

# Canadian Karting Regulations Book 2

## **Technical Regulations**

To be read and applied in conjunction with: Canadian Karting Regulations Book 1, Sporting Regulations

Effective January 1, 2011

ASN CANADA FIA IS THE GOVERNING BODY OF MOTORSPORT IN CANADA

APPOINTED BY

THE FÉDÉRATION INTERNATIONALE DE L'AUTOMOBILE



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#### 1. THESE TECHNICAL REGULATIONS

The Spirit and Intent will be the standard by which these Regulations are enforced.

Compliance with ASN Technical Regulations does not necessarily ensure eligibility of karts by other sanctioning bodies.

Should doubt exist in the mind of a competitor, manufacturer, distributor, or Official as to the interpretation or application of these Regulations, the competitor, manufacturer, distributor, or Official is encouraged to first communicate in writing, by fax or email to the ASN Canada FIA office. Verbal inquiries will not be considered.

In determining questions of eligibility of a kart, or the presence, absence or condition of a component of a kart, ASN licenced officials shall be guided by the principle:

#### "IF THE REGULATIONS DO NOT STATE THAT YOU CAN DO IT, YOU CAN NOT"

It is the entrant and/or driver's responsibility at all times to ensure the ongoing compliance with mechanical safety and chassis, bodywork and engine technical eligibility of the kart. A claim of lack of knowledge in the event of a kart being found ineligible, will not be considered.

Out of compliance parts, equipment or configuration on the kart, are not deemed to have been authorized or approved by reason of having passed through the inspection process at any time or any number of times.

ASN affiliated Clubs and Regions may adopt these Technical Regulations for use within their own organization. Clubs and Regions are encouraged to appoint a Technical Delegate and Assistants.

#### 2. PARTS, COMPONENTS, MEASUREMENTS

All replacement parts are subject to these Regulations. Any part, hole, shape, dimension, measurement or appearance not listed in these Regulations does not exclude it from inspection.

Production changes by the manufacturer of an engine, kart or part for a kart, or manufacturer of an aftermarket part causing any part not to conform to the specifications, or not to conform with the Spirit and Intent of these Regulations are subject to a decision by the ASN Canada FIA office, as to whether or not the part will be considered eligible and permitted for use in competition.

Manufacturers manuals are part of the equipment specifications and may be used to reference eligibility of components.

Systems for the measuring of the maximum engine revs and/or the control of the clutch functioning may be used in categories where engine speed limits and/or limits regarding clutch functioning are prescribed. They shall be installed in the strict respect of the relevant instructions.

On the decisions of the Steward(s), the Technical Delegate will be authorized to interchange an Entrant's ignition system for the system supplied by the ASN or event organizer. The substitute ignition system to be of the same make and model as the one used by the Entrant concerned.

#### 3. EQUIPMENT ENTRY REGULATIONS

#### 3.1. Rotax Classes

The number of engines and chassis permitted will be in accordance with the Canadian Rotax Max Challenge Regulations and must be noted by serial number(s) and seal numbers(s) on the Rotax Engine "Identity Card", Pre-Technical Inspection Self-Declaration form or Technical Passport.

#### 3.2. All Other Classes

Two engines of the same manufacturer and one chassis are permitted for each entry and must be noted by serial number(s) on the Pre-Technical Inspection Self-Declaration form or Technical Passport.

For Briggs & Stratton LO206 classes the engine identification sticker must be in place and legible. If the sticker is illegible or missing the engine must be tagged with an approved sticker or seal.

Changing chassis may occur only if there is physical damage (to be considered unsafe or broken) upon approval by the Technical Inspector. Changing to the second declared engine may occur only if there is physical damage upon approval by the Technical Inspector.

#### 3.3. Repairs or Replacement After Technical Marking

- a) Repairs requiring the breaking of a seal or loss of a mark or changing of a chassis must be accomplished under the Scrutiny of a Technical Inspector. The appropriate parts must re-sealed or re-marked and the entrant must start at the rear of the grid.
- b) **KF1, KF2, KF3, KF4, KZ1, KZ2**: Engines that have been registered on the Pre-Technical Inspection Self-Declaration form or Technical Passport can be replaced intact at any time during the event with engines also registered by the entrant without penalty.
- c) Rotax Classes: Repair and/or replacement must be in accordance with Canadian Rotax Max Challenge Regulations.
- d) **All Other Classes:** If the second engine noted on the Pre-Technical Inspection Self-Declaration form or Technical Passport is used, there is no penalty. Changing to the second declared engine may occur only if there is physical damage upon approval by the Technical Inspector. The engine must be sealed with paint and/or wire before competition use.
- e) **Four-Cycle Classes:** There will be NO valve lash adjustment or inspection allowed under the valve cover seal, except for proven breakage or malfunction.

Cleaning of carburetors is permitted. The cleaning must be approved by, and accomplished under the scrutiny of a Technical Inspector. The appropriate parts must be re-marked with the entrant retaining their position on the starting grid.

A valve cover gasket that has oil leakage or a valve cover that is damaged in a manner that could cause oil leakage may be replaced. The replacement must be approved by, and accomplished under the scrutiny of a Technical Inspector. The valve cover must be re-marked with the entrant retaining their position on the starting grid.

#### 3.4. Exchanging of Equipment

There shall be no exchanging of tire(s), engine(s), or chassis between entrants. If an entrant is competing in more than one class, there shall be no exchanging of tires between classes.

Drivers may only use equipment listed on their Pre-Technical Inspection Self-Declaration or Technical Passport.

In all classes, if physical damage occurs to the engine(s) listed on the Pre-Technical Inspection Self-Declaration form or Technical Passport or if a chassis has physical damage (to be considered unsafe or broken) that would prevent an entrant from competing, an unlisted replacement engine or replacement chassis may be used with the approval of the Technical Inspector prior to use. The change must be noted on the Pre-Technical Inspection Self-Declaration form or Technical Passport. In Rotax classes, a Rotax "Identity Card" must be submitted for the replacement engine. The appropriate parts must re-sealed or remarked. An entrant using a replacement engine or chassis must start at the rear of the grid.

The penalty for unauthorized use of equipment is exclusion.

#### 4. PRE-RACE TECHNICAL INSPECTION

There are two methods for Pre-Race Technical Inspection. The method used must be declared in the Supplementary Regulations.

#### 4.1. Method 1: Pre-Technical Inspection Self-Declaration

At Registration each participant must submit a fully completed Pre-Technical Inspection Self-Declaration form. Registration will issue the appropriate kart sticker for the event only after payment of all event fees and completion of all required paperwork. The participant must attach the sticker to the designated location on the appropriate kart before it is allowed to enter the track for any session.

Any changes required on the completed and submitted Pre-Technical Inspection Self-Declaration form must be completed and accepted by the Technical Inspectors before qualifying sessions begin in any class or before a designated time.

It is the competitor's responsibility to ensure that their kart meets the technical requirements for the class through the entire race event. Drivers found on the track without having completed a Pre-Technical Inspection Self-Declaration form are subject to penalty. Drivers who enter Post-Race Technical Inspection and are found to have an incomplete or missing Pre-Technical Inspection Self-Declaration form will be excluded.

Any Kart, safety equipment or apparel is subject to Technical Inspection at any time.

The Pre-Technical Inspection Self-Declaration form is retained by the Technical Delegate.

#### 4.2. Method 2: Technical Passport With Inspection

It is the responsibility of the entrant to present the Kart, safety equipment and apparel exactly as it is to be raced in the event. A Technical Inspector may examine the Kart, safety equipment and apparel. Submitting a Kart, safety equipment and apparel to a Technical Inspector shall be considered as an implicit statement of conformity.

When a Technical Passport is supplied to the entrants, the required information must be completely filled in before presenting the Kart, safety equipment and apparel for Technical Inspection. If not completed when presented, or if the entrant does not have all of their safety equipment or apparel available, the entrant may lose their place in the technical inspection queue.

Any changes required on the completed and submitted Technical Passport must be completed and accepted by the Technical Inspectors before qualifying sessions begin in any class or before a designated time.

Drivers who enter Post-Race Technical Inspection and are found to have an incomplete or missing Technical Passport will be excluded.

Any Kart, safety equipment or apparel is subject to Technical Inspection at any time.

The Technical Passport is retained by the Technical Delegate.

#### 4.3. Rotax Engine "Identity Card"

At Registration, each driver in all Rotax classes is required to enter their Engine Serial Number(s) and their Engine Seal Number(s) on their Pre-Technical Inspection Self-Declaration form or Technical Passport.

When a Rotax engine is subjected to Technical Inspection the Engine "Identity Card" must be immediately presented to the Technical Inspector upon request. It must show matching engine serial number(s), matching engine seal number(s) and the stamp(s) and signature(s) of the authority (Rotax Authorized Distributor or Service Center) that have checked and sealed the engine(s).

Drivers not presenting the Engine "Identity Card" when required or presenting an Engine "Identity Card" that does not match in all aspects the engine(s) being inspected will be excluded. The Engine "Identity Card" is retained by the Technical Delegate until Post-Race Technical Inspection is complete for all classes. At this time Rotax competitors may retrieve their Engine "Identity Card".

#### 5. TECHNICAL MARKING PROTOCOL

#### 5.1. Responsibility for Marking and Sealing

It is the responsibility of the driver to ensure that their entry has been properly marked or sealed for competition and Technical Inspection (engine, tires, and chassis where required) at any time during the competitive portion of the event. Failure to do so may cause penalty, as determined by the Steward(s) or Clerk of the Course.

#### 5.2. Pre-Race Component Marking and Sealing

- a) The engine, tires and chassis used by a driver in qualifying will be marked or sealed by a Technical Inspector at a designated time and place before, during, or after the qualifying session before the driver and/or mechanic or Kart leaves the weigh-in area after qualifying.
- b) Dependant upon class all engine and chassis markings must either form a seal from one part to another or be an identifying mark.
- c) All tires must have been marked on the inner sidewall in a manner determined by a Technical Inspector at some time before leaving the weigh-in area after qualifying.
- d) Latex paint is recommended for engine marking.

#### 5.3. Parc Fermé Component Marking and Sealing

When a Parc Fermé is used, all tires, fuel tanks, and fuel supply reservoirs shall be marked with the competition number of the entrant, at a determined time, before qualifying.

#### 5.4. Wire Sealing

a) Wire sealing must be accomplished prior to the beginning of the last practice session of an event. Care must be exercised not to create a weakness in the structure of the bolt and/or leakage from a wire sealed carburetor. An exhaust header retainer may be supplied to complete the sealing points.

#### 5.5. Honda Engine Paint Marking and Wire Sealing, and Replacement of Valve Springs

a) Paint Marking: Exhaust nut to exhaust flange.

Crankcase side cover to crankcase or cover bolt.

Flywheel shroud bolt to shroud (avoid throttle linkage).

One carburetor retainer nut to air filter adapter.

Centered carburetor bowl retainer bolt to bowl on all models (not the drain bolt).

Valve cover bolt to valve cover (one of upper two).

One exposed head bolt to the head.

b) **Wire Sealing: Engines may be required to be wire sealed.** If two engines are noted on an entrant's Pre-Technical Inspection Self-Declaration form or Technical Passport, then both engines shall be wire sealed.

For all engines registered on the Pre-Technical Inspection Self-Declaration form or Technical Passport, two of the valve cover retainer fasteners (diagonal to each other) and the carburetor float bowl retaining bolt must be cross drilled in an appropriate location with a minimum 0.078" hole to accept a wire seal.

c) Replacement of Valve Springs: The Technical Delegate or Inspectors may direct entrants after the last practice session to remove their valve springs and replace them with the Tech supplied Honda valve springs (Part #14751-883-000) under the scrutiny of the Technical Delegate or Inspectors, and have the engine sealed with paint and/or wire. If two engines are noted on the Pre-Technical Self-Declaration form or Technical Passport then the Tech supplied Honda valve springs shall be installed in both engines and both engines shall be sealed with paint and/or wire.

#### 5.6. Briggs & Stratton Engine Paint Marking

a) Paint Marking: Exhaust bolt to exhaust flange

Flywheel shroud bolt to shroud

One carburetor retaining nut to carburetor

One carburetor spacer retaining bolt to cylinder head

One exposed head bolt to the head

One valve cover bolt to valve cover

Carburetor float bowl retaining screw to carburetor body

Centered carburetor drain plug to bowl

Throttle slide cap to cap retainer

Throttle slide cap locking device retaining screw (Junior classes)

#### 5.7. Two-Cycle Engine Paint Marking and Wire Sealing:

These engines may be paint and/or wire sealed.

a) **Paint Marking:** For air-cooled engines: one through cylinder head retainer nut sealed to the head. Paint mark the carburetor body.

For water cooled engines: one cylinder retaining nut sealed to the case/appropriate retainer stud, or one through cylinder retaining bolt or nut sealed to the head. If the head retainer bolts are not exposed, the head water jacket cover is to be sealed to the exposed retainer. Paint mark the carburetor body.

b) **Wire Sealing:** For air-cooled engines, one through cylinder retainer nut wire sealed to the head. Paint mark the carburetor body. Minimum hole diameter 0.078".

#### 6. POST-RACE TECHNICAL INSPECTION

- a) At the conclusion of any track session, the Steward(s) and/or the Technical Delegate or Technical Inspector may select karts for inspection, and the competitors involved shall without delay take the selected karts directly to the Parc Fermé/Technical Impound/Inspection area.
- b) At the conclusion of a race all karts are deemed to be impounded and must remain in the exact condition in which they left the race track until released by the Steward(s) and/or Technical Delegate, Technical Inspector or designate.
- c) It is incumbent on the entrant/driver to determine whether or not their kart has been selected for inspection by reporting immediately to the Parc Fermé/Technical Impound/Inspection area for inspection or release by the Technical Delegate, Technical Inspector or designate.
- d) Failure to present the kart promptly at the Parc Fermé/Technical Impound/Inspection area when requested may result in a fine and/or exclusion from the results of a qualifying session or race. Any such penalty is not subject to protest or appeal.
- e) One entrant/driver and/or one mechanic must attend each kart at the Parc Fermé/Technical Impound Inspection Area. Technical inspection may begin on a kart or engine without the entrant/driver and/or mechanic being present.
- f) In addition to the vehicle and its components, anything mounted on or in a kart may be impounded by the Steward(s), Technical Delegate or Technical Inspector.
- g) The entrant/driver is responsible for all costs, if any, associated with the teardown, inspection and rebuilding of any component(s) selected for eligibility verification by the Steward(s), Technical Delegate or Technical Inspector.
- h) A qualifying position or a race finishing position, and any Club or Series points and other awards available to a competitor that is subjected to an eligibility verification, may be withheld until the results of any inspection are determined.
- i) The entrant/driver is responsible for ensuring that the kart is returned to proper operating condition after any impound or inspection by the Technical Delegate, Technical Inspectors or support personnel. Protests will not be allowed in this regard.
- j) Technical inspection begins when the inspector checks the technical engine markings and the tire markings. If any seals are broken or missing, or tires or chassis unmarked, then the entrant/driver is excluded from the results but the engine or other components may still be inspected as determined by the Technical Delegate or Technical Inspector. If the seals are unbroken and present a detailed engine inspection should begin to a level determined by the Technical Delegate or Technical Inspector.
- k) If, at any point during the inspection, an engine is found to be in contravention of these Regulations, the inspection may proceed at the discretion of the Technical Delegate or Technical Inspector. The Technical Delegate or Technical Inspector will notify the Steward(s) that the entrant/driver is to be excluded upon completion of the inspection. If the entrant/driver does not submit an approved complete Refusal of Appeal form, the part(s) in question should be retained by the Technical Inspector. If the entrant wants the part(s) in question to be returned it is the responsibility of the entrant to obtain the approved Refusal of Appeal form and submit the completed form to the Chief Steward. If the part(s) in question are removed from the impound area by the entrant/driver or mechanic without a Refusal of Appeal form being submitted the entrant/driver will be excluded from the results and no protest or appeal can be submitted.
  - The Technical Delegate or Technical Inspector shall label the impounded racing equipment and one of these officials will be responsible for providing the impounded racing equipment at an appeal hearing if called.
- I) The Technical Delegate or Technical Inspector may use any tool(s) required for the inspection.
- m) On the day of the event, the decision of the Technical Delegate or Technical Inspector is FINAL, for event award presentation purposes.

n) Post-Race Technical Infractions can be either Pre-Race Technical Inspection or Equipment related. The penalties for deviations from the Pre-Technical Inspection Self-Declaration, Technical Passport With Inspection or Rotax Engine "Identity Card" include monetary fines, position penalties or exclusion at the discretion of the Steward(s). The penalty for having both Pre-Race Technical Inspection and Equipment related infractions is exclusion from the event.

#### 7. TECHNICAL RULES FOR WET RACING

The choice of wet or dry tires will be decided by the individual driver.

When wet tires are used, all Technical Regulations will be adhered to, except as follows:

- a) If wet tires are to be used they are defined as any production type tires that have been manufactured by any Kart tire manufacturer specifically for wet weather conditions.
- b) Specified manufacturers and compounds of tires may be required. A competitor may not mix and match tires from different manufacturers or different designations or compounds.
- c) Modified, grooved or otherwise altered dry condition tires are not acceptable.
- d) The rear wheels may be moved inward, to narrow track width to the limit permitted in the Technical Regulations for minimum width, but the axle ends may not protrude beyond a plane drawn across the outer face of the rear wheel.
- e) Rear protection or the rear bumper must have an overall width not exceeding the rear width of the kart at any time, measured outside the rear wheels or tires, whichever is the greater, during both DRY and WET conditions.
- f) A deflector or add-on hose may be added to the carburetor intake and/or filter cup on four-cycle engines provided that such additions do not provide a ram-air effect.
- g) Waterproofing of ignition systems in two-cycle classes is permitted.
- h) Front and rear wet rims and tires must be used at the appropriate locations.

#### 8. GENERAL SPRINT KART SPECIFICATIONS

#### 8.1. Eligible Chassis

- a) In the Rotax Max Challenge classes, only chassis allowed by the Canadian Rotax Max Regulations are permitted.
- b) For all other classes, eligible chassis include those homologated/registered by the CIK-FIA and any chassis that in the opinion of ASN Canada FIA reasonably meet the intent and technical requirements of these regulations. Decisions regarding technical eligibility and compliance in all classes are reserved for the ASN Canada FIA Technical Delegate.
- c) Decisions made on chassis eligibility are final and are not subject to protest or appeal.

#### 8.2. Main Frame Construction

- a) In addition to compliance with the Spirit and Intent of the Rules, overall quality of workmanship is considered in the acceptance of a Kart presented for competition. Tubular steel construction is the only type of frame design method currently considered to be within the Spirit and Intent of the Rules of all classes.
- b) Kart frames not registered with or homologated by the CIK-FIA may be considered for eligibility for the KF1, KF2, KF3, KF4, KZ1, KZ2 classes if they conform to all CIK-FIA requirements.
- c) The frame must be made from magnetic structural steel or structural steel alloy.
- d) The centers of main frame rail tubes may be no higher than a line projected horizontally between the centers of the front and rear wheel hubs.
- e) Minimum tubing outer diameter: 1.000" (25.4 mm)
- f) Maximum tubing outer diameter: 1.400" (35.56 mm)
- g) Minimum tubing wall thickness for tubing 1.125" OD or less: 0.078" (1.98 mm)
- h) Minimum tubing wall thickness for tubing over 1.125" OD: 0.060" (1.53 mm)

#### 8.3. Roll Cages

The addition of a roll cage to the kart chassis-frame is not permitted unless there is a class designation for roll cage equipped karts. Karts with roll cages are not permitted to run on a track at the same time as karts without roll cages.

#### 8.4. Overall Measurements

Class	Minimum Wheelbase (Note 1.)	Maximum Wheelbase (Note 1.)	Minimum Track Width	Maximum Overall Width	Minimum Kart Weight (Note 4.)
TWO CYCLE Classes including Rotax MAX, Rotax Junior MAX, Rotax DD2, TAG Senior, TAG Junior, F100, Masters, F1-K, ROK Cup	101 cm	110 cm	Note 2.	140 cm	59 kg (130 lbs)
KF3	101 cm	110 cm	Note 2.	136 cm	65 kg (143 lbs)
KF4, KZ1, KZ2	101 cm	110 cm	Note 2.	140 cm	65 kg (143 lbs)
KF1, KF2, KF3	101 cm	110 cm	Note 2.	140 cm	75 kg (165 lbs)
Rotax Mini MAX	101 cm	110 cm	Note 2.	136 cm	59 kg (130 lbs)
Rotax Micro MAX	89 cm	95 cm	Note 2.	127 cm	59 kg (130 lbs)
Cadet	89 cm	104 cm	Note 2.	136 cm	59 kg (130 lbs)
FOUR CYCLE Classes including Canada Junior, Canada Senior, World Formula	101 cm	110 cm	Note 3.	127 cm	59 kg (130 lbs)
Honda Cadet and Honda Novice	89 cm	110 cm	Note 3.	127 cm	59 kg (130 lbs)

**Note 1.** Wheelbase is measured between front and rear true axle centers.

Note 2. Minimum Track Width TWO CYCLE and Rotax Micro MAX Measured center to centre of front or rear tire sets.

At least 2/3 of the wheelbase used.

A line passing through the outer edges of the front and rear tires (steering wheel in straight ahead position) must be a minimum of 4 cm wider than the appropriate side pod.

Note 3. Minimum Track Width FOUR CYCLE: Measured center to centre of front or rear tire sets.

At least 2/3 of the wheelbase used.

Each outer edge of the rear wheels may be a maximum of 2.5 cm narrower than the outer width of the appropriate side pod.

Note 4. Minimum Kart Weight is less driver, fully equipped and race ready.

Maximum Overall Length: Measured without front nose cone. All classes 188 cm.

**Maximum Overall Height:** Measured from the ground to the uppermost part of the Kart, less driver, fully equipped and race ready. All classes 66 cm.

#### 8.5. Chassis Suspension

The use of or attempt to create and/or conceal any suspension movement is prohibited. Normally, this includes springs, shocks, spring washers, grommets, etc. Approved torsion bars are not considered suspension.

#### 8.6. Driver Position

When normally positioned on the Kart for racing competition, the entire driver shall be within the specified width and length dimensions of the Kart.

#### 8.7. Floor Pans

The floor pan shall be of a design that will prevent any portion of the driver's body from passing between/below Kart components.

The floor plan must be made of rigid material that stretches only from the central strut of the frame to the front frame cross member of the kart, remaining within all confines of the chassis.

If it is perforated, the holes must not have a diameter of more than 10 mm and they must be apart by four times their diameter as a minimum.

#### 8.8. Steering Linkage Mechanisms

All steering linkage must be of the direct, mechanical type.

All steering assembly fasteners must be either cotter-pinned, safety wired, secured by snap rings, or utilize self-locking nuts in original condition.

All bolts shall be at least Grade 5 or US Mark 3 of a minimum of 0.250" diameter (6 mm).

All rod ends must be universal type swivel joints.

#### 8.9. Steering Shafts

Tiller/vertical shaft steering mechanisms are not allowed.

Solid shafts must be 0.625" minimum diameter cold rolled steel of one-piece design.

Hollow shafts must be 0.700" minimum OD steel tubing of one-piece design, 0.070" minimum wall thickness, with a minimum 5/16" (8 mm) diameter fastener at the base.

#### 8.10. Steering Wheels and Hubs

On solid shaft systems, the steering hub must be secured with a quality nut or cap screw in an axial position with the centerline of the shaft.

On hollow shaft systems, the one-piece steering hub will be secured with a minimum 1/4" diameter Grade 5 or US Mark 3, or 6 mm bolt and nut, perpendicular to the longitudinal centerline of the shaft.

It is recommended that the unthreaded portion of this bolt be long enough to clear both the shaft and the hub utilizing a washer(s), if necessary, to enable proper tightening.

Welding of the steering wheel to the hub is NOT allowed.

Welding the steering wheel hub to the shaft is NOT allowed.

No shaft extensions are allowed.

Minimum steering wheel outer diameter is 10" (25.4 cm).

The steering wheel must have a minimum of three spokes.

The steering wheel must be of closed loop design and circular, except that the upper or lower 1/3 of the wheel circumference may be flat.

#### 8.11. Brake Systems

All Karts, at a minimum, must be equipped with a braking system that brakes the rear wheels.

Except for disc retention, fasteners related to the braking system must be secured with one of the following methods:

Single nut with cotter pin or safety wire

Double nuts

Snap rings

Self-locking nuts – metallic or plastic type, used only once.

Each fastener used for rear brake disc retention must be secured either by cotter pin, or safety wire, or snap ring(s), or utilize completely metallic locking nuts.

"Floating" front disc brake retention shall be as manufactured, or by self-locking nuts (metallic or plastic type), or by nuts that are cotter pinned, safety wired, or utilize snap rings.

Brake rotors shall have no cracks or major chips.

Brake pads must be of sufficient area and thickness for proper braking for the duration of the event.

Front wheel brakes are required in KZ2 (Formula Senior).

Carbon brake discs are forbidden.

#### 8.12. Front Wheel Retention

Chassis that are CIK-FIA homologated/registered or meet CIK-FIA requirements can have a self-locking style retention nut in original condition.

All front axle spindles that are manufactured to receive a cotter pin, safety wire or snap ring must have these items installed.

#### 8.13. Rear Axles

Rear axles must be of one-piece design.

For 40 mm diameter rear axles in all four-cycle classes, minimum cross sectional tube thickness is 2.40 mm.

Axles must be constructed from a magnetic iron or steel based material. For example, aluminum, stainless steel, titanium, and carbon fiber axles are NOT allowed.

The following table lists the minimum cross sectional tube thickness at any point in a rear axle, except for key housings, or snap ring grooves at the outer extremities for all classes unless otherwise noted.

Rear Axle thickness according to outer diameter				
Maximum external diameter (mm)	Minimum thickness (mm)	Maximum external diameter (mm)	Minimum thickness (mm)	
50	1.9	37	3.4	
49	2.0	36	3.6	
48	2.0	35	3.8	
47	2.1	34	4.0	
46	2.2	33	4.2	
45	2.3	32	4.4	
44	2.4	31	4.7	
43	2.5	30	4.9	
42	2.6	29	5.2	
41	2.8	28	Full	
40	2.9	27	Full	
39	3.1	26	Full	
38	3.2	25	Full	

#### 8.14. Wheel Hubs

Wheel hubs must be constructed of metallic materials.

Both rear hubs must be keyed properly to the rear axle.

#### 8.15. Wheels

Wheel: defined as the assembly of a rim with a pneumatic tire, for the driving and/or propulsion of the kart.

Wheel Width: defined as the distance between the inner and outer extremities of the wheel.

Maximum beading diameter is 5.0" (127 mm)

Maximum width of any front wheel is 135 mm.

In Rotax classes using MOJO tires, the maximum front rim width is 135 mm

Maximum width of rear wheel in KF3 is 215 mm

Width of any rear **rim** in all Junior and Senior four-cycle classes is 175 mm MIN. - 185 mm MAX. when using DRY tires

Width regulations for Novice and Cadet classes to be listed in the Supplementary Regulations

Maximum width of rear wheel in all other classes is 215 mm

For KF1, KF2, KF3, KF4, KZ1, KZ2 classes all wheels require CIK-FIA approved bead retention, except for wet rims. 3 pegs minimum.

The use of automatic pressure regulating valves is prohibited.

#### 8.16. Driver's Seat

Only bucket type seats are permitted.

Seat must be of one-piece molded construction, with no add on sections.

Seat must be in good condition.

The seat must securely locate the driver laterally and longitudinally.

The seat must be bolted securely and rigidly in at least four places to the frame without using any damping devices and must not be adjustable while the kart is moving.

No portion of the seat may be located rearward of a plane projected vertically from the back if the rear axle.

Seat height requirements (top of seat) are as follows, measured from the ground:

Cadet/Novice: 10.0" (25 cm) minimum

Junior classes: 12.0" (30 cm) minimum

All others: 14.0" (35 cm) minimum

Shape and size of seats may be modified providing that the complete pattern area of all four final mounting locations are all located in the unaltered portion of the seat.

#### 8.17. Front and Side Bumpers

Front and side bumpers are compulsory. All bumpers must be made of magnetic steel. All bumpers must remain as originally manufactured.

All CIK-FIA Homologated chassis manufactured before 2009 must conform to their appropriate CIK-FIA Homologations for front and side bumpers. The front, rear and side bumpers must be homologated with the corresponding bodywork.

All non-CIK-FIA homologated chassis must have bumpers that conform to with either 8.18.a) or to the CIK-FIA 2009 homologated bumper regulations described in 8.18.b). Due to their non-CIK-FIA status and/or age, some deviations may be allowed by the Technical Director that do not affect safety.

#### a) Front Bumpers:

The minimum outer diameter of the tubing is 15 mm (0.590").

All front bumpers must be, at some point in the horizontal section of any of the frontal contact portion of the bumper, present when measured at 15 cm to 22 cm from the ground, as raced.

The front bumper must be mounted vertically above the chassis front member and attached to it in up to four places.

There shall be front and lateral protection. The bumper must not project beyond a line drawn through the outside of the front and rear wheels at hub height, with the front wheels in the straight-ahead position.

#### **Side Bumper Bars:**

Side bumper bars must be constructed of minimum 0.750" diameter steel tubing, and must be secured by a minimum 6mm. bolt.

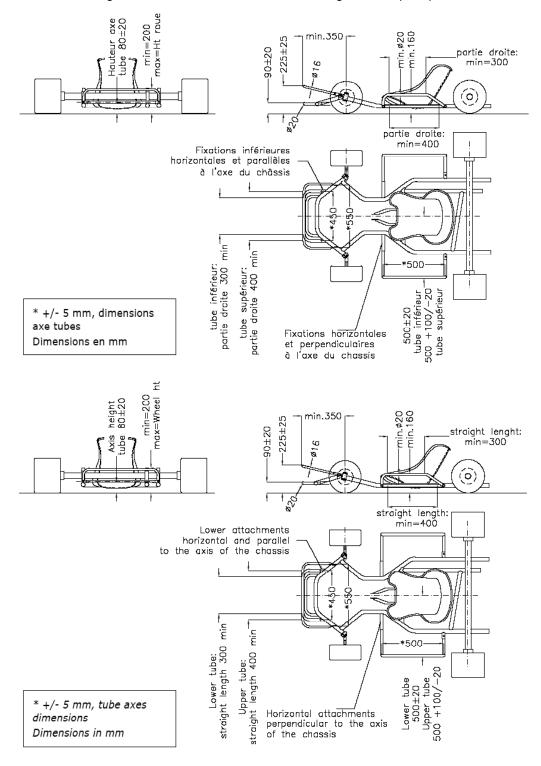
The overall length of the side bumper bar shall be a minimum of 24.0", measured from the backside of the side bumper bar closest to the rear tire, in a straight line to where it attaches to the kart at the front.

The rear portion of the side bumper bar may not protrude laterally beyond the rear tire, unless otherwise noted.

Double-high side bumper bars are required.

#### b) Bumpers for 2009 CIK-FIA Homologated Chassis:

2009 CIK-FIA Homologated karts must maintain their homologated bumper specifications.



#### 8.18. Rear Bumpers and Rear Protection

#### a) Rear Bumpers:

Rear bumpers are compulsory unless the chassis used is a CIK-FIA homologated chassis that incorporates full-width plastic rear protection. All bumpers must be made of magnetic steel. All rear bumpers must remain as originally manufactured.

Rear bumper must be constructed of minimum 0.750" diameter steel tubing.

The maximum height of the bumper is 7.500" above the ground, as raced.

The minimum height must be no lower than the rear axle.

The maximum width must be less than the width of the kart as measured at the outer limits of the rear tire assemblage.

The minimum width must be not less than the lateral width of the main frame rails.

A lower straight bumper bar of similar diameter must be mounted using the normal rear bumper attachment bolts, where such bolts are utilized. The lower bumper bar must in all cases perform as a true bumper, and also be capable of keeping a nose cone and/or front bumper from going under the bumper and lifting the Kart on contact during deceleration.

#### b) Rear Protection:

Rear protection is compulsory for all classes in 2011.

When the chassis used is a CIK-FIA homologated chassis that incorporates full-width plastic rear protection in the homologation, the homologated rear protection must be used as homologated.

Rear protection to have an overall width not exceeding the rear width of the kart at any time, measured outside the rear wheels or tires, whichever is the greater.

Rear protection to cover at least 50% of each wheel/tire assembly at all times measured at the centre-line of the tire.

The construction of the rear protection must not present any danger as regards safety.

All Rotax classes requiring rear protection must conform to Rotax Max Challenge Regulations.

#### c) Plastic Rear Protection

Chassis fitted with a full-width plastic rear protection must conform to the following specifications:

Plastic rear protection must be made of hollow plastic moulded in one piece. The structure must be moulded plastic without foam filling, and the wall thickness must be constant in order to provide uniform strength.

It may under no circumstances be situated above the plane through the top of the rear tires.

The surface(s) of the rear protection must be uniform and smooth; the rear protection must not comprise holes or cuttings other than those necessary for its attachment and/or present at the homologation.

Gap between the front of the rear protection and the rear wheels surface: 15 mm minimum, 50 mm maximum.

Minimum width: 1,340 mm.

Maximum width: that of the overall rear width, at any time and in all circumstances.

Ground clearance: 25 mm minimum, 60 mm maximum in a minimum of 3 spaces of a width of 200 mm minimum, situated in the extension of the rear wheels and the centre line of the chassis.

It must have a minimum height of 200 mm above the ground and have at the rear a vertical surface  $(+0^{\circ}/-5^{\circ})$  with a minimum height of 100 mm immediately above the ground clearance, measured in a minimum of 3 spaces of a width of 200 mm minimum, situated in the extension of the rear wheels and the centre line of the chassis (CIK-FIA Technical Drawing No. 2c appended Rear Protection).

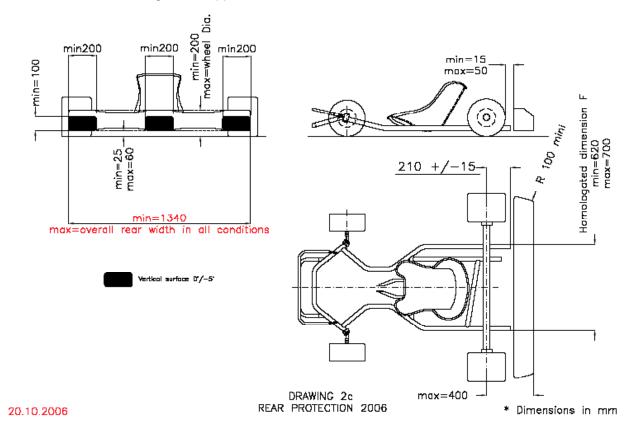
Rear overhang: 400 mm maximum.

The unit must be attached to the frame in at least 2 points by supports homologated with the protection and made of plastic, steel or aluminium (possibly by a supple system) on the 2 main tubes of the chassis, or on the currently used bumper (upper bar and anti-interlocking bar, Article 2.5.2), and it must be possible to install it on all homologated chassis (respecting the homologated F dimensions which vary from 620 to 700 mm).

In all conditions, the rear protection must at no time protrude beyond the external plane of the rear wheels.

Non-homologated chassis may be retrofitted with full-width plastic rear protection that is used on a CIK-FIA homologated chassis provided the original mounting points to the chassis are used and the minimum and maximum dimensions are followed.

CIK-FIA Technical Drawing No. 2c appended Rear Protection



#### 8.19. Metal Rear Protection

Only non-CIK-FIA homologated chassis may be fitted with a full-width metal rear protection conforming to the following specifications:

- a) Be constructed of magnetic steel tubing with a minimum outside diameter of 18 mm and a minimum wall thickness of 1.4 mm.
- b) Consist of two horizontal and parallel tubes, with outer extensions forming a closed loop with a minimum radius of 2 1/2 times the tube outside diameter, with two vertical link tubes to the chassis anchorage points (Diagram 1).
- c) Have its upper tube and uppermost extension element 250 mm ± 50 mm above the ground.
- d) Have its upper tube and extension loops made of a single piece of tubing.

- e) Have its lower tube fixed horizontally between the main uprights, between 110 mm ± 20 mm above the ground in dry configuration.
- f) Inside view, have a rearward rake of between 0 and 45 degrees to the vertical (Diagram 2).
- g) In the case where a vertical rear protection is fitted, have the extension loops strengthened by triangulated steel braces to the chassis.
- h) Have an overall width not exceeding the rear width of the kart at any time (measured outside the rear wheels or tyres, whichever is the greater).
- i) Cover at least 50% of each rear wheel/tyre at all times.
- j) Have any attachment fasteners made of high tensile steel.



#### 8.20. Ballast Weight Mounting

Ballast weight must be securely attached to the main Kart frame or seat.

Mounting of ballast weight on bumpers or side bumper bars is not permitted.

Bolts must be used to secure the ballast weights.

Attaching bolts must be no less than 5/16" (8 mm) in diameter.

A minimum of one attaching bolt is required for each 5 pounds of weight added.

Attaching bolts must be securely fastened with one of the following methods:

Single nut with cotter pin or safety wire

Double nuts

Self-locking nuts - metallic or plastic type, used only once

Large area washers must be used in the attaching of weights to the seat of the Kart, both inside the seat and outside of the ballast.

#### 8.21. Fuel Tank and System

The fuel tank must be attached or secured to the primary structure/frame of the Kart.

The fuel tank must be located within the main frame rails beneath the steering shaft.

No pressurized fuel systems are allowed.

Only one fuel tank is permitted.

Fuel tanks must have a secure, leak-proof filler cap.

Fuel line length is limited to a length sufficient to connect the fuel tank to the carburetor or fuel pump.

Fuel line connecting points must be secured with suitable clamps, tie wraps or safety wire.

#### 8.22. Clutches

The use of a "wet" type clutch is allowed only when the unit is sealed to prevent fluid leakage.

All Karts with clutches must have a metal clutch guard.

Dry, centrifugally operated engine mounted clutches are mandatory in all four-cycle classes.

#### 8.23. Chain/Oil Guard

Chain driven Karts must be equipped with a robust chain/oil guard (see example on right).

The guard must be constructed of metal or plastic material, and securely mounted so as to not fall out of line with the chain.

The guard must extend around the axle drive sprocket to at least below the horizontal centerline of the sprocket, and must cover the chain as viewed from directly above.

Loosely mounted flimsy guards tied to the chassis will not be accepted.

A chain/oil guard which is not in its proper position during a race may cause the entrant to be given a mechanical defect flag, at the discretion of the Clerk of the Course and/or the Steward(s) and/or the Technical Delegate if it is considered a hazard.

If a chain/oil guard is noticed to be improperly positioned, or is improperly fastened, on a Kart other than during a race, the entrant will not be allowed to compete until it is repaired.

Fully enclosed chain quards are recommended.



Chain oilers are not permitted.

#### 8.25. Changing Ratios

Transmission, gearbox, differential, torque converter or other device that permit a change of drive ratio while the vehicle is in motion is not permitted, unless otherwise specified.

#### 8.26. Competition Numbers and Number Panels

All competitors must use solid numbers on a bright yellow background. The number shall be bordered by the contrasting background by 1 cm minimum.

In each class each kart must have a unique number with a maximum of **three** digits (0 – 999) made up of numerals (1, 2, 3 etc.) only. No letters (A, B, C etc.) will be allowed.

Each numerical digit must be at least 15 cm (6-inches) high with a 2 cm (3/4-inch) thick stroke using an Arial type or similar font.

Four number panels with numbers must be displayed on each kart.

One located at the front/center of the kart, the numbers visible from the front, either mounted on the front bumper or the steering column fairing.

One located on each vertical side pod/panel, as close as possible to the rear wheels.

One located on the rear of the kart visible and readable, from a position behind the Kart.

If number plates are used they must have rounded corners (diameter of rounded corners 15 to 25 mm), be flexible and made of opaque plastic. They shall always be visible (fixation without a possible displacement).







#### 8.27. Competition Numbers for ASN National Classes

All karts must have a unique number of three digits made up of numerals only except Rotax Micro MAX. The first digit in each three-digit number must correspond to the table below. No letters will be allowed.

Rotax Micro MAX	00	ROTAX Junior MAX	200	Rotax DD2	400	Briggs & Stratton LO206 Junior	600
Rotax Mini MAX	100	Rotax MAX	300	Rotax DD2 Masters	500	Briggs & Stratton LO206 Senior	700

#### 8.28. Instrumentation and Communication

- a) Definition of Data Acquisition: Any system, with or without a memory, installed on a Kart, enabling the driver or their team during or after an on track session to read, indicate, acquire, record or transmit any information.
- b) Definition of Telemetry: Data transmission between a moving Kart and an external body.
- c) Data acquisition during qualifying, heats and races is limited to systems with or without memory that permit the reading of only the following parameters: engine revolutions (by induction on the spark plug HT cable), two indications of engine temperature, the speed of one wheel, one x/y accelerometer, lap times, engine hours, global position satellite sensing. Systems capable of more than the specified input channels must have all channels other than those allowed disconnected or disabled.
- d) Any system of telemetry is forbidden for the entire event.
- e) Any radio, electronic, or verbal communication between any driver on the track and any other body is forbidden.
- f) Beacons used only to trigger on-kart systems are not considered telemetry and may be used. They must be placed in a location as directed by the Race Officials.
- g) Track strip sensing devices are not considered telemetry when used solely as a trigger for Official timing and scoring, and/or personal on-kart lap timing.
- h) The power supply for Data Acquisition Systems may come directly from an onboard battery in classes that allow or require an onboard battery for starting the kart.
- i) In KF4, KF3, KF2, KZ2 and KZ1 the use of a temperature sensor in the exhaust manifold is free but without modifying either the homologated exhaust or the regulatory dimensions of the manifold.

#### 8.29. Throttle Return Spring

All karts must be equipped with a positive acting throttle return spring.

#### 8.30. Seat Belts and Mirrors

Seat belts, rear view mirrors or driver restraint systems (seat belts) are prohibited.

#### 8.31. Hand Controls

On application to ASN, permission may be given for the fitting of brake and throttle hand controls.

#### 8.32. Transponder

Competitors are responsible to purchase their own transponder mount that attaches the transponder to the kart. Mounts are available for about \$15 at most tracks.

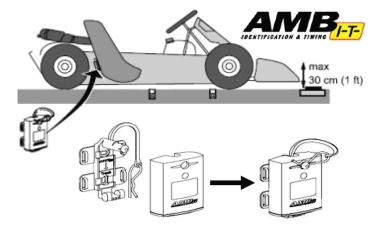
For all practice, qualifying and race sessions, it is the responsibility of the driver to assure that an event-registered AMB–compatible transponder is fitted prior to entry to the track. Loss or damage to a transponder provided by the event organizers may incur a cost of \$300.00 to the driver. It is recommended that competitors purchase their own transponder.

#### 8.33. Transponder Mounting Location

The competitor is responsible for securing the scoring transponder to the kart to prevent loss of the transponder. The transponder must be mounted on the center of the rear of the driver seat. Minor offset from the center of the seat is permitted.

The transponder must be mounted vertically (inscription readable normally) with the center of the transponder installed 25 cm +/- 5 cm from ground level.

The space, in a right line, between the transponder and the ground must be free, i.e. no lead, chassis tubing, battery or other element which can bloc the signal between the transponder and the detecting loop



#### 8.34. Driver's Name

It is recommended that the driver's name with the Canadian flag be on each side of the kart on the vertical portion of the side bodyworks. The height of the black letters of the driver's name and the flag shall be 3 cm minimum on a white background.



#### 8.35. Starter Batteries

In classes that allow or require an onboard battery for starting the kart the specified battery must be mounted in the kart at all times. Only sealed, leak proof (maintenance free) batteries are allowed to feed the starter.

#### 8.36. Airflow Control On Radiators

Tape is the only method for airflow control on a radiator except as specified in the RMC Canadian Technical Regulations for Rotax classes.

Each tape strip must be continuous and wrap totally around the radiator either horizontally or vertically. Tape may not be removed while the kart is on track. No pull-off tabs allowed.

#### 9. TIRES

#### 9.1. Tire Specifications

ASN or ASN affiliated karting organization reserves the right to designate specific tires, with regard to manufacturer name, size, and manufacturer designation, etc.

Tires in competition and practice must be pneumatic, designed for racing applications only.

Radial tires are not permitted.

Maximum bead diameter is 5.0 inches.

Maximum outer diameter of all tires: Front 280 mm. Rear 300 mm.

Minimum outer diameter of all tires is 225 mm.

Tires used must be CIK-FIA homologated unless specified otherwise in the Supplementary Regulations.

Any modification of a tire is forbidden. The treating of any tire with any chemical substance or by temperature alteration is forbidden.

Wet and Dry tires may not be mixed on the kart during any on track session.

Rear tire sizes must be used only on the rear of the kart. Front tire sizes must only be used on the front of the kart.

#### 9.2. Tires For Use in Dry Track Conditions

#### a) Rotax Classes:

According to the Canadian Rotax Max Challenge Regulations.

#### b) All Other Classes:

For Qualifying, Pre-Final and Final races, competitors may only use one set of four dry tires.

For the Final race, competitors may replace one front dry tire and/or one rear dry tire if specified in the Supplementary Regulations.

#### 9.3. Tires For Use in Wet Track Conditions

#### a) Rotax Classes:

According to the Canadian Rotax Max Challenge Regulations.

#### b) Other Classes:

For Qualifying, Pre-Final and Final races, competitors may only use one set of four wet tires.

For the Final race, competitors may replace one front wet tire and/or one rear wet tire if specified in the Supplementary Regulations.

#### 10. BODYWORK SPECIFICATIONS

#### 10.1. Components - Materials and Usage

- a) Required bodywork components are: One steering column fairing, one nose cone, two side pods, and associated mounting brackets, and for 2007 or newer Homologated chassis, rear wheel protection as required in their Homologation.
- b) The combination of CIK-FIA Homologated bodywork (side pods, nose cone, steering column fairing) of different makes or models is authorized. Both side pods must utilize their respective homologated side bumpers and must be used as a matched set. The nose cone must utilize its respective homologated front bumper.

- c) Nose cone and side pods must remain attached at their normal attachment points to the Kart after the completion of any session/race.
- d) Nose cones must be attached to the Kart with the appropriate Homologated apparatus. Any form of reinforcement such as clamps, nuts/bolts, tie wraps, tape, wire, etc., is not allowed.
- e) No element of the bodywork may be used as fuel tank or for the attachment of ballast.
- f) Plastic used for the bodywork must not be able to splinter, shall have no sharp angles and shall not be made of Plexiglass-type materials.
- g) No cutting of bodywork elements is allowed except to allow for an external starter to be used in classes that permit them.
- h) No attachments to bodywork are allowed except for decals.

#### 10.2. Bodywork Specifications

All CIK-FIA Homologated chassis must have CIK-FIA Homologated bodywork.

All 2007 or newer CIK-FIA Homologated chassis must have 2007 or newer CIK-FIA Homologated bodywork as required for the particular chassis.

All classes require bodywork that conform with either 10.2.a) or 10.2.b):

a) ASN Canada FIA Bodywork Regulations:

#### Side Pods:

The side pods must under no circumstances be located above the plane through the top of the front and rear tires (with the front wheels in the straight ahead position).

In 2 cycle classes, side bodywork may not be located outside the plane drawn through the external part of the front and rear wheels (with the front wheels in the straight ahead position).

In 4 cycle classes, side bodywork may be located outside the plane from the external part of the front to the rear wheels by a maximum of 2.5 cm.

They may not be located inside the vertical plane through the two external edges of the wheels (with the front wheels in the straight ahead position) by more than 40 mm.

They must have a ground clearance of 25 mm minimum and of 60 mm maximum.

The surface of the side bodywork must be uniform and smooth; it must not comprise holes or cuttings other than those necessary for their attachment.

Gap between the front of the side bodyworks and the front wheels: 150 mm maximum.

Gap between the back of the side bodyworks and the rear wheels: 60 mm maximum.

No part of the side bodywork may cover any part of the Driver seated in his normal driving position.

The side bodyworks must not overlap the chassis-frame seen from underneath.

They must be solidly attached to the side bumpers.

On their outer rear vertical surface close to the rear wheels there must be a space for competition numbers.

#### **Nose Cone:**

Nose cone must remain attached at the normal attachment points to the Kart after the completion of any on track session or race.

Nose cones must be attached to the Kart with the appropriate homologated apparatus. Any form of reinforcement such as clamps, nuts/bolts, tie wraps, tape, wire, etc., is not allowed.

Minimum width is 1,000 mm and its maximum width is the external width of the front wheel/axle unit.

#### Steering Column Fairing:

It must not be located above the horizontal plane through the top of the steering wheel.

It must allow a gap of at least 50 mm between it and the steering wheel and it must not protrude beyond the nose cone.

It must neither impede the normal functioning of the pedals nor cover any part of the feet in the normal driving position.

Its width is 250 mm minimum and 300 mm maximum.

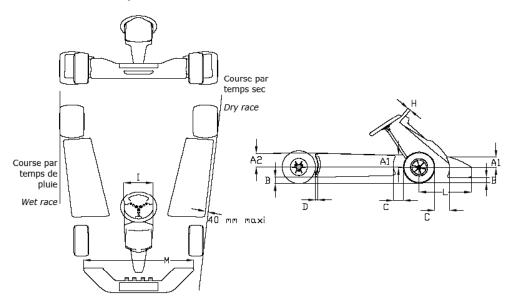
Its lower part must be solidly attached to the front part of the chassis-frame directly or indirectly. Its top part must be solidly attached to the steering column support with one or several independent bar(s).

A space for competition numbers must be provided.

#### b) Bodywork for 2009 CIK-FIA Homologated Chassis:

2009 CIK-FIA Homologated Karts must maintain their homologated bodywork specifications.

#### 10.3. 2007 or Newer Bodywork Dimensions



Code	Dimensions in mm	Limit	Comments
A1	Less than the front wheel radius		Front
A2	Less than the front wheel radius		Rear
В	25	Minimum	Driver on board
	60	Maximum	Driver on board
С	150	Maximum	
D	60	Maximum	
Н	50	Minimum	
I	250	Minimum	
	300	Maximum	
L	650	Maximum	
М	1000	Minimum	
	External width of front track	Maximum	

#### 11. GENERAL TWO CYCLE RULES

#### 11.1. Eligible Engines

- a) **Formula Senior (KZ2):** Engines homologated by the CIK-FIA for competition in the Intercontinental C (ICC), KZ2 and KZ1 classes.
- b) **CIK-FIA New Concept Classes:** In 2007 the CIK-FIA introduced a new concept for two cycle engines. These 125cc engines have a reed valve inlet, are water-cooled, have an on board electric starter, centrifugal clutch, integrated water pump and a power valve. Revs are limited with homologated ignition systems from 14,000 rpm to 16,000 rpm depending on the category.

New Class	Previous Equivalent Class	Ignition System Type (Rev Limit)
KF1	Formula A (FA)	Red (16,000 rpm)
KF2	Intercontinental A (ICA)	Green (15,000 rpm)
KF3	Intercontinental A Junior (ICA JR)	Blue (14,000 rpm)
KF4	New Class	Yellow (14,000 rpm)

#### 11.2. Authorized Changes and Additions

a) Intake Silencer: ALL two-cycle classes require an air intake silencer.

The air intake silencer must be currently registered by the CIK-FIA, and conform to CIK-FIA specifications, unless otherwise specified in the regulations for the particular class.

- b) **Air Filters:** The use of an external air filter on the silencer is permitted, providing that it conforms to specifications listed in these Regulations, and is allowed in the regulations for the particular class.
- c) **Clutch:** Engines must be fitted with an operational clutch that will allow the engine to idle without moving the Kart unless stated otherwise in the regulations for the particular class. Refer to the appropriate regulations to verify the permitted clutch use.

Some classes permit only certain types of clutches and some classes have clutch engagement specifications.

The clutch must be an engine mounted, centrifugal type, of the "wet" or "dry" type.

All clutches must have an engine mounted clutch guard.

- d) **Fasteners:** Any bolt-hole, with certain exemptions in stock classes, may be re-threaded and/or fitted with a helicoil or thread insert. Any bolt may be replaced with a stud or socket head cap screw.
- e) **Ignition Kill Switch:** An ignition switch may be installed on the engine, and may be required in some classes. The switch must be installed on the steering wheel or on a "dash panel" with easy access to the driver.
- f) **Paint/Coatings:** Only the engine head may be painted or coated. No exhaust system painting or coating is allowed.
- g) Ignitions: Refer to class specific regulations for description of ignition restrictions.

Any means used to amplify or otherwise modify the output of any specified ignition system is prohibited.

#### 12. KF1, KF2, KF3, KF4 KZ1, KZ2 (FORMULA SENIOR) CLASS PREPARATION

Inspected according to CIK-FIA regulations.

A maximum RPM measurement system and control of engine clutches by means of data logging may be used. Measurement or data logging systems will be supplied and are to be installed by the Entrant in strict accordance with the corresponding instructions and must work at all times when a kart is on the track. It is the competitors' responsibility to ensure that the engine does not exceed the maximum authorized engine rev limit or that the slip of the clutch does not exceed the maximum authorized threshold as stated in the regulations.

## 13. ROTAX MAX, ROTAX JUNIOR MAX, ROTAX DD2, ROTAX MINI MAX, ROTAX MICRO MAX

The Rotax MAX, Rotax Junior MAX, Rotax DD2, Rotax Mini MAX and Rotax Micro MAX classes will be inspected according to the Canadian Rotax Max Challenge Regulations available at maxchallenge.ca

#### 14. HONDA FOUR-CYCLE CLASSES

Refer to ASN Canada FIA Canadian Karting Honda Technical Regulations available at asncanada.com

#### 15. BRIGGS & STRATTON CLASSES

Refer to to Briggs & Stratton Racing LO206 Canada Engine 2011 Class Regulations available at asncanada.com

#### 16. ALL OTHER CLASSES

Any other class not specified in these regulations will inspected according to the official and accepted regulations published for that class or as specified in the Supplementary Regulations. Examples include World Formula, F1-K and ROK Cup.

#### 17.TWO CYCLE FUEL AND OIL REQUIREMENTS

#### 17.1. Source and Communication

Two-cycle classes are required to use fuel for their specific classes, purchased from a specific source, for each sanctioned event. Communication of source shall be by bulletin at registration on the day of the event, and/or by Supplementary Regulation for the event.

#### 17.2. Fuels Required for Certain Classes

Event variance may occur if accepted by the Technical Inspector and the Clerk of the Course.

- a) **KF1, KF2, KF3, KF4, KZ1, KZ2:** Fuel shall be specified in the Supplementary Regulations for the event. Competitors may be required to purchase the specified fuel and oil at the track.
- b) All other Two-Cycle classes: The usual acceptable fuel for these classes shall be PREMIUM UNLEADED gasoline with a minimum octane rating of 91 which must be purchased at a specified location.

The Technical Director for the event may allow other specified fuels, which must be listed at the event.

#### 17.3. Lubricant Oils

The competitor's fuel is tested against a base related to a fuel/oil ratio of 16:1

Certain oils are recommended. They are:

Burris 50/50 Burris Castor Shell M
Blendzall Castor Motul GP Elf

The chosen oil must be stated on the Competitor's entry form and declared by the competitor on the Pre-Technical Inspection Self-Declaration form or Technical Passport.

Any class may have a brand of oil specified for use in the Supplementary Regulations.

#### 18. FOUR-CYCLE FUEL REQUIREMENTS - GASOLINE TO BE USED

Four-cycle classes are required to use **PREMIUM** UNLEADED gasoline with a minimum octane rating of **91** obtained from a specified location for each event. The source shall be stated in the Supplementary Regulations and publicized at registration.

#### 19. USE OF CAMERAS ON KARTS

The only camera approved for mounting on a kart is the GoPro HD Motorsports HERO camera. Product information available at www.goprocamera.com.

Only one camera can be mounted on a kart installed as indicated below. It is not permitted to mount a camera on a helmet or any other location other than shown below.

The mounting location is on the front panel. The installation kit must be fixed horizontally, in the middle axis, and 250 mm from the upper edge of the front panel.



The only mount mechanism to be used is the portion of GoPro GRBM30 Roll Bar Mount kit shown by the arrow on the right

The camera mount hardware attachment to the front panel is as shown below.



- 1 camera housing with support
- 2 M5x16 screws
- 2 washers
- 2 self-locking nuts



#### 20. FUEL AND OIL TESTING

Fuel and oil testing at an event does not follow procedures or standards of laboratory testing.

#### 20.1. General Conditions

Competitors are NOT entitled to any pre-race fuel check, either for themselves or another competitor.

A fuel check may be taken at any time during the event, from any part of the fuel system.

The Technical Inspector shall purchase sample fuel from the designated source during the practice day for the event. The sample fuel will be used as a baseline for comparative checking of competitor's fuel.

The Event Organizer may specify the use of ANY accepted method to determine fuel or oil legality.

#### 20.2. Fuel Checking Procedure

When using a conductivity sensitive fuel probe, normal procedure is to dip the fuel tester probe into the competitor's fuel tank at any time during the entire event, to determine if the Competitor's fuel is within specification.

A test sample will be taken from the fuel line to the carburetor into a glass bottle and tested when:

There is insufficient fuel in the tank. Insufficient fuel to test is defined as less than 10 fluid ounces.

There is insufficient access to the tank.

The fuel level cannot be seen in the tank.

Any other reason determined by the Technical Inspector.

Any additional test for gasoline and/or oil that is deemed acceptable by the Technical Inspector shall be admissible (i.e. specific gravity-hydrometer, additives-water test etc.).

The Technical Inspector may compensate for changing temperature and humidity by re-calibrating testing equipment to a known fuel sample that is being used in the event.

#### 20.3. Testing Four Cycle Fuel and Oil

#### a) Testing and ensuring conformity of Four Cycle Fuel and Oil:

The Technical Delegate or Inspector may direct the Grid Marshal to order the start of all engines on the grid up to five (5) minutes before the class is allowed on the track.

For any qualifying session any competitor not present or not starting their engine at the appointed time, will start the first racing session at the rear of all other entrants.

For any racing session any competitor not present or not starting their engine at the appointed time, will start that racing session at the rear of all other entrants.

The Technical Delegate or Inspector may require the change of fuel in a competitor's fuel tank at any time during the event, including while the competitor is on the pre-grid or grid.

The existing level of fuel will be marked on the tank. The tank will be emptied of all fuel by the Technical Delegate or Inspector into a container and refilled from a container with the event or series specified fuel to the original level.

#### b) Fuel:

**Conductivity Meter:** When using a conductivity meter, the probe is dipped into the competitor's fuel tank at any time during the event, to determine if the competitor's fuel is within specification. The Competitor's fuel shall not exceed plus or minus ten (10) of the sample when using the Digitron meter.

**Hydrometer:** When using a hydrometer, the specific gravity of the Competitor's fuel shall not exceed 0.025 plus or minus of the standard sample, where water is 1.000.

Water Test: When using the water test, no tolerance from the standard sample is allowed.

The test sample will be collected from the fuel line to the fuel pump, into a glass bottle, and tested if there is insufficient fuel in the tank for the test(s), or if there is insufficient access to the tank filler, or if the fuel level cannot be seen in the tank, or any other reason as determined by the Technical inspector. An insufficient, unavailable sample of fuel to allow for the Digitron test in the test bottle is cause for exclusion.

**Comparison Test To Known Fuel:** The Technical Inspector may compensate for changes in temperature and humidity by re-calibrating the test equipment to a known, legal fuel sample that is being used in the event.

**Comparison Test To Other Competitors:** The inspector may also compare competitor's fuels to each other. All should be within 20 points of each other on the Digitron meter.

#### c) Crankcase Oil:

A sample of engine lubricating crankcase oil may be requested at any time by the Technical Inspector.

Competitors are not entitled to an oil check at any time during the event.

Laboratory testing may be required of a suspect oil. Failure to produce a sample for tests is grounds for disqualification.

Crankcase oil may not contain any additives or chemicals that are oxygen bearing or generating, vapour producing, or that are known to be carcinogenic. All components must be for lubrication only.

Any Oil tester that is accepted by the Technical Delegate may be used.

#### 20.4. Testing Two Cycle Fuel

When using the conductivity meter, the reading for each competitor must be within a range of zero (0) to minus five (-5) of the test fuel/oil mixtures used as a base for that particular oil.

When using a hydrometer, the specific gravity of the competitor's fuel shall not exceed 0.050 (plus or minus) of the standard sample, where water is 1.000.

When using a water test, no tolerance from the standard sample is allowed.