

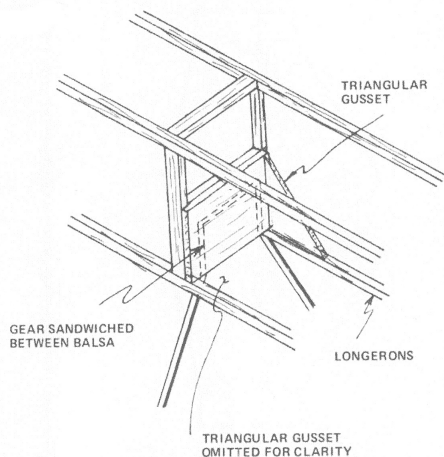
SOME IDEAS ABOUT LANDING GEARS

By George White

Back in 1986, Fernando Ramos had a column in the old Model Builder magazine. In the August issue, he put forth some ideas about landing gears that, while it's stuff most of the "older boys" already know, are worth reviewing.

His first point concerns the way that the gear is attached to the fuselage. I must preface this by saying that the method he describes is pertinent largely to scale models where the landing gear is normally not removable (I always try to make the gear removable on any non-scale a/c to save room for storage).

As you can see in the illustration, for a single strut gear, he makes one piece of hard balsa which will fit exactly between two uprights in the fuselage. He makes another large enough to fit outside the uprights. He epoxies the two pieces together with the upper portion of the gear in between and adds gussets to provide strength to the upright as shown in the illustration.



I've found this method can create problems in crowded fuselages when those two plates holding the gear interfere with the rubber motor. My 24" Fairchild 24 was an example. That can be solved by simply bending the attachment portion of the LG forward (or rearward) and having the sandwich lie between the bottom longerons. For most scale models, you'll also want to attach a fairing over the bare wire. You can sandwich two thin sheets of balsa and streamline the fairing, or simply glue the wire to the inside of a single sheet fairing. The trick is to never attach the fairing to the fuselage — the pristine condition of your model will end with one flight. Let the fairing rotate alongside the fuselage as the gear springs rearward on landing.

For models which have two strut gears (again, there are less elegant ways to do this for non-scale a/c), the trick is to never have the rear strut be rigid. I foolishly did this on a Howard DGA and the pristine condition of the airplane ended after the first test glide! As you can see from the illustration, simply let the rear strut float inside the fuselage as the front strut flexes., or slide alongside the fuselage.

In those instances where the landing gear has a simple axle

rather than a airfoil between the wheels as was common in some WWI aircraft, Fernando proposed creating a shock absorber much like many of the full scale aircraft had. The illustrations below show how that is done.

THIS PART SANDWICHED IN FUSELAGE AS SHOWN IN FIGURE 1.

THESE ENDS ARE FREE TO FLOAT INSIDE FUSE

