

Danish Controlline Union



Rules for national classes

English edition

With comments

Class F2A-1A MINI-SPEED

The rules in Minispeed are as class F2A, except the following paragraphs:

- a) Maximum swept volume of engine: 1,00 ccm.
- b) No fuel restrictions.
- c) For engine category 1,2 and 3, the minimum line diameter is 0,15 mm, for other engines, the minimum line diameter is 0,20 mm.
- d) Linelength 13,27 m.
- e) Flying distance is at least 1,00 km, measured over 12 laps.
- f) Pulltest on lines, handle and aeroplane: 20 G.
- g) Competitor must provide his own handle, meeting specifications for cl.F2A
- h) It is not mandatory with line separation at the exit of the wing.
- i) The result is calculated as percent, with 1 decimal place, of the record for the same engine category. No intermediate roundings allowed.
- j) Classification is done according to the highest percent gained in the tree official flights. At a tie, the fastest speed (km/h) is ranked first.
- k) Engine categoryi:

| # | Engine Category | Record set at | Calculation basis As of 1.12001 |
|---|---|------------------------------------|------------------------------------|
| 1 | Cox Black Widow (suction-valve intake) | Defined | 100,0 km/t |
| 2 | Cox Tee Dee | Defined | 130,0 km/t |
| 3 | PAW, all types | 1999, Danish Champ. | 128,4 km/t |
| 4 | CS with tuned pipe | 12/8- 1995 Danish Championship | 211,4 km/t |
| 5 | Other engines without tuned pipe | Defined | 170,0 km/t |
| 6 | Other engines with tuned pipe. | Always the absolute danish record. | 211,4 km/t |

New engine categories can be added, only as a decision at the general meeting.

- l) If the record, for a given engine category, calculated in km/h with 1 decimal, is raised, the new record is in effect from the next competition.
- m) The competition manager is responsible for forwarding new records, to the next competition.

Exampel of calculations:

Cox (categori 1): 36,4 sek./12 laps: = 1.place

$$3600 / 36,4 = 98,9 \text{ km/h}$$

$$3600 / 36,4 / 100,0 * 100 = \underline{98,9 \%}$$

CS (categori 4): 17,4 sek./ 12 laps. = 2.place

$$3600 / 17,4 = 206,9 \text{ km/h}$$

$$3600 / 17,4 / 211,4 * 100 = \underline{97,9 \%}$$

Class F2B-B Novice aerobatics

The rules in Novice aerobatics are as class F2B, With the following supplemental:

A. Participants:

A participant must meet the following demands:

- 1) Must not hold a C-certificate in F2B.
- 2) Must not have won tree competitions with at least five competitors (including Danish Championship).
- 3) Have no former participation in class F2B.
- 4) A competitor, who have not flown officially in class F2B within the last 5 years, are allowed to choose status as F2B-B (novice) or F2B (expert) competitor.

B. List of manoeuvres:

1. Start
2. Takeoff and level flight
3. Tree inside loops
4. Inverted flight
5. Tree outside loops.
6. Two inside triangle loops
7. Two horizontal eight's
8. Two vertical eight's
9. Two overhead eight's
10. Four-leaf clover
11. Landing

The manoeuvres must be performed according to the rules for class F2B and the demands for score and coefficients are the same.

Class Mouse-race

Specifications:

- a) Maximum load on wing 100 g/dm²
- b) Maximum swept volume on engine: 0,8 ccm.
- c) Engine must not be a Cox Tee Dee (or equal hot type engine)
- d) One- or two-wheel undercarriage must be used, when flying on hard surface.
- e) On grass surface, no undercarriage is allowed
- f) If a nose-skid is used, it must, at no point be ahead of the exitpoint of the model.
- g) No fuel or tank restrictions
- h) All types of shut-off mechanism are banned.
- i) Linelength 10,61 m, giving 15 laps to 1 km. Minimum line diameter 0,20 mm. Two line control is mandatory.
- j) The two lines must not intentionally be twisted or held against each other.
- f) Pulltest on lines, handle and aeroplane: 20 G.

Flying circle:

Like class F2C teamrace, but radius on mechanic circle are 14,2 meter.

The competition:

Like F2C teamrace in all matters, judging, behaving a.s.o., with the following changes:

- Preliminary heat: 100 laps, minimum 2 pitstop is mandatory
- Final race: 200 laps, minimum 5 pitstop is mandatory.
- Normal flight altitude is between 1,5 and 2,5 meter.
- Landing must be within the 14,2 meter circle.
- When flying on soft (grass) surface, hand-launching is allowed.

Comment:

The class is intended to give young aeromodellers their first experiences with teamrace competitions.

The main topic is to enforce equal terms, not to be tough on rules, as example: The Paw 1.00 ccm are often allowed, because many have them and the 0,8 ccm version often are faster.

At the moment this class is not run at official competitions, only as summercamp and club-events

Class: Good-Year racing

Purpose of the class:

To form a simple type of F2C-teamrace, by competing with simple models, using moderately powered engines.

Specifications:

- a) The aeroplane must be a 1:8 scale copy of an existing or former Good-year formula 1 air racer. The drawing must have been published in a recognised aeromodelling magazine, like Danish Modelflyvenyt or English Aeromodeller.
- b) The silhouette of wing and side view of body must be within +/-5%
- c) Tail area must be accurate within -5% / +25% .
- d) Cowling of engine and tank are not allowed.
- e) Body must be flat, profile style. (hidden steering gear are accepted)
- f) One or two wheel undercarriage must be used. (Suspension accepted)
- g) If a nose-skid is used, it must at no point forward the exitpoint of the model.
- h) The aeroplane must be scale-like painted/ decorated.
- i) Engine must be of diesel-type (compression-ignition). Maximum swept volume: 2,50 ccm
Engine must be on the positive list.
- j) No pressure-feeding are allowed.
- k) Propeller must be a commercially available nylon or fibre reinforced nylontype.
- l) No restrictions on tank volume.
- m) No valves are allowed in the tank or filler system, though the shut-off is free
- n) Linelength: 15.92 meter, linediameter no less than 0,30 mm. Two line control is mandatory.
- o) The lines must not be twisted between the exit of the model and a point 300 mm from the handle.

Competition:

Follows the rules for F2C-teamrace, with the following restrictions:

- Heat and semi-finals are 100 laps, to a distance of 10 km, at least two pitstop is mandatory.
- Finals are 200 laps, to a distance of 20 km, at least 5 pitstop is mandatory.
- The aeroplane must have fulfilled one lap between two pitstop.

Comment:

The most used engine are the old Russian KMD, because it is easy handled, strong and produces a good airspeed.

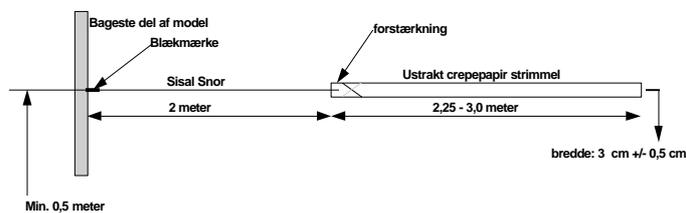
Class: F2D-D Dieselcombat

Definitions:

As for class F2D combat, with the following changes:

- Engine: Must be on the positive list, 2,50ccm dieseligniton
- Propeller: Commercially available nylon / fibre inforced nylon type.
- No pressure feeding allowed.
- Safetywire between engine to bellcranck: minimum diameter 0,385 mm
- Lines: multistrand with a minimum diameter 0,289 mm
- Pulltest on model, lines and handle: 10 kg.
- Number of models and lines pr. fight: One

Streamer:



Comment:

This is not a total translation of the Danish rules, at this moment the other paragraphs are equal to the FAI-F2D rules, but rule changes is not automatically adapted.

The most used engines are Oliver (and replica like CSD.15) and hot PAW's

Models are often slightly reduced F2D designs.

List of engines allowed in class Good-Year and F2D-D Dieselcombat.

An engine on the list are of dieselttype (Compression ignition), have a maximum swept volume 2,50 ccm and have a modest power output.

As a rule of thumb, modern schnuerle ported engines normally are too fast, the reference engine are the Super Tigre G20/15, which produced 0.3-0.4 bhp, turning a 7x6 propeller at 14.000-15.000 rpm.

A modified engine is considered a new type, and, if it is much faster than its origin, then declared not legal.

Accepted engines (as of 1.1.1988) are:

AM 25, Cosmic, ED Racer, Enya, ETA, Frog, KMD /KMA, Llam, non-scnuerled Mvvs, Oliver, all types before mk.5., PAW, all types, Pares, Ripmax, Rhytm, Super Tigre G.20/15 and .15, Taifun, Taipan, Viking, all types Webra, CSD .15.

Replica's of the named engines are normally accepted.

Comment:

The rules works best in a spirit of sportsmanship and common understanding.

An expert can produce an replica with modern materials, which is much faster than the original, but seems OK, even at second look. This is obviously not allowed , instead that guy should fly F2C or F2D.

It is not the intention to exclude teams, whom have changed bearings or “finished the work of the producer”, taken in concern the broad production tolerance some engine-factories allow.

