

Phil Johnston, Restoration Award

Rebuilding the Spitfire

I bought this 1960 BSA Spitfire Mark I Scrambler project in Montana around March, 2015. It consisted of a frame, disassembled engine, 2 gearboxes, forks, wheels, gas and oil tank, and a box of loose parts.

The frame had several dents in the bottom tubes, missing and extra brackets. Overall it was in good condition.



The gas tank had several dents and surface rust but was otherwise solid. It was sent off to a dent repair specialist in California who repaired the dents without filler. Then it was off to Meclec in Fresno for new chrome. Oh, the postage...



The center stand was junk and the side stand was missing... Incorrect brackets were removed and dents were removed - then off to the Blast Tech for sandblasting. It was put in a frame machine to verify correct alignment. Finally, it was off to Taint Paint for a coat of 80% gloss powdercoat.



The swing arm, engine plates, footrests, fork sliders and other small parts were also sent off for powdercoating.



The wheels were broken down and the rims went off to Meclec for new chrome. New stainless steel spokes were sourced from Central Wheel Components in England while the hubs were bead blasted, repainted, and new linings were installed on the brake shoes. Then I laced and trued the wheels.

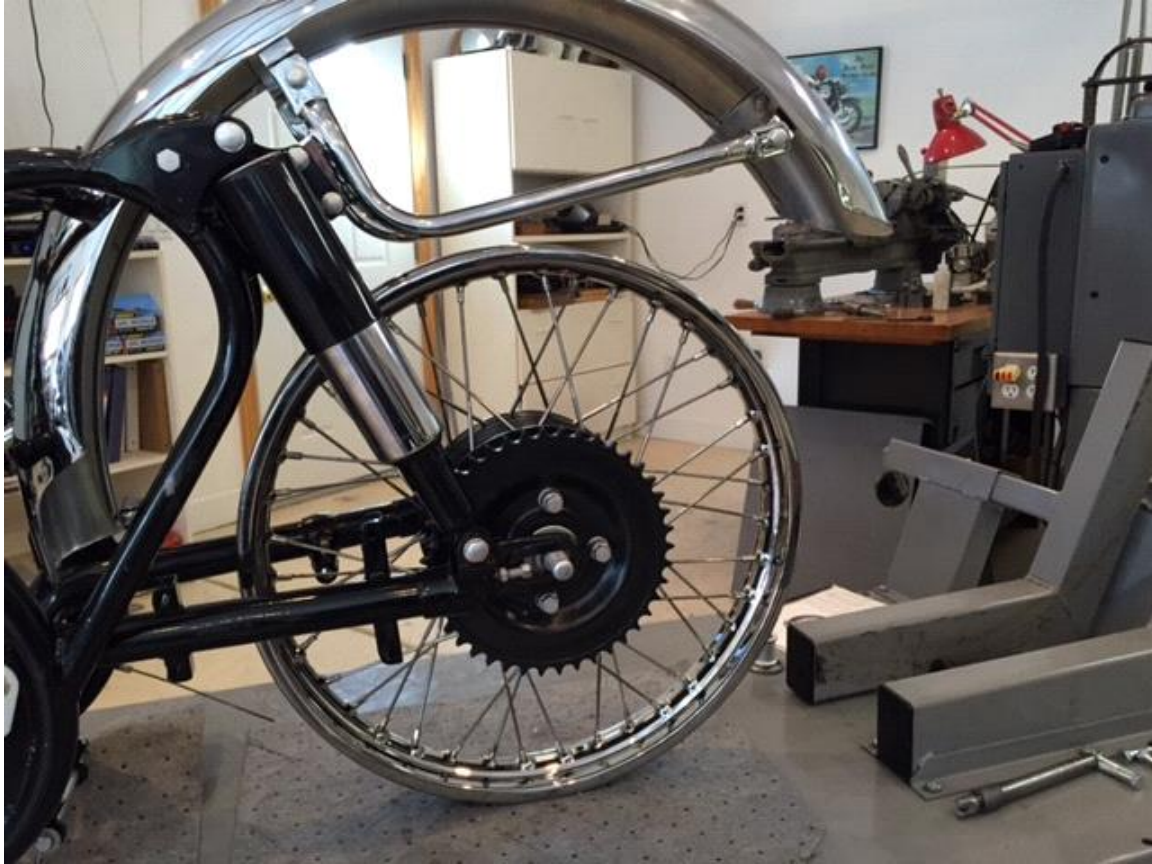
During this time I made many new bolts and studs with the correct threads and head design. Aero Propeller in Broomfield CAD plated all the new and repaired fasteners.



All new bushings and seals as well as new fork tubes were installed in the front suspension, and new rear shocks were sourced. I was able to find a genuine new old stock chain guard - what luck!



The fenders are the same as BSA Goldstar scrambler, so I was able to find correct fenders from Chris Williams at Autocycle Engineering in England. This model uses a special front fender that is rolled in front and plain cut in the back. It was only used on a few scrambler models.



I was able to locate some modern Avon Trials tires which have a period look but are not checked from age.



The tank was back and it looks super! I was able to find a paint code that closely matched the original. I painted it on top of epoxy primer and Joe Broxterman hand striped it.



I starts to look like a motorcycle. I rebuilt the rare SC T2 gearbox with all new bearings. The engine was overhauled at the same time and it also received new bearings, pistons and valves. I was able to find a correct AMAL monoblock carburator so it was rebuilt and installed.



The fenders were originally attached with flat head screws rather than hex bolts, so they had to be made on the lathe and milling machine.



Just a few hundred finishing touches left. New exhaust pipes were ordered from England and they fit pretty well... R.K. Leighton made the seat, which is excellent quality! Scramblers are easy when it comes to wiring - there isn't any! I had the magneto rebuilt by Doug Wood and it supplies great spark.



Many of you have seen - and heard - the finished motorcycle. I took about 2 years to finish, but there were several other projects underway at the same time.

Phil Johnston

November, 2017