



NUTS AND BOLTS

Dave Roche, XKEC member and also one of the Parts Advice Team, has kindly agreed to become a regular columnist

within GROWLER magazine. Here is the first of his quarterly instalments.
Website: www.xk8-parts.com

The earliest XK8's are now 14 years old and it is to be expected that most of the front suspension parts will wear and eventually require replacement.

Typically wheel bearings, top and bottom wishbone bushes, springs, shock absorbers and ball joints.

The age and the mileage of the cars are obvious factors in the wear and tear of parts and specifically the top wishbone bushes will take the most punishment. The lower wishbone bushes are more resilient as they are bonded and have steel casings.

With right hand drive cars, top wishbone bushes on the nearside tend to wear faster than on the right side due to the impact effect of potholes and poor road edges. Typically the rear bush will wear more quickly than the front as they are subject to higher loads.

The converse will apply to left hand drive cars. Some owners will just replace one side perhaps to get the car passed it's road safety test – MOT in the UK – or cut costs but for the relatively low price of the parts at £90 plus say 2-3 hours of labour we would always recommend replacing both sides.

Many XK8's and R's now have 18, 19 or 20 inch wheels and if the front suspension is only slightly out of alignment then this will increase negative camber causing the unseen inside edge of the tyre to wear unevenly at great expense to replace.

Cost is an obvious major factor but hearing knocking noises over bumps and if your suspension is just not as sharp as it was can be frustrating and detract from the car's enjoyment. Replacing the top wishbone bushes can save you money and give piece of mind.

A more extreme – and potentially a much more expensive – problem with knocking from the top wishbone arm area is due to the top wishbone bushes seizing to the steel fulcrum pin connecting the wishbone arm and subframe together.

The combined seized unit then wearing

XK8 and XKR front suspension bushes and subframe issues

Knocking from wishbone arm area can be due to bushes seizing to fulcrum pin

away at the all aluminium sub frame of the car and creating an oval shaped pin hole. When this happens the front wheels and the suspension become unstable and tend to float around with the excess play. This will obviously then manifest itself with a deterioration in handling and increased knocking noise.

Another horror story relates to a wishbone arm actually breaking due to the pressure on the component resulting from the seized bushes, fulcrum pin and subframe. It is not hard to understand how this can happen when you look at Jaguar's poor design of the top wishbone, bushes, fulcrum pin assembly and area.

At each pin hole end, this is hollowed out and this allows water, dirt and salt etc to ingress into the hole and corrode the bush and pin. No protection is provided for the exposed area or in fact any Jaguar maintenance advice to periodically clean and protect the area with grease or waxoyl.

The top front and rear bushes are designed to self lubricate and rotate as required around the fulcrum pin. However, when these become corroded, the combined seized unit then wears away at the aluminium subframe.

To make things worse, an electrolytic reaction can take place caused by the steel pin passing through the aluminium subframe and the steel inserts of the bushes. If the subframe wear is excessive, this may require complete replacement with either a new or good used subframe.

A new XK8 subframe part will be well over £2000 to replace! A much lower cost solution would be for an experienced motor engineer to add new inserts into the subframe and then replace the pin and two bushes. At the time of writing this article I don't know how successful this latter approach has been.

I would think this would be expensive in terms of the amount of specialist labour



Bushes, circled, and inset, diagram showing the assembly of bushes and wishbone

involved. In terms of replacing the top bushes, this is not technically that difficult as the road spring does not have to be compressed unlike some earlier Jaguar models.

However removing the steel fulcrum pin can be difficult especially when seized and this may require application of heat to encourage it's removal. When ready to do the job, apply penetrating oil such as WD40 liberally as much as possible well in advance.

Removing the bushes from the arms can be tricky and requires cutting away the steel flanges to allow the pressing out of the old bushes. Pressing in the new bushes can be time consuming.

When doing this job the condition of the top ball joint needs to be addressed. These are often very robust but if there is play in them and/or if the rubber boot is damaged allowing ingress of dirt then they will need replacement.

Parts availability and indicative costs

The parts supply for the bushes and fulcrum pin plus shims is good. There are genuine Jaguar, Original Equipment and Replacement (Copy) Parts available.

Having spoken to the specialist Jaguar repair shops, they will only tend to use genuine Jaguar and OE parts priced at around £20 per bush (2 per side) compared to around £14 per bush for the copy parts but there have been reports of the latter not lasting well in service.

There are polyurethane based bushes available individually or in complete kits. These will last the longest but may give a slightly hashier ride.

If you don't have the time or the tools to remove the pin, bushes and clean/paint the arm and thereafter fit new parts then the complete wishbone arm assembly is available on an exchange basis for a straight replacement of the whole

assembly. This may be more cost-effective.

Parts prices

Upper Control Arm Bush4 Required for front axle set @ £21 Per Bush. Total £84. Upper wishbone arm kit including bushes and ball joint - £190 per side. Total £380. Fulcrum Pin and Shims (if required) 2 Required for front axle set @ £31 per side. Total £62.

Service prices

Replace Upper Control Arm Bushes (set) - £320 to £380. Finally, if you having work done to remove the XK8 top wishbone assembly parts then maybe it's more cost-effective to replace all the bushes and ball joints even springs and shock absorbers at the same time as these will inevitably have to be replaced at some point in the future and the finished job will contribute to improved handling, piece of mind and enjoyment of your car ●