

27 GOODYEAR (AKA-DIESEL GOODYEAR)

Speed limited at 27 seconds for 10 laps

Definition of Diesel Goodyear Racing

Diesel Goodyear Racing is a simplified version of the successful MAAA “Goodyear Scale Racing” class to encourage both new first time teams and long time racers to compete together with a true level playing field by way of speed limiting the models. By having expert and novice teams competing together it is hoped that the expert teams will assist, coach and encourage new teams in all facets of racing techniques and broaden the appeal of control line racing.

The contest is a simultaneous race between either two or three models, each model being flown by a separate team. The team shall consist of one pilot who shall remain in the centre of the circle piloting the model, and one mechanic who shall remain outside the flight circle and who shall start the engine and perform any other necessary duties throughout the race. The objective of the race is to complete the required number of laps and pit stops in the shortest possible time without breaking the speed limit of 27 seconds per 10 laps.

Number of Models:

A team may enter and have checked only two models; either or both may be used to complete the necessary number of flights. Only one model may be used in each race. The team may interchange the various model parts provided that the resulting model is re-checked by the Contest Director.

Spare propellers, general accessories and engines are permitted.

Model Characteristics:

- a) Engines are to be up to 2.5 cc capacity Diesel Ignition engines. The engine may be a converted glow engine.
- b) Propellers – Only commercially available wood, nylon or glass filled nylon propellers may be used.
- c) Refuelling shall be allowed by squeeze bottle only. Squeeze bottles may be valved and the tanks may have a single function tank valve to allow filling. Tanks require a separate vent pipe.
- d) Models shall be models of actual Goodyear racing planes that have flown in Goodyear or Continental Trophy races or other NPRPA Formula 1 races.
- e) Model profiles shall be within 5% of scale linear dimensions, the scale being one-eighth except where noted below.
- f) Tail area may be increased by 25% over scale area to permit safe handling. The scale shape of the tail must not be altered.
- g) The racing number of the full sized aircraft is to be displayed on the fuselage sides and on the upper inboard wing. The contestant's MAAA number is to be displayed on the upper outboard wing. All numbers are to be of block type letters.
- h) Models shall have profile fuselages with a maximum width of 25 mm excluding cheek cowls. Motors shall be side-mounted and uncowed. Fuselage side cheeks are permitted in so far they do not cowl the motor.
- i) The landing gear may be mono or two wheel types
- j) The entrant, if requested, shall produce a three-view drawing to substantiate the scale outline of his model. The drawings shall be a source acceptable to the Contest Director. A commercial or published full-size plan shall be acceptable, provided it meets the above specifications.

- k) Distance between the centre of the control handle and the centre line of the model shall be 15.92 metres +100mm, - 0 mm.
- l) Minimum line diameter:-0.014" (0.35mm) . Mono line control systems are not permitted. The control apparatus (handle, lines and bellcrank) must withstand a minimum pull of 15 kg.
- m) A working fuel shut-off is mandatory. The pilot must be able to stop his motor and land within 10 laps when directed to do so by the Contest Director.
- n) Motors must be started by flicking the propeller by hand.
- o) Models must fly in an anti-clockwise direction.
- p) No nose skids are allowed.
- q) Divergent cone exhaust extensions are not permitted.
- r) Model shall have a maximum weight of 750 gm.

Conduct of Contests.

The number of laps flown shall be:

100 laps (10 km) for heats, with two mandatory pit stops.

200 laps (20 km) for finals, with five mandatory pit stops.

Speed regulation.

The model may not fly faster than 27 seconds per every 10 laps.

Should a model break the speed limit, the CD will advise the mechanic that they are flying too fast and incur an additional pit stop penalty. This pit stop should be performed within the 10 lap maximum, failure to do so will lead to automatic disqualification. The team will incur a further additional pit stop penalty should they continue to speed at any time after that pit stop.

A 3rd speeding infringement will lead to automatic disqualification. Speeding penalties only accumulate within each individual heat or final and are not carried over to subsequent heats or final from earlier races.

At least one but preferably 2 appointed speed timers will arbitrarily check and monitor speeds during the race. This must be done over a full 10 laps at any period during the race. Any teams found to be faster than 27 seconds per 10 laps will be reported to the CD who will then advise the mechanic of that team that they have been penalised for speeding.

Race Sites.

A race site must consist of two concentric circles which shall be marked on the ground as follows:

- a) Circle to be used by the mechanics is 19.6 metre radius. This is called the flight circle and is divided into six equal 60 degree sectors, the limits of which define the starting and the refuelling points.
- b) Circle to be used by the pilot shall be three metre radius. This is called the centre circle. The pilot shall be permitted to place one foot outside the pilot's circle after the mechanic has retrieved the model.

The mechanic must wear a safety helmet worn on the head and strong enough to withstand the impact of a scale team race model, with the helmet chinstrap worn under the chin.

Starts

- a) Allocation of the positions shall be by draw - the team drawing No. 1 shall have a choice of starting position. The remaining teams will, in order of the draw, select one of the remaining unoccupied starting positions.
- b) A first signal gives the mechanic the opportunity of running his motor(s) for a 90 second warm-up period.
- c) A second signal announces the end of the warm-up period.
- d) Thirty seconds are then allowed during which final preparations may be made. The starter will count off the last five seconds during which the pilot must be crouching with one hand on the ground, the mechanic standing upright and with the model on the ground.
- e) The starting signal is then given and the race commences.

Pit stops

- a) The model may not be retrieved with the engine running, or prior to touchdown with the engine stopped.
- b) The pilot shall be permitted to place one foot outside the centre circle only after the mechanic has retrieved the model. During the fuelling and the starting of the motor, and until the time he release the model aircraft, the mechanic must keep the model in contact with the ground by at least one contact point with the centre line of the model outside the flight circle. During that time the pilot must be sitting or crouching inside the centre circle. He is to keep his handle and lines close to the ground until the model aircraft starts again.
- c) Mechanics must not at any time enter the flight circle without the consent of the Contest Director, and then they must enter the flight circle radially to retrieve models.
- d) The mechanic must refuel the model in the nearest rearward sector of the flight circle in which the model stops or is stopped. Only when this sector is already occupied by another team, may he occupy the sector forward of the stopping point.
- e) A sector is occupied if a mechanic is standing at such an area even if his teams' model is still in the air.
- f) In the case of a model stopping in a sector whose adjacent sectors are already occupied, the mechanic must go back to the nearest free sector.
- g) During the pit stop (refuelling and restarting), the model must remain in contact with the ground. The centre line of the model must remain outside the flight circle during the pit stop. The pilot must be sitting or crouching with his lines and handle close to the ground
- h) During the pit stop, fuel must be added to the fuel tank; otherwise a pit stop will not be considered done.
- i) When a model is being pitted and another is coming in, the landing model must clear the already grounded model's lines.

Flying Height

Racing height shall not exceed 3 metres and the height of overtaking models shall not exceed 6 metres. In over-taking, the faster model must pass over the top of the slower model.

Flying Style

As this is a speed limited class the flying style is somewhat more relaxed compared to other racing classes. A pilot may assist a models performance or hold a model back. This is an excellent class for the experienced pilots to coach and groom those unused to racing techniques and is to be encouraged.

Finish of Race

The race is ended when the competitors' models have completed the required distance. In any event, A Scale Team Race will finish 10 minutes after the starting signal in heats and 15 minutes in the final.

Team Qualification and Classification

- a) The contest shall be divided into two preliminary rounds and a final. Each entrant team shall be given the opportunity to fly once in each preliminary round.
- b) Time is decided from the moment of the starting signal to the moment of completing the last lap.
- c) The three teams which have recorded the three fastest times in the preliminary rounds qualify for the final. In the event of a tie, the entrants' final placing's will be decided by their slower preliminary round time. In the event of a further tie, placing's shall be determined by a fly-off race, flown over the final 200 lap distance.
- d) If, through interference or obstruction, a team is eliminated from a race through no fault of its own, it shall be given the opportunity of a further attempt in that round.

Warnings and Disqualifications

Warnings shall be given to the mechanics. Any team receiving three warnings shall be disqualified.

A team shall be warned:

- a) if a pilot interferes with or obstructs another pilot, either by his conduct in the circle or by a manoeuvre of his model, prevents another model from flying or landing normally.
- b) if a pilot, instead of walking forward at all times, walks backwards.
- c) if the height levels prescribed are exceeded.
- d) if, during the start of a race or during pit stops, the pilot is not sitting or crouching and his control handle & the lines close to the ground or the centreline of the model is not kept outside the flight circle.
- e) If their model is timed at less than 27 seconds for 10 laps

A team shall be disqualified from a race:

- a) if the pilot steps out of the centre circle before the mechanic has retrieved the model.
- b) if passing is done by flying under the slower model.
- c) if the pilot whose model is being overtaken carries out any manoeuvre to impede the overtaking competitor.
- d) if a member of a team or their model causes a collision.
- e) if the model is retrieved with motor running or prior to touchdown with the motor stopped.
- f) for any other flagrant breach of the rules.
- g) for arguing with the Contest Director.
- h) if the landing model fails to clear the already grounded model's lines.
- i) failure to shut motor off and land the model within 10 laps when directed by the CD
- j) If their model is given 3 speeding penalties