

Justification:  
Safety Instruction  
**(Maintenance)**

**Private Owner  
Circular Letter  
631 Issue I**

Title

**Inspection of TF25  
Bogie Radial Arm  
Axlebox Castings**

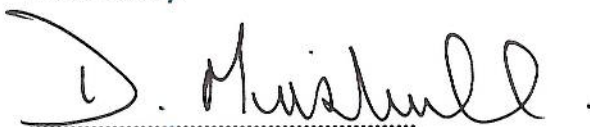
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**ENDORSEMENT & AUTHORISATION**

Endorsed by:



D. Minshull, Senior Standards Engineer

Authorised by:



J. Collinson, Principal Traction and Rolling Stock Engineer

## **I. INTRODUCTION**

The TF25 bogies fitted to certain Private Owner fleets of wagons utilise a radial arm axlebox casting that is prone to cracking. As a result Owners, in conjunction with their maintainers, have established visual inspection regimes specifically to examine the axlebox castings.

A recent review of the situation has revealed:

- a). Most of the Private Owner fleets are now operating within the 'critical' mileage range, where all the Freightliner Ltd failures occurred.
- b). There is considerable variation between the inspection regimes of the various Owners.
- c). KAJ Engineering Ltd's Report No. 205147/1 'FATIGUE LIFE AND INSPECTION PERIODICITY OF THE PROBOTEC TF25 RADIAL ARMS WITH WELD DEFECTS' , dated January 2005 recommended an inspection frequency of around 2,000 miles for poor quality non-compliant castings.
- d). Three of the Freightliner Ltd's failures were discovered 'post' the planned inspection at the specified maintenance event.

As a result it is clear that the PWRA Management Group need to mandate an inspection regime in order to better control the risk and provide uniformity.

## **2. INSTRUCTION**

### **2.1 Visual inspection**

TF25 bogie radial arm axlebox castings shall be visually inspected for cracks and defects as follows:

With a wire brush clean the 'H section' and adjoining areas of the radial arm axlebox casting. Visually inspect the entire casting for defects (e.g. such as raised imperfections, grooves or poor weld repairs) and cracks. Pay particular attention to the 'H' section and adjoining areas, especially at the connection to the radial arm bush, where cracks have been found (see Figure 1).

Note: All sides and faces of both flanges and both faces of the web shall be inspected.

### **2.2 Inspection periodicity**

Visual inspections shall be carried out at a periodicity of no more than 2,000 miles on all castings that are either of poor quality or non-compliant to drawing, for example have thinner sections than the design required.

Provided that Owners are able to formally demonstrate that their axlebox castings are of adequate quality, not repaired and are compliant to drawing, then with the prior

agreement of the Senior Standards Engineer, they may extend the periodicity of their inspections to that at normal maintenance events.

**2.3 Inspection records**

At each inspection the attached checksheet shall be completed (signed and dated by the inspector) and filed. Owners shall ensure that all completed and signed off checksheets are retained until advised otherwise by the Senior Standards Engineer. If any casting fails an inspection then it shall be removed immediately and the Senior Standards Engineer advised of the details.

**3. SCOPE**

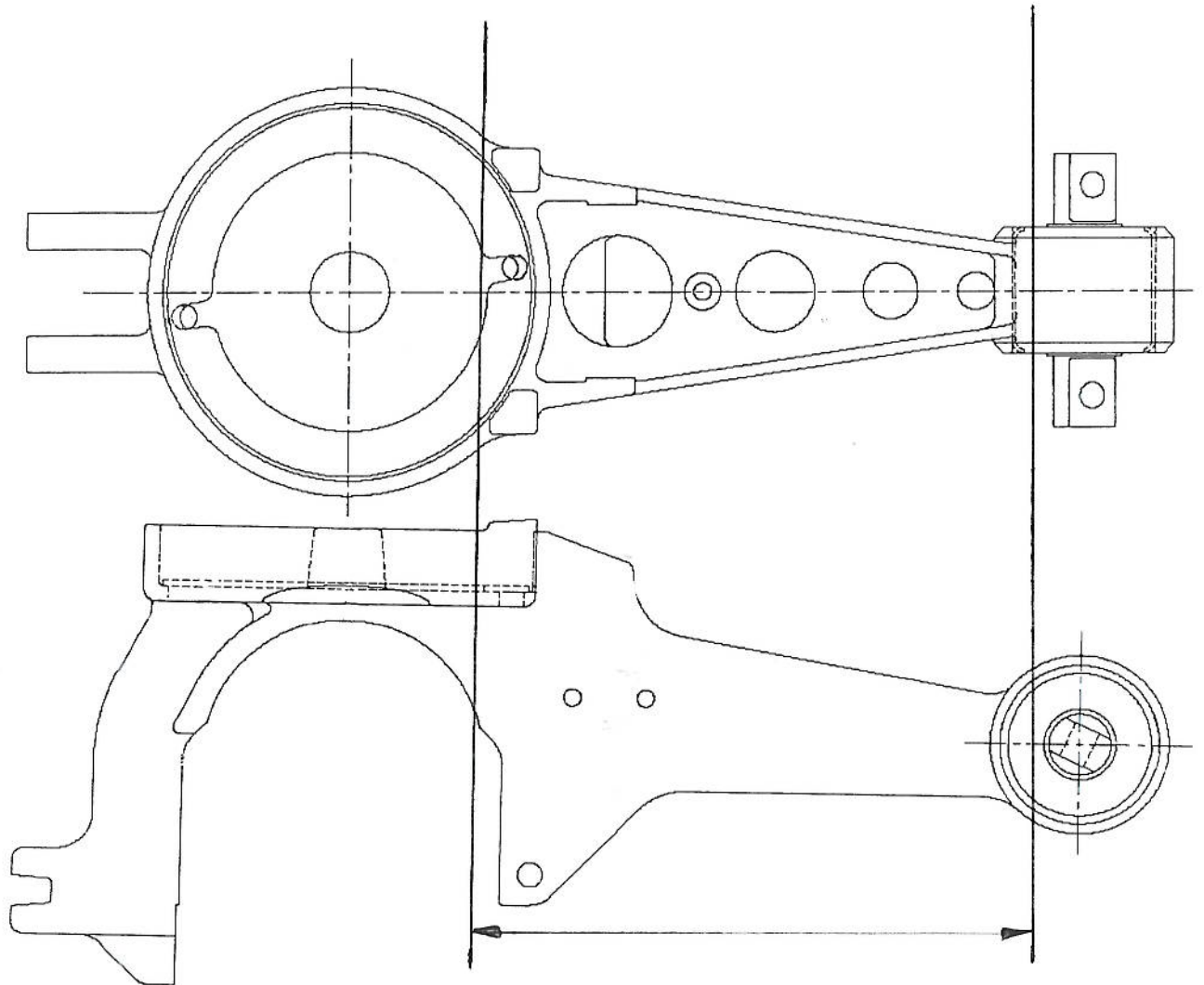
This POCL applies to all PWRA members with wagons equipped with TF25 bogies.

**4. IMPLEMENTATION**

This document shall be implemented immediately.

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

Senior Standards Engineer  
PWRA Management Group  
Room 225 Derwent House  
rtc Business Park  
London Road  
Derby  
DE24 8UP



**Pay particular attention to this section**

FIGURE 1 VISUAL INSPECTION OF TF 25 BOGIE RADIAL ARM AXLE BOX CASTING

