THRUSTLINE ADJUSTMENT FOR (INDOOR) RUBBER MODELS

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Very few models - scale or otherwise - fly perfectly well straight from the drawing board. Some need a great deal of trimming using elevator, rudder, aileron, and nose- weight, before they begin to settle into a reliable flight pattern.

The indoor model, being flown in usually quite perfect conditions compared to its outdoor cousin, has shown us that models can be trimmed to degrees of accuracy that are very fine indeed (and to limits that are meaningless outdoors because of the way in which a model is at the mercy of any breeze, however light, when flown in the open air.

A most important part of good indoor trim is to get the motor thrustline right. Unfortunately there are few hard and fast rules. Some models will naturally turn left under power, whilst others can be made to turn right with great success, unlike an outdoor model. Consequently, easy adjustment of the thrustline is a very welcome feature to have on a model. One noseblock design that I have used for several years consists of the following:

Unlike normal practice, the prop shaft does not run in a tubular or plastic bearing, but is simply located by a thin (O.8mm) ply- wood disc 'A' at the front, and a similar ply- wood strip 'B' at the rear, with no support (and less friction) in between. The rear strip 'B' is glued to a simple sheet balsa hollow box on the back of the noseblock, which acts as the locating block in the front of the fuselage. Strip 'B' can be moved and re-set at any position to alter the line of the prop-shaft - without the need for unsightly packing at the side of the scale noseblock - once the correct alignment has been established. The two-point bearing gives a very steady prop-shaft and any noseweight required may be installed within the box at point 'X' where it has little chance of becoming dislodged. When fully trimmed out, a model using this type of arrangement has the scale noseblock sitting fully square onto the fuselage for best scale appearance, yet the actual shaft will be correctly aligned according to the trim that the model requires, and small pieces of loose packing become quite redundant.