



INFORMATION NOTE

Subject: FAILURE OF AN EXPANSION BELLOWS ON A MEDIUM TEMPERATURE HOT WATER SYSTEM

Number: 07/12

DIO SEC Health & Safety Sponsor:

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Date of issue:

23 November 2012

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Who should read this:

Top Level Budget Holders, Prime Contractors, Private Finance Initiatives, Public, Private Partnership and other traditionally procured contracts, Project Managers, Site Estate Authority Teams and Property Managers with responsibility for MOD projects and Property Management Works Services (including the legacy work of EWCs/WSMs), Coordinating Authorising Engineers, Authorising Engineers Mechanical, Authorised Persons Mechanical and Designers, Installers and Maintainers of medium temperature hot water systems.

When it takes effect: Immediately

When it is due to expire:
22 November 2013

Document Aim:

To raise awareness of the dangers associated with fitting a low temperature hot water (LTHW) expansion bellows to a medium temperature hot water (MTHW) system.

Background:

This Information Note is raised following a potentially serious incident on a MTHW system.

Expansion bellows and flexible connectors are fitted within pipework systems to allow thermal movement and to absorb vibration. They have performance characteristics which must be matched to the system they serve. These characteristics are indicated by markings on the fitting, but caution should be exercised as there is no single industry standard for the markings.

Action Required:

It is good practice to check that new installations and replacement fittings are properly rated for the systems they will be required to serve. Generally, manufacturers use a red marking for fittings compatible with primary heating. This can be in the form of a dot or single band of red for LTHW and double red banding for MTHW.

In all cases of doubt, the manufacturer's performance specifications for pressure and temperature should be consulted. Where an incorrect fitting is found it must immediately be isolated and made safe, ready for replacement with the correctly rated fitting.

References:

Figure 1 - Single red band - LTHW rated expansion bellows



Figure 2 - Double red band- MTHW rated expansion bellows

