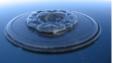
Knowles-Wilkins Engineering

classic spirit reborn









Newsletter - March 2011

Digital Engine Management System update

Following on from the announcement in our last newsletter about the start of our DEM project, we have achieved a key milestone in having the first system operational in a client's XJS V12 convertible.

This version is a mid-level specification with full ignition timing and fuel management computer-controlled, using the car's original two ignition coils. Although the engine has just been fully reconditioned and hence has a 3000 rpm rev limit during the running-in phase, initial impressions are of substantially improved pickup, idle quality and low-rev torque. We can't make full power torque and bhp measurements until the engine is fully run-in but we're expecting an improvement of at least 50 bhp.

The system also replaces the original and horrible thermostatic idle speed controller (aka auxiliary air valve) with a modern pulse-width modulated controller. The benefit of this is that the idle speed is fixed independent of temperature or past history - a failing of the Lucas AAV.

By the next newsletter we expect to have the system fully mapped and measured - and priced for sale. The system currently needs to be installed and setup by us, so we're not contemplating a saleable kit just yet...

In this newsletter:

- DEM System update
- Rare Estates visit KWE
- Brand new XJS
- WWF appeal
- "Dear Chris" problem page
- Gallery

You Tube

We are now uploading video clips to YouTube, so please log in and see what we get up to! There are some clips of the DEM system's first run.

Go to www.youtube.com and enter **kwe jaguar** into the search field.



Estates and Eventers



We were delighted to welcome some Estate enthusiasts to KWE recently. They arrived in two very rare and well-executed conversions - one of a Series 3 XJ12 and the other an XJ40.

For more details please go to www.lynxeventer.com

KWE has a lot of expertise with the **Lynx Eventer** - a shooting-brake conversion of the XJS. We are currently carrying out a full suspension restoration of an extremely rare Eventer TWR with 6 litre engine.









These particular Estate conversions have had a lot of care put into the custom parts - hand-made stainless steel glass surrounds in particular. The cars are very light and airy inside, with a very substantial load-space. They could have been Mercedes-beaters!

One forget Eventer, around



should not the Lynx of which 70 were

built, the last in 2002. Perhaps KWE should build some more...

First 'new' XJS for 15 years?

After a very unfortunate meeting with the Armco barriers at Brands Hatch (see below), a KWE client has asked us to rebuild his car again - this time with a NEW bodyshell. As this is a 6 litre convertible and rather rare, it is a worthy project. Probably the newest XJS in the world!







The new shell has been painted in KWE Sutton Blue as was the original car and we have had an excellent opportunity to go to town with rust protection and noise reduction. We had originally converted the transmission to a 6 speed Tremec manual box and this time we can craft the body to suit this large gearbox rather better.

The old car has been stripped and examined carefully after the accident and while the body is too distorted to use again, the engine, transmission and



most of the suspension is reusable. The only major casualty other than the body is the left hand rear hub which has split. This shows the immense strength of the car - not only did the driver and his passenger walk away unscathed, but also



the damage was largely restricted to the body - a huge advantage of the resilient mountings used for engine and suspension in most Jaguars.

World Wildlife Fund Campaign - Adopt a Jaguar



The World Wildlife Fund (WWF) in conjunction with Sky, are currently running a campaign to save one billion trees in the state of Acre in the Brazilian Amazon. Their aim is to protect the forest by tackling deforestation, and they intend to do this by supporting local communities to conserve the forests, making the trees worth more alive than dead. Of course, as well as improving the livelihoods for poor families, habitats of threatened species such as the jaguar will also be protected.

There are a number of ways in which you can help this campaign:

- 1) **Adopt a jaguar**. You will receive a cuddly jaguar, and updates 3 times a year from the WWF.
- 2) Adopt an acre of land in Acre. You will receive an information booklet and regular updates as well as a mountain ash sapling (if you would like one)
- 3) Make a one-off donation

As a company KWE is really concerned about the plight of the jaguar and the many other species that are threatened by deforestation and so we have put our money where our mouth is and adopted a jaguar.

If you would like more information on this campaign visit www.wwf.org.uk/adoption/skyjaguar



KWE Letters Page - "Dear Chris"

Dear Chris

I have an intermittent problem with my 1989 3.6 XJS. Sometimes, the engine just cuts out and yet everything else still seems to be working. It restarts normally and will then go on working for a few days. Can you diagnose what the cause might be without seeing the car or do I need to bring the car to you? The problem with it being an intermittent fault is that it might not occur when I bring it down to you!

Chris replied....

It sounds most like a faulty crankshaft position sensor. If this sensor is faulty the ECU would cease to receive engine data and would shut off the injectors. Replacing this sensor is not a difficult thing to do and the part itself is not expensive so you could see if replacing it eliminates the problem. Let me know how you get on.

Footnote: OC did as Chris suggested and the problem was solved.

Dear Sirs,

I am about to realise my lifelong dream & purchase a Jaguar XJS Convertible. What do I need to be aware of when inspecting & test driving one of these cars?

Chris replied....

Congratulations on your good taste! You don't say whether you are looking at pre or post facelift models or what size engine you have settled on but some general pointers follow:

1) Rust - the most common areas where rust occurs are the wheel arches, jacking points (all four), rear valances, radius arm mounts and seatbelt mountings (an MOT failure) and the front scuttle near the bottom of the windscreen. 2) In the engine bay check the fluid levels and colour. The coolant should be brightly coloured (red, blue or green) and with the correct concentration of corrosion inhibitor (to stop internal electrolytic corrosion). The transmission oil should be bright red. The engine oil should be clean and the brake fluid should be pale gold. Ideally check the brake fluid water content with a suitable tester. It should be less than 2%. (Brake fluid absorbs water continuously from the atmosphere).

- 3) Try to ensure for your test drive that the engine is started from cold as a warm engine can hide various faults. A V12 engine should run very smoothly, so a lumpy engine may indicate problems from a fouled spark plug, stuck injector, failed ignition lead etc. Listen for loud tapping sounds from the cam cover(s) or at the bottom of the engine when hot.
- 4) As the youngest of these cars is now 15 years old you would be very lucky to come across a perfect specimen, and unless the suspensions have been upgraded at some point there is bound to be some perishing and wear so that the cars do not feel as 'solid' as they were when new. The steering may feel vague and there may be some pull when braking but these are relatively simple things to fix & a KWE suspension upgrade will ensure that you get the best ride possible as well as prolonging the life of the car by protecting the subframes from corrosion.

Engines are expensive to repair so avoid a car whose powerplant you have any doubts about.

5) Expect convertibles to be noisier, wetter and less rigid than the coupé.

Hi

I have just bought a 1995 XJS Celebration which is perfect in every way except that when I turn the on the airconditioning there is a nasty smell.

Chris replied.....

This is certainly not an unusual problem and has two possible causes (apart from a dead fish put in the heater vent by the Best Man)! Mould and bacteria can accumulate in the cooling matrix encouraged by infrequent use. Use a fumigating aerosol - follow the instructions. The heater needs to be in recirculation mode and to force this on pre-'93 cars, turn the a/c to maximum cold, manual, full fan speed (not demist).

The other cause is a leaking heater matrix which allows coolant to be blown into the car. This smells acrid and is poisonous if ingested. Failed matrices are quite common.

Gallery

Some of the works completed since December 2010







This beautiful Westminster Blue convertible was sent to us from Belgium with serious engine problems. It was discovered that a steel foreign object had been sucked into the engine, damaging a piston and the cylinder head. In addition both heads were distorted from overheating and we replaced them from good old stock - cheaper than skimming. As well as a full engine rebuild the suspensions were renewed and the carpets and leather were replaced throughout.









Something we see a lot of at KWE is scuttle rot. It shows itself as a small patch of rust bubbling at the bottom corner of the windscreen. Removing the centre piece of stainless trim reveals more of the problem, but to really get to the crux of the matter the windscreen needs to be removed so that a good repair can be effected. On this particular car the rust had also penetrated the front wing which necessitated its removal for repair.







These pictures show the repair of another area prone to rust - that of the front damper mounting area - not easily visible. With the engine out for overhaul, this repair was straightforward.

Some of the projects completed since December 2010...











For Sales or Offers in this Newsletter please call us on **01635 30030** or email us at: **sales@kwejaguar.co.uk** 86 New Greenham Park, Thatcham, Berkshire, RG19 6HW