INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

D'Shannon Products, LTD.

V/G Systems, Inc. Vortex Generators
DL-100

On
Hawker Beechcraft Models 55/56/58/95

STC SA4016NM

RECORD OF REVISIONS

Revision Letter	Issue Date	Date Issued	By
IR (Initial Release)	01/30/2009	01/30/2009	David Braun, P.E.

LIST OF REVISIONS: Revision IR (Initial Release) January 30, 2009

LIST OF EFFECTIVE PAGES

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CHAPTER 1 INTRODUCTION

1. Type Design Change:	This type design change consists of the installation of the V/G Systems. Inc Vortex Generator System pursuant to STC SA4016NM on Hawker Beechcraft Models 55/58/95
2. Scope:	The scope of this Instruction for Continued Airworthiness (ICA) focuses exclusively on Maintenance, Inspection & Airworthiness Limitations of this FAA-approved type design change.
3. Purpose:	The purposes of this ICA are to apprise Owner/Operators who have modified their airplane pursuant to this type design change: (1) When, where & how to inspect; and (2) When to replace this type design to assure continued operational safety.
4. Arrangement:	This ICA is a single document comprised of seven (7) Chapters: Chapter 1, Introduction; Chapter 4, Airworthiness Limitations; Chapter 5, Inspection Requirements & Overhaul Schedule; Chapter 8, Weight and Balance Chapter 27, Flight Controls Chapter 55, Stabilizers, and Chapter 57, Wings
5. Superseded Documents:	This ICA supersedes the Hawker Beechcraft Maintenance documents only in the areas relating to Stabilizer and Wings service and maintenance.
6. Applicability:	This ICA is applicable to all Serial Numbered Hawker Beechcraft Models 55/58/95 aircraft.
7. Precautions:	There are no precautionary notes contained in D'Shannon Products, LTD. DP-ICA-100.
8. Referenced Publications:	(1) V/G Systems, Inc. installation manuals VG-100A dated 3/24/92 or later FAA-approved revision and VG-101 dated 3/24/92 or later FAA-approved revision. (2) Hawker Beechcraft Maintenance Manual for the Model and Serial Number of the aircraft being maintained. (4) Advisory Circular AC 43.13-1B
9. Distribution:	D'Shannon Products, LTD. will maintain a list of all Hawker Beechcraft /Operators that have purchased our Vortex Generator kits, and should the need arise to modify this ICA, The AEG- accepted revision will be sent directly to all Owner/Operators. For Owner/Operators having internet access, the latest AEG- accepted revision to this ICA will be available for downloading from the D'Shannon Products, LTD. website: http://d-shannon-aviation.com/

CHAPTER 4 AIRWORTHINESS LIMITATIONS

There are no changes to Airworthiness Limitations with the Vortex Generators installed.

CHAPTER 5 INSPECTION REQUIREMENTS & OVERHAUL SCHEDULE

1. INSPECTION REQUIREMENTS

   Visual inspection of the vortex generator system by the pilot is required prior to each flight and should include noting the absence of any vortex generators. Discrepancies should be reviewed with properly rated repair personnel.

2. OVERHAUL SCHEDULE

   There are no change to the overhaul schedule relating to the Stabilizers or Wings associated with this type design change.

CHAPTER 8 WEIGHT and BALANCE

1. NET EFFECT:

Installation of a DL-100 vortex generator system results in a negligible change in the weight and balance of the aircraft.

CHAPTER 12 SERVICING

1. VORTEX GENERATORS

Access to the vortex generators on the vertical stabilizer may be gained with a stepladder.

CHAPTER 27 FLIGHT CONTROLS

1. RIGGING

The V/G Systems vortex generator system is designed to reduce stall speeds through control of boundary layer airflow, and to improve low speed handling qualities.

It is assumed that the airplane conforms to its original Type Data Certificate because of the FAA's requirement that aircraft receive at minimum annual inspections to maintain airworthiness. Should the aircraft not conform to its original Type Data Certificate in the areas of control travel/trim tabs, control cable tensions, or wing incidence, the modified aircraft may not be able to attain airspeeds contained in the V/G System information and/or Aircraft Flight Manual Supplement.

It is recommended that mechanics and owner/pilots take this into consideration, and that these items be inspected and adjusted if necessary according to the appropriate aircraft maintenance manual.

CHAPTER 55 STABILIZERS

1. GENERAL – MAINTENANCE PRACTICES

On condition or at annual inspection, the security of the vortex generators to the surface of the stabilizer may be checked by applying a twisting hand motion to the vortex generator and assuring that it remains bonded to the surface. Replace any Vortex Generators that are missing or fail to remain attached during inspection. Removal and installation instructions are found below.

The orientation of the cusp relative to the air flow on the vortex generators is important and it should be noted that each size of vortex generator has a left and right provided. The general rule is that the cusp always turns into the relative wind and the radiused end always faces forward. Complete instructions may be found in the J.V.E., Inc Installation Kit Instructions JVE-0494 or JVE-0596. If the instructions are not with the Aircraft File, contact D'Shannon Products, LTD. http://d-shannon-aviation.com/

Vortex generators should be painted prior to installation. The base of the vortex generator where it contacts the surface of the stabilizer is to remain clear of paint. The JVE-094 and JVE-0596 Installation Kit Instructions have specific information regarding painting instructions and also have useful hints.

2. VORTEX GENERATOR REMOVAL AND INSTALLATION

Refer to the J.V.E., Inc Installation Kit Instructions JVE-0494 or JVE-0596 for proper vortex generator removal and installation instructions. If the instructions are not with the Aircraft File, contact D'Shannon Products, LTD. http://d-shannon-aviation.com/

Rivet or screw head interference is addressed in the Installation Kit Instructions. At least 50% of the base must remain after adjusting the base for a rivet or screw head interference. Remove as little material as possible for a neat job.

For Reference, LOCTITE 330 is the adhesive used to affix the vortex generators to the surface.

CHAPTER 57 WINGS

3. GENERAL – MAINTENANCE PRACTICES

On condition or at annual inspection, the security of the vortex generators to the surface of the wing may be checked by applying a twisting hand motion to the vortex generator and assuring that it remains bonded to the surface. Replace any Vortex Generators that are missing or fail to remain attached during inspection. Removal and installation instructions are found below.

The orientation of the cusp relative to the air flow on the vortex generators is important and it should be noted that each size of vortex generator has a left and right provided. The general rule is that the cusp always turns into the relative wind and the radiused end always faces forward. Complete instructions may be found in the J.V.E., Inc Installation Kit Instructions JVE-0494 or JVE-0596. If the instructions are not with the Aircraft File, contact D'Shannon Products, LTD. http://d-shannon-aviation.com/

Vortex generators should be painted prior to installation. The base of the vortex generator where it contacts the surface of the wing is to remain clear of paint. The JVE-094 and JVE-0596 Installation Kit Instructions have specific information regarding painting instructions and also have useful hints.

4. VORTEX GENERATOR REMOVAL AND INSTALLATION

Refer to the J.V.E., Inc Installation Kit Instructions JVE-0494 or JVE-0596 for proper vortex generator removal and installation instructions. If the instructions are not with the Aircraft File, contact D'Shannon Products, LTD. http://d-shannon-aviation.com/

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