

BLT Guys Mitchell Install – April 24, 2021

by Tom Endy

A Mitchell install was conducted by the BLT Guys organization on Saturday, April 24th 2021 at my house. The install was a double, a synchro transmission and an overdrive. The car is a 1931 Sports Coupe owned by Steve Miller, who lives in Garden Grove and has no Model A club affiliation. We started at 9 AM and the car was road tested at 3:30 PM. The installation fee was donated to the Model A Ford youth restoration program. There was a good turnout of BLT willing workers including a large contingent from the Santa Anita A's Model A club.

The owner opted to purchase one of my rebuilt bell housings that enabled us to mount the new synchro transmission to the bell housing a few days before. We also installed a Mitchell “real deal” widget. This turned out to be a good call as the bell housing we removed from the car had the two bottom ears broken off and was cracked across the bottom. Both the pedal shaft and the clutch release shaft were badly worn. We also found a broken Bendix bolt in the bell housing.

The project included replacing the pressure plate and clutch disk with new. We found the fingers on the new pressure plate were way out of adjustment. Fortunately we have a tool to properly adjust the fingers. Pressure plates procured from the Model A suppliers are touted to be properly adjusted. Don't bet on it!

The 1931 Sports Coupe was in reasonably good shape. The owner had done a lot of work on it and he drives it regularly. We did not find any strange things that had been done to the car, so we did not anticipate any show-stoppers. We were wrong!



Steve Miller and his 1931 Sports Coupe that received both Mitchell installs

We almost had a show stopper. We removed the torque tube and attached my pinion puller to the drive shaft and expected to pull the whole pinion assembly out intact, instead the only thing that came out was the drive shaft. The threaded end of the shaft was butchered and the nut was missing. We were at an impasse on how to get the pinion assembly out. I did not have one of the pullers that you put behind the two large pinion nuts. However, the owner of the car had bought such a tool from Mitchell. He had to go home to get, but it saved the day. When we got the pinion assembly out we were able to fish the nut out of the banjo with a magnet. Fortunately there was no damage to the ring and pinion. I suspect what happened is that when the differential was last worked on the drive shaft nut had not been properly torqued and it came loose and backed off to the end of the shaft that allowed the nut and the end of the shaft to ride against the carrier grinding the nut and shaft down. Fortunately the nut remained captured between the end of the shaft and the carrier and did not fall into the banjo and destroy the ring and pinion. It appears a cotter pin had been installed at one time as there was a small portion of one remaining on one side of the nut. There were some metal particles in the differential oil, however, we were able to clean up the pinion bearings and re-set the preload. The oil in the banjo was changed. The overdrive was successfully installed.

The owner of the car donated the Mitchell tool to the BLT Guys organization.



My son-in-law Tim Stone at left, Mickey Fruchter at right

The bottom of the license plate frame has the words **DD214 ALUMNUS**. Only a military veteran knows what that means.



The owner of the car Steve Miller at left, Bob Harbicht at center, Mickey Fruchter at right

BLT Guys participants in the one-day project were:

Bryan Thomson
 Larry McKinney
 Tom Endy
 Wayne Wiedle
 Steve Miller (owner of the car)
 Chadd Miller (the owner's son)
 Bob Moore
 Bob Harbicht
 Chuck Davies
 Mickey Fruchter
 Joe Wilson
 Tim Stone
 Kevin Vidal



The damaged drive shaft nut



Steve Miller's son Chadd at left, Bryan Thompson at right

What is the BLT Guys organization?

The BLT Guys organization was started by three guys, Bryan Thompson, Larry McKinney, and Tom Endy (**Bryan-Larry-Tom**, the BLT Guys). The purpose is to install Mitchell overdrives and synchro transmissions during a one day event and charge a reasonable fee with all the money donated to the Model A Ford youth restoration program that provides financial aid to youth between the ages of 12 and 21 who are restoring a Model A. The organization was started a number of years ago, and has since grown to include many more willing workers and has seen numerous installs accomplished. An official badge is issued to each participant. The BLT Guys are recognized by the Mitchell Manufacturing Company, and have their full support.

Not to be confused with bacon, lettuce, and tomato.





Bob Moore constantly busy all day.

At the end of the day the overdrive, transmission, and clutch all worked as Henry would have ordered. The owner was so pleased he asked that we invite him to the next Mitchell install as he would like to be a BLT Guy.

Author's Note:

The installation of only an overdrive is usually a four hour event and is pretty straight forward unless there is a show stopper. The addition of a synchro transmission is a completely different ball game. Many more things are involved and it is a longer day. There is usually a desire for additional things such as a new throw-out bearing, clutch and pressure plate (that needs adjustment), pilot bearing, and sometimes a resurfaced flywheel. The bell housing is also usually found in poor condition, that is why I encourage the purchase of a rebuilt bell housing prior to the install. And a synchro transmission install opens up the possibility for additional show stoppers.