

Indoor Rubber: Problems and Solutions

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Here's a excellent compilation of rubber-power pointers from the experts, from Indoor News and Views, May 1996, author unknown. Ed.

Problems

1. The rubber bunches up in the back or front of the model after unwinding part way and alters the center of gravity. The plane stalls or dives in.
2. The rubber bunches up next to the prop hook and stops the prop intermittently or completely.
3. The rubber "grapevines" while being wound and during the flight the rubber hits the stick or inside of fuselage. The plane acts as if severely underpowered.
4. The rubber "Climbs" the prop shaft, throws the thrust line off center and causes the prop to wobble.
5. The rubber "spits" out the noseblock toward the end of the flight, causing the model to dive into the floor.
6. The motor peg slides out on one side in a cabin model during the flight.
7. A fully wound lubed motor cannot be handled and valuable turns are lost when the motor is attached on a stick model.
8. A fully wound motor breaks inside a cabin model destroying most of the fuselage and the tail feathers.
9. You wonder why you are not getting as many turns in your motor as your buddies.
10. You're totally fed up with the craziness of rubber motors but you don't want to give up flying indoors.

Solutions

1. On a stick model, such as a Pennyplane, use shims under nose bearing and rear hook for extra clearance. On a cabin model use an "S" hook in the prop shaft.
2. On a stick model, use a sleeve made of heat shrink tubing over the rubber next to the prop shaft, or use an "0" ring. Lengthen the prop shaft on a cabin model and use an "S" hook.
3. Discard any motor which grapevines during winding. The motor has been wound too many times, or is improperly lubed.
4. The prop shaft is a loose fit inside the bearing. Change to a tighter bearing.
5. Noseblock is loose. Use card stock (not balsa) shims to refit noseblock.
6. Make a flange on one side of the aluminum tube motor pig. Put doublers on the inside of the rear anchor. Smear Duco in the holes and clean out quickly.
7. Use rubber or Teflon "0" rings. Rubber 3/16" O.D. , 1/8" ID. "0" rings weigh approximately .070 gram each; teflon "0" rings weigh only .017 each!
8. Use a winding tube with a face plate attached. Never wind without it! Or, wind the motor outside the plane and load on a winding stick.
9. Your lube doesn't have any silicone, such as Dow Corning 33 or Son-of-a- Gun; your winding technique is inadequate. Read

Stan Chilton's article in *INAV* #85.

10. Try electric. Even if you fly small models, such as Peanut or Pistachio, there are now very small, light motors for these models.