

# Classic Slot Car Racing Association

## 1/32 Scale Car Standards

### For Hard Bodied Cars

## SUPER TOURING CARS (FIA Class 2 Touring Cars 1990-2002)

### HISTORY

Super Touring Cars were based on production 4 door saloon cars with a maximum engine capacity of 2 litres.

They first raced in the British Touring Car Championship (BTCC) in 1990, and became the only class eligible in 1992.

The class was adopted by the FIA as Class 2 Touring Cars in 1993.

The class proved very popular and many championships were run for them all around the world between 1992 and 2002 including the following;

- British Touring Car Championship (BTCC) 1990-2000
- Championnat de France de Supertourisme 1993-1999
- Italian Supertourismo Championship 1993-1999
- Japanese Touring Car Championship 1994-1998
- German Super Tourenwagen Cup (STW) 1994-1999
- Belgian Procar Championship 1994-1997
- Swedish Touring Car Championship 1996-2002
- Campionato de Espania de Turismo 1994- 1997
- Portugese Touring Car Championship 1993-1994
- Central European Touring Car Championship 1996-1998
- South African Touring Car Championship 1996-1998
- Asia-Pacific Touring Car Championship 1994
- South East Asian Touring Car Challenge 1996-1998
- Australian Super Touring Championship 1993-2001
- New Zealand Touring Car Championship 1994-2000
- North American Touring Car Championship 1996-1997
- Touring Car World Cup 1993-1995
- Copa de las Naciones 1997-2000
- European Touring Car Championship (ETCC) 2000-2001

There were small variations in the rules in each championship, the Italian series in particular being much freer with their aero and wheel arch regulations, but in general Super Touring is the closest there has ever been to a truly worldwide Touring Car class.

## Spirit and Intent

To provide a set of rules for racing production based Touring Cars with strictly controlled performance parameters. Especially with regard to motors, gears and wheel and tyre sizes, in the same way that the real Super Touring cars were limited.

These rules attempt to unify the various, similar but not identical, rules used at events for these cars over the past few years at Norwich Slot Racing, Wolverhampton and Wellingborough.

## Eligible Cars

The following is a list of Super Touring Cars produced by the major slot car manufacturers that would be eligible to race:-

### Scalextric

- Alfa Romeo 155 TS
- Audi A4
- B M W M3 (E30)
- B M W 318i and 320i (E36)
- Ford Mondeo
- Renault Laguna
- Vauxhall / Opel Vectra

### S C X

- B M W M3 (E30)
- Peugeot 406
- Volvo 850 GLT

### Ninco

- Audi A4

### Fly

- B M W M3 (E30)

### ProSlot

- Alfa Romeo 156

### **Note;**

The **Spirit** Peugeot 406 Coupe is not included as it is not a Super Touring Car. It is from a Silhouette class and has a rear mounted engine and much wider bodywork.

This list may not be exhaustive so if you think any car should be added to or removed from this list please let us know.

In particular there may be a number of plastic kits for Super Touring Cars that could usefully be added to increase the range of available cars, Honda and Toyota being obvious omissions.

## TECHNICAL REGULATIONS

### 1. Body

- a. Only injection moulded, hard plastic bodies from the eligible list may be used.
- b. Bodies must be used complete and unmodified except as detailed below.
- c. Bodies may be modified to represent alternative cars using only plastic materials (polystyrene, abs, plastic filler etc) but the majority of the original body must remain unaltered. In particular the wheelbase and overall width must not be altered.
- d. Wheel arch extensions are permitted only if they were fitted to the real car.
- e. Some bodies have the front splitter, door sills, rear floor, or other parts moulded as part of the chassis. If these bodies are fitted to an alternative chassis then these parts must be cut from the original chassis and fixed to the body in the correct position.
- f. Minor scraping or sanding of the wheel arch inner faces and lower body sides is permitted to enable the body to move freely on the chassis.
- g. Any internal pegs etc. that rest on the motor, axle bearings or chassis sides may be removed if desired.
- h. New body mounting posts may be fabricated from plastic materials, if necessary when fitting an alternative or modified chassis.
- i. Any original body mounting posts may be removed if they are not used or needed
- j. The original windscreen and window glass must remain fitted except that modified bodies must have hard, clear plastic windows fitted in the appropriate places where the original moulding will not fit. Vacuum formed windows and windscreens are not permitted.
- k. A realistically painted and detailed interior must be fitted, vacuum formed interiors are permitted, and must include a three dimensional driver consisting of at least a head, shoulders, arms, hands and the upper part of a steering wheel.
- l. Rear wings must be fitted at the start of each race but mirrors may be omitted.
- m. Bodies may be repainted provided that doing so does not distort the body and that the repaint is in a tasteful style representative of the period.
- n. All cars must carry at least three racing numbers.
- o. No part of the chassis, guide, motor, running gear or wheels and tyres may be visible outside the body when viewed from directly above or through the cockpit/cabin area. Cars with steering will be checked with the wheels in the straight ahead position.

### 2. Chassis

- a. The chassis does not have to be the one originally intended for the body being used.
- b. Any commercially available chassis, made primarily of plastic, may be used provided that the wheelbase matches that of the body being used without modifying the body.
- c. HRS and PCS chassis are permitted.
- d. Any chassis which has a motor pod must have that pod fixed rigidly to the chassis.
- e. Any chassis which has steering front wheels may have the steering fixed in the straight ahead position or may be modified to use a conventional front axle if desired.
- f. Any modifications or additions made to any chassis must be done with a plastic material (polystyrene, abs etc). Metal and composite materials are not permitted.
- g. Any chassis which includes radiator grills and/or other parts which clip into the body may have these parts removed from the chassis and fixed to the body. These parts cannot be simply left off.
- h. Minor scraping or sanding of the chassis edges is permitted to allow the body to move freely on the chassis. Removal of other parts of the chassis for this purpose is not permitted.
- i. Chassis must be properly attached to the body using screws or clips. Sticky tape is not an acceptable method of mounting the body.
- j. Bodywork fixing screws, if used, may be left loose to allow the body to move.
- k. Adhesive tape or 'blue tack' must be placed over the body fixing screw holes to prevent screws from falling out.

### **3. Motors & Motor Mounts**

- a. All cars must be powered by a commercially available motor intended for use in any Ready to Run slot car and rated at a maximum of 20,000 rpm @ 12 volts\*. (See note).
- b. The only modification permitted to any motor is shortening of the armature shaft.
- c. Motors must be mounted 'inline' (that is at right angles to the rear axle) and the armature shaft must be at the same centre line height above the track as the rear axle.
- d. Motors may be fitted into the chassis using the original motor mounting or any commercially available, zero offset, motor mount.
- e. Offset motor mounts are not permitted.
- f. Motor mounts must be fixed rigidly to the chassis, loose fixing screws, rocking motor pods or sprung suspension are not permitted.
- g. Motors and motor mounts may be screwed and/or glued into place.
- h. Two-wheel drive only is permitted.
- i. Clubs with plastic track or magnabraid may choose to ban high magnetic down force motors but must specify clearly which motors are or are not permitted.

### **4. Gears**

- a. A 9tooth pinion and 27tooth crown gear must be used.
- b. Any make of gears intended for use in any Ready to Run slot car may be used.
- c. Offset crown gears or pinions are not permitted.
- d. Pinions may be glued or soldered to motor shafts and crown gears may be glued to axles.

### **5. Axle Bearings**

- a. Any type of plain axle bearings may be fitted at both front and rear.
- b. Ball bearings are not permitted.
- c. Bearings may be glued into the chassis.

### **6. Axles**

- a. Rear axle must be solid and made from steel. Hollow rear axles are not permitted.
- b. Front axles are free.
- c. The maximum width over the front and rear axles, wheels and tyres must not exceed 55mm but the tyres must not be visible outside the car bodywork when viewed from above even if the car body is narrower than 55mm. (See section 1o). Side to side movement of any axle must be restricted to comply.

### **7. Wheels**

- a. Choice of wheels is free but they must be of similar size to the originals.
- b. Wheels must be of a realistic style or have suitable inserts fitted.
- c. Wheels may be glued to axles.

### **8. Tyres**

- a. Only 'rubber' tyres may be used. Slot.It, NSR, Ortmann etc are all ok.
- b. **Silicone tyres must not be used.**
- c. Sponge tyres and tyre dressings (goop) of any kind are not permitted.
- d. Front Tyres; Maximum size - 20mm diameter x 10mm wide.  
Minimum size - 17mm diameter x 8mm wide.
- e. Rear Tyres; Maximum size - 20mm diameter x 10mm wide,  
Minimum size - 18mm diameter x 8mm wide.
- f. Tyres may be glued onto the wheels, and may be sanded true.
- g. Any tyre dressing/cleaner used must not leave a residue on the tyres or track.
- h. Tyres dressings made from or containing 'oil of wintergreen' are not permitted.
- i. Tyres must be dry whenever the car is placed on the track.

**9. Guides**

- a. Any commercially available guide intended for any Ready to Run slot car may be used.
- b. Guides must be located behind the front splitter and not be visible from above.
- c. Any chassis with a 'quick fit' guide may be modified to accept a conventional wired guide. Only plastic materials (polystyrene, abs, etc) may be used in this conversion, no metal or composite materials are permitted.
- d. Guide to motor wires and pick up braids are free.

**10. Lights etc.**

- a. Any car fitted with working lights may have the light bulbs, LED's, wiring, PC board, and any other internal fittings removed, but must retain all external lenses.

**11. Ballast and Traction Magnets**

- a. Traction magnets must be removed.
- b. Lead ballast weight may be added to any car as desired, provided that it is placed within the confines of the body and chassis and is firmly fixed in place.
- c. Scalextric cars may have ballast glued into the space under the chassis which normally holds the magnet provided it meets the ground clearance rule.

**12. Ground Clearance**

- a. All cars must, at all times, have a minimum ground clearance of 1.5mm under the body, chassis and motor from the rear edge of the front wheels to the back of the car.
- b. The front splitter, whether it is part of the body or part of the chassis, may be below this but must not touch the track in normal use.
- c. When the car, race ready, is placed on a flat and level section of the track to be used for the event, or on a test block which matches that track, all 4 tyres must touch the surface and all 4 wheels must rotate when it is pushed forward.

**Finally**

If the rules do not specifically say you can do something then you cannot do it.

**\*Note: Motor rpm**

1. Manufacturers quoted figures will be accepted as accurate.
2. Some motors have the rpm quoted at a different voltage. In these cases a simple straight line graph, assuming 0rpm @ 0volts, will be used to calculate the rpm at 12 volts and this must not exceed 20,000rpm.

Example;

A motor quoted as 22,500rpm @ 14volts.

Calculation, 22,500 divided by 14 multiplied by 12 = 19,285rpm, which is ok.

**Index to amendments**

Issue No	Date	Amendment
1	23/07/11	First draft.
2	20/10/12	Revised version for CSCRA.
2a	30/11/15	Revised wording for touch and roll rule 12c.