

Squire SS-100 Registry

AUGUST 1998

REPLACING THE FOUR SPEED MANUAL WITH A BORG/WARNER T5

transmission is an excellent modification for those who live where you can drive faster than 55 MPH. Ed Spielman did a first class job of detailing the merits of this conversion in last months newsletter so I'll skip more praise in favor of saying that I have also made the switch and I'm as happy as a pig in you-know-what. It should also be pointed out that this is a modestly expensive operation and some mechanical skills are required. For those who have the money but not the skills we can either do the conversion here in Phoenix or ship you the necessary parts, including the correct B/W T5 tranny if necessary, and you can have a local mechanic install it with the help of this tech bulletin. From here on I'll be writing for the do-it-yourselfers.

WHERE TO START?

is the next question and the answer is, you must find a T5 tranny for sale. There have been more than three basic T5s used by Ford and the only one that will handle our engines is the "world-class" designed for the Ford Mustang 5.0 liter V-8 engine. Prices seem to be all over the place and our advice is, get on the phone and start shopping. Here in the West we have junk yards that specialize in Mustangs and I suspect most of you do too. Another factor to consider in the overall price is the fact that you can sell your four speed quickly. The hot-rodders and Cobra kit builders love em.

WHAT DO YOU NEED FOR THE CONVERSION

is next up and it's just simple hand tools (both metric & SAE), the T5 transmission, and an adaptor plate and new rear transmission mount that we can furnish from Phoenix.

STEP-BY-STEP

This job is much easier using a hoist or pit but it can be done from the floor if the chassis is elevated securely on jack stands. Do yourself a favor and once the car is in the final working position, remove the two bottom bolts securing the tail piece to the tranny and drain the tranny fluid overnight. We neglected this step in out haste to proceed and it resulted in the damndest stinking mess you can possibly imagine.

Next, remove the clutch linkage between the pedal & bell housing. (See Clbcom 55-March '95). Remove the four U-bolts holding the drive shaft to the differential. (Regarding U-bolt nuts see Clbcom 77-June '97). Lay the driveshaft aside and no modifications to this part are required. The fiberglass tunnel cover over the tranny is held with pop rivets. Lift the edge of the carpet to locate and drill them out and remove cover after removal of shift boot. This takes a little patience

The rear transmission mount is secured to the chassis hangers with both bolts and tack welding. It's now necessary to grind off the tacks with a thin carbon wheel in either an electric drill or air tool. Once done, place a jacking device under the tranny to remove the weight and remove the four nuts & bolts. Gently lower the tranny while exerting rearward motion to disengage the pilot shaft from the engine. VOILA!! It's out, shifter and all.

Unbolt the bell housing from the engine and remove. Note: This is a good time to consider replacing the clutch plate, pressure plate and throwout bearing regardless of your mileage. We also recommend resurfacing the fly wheel at this time.

The next step must be done carefully and if you don't have the expertise use a good local machinist. Using the furnished adaptor plate as a guide, drill and tap the bell housing and bolt on the adaptor plate using Grade 8 or stainless bolts & lock washers.

Replace the bell housing and install the new T5 and hanger mount. It is not necessary to re-tack weld the mount. From here on it's just the reverse order to complete installation. Bill Lieske's drawings of the two necessary additional parts are included with this newsletter.

The clutch pedal assembly sometimes shows excessive wear on the original nylon bushings. We have replaced ours with space-age Delrin bushings and we can also furnish these if required.

You will be pleased to know that your new T5 is about half the weight of your old four speed while giving you better overall performance, mileage and less engine RPM and additional wear.

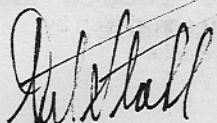
Not expecting a national rush to install a T5, I've kept this simple but if you decide to proceed we can walk you thru it with additional letters and the good old phone (or email).

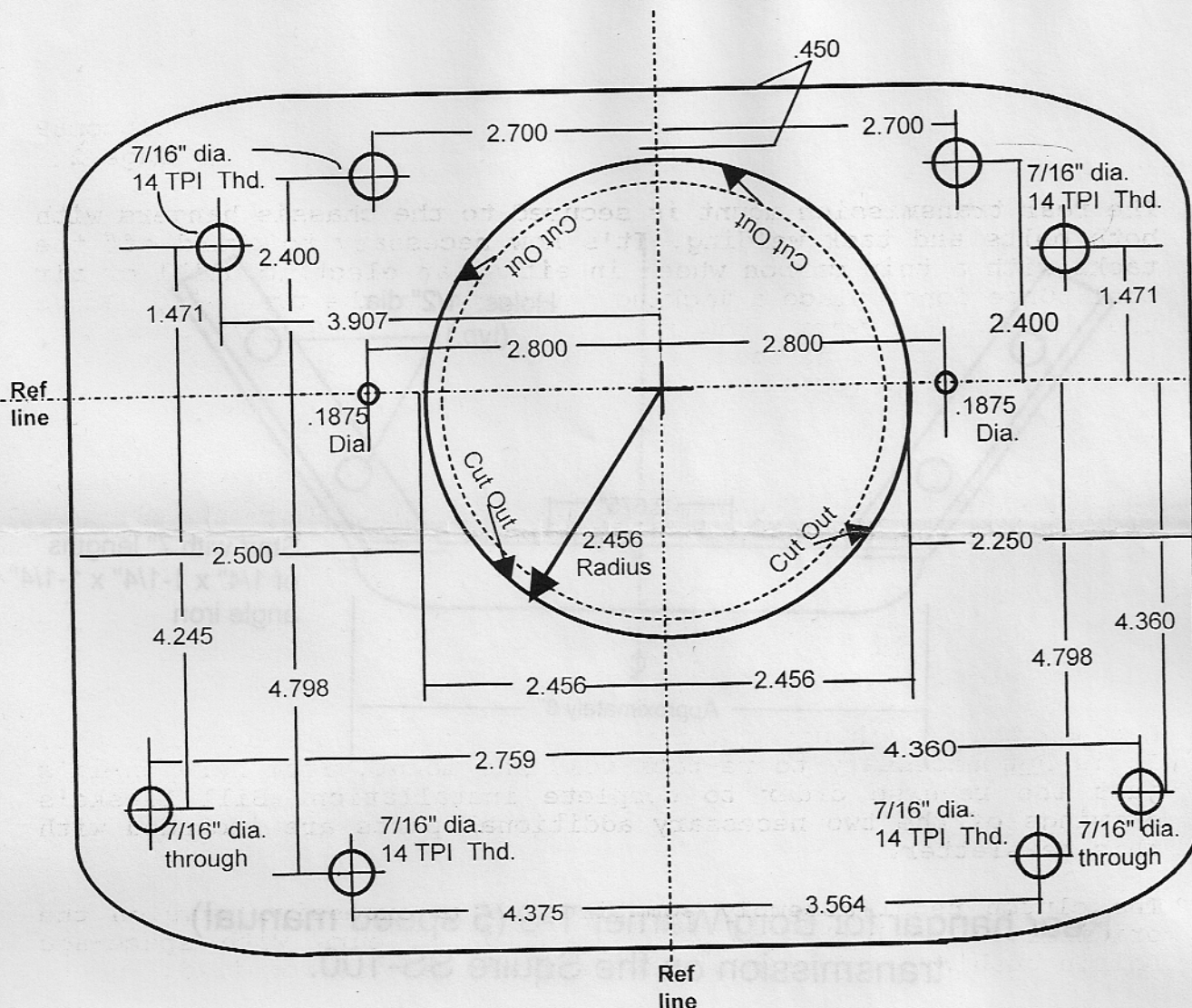
SQUIRE SUNDAY 5

will commence in a few weeks with lots of us flying in and we sure hope to see all of the Long Islanders this year so set that Sunday aside & bring nothing except your Squire, good humor and appetite.

AND ALWAYS REMEMBER

The other line always moves faster until you get in it.





All dimensioning in inches to 0.001" resolution.
Where appropriate, drilled holes dimensioned
in fractional inch sizes.

Finish: Clean all surfaces, orbital sand all faces
and edges with 150 grit paper.

Make from 6061-T6 aluminum plate
Plate blank is 8.500" high, 9.660" wide
and .500" thick.

Drawing is approximately 1/2 scale. Do not
scale from this print. Dimensions as shown
are controlling layout points.

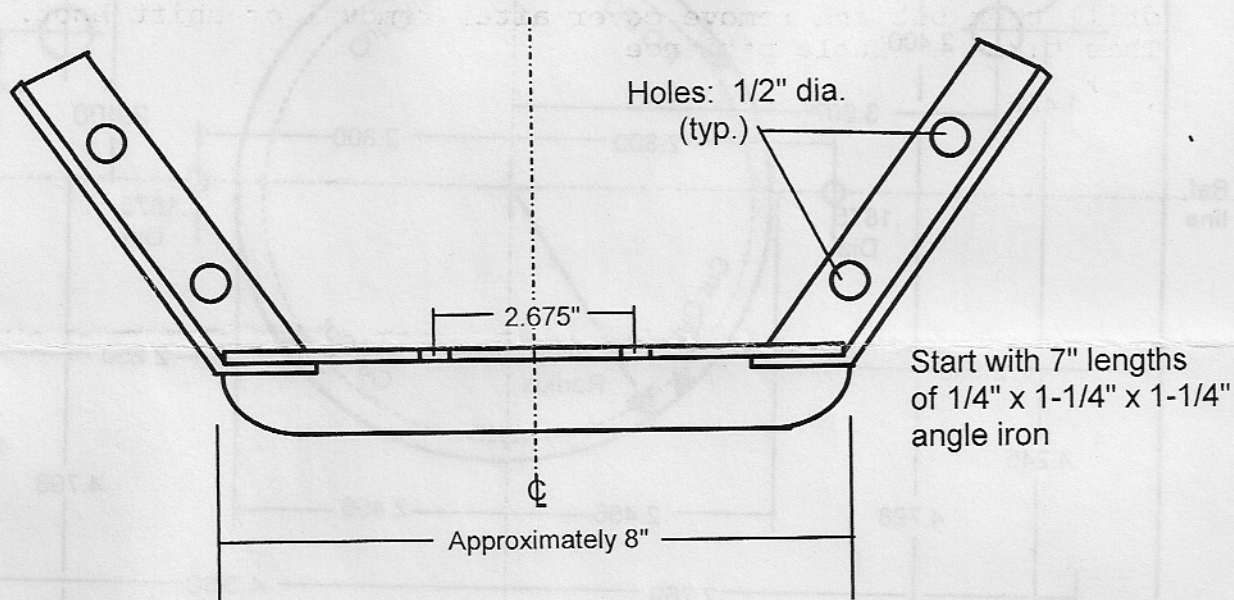
Transmission Adapter Plate

Provides an interface between the Ford 250 CID Engine bell housing and the
five speed manual T-5 transmission. See attached write up.....

Courtesy of Your Squire Registry

Another piece of brilliant innovation to make
the *Squire SS-100* better and better!

Original design and sketch by
Terry Becker
Drawn by W. F. Lieske
6/15/98



Rear hanger for Borg/Warner T-5 (5 speed manual)
transmission on the Squire SS-100.

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SQRTMT.DRW
W. LIESKE
6-23-98