

Justification:
Safety Instruction
(Maintenance)

**Private Owner
Circular Letter
651 Issue 2**

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Title

**Additional
Maintenance
Requirements for
Gloucester MKIV
Floating Axle
Pedestal
Suspensions**

AUTHORISATION

Authorised by:



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1. INTRODUCTION

Following a second derailment of two axle wagons fitted with Gloucester MkIV floating axle pedestal suspensions, which occurred at Bordesley Junction on 26th August 2011, POCL 651 has been re-issued to make it clear that the additional inspections and measurements shall be carried out at every maintenance event (i.e. PPM, VIBT and BM).

2. INSTRUCTION

2.1 Additional measurements and limits that apply at every maintenance event

The measurements required at every PPM, VIBT and BM (and the limits applicable) are detailed below along with the work required should the limits be exceeded:

- a). The gap between damper pad annulus and the damper pot casting shall not be less than 3mm (see Figure 1). If less than 3mm then remove the damper pad and measure:
 - i). The height of the damper pad spigot relative to the pad annulus face (see Figure 2). If less than 2mm proud of the annulus face the damper pad shall be renewed.
 - ii). The manganese wear plate attached to the damper pot, shall not be worn deeper than 1mm by the damper pad spigot (see Figure 3). If worn by more than 1mm deep then this manganese wear plate shall be renewed ensuring that the damper pad spigot cannot come into contact with the attachment welds.
 - iii). If there is visual evidence that the damper pot to manganese wear plate weld attachments are impinging upon the damper pad spigot this plate is to be renewed ensuring that the damper pad spigot cannot come into contact with the attachment welds.
- b). Hollow wear on the manganese liner, welded to the saddle casting, shall be no greater than 1.5mm (see Figure 4). Note: Maximum wear occurs towards the lower edges of the liner. If wear exceeds 1.5mm on any part of liner face, then the liner shall be renewed with a new plate to the modifications detailed in Section 2.2.
- c). The wear on the front face of damper pad shall not be such that the chamfer is completely removed (see Figure 5). Any damper pad having no remaining chamfer shall be renewed.

2.2 Modifications to the liner plate and weld attachments

When the manganese liner plate requires renewal, either due to current maintenance plan thickness limits or hollow wear as detailed above they shall be replaced with:

- a). Reduced width manganese saddle liner plates (reduced by 20mm giving dimensions of 115mm x 240 mm) secured centrally, as is normal, to the saddle mounting groves.
- b). Weld beads shall be ground back to 3mm height (half plate thickness) to alleviate weld to damper pad impingement.

2.3 Prohibition on the rotation of Saddles

Saddles shall not be rotated to present previously worn hollow liners to the non damper side pedestal liner plate.

2.4 Heavy scoring or 'blueing', of the manganese saddle liner plates

If during routine maintenance or the course of inspections or work associated with this instruction the following are found then the wagon and all relevant components shall be quarantined until further notice and the Senior PWRA Engineer advised immediately:

- a). Heavy scoring, or metal transfer between the friction faces.
- b). 'Blueing' of the manganese saddle liner plates (indicating excessive heat generation).

3. **SCOPE**

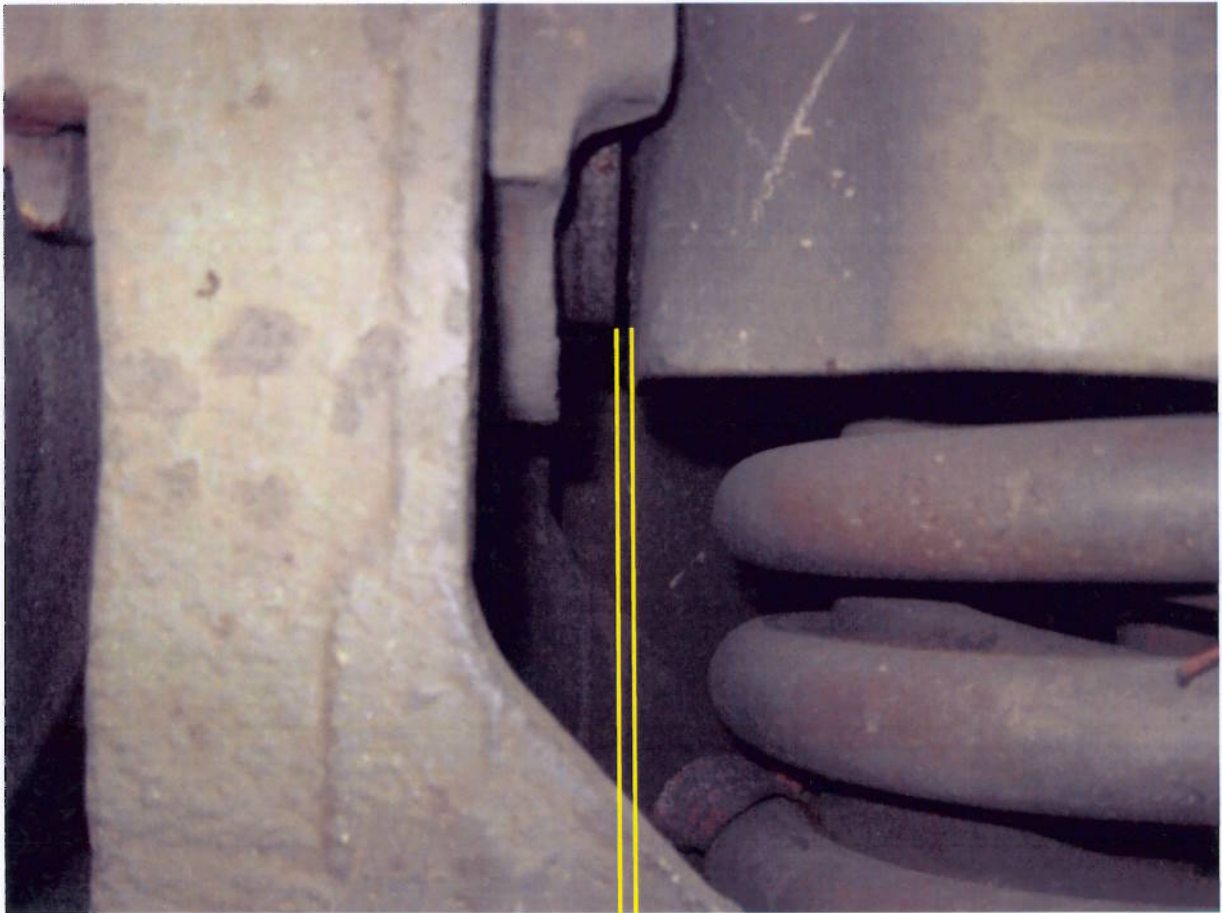
This document applies to two-axle wagons utilising Gloucester MkIV floating axle pedestal suspensions.

4. **IMPLEMENTATION**

This document shall be implemented immediately.

In the event of any query arising or clarification required, please contact:

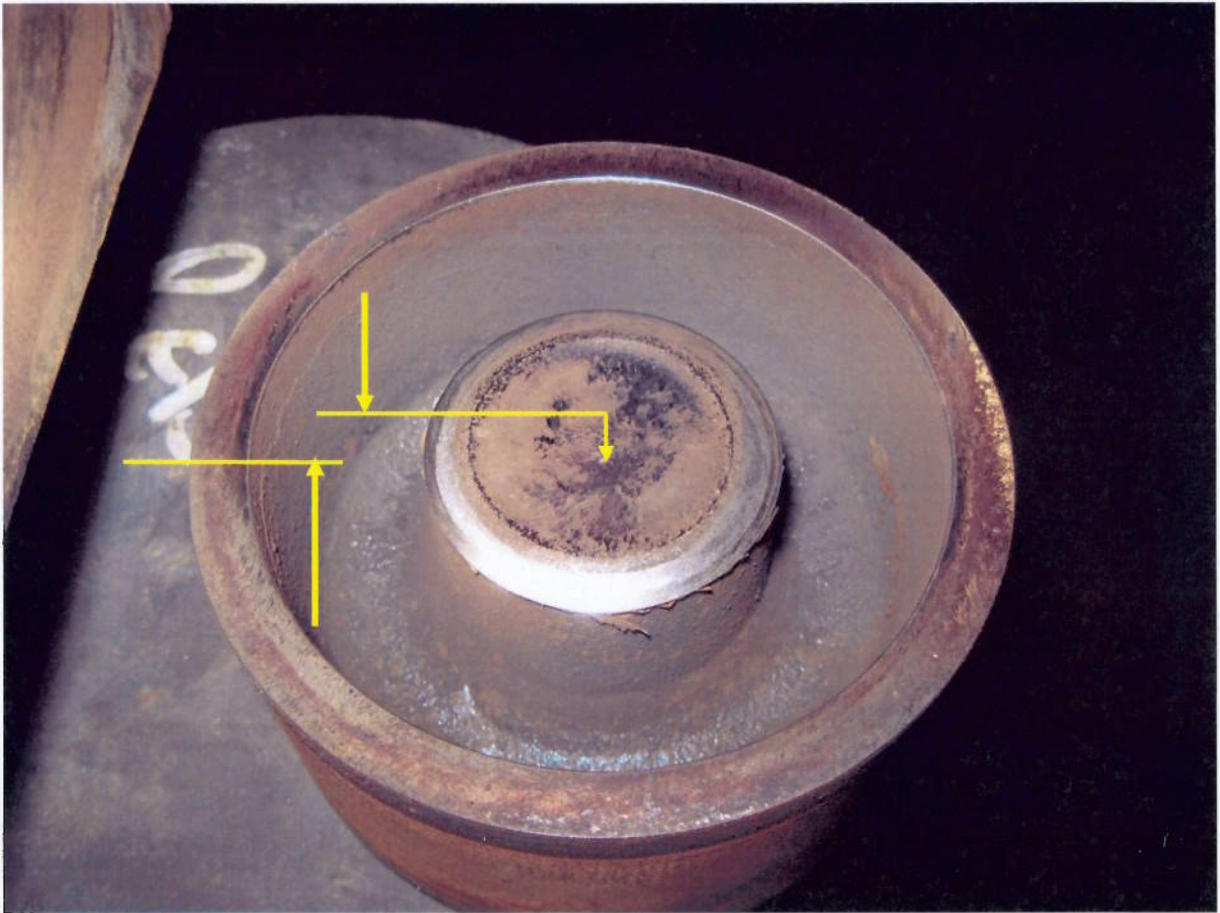
Senior PWRA Engineer
PWRA Management Group
Room 203 Derwent House
rtc Business Park
London Road
Derby
DE24 8UP



3mm gap minimum between damper
pad annulus and damper pot

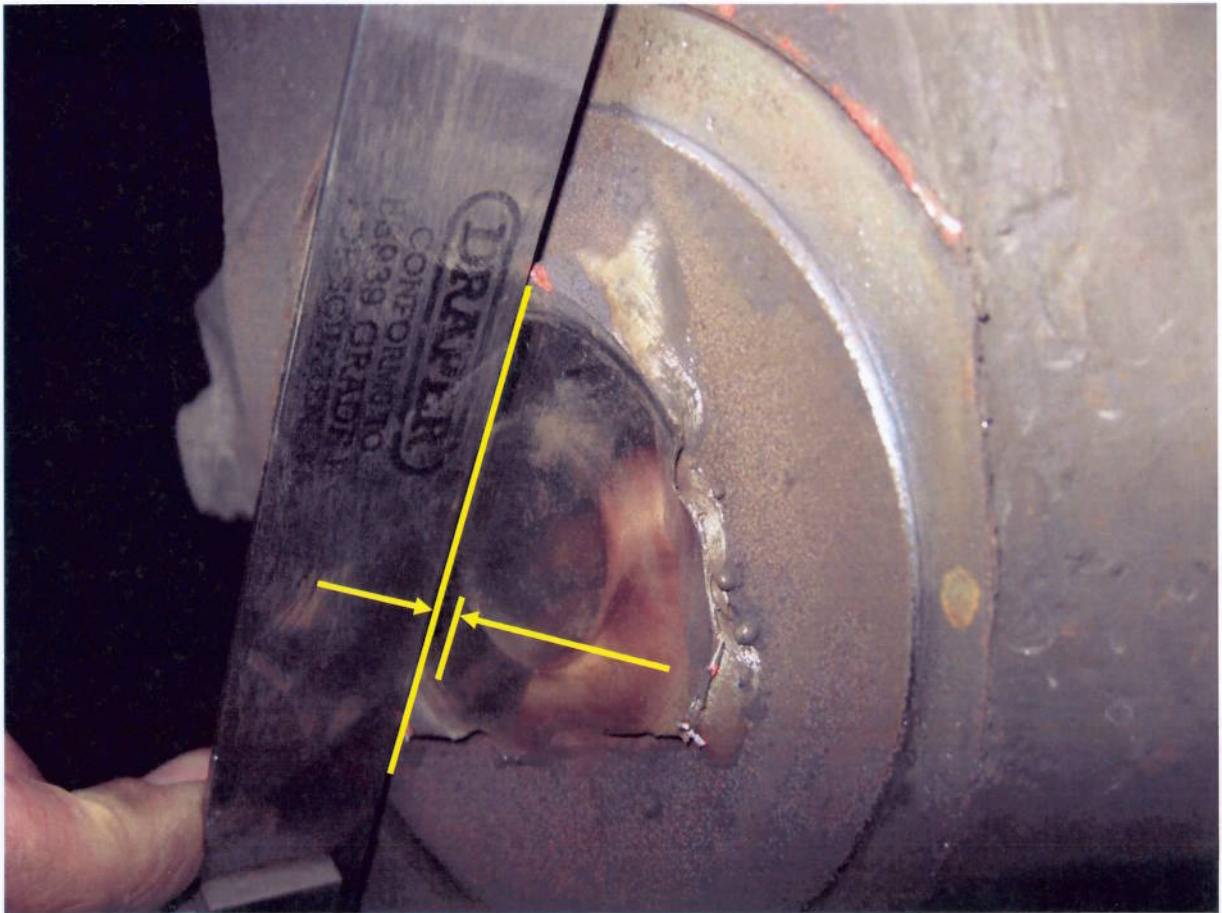


Figure 1



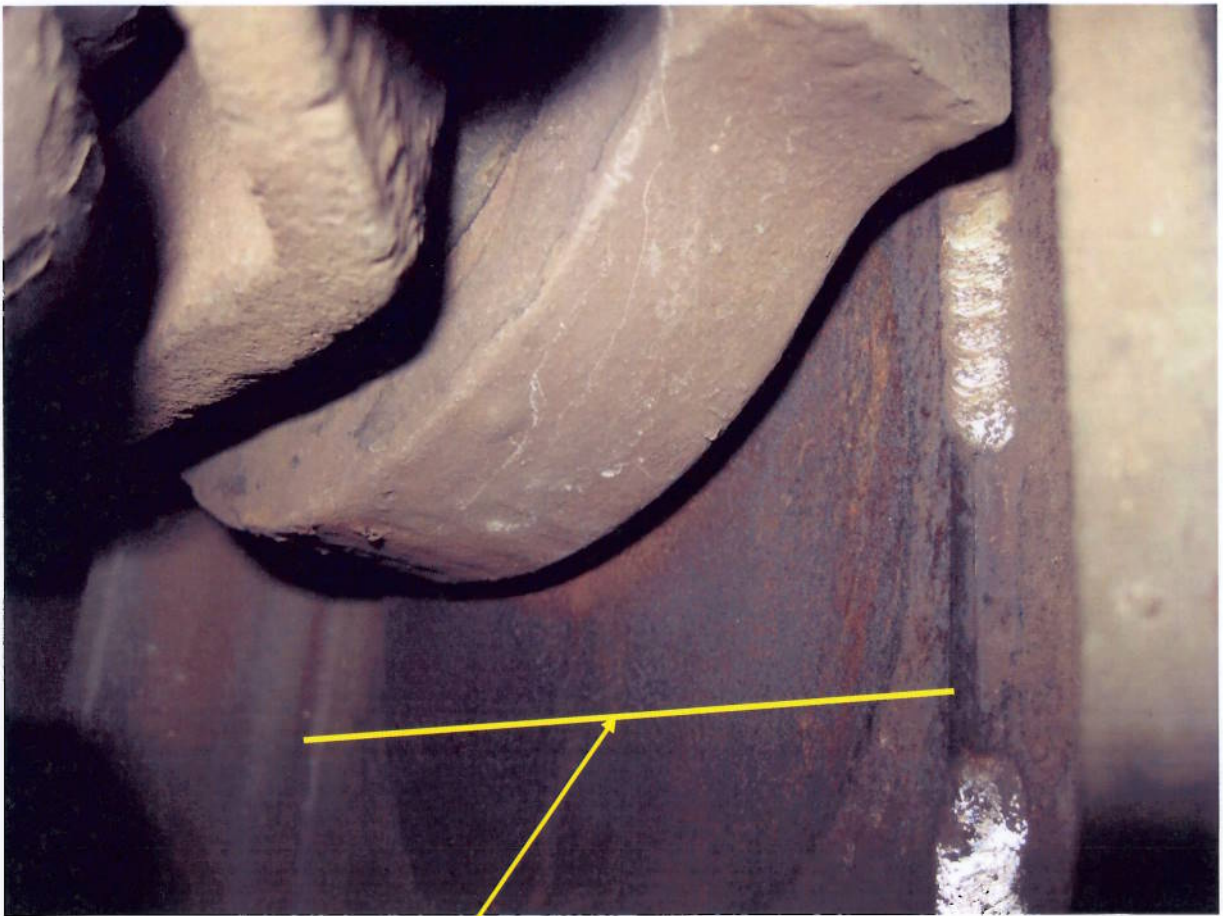
Measure height of centre spigot above the damper pad annulus.
Spigot to be proud by a minimum of 2mm.

Figure 2



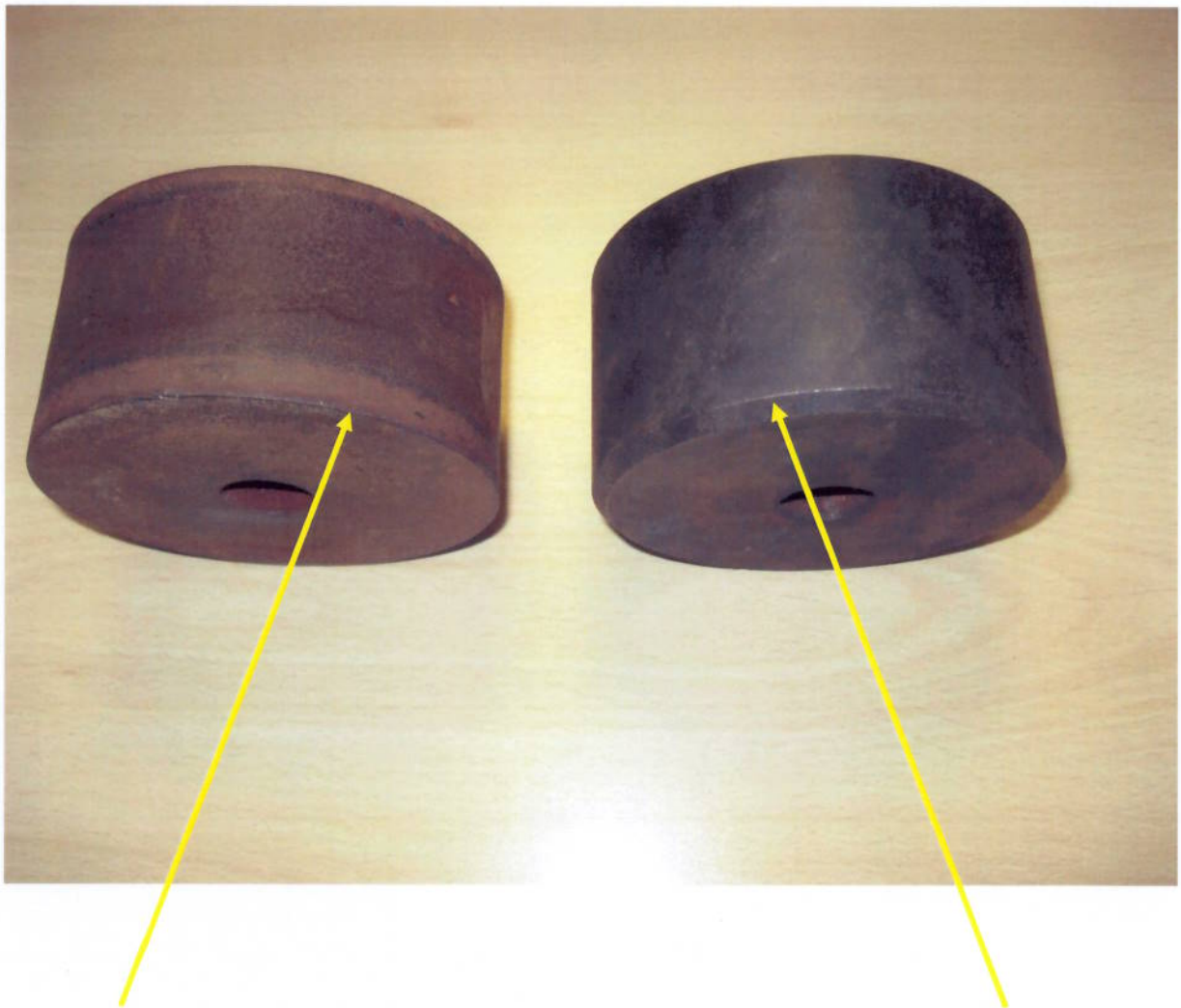
Measure depth of wear on the damper pot manganese wear plate.
Maximum depth of wear is 1mm.

Figure 3



Measure hollow wear on the saddle casting manganese liner. 1.5mm maximum depth of hollow wear

Figure 4



Worn damper pad, no chamfer

New damper pad, full chamfer

Figure 5