

ENGINEERING BULLETIN

Ref Document No.	EB13002	Issue No.	1
Subject	Exhaust Manifold/Turbo Charger Studs		
Release Date	11th November 2013		

Purpose – Advise machine owners of a potential area of improvement.

Applicability – All in service COALTRAM® models – CT08 / CT10 / CT13

Background

The DMS technical department has been made aware of the bolts joining the turbo to the exhaust manifold becoming loose. This issue has been addressed through EB13001. Since the release of EB13001 DMS has investigated increasing the reliability of the connection.

Investigations/Findings

Investigations have found that using studs and nuts for the connection between the exhaust manifold and the turbo will provide a clamping force less likely to deteriorate through vibration and loading. For this instance where speed of initial assembly is not a critical factor installing studs are not disadvantaged.

- Current bolts 3/8"UNC grade 8
- Studs 3/8" UNC grade 8 with grade 8 cone nuts
- Fasteners will be of the same grade giving same tensile strength
- Studs to be coated with Loctite 272 for connection with exhaust manifold.
- Hardened washers to be used between nut and turbo.

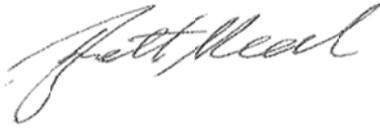
With the history of the Coaltram readily available it has been proven that the bolts currently used provide a sufficient connection if installed as per specification. This reliability can be further improved with the use of studs and nuts.

Approval drawings 5520004064 and 5520004065 have been updated with relevant information.

Recommendations

1. It is recommended to install studs and nuts for connection between the exhaust manifold and turbo as per updated drawing 5520004064 (CT08 and CT10) or 5520004065 (CT13) at the machines next code D service. COALTRAM® Code D TDES (Testing of Diesel Engine System) & Exhaust Manifold Test Certificate have been revised to capture this change.
2. When replacing, customers should order a turbo fastening kit p/n 5520009176. Kit includes all nuts, washers and studs.

3. The component will be available from January 2014.
4. All exhaust manifold/turbo connection studs and nuts to be initially installed then checked/replaced as per routine coded maintenance documentation.



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