

◆ Gillspeed Bulletin No.13 ◆

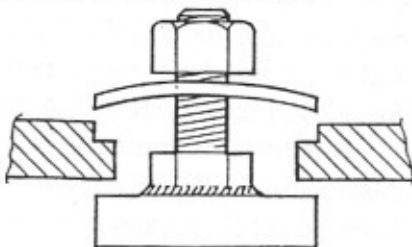
October 1994

Everybody's Going Racing!

The most popular sort of motor sport event around Australia at the moment seems to be Grand Prix Rallies, Historic Rallies and Targa Tasmania style events. Bugeye Sprites fitted with 1275 engines have been very successful and perhaps for this reason are very much in demand at present. Gillspeed regularly supplies competitors with engine, gearbox and clutch parts, roll over bars, competition front springs, stabilizer bars, 'Red' up rated shock absorbers, negative camber trunnions, premium brake materials and bigger brakes. These events are great fun. If you have this sort of event in mind, give Gillspeed a call.

Roadside Repair Tips.

It is quite common for flat 'lens' type core plugs to pop out of older engines when they are running at maximum water temperature and pressure as in summer traffic or while motor racing. Even if you carry spare core plugs, they are not easy to fit in by the side of the road because there is seldom room to swing a hammer to expand them securely into place. The following home made 'bolt-in' core plugs are easy to install and will never fall out.



Weld a 1 5/8" long piece of 3/8" Dia. steel rod to the head of a 3/8" Dia. bolt.

Unleaded Fuel

You have probably read all sorts of conflicting reports on the use of unleaded fuel in leaded fuel engines.

The Chief Engineer of ACL, Mr Nigel C Tait, has written two Engineering Bulletins which should clear up any confusion.

ACL is Australia's largest manufacturer of automotive engine components.

If you would like copies of these bulletins, please phone, fax or write to Gillspeed and we will mail copies to you free of charge.

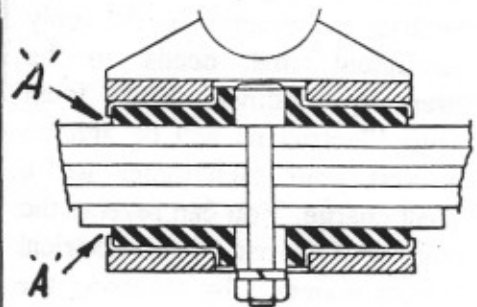
8 Volt Or 12 Volt Coil?

Most modern 'pollution control' cars run very lean fuel air mixtures and need a big fat spark at the spark plugs to get them started. This is achieved by running 12 volts through an 8 volt coil on startup. An inline resistor between the ignition switch and the coil drops the 12 volt feed back to 8 volts once the car has started. Many of these 8 volt coils find their way onto older sportscars without any resistor at all and so run on 12 volts continuously. As a result the ignition points run so hot that the plastic rubbing block may melt and allow the point gap to close up. At first you experi-

ence severe misfiring as the point gap closes, then when the gap closes completely the engine stops. Some better quality points have fibre rubbing blocks which resist the heat and maintain the correct point gap, however these points 'arc' badly and are usually coated with a white powdery deposit. If you find any of these problems the best solution is to fit a standard 12 volt coil. The coil voltage rating is stamped on the bottom of every coil.

Broken Rear Springs.

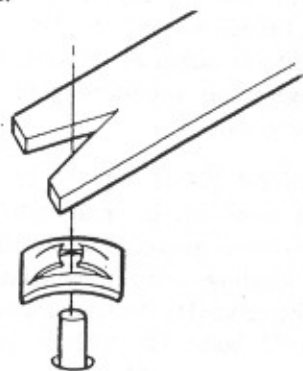
Most semi elliptic rear springs are sandwiched between rubber pads and steel locating plates. These components are then bolted to the rear axle assembly with 'U' bolts. The rubbers eventually compress due to old age and allow the steel locating plates to contact the top and bottom spring leaves. (See location 'A' in the sketch below). The spring leaves then pivot about this contact point and eventually break. MGB's tend to break the top leaf only, while Sprites and Midgets tend to break the bottom two or three leaves. The simple way to avoid broken spring leaves is to check your car every service and fit new rubber spring pads whenever necessary. Brand new springs, pads, and top leaves are available from Gillspeed.



There should be clearance between the steel locating plates and the top and bottom spring leaves at location 'A'.

Special Tool - Badge Clips

One of the most frustrating jobs in any restoration is fitting the tiny spring steel clips that retain all the badges. There is an easy way. If you cut a small 'V' in the end of a piece of 1"x 1/8" steel, as shown below, you will find fitting clips even in confined spaces is no longer a problem. You can use a dab of grease to hold the clip on the tool.



Changing Battery Polarity

If you want to fit a modern negative earth radio, cassette or CD to your MG or Austin Healey Sprite you will usually need to have a negative earth electrical system. Late model alternator equipped cars are already negative earth. Most generator equipped cars are positive earth and so will need to be converted. Conversion to negative earth is easy. The electric tachometer is the only instrument that needs to be internally modified. Most local Auto Electricians will be able to convert your tachometer for a small charge. You can reverse the polarity of the rest of the electrical system yourself by reversing the battery cable connections to the battery. The heavy 'earth' wire should now go from the chassis to the 'negative' battery terminal. The last thing you have to do is polarise your generator. Follow the instructions in the box.

HOW TO POLARISE YOUR GENERATOR

- 1 - Disconnect both battery leads.
- 2 - Disconnect both the power and earth lead leads from the tachometer and DO NOT reconnect them until the tachometer has been converted to negative earth.
- 3 - Disconnect both wires from the back of the generator.
- 4 - Turn the battery around or swap the battery cables. (if they are long enough.) The Negative battery terminal wire should now go to earth.
- 5 - Find a length of insulated electrical wire and hold one end on the Positive battery terminal and 'spark' the other end on the smaller generator 'F' terminal for a few seconds. You should see a very weak spark.
- 6 - Discard this length of wire. Reconnect the original wires to the generator 'F' and 'D' terminals. Start the engine. The ignition warning light should now go out as usual.

NOTE: *Whenever you fit a replacement generator it should be polarised.*

Rear Spring Eye Bushes

Fitting the eight replacement rear spring eye bushes is easy when you follow these steps. First, lubricate the bushes with rubber grease and then push them into the spring eyes and the chassis mount eyes. Next, jack the spring upwards until the shackle pins line up with the holes in the bushes. Lubricate

the shackle pins and push them into position. Next, fit the shackle plates to the shackle pins and install the spring washers and nuts finger tight. Drop the car back onto the road and bounce it up and down a few times to let the bushes take up their natural position. Finally, tighten up the nuts while the car sits on the road.

Be Careful With Chrome

Sometimes one simple thing can develop into a major headache. We recently rebuilt a Sprite gearbox for a customer who went away and installed it himself. A few days later he rang and said for some reason the gearshift was so tight he could hardly change gears. Since the gearshift worked fine when we bench tested the gearbox after assembly, we were mystified. It came out in the conversation that the owner had decided to re-chrome his gear lever and had managed to get a particularly thick lustrous coating of chrome on the lever. As a result, the spherical 'pivot ball' on the gearlever had grown in diameter and was actually seizing in the gearbox extension housing. Another gearlever solved the problem.!

Gearbox Parts

Over the past 20 years, Gillspeed has built up a good stock of new and used gearbox components for all Sprite, Midget, MGA and MGB models. If you need gears, gaskets, seals, layshafts, synchro cones, detent balls and springs or anything else for your gearbox give Gillspeed a call on (03) 9568 0688. We are happy to supply any components or technical assistance you may need.