



SERVICE BULLETIN WA-SB-002

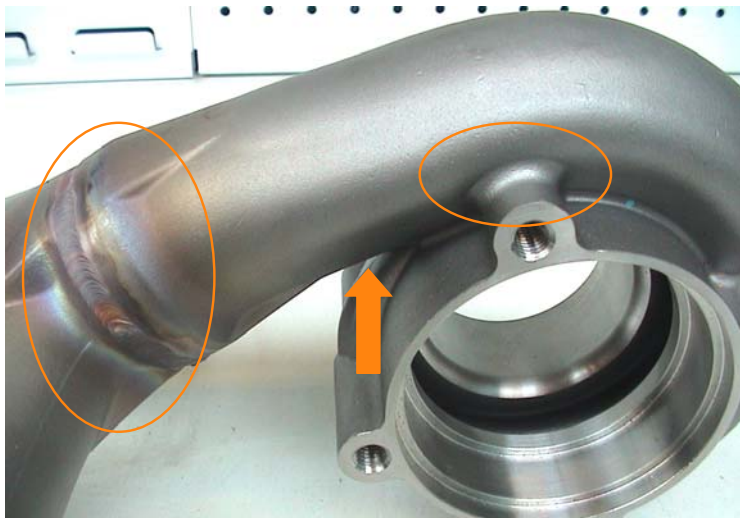
- SUBJECT:** Exhaust and Turbo Manifold Assy.
- DESCRIPTION:** Inspection for cracking
- APPLICABILITY:** All serial numbers
- COMPLIANCE:** To be inspected after each flight.

During development it has been noticed that cracking of the turbo manifold assembly may occur around the turbo-housing scroll. If left unnoticed the cracks can propagate until eventual failure of the part and subsequent power loss can occur. Investigations have concluded that this has been due to loading of this component by the exhaust system. This has been overcome on our test aircraft by using a stronger material for the components involved and by the use of a flexible mounting so as not to place too much load and vibration stresses upon the housing.

Operators should inspect the turbo housing regularly after each flight until such time as you are confident that your exhaust arrangement does not cause cracking of the housing. It is of course good practice to continue to inspect your engine installation frequently.

If cracking does occur we do have some manifold assemblies made from an increased strength material (WAM p/n 001770). This alone may not prevent further cracking and owners/operators should investigate ways to minimise the stresses and vibration transferred to the housing.

Wilksch Airmotive may be able to offer you an exhaust arrangement that will suit your application. This will not negate the need for inspections but will introduce flexible elements to reduce the transfer of loads and stresses as described above to prevent a failure. Please call for the latest information.



Pay special attention to the areas highlighted, such as the welded joint between the manifold branch and the turbo scroll, the radii where the attachment bosses blend into the tube and the "Vee" indicated by the arrow, where the scroll meets the tube.

Failure to comply with any recommendations/limitations published by Wilksch Airmotive will invalidate your warranty.

Effective Date: 1 September 2006

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