

## WELCOME TO OUR SUMMER 2015 NEWSLETTER



### Ways With Wheels

Wheels are something often taken for granted on a car. Many XKs today have wire wheels, and chrome ones at that, but only disc wheels were available from the start and when wire wheels did start appearing they were mainly painted to match the rest of the car. In this newsletter I am focussing on wheels – not just talking about the options available but also on their care and maintenance.

#### Wheel history

Let's start with a bit of history. All XKs had 16" wheels and 52mm centres with early 120s leaving Browns Lane on 5" wide pressed steel disc wheels. These changed to 5½" at the end of 1952. Wire wheels first appeared in 1951 as standard on SE models and as an option on others. These had 54 spokes. The same disc and wire wheel options continued on 140 and early 150 models but very few 150s have disc wheels. In June 1958, stronger 60-spoke wheels became standard with 54-spokes as an option (goodness knows why).

Disc wheels were painted in body colour and fitted with 'wheel discs', as Jaguar called hub caps in the early days, revising this description to 'nave plates' later. In fact when they started fitting wire wheels the 'knock offs' or spinners were called 'hub caps' by Jaguar! I will stick with the modern terms and call hub caps, hub caps and spinners, spinners. The sunken 'band' part of the hub caps on XK120s were painted in body colour but this practice ceased with the 140, when they were fully chromed apart from the Jaguar badge in the centre. Wire wheels could be ordered in body colour – which was most common – silver, fully chromed or part-chromed with silver varnished rims. It is questionable if any 120s ever left the factory on chrome wheels although many have them today. On 140s and 150s wire wheels were usually body-coloured or silver, with chrome available to special order.



#### Advantages



The main advantages of wire wheels were that they were stronger and helped brake cooling. An advantage if you were racing was that wheel changes were faster. They were also lighter meaning less un-sprung weight, which helped road-holding. Above all they looked smarter and sportier. The disadvantages are that they are pigs to keep clean, spokes can come loose or break and the splines wear.

### **Maintenance**

Disc wheels require little maintenance if they are not kerbed, apart from ensuring the wheel nuts are kept tight. Wires need more TLC. The splines must be kept clean and regularly greased, ideally with copper grease. Spokes should be checked regularly for tightness. To do this, jack up the wheel in question and spin it by hand. Using a pencil, let the end of it tap against the spokes as the wheel spins. Each time the pencil hits a spoke it should ping. If a dull sound results, that spoke is loose or broken. It is possible sometimes – but rarely – to tighten a spoke that is loose using a spoke key or spanner. In most cases you won't be able to move the nipple and you have two choices – a new spoke or a new wheel. You may be able to cut out the dodgy spoke and fit a new one, which is a right pig of a job. In most cases the answer is to get a new wheel because if one spoke has come loose the wheel is almost certainly at the end of its life anyway. A creaking noise from a wheel at low speed or rust appearing around the ends of a spoke or nipple are also signs of loose spokes.



Spline wear can often be detected by a clunk when accelerating or braking. If the spinners are tight then there is wear in the splines but do not confuse this with a clunk from elsewhere in the drive train. Worn splines mean a new wheel, a new hub or both. They can't be repaired. In most cases it is safest to replace both. This is because the worn part will cause accelerated wear in the new part.

Balancing wheels and tyres is important as a wheel - especially a front one - that is out of balance makes driving really unpleasant. Not all tyre specialists have balancers that have the correct adaptors for wire wheels. It is therefore important to make absolutely certain that anyone who does this job for you has the kit and knows how to use it.

### **Tightening wire wheels**

I am often asked how to correctly tighten wire wheels. Before fitting a wheel you must make sure that the splines in the wheel and on the axle are clean and properly greased – a copper grease is best. The spinner's thread and seating face should then be given a light coat of copper grease. The spinner should be fitted with the wheel jacked up off the ground so that the hub, wheel and spinner are all centralised. Apply the spinner by hand and tighten 3 to 3½ turns; give the spinner a couple of taps with the hammer; lower the wheel to the ground and give the spinner a couple more taps. As long as



the hubs are fitted correctly the spinners will self-tighten and lock as the car is driven. Hammering the spinners too enthusiastically will deform the thread of the spinner and the hub and make them more likely to work loose. Over-tightening also means that if you ever need to replace the hub or spinner you may need to replace the other part as threads will no longer match. If spinners keep coming loose then it is probably because the hubs have been fitted on the wrong side - the left hub goes on the left-hand side of the car as you sit in it, not on the left as you look at it from the front and vice versa.



Only use a proper hammer. The traditional hide (leather) and copper Thor hammer is fine but the hide face tends to break up and the copper face can damage the chrome. There are hammers available with lead faces, which some prefer. You can also use a wooden spinner adaptor which fits over the spinner to protect it when being tightened or loosened.

### **Changing wheel types**

Converting disc wheels to wires on drum-braked XKs is not quite as straightforward as may at first appear. Clearly you need splined hubs all round but brake drums may need changing too and studs shortening. Rear hubs are available for early cars with ENV rear axles and you can retain their existing rear brake drums. Later cars with Salisbury axles need new rear drums as well as splined hubs. In all cases front drums must be changed for new dished ones. In some cases the studs need to be shortened so carefully follow the fitting instructions for any conversion you do yourself. In fact it makes a lot of sense to convert to disc brakes – at least on the front axle - at the same time. It is more economic in the long run and of course improves braking.



Swapping the front hubs and drums is perfectly straightforward and requires no special tools but swapping rear hubs is another story. To do this you require a hub puller but the force usually required to get the old hubs off is herculean. The amount of tension you have to use is quite scary and very careful blows with a heavy hammer are usually required. Be very very careful of not only yourself but also of anything nearby as when the hub lets go it can launch itself like a missile. I strongly recommend this is done by an experienced mechanic.

Because wire wheels stick out further than discs, spats can't be used. This means the services of a body shop are required if you want the correct rear wing treatment to go with your disc to wire conversion. Another problem when converting to wires is fitting the spare in the boot – a 5" wheel should fit but anything wider will be a problem.

If you have a car with wire wheels and want to convert back to the disc wheels, you will almost certainly have to use second-hand items.

### **Choice of wheels**

I would always advise not to buy second hand wire wheels unless they are guaranteed in some

way. No matter how good they look or how well the spokes 'ping', you can never be too sure of the condition of the splines until you have driven on them for a while.

Apart from different width and finish options, there are basically three styles of wire wheel you can choose between that will fit. The difference is in the shape of the hub. Originally XKs had what are called 'ribbed' centres. This refers to the centre part having a raised 'rib' adjacent to the spoke holes nearest the brake. You can also get 'curly' hubs, which have a similar but deeper pressed centre. Later wheels have 'flat' centres, also called 'easy clean', where the centre is, not surprisingly, flat with no raised part. These last two are non-original so mostly avoided by XK owners.



There are three wire wheels available that closely replicate the original 16" wheels fitted to XKs. Two have 60 spokes – one having a 5" wide rim and the other 6". There are no 5 ½" wide 16" wheels available. There is also a 6" option in the same style but with 72 spokes for extra strength. The 5" wheel can take 185 R16 tyres and the others either 185 x 16 or 215/65R16. Current wheels take tubeless tyres but if you have older ones you may need tubes.

Particularly for competition, some owners fit 15" rather than 16" wheels. They offer a much wider choice of tyre including specific racing specifications and also lower the car slightly. If you race that is a different matter but I would not advise 15" wheels for a road car. Fitting 15" wheels on an XK not only looks odd but also upsets the gearing of the car and the speedo reading. However, if 15" is your choice then there are several rim width and offset options, so talk to us before deciding what to get.

### **Values**

I am often asked if there is a significant difference in the value of similar cars with disc or wire wheels. I would say that as wires are generally regarded as being more attractive that gives them the edge but there are some who think that discs and spats are the height of elegance. Originality to some is critical as well so that is a consideration. If you do convert then the simple answer is to keep all the bits you took off so that the job can be reversed if anyone wants to do that. Beauty, they say, is in the eye of the beholder and values often follow the same pattern.



## PRODUCT SELECTION

### XK Wheel Changing Kit

Here's a tip - go out and take the wheels off your car. you would be surprised how often an XK gets a puncture and the owner can't fix the problem. This is either because he has not got the right kit or it doesn't work, he can't get the wheel off or the spare is flat.

To change a wheel you need a jack, ratchet handle (that works!), a mallet or wheel brace and a serviceable spare wheel and tyre. Carrying a spare inner tube is also something to consider.



**Jack - POA**

**Ratchet Handle - POA**

**Copper/hide hammer - POA**

**Contact us** to for more information or to order.

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