TECHNOTES

by ***Stephen F. Wilder***

BRAKE LINE BOTHERS

I have a Porsche which has gone about 25,000 miles. I have just relined the brakes, repacked the front wheel bearings, honed or replaced the brake and master cylinders and replaced all the rubber cups and seals. The entire system has been flushed with new heavy-duty brake fluid and bled about six times, but I still suffer a most peculiar phenomena. When I apply the brakes, either gently or strongly, the car pulls sharply to the left and the brake pedal immediately sinks about two inches, gets firm and then the car pulls equally strongly to the right. When I'm going say 60 or 70 mph, it will jump about one car width to the left if I hit them hard enough. I have checked the free pedal, I have made sure the drums were scrupulously clean, and I'm on my second can of brake fluid. I've bled the lines so many times.

Bill Chenoweth
Enid, Oklahoma

Assuming that you have bled the brakes properly, the most likely cause of your trouble would be in your right front brake hose. If it has aged or deteriorated, it will expand before the brake pistons on that side move. Simultaneously, the left front brake is working, causing the pulling to the left. When the hose finishes expanding, the pedal stops its rapid sinking and the brake pistons move, moving the brake shoes and causing pull to the right. If you replace this hose, I am sure that your trouble will vanish.

MGA and NASH METROS

What engine parts are interchangeable between the MGA and the Nash Metropolitan? I understand that they use basically the same 1500 cc B-type BMC engine.

Bud West
Bethel, Ohio

You're right, they do. The interchangeability picture on BMC assemblies is very interesting; in most cases you can bolt Nash parts right on to your MGA without fuss or worry, though sometimes the reduction in performance will be so great that such a move should only be done as a stop-gap measure. On the other hand, Metro owners can buy a vast supply of speed equipment at their nearest MG dealer.

I checked with Gus Ehrman of Hambro on this and here is the scoop as he gave it to me. There have been three different Metro engines, the earliest one being followed by the Series II and III. These correspond respectively, to the Austin A-40 Somerset, the A-40 Cambridge, and the Austin A-55 (see road test, page 38). The latter (51 bhp) in turn corresponds closely to the MG Magnette (68 bhp) and the MGA (72 bhp) and is called the BMC B-type engine.

Early Nash Metros, series I and II, can only do a bolt-on hop-up by finding some bits off the A-40 Sports (known in some circles as the A-Sporty). This won't be easy, as not many were built. In turn, Austin owners may find some necessary parts at a Nash dealer.

The current Series III Metro is almost exactly the same as the A-55 engine, being rated at 50 bhp. There are early and late versions of both these and the Magnette. The difference was created when the full-flow oil filter of the MGA and its tri-metal con-rod bearings were standardized on all three engines. This change meant a change to the MGA's crankshaft with its different oil passageways. Incidentally, BMC insist on the use of felt, not paper, oil filters and urge regular changes of them.

As well as the cranks on late model Metros, the following parts on the MGA are identical: cylinder block, rods, water pumps (but not the oil pick up, as the sumps vary in shape to clear the steering gear), pushrods and tappets (use the late-style ones only, as the early ones may jump out of place when you twist the rev-needle off the dial).

Now for the hop-up parts. BMC varies the output of the B engine by swapping around cylinder heads, intake manifolds (different number and make of carbs), valves (size), springs (stiffness and quantity), pistons (compression ratio) and finally, camshafts. A point to remember is that the MG cam does fit the other B-type blocks, but there is no provision in the latter for the drive to the mechanical tachometer. However, the TD/TF generator has a pick-up which could be used. Easier, at least for non-MGs getting the treatment, would be a small electric tach operated by the distributor.

Less hot cylinder heads can be ported and cleaned up to MG specs, but different valve guides will be necessary.

HOT MG POWER

I have recently purchased an MG TF 1500 and have just finished putting it in top shape from a mechanical standpoint. It is a neat piece of work but now I'm beginning to suffer from a recurrent disease called power-hunger. I understand that there is ample information on getting more out of the XPEG power plant but the information seems to be more illusive than ample—in short I can't find it. Can you help? I've no pretensions of racing in either production or modified SCCA categories—I just want more steam.

Stan Garland
Chicago, Illinois

Can you wait a couple of months Stan? If so, the Sports Car Press is coming up with a new book in their Sports Car Guide series concerning this very problem. The book, by SCI Editor John Christy and Karl Ludvigsen (on military leave from the Tech Editor's desk), gives full details on hauling more horses from not only the XPEG but the XPAG and the B-Type BMC (MGA) engines as well. All of this data is as the racing division at Abingdon wanted it but clarified by the authors and put into American English. It's worth waiting for.