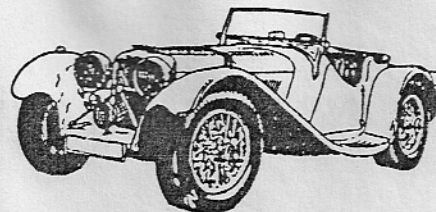


CLBCOM 58
JUNE, 1995



Squire SS-100 Registry

SELLING YOUR SQUIRE SS-100 ON CONSIGNMENT

is again on the news agenda. Member Tom Matarese of Hawley, Pa. has had his Squire consigned to a local dealer for the past eighteen months without benefit of a signed consignment agreement and the car was again stored outdoors seven days a week. To condense another long sad tale, there are parts broken and rotting damage from constant exposure to wind, rain, snow and sun. I'll preach no more on this subject but again strongly suggest that you cover your a-- when you resort to selling through consignment to a dealer.

DOCTOR BILL FREEMAN

has sent me a Squire Classic Story. He purchased his first Squire SS-100 in 1977. He and his wife Patsy were married in 1978 in Tuscumbia, Alabama and at the time he had two '57 T-Birds and two E-Type Jags sitting in his garage but they used the Squire as the "church get-away car". He comments, "So now you know which car we considered as having the most class among that distinguished fleet". It'll take awhile for someone to top that story, Doc!

CHASSIS # 30

which had been owned by James McConaughy has been sold and is now owned by Ian Boles, 313 Cascade Road-Columbus, GA 31904 Home: Area 706+322-6700. We welcome Ian and his wife Robyn to the Registry.

FOR THOSE OF YOU THAT DRIVE A "SHIFTLESS WONDER"

read on because almost the rest of this issue is devoted to "shift handle conversion" which Bill Lieske has given his usual detailed coverage. Two corrections: In CLBCOM 56 I mentioned that it may be easier to install with seats out, carpeting removed etc. but Bill says "not so". He did his by simply removing the "T-handle" assembly with no problems. I also wrote that we would try for some kind of club discount so, when Bill called Lokar to order his, he inquired and they mentioned minimum orders so that's out. Now you "4-speeders" can breathe easy because I think the subject is done.

SQUIRE SUNDAY 2

is moving right along and may be expanded to Saturday, Sept 9th for a tech-session. Committed drive-in's (with Squires) are me (AZ), Bob Murray (NC) and now Wes Carlson is bringing the only known MacGregor Conversion Squire down from Cape Cod. Fly-in's committed are Bill Lieske (AZ), Ben Cunningham (FL) and Dick & Frances Botto (CA). Mark the weekend of September 9th & 10th on your calendar and plan to be there. We'll keep you posted as plans develop.

INSTALLING THE LOKAR SHIFTER IN A SQUIRE SS-100

By
Bill Lieske

Forward

First of all, those of you that have SS-100's with a 4 speed transmission can disregard this whole thing - unless you are curious about what us "shiftless" Squire drivers are up to.

Art Stahl (whose SS-100 has a 4 speed!!) was taken with a shift displayed at a car show manufactured by a company called LOKAR. As you might recall, Art included information on this line of products in one or more of his newsy "CLB-COMM's." I, of course, became immediately taken with the idea since my Squire had a rather mundane appearing Ford floor mounted shifter. I had been somewhat miffed in the past by people saying things like: "Oh, you have an old Ford T handle shifter in this otherwise outstanding car!" I had also observed that the operation of my original shifter had become rather loose and sloppy, often requiring some jiggling to get the starter interlock switch to contact when in PARK position. I learned later that a nylon bushing had fallen apart, leaving a lot of slop between the moving shaft and the hole in the side of the lower shifter assembly casting. Anyhow, I had already called the LOKAR people and ordered their shifter kit for the FORD C4 transmission which came via UPS in a few days. I unpacked it that evening and became immediately impressed with the quality of the materials and the thoughtful design.

I realized the next day that I probably should have ordered the model designed for "tail end" mounting and saved a few dollars, since I wound up converting the kit that I got to mount at the rear of the C-4 transmission. I'm sure that I could have exchanged the kit that I got for the tail-ender but it looked like the standard kit would work, and I was eager to get the thing installed, so I decided to get on with the project. After reading the following, if you have a Squire with automatic and want to take this leap, order the tail end version of the shifter kit. (See ordering information, Page 4.)

The First Step

Take the shifter kit parts out of the box and look them over. You will find a steel mounting plate with several slots punched out to accomodate various mounting positions. You will also find the shifter assembly including the mounting brackets, shaft and knob. A couple of brackets and clamps will also be found along with a good supply of 1/4-28 and 5/16-24 allen head bolts, washers and nuts. It wouldn't hurt you a bit to read the instructions that accompany the kit.

The Second Step

Now, go jack your Squire up and elevate it on four (4) sturdy jack stands under the frame set to 12" height. If you have access to a hydraulic lift (lucky you) or a maintenance pit (even luckier you) the job will be easier. If you do the installation in your garage, as I did, the 12" jack stands are a must. A good quality creeper will be a great help, if you have one. The most valuable accessory to this project is a helper. I did my installation by myself and got down under the car and got back up 57 times, by actual count!

Third Step

Find an allen wrench set. Locate the set screw at the rear of the "T" handle of your old shifter and loosen it. When free, pull up on the "T" handle and it will come off. Now, use a phillips screwdriver to take the four mounting screws for the shift quadrant cover out and pull the cover up and off over the riser shaft.

You should find four (4) 1/4-28 thread screws through the cast base part of the shifter assembly and the fiberglass floor. Have your helper hold a wrench or clamp a pair of 6" vise-grips on the nuts (from the bottom) and use your 3/8" socket ratchet handle to unfasten these bolts one at a time. Since I didn't have a helper I cheated a bit, since I have two 6" vise grips!

Next, get down under the left side of the car and find the shifter linkage rod that transmits motion from the shifter to the transmission gear selector quadrant. There is a slot about 3/8" wide and 1-1/2" long at the rear of that rod through which a special bolt is placed, permitting adjustment of the shifter throw. Take the nut and washer off of that bolt and let the lever hang free for now. You will find a wire coming from under the floor mat entering the cast base through a rather large rubber grommet. This provides 12 volt power to the little light bulb that is part of the old shifter handle. Clip the wire and wrap it with tape, as you won't need it anymore. You should now be able to work the shifter base free and remove it.

Fourth Step

Now comes the fun struff! First, take the Lokar supplied punched mounting plate and mount the special bracket for the C-4 transmission on it using two 1/2" 5/16-24 screws with split lockwashers as shown on the attached sheet of drawings. The hole through the fiberglass floorboard is large enough to snake the bracket into place. There are two 5/16" or 3/8" bolts at the top of the transmission, forward of the hole in the floor. Remove these bolts, put the bracket in place and re-install the bolts. You can get to them with a 3/8" drive socket set and a 7" extension. Tighten these bolts securely.

Next, get under the car again and look at the clearance between the bracket and the fiberglass of the inner floor. My car had good clearance, and no trimming of the floor area was required. Since Squire bodies seem to differ, you might have to trim some fiberglass away to clear things properly.

Now, look at the rear end of the tranny, where the spline to the U joint and drive shaft connects. You will see a round boss, about 2-1/2" in diameter. You will be mounting the rear of the shifter mounting bracket to this boss. If the "tail end" mount kit does not provide proper brackets and parts, here's how to make them. Assuming that you have (or can borrow) a 3/8" capacity electric drill motor, a hack saw and some files, a 1/4" drill bit, a #7 drill bit and a 1/4-20 threading tap, you can complete this part of the project in good time. You'll need a few 1/4-20 bolts, nuts, flat and lock washers, which can be found at your favorite Ace (or equal) hardware store. Proceed to:

A. Go to your hardware store and ask for a 2-1/2" electrical conduit mounting clamp (See drawing for details of the clamp).

B. Find, buy or scrounge a 4-1/2" length of steel 1" x 1" "L" bracket. Also secure a 2-1/4" length of 1" wide by 1/8" thick steel strap. Some hardware store guys will cut stock steel pieces to length for you if you ask them politely!

C. Saw the 1" x 1" angle to size if not already pre-cut and drill holes as indicated. Drill the extra hole in the 2-1/2" pipe clamp bottom as shown, locate and drill #7, then tap the 1/4-20 locking hole as shown.

D. Lay out the hanger bracket as shown, saw to length if necessary and bend in your bench vise using a 6-8 oz. hammer. When brought to shape, drill the 1/4" dia. holes as shown.

E. Assemble the "L" bracket piece and the rear mounting hanger using a 1/4-20 x 1" long bolt, with locking washer and nut. There is a 5/16" - 24 thread per inch threaded hole at the rear of the main shifter mounting bracket. The kit should have an allen head 5/16" 24 thread set screw and some 5/16-24 nuts. From under the car, you can use a set screw and a nut plus a split locking washer to mount the rear mounting hanger in that hole. A 7/16" socket wrench with a universal joint drive adaptor and a 6" extension will facilitate this procedure.

You can now temporarily install the 2-1/2" clamp around the aluminum transmission end boss. When in place, mark the position of the 1/4-20 threaded hole at the bottom of the boss, center punch and drill a 1/4" hole about 1/8" up into the boss. This will firmly locate the clamp position and make the back of the mounting plate rigid when a 3/4" long, 1/4-20 bolt is tightened into the positioning hole in the boss. A 1/4-20 nut should be used to set the positioning bolt in place.

Fifth Step

It is time to fabricate the adaptor block and arm to go between the shifter and the linkage rod. This becomes a somewhat critical thing, as several conditions must be met:

1. The throw of the lower lever, as set by the LOKAR indents must match the throw of the transmission shift gear lever positioning. Further, I found that the lower LOKAR shifter lever was bent such that it rubbed against the left tunnel wall of the fiberglass floor. To correct this, I modified the lower lever as shown in the drawing. Over an anvil, I beat the last bend in the end of the lever straight, then re-bent it in my bench vise, using a 16 oz. hammer, to the shape shown. I also drilled two additional 1/4" diameter holes as shown on the drawing. It turned out that *hole #2* came closest to matching the various shift positioning steps of the C-4 transmission.

2. I decided to use the existing linkage rod in lieu of the rather spindly 1/4-28 threaded rod supplied with the kit. It just didn't seem sturdy enough to suit me. To do this, however, required the fabrication of a somewhat complex adaptor. This device fits into the slot in the linkage rod and adapts to the position of the modified lower shifter arm position.

LOKAR supplied two (2) novel ball joint type swivel end connectors along with about 18" of 1/4-28 full threaded steel rod. See the drawing for details of the adaptor block, extension arm and mount for the ball joint connector. I made these parts in about 20 minutes on my mill-drill machine. I suppose that these could be made with hacksawing and filing, but this would be a real labor of love! I can make these for you if you send me one of the little ball joint connectors and 4" of the threaded rod. I'll make the thing and prepay the freight back to you for ten bucks total!

Sixth Step

This is about getting everything to work right. Notice that LOKAR provided several adjustments in their design. One of these is a means of tilting the shifter handle position forward or rearward using "banana slots." To do this you must have a short end allen wrench (I found one and ground it down on my bench grinder.) Loosen all four of the bolts and push the shifter handle forward so that the bolts are at the back of the banana slots, then tighten them securely. By the way, you might want to remove the park/neutral starter inhibit switch, since that function is already taken care of with the C-4 transmission wiring.

Now, place the shifter in place on the plate and bolt it, centered in the floor cut out, using four bolts, nuts and lockwashers. Depress the release button and push the lever into Park "P" position. Be sure that the transmission *gear selector* is in the PARK position, eg: rotated all the way toward the rear of the car. Now place the adaptor block in the linkage rod slot, use a flat and a lock washer on the outside and tighten securely. It's a good idea to run the lever through all positions, and then see if the starter will operate in the PARK and NEUTRAL positions. If this is Okay, you can now take the car down off the jack stands.

Holding your foot on the brake pedal with the shifter in "P" position, see if the car will start. If it does, let the engine warm up so that the automatic choke system drops a standard idle. Carefully drop the lever to "R." The car should back up normally. If it does, pull back some distance and pull the shifter through "N" to "D" and move forward. If this all works well, take a little spin on a sparsely travelled road and see if the tranny will bump from "1" to "2" gear ratios then into DRIVE as you advance the shifter. If things aren't as they should be, you must then dope out which way to position the adjuster block on the linkage rod to tell the tranny which gear setting you want it to use.

Last Step

You now must cover up that ugly hole in the floor around your classy new shifter! I found a floor boot at a PEP boys store that is almost exactly the same size as the original floor escutcheon. This is a "EURO STYLE" soft boot made of leatherette vinyl, and after trimming and mounting with its chromed oblong base plate it looks great. This is a **Mr. Gasket Co. #6356 Shifter Boot** (about \$12.00).

After spending about \$200.00 and a full day installing my new shifter, was it worth it? To me it is! It adds

just a bit more class to one of the classiest automobiles around. You *four on the floor gear grinders* might just chuckle and say that you already have that bit of class. Well, some have it and others get it. At least, I can now go shiftless with class, and I find that it is fun to mess around power shifting the C-4 tranny, stomping on the 250 CID six and bumping the lever up a notch when the tach hits about 4,500 RPM! I have scared the hell out of a few of the Z-28's, IROC-Z's, 300 ZX's and even a few Corvettes off a green light, once in a while. Not bad for a 72 year old car nut.....

I will be pleased to be of help in any way, should you need help on such a project.

Bill Lieske
May 20, 1995

If you want to contact me:

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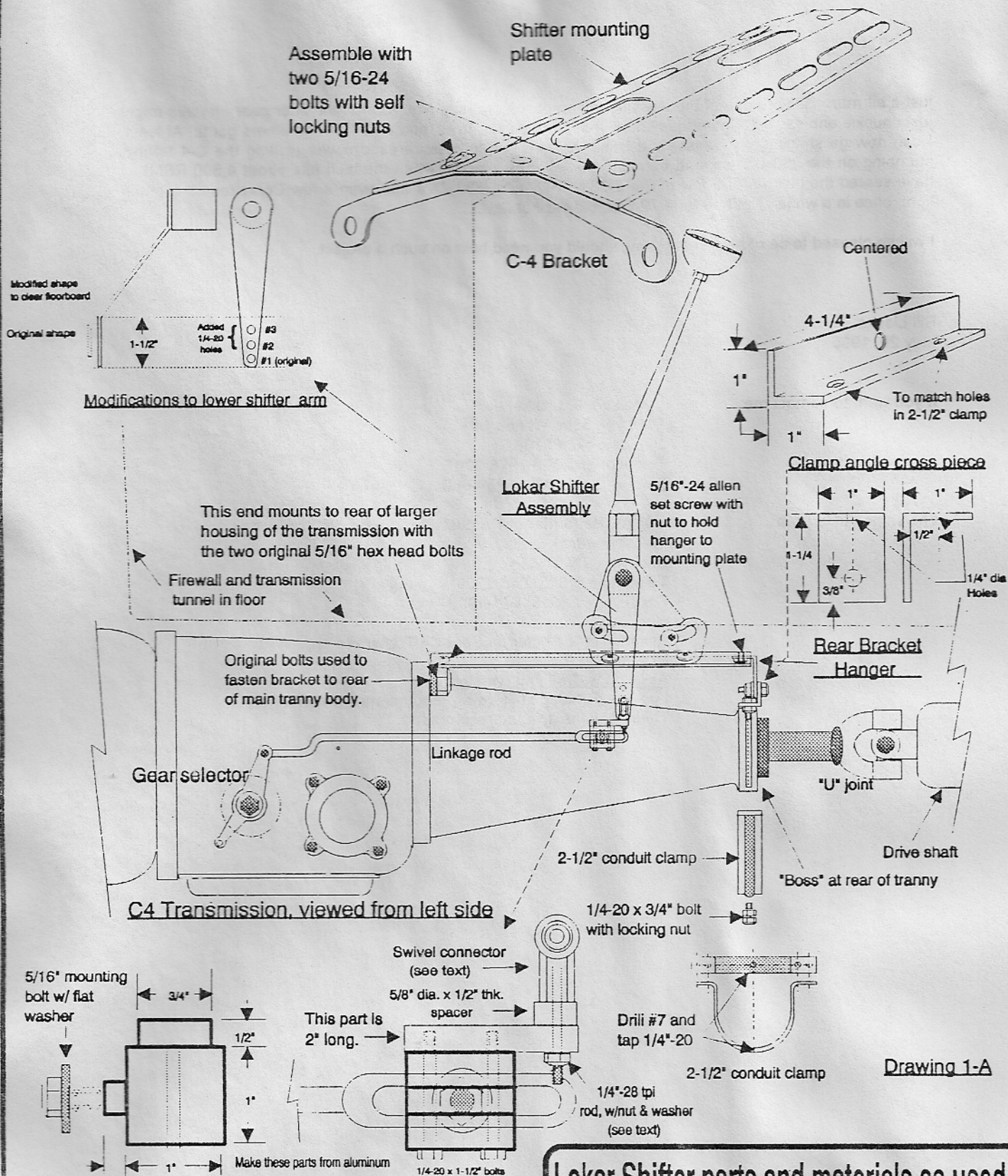
The shifter kit is from:

LOKAR Performance Products, Inc.
10924 Murdock Drive
Knoxville, TN 37922
Telephone: (615) 966-2269
Fax: (615) 671-1999

Ask for Trans Shifter for Ford C4 Transmission,
Model ATS60C4.

Ask for the "Tail end" version.

I got the 10" long shifter with "original mushroom" knob.
These options, I would recommend.



**Lokar Shifter parts and materials as used:
Installation in Squire SS-100 #11044545**

See accompanying text for additional information