

# Single Aisle fuel pump in-service performance



**Billy Walker**

Technical Support Team Leader  
Aftermarket FMC



*Powering Business Worldwide*

# Issue/Application

- **Platform**

- Airbus A318/A319/A320/A321 family

- **Aircraft problem/impact**

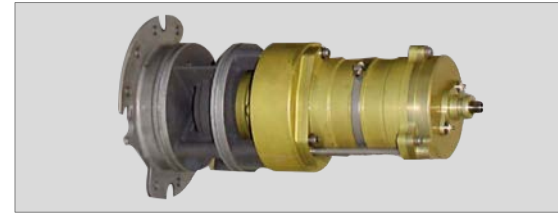
- Operator perception of fleet performance issues

- **Description of problem**

- Some operators have reported poor reliability of the MK7 via Airbus FAIR 15.0138
  - Identify assembly/part number:
  - 568-1-27202-02R/05R/006/007

- **Consequence(s)**

- Some operators have raised concerns related to reliability
  - Eaton and Airbus conducted extensive analysis. Operators are encouraged to provide MK7 reliability where possible.



# Process Improvements

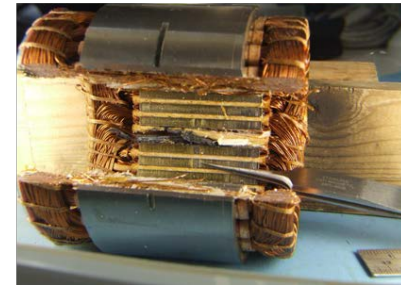
- As part of Eaton continued commitment to manufacturing excellence it conducted a process review

2012

- **Lamination bonding procedure implemented.** This process improvement focussed on reducing adhesive intrusion into stator stack slot area. This reduces the risk of the slot liner and magnet wire damage from hardened, protruding adhesive within the length of the stator stack.
- **Specially Designed tool for cleaning stack ends implemented.** This process improvement focussed on a replacement tool. This reduces the risk of any slip or cut into the slot liner and magnet wire at the stator stack ends.

2014

- **Increased keyway slot width and new milling tool implemented.** This process improvement focussed on reducing the pressure during milling. This reduces the risk of delamination and subsequent displacement of laminations into the slot area; which could damage the slot liner and magnet wire insulation at the axial midpoint of the stator stack.

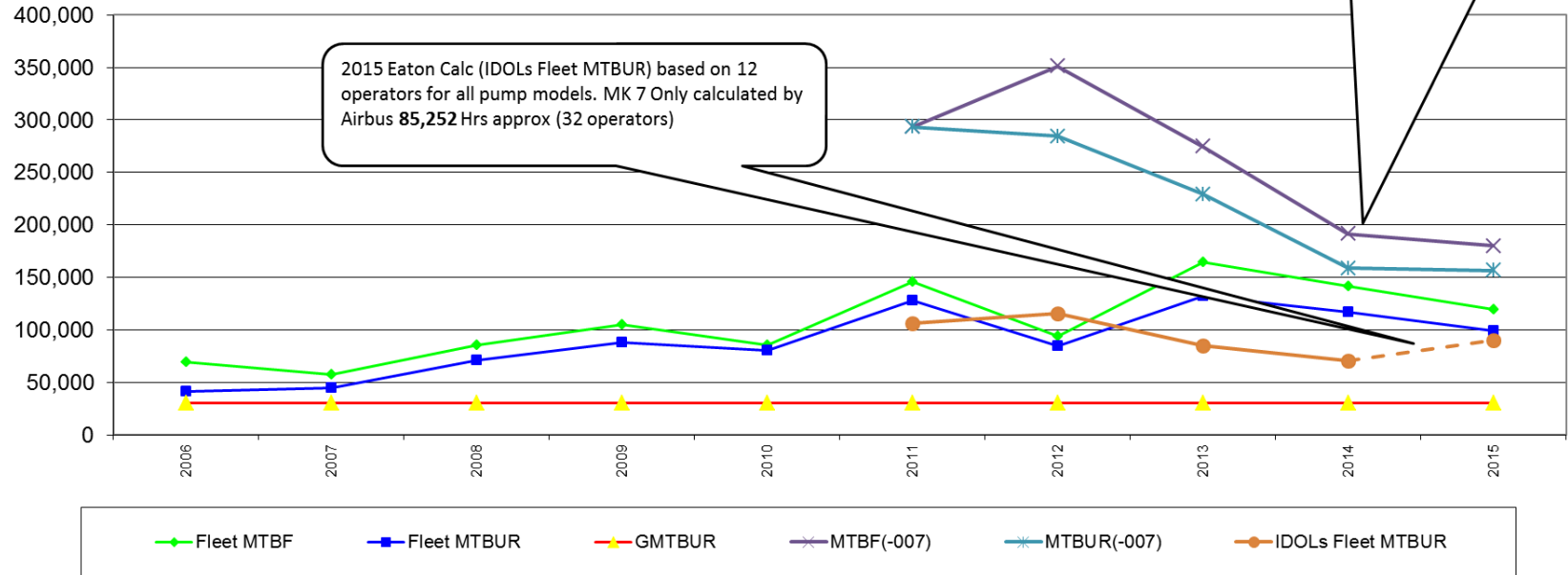


# Fuel pump reliability monitoring

**P/N 568-1-27202-002/02R/005/05R/006 vs -007 8410 Pump  
Reliability Trend (A318/319/320/321)  
-007 MTBF/MTBUR fitted at the FAL**

Based on returns for A/C leaving the FAL with -007 fitted as standard, QPA adjusted since Jan-14 for A318/A319/A320 is 4 instead of 6 and reliability has been re-calculated.

Component Flight Hours



# Summary

---

- Eaton introduced 3 Process Improvements between 2012 and 2014 from its internal process checks
- All units that failed within warranty period have been repaired Free of Charge
- Airbus IDOLS preliminary data from operators for 2015 85,252 MTBUR (based on 32 operators)
- Operator data provided to Eaton for 2015 133,000 MTBUR (based on 10 operators)
- Eaton and Airbus continue to monitor fleet performance and return findings

# Who to contact

**Martin and his team are responsible for collecting and reporting data on product performance**

Any information provide will be treated as confidential and will not be shared unless prior written permission is received.



Martin Bruce  
In-Service Product  
Performance Monitoring  
E-mail:- [martindbruce@eaton.com](mailto:martindbruce@eaton.com)  
Mob:- 00 44 (0) 7530932240

---



# Questions/Comments



*Powering Business Worldwide*