



CCMA 2009

Cartegena, Colombia

How Can an Air Carrier Begin Using PMA Parts

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Modification and Replacement
Parts Association (MARPA)

MARPA



- Trade Association representing PMA parts manufacturers
 - Government affairs
 - US, EC, Canada, Singapore
 - Interested in working with other governments to support aviation safety
 - Promote safety
 - Share information throughout the industry

Can I Use PMA Parts?



- Advantages of PMA Parts
- Can I Use PMA Parts?
- What Do I Need to Do to Use PMA Parts?
- Where Can I Get Answers to My Questions?

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Why PMA?

- Engineering is FAA-approved to assure airworthiness
- Production quality system is FAA-approved to assure conformity to approved design
- Cost can be significantly less
- Often feature improved lead-times and availability
- PMA manufacturers provide independent opportunities to correct and improve flaws

ACMP Pressure and Case Drain Housing – 767 & 777

50
HEICO
SINCE 1967

Problem:

OEM Position (767-SL-29-039 Filter Bowl): Despite field failures, “Cost/Benefit analysis has determined that cost impact is insufficient to justify production changes.”

Service Letter 767-SL-29-039 suggests FPI of 271T0045-3 after an initial 21,000 cycles and every 3,000 cycles thereafter.

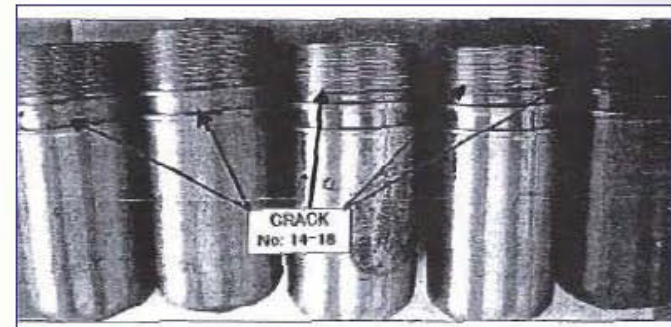


Solution:

HEICO produced an improved product which included a material change that resulted in:

Predicted LCF Life: Threads

p/n 271T0045-3: 160,000 cycles
p/n JA271T0045-3T > 4,000,000 cycles



HEICO obtained PMA for regulatory approval. Alternate ICA issued.

Innovative Solutions to “age old” problems

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PMA Parts in Argentina



- The United States has entered into a bilateral agreements with Argentina (dated 1991) under which PMA parts are acceptable:
 - Section 311 applies to PMAs
 - Listed special conditions are addressed under US PMA regulations
 - In the event of a major change to type design (STC), the major change must be accepted/issued by Argentina, because Argentina only agrees to accept parts subject to the terms of Type Certificates accepted/issued in Argentina



PMA Parts in Brazil

- The United States has entered into a bilateral agreements with Brazil (dated 2006) under which PMA parts are acceptable:
 - Section 2.1.0 applies to PMAs
 - Listed special conditions are addressed under US PMA regulations
 - Both replacement and modification parts are acceptable



Terms of Acceptance

- In each case, the accepting nations agree to accept PMAs
 - On an aircraft having a (Argentine/Brazilian) certificate of airworthiness
 - If the US certifies that the part:
 - Conforms to type design configuration approved by (Argentina/Brazil)
 - Is in a condition for safe operation
 - Complies with airworthiness directives or other formal special conditions issued by (Argentina/Brazil)



What About Other Nations?

- Whether PMA parts are permitted on an aircraft is subject to the laws of the State of Registry
 - In some nations, the Air Carrier can work with the Airworthiness Authority to amend its maintenance manual to permit the use of PMA parts based on an engineering finding that the PMA parts return the aircraft to a condition equivalent to type design
 - E.g. RAC 43.13(c) (Costa Rica)
 - The engineering data to support this finding is often available directly from the PMA manufacturer



What About Other Nations?

- Whether PMA parts are permitted on an aircraft is subject to the laws of the State of Registry
 - In some nations, the regulations permit the use of PMA parts based on (1) the certificate of airworthiness (8130-3 tag) of the country that regulate the manufacturing, and (2) an finding by the government that the PMA parts meet appropriate regulations
 - E.g. RAC 9.4.1.4. (Republic of Colombia)
 - The engineering data to support this finding is often available directly from the PMA manufacturer

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You Need to be Comfortable with Using PMA Parts



- Data that can help make you more comfortable with PMA Parts
 - Engineering design data to show how the part will work within your system
 - On-wing data showing reliability through empirical evidence
 - PMA manufacturers' warranty

You CAN Use PMA Parts on Your Aircraft



- You generally must cooperate with your airworthiness authority
- You should share with the Authority the same engineering data that you would use for your own configuration control
- You should expect the PMA manufacturer to be able to support you with the technical data that you need

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LET'S FACE IT,
LOOKALIKES NEVER
PERFORM QUITE
LIKE THE ORIGINAL.

When it comes to replacement engine parts, it's all the more important to insist on the real thing. Only genuine CFM replacement parts perform as well as the original. And field experience proves that some look-alike parts achieve on average 40% less time on wing. When you use genuine CFM replacement parts you have the reassurance of knowing that they're tried and tested. In fact, they have 300 million flying hours behind them. To see a genuine performer, go to www.cfm56.com.

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Does Anyone Remember the Original?



- Elvis Presley – “Hound Dog” (1956) - originally recorded by Big Momma Thornton in 1952
- Beatles – “Twist & Shout” (1964) – originally recorded by the Top Notes in 1961 (and then the Isley Brothers in 1962)
- Frank Sinatra – “I Only Have Eyes For You ” (1965) - originally by Dick Powell (1934)
- Aretha Franklin – “Respect ”(1967) – originally recorded by Otis Redding in 1965



The Real Point

- Being first to the market is not as important as giving the customers what they want
 - PMA companies are able to provide equivalent parts at a more reasonable price at a time when the industry needs these savings
- Opponents of PMA appear to be relying on marketing to malign aircraft parts safety
 - This adversely affects the public's perception of the industry as a whole

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Places to Find Answers!



- FAA
 - www.faa.gov
 - www.faa.gov/aircraft/air_cert/design_approvals/pma
- MARPA
 - www.pmamarpa.com
- MARPA Continued Operational Safety Program
 - pmamarpa.com/website/cos.html
- PMA Parts Blog
 - pmaparts.wordpress.com

Join MARPA in September



- We will hold our ninth annual membership meeting to share information about PMAs
 - New technologies
 - New regulations
 - New safety initiatives
 - New export strategies
- Signing up is easy!
 - September 29-October 1 in Las Vegas, USA
 - Register online: www.pmamarpa.com



Thank You

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