

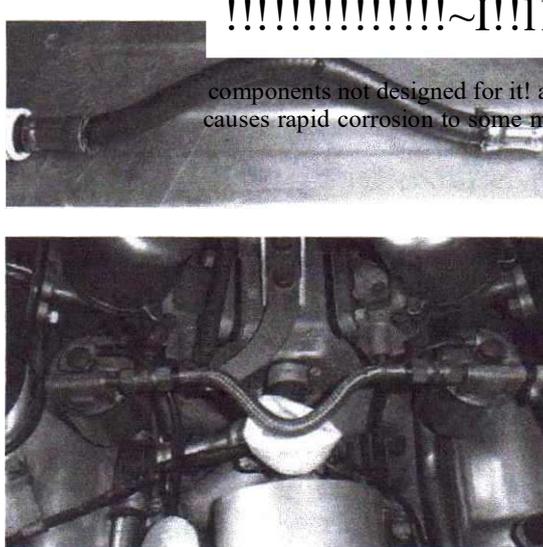
# OWNERS BEWARE, A REMINDER ON ETHANOL IN PETROL

I had a lucky outcome from what could have been a disastrous incident last February. On one of the rare, dry and sunny days, I gave the engine of the SP a run after its cold damp winter. It started fine and I let it run for about 10 minutes, then thought I had better look under the bonnet just to make sure everything was OK. To my shock I saw petrol dripping from the cross pipe between the two carburettors onto the engine manifolds. I immediately turned off the engine and put the first thing I could find under the drips, you could see the petrol vaporising, I just hoped that it would not ignite. I do have a fire extinguisher in the garage, also one in the car, but fortunately they were not required.

The cross pipe was the first thing I bought 9 years ago when I originally had the car. It had sis braided protection with brass fittings with olives etc. so it had the most secure fitting to the carburettors pipes. I naturally thought that it should be safe for many many years. I have since obtained a Petroflex pipe, which again has braided sis protection but has only Jubilee clips at either end.

I have examined the old pipe by carefully stripping off the braiding to expose the rubber pipe. It appears to have nne cracks all over it, but only leaking at one particular spot at the outer apex of the bend in the pipe, where it was most in tension.

A friend led me to an article in the TR Register club <http://www.groups.tr-register.co.uk/wessex/ethanol-update.html> concerning Ethanol which is being put into petrol these days.



!!!!!!!!!!!!!!!!!!!!~I!!!1! This seems to be a disaster to engine components not designed for it! as it causes rapid corrosion to some metals and cracking in rubber! At present 5% Ethanol is added to most petrol's (E5) but in 2013 it is likely to increase to 10% (E10) Apparently, because of its corrosive nature, they do not add the Ethanol to the petrol until it is just about to be loaded into the distributing tankers! Last year Total and some of the Super petrol's of other manufacturers apparently did not add it to their petrol. I have not been able to obtain up-to date information or confirmation on this and anyway all my local Total garages seem to have disappeared in my area.

Our Chairman in the June 2012 issue of DM brought us up to date on the Federation of British Historic Vehicle Clubs (FBHVC) testing of additives which we can add to our petrol to combat the damaging corrosive effects of petrol containing 5% to 10% of Ethanol. Legislation will require that proportions of 10% or over must be displayed at the pumps however could this mean that proportions up to 9.95% Ethanol need not be displayed?

Coming back to FBHVC's testing, as I understand it, the testing only covers the corrosion effect upon metals and does not include rubber petrol pipes, seals in pumps and filters etc. The only suggestions I have come across so far are for these components to be replaced. Below is a list of recommended/not recommended materials in contact with Ethanol/Gasoline mixtures obtained from the FBHVC's web site.-

## Recommendations for Materials Considered for Use in Ethanol and Ethanol/Gasoline Blend Applications

Material	Recommended	Not Recommended
Metals	Carbon steel with post heat treatment of carbon steel piping and internal lining of carbon steel tanks Stainless steel Bronze Aluminium	Zinc and galvanised material Brass Copper Lead/tin coated steel Aluminium (may be an issue for E10)
Elastomers	Buna-N (hoses & Gaskets) Fluorel Fluorosilican Neoprene(hoses & gaskets) Polysulfide rubber Vi ton	Burina-N (seals only) Neoprene (seals only) Urethane rubber Acrylonitrile-butadiene hoses Polybutene terephthalate
Polymers	Acetal Polypropylene  Polyethylene Teflon  Fibreglass-remforced plastic	Polyurethane Polymers containing alcohol Groups (such as alcohol based pipe dope) Nylon 66 Fibreglass-reinforced Polyester and epoxy
Others	Paper Leather	Cork

This list is not comprehensive and the quality of the material must be appropriate for the intended application. It is strongly advised that the manufacturers of these products are consulted before ethanol or ethanol/gasoline blends are introduced.

As a lay person, I do not know whether my recently purchased Petroflex pipe uses one of the recommended materials or not, their web site does not mention whether their pipes are suitable for petrol/ethanol mixtures.

Also it has been said that a 10% Ethanol mixture could affect even cars only IO tears old!

Do we all need to put additives in our petrol to negate the metal corrosion, replace all our rubber petrol pipes and replace all the seals/diaphragms etc. in petrol pumps and filters?

I for one may be very wary about running the risk of fuel failure or fire whilst driving on a motorway. It would be interesting to hear other views on this matter. Also advice on obtaining and changing rubber components on our vehicles could be very helpful for many.

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