

BULLETIN 34076
MWM ENGINE SYSTEM
INLET MANIFOLD INTERFERENCE

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Prepared for: Industry

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BULLETIN MWM Inlet interference with Exhaust Manifold.

GE Mining advises the following in relation to the MWM Diesel Engine System MDR 114056 (DES) installed on GE MineCruiser MK7s, Graders & Personnel & Equipment Transporters (PETs).

Communication: Manifold flange weld failure

Interference between the inlet manifold and exhaust manifold has been observed on two MineCruiser MK7s fitted with MWM Diesel Engine Systems. In one occurrence the interference caused the failure of the inlet manifold at the welded joint that connects the inlet manifold to the air inlet flame trap. An open failure of an Ex DES component compromises the explosion protection.

Dimensional irregularities of fabricated components may cause interference under the flange or adjacent port chambers. The design requires clearance between these components to ensure that joints can be securely sealed. Assembly with interference will subject the components to contact forces that may cause leakage or fatigue failures.



Failed Manifold with flange detached.

Circled region shows the location of interference between inlet and exhaust manifolds.



Inlet manifold flange & port chamber adjacent to exhaust manifold – Clearance should be observed in area indicated

Action: Clearance Inspection in service

GE recommend that MWM engine systems that are in service be inspected at the next opportunity to ensure that there is no interference between the inlet and exhaust manifolds.

Action: Clearance Inspection on assembly

GE recommend that an inspection be made on assembly of components (typically code D overhaul) to ensure that there is clearance between these components upon assembly of the engine system. Components should be inspected for signs of contact or weld cracking prior to re-assembly.

Logistics: Please contact GE Mining for further enquiries.

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