valley longwall
INTERNATIONAL
DIESEL DIVISION

Technical Bulletin / Safety Alert

Unique ID No: DES2009-TBSA-03 **Rev:** 2

(This document supersedes DES2009-TBSA-03 Rev 1)

Subject: Inlet Flametrap Alteration to MDR090376DES & MDA DES 13017

Date: 12/11/2012

Applicable to: All VLI Diesel Pty Ltd Diesel Engine Systems covered under the above Design Registered & Approval no's.

Note: Minimum PPE required to carry out any inspections contained in this TBSA shall be protective clothing & footwear, safety glasses, hearing protection & any site specific requirements. A JSA or equivalent should be carried out prior to performing these tasks.

Notification:

The purpose of this TBSA is to confirm with industry the requirements for Inlet Flametrap Flamepath Gap on Diesel Engine Systems covered under design registration MDR090376DES and approval MDA DES 13017.

Design Registration Alteration MDR090376DES-1 was introduced to accommodate an inlet flametrap flamepath gap of 0.4mm, as described in the contents of the original TBSA, attached as Appendix 1. This alteration was also applicable to MDA DES 13017 approved diesel engine systems operating under exemption order no. 089237.

Design Registration Alteration MDR090376DES-1 and MDA DES 13017 Exemption Order No. 089237 (for plant manufactured after 1 January 2007) both expired on 30th June 2011.

As a result of the abovementioned expiries, the Inlet Flametrap flamepath gap for all diesel engine systems covered under design registration MDR090376DES and approval MDA DES 13017 (for plant manufactured prior to 1 January 2007) must conform to the requirements of AS3584.2:2008, Clause 2.6.3 Open Joints, which is a maximum gap of 0.2mm.

Inlet Flametrap Flamepath Gap can be measured as described below:

Inlet Flametrap Gap Check Procedure:

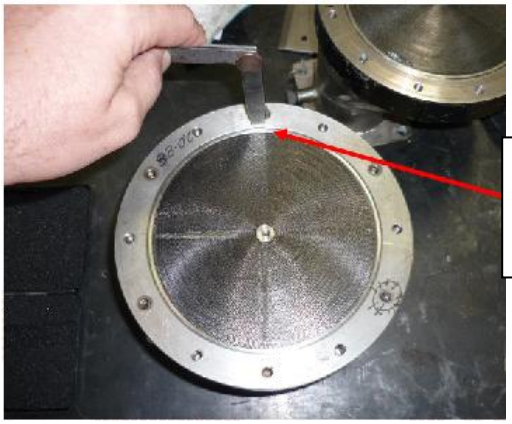
Applicable to Diesel Engine Systems: (MDR 090376 DES) (MDA 13017 DES)

Drawing Reference: 5-042805 Issue 01 (MDR 090376 DES)
4-041006 Issue 00 (MDA 13017 DES) Supplementary
4-041001 Issue 01 (MDA 13017 DES)

Procedure:

Feeler Gauge Test: Check and record maximum gap between the Flametrap Housing and Flametrap Element. The maximum allowable gap is 0.2mm at any one point.

Note: Care should be taken when inserting feeler gauge as forced distortion of the element will result in a false reading.



Feeler gauge inserted into gap as shown. Measurements to be made at multiple positions around Housing-Element circumference.

Specified Gap = 0.2mm Maximum

Any Gap in excess of 0.2mm constitutes an out of specification assembly.

Please ensure this document is circulated to all relevant personnel within your organisation.

Should you have any further queries please contact your VLI Diesel Representative.

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Appendix 1 - DES2009-TBSA-03 Rev 1 Original Contents

Occurance:

Following recent issues with inlet flametraps explosion testing has been carried out on the above mentioned VLI Diesel DES systems to confirm the flameproof integrity of the inlet flametraps

Investigation & Cause:

Refer to TB0709/00 & TB0709/01

Recommendations:

Immediate Action:

Carryout the inspection procedure below to confirm the conformity of the inlet flametrap/housing assembly.

Inlet Flametrap Gap Check Procedure

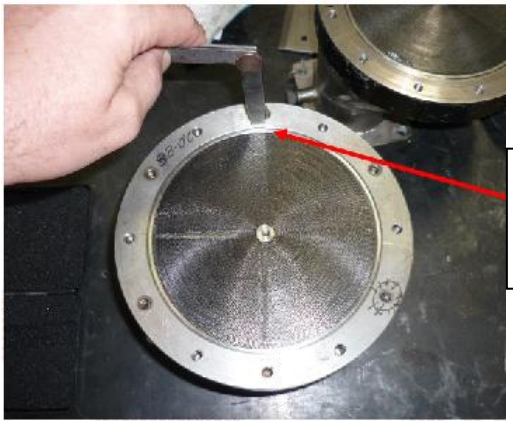
Applicable to Diesel Engine Systems: (MDR 090376 DES) (MDA 13017 DES)

Drawing Reference: 5-042805 Issue 02 (MDR 090376 DES)
4-041006 Issue 01 (MDA 13017 DES) Supplementary
4-041001 Issue 02 (MDA 13017 DES)

Procedure:

Feeler Gauge Test: Check and record maximum gap between the Flametrap Housing and Flametrap Element. The maximum allowable gap is 0.4mm at any one point.

Note: Care should be taken when inserting feeler gauge as forced distortion of the element will result in a false reading.



Feeler gauge inserted into gap as shown. Measurements to be made at multiple positions around Housing-Element circumference.

Specified Gap
0.4mm Maximum

Any Gap in excess of 0.4mm constitutes an out of spec. assembly.

Future Action:

None.

Supporting Documentation:

Below is an excerpt of the email from Industry & Investment NSW (formerly NSW DPI) relating to the alteration requirements:-

Attached is revised design registration documents (MDR 090376 DES-1) for the Perkins 1006-6 DES which covers the 0.4mm gap on the inlet system as requested.

You will need to give a copy of the registration documents and the altered drawing 4-052805 /2 of 13/8/09 to all owners and/or users of engines where the inlet gap exceeds 0.2 but is 0.4 or less. The previous registration documentation remains valid, and may continue to be used for any system that remains within the 0.2mm gap.

For those diesel engine systems operating under exemption Order 089237, being compliant to MDA DES 13017, condition 2.6 of that exemption states,
'A specified diesel engine system may only be altered if the alteration is in full compliance with AS 3584.2:2008 and under the direction of a suitably qualified competent person. The alteration must be documented and must be kept in a plant safety file.'
Based on an independent competent person assessment and the TestSafe report, the alterations of increasing the gap to 0.4mm provided in MDR 090376 DES complies with AS 3584.2:2008.

Provided the alteration is documented; is in compliance with drawing 4-041001 /2 of 13/8/09 and drawing 4-041006 /1 of 13/8/09, (which I understand to be identical to MDR 090376 DES in this regards); and a competent persons confirms and documents compliance, then in my opinion, condition 2.6 has been meet and the increased gap of 0.4mm may be used. There is no need for the exemption order to be amended.

Attached to this TBSA are the documents noted above, these (inc this TBSA) are to be inserted in the DES section of Approval Catalogues/Plant Safety Files.