

# NEW ZEALAND SLOT CAR ASSOCIATION INC.



## 2013 1/32<sup>nd</sup> Scale Rules.

**These rules to be read in conjunction with the General Rules.**

### **A. General:**

- A1. a.** N.Z.S.C.A. Championship meetings will be run for the following classes.

**New Zealand Championship,** Class 1 Open, Class 2 Group 12/15, Class 3 Standard Parma International 32 16D, Class 4 Junior Group 12/15, Class 5A Production Amateur (Falcon) and Class 5E Production Expert (Falcon).

A competitor may compete in any two classes within the New Zealand Championship, both Class 5A and Class 5E will run together as one class, except for Class 5A enclosed Sports and Class 5E Grand Prix which will run separately.

#### **Classes:**

#### **Categories:**

1.	Open.	Sports	Grand Prix	Saloon
2.	Group 12/15.	Sports	Grand Prix	Saloon
3.	Standard Parma International 32 16D.	Sports	Enclosed Sports	Saloon
4.	Group 12/15 Junior Championship.	Sports	Enclosed Sports	Saloon
5A.	Production Amateur (Falcon)	Sports	Enclosed Sports	Saloon
5E.	Production Pro (Falcon)	Sports	Grand Prix	Saloon

- b.** Sports car bodies are defined as:
- Open Cockpit Sports Cars such as Can Am types
  - Group C or IMSA type Closed Sports Cars
  - Closed or Open Cockpit type GT Cars
- Enclosed Sports Car Bodies are defined as:
- Group C or IMSA type closed sports cars.

- c.** Within the Class 3 Championship there shall be a Junior Championship, open to all entrants in the Class 3 Championship who are still attending either Primary or Intermediate up to and including Year 8. The highest placed driver who fits this criterion shall be the New Zealand Class 3 Junior Champion.
- d.** Within the Class 3 Championship there shall be a Intermediate Championship, open to all entrants in the Class 3 Championship who are attending High School, Year 9 and up, including drivers who shall turn 18 during the year of the championship meeting. The highest placed driver who fits this criterion shall be the New Zealand Class 3 Intermediate Champion.

- e. Within the Class 5A Championships there shall be a Novice Championship, open to all entrants in the Class 5A Championship who are competing at their first Championship. The highest placed driver who fits this criterion shall be the New Zealand Novice Champion.
- f. The Class 5A Championship shall be open to any driver entering in their first or second year at a 32<sup>nd</sup> Scale Nationals.

Racers who have won a NZSCA 1/32<sup>nd</sup> National racing title are not eligible for racing in Class 5A Amateur at a National level.

- g. The Class 4 Championship shall be open to any driver up to and including drivers who shall turn 18 during the year of the championship meeting.  
If insufficient numbers are entered to run this class on its own, then it will be included and run within the Class 2 Championship.

- A2. Anyone who will be 14 years and over during the racing calendar can race at all meetings for that season. If any club decides that they have younger members of a suitable ability to compete at N.Z.S.C.A. events, they have the right to write to the Executive Committee for dispensation. These drivers must be supervised by a senior driver.
- A3. The N.Z.S.C.A Executive Committee will appoint a Chief Steward for each association meeting. The Chief Steward will control the running of that meeting in accordance with current N.Z.S.C.A. rules.
- A4. Information regarding Championship events should be sent to all the NZSCA clubs at least eight weeks prior to the event being held.
- A5. Competitors are to marshal as reasonably requested by the race controller. It is acceptable for the competitors to be divided into groups by club or as required, and assigned marshalling duties for various parts of the track for the duration of the championship.
- A6. The title of New Zealand 1/32<sup>nd</sup> Scale Slot Car Champion will be the competitor who has gained the highest overall points in the Open Class. 1.

## **B. Certificates / Miniature Trophies.**

This rule is to be read in conjunction with Rule 'B' in the General Rules.

1/32<sup>nd</sup> Scale NZ Championship Miniature Trophies being;  
 1<sup>st</sup> to 3<sup>rd</sup> place Class. 1, Class. 2, Class. 3, Class. 5A, Class 5E.  
 1<sup>st</sup> place Concours  
 Class. 5A Novice Champion  
 Class. 3 Intermediate Champion  
 Class. 3 Junior Champion  
 Class. 4 Junior Group 12/15 Champion  
 New Zealand 1/32<sup>nd</sup> Scale Champion

## **C. Scrutineering:**

- C1. Scrutineers will be appointed by the Executive Committee and will check all cars for legality prior to them qualifying in Each category.
- C2. All cars are to be scrutineered before Qualifying, cars are to be presented for scrutineering with the body detached, and when passed by the Scrutineer the driver is to refit the body to the chassis in the presence of the scrutineer, the car will then be impounded once passing scrutineering.
- C3. At the completion of each race all cars will be impounded and subjected to post-race re-scrutineering, this shall be carried out by the appointed Scrutineers and may involve the motors from Class's 2, 3 and 4 being stripped down for inspection. All cars will be impounded in parke ferme until all placings have been confirmed.

## **D. Practice Procedure:**

1. Practice periods will be made available to competitors as time allows. Competitors shall be notified of practice times by the Host Club and practice periods will be specified in Entry Forms. Any competitors arriving late may forfeit some or all their practice periods.
2. The track will be closed for general practice each day once the qualifying / racing gets underway. During breaks the track shall remain closed. Should qualifying for another class be held immediately following racing, a limited practice period may be allocated by the organisers. Drivers must be notified of this before the meeting gets underway. Practise after the racing has concluded for the day is not allowed, unless agreed by competitors before the meeting gets underway.

## **E. Qualifying:**

- E1. The drivers car will be placed on the track at a designated part of the track by the appropriate official prior to his qualifying, at the end of the allocated qualifying time the driver must drive his car back to the same designate part of the track where the appropriate official will place the car back into parke ferme. The only allowable time for working on the car (no components may be changed) is in the 1 minute to 2 minute qualifying time.
- E2. If the car is damaged during qualifying it maybe repaired at the discretion of the Chief Steward, who will also stipulate the time you have to carry out these repairs, then resubmitted to the scrutineer for re-scrutineering and placed in parc ferme.
- E3. A driver is to have a single run of not less than 1 minute and up to 2 minutes depending on the length of the track being used, the time to be stipulated by the Chief Steward at the start of the meeting, on any lanes of his/her choice. A drivers single lap time posted within the qualifying period will determine the qualifying order. Ties will be broken firstly by the number of equal times a driver records, then by the next best time and so on, the drivers best three lap times to be recorded for qualifying.
- E4. If a tie cannot be broken, the drivers involved will each have an additional qualifying run with there fastest lap determining their qualifying position relative to the other driver or drivers who were tied for position.
- E5. A competitor will be allowed to qualify one only car in each category that he/she has entered on any lane/s in the time allocated for qualifying.

## **F. Racing Procedures:**

These rules allow for two sets of Racing Procedures, either system may be used, the organising Club must stipulate which system they will be using in there information on the event which must be published and sent out to Clubs no later than eight weeks prior to the event.

- a) The Normal System
- b) The SRT Timing System

### **F.b Normal Racing Procedures:**

#### **Terminology.**

**Heat:** Is a contest between drivers each of whom are competing on one lane only

**Race:** Is a series of heats (CORRESPONDING TO TRACK LANES) contested between the same drivers.

- F1.b Starts, will be power on or off starts controlled by the computer timing system or the race controller with count down beeps or by the race controller before the computer or the Race Controller manually switches the power on, therefore there will be no jumped starts.
- F2.b If half or less of the cars in any heat are still racing after the first corner, the heat shall be restarted. There shall only be one restart The Host Club shall determine and provide the position and length of the first corner.
- F3.b Prior to the start of each race all competitors are allowed a maximum of 2 minutes practice / warm up before driving their cars to the Start / Finish line.
- F4.b Grid Marshals will retrieve the cars for each race from the parke ferme area and place them in the correct lanes prior to the 2 minute practice / warm up, the driver will be allowed to work on his car in the 2 minute practice time, but must line up when requested to by the Race Controller.

- F5.b** Drivers are responsible for putting the correct coloured lane sticker on their cars for the first heat.
- F6.b** Racing in each category will start with the slowest qualifiers, depending on the total number of entries in each category and lanes on the track will determine the number of competitors in each heat, each race must have a minimum of 2 competitors.
- If the total number of competitors in each category doesn't allow for full heats then the Chief Steward will determine the make up of the heats with the view of even numbers in each heat, ie 9 competitors three heats of three competitors.
- The Chief Steward must stipulate the make up of the heats prior to qualifying of that category.
- F7.b** The fastest qualifier in each race will have first choice of lanes, then the second fastest then the third fastest.
- F8.b** Heats will be a minimum of two (2) minutes duration by the number of lanes.
- F9.b** When the power is switched off after each heat the laps will be recorded by the Computer System being used or by the Race Controller manually. Each driver has up to 1 minute, computer or Race Controller controlled to change his controller to the next lane, change lane sticker on the car and move their car to the next lane placing it at the same relative position/segment on the track as it finish in the previous heat.
- Lane Rotation as per individual track configuration.
- F10.b** No maintenance can be done on cars during lane changes except for fluids (oil, braid conditioner) and braid change. If a car was removed from the track before the power was turned off, maintenance must stop until the next heat starts, maintenance on a car can only be continued / carried out when the next heat has started.
- F11.b** Any car dragging, damaged or broken so that it does not comply with the car rules or may cause damage to the track may finish the heat at the discretion of the Chief Steward.
- F12.b** Should for any reason a car's body has completely come off it may finish that heat, it shall be securely refitted onto the car's chassis by the chief steward before starting the next heat.
- F13.b** Each competitor's accumulative distance travelled over all heats that makes up a race in each category will determine their finishing position in the competition, the driver covering the greatest distance being in first place.
- Ties will be resolved by placing the driver who has covered the greatest distance in any one heat ahead of the other tied driver/s.
- F14.b** Provided the nose of a car is across a track distance marker, that particular distance will apply.
- F15.b** At the completion of each race, each car's partial lap position in segments, on the track will be recorded, then the driver must drive their car around to the start / finish line where the cars will be impounded until the placings in that class / category have been confirmed, track marshals may remove the car and place it in the impound area.

## **G. Points:**

- G1.** **NZ Championship** points of 50, 47, 45, 44, 43, 42.....3, 2, 1 will be awarded to the drivers in all classes. 50 for 1<sup>st</sup>, 47 for 2<sup>nd</sup> etc. To qualify for championship points, a driver must start the race for which he or she has qualified for.
- G2.** A trophy or certificate will be awarded to all competitors gaining Championship Points.
- G3.** A competitors points gained in each of the three categories that comprise one class shall be accrued to determine results in that class.
- G4.** Concours D'Elegance, each entrant must enter one car from any category that they have entered for the meeting, judging for Concours D'Elegance will be carried out by every entrant, one vote per entrant before the start of the first qualifying of the meeting.
- Any car entered for concours must be qualified and raced in the exact state presented for concours.
- G5.** Concours D'E'legance Judging – Cars shall be judged on the following categories. Body, Interior, Wheels, Chassis, Overall appearance.

- G6.** The winner of Concours D'Elegance will be the entrant who gains the most votes, in the case of a tie then the entrants that have tied will be voted on again by all entrants until there is a winner.

## **H. General Car Rules:**

### **Sports and Saloon Cars:**

- H1.** Bodies, the Executive Committee of the New Zealand Slot Car Association Inc must publish a list of not more than ten (10) of each body type that will be eligible, Saloon, Sports/Sports GT, by the 1<sup>st</sup> January each year.

The eligible lists will be compiled in consultation with financial Member Clubs and approved by the NZSCA Committee.

- H2.** Any bodies that Member Clubs want considered to be added or removed from the approved lists must be submitted to the NZSCA Committee Secretary no later than 1<sup>st</sup> December each year.

#### **Saloon:**

<b>Body:</b>	<b>Manufacture:</b>	<b>Part No:</b>
Subaru Impreza	SS (AB Slot Sport)	
Renault Laguna	BSP	
1996 Opel Calibra V6	Betta	
2004 Opel Vectra GTS V8 DTM	Betta	
2001 Mercedes CLK DTM	Betta	
2001 Audi TTR DTM	Betta	
Dodge Daytona	Cat	

#### **Sports/GT:**

<b>Body:</b>	<b>Manufacture:</b>	<b>Part No:</b>
Intrepid	Parma	#842
2004 Zytek LM MK2	AAA	
Audi R8	BSP / Cat	
1998 Toyota 010 GT1 LM	Betta	
1997 McLaren BMW F1 GTR	Betta	
1998Porsche 911 GT1	Betta	
Audi R10	Red Fox	
Courage	BPA	#057
Audi R10	BSP	
Audi R18	Cat	
Porsche P917 Cup	BPA	022/2
Porsche P917	BPA	022
BMW LMRP	BPA	027
Audi R & R	BPA	023

- H3.** Body shape is to remain as manufactured apart from necessary alterations needed to clear the guide, axles and wheels.
- H4.** Cars are to have only portions cut out from the body which are normally cut out on the full sizes cars, i.e. air intakes, engine grilles etc. The windows may not be cut out unless proof is provided that the car raced in such a form. No mechanical components may protrude through the bodywork. Cars with open engine compartments must display reasonable engine detail.
- H5.** Saloon, the lower edge of the rear bodywork must not be higher than 10mm when the car is placed on a level board in race set up.
- H6.** Car bodies shall not exceed a maximum width of 65mm and the chassis, including wheels and tyres, shall not exceed a maximum width of 64mm.
- H7.** A non-transparent three (3) dimensional driver, consisting of at least head / shoulders / arms and steering wheel, with at least two (2) colours is to be securely fixed in the driving position of the car at commencement of every race.
- H8.** Sports and saloon car bodies must have 2 easily read numbers of the same numeral(s) in two different places; these numbers must be of the same size.
- H9.** Chassis, all cars must have a minimum clearance of 0.5mm (.020" Thou) under the motor box, rear of both side pans and gear when placed on a level board when scrutineered at the beginning of each race.

Guide lead, this is the distance from the centre of the rear axle to the centre of the guide pivot.

Guide lead dimensions: Sports and saloon, 107mm maximum.

Parma International 32, standard position as provided by the manufacturer.

- H10.** The Guide Shoe shall to be no more than a maximum of 27mm long.
- H11.** No projections capable of guiding the car are allowed beneath it, other than the actual guide/pickup, one guide only.
- H12.** **Wheels**, Sports and saloon cars, when body is attached to the chassis and placed on a level board must have four (4) flat, full diameter visible wheels in total when viewed from the sides of not less than 12.5mm diameter.

Class. 1. and Class. 2 Sports and Saloon cars may have Sticker Type Realistic looking Fronts attached to the body in a realistic position of no less than 12.7mm diameter.

Wheels maybe attached to the inside of body.

The front wheels must be within the front wheel arches and in a near vertical position, no more than 15° from vertical.

Wheels and tyres may not protrude beyond the body at the top of the wheel arches by more than 0.5mm each side.

- H13. Front Wheels / Axle-** Class 3, 5A and 5E, Where front wheels and axle are required, the dimension across the front wheels when extended against the outer axle wheel retainers must not be greater than the overall width allowed for that class, the front axle may not float sideways any more than 1.0mm.

### **Grand Prix Cars, Class 1, Class 2 and Class 5E:**

- J1.** **Bodies**, the Executive Committee of the New Zealand Slot Car Association Inc must publish a list of not more than ten (10) of each body type that will be eligible, Grand Prix, by the 1<sup>st</sup> January each year.

The eligible list will be compiled in consultation with financial Member Clubs and approved by the NZSCA Committee.

- J2.** Any bodies that Member Clubs want considered to be added or removed from the approved lists must be submitted to the NZSCA Committee Secretary no later than 1<sup>st</sup> December each year.

#### **Grand Prix:**

<b>Body:</b>	<b>Manufacture:</b>	<b>Part No:</b>
2001 McLaren MP4 13	Red Fox	
2005 McLaren MP4 20	Red Fox	
2009 Brawn BGP 001	Betta	
2007 McLaren	Red Fox	#RFSC36C
2007 McLaren F1	Red Fox	#RFSC36CM
F-1 Ferrari	Red Fox	#SC36CF
Red Bull F1	Cat	
F1 McLaren 2010 ISRA	Red Fox	RF ISRA F1 12

- J3.** Body shape is to remain as manufactured apart from necessary alterations needed to clear the guide, axles and wheels.
- J4.** Cars are to have only portions cut out from the body which are normally cut out on the full sizes cars, i.e. air intakes, engine grilles etc. The windows may not be cut out unless proof is provided that the car raced in such a form. No mechanical components may protrude through the bodywork. Cars with open engine compartments must display reasonable engine detail.
- J5.** Grand Prix car bodies must have at least 1 easily read number.
- J6.** **Chassis**, all cars must have a minimum clearance of 0.5mm (.020" Thou) under the motor box, rear of both side pans and gear when placed on a level board when scuteneered at the beginning of each race.
- J7.** Guide lead, this is the distance from the centre of the rear axle to the centre of the guide pivot.  
Guide lead dimensions: Grand Prix, 110mm maximum.
- J8.** The Guide Shoe shall to be no more than a maximum of 27mm long.
- J9.** No projections capable of guiding the car are allowed beneath it, other than the actual guide/pickup, one guide only.

- J10.** The chassis must be of in-line construction and have a maximum width of 54mm at any point between the front and rear axles.
- J11.** The minimum tyre diameter of G.P. cars is 14mm.
- J12.** G.P. cars shall have at least 4mm wide tyres.
- J13.** G.P. cars may have a maximum width of 68mm when measured across the wheels and tyres.
- J14. Front Wheels / Axle-** Where front wheels and axle are required the front wheels when extended against the outer axle wheel retainers the dimension must not be greater than the overall width allowed for that class, the front axle\ may not float sideways any more than 0.5mm.

### **Class 1. Open**

**J14. Motors:**

1. Any open strap motor.
2. Any Group 12/15 motor as per Rules J15 and J16.

### **Class 2. Group 12/15.**

**J15. Motors:**

1. Class 2 motors may only use unmodified commercially available parts from manufacturers of G12 and G15 C can motors, armatures, and parts.
2. Any tagged Grp 12 or Grp 15 armature produced by the manufactures in J15-1 with a minimum stack diameter of .500" can be used.
3. Can is to remain unmodified (except for allowed modifications detailed in J16). Can dimensions: Length 23.5mm, Width 21.2mm, Height 14.2mm.
4. Only C-can endbells produced by the manufactures in J15-1 may be used, aluminium endbell not permitted.
5. C-can full height magnets of one piece construction produced by the manufacturers in J15-1, provided they are not of cobalt composition.

**J16. Modifications:**

1. Notching of can and magnet to facilitate rear axle mounting.
2. Locating and fixing of the magnets within the can is free.
3. Where a 5mm ball race is fitted as standard to a motor can, drilling of the can to allow fitting of a 6mm Ball race is allowed.
4. Bearings, springs and brushes are free.

### **Class 3. Standard Parma International 32 16D.**

**J17. Motors:**

**Class 3. Standard Parma International 32 16D.**

1. Parma and Trinity (Slotworks) 16D can only are allowed.
2. Motors with adjustable timing are not permitted. However any 16D type endbell is permitted.

**Armatures:**

1. Armatures, only tagged D spec arms are to be used from
2. Fast Ones part #244B -25 Tagged DS16,
3. ProSlot Part #248B-25 tagged 16D or Part #706B tagged 16D
4. All armatures are to have a maximum timing of 30 degrees.

**J18. Chassis:**

Only the Parma International 32 Brass pan chassis part #575 can be used.

**J19. Componentry:**

Only the parts listed below may be replaced with after market products.

1. Guide flag, guide shims and securing nut.
2. Pickup braid and clips.
3. Front Axle replacement must be of 1/16" diameter.
4. Front wheel retaining springs or solder retainer washers.
5. Front and rear wheel spacers.
6. Rear axle replacement must be a solid drill blank type of 3/32" diameter.
7. Rear axle bushings must be an oilite or brass type.
8. Rear wheels and tyres.
9. Pinion and spur gear can be either 48 or 64 pitch plastic or metal.
10. Motor Lead Wire.
11. Any replacement brush and spring is allowed. Brushes must not be altered in any way, ie timed, drilled, friction cut or fitted with shunts.
12. The motor can bearing must be an oilite or brass type.
13. Front wheels and tyres. Replacements must be 'O' ring type with 1/16" centre hole and 1/2" outside dia.

**J20. Modifications:**

Only the following modifications are permitted.

1. Front axle may be braced to prevent its revolving, but must remain free to move laterally, and must not inhibit or alter the movement of any chassis component.
2. Rear axle bushes may be located in an axle housing tube and soldered in original holes, the minimum distance between the top of the axle and bottom of the chassis shall be 8.9mm.
3. Motor bracket, the existing motor can-bearing slot may be enlarged to allow for a proper motor fit and gear mesh.
4. The chassis pan below the end-bell may be trimmed to eliminate electrical short-circuit if necessary. Tape may be used under the motor end-bell for insulation to prevent the motor shorting on the chassis.
5. Added weight, there are no restrictions on the use of ballast except that it must not overhang the chassis outline and must not inhibit the movement of any chassis component and it must be lead.
6. Pin tubes to hold the body to the chassis are allowable in the original holes only.
7. The motor can output shaft bearing hole may be enlarged to accept a replacement oilite or brass type bearing.
8. The motor can bearing may be soldered in place.
9. The motor may be soldered to the chassis in the standard factory position, and may be braced to the chassis in a rearward direction only.
10. End-bells may be interchanged.
11. The pinion may be soldered or glued to the armature shaft.
12. Bodies may be affixed to the chassis using any combination of pins, original body clips or tape. Tape may be used over the pins or body clips to stop them falling out.
13. Tape may be applied to the underside of the chassis centre section and pans only to prevent shorting of the chassis on the track, it must not in any way inhibit or alter the movement of any chassis component.

**No other modifications will be permitted.**



## **Class 5A. and 5E. Production (Falcon)**

### **J21. Motor: Falcon.**

- |    |                                                                 |          |                                                           |                                                           |
|----|-----------------------------------------------------------------|----------|-----------------------------------------------------------|-----------------------------------------------------------|
| 1. | JK Products Falcon,                                             | Part No: | JK3020<br>JK30202 JKIV<br>JK30205 JKV<br>JK30207 JKVII    |                                                           |
| 2. | Top Line Inc (tsrf)                                             | Part No: | On Packaging,<br>On pinion end of can,<br>Label on motor, | ATCD302 Falcon 7 Racing Motor<br>TSF F7<br>tsr<br>Falcon7 |
|    |                                                                 | Part No: | On Packaging,<br>On pinion end of can,<br>Label on motor, | ACD301 Falcon 7 Racing Motor<br>TSF F7<br>tsr<br>Falcon7  |
| 3. | No modifications permitted, must remain sealed as manufactured. |          |                                                           |                                                           |

### **J22. Componentry:**

**The following components must be of Parma manufacture.**

**Chassis:** Only the Parma International 32 Brass pan chassis part #575 can be used.

**Body Clips:** Bodies may be affixed to the chassis using Parma Body Clips, Part No 738, tape may be used over the body clips to stop them falling out.

Fixed pin tubes may be used, floating type pin tubes not allowed.

**Front Wheels/Tyres:** Parma aluminium 'O' ring type 1/16" axle diameter x 1/2" outside diameter, Part No 672A.

**Spur Gear:** Any 64 pitch plastic or metal spur gear.

**Only the parts listed below may be replaced with after market products.**

1. Guide flag, guide shims and securing nut.
2. Pickup braid and clips.
3. Front Axle replacement must be of 1/16" diameter.
4. Front wheel retaining springs or solder retainer washers.
5. Front and rear wheel spacers.
6. Rear axle replacement must be a solid drill blank type of 3/32" diameter.
7. Rear axle bushings must be an oilite or brass type.
8. Rear wheels and tyres.
9. Motor Lead Wire.
10. Pinion, any 64 pitch parallel cut only of any tooth number.

**J23. Modifications:****Only the following modifications are permitted.**

1. Front axle may be braced to prevent its revolving, but must remain free to move laterally, and must not inhibit or alter the movement of any chassis component.
2. Rear axle bushes may be located in an axle housing tube and soldered in original holes, the minimum distance between the top of the axle and bottom of the chassis shall be 8.9mm.
3. Motor bracket, the existing motor can-bearing slot may be enlarged to allow for a proper motor fit and gear mesh.
4. Added weight, there are no restrictions on the use of ballast except that it must not overhang the chassis outline and must not inhibit the movement of any chassis component and it must be lead.
5. The motor may be soldered to the chassis in the standard factory position, and may be braced to the chassis in a rearward direction only.
6. The pinion may be soldered or glued to the armature shaft.
7. Tape may be applied to the underside of the chassis centre section and pans only to prevent shorting of the chassis on the track, it must not in any way inhibit or alter the movement of any chassis component.
8. Body Clips may be substituted by using fixed pin tubes (not floating) located in the original holes of the chassis.

**No other modifications will be permitted.****Class 5E. Production (Falcon) Grand Prix****J24. Motor: Falcon.**

- |    |                                                                 |          |                                                           |                                                           |
|----|-----------------------------------------------------------------|----------|-----------------------------------------------------------|-----------------------------------------------------------|
| 1. | JK Products Falcon,                                             | Part No: | JK3020<br>JK30202 JKIV<br>JK30205 JKV<br>JK30207 JKVII    |                                                           |
| 2. | Top Line Inc (tsrf)                                             | Part No: | On Packaging,<br>On pinion end of can,<br>Label on motor, | ATCD302 Falcon 7 Racing Motor<br>TSF F7<br>tsr<br>Falcon7 |
|    |                                                                 | Part No: | On Packaging,<br>On pinion end of can,<br>Label on motor, | ACD301 Falcon 7 Racing Motor<br>TSF F7<br>tsr<br>Falcon7  |
| 3. | No modifications permitted, must remain sealed as manufactured. |          |                                                           |                                                           |

**J25. Componentry:****The following components must be of JK Products manufacture.****Chassis:** Only the JK Product 32<sup>nd</sup> F1 Chassis Part # JK25141 can be used.**Guide Tongue Brace:** Only the JK Products Guide Tongue Brace, Part # JKGTB**Bodies:** As per rules J1, J2, J3, J4 and J5.**Front Wheels/Tyres:** Only the JK Products Wheels Part # JK87461PF, minimum width 6.35mm (0.250")**Front Wheels / Axle-** Where front wheels and axle are required the front wheels when extended against the outer axle wheel retainers the dimension must not be greater than the overall width allowed for that class, the front axle\ may not float sideways any more than 0.5mm.**Only the parts listed below may be of other manufactures than JK Products.**

1. Guide flag, guide shims and securing nut.
2. Pickup braid, clips and lead wire.
3. Front Axle must be 3/32" diameter solid drill blank or piano wire.
4. Front and rear wheel spacers.
5. Rear axle must be a solid drill blank type of 3/32" diameter.
6. Rear axle bushings must be an oilite or brass type.
7. Rear wheels and tyres.
8. Pinion and crown gear can be any pitch and any number of teeth.

**J26. Modifications:**

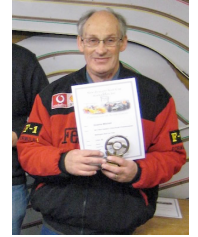
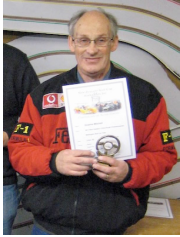
**Only the following modifications are permitted.**

1. **Blueprinting;** chassis may be flattened and straightened, front and rear wheel towers straightened to ninety degrees, guide tongue levelled and doubled, rear bearing holes filed out to enable rear axle to be set level and at ninety degrees to direction of movement and height of axle to motor shaft, sharp edges rounded to avoid track damage, and chassis assembled to allow pans to move freely.
2. **Front Axle Height;** material may be removed from the front axle mounting holes to allow the axle to be level with the under side of the chassis, the minimum distance from the top of the front 3/32" diameter axle and the under side of the chassis shall be 8.65mm minimum.

Front axle may be soldered to the front uprights.

3. **Bracing;** may add bracing to support the rear axle uprights, may add bracing from the motor mounting bracket rearward to the axle uprights.
4. **Motor Mounting;** must be mount in the original manufactures position, fixed to the chassis by screws or soldering, or a combination of both.
5. **Tape;** may be applied to the underside of the chassis centre section and pans only to prevent shorting of the chassis on the track, it must not in any way inhibit or alter the movement of any chassis component.
6. **Front Wheels;** must have two front wheels, JK 1/32<sup>nd</sup> F1 Part No JK87461PF, width min 6.35mm (0.250"), maybe ground down in diameter to allow front ride height adjustment, may rotate independently of each other, must support chassis and touch and roll.
7. **Added weight;** there are no restrictions on the use of ballast except that it must not overhang the chassis outline, and must not inhibit the movement of any chassis component, and it must be lead.
8. **Body Mounting;** Fixed pin tubes may be used, floating type pin tubes not allowed.

**No other modifications will be permitted.**



## Graeme Mitchell Memorial

### Constructors Trophy

The Graeme Mitchell Memorial Constructors Trophy will be award annually at the 32<sup>nd</sup> Scale National Championships.

Will be awarded to the Racer that has achieved the highest standard in chassis construction, motor building, body fitment and race reliability over the duration of the event.

The class that will be eligible for this award will be alternated between Class 2 Group 12, Class 3 Standard Int 32, Class 5A & 5E Production (Falcon), as these were the class's that Graeme supported and raced.

Two Judges to be appointed by NZSCA.

Only one car / body to be entered for judging, the car must be one that will be raced.

2012    Class. 2.            Group 12

2013    Class. 3.            Standard Int 32

2014    Class. 5A                Production (Falcon)  
           Class. 5E                Production (Falcon)

Points for judging:	Chassis,	Soldering Cleanliness, no rust / corrosion from solder flux etc Lead Wires, Guide, Braids
	Motor,	General tidiness, springs, shunt wire Soldering in of the motor, lack of rust / corrosion from solder flux etc
	Body,	Mounting of the body, is the wing across the back parallel to the track, front of the body clearance even across the width.
	Race,	Reliability, the ability to finish all heats of a race with out making repairs that are not caused by an accident, the placing with in the race should not be an influence in judgment.