

T-106 N2 Shafting Modification

Subject:	Modification of Extex Engineered Products, Inc. PMA Replacement Shaft and Coupling for Certain Rolls Royce 250 Engine Models.
EXTEX Engineered Products Part Numbers:	EH23037413, E6870832
Installation(s):	All Rolls-Royce M250-B17, B17F, C20, and C20R Series Engines
Revision History:	IR – Dated 8/17/15 Initial Release. A – Updated Timken to EXTEX Engineered Products.
Reason:	The purpose of this service bulletin is to improve the misalignment capability of the N2 shafting by modifying the subject P/N shaft and coupler.
Description:	<p>Rolls-Royce introduced a new shaft to pinion gear coupling (P/N M250-10415) and power turbine outer shaft (P/N M250-10416) that incorporates features that prevent the coupler from being installed backwards. The new Rolls Royce shaft and coupling are replacements for P/Ns 23037413 and 6870832. The turbine shaft to pinion gear coupling is now symmetrical with the identifiable scallops on both ends and can be installed in either direction. (Ref RR CEB 1414)</p> <p>This service bulletin provides a means for customers to procure EXTEX PMA Shaft to Pinion Gear Coupling P/N E6870832 and Power Turbine Outer Shaft P/N EH23037413 (which are currently approved replacement articles for Rolls Royce P/Ns 23037413 and 6870832) that have been factory modified to be equivalent to the new Rolls-Royce Coupling and Shaft.</p> <p>Note: The modified PMA parts will be identified with “MOD SB T-106”.</p>
Interchangeability	<p>All changes specified in this Service Bulletin must be incorporated simultaneously.</p> <ol style="list-style-type: none"> 1. The modified turbine shaft to pinion gear coupling and the new power turbine outer shaft must always be used together or in any combination with the new Rolls Royce shaft and coupler. 2. The modified PMA parts must NOT be used in any combination with earlier part numbers.
Accomplishment Instructions:	<p>The next time the power turbine rotor is disassembled for any reason:</p> <ol style="list-style-type: none"> 1. Refer to Original Equipment Manufacturers (OEM's) published instructions for engine disassembly, cleaning, inspection, rework, assembly, operation, and testing. 2. All work must be performed at an FAA approved repair facility. 3. Remove Power Turbine Outer Shaft and Turbine Shaft to Pinion Gear Coupling. 4. Replace with Service Bulletin Modified EXTEX PMA Power Turbine Outer Shaft P/N EH23037413 (MOD SB T- 106) and Turbine Shaft to Pinion Gear Coupling P/N E6870832 (MOD SB T-106)

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Approval:	This document is FAA approved.
Notes:	Factory Modified new PMA parts that comply with this service bulletin are available for purchase. Please contact your EXTEX customer service representative.

As part of the FAA approval process, EXTEX demonstrated that the OEM's Instructions for Continued Airworthiness (ICA) are applicable to these replacement articles.

The OEM is also known as the Type Certificate Holder (TCH).