Transport Canada Transports Canada

Department of Transport

Part Design Approval

This approval is issued to:

3 Points Aviation Corp.
91 Watts Avenue
Charlottetown, Prince Edward Island, Canada
C1E 2B7

Number: PDA17-2
Issue No.: 1
Approval Date: June 14, 2017
Issue Date: June 14, 2017

Responsible Office:	Québec
Aeronautical Product Type or Model:	Bombardier DHC-8-100, DHC-8-200 and DHC-8-300 Series
Canadian Type Certificate or Equivalent:	A-142
Replacement Part:	Passenger Door Hinge Shaft Installation Replacement Parts as listed on Page 2 of 2

Installation/Operating Data, Required Equipment and Limitations:

Manufacture of replacement parts to be done in accordance with Altitude Aerospace Master Document List Document Number: MDL-AADHC8-104, Revision NC, dated April 5, 2017 or later Transport Canada approved revision.

Installation and maintenance of the replacement parts are to be maintained in accordance with Transport Canada accepted Altitude Aerospace Instructions for Continued Airworthiness Document Number: ICA-AADHC8-104, Revision NC, dated April 5, 2017 or later Transport Canada accepted revision are required as part of this installation.

Replacement parts introduce no new limitations.

— See (Continuation Sheet) —

Conditions: The installation of the approved part is to be limited only to the type / model of aeronautical product(s) listed above

Christopher Mruczek
For Minister of Transport

Canada

The following Passenger Door Hinge Shaft parts are direct replacements:

Original Part	3 Points Aviation Corp. Part	Description
85210139-101	85210139-101-3PMA	Crank
85210140-101	85210140-101-3PMA	Shaft, Aft, End
85210141-101	85210141-101-3PMA	Hinge, Door
85210144-101	85210144-101-3PMA	Tube
85210144-103	85210144-103-3PMA	Tube
85210145-101	85210145-101-3PMA	Shaft, Fwd, End
85210146-101	85210146-101-3PMA	Sleeve
85210197-101	85210197-101-3PMA	Washer
85210198-103	85210198-103-3PMA	Bearing

– End –

Document Number: MDL-AADHC8-104

Rev: NC

Document Title: Master Document List for the DHC-8-100 (Series:-101/-102/-103/-106) DHC-8-200 (Series:-201/-202) DHC-8-300 (Series:-301/-311/-314/-315) Passenger Door Hinge Shaft Instl Replacement PDA

ORIGINAL APPROVALS	DATE
Prepared by: M. Cairns	5 April 2017
Approved by:	5 April 2017

RECORD OF REVISION

Revision	Date	Prepared by	Checked by	Approved by	Comments

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DOCUMENTS IN SUPPORT OF PDA APPROVAL

REPORTS:

Document Title	Document Number	Revision	Date
Master Document List for the DHC-8-100 (Series:-101/-102/-103/-106) DHC-8-200 (Series:-201/-202) DHC-8-300 (Series:-301/-311/-314/-315) Passenger Door Hinge Shaft Instl Replacement PDA	MDL-AADHC8-104	NC	5 Apr 2017
Certification Plan for the DHC-8-100 (Series:-101/-102/-103/-106) DHC-8-200 (Series:-201/-202) DHC-8-300 (Series:-301/-311/-314/-315) Passenger Door Hinge Shaft Instl Replacement PDA	CP-AADHC8-104	NC	20 Jan 2017
DHC-8 Passenger Door Hinge Shaft Instl Replacement Engineering Report	ER-AADHC8-104	NC	20 Jan 2017
DHC-8 Passenger Door Hinge Shaft Instl Replacement Static Substantiation	SA-AADHC8-104	NC	11 Jan 2017
DHC8 Passenger Door Hinge Shaft Instl Replacement Instructions for Continued	ICA-AADHC8-104	NC	5 Apr 2017

MANUFACTURING DRAWINGS:

Drawing Title	Drawing Number	Revision	Date
Crank	85210139-101-3PMA	NC	12 Aug 2016
Shaft, Aft, End	85210140-101-3PMA	A	19 Jan 2017
Hinge, Door	85210141-101-3PMA	NC	12 Aug 2016
Tube	85210144-101-3PMA	A	19 Jan 2017
Tube	85210144-103-3PMA	A	19 Jan 2017
Shaft, Fwd, End	85210145-101-3PMA	A	19 Jan 2017
Sleeve	85210146-101-3PMA	A	19 Jan 2017
Washer	85210197-101-3PMA	NC	12 Aug 2016
Bearing	85210198-103-3PMA	A	16 Dec 2016

Document Number: ICA-AADHC8-104

Rev: NC

Document Title: DHC8 Passenger Door Hinge Shaft Instl Replacement Instructions for Continued Airworthiness

ORIGINAL APPROVALS	DATE
Prepared by: B. Rougerie	05/04/2017
Approved by:	05/04/2017

RECORD OF REVISION

Revision	Date	Prepared by	Approved by	Comments

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ICA DISTRIBUTION

This document, and any revisions to it, will be distributed to authorized users of the PDA data. The manual will be distributed by courier, in electronic format, or paper format, as appropriate.

INTRODUCTION

This document provides the Instructions for Continued Airworthiness for the direct replacement of the passenger door hinge shaft used on all DHC-8 Series 100, 200 and 300 aircraft models.

The door hinge shaft connects the passenger door to the fuselage. During operation, the door rotates about the door hinge shaft allowing for opening and closing.
The door hinge shaft is attached to the door's gooseneck hinges through two identical cranks and is attached to the door structure via two shaft ends.

The replacement parts identified in this ICA are direct replacements for the original parts.

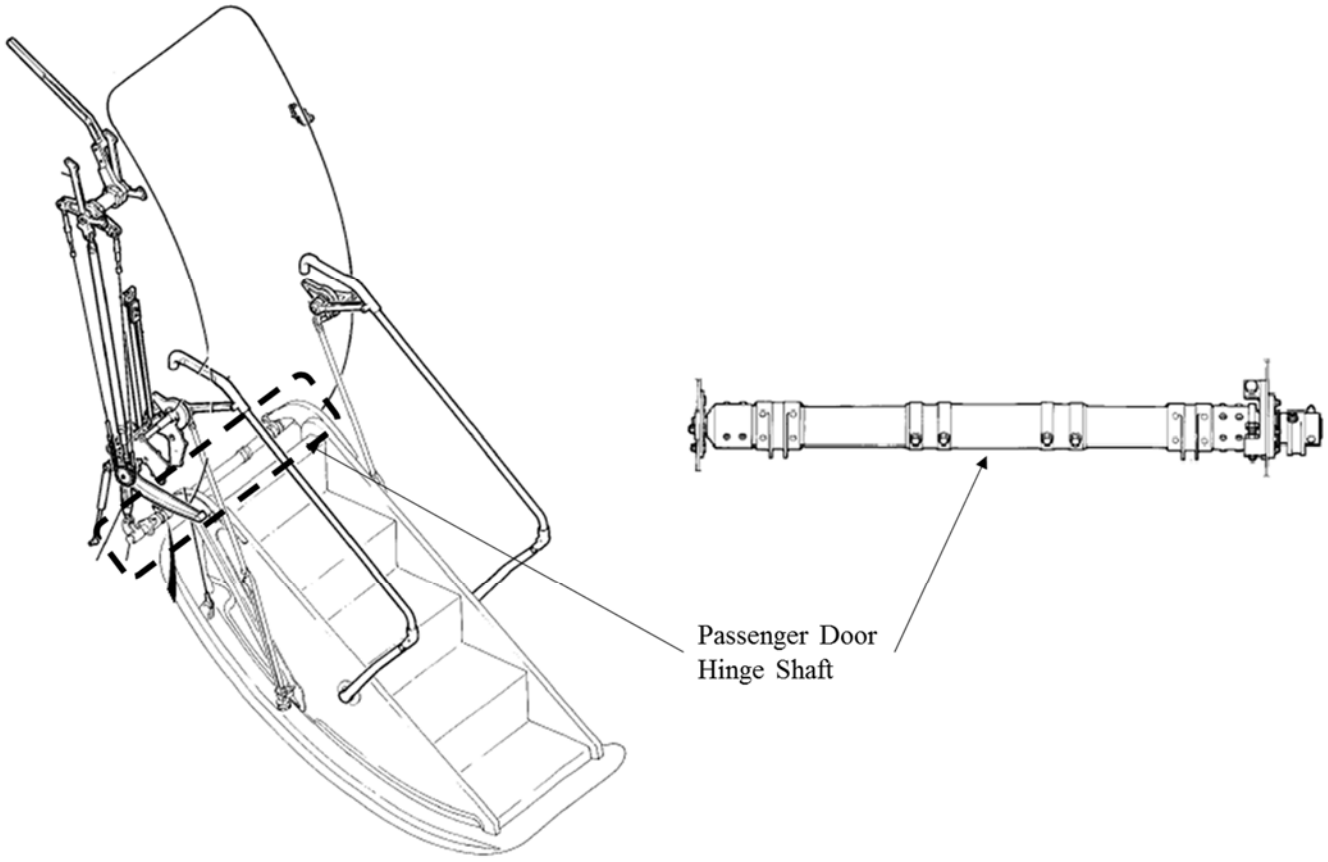

Figure 1: Passenger Door Hinge Shaft Location and Assembly Detail

DHC-8 100/200/300 ILLUSTRATED PARTS CATALOG SUPPLEMENT
DHC-8 PASSENGER DOOR HINGE SHAFT PDA 17-2

Supplement to Dash 8 IPC PSM 1-8-4, 1-82-4 or 1-83-4
Chapter 52-10-00, Figure 65, Page 1
Shaft Instl – Passenger Door Hinge Shaft

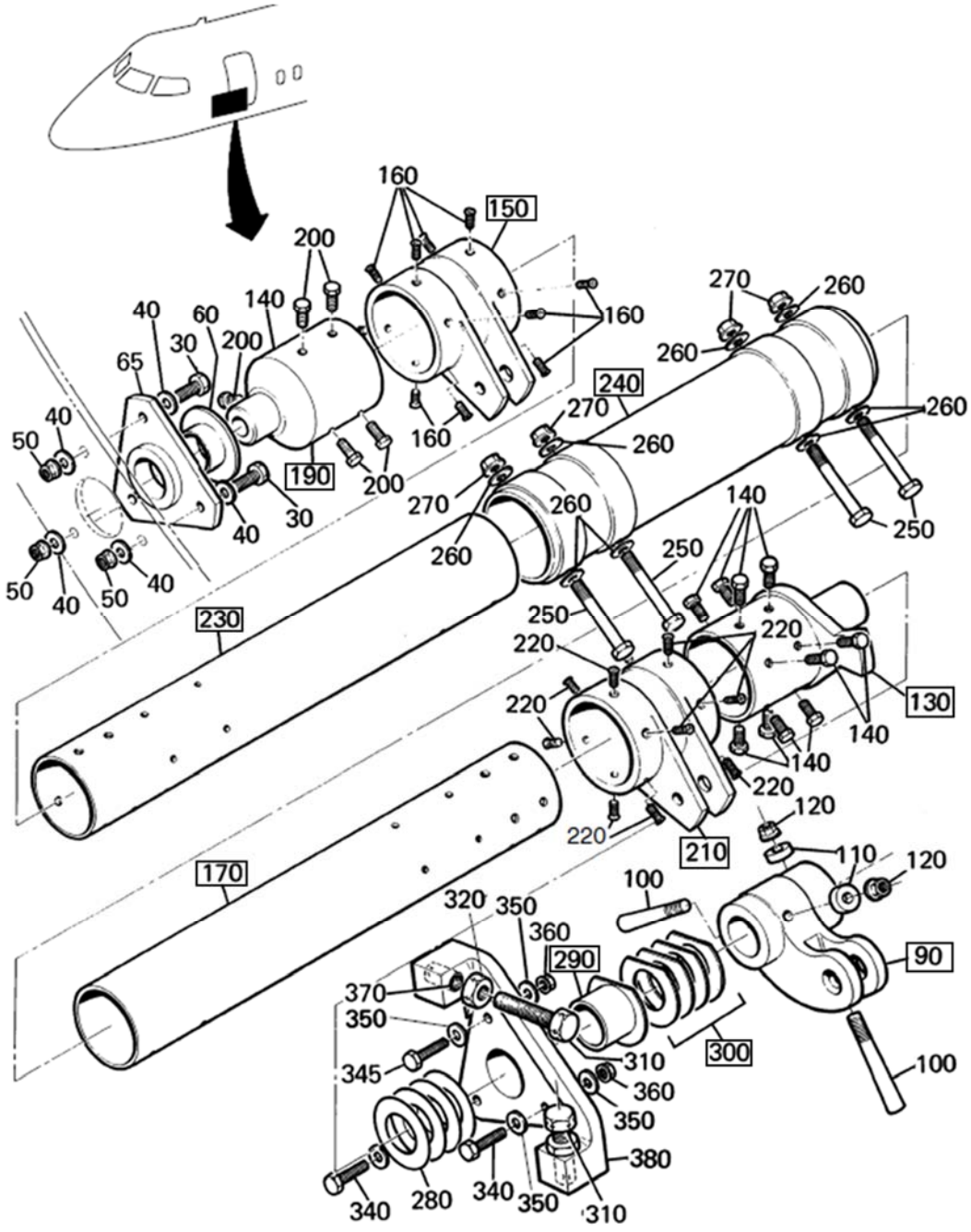

FIG	ITEM	PART NUMBER	NOMENCLATURE	EFFECTIVITY	UNITS PER ASSY
65	90	85210139-101-3PMA	CRANK	ALL	1
	130	85210145-101-3PMA	SHAFT, FWD, END	ALL	1
	150	85210141-101-3PMA	HINGE, DOOR	ALL	1
	170	85210144-101-3PMA	TUBE	ALL	1
	190	85210140-101-3PMA	SHAFT, AFT, END	ALL	1
	210	85210141-101-3PMA	HINGE, DOOR	ALL	1
	230	85210144-103-3PMA	TUBE	ALL	1
	240	85210146-101-3PMA	SLEEVE	ALL	1
	290	85210198-103-3PMA	BEARING	ALL	1
	300	85210197-101-3PMA	WASHER	ALL	4

DHC-8 100/200/300 AIRCRAFT MAINTENANCE MANUAL SUPPLEMENT
DHC-8 PASSENGER DOOR HINGE SHAFT PDA 17-2

Supplement to Dash 8 AMM PSM 1-8-2, 1-82-2 or 1-83-2
Chapter 52 - Passenger Door

AMM Supplement Information: All Maintenance Practices and Removal and Installation Instructions in Chapter 52 of the OEM AMM, Passenger Door, remain applicable for aircraft with the PDA parts installed.

The part material and surface finishes are as follows:

PART NUMBER	NOMENCLATURE	PART MATERIAL AND MANUFACTURING FINISH SPECIFICATION (Reference Information)
85210139-101-3PMA	CRANK	Aluminum Alloy 7075 finished all over with anodizing per MIL-A-8625 Type 1; epoxy primer per MIL-PRF-23377, Type I. No primer in holes.
85210145-101-3PMA	SHAFT, FWD, END	AISI 4340 Steel, finished all over with cadmium plating per AMS-QQ-P-416 Type III, phosphate coating per MIL-DTL-16232G, Type M; epoxy primer per MIL-PRF-23377, Type I. No primer in holes and contact surfaces. Corrosion protective compound to MIL-PRF-16173 Gr. 2 on inner and contact surfaces.
85210141-101-3PMA	HINGE, DOOR	Aluminum Alloy 7075 finished all over with anodizing per MIL-A-8625 Type 1; epoxy primer per MIL-PRF-23377, Type I. No primer in holes.
85210144-101-3PMA	TUBE	AISI 4130 Steel, finished all over with cadmium plating per AMS-QQ-P-416 Type III, phosphate coating per MIL-DTL-16232G, Type M; epoxy primer per MIL-PRF-23377, Type I. No primer on inner and contact surfaces. Corrosion protective compound to MIL-PRF-16173 Gr. 2 on inner and contact surfaces.
85210140-101-3PMA	SHAFT, AFT, END	AISI 4340 Steel, finished all over with cadmium plating per AMS-QQ-P-416 Type III, phosphate coating per MIL-DTL-16232G, Type M; epoxy primer per MIL-PRF-23377, Type I. No primer on inner and contact surfaces. Corrosion protective compound to MIL-PRF-16173 Gr. 2 on inner and contact surfaces.
85210144-103-3PMA	TUBE	AISI 4130 Steel, finished all over with cadmium plating per AMS-QQ-P-416 Type III, phosphate coating per MIL-DTL-16232G, Type M; epoxy primer per MIL-PRF-23377, Type I. No primer on inner and contact surfaces. Corrosion protective compound to MIL-PRF-16173 Gr. 2 on inner and contact surfaces.
85210146-101-3PMA	SLEEVE	AISI 4130 Steel, finished all over with cadmium plating per AMS-QQ-P-416 Type III, phosphate coating per MIL-DTL-16232G, Type M; epoxy primer per MIL-PRF-23377, Type I. No primer on inner surface. Corrosion protective compound to MIL-PRF-16173 Gr. 2 on inner surface.