

Justification:
Safety Instruction
(Maintenance)

**Private Owner
Circular Letter
661 Issue 2**

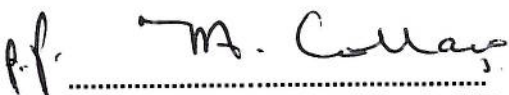
This document is the property of Network Rail.
It shall not be reproduced in whole or in part, nor disclosed to a third party, without the written permission of the Owner.
© Copyright 2013 Network Rail.

Title

Inspection of
Threaded Eye
Bolts on Bottom
Door Mechanism

AUTHORISATION

Authorised by:



J. Allenden, Professional Head of Plant and T&RS

Amendment Record

Issue	Date	Amendment
1	August 2012	First issue
2	March 2013	Second issue. Amended for clarification purposes. Amendment record sheet added. Clauses 1 and 2 rewritten and figures 3, 4 & 5 added.

- d). Continue to carry out inspections at maintenance events to vehicles at risk.

3. SCOPE

This instruction applies to all PWRA registered wagons fitted with threaded eye bolts on the bottom door mechanism.

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
Caldecotte
Ground Floor
The Quadrant:MK
Elder Gate
Milton Keynes
MK9 1EN

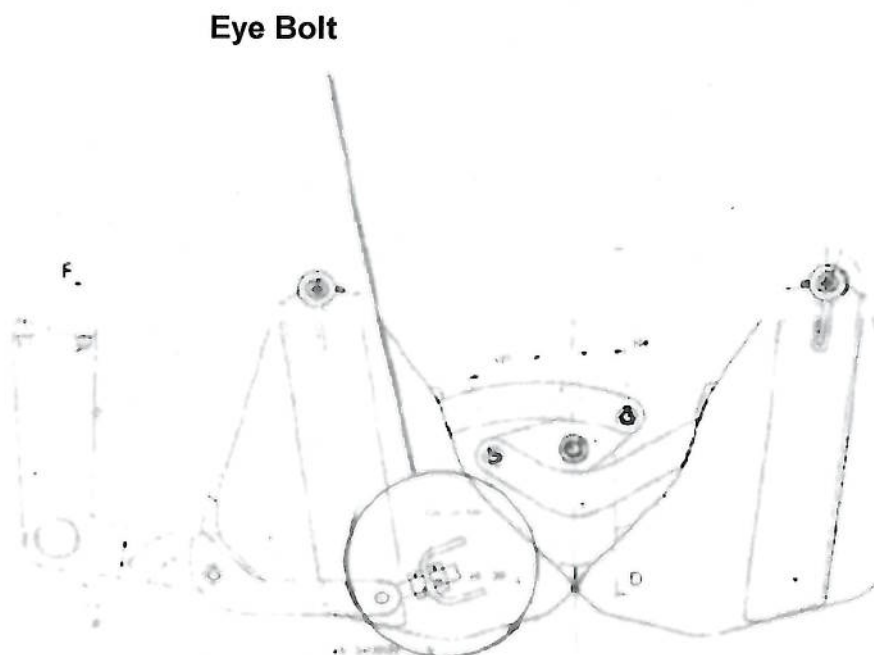


Figure 1 – Location of eye bolt on the bottom door mechanism

1. INTRODUCTION

NIR 2849 (Initial) identified that the threaded eye bolts on the bottom door mechanism of some HYA type wagons had been found fractured, which in turn loosened the door closure equipment. It is thought that some IIA type wagons are also affected, however, this could be extended to other vehicles with similar discharge arrangements. Further information has been obtained and this indicates that the 26mm (nominal) diameter eye bolts as fitted to IRS (Trinity) designed wagons are the principal area of concern.

As a result POCL 661, Issue 1 was produced. In order to clarify the situation Issue 1 has now been withdrawn and Issue 2 produced to instruct Private Owners on the inspection regime they need to employ.

2. INSTRUCTION

Private Owners shall carry out the following actions:

- a). Owners should assess their vehicle fleet and advise the Senior PWRA Engineer immediately if any of their wagons are equipped with such eyebolts and bottom discharge arrangements (see Figure 1, 3, 4 & 5) as similar vehicles could be affected.
- b). At the next maintenance event, check for incorrectly set door gaps. It is suspected that an incorrect door set up can lead to flexing and deformation of the eye bolt resulting in its cracking and failure. Where there is not a gap, readjust the door gap to ensure a small clearance within the requirements as set out in the wagon's maintenance plan and undertake the following check.
 - i). Carry out initially a visual check of the eye bolts: this will involve cleaning all product and debris from the area around the threaded portion and examining it closely for any deformation or cracks. It is believed that the crack propagation is on the bottom side of the eyebolt so it will be necessary to access the vehicle from underneath. If required, confirmation that the eye bolt is crack free can be undertaken by an appropriate NDT method.

Note: Due to the location of the cracks on the thread, it can be difficult to see any cracks and when using NDT, if a crack is concealed just under the nut it can be missed.
 - ii). Replace any fractured (see Figure 2), deformed or suspect eye bolts with new items.
- c). Advise the Senior PWRA Engineer of details of all fractured, deformed or suspect eye bolts that are found. (This should include the details of when fitted to the vehicle, details of the supplier and the approximate date supplied).

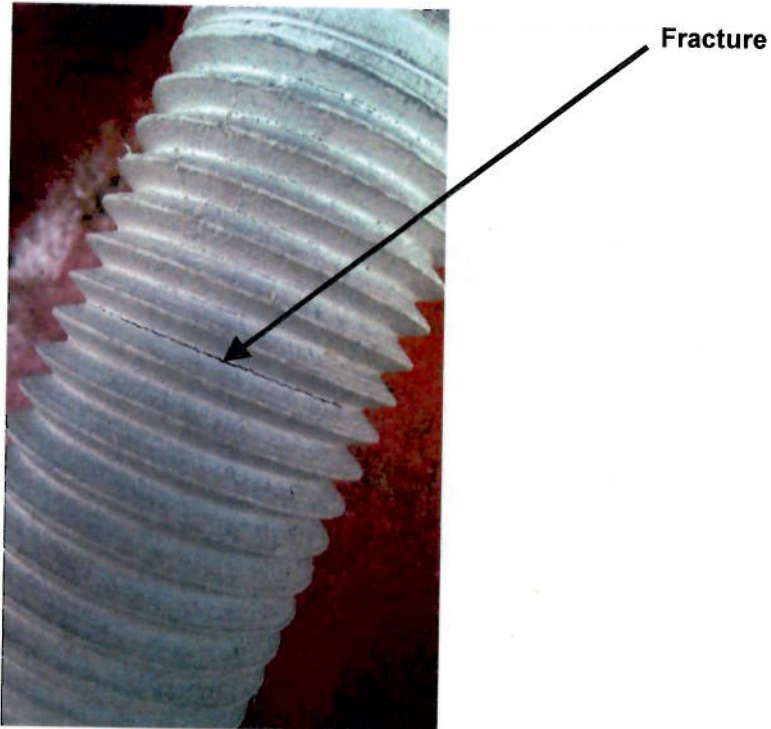


Figure 2 - Fractured eye bolt – this is an example of the damage in early stages on a cleaned up example- some have completely sheared off.



Figure 3 – example of a new eyebolt



Figure 4 – example of an eyebolt in situ.



Figure 5 – close up of detail