¼ Scale P-39 Build 1

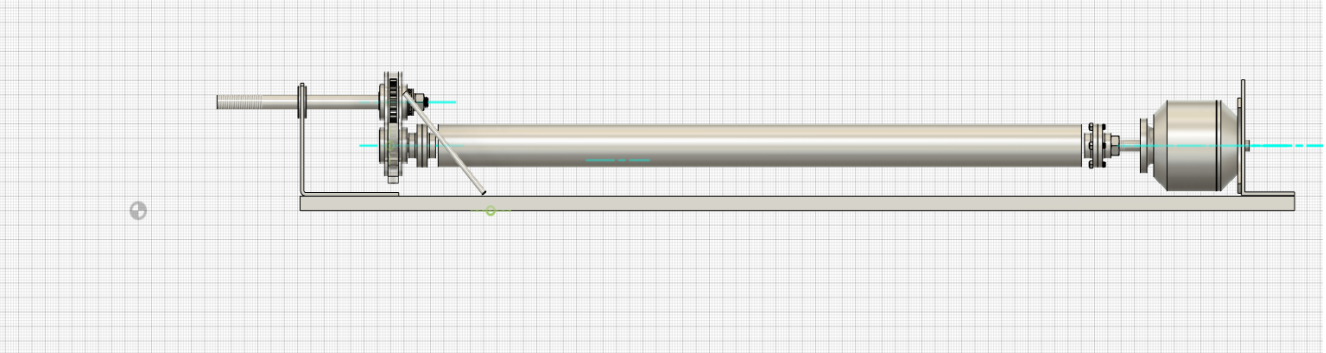
Paul Fleming and Jim Lake
12/18/2021

The Project

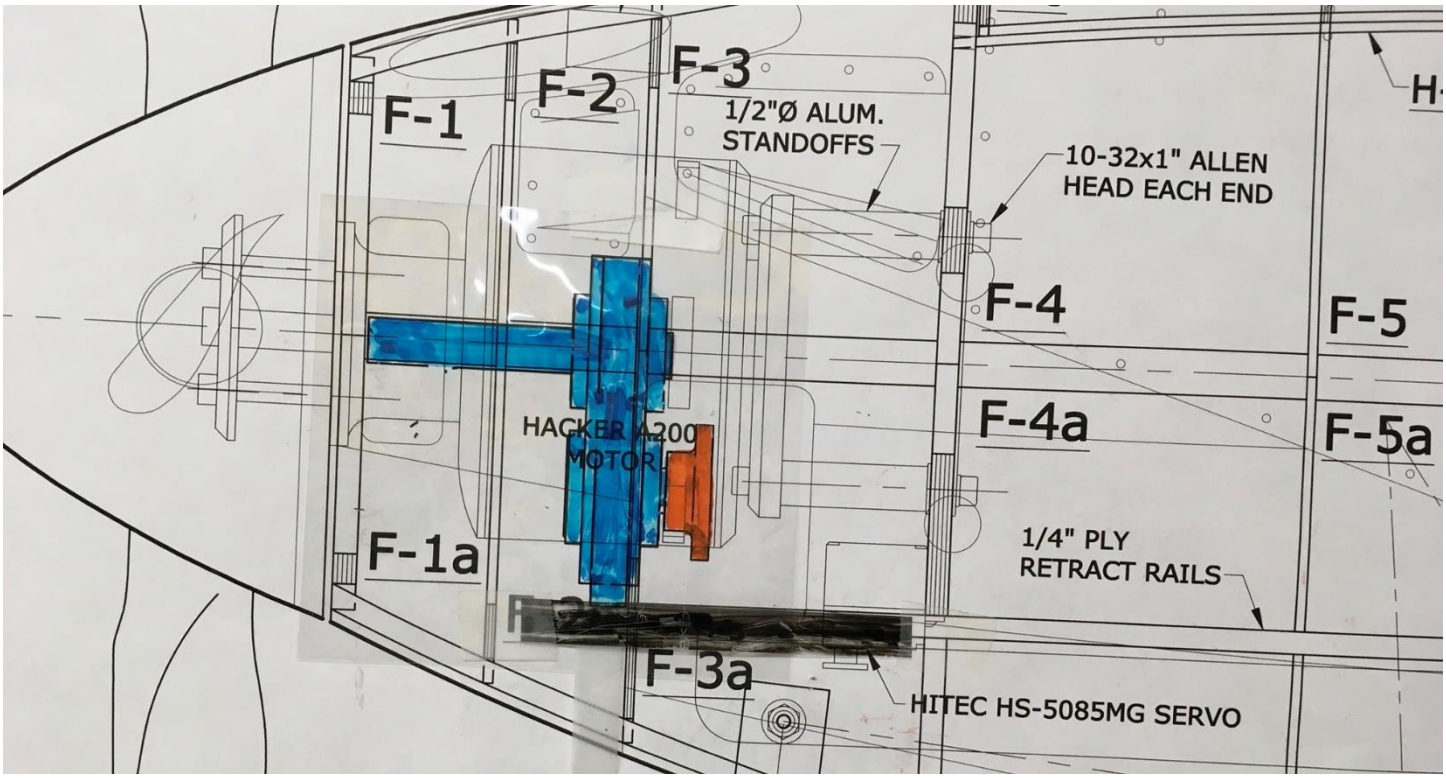
Some time back I bought partially started a 1/4 Scale Fiberglass fuselage Consolidated Models P-39 kit. I got to thinking about doing the whole mid-engine thing and how challenging that would be. I Called Jim Lake and after looking over the kit and deciding we didn't really want to do the foam core wings. How Jim envisioned installing the propulsion system wouldn't work well with the fiberglass fuselage we had, and we really didn't want to ruin this nice kit so we decided to do a full build.

I ordered a Jerry Bates P-39 plan set. It didn't take long to see Jerry's design would lend itself well to our project.

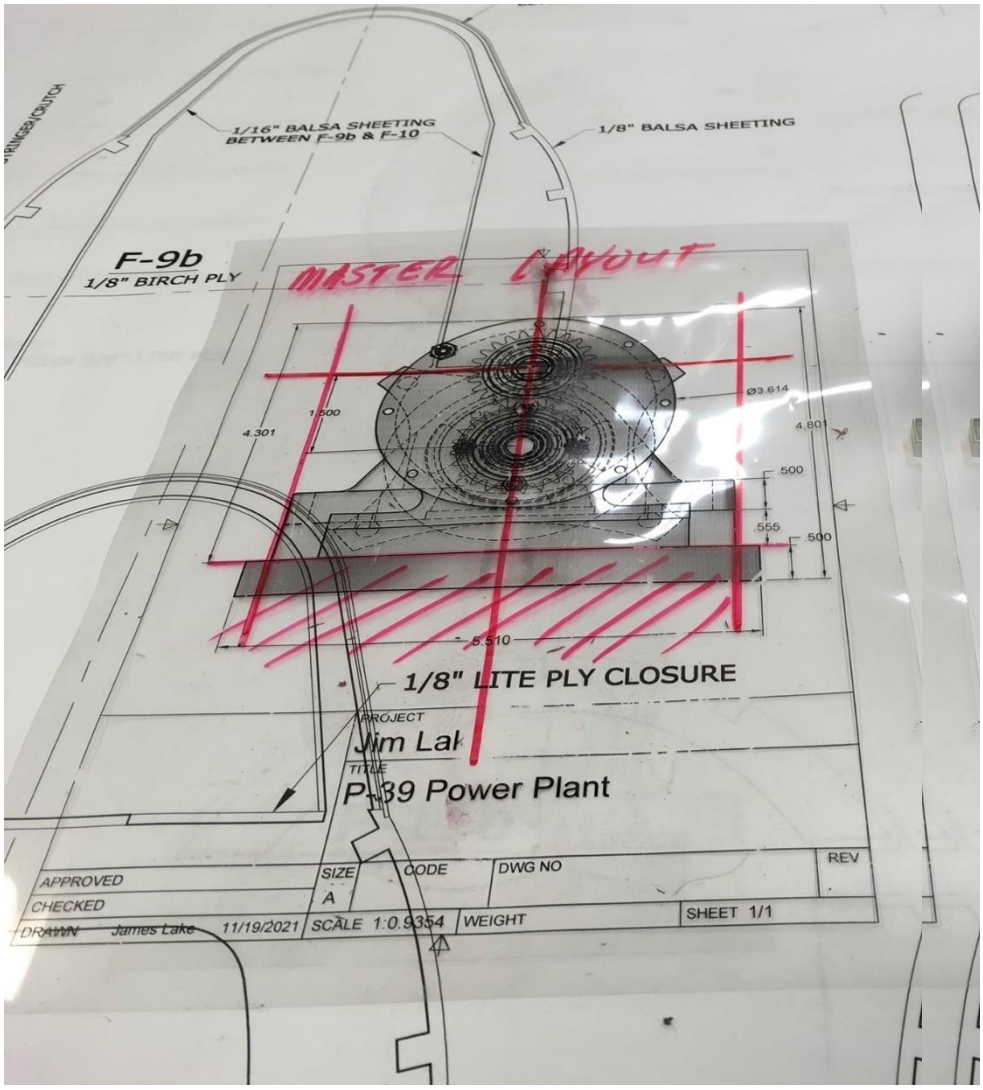
Earlier I had purchased a Rimfire 65cc motor for a Ziroli Skyraider. This would be the prefect motor for the P-39. Within a few days we had our basic layout. Jim's design would be very close to the original, motor, drive shaft, gearbox installation.



We used full scale Transparencies to show equipment arrangement and to determine where modifications to the kit that would be required.

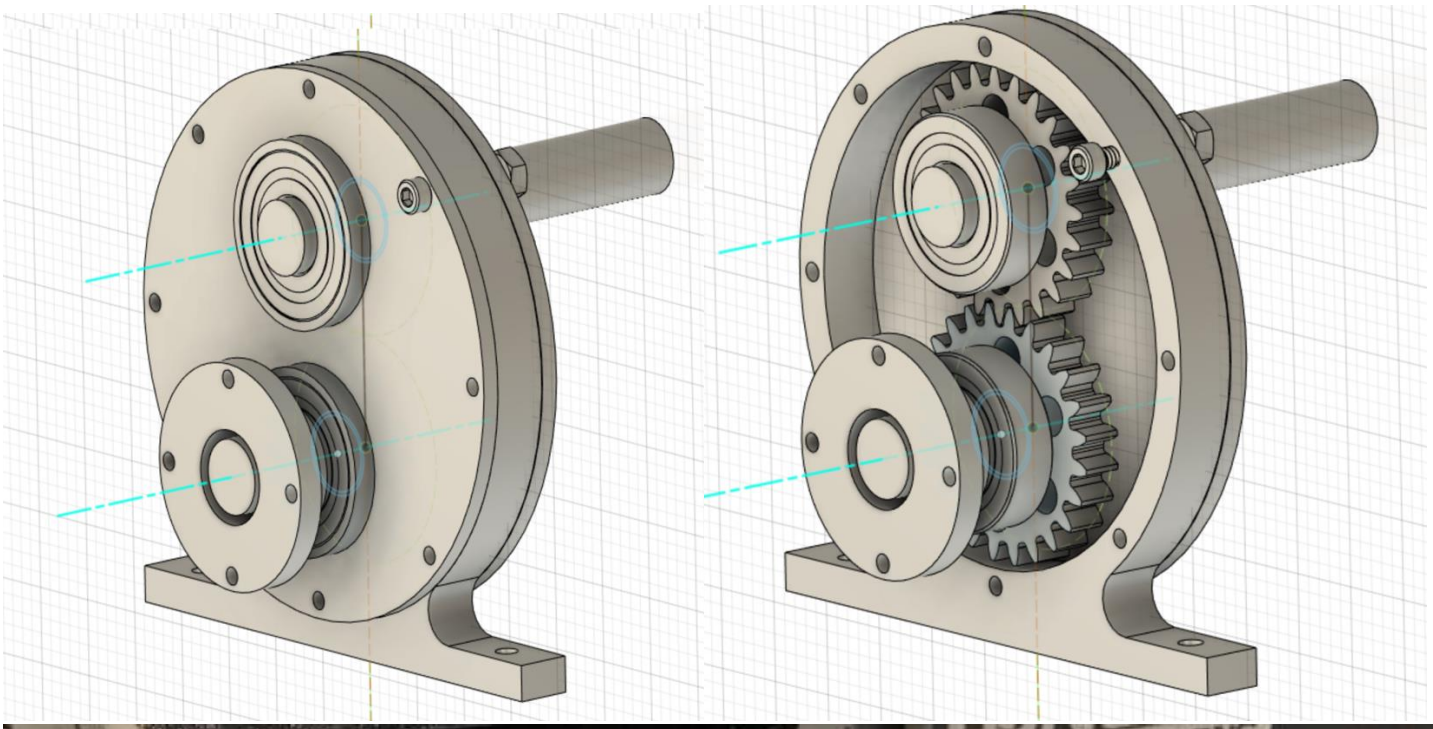


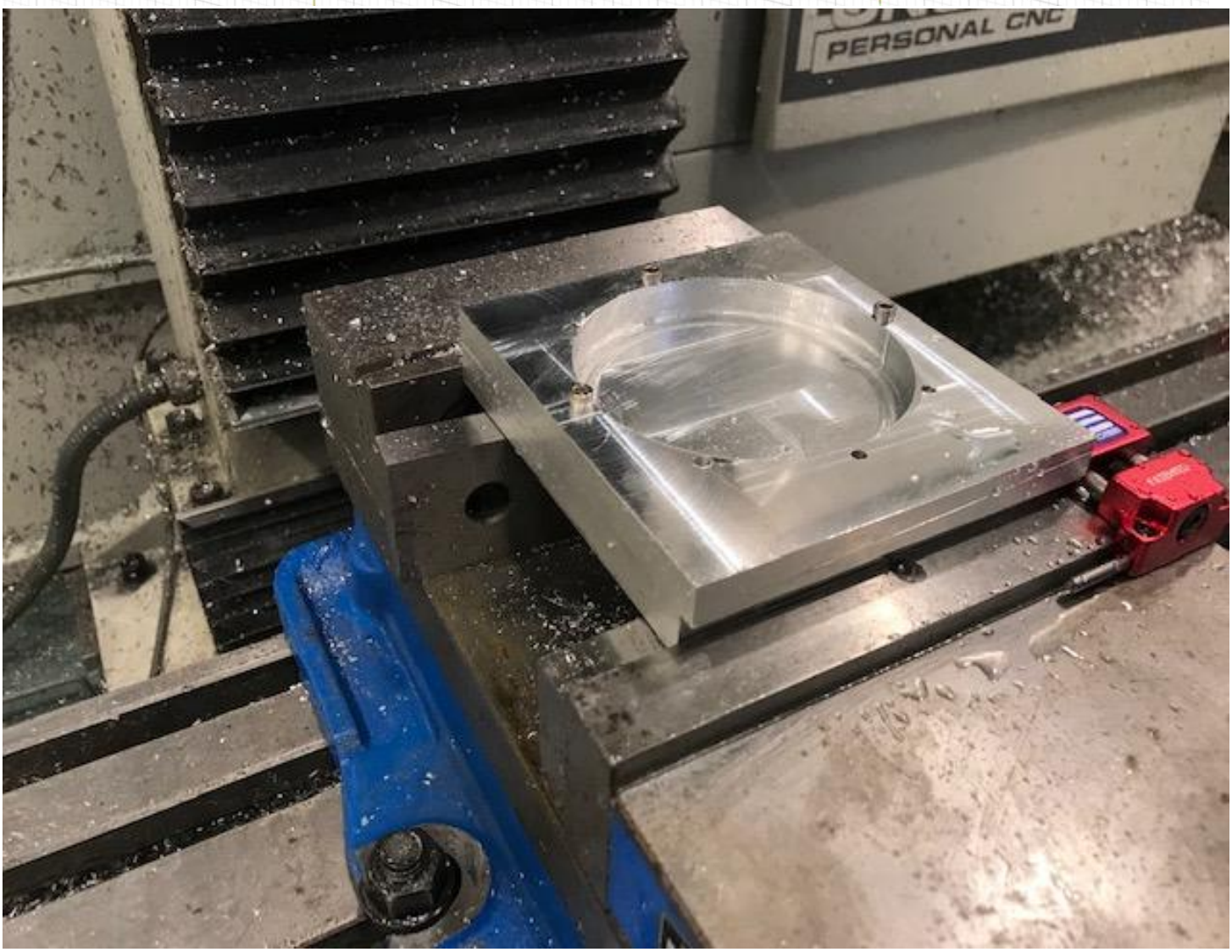
Using a full scale Gearbox and Torque Plate template over the fuselage frames we could easily see the material that needed to be removed and plot the cutting lines.

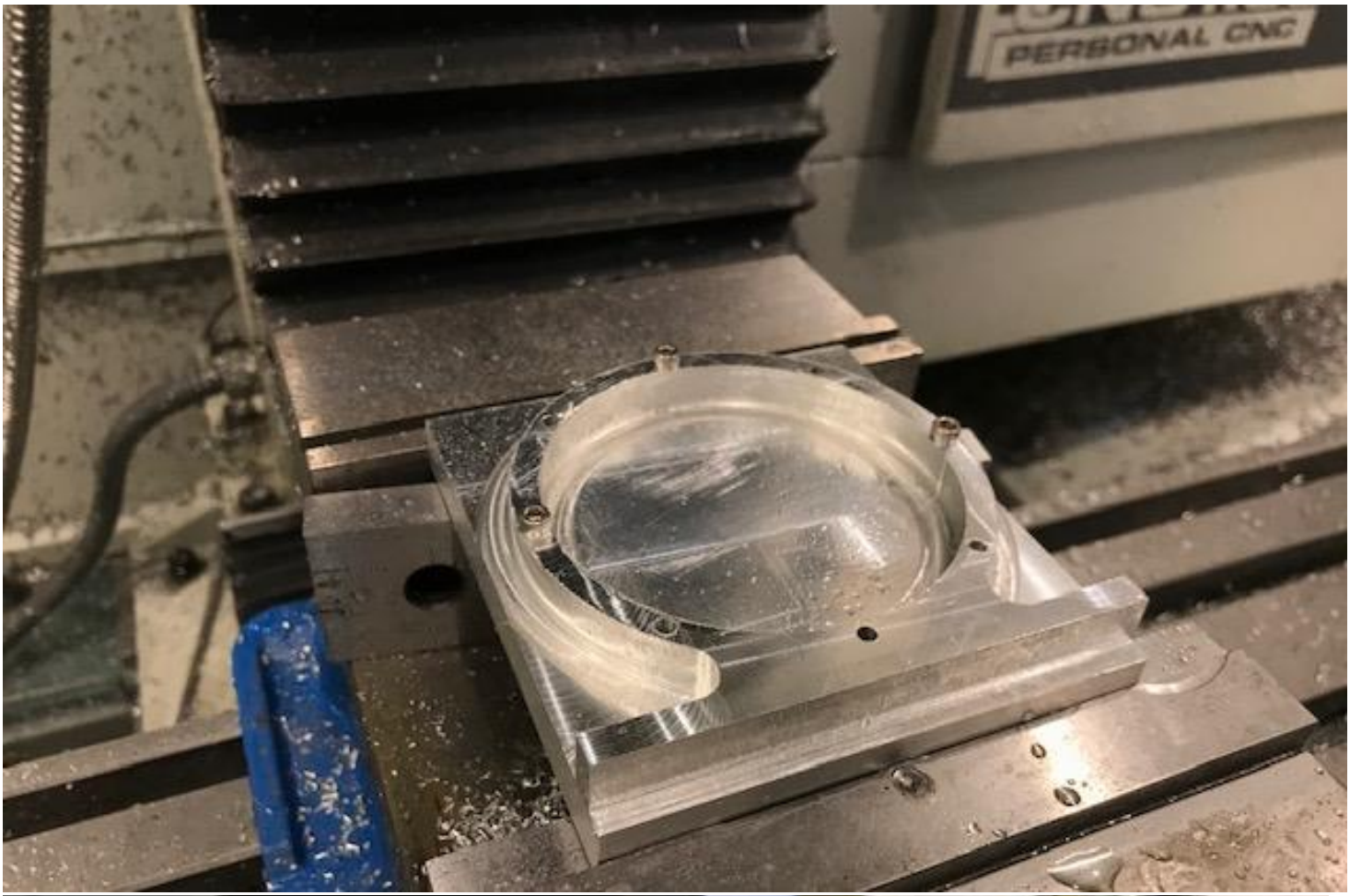


While I concentrated on preparing the fuselage frames for assembly Jim was finalizing the gearbox design. The gearbox wasn't really necessary, but the real P-39 used one and we were going to do the same. Besides it's there for bragging rights and it raises the "Cool Factor". One small point of interest here is the gears were designed for our XP-72 project and are still going strong there after three years so Jim just made another pair.

The gear box is a one-to-one ratio. It simply elevates the drive vertically 3.0 inches. On the back side of the gearbox the propeller shaft rides in the thrust bearing.




PERSONAL CNC


PERSONAL CNC

First assembly everything went together exactly as planned. The gearbox was run in the vice powered by an electric drill for about 10 minutes. No issues were noted.

In this photo shows the back side of the gearbox. The Input shaft has no coupling. The large nut holds the thrust bearing in place. After torquing it will be safety wired in place. The excess threaded rod will be cut off.

Last entry 12/18/2012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