

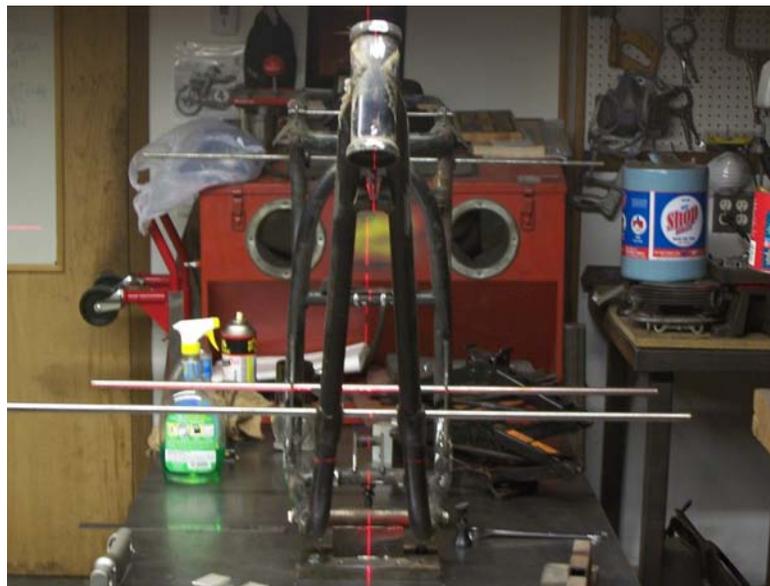
68 BSA Café Project

Due to some damage to the last frame my 68 BSA needs a new one. Through my work and putting around I get to see a lot of café mods, some very cool looking bikes. But I also have noticed that one item that should get a lot of attention usually gets a new coat of paint and forgotten about. So I thought it would be a good start to these articles to walk through what I do to prep my frames for the road and track.



The photo on the left shows a crack or break in the frame just aft of the lower motor mount. This happened at Barber due to the frame twisting during cornering. The pic on the right is a connecting rod that decided it needed a new home at Road America. Now both areas were repaired and the bike did get back out on the track but sense the race bike has now gone to an modified OIF I felt it was a perfect time to bring the 68 back to the street.

Now the first thing we're going to need is a level surface to work from. My table is a little over kill for a once in a while job it's a 1.5" thick solid steel and it is within $\pm .002$. The first think I do is a visional inspection and in this case the rear peg mount was bent but not were you would think it had damaged the rest of the bike. But then looks are always deceiving.



The table has a grid engraved into it which allows me to set up a self leveling laser that shots down the table and from floor to ceiling. I have a jig that bolts to the table and than to the lower motor mount, the jig is centered on the grid so now the frame is centered on the table. I then spend a good amount of time making sure that the frame bolts into the jig level before I start measuring.

Then I set the backbone to the same angle as listed in the engineering specs. Now we can start taking a look at the true condition of the frame.

By inserting lengths of drill rod into the mounting points of the swing arm, shocks and motor a clear picture of what we're working with becomes apparent.





Now between the laser and the drill rod I can see that the swing arm mounts are off the shock mounts are bent badly and the whole frame is actually twisted a little.

It may surprise some that there is this much wrong with a frame that "looked" in good condition but don't be I have yet to put a British frame on the table that was perfect.

This frame is 43 years old and you know its been down a few times over the years plus back then they were hand built using jigs and if the guy had a few to many the night before or just



the normal wear of the jig allowed the frames to be off a little here and there. Because of the twist the neck is tilted to the right and the swing arm to the left. I'm not real worried about the shock mounts that a pretty easy fix. The swing arm offers a interesting opportunity though, the bikes handling would benefit from the mount being moved up about a half an inch. Well that's as far as I can go this weekend house needs some work to, I'll add more as the project continues.

Till then, Pat