The E-Mail Mechanic
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Installing an overdrive, strange noises, learning to weld, engine storing, and bench-testing wiper motors

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In 1980 when I purchased my second Austin Healey (after not having one since the late 1960s), I quickly found that there were few information sources readily available other than a Workshop Manual that was in the car when I bought it. The car needed considerable work both mechanically and cosmetically. After some frustration in trying to source parts and otherwise get information, I located a person who had been interested in the car when I bought it and ended up selling it to him. Not being aware of the national and regional clubs handicapped my efforts to rejoin the Healey fraternity.

By the time that I purchased my latest Austin Healey six years ago, the Internet was in full bloom and the first thing on my mind was to access it for information, which I knew would be able to point me in the correct direction. I quickly found the national clubs and, equally important, the Healeys Mail List, which has proven to be a great source of information, tips and news.

There is only a small percentage of Club members who use the list and, for this reason, I felt that excerpts from it may prove to be valuable to the membership of the Austin Healey Club USA through the pages of *Austin Healey Magazine*. Many of the items discussed on the list cannot readily be found in books or manuals. Rather, much of the information presented there is the result of years of experience in "Healeydom." It is always refreshing to read e-mails where you can see a problem described and within a few minutes, hours and days, see responses come in from all around the world from Healeyites who have had the same or similar problem.

Recent exchanges on the Healeys Mail List (called "threads" when they follow the same subject) run the gamut of specific problems, general ones or information requests. Here are some examples:

Gordon Gilliam sent an e-mail message to "the list" asking:

“My BN4S47704 is without an overdrive unit. What would be involved in adding one, and what costs might I expect to be required?"

A summary of the responses varied but kept the same theme. That is, it is much

easier to replace the transmission and overdrive as one unit rather than to add an overdrive to an existing transmission. These can be either true Healey units, which are apparently available, or those from an aftermarket supplier.

The basic problem in adding the OD unit to an existing transmission is that the transmission must be completely disassembled so that the third motion shaft can be changed. These shafts are apparently difficult to find as opposed to finding complete transmission/OD units. When installing a complete transmission/OD, the throttle switch and relays plus a dash switch must be installed. These are readily available from the usual suppliers.

Another exchange was started by Phillip W. Leslie and reads, in part:

“The current challenge is a sound that has just started coming from the region of my right elbow when the car is actually moving down the road. It sounds like something rotating or rubbing while making a slightly grating sound, but the car must be moving for this to happen. The trans and overdrive are working fine and I have eliminated wheel bearings and dragging brake shoes. Bottom line, the car must be loaded for the noise to occur. (The sound also did not occur when the car was on jack stands going through the gears.)”

There were two basic themes in the responses to this request, one that there may be some rubbing in the area of the u-joints or that the joints on the tapered portion of the wire wheel just inboard of the splines were dry (had no grease). Phil wrote back thanking the list stating that he found that the noise was due to no grease on the splines for the wire wheels. He asked in another e-mail message why this would be possible and the response was that there is a normal flex in the joint, which will make a noise unless properly greased. Wire wheels flex as the wheel rotates, loading and unloading each spoke causing a change in the loading on the tapers.

And, from John Peak:

“I am about to teach myself to weld. Of course, I will be learning on the most expensive piece of sheet metal I own: the Healey! Any advice for the novice?”

The responses, as one might imagine, called for practice, practice, practice, preferably on a Hyundai or some Detroit Iron AFTER taking a course at the local Community College. Never practice on the Healey! And know your limitations. There are some welding jobs better left to professionals.

In another exchange, Bill Katz, wrote:

“Since it looks like it's going to be a slow business month, I'm thinking it's time to

do some oft-delayed jobs on my car. One thing that worries me is, if I get part way into things and for whatever reason can't complete the project quickly, then the car may end up sitting for an extended period without being started. So the question is, how long can the engine sit before I need to worry about rust forming in the cylinders? If I spray some Marvel Mystery oil in the cylinders and turn it over a few times, will that be enough to keep things OK?"

The responses to this question were unanimous. These engines are, in the word of more than one lister, “phenomenal,” and have been laid up for as long as 14 years with just oil poured down the spark plug holes, or in several cases, nothing was done and the engines still started and ran with a minimum of problems after extended periods of non-use. To be safe, however, oil in the cylinders is recommended. Just think how easy and mundane our life would be if the rest of the cars were as reliable as the engines!

Several years ago, a thread was started on the question of who made the first drive in an Austin-Healey in the New Year (difficult in the North, easier in Hawaii) and, because of time zones and the International Date Line, it seems that our friends in Australia win each time. Perhaps we should see who wins the prize for the longest lay-up with the fewest engine problems on startup!

Many of the questions on the Healeys Mail List are on subjects that are not fully covered in the various Workshop Manuals, or when they are, the manual does not really address the problem with clarity. And, since my wipers have not worked in several years, I was particularly interested in the following, the subject of which was bench testing a wiper motor. The original question was answered with such clarity that now I am going to attempt to repair mine. John R. Draxler asked:

“I am going over the wiper motor for the BJ8 that I am working on and I see that it has 2 terminals plus a ground terminal. I want to bench test this unit. What connections do I have to use to get it to work? What are the two terminals on the end of the motor, other than the ground terminal?”

There were two very detailed but short responses that, when combined, state:

Connected to the “E” terminal is a black wire that goes to ground (earth).

Connected to the #1 terminal is a black wire with green tracer that goes to the wiper switch.

Connected to the #2 terminal is a green wire that goes to the fuse block.

The #2 terminal is hot whenever the ignition switch is on. When the wiper switch is turned off, the contacts on the limit switch, located in the round gearbox cover, conduct power to the “E” terminal which keeps the motor operating until the gear

reaches the part position and opens the circuit thus parking the wipers. Once parked, the limit switch breaks the circuit. The park position can be adjusted by rotating the round cover on the gearbox.

Terminal #1 is wired to the wiper switch and keeps the circuit live when the wiper switch is on.

To bench test, apply 12 volts between terminal E (ground or "earth") and terminal #1. The motor should run continuously. Remove the voltage so that the motor stops in other than the park position. Apply voltage between terminal E and terminal #2 and the motor should run but stop as soon as it reaches the park position.

While there are many technical books available - and I recently added the Clymer Publications manual to my library - most duplicate each other and most have been out of print for years. They are all, however, valuable to have available as references. That being said, all the technical books in the universe do not take the place of the years of actual hands-on experience found on the Healey Mail List. It is very refreshing to know that there are others out in “cyber-space” who have similar problems, have solved them and have interesting tidbits to share in the world of Austin-Healey.

If you are interested in joining the list, all that is necessary is to send an email to: Majordomo@autox.team.net and in the text field enter: **subscribe healeys** and follow the instructions in the email that you will receive in return. You will not be disappointed. The procedure for subscribing is also described on page 141 of the 2001 ***Austin-Healey Resource Book***.