

## John Deere Chopper Build Notes



I was approached at the 2018 Motorcycle Supershow by the owner of this custom bike to build a replica model of it. The Revell custom choppers would provide the engine, basic frame, wheels and tires. The rest would have to be modified and/or scratchbuilt.

The model was delivered at the 2019 Motorcycle Supershow. In the intervening months, the owner had modified the bike substantially. However, he now has a model of the original bike and the updated real bike.

### Frame and bodywork

The basic from the Revell kit was used with a few modifications. The area under the gas tank had an added piece of styrene rod and sheet styrene to fill in the area. The rear wheel mounting plates were removed and new sheet styrene ones built. The oil tank was modified with a platform for the battery and some side plates. The frame was also modified to mount the tank to the downtube.

The biggest frame modification was to fabricate the new softtail side plates from sheet styrene. This also included blending in the fender mount to the frame.



Figure 1 - Revell Custom Chopper frame

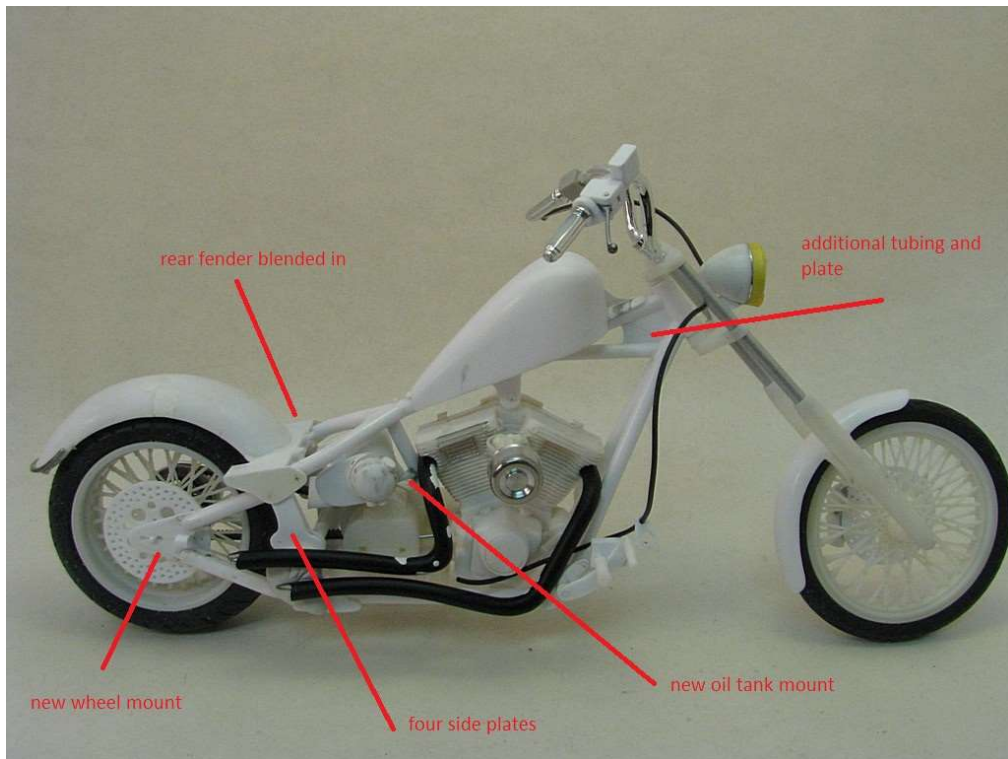


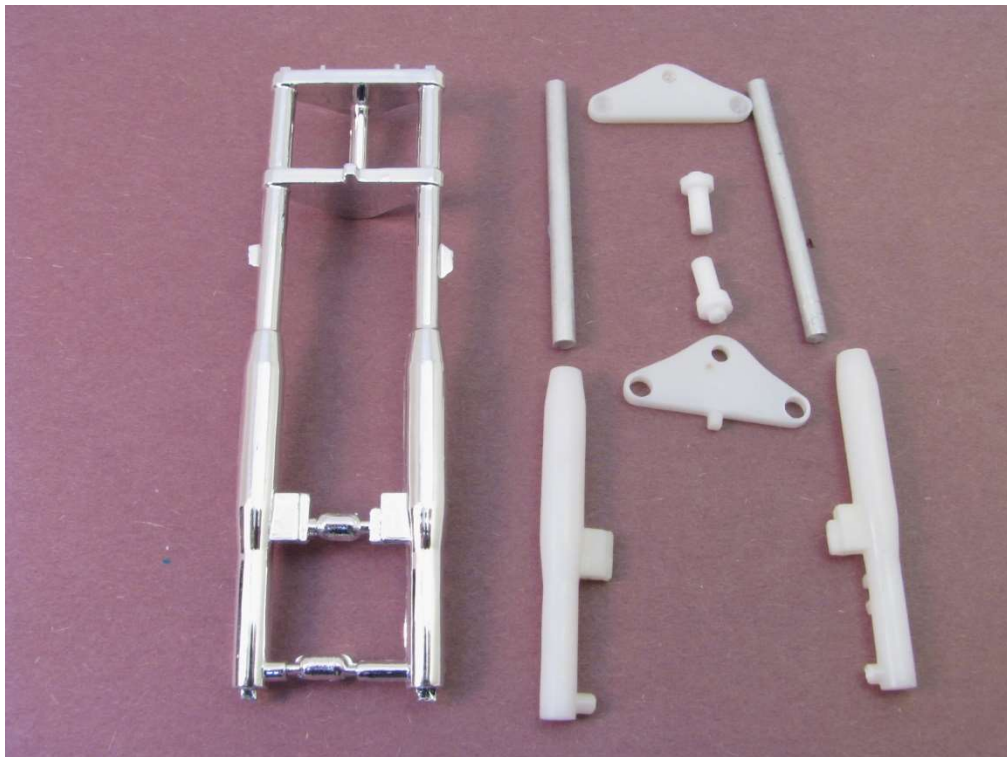
Figure 2 - Modifications to the frame

Two rear fenders were joined together to give the longer version on the real bike. This also involved removing unneeded material from the sides and front of the fender.



*Figure 3 - Modifications to rear fender*

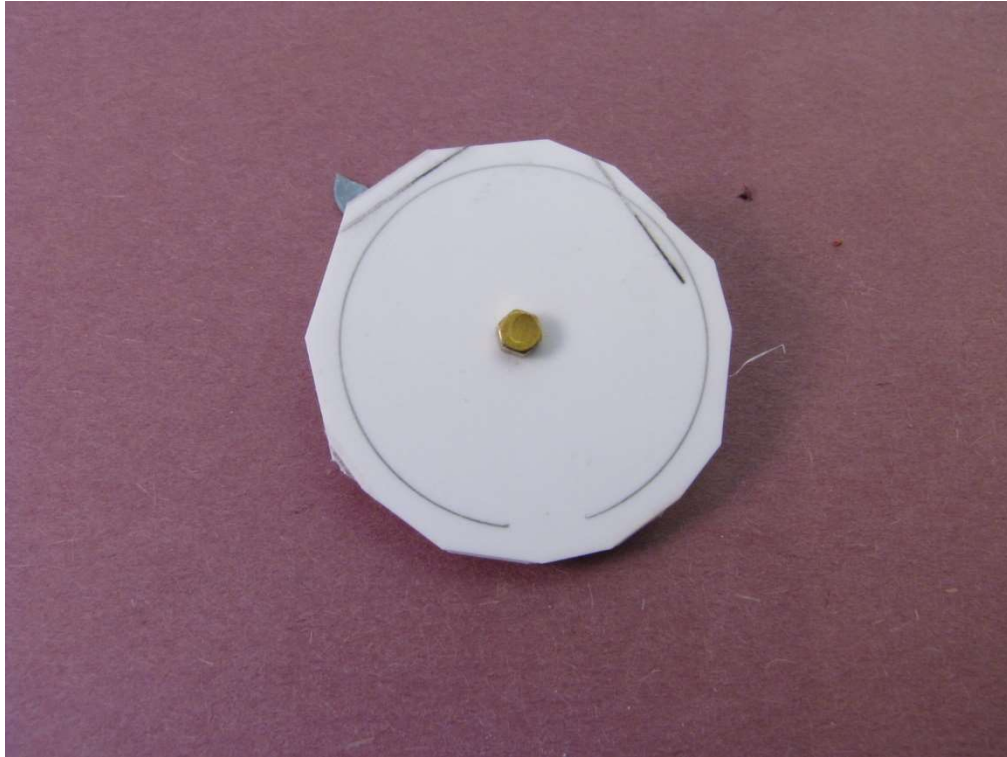
The front fork was separated, the downtubes replaced with polished aluminum and triple trees modified.



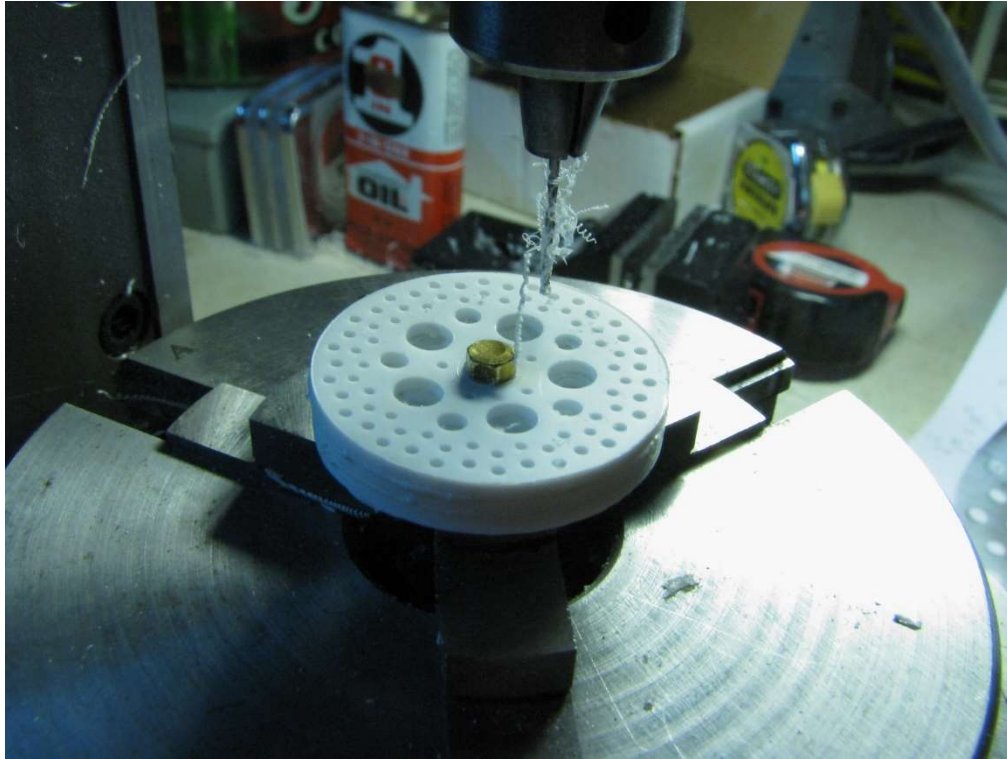
*Figure 4 - Before and after front forks*

The most challenging part of the build was to scratchbuild the brake disks. These disks are standard aftermarket disks used in many choppers. The ventilation holes are four different sizes and are organized in a unique pattern. The disks were first rough shaped from sheet styrene, a hole drilled in the middle, mounted on a small nut and bolt and then turned on a lathe to get the correct diameter.

The two disks were then mounted on a dividing table and the holes drilled out in the correct size and pattern. Luckily, it worked out perfectly the first time.



*Figure 5 - Brake disk roughly shaped.*



*Figure 6 - Holes being drilled in brake disks*

## Engine modifications

There were only a few things done to the engine:

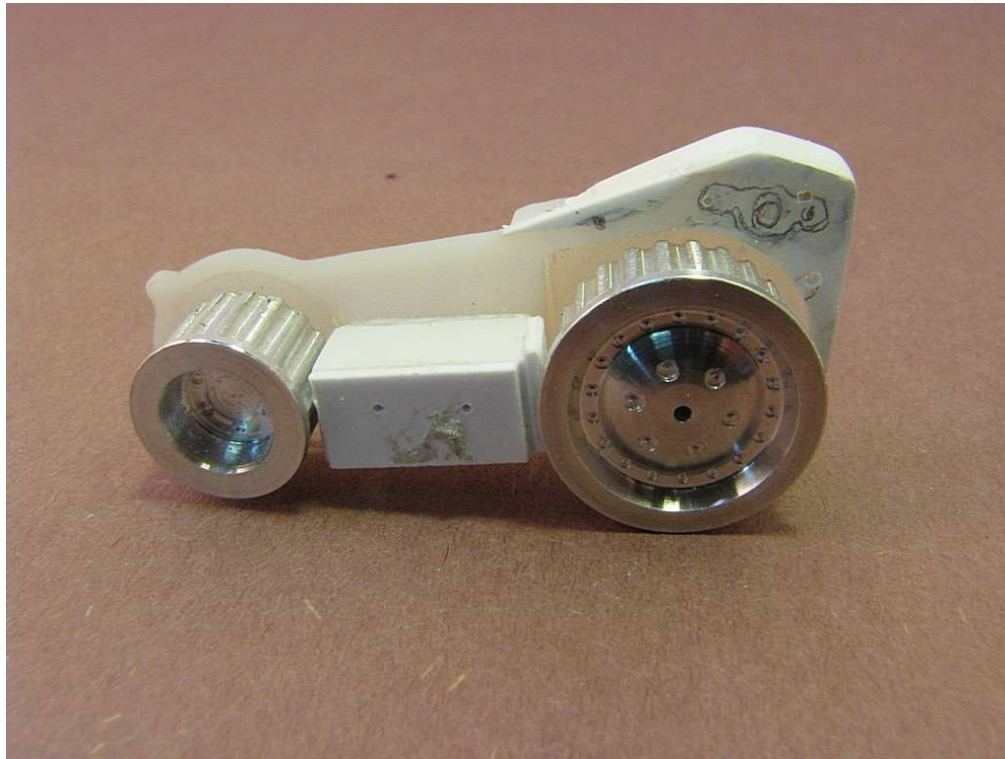
- Removing the oil filter from the lower front of the engine casing
- Adding a front engine mount
- Grinding out the carb mounting area to allow the carbs to be tucked closer
- RB Motion spark plugs and spark plug boots were added
- Scratchbuilt ignition box

The primary drive was modified extensively:

- Material added to the upper, rear section
- Aftermarket turned aluminum pulleys and toothed belt added
- Scratchbuilt cover with a number of RB Motion socket head screws added

The final drive consisted of a rubber toothed belt taken from a diecast chopper. The final drive pulley was a modified parts box 1:24 scale wheel (possibly Ferrari) with 0.015" thick clear styrene side plates.

The exhaust pipes were scratchbuilt by sliding thick solder into an aluminum tube and then bending to shape. During the process, some kinks and breaks occurred. These were repaired using Milliput two part epoxy putty, followed by sanding and some additional touch ups.



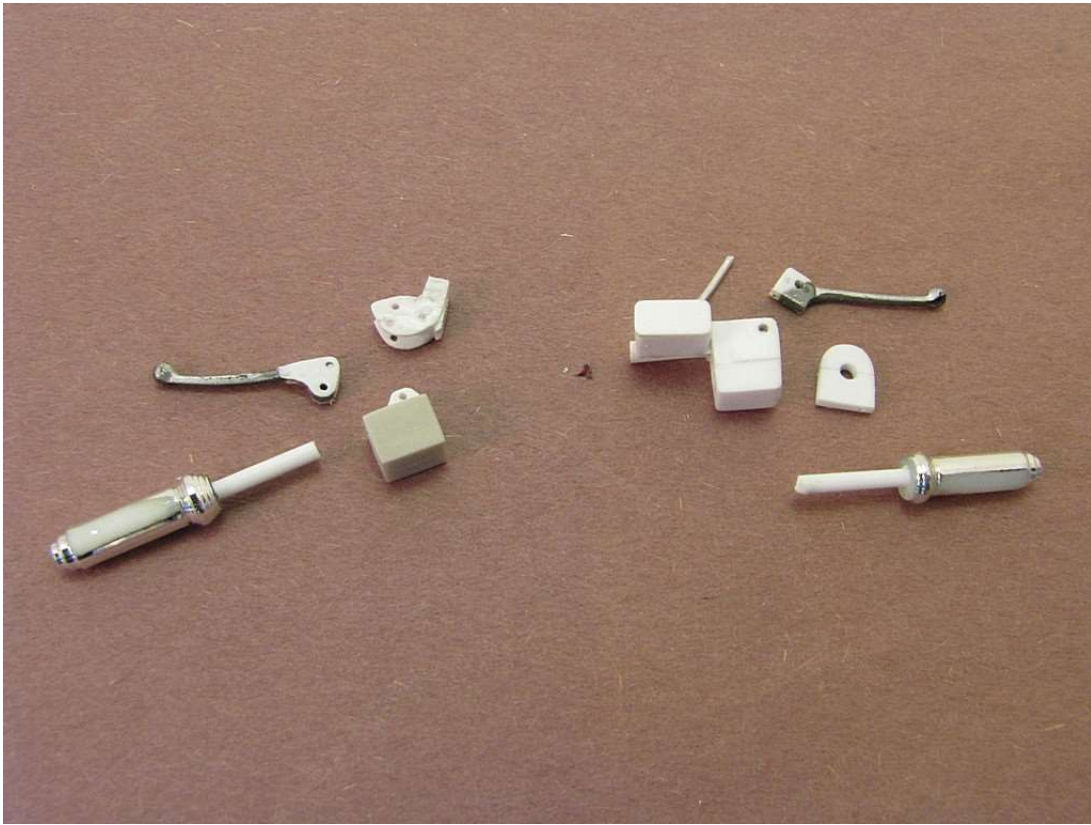
*Figure 7 - Primary drive modifications*

#### Other items

The footpegs and handlebar controls were mostly scratchbuilt to match the real bike. The seat was made from a piece of styrene sheet for the base, followed by Milliput and much sanding to get to the desired shape.



*Figure 8 - left side footpeg, clutch pedal and kickstand*



*Figure 9 - Handlebar controls (brake, throttle and clutch)*

## Painting

Major body parts were painted with RustCheck enamel paint because they had a John Deere green and John Deere yellow in cans. The paint was decanted and airbrushed, followed by four coats of acrylic clear (Tamiya X-22, thinned with Tamiya acrylic thinner). Molotow chrome was airbrushed for the chrome parts



Figure 10 - Parts drying



Figure 11 - The bike owner, me, the model and the updated real bike