

# Bonneville Update – Dec 2020

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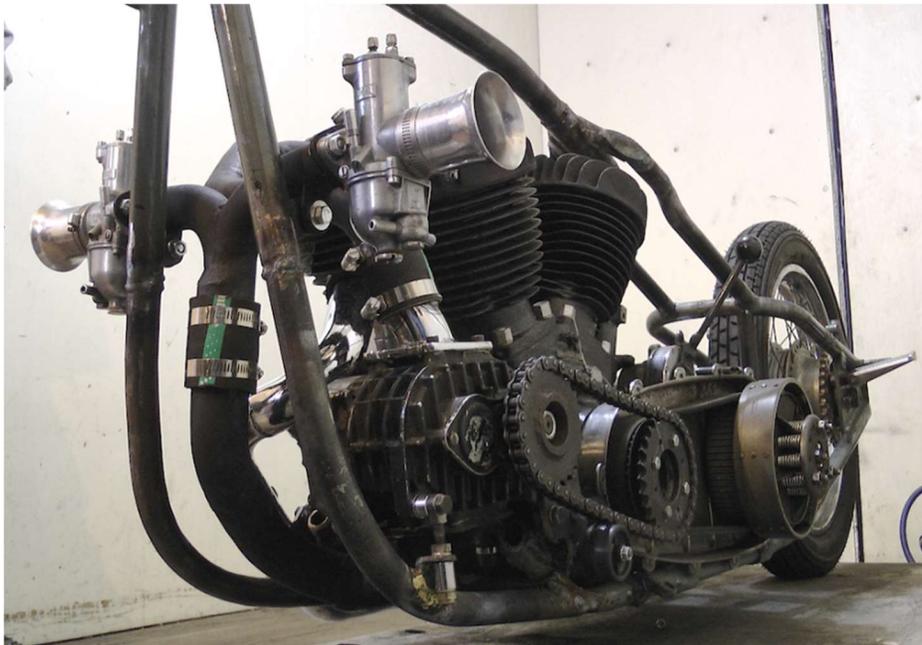
**Gary MacDonald**



**Ted Hector**

## **Blown '42 UL 80 inch Harley Davidson (military) Bonneville Salt racer Update 1360cc AR500 blower 5 psi**

To accommodate the supercharger, the frame has been extended by seven inches at the front. A new spine and lower front down-tube rails were fabricated and installed. A major side benefit of this increased length is a repositioning of the rider further back atop the frame. The new "S" bend in the frame's spine allows Ted to tuck in behind the steering head (rather than being perched above it).

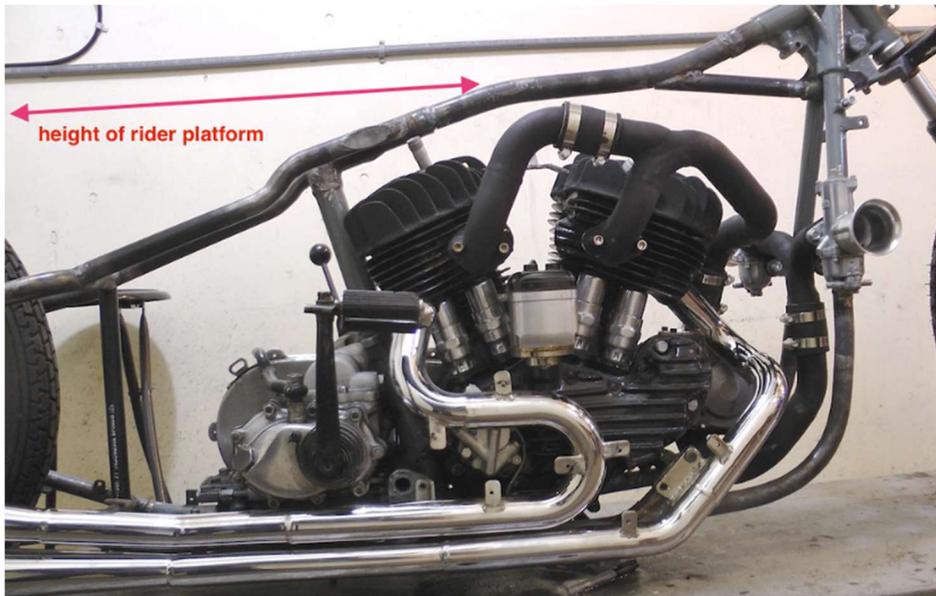


The supercharger is positioned in front of the engine. Two Amal 32mm carbs attached to a "Y" pipe just inside the frame's front down tubes are ducted to the bottom (entry) side of the blower. Pressurized mixture exits from the top of the blower and is ducted to the individual intake runners on the right side of the engine. The velocity stacks will sit flush with the fairing on each side away from any salt spray from the front tire.



A slip joint between the front and rear ducts allows for cylinder growth as the engine heats up.

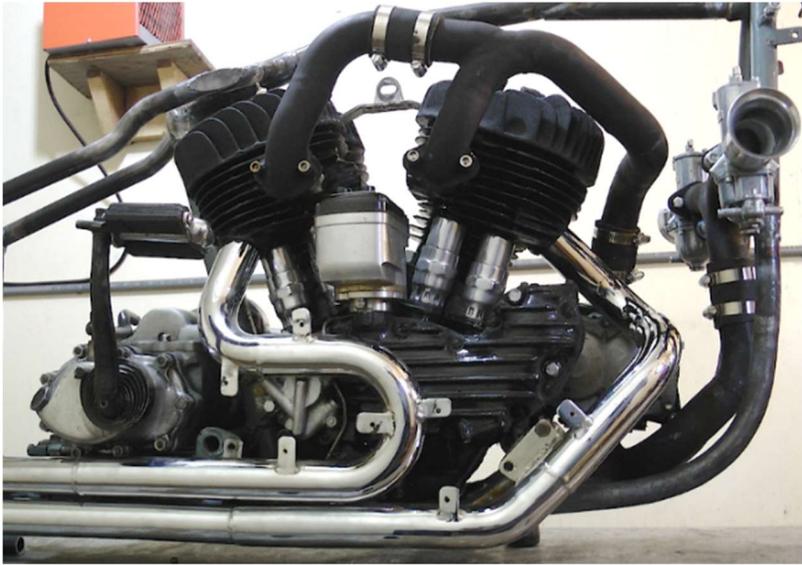
There will be a priming port built into the intake to allow for cold starts as well as a dual spark ignition, aircraft sparkplugs, and twin fuel pumps.



Here's a good view of the "S" bend with the front frame extension, seat height. The fuel tank will sit below the seat.

A subframe with a seat bracket will be fabricated from the midpoint of the top spine, straight back above the rear wheel.

This will allow Ted to lay flat and maintain a streamlined riding position leaving him more room to tuck his legs in tight (rather than trailing behind). This allows for a more conventional riding position and helps to keep the height and width of the front fairing narrow with the rider enveloped behind it.



The chrome exhaust is just there to help with the mock-up and will be replaced with a set of new custom-made pipes that will be tuned for maximum engine performance.

It's not a secret. Gary or Ted will explain this to anyone who listens. Large diameter pipes and huge carbs will not always get down the track faster with a vintage Harley flathead.

Higher Intake flow and exhaust gas speed can be achieved throughout the engine with the correct diameter pipes and that doesn't always mean bigger.

Ted fashioned this half scale model of the front fairing using an English wheel.



It's going to be a long bike, 112 inches, with the rear fairing tapering down slowly from the rider as it extends eight inches past the rear edge of the back tire. Overall, the fairing will have a much smaller front profile, 16 inches, and the extra frame length will allow more subtle curves along the fairing. The long tail extension will help reduce drag. Rules require that the rider profile be completely visible except for the forearms.

Competing for 13 years at Bonneville with various projects like this has become an annual event for Gary and Ted. They hold 7 separate class speed records at Bonneville. Long hours and great expense are invested with no guarantee of success or even being allowed the chance to compete. Inconveniences like the conditions of the Salt Lake bed, extreme weather, or even a global pandemic pop up now and then.



What Ted sees and feels when riding is a far cry from what the camera shows from a distance. Track conditions are rarely ideal. Ruts, potholes, and loose unpacked salt can be the norm. When you factor in the high altitude, extreme heat, cross winds, and risk of injury alongside waiting in endlessly long lines you must wonder, are these men addicted to SALT?



AMCM Member Bill Fraser completed a documentary film "SALT" which premiered last September 24<sup>th</sup>. Its about Gary and Ted's trip to Bonneville and chronicles one of their record-breaking runs. With Covid-19 restrictions in place attendance was limited. Although a success, it was nothing like the crowd we had planned for. DVD's are available for purchase.

So, if you missed the premiere you can still own the DVD. Contact Bill Fraser at: [navionco@gmail.com](mailto:navionco@gmail.com)

By Ken Charleton

Gary MacDonald and Ted Hector supplied the pictures and the technical information. I volunteered to splice some pictures and conversations into a writeup for the newsletter to keep us updated on their quest. More to come in 2021.