

**Justification:
Safety Instruction
(Maintenance)**

**Private Owner
Circular Letter
632 Issue I**

This document is the property of Network Rail.

It shall not be reproduced in whole or in part, nor disclosed to a third party, without the written permission of the Owner.

© Copyright 2009 Network Rail.

Title

**TF25 Bogie Radial
Arm Axlebox
Bushes**

AUTHORISATION

Authorised by:



J. Collinson, Head of Traction and Rolling Stock Engineering

1. **INTRODUCTION**

Deterioration of the TF25 bogie radial arm axlebox bushes manifests itself in the form of cracks, splits in the rubber or de-bonding of the rubber from the metal components. POCL 632, Issue 1 provides guidance to staff when inspecting the bushes at planned maintenance events and information as to when they require replacing with new.

2. **INSTRUCTION**

2.1 **Inspection and rejection criteria for bushes at PPM and VIBT**

At PPM and VIBT visually inspect radial arm axlebox bushes (see Figure 1). Renew any bush that has a crack, split or de-bonding longer than 100mm circumferentially and is deeper than 20mm*.

*Note: The 20mm is the total depth. For example it may be 20mm deep when measured on just one side. Alternatively it may have additive 'side to side' values of 10mm and 10mm or 5mm and 15mm to give a total depth of 20mm.

2.2 **Service life of bushes**

The manufacturer's advice regarding the original (G1) bushes (see Figure 2) is that they will not last 10 years. Their recommendation is therefore that all G1 bushes shall be replaced with new, second generation (G2) within 10 years or 500,000 miles in service.

The manufacturer's advice regarding the second generation (G2) bush, identified by grooves in the trunnions (see Figure 3) is that they will last at least 10 years or 500,000 miles, however, testing of examples is required to confirm the actual life. Therefore, until advice to the contrary is received all G2 bushes shall also be renewed at 10 years or 500,000 miles in service.

3. **SCOPE**

This POCL applies to all PWRA wagons fitted with TF25 bogies.

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 207 Derwent House
rtc Business Park
London Road
Derby
DE24 8UP



Cracks and splits (length measured circumferentially)

Rubber de-bonding from steel trunnion

Figure 1 Cracks, splits and de-bonding of rubber bush

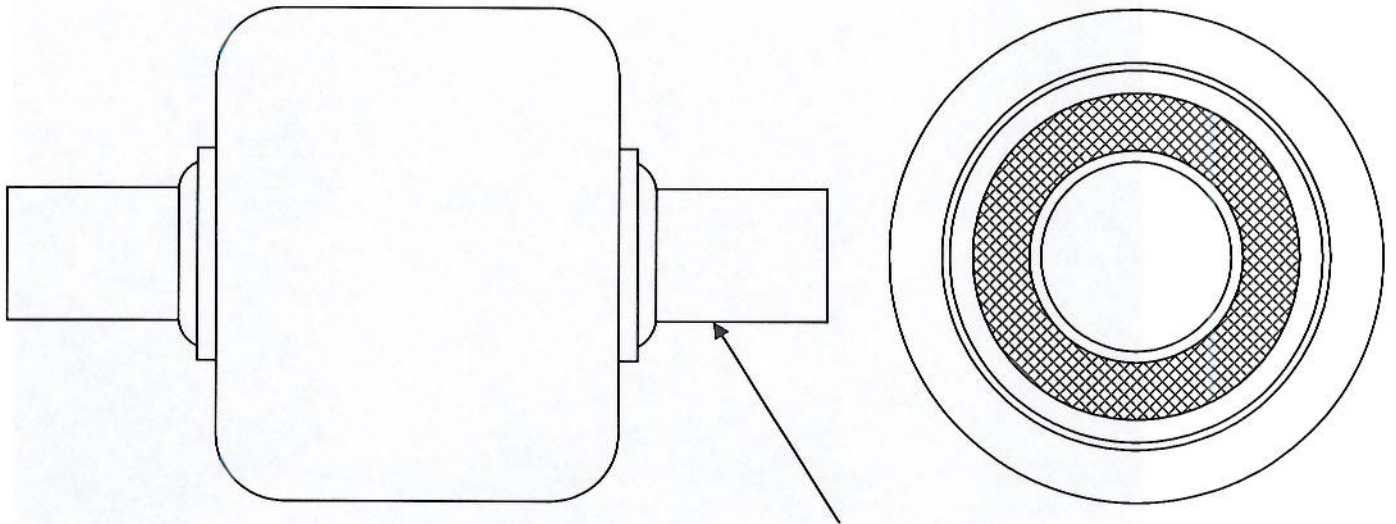


Figure 2 Original (G1) Bush – Plain Trunnion

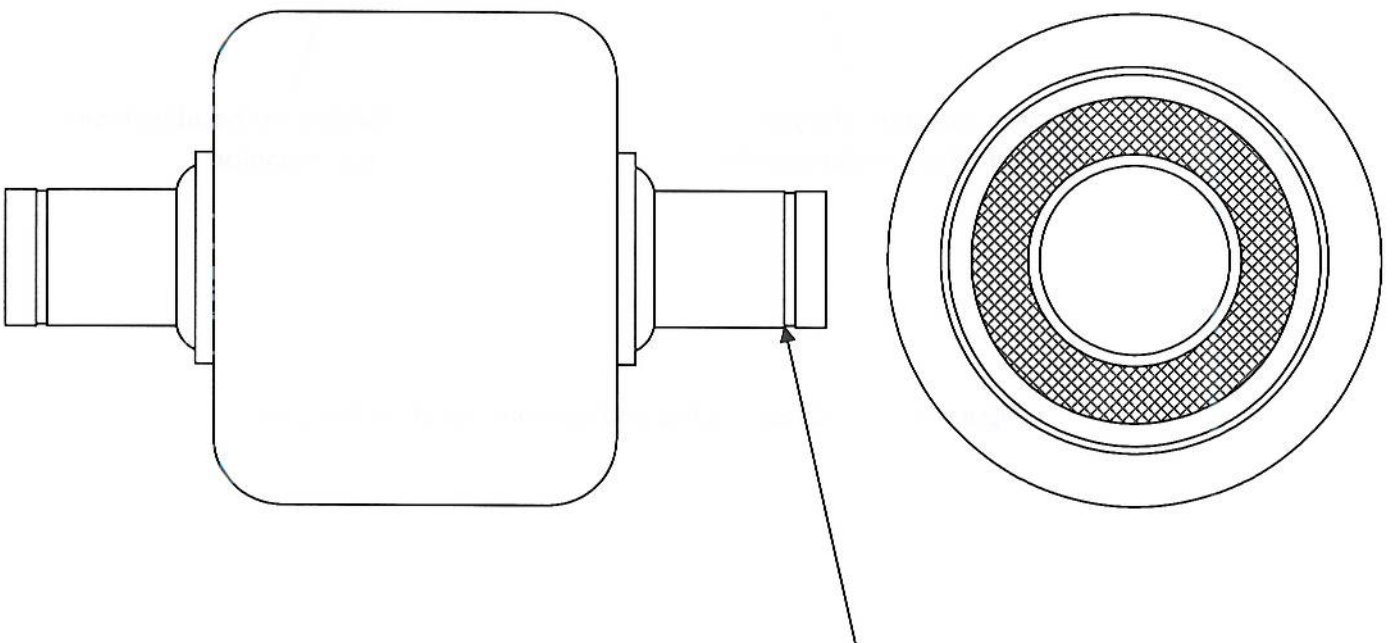


Figure 3 Second Generation (G2) Bush – Groove in Trunnion
Ferrabyrne Drawing No. TBB 116 002 000