

COOPER TIRES PROTOTYPE LITES Championship

Technical Regulations Lites 2 / L-2 2011

January 20, 2011

Changes incorporated from the 2010 Final version to the 2011 Provisional version are indicated by a unique double line on the left hand side.

ART. 11 – ELIGIBLE VEHICLES & GENERAL RULES:

11.1.1 – The only cars eligible for the Prototype Lites 2 Championship in 2011 will be the WEST Race Cars WR1000 or the WEST Race Cars WX10 - that will be homologated by the manufacturer, and thereafter specifications will remain fixed except for IMSA – permitted safety-related modifications. There are a list of optional components that can be used in Appendix A. The WR1000 must be installed with a 2006 or 2007 Kawasaki ZX10R engine, and the WX10 must be installed with a 2005 or 2006 Suzuki GSXR 1000 engine. All engines and ECUs must be sealed by GDRE.

This car may either be fitted with the homologated flat under-floor (as supplied in 2006) or with the homologated tunnel under-floor part # 250-170 (carbon), 250-160 (eGlass) for competition in Prototype Lites. For further information on the floor options, please contact WEST Race Cars.

11.1.3 - These vehicles will comply with the Technical Regulations of this Championship and/or any amendments to the Technical Regulations issued by way of an official Championship Bulletin or as provided in any supplemental regulation to a specific event.

11.2 - Technical Specifications:

The following technical specifications shall apply to the Championship: • IMSA Code Technical and Safety Regulations are authoritative • These Technical Regulations

11.3 - General Information

The only modifications permitted - if expressly allowed either by these Regulations or by an IMSA-issued Series Bulletin - are defined as any change in the design, material, shape, dimensions and/or surface finish of a component from that originally designed and manufactured." (except for paint on exterior bodywork)

11.3.1 - Limits of Adjustments

Except as may be stated in these regulations, the limit on any adjustment on the car shall be the range of adjustment permitted by the stock parts using the stock fixation points as supplied by the manufacturer. No additional adjustment points within the range may be created by altering parts from their manufactured configuration.

11.4 - Homologation Form:

11.4.1 - "L2" cars shall comply with the homologation form filled out by the manufacturer and agreed after the inspection carried out by IMSA.

11.4.2 - Modifications: the specifications listed in the Homologation Form and all the aerodynamic elements of the car can be changed only by the car manufacturer and with agreement by IMSA.

11.4.3 - Once the Homologation Form has been agreed by IMSA, the manufacturer shall give a copy of it to the owner of every car sold after filling the first page (chassis number, name and address of the owner)

11.4.4 - A car is not permitted to undergo scrutineering before taking part in an event if it has not been homologated by IMSA.

11.4.5 - The Homologation form must be signed and presented by the competitor during scrutineering at their first event of the season.

DEFINITIONS:

11.5 - Prototype Lites 2 car:

Automobile designed solely for speed races on circuits or closed courses.

11.6 - Automobile:

Land vehicle running on at least four non aligned complete wheels, of which at least two are for steering and at least two for propulsion.

11.7 - Land vehicle: A locomotive device propelled by its own means, moving by constantly taking real support on the earth's surface, of which the propulsion and steering are under the control of a driver aboard the vehicle.

11.8 - Mechanical components

All those necessary for the propulsion, suspension, steering and braking, as well as all accessories, whether moving or not, which are necessary for their normal working.

11.9 - Main structure / Chassis Entirely sprung part of the structure of the vehicle, to which all the suspension and/or spring loads are transmitted, extending longitudinally from the foremost suspension mounting point on the chassis to the rear most suspension mounting point on the chassis. Mechanical components are not part of the main structure even if they are fully or partially load-bearing.

11.10 - Bodywork: Must be homologated by the manufacturer and cannot be changed from what is recorded on the homologation form.

11.10.1 - All entirely sprung parts of the car in contact with the external air stream, except the rollover structures and the parts definitely associated with the mechanical functioning of the engine, transmission and running gear. Airboxes and radiators are considered to be part of the bodywork.

11.10.2 - As viewed from above (plan view), in side elevation, from the front and from the rear, the bodywork must not allow mechanical components to be seen, unless explicitly authorized by the present regulations.

11.10.3 - Movable bodywork parts/elements are forbidden when the car is in motion.

11.11 - Air intakes: **11.11.1** - Air intakes are part of the bodywork.

11.11.2 - If air intakes or air extractors make mechanical parts visible, they must be fitted with louvers or mesh of about 10 mm (to Scrutineers' appreciation).

11.12 - Weight:

Is the weight of the car with the driver, wearing his/her complete racing apparel, at all times during the event with no fuel on board. See Article 14 of the regulations for more information.

11.13 Racing weight: Is the weight of the car in running order with the driver on board.

11.14 Intake system: All the elements between the cylinder head and the external side of the air restrictor.

11.15 Main structure:

The fully sprung structure of the vehicle to which the suspension and/or spring loads are transmitted, extending longitudinally from the foremost front suspension on the chassis to the rearmost one at the rear.

11.17 Sprung suspension:

The means whereby all complete wheels are suspended from the body/chassis unit by a spring medium.

11.18 Survival cell: A continuous closed structure containing all fuel tanks and the cockpit.

11.19 - Cockpit: Internal volume of the car to accommodate the driver.

11.19.1 - Closed cockpit car: Not permitted

11.20 - Composite structure: Non-homogeneous materials which have a cross-section comprising either two skins bonded to each side of a core material or an assembly of plies which form one laminate.

11.21 Cockpit padding: Non-structural parts placed within the cockpit for the sole purpose of improving driver comfort and safety. All such material must be quickly removable without the use of tools.

11.22 Wheel: Complete wheel: Flange, rim and tire.

11.23 - Automobile Make:

11.23.1 - An automobile make corresponds to a complete car.

11.23.2 - The name of the chassis manufacturer shall always precede the name of the engine manufacturer if different.

11.24 – Main casings of gearbox and differential: Casings that receive or transmit loads from/to the chassis or from/to mechanical elements other than those which are part of the gearbox or the differential.

11.25 - Electronic systems:

11.25.1 - Any automatic or electronic control system or function other than the homologated electronic paddle shift system is forbidden: chassis control, automatic or semi-automatic transmissions, clutches, final drive differential system, shock absorbers, suspension or ride height adjustment, four wheel steering, etc.

11.25.2 - A simple open-loop non-automatic electrical switch activated by the driver acting on one or more system(s) is not considered to be an electronic control.

11.25.3 - A closed-loop electronic control system is a system in which: a/ An actual value (controlled variable) is continuously monitored; b/ The "feed back" signal is compared with a desired value (reference variable); c/ The system is then automatically adjusted according to the result of that comparison.

11.25.4 - Unless specified in these regulations and apart from engine monitoring systems, no such system is permitted.

11.26 - Telemetry & Data Recording:

11.26.1 - Apart from the following all else is forbidden: Legible messages on a signaling pit board; The driver's body movements "Lap trigger" signals for the start or the end of a lap: a/ Lap marker

transmitters (lap triggers) must be autonomous and not connected to any pit equipment (wires, cable, optical fibers, etc.) ; b/ The only function of these transmitters is to mark the laps. Two way verbal communications between the driver and his pit is required at all times. The use of any other communication device is only permitted after the agreement and under the control of IMSA.

11.26.2 – Chassis Data Recording Apart from the following all else is forbidden:

- a) Wheel speed sensor x One (1)
- b) Steering angle x One (1)
- c) Gear position sensor (on the gearshift only) x One (1)
- d) G-force sensor, up to three axis – One external to the data acquisition box, plus one internal to the box
- e) Brake pressure x Two (2) (One front, One Rear)
- f) Lap trigger x One (1)
- g) An in-car-camera synchronized to the data
- h) Throttle position x One (1)
- i) Water Temperature x One (1)
- j) Oil temperature x Two (2)
- k) Oil pressure x One (1)
- l) Fuel Pressure x One (1)
- m) GPS x One (1)

11.26.3 – Allowable Engine Sensors Apart from the following all else is forbidden:

- a) Manifold Pressure x One (1)
- b) Ambient Pressure x One (1)
- c) Air Temperature x One (1)
- d) Water Pressure x One (1)
- e) Fuel Temperature x One (1)
- f) Lambda (Fuel / Air Mixture) x One (1)
- g) Cam Sensor x One (1)
- h) Crank Sensor x One (1)

11.26.4 - IMSA has the right to read off stored data during the event.

ART. 12 – REGULATIONS

12.1 - What is not expressly permitted by IMSA is prohibited. Eligibility of a car is within the exclusive competence of IMSA.

12.2 - For reason of safety, IMSA may, in its sole discretion, require cars to be modified and their homologation be changed

12.3 - Compliance with the regulations

It is the duty of each competitor to satisfy the Scrutineers and the Race Director that his car complies with these regulations in their entirety at all times during an event. Vehicles must be clean, of smart appearance, with the Championship livery placed in accordance with these Regulations, and in good order. Replacement cars are not permitted and a Driver may only use the car that is originally scrutineered for their use at each event.

12.4 - Measurements

All measurements must be made while the car is stationary on a flat horizontal surface.

12.5 - Material

The use of a metallic material that has a specific yield modulus greater than 40 GPa/g/cm³ is forbidden. The use of magnesium sheet less than 3 mm thick is forbidden.

13.1 Wheel centre line:

The centerline of any wheel shall be deemed to be half way between two straight edges, perpendicular to the surface on which the car is standing, placed against opposite sides of the complete wheel at the centre of the tire tread.

13.2 Height measurements:

All height measurements will be taken with the car in normal racing trim with the driver aboard seated normally.

13.3 - Dimensions: Except what is permitted by Art. 13.6 of these regulations, inside and outside measurements (length, width, overhangs, wheelbase etc.) and the general shape of the bodywork elements must be maintained as in the IMSA homologation form.

13.4- Bodywork: Must be homologated by the manufacturer and cannot be changed from what is recorded on the homologation form. As viewed from the side: It must cover the whole circumference of the complete wheels (wheels and tires) above the axle centerline level with no empty space or cut-out in the bodywork: Wheel arches must be open exclusively as viewed from outside.

13.4.1-Air intakes: The only air intakes allowed are from the West Race Cars part # 400-140 (WR1000) and part # 250-840 (WX10) and they may not be altered in any way. They must not protrude beyond the perimeter of the bodywork as viewed from above.

13.4.2- Air extractors:

a/ They must not protrude beyond the perimeter of the bodywork, viewed from above
b/ They are allowed above the front & rear wheels without protruding more than 20 mm (louvers)

13.4.3- Front Louver Panels, only WEST part number louvers must be used in the top front fender cut-out part # 250-750 (WR1000) part # 250-845R, 250-950L (WX10). The louvers are homologated components and are the only version that can be used. Under no circumstances are the louvers or flat panels shape or position to be modified.

13.5 – Underside of the car: No entirely sprung part may protrude beyond the reference surface, which include but are not limited to the rear diffuser and front splitter, as defined below. The only openings permitted are the minimum gaps necessary for wheel and suspension part movements (suspension travel and steering), closed hatches (maintenance operations) and the overflow fuel pipe.

13.5.1 - Reference surface A reference surface, flat, continuous, rigid and complying with drawing no.1 is mandatory underneath the car. a/ It must become an integral part of the main structure/survival cell. b/ The underneath of the reference surface will serve as a reference for checking all vertical height measurements.

13.5.2 - Bodywork facing the ground

13.5.3 - The manufacturer will be asked to provide templates of the underside of the car to IMSA, so that these can be used in the technical inspection of all cars.

13.5.4 – This car may either be fitted with the homologated flat under-floor part # 250-180 or with the homologated WEST tunnel under-floor part # 250-170 (carbon) part # 250-160 (eGlass) for competition in Prototype Lites. For further information on the floor options, please contact WEST Race Cars.

13.5.6 – Rear diffuser or Tunnel: Must be homologated by the manufacturer and cannot be changed from what is recorded on the homologation form. No alterations to the Diffuser or tunnel are permitted, with the exception of the optional strake kit, part # 250-171.

13.5.7 - Front Splitter – Must be homologated by the manufacturer and cannot be changed from what is recorded on the homologation form. No alterations to the front splitter are permitted.

13.5.8 - Ground clearance: a/ Any system, other than the suspension, which is designed to modify the ground clearance is not permitted b/ No sprung part of the car is allowed lower than the plane generated by the reference surface, except the mandatory skid block described below.

13.5.9 - Underbody Skid blocks: Only authorized WEST skid blocks may be used on the underbody of the car, the tunnel or front diffuser. The two types available for both the WX10 and the WR1000 are the round puck skid block part# 250-860 or the longer skid bars that go the length of the tunnel floor inside the wheels part# 250-863 they cannot be modified in any way. Fasteners used to attach the skid block to the reference surface must: Be fitted in order that their entire lower surfaces are visible from beneath the car and are flush with the lower surface of the skid block when new.

13.6 - Aerodynamic devices:

13.6.1 - With the exception of the rear wing defined in article 13.6.3, no bodywork or underbody element having a wing profile (*) is permitted on WR1000: The WX10 has a rear bodywork wing as pictured in the 2011 Homologation papers. (*) *"Wing profile": section generated by two arcs with different curves and/or centers joining a leading edge at the front to a trailing edge at the rear, the purpose being to exert an aerodynamic effect, lift or down force.*

13.6.2 – Front Dive Planes: Only authorized WEST front dive planes part # 250-730 (L) 250-735 (R) WR1000 and part # 250-740 (L) 250-745 (R) WX10 may be used on the front fender. The front dive planes are homologated components and are the only version that can be used in the specified location. Under no circumstances is the dive planes shape or position to be modified. Refer to WEST Prototype Lites L-2 Addendum for dimensions and specified location for the front dive planes. These parts may be used as a tuning device so are not required to be fitted at all times. - No "Gurney" at the rear of the bodywork.

13.6.3 - Rear wing: Must be homologated by the manufacturer and cannot be changed from what is recorded on the homologation form.

13.6.4 – Wing Gurney: The WR1000 wing can optionally use a 5mm high gurney flap part# 300-367 installed on the upper surface at the trailing edge. No saw tooth gurneys will be allowed. The WX10 MUST have a mandatory 5 mm high gurney flap part# 300-368 installed on the upper surface at the trailing edge of the wing. No saw tooth gurneys will be allowed.

13.6.5 - Vertical supports: Must be homologated by the manufacturer and cannot be changed from what is recorded on the homologation form. For WR1000, only part# 300-333 is valid for the upright. For WX10 only part# 300-330 is valid for the upright.

1 - Minimum number two (2)

2 - Surfaces must be flat and parallel to the longitudinal centerline of the car;

33 - The leading edge may be made round (constant radius) and the rear edge (trailing edge) may be beveled no more than 20 mm; 4 - The rear wing must be rigidly attached to the main structure of the car and not just to the bodywork.

45 - The rear engine cover must be able to be removed without disturbing the wing mounting.

56 - TWith the attachments of the end plates to the bodywork disconnected, the vertical supports must be able to withstand a vertical load of 5 kN (1125 lbs), equally applied on the surface of rear wing.

13.6.6 – End plates: Only West wing end plates part# 300.360 are valid for WR1000 and part# 300-365 are valid for WX10. No modifications are allowed to the wing end plates. 1 - They may be fixed to the rear wing 2 - They must have a minimum constant thickness of 4 mm minimum 3 - Outside edges must have edges rounded with a minimum constant radius of 2 mm minimum.

ART. 14 – WEIGHT

14.1 - Minimum weight: Minimum weight for both WR1000 and WX10 cars will be 1100 lbs. This is the minimum weight of the car including the driver and his/her complete racing apparel, at all times during the event, with no fuel on board.

14.2 - Ballast: Ballast can be used provided it is secured in such a way that tools are required for its removal. It must be secured to the main chassis structure and it must be possible to fix seals if deemed necessary by IMSA. Any movable ballast system is forbidden.

14.3 - The weight may be checked at any time during the event

14.4 - Adding during the race: The adding to the car during the race of any part with another materially heavier part is forbidden.

ART. 15 - ENGINE

15.1 - Sealing of the Engine

15.1.1 - In the interest of equal opportunity and cost reduction George Dean Racing Engines is the only service partner for all engines entered in the “L2” Championship. To ensure equality, the Kawasaki 06 and 07 - ZX10R engines must be used for the WR1000 car and Suzuki 05 thru 06 - GSXR 1000 engines must be used for the WX10 car. All engines are sealed by George Dean Racing Engines (GDRE).

15.1.2- The Driver/Entrant is responsible for the completeness and integrity of the seals. These seals will be checked frequently during scrutineering.

15.1.3- Only the official IMSA service technician or the Chief Technical Inspector is permitted to break the seals.

15.1.4- Engines with broken seals are reported and are disqualified from further use in the Championship.

15.1.5 – If the seal on the engine is broken, the engine has to be re-built by GDRE. This is performed at the cost of the competitor responsible for the vehicle.

15.1.6- Only maintenance work not entailing damage to the seals may be carried out on the engine. Consumable / wear items on the engine must be replaced by items from the approved replacement list. Approved list will be provided by the manufacturer in the engine technical manual.

15.1.7 – All engine rebuilds must be performed by George Dean Racing Engines.

15.1.8 – Fuel pressure to remain as supplied.

15.2.1 - Engine Control Units:

a/ The only engine control unit which may be used for engine management are the stock engine control units supplied with the engine.

b/ IMSA may, at its discretion, require competitors to swap ECU's.

c/ ALL ECUs will be sealed by engine builder.

d/ 2006 & 2007 Kawasaki engine mapping to remain as provided by Kawasaki and 2005 & 2006 Suzuki engine mapping to remain as provided by Suzuki.

e/ Data from the ECU may be passed to the dashboard

f/ It is mandatory for all cars to be fitted with the engine wiring harness as homologated by the engine supplier

g/ Traction control systems are not permitted (except direct mechanical linkages such as differentials)

h/ ECU enhancement devices such as power commanders are prohibited

15.3 - Intake system:

15.3.1 - Inlet manifolds: Mandatory component as supplied by Kawasaki and Suzuki.

15.3.2 - Throttle: Only a direct mechanical linkage (rod, cable) is permitted between the throttle pedal and the supply control system (fuel and/or air) of the engine.

15.3.3 - Air box must be homologated by the manufacturer and cannot be changed from what is recorded on the homologation form.

15.4 - Exhaust system: Exhaust system must be homologated by the manufacturer and cannot be changed from what is recorded on the homologation form.

15.4.1- 01/01/2010 the maximum admissible noise limit value is 108 dB

(A) Measured from 50ft laterally from the center line (front to back) of the car, on either side of the car at 3ft off the ground at any rpm during the practices, qualifying and the races.

15.4.2 - Exceeding these sound limits may result in penalties at the discretion of IMSA.

15.4.3 - Exhaust pipe outlets: they must exit: a/ Aft the middle of the wheelbase; b/ within the contour of the bodywork as viewed from above.

15.4.4 – Only West muffler part# 400-300 allowed to run on both WR1000 and WX10. Muffler must be run at all times and no modifications allowed. If muffler has a distinctly different sound than normal, or looks modified in any way, the competitor may be required to replace with a new one.

15.4.5 – Smoke/Fluids: The engine must not produce visible exhaust emissions under race conditions, nor emit significant fluids.

ART. 16 - FUEL, PIPING, FUEL TANKS and SCATTER SHIELD

The fuel system is free provided the provisions below

16.1 Fuel tanks:

16.1.1- Only the homologated West fuel bladders part # 630-140 will be allowed for use. The fuel tank must be a single rubber bladder conforming to or exceeding the specifications of FIA/FT3 or FT3-1999 and must comply with the prescriptions of the appendix J - article 253-14.

16.1.2- All the fuel stored on board the car must be situated between the front face of the engine and the driver's back when viewed in lateral projection. Furthermore, no fuel can be stored more than 300mm forward of the highest point at which the driver's back makes contact with his seat. However, a maximum of 2 liters of fuel may be kept outside the survival cell, but only the quantity which is necessary for the normal running of the engine.

16.1.3- Fuel must not be stored more than 400mm from the longitudinal axis of the car.

16.1.4- The fuel bladder must be fitted with the fuel resistant polyurethane foam baffling with which it is supplied.

16.1.5- All rubber bladders must be made by manufacturers recognized by the FIA. In order to obtain the agreement of the FIA, the manufacturer must prove the compliance of his product with the specifications approved by the FIA. These manufacturers must undertake to deliver to their customers exclusively tanks complying with the approved standards. A list of approved manufacturers is available from the FIA.

16.1.6- All rubber bladders shall be printed with the name of the manufacturer, the specifications to which the tank has been manufactured and the date of manufacture.

16.1.7- No rubber bladders shall be used more than 5 years after the date of manufacture, unless inspected and re-certified by the manufacturer for a period of up to another 2 years.

16.2 - Fittings and piping:

16.2.1 - Any equipment included in the tank walls (air vents, inlets, outlets, tank fillers, inter tank connectors and access openings) must be metal or composite made fittings and bonded inside the fuel tank.

16.2.3 - No line containing fuel, cooling water or lubricating oil may pass through the cockpit.

16.2.4 - The lines must be fitted in such a way that any leakage cannot result in accumulation of fluid in the cockpit.

16.2.5 - Flexible lines must have threaded connectors and an outer braid resistant to abrasion and flame.

16.2.6 - Fuel and lubrication oil lines must have a minimum burst pressure of 41 bar at a maximum operating temperature of 135°C.

16.2.7 - All hydraulic fluid lines which are not subjected to abrupt changes in pressure, with the exception of lines under gravity head, must have a minimum burst pressure of 41 bar at the maximum operating temperature of 204°C when used with steel connectors and 135°C when used with aluminum connectors.

16.2.8 - All hydraulic fluid lines subjected to abrupt changes in pressure must have a minimum burst pressure of 70 bar at the maximum operating temperature of 204°C.

16.2.9 - Only hydraulic fluid lines with screwed connectors and secured by means of a metallic wire are permitted inside the cockpit.

16.2.10 - Fuel pumps must be in operation only when the engine is running or being started.

16.3 - Fuel Tank Fillers:

16.3.1 - Tank fillers:

Must remain as built into the original car (WX10 or WR1000) with no modification unless External Fuel Fill option part# 630-147 is installed. ;

16.4 - Refueling during the Race:

16.4.1 - Refer to IMSA code

16.4.2 - The refueling equipment and the tank of the car shall always remain at the outside ambient temperature and atmospheric pressure.

16.5 - Fuel Capacity:

16.5.1 – 72 liters maximum on board whatever the outside ambient temperature and atmospheric pressure.

16.5.2 - Any device or system the purpose and/or effect of which is to increase the fuel storage capacity on board is prohibited.

16.6 – Scatter Shield: A scatter shield 16 gauge, .06250 Stainless Steel is required and must be attached at the Heat Shield or Bulkhead between the fuel cell and engine. The stainless steel shield must be a minimum of 12" high and 22 5/8" wide and attached to the lowest point of the bulkhead.

ART. 17 - OIL SYSTEM:

Must be homologated by the manufacturer and cannot be changed from what is recorded on the homologation form. The following provisions must be complied with:

17.1.1 - West Oil Tank part# 550-285 must be positioned as shown in the homologation form, using the original West mounting brackets and hardware.

17.1.2 - Elimination of a dry sump (running the engine wet sumped) is not allowed.

17.1.3 - No tank or pipe containing lubricating oil is permitted:
a/ In the cockpit; b/ Aft the gearbox;

17.2 Catch Tank: When a car's lubrication system includes an open type sump breather, this breather must vent into a catch tank of at least 1 liter capacity.

ART. 18 - ELECTRICAL EQUIPMENT: The following provisions must be complied with:

18.1 - Battery(ies): Batteries must be located in the cockpit and must be strongly secured and protected.

18.2 - Starting system:

18.2.1 - It must be possible for the driver to start the engine at any time when seated normally at the wheel, and without any external assistance.

18.3 - Lighting equipment:

18.3.1 - Lighting equipment must always be in working order.

18.3.2 - Rear of cars must be fitted with two red lights and two "Stop" lights fitted symmetrically about the longitudinal centerline of the car and separated by a minimum of the rear track measurement;

One red "Rain" or "Fog" light (minimum 21 Watt) or any equivalent device approved by the FIA and located on centre line at the rear of the car.

ART. 19 - TRANSMISSION Must be the stock bike engine transmission and remain unmodified.

19.1 - Shifting:

19.1.1 Only three authorized shift systems - supplied by WEST Race Cars - are allowed. No modifications to the shift systems will be permitted.

- a) WEST manual bump Shifter part# 520-190 (manual cable operated shift system)
- b) Proshift Electronic Shift systems part # 520-200 part# 520-220 part # 520-210 with paddles
- c) Proshift "Bump & Blip" Shifter system with no-lift upshift and auto-blip part # 520-192

All Proshift parts and spares must be purchased from West Race Cars to be eligible for racing. All Proshift key components will be identified with a holographic sticker for identification purposes. Any individual who currently has a Proshift system will have their components grandfathered in and stickered at their first event. This will be the only time they will be allowed to have parts grandfathered in.

If you ran in 2010 and used a Pingel shift system, your shift system will be grandfathered in until it needs to be replaced. You must contact West Race Cars for details on the seal for your Pingel

19.2 - Gearbox:

19.2.1 - Only the stock transmissions and/or gearboxes from Kawasaki and Suzuki in their perspective engines are allowed. Any gearbox repair / replacement must be completed by the authorized engine builder.

19.2.2- Only stock as supplied Kawasaki and/or Suzuki gear ratios are permitted.

19.2.3- Only three (3) engine sprocket ratios are permissible: These are 15, 16 or 17 teeth

19.2.4- Only four (4) final drive ratios are permissible:
These are 44, 45, 46, and 47 tooth sprockets.

19.2.6- Driver initiated shift mechanisms operated through direct acting electric solenoids or cable are permitted.

19.2.7- Electronic Paddle shift is permitted via the Proshift shift options.

19.3 - Differential:

19.3.1 Only chain driven differentials permitted and only the following 2 models are allowed: standard Quaife unit, West part # 150-580, or Taylor Race Engineering diff unit part # 150-630.

19.3.2 Electronic controlled differentials are prohibited.

19.4 - Four wheel drive: not permitted.

19.5 - Clutch: Only designs actuated and controlled directly by the driver are permitted.

19.6 - Disconnecting the transmission:

19.6.1 - The transmission must be designed such that, should the car be stopped and the engine stalled, it is still possible to push or to tow it.

ART. 20 – SUSPENSION

Suspension – Must be homologated by the manufacturer and cannot be changed from what is recorded on the homologation form. Only West suspension arms are allowed on the cars. Competitors may source their own rod ends and spherical bearings. Suspension arm part numbers are as follows:

Front Upper	part# 100-100
Front Lower Left	part# 100-110
Front Lower Right	part# 100-115
Rear Upper	part# 100-120
Rear Lower Left	part# 100-130
Rear Lower Right	part# 100-140

20.1 - Changing the adjustment of the springs, and the shock absorbers and the rear anti-roll bar from inside the cockpit is forbidden.

20.2 - Any system other than the suspension parts, whatever the functioning principle, activated or not by the driver the purpose of which is to modify the ground clearance is forbidden.

20.3 - The suspension arms Must be original WEST parts only.

20.3.1 Dampers – Must either be Ohlins ST44 or Ohlins TTX36 shocks, and they must be sealed by MSI. A maximum of one damper per wheel is allowed.

20.3.2 Springs – Are to be steel only. Lites 2 cars are limited to nine front spring rates and nine rear spring rates to be tagged Front & Rear: 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400 +/- 10 lbs.

20.3.3 Bump Stops/ Packers - The use of bump stops and packers are allowable.

ART. 21 – STEERING

21.1 - Only a continuous mechanical link between the driver and the wheels is permitted.

21.2 - Four wheel steering: not permitted.

21.3 - Power steering: not permitted

21.4 - Quick release system: Mandatory. The quick release mechanism must consist of a flange concentric to the steering wheel axis. The quick release mechanism must be operated by pulling the flange along the steering wheel axis.

ART. 22 - BRAKE SYSTEM

22.1 - Separate circuit:

22.1.1 - At least two separate circuits operated by the same pedal are compulsory: The only connection allowed between the two circuits is a mechanical system for adjusting the brake force balance between the front and rear axles.

22.1.2 - No device or system is permitted between the master cylinders and the calipers: Sensors to collect information, or stop lights switches are not considered as "systems"

22.2 - Brake calipers: Only the West/Wilwood brake calipers part# 200-450 (front) part# 200-455 (rear) are allowed to be used in competition.

22.2.1 - Only one caliper with 4 pistons maximum is permitted per wheel.

22.2.3 - The section of each caliper piston must be circular.

22.2.4 - The body of the calipers must be made from aluminum alloy with a modulus of elasticity no greater than 80 Gpa.

22.3 - Disc brakes and brake pads:

22.3.1 - Material: Ferrous only

22.3.2 - Discs: one per wheel maximum; All cars competing in the Prototype Lites 2 class must use West steel discs part# 200-200 (left) part# 200-210 (right)

22.3.3 - Carbon brake equipment (discs and brake pads): Not permitted

22.3.4 - All cars competing in the Prototype Lites 2 class must use series mandated Performance Friction brake pads – part # 200-133.

22.3.5 – Discs are not allowed to be modified in any way from original.

22.4 - Anti-lock braking systems: Any anti-lock braking function and any power braking function are prohibited.

22.5 – Brake Cooling: For the WR1000, an optional brake kit part# 200-113 is allowed. See homologation form for more details.

ART. 23 – WHEELS

23.1.1 - Number: four (4)

23.1.2 – All cars competing in the Prototype Lites 2 class must use Jongbloed wheels

manufactured from aluminum. Magnesium wheels are forbidden. You may use centerlock wheels or 4-bolt style wheels. Part numbers are as follows:

Jongbloed 4-bolt Front Wheel 9-spoke	part# 800-200
Jongbloed 4-bolt Rear Wheel 9-spoke	part# 800-202
Jongbloed Centerlock Front Wheel 9-spoke	part# 800-208
Jongbloed Centerlock Rear Wheel 9-spoke	part# 800-209
Jongbloed Centerlock Front Wheel 5-Star	part# 800-204
Jongbloed Centerlock Rear Wheel 5-Star	part# 800-206

23.1.3 - Above the plane passing through the axle centerline, it must be possible to house the complete wheels inside the wheel arches.

23.1.4 - As viewed from above, the wheels aligned for the car to proceed straight ahead must not be visible above the plane passing through the axle centerline.

23.2 – Dimensions: Complete wheel measured horizontally at wheel hub level.

23.2.1 - Width (maximum): Front 8", Rear 10"

23.2.2 - Diameter (maximum): Front 13", Rear 13"

23.4 - Material:

23.4.1 - All wheels must be made from homogeneous metallic aluminum material.

23.5.3 - Removable wheel/hub caps are not permitted.

23.6 - Wheel attachment: Must be homologated by the manufacturer and cannot be changed from what is recorded on the homologation form.

23.6.1 - If the wheel is attached by means of a single nut, a safety spring / clip (painted red or "day-glo" orange) must be on the nut whenever the car is running, and it must be put back after every wheel change. WEST offers these safety pins colored red part# 100-890.

23.7 - Pressure control valves: not permitted.

23.8 - Pneumatic jacks: not permitted.

ART. 24 TIRES

24.1.1 The nominated tire supplier for this Championship is Xtreme TM.

24.1.2 Tire sizes:	Front	Rear	Slicks	195/530R13 7362	250/570R13 7361
			Rain Tires	160/530R13 7421	250/570R13 8663

ART. 25 - SAFETY AND EQUIPMENT

25.1.1 - Cockpit exit time: The cockpit must be designed so as to allow the driver wearing his complete driving equipment, being seated in a normal position with the seat belts fastened and the steering wheel in place to get out: a/ Open car: in 7 sec. maximum

25.2.1 - Fire extinguisher: The use of the following products is prohibited: BCF, NAF All cars must be equipped with an extinguishing system homologated by the FIA in accordance with article 253-7.2, with the exception of the means of triggering from the outside. The means of triggering from the outside must be combined with the circuit breaker switch and be operated by a single lever. It must be marked with a letter "E" in red inside a white circle at least 100 mm in diameter and with a red edge.

25.3 - Safety belts: **25.3.1** - Two shoulder straps, one abdominal strap and two straps between the legs are compulsory:

a/ These straps must comply with FIA standard 8853-98.

25.3.2 - Safety belts with two buckles are prohibited.

25.3.3 - Safety belt mounting points must be capable of resisting a 25 g deceleration.

25.3.4 – Safety belts are only good for 5 years after the manufacturer's date.

25.4 - Rear view mirrors:

25.4.1 - Two rear view mirrors (one each side) must provide an efficient vision to the rear.

25.4.2 - The scrutineers must be assured through a practical demonstration that the driver, seated normally, can clearly see the vehicles following him. To this end, the driver will be asked to identify letters or figures, 15 cm high and 10 cm wide, displayed at random on boards placed behind the car according to the following instructions:

- Height: Between 40 cm and 100 cm from the ground. - Width: 2 m one side or the other of the centerline of the car. - Position: 10 m behind the centerline of the rear axle of the car.

25.5 – Headrest and Head Protection:

25.5.1 - All homologated cars must be compatible with the Hans device

25.6 - Master switch:

25.6.1 - When seated normally behind the wheel with the safety belt fastened, the driver must be able to cut off all electrical circuits and turn the engine off by means of a spark proof circuit breaker switch.

25.6.2 - The switch of the circuit breaker must be located on the dashboard in a place which can be reached easily by the driver or from outside: • It must be clearly marked by a symbol showing a red spark in a white edged blue triangle.

25.6.3 - There must be also an exterior switch, with a handle or a ring capable of being operated from a distance by a hook. This switch must be positioned: a/ On the upper part of the bodywork; b/ If possible next to the lower part of the main roll bar.

25.7 - Towing eyes:

25.7.1 - Only West towing eyes/hooks are permitted and may not be altered in any way. For the front of the car, the WX10 uses part# 250-204 and the WR1000 uses part# 250-190(L) and part# 250-200(R) and for the rear of the car, tow bar part# 150-120.

25.7.2 - Penalty during the race:

a/ Should a towing eye break during the race, the track marshals will pull the car into a safe position using any part of the chassis or the bodywork whatsoever

b/ Competitors will have no right to lodge protests in case the car has been damaged.

25.7.3 - The main rollover structure may be used for pulling or lifting the cars, The Competitor acknowledges that IMSA will not be responsible in the event of damage to the vehicle

25.8 - Heat Protection Measures

a/ Any thermal insulation of cables or surfaces (e.g. brake cables, electrical looms, hoods, etc.) is Permissible.

25.9 – Fuel Cell Scatter Shield (see ART. 16.6 above)

ART. 26 - SAFETY STRUCTURES

26.1 – Survival Cell and Frontal Protection:

|| **26.1.1** - Survival Cell to be solely supplied by WEST Race Cars part # 900-100.

|| **26.1.2** - In order that every survival cell is readily identifiable by IMSA, each one must carry an identification plate stating part and chassis numbers. Under no circumstances must this plate be removed, replaced or relocated.

26.1.3 - No drilling or additional holes are allowed in the chassis without written permission from WEST Race Cars

26.2 –WEST Race Cars survival cell log-book is mandatory. IMSA has authorized only the following organizations to perform service and repair on the steel space frame **WEST Race Cars 2121 Peachtree Industrial Blvd. Building 2 C Buford, GA 30518 Tel: 888-806-9993**

26.4 - Rollover structures: Must be homologated by the manufacturer and cannot be changed from what is recorded on the homologation form.

26.4.1 – Main/rear rollover structure: To be solely supplied by WEST Race Cars part no. WS 660.101 The principal structure must be capable of passing a static load test details of which may be found in FIA Annex J / Appendix J – Art.275 Article 15.2 4.

a/ The safety rollover structure is mandatory.

b/ With the driver at the wheel, the helmet must be at a minimum distance of 80 mm from the line connecting the top of front and rear rollover structures.

c/ As viewed from the front, the steering wheel, whatever its position, must not protrude from the front rollover structure.

d/ No streamlining or fairing should cover the rollover structures

26.5 –Modifications:

Any modification regarding any of the main chassis structures are forbidden.

ART. 27 - FINAL TEXT – DISPUTES

Any interpretation regarding these regulations is the exclusive responsibility of IMSA

ATTACHMENT A: OPTIONS THAT CAN BE INSTALLED/USED FOR 2011

Proshift PS2 or PS3 base system	part # 520-200
Proshift Titanium paddles	part # 520-210
Proshift auto-blip	part # 520-220
Proshift“Bump&Blip” for the West Bump Shifter	part # 520-192
Taylor Race Engineering Lightweight axle kit	part # 150-632
Taylor Race Engineering Differential	part # 150-630
Tunnel Floor Skid Bars	part# 250-863
Rear Tunnel Strakes	part # 250-171
Dive Planes (for WR1000 only)	part # 250-730(L), part # 250-735(R)
WX10 Dive Planes (for WX10 only)	part # 250-740(L), part # 250-745(R)
West Carbon Fiber Bodywork	part #(contact West)
West Carbon Fiber Tunnel Floor	part # 250-170
West Carbon Wing End Plates	part # 300-360(WR100) part # 300-365
West WR1000 Carbon Ram Air Intakes	part # 400-140
WR1000 Tail exit vent modification	(see homologation form)
WR1000 Side Exit Vent	part # 250-755
West External Fuel Fill Kit	part # 630-145
Carbon Fiber Belly Pan	part # 998-740