

GUY BROAD NEWSLETTER - SUMMER 2012

It's a subject we have covered before but one that is certainly not going away - the damage modern petrol (gasoline) can do to your XK. I am seeing more and more cases of damage to carburettors and fuel lines due to today's fuel and there is a worrying increase in the risk of a fire as well. In this newsletter I want to talk about this and also, in my Broad Reports column, I am talking about steering - in particular on XK120s and how to get rid of front wheel wobble.

The first fuel-related problem occurred when fuel companies stopped adding lead (tetra ethyl lead or TEL) to petrol. This was done because it was considered harmful to health. TEL was added to stop 'knocking', as it effectively increased the octane rating of fuel. This not only meant better performance from lower grade fuels but also the chemical had the effect of putting a protective coating on valve seats and faces. While there are many octane enhancing chemicals, there are few that are as effective in protecting valves and seats as TEL. Hence the need on classics to fit new valves and seat inserts to prevent damage. Fortunately Jaguar heads and valves are not as badly affected as some, and low mileage XKs can generally get away without the need for head and valve jobs, particularly if an additive is used fairly regularly. My advice if you are on a budget is to get the head done when it has to come off for other work.

However it is the next step in fuel evolution that is the real worry for XK and other classic car owners. That is the addition of ethanol, which started about four years ago. It was partly for economic reasons and partly for the environment. However the proportion of ethanol is increasing and so are the damaging effects it has on classic cars. At the moment 5% ethanol is common and this is causing problems to a few cars but next year this percentage is likely to double and I fear the worst.



The most noticeable effect of ethanol, according to the Federation of British Historic Vehicle Clubs (FBHVC), has been on fuel tank sealants, which the ethanol 'melts' causing sticky deposits to get into the fuel lines. There are tank sealants that are resistant to ethanol and these should be used if you have a leaky tank but better still buy a new tank from me. But the real worry is the corrosive nature of the alcohol additive. The list of materials that are affected by ethanol includes zinc and galvanized materials, brass, copper, lead/tin coated steel and aluminium as well as seal and hose material including cork, neoprene, urethane and polyurethane - that just about covers everything from the fuel tank to the carburettor.

This corrosive effect from the fuel is manifesting itself in two ways on Jaguars; SU brass floats are becoming porous, and we are seeing fuel blockages due to the build-up of a sand-like residue, which I imagine are the remnants of the materials that the ethanol eroded. But of course the fuel lines are made of copper pipe with soldered joints, cork seals are used on the carburettor jets and fuel hoses are often made of the listed plastics. This all has the potential for fuel leaks and the associated risk of fire.

There is no simple solution. Shell V Power at one time did not have ethanol in it but I think today that all petrol in the UK does. The FBHVC on its website <http://fbhvc.co.uk/fuel-information/> has a list of 23 garages in the UK selling leaded but it is not clear if they have any ethanol content and

most of those won't be conveniently located either most likely. The Federation also lists recommended additives which include VSPe Power Plus, VSPe and EPS from Millers Oils; Ethomix from Frost and Ethanolmate from Flexolite. These all received an 'A' rating in research that was carried out and they carry an endorsement from the FBHVC. It would seem that a bottle of Ethomix is about £12 will treat 250 litres of fuel so it seems a good investment.

My advice overall is to check regularly for any fuel leaks, fit an inline fuel filter and replace or clean it regularly, if the car is to stand for a long time keep the fuel in the tank as low as possible and at the start of the season check the float chambers for sediment and also shake the floats. If you can hear any fuel sloshing in a float replace it.

It amazes me how many XK120 owners waste time and money getting front wheels balanced over and over again, to try to stop their front wheels shaking. If one wheel balance won't cure the problem then the problem is almost certainly wear in the steering. First let me say that a 120 with good steering is a joy to drive and rack and pinion steering, as on the 140, while making parking less of an effort, makes little difference on the road.



If you have front wheel shake at low speeds then of course the first job is to check the wheels are balanced OK. If you have wire wheels make sure you get them balanced by someone with the right equipment. Kwik Fits and the like generally don't have the dummy hubs to mount the splined centres on wire wheels so make sure the balancing is done correctly. This will also check that the wheels and tyres are running true - another cause of wobble.

Once that's done and if it hasn't cured the problem, start looking for the simple things. Check that the suspension is bolted up tight, the rubber bushes are in good order, the wheel bearings are correctly set, the steering box has oil in it and that all the nipples have been greased.

Assuming that makes no difference, start by getting someone to very gently shake the steering wheel from side to side while you look at the linkages under the car. This may show where play is coming from - either by the fact that one part moves and another doesn't or you can hear knocking that indicates wear.



Next eliminate the possibility of worn ball joints. While you can check them in situ to some extent I suggest that you separate them and check each one. To do this, take out the split pin, loosen the nut and, using a ball joint splitter (all accessory shops should sell them), release the tapered pin. Hold the ball joint in one hand and the tapered pin in the other and try and move the ball in its socket. If it's loose then it is worn and needs replacing. If one ball joint is worn then most likely they are all worn so it is prudent to change the lot.



There are also ball joints at the top and bottom of the suspension uprights that carry the stub axles. The top one is a sealed unit and if this is loose then replace it. The lower ball joints come apart and there are repair kits available to renovate them. This takes care of the ball and bottom

seating but if the upper part of the seat, which is the upright itself, is badly worn or damaged you need to seek help from us. The book says that you need to set the shims up so that there is 0.010" end float. In reality set this up so that the ball joint moves under gentle pressure from a finger and does not flop around. In all cases replace the rubber



gaiters with new ones, even if you have not fitted a new ball joint. A final tip on ball joints is to drill the bottom plate of the bottom ball joint and fit a grease nipple before it's reassembled. Don't forget to pump grease into the joints when you have finished but don't overdo it and burst the new gaiters.

If that still has not done the job then there the problem will either be in the steering box or the idler. The only solution for a worn steering box if play cannot be adjusted out as shown in the video is an exchange one... and we offer both LHD and RHD versions. The idler can be fitted with a new shaft, bush and seal kit or service exchanged, again we have LHD and RHD units.

Once you have done all that, get your steering geometry checked carefully or your car may handle strangely and wear out tyres at a fast rate of knots.

PRODUCT FOCUS



Available to fit all XK engines, even on cars with hydraulic power steering which require a smaller fan, and is a direct bolt-on replacement for the original one.

After a full year's worth of testing, from city centre traffic to desert rallies, the performance of our unique upgraded technical design cooling fan is nothing short of staggering. XK Club member Terry Noakes fitted one of these to his XK150, which he drove from Southampton to Morocco in mid summer, where the temperature was 40oC plus, and the Kenlowe electric fan never came on once during the trip. The fan upgrade is available to fit all XK engines, even on cars with hydraulic power steering which require a smaller fan, and is a direct bolt-on replacement for the original one.

POA



Stainless Steel Braided Brake Hoses

These hoses were developed to cope with racing stress but are now available to fit all XKs.

These brake hoses were developed to cope with racing stress. They are now available to fit all Jaguar XKs. Fit once for life and you'll have no more perished or bulging rubber hoses to worry about and a firmer brake pedal as well.

Sold as a set of three



Spin-on Oil Filter Conversion Kits

Unlike other conversions, which are complicated to achieve on XK120 and 140 models because there are so many variations, our unique kit is simple to bolt on.

Unlike other conversions, which are complicated to achieve on XK120 and 140 models because there are so many variations, our unique spin-on oil filter conversion kit is simple to bolt on. Suiting all XKs, this conversion is clean, efficient and very cost effective.

Please contact us for price information.

FENDER-BROAD



An introduction and background to Neil Fender, partner in Fender-Broad.

Neil declined an apprenticeship in the Coventry motor industry much to the regret of his grandfather who had 'pulled strings'. Instead he went into further education at business and sports college before spending his working career to date in the Banking and Sport, including the motorsport business. Throughout this time Neil began owning, racing, rallying and collecting classic cars. Inevitably, Coventry made the cars,

and the collection and value of his cars grew in line with his career progression.

Guy's & Neil's lives ran a parallel course until 1996 when an XK120 in need of significant remedial attention brought them face to face for the first time. Since that first meeting they have become

firm friends, sharing many great times together usually in and around the race track or bar!

Today's classic car market is very different from those that they remember as children. Ownership and participation has become a 'lifestyle' with tours, rallies and racing organised across continents on almost a weekly basis. With the right car it is now possible to fill your calendar with wonderful social classic events year round. Equally important is the fact that owning a classic is now an investment decision. Buy the right car and not only will you access all the 'lifestyle' things we have said but your asset will appreciate in value. In setting up Fender-Broad Classic Cars we believe we have the perfect complimentary blend of skills to offer our customers the very best guidance and advice on what car to buy to best suit their needs.

For more information on Fender-Broad visit their website www.fenderbroad.com.

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