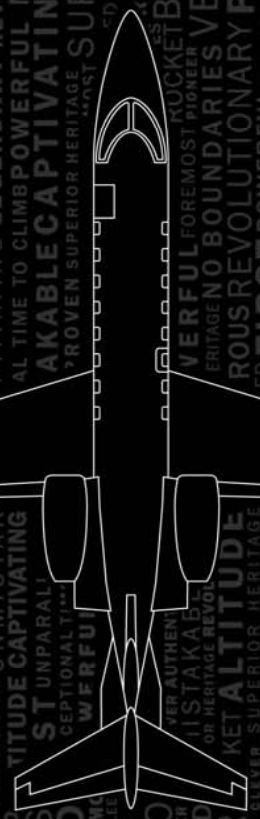


M45 MLG End Cap Fielding

November 11, 2010

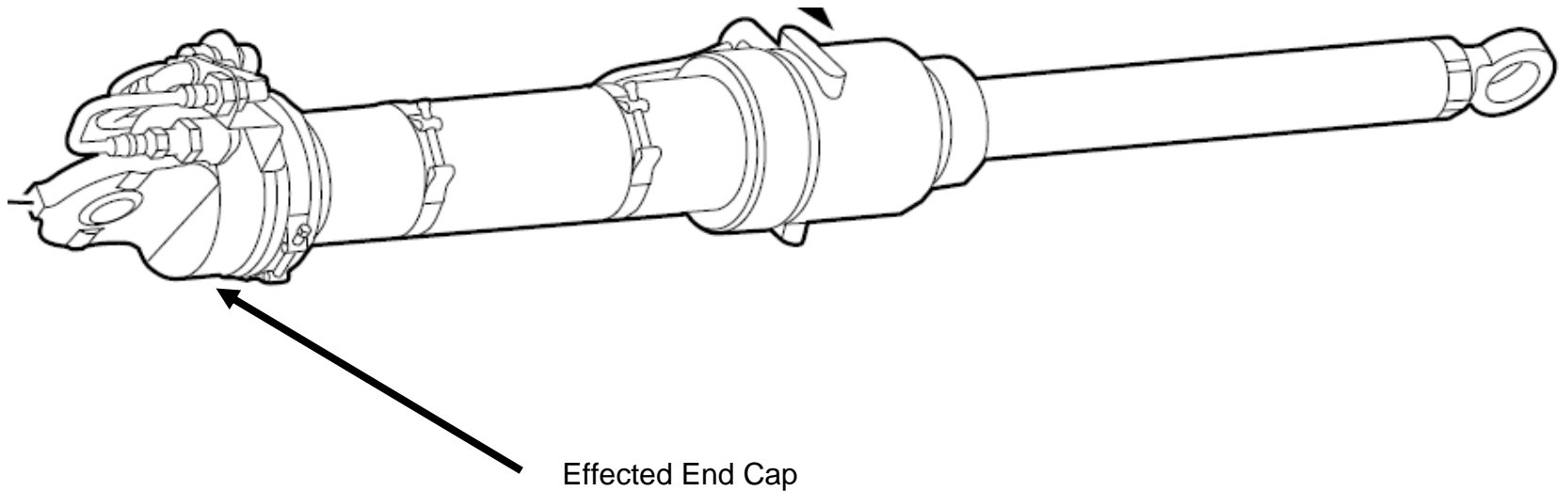


BOMBARDIER
LEARJET

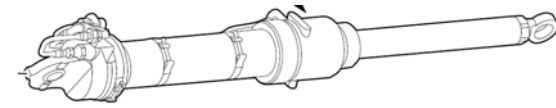


Agenda

- Background
- Fielding Strategy
- Questions

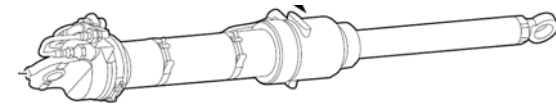


Background



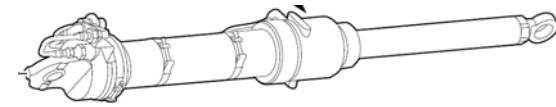
- Heroux, the component manufacturer and Bombardier were recently given reason to question the load testing that was originally accomplished on the Learjet 45 MLG actuator during certification
- Current life limit on actuator end cap is 17,000 landings
- Additional test articles have been run and have led to a reduction in the current 17,000 landing life limit on the actuator end cap
 - FAA aircraft will now have an end cap life limit of 2387 landings
 - EASA aircraft will now have an end cap life limit of 1988 landings
- Chapter 4/5 will be revised to reflect the new life limit on November 29, 2010 via temporary revision
- Aircraft with actuator end caps beyond the new life limit will have 25 cycles to have the end caps replaced
 - This is a chapter 4/5 single * item, therefore no extensions beyond the 25 landings will be available
- Replacement end caps will be the same part number as the caps that are being replaced and will continue to be subject to the new reduced life limit
- There is no record of an end cap failing on an in-service aircraft

Fielding



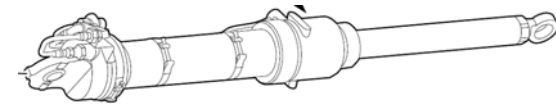
- Our data indicates approximately 190 aircraft will be beyond the new life limit at the time of the temporary revision release and will have 25 landings to replace effected end caps
- Learjet has assembled a team to manage this fielding and minimize impact to operators that are beyond the new life limits
 - Customer contacts will begin immediately to start the fielding process
- The fielding will target high time end caps first while taking into consideration aircraft usage rates and the 25 landing grace period
- As part of the fielding, a network of facilities are being prepared to handle actuator removal, end cap replacement, and actuator reinstallation on a quick turn basis
 - Special tooling is required to complete the end cap removal and replacement
 - Operators can relocate to one of these facilities to have the work accomplished
 - Operators having the capability to remove and replace actuators will be able to ship actuators to approved facilities for end cap replacement

Fielding



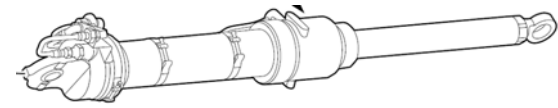
- Cost of labor for actuator removal, end cap replacement, and actuator reinstall will be covered by Bombardier up to 12 hours
 - End cap replacement can only be done at an approved facility
- Cost of the new end cap will be pro-rated based on number of landings used
 - Each landing will be valued at approximately \$0.36
 - $\$6072.00 / 17,000 \text{ landings} = \$0.357 \text{ per landing}$
 - Example: actuator and end cap have 3,000 landings
 - $3000 \text{ landings} \times \$0.36 = \$1080.00 \text{ dollars for one end cap } \$2160.00 \text{ for two end caps}$
- A limited pool of loaner/rental actuators is available and will be controlled by the fielding team to mitigate AOG issues that may arise
- Additional eight year detailed visual inspections are not part of this plan and will need to be scheduled separately using normal processes
 - Operators choosing to do detailed visual inspections during this actuator removal will need to understand service provider capacity and additional time needed to perform inspections

Facilities



- AeroDienst in Germany, BAS Wichita, BAS Tucson, Duncan Lincoln and Battle Creek are equipped to handle end cap replacements.
 - One day turn is anticipated for aircraft located at these equipped facilities
 - At minimum, a three day turn is anticipated for actuator removals at other facilities that require shipping of actuators
- BAS Wichita, Heroux, and Shorts Brothers Ireland are the facilities capable of doing work beyond end cap replacements
- Other facilities are being considered for end cap replacement and may be added to this list as capabilities are identified
 - Additional facilities must be Bombardier owned or part of the Bombardier ASF network

Questions



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