forms of driving are specifically prohibited.

4.7 FIRE EXTINGUISHERS

One 4.5Kg ABC rated fire extinguisher shall be placed in the False Grid area and one in the Scrutineering and Impound Areas.

4.8 MOTORIZED VEHICLES

4.8.1 Motorized vehicles (including quad bikes) may be driven behind the Pits or in the Paddock and False Grid areas only by a road traffic licence holder who is on specific race team business.

4.8.2 Recreational use is strictly prohibited.

APPENDIX H – FLAG AND LIGHT SIGNALS AND RULES OF THE ROAD

1 GENERAL

Signals are given in daylight by different coloured flags, possibly aided by lights. Yellow lights at each marshal's post are obligatory for Events run at night.

2 FLAG SIGNALS: MINIMUM SIZE

The minimum size of the signaling flags is 600mm x 800mm. The red flag will measure 800mm x 1000mm.

3 FLAGS USED EXCLUSIVELY ON THE INSTRUCTIONS OF THE CLERK

3.1 STARTING FLAG

The Green Flag, the Canadian National flag, or an approved light system shall be used.

3.2 BLACK AND WHITE - CHECKERED FLAG

Indicates the end of a Competition session when waved at the finish line or other location specified in the Supplementary Regulations.

3.3 RED FLAG

3.3.1 Waved at all marshal posts and by the Starter, it informs all Drivers to cease racing, slow down significantly from normal speed, stay to driver's right of the track and be alert for response vehicles, recovery vehicles or clean up vehicles entering from any of their locations and prepared to stop at any time. For warm-up, practice or qualifying sessions, proceed around to pit lane unless directed otherwise by officials. For races, proceed around the Course to the Start/Finish remaining on-track unless directed otherwise by officials. The lap on which the flag is displayed will not be scored.

3.3.2 When displayed at pit out informs the driver that they cannot exit from pit lane to the track.

3.4 BLACK FLAG

3.4.1 Held steady and displayed at the Start/Finish line or other location specified in the Supplementary Regulations and accompanied by a number on a board, it informs the Driver of the Car designated by that number, to return to the pits at the conclusion of the current lap and await instructions from the Officials.

3.4.2 Held steady and displayed at the start/finish line accompanied by the word "ALL" on a board, and at all marshal posts, informs all Drivers that the current Course session has been halted and that they shall return to the pits at the conclusion of the current lap. Drivers shall be prepared to stop at any time.

3.5 BLACK AND WHITE FLAG

Divided diagonally into black and white halves, shown motionless at the start/finish line and other location if specified in the Supplementary Regulations, and accompanied by a number on a board, it informs the Driver of the Car designated by the number that his/her conduct or driving has been observed as being unsporting or unsafe. It is a warning; if the behavior continues the Driver may be shown the Black Flag.

3.6 BLACK FLAG WITH ORANGE DISK – 'MECHANICAL BLACK FLAG'

3.6.1 The orange disk shall be 400mm in diameter. Shown motionless at the start/finish line or other location specified in the Supplementary Regulations, and accompanied by a number on a board, it informs the Driver of the car designated that the Car has mechanical problems likely to endanger the Driver or others. The Driver shall stop at his/her pit on the next lap.

3.7 USE OF THE STARTER'S STAND AS A FLAG STATION

The Starter's stand shall not normally be used as a flag station. The Clerk may, in unusual circumstances, direct the Starter to act as a flag station.

4 FLAGS USED AT MARSHALS' POSTS

Flags used by the marshals may be shown either motionless or waved. A waved flag emphasizes the flag's basic meaning.

4.1 YELLOW FLAG

- 4.1.1 The yellow flag is a signal of danger of any nature at or beyond the station displaying the flag. SLOW DOWN.

The "Yellow No Passing Zone" begins at the Flag Station where the yellow flag is shown and extends in a perpendicular imaginary line over the track surface and runoff area. It ends after a second perpendicular imaginary line across the track surface at the first Flag Station displaying a green flag. PROCEED THROUGH YELLOW ZONE IN SINGLE FILE, WHICH MAY BE STAGGERED.

- 4.1.2 Yellow flags may be shown in 4 ways:

a) ONE FLAG MOTIONLESS

When the yellow flag is shown "motionless" it shall be moved with a side-to-side rocking motion.

The course is unobstructed.

OR, There is an obstruction located off the course or in the next sector.

OR, The following post is displaying yellow flag(s).

When the obstruction will remain in position for the remainder of the session the yellow flag shall be shown motionless for two laps and then withdrawn.

b) ONE FLAG WAVED

The course is obstructed. The obstruction is located on or immediately adjacent to the course. Workers may be on or near the course.

The corner captain or the Clerk may request preceding posts to display a motionless flag.

When the obstruction will remain in position for the remainder of the session the yellow flag shall be waved for two more laps, shown motionless for two laps and then withdrawn.

c) TWO FLAGS WAVED

Be prepared to stop.

The course is seriously or completely obstructed. Workers may be on the course.

The corner captain or the Clerk may request preceding posts to display a motionless flag.

d) TWO FLAGS MOTIONLESS AT ALL STATIONS AND START FINISH

Slow down significantly, stay to driver's right of the track and be alert for response vehicles, recovery vehicles or Safety Car entering the track from any of their locations. This may occur with or without the Pace/Safety Car.

Yellow flag procedure for restarts can be found in Race Regulations Section 2.6.

- 4.1.3 If the pit lane exit is within a yellow zone, the Pit-Out marshal may mirror the yellow flag status of that zone.

- 4.1.4 When necessary during the display of a yellow flag, drivers shall be instructed by means of hand signals to keep to the side of the Course that is not obstructed.

- 4.1.5 During full course yellow situations, the pit exit shall be closed each lap when the **Safety** Car passes **the Starters Stand**. The pit exit shall remain closed until the main pack has passed the pit exit.

- 4.1.6 Under full course yellow, it may be permissible to pass a slow car with an obvious problem.**

4.2 YELLOW FLAG WITH RED STRIPES

The yellow and red striped flag informs Drivers to take care. It is used to warn of a slippery surface such as caused by the presence of oil, water and/or debris on the Course surface.

The flag shall be displayed for four laps or until the surface returns to normal.

4.3 GREEN FLAG

A waved green flag may be shown for two laps replacing the yellow flag(s) at the site of an incident once the Course has been cleared.

4.4 WHITE FLAG

4.4.1 The white flag informs Drivers that they are about to overtake a vehicle which is travelling on the Course at a much slower speed than the Competitors. The white flag shall be shown when a service vehicle is on the Course or when a competing Car is moving at a reduced speed.

4.4.2 The white flag shall be waved as soon as the slow-moving vehicle has gone past the flagger's post and this shall continue until the vehicle reaches the following post, and then shown motionless while the vehicle is crossing the next sector then withdrawn. If the vehicle stops on the Course, the white flag shall immediately be replaced with a yellow flag.

4.5 BLUE FLAG

The blue flag informs Drivers that they may be about to be overtaken by a faster Car. When the blue flag is waved, it draws the Driver's attention either to the closeness of the Car about to overtake, or to the high speed at which it is approaching.

The blue flag may be shown motionless when the faster Car is still some distance away and when the flag marshal feels that overtaking will take place in the following sector.

5 LIGHT SIGNALS

5.1 SPECIFICATIONS

When light signals supplement flag signals, they shall comply with the following specifications:

- a) The light signals may replace the yellow, green and red flags.
- b) The installation shall present three grouped lights, two yellow and one green. The yellow lights shall be spaced so as to ensure that the presence of two lights is easily recognizable. A red light may be included, to be operated solely by Race Control simultaneously with red lights at all other posts.

5.2 MEANINGS

Steady lights shall have the same meaning as steady flags and flashing lights shall have the same meaning as waved flags.

5.3 REQUIREMENTS FOR NIGHT RACING

For night racing – as defined in the Event's Supplementary Regulations – there shall be, at minimum, yellow lights controlled by each post.

6 RULES OF THE ROAD

6.1 ENTERING THE PITS

Before entering the pits from the Course, Drivers shall signal by raising an arm.

6.2 SIGNALING TO PASS

If a Driver about to be overtaken wishes to indicate the side on which an overtaking Driver should pass, he or she shall point to that side or operate the signal light on the side on which the pass should be carried out.

6.3 DIRECTION OF TOW

During a session it is forbidden to drive or tow a Car in a direction opposite to that in which the Event is being run without the specific approval of the Clerk.

6.4 STOPPING ON THE COURSE

If a Car stops on the Course during an Event, the Car should be parked in such a manner as to cause no obstruction to other Competitors.

6.5 MOVEMENT UNDER POWER OF THE VEHICLE STARTER

Cars shall not be moved under power of the starting device while on the Course, except to remove them from a hazardous position to one of greater safety.

6.6 ASSISTANCE

Drivers shall obtain no assistance during the Race other than from their pit Crews in the pits. This does not preclude assistance by Officials for safety reasons.

6.7 DRIVING OFF COURSE

The Driver is required to follow the marked Course during a Competition and shall not gain an advantage from an off-Course excursion.

6.8 OVERTAKING

- 6.8.1 Overtaking drivers are responsible for the decision to pass another car and to accomplish the pass safely. Overtaken drivers are responsible for being aware that they are being overtaken and shall not deliberately impede the overtaking car.
- 6.8.2 Competitors have a right to "racing room" on the racetrack. "Racing room" is defined as sufficient space on the racetrack to allow competitors to maintain control of their cars in close quarters, under racing conditions. Maneuvers liable to hinder other drivers, such as deliberate crowding of a car beyond the edge of the track, are prohibited.
- 6.8.3 'Blocking' is defined as being 'Movement In Reaction' to changes of line of following driver(s).
- 6.8.4 Competitors shall avoid physical contact with other competitors' cars.

6.9 REPETITION OF DRIVING ERRORS

Repetition of serious driving errors or a lack of control over the Car may incur penalties.

6.10 RIDING OUTSIDE THE COCKPIT AREA

No one shall ride outside the cockpit area or on the coachwork of any car at any time, including victory laps.

6.11 DRIVER SIGNAL AFTER AN ON-TRACK INCIDENT

- 6.11.1 Drivers involved in an incident that results in their vehicle coming to a complete stop who do not continue should attempt to provide one of the following signals as soon as practicable to inform track officials that they do not require emergency assistance.
- 6.11.2 Drivers of open wheeled vehicles and/or roadsters should attempt to raise their visor, keep it in the open position, and try to establish direct eye contact with the nearest official.

- 6.11.3 Drivers of closed wheel vehicles should attempt to drop their window nets and should attempt to establish eye contact with the nearest official.

6.12 DROPPING OIL

- 6.12.1 A competitor who drops oil on the racing surface, may be subject to a penalty if it is determined that the competitor obviously and knowingly continued driving in order to return to the pits, instead of pulling off track in a safe area.

DRAFT

APPENDIX I – DRIVER SAFETY EQUIPMENT

1 USE OF DRIVER SAFETY EQUIPMENT

The use of the following Driver safety equipment is mandatory during all Competition.

Drivers and passengers in Racing Driver Schools shall wear helmets as specified herein.

It is the responsibility of the Driver/Entrant to ensure that the manufacturer's instructions for the use and care of safety-related items are followed.

1.1.1 SFI LABELS

Starting in 2017, the expiration dates ("Valid Until") of SFI equipment (drivers restrains, window nets, roll cage nets) are now printed on the label instead of using punched-out manufacturing date.

2 CLOTHING

2.1 DRIVER SUITS AND UNDERWEAR

2.1.1 One-piece driver suits that effectively cover the body from the neck to the wrists and ankles, manufactured of material approved herein, shall be worn.

2.1.2 Underwear manufactured of material approved herein shall be worn, where specified in Section 4.0.

2.1.3 Driver suits and underwear shall be clean and in good condition with no excessive oil stains, holes or frayed edges.

2.2 GLOVES

2.2.1 Gloves shall meet or exceed the following criteria:

- a) Gloves made of material approved herein shall be worn
- b) Gloves shall have no holes or perforations
- c) Gloves shall be fitted at the wrist and shall cover the cuff of the driver suit
- d) any leather used on the exterior of the glove may only contact the skin through the seams
- e) any leather used on the interior of the glove shall be separated from the exterior by fabric approved herein
- f) any leather used may not form a continuous loop around any portion of the hand.

2.2.2 Gloves bearing the official marking to show compliance with SFI Standard 3.3/5, or FIA Standard 8856-2000 are accepted.

2.3 SOCKS

Socks made of material approved herein shall be worn.

2.4 SHOES

Shoes made of material approved herein and/or of leather shall be worn.

2.5 BALACLAVAS AND HELMET SKIRTS

2.5.1 Balaclavas, or helmet skirts with full face helmets with visor down, made of material approved herein shall be worn. It is recommended that balaclavas be double layers.

2.5.2 Hair protruding from beneath helmets shall be completely covered.

2.6 HELMETS

2.6.1 ACCEPTED EQUIPMENT

The following helmets are accepted:

- a) Snell SA 2010/2015
- b) Snell SAH 2010
- c) SFI 31.1
- d) SFI 31.1A
- e) SFI 32.2A
- f) BS6658-85 type A/FR
- g) Helmets meeting the FIA standards list for helmets for circuit racing shall be accepted.

2.6.2 CONDITION OF HELMETS

Helmets shall be in good condition.

2.6.3 REPAIRED HELMETS

A repaired helmet may be approved provided that written proof of a satisfactory repair by the helmet manufacturer is presented.

2.6.4 OPEN CARS

Full-face helmets and shields shall be worn by drivers of open cars and are strongly recommended for all drivers.

2.7 FHR (FRONTAL HEAD RESTRAINT) DEVICES

2.7.1 ACCEPTED EQUIPMENT

FHR devices meeting the following standards are accepted:

- a) FIA Standard 8858
- b) SFI Specification 38.1

3 APPROVED MATERIALS

All fire-resistant material approved by **ASN Canada FIA**, FIA, SCCA and SFI is acceptable.

4 DRIVER SUITS AND UNDERWEAR SYSTEMS

4.1 APPROVED SYSTEMS

The following driver suit/underwear systems are approved:

- a) suits of two layers of approved material worn with approved underwear
- b) suits of three layers of approved material;
- c) suits carrying an SFI 3-2A/3 rating, SFI 3-2A/5 single layer suit, or FIA approved single layer suits worn with approved underwear;
- d) multi-layer suits carrying an SFI 3-2A/5 or higher rating;
- e) multi-layer suits carrying an FIA Homologation;
- f) suits, which the manufacturer states in writing meet or exceed the standards stated herein, may be substituted for that standard.
- g) It is highly recommended that underwear of approved material be worn under all Driver suits.

4.2 RESTRICTED MATERIALS

While competing, Drivers should not wear any clothing composed in whole or in part of Nylon.

4.3 PROOF OF COMPLIANCE

In the case of doubt concerning the composition of a suit/underwear system, the Driver shall be able to present adequate evidence that it conforms to one of the above standards.

5 EYE PROTECTION - RECOMMENDATIONS

It is recommended that any corrective eyeglass material or sunglasses be of the safety glass type.

APPENDIX J – TECHNICAL INSPECTION

1 CAR LOGBOOKS

1.1 RECOGNIZED LOGBOOKS

All Competitors at CASC-OR Events shall have a logbook issued by a recognized sanctioning authority.

1.2 VALID LOGBOOKS

Only one logbook shall be issued for each Car (other than an extension or replacement).

1.3 ISSUANCE OF LOGBOOKS

A logbook shall be issued by a CASC-OR licenced scrutineer who shall conduct a thorough inspection of the Car and enter a complete description of the Car, its safety roll cage and the required photographs. All changes of ownership shall be entered.

1.4 IDENTITY PLATE

Each Car shall be identified by a CASC-OR issued Identity plate permanently attached to the Car frame bearing a number corresponding to that of its logbook.

2 TECHNICAL AND SAFETY INSPECTION

2.1 ANNUAL INSPECTION

A full and complete technical and safety inspection (Annual Inspection) shall be performed on each Car once a year. The year shall be defined as the calendar year. When the Car passes this inspection the logbook shall be stamped with the "official" Annual Inspection stamp, and dated and signed by a licenced CASC-OR scrutineer.

2.2 INSPECTION AT EVENTS

2.2.1 PRESENTATION

The logbook shall be presented in registration at the Event signed by the Competitor. When the logbook contains verification of a current Annual Inspection, and no subsequent damage notation an Event scrutineering sticker shall be issued to be attached to the Car during competition. If the annual inspection is not current, or there is a subsequent damage notation, the logbook must be presented to the Event Scrutineer for the Event scrutineering sticker to be issued prior to entering competition. On Formula Cars, Sports Racing Cars and GT Cars with no roof the sticker shall be placed on the roll bar to the right of the driver's head. On GT Cars the sticker shall be placed on the top right-hand corner of the windshield.

2.2.2 When the logbook does not contain verification of a current Annual Inspection, the Car shall be presented to the Event scrutineers and an Annual Inspection shall be performed prior to the issue of an Event scrutineering sticker. Such an inspection shall not delay inspection of Cars which have had an Annual Inspection done.

2.2.3 When the logbook contains a scrutineer's notation regarding a defect, the results of a protest noted after the Annual Inspection, or when the logbook indicates no Competition for an extended period of time (3 months or more) during a year the Car shall be presented to the Event scrutineers for inspection prior to the issue of an Event scrutineering sticker for the Car.

- 2.2.4 When the logbook is not available at scrutineering, the Car shall be accepted for Competition only after a thorough inspection during which all details required for the issue of a logbook shall be recorded. This inspection shall not delay inspection of Cars, which have logbooks available. Competitors shall arrange with the Event scrutineers an appropriate time for inspection of their Car prior to being accepted for Competition.
- 2.2.5 Deviations Regarding Safety
- a) All deviations regarding safety shall be entered in the logbook.
 - b) If a waiver for the Event is permitted this shall be entered in the logbook and complied with by the Competitor.
- 2.2.6 When a Car is protested during an Event and found to be illegal, the results of the protest shall be entered in the logbook.
- 2.2.7 When a Car is damaged during an Event, a description of the damage shall be entered in the logbook.
- 2.2.8 When a Car has been altered or damaged after issue of an Event scrutineering sticker the scrutineer may remove the sticker until the Car has been re-inspected and re-approved.

2.3 CLASS SCRUTINEERING

At each Event, certain classes shall be designated to be presented to the Event scrutineers.

2.4 RANDOM SCRUTINEERING

Event scrutineers shall carry out random technical inspections of Cars and of Drivers' safety equipment and clothing for safety and eligibility purposes at any time during the Event.

3 OFFICIAL SCALES

3.1 DESIGNATION

- 3.1.1 The scales at the Event are the official scales of the Event.
- 3.1.2 Platform scales or individual scales, which weigh one axle (two wheels) at a time or each wheel separately, are acceptable.
- 3.1.3 Official weigh scales shall be available for Competitors' use 1 hour prior to the first qualifying session for those classes that have a minimum weight requirement, on both Saturday and Sunday, and until thirty (30) minutes after the final race for the last class with a minimum weight rule.

3.2 CAR WEIGHT

Cars found to be underweight shall have this noted in the logbook.

4 IMPOUND

4.1 NOTICE OF IMPOUND

- 4.1.1 The Clerk may direct Cars to be impounded pending inspection and disassembly to check compliance with the Regulations.
- 4.1.2 When Cars are to be impounded immediately following Competition, notice of such impounds shall be given to the Competitor prior to leaving the pit lane.

4.2 RESPONSIBILITY

- 4.2.1 The Competitor shall be responsible for performing all required disassembly and reassembly.

- 4.2.2 If the Car is found to be eligible for the competition in which it is entered the Event organizer shall stand the expense of the disassembly, inspection and reassembly.
- 4.2.3 If it is not eligible the Entrant shall bear the expense.

4.3 SUPERVISION

The disassembly shall be carried out under the supervision of the Chief Scrutineer of the Event, or his/her designate. The required inspections shall be carried out by the Chief Scrutineer of the Event or by a suitably qualified designate approved by the Clerk. The Chief Scrutineer shall communicate the results of the inspections in writing to the Clerk only.

4.4 FINDINGS

The Clerk shall report the results of the inspections to the Stewards of the Event, requesting a penalty should the Car be found to not conform to the Regulations.

4.5 POSTPONEMENT OF DISASSEMBLY AND INSPECTION

If it is decided by the Clerk that disassembly and inspection is not immediately possible, the inspections may be carried out at another time and place as designated by the Clerk. The components of the Car to be inspected are to remain impounded until such inspection is completed. This may be done by having them remain in the possession of the Chief Scrutineer of the Event or by having them sealed or by any other means deemed satisfactory by the Clerk and the Stewards of the Event. Costs incurred will be the responsibility of the Competitor. A car impounded in this manner shall be kept for a reasonable length of time as agreed upon by the Scrutineer, the protestor and the driver of the protested car. A sealed component may be worked upon under the supervision of a licenced scrutineer approved by the three people mentioned above.

5 PROTESTS AND TEARDOWN BONDS

5.1 ELIGIBILITY FOR PROTEST

Entrants may protest a Car that they believe does not conform to the Regulations. They may request in their protest that the Car be disassembled, inspected or tested by Officials in order to determine if it complies with the Regulations.

5.2 TEARDOWN

- 5.2.1 The Stewards of the Event, in conjunction with the Chief Scrutineer, shall determine if a teardown is required and if so, the estimated cost of such a teardown.
- 5.2.2 The amount of the bond shall be adequate to cover the cost of disassembly, examination, measurement, rebuild and transportation to an alternative specified location.
- 5.2.3 A bond covering this cost shall be given to the Stewards of the Event by the protestor prior to the protested vehicle being disassembled and inspected.

5.3 COMPLETION OF TEARDOWN

Teardowns and inspections shall be completed as specified in the protest, regardless of determination of illegality at any earlier point in the proceedings.

5.4 WHERE LEGALITY IS DETERMINED BY TEARDOWN

If the Car is found to conform to the Regulations, the bond shall be used to cover all of the costs incurred by the protest. Any shortfall/surplus shall be charged to/returned to the competitor lodging the protest.

5.5 WHERE ILLEGALITY IS DETERMINED BY TEARDOWN

If the Car is found not to conform to the Regulations, the Entrant of the protested Car shall be responsible for the costs incurred for the disassembly and reassembly and the bond shall be returned to the protestor.

6 MEASUREMENTS

6.1 IMPOUND

If a car is protested and has to be disassembled to be inspected, tested or measured, then those parts of the car shall be sealed or impounded until the necessary inspections, tests or measurements can be made by a qualified person designated by CASC-OR.

6.2 RESPONSIBILITIES

The driver whose car is protested shall be responsible for delivering the car to the place where the inspection, test or measurement is to be carried out.

APPENDIX K – FUEL, FUEL CELLS AND TANKS

1 FUEL

1.1 PERMITTED FUELS

All Cars shall run on fuel produced by a recognized commercial manufacturer unless otherwise specified by Class, Series or Supplementary Regulations.

1.2 ADDITIVES

- 1.2.1 The addition of compounds containing nitrogen and/or oxygen is prohibited.

NOTE: Competitors are advised that some chemicals used as fuel additives are classified as probable or suspected human carcinogens, or have been implicated in several deaths. Some of these chemicals are propylene oxide, ethylene oxide and para-dioxane, also known as 1.4 dioxane.

2 FUEL CELLS/TANKS

2.1 DEFINITION

- 2.1.1 A Fuel Cell is defined as consisting of an inner bladder/tank, manufactured to FIA FT3 specifications, or better, approved fuel cell foam and a metal container as specified herein.
- 2.1.2 A Fuel Tank is defined as consisting of a cross-linked polymer tank intended for use as a fuel tank in a racecar, approved fuel cell foam and a metal container as specified herein.

2.2 CLASS REQUIREMENTS

- 2.2.1 Fuel Cells/Tanks, as defined above, are required for all Formula Cars, Sports Racers, tube-frame GT Cars and GT and Touring Cars built from a production road car, model year 1981 or earlier. Sports Racing Cars with an FIA Approved main chassis are exempt from this requirement. These cars may use the fuel cell/tank defined above, or they may retain the fuel cell/tank supplied by the car manufacturer.
- 2.2.2 GT and Touring Cars built from a production road car, model year 1982 or later, may use a Fuel Cell/Tank as specified above, OR, if a minimum of 30 cm of the original structure surrounding the stock Fuel Tank is retained and this structure is welded to the adjacent tubular steel replacement frame members, the stock tank may be used. Fuel cell foam may be added to the stock tank.

2.3 SIZE, NUMBER AND CAPACITY

- 2.3.1 The dimensions and capacity of Fuel Cells/Tanks are free unless otherwise specified by Class, Series or Supplementary Regulations.
- 2.3.2 The installation of more than one Fuel Cell/Tank is permitted.

2.4 LOCATION

2.4.1 FORMULA AND SPORTS RACING CARS

The location is free unless otherwise specified by Class, Series or Supplementary Regulations.

2.4.2 CLOSED-WHEEL CARS

- a) Fuel Cells/Tanks shall be installed as close as possible to the location of the standard tank(s), except when safety considerations, dimensional limitations, or other factors make this impractical, impossible or undesirable.
- b) Fuel Cells/Tanks shall not be located in the Driver/passenger compartment.
- c) Fuel Cells/Tanks shall be installed not less than 15cm (6in) from the ground unless enclosed within the bodywork or chassis.
- d) ***Fuel Cells / Tanks, the fittings for fuel lines, fittings for refueling and fuel vent lines directly attached to the fuel cell / tank shall be isolated from the drivers compartment by a fire-proof barrier such as a metal bulkhead or enclosure.***

2.4.3 VINTAGE CARS

CASC-OR may approve alternative locations for individual Cars upon request.

2.5 DESIGN DETAILS AND MATERIAL SPECIFICATIONS

2.5.1 BLADDERS

Bladders shall be manufactured to FIA FT3 specifications, or better. Foam internal baffling is required.

2.5.2 CONTAINERS

- a) Bladders and Cross-Linked Polymer tanks shall be installed in a container fully surrounding the bladder/tank, constructed of 0.036-inch-thick steel or 0.059-inch-thick aluminum. All seams of this container shall be securely fastened.
- b) In Formula Cars and Sports Racing Cars the containers may form part of the structure of the bodywork of the Car.
- c) In Closed Wheel Cars internal body panels may be modified to accommodate the installation of Fuel Cells/Tanks provided such modifications serve no other purpose.

2.5.3 FITTINGS

All fittings shall be built into the bladder and bonded and cured as an integral part of the bladder.

APPENDIX L – DRIVER RESTRAINT SYSTEMS

1 GENERAL PROVISIONS

1.1.1 With the exception of Driver Schools, all Drivers shall utilize a restraint harness manufactured to FIA/ISO Standard No. 8853, SFI Spec. 16.1, or SFI Spec 16.5 with the exception of the following for which approval has been withdrawn:

- a) TAIWAN Racing Products (Taiwan)
 - i. 3" x 2" Racing harness Formula FIA D -203. T/98
- b) MOMOCORSE SRL (Italy):
 - i. 6 Punti Formula FIA D - 142. T/98
 - ii. Rally Lusso 3" FIA B - 143. T/98
 - iii. Cintura 3" 6 P.TI FIA D - 153. T/98
 - iv. Cintura 3" 5 P.TI FIA C - 154. T/98
- c) CONFEZIONI LRF DITTA IND. (Italy)
 - i. 6 Punti Formula FIA D - 140. T/98
 - ii. Rally Lusso 3" FIA B - 141. T/98
 - iii. Professionale 3" FIA C - 151. T/98
 - iv. Professionale 3" FIA D - 152. T/98
- d) SABELT S.P.A. (Italy)
 - i. Top Formula FIA C – 119 T/98
 - ii. Top Formula FIA D – 121 T/98
 - iii. Top Formula FIA B – 123 T/98
 - iv. 904603N FIA D – 167 T/98
- e) OMP RACING S.R.L. (Italy)
 - i. Professional 3.1 FIA C – 194 T/98
 - ii. Professional 3.2 FIA D – 196 T/98
 - iii. Professional 3 FIA B – 198 T/98
- f) STOCKBRIDGE RACING LTD. - WILLANS (U.K.)
 - i. Club 4 x 3 FIA B – 128 T/98

1.1.2 Restraint harness installations are subject to the approval of the Chief Scrutineer at each Event.

1.1.3 It is the responsibility of the Driver/Entrant to ensure that the manufacturer's instructions for installation, use and care of safety-related items are followed.

2 DESIGN

A minimum five-point system is required for use in Cars where the Driver is seated in an upright position, consisting of a lap belt, two shoulder straps and an anti-submarine strap. A minimum six-point system is required for use in Cars where the Driver is seated in a semi-reclining position, consisting of a lap belt, two shoulder straps and two

anti-submarine straps. FHR specific shoulder straps are permitted, but only when used in conjunction with a FHR device.

3 MATERIALS

- 3.1.1 The material of all straps shall be in good condition. The buckles shall be of metal-to-metal quick release type except in the case of the leg straps of the six-point system where they attach to the seat belt or shoulder harness straps.
- 3.1.2 Only separate shoulder straps are permitted. "V" and "Y" type shoulder straps are not allowed. "H" type configuration is allowed.

4 INSTALLATION

Details of installation shall be according to the manufacturer's instructions.

5 FUNCTION

All straps shall be free to run through intermediate loops or clamps/buckles.

6 HARDWARE

- 6.1.1 The minimum acceptable bolts used for mounting all belts and harness are 3/8in SAE Grade 5 or 5/16in Grade 8, which shall properly fit both the car mounting points and the belt end attachments. To achieve the required proper snug fit, shouldered steel bushings may be used if necessary. A Scrutineer shall approve, and note in the vehicle logbook, all installations using 5/16in bolts.
- 6.1.2 Where possible, seat belts, shoulder harness, and anti-submarine strap(s) should be mounted to the roll structure or frame of the Car. Where this is not possible, large diameter mounting washers or equivalent reinforcing shall be used to spread the load. Bolting directly to floor panels etc., without adequate reinforcement, is not acceptable.
- 6.1.3 All mounting hardware used to secure the driver restraint system shall serve no other purpose.

7 VALIDITY

- 7.1.1 Restraint systems meeting SFI standards shall bear a dated SFI spec label. For older labels with the punched manufacturing date, the certification indicated by this label shall expire on Dec 31st of the 2nd year after the date indicated by the label. Starting in 2017 the labels will use a printed expiration date ("Valid Until"); the equipment is not valid after the date printed.
- 7.1.2 Restraint systems homologated to FIA standards will have a label indicating a date of expiration which is Dec 31st of the year marked.
- 7.1.3 If a restraint system has more than one type of certification, the label with the latest expiration may be used.

APPENDIX M – ROLL CAGES

1 GENERAL

1.1 APPLICATION

Roll cages are mandatory on all Cars, unless otherwise stated.

1.2 DESIGN

Roll cages may be of two designs, low front hoop (top of steering wheel or high front hoop (top of windshield). Specific installations are subject to the approval of the Chief Scrutineer at each Event. (Refer to Diagrams herein)

2 BASIC DESIGN CONSIDERATIONS

2.1 PURPOSE

The basic purpose of the roll cage is to protect the Driver if the Car rolls over or is involved in a serious accident.

2.2 INSIDE DIMENSIONS

The top of main hoop of the roll cage shall be a minimum of 2in above the top of the Driver's helmet when the Driver is sitting in a normal driving position, or shall be located as near the roof as possible in closed Cars. The top of the main hoop shall not be more than 10in behind the back of the Driver's helmet when the Driver is sitting in a normal driving position. A straight line drawn from the top of the main hoop to the top of the front hoop shall pass over the Driver's helmet.

2.3 OPERATION

The roll cage shall be designed to withstand compression forces resulting from the weight of the Car coming down on the roll cage and to take fore/aft and lateral loads resulting from the Car skidding along on the roll cage.

2.4 HEAD RESTRAINT

- 2.4.1 A system of head restraint to prevent whiplash and rebound and to prevent the Driver's head from striking the underside of the roll cage shall be provided.
- 2.4.2 The head restraint shall be capable of withstanding a force of 200 pounds in a rearward direction.
- 2.4.3 The headrest shall have a minimum area of 36 square inches and be padded with a non-resilient material such as Ethafoam or Ensolite or other similar material with a minimum thickness of 1in.
- 2.4.4 The head restraint support shall be such that it continues rearward or upward from the top edge of the pad such that the Driver's helmet cannot hook over the pad.
- 2.4.5 The padded surface shall touch the helmet and shall not be under fibreglass or other hard material.

2.5 PADDING

Parts of the cage subject to contact with the Driver shall be padded with non-resilient material such as Ethafoam or Ensolite or other similar material with a minimum thickness of 1/2in.

2.6 AERODYNAMIC RESTRICTIONS

No portion of the roll cage shall have an aerodynamic effect by creating a vertical thrust.

2.7 ENGINE INTRUSION

Roll cage or chassis design shall prevent engine intrusion into the Driver compartment.

3 DIMENSIONS AND MATERIALS

3.1 MATERIALS

- 3.1.1 **For cars built after March 31, 2020**, the roll cage shall be of seamless or DOM mild steel tubing (SAE 1010, 1020, 1025) or equivalent, or alloy steel tubing (SAE 4125, 4130). It is recommended that mild steel tubing be used as alloys present difficulties in welding and must be normalized to relieve stress.

ERW tubing will not be allowed for new cars built after March 31, 2020. Existing cars with ERW tubing used in the roll cage may continue to compete.

3.2 DIMENSIONS

Unless otherwise specified herein, the minimum size of tubing to be used shall be as follows (all dimensions are in inches):

CAR WEIGHT	MILD STEEL	ALLOY STEEL
Up to 1500 lbs.	1.375x0.095	1.375x0.080
1500-2500 lbs.	1.500x0.095	1.375x0.095
Over 2500 lbs.	1.500x0.120 or 1.750x 0.095	1.500x0.095

ERW tubing **for cars built before March 31, 2020** may use the following sizes only:

CAR WEIGHT	ERW TUBING
Up to 2500 lbs.	1.500x0.120
over 2500lbs.	1.750x0.120

3.3 WEIGHT

For purposes of determining tubing size, the Car weight is as raced, without fuel, Driver, or 'rewards weight'.

3.4 MINUS TOLERANCE

The minus tolerance for wall thickness shall not be more than 0.010 below the nominal thickness.

3.5 INSPECTION HOLE

An inspection hole of at least 3/16in diameter shall be drilled in a non-critical area of tubing to facilitate verification of wall thickness. The tubes to be inspected are:

- main hoop
- fore and/or aft supports (as applicable)
- front hoop (as applicable)

4 FABRICATION

4.1 BENDS

One continuous length of tubing shall be used for the main hoop with smooth continuous bends and no evidence of crimping or wall failure. The radius of bends in roll cages (measured at centerline of the tubing) shall not be less than three (3) times the diameter of the tubing.

4.2 MAIN HOOPS

Whenever possible, roll cage hoops should start from the floor of the Car and in the case of tube frame construction, be attached to the chassis tubes by means of gussets or sheet metal webs with support tubes beneath the joints to distribute the loads. It is recommended that gussets be used at all joints.

4.3 JOINTS

All joints shall be fully welded. All welding shall be of the highest possible quality with full penetration and shall be done according to A.S.T.M. specifications for the material used. Arc welding, particularly heliarc, should be used whenever possible. Welds should be inspected by magnaflux or dye penetrant after fabrication. Alloy steels shall be normalized after welding.

4.4 BRAZING

Aluminum bronze or silicon bronze welding techniques are permitted, but extreme care shall be used in preparation of parts before welding and in the design of the attaching joints.

5 FORMULA AND SPORTS RACING CARS

5.1 GENERAL

- 5.1.1 Two-seat Sports Racing Cars shall have full cockpit width roll cages.
- 5.1.2 On Cars of full monocoque construction, a fabricated front hoop may be recognized by CASC-OR upon specific application.

5.2 MAIN AND FRONT HOOPS

- 5.2.1 On Formula Cars and single seat Sports Racing Cars the two vertical members forming the sides of the main hoop shall not be less than 15in apart, inside dimension, at their attachment points to the chassis. If the hoop does not go to the belly pan, it shall be attached to the chassis with proper gussets and tube triangulation to spread the loads. On monocoque chassis the main hoop shall be welded to mounting plates not less than 0.080in thick. These plates shall be attached to the chassis in a manner, which distributes the loads over a wide area. There shall be a plate of equal thickness on the inside of the monocoque with bolts of 5/16in minimum diameter through the non-ferrous material.
- 5.2.2 Low front hoops shall be no lower than the top of the steering wheel. If the hoop does not go to the belly pan, it shall be attached to the chassis with proper gussets and tube triangulation to spread the loads. NOTE: Some early model F1200, F1st, F1600, F2000 and F4 cars do not conform to this rule. These Cars may be recognized by CASC-OR on an individual exception basis only.
- 5.2.3 High front hoops shall be similar in shape to the rear hoop and have two horizontal tubes connecting the top of the front hoop to the top of the main hoop. In Cars with full height monocoque or composite construction (to top of steering wheel) a steel cap plate, not less than 0.080in thick shall be attached as a rubbing block.

5.3 BRACING

- 5.3.1 The main hoop shall have two fore/aft braces of tubing equal in dimensions and wall thickness to the tubing of the main hoop. This bracing shall be attached as near as practical to the top of the main hoop, no more than 6in below the top, and at an included angle of at least 30 degrees.
- If these braces do not extend to the front hoop, an additional brace or gusset shall be installed at the point of attachment to the main rear roll hoop or lower frame rail, or other frame member, in such a manner as to reinforce the attachment point to help prevent collapse of the frame rail at the point of attachment. These tubes shall be 1.00in x 0.080in minimum and gussets shall be 3/16 in minimum.
- 5.3.2 Two seat Sports Racing Cars shall have a diagonal lateral brace of tubing equal in dimensions and wall thickness to the tubing of the main hoop to prevent lateral distortion of the main hoop.
- 5.3.3 Formula and single seat Sports Racing Cars under 1500lbs. may use bracing of tubing with a minimum dimension of 1.00in diameter and 0.080in wall thickness. When monocoque construction is used as bracing for a front hoop it shall be approved by CASC-OR on an individual basis.
- 5.3.4 If the fore/aft bracing is removable, the connection between the main hoop and the brace shall be of the double lug type fabricated from material at least 3/16in thickness and welded through a doubler or gusset arrangement to avoid distortion or excessive strains caused by welding. Details of the attachment of removable braces are shown in the diagrams herein.
- 5.3.5 It is recommended that the fore/aft brace, if removable, be attached to a rear chassis member through a double lug connection as described above. If attached to the engine, it shall mount to a major component such as a head stud or a combination of head studs.

6 ALL CLOSED-WHEEL CARS

6.1 GENERAL

- 6.1.1 Cars shall have full width roll cages either removable or welded to the Car. Roll cages shall be contained within the Driver/passenger compartment.
- 6.1.2 Removable roll cages shall be very carefully designed and constructed to be at least as strong as a welded installation. If one tube fits inside another tube to facilitate removal, the removable portion shall fit tightly and shall bottom on the permanent mounting, and at least two 3/8in diameter SAE grade 5 bolts shall be used to secure the joint. The telescope section shall be at least 8in in length.

6.2 MAIN AND FRONT HOOPS

- 6.2.1 The main hoop shall extend the full width of the Driver/passenger compartment.
- 6.2.2 The front and side hoops shall follow the line of the front pillars to the top of the windshield as close to the roof as possible then horizontally to the main hoop. A tube shall connect these two hoops over the top of the windshield.
- Alternatively, a front hoop following the lines of the front pillars and connected to the main hoop on each side at the top may be used.
- 6.2.3 Open Cars without full windshields may have a low front hoop.

6.3 BRACING

- 6.3.1 The main hoop shall have two braces of tubing extending to the rear attaching to the frame or chassis. This bracing shall be attached as near as practical to the top of the main hoop, no more than 6in below the top, and at an included angle of at least 30 degrees. The main hoop shall have a diagonal brace to prevent lateral distortion.
- 6.3.2 Recommendations
- a) A horizontal lateral tube connecting the right and left legs of the main hoop, as close to the floor of the Car as possible, is highly recommended.
 - b) A horizontal lateral under dash tube connecting the right and left legs of the front hoop is highly recommended.
 - c) A lateral tube, shaped over the tunnel, connecting the bottom of the right and left legs of the front hoop is highly recommended. A vertical tube may be installed between the under-dash tube and this tube to strengthen the shaped section over the tunnel.

6.4 SIDE PROTECTION

- 6.4.1 Two horizontal tubes, or one horizontal tube and one angled tube, or a fully gusseted "X" brace, connecting the front and main hoops across the Driver's door are mandatory. Vertical tubes in this structure are highly recommended. Gussets shall be a minimum of 2 inches on the shortest side and made of plate steel twice the thickness of the tube wall, or formed from tubing of the same thickness and diameter as the cage, split and formed into gussets, or formed to a shape similar to the split tube from sheet steel the same thickness as the roll cage tubing. All gussets shall be fully welded all around.
- 6.4.2 One or more horizontal tubes or one diagonal tube connecting the front and main hoops across the passenger door are mandatory.
- 6.4.3 Interior door panels may be altered, replaced or removed to allow for installation of side protection tubes or NASCAR-style door bars. Where door panels are removed, all sharp edges or projections shall be protected.
- 6.4.4 If NASCAR-style door bars are installed, they should be constructed in the following manner:
They should be constructed of several horizontal tubes attached to the main and front hoop, angled out into the door cavity as far as possible, spaced equally at intervals no more than 15 cm center to center, with the top tube no lower than 1/3 of the height from floor to roof, but at no time higher than the top of the dashboard. Vertical tubes should be inserted between these tubes at equal intervals no greater than 30 cm center to center. A straight tube should be placed as close to the floor as possible but allowing the vertical tubes to connect from this tube to the lowest tube angling into the door.
- 6.4.5 The two lateral tubes recommended in Section 6.3 should be installed when a NASCAR-style door bar assembly is used.
- 6.4.6 All tubing shall be the same size as that which is specified for the weight of the car.

6.5 MOUNTING PLATES

- 6.5.1 Mounting plates shall be no thinner than 1/8in and no thicker than 3/16in with no single edge longer than 6in and with back-up plates of equal size and thickness on the opposite side of the panel with the plates through-bolted together using a minimum of three bolts per mounting plate. The minimum acceptable bolts shall be SAE Grade 5 of 3/8in diameter. Mounting plates may be welded to the car. Wherever possible the mounting plate should be shaped to and welded to a vertical portion of the car. Mounting plates shall not penetrate the firewall at any point. When the roll cage is attached to the floor, no contact plate on the Car shall measure less than 20 sq. in on any given plane.
- 6.5.2 On specific models of Cars where the floor construction will not permit a contact plate of this minimum area to be installed application shall be made to CASC-OR for a waiver to this rule. This will be noted in the Car logbook.

6.6 SEAT BACK MOUNTING

Seat backs shall be securely mounted and fastened. In order to provide secure seat back fastening, a section of tubing equal to the roll cage tubing shall be installed horizontally from the main hoop upright to the diagonal brace. This tube shall be no higher than shoulder height.

7 ALTERNATIVE ROLL CAGE DESIGNS

7.1 CERTIFICATION

The scrutineer may accept roll cages not complying with these specifications provided that the Entrant can produce a certificate complying with the following requirements:

- a) Load Certification: the certificate shall prove that the construction is capable of withstanding three simultaneously applied loads, the induced loads being carried over into the primary structure:
 - i. 1.5 (x) laterally;
 - ii. 5.5 (x) longitudinally in either direction;

- iii. 7.5 (x) vertically
(x) shall be the weight of the Car in starting order with the Driver aboard and full fuel tanks.
- b) Illustration: the certificate shall be accompanied by a drawing or photograph of the roll cage and shall be signed by a Professional Engineer or other qualified technical person recognized by CASC-OR.

7.2 COMPOSITES

Safety structures of composite materials shall be recognized on an individual basis by CASC-OR.

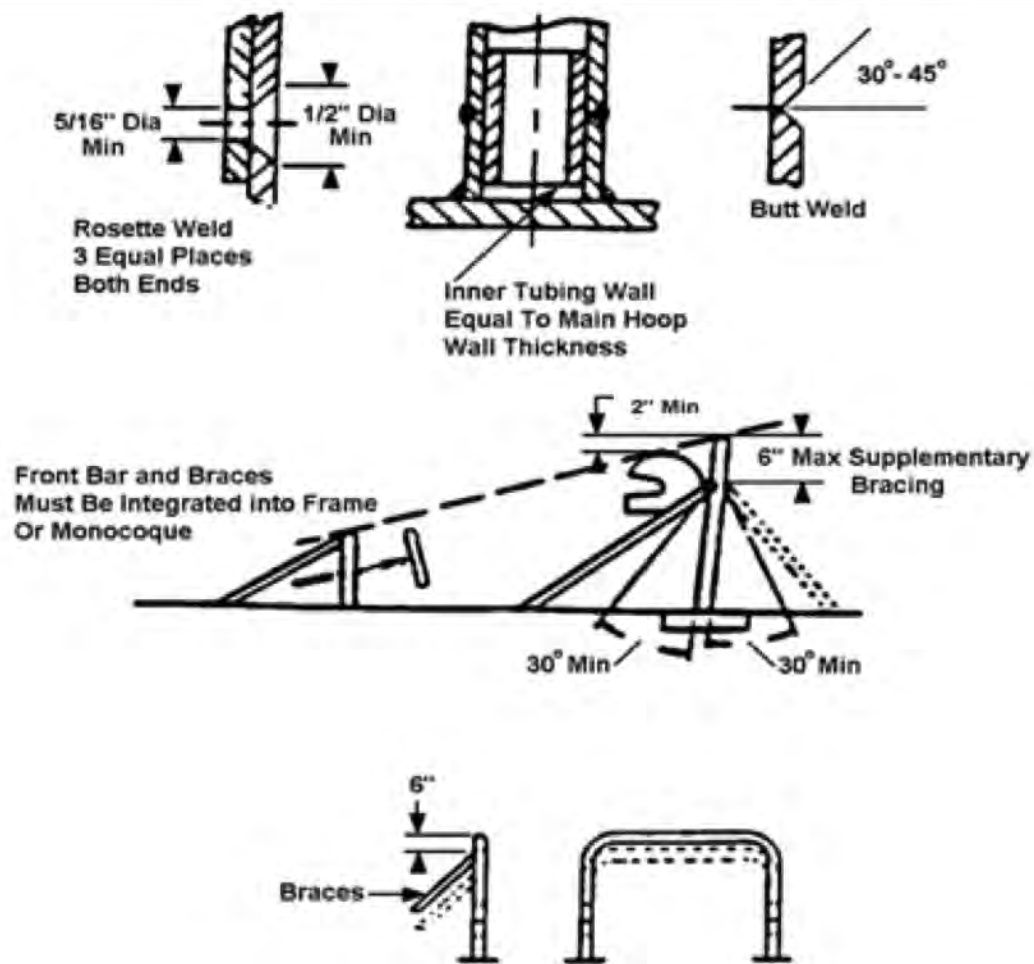
8 INCREASING ROLL CAGE HEIGHT

The following procedure is approved for increasing the height of existing roll cages not meeting the 2-inch helmet clearance requirement:

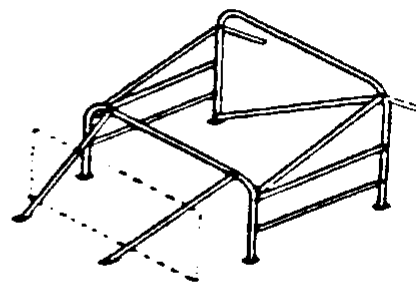
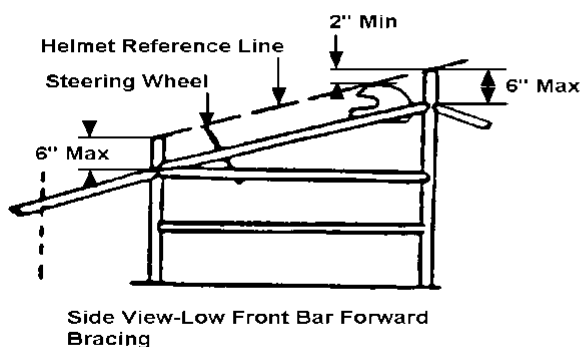
- a) The old main hoop shall be cut off near the chassis mounting and either a new main hoop of equal tube size or a section of equal sized tubing may be added.
- b) Inner tubing shall be used to mate all sections together.
- c) All braces shall be a maximum distance of 6 inches from the top of the hoop.
- d) The inner tubes shall be rosette welded at three points near the top and three points near the bottom. Refer to the diagrams herein.

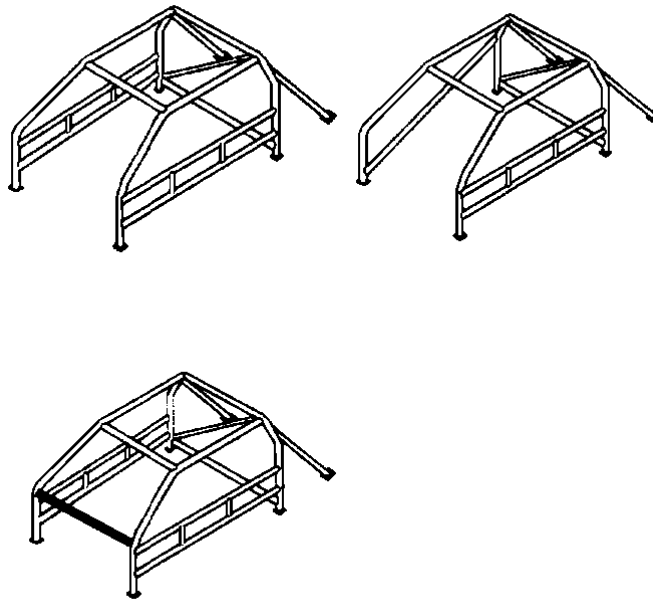
9 ROLL CAGE DIAGRAMS

9.1 FORMULA CARS

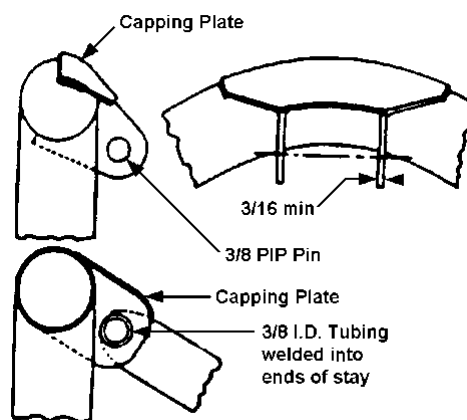


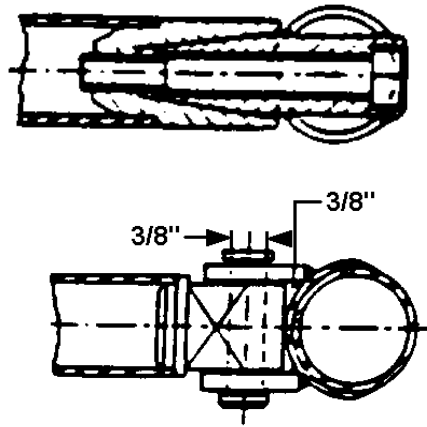
9.2 GT, OPEN GT CARS, AND SPORTS RACERS





9.3 REMOVABLE BRACE DETAILS





APPENDIX N – CAR PREPARATION

1 SCOPE OF REGULATIONS

These Regulations and Specifications apply to all Cars in CASC-OR sanctioned Events.

It is the responsibility of the Driver/Entrant to ensure that the manufacturer's instructions for the installation, use and care of safety-related items are followed.

2 GENERAL PROVISIONS

- 2.1.1 To compete in a CASC-OR sanctioned Event; Cars shall comply with the GCR, with these Regulations and Specifications, and with the Class Regulations and Specifications.
- 2.1.2 If these Regulations and Specifications and Class Regulations and Specifications conflict, the Class Regulations and Specifications shall take precedence.
- 2.1.3 FIA homologated Cars will be dealt with on a case-by-case basis. The Entrant/Driver shall present homologation papers when the Car is scrutineered.
- 2.1.4 It is the responsibility of Entrants/Drivers to follow the manufacturer's recommendations for all safety equipment.

3 APPEARANCE

3.1 PRESENTATION

Cars shall be neat and clean. Cars which are dirty either externally or in the engine and passenger compartments, or that show bodywork damage, or that are partially or totally in primer, or that do not bear the prescribed identification marks shall not be approved for Competition.

4 NUMBERS, MARKINGS AND ADVERTISING

4.1 IDENTIFICATION NUMBERS AND CLASS DESIGNATORS

- 4.1.1 Cars shall carry identification numbers and class designators, or other marks required by the Regulations.
- 4.1.2 Any Competitor whose Car numbers are judged to be illegible by the Chief Timekeeper or the Clerk may be shown a 'Mechanical Black Flag' and shall not be scored or allowed to compete until the numbers are acceptable.
- 4.1.3 Cars shall have numbers which conform to the standards outlined below.
 - a) CLOSED WHEEL CARS
 - i. Numbers shall be placed on the front, rear, and on the driver and passenger's doors.
 - ii. These numbers shall be clearly visible to the timing tower of the circuit at which the Competition is taking place.
 - iii. Front numbers shall be no less than 250mm (10in.) high with a 50mm (2in.) stroke. Side numbers shall be no less than 250mm (10in.) high with a 50mm (2in.) stroke unless presented in black text on a white number plate, in which case they shall be no less than 200 mm (8in.) high with a 38mm (1 1/2in.) stroke.

- iv. Rear numbers shall be no less than 150mm (6in) high with a 38mm (1 1/2in) stroke.
- v. The distance between the digits shall be no less than the stroke of the digits.
- vi. A clear space shall be left around all numbers no less than 65mm (2.5in.) wide.
- vii. Class designators shall be no less than 100mm (4in.) high with a 13mm (1/2in.) stroke.
- viii. Class designators shall be placed on the driver's and passenger's doors as well as on the right-half of the rear of the car above the rear bumper and shall be clearly visible.

b) FORMULA AND SPORTS RACING CARS

- i. Numbers shall be placed on the front and both sides.
- ii. Numbers shall be no less than 200 mm (8in.) high with a 38mm (1 1/2in.) stroke unless presented in black text on a white number plate placed adjacent to the driver's shoulder, or on the rear wing end plate, and on the front in line between the front wheels, in which case they shall be no less than 150 mm (6 in.) high with a 25 mm (1 in.) stroke.
- iii. The distance between digits shall be no less than the stroke of the digits.
- iv. A clear space shall be left around all numbers no less than 50mm (2in.) wide.
- v. Class designators shall be no less than 100mm (4in.) high with a 13mm (1/2in.) stroke unless presented in an approved class panel. Approval shall be at the discretion of the Race Director.
- vi. Class designators shall be placed on both sides of the car adjacent to the side numbers.

c) VINTAGE HISTORIC and CLASSIC

- i. Cars shall display the standard class designator decals as supplied by VARAC on either side of the car, close to the car number.
- ii. Numbers, class designators and other marks required by the Regulations shall have a sharply contrasting background. It is HIGHLY RECOMMENDED that competition numbers shall be black on a white background of adequate area to accommodate the numbers.
- iii. Reflective/iridescent numbers are prohibited.

4.1.4 Car numbers shall be registered annually through the CASC-OR office via one of the following mechanisms:

- a) Any competitor with a registered number who has participated in a minimum of three (3) events in a season shall automatically have that same number re-registered for their use the following season.
- b) Any competitor with a registered number who has participated in fewer than three (3) events in a season can re-register that same number, if it remains available, upon receipt of payment for their Regional Race Driving Licence for the following season.
- c) An entrant who has multiple registered car numbers may retain those numbers provided that the total number of events in which that entrant's cars have participated divided by three is at least equal to the number of cars for which the request is being made. This shall not be an automatic process and the request shall be made at the end of the current competition season.

- 4.1.5 For closed wheel cars, only numbers 02 to 09 and 1 to 299 shall be used **for cars running for a Race Ontario Championship (See Appendix P)**.
- 4.1.6 **Open wheel** cars **running for a Race Ontario Championship (see Appendix P)** shall use numbers 02 to 09 and 1 to 99. When a car competes out of class it shall be the responsibility of that driver to change the number if there is a car already in the class with the same number.
- 4.1.7 Competitors who have non-registered numbers in an open-wheel class shall, where appropriate, **use a non-conflicting car number higher than #99**.
- Competitors who have non-registered numbers in a closed-wheel class shall, where appropriate, **use a non-conflicting car number higher than #299**.
- 4.1.8 Competitors who do not have CASC-OR registered numbers are not eligible for Championship Series points. They shall be assigned a number by the registrar when they enter the Event to avoid duplication within a race group.

4.2 CASC-OR IDENTIFICATION

Cars shall display the official CASC-OR logo unobstructed and prominently on both sides of the Car ahead of the side numbers. The logo shall be displayed on the front of the Car unobstructed and prominently near the front number or on the spoiler for Cars so equipped.

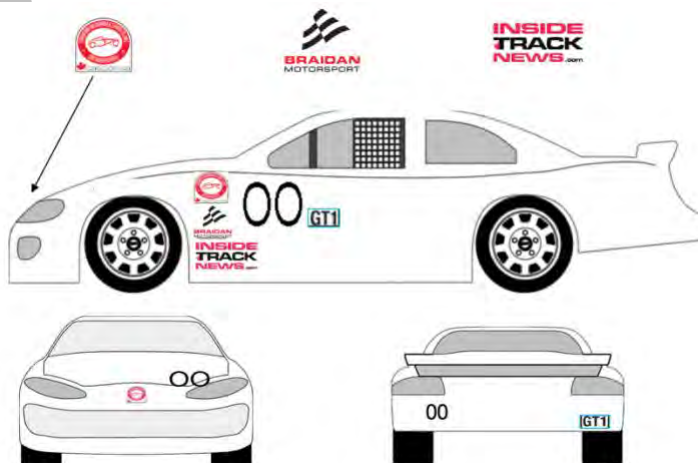
Sponsors' decals for all classes shall be displayed as outlined in a published bulletin.

Note: Decals must be located as close as possible to the illustrated locations.

4.2.1 GT SPRINTS, AND VARAC




Period livery correct cars exempt (VARAC).

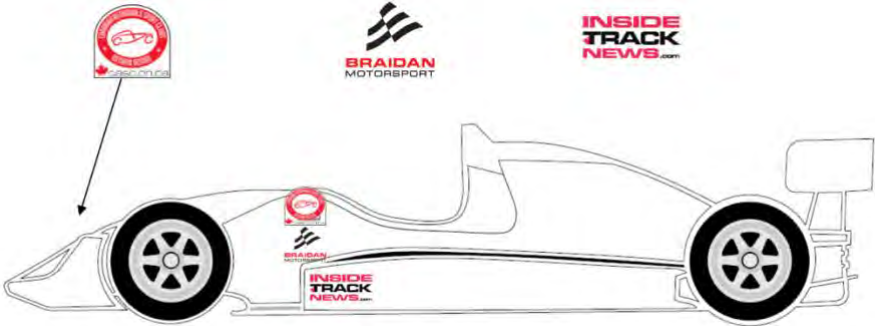
Mandatory Decals		
CASC-OR logo 1 each side, 1 in front	Braidan Motorsport 1 each side	Inside Track News 1 each side



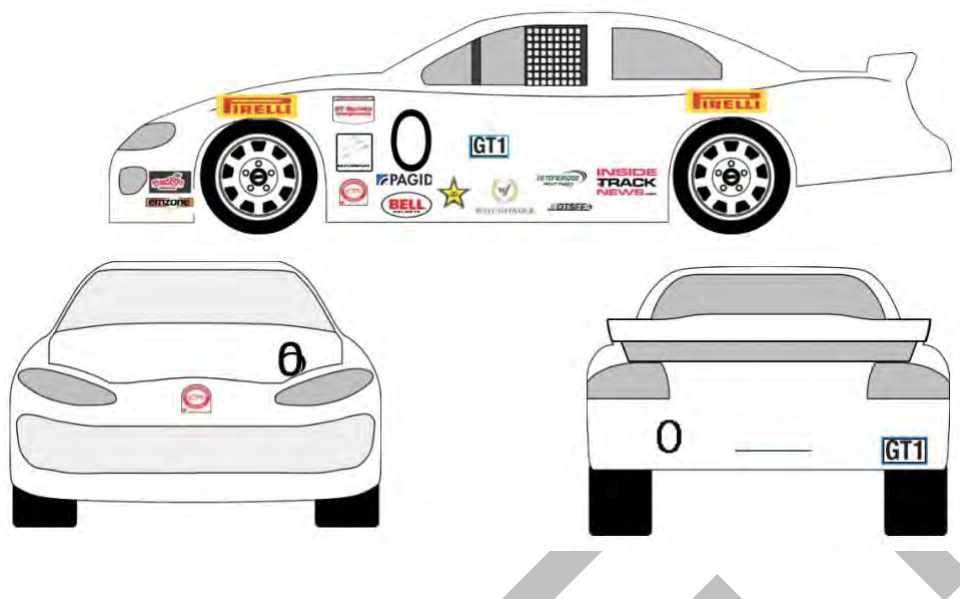
		
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4.2.2 LIBRE, OPEN WHEEL, AND RADICAL CUP CLASSES












Mandatory Decals		
CASC-OR logo 1 each side, 1 in front	Braidan Motorsport 1 each side	Inside Track News 1 each side
		



4.2.3 PIRELLI TIRE GT SPRINTS



DRAFT

Mandatory Decals		
CASC-OR Decal	1 each side, 1 on front	
CASC-OR Championship	1 each side	
Class Identifier	1 each side below or beside the number, and rear of car	
PIRELLI Tire	1 on top of each front and rear wheel well	
Paget	1 each side	
Rockstar	1 each side	
Bell Helmets	1 each side	
Braidan Tire	1 each side	
OTSFF	1 each side	
Stoneridge Insurance	1 each side	
Watchfinder	1 each side	
Emzone	1 each side	
RoadSport Honda	1 each side	
Inside Track News	1 each side	

4.3 ADVERTISING

Advertising, names and symbols may be displayed on Cars provided they are in good taste and do not interfere with identification marks.

5 SAFETY

5.1 ROLL CAGE

Cars shall be equipped with a roll cage as specified in Appendix M – Roll Cages, hereto.

5.2 DRIVER RESTRAINTS

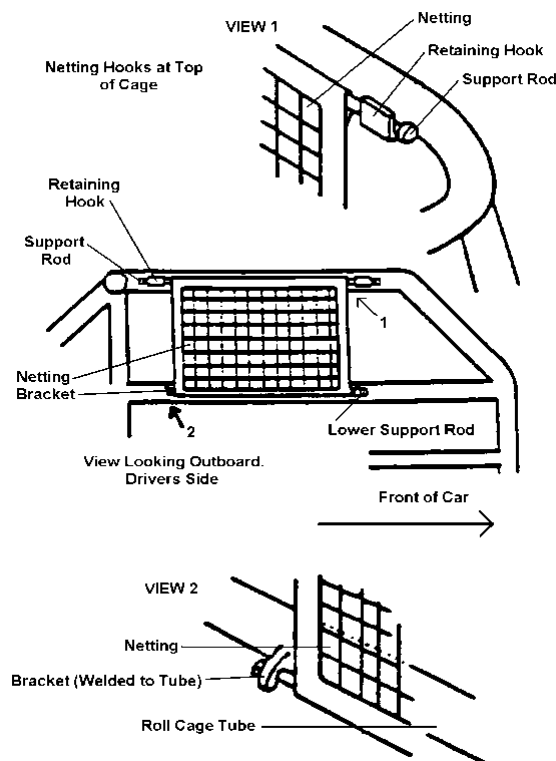
Cars shall be equipped with seat belts and shoulder harness as specified in Appendix L – Driver Restraint Systems, hereto.

5.3 WINDOW NETS

5.3.1 Window safety nets shall be installed on the Driver's side window of closed wheel Cars. (See Diagram "WINDOW NET INSTALLATION" herein).

5.3.2 The window net shall be equipped with a top-mounted quick-release device that, when activated, shall allow the net to fall down. If attached to the door rather than a roll cage the door shall be pinned shut.

5.3.3 WINDOW NET INSTALLATION



5.4 MASTER ELECTRICAL SWITCH

- 5.4.1 Cars shall be equipped with a general circuit breaker easily accessible from outside the Car. This master switch will cut all electrical circuits (ignition, fuel pumps, lights, alternator, etc.) but shall not affect the operation of an on-board fire extinguisher. All terminals of the master switch shall be insulated. The preferred type of circuit breaker is the red key model.
- 5.4.2 The location of the master switch shall be clearly marked by the official international marking - a red spark in a white-edged blue triangle and shall be mounted in the following standard locations. The OFF position shall be clearly indicated at the master switch location. Push or pull type switches must indicate how to set the "OFF" position, Pull for OFF, or Push for OFF labels must be in place. No other decals can be in the proximity (6 inches) of the master switch decal. The master switch shall be mounted in the following standard locations.
- 5.4.3 FORMULA and SPORTS RACING CARS: In close proximity to the right-hand upright member of the main hoop and in a location so that it cannot be operated accidentally. It may be mounted on a bracket welded to the inside of the upright member of the main hoop.
- 5.4.4 CLOSED WHEEL CARS: On the driver's side of the car, in front of the windshield on either the cowl or fender but close enough to the windshield to be accessible if the Car is overturned. Alternatively, it may be mounted on a bracket attached by welding or clamps to the front hoop of the roll cage easily accessible through the driver's side open window. Drilling holes in the roll cage for this purpose is prohibited. The primary master switch shall be in plain view, not obscured by the door or window net. The switch shall be approximately 6 inches or less from the outside of the car.

To facilitate accessibility a second master switch or a remote actuator may be installed providing it duplicates and does not compromise the primary circuit breaker function.

5.5 SCATTERSHIELDS

The installation of scattershields or explosion-proof bell housings is recommended where the failure of the clutch or flywheel could create a hazard to the Driver.

5.6 CHAIN-DRIVE CARS

Chain drive Cars shall be fitted with a protective case/shield to retain the chain in case of failure. Minimum material specifications are:

- a) 0.125in SAE 4130 alloy steel
- b) 0.250in mild steel plate
- c) 0.250in aluminum alloy
- d) NHRA-approved flexible shields

5.7 DRIVE SHAFT LOOPS

A minimum of 2 steel 360 degree "loops" per drive shaft section shall be installed of sufficient strength to prevent the drive shaft(s) from contacting the ground or injuring the driver in the event of shaft and/or

U-joint failure These loops shall be located as close as practical to each end of the drive shaft section(s).

5.8 ON-BOARD FIRE SYSTEMS

It is recommended that Cars be equipped with on-board fire extinguisher systems.

5.9 FUEL CONTAINMENT

All Cars shall be equipped with fuel cells/tanks conforming to Appendix K – Fuel, Fuel Cells and Tanks, hereto.

5.10 DRIVER TETHERING

Other than driver restraints, any line, hose, wire, or other type of connection which could potentially tether a driver to a vehicle, shall be equipped with a breakaway device requiring no manipulation for its release. This device shall be designed and installed in such a manner that the action of the driver exiting the vehicle will cause separation thereby permitting unrestrained egress.

6 FORMULA CAR VISIBILITY

6.1 GENERAL PROVISIONS

- 6.1.1 Drivers of Formula Cars shall be able to see 90 degrees to either side (total of 180 degrees) with both eyes, by turning their head, but without lifting their head forward or otherwise moving from the normal driving position.
- 6.1.2 Polycarbonate or similar uncoloured transparent material may be substituted for existing bodywork. "Token" portholes do not satisfy this requirement. Only a structural member such as a roll cage brace or frame tube may interrupt the required field of vision.

7 WEIGHT

7.1 GENERAL PROVISIONS

All Cars shall meet or exceed the minimum weight as specified in class rules, exactly as they come off the course, at the conclusion of a Race or qualifying session.

7.2 BALLAST

Ballast may be added to Cars as required, to meet minimum weight, provided it is securely mounted within the bodywork and serves no other purpose

8 FUEL

Cars shall use fuel as defined in Appendix K – Fuel, Fuel Cells and Tanks, hereto.

9 BODYWORK

9.1 POSITIONING

All major body components such as front and rear hoods, fenders, doors and windshield shall be maintained in normal position throughout Competition.

9.2 FENDERS

Fenders shall be securely mounted. Fender skirts and hubcaps shall be removed.

9.3 MIRRORS

Mirrors shall provide Driver visibility to the rear of both sides of the Car.

9.4 DETACHABLE PANELS

Detachable Hardtops, Panels and Detachable Doors (e.g., Lotus 7 doors) shall be removed or be permanently attached in a manner requiring tools for removal.

9.5 HOOD

The hood and all parts in the engine compartment shall be securely fastened.

9.6 TONNEAU AND BOOT COVERS

Tonneau covers and boot covers are prohibited except as allowed in Vintage rules hereto.

9.7 NOSE COVERS

Hood/nose covers, "Bras", are prohibited.

9.8 SUNROOFS

- 9.8.1 Sunroofs are permitted. The inside and outside of glass shall be taped. If there is an interior cover installed, it shall be securely closed at all times.
- 9.8.2 Sheet metal may be used to cover the exterior glass instead of tape provided the metal is properly secured.

9.9 T-BAR ROOFS

T-Bar roofs shall be removed and replaced with metal of the exact shape and dimension as the original pieces.

9.10 OPEN GT CARS

The top and frame shall be removed from all open (convertible) GT and Touring Cars.

9.11 DRIVER/PASSENGER COMPARTMENT

GT and Touring Cars shall have firewalls or other metallic separation isolating the driver/passenger compartment from the compartment(s) containing the fuel cell/tank, connections to the fuel cell/tank, fuel filler system, fuel pump(s), fuel discriminator valve(s) and the engine.

9.12 BUMPERS

Bumpers may be removed, except when they are an integral part of the coachwork, in which case they may be replaced with replicas of a different material. If the bumper is removed, all projecting hardware, brackets and fixtures shall be removed.

9.13 FENDERS

- 9.13.1 In order to provide clearance for wheels, tires and the installation of brake and oil cooler ducting, the interior of the fenders may be altered, except for the removal of panels separating the wheel wells from the engine, passenger, and/or luggage compartments.
- 9.13.2 The inner fender panels may be replaced with a panel of the same material and thickness as the original provided that the replacement provides the required separation.
- 9.13.3 Fender flares are allowed.

9.14 WINDOW TINTING

Windows shall be clear and uncoloured.

9.15 WINDOW MATERIALS

- 9.15.1 If window glass is removed it shall be replaced with polycarbonate.
- 9.15.2 Polycarbonate windshields shall be of 6 mm min. thickness and shall be identical in size and curvature to the original. These windshields shall have three inner straps to prevent them from collapsing inward. These straps shall be not less than 0.75in x 0.125in., of aluminum or material of equivalent rigidity. Spacing between these straps shall be a minimum of 8in.

9.16 WINDOW CLIPS AND REAR WINDOW STRAPS

- 9.16.1 Windshields retained solely by a rubber or pliable seal shall, in addition, be secured by five (5) clips, three at the top and two at the bottom, bolted or riveted to the body. These clips shall be 3in x 1in x 0.125in, and made of aluminum or material of equivalent rigidity. The clips shall be spaced a minimum of 12in apart.
- 9.16.2 The installation of all other windshields other than OEM type bonded installations, shall be approved by a CASC licenced Scrutineer holding, or eligible to hold a Technical Inspection Stamp.
- 9.16.3 Rear windows, including those in hatches, retained only by a rubber or pliable seal shall, in addition, be secured with two straps of aluminum or material of equivalent rigidity, not less than 0.125in x 1in, bolted or riveted to secure structure above and below the window. The straps shall be spaced a minimum of 12in apart.

- 9.16.4 The installation of all other rear windows other than OEM type bonded installations, shall be approved by a CASC licenced Scrutineer holding, or eligible to hold a Technical Inspection Stamp.
- 9.16.5 Hatches, in addition to the provisions of 9.16.3 and 9.16.4 above, shall have a safety tether to prevent the hatch from opening more than approximately four (4) inches should the latch inadvertently release.

9.17 WINDSHIELDS FOR OPEN GT CARS

If the windshield on an open GT or Touring Car is removed a replacement windshield shall be fitted, not exceeding the height or width of the standard windshield and not extending rearward past a vertical plane at the rearmost part of the standard windshield/windshield frame. If the windshield is removed, the entire windshield (both halves of a divided windshield), including all brackets and mounting fixtures shall be removed.

9.18 AERODYNAMIC DEVICES FOR GT CARS

No part of any aerodynamic appendage may be wider than the widest part of the bodywork of the car.

10 TIRES

CASC-OR recognized tires, 190 km/h rating **or higher** are required where not specified by class regulations.

11 LIGHTS

11.1 BRAKE LIGHTS

GT Cars, Touring Cars, and Sports Racing Cars shall have two operating red brake lights which shall be functional and operational at all times and actuated only by application of the brake pedal. A minimum of 50 percent of the brake light area shall be exposed.

11.2 RAIN LIGHT

All cars shall have an FIA approved rain light. Notwithstanding this requirement, any car without this rain light may be approved if the light meets or exceeds the FIA standard as determined by the chief Scrutineer.

This light shall be illuminated when ordered by the Clerk.

11.3 FORMULA CARS

Formula Cars shall be equipped with a rain light as described in Section 11.2 above. This light shall be mounted on the centerline of the Car and be clearly visible from the rear.

The light shall be illuminated when ordered by the Clerk.

12 BRAKES

- 12.1.1 Brakes shall be pedal-operated, working on each wheel.
- 12.1.2 Cars shall have dual master cylinders and a dual circuit braking system so that effective braking is maintained on at least two wheels.

13 THROTTLE SPRINGS

A minimum of two throttle return springs are required. Electronic throttles are exempt.

14 EXHAUST

14.1 CATALYTIC CONVERTERS

Catalytic converters shall be removed.

14.2 EXHAUST SYSTEM TERMINATION

The exhaust shall terminate outside of, but not more than 100 mm beyond, the bodywork, exiting either to the side or the rear, behind a point equidistant between the front and rear hubs or behind the driver whichever is the further back, but in no case adjacent to or directly below the fuel filler. Any variation from this specification shall be approved in writing by the Regional Chief Scrutineer.

15 STARTERS

Cars shall be fitted with a self-starter capable of being operated by the Driver sitting in the normal driving position.

16 BATTERIES

16.1.1 Battery location is free within the bodywork. Flooded lead acid type batteries located in the driver/passenger compartment shall be in a non-conductive marine-type container or equivalent. The hot terminal shall be insulated.

16.1.2 All batteries shall be attached securely to the frame or chassis.

17 OIL ACCUMULATORS/TANKS

17.1.1 Accumulators (e.g. Accusumps) may be installed. Location is free. They shall be securely mounted within the bodywork.

17.1.2 Oil tanks (dry sump tanks) located in the driver/passenger compartment shall be isolated from the driver by a metallic bulkhead(s) so that in the event of spillage, leakage or failure, oil will not reach the driver.

18 FUEL CAPS, LINES AND VENTS, OIL LINES, WATER LINES

18.1 LEAKAGE

No leakage of any fluid shall be allowed.

18.2 DRIVER/PASSENGER COMPARTMENT PLUMBING

All fuel and oil lines, including gauge and vent lines that pass into or through the driver/passenger compartment shall be of steel tube or metal braided hose (e.g. 'Aeroquip').

18.3 FILLER CAP

A positive locking fuel filler cap shall be used and fuel pick-up openings and lines, breather vents, and fuel filler lines shall be designed and installed so that if the Car is partially or totally inverted, fuel shall

not escape. If the fuel filler cap is located directly on the fuel tank, a check valve shall not be required provided the filler cap does not incorporate an unchecked breather opening.

18.4 FLIP-TOP CAPS

'Monza' (flip-top) gas caps are prohibited, except as allowed in Vintage rules.

18.5 FUEL TANK AIR VENTS

Fuel tank air vents shall vent outside the Car and shall not be vented through the roll cage structure.

18.6 FUEL TANK VENTS IN OPEN GT CARS

Fuel tank vents on open GT Cars shall be located at least 250mm behind the Driver.

18.7 LOCATION OF FITTINGS

It is recommended that all fuel lines, filler openings, and vents be incorporated in a single fitting located at the top of the fuel tank.

18.8 ON FORMULA AND SPORTS RACING CARS

18.8.1 Fuel filler necks, caps, or lids shall not protrude beyond the bodywork of the Car.

18.8.2 Fuel tank vents shall be located at least 250mm behind the cockpit.

18.9 HEADER TANKS

Header tanks located in the driver/passenger compartment shall be shielded.

18.10 WATER LINES

Water lines passing through the driver/passenger compartment shall be shielded or be of metal braided hose.

19 CATCH TANKS AND BREATHERS

19.1.1 All engine crankcase breathers, whether directly or indirectly ventilating the crankcase, and all transmission/transaxle breathers shall be equipped with oil catch tanks.

19.1.2 Minimum catch tank capacity shall be one litre each for the engine and transmission/transaxle.

19.1.3 If a single catch tank is used for both the engine and the transmission/ transaxle; the minimum capacity shall be two litres.

19.1.4 Oil catch tanks shall not be mounted in the Driver/ passenger compartment. Dry sump system oil holding tanks may be mounted in the Driver/passenger compartment. A metal bulkhead shall prevent exposure of the driver to oil spillage.

19.1.5 Crankcase vacuum breathers that pass through the oil catch tank(s) to exhaust systems or vacuum devices that connect directly to exhaust systems are prohibited.

20 INTERIOR

20.1 SEAT MOUNTING

Seats shall be securely mounted.

20.2 PASSENGER SEATBACKS

Passenger seat back, if a folding seat, shall be securely bolted or strapped in place.

20.3 STEERING WHEEL MATERIALS

Wood rim steering wheels are prohibited except as allowed in Vintage rules hereto.

20.4 ANCILLARY MOTORING EQUIPMENT

Hubcaps, wheel trims, spare tires, jacks, tool kits and floor mats shall be removed.

20.5 INTERIOR TRIM

It is recommended that interior trim, carpets, panels, stock seatbelts, and passenger seats are removed.

20.6 INTERIOR DOOR PANELS

Interior door panels may be altered, replaced or removed to facilitate the installation of multiple sidebars (Driver intrusion protection). When interior door panels are removed, all sharp edges or projections shall be protected.

21 VENTILATION AND ACCESS

GT vehicles shall run with the Driver front door window either fully open or fully closed. They shall be constructed to allow rapid egress on both sides of the vehicle.

When either door is permanently in the closed position, the window in that door shall be easily opened or removed from both the interior and exterior of the vehicle without tools.

22 FIREWALL AND FLOOR

Firewall and floor shall prevent the passage of flame and debris to the Driver's compartment. Belly pans shall be vented to prevent the accumulation of liquids. All rear-engine Formula Cars shall have an undertray, from the Driver's foot area to the firewall.

23 AIR BAGS

Air bags shall be removed if possible or shall be deactivated.

24 CRUISE CONTROLS

Cruise controls shall be deactivated.

25 VIDEO EQUIPMENT

In Car cameras or recording equipment is permitted provided the installation is recognized by the Event Chief Scrutineer and subject to the provision that the Stewards of the Event may impound any recording made during a track session. Drivers presenting recorded evidence in a Stewards' hearing shall provide the Stewards with the equipment necessary to view the recording.

26 RADIO COMMUNICATION AND TELEMETRY

26.1 TELEMETRIC SIGNALS

Excepting the receiving of standard broadcast radio signals, telemetric signals transmitted from or received by Cars during an on-track session are prohibited, unless prior written consent is received from CASC-OR.

26.2 ALLOWABLE COMMUNICATIONS

Two-way voice communications is permitted between Driver and crew, when allowed by Series Regulations. In car voice communication between Drivers is not permitted.

26.3 RADIO COMMUNICATIONS

Radio communication systems used by Competitors shall not interfere with Race Control or any other Race Emergency radio networks. Competitors shall inform the Clerk of radio frequencies to be used prior to Competition.

26.4 MAGNETICALLY MOUNTED ANTENNAS

Magnetically mounted antennas shall be additionally secured with tape.

26.5 OEM ANTENNAS

External original equipment antennas shall be removed, or if retractable, shall be fully retracted.

27 TOWING EYES/TOW STRAPS

27.1 INSTALLATION

All cars without an exposed roll bar shall have a towing eye or strap, accessible from front and rear, which does not dangerously protrude from the bodywork when a car is racing, to be used for hauling the car. These towing devices shall be welded or bolted to the frame, roll cage or other significant structure. These towing eyes or straps shall be easily accessible and visible without removal or manipulation of bodywork or other panels. Towing eye minimum inside diameter shall be two (2) inches. Should a tow hook/tow strap fail, a fine of up to \$500 may be assessed. Cars with tow points not clearly visible shall:

- a) have the tow point marked with high visibility paint
- b) have a red arrow clearly indicating the location of the tow point
- c) be within 12 inches of the rear or front of the car or be otherwise readily accessible, e.g. centrally located on the roof or attached to the roll bar.

27.1.1 For formula and sports racing cars that have bodywork covering the main roll hoop, there shall be an access hole allowing the car to be lifted by a hook or strap.

27.1.2 Effective January 1, 2017, cars being newly registered with CASC shall have towing eyes/tow straps that are visible on the front and rear of the car by a Scrutineer standing in front of and/or behind the car (not under the car)

27.1.3 Existing cars with a towing eyes/tow straps that do not meet this requirement and/or could possibly create a difficulty for the recovery/tow truck crew - in the opinion of the Chief Scrutineer - shall be required to change their towing eye/tow strap to comply.

27.1.4 Welds for towing devices shall be of the same quality as required on the main roll cage/hoop.

- 27.1.5 Tow eyes that are bolted shall be attached to the frame or other significant structure. The minimum acceptable bolts shall be SAE Grade 5 of 3/8 in diameter.
- 27.1.6 Tow straps shall come from a recognized manufacturer and shall be designed for motorsport application.
- 27.1.7 Wire cables are not acceptable.

28 SOUND LEVELS

The recommended acceptable level is 103 dBA or as specified in the Event Supplementary Regulations.

29 ANTIFREEZE

The use of antifreeze (glycol) is prohibited.

30 TIMING TRANSPONDERS

All cars shall be equipped with a functional TranX260 or 2X transponder for timing purposes.

APPENDIX O – REGULATIONS AND SPECIFICATIONS FOR CAR CLASSES

The following is a list of the regulations and specifications for car classes recognized by CASC-OR. Copies of these are available as separate publications on request from the Ontario Region office, or by free download from http://www.casc.on.ca/roadracing_rules.

- Section A: Formula 1200
- Section C: Formula 1600
- Section D: Formula 2000
- Section E: Formula Four
- Section F: PIRELLI Tire GT
- **Section G: REMOVED**
- Section H: Radical Canada Cup

APPENDIX P – RACE ONTARIO SERIES REGULATIONS

1 GENERAL PROVISIONS

These Regulations cover the Race Ontario Championships series.

- a) Formula 1200
- b) Toyo Tires Formula 1600
- c) PIRELLI Tire GT
- d) Radical Cup
- e) **Formula Libre**

2 SCHEDULE

To be published by bulletin.

2.1 PUBLICATION OF EVENT SCHEDULES

Daily Event schedules are listed in the Event Supplementary Regulations.

2.2 ATTENDANCE AT DRIVERS' MEETINGS

If a Drivers' meeting is scheduled, attendance is mandatory and may be checked by means of a roll call. Those not in attendance may be required to start at the back of the grid for their race.

3 ENTRIES

3.1 OVER SUBSCRIPTION OF RACES

In the event of over subscription, the following actions shall be taken:

- a) Split the classes in a multi-class race.
- b) After the first race of the season, give preference to Competitors who have scored points in the current Race Ontario championships.
- c) Give first consideration to earlier entries.
- d) Reserve Entrants shall be notified of their status and may participate in practice/qualifying fulfilling all conditions set for regular entries.

3.2 ISSUANCE OF SCRUTINEERING SHEETS

Where required Registrars shall issue an Event Scrutineering sheet to entrants, showing the Competition number and class of the Car entered.

3.3 ISSUANCE OF NON-COLLECTIBLE PAYMENTS

- 3.3.1 Any Competitor giving a dishonoured method of payment to an organizing club for any fee shall be charged a \$25 handling fee plus any bank charges by the offended club in addition to the amount of the dishonoured payment.
- 3.3.2 Upon notification by an organizing club of an uncollectible fee from a Competitor, the club having made reasonable effort to collect it, CASC-OR shall take action as per Section 6.1.1 j of the GCR.

3.4 DATE OF PAYMENT

The appropriate fee payable to the organizing club in Canadian funds shall be provided upon registration. Cheques may be dated the day of the Event.

3.5 ESTABLISHMENT OF ENTRY FEES

The CASC-OR Race Committee shall set entry fees.

3.6 REFUND OF ENTRY FEES

3.6.1 The organizing club shall issue a:

- a) Refund of the full entry fee less any applicable admin or credit card charges for any entry that is withdrawn before the on-track sessions commence at an event.
- b) Credit towards future entry fees equal to the full entry paid less \$100 if it is notified of the withdrawal of an entry prior to the start of the second session for that class.

3.6.2 Entries withdrawn after this time shall not be eligible for any refund.

3.6.3 Gate tickets are not eligible for refunds.

3.7 REFUSAL OF ENTRY

The organizing clubs may refuse an entry with the prior approval of the CASC-OR Race Director or the CASC-OR Race Committee.

3.8 PARTICIPANT WAIVER

All Participants, other than those licence holders with a current annual waiver on file with CASC-OR, shall sign the CASC-OR approved event waiver and shall display the identification issued to them at all times.

3.9 COMBINATION OF RACE GROUPS

If there are less than 20 entries in a particular race group as of 12:00 PM Saturday classes or race groups may be combined differently than stated in the Event schedules.

4 COMPETITOR ELIGIBILITY FOR SERIES POINTS AND AWARDS

4.1 COMPETITOR ELIGIBILITY

4.1.1 To be eligible for Series Championship points, Competitors shall hold an approved Road Racing licence and must be a member of a CASC-OR affiliated club.

4.1.2 Also see Appendix E - Licences, Sections 1.2 and 1.4.

4.2 PIRELLI TIRE GT

4.2.1 To be eligible for the PIRELLI Tire GT Championship **sponsorship funds** the competitor shall register for the series using the appropriate Series registration form available at the CASC-OR website in the form section (http://www.casc.on.ca/roadracing_forms). Also see section 7.7 below.

4.2.2 The Competitor must use PIRELLI Tires except when a tire size waiver is issued by CASC-OR.

4.2.3 The Competitor must purchase the tires from the PIRELLI appointed tire supplier Braidan Motorsport.

4.2.4 The Competitor shall display all sponsorship decals as shown in the applicable diagram.

5 CAR CLASSIFICATION

5.1 CAR CLASSES

5.1.1 The following classes are eligible for the Race Ontario championships:

- a) Formula 1200 and Formula 1200 Masters
- b) Formula 1600 A and Formula 1600 B
- c) PIRELLI Tire GT: GT1, GT2, GT3, GT4, GT5
- d) Radical Cup
- e) Formula Libre: Formula 4, and Formula cars not listed above plus any formula, **sports racers**, or Radical Cup cars listed above choosing to participate in this class.

5.2 CHAMPIONSHIP IDENTIFICATION

All Cars shall carry the required championship identification and have one CASC-OR decal prominently displayed on each side of the Car and one on the front. Decals are available from the CASC-OR office or the Event Chief Scrutineer. Failure to comply may result in forfeiture of accrued championship points.

5.3 BACK-UP CARS

Back-up cars are allowed. Drivers who wish to change to a back-up car shall register this change and the car shall be scrutinized as per CASC-OR regulations. The back-up car shall start behind the last qualifier in the class.

6 COMPETITOR INFORMATION

6.1.1 Location of competitor information, where qualifying and race results shall be posted shall be defined in the Supplementary Regulations.

7 POINTS

7.1 SCORING

Points scored in all Events shall count towards the championship for each class in the following series:

- a) PIRELLI Tire GT
- b) Formula Libre
- c) Formula 1200
- d) Radical Cup

7.1.1 Vintage Historic, Classic, and Formula Classic grids will be scored as per the VARAC rulebook.

7.1.2 Formula 1600 (each class) will be scored as follows:

1 st	30 points	5 th	12 points	9 th	7 points	13 th	3 points
2 nd	24 points	6 th	10 points	10 th	6 points	14 th	2 points
3 rd	19 points	7 th	9 points	11 th	5 points	15 th	1 point
4 th	15 points	8 th	8 points	12 th	4 points	16 th and on	no points

To be eligible for Toyo Tires F1600 Championship points a competitor must register for the series through OFFC and hold a valid racing licence (e.g. CASC-OR, **ASN Canada FIA**, SCCA) and must be a member of a CASC-OR affiliated club. All cars that complete 50% of the overall winner's distance (rounded up) will receive finishing points. There **is 1** drop in a season (score **17** of 18 races). A competitor cannot drop a DQ.

7.2 RACE POINTS SCORING APPLICATION

This section is applicable only to:

- a) PIRELLI Tire GT (all classes)
- b) Formula Libre
- c) Formula 1200 (both classes)
- d) Radical Cup

7.2.1 QUALIFYING

All cars who attempt a qualifying run during the session will receive three (3) points.

7.2.2 STARTING A RACE

All cars who start the race will receive three (3) points.

7.2.3 FINISHING PERCENTAGE

- a) Finishing percentage

All cars that complete 50% of the class winner's distance (rounded up) will receive finishing points.

- b) Up to Three **Entrants**

For a field consisting of three or fewer **entrants**, points will be awarded as follows:

Finishing Position	Qualifying	Starting	1 Starter	2 Starters	3 Starters
1	1 bonus	3	3	6	9
2	0	3	-	3	6
3	0	3	-	-	3

- c) Four or More **Entrants**

For a field consisting of four or more **entrants**, points will be awarded as follows:

Finishing Position	Qualifying	Starting	Finishing
1	3 bonus	3	24
2	1 bonus	3	19
3	0	3	15
4	0	3	12
5	0	3	9
6	0	3	7
7	0	3	5
8	0	3	4
9	0	3	3
10	0	3	2
11 and remaining	0	3	1

7.2.4 SCORING INELIGIBLE COMPETITORS

For scoring, an ineligible competitor is a competitor who is registered to race in a CASC-OR class, but for other reasons are ineligible to receive points (see Section 4.1 above). Although the competitor will not receive points, any CASC-OR competitor who finishes behind an ineligible competitor will receive the points designated as if the ineligible competitor had scored points. For example, if the winner is ineligible for points, the second place would receive second place points, not first place points.

7.2.5 EVENT SCORING

The maximum accumulated points for an event shall be equivalent to a 3-race weekend. If a different number of races are scheduled (i.e., one, two or four), the maximum points will be distributed accordingly, such as 100% for one race, 50% for two races, or 25% for four races.

7.2.6 SEASON DEFINITION FOR THE PURPOSES OF SCORING

For points and scoring, the season begins on the morning of Saturday of the CASC-OR Celebration weekend of the previous calendar year and concludes at the end of Sunday of the CASC-OR Celebration weekend of the current calendar year.

7.3 CLASS SCORING - MINIMUM

Competitors may count only one class score towards the CASC-OR RaceOntario Championship.

7.4 CLASS SCORING - MAXIMUM

Competitors may count points from all scheduled Events.

7.5 CLASS SCORING – END-OF-YEAR SCORING

Competitors must count a minimum of three (3) class scores to be eligible for end-of-year trophies. Note the definition of season in Section 7.2.5 above.

7.6 SCORING TIES

In the event of a tie, the Competitor scoring the greatest number of higher placings shall be declared the winner. If two or more competitors are tied after all placing tiebreakers have been used, the final tiebreaker will be the competitor that accomplished the higher placing first.

7.7 POINTS FUND DISTRIBUTION – PIRELLI TIRE GT

7.7.1 YEAR END FUND DISTRIBUTION

Class with 4 or less entries			Class with between 5 and 9 entries			Classes with >10 entries		
1st	\$500	+ points money	1st	\$600	+ points money	1st	\$750	+ points money
2nd and up		Points money	2nd	\$300	+ points money	2nd	\$500	+ points money
			3rd	\$100	+points money	3rd	\$250	+ points money
			4th and up		Points money	4th and up		Points money

Points money is calculated by multiplying the competitors accumulated points with the \$ factor. The \$ factor is calculated by available \$ divided by total eligible points scored.

For example: Available \$ is 15K divided by total eligible points scored 7500 then each point is worth \$2

If a competitor finishes first in class with 320 points their earnings will be \$750 +320 x 2= \$1390

If a competitor competed in more than 3 championship weekend and finishes 7th in class with 65 points the earning would be $65 \times 2 = \$130$

If a competitor competed in less than 3 championship weekend and finished 4th in class with 121 points the earning would be $121 \times 2 = \$142$

If a competitor competed in less than 3 championship weekends and finished in any position with 119 points the earning would be \$0 as the competitor did not achieve any of the minimum requirements which are competing in 3 championship weekends or achieving more than 120 points.

8 ANNUAL AWARDS

8.1 PRESENTATION OF TROPHIES

Trophies and Class Awards shall be presented by CASC-OR.

8.2 CAR NUMBER '1'

The number "1" shall be awarded to the CASC-OR RaceOntario Sprints Champion for use in the following year's RaceOntario Sprints Championship.

8.3 ROOKIE AWARD

This award shall be presented to a Driver starting the current year as a novice in road racing competition, and who, in the opinion of the CASC-OR Race Committee, is outstanding among his/her peers.

9 EVENT AWARDS

9.1 TROPHY PRESENTATION

The trophy presentation shall take place during the impound after the final race for each class grouping at the CASC-OR Scrutineering trailer, or other location designated by the organizing club.

9.2 CLASS REQUIREMENTS FOR AWARDING OF EVENT TROPHIES

As a minimum, class trophies for the final races shall be awarded.

9.3 ACCEPTANCE OF TROPHIES

Trophies shall be picked up at the Event. They will not be delivered to Competitors.

APPENDIX Q - ENDURANCE RACE REGULATIONS

1 GENERAL

These rules shall apply to all races designated as "endurance" races.

Entry fees, race length, curfew, awards and other items specific to an event shall be outlined in the supplementary regulations for that event.

2 ENTRIES

- 2.1.1 Each entry shall include one car, a maximum of three drivers, and a maximum of eight crew members who shall be listed on the entry form for that team.

3 DRIVERS' MEETING

Each Driver and Crew Chief shall attend the scheduled mandatory drivers' meeting. Failure to attend may result in the car starting the race from the back of the grid.

4 GRIDDING

- 4.1.1 Cars shall be gridded in the order of their best qualifying time. In the event of a tie the cars shall be gridded as set out in Race Regulations, Section 2.3.1 a).
- 4.1.2 It is the car which qualifies for the race, not the driver.
- 4.1.3 Either entered driver may start the car in the race regardless of who set the time.

5 PIT SET UP

Teams may begin staging or setting up equipment in pit lane as soon as the race immediately preceding the endurance race has been given the green flag. Teams entered in the endurance race shall allow teams and cars participating in the race in progress adequate room to use the pits during their race.

6 PIT PROCEDURES

6.1 SIXTY (60) MINUTE RACES

- 6.1.1 All cars shall make a minimum 60 second (1 minute) pit stop no earlier than twenty (20) minutes after the start of the race and no later than forty (40) minutes after the start of the race.
- 6.1.2 In the event the race is stopped before its scheduled completion and cannot be restarted, drivers who have not made their mandatory pit stop shall have one lap deducted from their total laps completed.
- 6.1.3 Drivers may only refuel or store fuel in the pits during one-hour races under the direction of the Clerk of the Course.

6.2 NINETY (90) MINUTE RACES

- 6.2.1 All cars shall make a 120 second (2 minute) pit stop no earlier than twenty (20) minutes after the start of the race and no later than twenty (20) minutes before the scheduled end of the race.
- 6.2.2 Refueling is permitted.

6.3 ONE HUNDRED AND TWENTY (120) MINUTE RACES

- 6.3.1 All cars shall make a 120 second (2 minute) pit stop no earlier than thirty (30) minutes after the start of the race and no later than ninety (90) minutes after the start of the race.
- 6.3.2 Refueling is permitted.

6.4 PIT PROCEDURES FOR RACES LONGER THAN 120 MINUTES

- 6.4.1 All cars shall make a 120 second (2 minutes) pit stop before the 90-minute mark of the race.
- 6.4.2 All cars shall make an additional 120 second pit stop for every complete hour beyond 2 hours (120 minutes) of scheduled race time, no later than 30 minutes past the start of the additional hour.
- 6.4.3 Refuelling is permitted.

7 ON-TRACK REPAIR

- 7.1.1 Trackside repair work may only be performed by the competitor who was driving the car when it was last running on track using only the tools, equipment and materials that were in the car when it stopped. If the corner marshals or the Clerk declare the position of the car to be "unsafe" no one may work on the car and the driver shall move to a "safe" location as directed by the marshals.

8 REFUELING

8.1 REFUELING EQUIPMENT

- 8.1.1 The following refueling equipment are permitted:
- Overhead refuelling rigs as per **ASN CANADA FIA** Rule 28B to 28L and 28N to 28P.
 - IMSA type rigs/hoses.
 - Approved cans with dry-break attachments.
 - Approved 5-gallon gasoline cans specifically manufactured for gasoline storage. Minor modifications specifically to reduce the chance of spillage are allowed with approval of the scrutineer.
- 8.1.2 Use of a funnel is prohibited.
- 8.1.3 One 10lb. dry chemical fire extinguisher that shall be presented to Scrutineering for inspection and approval. A sticker shall be affixed to the fire extinguisher indicating it has been approved for use and can include multiple car numbers if the extinguisher is to be used while refuelling multiple cars during the race.

8.2 REFUELING PROCEDURE

- 8.2.1 The crew chief shall inform a Pit Official that refuelling shall take place no earlier than 2 laps and no later than 3 laps from time of notification.
- 8.2.2 The driver shall shut off the car's engine, exit the car, and close the driver's side door before any refueler or refuelling equipment crosses the pit wall and before the fuel cap is removed.
- 8.2.3 No one may enter the vehicle, nor may any other action be performed on the car until the fuel cap is replaced and secured and all refuelling devices have vacated pit lane.
- 8.2.4 The engine may not be restarted until all work on the car is completed.

- 8.2.5 The refuelling team shall consist of two (2) people, one holding the approved 10lb. fire extinguisher and one refuelling. In addition, a third crew member can be utilized to operate the "dead-man" valve on an overhead rig, or holding the vent bottle for a dry-break system if these methods are used. No other person shall be in pit lane during refuelling.
- 8.2.6 All persons on the refuelling team and all persons who handle full or empty fuel containers shall wear approved driver's protective clothing as per Appendix I – Driver Safety Equipment, Sections 2, 3, and 4. Work boots/shoes are acceptable alternate footwear. Full-face helmets with a closed face shield are required. Full-face helmets SA90 or newer otherwise meeting Appendix I – Driver Safety Equipment, Section 5, are allowed.
- 8.2.7 A maximum of 1 fuel container may cross the pit wall at a time. Additional team members may assist in passing fuel containers across the wall provided they are properly dressed as per Appendix G – Rules of the Pits and Paddock, Section 1.5.
- 8.2.8 All stored fuel containers shall have secure caps capable of preventing leaks if the container is overturned. Caps may be removed at any time, but only fuelers shall touch uncapped fuel cans whether empty or full.
- 8.2.9 All fuel containers (full or empty) shall be handled with care at all times e.g. fuel containers may not be thrown back over the wall.
- 8.2.10 A solid circular template of approximately 1290 square centimetres (200 square inches) shall be used to establish excessive fuel spillage. Use of a pan, tray or any type of absorbent material to catch spilled fuel is prohibited.
- 8.2.11 Refuelling shall be stopped immediately if any team member is observed not wearing the specified clothing or if proper refuelling procedures are not being followed. Refuelling shall continue only when the error is corrected.

9 PIT RULES

- 9.1.1 CASC-OR Race Regulations, Appendix G – Rules of the Pits and Paddock, apply with the following additions.
- 9.1.2 Cutting, welding or any equipment/repair involving open flame or sparks is not allowed in pit lane.
- 9.1.3 Generators are not allowed in the pits. Generators in the pit-service area shall be a minimum of six (6) metres distance from any fuel storage.
- 9.1.4 There shall be a minimum of one (1) pit official assigned for every five (5) pit boxes used.
- 9.1.5 Pit officials may require that substantial repairs be performed in the paddock. Repaired vehicles may return to competition under direction of a race official and with approval of the Clerk.
- 9.1.6 Pit officials shall monitor all aspects of the pit lane and refuelling rules.

10 PENALTIES

- 10.1.1 Competitors failing to make the mandatory pit stop may be black flagged and held in the pits for the designated length of the pit stop plus thirty (30) seconds.
- 10.1.2 All Black Flag penalties shall be carried out under green flag conditions as soon as possible after the infraction.
- 10.1.3 No penalty may be served while refuelling or repair is carried out. Failure to properly notify an official of the intention to refuel shall result in a 1-minute stop and go penalty.
- 10.1.4 Careless handling of any fuel equipment may be grounds for immediate expulsion from the race.
- 10.1.5 Fuel spillage considered excessive and reported to the Clerk may result in a Stop and Go penalty.

- 10.1.6 In the event the penalty is not enforced before the race is complete an appropriate time penalty shall be imposed by the stewards.

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APPENDIX Z - CHANGES SINCE PREVIOUS YEAR

Changes shown without a date are changes since the v1.2 2019 Race Regulations issued July 11, 2019.
Changes shown with a date are changes after the publication of the 2020 Race Regulations issued in March 2020.

Global

Will change ASN Canada FIA to new ASN once assigned.

Race Regulations

Section 2.3.17 e) – The official results need to be sent to the CASC-OR points keeper as soon as possible after the event.

Appendix F – Medical Fire and Rescue

Section 1.b – It is required that the ALS ambulance must be able to provide urgent patient transfers.

Appendix H – Flag and Light Signals and Rules of the Road

Section 4.1.5 – the pit exit will be closed under full-course yellow when the safety car passes the Starters Stand.

Section 4.1.6 – It may be permitted to pass a disabled or slow car during a full-course yellow.

Appendix K – Fuel, Fuel Cells and Tanks

Section 2.4.2 – Fuel cells / tanks and directly attached hoses or lines shall be isolated from the driver by fireproof barrier(s).

Appendix M – Roll Cages

Section 3.1.1 – ERW tubing is no longer accepted for new roll cage construction. Existing cages already built with ERW are accepted.

Section 3.2 – ERW dimensions are only listed for cars built before March 31, 2020.

Appendix N – Car Preparation

Section 4.1 – Changed rules for out of series / non-championship cars to use car numbers above 300 (closed wheel) or above 100 (open wheel).

Section 10 – Race tires must be rated for 190 km/h or higher.

Appendix O – Race Ontario Series Regulations

Subsection G – GT Challenge : This Subsection has been removed.

Subsection F – This section has been renamed to PIRELLI Tire GT. The Touring classes have been removed.

Appendix O – Race Ontario Series Regulations

Subsection C – F1600

Section 8.1.5 – If a driver changes cars after qualifying, the marked tires must also transfer to the new car.

Appendix O – Race Ontario Series Regulations

Subsection H – Radical Cup

Section 2.1.3 – There will be only a single Radical Cup class in 2020.

Appendix P – Race Ontario Series Regulations

Section 4.2 – Renamed to PIRELLI Tire GT (removed PIRELLI GT Challenge)

Section 4.2.1 – The PIRELLI GT series will not run a separate championship (points) but will provide end of season sponsorship funds.

Section 5.1.1 - Added missing Formula Libre championship. Removed PIRELLI Tire GT & Touring Challenge. Changed Radical Cup to a single class. Removed Touring class.

Section 7.1 – Removed Touring class.

Section 7.1.1 – Removed PIRELLI Tire GT & Touring Challenge.

Section 7.1.3 – Formula 1600 series will allow 1 drop in a season.

Section 7.2 – Removed Touring class.

Section 7.2.3 – For championship points, changed 'Starters' to 'Entrants'.

Section 7.2.5 – Simplified wording on how points are scored for events with less than 3 races and that a maximum of only 3 races per event are scored.

Section 7.7 – Removed PIRELLI Tire GT & Touring Challenge

Section 8 – Removed entire section for PIRELLI Tire GT & Touring Challenge points.

Appendix Q – Race Ontario Series Regulations

Section 2.1.2 – Removed section concerning Challenge series championship points.

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CANADIAN AUTOMOBILE SPORT CLUBS
ONTARIO REGION

Appendix O, Section A - Formula 1200

Effective February 10, 2020

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Appendix O, Section A - Formula 1200

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These regulations are intended to assist in the conduct of Competitions and to further general safety. They are a guide and in no way guarantee against injury or death to participants, spectators or others. No express or implied warranties of safety or fitness for a particular purpose shall be intended or result from publication or compliance with these regulations. By applying for a competition licence and/or by entering a competition event, all participants are deemed to have understood and accepted these terms, including that motorsport is inherently dangerous and it is each participant's obligation to meet and maintain compliance with all regulations to reduce the risk of death or injury to self or others, recognizing that such risk is inherent to the sport and cannot be completely eliminated.

Red bold, italics text indicates significant changes or amendments.

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APPENDIX O, SECTION A - FORMULA 1200

1 Definition

- 1.1.1 Single-seat, open-wheel racing Cars based on standard Volkswagen 1200 series Type 1, U.S. model sedan (imported by VW) components.
- 1.1.2 Cars shall comply with the CASC-OR GCR and Race Regulations as well as the Regulations herein.
- 1.1.3 Formula 1200 is a restricted class. Only the modifications, changes, or additions stated herein are allowed.
- 1.1.4 No component of the engine, power train, front suspension, or brakes shall be altered, modified, or changed, nor be of other than VW manufacture, unless specifically authorised.
- 1.1.5 Any external surface of the suspension, brakes, and transmission/rear axle may be painted, plated, or anodized.
- 1.1.6 Engine components shall be assembled in standard configuration. Exceeding the wear limits specified in the VW manual or other official VW guides is not prohibited provided that tolerances, dimensions, and specifications stated in the Regulations are met.

2 Weight and Dimensions

- 2.1.1 Minimum weight as practiced, qualified or raced, with Driver and required safety equipment is 487.6 kg (1074.974 lb)
- 2.1.2 Wheel base, Minimum: 2.070 m
- 2.1.3 Wheel base, Maximum: 2.121 m
- 2.1.4 Track, Front: Standard VW 1.384 m (No spacers, shims or adapters)
- 2.1.5 Track, Rear: 1.336 m + 22.23 mm - 15.88 mm
- 2.1.6 Overall length (including exhaust), Minimum: 3.124 m
- 2.1.7 Overall length (including exhaust), Maximum: 3.226 m
- 2.1.8 Body depth at firewall, Minimum: 635 mm

3 Suspension

- a) The front suspension and steering shall be standard VW Sedan as defined herein, or an exact replica of the same material and dimensionally identical. The following modifications are allowed:
 - i. Removal or modification of spring packs. At least one spring pack shall be retained as the primary spring media for the front suspension.
 - ii. The use of any anti-sway bar(s), mounting hardware, and trailing arm locating spacers;
 - iii. The use of any shock absorber(s) which can be mounted directly on the standard mounts. Spring shocks are prohibited.
 - iv. Relocation of the steering gearbox to any position utilizing an appropriate mounting structure and replacements of the tie rods;
 - v. Steering column may be altered or replaced, and any steering wheel may be used.
 - vi. Any desired pitman arm may be used. Standard steering arms may be altered or replaced, and speedometer cable hole may be plugged. No other modification of the wheel spindle is permitted. Non-VW replacement spindles shall maintain the same

bearing dimensions and locations and shall maintain the geometric relationship between the spindle and the king pin bore and boss. Wheel tethers are recommended. If wheel tethers are used, a hole may be drilled in the spindle for the purpose of attachment. Alternate spindle from cip1.com part number C26-412-020 and alternate spindle carrier C26-412-025 is allowed.

- vii. Modification of the standard front torsion bar(s);
 - viii. The rubber portion of the bump stop and any portion or all of the bump stop horn may be removed up to its base at the beam upright.
 - ix. Caster and toe in/out settings are unrestricted. Clearancing of carrier or trailing arm to eliminate binding is permitted. Offset suspension bushings are permitted.
 - x. Front end ride height adjusters may be used provided they are not adjustable from the cockpit.
 - xi. No structure, item or component (including battery) other than bodywork, shall protrude further than 254.00 mm from the lower axle beam tube. Any item protruding further than 203.20 mm must include a vertical safety plate. This plate must be constructed of no less than 1.53 mm 6061-T-6 aluminum or no less than 16-gauge steel. The plate shall have a minimum frontal surface area of 0.027 m², and shall have a height of not less than 101.60 mm and a width of not less than 152.40 mm. The plate may have no more than 12.70 mm curvature or deflection from the horizontal or vertical plane and shall be attached to the chassis (frame) at all four corners. The lower braces shall not exceed a 15-degree upward angle when measured from the horizontal plane of the lower frame tubes.
- If a vented lead acid battery is mounted in front of the axle beam, it shall be encased in a marine-type container.
- It is recommended that the front cavity of the nose be filled with foam to aid in impact absorption.
- b) The rear axle assembly shall be standard VW sedan as defined herein with axle location provided by a single locating arm on each axle. The rear axle tube may be rotated about its axis. Coil spring(s) shall provide the primary springing medium, with telescopic shock absorber(s) mounted inside the spring(s).
- Cables, straps, or other positive stops may be used to limit positive camber. An anti-roll bar or camber control device may also be used. When said anti-roll bar or camber control device is removed, the required coil springs shall continue to perform functionally.
- c) Wheels shall be steel, 355 mm (14") by 152 mm (6") and a minimum weight of 5.44 kg each. Wheels may be balanced only by the use of standard automotive balance weights (adhesive or clip-on). Wheel bolts may be replaced by studs of equal strength, permanently installed in the brake drum.
 - d) TIRE SPECIFICATIONS
- The following tires shall be used:
Falken Azenis RT 615 (no suffix) or suffix K or suffix K+ with the following size: 195/60/R14

4 Brakes

- a) Brake drums, backing plates, and wheel cylinders shall be standard VW Sedan as defined herein, or an exact replica of the same material and dimensionally identical. Ribbed type rear drums (VW Part # N113-501 615 D or F, or ICP Part # 113 501 615 D or F) may be used in place of the 1200 series rear brake drums. Rear backing plates may be from any Type 1 model year.
 - b) Cars shall be equipped with a dual braking system operated by a single control. In case of a leak or failure at any point in the system, effective braking power shall be maintained on at least two wheels. Any master cylinder(s) may be used.
 - c) A separate hand brake (emergency brake) is not required. Removal of the hand brake and operating mechanism is permitted.
- Two 15.87 mm diameter holes may be drilled in each backing plate to provide adjustment of brakes. These holes shall not be used for any other purpose.

5 Engine

The engine shall be a standard VW power plant, as normally fitted to VW sedans as defined herein. Any engine part(s), listed by the manufacturer (VW) as a current, superseding, replacement part for the standard VW 1200 series, Type 1, U.S. model sedan and interchangeable with the original part(s), may be used. Turbocharging is not permitted.

The engine/transmission shall be mounted in the chassis with the transmission to the rear.

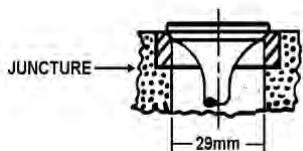
5.1 PERMITTED REPLACEMENT PARTS

The following component parts may be replaced with that of other manufacture, provided said part is of the same material, is dimensionally identical, and meets all other tolerances and specifications stated in the Regulations:

- a) Engine Case
- b) Cylinder Heads
- c) Cylinders (an O-ring for centering is permitted).
- d) Pistons and wrist pins minimum combined weight without clips or piston rings = 330.0 grams.
 - i. Piston material shall be cast aluminum with steel inserts.
 - ii. Maximum distance from bottom of wrist pin bore to top of #1 (top) compression ring groove: 42mm (20 mm wrist pin bore assumed).
 - iii. Width of #1 and #2 (compression) ring grooves: maximum 2.60mm, minimum 1.9mm (2.0-2.5mm nominal ± 0.1 mm).
 - iv. Width of #3 (oil) ring groove: 4.0mm ± 0.1 mm.
 - v. Wrist pin offset from centerline: 1.5mm ± 0.125 mm
 - vi. Eccentricity of piston below the oil ring groove: 0.3mm ± 0.2 mm. Eccentricity shall be defined as the difference between the largest diameter and smallest diameter measured at the same distance from the crown of the piston and below the oil ring groove.
- e) Cam followers: minimum weight = 60 g
- f) Connecting rods with bolts and small end bushing: minimum weight = 425g. Crower part #SP93280B is allowed as a direct replacement connecting rod must meet the same minimum weight requirement as the OEM part.
- g) Oil pump -- exact replica of any standard VW oil pump
- h) Distributor
- i) Ignition points or drop-in ignition triggering module (e.g. Pertonix)
- j) Distributor cap
- k) Fuel pump: any standard type VW fuel pump which can be fitted without modification of any other part
- l) Crankshaft: minimum weight 7.257 kg
- m) Crankshaft gear
- n) Flywheel
- o) Pressure plate or alternate SACHS 211 141 025 DAM pressure plate
- p) Clutch disc - 180mm nominal diameter only
- q) Throw out bearing
- r) Push rods
- s) Push rod tubes

5.2 PERMITTED MODIFICATIONS

- a) Removal of the carburettor air cleaner and choke mechanism. Choke shaft holes may be plugged. Plugs may not protrude into the choke bowl.
- b) Replacement of standard exhaust system with any exhaust system terminating 25.40 mm to 76.20 mm behind the rearmost part of the body.
- c) Lightening of the flywheel to a minimum of 5.44 kg
- d) Balancing of all moving parts of the engine, provided such balancing does not remove more material than is necessary to achieve the balance except on those component parts where weights are specified. The crankshaft may be ground and the case may be machined to accommodate the use of standard factory oversize/undersize crankshaft bearings, provided the crankshaft location is not changed.
- e) Polishing of the intake and exhaust ports provided such polishing does not enlarge the intake port beyond 29 mm inside diameter and the exhaust port beyond 33 mm inside diameter. The measurements are to be taken at the juncture of the seat insert and the aluminum port material, and at the manifold face.



- f) Valve seat angles shall be machined as specified in the official VW Workshop Manual.
- g) Matching of manifold flanges is permitted.
- h) Complete or partial removal of any cooling duct component. Removal of the fan and the fan housing.
- i) Fan belt origin is unrestricted. The use of a fan belt is optional.
- j) Fitting of any standard Solex 28 PCI or 28 PICT carburetor and any jets and emulsion tube may be used. Any venturi of standard VW/Solex dimensions may be fitted without alteration to the carburetor body. The venturi shall be fitted in the standard position, but its internal diameter may be machined. The carburetor may be rotated 180 degrees about its vertical axis. Modification of the float is allowed as long as no change is made to the float chamber and/or float valve.
- k) The carburetor shall remain untouched with the following exceptions:
 - i. No material shall be added.
 - ii. Bead blasting is permitted for cleaning only.
 - iii. The throttle shaft shall be a minimum of 4.70 mm with throttle plate installed. Machined sides shall remain flat and parallel with no chamfering or radiusing.
 - iv. The throttle plate shall be a minimum of 1.35mm, flat and parallel with no chamfering or radiusing. Diameter shall be a minimum of 27.81 mm
 - v. Carburetor top: The junction of the bowl and bore may be radiused. The bore beneath the radius shall be a maximum of 28.45mm. The accelerator pump boss shall remain original. The orifice in the base of the accelerator pump boss shall not allow #56 (1.17 mm) drill bit to pass through i.e. the maximum hole diameter shall be less than 1.17 mm)
 - vi. Carburetor body: Removal of mould flashing from cast surfaces, including the emulsion tube carrier (holder) is permitted, but no additional material may be removed. The emulsion tube carrier (holder) shall not be otherwise modified. Bore diameter from throttle shaft down shall not exceed 28.19 mm.

- l) The heat riser tube and heat sink shall be removed. Removal of metal from the interior of the intake manifold and rustproofing the interior is allowed provided that the following dimensions are not exceeded:

Down Tube: The down tube shall be measured at two different locations within an area between 12.70 mm and 50.80 mm above the horizontal manifold tube. Each measurement shall be taken four times rotating around the circumference of the tube and averaged. Averaged down tube dimension shall not exceed 28.95 mm OD.

Horizontal Tube: The horizontal tube shall be measured at four different locations on each side of the down tube. The area to be measured on each side of the down tube is defined as being between the bend and a point that is 38.10 mm from the centre of the down tube connection. Each measurement shall be taken four times, rotating around the circumference of the tube, and averaged. Averaged horizontal tube dimension shall not exceed 25.25 mm OD.

These dimensions shall be an average of at least four measurements at equal intervals around the tube at any point.

The manifold shall weigh not less than 680 grams. Intake manifolds may be repaired. Repaired manifolds shall start at 680 grams before repair. The addition of excessive material to achieve the minimum weight is not permitted.

All exterior surfaces shall be in original condition and unpainted but may have a thin transparent coat of rust proofing material. No other material may be used that would obscure or coat the manifold.

The minimum distance between bends of horizontal tube is limited to 45.0 cm (17.75")

At no point in the bends of the horizontal tube should the average O.D. exceed 26.15 mm (1.029"). Measurements shall be taken four (4) times rotating around the circumference of the tube and averaged.

The maximum overall height of the intake manifold is 22.86 cm (9.00"). Measurement is to be taken from the cylinder head seating surface with no gasket, to the top centre of the carburetor mating flange.

Gaskets mating the intake manifold to the intake port shall not exceed 2mm in thickness.

Deviation from straight of the horizontal tube between the bends (45.0 cm) may not exceed 6.35 mm (0.250") in any direction, with the following exception:

A 3" straight edge centred on the bottom of the horizontal tube opposite the down tube should not show a deviation greater than 26.20 mm (0.090") in the bottom of the tube.

- m) Voltage regulator, generator, and/or generator stand may be removed.
- n) The installation of baffles housed completely within the original oil sump and crankcase.
- o) The use of oil temperature indicating device in the crankcase.
- p) The use of any standard VW oil pump is permitted. The oil pump cover may be modified or replaced.
- q) The use of valve spring shims.
- r) The following are the standard VW dimensions and tolerances of engine components:

Maximum bore: 77.21 mm

Stroke: 64.00 mm +/- 0.13 mm

Minimum capacity of combustion chamber in head: 43.0cc

(Polishing and/or tooling are prohibited.)

Minimum depth, top of cylinder barrel to top of piston: 1.00 mm.

The above dimensions may be achieved by machining any previously machined surface, provided that the total surface is machined on the same plane as the previously machined surface. The above dimensions shall be the average of all four cylinders.

- s) The use of any VW clutch of the same diameter as fitted to standard VW sedan as defined herein. The standard clutch operating arm may be modified to allow its attachment in any appropriate position.
- t) An oil sump extension may be fitted to the engine with a maximum internal volume not to exceed 1500cc. In operation, all movement of oil and crankcase air in and out of the extension shall be through the original oil strainer cover opening of the engine case. No additional openings in the extension are allowed above the plane of the oil strainer flange of the engine case. The oil pump pickup pipe may be extended into the sump extension. Any baffling is allowed within the extension and may extend between the engine case and the sump extension through the original oil strainer opening. Any sump may not extend below the frame rails of the chassis when viewed from the side. Accumulators (Accusump™) may be fitted.
- u) Replacement of oil galley plugs with threaded plugs.
- v) The following are the VW standard valve dimensions:
 Exhaust valve diameter: 28.00 mm or 30.00 mm
 Intake valve diameter: 30.00 mm or 31.50 mm
 Reprofilng of valves is not permitted.
- w) The crankcase may be machined to permit the use of standard VW camshaft bearing inserts, provided that camshaft location is not changed. The use of the two-relief valve crankcase, part No. 111-110-025E, is permitted.
- x) Where minimum weights are specified, any lightening is permissible provided the original part complied with the dimensional restrictions set forth.
- y) A VW "D" camshaft, Part Numbers 113-109-015D, 113-109-017D, 113-109-019D, 113-109-021D, 113-109-023D, 113-109-025D, 113-109-027D, or an exact replica of the same material and dimensionally identical shall be used. The maximum lift at the valve spring collar with zero valve clearance is:
 - i. Intake 9.00mm + 0.00mm
 - ii. Exhaust 8.55mm + 0.00mm

The camshaft profile shall match exactly those which are specified by the official CASC-OR camshaft plots, plus or minus 0.05 mm. It is permitted to regrind the camshaft to duplicate (but not exceed) the official CASC-OR profile. In so doing, the relationship between the centerlines of peak lift at the exhaust/intake lobes shall remain at 214 degrees 15 minutes, plus or minus one (1) degree. (Reference the Official CASC-OR Camshaft Checking Procedure). The camshaft timing may also be changed in its relationship to the crankshaft by utilising an adjustable cam gear that retains the existing helical gear thrust angle and that is statically adjustable only (e.g., no dynamic adjustment mechanisms that respond to engine speed changes). Camshaft timing is unrestricted within the restrictions provided under 5.1 or as authorised above. The camshaft profile shall be checked using the official procedure published by CASC-OR.

Installation of a spark plug hole repair utilising standard thread repair methods, such as Helicoil, and providing that the spark plug centerline is not changed.
- z) A single standard automotive oil filter of not more than 946cc total capacity and a suitable mounting bracket and bypass valve may be installed.
 Modification to the lubrication system to facilitate installation of the oil filter is permitted. All components shall be contained within the body to the rear of the firewall.
- aa) Alternate exhaust valves are allowed provided the dimensions and materials are the same as standard (VW) exhaust valves.
- bb) Any oil cooler is allowed. Oil coolers shall be mounted completely inside a plumb line extending downward from the outermost edge of the bodywork.
- cc) An alternate oil pressure regulator spring and/or shims may be used.
- dd) Rocker arm wave type spacer washers may be replaced by solid steel type flat washers of suitable thickness.

- ee) Rocker arms may be lightened to a minimum weight of 80.0 grams. VW parts shall be used, from 1200, 1300, 1500, or 1600 Type 1 engines; 1:1 or 1.1:1 ratios only.
- ff) Valve springs are unrestricted providing:
 - i. No more than one spring shall be used per valve.
 - ii. Any steel spring cap and retainers may be used.
 - iii. Spring shall be made of steel.
 - iv. Valve spring shims may be used.
- gg) Bolt on valve covers may be fitted.
- hh) Crankshaft pulley is unrestricted and may be fitted with an oil seal. The engine case may be machined to facilitate the installation of an oil seal.
- ii) Rocker arm shafts may be modified or replaced by those of other manufacture, including shafts that replace the stock clips with a solid centre spacer and bolt on end caps/washers.
- jj) The rocker arm shaft assembly may be shimmed out on the cylinder head mounting studs by placing appropriate shims between the cylinder head mounting boss and the blocks on the rocker arm shaft assembly.
- kk) Fitting of any standard VW distributor (not restricted to 1200 series). The use of any standard 6 or 12-volt non-transistorised ignition coil. Mounting location is unrestricted.

6 Transmission and Rear Axle

The transmission-rear axle assembly shall be standard VW sedan, as defined herein. The synchromesh components shall be in place and operating on at least three gears.

Reverse gear shall be operable from the Driver's seat.

6.1 PERMITTED MODIFICATIONS

- 6.1.1 Installation of any standard VW gear set which can be fitted without modification of any component of the transmission or of the gear set itself and the transposing of the ring gear to provide proper axle rotation. Permanent attachment of the synchromesh sleeve to 3rd and 4th gears is permitted.

- a) Fully synchromeshed transmission:

Gear	Part No.	No. of Teeth	Ratio
1st	113 311 251A	10:38	3.80
2nd	113 311 261	17:35	2.06
3rd	113 311 275	22:29	1.32
	113 331 275B	23:29	1.26
	113 331 275A	23:28	1.22
	211 311 341	28:23	0.82
4th	113 311 341	27:24	0.89
Ring & Pinion	211 517 143A	8:35	4.375
	311 517 143B	8:33	4.125

- b) Partly synchromeshed transmission:

Gear	Part No.	No. of Teeth	Ratio
1st	113 309 251	10:36	3.60
2nd	113 309 261A	17:33	1.94
	113 309 261	17:32	1.88
3rd	113 309 275	23:28	1.22
	113 309 275A	22:27	1.23
4th	113 309 341A	28:23	0.82
Ring & Pinion	113 517 141B	7:31	4.43

- c) There are different part numbers for various gears in addition to the ones listed here. This in general indicates changes on the parts such as:

Gear	Part No.	Ratio	Difference
4th	113 311 341	0.82	with Key Way with Splines
	113 311 341A	0.82	
Ring &	113 517 143	4.125	6 mgt. bolts
Pinion	311 517 143	4.124	8 mgt. bolts

- d) However, there are no standard ratios other than the ones listed here. A gear removed from a transmission can be identified by the number of teeth.

6.1.2 Alteration of the shock absorber mounts.

6.1.3 Transmission shall not be installed in an inverted position.

6.1.4 The differential cannot be modified in any way to limit its normal function. Torque biasing, limited slip, and locked differentials are prohibited.

7 Ballasting

Ballasting is permitted, per Appendix "N", hereto.

8 Frame

8.1 CONSTRUCTION

8.1.1 The frame/chassis shall be constructed of steel tubing of a maximum diameter or width of 101.6mm and be of a safe and suitable design. The Driver's feet shall not extend beyond the rear of the front axle beam tubes.

8.1.2 There shall not be frame/chassis rigidity or strength derived by means other than the frame tubes. Stressed skin, monocoque, or semi-monocoque construction is not permitted, except that:

- The firewall panel may be rigidly attached to the frame tubes. The undertray/belly pan from the nose to the rear roll hoop shall be no wider than the bodywork at the bottom of the frame rail or no more than 6.35 mm wider (on each side) than the frame rail when the undertray has an upward turned edge that facilitates mounting the undertray to the chassis or that facilitates mounting the body to the chassis. Engine bay undertray(s) shall be no wider than the frame rails in this area or no more than 6.35 mm wider (on each side) than the frame rail when the undertray has an upward turned edge that facilitates mounting the undertray to the chassis or that facilitates mounting the body to the chassis. The undertray(s) between the axle centre lines shall be rigidly attached to the frame provided the curvature of said tray(s), measured vertically from the lowest point to the highest point at their attachment to the frame rail members at the sides, shall not exceed 1in and have no downward turned edges.
- Transmission undertrays for cars with a rear subframe shall be no wider than the subframe or no more than 6.35mm wider (on each side) than the subframe when the undertray has an upward turned edge that facilitates mounting the undertray to the subframe or that facilitates mounting the body to the subframe or 25.4mm, whichever is wider. For cars without a subframe, the tray shall be no wider than 406.30mm and shall not deviate more than 25.4mm from the horizontal plane. Undertray must be firmly attached and have no downward turned edges.
- The area between the upper and lower main frame tubes, or for 355.60 mm above the floor pan, whichever is greater, and between the front and rear roll hoop bulkheads shall be protected by one of the following methods to prevent the intrusion of objects into the cockpit.

- i. Panel(s) of a minimum of either 1.52 mm heat-treated aluminum (6061 T6 or equivalent) or 18-gauge steel shall be attached outside the main frame tubes.
- ii. A reinforced body of a double layer, 5oz bi-directional, laminated Kevlar material incorporated into the body shall be securely fastened to the frame tubes.

For either method, fasteners shall be no closer than an average of 152.40 mm centres (no stress bearing panels). The material used for the chassis braces in this area shall be at least equivalent to the roll hoop brace material.

- d) Flat composite panels of uniform thickness and construction attached to the outside of the main frame tubes. Shaping of these panels to conform to the outer perimeter of the main frame tubes is permitted. Carbon fiber is permitted; however, it must be used in conjunction with another "anti-ballistic" type material (e.g., Kevlar, Zylon, etc.). Such material shall be Mil Spec or SAE washers of no more than 1-inch diameter may be employed with each fastener. Ten fasteners per side are permitted if the panels extend to the front bulkhead.

Alternatively, FIA mounting is permitted as follows:

One panel shall be permitted per side. It shall be fastened to the frame at its extreme corners, the upper, lower, forward and rearward edge halfway between the corners, and halfway along each diagonal tube. The attachment should consist of an 8mm U-bolt and an aluminum plate 3mm thick, 20mm wide and 12mm longer than the U-bolt span.

Composite panel mounting must comply with one or the other above prescribed methods. It may not be a combination of the two.

9 Body

- a) The chart (12.0 Formula 1200 Front View) illustrates both the intended minimum frontal area and car configuration.
- b) The rear bodywork shall enclose the engine by surrounding it from a point no higher than the lower edge of the intake manifold and extending from the front of the engine to its rear on each side.
- c) The rear bodywork must have the ability to enclose the original Volkswagen fan shroud mounted in its stock location (see illustration in Section 12.0).
- d) The top of the rear bodywork shall extend from the back of the firewall to a point at least 16 inches to the rear of the centerline of the rear axle.
- e) Any bodywork forward of the center of the torsion bar tubes shall not extend outward beyond the centerline of the shock towers (maximum width of 806.45mm).
- f) part of the frame or bodywork shall project beyond a plane connecting the vertical centerline of the front and rear tires.
- g) The driver's seat shall be capable of being entered without the removal or manipulation of any part or panel, with the exception of the steering wheel and/or drivers head surround. The steering wheel and the surround must be removable by the driver and/or safety workers without the use of any tools. Readily legible removal instructions for safety workers are recommended. Bead seats are recommended.
- h) Wings (airfoils) are prohibited.
- i) Floor and safety equipment shall conform to the CASC-OR Race Regulations.
- j) A firewall to prevent passage of flame and debris between the engine area and driver's compartment shall extend the full width of the cockpit and be at least equal to the top of the carburetor in vertical height.
- k) Air ducting may be attached to the carburetor and/or the engine. Brake ducts are not permitted.

- l) Forward facing air ducts may be installed for the purpose of delivering cooling air directly to the engine, cylinder heads, oil cooler, and/or carburetor. If these ducts are within the profile area defined in Section 12.0, then the ducted air must make a 90° bend within the bodywork.
- m) Air duct openings may be located within the cockpit area, and/or penetrate the firewall, provided the duct is baffled or the firewall is extended to prevent flame and debris from reaching the driver. Any shape may be used to form firewall extension. Any other firewall inlet shall also prohibit passage of flame and debris. (Recommended: All of this extension be the same width as the firewall, allowing for bodywork contour limitations, and extend in a horizontal plane back 50.8mm, minimum, past the carburetor body.)
- n) The bottom of any bodywork that extends below the frame members shall be on the same flat plane as the undertray (ref. Section.8.0) and shall not deviate from that flat plane by more than 25.4mm front to rear effective for any newly registered cars after January 1, 1983.
- o) The rear locating arm(s), coil spring(s), and shock absorber(s) shall not be faired in and shall be visible from the side without removal or manipulation of any part or panel.
- p) The front suspension upright(s) (shock absorber mounts), shock absorbers, and/or trailing arms shall not be faired in by covering or shrouding away from the air-stream except that the front shocks may be mounted behind the shock uprights.
- q) Bodywork shall be defined as all panels external to the chassis/frame and licked directly by the air stream. This includes the floor pan. All bodywork shall be rigidly attached to the chassis and shall not move relative to the chassis while the car is in operation. For the purposes of this definition, the rigid portion of the front beam is considered part of the chassis/frame.

10 Non-Standard Replacement Parts

10.1 AUTHORIZED NON-STANDARD REPLACEMENT PARTS

10.1.1 The use of the following non-standard replacement parts is permitted provided that no unauthorized modification of any other component results:

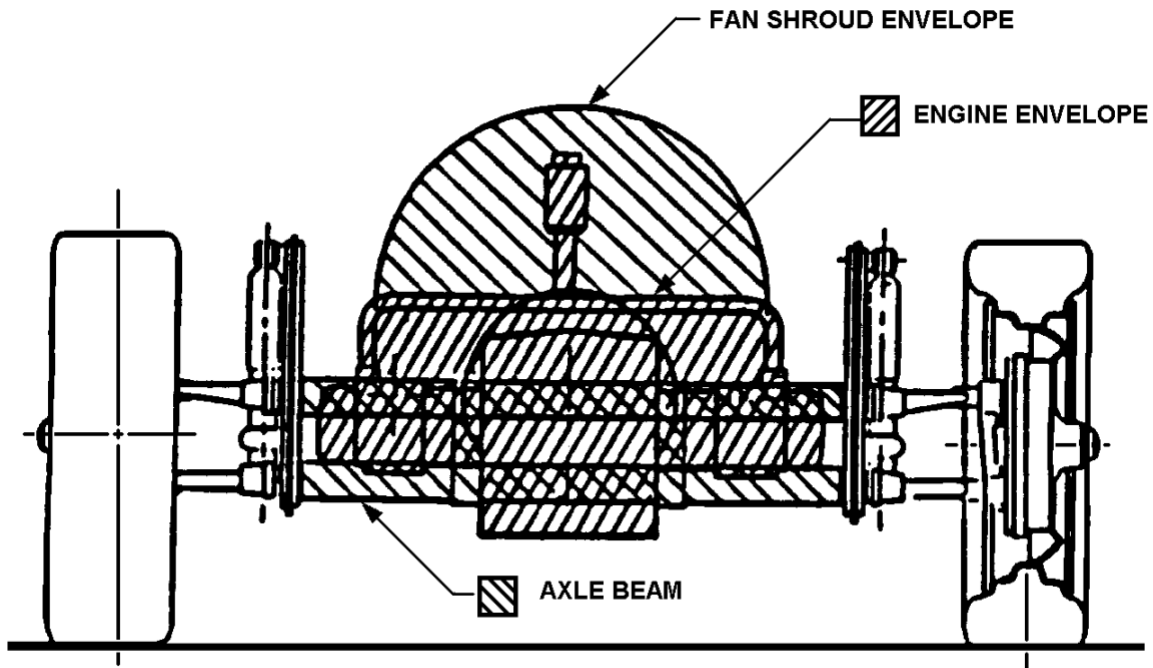
- a) Fasteners (nuts, bolts, screws, etc.)
- b) Wiring
- c) Gaskets and seals
- d) Brake lines and fuel line
- e) Spark plugs (maximum 12.70 mm reach)
- f) Piston rings
- g) Wheel bearings
- h) Connecting rod bearings and crankshaft main bearings of same type and size as standard VW
- i) Brake shoes and brake lining
- j) Valve guides
- k) Ignition points or drop-in ignition triggering module.

11 Electrical

11.1.1 The use of any single 6 or 12-volt battery is permitted to power the starter and engine ignition system. Any secondary batteries connected only to gauges and communications or data acquisition equipment are allowed.

11.1.2 The use of any starter is permitted provided it can be fitted without any modification to the engine/transmission.

12 Formula 1200 Front View





CANADIAN AUTOMOBILE SPORT CLUBS
ONTARIO REGION

Appendix O, Section C - Formula 1600

Effective February 10, 2020

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DRAFT



Appendix O, Section C - Formula 1600

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These regulations are intended to assist in the conduct of Competitions and to further general safety. They are a guide and in no way guarantee against injury or death to participants, spectators or others. No express or implied warranties of safety or fitness for a particular purpose shall be intended or result from publication or compliance with these regulations. By applying for a competition licence and/or by entering a competition event, all participants are deemed to have understood and accepted these terms, including that motorsport is inherently dangerous and it is each participant's obligation to meet and maintain compliance with all regulations to reduce the risk of death or injury to self or others, recognizing that such risk is inherent to the sport and cannot be completely eliminated.

Red bold, italics text indicates significant changes or amendments.

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DRAFT

APPENDIX O, SECTION C - FORMULA 1600

1 DEFINITIONS

- 1.1.1 Formula 1600 is a single-seat, open-wheel racing Car using either a standard Ford 1600 "crossflow" pushrod, normally aspirated engine with a 2-venturi carburettor or a Honda Fit 1500 (L15A7) engine.
- 1.1.2 Cars shall comply with the CASC-OR Race Regulations as well as the Regulations herein.
- 1.1.3 There shall be two groups of Cars designated F1600 A and F1600 B.

- a) F1600 A: chassis built in 1995 and later, or any car with a Honda Fit engine.
- b) F1600 B: chassis built in 1994 and earlier.

Note; The entrant of a "B" class car may elect to run in the "A" class should they so desire. However, once a car/driver combination has raced in a specific class in any single season it must remain in that class for the entire season.

Note: Effective January 1, 2017, cars that have been altered in design and/or updated to later specs MAY be classified as "A" Class cars based on criteria to be established by the Series.

2 CHASSIS

- 2.1.1 The chassis shall be of steel space frame construction.
- 2.1.2 Monocoque-type structures are prohibited.
- 2.1.3 Stabilized (honeycomb) or composite (carbon fibre or Kevlar) materials are not permitted, except as specifically authorized herein.
- 2.1.4 The use of titanium is prohibited.
- 2.1.5 The chassis shall incorporate a roll cage. Forward-facing braces protecting the Driver's legs and feet shall extend from the front roll hoop to the front bulkhead. (The front bulkhead is defined as the furthest forward transverse section of the main frame.) The minimum main roll hoop height shall be 920mm.
- 2.1.6 The soles of the Driver's feet shall not extend beyond the front edge of the wheel rims (in normal position; i.e., pedals not depressed) and shall remain behind the front bulkhead.
- 2.1.7 The lower main frame rails shall be a minimum of 250mm (9.84in) apart (inside dimension) from the front bulkhead to the rear roll hoop.
- 2.1.8 Any nose box must be a crushable structure, securely attached to the front bulkhead, with a minimum cross section of 20000 sq. mm (31 sq. in.), 400mm (15.75in) forward of the clutch and brake pedals (not depressed) constructed of a minimum of 18 gauge 6061-T4 or equivalent aluminum.
Radiators may be incorporated in this structure.
- 2.1.9 The area between the upper and lower main chassis tubes from the front roll hoop bulkhead to the rear roll hoop bulkhead shall be protected by one of the following methods to prevent the intrusion of objects into the cockpit:
 - a) Panel(s), minimum of either 1.52mm (0.060in) heat-treated aluminum (6061-T6 or equivalent) or 18 gauge steel, attached to the outside of the main frame tubes.
 - b) Reinforced bodywork, consisting as a minimum, of a double layer of 5 oz., bi-directional, laminated Kevlar material incorporated only into this area of the body.

For either method, fasteners shall be no closer than 152.40mm (6in) centres. The material used for chassis braces in this area shall be at least equivalent to the roll hoop brace material.

- 2.1.10 Sheet materials attached to the chassis by welding, bonding, or by rivets or threaded fasteners which are located closer than 152.40mm (6in) centres, are defined as stress-bearing panels. Composite or stabilized materials shall not be used for stress-bearing panels.
- 2.1.11 A stress-bearing floor pan/undertray, minimum of 1.52mm (0.060in) heat-treated aluminum or 18 gauge steel, is required from the front bulkhead to the rear roll hoop bulkhead. Its curvature shall not exceed 25.4mm (1in).
- 2.1.12 The mountings for brake and clutch pedals and cylinders (front bulkhead), instruments, (front roll hoop bulkhead), and rear roll hoop bulkhead (behind the Driver) may also be stress-bearing panels. No other stress-bearing panels are permitted.
- 2.1.13 The firewall portion of the rear roll hoop bulkhead (panel) shall extend the full width of the cockpit and be at least equal to the top of the carburettor in vertical height.
- 2.1.14 Forward-facing air ducts may be installed for the purpose of delivering air directly to the engine area.
- 2.1.15 Air duct openings may be located within the cockpit provided the firewall is extended to prevent flame and debris from reaching the Driver. (Any shape may be used to form firewall extension.)
All firewall inlets shall prohibit passage of flame and debris.
- 2.1.16 Brackets for mounting components, such as the engine, transmission, suspension pickups, instruments, clutch and brake components, and body panels may be non-ferrous, of any shape, and fastened to the frame in any manner.
- 2.1.17 The use of Magnesium for bulkheads is prohibited.
- 2.1.18 The floor/undertray, including all sprung parts, of the car shall lie on one plane with a tolerance of 5mm (0.200in) The area of this "flat bottom" is measured from rearward of the vertical plane tangent to the rear of the complete front wheels (including mounted tires) to the fore of the vertical plane tangent to the fore of the complete rear wheels (including mounted tires).
The tolerance of +/- 5mm is allowed to cover any possible manufacturing problem and not to permit designs against the spirit of the "flat bottom" rule.
The periphery of the surface formed by these parts may be curved upwards with a maximum radius of 50mm (1.97in).
- 2.1.19 No part having an aerodynamic influence and no part of the bodywork may be located below the geometrical plane produced by the "flat bottom" surface.
- 2.1.20 No transverse, longitudinal, or other flexible, retractable, pivoting, or sliding device bridging the gap between the body and the road surface is permissible.
- 2.1.21 Dimensions:
 - a) Minimum wheelbase is 2000mm (78.800in).
 - b) Minimum Track is 1200mm (47.280in).
 - c) Total overall maximum width is 1850mm (72.89in).

3 BODYWORK

- 3.1.1 The bodywork opening giving access to the cockpit shall have the following minimal dimensions:
 - a) Length: 600mm (23.622in)
 - b) Width: 450mm (17.717in)

This width extends over a length of 300mm (11.811in) minimum. This minimal rectangular opening may exist anywhere forward of the bracing and required padding will not be considered in these dimensions.

- 3.1.2 The driver's seat shall be capable of being entered without the manipulation or removal of any part or panel except the steering wheel.
- 3.1.3 Maximum width of bodywork/coachwork behind front wheels is 1300mm (51.18in).
- 3.1.4 No part of the bodywork shall extend more than 1000mm (39in) behind the centreline of the rear axle.
Those cars which extend their tails to this length may not extend their exhaust pipes more than 600mm behind the rear axle centreline.
- 3.1.5 Bodywork shall not increase in width behind the centreline of the rear axle in any horizontal section.
- 3.1.6 There shall be no forward-facing gaps or openings in the bodywork with the exception of those necessary for engine cooling, engine air inlet, shock, or brake cooling.
- 3.1.7 All bodywork shall be firmly attached to the chassis.
- 3.1.8 Wings and other airfoil devices which create aerodynamic downforce are prohibited.
- 3.1.9 Any part of the car which has an influence on the aerodynamic stability of the vehicle shall be firmly attached with no provisions for adjustment to vary downforce, except that a single rear spoiler, which may be capable of adjustment, is permitted. Cockpit adjustment is not permitted. This spoiler shall be no wider than the surface to which it is attached, and there shall be no gap between the spoiler and the body surface to which it is attached.
- 3.1.10 No part of the bodywork or rear spoiler shall exceed the height of a horizontal plane 900mm (35.4in) above the ground, with the Car as qualified or raced, with Driver aboard. The engine air box and on-board video cameras are not included in this height restriction.
- 3.1.11 Air may not be ducted through any part of the bodywork for the purpose of providing aerodynamic downforce on the car. All ducted air for heat exchangers (water/oil) shall pass through those heat exchangers. Diffuser undertrays or venturi tunnels are prohibited.
- 3.1.12 Fuel filler necks, caps, or lids shall not protrude beyond the bodywork of the Car.
- 3.1.13 Fuel tank air vents shall be located at least 250mm (9.84in) behind the rear of the cockpit opening.
- 3.1.14 Carbon fibre is not permitted. Kevlar is permitted only where specifically stated herein.

4 SUSPENSION

4.1 DEFINITION

Suspension is defined as the system of springs, shock absorbers, control arms, links, etc., supporting the vehicle on its axles. Sway bars, sway bar links, steering components, etc., are not classified as suspension.

4.2 CONSTRUCTION

- 4.2.1 All suspension components shall be of steel or ferrous material, with the exception of hubs, hub adapters, hub carriers, bearings, spring caps, abutment nuts, anti-rollbar links, shock absorber caps and nuts, bell cranks, and bushings. Front and rear hub carriers shall be of steel or aluminum alloy for Cars manufactured after 1/1/83. Springs shall be steel.
- 4.2.2 Titanium and composite material using carbon and/or Kevlar is prohibited.
- 4.2.3 Control arms and all associated items which attach directly to the chassis members shall be boxed in or captured to prevent intrusion into the cockpit.
- 4.2.4 Shock absorbers are free. Aluminum casings are permitted.
- 4.2.5 Spoilers, fairings, or other devices which may exert downforce, shall not be attached to suspension members.

- 4.2.6 Suspension members shall not be constructed in the form of an airfoil cross section. Suspension members shall be symmetrical about the horizontal axis. Brake lines may be attached to the suspension members.

5 BRAKES

- 5.1.1 Brakes are unrestricted, except that calipers shall be cast iron, or two-piston aluminum. Aluminum calipers shall have a maximum piston diameter of 2.00in. Rotors are restricted to ferrous material.
- 5.1.2 Forward facing brake-cooling ducts may be installed but shall serve no other function or purpose.

6 WHEELS

- 6.1.1 Wheels are unrestricted, except that:
- a) Material shall be metal.
 - b) Diameter shall be 330.20mm (13in).
 - c) Rim width shall not exceed 139.70 mm (5.5in).
 - d) Wheel covers, wheel fans, or any device to fair in the wheels are prohibited.

7 WEIGHT

- 7.1.1 Weights as practiced, qualified or raced, with Driver and required safety equipment are as follows:
- a) 1075 lbs. for cars with outboard suspension
 - b) 1100 lbs. for cars with inboard/outboard suspension combination
 - c) 1125 lbs. for cars with inboard suspension

8 TIRES

- 8.1.1 Toyo Proxes R888R tires shall be used.
- 8.1.2 Tire sizes shall be
- a) Front tire size: 185/60 R13
 - b) Rear tire size: 205/60 R13
- 8.1.3 Additional hand cutting or grooving is not permitted. Rain tires are not permitted.
- 8.1.4 Tires shall display a stamp from Britain West Motorsport or Braidon Tire.
- 8.1.5 Tire Limit for A Class cars
- a) Any Toyo Proxes R888R tire may be used during official practice and warm up sessions.
 - b) Tires that are used for qualifying will be marked at the end of the qualifying session and these tires must be used for all races for that event **by the car-driver combination who qualified the car. If the driver needs to change cars that events marked tires, used by the driver, must transfer to his/her newly entered car.** Marking of tires will be performed at impound. It is the drivers responsibility to ensure their tires are marked prior to leaving the impound area.
 - c) Tires may be checked for the official mark at post race technical inspection.
 - d) If a tire is damaged during a race and needs to be replaced the driver or a member of his/her crew must have an official examine the tire and determine if the driver/team may replace the tire. The replacement tire will be marked prior to the next officially timed session at the current event.

- e) In the event of rain, a Series Official or the Clerk will declare a rain race at least 30 minutes prior to the 3-minute board for that session. Drivers/teams may choose any Toyo Proxes R888R tire (open tire rule) to run in the race declared a rain race.

9 FUEL

9.1 PERMITTED FUEL

Permitted fuel is herein defined as gasoline fuel meeting specified dielectric constant (D.C.) standards and not containing any prohibited substance. The D.C. of gasoline shall be measured by one of the following fuel test meters:

- a) Precision Fuel Testing G-01 fuel analyzer
- b) Kavlico FT-K01 fuel tester
- c) Digatron DT47-FT fuel tester.

The dielectric constant shall not exceed the following values:

- a) 15 when using the G-01 or FT-K01 meters
- b) 166 when using the DT47-FT

9.2 FUEL ACQUISITION

It is recommended that all cars be equipped with an accessible sampling port/valve/device located in a fuel line between the fuel tank or fuel cell and the carburetors or fuel injection system or in an unused carburettor port to allow safe acquisition of a fuel sample. If possible the port/valve/device should be located outside the engine compartment. The sampling port/valve/device shall be installed and used by the competitor to obtain the sample without fuel leaking, spraying or squirting. Siphoning of fuel directly from the fuel tank or fuel cell or removing a hose or line is not allowed.

Competitors shall provide all the necessary and appropriate tools to obtain a fuel sample.

10 FORD ENGINES

10.1 GENERAL PROVISIONS

10.1.1 The engine shall be standard Ford 1600 GT pushrod "crossflow" as installed in the following Cars:

- a) Original Version: Cortina 1600 GT (through 1970 model)
- b) Updated version: Cortina 1600 GT (1971)

Components shall not be interchanged between the original and updated versions of the engine unless specifically authorized. Regulations contained herein apply to both versions of the engine unless specifically stated otherwise.

10.1.2 Engines built to current SCCA specifications shall be eligible.

10.1.3 The engine shall not be altered, modified, or changed in any respect unless specifically authorized herein.

10.1.4 The gasket face of the cylinder head may be resurfaced provided the maximum compression ratio is not exceeded and the minimum depth of the combustion chamber is maintained.

10.1.5 Valve guides are unrestricted provided the position of the valve is not changed. Standard replacement valves, with oversize stems, may be used as normal repair/maintenance procedures. Specifications, under "Valves" herein shall be observed. It is permitted to re-cut or replace valve seats. Valve seat angles are unrestricted.

10.1.6 Exhaust emission control, air pumps, and associated lines and nozzles shall be completely removed. When these air nozzles are removed from a cylinder head, the holes shall be completely plugged.

10.1.7 Balancing of all moving parts of the engine is permitted provided that such balancing does not remove more material than is necessary to achieve such balance. It is permitted to polish parts of the engine providing the contour of the part is not altered and can be recognized as the original part.

10.1.8 Maximum compression ratio:

- a) 10.0 to 1 -- Original engine
- b) 9.3 to 1 -- Uprated engine

The following specifications are used in determining compression ratio:

Uprated:

- maximum bore size: 3.200 in
- Minimum cylinder volume at top dead centre: 42.0 cc
- Maximum valve protrusion from head surface: 0.040 in

Original:

- 1.64cc - volume top ring to top of piston
- 5.60cc - volume of head gasket

Minimum unswept volume per cylinder:

- Original engine with standard pistons: 44.4cc
- Original engine with 0.030in o/s pistons: 45.1cc

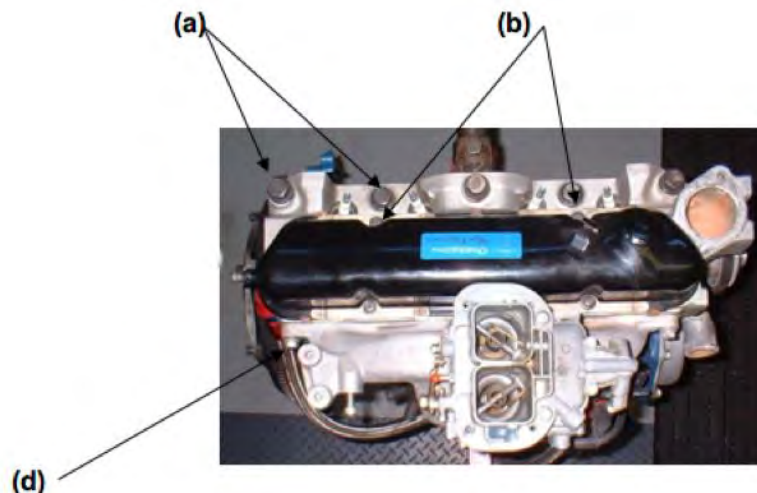
The compression ratio shall be checked using official CASC-OR procedure.

10.1.9 Pocketing of piston valve reliefs is allowed to a maximum of 0.050 in. to obtain the minimum combustion chamber volume.

10.1.10 Engine Seal Requirements

Holes of 1/16 inch minimum diameter shall be drilled through the following bolts for sealing purposes.

- (a) The two (2) rear exposed head bolts, engine left.
- (b) The two (2) rocker cover bolts, engine left.
- (c) Two (2) bolts fastening the bellhousing adaptor plate to rear of engine block on the left side (exhaust side).
- (d) One (1) rear intake manifold bolt.





10.2 ENGINE BLOCK

- 10.2.1 Bore: May be enlarged for clearance between cylinder and piston.
- 10.2.2 Cylinder liners may be fitted.
- 10.2.3 The top surface of the block may be milled or surface ground to obtain the maximum compression ratio specified herein.
- 10.2.4 Any steel centre main bearing cap may be used. The oil pump mounting face on the block may be machined for the purpose of fitting an oil pump.
- 10.2.5 The 1600 Pinto block, No. DIFZ-6010-C, may be used as a replacement for the Cortina GT block; Standard Pinto tappets, No. DORY 6500A and DIFZ 6500A may also be used when this block is used as a Cortina GT replacement. Fiesta block and crankshaft are permitted.

The Ford Racing Block, part number M-6010-16K, is permitted as a replacement part.

10.3 CYLINDER HEAD

- 10.3.1 Ports may be reshaped by the removal of metal as long as the port diameter at the manifold face of the head does not exceed the following dimensions:
 - Uprated engine:
 - a) Inlet: 1.50in
 - b) Exhaust: 1.20in
 - Original engine:
 - a) Inlet: 1.50in
 - b) Exhaust: 1.20in

Minimum combustion chamber depth: 0.115in

Maximum combustion chamber length: 3.15in

Minimum volume per cylinder combustion chamber: 7.8cc
- 10.3.2 Reshaping of the original engine combustion chamber is prohibited.
- 10.3.3 The standard head gasket shall be used. Head gaskets may be interchanged between the original and uprated versions of the engine. In addition to the standard Ford gasket, Payen head gaskets, part number BJ200 and AH-750, and Fel-pro head gasket, part number 8360PT-1, may be used.
- 10.3.4 Ford Pinto cylinder head part No. DORY 6049B is permitted on the Cortina GT engine.

- 10.3.5 Aluminum cylinder head, part #99003.845, manufactured by Pierce Manifolds, may be substituted for the original cast iron head provided that all measurements and specifications remain the same.
- 10.3.6 Welding is permitted on the alloy cylinder head only for repair of damaged areas. The addition of material for the purpose of reshaping inlet or exhaust ports is strictly prohibited.

10.4 INTAKE MANIFOLD

- 10.4.1 The ports may be reshaped by the removal of metal as long as the following dimensions are maintained:

Maximum Size at head face:

	Original Engine	Upated Engine
Cyl. 1&4:	1.480in x 1.280in	1.340in
Cyl. 2&3:	1.250in	1.340in

For maximum dimensions at carburettor flange, see Figure 1.

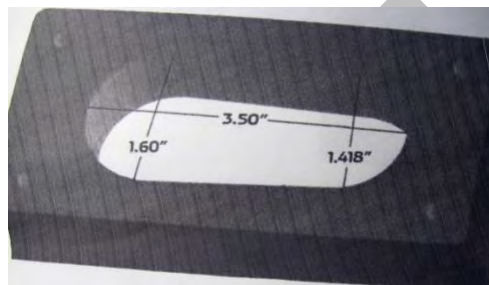


Figure 1 - Carburettor Flange

- 10.4.2 The carburettor face of the inlet manifold may be machined to the horizontal to compensate for fore/aft tilt of the carburettor.
- 10.4.3 The diameter of the ports on the uprated engine may exceed the above listed dimensions if the casting bore is untouched and in its original state at the gasket face.
- 10.4.4 The water passages in the inlet manifold may be plugged.
- 10.4.5 In addition to the stock Ford intake gasket, Payen intake gasket, part number JA613 may be used.

10.5 PISTONS

10.5.1 Piston Standards

- Standard or 0.005in oversize pistons may be used in the uprated engine.
- Standard, 0.015in oversize, or 0.030in oversize pistons may be used in the original engine.
- Standard size AE pistons part No. 18649, casting No. 18634, standard size AE pistons, part number 20552, casting number 20548A, standard size CP pistons, part number 81-2 FF1600, or CP oversize pistons, part number 81-2 FF1600+5, may be used.
- Alternate pistons, part number AE-M717D, casting number 711M6110 may also be used.

10.5.2 The following dimensions and weights shall be observed:

	Original Engine	Up-rated Engine
a) Maximum diameter:		
i. Standard:	3.189in	3.187in
ii. 0.015in o/s:	3.204in	Not permitted
iii. 0.030in o/s:	3.219in	Not permitted
iv. 0.005in o/s		3.192in
b) Depth of bowl:	0.500in (+/-0.005)	0.470in
c) Minimum volume of bowl:	31.50cc	
d) Maximum diameter of bowl:	2.28in	AE 2.44in CP 2.50in
e) Centreline of wrist pin to crown:	1.737in +/-0.002in	1.737 +/-0.002in
f) Overall height:	3.30in	AE 3.30in CP 2.80in
g) Minimum weight - w/rings, pin & clips:	525 grams	515 grams
h) Weight of pin:	115 +/- 2 grams	

10.5.3 Piston rings are unrestricted provided that:

- One oil control and two compression rings are used.
- No modification is made to the piston for the installation of rings.
- Pocketing of the piston valve reliefs is allowed up to a maximum of 0.050in to obtain the maximum combustion chamber volume.

10.6 VALVES

10.6.1 The following specifications shall be observed:

	Original Engine	Up-rated Engine
a) Distance apart at centres:	1.540in +/-0.020in	1.540in +/-0.020in
b) Max. diameter:		
i. Inlet:	1.502in	1.560in
ii. Exhaust:	1.252in	1.340in
c) Overall Length:		
i. Inlet:	4.280in +/-0.006in	4.367in +/-0.020in
ii. Exhaust:	4.260in +/-0.006in	4.355in +/-0.020in

10.6.2 AE intake valve #V34524 and AE exhaust valve #V34525 are permitted.

10.6.3 Reshaping of valves is specifically prohibited.

10.6.4 Steel or aluminum rocker shaft pedestals may be substituted for the original provided that they have the same hole and centreline dimensions as the original Ford pedestal.

10.7 CAMSHAFT

10.7.1 Regrinding of the camshaft lobes is permitted, providing they are ground to meet the Ford and SCCA profile. The following specifications are provided for checking purposes:

- a) Lift at top of pushrod:
 - i. Inlet: 0.231in +/- 0.002in maximum
 - ii. Exhaust: 0.232in +/- 0.002in maximum
- b) Lift at top of spring cap (zero tappet setting).
 - i. Inlet: 0.356in maximum
 - ii. Exhaust: 0.358in maximum

10.7.2 Re-contouring of the valve stem contact pad of the rocker arm is permitted, provided the maximum lift at the spring cap is not exceeded.

10.7.3 Offset camshaft/sprocket dowels are permitted.

10.7.4 Camshaft profile and lobe centres shall be checked using the official CASC-OR procedure.

10.7.5 The Elgin Formula Ford Blueprint camshaft manufactured by Elgin may be used.

10.8 VALVE SPRINGS

10.8.1 Valve springs and valve spring shims are unrestricted provided that:

- a) No more than one spring shall be used per valve.
- b) The standard spring cap and retainers shall be used. The standard cap diameter is 27.84mm (1.096in) maximum.
- c) Springs shall be made of steel.

10.9 PUSHRODS

10.9.1 Original Engine

- a) Minimum stem diameter: 0.25in
- b) Overall length: 7.64in minimum
- c) Minimum weight: 50 grams

10.10 CONNECTING RODS

10.10.1 Both engines: minimum weight including cap, bolts, and small end bush, but not big end bearing shells is 630 grams.

10.11 CRANKSHAFT

10.11.1 Minimum weight:

- a) Original engine: 23 lbs. 8 oz.
- b) Up-rated engine: 24 lbs. 8 oz.

10.11.2 Stroke (at piston): 3.056in +/- 0.004in

10.11.3 Crankshaft pulley is unrestricted.

10.11.4 Either crankshaft may be used in either engine.

10.11.5 The crankshaft may be shot peened.

10.11.6 An alternate crankshaft may be used providing it is cast steel and all measurements and specifications remain the same as the original crankshaft.

10.12 FLYWHEEL/CLUTCH

10.12.1 The minimum weight of the flywheel and ring gear, excluding all other components, shall be 15.5 lbs.

10.12.2 The flywheel may be machined to achieve the minimum allowed weight provided the part can be identified as the original. Flywheel locating dowels are permitted.

10.12.3 The standard Ford Pinto 1600 flywheel may be used. JAE flywheel, part number JAE 1600, may be used.

10.12.4 The flywheel clutch face may be machined to accept a racing clutch outer ring.

10.12.5 Clutches

- a) Single plate racing clutches may be substituted for the production-based road clutch.
- b) Carbon fibre and carbon/carbon clutches are not permitted.
- c) Any ring gear or component inserted into the flywheel face to obtain full friction surface for the clutch disc shall not be weighed when determining the 15.5 lbs. flywheel ring/gear weight.

10.13 CARBURETTOR

10.13.1 Weber carburettor, with the swaged fuel inlet fitting, shall be modified by drilling and tapping the carburettor body for a threaded fitting.

10.13.2 SPECIFICATIONS:

- a) Original Engine:
 - i. Weber 32 DFM or DFD or Holley 5200
 - ii. Venturi Diameter: Primary: 26mm
Secondary: 27mm
- b) Uprated (Kent) Engine:
 - i. Weber 32/36 DGV or Holley 5200
 - ii. Venturi diameter: Primary: 26mm
Secondary: 27mm

10.13.3 The following modifications and changes are allowed:

- a) The fitting of any jets (including accelerator pump discharge nozzle) which may be fitted without modification to the carburettor body.
- b) Modification or substitution of external throttle linkage.
- c) The fitting of internal and/or external anti-surge pipes.
- d) The removal of the air cleaner.
- e) The fitting of a velocity stack (intake air horn).
- f) The removal of the choke butterflies and linkage.
- g) An alternate carburettor gasket provided it is the same thickness as the original gasket.

10.14 FUEL PUMP

Unrestricted

10.15 EXHAUST MANIFOLD

Unrestricted

10.16 LUBRICATION SYSTEM

10.16.1 Oil pump and sump: Unrestricted

10.16.2 Dry sump system is permitted.

10.17 COOLING SYSTEM

10.17.1 Radiator, fan and water pump are unrestricted.

10.17.2 Pump/fan/generator drive belts are unrestricted.

11 ELECTRICAL EQUIPMENT - FORD ENGINES

11.1 DISTRIBUTOR

11.1.1 Distributor is free provided the original drive and location is retained.

11.1.2 The distributor is defined as the component that triggers the LT current and distributes the HT current.

11.1.3 The ignition timing may only be varied by vacuum and/or mechanical means.

11.1.4 It is prohibited to use any other method or component to trigger, distribute, or time the ignition.

11.1.5 The vacuum advance mechanism may be removed, and the distributor advance plate may be secured by soldering or welding or by suitable fasteners. The advance curve and advance springs are unrestricted.

11.1.6 The only means to trigger the ignition are, one set of mechanical breaker points or a magnetic or optical trigger that serves no other purpose. The trigger shall be located in the distributor and no other external trigger components may be used.

11.1.7 Only a standard, unamplified ignition coil may be used. Electronic ignition is prohibited.

11.2 GENERATORS AND ALTERNATOR

11.2.1 Generators and alternator are not required.

12 MISCELLANEOUS PROVISIONS

12.1.1 The timing chain/sprocket cover may be altered or replaced.

12.1.2 The use of the following non-standard replacement parts is permitted provided their use does not result in any unauthorized modification of any other component:

- a) Fasteners.
- b) Gaskets, except the following:
 - i. head gasket
 - ii. carburettor to inlet manifold gasket
 - iii. inlet manifold to head gasket.

- c) Washers.
- d) Seals.
- e) Connecting rod, crankshaft, and camshaft bearings of the same size and type as original. Normal oversize/undersize bearings are permitted. This does not allow reducing the bearing surface area by reducing the width of standard bearings.
- f) Spark plugs.

- 12.1.3 Mechanical tachometer drive is permitted.
- 12.1.4 The crankcase breather may be altered or removed.
- 12.1.5 The rocker cover may be altered to provide for crankcase ventilation, and the filler cap may be altered or replaced.
- 12.1.6 Valve or rocker covers may be substituted, provided that the replacement cover affords no additional function than that of the original stock cover.
- 12.1.7 Water pump, fan, and generator/alternator pulley(s) are unrestricted.
- 12.1.8 The crankshaft and main bearing caps may be treated with salt-bath nitriding covered under SAE specification AMS 2755A (tuftriding, etc.).
- 12.1.9 The use of any oil or lubricants is permitted.

13 TRANSMISSION

- 13.1.1 Any transmission with not more than four forward gears and an operational reverse, capable of selection by the driver in a normal seated position, is permissible.
- 13.1.2 Ratios are free.
- 13.1.3 The use of automatic and/or sequential gearboxes is prohibited.
- 13.1.4 Electronically assisted gear change mechanisms and electronically controlled differentials are prohibited.
- 13.1.5 Gearboxes with shafts that are transverse to the longitudinal axis of the chassis are prohibited. The sole exceptions are the gearbox final drive (crown wheel) shaft axis and final drive shafts (half shafts). All change gears shall be located in the case aft of the final drive.
- 13.1.6 Rear-wheel drive only is permitted.
- 13.1.7 The final drive ratio is free.
- 13.1.8 Torque biasing, limited slip, and locked differentials are prohibited.
- 13.1.9 The differential shall not be modified in any way to limit its normal function.
- 13.1.10 An aluminum differential carrier is permitted.
- 13.1.11 The use of titanium is prohibited.

14 EXHAUST OUTLETS

- 14.1.1 Exhaust outlets shall not extend more than 600mm (23.6in) behind the centreline of the rear axle and shall be positioned no more than 600mm (23.6in) from the ground.
- 14.1.2 All exhaust outlets shall terminate outside the bodywork.

15 CARS BUILT PRIOR TO JANUARY 1, 1986

- 15.1.1 The following specifications are for cars built prior to January 1, 1986 and for technical inspection only. No Cars are to be built to these specifications.

15.1.2 Structure

- a) For safety reasons, the undertray, shall be a stress-bearing panel. Its curvature shall not exceed one inch.
- b) The mountings for brake and clutch pedals and cylinders, and for the instrument panel and the bulkhead (panel) behind the Driver may be stress-bearing.
- c) No other stress-bearing panels are permitted.
- d) Brackets for mounting components, such as the engine, transmission, suspension pick-ups, instruments, clutch, and brake components, and body panels may be non-ferrous, of any shape, and fastened to the frame in any manner.
- e) Gussets are defined as of steel, fastened to a maximum of two members, and are specifically permitted.
- f) The firewall portion of the bulkhead (panel) shall extend the full width of the cockpit and be as high as the top of the carburettor. Forward facing air ducts may be installed for the purpose of delivering air directly to the engine area. Air duct openings may be located within the cockpit provided the firewall is extended to prevent flame and debris from reaching the Driver. (Any shape may be used to form firewall extension.) All firewall inlets shall prohibit passage of flame and debris.

15.1.3 SUSPENSION AND RUNNING GEAR

- a) Suspension is defined as the system of springs, shock absorbers, A-arms, links, etc., supporting the vehicle on its axles. Sway bars, sway bar links, steering rack housings, steering links, etc., are not classified as suspension or running gear for this application.
- b) All components shall be of steel, with the exception of hubs, hub adapters, rear hub carriers, and bearings and bushings. Front hub carrier material shall be of steel or aluminum alloy. The materials for front and rear hub carriers on Cars manufactured after 1/1/83 will be only steel or aluminum alloy.
- c) Springs shall be made of steel only.
- d) Design of shock absorbers ('dampers') is unrestricted. Casing material shall be steel or aluminum.
- e) All components which are not defined as chassis/frame, suspension or running gear are unrestricted, unless otherwise restricted by the Regulations. Titanium is prohibited.

15.1.4 BODYWORK

- a) Bodywork is defined thus: internally: all visible parts of the passenger compartment.
- b) The bodywork opening giving access to the cockpit shall have the following minimal dimensions:
 - i. Length: 60cm (23.622 inches);
 - ii. Width: 45cm (17.717 inches).

This width extends over a length of (11.811 inches) minimum. This minimal rectangular opening may exist anywhere forward of the firewall. Forward facing roll bar/cage bracing and required padding will not be considered in these dimensions.
- c) The Driver's seat shall be capable of being entered without the manipulation or removal of any part or panel except the steering wheel.
- d) Bodywork, including fuel tanks, shall not exceed a maximum width of 95cm (37.4 inches).
- e) No part of the bodywork and aerodynamic devices shall exceed the height of a horizontal plane 90cm (35.4 inches) above the ground. The safety roll bar/roll cage and engine air box are not included in this height restriction. Measurements are to be made in any condition, Driver on board.
- f) No part of the bodywork shall extend more than 100cm (39 inches) behind the centreline of the rear axles.

- g) Any specific part of the Car which has an aerodynamic influence on the stability of the vehicle shall be firmly fixed with no provisions for adjustment to vary downforce.
- h) Side-mounted radiators (behind the front wheels) may extend beyond the 95cm (37.4 inches) limitation, but not beyond a vertical plane passing through the centrelines of the front and rear tires.

Any portion of a radiator that extends beyond the 95cm (37.4 inches) limitation cannot be covered with any type of shrouding. Radiators mounted in front of the front wheels are considered front-mounted and cannot exceed the 95cm (37.4 inches) limitation.

- i) Wings and other airfoil devices which have the principal effect of creating aerodynamic down-thrust are prohibited. Airfoil: Any device or part of a Car (excepting normal and conventionally styled bodywork) which has a principal effect of creating aerodynamic downforce.

Within this definition may be included forward facing gaps or openings in the bodywork, but shall not include spoilers in the form of raised surfaces, continuous with the body surface, and not wider than the body surface.

- j) It is the intent of these rules to minimize the use of "ground effects" to achieve aerodynamic downforce on the vehicle. Thus, for the full width of the body between the front and rear axles, the lower surface (surface licked by the airstream) shall not exceed 2.54cm (1 inch) deviation from the horizontal in any longitudinal section through that surface. (This is not to be interpreted as requiring a floor pan beneath the motor, transaxle, transmission, or final drive housing.) No aerodynamic devices (e.g., skirts, body sides, etc.) may extend more than 1cm (0.394 inches) below the lower surface of the tub or chassis floor to the rear of the front axle. Seat buckets or other protrusions shall not circumvent this rule. It is not permitted to duct air through any part of the bodywork for the purpose of providing aerodynamic downforce on the Car. All ducted air for heat exchangers (water/oil) shall pass through those heat exchangers.
- k) Fuel filler necks, caps, or lids shall not protrude beyond the bodywork of the Car.
- l) Fuel tank air vents shall be located at least 25cm (9.843 inches) to the rear of the cockpit.

16 HONDA FIT 1500 (L15A7) ENGINE AS USED IN FORMULA 1600.

16.1 GENERAL

- 16.1.1 No modifications to this engine are allowed except where specifically authorized within these rules. This includes, but is not limited to, all fuel injection and engine management components, electrical, cooling, and lubrication systems. All systems are subject to test procedures and shall conform to OEM specifications as stated in the Honda Fit factory service manual, Honda PN61/TK600 and all superseding years, or as specified in these rules.
- 16.1.2 Permitted engine maintenance includes the replacement, but not modification, of external engine and engine systems parts.
- 16.1.3 All rubber fluid lines may be replaced with braided metal or fabric covered (Aeroquip type) lines. Hose clamps may be installed on the rubber oil lines.
- 16.1.4 No balancing, lightening, polishing or other modification of moving parts of the engine is permitted.
- 16.1.5 Only stock Honda manufactured gaskets and seals as specified in the Honda Fit factory service manual are permitted (including, but not limited to, head gasket, intake runner gaskets and O-rings, restrictor plate gasket, and intake and exhaust gaskets).
- 16.1.6 For all Honda part numbers in these specifications, superseding part numbers are considered equivalent.

16.2 BLOCK

- 16.2.1 The only permitted cylinder block is Honda PN: 11000-RP3-810
- 16.2.2 Honing of cylinders is permitted to a maximum diameter of 73.065mm (2.8766 inches). Fitting of cylinder sleeves is prohibited. Re-boring to over size is prohibited.
- 16.2.3 Block shall use stock main bearings caps, girdle and hardware as supplied.
- 16.2.4 Minimum deck height from crank centreline: 220.00mm (8.661 inches)

16.3 CRANKSHAFT

- 16.3.1 The stock Honda Fit crankshaft, Honda PN: 13310-RB-1-000, shall be used with no modifications allowed.
- 16.3.2 Minimum weight: 12,564.51 grams (27.7 lbs). No pilot bearing, pulser or hardware.
- 16.3.3 Maximum stroke at piston: 89.5mm (3.526 inches).
- 16.3.4 Main and rod bearings shall not be modified in any way. OEM bearings shall be used from within the standard range as allowed in the Honda Fit factory service manual.
- 16.3.5 The crank pulser shall not be altered in any way
- 16.3.6 The crank pulley/balancer shall not be altered or modified in any way.
 - a) Minimum weight: 1769.01 grams (3.90 lbs)
 - b) Honda PN: 13810-RB0-003

16.4 CONNECTING RODS

- 16.4.1 Stock Honda Fit connecting rod shall be used PN: 13320-RB1-000.
- 16.4.2 Minimum connecting rod weight with cap and bolts: 280.0 grams (9.88 ounces)
- 16.4.3 Maximum connecting rod length centre to centre: 149.05mm (5.868 inches)

16.5 PISTONS

- 16.5.1 Honda Fit OEM standard size pistons, PN: 13010-RB1-000, shall be used.
- 16.5.2 The use of oversize pistons is not permitted.
- 16.5.3 Piston dimensions and weights:
 - a) Maximum standard piston diameter, measured at a point 16mm from the bottom of the skirt: 72.990mm (2.8736 inches).
 - b) Centreline of wrist pin to crown maximum: 26.21mm (1.032 inches).
 - c) Maximum overall height from skirt to crown edge: 47.80mm (1.882 inches)
 - d) Minimum weight: 198.0 grams (6.984 ounces)
 - e) Minimum weight of piston pin: 66 grams (2.25 ounces)
 - f) Combined minimum weight of piston, piston pin and connecting rod: 543.5 grams (18.85 ounces).

16.5.4 Piston Rings

Piston rings shall be as used in the Fit engine. Two compression rings and one 3-piece oil control ring shall be used.

- a) The standard ring pack is PN 13011-RB1-004 (Riken) or 13011-RB1-006 (Nippon).
- b) No modification of the piston is permitted for the installation of rings.

- c) Ring groove widths.
 - i. Top ring groove: 1.04mm (0.0409 inches) +/- 0.01mm
 - ii. Middle ring groove: 1.02mm (0.04016 inches) +/-0.01mm
 - iii. Oil ring groove: 2.00 mm (0.07874 inches) +/-0.01mm
- d) Ring gaps shall be from 0.152 to 0.610 mm (0.006 to 0.024 inches)

16.6 CYLINDER HEAD

- 16.6.1 The only permitted cylinder heads are Honda PN: 122000-RB0-G00 (US Spec) and 12200-RB0-000 (Japan Spec).
- 16.6.2 The gasket face of the cylinder head may be resurfaced provided the maximum compression ratio is not exceeded or to a service limit of 0.2mm (0.008 inches) based on a height of 120mm (4.72 inches).
- 16.6.3 The original head shall not be ported, polished, or machined. The original casting shall not be modified in any way or polished.
- 16.6.4 Head gasket shall be stock Honda Fit PN: 12251-RB0-004. Minimum compressed thickness of 0.76mm +/- 0.05mm. (0.030" +/- 0.002")
- 16.6.5 Cylinder head breather restrictor shall be used as supplied by HPD, unmodified, PN: 15262-F21S-A200.

16.7 CAMSHAFT

- 16.7.1 The only permitted camshaft is PN: 14110-RB1-J00. It shall not be modified in any way.
- 16.7.2 The CMP pulse (cam trigger) plate shall be as supplied, Honda PN 14221-RB0-003.
- 16.7.3 The camshaft and crankshaft sprockets shall be as supplied, Honda PN's: 14211-RB0-J00 and 13621-RB0-003, respectively. Cam timing shall not be altered. The timing shall be installed as specified in the Honda Fit factory service manual. The timing chain/sprocket cover and crankshaft pulley may not be altered. With the engine at TDC (no. 1 cylinder), the "UP" mark on the camshaft sprocket shall be at the top and the TDC grooves on the camshaft sprocket shall line up with the top edge of the cylinder head.
 - a) Timing chain Honda PN: 14401-RB1-003
 - b) Case assy, chain (sprocket cover) PH: 14410-RB1-000
 - c) Pulley comp, crankshaft, PN: 13810-RB0-003
 - d) Cam timing at lobe centres: (at 1mm after opening to 1mm before closing). (0.040")
 - Exhaust: 119 degrees +/- 1.0 degree.
 - Intake VTEC on: 111 degrees +/- 1.0 degree
- 16.7.4 Camshaft profile and lobe centres shall be checked using the official CASC checking procedure.
- 16.7.5 Cam lobe heights: Intake, Primary: 35.240mm (1.387"), secondary: 36.200mm (1.425"), exhaust 35.490mm (1.397")
- 16.7.6 Valve lift measured at the retainer:
 - a) Exhaust: 9.20mm (0.362")
 - b) Intake VTEC off: 8.68mm (0.342")
 - c) Intake VTEC on: 9.90mm (0.390")
- 16.7.7 Valve rockers shall not be modified in any way.
 - Honda PN: 1460-RB1-010 Arm Assy, rocker.
- 16.7.8 The VTEC system shall be stock. The VTEC activation valve shall be stock. The HPD ECU will activate the VTEC at 5200 RPM. Honda PN: 15810RB0-G01.

16.8 VALVES

OEM valves shall be as used in the FIT.

16.8.1 Dimensions:

- a) Inlet PN: 14711-RB0-000 Exhaust PN: 14721-RB0-000
- b) Maximum diameter: Inlet 28.15mm (1.108") Exhaust 23.15mm (0.911")
- c) Maximum overall length: Inlet 119.15mm (4.691") Exhaust 117.85mm (4.640")
- d) Minimum stem diameter: Inlet 5.45mm (0.215") Exhaust 5.42mm (0.213")

16.8.2 Valve location or angle shall not be altered.

16.8.3 Reshaping of the valves is strictly prohibited.

16.8.4 Valve guides may be replaced provided the position of the valve is not changed and the replacement guides are Honda OEM parts.

Inlet guide PN: 12204-PJ7-305 (over size)

Exhaust guide PN: 12205-PJ7-305 (over size)

16.8.5 It is permitted to replace or re-cut valve seats provided the valve seat angles are stock Honda three angle cut per the Honda Fit factory manual.

16.8.6 Valve stem installed height shall be per the Honda Fit factory service manual:

Intake maximum: 46.8mm (1.843 inches)

Exhaust maximum: 46.9mm (1.846 inches)

16.8.7 Valve stem seals shall be Honda OEM parts

Honda PN: 12210-P1-004 seal A.

Honda PN: 12211-PZ1-003 or PN: 12211-PZ1-004 seal B

16.9 VALVE SPRINGS

16.9.1 Valve springs are Honda OEM as specified in the Honda Fit factory service manual.

- a) Intake PN: 14761-RB1-003, free length: 48.55mm (1.911 inches)
- b) Exhaust PN: 14762-RB1-007, free length: 54.52mm (2.146 inches)

16.9.2 Valve spring shims are not permitted.

16.10 COMPRESSION RATIO

16.10.1 The maximum compression ratio is 10.55 to 1 utilizing Honda Fit factory service manual limits. Carbon may be removed for checking.

16.11 INTAKE MANIFOLD AND FUEL SYSTEM

16.11.1 The lower manifold shall be stock Honda Fit parts. It is not permitted to add or remove material. No coating is permitted on the exterior or interior of the manifold. Honda PN: 17100-RB1-000

16.11.2 The upper manifold, air box, and throttle body assembly shall be used as delivered by HPD. External throttle return springs are unrestricted.

Air filters are unrestricted. All air entering the engine shall pass through the air filter prior to entering the throttle body and restrictor plate. No devices such as, but not limited to, air horn(s), trumpet(s), bell mouth(s), velocity stack(s), vortex generators and/or turning vanes are permitted inside the air filter or between the air filter and the throttle body.

16.11.3 All gaskets and sensors utilized on the inlet manifold from head to throttle body shall be Honda Fit OEM or HPD supplied.

- a) Gasket Intake manifold PN: 17105-RB0-004, Honda Fit OEM
- b) Gasket, EGR chamber cover PN: 17146-RB0-004, Honda Fit OEM
- c) Gasket Intake port PN: 17115-RB0-007, Honda Fit OEM
- d) Gasket Restrictor PN: 17399-F21S-A200, (2 required) HPD.

16.11.4 The fuel rail shall be as supplied by HPD. Injectors shall be stock Honda Fit OEM parts (PN: 16450-RNA-A01). The fuel pressure regulator may be the unit supplied by HPD or any alternate as long as the fuel pressure regulator serves no additional purpose.

16.11.5 Air Inlet

All Honda engines must run an HPD supplied air inlet restrictor of 30.5 mm, which shall be installed within the intake system. Inlet restrictors shall not be modified in any way. The specified value shall not be exceeded in any measurement or the diameter. The restrictor position must be mounted in the HPD specified position. The restrictor centerline or shape shall not be altered in any way.

16.12 FUEL PUMP

16.12.1 Fuel pump is unrestricted.

16.13 EXHAUST MANIFOLD

16.13.1 The exhaust manifold shall be as supplied by HPD. HPD PN: 18150-F21S-A200 OR HPD PN: 181850-F21S-B200.

16.13.2 The exhaust manifold exit may be shortened within HPD specified limits to direct the tail pipe as necessary. The exhaust pipe shall maintain a 50.8 mm (2 inch) outside diameter from the manifold exit to its outlet and shall meet 14.1.1 and 14.1.2.

16.13.3 Exhaust coatings, wraps and heat shields may be used to control engine bay temperatures and protect other components.

16.14 LUBRICATION SYSTEM

16.14.1 The oil pan shall be as supplied by HPD. No modifications are permitted.

16.14.2 Oil feed pump shall be stock Honda Fit. No modifications are permitted. Oil pressure may be adjusted for wear.

- a) The oil pressure sensor location shall be as supplied by HPD.
- b) It is recommended that oil pressure be maintained at the factory service manual specification.

16.14.3 The scavenge pump shall be as supplied from HPD. No modifications are permitted.

- a) Rotor length: 25.4mm (1.000 inches)
- b) Rotor Outside Diameter: 44.400mm (1.748 inches)

16.14.4 Scavenge drive pulleys shall be as supplied by HPD. Drive belt manufacture is unrestricted provided the belt type and dimensions are as specified by HPD.

16.14.5 Hose routing and filter system are unrestricted.

16.15 COOLING SYSTEM

16.15.1 Water pump and water pump pulley shall be stock Honda Fit parts. No modifications are permitted.

Honda PN: 19200-RB0-003 Pump, water.

Honda PN: 19224-RB0-000 pulley, water pump

16.15.2 The water inlet and outlet at engine shall be as supplied by HPD. The thermostat is unrestricted provided the housing is not modified. The thermostat bypass may be plugged.

16.15.3 Drive belt manufacture is unrestricted provided it is designed for use with Honda Fit crank pulley.

16.15.4 Radiator is unrestricted.

16.16 ELECTRICAL EQUIPMENT

16.16.1 The ECU and engine electrical harness shall be as supplied by HPD. No modifications are permitted.

16.16.2 The ECU will be a sealed unit supplied by HPD. The ECU maps and inputs shall not be modified. The ECU is capable of being swapped in the case of a protest.

16.16.3 CASC-OR and/or Toyo Tires Formula 1600 Championship Series Steering committee reserve the right to replace the ECU with another HPD Fit ECU at any time.

16.16.4 Ignition coils shall be stock Honda Fit, PN: 30520-RB0-003. No modifications are permitted.

16.16.5 All sensors related to engine operating parameters and/or supplied by HPD shall be used. These sensors, their locations and mounts, and their wiring harness leads may not be altered or "piggy backed". Any sensors required for analog type gauges shall be in addition to the HPD supplied sensors.

16.16.6 The alternator shall be stock Honda Fit PN: 31100-RB0-004 or HPD PN: 3100-F21S-A200. The alternator drive pulley shall be stock. Alternator connections shall be through the HPD engine harness only. The alternator shall not be disabled and shall be accessible to CASC-OR officials.

16.17 FLYWHEEL

16.17.1 The stock Honda Fit flywheel shall be used. No modifications are permitted except for normal resurfacing for clutch wear.

- a) Stock Honda flywheel PN: 22100-RB0-005
- b) Minimum weight with ring gear: 6531.73 grams (14.4 lbs)

16.17.2 The stock Honda Fit clutch shall be used. No modifications are permitted.

- a) Honda PN: 22300-RB0-005
- b) Minimum weight without friction disc: 3175.15 grams (7.0 lbs)

The stock Honda friction disc shall be used. No modifications are permitted.

- a) Honda PN: 22200-RB0-005
- b) Weight of new friction disk: 952.54 grams (2.1 lbs)

16.18 MISCELLANEOUS

16.18.1 All emission control devices shall be removed and blocked off by the blanking plate provided by HPD, except the VTEC activation valve. The VTEC activation valve shall be retained, and it shall be functioning.

16.18.2 Shell V-Power 91 unleaded pump fuel shall be used.

16.18.3 The use of the following non-standard replacement parts is permitted provided their use does not result in any unauthorized modification of any other component.

- a) Fasteners- nuts, bolts, screw, washers, studs, etc. Head bolts, rod bolts, flywheel bolts, and crank pulley bolt must be provided by Honda and HPD.
- b) Gaskets and seals, except those specified in the above rules.
- c) Spark plugs.
- d) Mechanical tachometer and analog gauges.
- e) Oil and lubricants are unrestricted. HPD strongly recommends the use of oil and lubricants as described in the Honda Fit factory service manual.
- f) The oil filler cap may be removed or plugged.

16.18.4 The following gear ratios must be used for Canadian Tire Motorsport Park

Cars with 13 36 R&P

1 st	2.00 – 2.188
2 nd	1.737 – 1.833
3 rd	1.421 - 1.500
4 th	1.190 – 1.261

Cars with 10 31 R&P

1 st	1.803 – 2.000
2 nd	1.500 – 1.600
3 rd	1.261 – 1.340
4 th	1.040 – 1.125

17 COMPLIANCE

- 17.1.1 By entering an event an entrant/driver agrees to co-operate with Series Officials in all matters of technical compliance.
- 17.1.2 By entering an event all drivers, entrants and team principals agree to share any and all on-board data and/or recordings with Series Officials on demand.
- 17.1.3 Any data so shared shall be kept private and confidential and used by Series Officials solely for determinations of a technical nature.
- 17.1.4 Recordings, including video, shall be made available to Series Officials for use in resolving driving issues. Additionally, these recordings shall be preserved and kept available for the period necessary to resolve any inquiries, protests or appeals resulting from the competition involved.

18 PROCEDURES

- 18.1.1 Competitors are not permitted to stop in pit lane after the chequered flag has been displayed after qualifying or race sessions. It is mandatory that all cars report to impound following qualifying and all races.
- 18.1.2 Cars shall not return to the paddock during a qualifying or race session without first obtaining permission from a Series Official at impound.
- 18.1.3 Computers or other programming devices shall not be connected to any car during or after any qualifying or race session without first obtaining permission from a Series Official.
- 18.1.4 Series Officials shall be given access to download any recorded data following qualifying, race, or any other timed session.

- 18.1.5 Cars required to report to impound shall not be connected to a computer or other programming device nor download data in any way until released from impound. Cars not required to report to impound may download data after returning to the paddock.
- 18.1.6 Testing is prohibited at a track for a period of 30 days prior to a Toyo Tires 1600 Championship event. It is permitted to enter Promoter or CASC sanctioned test days attached to the events.

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CANADIAN AUTOMOBILE SPORT CLUBS
ONTARIO REGION

Appendix O, Section D - Formula 2000

Effective February 10, 2020

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Appendix O, Section D - Formula 2000

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These regulations are intended to assist in the conduct of Competitions and to further general safety. They are a guide and in no way guarantee against injury or death to participants, spectators or others. No express or implied warranties of safety or fitness for a particular purpose shall be intended or result from publication or compliance with these regulations. By applying for a competition licence and/or by entering a competition event, all participants are deemed to have understood and accepted these terms, including that motorsport is inherently dangerous and it is each participant's obligation to meet and maintain compliance with all regulations to reduce the risk of death or injury to self or others, recognizing that such risk is inherent to the sport and cannot be completely eliminated.

Red bold, italics text indicates significant changes or amendments.

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APPENDIX O, SECTION D - FORMULA 2000

1 DEFINITION

- 1.1.1 Formula 2000 is a single-seat, open wheel racing car utilizing the Ford Zetec ZX3 twin cam 2 litre engine OR the Ford 2 litre single cam NE series engine OR the Ford Pinto/Capri 1971-74 single cam 2 litre engine.
- 1.1.2 Cars shall comply with the CASC-OR GCR and Race Regulations as well as the Regulations herein.
- 1.1.3 There shall be two groups of cars designated F2000A and F2000B.
 - a) F2000A: utilizing the Ford Zetec ZX3 2 litre dual overhead camshaft engine
 - b) F2000B: utilizing the Ford 2 litre single overhead camshaft NE series engine OR the 1971-74 Pinto/Capri 2 litre single overhead cam engine.

2 GENERAL CONSTRUCTION RESTRICTIONS

NOTE: Contained herein are the 1986 Formula 2000 chassis construction requirements. All new Formula 2000 cars are to be built to these specifications.

- a) Titanium, boron, beryllium, lithium-aluminum alloys, and metal matrix composites are prohibited.
- b) Composite materials containing fibers with a tensile modulus in excess of 100 GPa (this definition includes carbon fiber, Kevlar, Zylon, and Dyneema) are prohibited unless specifically permitted.
- c) Fuel Capacity: Maximum capacity 41 litres (10.83 gallons)
- d) Refer to section 13.0 Formula 2000 Dimensions for general dimensional limitations.

3 CHASSIS/FRAME

- 3.1.1 The chassis shall be of steel space frame construction. Monocoque-type structures are prohibited.
- 3.1.2 The soles of the driver's feet shall not extend beyond the front edge of the wheel rims in normal position (i.e., pedals not depressed) and shall remain behind the front bulkhead. The lower main frame rails shall be a minimum of 25 cm (9.8 inches) apart (inside dimension) from the front bulkhead to the main roll hoop.
- 3.1.3 Forward-facing braces that protect the driver's legs and feet shall extend from the front roll hoop to the front bulkhead. (The front bulkhead is defined as the transverse section of the frame immediately ahead of the pedals and drivers feet.) This does not preclude a secondary forward bulkhead ahead of this "front" bulkhead. This secondary bulkhead may be constructed from aluminum plate.
- 3.1.4 A stress bearing floor pan constructed from a minimum of 1.5 mm (0.060 inch) heat-treated aluminum sheet or 18-gauge steel sheet is required. At a minimum, it shall extend from the front bulkhead to the main roll hoop bulkhead. Its curvature shall not exceed 25.4 mm (1.0 inch). This floor pan may be constructed in multiple sections.
- 3.1.5 The front bulkhead, forward roll hoop (dash hoop) bulkhead and main hoop bulkhead may also utilize stress-bearing panels. No other stress-bearing panels are allowed.
- 3.1.6 Stress-Bearing Panel Definition: Any sheet material that is attached to the frame by welding, bonding, riveting, threaded fasteners, or any combination thereof, the centers of which are located closer than 15 cm (6 inches). The distance between fasteners is measured on the surface of the panels. No materials other than aluminum or sheet steel are allowed for use as stress-bearing panels. Stabilized materials (honeycomb) are not permitted as stress-bearing panels.

3.1.7 The area between the upper and lower main frame tubes from the front roll hoop bulkhead to the main roll hoop bulkhead shall be protected by at least one of the following methods to prevent the intrusion of objects into the cockpit. Panels may extend forward to the secondary bulkhead (Section 3.1.3) and aft to the front face of the engine to protect the fuel cell.

- a) Panel(s), minimum of either 1.5 mm (0.060 inch) heat treated aluminum (6061-T6 or equivalent) or 18-gauge steel, attached to the outside of the main frame tubes.
- b) Reinforced body consisting of at least two layers of 5-ounce, bi-directional, laminated Kevlar material incorporated into the body, which shall be securely fastened to the frame. (5 or more layers are highly recommended.)
- c) Composite panels attached to the outside of the main frame tubes. These panels shall be at least 1.5 mm (0.060 inch) in thickness and at least as strong as 1.5 mm (0.060 inch) 6061-T6 aluminum. They may be constructed from any material including those defined in Section 2 b).

For any of these methods, panels may not be attached to the frame with fasteners closer than 15 cm (6 inch) centers measured along the surface of the panel. The steel tubes used for the chassis braces in this area shall be at least equivalent to the roll hoop brace material.

3.1.8 The engine, bell housing/oil tank and gearbox are permitted to be stressed and/or load bearing. Bell housings and gearbox housings shall be metal.

3.1.9 A firewall(s) that seals the drivers' compartment (cockpit) and the engine compartment is required. Forward facing ducts may be installed to deliver air directly to the engine compartment. Air duct openings may be located within the cockpit provided the firewall is extended to prevent the passage of flame and debris from reaching the driver.

3.1.10 Brackets for mounting components, such as the engine, transmission, suspension pickups, instruments, clutch and brake components, and body panels may be made from any material not prohibited in Section 2 b).

3.1.11 All formula cars shall have a front impact attenuation device meeting at least one of the following criteria.

- a) An FIA-approved front impact attenuation structure.
- b) A metallic structure, securely attached to the front bulkhead, with a minimum cross section of 200 sq cm (31 sq in.), 40 cm (15.75 in.) forward of the clutch and brake pedals (not depressed), constructed of a minimum of 18 gauge 6061-T4 or equivalent aluminum.
- c) A non-metallic composite structure, securely attached to the front bulkhead or incorporated into the nose piece, with a minimum cross section of 200 sq cm (31 sq in.), 40 cm (15.75 in.) forward of the clutch and brake pedals (not depressed), constructed of a minimum of 6 mm stabilized (e.g., honeycomb) material with inner and outer reinforcements of a minimum of 2 5-ounce laminate material (fiberglass, carbon, Kevlar, and so on).
- d) Radiators may be incorporated in impact attenuation structures.
- e) Composite impact attenuation structures may incorporate carbon and/or Kevlar regardless of any class restrictions on materials.

3.1.12 No engine oil or water tubes are allowed within the cockpit, except for shielded (stainless steel braid) mechanical oil pressure lines. Chassis tubes shall not be used as oil or water transport tubes.

3.1.13 Fuel cell vents shall be located at least 25 cm (9.8 inches) to the rear of the cockpit.

4 BODYWORK

For the purposes of this section, bodywork includes all panels external to the chassis/frame and licked directly by the air stream. This includes panels above or below the floor pan and the bottoms of any side pods.

4.1.1 The bodywork opening giving access to the cockpit shall have the following minimum dimensions:

- Length: 60 cm (23.62 inches)
- Width: 45 cm (17.72 inches)

This width extends over a length of 30 cm (11.81 inches) minimum. This minimum rectangular opening may exist anywhere forward of the firewall. Forward-facing roll bar/cage bracing and padding will not be considered in these dimensions.

- 4.1.2 The driver's seat shall be capable of being entered without the manipulation or removal of any part or panel, with the exception of the steering wheel and/or drivers head surround. The steering wheel and the surround shall be removable by the driver and/or safety workers without the use of any tools. Readily legible removal instructions for safety workers are recommended. Bead seats are recommended.
- 4.1.3 Bodywork, rear spoiler(s) and any attached components except for suspension components shall not exceed a maximum width of 95 cm (37.4 inches). No part of the bodywork, rear spoiler, or exhaust system shall extend more than 80 cm (31.5 inches) behind the centerline of the rear axle nor exceed in height a horizontal plane 90 cm (35.4 inches) above the ground with the car as qualified or raced with the driver on board. The safety roll bar/roll cage and engine air box are not included in these restrictions. Allowances shall be made for radius of bodywork along primarily horizontal surfaces in this area. Under trays and floor pans may extend laterally past cockpit sides, side-pods, and engine compartment enclosures, but only up to the 95 cm (37.4 inches) maximum allowed width.
- 4.1.4 Diffusers and under trays shall not exceed a maximum width of 95 cm (37.4 inches). No part of the diffuser or undertray shall extend more than 80 cm (31.5 inches) behind the centerline of the rear axle nor exceed in height a horizontal plane 90cm (35.4 inches) above the ground with the car as qualified or raced with the driver on board.
- 4.1.5 Carbon fiber may be used for cockpit interior panels, radiator ducts, air intakes and mirrors. The cockpit is defined as that space inside the bodywork from the main roll hoop forward to the front bulkhead. Cockpit interior panels may not be attached to the frame with fasteners closer than 15 cm (6 inches) centers measured along the surface of the panel.
- 4.1.6 Kevlar may be used for reinforcement of any bodywork.

5 CONTROL OF UNDERSIDES SHAPING

It is the intent of these rules to minimize (not eliminate) the use of "ground effects."

- 5.1.1 A reference area is defined as:

The full width of the lowest surfaces of the car licked by the air stream between the rear edge of the front tires and the front edge of the rear tires.

These surfaces may include the floor pan, undertray, diffuser, side pod bottoms and any essentially horizontal bodywork that is included in the lowest surfaces licked by the air stream. Within this reference area, the lowest surfaces licked by the air stream shall be flat with a total vertical tolerance of 2.5 cm (1.0 inch). An undertray beneath the engine, bell housing and/or gearbox is not required.

- Mirrors and any primarily vertical bodywork (for example, cockpit or radiator sides) that are oriented 45 degrees or greater relative to the ground may extend laterally past the outer edges of the floor pan and/or undertray and are not subject to these reference area restrictions.
- Fairings for streamlining suspension pickups are not subject to these reference area restrictions but shall be symmetrical about their horizontal axis.
- The perimeter of any reference area surface that transitions upward to any bodywork may use a maximum 2.5 cm (1.0 inch) radius and shall be included in the reference surface measurement.

- 5.1.2 Measurement for compliance of the defined area shall be performed as follows:

- a) A non-flexible straight-edge bar shall be placed against the lower surface of the reference area in a suitable section (unworn and flat enough to prevent rocking of the bar) from which the bar can be oriented to measure all parts of the reference area. The competitor shall be responsible for the availability and condition of such a surface. The bar shall be of sufficient length to reach all portions of the reference area from that surface.
 - b) All measurements shall be taken vertically from the bar to the reference area surfaces. The total maximum vertical distance (additive upward and downward) from the bar to any part of the reference area surfaces shall be 2.5 cm (1.0 inch). Skid blocks and or rub strips are not included in this measurement.
- 5.1.3 No aerodynamic devices, for example, venturi tunnels, skirts, body sides, skid planks, under trays, skid blocks, etc., may extend more than 1 cm (0.4 inches) below the reference area.

An example of venturi tunnels is shown in the following figure.



6 AERODYNAMIC AIDS

- 6.1.1 A wing shall be defined as any shape that has a leading edge and a trailing edge and creates down force.
- 6.1.2 Both front and rear wings are a requirement for F2000. See Section 13 Formula 2000 Dimensions. Cockpit or remote adjustment is not permitted. Wings and airfoils shall not be adjusted while the car is in motion.
- 6.1.3 Any part of the car which that has an influence on the aerodynamic stability of the vehicle shall be firmly attached with no provisions for adjustment to vary down force while the car is in motion.
- 6.1.4 It is not permitted to duct air through any part of the bodywork for the purpose of aerodynamic down force. There shall be no forward-facing gaps or openings in or about the bodywork with the exception of those necessary for engine cooling, engine air inlet, shock, or brake cooling. All ducted air for heat exchangers shall pass through those heat exchangers. Front and rear wing assemblies are allowed gaps between wing elements.
- 6.1.5 Primarily vertical (see Section 5.1.1 a) air diverters greater than 30 inches forward of the main hoop (i.e. "bargeboards") that stand away from the cockpit sides and are attached to (or through) the cockpit sides, under trays and/or side-pods are prohibited.
- 6.1.6 Diffuser under trays to the maximum allowed bodywork width are permitted, but any portion within the reference area (see Section 5) shall comply with the reference area measurement rules.
- 6.1.7 Wings, endplates and their attachment(s) may incorporate Kevlar reinforcement.

7 SUSPENSION

Suspension is defined as the system of springs, shock absorbers, control arms, links, etc., supporting the vehicle on its wheels. Anti-roll bars, anti-roll bar links, and steering components are not considered as suspension in this section and are unrestricted.

- 7.1.1 All suspension components shall be of steel or ferrous material, with the exception of hubs, hub adapters, hub carriers, bell cranks, pivot blocks, bearings, bushings, spring caps, abutment nuts, shock absorber caps and nuts, which may be of aluminum alloy.

- 7.1.2 Front and rear hub carriers shall be only steel, aluminum or magnesium alloy for cars manufactured after January 1, 1983.
- 7.1.3 Springs shall be steel only.
- 7.1.4 Control arms and all associated items that attach directly to the chassis members shall be boxed in or captured to prevent intrusion into the cockpit. "Anti-intrusion" bars are highly recommended on front suspension arms.
- 7.1.5 Shock absorber design is unrestricted but casing material shall be steel or aluminum alloy.
- 7.1.6 It is not permitted to attach spoilers, fairings or other devices that may exert down force to movable suspension members. If the suspension member is of streamline or airfoil cross section, it shall be symmetrical about its horizontal axis. Brake lines may be attached to suspension members and may be enclosed in a symmetrical fairing.

8 BRAKES

- 8.1.1 Unrestricted, except:
 - a) Calipers shall be ferrous or aluminum alloy with no more than 4 pistons.
 - b) Brake rotors shall be ferrous.

9 STEERING

Unrestricted.

10 WHEELS

- 10.1.1 Wheels are unrestricted except that:
 - a) Material shall be metal.
 - b) Diameter shall be thirteen (13) inches.
 - c) Rim width shall not exceed 6.0 inches front and 8.0 inches rear.
 - d) All measurements shall be taken between the beads.

11 ENGINES – PINTO/CAPRI

- 11.1.1 The Ford 2 litre single overhead camshaft "NE" series engine and the 1971-74 Pinto/Capri 2 litre single overhead camshaft engine shall conform to the following specifications. The nominal bore is 90.84mm and the nominal stroke is 76.95mm (Note: All blocks shall contain casting number HM6015BA, HM6015AA, HM6015BB, HM6015AB, HM6015DA, or HM6015AD. Dashes in the casting number are not relevant.). Production tolerances are permitted providing the total swept volume does not exceed 2000cc.
- 11.1.2 The rockers shall remain entirely unmodified. Alternate manufacturers may be used as long as the original materials and dimensions are the same. Camshafts shall be from Ford Motor Company, or Crower part #E57553 FF2000, or any camshaft that is a replica of the original and of the same material may be used. Camshaft geometry shall be stock. An alternate optional camshaft, Elgin part number 2000FC, may be used only in the original iron head. Regrinding camshaft lobes is permitted as long as the camshaft lobe center is $112^\circ \pm 2^\circ$. Offset keys are permitted. Tuftriding or Parkerizing is permitted. Maximum valve lift at determined points by camshaft rotation will be established. The use of a low rate substitute valve spring is permitted. Load characteristics of special checking spring: twelve (12) lbs., at 1.417 inches, thirty (30) lbs., at 1.000 inches. An adjustable camshaft sprocket which retains the same number of teeth and pitch as the stock sprocket may be used.

- 11.1.3 A standard crankshaft shall be used or any crankshaft that is a replica of the original crankshaft and of the same material may be used. Spot machining to achieve balance is permitted. Tuftriding, Parkerizing, shot peening, shot blasting, and polishing are permitted. Minimum weight: twenty-seven point five (27.5) lbs.
- 11.1.4 The flywheel shall be a standard component or the approved alternate Elite-001. The minimum weight is 10.5 lbs. with ring gear. The flywheel may be machined to achieve minimum weight. Spot machining to achieve balance is permitted. Flywheel bolts are free and locating dowels are permitted. A 1600 GT starter ring may be fitted. The use of any single plate clutch is permitted provided no modification is made to the flywheel other than changing the points of attachment of the clutch to the flywheel. Carbon fiber clutches are not permitted.
- 11.1.5 Maximum compression ratio will be controlled as follows:
- a) Minimum Cylinder Head combustion chamber volume 49cc (not including head gasket). Polishing and/or tooling of the cylinder head to achieve only the required combustion chamber volume is permitted.
 - b) Standard Ford gasket, Fel-Pro #8361PT, or Ferrea part number G50100 may be used. Gaskets will have a minimum thickness of 0.9mm, minimum diameter of cylinder aperture of 92mm.
 - c) Pistons shall not protrude above cylinder block surface at TDC.
- 11.1.6 It is permissible to reshape inlet and exhaust port by removal of metal within limits. Addition of material in any form is prohibited. Maximum diameter of inlet port at manifold head face 39.5mm. Maximum dimensions of exhaust port at manifold face 35.5mm x 27mm. The distance between the valve centers and the angles of the valves shall not be altered.
- 11.1.7 Pistons shall be standard Ford Mahle, AE Hepolite, CP, or J&E. Pistons shall be unmodified in any way except for balancing and as detailed herein.

The following combinations are permitted:

- a) Mahle piston P/N 80HM6102LA with rings, pin, connecting rod (with bolts), but without bearings. Minimum permitted weight = 1332.5 grams.
- b) Mahle piston P/N 85HM6102DA with rings, pin, connecting rod (with bolts), but without bearings: Minimum permitted weight = 1240 grams.
- c) AE Hepolite piston P/N 21426, casting P/N 21426 (AE Hepolite) with rings, pin, connecting rod (with bolts), but without bearings: Minimum permitted weight = 1240 grams.
- d) CP piston P/N IV 2.0 LTR with rings, pin, connecting rod (with bolts), but without bearings: Minimum permitted weight = 1240 grams. Part number and Ivey logo stamped on gudgeon pin bosses.
- e) JE piston P/N M-6102-B200 with rings, pin, connecting rod (with bolts), but without bearings: Minimum permitted weight = 1240 grams.

NOTE: M-6102-B200 piston assembly is now made by JE and is visually different. I.D. Marks: M-6102-B200, Ford racing logo. All marks pin stamped on gudgeon pin bosses.

- 11.1.8 Rings are unrestricted provided that:

- a) One oil control and two compression rings are used.
- b) No modification is made to the piston for the installation of the rings.

Localized machining of the gudgeon pin bosses to achieve balance and weight by simple machining; all external surfaces, dimensions, and profiles shall remain standard with the exception of the top surface of the piston crown which may have simple machining to achieve balance.

11.1.9 11.9 Valves may be of Ford manufacture or Ferrea part numbers VSOIN200 and VSOEX2000. Valves shall remain standard; no reprofiling or polishing is permitted.

- a) The original forty-five (45) degree seat angle shall be maintained.
- b) Maximum face diameter inlet 42.2mm.
- c) Maximum face diameter exhaust 36.2mm.
- d) Maximum valve stem diameter 8.4mm.

11.1.10 Full connecting rods may be standard Ford, Cosworth, Oliver, or Crower. The approved Crower part numbers are SP93230B-4 or SP93230PF-4. Any rod bolts may be used. Floating piston pins may be used. Standard rod length shall be 5.00 inches (+0.005" -0.010"). Machining is permitted to remove metal from the balancing bosses to achieve balance only. Tuftriding, Parkerizing, shot peening, shot blasting, polishing, etc., are permitted.

11.1.11 Maximum valve lift against cam angle with zero tappet clearance: (Lift measured in mm)

Standard Cam	Intake		Exhaust	
Angle	Opening	Closing	Opening	Closing
0	10.442	10.442	10.442	10.442
5	10.36	10.36	10.36	10.36
10	10.11	10.11	10.11	10.11
15	9.69	9.69	9.69	9.69
20	9.11	9.11	9.11	9.11
25	8.37	8.37	8.37	8.37
30	7.45	7.45	7.45	7.45
35	6.38	6.38	6.38	6.38
40	5.17	5.17	5.17	5.17
45	3.86	3.86	3.86	3.86
50	2.59	2.58	2.58	2.59
55	1.50	1.47	1.47	1.50
60	0.86	0.81	0.81	0.86
65	0.65	0.56	0.56	0.65
70	0.54	0.43	0.43	0.54
75	0.46	0.33	0.33	0.8
80	0.37	0.19	0.19	0.37
85	0.26	0.08	0.08	0.26
90	0.20	0.01	0.01	0.20
Alternate Cam	Intake		Exhaust	
Angle	Opening	Closing	Opening	Closing
0	11.182	11.182	10.149	10.149
5	11.102	11.092	10.07	10.071
10	10.853	10.821	9.831	9.829
15	10.423	10.363	9.426	9.415
20	9.821	9.721	8.854	8.826
25	9.069	8.916	8.117	8.073
30	8.177	7.955	7.205	7.154
35	7.131	6.85	6.132	6.071
40	5.960	5.624	4.920	4.866
45	4.702	4.313	3.611	3.600
50	3.425	3.010	2.346	2.380
55	2.242	1.851	1.325	1.406
60	1.278	0.994	0.722	0.825
65	0.642	0.509	0.488	0.604
70	0.334	0.307	0.385	0.524
75	0.215	0.208	0.303	0.461
80	0.134	0.130	0.224	0.404
85	0.064	0.063	0.146	0.343
90	0.022	0.024	0.090	0.279

11.1.12 Engines will be mounted upright and aligned fore and aft in the chassis.

11.1.13 A single carburetor only will be used on a standard inlet manifold. The carburetor will be a Weber 32/36 DGV 26/27mm venturi, its origin being from a 1600 GT "Kent" or 2000 SOHC NE engine.

The Holly 5200 32/36 carburetor also may be used; carburetor with the swaged fuel inlet fitting shall have this fitting replaced by drilling and tapping the carburetor body for a threaded fitting. The air cleaner may be removed and a trumpet fitted, the jets may be changed, both throttles may open together, cold start devices and diffused bar may be removed, internal and external anti-surge pipes may be fitted, and seals on emission control carburetors may be removed. The bottom of the lower column portion of the auxiliary venturi may be machined for purposes of high-speed enrichment. No other modifications are permitted. Chokes (venturi) shall remain standard and no polishing or profiling is permitted.

11.1.14 The addition of material by any means to any component is prohibited.

11.1.15 It is permitted, as a means of repair, to replace damaged valve seats and cylinder bores by replacement cast iron valve seat inserts and cast-iron cylinder liners; valve guides may be replaced with cast iron or bronze, all to standard dimensions. Repairs to the cam towers to facilitate replacement of cam bearing and/or replacements of broken or cracked towers are permitted as long as the cam bearing center line is not changed and that one original cam tower is retained. Line boring of cam bearing caps is permitted.

11.1.16 Balancing of reciprocating and rotating parts is permitted only by removal of metal from locations so provided by the manufacturer.

11.1.17 Non-standard rocker covers are permitted providing they in no way improve the performance of the engine.

11.1.18 Standard valve spring retainers shall be used, and single valve springs only are permitted. Shims are permitted, and valve springs are otherwise free.

11.1.19 Exhaust system and manifold are unrestricted.

11.1.20 Lubrication system is unrestricted; dry sump is permitted. Localized machining of the cylinder block is permitted to allow fitting of the oil pump.

11.1.21 Oil coolers are unrestricted.

11.1.22 Cooling system: Unrestricted. The radiator, if housed in or incorporating a cowl air-scoop deflector, shall comply with body regulations.

11.1.23 Fuel Pump: Unrestricted.

11.1.24 Distributors are unrestricted providing they retain the original drive and location. The distributor is defined as the component which triggers the L.T. current and distributes the H.T. current. The Ignition Timing may only be varied by vacuum and/or mechanical means. It is prohibited to use any other method or component to trigger, distribute, or time the ignition.

11.1.25 Only the standard inlet manifold shall be used.

The ports may be reshaped by the removal of metal as long as the following dimensions are maintained: maximum size at head face = 1.437" (36.5mm), maximum size at carburetor flange = 3.405" (86.5mm) x 1.595" (40.5mm). The carburetor seat face may be machined to horizontal in the fore to aft plane. The diameter of the ports may exceed the above listed dimensions if the casting bore is untouched and in its original state. The water passages in the inlet manifold may be plugged. Holes in the inlet manifold resulting from the removal of emission/vacuum lines shall be plugged.

11.1.26 Gaskets and seals are unrestricted except for the cylinder head gasket that has the requirements listed in Section 11.1.5b and the intake gasket. The intake gasket thickness shall not exceed 1.1mm. Intake gasket is not to be construed as a spacer.

11.1.27 Pump, fan, and generator drive pulleys are unrestricted.

11.1.28 The crankcase breather may be altered or removed, but all breathers shall discharge into a catch tank.

- 11.1.29 Mechanical tachometer drives may be fitted.
- 11.1.30 Generators are optional.
- 11.1.31 Standard oversize and undersize bearings are permitted. This does not allow reducing the bearing surface area by reducing the width of standard bearings.
- 11.1.32 The use of non-standard replacement fasteners (nuts, bolts, screws, studs, and washers) which are not connected with or which do not support the intake manifold or any moving parts of the engine is permitted.
- 11.1.33 Only modifications or additions specifically covered by these regulations are permitted. All engine components not covered by these regulations shall remain completely standard and unmodified. When a system is specified to be "unrestricted" (e.g. Sections 11.1.21 and 11.1.23), the restrictions of this paragraph do not apply.
- 11.1.34 The use of the Fast Forward aluminum cylinder head is permitted. The following dimensions shall be maintained.
- Intake port maximum volume 70.0 cc. Exhaust port maximum volume 52.0 cc.
 - Intake port surface to exhaust port surface 5.580 +/- 0.020 inches Intake valve center line to (adjacent) intake valve center line 4.015 +/- 0.015 inches
 - Exhaust valve center line to (adjacent) exhaust valve center line 4.015 +/- 0.015 inches
 - The machine tool marks in the intake and exhaust ports shall remain untouched for 0.750 inches from the respective gasket surfaces.
- 11.1.35 Any spark plugs may be used.
- 11.1.36 Engines shall be mounted upright and aligned longitudinally fore and aft in the chassis.

12 ENGINES - ZETEC

- 12.1.1 The Ford Zetec ZX3 engine shall conform to the following specifications and may be modified only as specifically allowed. If these specifications do not explicitly allow a modification, then it may not be done. The philosophy of the Zetec engine in F2000 is to allow limited engine rebuilds but no performance modifications to the engine. Blue printing, balancing, head porting, polishing, etc. are strictly prohibited and against the spirit of the Zetec formula. Where Ford part numbers are specified, normal industry part number supersession is expected, and the superseding part numbers are automatically included.
- 12.1.2 Only the Ford #RFYS4E6090AC or RFYS4E6090AD head is allowed. The cylinder head may not be ported or polished. Machining the cylinder head is not permitted except as specified in these rules. The head may not be surfaced or milled beyond the minimum thickness of 5.230" measured between the cam cover seating surface and the lower plane of the head.

The camshaft, valves, springs, and shim/bucket components shall be original Ford parts and may not be modified in any way. Only original unmodified Ford parts may be used for direct replacement. The camshafts shall remain as ground by Ford; no polishing is permitted.

A standard three-angle "production" valve job is required and the only allowed angles are those defined in the Ford factory manual. The intake valve seats shall be 30° 45° 70° with the 45° face a minimum 1.5 mm wide. The exhaust valve seats shall be 30° 45° 55° with the 45° seat 1.5 mm wide minimum. Valve seats may not be replaced.

The only allowed camshafts are the Ford #L913B YSAA intake and #L913B C2B exhaust. The original, unmodified Ford camshaft and crankshaft timing pulleys shall be used. Required camshaft timings are as follows:

- Intake centerline 116 - 117 degrees ATDC
- Exhaust centerline 106 - 107 degrees BTDC

- 12.1.3 Pistons, crankshaft, and rods may be replaced only with standard original Ford replacement parts. The crankshaft may be ground or polished for the purpose of installing oversize main or rod bearings.

The rod journals shall remain stock and the rods may not be bored or remanufactured in any way. The rod and crankshaft bearings may be replaced only with original or oversized Ford bearings.

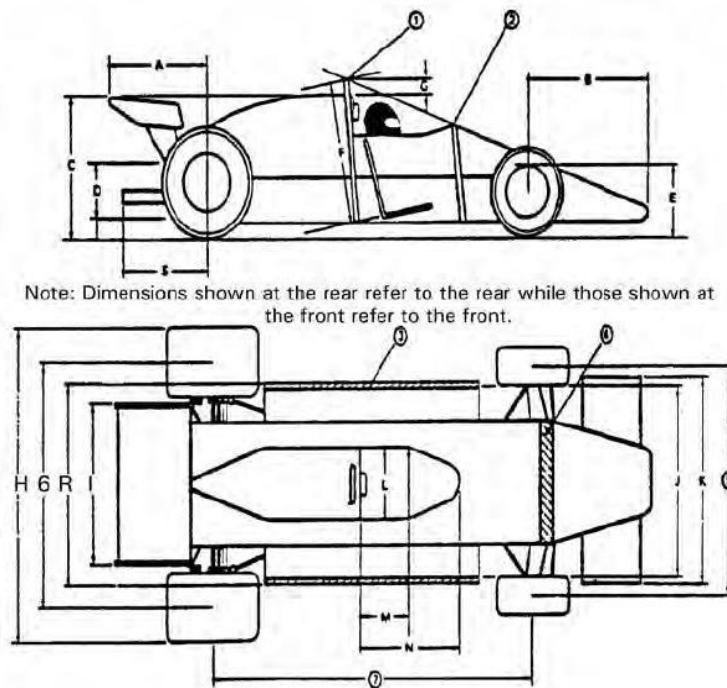
The required original crankshaft main bearing journal dimension is 2.282 - 2.283 inches and the required original crankshaft rod journal dimension is 1.846 - 1.847 inches. The corresponding main journal dimensions for oversized bearings are either 2.273 - 2.274 inches or 2.263 - 2.264 inches; the corresponding rod journal dimensions for oversized bearings are either 1.837 - 1.838 inches or 1.827 - 1.828 inches.

The crankshaft centerline to deck dimension is 8.378 inches and may not be altered. The main bearing housing bore is 2.452 - 2.453 inches and the rod housing bore is 1.9642 - 1.9650 inches. Only original Ford rod bolts with a minimum weight of 24.6 grams or ARP rod bolts with a minimum weight of 23.5 grams may be used.

- 12.1.4 Only original stock Ford replacement piston rings may be used. The ring end gaps may not be altered and shall remain as manufactured by Ford. All of the rings shall be installed including the complete oil scraper assembly. The piston bore may be honed solely to allow piston ring seating. The first and second compression rings shall be installed in the positions designated by Ford.
- 12.1.5 All surfaces on the head, block, rods, pistons, and crankshaft shall remain as manufactured by Ford and may not be altered in any way. The original casting marks and cast surfaces shall remain as-cast and also meet all of the Ford design values and tolerances as stated in the Ford factory manual or as delineated in these specifications.
- The block may not be decked. Only Ford Zetec ZX3 blocks with block numbers #RFYS4G6015AA, or #RFYS4G6015AD or #RFYS4G6015AE are permitted. The required compression ratio is 9.6:1, the required standard bore is 3.3390 - 3.3410 inches and the required stroke is 3.461 inches. The maximum bore dimension of 3.3410 inch is intended to allow for cylinder wear only. It is not permitted to machine to this dimension. This measurement will be taken 0.250 below the block deck where the bore is untouched by the piston ring.
- 12.1.6 Flywheel: The minimum weight is 8.0 lbs. and any weight removal from the specified flywheel shall come from the clutch plate surface. Only the Quarter Master #QM107160 flywheel may be used.
- 12.1.7 Any 7¼ inch single plate or double plate, non-carbon fiber clutch is allowed.
- 12.1.8 Any oil pan is allowed. The oil pan may not contain an oil scraper between the oil pan and the block. No device in the oil pan may be contoured to the crankshaft assembly to function as an oil scraper nor may any device be closer to the rotating crankshaft assembly than 0.5 inches.
- 12.1.9 Any three-stage oil pump with a maximum of two scavenge stages is allowed. The maximum scavenge rotor dimensions are 1.600 inches in diameter and 1.375 inches in length. The minimum pressure rotor dimensions are 1.600 inches in diameter and 0.863 inches in length.
- 12.1.10 The exhaust system manifold tubing OD shall be 1.5 inches and the manifold tubes shall be a minimum of 24 inches in length and shall terminate into a single exhaust pipe through a 4 into 1 collector. The collector angles shall be the standard 15 degree bend, (30 degree included angle) with an exit diameter of 2 inches. The tail pipe shall be a minimum of 24 inches in length. The tail pipe includes a muffler, if present, as long as the inlet and outlet pipes of the muffler are the same diameter as the tail pipe. 4 into 2 into 1 exhaust collectors or reduced diameter venturi sections are prohibited.
- 12.1.11 ECU: The Pectel T2 unit is required. The current "F2kCS" map should be used and is available on the F2kCS web site.
- 12.1.12 Intake manifold and fuel injection components: The Quicksilver Race Engines (QSRE) intake air scoop, intake manifold, throttle bodies, air horns, fuel rail and injector system are required and shall be used with no modifications of any kind. The only allowed intake manifold and throttle body combination is the #0138 manifold available through QSRE. Only stock Ford fuel injectors may be used, and they may not be modified in any way. Fuel injectors may be replaced only with stock Ford injector part number #0280155887 XS4U-AA.

- 12.1.13 Intake restrictor: The QSRE #1975 intake restrictor shall be used. It shall not be modified in any way. The new restrictor internal diameter is 1.340 inches and this value cannot be exceeded in any measurement of the diameter. The restrictor port centerlines or shape may not be altered.
- 12.1.14 Engines shall be mounted upright and aligned longitudinally fore and aft in the chassis.
- 12.1.15 The addition of material by any means to any component is prohibited
- 12.1.16 Non-standard rocker covers are permitted providing they in no way improve the performance of the engine.
- 12.1.17 Oil coolers are unrestricted.
- 12.1.18 A liquid cooling system is mandatory, but radiator and water pump are unrestricted.
- 12.1.19 Fuel pump is unrestricted.
- 12.1.20 Gaskets and seals are unrestricted except for
- cylinder head gasket, Ford part number XS7Z6051CA
 - a continuous O-ring of cross-section of 0.100 inches shall be fitted to each intake runner groove between the intake manifold and the head which is to ensure that no air by-passes the O-ring seal
- 12.1.21 Pump, fan, and generator drive pulleys are unrestricted.
- 12.1.22 The use of non-standard replacement fasteners (nuts, bolts, screws, studs, and washers) which are not connected with or which do not support the intake manifold or any moving parts of the engine are permitted.
- 12.1.23 Any spark plugs may be used.

13 FORMULA 2000 DIMENSIONS



Dimension (refer to drawing)	Measurement (cm)
A. Maximum rear overhang from rear wheel axis	80

Dimension (refer to drawing)	Measurement (cm)
B. Maximum front overhang from front wheel axis	100
C. Maximum height measured from the ground	90
D. Exhaust height measured from the ground	20 - 60
E. Maximum height of any aerodynamic device	Rim height
F. Minimum safety rollover bar height in line with driver's spine	92
G. Minimum allowed helmet clearance	5
H. Maximum overall width	185
K. Maximum nose width	135
L. Minimum cockpit opening	45
M. Minimum cockpit parallel opening length	30
N. Minimum cockpit overall opening length	60
R. Maximum body width behind front wheels	95
S. Maximum exhaust length from rear wheel axis	80
7. Minimum wheelbase	200
5. Minimum track	120

14 WEIGHT

14.1.1 Minimum weight as practiced, qualified or raced, with driver and required safety equipment is 1225 lbs.



CANADIAN AUTOMOBILE SPORT CLUBS
ONTARIO REGION

Appendix O, Section E - Formula 4

Effective February 10, 2020

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Appendix O, Section E - Formula 4

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APPENDIX O, SECTION E - FORMULA 4

1 DEFINITION

- 1.1.1 The Car shall be a single seat, four wheel, open-wheel racing Car.
- 1.1.2 Cars shall comply with the CASC-OR GCR and Race Regulations as well as the Regulations herein.

2 EXCEPTIONS AND RESTRICTIONS

- 2.1.1 An emergency brake is not required.
- 2.1.2 Fuel is allowed as stated under engine requirements.
- 2.1.3 A self-starter is not required.
- 2.1.4 Coachwork is defined as all external parts of the Car which are in the airstream and situated above a plane passing through the centre of the wheel hubs, with the exception of units definitely associated with the function of the engine, transmission, or the roll cage.
- 2.1.5 No part of the Car, except the safety rollover protection, shall exceed a height of 900mm (35.43in) from the roadway with the Driver normally seated. The roll cage shall not exert aerodynamic influence on the Car.
- 2.1.6 Behind the front wheels, no part of the coachwork shall extend beyond a vertical plane passing through the centreline of the wheels on either side of the Car with the wheels in the straight-ahead position.
- 2.1.7 The coachwork ahead of the front wheels may extend to the outer sides of the front tires with the wheels in the straight-ahead position.
- 2.1.8 Any coachwork which is in front of the front wheels and extends beyond the inner faces of the front tires shall not extend above the height of the front wheel rims.
- 2.1.9 Any specific part of the Car which has an aerodynamic influence on stability of the Car shall be mounted on an entirely sprung part of the Car and shall be firmly and immovably fixed while the Car is in motion.
- 2.1.10 All Cars running on other than pump fuel as available at a highway service station shall ensure there is an approved decal visible on the Car to denote the use of such fuel.
- 2.1.11 All Cars shall adhere to CASC-OR Regulations regarding catch tanks except:
 - a) Minimum capacity for 4-stroke cycle engine: 1 litre
 - b) 2-stroke cycle engines are exempt from crankcase overflow catch tank requirements.

3 WEIGHT

The weight of the Car including coolant, lubricants, fuel, and Driver with the safety equipment specified in Appendix I - Driver Safety Equipment shall be not less than 374.22 kg. (825 lbs.). Cars with engines specified in 4.1.1.f below shall be exempt from this rule.

4 ENGINE

- 4.1.1 The engine shall be based on a production engine of which more than 1000 of the model have been produced, and shall conform to the following:
 - a) It shall not exceed the manufacturer's first over-bore giving a displacement greater than the stated maximum.

- b) It shall have a maximum displacement of 750cc. (2 or 4 stroke cycle), with the exception of 4.1.1 f below.
- c) It shall be normally aspirated, and be burning commercially available gasoline, alcohol, or alcohol/gasoline mix.
- d) Cars using alcohol shall display the appropriate decals per 2.1.10 above.
- e) All 2-cycle engines shall be equipped with a muffling device on each exhaust pipe.
- f) Any four-stroke cycle engine having 2 valves per cylinder and any piston ported two-stroke cycle engine may have a maximum displacement of 850 cc.

5 FOOT PROTECTION

All Cars shall have a main frame, or suitable extension, which encloses the foot pedals at their foremost depression.



CANADIAN AUTOMOBILE SPORT CLUBS
ONTARIO REGION

Appendix O, Section F – PIRELLI Tire GT

Effective February 10, 2020

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Appendix O, Section F – PIRELLI Tire GT

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APPENDIX O, SECTION F – PIRELLI TIRE GT

1 DEFINITION

1.1.1 Classification

- a) The PIRELLI Tire GT series shall be comprised of closed wheel vehicles derived from production vehicles and approved by CASC-OR.
- b) Vehicles shall be classified in groups as follows:

PIRELLI Tire GT

- i. GT1
- ii. GT2
- iii. GT3
- iv. GT4
- v. GT5

2 REGULATIONS AND SPECIFICATIONS

2.1.1 Cars shall comply with the CASC-OR GCR and Race Regulations as well as the Regulations herein.

2.1.2 Steering wheel locks shall be removed.

3 CLASSIFICATION CRITERIA

3.1 BRACKETS

3.1.1 GT Cars shall be classified as follows:

- a) Canadian Tire Motorsport Park
 - i. GT1: 1m, 26.999s or faster
 - ii. GT2: 1m, 27.000s and slower
 - iii. GT3: 1m, 31.000s and slower
 - iv. GT4: 1m, 35.000s and slower
 - v. GT5: 1m, 40.000s and slower
- b) Shannonville Motorsport Park (Pro Track)
 - i. GT1: 1m, 11.999s or faster
 - ii. GT2: 1m, 12.000s and slower
 - iii. GT3: 1m, 14.000s and slower
 - iv. GT4: 1m, 16.000s and slower
 - v. GT5: 1m, 18.000s and slower
- c) Shannonville Motorsport Park (Long Track)
 - i. GT1: 1m, 53.999s or faster
 - ii. GT2: 1m, 54.000s and slower
 - iii. GT3: 1m, 58.000s and slower
 - iv. GT4: 2m, 01.000s and slower
 - v. GT5: 2m, 04.000s and slower
- d) Calabogie Motorsports Park (East or Stadium Track)
 - i. GT1: 1m, 13.999s or faster
 - ii. GT2: 1m, 14.000 and slower
 - iii. GT3: 1m, 16.000 and slower
 - iv. GT4: 1m, 19.000 and slower
 - v. GT5: 1m, 21.000 and slower
- e) Calabogie Motorsports Park (Long Track)
 - i. GT1: 2m, 13.999s or faster
 - ii. GT2: 2m, 14.000s and slower
 - iii. GT3: 2m, 17.000s and slower
 - iv. GT4: 2m, 22.000s and slower
 - v. GT5: 2m, 27.000s and slower

The Race Director may re-classify a car at his/her discretion. That decision can be appealed at Race Committee.

3.2 NEW ENTRIES

- 3.2.1 Cars not previously raced in Ontario Region shall be classed on their official practice/qualifying times as posted by the organizing club of the Event.

3.3 CLASS DECLARATION

- 3.3.1 Competitors shall be responsible for the choice of class and proper listing of class on the event entry form. Correct class designation shall be shown on the car at all times.

3.4 BREAK-OUTS

- 3.4.1 A Competitor who, during qualifying, achieves a lap time which is officially timed as less than the break-out time for the class entered, shall be listed in the results as "B/O" and shall be placed behind the slowest qualified car in the class.
- 3.4.2 A competitor who, during a race, achieves a lap time which is officially timed as less than the break-out time for the class entered, shall lose one (1) lap for each break-out.
- 3.4.3 Official lap times are considered to be any lap times recorded by electronic means and or manual system input by the official event timer. Any lap not timed will not be counted in the competition results.

4 RECLASSIFICATION

- 4.1.1 A competitor who, during any qualifying or race session, achieves a lap time which is officially timed as more than two (2) seconds less than the break-out time for the class entered OR who breaks out more than three (3) times in a single session, shall be listed in the results as "B/O" and shall be immediately reclassified to the next faster class for the rest of the year.
- 4.1.2 Competitors may change the class designation, provided application in writing to the Clerk of the Course is made at least one hour prior to a qualifying session or race and only if they have not been reclassified due to breakouts as outlined above.
- 4.1.3 In either event, the class designation on the car shall also be changed to conform to the new registered class.
- 4.1.4 When class designation is changed during an event as outlined in 4.1.1 above, the competitor shall be allowed to retain their grid position and shall count points already gained towards the championship. Competitors who voluntarily request an upward reclassification, as outlined in 4.1.2 above, shall be allowed to retain their grid position and shall count points already gained toward the overall PIRELLI Tire GT championship.
- 4.1.5 CASC-OR will publish a class change form, which shall be used for this purpose.

5 NEW TRACKS AND TRACK CONFIGURATIONS

For the first event at a track, or track configuration, for which break-out times have not been established, there shall be no break-out during qualifying. Break-out times for each class shall be established as two seconds less than the average of the best qualifying lap times achieved by the three fastest cars entered for the class, rounded down to the nearest even second. The CASC-OR Race Director may set or alter these break-out times.



CANADIAN AUTOMOBILE SPORT CLUBS
ONTARIO REGION

Appendix O, Section H - Radical Cup

Effective February 10, 2020

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Appendix O, Section H - Radical Cup

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APPENDIX O, SECTION H - RADICAL CUP

1 DEFINITION

- 1.1.1 The Radical Canada Cup series is a single-make racing championship for Radical: Prosport, Clubsport, SR1, SR4, SR3 models manufactured by Radical Sportscars Ltd.

2 VEHICLE ELIGIBILITY

- 2.1.1 The Radical Canada Cup series is a single-make racing championship for Radical: Prosport, Clubsport, SR1, SR4, SR3 models.
- 2.1.2 Vehicles shall be powered by engines, defined in Section 4.1.2 below.
- 2.1.3 There is **a single class** defined for Radical Cup.

3 TECHNICAL REQUIREMENTS

3.1 TIRES

- 3.1.1 Radical specification Hankook slick model F200 (200/15 Front and 260/16 Rear) are the official tires of the Radical Canada Cup series and are the only approved tire.
- 3.1.2 Competitors may be permitted to use tires produced by another manufacturer if the supply of Hankook F200 are unavailable to all competitors.
- 3.1.3 Competitors are limited to a maximum of one new set tires per weekend. Exceptions may be allowed at the discretion of the series director providing that the competitor can show that the tire is unfit for competition, for example if it is punctured or flat spotted.

3.2 ENGINES

- 3.2.1 The following engines are allowed:
- a) All Powertec/RPE four cylinder production engines.
 - b) Suzuki Hayabusa based "K7" and "K8" engines are eligible.
- 3.2.2 Maximum engine displacement is 1340cc.
- 3.2.3 No modifications to these engines are allowed except where specifically authorized within these rules. This includes, but is not limited to, all fuel injection and engine management components, electrical, cooling, and lubrication systems. All systems are subject to test procedures and shall conform to OEM specifications as stated in the Suzuki workshop manual or as specified in these rules.
- 3.2.4 Permitted engine maintenance includes the replacement, but not modification, of external engine and engine systems parts.
- 3.2.5 All rubber fluid lines may be replaced with braided metal or fabric covered (Aeroquip type) lines. Hose clamps may be installed on the rubber oil lines.
- 3.2.6 No balancing, lightening, polishing or other modification of moving parts of the engine is permitted.
- 3.2.7 Only stock Suzuki manufactured gaskets and seals as specified in the Suzuki workshop manual are permitted including, but not limited to, head gasket, intake runner gaskets and O-rings, restrictor plate gasket, and intake and exhaust gaskets.

3.3 AFTERMARKET COMPONENTS

- 3.3.1 The use of any components not originally produced by Radical Sportscars Ltd., their distributors and/or their suppliers is prohibited.
- 3.3.2 B class cars (Club Sport, Pro Sport, SR3, SR4, PR6) built prior to 2009 with aftermarket parts may be grandfathered at the discretion of the series director.

3.4 SERIES SPONSOR DECALS

- 3.4.1 Display of the Radical Canada Cup series contingency decals which will be distributed to all teams shall be mandatory. The description and required orientation of the mandated decals shall be specified via special bulletin.

3.5 FUEL

- 3.5.1 All cars shall run on commercially available fuels designed for vehicles on public roads (pump gas) with an octane rating of 94 (R+M/2) or less. Any additives to this fuel are prohibited.

3.6 DATA SYSTEM/DISPLAY

- 3.6.1 Only dash displays made by Radical Sportscar Ltd. or Aim Sports LLC are permitted. Only Data Acquisition systems made by Aim Sports LLC are permitted. Competitors are required to provide acquired data to the series as requested.

3.7 WEIGHT

- 3.7.1 For practice, qualifying and races all cars must meet the designated minimum weight at all times. Minimum weight is defined as the total of the driver, inclusive of racing clothing and helmet, and the car regardless of fuel load.

Radical SR3 1340 1545 lbs

3.8 GEAR RATIOS

- 3.8.1 The only permitted Gear Drive Unit Ratios will be 3.071:1 or 3.235:1.

4 POINTS AND AWARDS

- 4.1.1 Points will be awarded per Appendix P 'Race Ontario Series Regulations', Section 8.
- 4.1.2 Awards will be presented at all events. Drivers are required to attend the podium ceremony which will be at the conclusion on the last race on Sunday.
- 4.1.3 Additional contingency awards will be distributed to competitors. Details of awards and distribution will be communicated to competitors through special bulletin.