



Safety Alert for A100-M radial type turbochargers

Dear Madam, Dear Sir

This Safety Alert is to advise you of a possible safety hazard associated with ABB turbochargers of the type A100-M radial (A130-M, A135-M, A140-M, A145-M, A150-M and A155-M).

Background information

This safety alert is issued due to an incident experienced on an A155-M turbocharger.

While the engine was operated in idling condition an unusual event led to a sudden and excessive energy increase in the exhaust system of the engine. This resulted in excessive overspeed causing the rotor to burst. The collateral damage was small and no injuries have been reported.

Following the incident, ABB Turbocharging immediately set up a taskforce to investigate the particular conditions of this incident since parts of the rotor had penetrated the outer burst protection of the turbocharger.

Ongoing investigations brought forward new technical findings about the burst behaviour, especially in cases where the turbocharger is forced into excessive overspeed at cold condition of components. It is currently assumed that this specific and rather rare operating condition is not covered by the known standards and guidelines. Given the circumstances of the known failure pattern, this new knowledge may have an impact on the containment safety assessment of certain turbochargers of the type A100-M radial.

Action

As immediate interim measure, operators of ABB turbochargers of the type A100-M radial are advised to limit their direct exposure to the concerned turbochargers to the necessary minimum during start-up and operation of the engine. This safety measure should be observed immediately in order to minimize the risk of harm to people. Please also refer to the safety instructions in the operation manual.

Non-adherence to this recommendation can lead to serious injuries or fatal accidents.

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Checked PATU-S: 

Released PATU-M: 

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Unless otherwise expressly set forth, no recommendation contained in this document is to be construed as provided due to a defect in the turbocharger, but merely as an improvement of the turbocharger and/or the maintenance procedures relating thereto. Any actions by the owner/operator as a result of the recommendations are not covered under any warranty provided by ABB and such actions will thus be at the owners/operators own cost and expense.

Further root cause analysis - next information

Next steps: ABB is currently evaluating, with top priority, which turbochargers sizes and types of the A100-M radial family are affected.

Further information will be issued latest by end of July, 2016.

If you have any questions, please do not hesitate to contact Christoph Baur, General Manager Technical Operations, ABB Turbo Systems Ltd, Switzerland (christoph.baur@ch.abb.com) or his deputy, Rene Stoverink (rene.stoverink@ch.abb.com).

Safety and quality are top priorities at ABB. We apologize for the inconvenience this matter may cause and would like to thank you for your support.