

## SO YOU WANNA 5-SPEED GEAR BOX FOR YOUR +4?

by Bill Button

Last summer when I was contemplating the winter upgrades for my +4, I knew I had to either repair my existing transmission/clutch/bellhousing. I don't like the Moss gear box. I think it is clunky, out of date, and should be put into a truck not a high class sports car like my Morgan. Well I was about to make a few discoveries not only about the Moss Box but also available 5 speed conversions.

First of all the Moss box in my 1963 +4 is a High Ratio. I don't remember the exact ratios but I am sure you have noticed that is very easy to drive in 3rd gear thinking you are in 4th. So if you are passing a RV on a hill and need a little more oomph drop to 3rd and unless you are already going the speed of light you will not run out of rev's getting by.

But when you are cruising down I-5 at 70 MPH and 3,500 revs it would be nice to put the car in 5th gear and cut the noise and pick up a little fuel economy. 5th gear overdrive ranges (depending on transmission) from .75:1 to .90:1 or so. Fred Sisson in "Morgan Garage" suggests and has drawings on the installation of a Jaguar Overdrive. This would be one solution if you could only find a Jaguar Overdrive now-a-days. I have looked and none are to be had at a reasonable cost.

A New Zealand outfit supplies a bellhousing with a Toyota Supra transmission. It could be fitted with some modifications to the frame. There are a variety of ratios to be had and it looks pretty good. The rub is the Supra tranny is 9.5" wide and would be in the space that is presently 6.5" wide. That's a loss of 1.5" for your feet on the driver's side. Forget the passenger. They can supply smaller Toyota transmissions, but they don't have a selection of ratios and the ratios they do have are not favorable (in my opinion). Also with the torque a TR engine produces they might not be strong enough.

James Snyder of Livingston, Montana has a Morgan with a TR4A transmission/overdrive. At my request he provided pictures of the installation. It looks neat and unless you looked hard and under the car/bonnet you wouldn't know it was a conversion. There are some frame modifications and provisions to actuate the clutch. I priced a TR transmission/overdrive in West Seattle and I believe the price was about \$650 for a rebuilt unit. I asked Jim if he had enough room for his feet? He answered that he modified his shoes so they were not as wide and this made driving quite comfortable!! This probably makes the most sense(?)

I discussed my ideas of a 5 speed with Robert Couch, Greg Solow and John Worrall ("Heart Of England"). Couch and Solow were polite but expressed little interest and John Worrall thought it was "STUPID". (not John's exact words but my interpretation)

The cost of rebuilding a Moss transmission and bellhousing is probably between \$2,000 and \$3,000 depending what is needed. I recently had mine rebuilt/repared and the price was in that range. I have repaired many transmissions (old Fords, Chevies, etc.) in my time. But although I believe I could take it apart and put it together OK; I wouldn't have a clue what I was looking at. If the bearings were really bad I guess I could recognize that but there are more than bearings in the tranny. Further, the repair parts may not be up to specs. Greg Solow showed me a "layshaft" that was new but was egg shaped at one end. I would have gotten a bigger hammer and fitted it. Also, the little poppets had to be sorted as to size to get them to match as well as the little springs behind the poppets. I was able to watch some of the work and I am convinced it takes an experienced mechanic (with Moss trannies). The bellhousing wears where the clutch cylinder moves. This must be sleeved (definitely a machinest job).

If you have any thoughts on this subject please e-mail "button@ibm.net".

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