

Supplemental Information & Instructions for Balancing Center Lock Wire Wheels

A Little History

Back in the 1980s, we began receiving complaints about wire wheels that were "egg shaped" or so far out of round they could not be balanced. We wound up checking every wire wheel upon receipt using a jig mounted wire wheel hub and a pair of dial indicators. After 6 months, we knew beyond the shadow of a doubt that 99.99% of the wheels were within tolerances. Why then, were we getting so many complaints? It turned out to be the equipment used to balance the wheels. As the new computer controlled balancing machines came into use, our problems increased because the new equipment (and the new technicians) did not understand how the wire wheels had to be mounted in order to be balanced. We prepared these instructions and since then, they have been included with all our wire wheels. Complaints about wire wheels essentially stopped in a matter of weeks. Now, when we get a complaint about wire wheels, it almost invariably comes down to a shop that has ignored our instructions because they have total faith in their "universal" state-of-the-art equipment.

Before you take your wheels to be balanced...

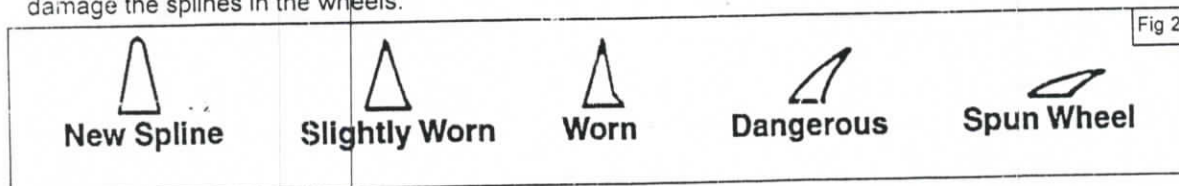
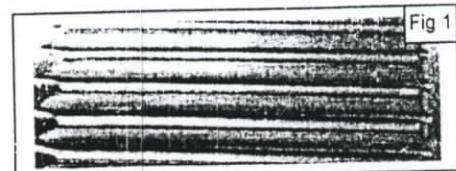
There are a couple of things that need to be done.

Check the splines

Jack up the car. Support it on jack stands.

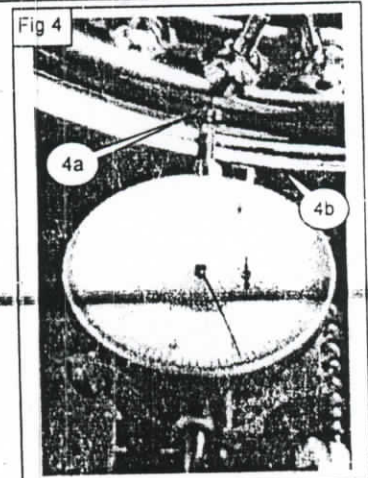
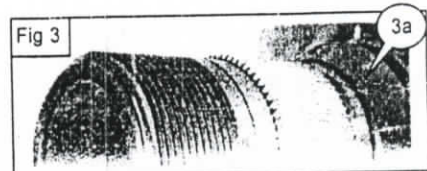
Remove one wheel at a time, and thoroughly degrease and clean the splines on the wire wheel hub.

Inspect the splines carefully. Fig 1 shows new splines. Fig 2 gives you the traditional guide to worn splines. If the splines are worn, replace the hubs. Putting new wire wheels on hubs with worn or damaged splines will quickly damage the splines in the wheels.



Check the wheels

If the splines are OK, pick a hub to use to check the new wire wheels. Thoroughly clean off the beveled surface on the hub where the wire wheel makes contact (3a). Use a tooth brush and solvent first, then a wire brush if necessary and take your time. Clean and degrease the wheel nut, particularly the bevel (which contacts the wheel) and the threads. Once the hub and wheel nut are clean and dry, mount a new wheel, and tighten the knockoff normally. Attach a sharpened pencil to something high enough to bring the pointer up level with the rim of the wheel. I tape a pencil to a jack stand, but a stack of wood will work fine. The point of the pencil should almost touch the wheel at the point shown (4a). Do not use the rim bead (4B) as a reference. Rotate the wheel, looking for the section of the wheel that comes closest to the point of the pencil. Move the pencil in until it just touches the rim. Now rotate the wheel until there is a gap between the pencil and the rim. Measure it and record the number. Repeat this with all of the new rims.



Original Specifications

Triumph: maximum "wobble" of 0.094" (~ 3/32" or 2.4 mm).
MG was more particular, calling for 0.055". (~ 1/16" or 1.4 mm)

If your wheels check out OK, they can be balanced.

Please check the wheels before you have them mounted. The manufacturer will not accept any warranty returns if the wheels have been mounted, and regrettably, that means that Moss Motors cannot accept them either.

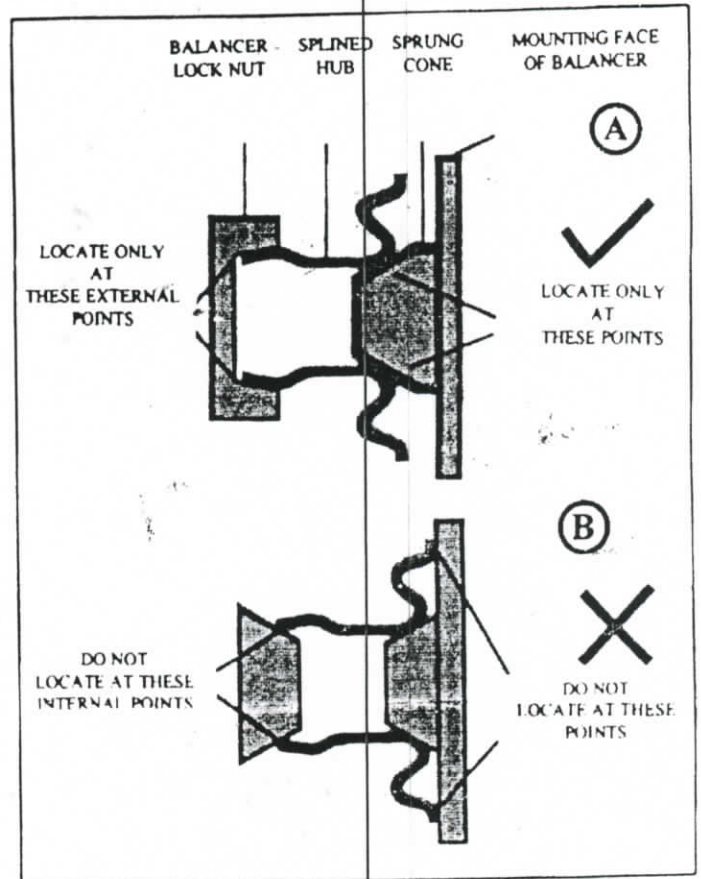
HOW TO BALANCE CENTRE LOCK WIRE WHEELS

These instructions are intended as a guide in helping to solve problems that are commonly encountered when balancing centre-lock wire wheels on an electronic balancer.

The diagrams show the centre spline of a wire wheel attached to a balancer.

Diagram A is the correct method of locating the wheel.

Diagram B shows the wrong method and one which gives false readings giving the appearance of untrue or wheels which large amounts of weights would be required to balance.



POINTS TO CHECK

The original high degree of balance may be affected by wheel damage as well as by factors related to the tyres uneven tread wear, cover or tube repairs etc.

If roughness or high speed steering trouble develop, and this cause is not disclosed by mechanical investigation, then the complete tyre and wheel assembly should be checked for balance.

It is **IMPERITIVE** that the hubs are located on the balancing machine in exactly the same manner as located on the car and the factory truing jigs. Alternatively, balance on the vehicle, this operation can only be done on the front wheels of your car.

For further information Contact Motor Wheel Service Ltd at

either of the following locations:

London Branch.

Langley Business Pk, Station Rd, Langley, Berkshire.
Tel: 01753549360

Manchester Branch.

Shentonfield Rd, Sharston Ind Est, Wythenshawe, Manchester
Tel. 061 428 7773

Motor Wheel Service dedicate considerable time to insure that your wire wheels are of the highest quality and reliability. Following this guide and the information contained in our centre lock brochure, your wheels will provide the highest level of customer satisfaction.



Motor Wheel Service