

Wrong

Wire wheels are frequently mounted on computerized balancing equipment using two "universal cones". This causes several problems. If the sprung cone (2b) is too small, the outer edge of the wire wheel hub will contact the base plate at (2f). This area of the wire wheel hub is not a machined surface and it will cause the wheel to wobble on the machine, making it look like a defective wheel. If the outer cone (2c) goes inside the lip of the hub of the wire wheel, it is touching on two surfaces (2e) that are uneven, and this will also cause the wheel to wobble. There are a number of other problems which vary from machine to machine, but these are the main problems.

How Do I Get This Done Right?

Remember that they are your wheels and your car. Have them balanced on the car if possible. If that cannot be done, ask the members of your club who balances British wire wheels in town. Call the shops yourself-ask them if they have balanced center lock wire wheels. You want to talk to the technician that did it. If they tell you they wobbled a lot and took

lots of weight, find another shop. If they say they have done it and they have the proper adapters, check it out. If they have the pieces to mount the wheel correctly (as shown above) see what happens with one wheel. If you checked the wheels before you had them balanced, you know that the technician telling you the wheels are out of round is mistaken, and you can share this document with them and see if they have the proper equipment. If they don't, take your wheels to another shop or have the wheels balanced statically (bubble balanced). Remember to grease the bevels, splines, and threads on the hubs with white lithium grease before you fit the wheels.

Acknowledgement for this article to Moss Motors and Speedy Tyre & Fitment, 88 Buitengracht Street, Cape Town, 8000 Tel: (021) 424 5370/1 Contact Ian Kaplan, Director. ikaplan@conceptualise.co.uk

NOTE: Ian Kaplan @ Speedy (as above) has imported the necessary Specialist Wheel Bosses to enable him to balance, on modern balancing equipment, any Spoked Wire Wheels as described above.

**Coupé horizontale**

I want to start with a caveat: As I grew up on electricity, I am in no position to make qualified statements on mechanical and structural issues. So the following are mere assumptions.....

Many people are dreaming to have an open top car, few can afford it, even fewer go as far as taking the grinder and do the cut. But then we all know that on a monocoque the roof is holding the whole car together. While this is certainly the stuff for a doctoral thesis, I just shortly want to juxtapose two approaches:



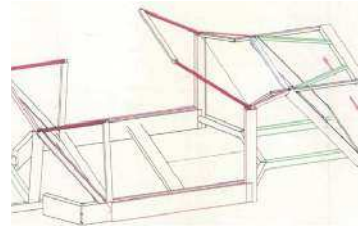
Here you can see an unfortunate Fulvia that had a pieces of railway track attached to its undercarriage. While that steel will certainly not bend, the designer made some grave errors. A monocoque is a complex lightweight structure that has a natural flex. Flexing is desirable as opposed to breaking. By replacing certain parts of a monocoque with inflexible pieces, the force will have to go somewhere: as it can't flex, it needs to break, and it will break at the weakest point, which is the weld between the solid and the flexible part. In other parts of the world this is even a roadworthy consideration. Only welding wire of a certain hardness is legally allowed for chassis repairs, as in an accident situation, that car needs to flex, buckle and bend but NOT break as this will harm the passengers.

Worse even: Things tend to break on edges, the 90 degrees angle from sill into the A-Pillar is the weakest point, and that is not supported in above design. In any case those picture are from 2009 and we don't know what happened to the vehicle.

From the Sump

by Felix Furtak

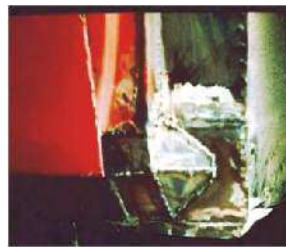
Now lets look at a different approach:



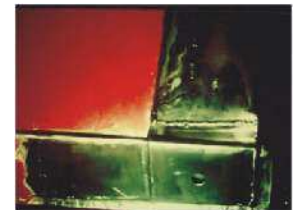
Here we see the general layout of a roofless car. In the drawing it easily becomes apparent where the weak spots are. Here is the approach:
- replace the intermediate sills, which normally consists of holes and rust with a solid 2mm plate. Same idea as the beam of your wooden floor, as high as possible and as thin as possible. At minimal weight it can hardly flex.



-Then multiple layers of box shape structures get added on the crucial corner of the A Pillar.



-Then in the end we put on the correct shape of the outer sill. Make sure that all those layers contain holes to inject the wax oil afterwards.



We reinforce the A-Pillars with a second column, add reinforcements from the sill to the rear strut tops before refitting the rear wings, same on the front and then build traditional strut braces between the front and rear strut tops respectively. The result is well known and stood the test of time, downside is that you need to strip the whole car to hide your reinforcements under the original panels. Interestingly, the car weighed after the operation as much as it did before. So the complete weight of roof went into the reinforcements. Whoever thinks that this is way too much trouble: there is an easy way out:

WELD THE DOORS SHUT.

