



CF34 TURBOFAN (AIRLINE SERVICE)

GE Aircraft Engines

ALERT SERVICE BULLETIN

ENGINE - Fan Rotor Assembly (72-21-00) - Fan Disk Bore Tactile and Visual Inspection

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E. Tooling - Price and Availability

None.

3. ACCOMPLISHMENT INSTRUCTIONS

A. General

NOTE 1: It is NOT necessary to perform this requested disk bore inspection at this time for any fan disk listed in Table 1 that has already had a shop inspection per 72-21-00 (bore ECI and full FPI). The inspection is only applied to the fan disk serial numbers listed in Table 1 that have NOT had a shop level inspection.

NOTE 2: This Alert Service Bulletin is only for the inspection of zones 1 and 7 of the fan disk as defined in figure 1. Therefore, it is not required to remove the disk, fan blades, or fan blade pins to accomplish this inspection.

NOTE 3: It is recommended that the inspector performing the following inspection procedure has been trained to perform CF34-BJ S/B 72-A0088, it is not required that he/she has the specific training in arc-out inspection techniques.

NOTE 4: For any questions pertaining to the inspection findings, please contact GE Product Support Engineering for disposition, (513)-552-3272.

B. Inspection of Fan Disk Bores.

(1) Use the following material, as a minimum, to perform the visual inspection:

- (a) A flashlight with a minimum of 3 D-cell batteries or equivalent light intensity.
- (b) An inspection mirror with a handle, minimum dimensions 1.5 inches by 3.0 inches (38 mm by 76 mm), or equivalent.
- (c) A 3X magnifying glass (minimum).
- (d) Refer to figures 2 and 3.

(2) Inspect the fan disks listed in Table 1 as follows:

NOTE: Arc-outs can be, but are not always, discolored areas on the surface of the disk. Arc-outs are often, but not always, raised areas of metal on the surface.



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- (a) Use the instructions in SEI-782 (72-00-01, DISASSEMBLY 02) and remove the fan forward spinner and fan aft spinner.

WARNING: DO NOT USE THE ALCOHOL NEAR FLAMES OR HEAT, BECAUSE THE ALCOHOL IS FLAMMABLE. DO NOT BREATHE THE FUMES RELEASED FROM THE ALCOHOL. THE ALCOHOL IS DANGEROUS TO YOUR EYES, NOSE, AND LUNGS. MAKE SURE YOU HAVE A GOOD FLOW OF AIR. THE FUMES RELEASED FROM THE ALCOHOL CAN GIVE YOU A HEADACHE, AND CAN MAKE YOU DIZZY AND SICK. DO NOT DRINK THIS ALCOHOL, BECAUSE IT CAN MAKE YOU VERY SICK.

WARNING: DO NOT USE NEAR FLAMES OR HEAT, BECAUSE ACETONE IS FLAMMABLE. DO NOT BREATHE THE FUMES RELEASED FROM ACETONE, BECAUSE ACETONE IS DANGEROUS TO YOUR EYES, NOSE, AND LUNGS. MAKE SURE YOU HAVE A GOOD FLOW OF AIR. ACETONE CAN GIVE YOU A HEADACHE, AND CAN MAKE YOU SICK.

CAUTION: USE OF SCOTCH BRITE IS PROHIBITED.

- (b) Clean the fan disk bores zones 1 and 7 (figure 1) with isopropyl alcohol or acetone, or equivalent, and wipes. Make sure that all dirt is removed from the fan disk bores zones 1 and 7. Allow the disk to dry.
- (c) Do a tactile inspection of the disk bores in zones 1 and 7 for indications.
- 1 Put your finger or a commercially available tactile inspection tool (figure 4) on one area listed below, starting with the aft bore aft corner (Area 2). Slowly rotate the fan for a total of two full rotations with finger or tool in contact with the area. Repeat the tactile inspection for each area of zones 1 and 7 listed below.
 - Aft Bore Aft Corner (Area 2)
 - Aft Bore Inner Diameter (Area 3)
 - Aft Bore Forward Corner (Area 4)
 - Forward Bore Aft Corner (Area 7)
 - Forward Bore Inner Diameter (Area 8)
 - Forward Bore Forward Corner (Area 9)
 - 2 If any discontinuity is identified, use the visual inspection tools to verify the presence of arc-out (figure 2 and figure 3).
- (d) Do a visual inspection of the fan disk bores in all areas of zones 1 and 7 for indications (figure 1). If an indication is found, use a minimum 3X magnification to determine if the indication is an arc-out (figure 2 and figure 3).
- (e) If no arc-out indications are found, use the instructions in SEI-782 (72-00-01, ASSEMBLY 02) and install the fan aft spinner and the fan forward spinner.

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- (f) If arc-out indications are found, use the instructions in SEI-782 (72-00-21, REMOVAL AND INSTALLATION) and replace the fan disk with a new or serviceable fan disk.
- (g) If indications are found that are determined to not be arc-outs, refer to SEI-782 (72-00-21, INSPECTION).
- (h) Report all inspection results to Mike Harris in GE Product Support Engineering (michael.harris@ge.com) and your applicable Customer Support Manager.

C. Service Record Entry

- (1) Make an entry in the CF34 Turbofan Engine Service Record as follows:
 - (a) Record compliance to this Alert Service Bulletin in the Engine Service Record, Section II (Service Bulletins).
 - (b) Send a copy of compliance entry data to:

GE-Aviation
1000 Western Avenue
Lynn, MA 01910
U.S.A.

Attn.: Lynn Product Data Center, MZ 264X7
CF34 Service Bulletin Coordinator

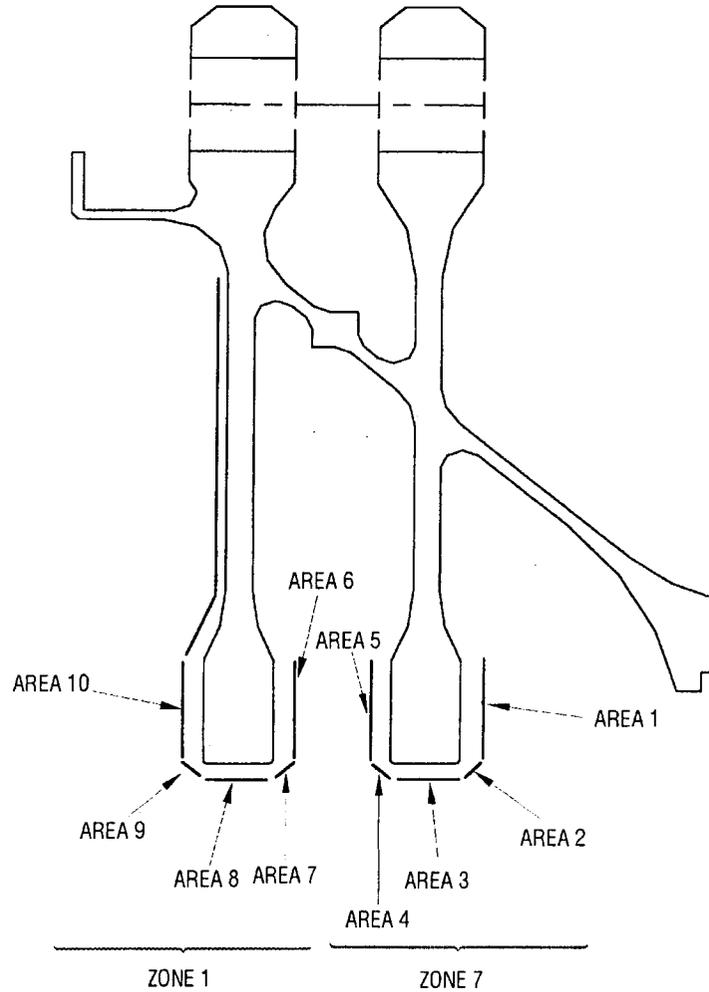


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Bore Inspection Areas
Figure 1

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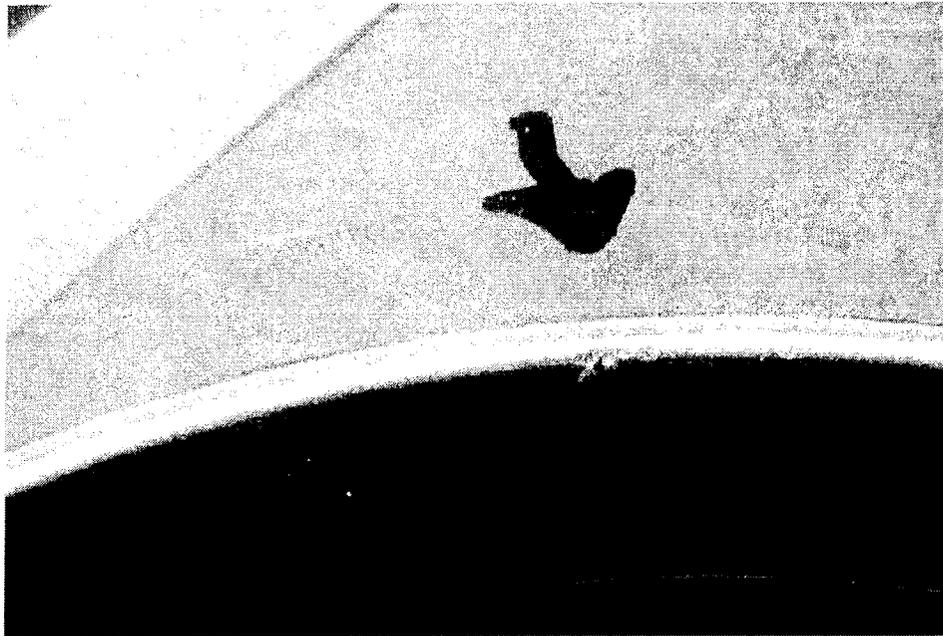


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NOTES:

1. ARC-OUTS CAN BE, BUT ARE NOT ALWAYS, DISCOLORED AREAS ON THE SURFACE OF THE DISK.
2. ARC-OUTS ARE OFTEN, BUT NOT ALWAYS, RAISED AREAS OF METAL ON THE SURFACE.

1257558-00

Detail of Arc-out on the Rim
Figure 2

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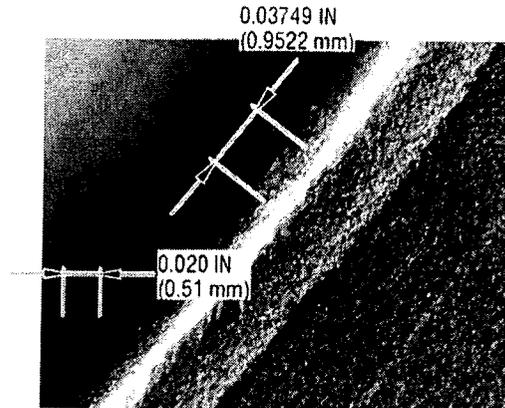


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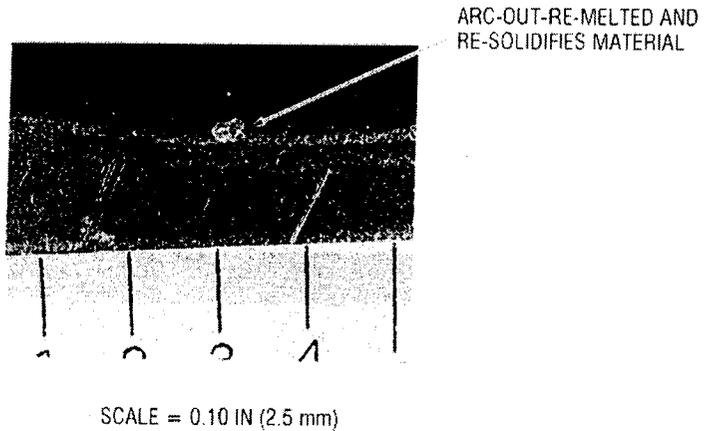
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NOTE:
ARC OUTS MAY BE SMALLER IN SIZE.

EXAMPLE OF AN ARC OUT



Detail of Arc-out at the Bore
Figure 3

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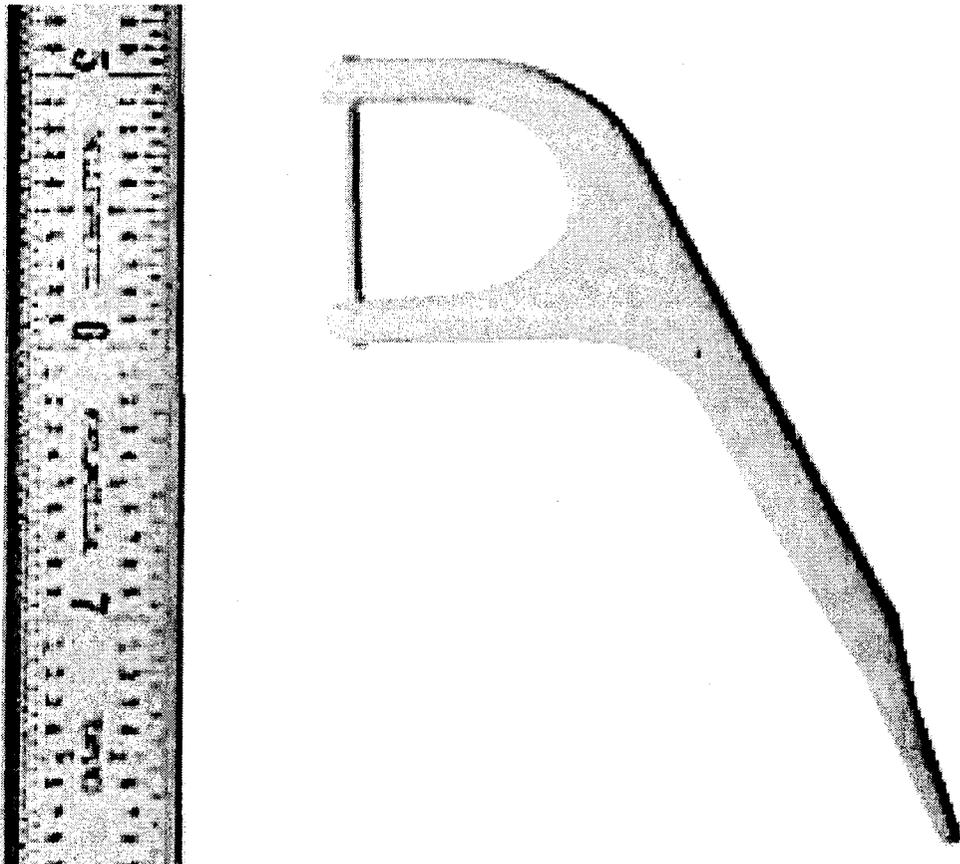


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Inspection Tools for Checking Arc-out
Figure 4

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4. APPENDIX A - TABLE

Table 1. Fan Disks Requiring Inspection Under This Alert Service Bulletin

NOTE: Table 1. lists Fan Disk Serial Numbers and Last Known Associated ESN.

<u>PN (Fan Disk)</u>	<u>SN (Fan disk)</u>	<u>ESN (Current)</u>
6078T57G02	GEE01629	807168
6078T57G02	GEE01888	807188
6078T57G05	GEE148JH	872787



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2. MATERIAL INFORMATION

A. Material - Price and Availability

(1) Parts necessary to do this Alert Service Bulletin:

None.

(2) Consumables:

<u>Code No.</u>	<u>Description</u>
C04-003	Acetone (0-A-51)
C04-014	Alcohol, Isopropyl (TT-1-735)

B. Industry Support Information

None.

C. Configuration Chart

None.

D. Parts Disposition

Scrap all fan disks that do not pass the inspection as defined by this Alert Service Bulletin.

E. Tooling - Price and Availability

None.

3. ACCOMPLISHMENT INSTRUCTIONS

A. General

NOTE 1: It is NOT necessary to perform this requested disk bore inspection at this time for any fan disk listed in Table 1 that has already had a shop inspection per 72-21-00 (bore ECI and full FPI). The inspection is only applies to the fan disk serial numbers listed in Table 1 that have NOT had a shop level inspection.

NOTE 2: This Alert Service Bulletin is only for the inspection of zones 1 and 7 of the fan disk as defined in figure 1. Therefore, it is not required to remove the disk, fan blades, or fan blade pins to accomplish this inspection.

NOTE 3: It is recommended that the inspector performing the following inspection procedure has been trained to perform CF34-AL S/B 72-A0103, it is not required that he/she has the specific training in arc-out inspection techniques.

NOTE 4: For any questions pertaining to the inspection findings, please contact GE Product Support Engineering for disposition, (513)-552-3272.

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B. Inspection of Fan Disk Bores.

- (1) Use the following material, as a minimum, to perform the visual inspection:
 - (a) A flashlight with a minimum of 3 D-cell batteries or equivalent light intensity.
 - (b) An inspection mirror with a handle, minimum dimensions 1.5 inches by 3.0 inches (38 mm by 76 mm), or equivalent.
 - (c) A 3X magnifying glass (minimum).
 - (d) Refer to figures 2 and 3.

- (2) Inspect the fan disks listed in Table 1 as follows:

NOTE: Arc-outs can be, but are not always, discolored areas on the surface of the disk. Arc-outs are often, but not always, raised areas of metal on the surface.

- (a) Use the instructions in SEI-756 (72-00-01, DISASSEMBLY 02) and remove the fan forward spinner and fan aft spinner.

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- Aft Bore Aft Corner (Area 2)
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- (e) If no arc-out indications are found, use the instructions in SEI-756 (72-00-01, ASSEMBLY 02) and install the fan aft spinner and the fan forward spinner.
- (f) If arc-out indications are found, use the instructions in SEI-756 (72-00-21, REMOVAL AND INSTALLATION) and replace the fan disk with a new or serviceable fan disk.
- (g) If indications are found that are determined to not be arc-outs, refer to SEI-756 (72-00-21, INSPECTION).
- (h) Report all inspection results to Mike Harris in GE Product Support Engineering (michael.harris@ge.com) and your applicable Customer Support Manager.

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Attn.: Lynn Product Data Center, MZ 264X7
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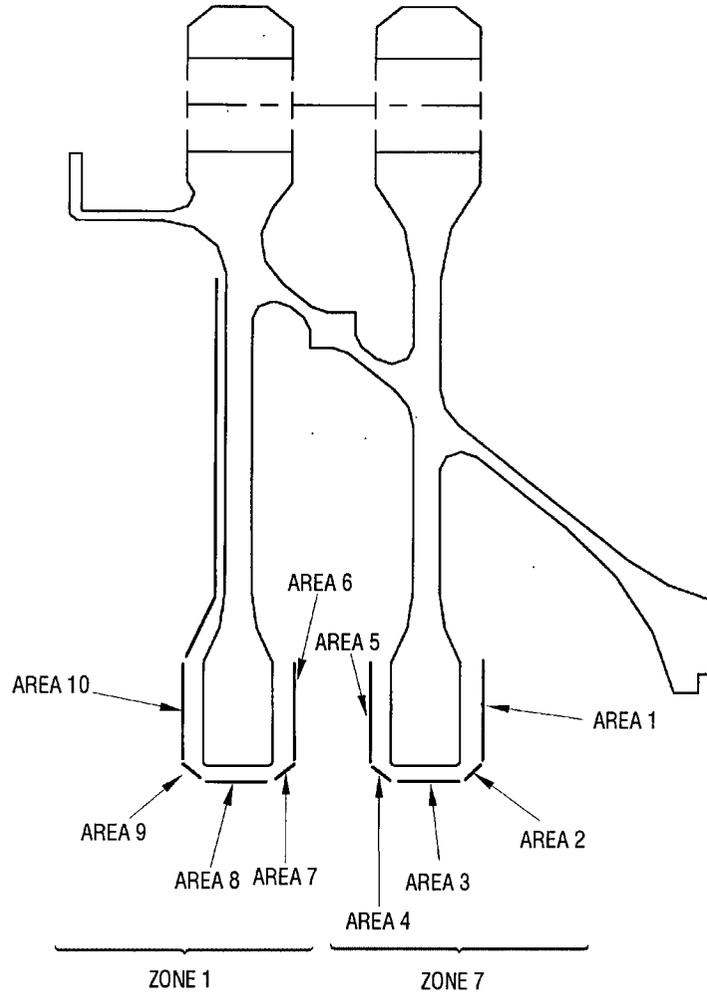


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**Bore Inspection Areas
Figure 1**

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Detail of Arc-out on the Rim
Figure 2

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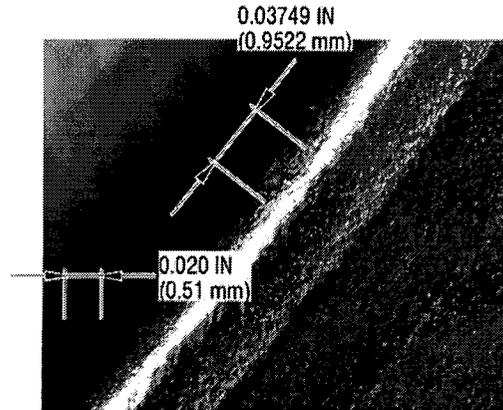


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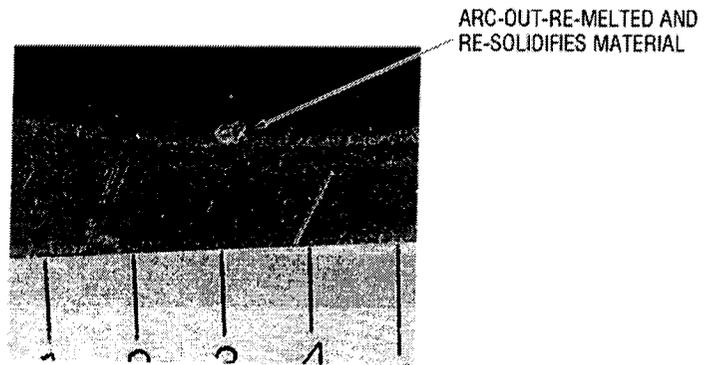
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NOTE:
ARC OUTS MAY BE SMALLER IN SIZE.

EXAMPLE OF AN ARC OUT



SCALE = 0.10 IN (2.5 mm)

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Detail of Arc-out at the Bore
Figure 3

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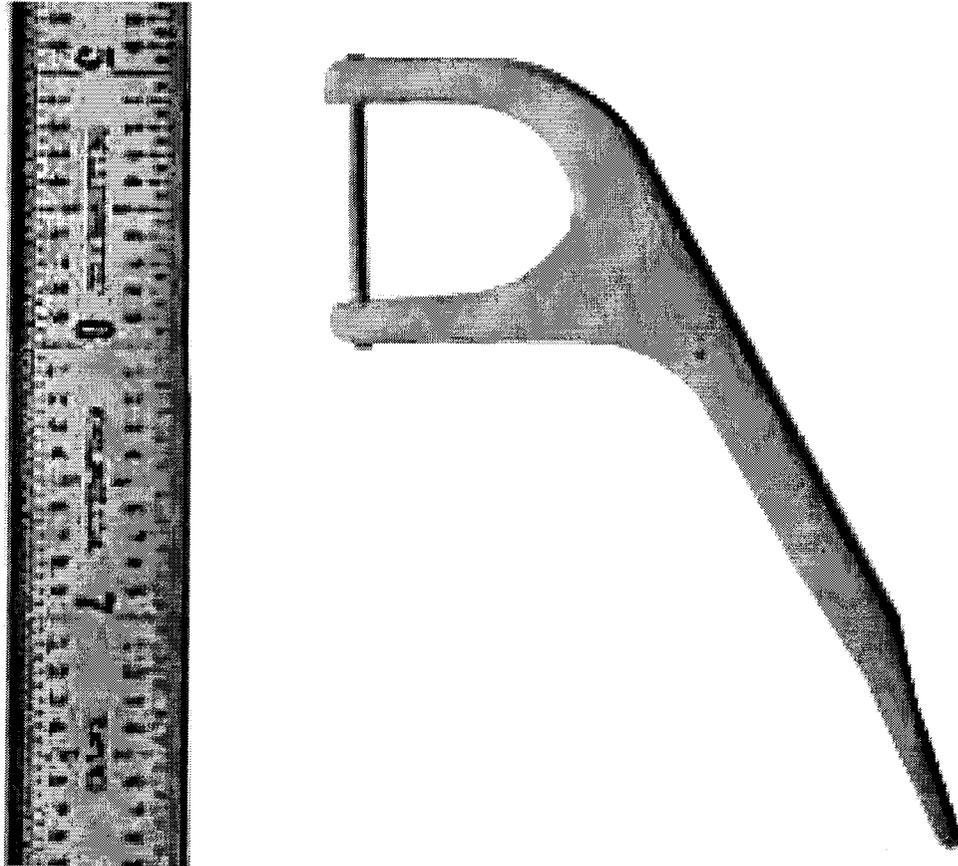


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Inspection Tools for Checking Arc-out
Figure 4

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4. APPENDIX A - TABLE

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NOTE: Table 1. lists Fan Disk Serial Numbers and Last Known Associated ESN.

<u>Fan disk SN</u>	<u>ESN</u>
GEE147MF	807620
GEE147NA	807622
GEE147V5	807624
GEE147VC	807625
GEE148JG	807633
GEE145LL	872526
GEE145NK	872545
GEE1466F	872563
GEE1466L	872568
GEE146H3	872599
GEE146KD	872604
GEE146N7	872634
GEE147N7	872705
GEE147N8	872709
GEE14818	872727
GEE14815	872730
GEE1480J	872731
GEE1485J	872745
GEE1480F	872750
GEE14885	872763
GEE148EJ	872780
GEE148FT	872785
GEE148ER	872790
GEE148PN	872804
GEE148RN	872811
GEE148TW	872817

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Fan disk SN

GEE03675

GEE148R0

ESN

Unknown

Unknown

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