

New Cyclone Lancer 72

November 10, 2017 part 1

In my quest for a new winter building project, my attention has turned to the 1938 Lancer 45 produced by the New Cyclone Aircraft Company in Brooklyn, New York. Eut Tileston first introduced the Lancer 45 shown below into SAM competition a number of years ago. It has a 59.5" span and a wing area of 476.8 sq. in. This sleek clean configuration with its killer color scheme caught my eye the first time I saw it back in 2008.



Eut's Lancer 45 goes up in the power climb like a sky rocket with a hot glow engine as shown below.

There were also two other Lancer configurations, the Lancer 49 and the Lancer 72 which are



shown below.

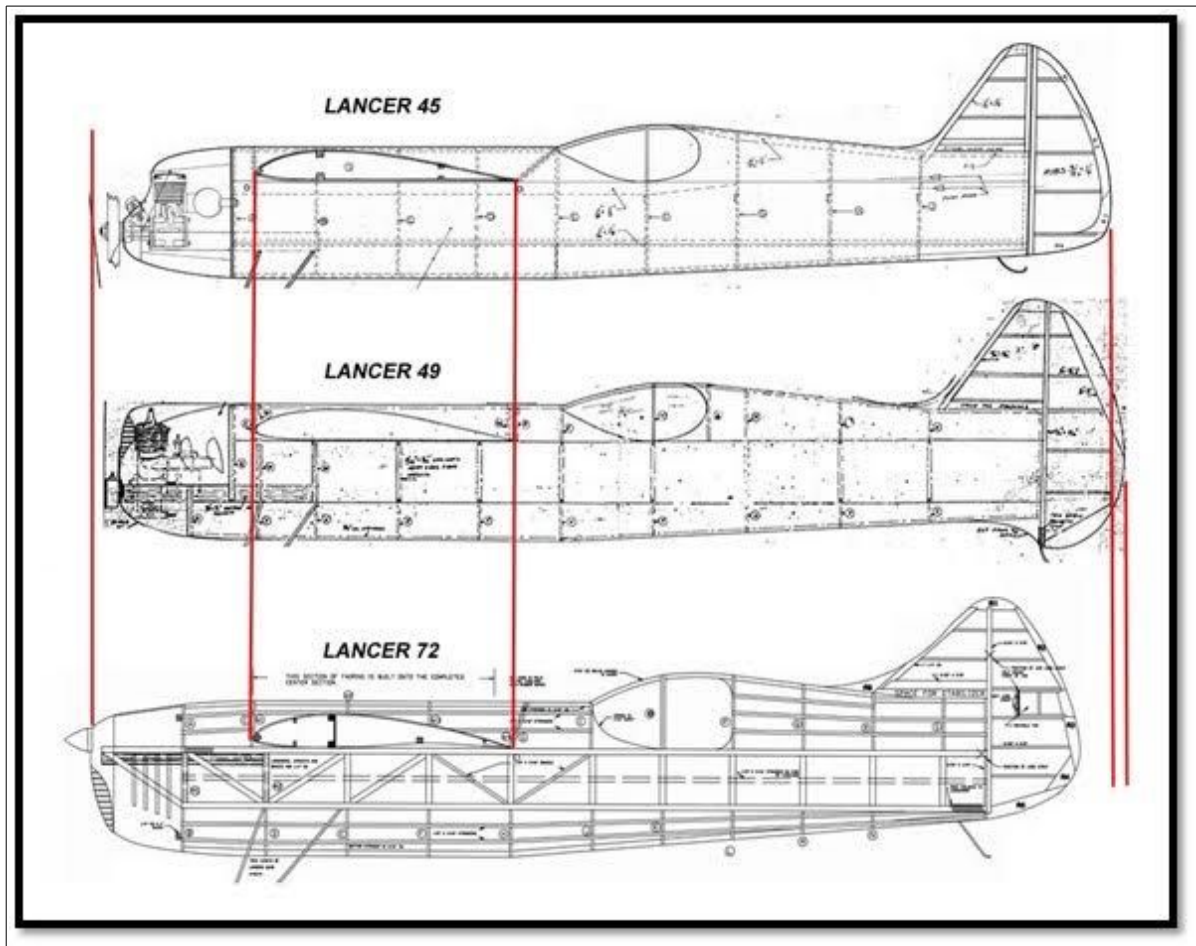
Lancer 49



Lancer 72



A fuselage comparison of the Lancer 45, 49, and 72 is illustrated in the picture below. As you can see, there is very little difference in the Lancer 4 and 49. However, the Lance 72 is significantly different than either the 45 or 49.

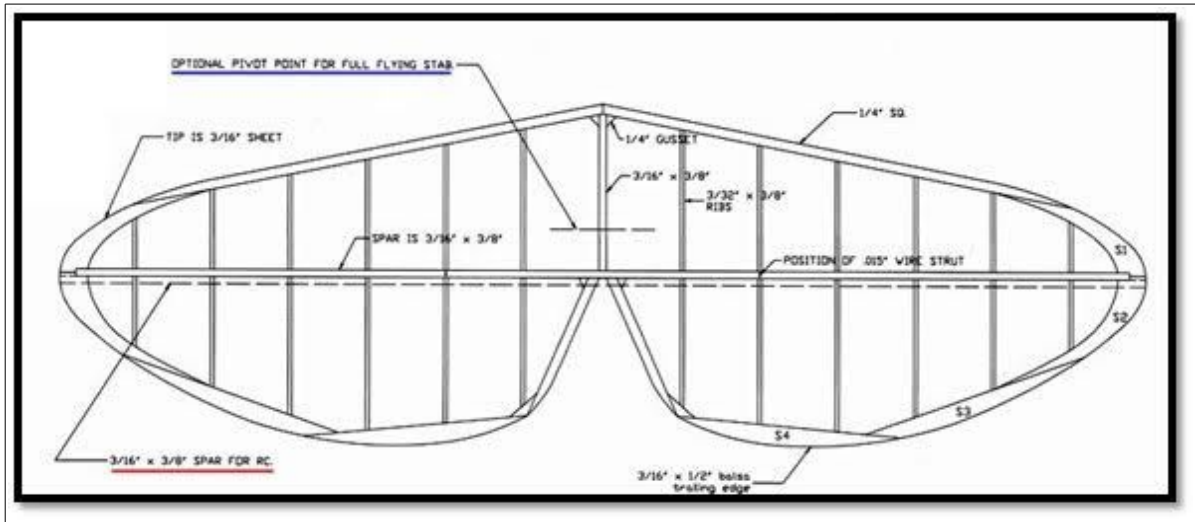


From the comparison of the Lancer 72 with the Lancer 45 and 49, the following observations were made about the Lancer 72:

1. More wider and deeper fuselage.
2. Lighter built-up structure.
3. Undercambered wing.
4. Longer nose moment.
5. Shorter tail moment.
6. Not as clean and will climb slower due to increased drag.
7. Higher aspect ratio of 8.14 compared to the 45's 7.42.
8. Better glide due to undercamber and higher aspect ratio wing.

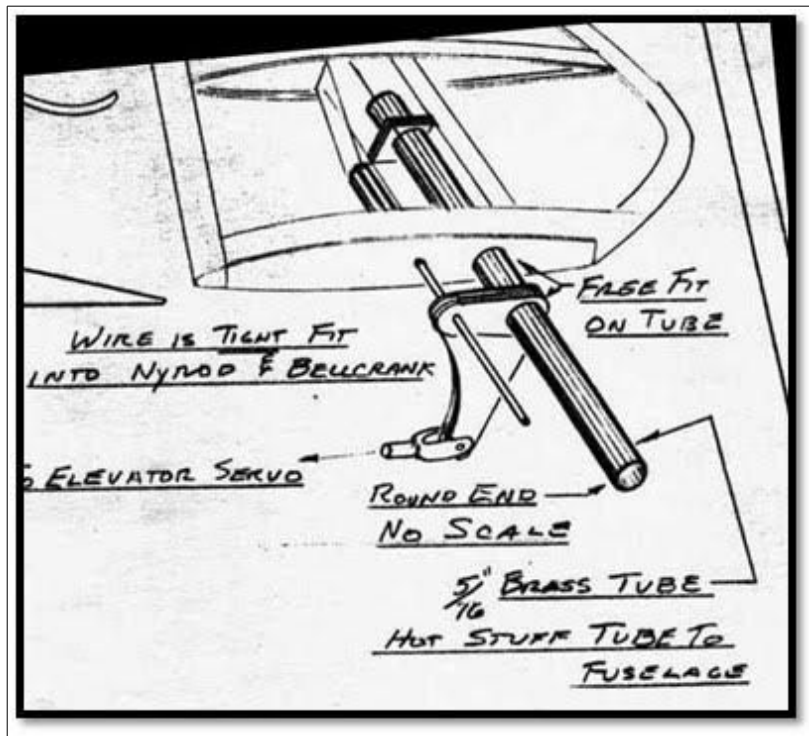
When Eut was contacted, he said his Lancer 72's balance point was on the main spar.

The plan shows the conventional stab/elevator configuration (in red) below as well as the location for a Flying Stab (in blue) below.



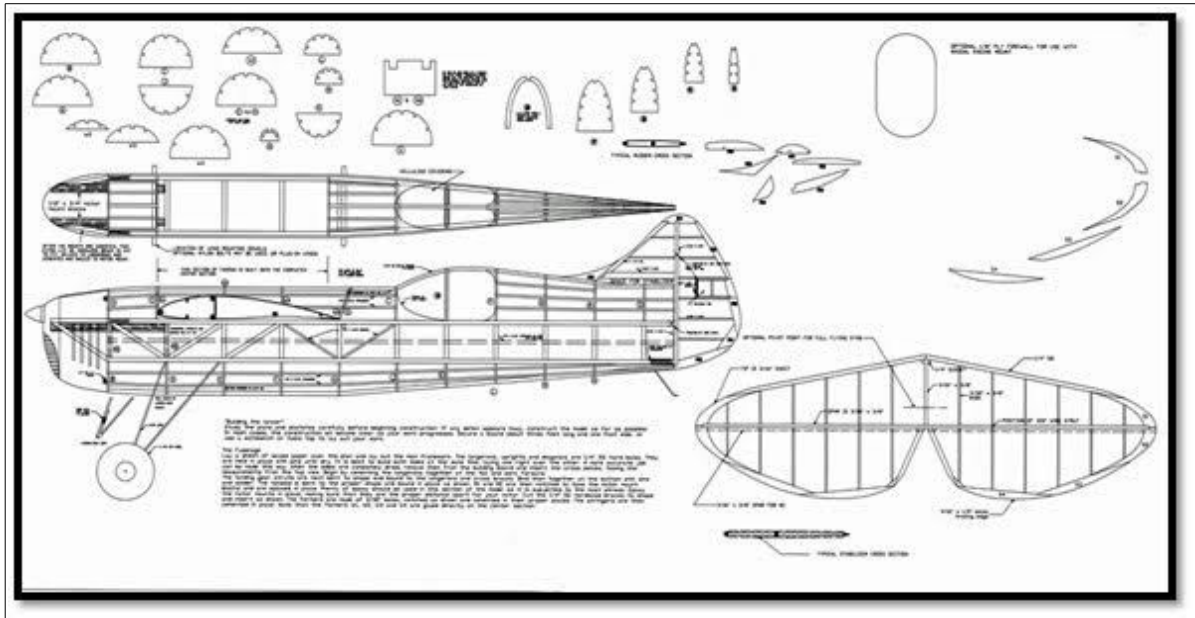
I want to look into the possibility of using the "Flying Stab" design concept shown below that Eut used on several of the Lancer models he built.

Flying Stab

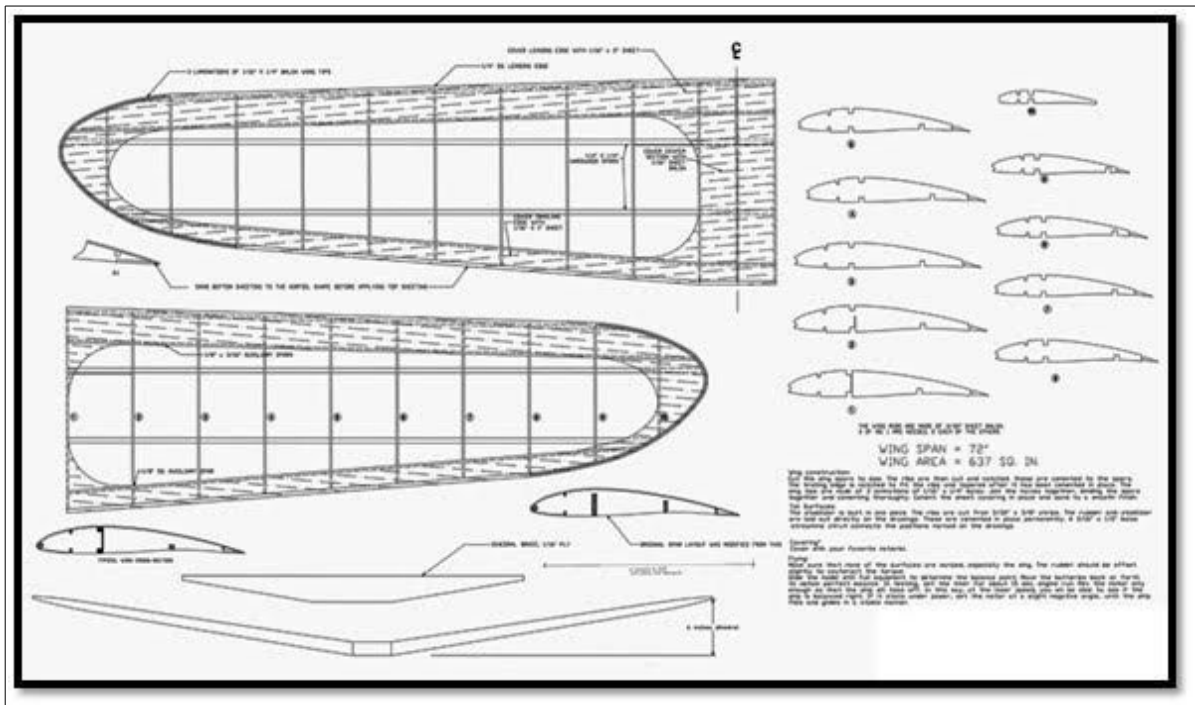


George Tango drew the plans for the Lancer 72 using AutoCAD for Bob Holman which are shown below.

Fuselage and Stab



Wing



I sent the wing plan to my friend Alfredo Herbon in Argentina to calculate the span and area with his ACAD program to verify the wing's span and area quoted on the plan before I do any scaling..... Tandy