



“Bend test” revealed external cracks



Rubber fuel hose before the “bend test”

### Effects of Ethanol on an MGBGV8

It is now 18,000 miles since Barrie Jones completed a total restoration of his MGBGV8 (Damask 0450) which he reported in great detail about 8 years ago. Having used E5 petrol for the past 8 years he thought it was about time he would make a thorough inspection of every rubber component in the fuel system. This note describes what he found. It's applicable to all the Factory V8s made between 1973 and 1976 and it also applies to the majority of 1800cc MGBs made between 1973 and 1980.

#### 1. Fuel hoses in the engine compartment

I inspected all the fuel hoses in the engine compartment. I had used ethanol-tolerant hoses marked [SAE J30 R9](#) so I did not expect to find any problems. They all appeared to be in good condition, but the “bend test” revealed that several of them were starting to crack externally. In addition, the tiny hose joining the two carburettors together had gone hard and lost its flexibility.

#### 2. Fuel hoses attached to the fuel pump

From underneath the car I inspected the two hoses that are attached to the fuel pump. I could see a weep of fuel, so I decided to replace them both. I had fitted the original style components which were made with steel braid coverings. After replacing them I cut the old hoses apart and found that the inner rubber tubes had swollen and one had a small split in it.

#### 3. “O” ring fitted to the enrichment device of each carburettor

There is a small rubber “O” ring fitted to the enrichment device of each SU HIF6 carburettor. I decided to replace both of them. I am glad that I did as I found they were swollen and ready to fail. The photo alongside shows the old seals at the bottom and a new seal at the top. If you are planning to do this yourself, then the photo showing the components in sequence may help you to put it all back together.



Note, when stripping a carburettor I recommend that you pay particular attention to the return springs, because it is not obvious how they are fitted. If you strip and repair them one at a time, then you can always use the other one as a reference, remembering that on the V8 they are the “mirror image” of each other.



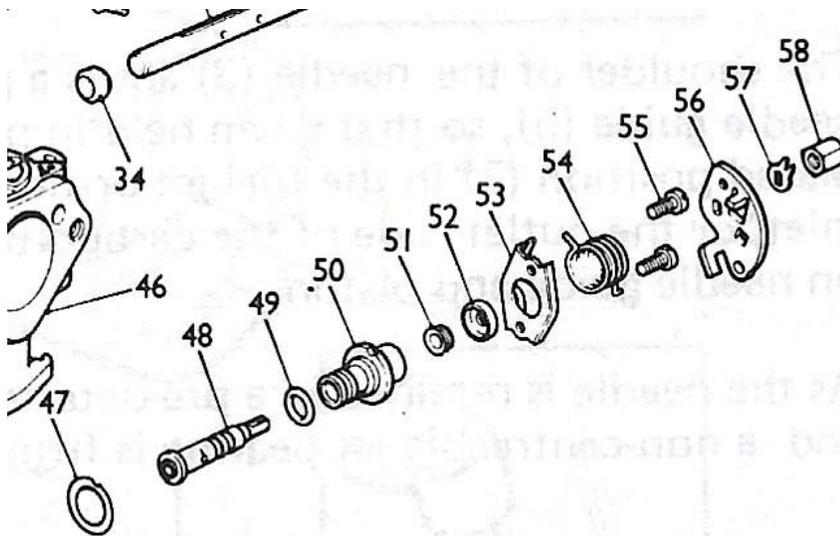


Fig. 32 – THE TYPE HIF CARBURETTER COMPONENTS

- |                                      |                              |                                      |
|--------------------------------------|------------------------------|--------------------------------------|
| 1. Jet bearing washer                | 21. Spring washer            | 40. Fast idle screw and nut          |
| 2. Jet bearing                       | 22. Cover screw              | 41. Throttle lever                   |
| 3. Jet bearing nut                   | 23. Piston damper            | 42. Throttle adjusting screw and nut |
| 4. Jet assembly                      | 24. Damper washer            | 43. Tab washer                       |
| 5. Lifting pin                       | 25. Suction chamber          | 44. Retaining nut                    |
| 6. Lifting pin spring                | 26. Chamber screw            | 45. Throttle spring                  |
| 7. Circlip                           | 27. Identity tag             | 46. Body                             |
| 8. Adjusting screw seal              | 28. Piston                   | 47. Cold start seal                  |
| 9. Jet adjusting screw               | 29. Jet needle               | 48. Cold start spindle               |
| 10. Bi-metal jet lever               | 30. Needle guide             | 49. 'O' ring                         |
| 11. Jet spring                       | 31. Piston spring            | 50. Cold start body                  |
| 12. Jet retaining screw              | 32. Needle retaining screw   | 51. Spindle seal                     |
| 13. Needle seat washer (if required) | 33. Needle spring            | 52. End cover                        |
| 14. Float needle seat                | 34. Throttle spindle seal    | 53. Retaining plate                  |
| 15. Float needle                     | 35. Throttle disc screws     | 54. Cold start spring                |
| 16. Float                            | 36. Throttle spindle         | 55. Retaining screw                  |
| 17. Float pivot                      | 37. Throttle disc            | 56. Fast idle cam                    |
| 18. Pivot seal                       | 38. Throttle spindle seal    | 57. Tab washer                       |
| 19. Float chamber cover seal         | 39. Throttle actuating lever | 58. Retaining nut                    |