

Semi-Scale Allison Motor

Tools needed

Sandpaper, Xacto knife, drill bits, CA Gap filling glue, Spackling compound, paint

1) Check all of the part for burrs and seams from the 3d printing process. They can be cleaned up with the Xacto blade and/or sanding. Rough areas can be filled a bit with vinyl spackling compound and sanded. This is really important on the head covers which you want to make as smooth as possible.

2) At this point it is probably a good idea to paint the various parts. Usually the engine block and cylinders are black. The head covers could be any color based on the boat. I used Perfect Match paints from the auto supply on the prototypes. Check the web site for some color pictures.

3) Assemble the cylinder heads and the main block. There are holes in the cylinder heads for the intake header which fits like the picture to the right. You may have to drill them out slightly to fit. Note that the pipes on the intake will be pointing up.

Eventually there is a double tube from the super charger to the downward pin on the intake manifold.

Note that the pointed end of the cylinder head cover points toward the supercharger. The "interconnect" between the two cylinder heads is attached to the pointed end of the head cover.

4) Note in the assembly of the block and cylinder heads that the mounting holes for the intake are on the inside, and the slot for the exhaust header is on the outside of the motor.

5) There are a couple pieces for the supercharger, as shown in the image to the right. Once the supercharger and intake stack are assembled, along with the intake headers, you can slide in the tube that connects the headers to the supercharger.

6) The exhaust goes into a slot on the outside of the cylinder block. There are a couple options with a small S curve piece and a "flare" for the end of the exhaust. The S- curve can be optional depending on the boat. The exhaust comes in two pieces and there will be a seam between the two that will need to be filled and sanded.

