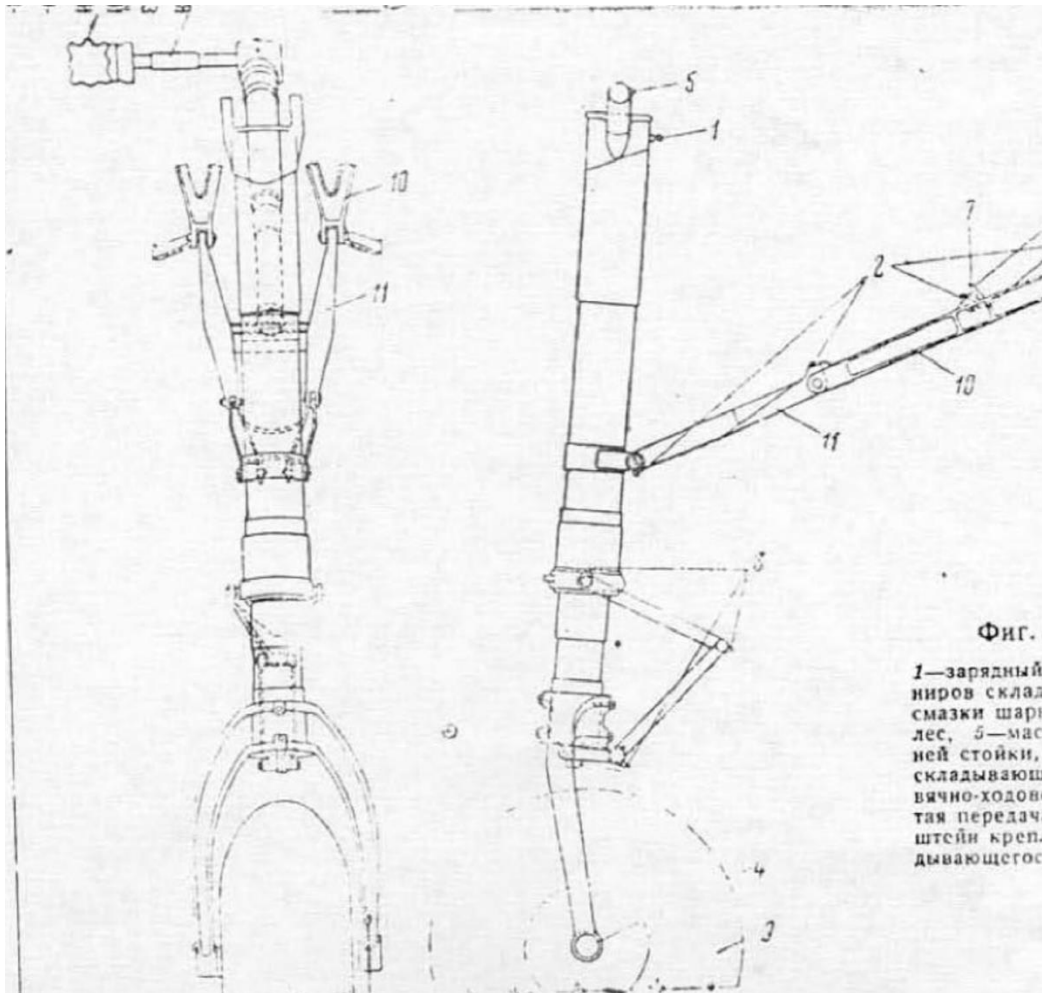


1/4 Scale P-39 Build.

3

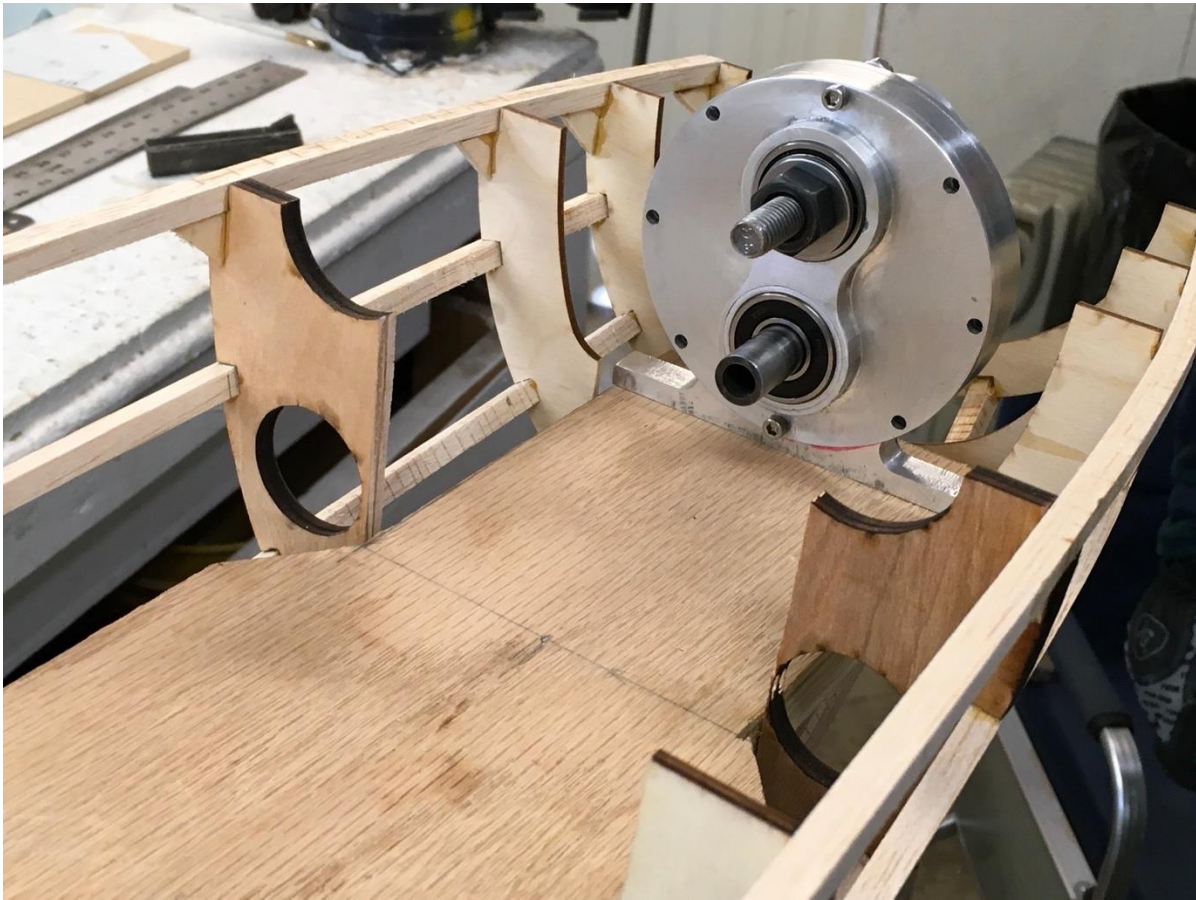
Paul Fleming and Jim Lake
1/4/2022

While researching the P-39 nose gear I found a Bell Aircraft manual that contained a drawing of Bell's linkage this confirmed how we thought the linkage folded up during the retraction process.



This was the most critical piece of the puzzle. The next step is to figure out the exact part dimensions and apply them to the engineering model in Fusion 360. Once Jim gets all the interference and conflicts worked out we can start building parts.

In the first issue of this Build Report I talked about the Torque Plate (TP). This is a 5.5" wide 1/2" sheet of balsa wood with .030 7075 aluminum sheet laminated in top and bottom. Building it thusly we have the strength and rigidity we need with minimal weight. Presently we are using a wooden mock of the TP to determine mounting and clearance issues. At this point we have noticed some slight deforming of the fuselage due to no external skin. Once we get a few of the nose gear mounting issues worked out we will reinstall the bottom of the fuselage on the building board . Using 1/8" balsa to sheet with epoxy glass we will get it trued up again.



One of the requirements of this propulsion system is it must be able to run on our test stand independent of the airframe. Which drive the requirement it must be easily removable. One of the main reasons we selected the Jerry Bates kit was it is built in an upper and lower halves. My plan is to split the upper half just aft of the canopy. The rear portion of the upper half is finished and I have installed solid bulkheads where the parting takes place. Before I glue the remaining upper frames in I will add a 1/4" hardwood stringer inside the 1/4" balsa mounting stringer just to stiffen things up a little.



I have been planning to finish the aft upper fuselage, but discovered I am missing a couple of critical parts for installing the horizontal stabilizers. It is my intention to get the flight control linkage installed before I sheet the tail. That is all for now, videos in the works.

