

M.A.A.A RULES 2013 (W.A. Local rules only)

4.14 VINTAGE A TEAM RACE

4.14.1 General

Vintage A team race is a nostalgia event based on pre-1957 Class A Team racing.

4.14.2 Circle Layout

The layout shall consist of two concentric circles which shall be marked out on a grass surface.

a) The pitting circle: radius 19.6 metres

i) The pitting circle shall be marked into six equally spaced segments for pitting/restarting the models.

b) The centre circle: radius 3 metres.

4.14.3 Characteristics of a Vintage A Team Race Model

a) Model designs published up to and including December 1957 or commercial kits complying with the 1957 rules shall be used. The model must conform to the outline as shown on the original plan. Proof shall be provided by the contestant if required by the contest director.

b) 1957 Vintage A Specifications

i) Models shall be of a scale or semi-scale appearance with a raised windshield or canopy.

ii) The model shall carry a realistic scale pilots head.

iii) Wing aspect ratio shall be between 4:1 and 11:1.

iv) Minimum effective wing area: 70 sq in. (452 sq cm.)

[Note: This excludes the fuselage and tailplane].

v) The minimum width of the fuselage, measured at the longitudinal position where the pilot's head is located, shall be 1 ½" (38mm).

vi) The minimum height of the fuselage, including the canopy/cockpit profile, measured at the longitudinal position where the pilot's head is located, shall be 3" (76mm).

vii) The minimum wheel diameter shall be 1 ½" (38mm) with a 1/16" (1.5mm) negative tolerance. Distance between the wheels shall be a minimum of 75mm.

c) **Maximum engine capacity:** 2.5 cc.

d) **Eligible Engines:** The following engines are permitted for Vintage A:

i) **Pre-1957:** Any engine that was commercially available may be used.

ii) 1957 and later: Any commercially available plain bearing, non schneurle ported engine may be used. The following engines may also be used:-

- any commercially available, non-schnurle ported Taipan 2.5 cc diesel (Series 1-13).
- PAW Single Ball Race (non schneurle ported)
- E.D. Super Racer
- CS Oliver Mk 3 Replica
- Russian MARS 2.5 cc diesel

- CTAH Oliver Mk 3 replica
- Oliver Tiger Mk 4
- NBN Engines PFEFFER 2.5cc diesel replica
- Rothwell R250 Oliver Mk111 replica
- Parra T3

Modifications are permitted to any engine but must be in the spirit of the event.

The components of a Vintage A engine should be equivalent to the design of the original components. Modifications which are carried out on these components are legal.

Components or engines which are other than original origin must be equivalent in design to the permitted engines as listed taking into account the production variations of the period.

Schneurle porting, AAC or ABC piston and cylinders or other configurations which differ in principle both materially and conceptually are not legal.

Such items as the chroming of sleeves to reclaim worn engines and connecting rods of different cross section are considered to be within the spirit of the rules.

e) **Fuel System**

- i) Max. fuel tank capacity: 15 cc (Note: This includes all fuel lines and filters).
- ii) No multifunction valves may be used.
- iii) Refuelling shall be by squeeze bottle only.
- iv) Fuel shut-offs are optional but must not be used during the race. Each use will result in a 30 second penalty added to the race time.
- v) Schraeder type tank valves are permitted.
 - vi) Cox style needle and venturi systems are legal.
- vii) Shut offs may be used during the warm up period and only when the race has finished for that competitor.

f) **Propellers:** Only commercially available wood, nylon or glass filled nylon propellers may be used. Propeller modifications are permitted.

g) **Permitted Modifications:** The following modifications may be made in the interests of practicality:

- i) The model may be strengthened, provided that the outline is not changed in any way. Only materials available in 1957 may be used in construction; however, modern adhesives may be used and metal motor mounts are allowed.
- ii) The undercarriage legs may be extended, shortened or raked forward to promote safer handling on grass surfaces. Spreader bars are optional.
- iii) The fuel tank shape, venting and location may be changed to any suitable dimensions, and position in the model can be changed from that shown on the plan, that is, higher up, further inboard or outboard.
- iv) Air Inlet/Outlet and exhaust duct size and position can be changed from the original plan, provided the fuselage outline is not altered. The ducting of the air around the engine inside the cowl may be changed to allow correct operation of the engine. This means that the inlet, outlet and exhaust may be redirected. This may also mean some alteration to the shape of the cowl.

v) Built up wings may be made of solid and aerofoil sections may be changed, for example, from flat bottom to symmetrical or asymmetrical or vice versa. Wing and tail planform outline must remain the same as original or within +/- 6.35mm of plan. Wing thickness may be changed; for example, 1/2 inch to 3/8 inch or 3/8 inch to 1/4 inch.

vi) Internal leadouts are permitted even if not shown on plan.

vii) Covering in fibreglass cloth is permitted.

viii) The elevator position, size and number may be varied from the plan.

ix) The vertical positioning of the wing may be altered; eg designs with wings that are installed above the engine bearers may now have the wing positioned below and low wings may be raised. There is no limitation to the amount of movement but in all other respects the profile and plan view of the design must remain as plan.

h) **Maximum weight:** 500 gm

4.14.4 Control Systems

a) Line Length: The length of the control lines must be 15.92 metres (+40mm -0mm). The length is measured from the face of the grip on the control handle to the centre line of the model.

b) Control lines: Two control line wires of a minimum diameter of 0.012" (0.3 mm) must be used. No internal line hook up allowed. Line connectors must be external.

c) Line Test: A pull test of 20 g shall be applied for 5 seconds to the model/line combination.

4.14.5 Contestant

a) A contestant (pilot or mechanic) may compete in only one team in each event, unless otherwise permitted by the contest director.

4.14.6 Number of Models

a) A contestant may use two models in any one event to complete the required number of heats/finals. Parts may be interchanged between the two models providing the resulting model conforms with all Vintage A rules.

4.14.7 Conduct of Races

a) Races shall consist of two heats and a final. The three fastest heat times will go into the final. (A division 2 final for the fastest three teams with a time slower than 4:45 may be flown at the C.D's discretion).

b) Heat distance will be 80 laps with one compulsory refuelling stop.

c) Final distance will be 160 laps with two compulsory refuelling stops.

d) Each race shall have a minimum of two teams and a maximum of three teams competing.

e) Starting Procedure

i) 90 second warm-up

ii) 30 second final prep time

Final preparations are to be made during this time. Pilots must be crouching and pit crew standing at the starting signal.

- f) Flying height shall be between 2 and 3 metres except on overtaking when the height must not exceed 6 metres.
- g) The faster model shall fly above the slower model on overtaking.
- h) Whipping is not permitted except on take off and landing. Whipping will incur a warning.
- i) The pilot may fly with hand on chest or extended, but will be warned for dangerous flying.
- j) Two-wheeled models being pitted with wheels and fuselage touching the ground shall not be penalised for "Lines off Ground". Model must be in contact with the ground while being pitted.
- k) Landing models should clear models being pitted on the ground. The team operating a landing model that contacts a pitting model or its lines will be disqualified and a re-run given to the affected team".
- l) Models must be carried backward to the nearest pitting segment. If that segment is occupied, the model may be carried forward. (A pitting segment is occupied if a mechanic is standing at such an area even if his teams' model is still in the air). Failure to comply incurs a warning.
- m) During the start of a race or during a pit stop the model is must be kept in contact with the ground and kept outside the pitting circle and the handle and lines must be kept as close as possible to the ground. Failure to comply incurs a warning.
- n) Three warnings will lead to disqualification.

4.14.8 Records

Records for Vintage A will apply only to events flown over grass.

4.14.9 Safety

- a) Mechanics must wear a safety helmet fitted with a chin strap worn under the chin.
- b) Pitting segments must be used at all times.
- c) Piloting style is "relaxed"; however, pilots should observe good race practice.
 - i) Walk in a forward direction only.
 - ii) Crouch when your model is being pitted.
 - iii) Remain inside the centre circle at all times. (One foot can be placed outside when the mechanic has retrieved the model).
 - iv) Take off smoothly, that is, no wingovers on take off.
 - v) Do not obstruct other teams from flying/overtaking normally.
 - vi) Model may be retrieved. Mechanics must not at any time enter the flight circle without the consent of the Contest Director, and then they must enter the circle radially to retrieve models.
 - vii The race will, in any case, be terminated 10 minutes after the starting signal (for the final, 15 minutes).