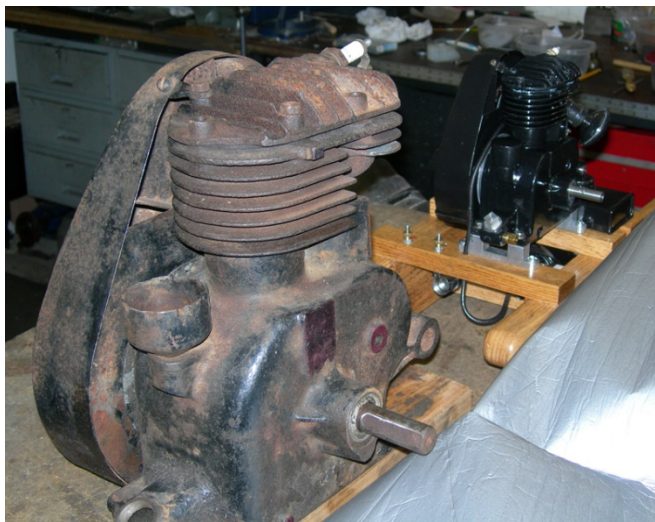


General Project 32—1/2 Scale Briggs & Stratton "Y" Engine/George Baisz



The full size original Briggs & Stratton engine in the foreground provided the dimensions and part shapes for George's 1/2 size working model in the background. All photos: George Baisz

A few years ago at the NAMES show in Toledo, George Baisz brought some pieces of an engine he was working on to the Sherline booth. He told us he was working on modeling a Briggs & Stratton engine at 1/2 scale, and the first parts looked really nice. I asked him to keep us posted on the progress of the engine and he has done so, sending in a few pictures here and there as parts were completed. Now the project is completed, so we would like to present a series of photos of the construction so you can see the parts and some of George's setups.



Photo 1



Photo 2

Continued, Page 2

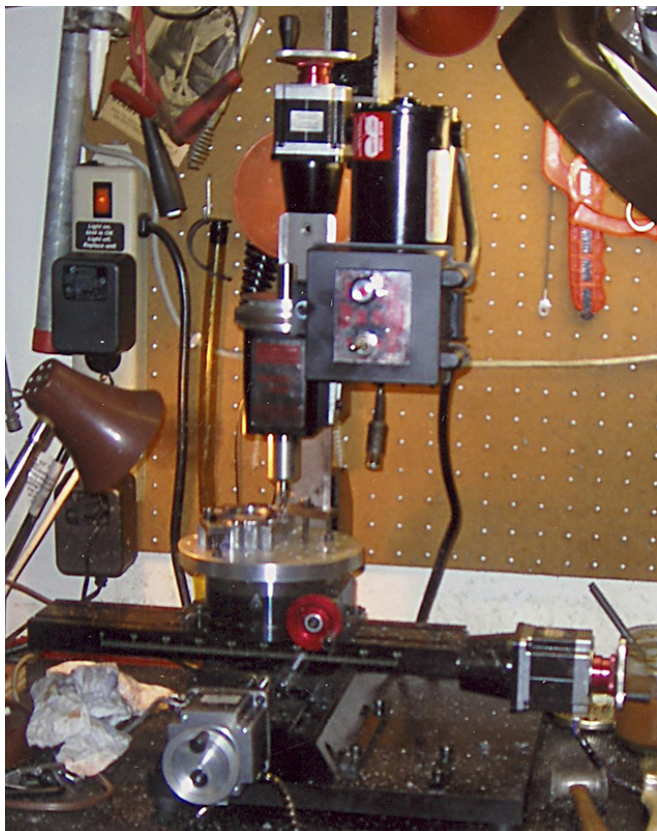


Photo 3

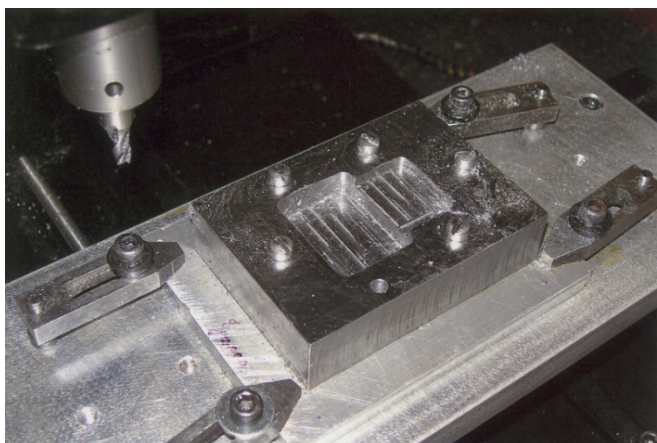


Photo 4

Photos 1-4 show the block and head in place, a detail of the outside of the head, a part being made on the Sherline mill and the cavities in the underside of the head being machined.

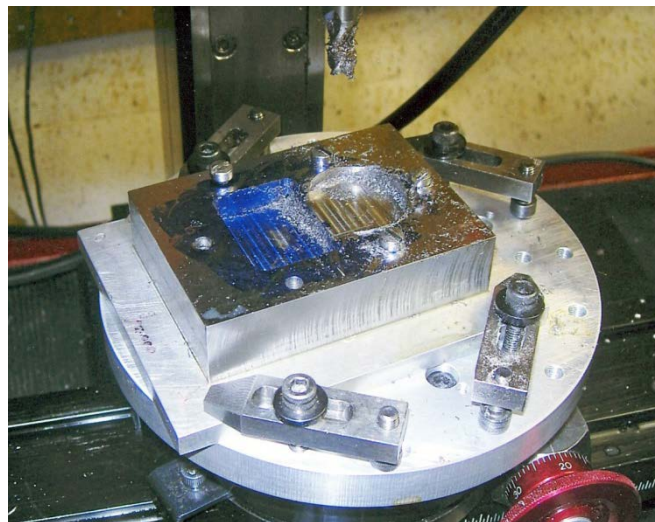


Photo 5



Photo 6



Photo 7

Continued, Page 3



Photo 8

Photos 5-8 show a continuation of the machining of the underside of the head plus a photo of the finished head next to the full-size prototype. Next comes the gear teeth on the cam gear. The last photo shows the finished cam gear and camshaft next to the real thing.

To build the model engine George purchased a rusty, old engine for two dollars at a swap meet. It wasn't worth restoring, but it was complete and gave him the parts he needed to measure and duplicate at 1/2 size to make the model. The Briggs & Stratton "Y" engine was built in the 1930's and was used to power wash machines, water pumps and later on many found their way into kids' go karts. George beefed up the kick starter a little so it would stand up to being used at 1/2 size, because he likes to run the engine often at shows. George has built hit-n-miss, steam and other types of engines as well.

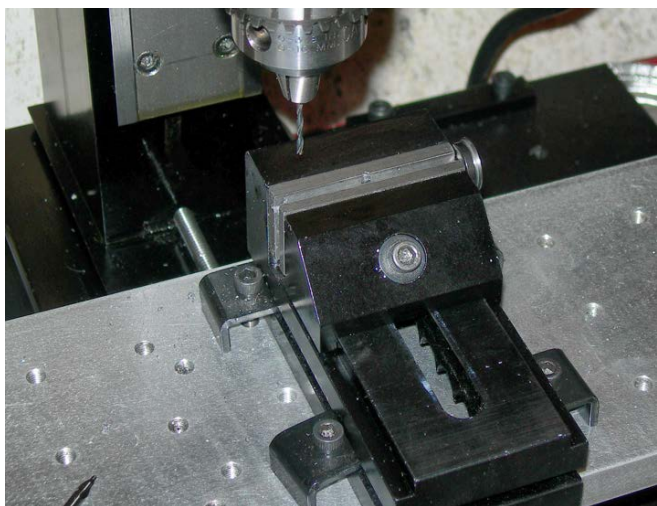


Photo 9



Photo 10



Photo 11

Photos 9-11 show a valve being cross-drilled, a partially completed valve and a completed valve with spring and keeper assembled.

Continued, Page 4

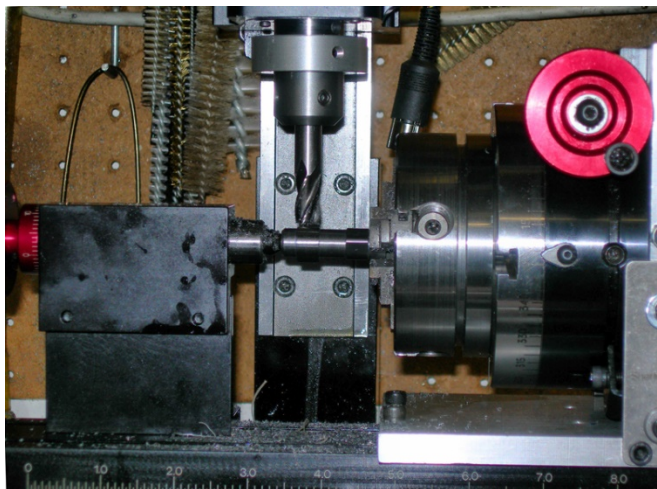


Photo 12

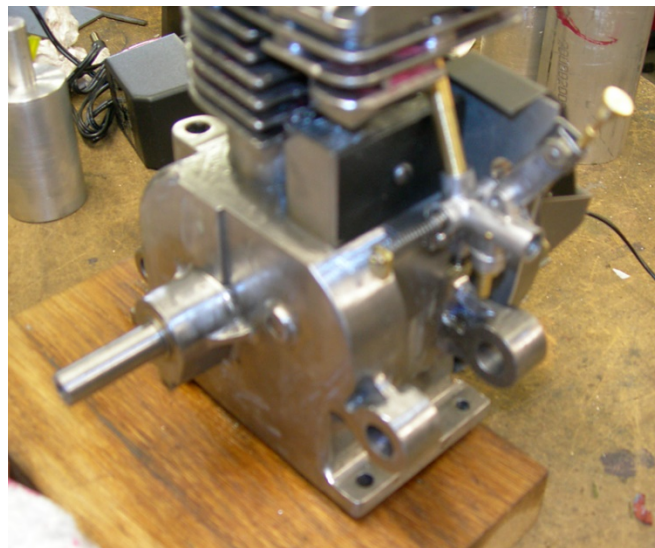


Photo 14

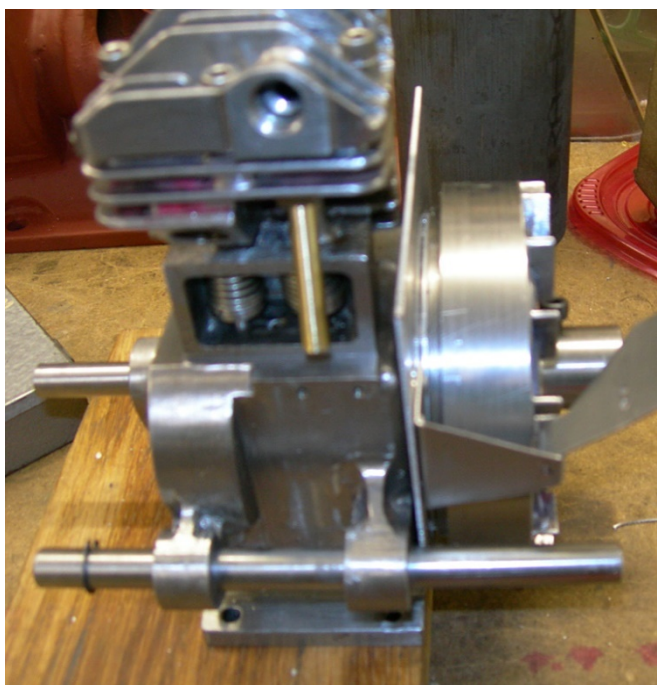


Photo 13



Photo 15

Photos 12-15. Photo 12 shows the camshaft being milled. The next two photos show the assembled block, cylinder and head, while the last photo shows the sheet metal engine cover in place and primed for paint.

Continued, Page 5



Photo 16



Photo 17

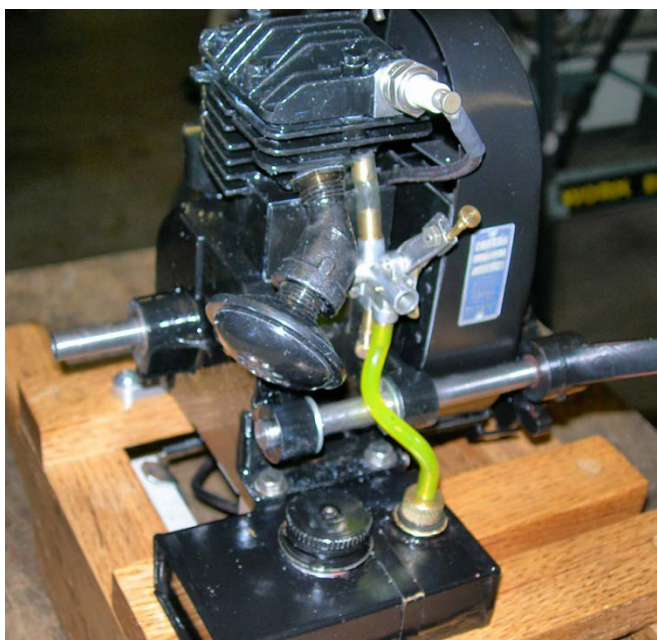


Photo 18

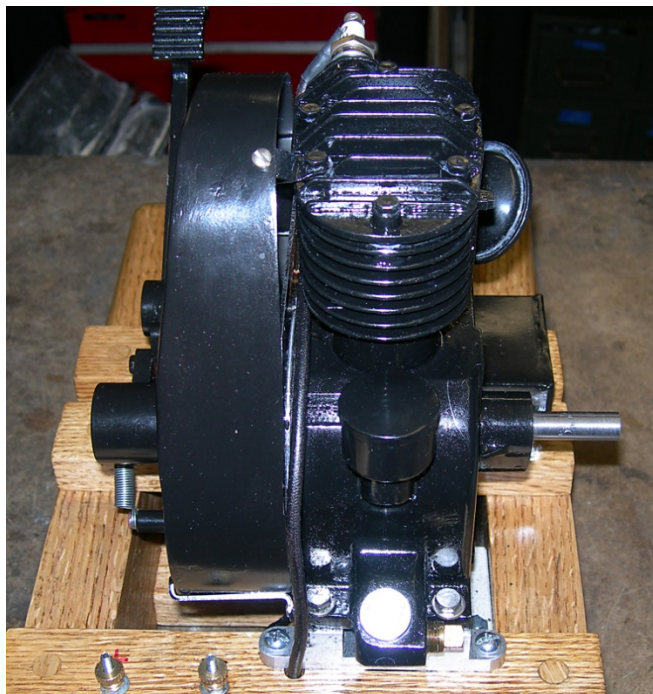


Photo 19

Photos 16-19 show the finished 1/2 size engine next to the original prototype. It is accurate down to the scaled decals. A small fuel tank is mounted to the wooden base.

George will be bringing the finished engine with him to the NAMES SHOW this April in Detroit. We will try to get some additional photos of it (in focus!) and post more details and perhaps a video clip of it running. George reports that as of March, 2010 the engine is a little hard to start, but it has been run about 10 times so far and runs really well. It even sounds like a Briggs & Stratton!