



1625 North 1100 West
Springville, UT 84663
801-489-2000

SERVICE INFORMATION LETTER

SIL # 170706-738466-6WE

SUBJECT: Electrical Brushes were incorrectly manufactured with incorrect shape and/or cracks.

REVISION HISTORY TABLE

Revision	Change Description	Release Date
A	Original Release	07/17/2017

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1. Planning

a. Effectivity

Wencor P/N	NHA P/N	NHA Description	ATA	Aircraft Application
738466-6WE Electrical Brush	767600-X 776850-X 782689-X	Variable Pitch Aircraft Propeller or Brush Block Housing Assy	61-13-01 61-21-04	<u>Aerospatiale</u> ATR42-200, -300, - 320 & -500 ATR72-201, -202, - 211, -212, & -212A <u>Bombardier</u> CL-215-6B11 DHC-7-1, DHC-100, - 101, -102 & -103 DHC-8-100 series, -8- 200 series & -8-300 series

b. Reason:

A single customer reported that a small quantity (2 out of 158) of Electrical Brushes had an incorrect shape and/or cracks near the shunt wire as shown in Figure 1.

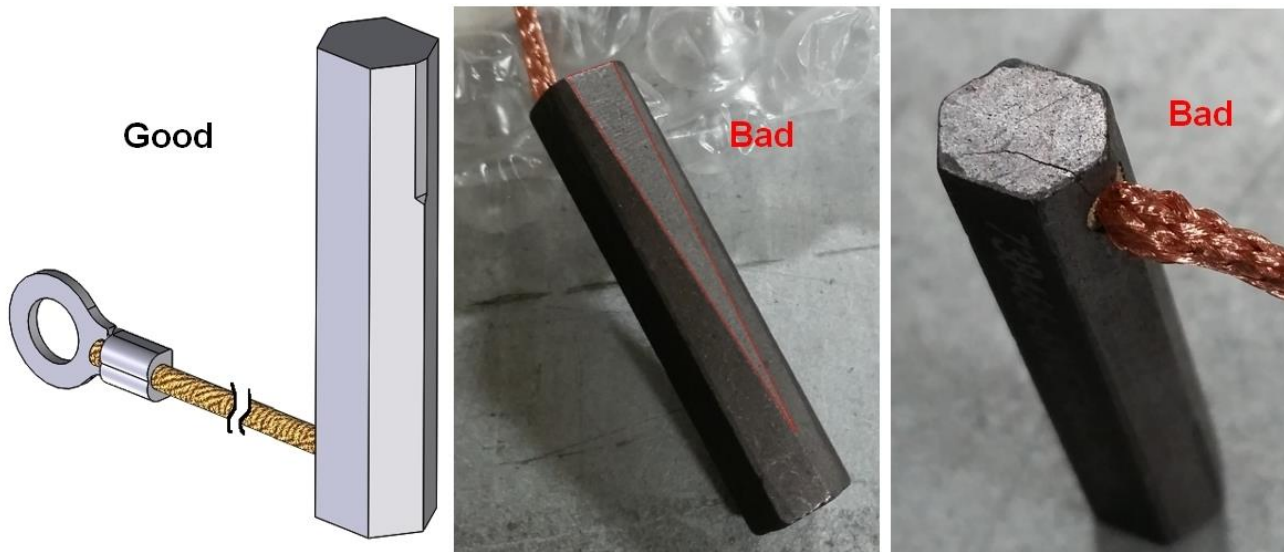


Figure 1, Left Image shows correct Brush shape, Center Image shows incorrect shape (extra machined surface), Right Image shows crack.

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c. Background

The Electrical Brush is installed into the NHA and is used to transfer electrical current to the rotating propeller for de-icing, see Figure 2 below.

A manufacturing error caused the incorrect shape (extra machined surface) and the crack near the shunt wire location.

d. Safety

If the cracked Electrical Brush was installed and passed the NHA CMM testing, there would be only minor effects on the operational safety of the aircraft due to the redundancy of the system, which includes 6 or 8 Electrical Brushes. The cracked Brush may transfer less electrical current to the propeller de-icing system, but the other non-damaged Brushes would carry the proper electrical current in the propeller de-icing system. However, there is a potential for reduced long-term reliability in the propeller de-icing system due to less current flow from the cracked Brush.

The incorrectly machined Brush will not have any effect on installation and will pass the NHA CMM testing. However, there is a potential for reduced long-term reliability in the propeller de-icing system due to the reduced cross-sectional area of the Brush.

2. Recommendations

Any Wencor Electrical Brush PN 738466-6WE that was purchased from Wencor before July 2016 that has not been installed and put into service should be inspected for the conditions described in this SIL and if confirmed, the Brush should be returned to Wencor per section 4 of this SIL.

Any Wencor Electrical Brush PN 738466-6WE that has been installed into the NHA unit and passed the required CMM testing may remain in service at the discretion of the end user by following the normal instructions for continued airworthiness of the propeller de-icing system.

3. Compliance

There is no compliance time associated to this SIL.

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4. Material

Wencor Electrical Brush, PN 738466-6WE that require replacement as a result of this Service Information Letter will be covered free of charge under the Wencor material warranty.

If there are any questions regarding this Service Information Letter, please contact the applicable Wencor sales representative by calling 801-489-2000 or email: sales@wencor.com. For technical questions regarding this SIL please contact Jon Bies at jbies@wencor.com.

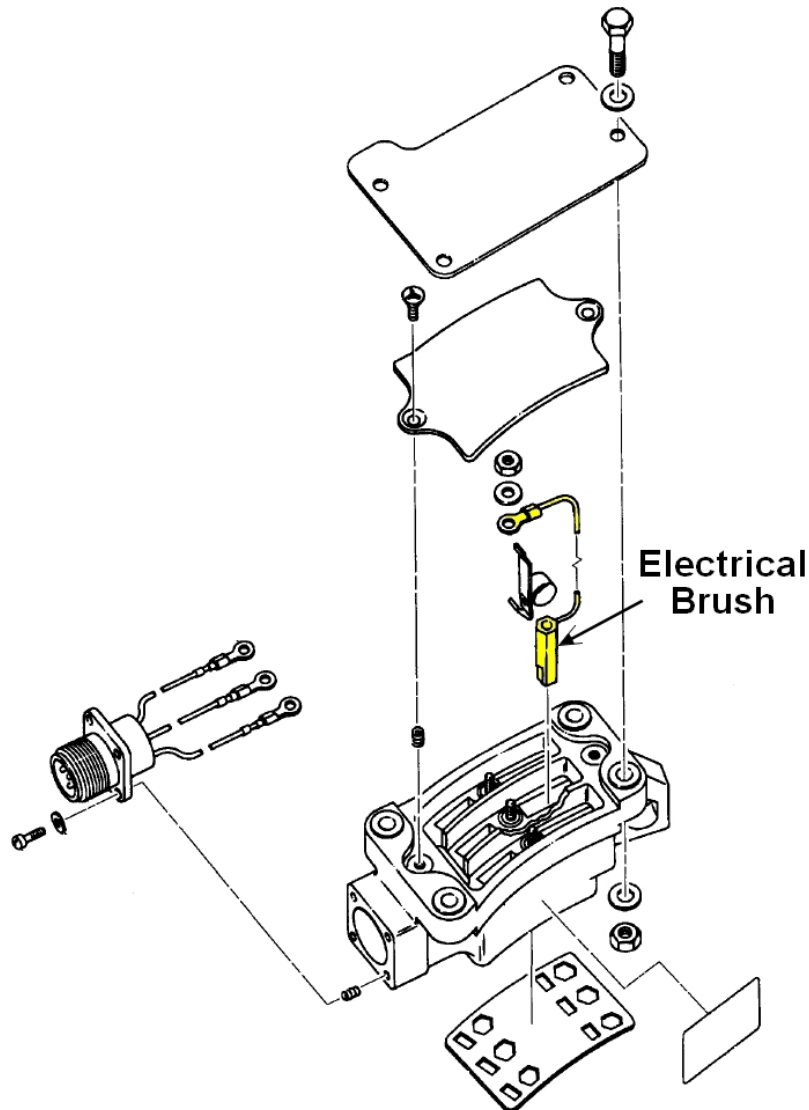


Figure 2, Electrical Brush (qty 6) Installed into Brush Block Housing Assy