

## Boeing A75N1, Broken Engine Mount Bolts, ATA 7120

A mechanic states, "During the inspection of the engine installation on this aircraft, it was determined that one of the four high strength NAS-148 bolts that hold the engine mount to the fuselage was fractured completely through -- under the head of the bolt". This bolt has 100 hours total time in service. After informing the STC (supplemental type certificate) holder of the failure, he informed the mechanics they should have re-torqued these bolts after 25 hours of operation. This information was not included in the STC. According to the STC holder, this data was referenced in the original aircraft maintenance manual where it states the original engine mount 'studs' should be re-torqued to 450 to 500 inch-pounds after the first 25 hours.

The manufacturer removed the original engine mount studs from the STC aircraft and the entire assembly was replaced with a different mount and hardware assembly. The replacement bolts are NAS 148 (internal wrenching) and are larger than the original studs. The original maintenance manual torque values would not be sufficient and the inspection team received no additional instructions.

The bolts are hidden and the removal of the engine is required in order to re-torque them. We believe a critical safety issue exists, as the failure of these bolts will result in a catastrophic accident.

See accident report CA18/2/3/8321 where the failure of an identical bolt in a similar STC caused the separation of the engine and a fatality accident. The STC is inadequate in its description for maintenance to ensure continued airworthiness."



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*(That is a dramatic shot! Thanks for the photo effort—Ed.)*

Part Total Time: 100.0 hours