



Part Three: Where The XJS Rusts and Why

Radiator cross member

This is not to be confused with the main suspension cross member, that being a different animal altogether. The radiator cross member is a shallow rectangular box section. It bridges the gap between the two chassis legs at the lower front of the engine bay and supports the weight of the radiator to boot. It leads a secret life, covered on top by the radiator and from below by the aforementioned centre panel from the three amigos, it's very hard to see unless you start taking things apart.

So there it sits covered by the radiator, centre panels engine oil and anti freeze. The latter two generally decide the cross member's fate, if you've got a healthy oil leak from the front seal or oil cooler then the cross member (and the centre panel) stand a fair chance of survival. An oil tight engine plus the residue from regular anti freeze changes will see it expire within the obligatory 20 years. Problems can be compounded or relived by the strip of foam that sits between the radiator and cross member. Its there to create an air dam so all the cooling air is forced through the rad and not around it. This foam acts like a sponge, retaining anything which is liquid, be it friend or foe.

The underside of the cross member can be checked once the lower centre panel has been detached. The radiator has to be removed to check the upper section.



Radiator cross member

Front suspension cross member

The much maligned front cross member or 'sub frame' as its also known is a hefty piece of kit. Its job is to support the complete front suspension, steering gear and the dead weight of a six or twelve cylinder engine, no worries there then.

Do these cross members suffer from corrosion? I have to say yes. In the past two years I have stripped a dozen XJS's, from which only two cross members were deemed sound enough to use again.

Please don't be fooled by looking at the centre section of the cross member and thinking all is well, all the action takes place on the extremities, in the region of the infamous spring turrets.

It's not too difficult to check the integrity of these turrets. Place the front of the car on axle stands and remove the wheels. Slide your hand between the inner wing and sloping back face of the spring turret. Press firmly on this face, if you feel a smooth metal surface that doesn't yield then so far so good. If you feel something that resembles soggy crisps then press harder until your fingers go straight through the metal. Have you got super strength? Not this time Superman, just a few issues with your pride and joy!



Sub-frame spring turret cone

The next step is to take a lead light and a large flat bladed screw driver. Follow the road spring up to where it locates within the turret. There you will see the spring locating cones. Give these cones a real good poke with the screw driver until you are satisfied the metal is sound or the screw driver disappears into their innards.

If you've got to step three and all is well then you face a dilemma. The final check involves inspecting where the spring tops actually seat within the spring turret. This cannot be done properly without removing the actual springs (never buy a second hand subframe with springs still in place, you could be in for a nasty shock).



Sub-frame spring turret showing spring base

Removing the springs is quite a task involving the correct Jaguar spring compressor. PLEASE, PLEASE do not attempt to remove the springs without this tool, here speaks the voice of experience!!! I cannot stress this point strongly enough, the amount of stored energy in these beasts would launch a space shuttle.

Anyway, I digress, if you've got to this stage and the rest of the sub frame is rot free there is a good chance that the spring seats are also good, but that's your call, Jaguars can be very fickle.

It's advised that any corrosion on a sub frame is terminal, due to the stresses in this area any welded repairs are deemed dangerous to the point of being suicidal.

Inner wings/Shock Absorber Mounts

Running side by side with the cross member in the race to rust is the section of inner wing just below the shock absorber upper mount. In the 'cosy' confines of a V12 engine bay these areas are hard to see, obscured by the air filter on the right hand side and by both the air filter and expansion tank on the left, the best way is with a torch and a pair of rust detecting hands. Even then you can only see so much, the expansion tank sits so close to the inner wing that corrosion often jumps the gap and attacks the expansion tank as well. On a six cylinder car any corrosion problems are more easily spotted.

The area below the shock absorber mount has to cope with the forces transmitted by the shocks and so is double skinned for extra strength, here lies the problem. Water finds its way into the small gap between the panels and does its job. For some reason the corrosion is always worst on the engine bay sections, it rarely shows itself on the external areas underneath the wing. If rust has affected both of the panels then things are getting pretty serious, the MOT inspector will want a word in your ear.



Inner wing corrosion

Wing rails

Front wings on an XJS are bolt on. If you lift the bonnet you'll see a row of bolts where the wing is secured to the inner wing. This section of inner wing is reinforced with a box section to stop things waving at you when driving along. Sometimes these box sections rust, sometimes they don't, there's no rhyme or reason. If they do rust they generally do it in secret, protected from the public eye by the contours of the outer wing. (It's probably the close proximity of the two panels that started the rust in the first place) Only when you remove this wing is the truth revealed. The good news is any corrosion is relatively easy to repair and you don't have to bend your back.

For further information and advice, please contact Just XJS

Phone: 07940 998199

E-Mail: justxjsltd@gmail.com

Information by Andy Harvey (Just XJS)

PDF produced by Letitia Mace (Xclusively Jaguar)

“Where the XJS Rusts and Why” was first published in **Xclusively Jaguar News** in 2009 and is Copyright © 2009 Xclusively Jaguar www.Xclusively-Jaguar.com and Just XJS www.justxjs.com