REMOVAL OF ELAN DIFFERENTIAL INNER STUB SHAFTS

By Larry Lim

The rear end of my Elan packed up, all four donuts broke and my differential sprang leaks like a sieve. The donuts were easy, but dismantling the differential to replace the seals was something else. After removing it from the car, my Father and I consulted our very complete workshop manual which stated "...remove circlip and gently tap out each drive shaft." Sure! Well, we gently tapped, then we tapped with something more than gentleness and the shafts still refused to budge. Other members I talked to had no other solution, so I pounded some more, and for the first time, the "THEORY OF THE BIGGER HAMMER" failed and the following scheme was devised to do the job.

Find two 3/8" bolts at least 8" long and threaded for at least 3", with washers and nuts for each. Rotate one stub shaft so that two arms are facing forwards and one to the rear. Place the two bolts (threaded ends first) through the two forward holes and place the washers and nuts on the bolts (between the shaft spider and differential housing). Place a piece of aluminum between the bolts and the housing to protect the housing. Then tighten down the nuts against the stub shaft spiders, alternating, each a few turns at a time.

The shaft and bearing assembly will be pushed out of the differential. If the shaft starts to come out crooked, simply rotate the shaft and tighten the bolts from the rear. Now repeat this procedure on the other side and both in stub shafts will be out. It's a lot easier than "gently tapping out".