

Guidance from Glasgow

RIGHT-ANGLE DRIVE (AUTOMATIC G/BOX TO SPEED CABLE) REPAIR.

TOM WILSON WRITES:

I have repaired a considerable number of these small units now and it is a very straight-forward repair with a considerable saving in cost, as replacement is around £48. If you have any further queries on this, I will be only too pleased to answer them. I also have details of one or two special tools (eg bush extractors, ball joint splitters etc, which I can send now that I have almost mastered the drawing facility on my computer':

Failure to these units is usually due to either a sticking speedo-cable, (due to wear in the outer casing), or dried and caked grease in the unit itself. The cable can easily be checked by spinning the inner cable with the fingers. If this is found to be faulty, sometimes it can be cured by simply rotating the outer casing through 180 degrees and re-tightening in this position.

1 Removal from car: lift tunnel carpet on n/side and remove large rubber plug. With a pair of pipe pliers unscrew brass knurled nut to release cable from drive. (It will ease replacement if a piece of string is tied to cable to prevent it from falling under car). Unscrew knurled nut holding drive to g/box, and lift away.

Using long nosed pliers or tweezers, remove broken piece of cable from g/box.

2 Next step is to clean unit and dismantle. On the top of the drive will be seen a small circular plate held in place at three points by the casting being peened over. By using a small drill or rotary cutter remove these small obstructions. Turn the unit over and by using a small pin-punch or similar object entered into the broken cable, a few sharp dunts* with a hammer should cause the closing plate to fall out, followed by a spacer plate, a dished plate and the helical gear with the broken cable.

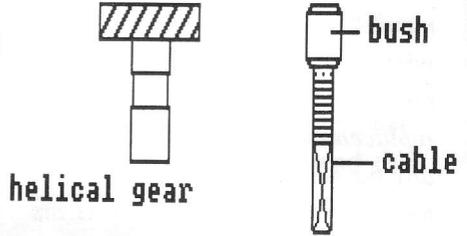
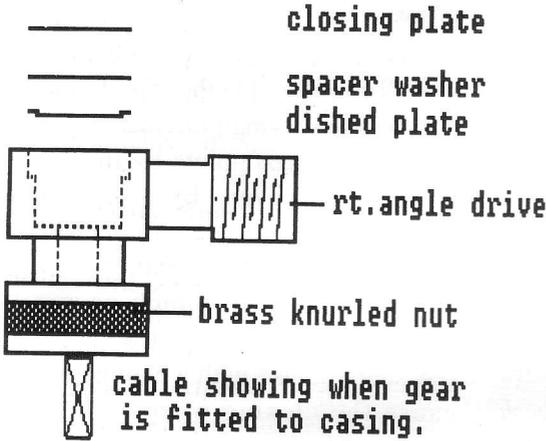
** Colloquially Scottish, translation:- 'tap, knock, blow'.*

3 Helical gear should then be rested on the jaws of a vice (do not grip) and with a suitable drift, eg. pin punch, the broken cable and bush can be removed from the gear. This bush and cable can then be supported on a vice with "V" notches or similar, and again the cable can be removed from the bush.

4 Using a similar size of cable (0.147" dia(3.73mm)) obtained from a scrapyards, not necessarily a P6, (as long as the squared end fits the g/box). Hang on to any broken speedo cables, as it makes life a lot easier!

With a fine knife-edge file, carefully cut off an end piece 1.875" long, part of which will be square. Care must be taken

If the fit is too tight, the cable will buckle when fitting to the bush. Another spot of threadlock in the bore of the gear and tap



with cutting due to the construction cable, the wire surface tends to unwind. When fitting to the bush, twist in an anti-clockwise direction (whether going into the bush or out of it). The new cable should be carefully twisted into the bush after applying a spot of threadlock, eg. "Loctite 275". I have found that I usually have to very lightly rub the bore of the bush with a small round file until the cable can be pushed home by hand.

the housing with HMP grease or anti-scuffing paste, e.g. Roco ASP, replace dished plate (see sketch), plate washer and finally closing plate, which can be peened over as before. A small smear of jointing compound applied to the edges completes the job.

5. Re-fitting to the car is a reversal of the dismantling procedure, but tighten the cable nut first and allow the drive to find its natural position, and then tighten knurled nut lightly.

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