

Club 40 Rules - www.Club40Racing.com

Airframes

- * The World Models Sky Raider Mach II ARF per instructions
- * The World Models LA Racer 40 ARF per instructions

Airframe Regulations

- * Recovering plane is allowed
- * No airframe modifications other than repairs or reinforcement.
- * Standard size servos or mini servos with 4 screws are required.
- * Dual aileron servos are allowed.
- * Minimum ready to fly weight is 4 pounds and 8 ounces. 4 pounds and 4 ounces for Novice class.

Propulsion System Regulations

- * All engines must be stock. Including carburetor and muffler supplied by the manufacturer.
- * Baffles, if supplied, must be in the muffler.
- * Any size of prop may be used.
- * Props shall be unmodified and commercially available. Balancing only will be allowed as defined in AMA pylon regulations for class 424, rule 7.5.2 which is incorporated by reference.
- * Bubbleless tanks are allowed.
- * Contest Director's option - 15% Nitro provided by and advertised by race organizer.

Advanced Class Engines

Recommended

- * Thunder Tiger Pro .40 BB ABC w/Muffler

Acceptable Alternatives

- * SuperTigre GS-40 Ringed w/Silent Muffler
- * GMS .40 ABC BB w/Muffler
- * GMS .40 ABC BB Remote Needle Valve w/Muffler
- * Evolution .40NT w/Muffler

Sport/Novice Class Engines

- * Thunder Tiger GP 42 ABC w/Muffler
- * O.S. .46 LA Non-Ringed w/Muffler
- * O.S. .40 LA
- * O.S. .40 FP

Airframe Criteria

- * Must be able to taxi easily. Steerable tailwheel is required.
- * Must have upright engine with exposed cylinder and muffler.
- * Minimum wing area of 550 sq inches and 53" wingspan.
- * Wing must be held on with screws.
- * Must have a canopy similar in size and shape to originally provided canopy.

Governing AMA Prop Specification

From the AMA R/C Pylon Racing Rules:

7.5.2. In events requiring stock, commercially available propellers, the following modifications may be made without penalty:

- One blade may be sanded on the top (front) side only for balancing.
- One side of the hub may be sanded for balancing.
- The shaft hole may be enlarged, but only as much as necessary to fit the engine crankshaft. The enlarged hole shall be concentric with the original hole.
- Edges and tips may be sanded, but only as much as necessary to remove sharp molding flash.

Modifications Allowed

Engine:

1. The engine shall be mounted upright in the position as provided "out-of-the-box".
2. Raising or lowering the engine is not allowed.
3. Shimming the engine mount to change the thrust line is acceptable.
4. The stock engine mount or a fiberglass replacement must be used.
5. The engine may be moved fore or aft to aid in balancing the aircraft.
6. Engines must be securely attached to the engine mount with four bolts or screws of at least 4-40 size or 3mm.
7. Engine must be equipped with R/C carburetor as supplied by manufacturer.
8. Engine must use the muffler supplied by the manufacturer.
9. Baffles may NOT be removed from mufflers so equipped.

Prop / Spinner:

1. Any spinner of not more than 2.5 inches in diameter is allowed.
2. "Heavy hub" spinners, spinner weights that fit inside a spinner and aluminum safety spinner nuts are allowed.

Fuel tank:

1. Any brand of tank may be used.
2. Tanks may be raised or lowered to allow for consistent engine runs.
3. The tank may only be pressurized with muffler pressure.
4. Bubble less tanks that have an internal bladder may be used.
5. The stock tank may be converted to use a fuel bladder.

Landing gear:

1. The landing gear block may be reinforced or replaced as needed.
2. The landing gear must be made of wire not less than approximately 5/32" (4mm) in diameter.
3. Main landing gear must have 2 wheels separated by at least 8.5 inches.
4. Replacement wheels (mains and tail wheel) must be the same size as the original equipment.
5. Streamlined "racing" wheels shall not be allowed.
6. Tail wheel must be steerable either by attachment to the rudder or by a separate servo.

Hardware:

1. Control horns, push rods and linkages may be replaced with similar hardware.
2. No internal linkages may be used on the rudder and elevator.
3. Pushrods, if replaced, must exit the fuselage sides in the same position as original specification.
4. All servos must be mounted with four screws.
5. Mini receivers are allowed if they are full range designs. No "Park Flyer" receivers are allowed.
6. Battery packs may be of the four or five cell (or 2-3 cell LiPo) with a suggested minimum of 500 MaH.
7. Nylon wing bolts are allowed.

Airframe:

1. A piece of wood or dowel rod, with a frontal dimension of no more than 1/4", may be used to connect the two sides of the cheek to prevent vibration.
2. Doublers of plywood (or similar wood) may be used on the inside of the compartment sides.
3. No attempt to enclose or streamline the engine is allowed.
4. No rounding of edges or reshaping of the compartment sides is allowed.
5. Removal of the compartment sides is not allowed.
6. Openings for clearance of mufflers and needle valves are allowed as needed.
7. The covering of the airframe may be removed and replaced with similar iron-on covering.
8. No wood may be removed during the re-covering process.
9. Additional reinforcement of airframe components is allowed.
10. Fiber glassing or other reinforcement of the center section of the wing is allowed.
11. The wing may not be thinned using any technique.
12. Contest directors may use templates to insure that the wing airfoil has not been modified.
13. Changing or removing the wing dihedral is not allowed. The dihedral of the wing must be within 0.25" of the standard dihedral.
14. Tail components may be glued in place.
15. Only 2 airplanes are allowed for each pilot at an event.
16. Each aircraft must start the competition with the wing designed for it. If crash damage disables both aircraft, parts (including

wings) may be interchanged to produce a flyable aircraft.

17. Control surfaces may be repaired or replaced with wood parts (no composites) of the same size and shape.
18. Control surfaces may be hinged with the supplied metal hinges, CA hinges, Plastic hinges or hinge points (robart or similar).
19. Hinges must be centered vertically in the hinge joint area.
20. A minimum of 3 hinges per aileron, 4 per elevator and 3 per rudder are required.
21. Hinge lines may be sealed using tape, stick-on plastic covering, or iron-on plastic covering.

Airframe Update: (5/28/2008)

WM has modified the cheeks of the SRM2 such that the cheeks are now slightly angled toward each other. The new model is hereby approved for use in RCPRO Club 40 racing.

In addition - In order to "equalize" the older airframes still in service, the following modification is approved:

1. Cheeks may be modified to pinch the front end to a minimum outside dimension of $2 \frac{3}{8}$ inches at the prop shaft.
2. A single piece of ply may be attached to the bottom of the fuse to hold the angle of the cheeks. The ply may extend from the firewall toward the prop no more than $2 \frac{1}{2}$ ".
3. The plywood brace may be "relieved" to allow airflow out the bottom of the engine compartment.
4. This modification should be as close as possible to the "new" design by the manufacturer.
5. Race CD will have the final say on legality of "modified" aircraft.

Any modification deemed to be an attempt to provide for speed enhancement shall not be allowed.