



Presents



PACIFIC F2000 CHAMPIONSHIP OFFICIAL 2011 COMPETITION RULES

24551 Lerdo Highway, Buttonwillow, CA 93206
Phone 661-764-5333 - Fax 661-764-5334

Buttonwillowraceway.com or PacificF2000.com



Presents



INTRODUCTION

The PacificF2000 Championship series is sanctioned by Buttonwillow Raceway Park.

The rules and regulations set forth herein are intended to assist in the orderly conduct of Pacific F2000 race events and to further participant and spectator safety. This is a guide and in no way a guarantee against injury or death to participants, spectators, or others. No expressed or implied warranties of safety or fitness for a particular purpose shall be intended or result from publication or compliance with these rules. All event participants compete at their own risk.

All rights reserved. This book may not be reproduced or transmitted in any form or by any means, electronic or mechanical, including photo copying, recording, or by any information storage or retrieval system, without permission in writing from the publisher.

Copyright 200 Revised



Presents



TABLE OF CONTENTS

600	Vehicle Eligibility	4
601	Design - Construction - Material Approval - Testing	4
602	Inspections - Technical, Safety and Post Race	4
603	Car Size	4
604	Car Construction:	
	Chassis	5
	Bodywork/Coachwork	6
	Airfoils/Aerodynamics	6
	Flat Bottom Rule	7
605	Steering and Suspension	8
606	Brakes	9
607	Wheels	9
608	Oil Supply	10
609	Catch Tanks	10
610	Fuel System	10
611	Roll Bar Structure	12
612	Driver Restraint System	12
613	Electrical Master Switch	13
614	Lights	13
615	Fire Extinguisher	13
616	Driver's Equipment	13
617	Mirrors	14
618	Starter	14
619	Driver's Seat	14
620	Batteries and Alternators	14
621	Engine:	
	I. Zetec	15
	II. National Class	15
622	Transmission	15
623	Data Gathering Systems	16
624	Car Numbers	16
625	Series Identification	16
626	Tire Rule	16
627	Fuel Rule	17
1601	Rules of the Pits	17
1602	Testing	19
1603	Mufflers	19
1604	Hardship Laps	19
	Rule Addendum #1 - Traffic; Blocking; Avoidable Contact; Unjustifiable Risk; Shortcutting the Course During the Race	20
	Rule Addendum #2 - Right to Protest;	21
	Protest Rules; Time for Protests; Hearing of Protests	21
	Chin Spoiler Specifications	22

Pacific F2000 CHAMPIONSHIP CAR SPECIFICATIONS

600 VEHICLE ELIGIBILITY

- A. The Pacific F2000 Championship is a series of events for Formula Ford 2000 racing cars. It is intended to provide close competition at reasonable costs in purpose built racing cars.
- B. The series is open only to Formula Ford 2000 registered cars as defined in these regulations.

601 DESIGN - CONSTRUCTION - MATERIAL APPROVAL - TESTING

All phases of design and construction for any cars competing under these rules are subject to the approval of the Technical Committee. The Technical Director may disallow approval for competition and/or exclude any car, design, construction or repairs to a damaged car which he deems dangerous or not meeting the specifications contained herein. All car manufacturers are urged to submit designs, plans and any other pertinent details of new car construction, prior to any contemplated competition, for approval. Wherever alternate equivalent in strength materials are indicated within these specifications, it shall be the responsibility of the car manufacturer (or in the case of car damage repair and/or car modifications, the designer/fabricator), to certify that any substitute materials are equal to or exceed the strength of the defined material specifications. Where required within these specifications, it is the manufacturer's responsibility to conduct any and all tests in order to certify compliance.

- A. Any modification to the race car or engine is strictly prohibited, unless stipulated in the rule book, or permitted by the Technical Director.
- B. It is the responsibility of the entrant to confirm the legality of all specified parts and/or dimensions. All discrepancies should be discussed with series officials prior to making any adjustments.

602 INSPECTIONS - TECHNICAL, SAFETY AND POST RACE

- A. All entrants must have an annual tech inspection prior to competing in any official event.
- B. Any car involved in an accident which removes a car from competition must be inspected and approved by the Technical Director prior to continuing in competition.
- C. The series sanctioning bodies may require additional inspections during the season.
- D. All parts presented for inspection must be thoroughly cleaned and stripped. Decorative chrome plating cannot be used on any parts requiring magnetic inspection.
- E. All parts having been heated and the shape physically changed must be inspected again prior to usage.
- F. This inspection does not guarantee the legality of the car. Cars considered to be of unsafe construction or not complying with regulations may be summarily rejected.
- G. The entrant shall be responsible for performing the disassembly, reassembly and resulting expense for any inspection to confirm car eligibility ordered by the series' Technical Director.
- H. The series Technical Director (in conjunction with the Chief Steward) is the supreme authority in enforcing technical regulations. Their decisions are non-protestable and they have the authority to amend and/or add to the rules, and to make adjustments to car specification on the spot if deemed necessary.
- I. During post-qualifying and post-race inspection, Parc Ferme will be limited to one crew member per car. If there is a question with a car, the crew member will be notified. After Parc Ferme is over, teams will be notified and cars released.

603 CAR SIZE

- A. The overall length of the car will be limited to a maximum of four hundred twenty-one (421) centimeters.
- B. The overall maximum width of the car, as measured from the outer wheel rim, shall not exceed one hundred eighty-eight (188) centimeters.
- C. The minimum wheel base of the car shall be two hundred (200) centimeters.
- D. The minimum tread of the car shall be one hundred twenty (120) centimeters. (This is the distance between the centerline of the front or rear wheels).
- E. The overall weight of the car, including lubricants and coolants that may be contained in the car during any phase of and following any competition, and including the driver, shall be a minimum of 1,230 pounds. Maximum weight of ballast can not exceed 50 lbs. If ballast is utilized to meet these requirements, it must be secured within the main body structure and be approved by the Technical Director. The Technical Committee may impound parts replaced or exchanged during any competition.

Pacific F2000 CHAMPIONSHIP CAR SPECIFICATIONS

604 CAR CONSTRUCTION

I CHASSIS

A. Main chassis 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 mounting on the chassis to the rearmost rear suspension mounting.

B. The chassis must be tubular steel (space frame) construction. Monocoque chassis construction is prohibited.

C. Magnesium and/or Titanium in chassis construction is prohibited.

D. Stress bearing panels are defined as sheet material affixed to the frame by welding or bonding, or by bolts, screws, or rivets located closer than 15.24 cm (6 inches) center to center.

E. The use of composite materials such as carbon fiber or Kevlar is prohibited, except as specifically authorized within these rules.

F. All cars must incorporate an underpan which is stress bearing and extends from the front bulkhead to the rear roll hoop with a maximum deviation of 1 inch. Openings in the underpan are not permitted. This pan must also form the interior floor of the cockpit. Removable panels consisting of heel rests and equipment covers will be allowed but are subject to approval by the Technical Director.

G. Ground clearance/ride height - unrestricted.

H. The mountings for brake and clutch pedals and cylinders, and for the instrument panel and the bulkhead behind the driver, may be stress bearing.

I. No other stress bearing panels, including body panels, are permitted.

J. For all cars, surface contact blocks utilized on the bottom of the chassis must be installed with fasteners recessed above the bottom reference plane. Each block shall be of non-deformable materials. This material may not produce sparks and may not cause particles to be directed towards other cars during competition.

These bottoming blocks or rubstrips shall be mounted in only two (2) planes as follows:

1. Those mounted parallel to the longitudinal centerline of the chassis shall consist of no more than six (6) strips, whose dimensions shall not exceed 12 inches in length, 1 inch in width and 1/2 inch in height. These strips shall not be mounted closer than 6 inches to each other.

2. Those mounted 90° (laterally) to the centerline of the chassis shall consist of no more than three (3) strips. The dimensions of these lateral strips shall not exceed the chassis width at the point of attachment, nor exceed 2 inches in fore-aft length and 1/4 inch in height from the car's flat bottom. These lateral strips may fit in any proximity to the longitudinal strips.

3. The use of two bottoming blocks on the rear undertray is permitted for the sole purpose of preventing under-tray/diffuser wear against the ground. These bottoming blocks must be between 1.0 and 1.5 inches square and must be a maximum of .500 inches in thickness.

K. Cars must have a protective bulkhead of non-flammable material between the engine and the driver compartment capable of preventing the passage of fuel or flame in the case of a fire. Gaps must be sealed with a fireproof material.

L. The soles of the driver's feet shall not extend beyond the front edge of the wheel rims (in normal position; i.e. pedals not depressed) and shall remain behind the front bulkhead.

M. There must be a crushable structure, securely attached to the front bulkhead, with a minimum cross section of 200 sq/cm, 40 cm forward of the clutch and brake pedals (not depressed), constructed of a minimum of 18 gauge 6061-T4 or equivalent aluminum. Radiators may be incorporated in this structure.

N. The lower main frame rails must be a minimum of 25 cm apart (inside dimension) from the front bulkhead to the rear rollbar.

O. The area between the upper and lower main frame tubes from the front roll hoop bulkhead to the rear roll bar bulkhead must be protected by one of the following methods to prevent the intrusion of objects into the cockpit:

1. Panel(s), minimum of either 1.5 mm (.060 in.) heat-treated aluminum (6061 T6 or equivalent) or 18 gauge steel, attached outside of the main frame tubes.

2. Reinforced body, at minimum, consisting of a double layer, 141.75 grams (5 oz.), bi-directional, laminated Kevlar material incorporated into this area of the body only.

Pacific F2000 CHAMPIONSHIP CAR SPECIFICATIONS

II BODYWORK/COACHWORK

- A. Fixed external: "side, front, rear and top surfaces of the vehicle licked by the air stream" shall serve as the official definition of this term.
- B. All cars must be fitted with bodywork including a driver compartment isolated from the engine, wet batteries, gearbox, transmission shafts, brakes, 4 road wheels, fuel tanks, oil tanks, water lines, water radiator reservoir and catch tanks.
- C. A sealed battery can be located inside the driver compartment.
- D. Bodywork must not be used as a stress bearing panel.
- E. The body must be securely fastened to the frame. The material used for the chassis braces in this area must be at least equivalent to the roll bar brace material. For either method, fasteners must be no closer than 15.24 cm (6 in.) center to center (no stress bearing panels).
- F. The use of composite materials using carbon and/or aramids (i.e. Kevlar) reinforcement is prohibited, except as permitted herein.
- G. Maximum height of bodywork/coachwork, is 94 cm (37 in.) including engine air box, measured from the bottom of the chassis as determined by the chief steward. Addition of material to the roll bar above the 94 cm (37 in.) maximum bodywork/coachwork height is prohibited.
- H. Maximum bare overhang of bodywork/coachwork, including rear airfoils and endplates is 63 cm measured from the rear wheel axis.
- I. Maximum front overhang of bodywork/coachwork, including airfoil, is 100 cm measured from front wheel axis.
- J. Maximum width of bodywork/coachwork behind front wheels is 95 cm.
- K. Minimum lateral cockpit bodywork/coachwork opening 45 cm.
- L. Minimum longitudinal/parallel cockpit bodywork/coachwork opening length is 30 cm.
- M. Minimum longitudinal/parallel cockpit bodywork/coachwork overall opening length is 60 cm.
- N. Skirts, bridging devices, or any form of aerodynamic devices between the chassis/coachwork and the ground are prohibited. Any specific part of the car influencing its aerodynamic performance must comply with rules relating to coachwork, be rigidly secured to the entirely sprung part of the vehicle, and remain immobile in relation to the vehicle.

III AIRFOILS/AERODYNAMICS

- A. Airfoil: "Any device or part of a vehicle (except normal and conventionally styled bodywork) which has a principal effect of creating aerodynamic downforce." Within this definition should be included forward facing gaps or openings in the bodywork, but will not include spoilers in the form of raised surfaces continuous with the body surfaces and not wider than the body surfaces.
- B. It is not permitted to mount airfoils on unsprung parts of the vehicle.
- C. Spoiler: "Any device (splitter, trim fab, etc.) other than an airfoil, fixed as an extra to a vehicle to divert airflow to create an aerodynamic advantage" shall serve as the official definition of this term.
- D. Aerodynamic devices must comply with the rules relating to bodywork/coachwork and must be firmly and rigidly secured to the entirely sprung part of the car. These aerodynamic devices must have no degree of freedom in relation to the entirely sprung part of the car, and must remain immobile in relation to the vehicle at all times.
- E. A spoiler may not be incorporated in the construction of a suspension member.
- F. The use of composite materials using carbon fiber reinforcement is prohibited.
- G. The maximum height of any aerodynamic device must not exceed 90 centimeters, measured from the ground. The minimum height of the uppermost rear airfoil is 75 centimeters. The minimum dimension for the rear wing endplates are 11 inches wide (fore to aft) and 14 inches high (top to bottom).
- H. The maximum width of the rear airfoil must not exceed 95 centimeters, including end plates. The minimum (main element plus secondary element (s)) for the uppermost rear airfoil is 17 centimeters. The minimum width of the rear airfoil is 85 centimeters.
- I. The maximum width of the nose, including front airfoils, must not exceed one hundred forty (140) centimeters. The minimum width of the nose, including front airfoils, must not be less than one hundred twenty-five (125) centimeters. The minimum projected cord length of the front airfoil is twenty (20) centimeters.

Pacific F2000 CHAMPIONSHIP CAR SPECIFICATIONS

III AIRFOILS/AERODYNAMICS - CONTINUED

J. No ancillary aerodynamic devices or bodywork may be used from the trailing edge of the conventional front airfoil to the leading edge of the dash bulkhead. In no cases shall the trailing edge of the front airfoil extend further rearward than the leading edge of the front tire. Any fences or bodywork used in conjunction with the front airfoil must terminate at the leading edge of the main chord.

K. The leading edge of any rear wing element and/or rear wing end plate(s) must be rearward of a vertical plane tangent to the rear of the rear tire.

L. Front and rear wing profiles, including the front flap, must maintain the precise profile as provided by authorized Van Diemen distributors. This rule applies to all chassis manufacturers.

M. Rear diffuser must be standard production. No modifications permitted.

N. Rear wing specifications for ovals:

End plates: Standard 11" x 14" (no modifications allowed)

Upper element: High downforce

Lower element: Standard

Angle of upper element: 20 degrees minimum, 25 degrees maximum (measured from fuel rail)

Set back: 80 cm maximum, trailing edge of rear tire minimum

Height: 75 cm minimum, 90 cm maximum

O. Endplates (inner and outer), flaps, flap mounting brackets and feet must remain standard with the exception of additional adjustment holes for the front wing flaps. No other modifications are permitted. Strakes are prohibited.

P. Front wing main plane supports must be run as delivered by manufacturer. Minimum and maximum front wing angles are open. Wickers on front and rear wings are open as long as they do not extend rearward or forward of the airfoil to which they are attached. No saw tooth wickers are allowed. A Jabbrock or similar material board may be added to Van Diemen nose sections per the following measurements: Measuring from the bottom point of the nose at the point where the nose begins the upward shape, the board can extend six inches. The width of the board can equal the width of the nose at that same point and the radius at the end of the board, or at the end of the six inch extension, can be one inch on each corner.

Q. All rear wing components are spec. You must use standard homologated OEM rear wing struts. The only exception is rear wing endplates, which are now open, provided the OEM airfoil mounting/adjustment holes are utilized and the series number panel fits in its entirety. Wickers on the upper and lower rear wing elements are open. No saw tooth wickers are allowed.

R. Only the Van Diemen high speed upper wing elements are permitted with no modification.

IV. FLAT BOTTOM RULE

A. The underpan, including all sprung parts of the car, must lie on one plane within a tolerance of 0.20 inches.

B. The area of this "flat bottom" is measured from rearward of the vertical plane tangent to the rear of the complete front wheels (including mounted spec tires) to the fore of the vertical plane tangent to the fore of the complete rear wheels (including mounted spec tires).

C. The tolerance of 0.20 inches has been introduced into the rules to cover any possible manufacturing problem and not to permit designs against the spirit of the "flat bottom".

D. No part having an aerodynamic influence and no part of the bodywork may, under any circumstances, be located below the plane produced by the surface of the underpan.

E. Any transverse, longitudinal, or other flexible, retractable, pivoting or sliding device bridging the gap between the body and the road surface is forbidden.

F. All cars competing in the Zetec class must run a 4mm jabbrock or marine plywood 12" long section, measured from the front bulkhead, which can be replaced as a front skid when needed. In addition, holes must be present to ensure that its thickness is not compromised. The plank extending toward the back and ending at the rear floor pan is optional.

G. A deviation of 1.5 mm due to wear will be allowable.

Pacific F2000 CHAMPIONSHIP CAR SPECIFICATIONS

III 605 STEERING AND SUSPENSION

A. The steering and suspension must be engineered and assembled in accordance with sound engineering principles, and shall remain in proper working order during all competition. All Zetec powered chassis must use original suspension or exact replica parts to the original suspension components the chassis manufacturer supplied as per 2002 year and model. Any changes or additions should include engineering drawings and sent to the series administrators for written approval. At the time of approval all series competitors will be notified prior to 30 days before the next event of the expansion or modification of the rules.

B. All Heim-type spherical rod ends used on major suspension and steering components of cars must be retained either by the design of the mounting brackets or by a larger area captive washer, or by the inherent mechanical design of the unit (Circlip or Messerschmidt joints).

C. All suspension parts must be of steel or ferrous material, with the exception of hubs, hub-adapters, hub-carriers, bearings and bushes, spring caps, abutment nuts, anti-roll bar links, shock absorber caps, nuts, and bellcranks.

D. Springs are to be steel only and spring rates are open for both Zetec and National cars.

E. Titanium is prohibited. The use of composite material using carbon and/or Kevlar is prohibited.

F. It is not permitted to incorporate a spoiler in the construction of any suspension member.

G. It is not permitted to construct any suspension member in the form of an airfoil. The shape of suspension members must be symmetrical about its horizontal axis.

H. Suspension may not be offset. Track must be equally disposed to the longitudinal centerline of the chassis within a tolerance of +/- .250 inches. The tolerance has been introduced into the rules to cover any possible oval set-up (i.e. different camber settings) and not to permit designs to have "offset suspension."

I. Dampers:

1. A maximum of one damper per wheel is allowed. Electronic, hydraulic, or mechanical devices that allow the driver to adjust the ride height or corner weights are not allowed. A third spring, damper or other device whose primary purpose is to control ride height, other than in roll or one wheel bump, will not be permitted.

2. All cars competing in the Zetec class must use series mandated Dynamic Suspensions dampers. The damper is a 3-way sealed unit, which must be bought and serviced by Carl Haas Automobile Imports, Inc.

3. Dampers are free for all classes other than the Zetec class. Aluminum housings are permitted.

4. Dampers must be used at a length as specified by Dynamic Suspensions.

Front length: 320mm measured from the center of each eyelet +/- 1mm

Rear length: 286mm measured from the center of each eyelet +/- 1mm

5. Bump rubbers and packers are prohibited.

J. Steering is unrestricted, except only the front wheels shall be affected.

K. Removable steering wheels, as approved by the Technical Director, are mandatory.

L. The following guidelines and procedures are strongly recommended. However, manufacturers and fabricators should anticipate that these shall become mandatory in the future.

1. All highly stressed steering and suspension parts must be made from SAE 4130 steel or an alloy specified by the manufacturer of the alloy as equivalent in physical properties. Front and rear uprights may be made of magnesium alloy or an aluminum alloy.

2. The front suspension upper and lower wishbones must have a connecting link between the front and rear legs of the wishbone to assist in preventing protrusion into the chassis structure in the event of a side impact.

3. All such parts must be heat treated (i.e. stress relieving, normalizing, annealing and hardening when applicable) after forming and/or welding as recommended by the stress level imposed.

4. Parts may not be joined by brazing, soldering or by dissimilar metals.

5. All steering and suspension parts that are electroplated must be oven-baked at a temperature of 375 degrees Fahrenheit, plus or minus 25 degrees, for a period of not less than three (3) hours after plating.

Pacific F2000 CHAMPIONSHIP CAR SPECIFICATIONS

III 605 STEERING AND SUSPENSION - CONTINUED

6. Parts that have been stripped of plating must also be baked according to the specifications in 105 (E), unless parts are to be reprocessed within a three (3) hour period.
 7. Shot peening is recommended for all highly stressed parts. Authorized facilities should be used.
 8. The steering wheel hub must be padded with a resilient material of not less than three quarters (3/4) inch thickness.
 9. The steering shaft must be constructed in a manner to restrict its rearward movement in the event of frontal impact.
- M. All 1998 and newer Van Diemen cars competing in the Zetec class must use Van Diemen manufactured front anti-roll bars equal to 7/8" or 5/8" diameter and Van Diemen manufactured rear anti-roll bars equal to 5/8" or 1/2" diameter. The approved Mygale front and rear anti-roll bars are 10 mm and 14 mm and can be used in front or rear in any combination. Only standard drop links, front and rear, are permitted. Steering dampers are not allowed. The rear suspension A-Arm mounting points on the Mygale Chassis have several locating options. The approved position for the top rear may be the #1 or #2 position from the top and the lower option is the #2 or #3 option from the bottom.
- N. Suspension bushings (hats, spacers) used in conjunction with dampers, push-rods, anti-roll bars and bellcranks must remain standard with no modification, with the exception of surfacing the outer face of the bushing for fitting into its specific location.
- O. The use of ceramic wheel bearings is prohibited, the wheel bearing must be standard Van Diemen or Mygale, as supplied by an authorized distributor.
- P. Regardless of chassis manufacturer or number of cockpit adjustable sway bars included, only the front bar can be cockpit adjustable. Rear bar cockpit adjusters must be disconnected.

606 BRAKES

- A. Cars must be equipped with a dual braking system which will operate the brakes effectively on all four wheels.
- B. If at any time during a competition it becomes evident that a car is without brakes, the necessary repairs must be completed before the car can continue in the competition.
- C. Brake calipers are required to be made of ferrous material. Light alloy brake calipers are prohibited. Use of titanium is prohibited.
- D. Carbon fiber brake rotors are prohibited. Brake rotors must be of ferrous material.
- E. It is strongly recommended that all brake lines be of stainless steel and that flexible lines be high pressure Teflon lines.
- F. All cars competing in the Zetec class must use series mandated Performance Friction Zetec brake pads. The only legal compounds are 93, 01, 03 and 05.

607 WHEELS

- A. All cars must not have more or less than four road wheels and must not be fitted with any wheel spacer exceeding 1 inch in thickness or of less than hub diameter. Multiple or laminated spacers are prohibited. Spacers and wheel offset shall be equal from side-to-side.
- B. All Van Diemen chassis must use OZ racing wheels, purchased from an authorized Van Diemen distributor. Alternative wheels may be used for wet weather tires. All other chassis may use alternative manufacturers providing they meet all other criteria (see 607 C below)
- C. Wheel diameter is 13 inches with maximum front width of 8 inches and rear of 10 inches. Material is free provided the minimum front wheel weight is 12 lbs. and rear is 12.5 lbs net of the tire.
- D. Standard production steel passenger car wheels will not be permitted. Fabricated and/or split rim wheels must have the specific approval of the Technical Director.
- E. The wheel rim section may be required to withstand a minimum hydrostatic burst test of 250 p.s.i.
- F. Wheel manufacturers may be required to submit a certified test report from an independent testing laboratory showing dynamic radial fatigue and dynamic cornering fatigue test. All tests must meet or exceed specifications.
- G. All wheel balancing weights must be securely fastened.

Pacific F2000 CHAMPIONSHIP CAR SPECIFICATIONS

607 WHEELS - CONTINUED

- H. Wheel Nuts - The use of a positive type wheel nut locking device, is required on all wheels during any event.
- I. Loss of a wheel during any competition will reflect on the car's crew chief/team manager and may result in a penalty.
- J. The inner diameter of the front and rear wheel assemblies must remain open. Devices for the purpose of aiding aerodynamics in the inner front and rear wheels are not permitted.
- K. The use of wheel covers or inserts is prohibited.
- L. The use of automatic wheel pressure relievers or regulators is prohibited.

608 OIL SUPPLY

- A. The entire engine lubricating system must be of the dry sump type.
- B. Oil may not be added to the engine supply during a race.
- C. Loose containers of oil may not be carried in the car.
- D. It is recommended that all oil lines should be stainless steel hoses with fuel and oil resistant innerliners and "B" nut connectors.

609 CATCH TANKS

- A. Oil catch tanks must be fitted to the engine and transmission breathers venting to the atmosphere in such a way as to prevent oil from spilling on the track. Required minimum capacity is 1 liter.
- B. Fuel tank vents-to-atmosphere must pass into the above catch tank, or must have its own reservoir.
- C. A separate catch tank for the radiator coolant overflow is required to prevent the spilling of liquids. A closed recovery system is highly recommended.
- D. Catch tanks shall be made of either a translucent material or include a transparent panel or gauge in order to facilitate checking its contents.
- E. Catch tanks must be readily capable of being emptied.

610 FUEL SYSTEM

All cars are required to have an approved safety fuel cell. Safety fuel cells shall consist of a fuel bladder enclosed in a container as follows:

A. Fuel Bladder:

1. Materials

Bladders shall be constructed of nylon or dacron woven fabric impregnated and coated with a fuel resistant elastomer.

2. Physical Properties — Mandatory Minimum Standards

Tensile Strength — 450 lbs. — Spec. CCC-T-191-b Method 5102

Tear Strength — 50 lbs. — Spec. CCC-T-191-b Method 5134

Puncture test — 175 lbs. — Spec. Mil-T-6396 Article 4.5.17

The above physical properties must be maintained throughout all areas of the finished bladder, including seams, joints and fittings.

3. Physical Properties — Recommended Standards

It is recommended that all cars constructed after January 1, 1994, utilize fuel cells meeting the following specifications.

Bladder material should possess the following minimum properties throughout its useful life:

Constant rate tear - 100 ft/lbs: Crash Resistant Fuel System

Specifications No. 102, para. 4.3 1.4.3.1.

Puncture Test - 300 lbs: Spec. Mil-T-6396D, Para 4.6.17

Fitting pullout strength - not less than 80% of the insert wall tensile strength.

Seam strength - not less than 80% of the insert wall tensile strength.

4. Fittings

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

Pacific F2000 CHAMPIONSHIP CAR SPECIFICATIONS

610 FUEL SYSTEM - CONTINUED

5. Approval

Only those bladders produced by manufacturers specifically approved shall be allowed.

Safety fuel cells currently approved are as follows:

Aero Tec — Fluorathane, ATL 100, ATL 421D, ATL 426C, ATL 444C, ATL 501A, ATL 510B, ATL 512D, ATL 514D, ATL 565

Goodyear — BTC 60-3

Donn Allen — Impregnated Ballistic Nylon

FPT Industries — Hycalam FPT/PF/507

Lifeline Industries — Hycalam FPT/PF/507

Safety Fuel Cell

Pyro-Guard — Safety Fuel Cell

Firestone — Racesafe

Fuel Safe — Impregnated Ballistic Nylon

Autodelta — No foam required

Simpson — Racesafe Type A-100, American Safety

Systems, Racers Hardware

Marston Excelsior LTD

Premier Fuel Systems

Woodville Rubber Company LTD

Fuel Bladders, Inc.

Phoenix Fuel Systems

Fuel Safe, Inc. Cells

Aero Tech Service — Bladders

B. Container:

The fuel bladder shall be completely surrounded by a container (which may also be a part of the structure of bodywork of the car) to ensure rigid and secure mounting of the bladder and provide additional protection. A minimum of 20-gauge steel, 0.062" aluminum or an approved equivalent is required for all vehicles.

Fuel cells shall not be installed any closer to the ground than six (6) inches unless enclosed within the required stress bearing underpan and side intrusion panels.

C. Foam:

Foam internal baffling is required. This foam material shall fill all internal space within the fuel cell while not impeding the function of other fuel system components.

D. Tank Fillers, Caps and Vents:

Fillers and caps must not protrude beyond the bodywork. Caps must have an efficient locking action. Air vents must vent into an overflow catch tank, and must incorporate a positive check valve in the event of inversion or impact.

E. The maximum capacity of the total fuel system shall be 10.82 US gallons. The fuel supply must be contained in a single fuel cell located directly behind the driver.

611 ROLL BAR STRUCTURE

Roll bars are required in all cars. Specific installations are subject to approval by the Series Technical Director at each event. These specifications apply to all vehicles.

A. Basic Design Consideration:

1. The basic purpose of the roll bar is to protect the driver if the car turns over, runs into an obstacle such as a guardrail or catch fence, or is struck by another car. It must be designed to withstand compression forces from the weight of the car coming down on the roll-over structure and to take fore/aft and lateral loads resulting from the car skidding along the ground on its roll-over structure.

2. A system of head restraint to prevent whiplash and prevent the driver's head from striking the underside of the main hoop must be installed on all vehicles. The head restraint must be padded with a non-resilient material. The head restraint must be capable of withstanding a force of 200 lbs. in a rearward direction.

Pacific F2000 CHAMPIONSHIP CAR SPECIFICATIONS

611 ROLL BAR STRUCTURE - CONTINUED

3. Forward braces and portions of the roll bar subject to contact by the driver must be padded with non-resilient material.

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

5. Roll bar or chassis design must prevent intrusion into the driver compartment.

6. Minimum length/height of the safety roll-over bar is 92 centimeters measured in line with the driver's spine. There is no maximum height measurement.

7. The top of the driver's helmet must be below an imaginary line drawn between the top of the roll bar and the top of the bulkhead.

8. Minimum clearance between top of driver's helmet and top of roll bar is 5 centimeters.

B. Material:

1. Seamless, DOM mild steel tubing, or alloy steel tubing must be used for all roll cage structures.

2. An inspection hole at least 3/16 inch in diameter must be drilled in a non-critical area of the roll cage hoop to facilitate verification of wall thickness.

C. General Conditions:

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

2. All welding must be of the highest possible quality. Alloy steel must be normalized after welding.

D. Material Specifications:

Mild Steel	Alloy Steel	Forward & Rear Brace
------------	-------------	----------------------

1.375 x .095	1.375 x .080	1.000 x .080
--------------	--------------	--------------

E. Main Hoop:

Main hoop (behind the driver) must be in the full width of the cockpit.

F. Front Hoop:

The front hoop may be a low hoop (near the dashboard, but at least as high as the top of the steering wheel rim).

G. Bracing:

1. All required bracing must be of the same diameter and wall thickness as listed in 611 D. above.

2. All cars must have two (2) braces extending forward from the main hoop, attaching to the frame or front hoop. This bracing may be supplemented by rear bracing. Forward and rear bracing must be attached as near as possible to the top of the main hoop and at an included angle of at least 30 degrees. The driver's shoulders and torso must be protected by this bracing.

H. Front Hoop Bracing:

There must be two (2) braces extending forward from the front hoop to protect the driver's legs. They must be integrated into the frame or chassis to provide substantial support for the front hoop.

I. Exceptions:

Any roll cage design which does not comply with the specifications in 611D and 611G will only be considered if it is accompanied by engineering specifications signed by a registered engineer.

The specification must show the ability to withstand three (3) simultaneously applied loads:

1.5 G Lateral

5.5 G Fore and Aft

7.5 G Vertical

612 DRIVER'S RESTRAINT SYSTEM

A. All drivers in the series must utilize a six (6) point restraint harness meeting the following specifications at all times during practice, qualifying and the race. The restraint system installation is subject to approval of the Series Technical Director.

B. The six-point system must consist of a three-inch (3") seat belt, three-inch (3") shoulder straps, and two each two-inch (2") anti-submarine straps.

C. The material of all straps shall be nylon or dacron polyester and in new or perfect condition. The buckles must be of metal-to-metal quick-release type except in the case of leg straps where they attach to the seat belt or shoulder harness straps.

Pacific F2000 CHAMPIONSHIP CAR SPECIFICATIONS

612 DRIVER'S RESTRAINT SYSTEM - CONTINUED

- D. The shoulder harness shall be the over-the-shoulder type. There must be a single release common to the seat belt and shoulder harness.
- E. The shoulder harness shall be mounted behind the driver and the shoulder harness shall be attached so that the angle between a line drawn through the driver's spine and the shoulder harness is 90 degrees. Harness attachment points should not be more than 2 inches from this point.
- F. Only separate shoulder straps are permitted. (Y-type shoulder straps are not allowed.) "H" type configuration is allowed.
- G. The double leg straps may be attached to the frame, floor pan, or be attached to the seat belt so that the driver sits on them, passing them up between his legs and attaching either to the single release common to the seat belt and shoulder harness, or attaching to the shoulder harness straps. It is also permissible for the leg straps to be secured at a point common to the seat belt attachment to the structure, passing under the driver and up between his legs to the seat belt release or shoulder harness straps.
- H. All straps must be free to run through intermediate loops or clamps/buckles.
- I. The minimum acceptable bolts used in the mounting of all belts and harnesses are SAE Grade 5. Where possible, seat belt, shoulder harness and anti-submarine strap(s) should be mounted to the roll structure or frame of the car. Where this is not possible, large diameter mounting washers or equivalent should be used to spread the load. Bolting through aluminum floor panels, etc., is not acceptable.
- J. It is recommended that driver restraint systems be replaced every three (3) years. Mandatory replacement is required at the end of the fifth year from date of manufacture.
- K. Arm restraints are mandatory for use during all competition.

613 ELECTRICAL MASTER SWITCH

- A. All cars in the Series must be fitted with a master circuit switch which must cut all electrical circuits (ignition, fuel pumps, alternator, lights, battery, etc., but not the fire extinguisher system). It must be clearly marked by a spark symbol on a blue triangle. It must be easily accessible from outside the car and be near the right main roll bar tube at approximately driver's shoulder height.
- B. Cars must be equipped with an engine cut-off switch, easily accessible to the driver, when normally seated.

614 LIGHTS

All cars in the Series must be equipped with a red taillight of at least 15 watts. This light must be mounted as high as possible on the centerline of the car and be clearly visible from the rear. This taillight must be switched on when so ordered by the Chief Steward.

615 FIRE EXTINGUISHERS

All cars must have an on-board Halon 1301 or 1211 fire extinguishing system with the minimum capacity 5 pounds. The bottle must be mounted so that a substantial protective structure surrounds it and will retain the bottle in event of damage. The bottle must be mounted so that it can be removed easily for fully-charged verification by weighing. Nozzle outlets must be directed into the driver compartment but must not be pointed directly at the driver. Another nozzle outlet is required to be located near the fuel delivery system. The extinguisher trigger(s) must be readily visible to a person engaged in rescue work and identified with a red "E" marking. The trigger(s) must be accessible to both rescue personnel and the driver.

616 DRIVER'S EQUIPMENT

Each driver must wear the following equipment in all on-track sessions:

- A. A safety helmet, which has the 2000 SA or later Snell Foundation decal of approval.
- B. Accident damaged helmets should be sent by the driver or his representative to the Snell Memorial Foundation, P.O. Box 493, St. James, NY 11780. Details of the accident should be included.
- C. A full face helmet must be worn by all drivers.
- accepted. Suits must be minimum two-layer and nomex underwear is strongly recommended.

Pacific F2000 CHAMPIONSHIP CAR SPECIFICATIONS

616 DRIVER'S EQUIPMENT - CONTINUED

D. A fire resistant head sock (Balaclava) must be worn by all drivers and driver's hair must be completely covered by fire resistant material.

E. Only one piece driving suits, made of fire resistant material accepted by the sanctioning body, or homologated by FIA, which effectively covers the body including the neck, ankles and wrists will be accepted. Suits must be minimum two-layer and nomex underwear is strongly recommended. Minimum driving suit certifications are SFI 3.2a/5 or higher or FIA 8956-1986 or 8856-2000.

F. Fire resistant underwear is required with double layer suits but is not required with three or more layer driving suits unless the suit so specifies.

G. Socks made of fire resistant material and shoes and gloves made of leather or any approved fire-resistant material containing no holes.

H. It is recommended that any corrective eye glass material used be of safety glass type and meet U.S. Government standards.

I. All drivers are required to remove all dentures before starting an event.

J. The Hubbard Downing HANS (Head and Neck Support) Device is mandatory.

617 MIRRORS

All cars must be equipped with two mirrors providing an unobstructed view to the rear. Each mirror must have a minimum surface of 45 square cm.

618 STARTER

All cars must be equipped with a proper self starter.

619 DRIVER'S SEAT

A. For all oval venues, the driver's seat must conform with his/her anatomy and be constructed of a material that will allow support and energy attenuation both laterally and rearward. This material must fill as much of the cockpit under and to the side of the driver as possible. The seating system must be in place when the car is inspected.

The cockpit rim padding protecting the driver's head should be made of energy attenuating material and should not be further than one inch from the driver's normal seating position. There must be no projections that could provide a fulcrum between the driver's head and neck. Energy attenuating materials must be used behind and along side the driver to absorb impact. At any point where the seat belts and shoulder straps pass through the seat or body structure of the car, the edges must be rolled or have grommets to prevent chafing or cutting of the belt and strap material.

Recommendations:

1. Materials (system) used to construct seats should be high density beads and epoxy resin (vacuum cured). The traditional two-part foam method is not recommended.

2. The point at which the seat contacts the cockpit/chassis tubes should be lined with aluminum or Kevlar to provide additional intrusion protection.

620 BATTERIES and ALTERNATORS

A. All batteries (on board power supply) shall be securely attached to the frame/chassis structure in such a way as to insure that the battery will remain in place.

B. The hot (+) terminals must be adequately insulated on all cars.

C. Battery location is unrestricted within the bodywork.

D. Alternators are required for the Zetec powered cars and alternator belts cannot be removed for racing or qualifying.

Pacific F2000 CHAMPIONSHIP

CAR SPECIFICATIONS

621 ENGINE

I. ZETEC CLASS

A. All cars competing in the Zetec class must use the 2.0-liter Ford Zetec engine. The engine must be built and supplied by series sanctioned Quicksilver Race Engines or Elite Engines. No other suppliers will be recognized.

B. All engines must be installed as delivered and may not be altered in any way. All engines must have the required upper and lower seals.

C. All items attached to engine, including velocity stacks, airbox and air filter must be obtained from the engine builder. The exhaust system must be Van Diemen or Hi-Tech only. All parts attached to the engine must not be modified in any way including sealing or lengthening. The only exception is to coat the exhaust system.

D. The ECU, chassis harness and oil temperature sensor must be obtained from the series office, and may not be modified in any way.

E. The oil line, breather line and water hoses are free.

F. The Series reserves the right to swap the ECU on any registered car before, during or following any official session.

G. Starting 1/1/07 the SCCA approved FC ECU mapping will be used along with the 1.295" restrictor plate available through Buttonwillow Raceway.

II. NATIONAL CLASS (Refer to the SCCA GCR for Pinto Powered Formula Continental cars)

A. General

When referring to these Rules, the principle applied should always be that unless permission is specifically granted to make variations, modifications, or to carry out extra work, nothing can be done. Unless it states that you can do it, you cannot.

1. For the sake of simplicity we have adopted the SCCA GCR rules in total for the Pinto or National engine. As the SCCA adopts and approves new parts we will follow at the same time and with the precise same rules unless you are notified. The same will apply to chassis and aero rules for as they are described in the GCR for the Formula Continental Class.

H. Single and double plate clutches are permitted. For Zetec class, clutches must be Tilton or Quartermaster 7.25" metallic.

I. Carbon fiber and carbon/carbon clutches are not permitted.

622 TRANSMISSION

A. The gearbox must contain not more than four forward gears and include an operable reverse gear, capable of being engaged by the driver in a normal, seated position.

B. The use of automatic and/or sequential gearboxes is prohibited.

C. Electronically assisted gear change mechanisms and electronically controlled differentials are prohibited.

D. Gearboxes with shafts that are transverse to the longitudinal axis of the chassis are prohibited. The sole exceptions are the gearbox final drive (crownwheel) shaft axis and final drive shafts (halfshafts). All change gears must be located in the case aft of the final drive.

E. Gear Ratios:

1. All cars competing in the Zetec class are permitted any combination of the following fourteen ratios: 16-34, 15-30, 16-30, 17-30, 17-28, 18-28, 16-24, 19-27, 20-27, 19-24, 19-23, 24-28, 24-27 and 24-26.

2. Ratios are free for all classes other than the Zetec class.

F. Rear wheel drive only is permitted.

G. Final Drive Ratio:

1. All cars competing in the Zetec class must use a 13-36 ring and pinion.

2. The final drive ratio is free for all classes other than the Zetec class.

H. Torque biasing, limited slip, and locked differentials are prohibited.

I. The differential cannot be modified or influenced in any way to limit or change its normal operation.

J. All Zetec class cars must use the standard Hewland steel differential carrier.

K. The use of titanium is prohibited.

L. The use of ceramic materials or coatings is strictly prohibited.

M. Aluminum or steel tripod housings are accepted.

Pacific F2000 CHAMPIONSHIP CAR SPECIFICATIONS

623 DATA GATHERING SYSTEMS

Chassis/engine data gathering systems are allowed. The data gathering system may only consist of the following: Engine r.p.m., throttle position, steering input, fore/aft and lateral g loads, front wheel speed, E.G.T., suspension travel and brake pressure. The data gathering system must have a separate wiring harness with visible wire tracing ability. Down loading of gathered data on pit lane following the checkered flag is prohibited. The data gathering system may also monitor temperatures and/or pressures of drive train fluids.

624 CAR NUMBERS

- A. All car numbers are assigned by the Series Registrar.
- B. Number 1 is reserved for the National Champion and will not be reassigned. Number 99 is not available (retired number).
- C. Previously assigned numbers will be protected for a designated period of time. All other numbers will be assigned in the order that requests (with registration fees) are received.
- D. After a number is assigned to a particular car and entrant, it will remain with the entrant until the end of the racing season.
- E. Upon completion of a car's first Technical and Safety Inspection of the year, a Registered Car Decal will be affixed to chassis. Upon this decal shall be painted the car's official program number/serial number for that year.
- F. Each car must provide minimum size rectangular "blank space" area in specific designated areas for display of series mandated number boards. The designated area must be a single background color, free of all decals, trim and other decorations.
- G. Series mandated car number decals are required. Number decals may be purchased anywhere, but must conform to the size and style specified by the series. Required number decals must be used on all cars participating in all official timed sessions.

625 SERIES IDENTIFICATION

- A. Series and Series sponsor decals and patches must be prominently displayed on cars and on driver's suits at all times and as specified by Series Officials. Decals, emblems, and patches of conflicting series and events must be removed. Advertising and symbols displayed on the car and driver's suits must be in good taste and should not interfere with identification numbers or required markings. Failure to comply may result in fines, loss of prize money, points, or a combination of penalties.
- B. The driver's name must appear on each side of the car below the cockpit opening.
- C. Sanctioning Body Emblems - All participants will be required to wear Pacific F2000 and Buttonwillow Raceway Park emblems attached in the area over the right front pocket on uniforms worn events.

626 TIRE RULE

- A. A spec tire, the type, size and compound to be announced per circuit, will be the only tire permitted for use in competition unless otherwise specified by the Chief Steward.
- B. It is permissible to re-mark a spec tire for use at a subsequent event.
- C. It is prohibited to utilize a "regrooved" dry/racing slick during competition.
- D. Cooling of tires is permitted in the pit lane provided all materials are quickly cleaned up/removed.
- E. Rain tires are prohibited for use during a "dry" qualifying session.
- F. The addition of any foreign substance (i.e. traction compound) to spec tires is strictly prohibited.
- G. Any method of tire warming (heat blankets, heat guns, ovens, etc.) is prohibited from use at any event.
- H. Tire nomination forms must be submitted to the Technical Director prior to the first qualifying session.
- I. Each car and or competitor is allowed four tires for all timed sessions during double race weekends. That will normally consist of two qualifying sessions and two races. The tires will be either marked by the Chief Steward or serial numbers recorded. The chief Steward can designate a race weekend to be a six tire event where tracks or environmental conditions are considered extreme. An example could be Willow Springs which is known for extreme tire wear, especially in hot conditions. The selection of front and or rear for the additional two tires would be left to the competitor.

Pacific F2000 CHAMPIONSHIP CAR SPECIFICATIONS

626 TIRE RULE - CONTINUED

1. Defective Tires: If the Chief Steward, in combination with the Hankook Representative, rules a tire or tires to contain serious manufacturing defects, a new tire or tires can be installed and the qualifying position maintained. That would be a very rare example and the defect must be obvious and consequential.
2. Damaged Tires: When a tire becomes damaged by puncture, flat spot or any surface, incidental or driver induced event, both the Chief Steward and the Hankook Representative must be consulted so a ruling may be made. The Chief Steward ruling requires input from the Hankook Representative.
3. If the ruling is positive for replacement and ONE tire replacement is allowed, only a used tire can be used and the current qualifying position can be maintained. If more than one tire is damaged and it is ruled that more than one used tire can be replaced, the competitor must start from the last position without exception. If the competitor does not have a used tire the replacements can be obtained from a competitor or from the used tire stack from the tire shop. The Hankook tire supplier will retain four usable used tires to assist in solving damaged tire issues.
4. To prevent a competitor from claiming major problems and asking for four used tires. With the knowledge those four used tires could be like new with scrub miles only, the Chief Steward will ALMOST NEVER allow all four tires to be replaced. The tires approved as replacement tires could be of a lesser quality than the damaged tires.

627 FUEL RULE

- A. Only the brands and grades of fuel established by the Pacific F2000 Series may be used in competition. Sunoco 110 (standard racing gasoline) or Sunoco 112 (supreme racing gasoline), depending on availability, is the required fuel for both Zetec and National cars. No fuel mixing or additives of any kind are permitted. At the beginning of each race weekend, sample(s) of the approved fuel available at the track will be taken and tested. The sample(s) will be on display, with the test results, for comparisons.
- B. All competitors are subject to fuel testing at any time. The sample must be taken directly from the racecar through a required fuel port; or it is permissible to take a fuel sample directly from the fuel cell. Disconnecting any fuel lines to obtain a fuel sample is not permitted. Refusing to provide a fuel sample will result in the disqualification of the competitor; not having adequate fuel remaining after qualifying or a race would be viewed as refusing to provide a fuel sample.
- A. A series official will observe the drawing of fuel and mark the sample bottle with the competitor's car number. A fire bottle must be by the car when drawing fuel and a crewmember must be cognizant of the location. The Technical Director will perform the fuel testing and log all results for review by the Chief Steward. If a significant violation is determined by the Chief Steward the competitor will be disqualified.

1601 RULES OF THE PITS

- At every Pacific F2000 Championship event there shall be a definite place assigned for the accommodation of each competing car's equipment, repairs, fueling and attendants. The car shall remain at this place whenever the car is not actually in competition, with the exception of its retirement from competition, at which time it will be moved to the paddock, if possible.
- A. All personnel in the pit area must be adequately attired (closed-toe shoes, long pants and sleeved shirts) at all times during practice, qualifying and the race. Shorts are permitted in the paddock, unless track rules prohibit them.
 - B. Pit lane is restricted to working crew members only. Spectators and non-essential team members are not permitted. All crew members in the pit lane must at all times display their pit pass and/or verification of registration.
 - C. Push starts prior to the start and during the race are permitted if they do not create a hazard to either the car being pushed or to the personnel pushing the car.
- NOTE: This does not change the requirement that all cars must be equipped with an on-board starter and battery which must be in working order at all times.
- D. Smoking is not allowed at any time in the pits or impound area.
 - E. Auxiliary power (battery assist) may be used at any time except during refueling.
 - F. The starter will not be used as a means of propulsion, either on the course or in the pits.

Pacific F2000 CHAMPIONSHIP

CAR SPECIFICATIONS

1601 RULES OF THE PITS CONTINUED

G. Service Stops

1. When a car stops at its pit at any time during practice, qualifying, or race, only the people listed here maybe over the pit wall in the working pit area: drivers involved in a driver's change, an identified service company representative examining a car's components, and no more than four (4) crew members. Before a car stops in its pit, a fifth crew member supervising the pit stop may be over the wall to signal the driver in. All other personnel and equipment must remain behind the pit wall until the car stops in its pit.
2. The pit stop supervisor must always be in front of the vehicle observing the work being done. Only after the pit stop supervisor has verified that all work has been completed and that equipment has been secured, may he signal the driver out. Collisions in the pit lane will be severely dealt with by the Chief Steward.
3. A maximum of two (2) uniformed crew persons per car will be permitted trackside (in a designated location) for the purpose of signaling during practice, qualifying and racing. Crew members may not go to the signaling area until after the green flag has been displayed. Personnel crossing the pit lane must be kept to a minimum.
4. Each entrant must make his own arrangements for handling gasoline, water and oil in his pit. Spillage and/or careless handling of fuel, water, or oil will not be tolerated and may result in a fine or other penalty being assessed. It is the responsibility of the crew to clean up any fuel, water, or oil spills onto the pit space or pit lane as soon as possible.
5. Refueling
 - a. Refueling during a race is prohibited unless specifically authorized by the Chief Steward.
 - b. Fuel may be added during practice, but refueling is prohibited during a timed qualifying session.
 - c. Addition of fuel (as above) can only be done in the pit lane and is prohibited on the starting grid or racing surface. No spillage will be tolerated.
 - d. When refueling in the pit lane during practice, the engine must be shut off, at least two wheels must be in contact with the ground, and the driver must be out of the car. A crew member or Marshall must be stationed at the car with a fire extinguisher having a minimum capacity of ten (10) lbs.
 - e. Extreme care should be taken in the handling of fuels. Where local requirements are posted, they become a part of the rules. Any individual found violating these regulations will be subject to fine and may be removed from the pit area. The car entrant and/or chief mechanic will be responsible for the actions of his crew.
 - f. Under no circumstances shall fuel be allowed in the pit area, except in approved and authorized refueling containers or tanks, during any portion of an event.
 - g. Any car choosing to line up in pit lane for a restart in any session is restricted to one crew member and a jump battery only. No other work is permitted. Track conditions may prohibit lining up in pit lane and teams will be notified of such prior to the session by series officials.
- H. The entrant shall provide a fire extinguisher in his pit and paddock at all times. It must be in sufficient working order and of adequate capacity and type to combat a gasoline fire (minimum ten (10) lbs. ABC-type extinguisher). The extinguisher is in addition to that which must be carried in the car and in addition to that supplied by the Organizer.
- I. All air bottles/gas cylinders must have a protective structure around their gauges and valves when in the pit area.
- J. Air lines or hoses will not be permitted outside of the car's assigned pit area.
- K. Any driver, who leaves his assigned pit with air hoses, fuel hoses, or air impact wrenches attached or hanging from his car, or has any tools left loose in or on his car, will be assessed a detention penalty.
- L. Any driver, who allows either of the rear wheels of his car to pass over or under any air hose while entering or leaving his pit, will be assessed a detention penalty.
- M. Any crew chief responsible for leaving tools or equipment which are run over by his, or another car, may be penalized or fined.
- N. Booms (overhead equipment holders) are not permitted.
- O. Additional pit equipment rules may be provided for in the supplementary regulations or by a bulletin. The Stewards are empowered to penalize any car, if in their opinion the pit equipment rules are violated. The decision to penalize is not protestable.

Pacific F2000 CHAMPIONSHIP CAR SPECIFICATIONS

1601 RULES OF THE PITS - CONTINUED

P. The driver only may repair the car on the course. He may walk to and from the pits to obtain parts and equipment, must not receive any physical assistance.

Q. The Series Chief Steward may order any car removed from the course which, in his judgment, constitutes a hazard to other competitors because of insufficient speed, fluid spillage, or any other reason.

R. Cars removed to the paddock area from the course or the pits shall be ineligible to return to the qualifying session or race in progress, except as noted in "U" below.

S. All major body components should be maintained in normal positions throughout the competition. In the event that loss of bodywork is a safety hazard, the car may be black-flagged. Cars competing in a race with bodywork missing may be penalized if the loss is a performance advantage.

T. No tool which may cause sparks or a high temperature will be allowed in front of or inside the pits.

U. If an entrant desires to perform work on the car which would cause sparks or a high temperature, he may request specific permission from the Series Chief Steward to remove the car to the rear of the pits for that purpose only, and then must be accompanied at all times by a Technical observer.

V. Pit Assignment

Pit boxes will be assigned by series staff at all events. Assignment will be by driver points; multiple car teams will be assigned by the highest individual driver. Final determination will be by series staff.

W. Pit carts, trolleys, 3-wheelers, tubs, etc. must be clearly marked with race car number and series for easy identification.

X. Pets are prohibited in the pits, but are permitted in the paddock, unless prohibited by track regulations. Where permitted, they must be leashed to an adult with a three-meter maximum line or enclosed in a vehicle. Owners will be fully responsible for their pet's actions and liability arising therefrom.

Y. Upon the signal of a series official, cars in line in pit lane to enter the track must immediately proceed onto the track and accelerate to a safe speed. Any driver unable to obey the official's instructions must immediately take action to pull out of line or notify an official of his problem. At no time will delays or slow pit speed be tolerated which, in the opinion of pit lane officials are being done to gain clear track by creating a gap, thereby delaying the line of cars behind.

Z. Unless otherwise advised at the drivers meeting, all cars, pit cars, equipment, tools, spare components and all crewpersons must vacate the pit lane no later than five (5) minutes after the checkered flag is first displayed at Start/Finish line.

1602 TESTING

During scheduled race weekends participants may not enter additional classes unique to the specific event on the same series weekend to gain additional track time.

1603 MUFFLERS

All Zetec powered cars must use the series mandated mufflers when an event is designated a muffled race by the Chief Steward. National car's mufflers are open as long as the sound limitations for the event are met. The Pacific F2000 National Series is open to all F2000 chassis manufactured in 1987 or later which use the Ford Pinto or National as described in the 2005 SCCA GCR for Formula Continental cars.

1604 HARDSHIP LAPS

Hardship Laps will be administered in the following manner:

A. Hardship Laps will only be allowed when they do not interfere with the schedule of the event, and the controlling sanctioning body permits them.

B. In order to justify the need for a Hardship Lap, the Crew Chief must provide the Technical Director with a detailed account of the problems incurred, and why the situation cannot be dealt with in the scheduled practice and qualifying sessions.

C. The decision to award a Hardship Lap will be made by the Chief Steward, with input from the Technical Director.

D. Each car/driver may use a maximum of one (1) Hardship Lap per race weekend, and a maximum of three (3) Hardship Laps per season.

E. On road courses, Hardship Laps will only consist of one lap (out-and-in). On ovals, Hardship Laps will consist of an out lap (past Start/Finish) then in. Failure to follow the directions of the Chief Steward regarding the completion of the Hardship Lap will result in a fine of up to \$1000.

Pacific F2000 CHAMPIONSHIP CAR SPECIFICATIONS

Pacific F2000 Rule Addendum #1

TRAFFIC. Any lapped or about to be lapped driver failing to yield to an approaching competitor will be presented with a blue flag. Failure to immediately give way will result in a black flag or other penalty. Judgmental decisions by the Officials in this regard are not subject to protest or appeal.

BLOCKING. We have a "no move" policy regarding blocking. The failure of a driver to acknowledge the presence of other competitors, yield to lapping competitors, or alter the racing line based upon the actions of pursuing competitors is not allowed. The use of an abnormal racing line to inhibit or prohibit passing is not allowed. Drivers suspected of violations may be given a warning (furred) black flag. Violations will be penalized by a stop and go black flag penalty, positions or other penalties. Drivers "weaving" for the purpose of blocking will be given an immediate black flag along with a ten second penalty. Judgmental decisions by the Officials in this regard are not subject to protest or appeal.

AVOIDABLE CONTACT. Any driver who in the opinion of the Officials initiates avoidable contact which results in the interruption of another competitor's lap time or track position may be subject to a minimum of a black flag drive-through penalty. Should the contact result in the immediate retirement of the other competitor, a black flag stop and hold penalty may be assessed. Additional loss of points penalties may be assessed at the conclusion of the race. Judgmental decisions by the Officials in this regard are not subject to protest or appeal.

UNJUSTIFIABLE RISK. Any action that represents an unjustifiable risk or reckless endangerment, in the opinion of the Officials, will result in the assessment of penalty(ies). Judgmental decisions by the Officials in this regard are not subject to protest or appeal.

SHORTCUTTING THE COURSE DURING THE RACE. During the race, any advantage or position gained during an off-course excursion (four wheels off of the racing surface) must be relinquished. Any reported shortcut or off-course excursion that, in the opinion of the Officials, improves a driver's position during the race will result in a black flag penalty. Event-specific instructions that pertain to shortcutting the course may be issued as conditions warrant.

UNSAFE CONDUCT IN PIT AND PADDOCK. Possible fine of \$200 to \$1,000 and/or probation. Offending person or team may be required to leave premises.

UNSPORTMAN LIKE CONDUCT. Possible fine of \$200 or \$1,000 and/or probation or suspension.

Pacific F2000 Rule Addendum #2

RIGHT TO PROTEST. Pacific F2000 entrants, via their Team Managers, may file a protest and such protests may only be filed based on arguments bearing substantial nexus on the outcome of qualifying or the race.

Pacific F2000 shall appoint three (3) Protest Judges for each event, one of which is the Chief Steward. They shall be independent and not involved as competitors or event participants.

Matters involving action taken against an entrant may only be protested by that entrant. Pacific F2000 shall not accept protests regarding matters specifically stated in this Rule Book as not subject to protest or appeal.

Failure to file a protest within 30 minutes of the posting of Official Results constitutes a waiver by the Team Manager of the entrant's right to protest or appeal.

Pacific F2000 CHAMPIONSHIP CAR SPECIFICATIONS

Pacific F2000 Rule Addendum #2 - CONTINUED

PROTEST PROCEDURES. Protests shall be submitted to the Chief Steward in writing and signed by the Team Manager of the protesting entrant. Upon receipt of a protest, the Chief Steward shall withhold any award which may be affected by the outcome of the protest until the protest has been finally adjudicated in accordance with the Rule Book.

Each protest shall be accompanied by a protest fee of five hundred dollars (\$500) of which two hundred fifty dollars (\$250) shall be returned to the protesting party if the protest is ultimately sustained.

The protest shall identify the specific action, conduct or ruling being protested.

The Protest Judges shall review each protest submitted in order to determine if the matter is properly subject to protest. Any protest which the Protest Judges determine does not comply with the procedures set forth in the Rule Book shall be dismissed. A decision to resolve a protest is final and may not be appealed.

TIME FOR PROTESTS. Protests must be filed within the applicable time period as follows:

Protests pursuant to a race competition must be filed within thirty (30) minutes of the posting of official race results.

Protests pursuant to qualifying must be filed within thirty (30) minutes after the posting of the official qualifying results.

Protests against any acts or omissions of drivers, entrants or any other Pacific F2000 member must be filed within thirty (30) minutes after the posting of the official results for the applicable portion of the event.

Protests against any rules infraction must be filed within thirty (30) minutes of notice of the infraction.

The time limitation for protesting shall commence immediately from the time the results for the applicable portion of the event are posted at the Pacific F2000 Competition Office.

HEARING OF PROTESTS. Protests shall be heard by the Protest judges at a protest hearing. The Protest Judges may participate in protest hearings remotely via conference call. The time for the hearing shall be set by the Protest Judges. The protesting party and all other interested parties, as determined by the Protest Judges, shall be notified of the time and place of the protest hearing as soon as possible.

Only Team Managers may represent protesting entrants during a protest. Protesting parties may not be represented by legal counsel. Failure of the protesting party to appear at the time and place set for the protest hearing shall result in immediate dismissal of the protest and Pacific F2000 shall retain the protest fee.

The Protest Judges shall regulate the course of the protest hearing. The protesting party and Pacific F2000 shall each have a maximum of thirty (30) minutes to present their case and may submit any evidence related to the action, conduct or ruling being protested. Other interested parties may be heard at the Protest Judge's discretion. There shall be no right of cross examination at the protest hearing, nor shall the proceedings be recorded. The protest hearing shall not be subject to any formal rules or evidence or procedure.

The Protest Judges must make a decision within twenty-four (24) hours after a protest hearing. The decision shall be written and shall be communicated to the protesting party.

Pacific F2000 CHAMPIONSHIP CAR SPECIFICATIONS

PACIFIC F2000 SERIES CHIN SPOILER SPECIFICATIONS

