

Modified Article	Date of Application	Date of Publication

A capitalised and italicised word in this document is defined in the FIA International Sporting Code (Code) or the National Competition Rules (NCR), including their Appendices.

Any HEADING is for reference only and has no regulatory effect.

**THIS SECTION DESCRIBES THE CONSTRUCTIONAL REQUIREMENTS FOR *AUTOMOBILES* TAKING PART IN WHAT IS DESCRIBED AS AN OBSERVED SECTION TRIAL (OST). THESE EVENTS WERE INTRODUCED TO AUSTRALIA FROM ENGLAND IN 1950 BY THE LATE JOHN PRYCE AND HAVE SINCE BEEN CONDUCTED REGULARLY BY THE AUSTIN 7 CLUB INC. WHOSE COMPETITIONS COMMITTEE HAS DEVELOPED THE SPECIFICATIONS FOR THE *AUTOMOBILES* INVOLVED.**

An Observed Section Trial (OST) is intended to be strictly of amateur status and involve the *Automobiles* traversing marked sections (the number depending only on the time available) of muddy or slippery surfaces or tortuous, steep, or otherwise difficult terrain. The purpose of each *Driver* is to traverse the whole of each section non-stop from a standing start, without departing from the marked *Course* or hitting any of the markers enroute. Each section, which may vary in length from 25 m to 100 m or more, is divided into 10 parts, each marked by opposite pairs of pegs or markers.

Points are awarded for the number of such pairs passed by the leading edge of a front wheel before the non-driven wheels both cease rotating. Pegs need not be at uniform intervals along the section – the distance apart is determined solely by the estimated degree of difficulty; however they must always be widely enough spaced in each pair for it to be possible for an *Automobile* to pass between without touching them. The *Competition* must not be a *Speed Event* and must not be timed, nor shall the highest speed attained be in any way a determinant of the *Competition*; in fact, high speed is usually penalised by hitting markers, colliding with obstacles or leaving the *Course*.

The purpose is to maintain traction and manoeuvrability under difficult conditions. Prior to constructing or modifying an OST *Automobile*, please check with the Austin 7 Competition Committee Representative to ensure specifications are relevant or in a state of imminent change. The OST Committee would be most happy to provide assistance with the interpretation and explanation of these specifications, or on any area of *Automobile* construction.

## OST FORMULA

### 1. GENERAL

This Formula describes the constructional requirements for an *Automobile* taking part in an Observed Section Trial. *Supplementary Regulations* for individual *Events* may add to or subtract from these requirements to meet special cases, but such alterations will be kept to an absolute minimum. This Formula will remain in force for the duration of the year of issue without alteration and will be reviewed annually in the final quarter of each year. Any amendments will be announced by 1 January, and the Formula as amended shall then remain in force for the ensuing calendar year.

Any car constructed to this Formula will be deemed to comply for 3 years after a change has been made to this Formula, except where change has been made for reasons of safety.

### 2. ENTRIES

#### 2.1 LICENCES:

The *Competitor* and the *Driver* must hold a current Motorsport Australia Speed Licence or Junior Speed Licence as a minimum.

### 3. ELIGIBLE *AUTOMOBILES*

#### 3.1 ELIGIBILITY:

3.1.1 Only an *Automobile* complying with the following description will be eligible to compete:

- 3.1.1.1 A four-stroke reciprocating engine with a maximum engine capacity of 1600 cc running on commercial fuel. Turbocharging or super-charging is prohibited. Rotary engines are prohibited.
- 3.1.1.2 A wheelbase not less than 1900 mm for an *Automobile* with an engine capacity of up to 850 cc and 2030 mm for an *Automobile* with an engine capacity between 851 cc and 1600 cc (refer Figure 1).
- 3.1.1.3 Two-wheel drive only.
- 3.1.1.4 An operable reverse gear.
- 3.1.1.5 An open body which must be fitted with a *Seat* for at least the *Driver* and *Passenger*. Hard tops are prohibited.
- 3.1.1.6 Minimum width front 1145 mm, minimum width rear 1270 mm, each measured outside of tyre to outside of tyre at axle centre height (refer Figure 2).

#### 4. TYPES OF AUTOMOBILES

- 4.1 Each *Automobile* must be one of only two types:
  - 4.1.1 **Front-engined:** The engine must be located so that the centre of the foremost spark plug orifice is not more than one fifth of the actual wheelbase to the rear of a line connecting the centres of the front wheel hubs (refer Figure 3).
  - 4.1.2 **Rear-engined:** Free engine placement provided the *Cockpit* is located entirely between the axle centre lines and forward of the foremost point of the engine.

#### 5. CONSTRUCTION OF AUTOMOBILES

##### 5.1 GENERAL CONSTRUCTION:

- 5.1.1 Each *Automobile* must be:
  - 5.1.1.1 of sound construction and mechanical condition, have no temporary parts, and be maintained in good condition;
  - 5.1.1.2 fitted with 4 wheels only. Duplication of wheels is prohibited. Two driven wheels only are permitted and a differential gear in full and free operation must be fitted between them. Limited slip differentials are prohibited. Steering must be by the front wheels only, controlled by a steering wheel;
  - 5.1.1.3 fitted with a body of adequate strength and workmanship, providing a compartment for the *Driver* and *Passenger* effectively isolated from the engine by a bulkhead suitable and sufficient, in the case of fire, to inhibit the passage of flame. This compartment must be fitted with a rigidly supported floor, cases or covers of solid material separating it from transmission shafts and joints, brakes, road wheels and their attachments and linkages to protect the *Driver* and *Passenger*;
  - 5.1.1.4 on both front- and rear-engined *Automobiles*, be fitted with a cover of metal or solid non-flammable material, covering and surrounding the engine and fixed by a strap or other fastenings of adequate strength and efficiency (refer Figure 6);
  - 5.1.1.5 on front-engined *Automobiles* the *Bodywork*, together with all external equipment, must not overhang the rear axle centre line by more than one third of the wheelbase measured horizontally from a line connecting the centres of the rear hubs, and
  - 5.1.1.6 on rear-engined *Automobiles* the *Bodywork* must not extend rearwards more than 75 mm behind the rearmost part of the actual engine or gearbox or gear change mechanism (refer Figure 4).

##### 5.2 COOLANT PIPES:

All coolant pipes passing from the front to the rear of the *Automobile* or vice versa, whether inside the *Cockpit* or outside the *Automobile*, must be protected from accidental contact by the *Driver*, *Passenger* and any person outside the *Automobile*.

##### 5.3 SEATS:

Each *Automobile* must be equipped with securely attached fixed *Seats* within the *Cockpit*, capable of seating the *Driver* and one adult *Passenger*, and adequate for the purpose of retaining them within the *Automobile*. The rearmost portion of each *Seat* must not extend to the rear beyond a line connecting the centre of the rear hubs. The *Seat* cushion (that part on which the *Driver* and/or *Passenger* sits) must, when uncompressed, be not less than 150 mm below the top edge of the body side or door, adjacent to that *Seat*. Other *Seats* of any

kind may be fitted, but only the *Passenger's* seat, beside the *Driver*, may be occupied during *Competition*. A hand hold for each *Passenger's* hands must be provided within the confines of the *Automobile*.

#### **5.4 SAFETY HARNESS:**

As required by Technical Appendix - Schedule I, a lap-type safety harness must be fitted for each *Driver* and *Passenger* as a minimum. Safety harnesses must be properly mounted and are subject to scrutineers' approval.

#### **5.5 BRAKES:**

Each *Automobile* must be fitted with effective brakes on at least 2 wheels. Brakes must remain operative throughout the *Event*. Independent braking systems are permitted on the driven wheels. The operating handles for the braking system must be totally within the confines of the *Cockpit*. (The intention of the above is to prevent contact between the *Driver's* hands and obstacles outside the *Automobile*).

#### **5.6 MUDGUARDS:**

Each *Automobile* must be fitted at the rear with effective mudguards of solid material which must be securely attached and completely cover the tyre width and one third of the circumference of the wheel. The rear extremities must not be higher from the ground than a horizontal line passing through the centres of the wheel hubs (refer Figure 5). Front mudguards are optional.

#### **5.7 EXHAUST SYSTEM:**

Each *Automobile* must be fitted with an exhaust system and effective mufflers, so that hot parts are protected from accidental contact (refer Figure 7). Exhaust systems must be arranged so that exhaust gases will exit vertically up or down. Noise emission should not exceed 92 dB(A) at 3,500 rpm when measured 500 mm from and at an angle of 45° to the exhaust outlet.

#### **5.8 STARTING ENGINE:**

Each *Automobile* must be fitted with an effective means of starting, other than via the transmission, e.g. a starter motor or crank handle (which must remain operable during the *Event*).

#### **5.9 BALLAST:**

Each *Automobile* must be free of ballast in any form.

#### **5.10 TOW ROPE:**

Each *Automobile* must be equipped with an adequate non-metallic tow rope of at least 7 m in length with a minimum diameter of 17 mm. Whilst competing it must be attached to the front of the *Automobile*, using a hook. A towing eye must be provided front and rear marked in a contrasting colour and mounted no higher than the tops of the adjacent wheels.

#### **5.11 COMPETITION NUMBER CLIP:**

Each *Automobile* must be fitted with an effective spring clip fixed to the roll bar so that the competition number is visible above the roll bar from the front and rear.

#### **5.12 IGNITION SWITCH:**

Each *Automobile* must be fitted with an easily accessible ignition switch marked to show "Off" and "On" positions.

#### **5.13 BATTERY:**

Each *Automobile's* battery must be securely fixed and covered to prevent spillage of the contents.

#### **5.14 ROLL OVER PROTECTION:**

Each *Automobile* must be fitted with a roll over protection structure (ROPS), the main hoop of which must consist of mild steel tubing of circular cross section, with minimum dimensions 44.45 mm OD x 2.5 mm wall thickness (1.75" x 12 gauge), with longitudinal bracing of minimum 25 mm OD x 1.6 mm (1" x 16 gauge). Other material may be used provided it and its dimensions conform to a Type 2 roll bar as required by Technical Appendix - Schedule J.

The ROPS, when viewed in rear elevation, must cover the full width of the shoulders and be at least level with the tops of the heads of both the *Driver* and *Passenger* when normally seated.

#### **5.15 FUEL TANKS AND LINES:**

A fuel vent pipe must exit to the atmosphere at a level lower than the bottom of the fuel tank. The fuel cap must seal the tank. All fuel lines must be securely clipped with worm drive type clamps on all joints or connections. Pressure spring clips are prohibited.

#### **5.16 TYRES AND RIMS:**

5.16.1 Each *Automobile* must be fitted with pneumatic tyres on all wheels conforming with the following:

5.16.1.1 the maximum rim section will be 5";

- 5.16.1.2 tyres must be in good serviceable condition and have no modification of the manufacturer's tread pattern or any other part of the tyre;
- 5.16.1.3 except as provided in sub-paragraph (f) below, each front and rear wheel must be fitted with one tyre only, inflated to not less than 84 kPa (12 psi);
- 5.16.1.4 tyres must not be fitted with any form of non-skid attachments, studs or chains etc;
- 5.16.1.5 the maximum overall width of tyres when the above conditions are fulfilled must be 165 mm unladen;
- 5.16.1.6 tyres of maximum 175 section, on front engine *Automobiles* as defined by this Formula, may be inflated to less than 84 kPa (12 psi);
- 5.16.1.7 tyres may be secured to rims provided that no extra traction is provided by such devices;
- 5.16.1.8 on front-engined *Automobiles* only, the fitment of one supplementary tyre is permitted within each road tyre, provided any such supplementary tyre has a conventional road pattern tread and does not act as an aid to traction;
- 5.16.1.9 tyres fitted to driven wheels must be of standard bitumen road type tread pattern and be available locally;
- 5.16.1.10 undriven wheels may be fitted with road tyres of Wintertread, Mud and Snow and similar tread patterns. Off-road tyres for cars and motorcycles and agricultural tread patterns are prohibited; and
- 5.16.1.11 All tyres must be approved in writing by the Observed Section Trials Sub-Committee. This approval should be obtained in writing before tyres are purchased. Tyres approved by the OST Sub-Committee will remain approved for a period of 3 years from the date of initial approval, or of annual re-approval.

#### 5.17 SIGNS ON AUTOMOBILES:

5.17.1 The following applies to signs on *Automobiles*:

- 5.17.1.1 each *Automobile* may carry the name, occupation and telephone number of the *Driver* and the name of the *Passenger*, displayed on the sides of the *Automobile* in characters no more than 100 mm high.
- 5.17.1.2 each *Automobile* may carry a name, provided that it does not advertise a sponsor, product or service.
- 5.17.1.3 each *Automobile* may carry signs or stickers of a motoring nature.

#### 5.18 FIRE EXTINGUISHER:

Each *Automobile* must be fitted with a securely-mounted fire extinguisher complying with Technical Appendix - Schedule H.

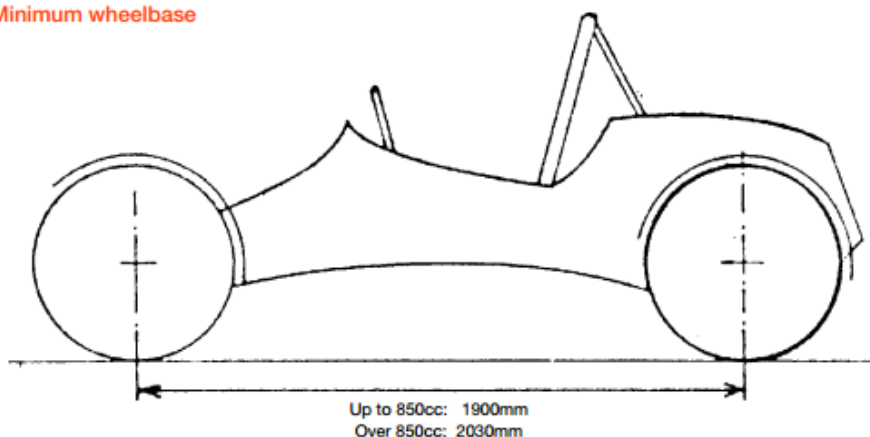
### FURTHER INFORMATION

For further information regarding the Observed Section Trial Formula or coming *Events* please contact any member of the Austin 7 Club OST Sub-Committee ([www.austin7club.org](http://www.austin7club.org)).

## Observed Section Trial

### DIAGRAMS

Figure 1: Minimum wheelbase



# Observed Section Trial

## DIAGRAMS (CONTINUED)

Figure 2: Minimum width

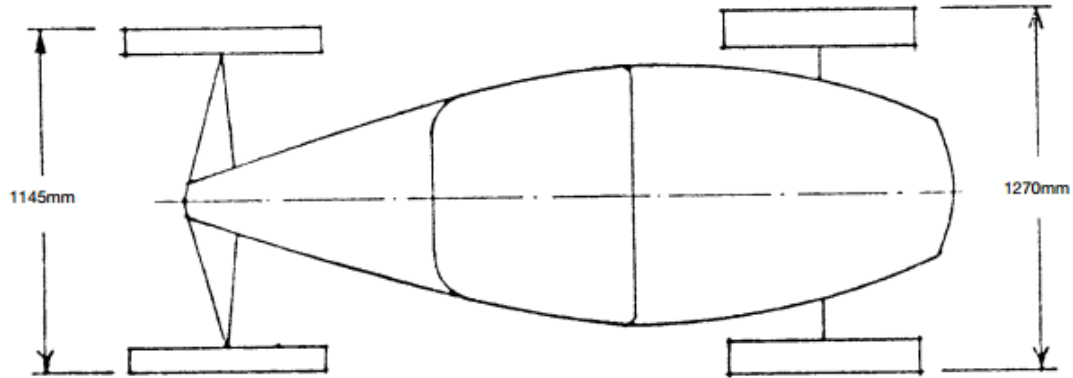
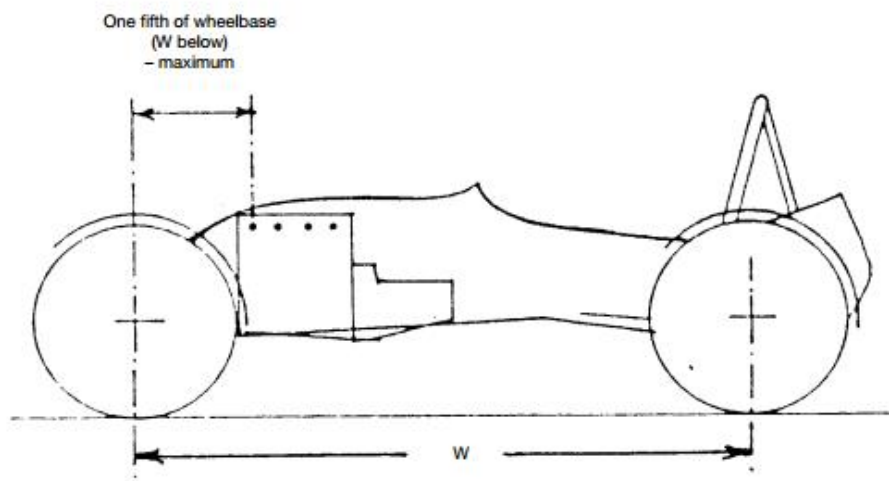
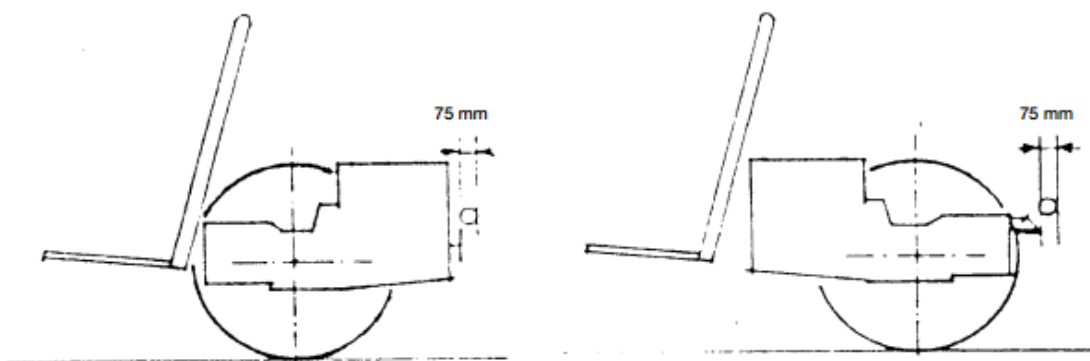


Figure 3: Engine location (front-engined cars)



Figures 4a and 4b: Maximum overhang (rear-engined cars)



# Observed Section Trial

## DIAGRAMS (CONTINUED)

Figure 5: Rear mudguard

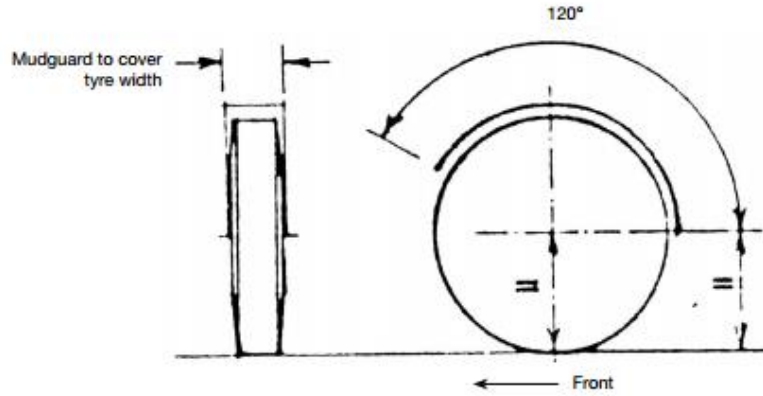


Figure 6: Engine cover

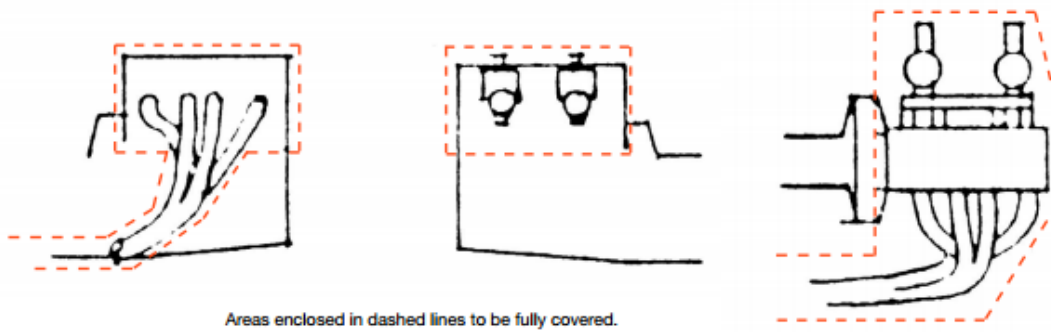


Figure 7: Exhaust protection

