



DART AEROSPACE LTD.
1270 Aberdeen Street
Hawkesbury, ON, K6A 1K7
CANADA

Tel: 1 613 632 3336
Fax: 1 613 632 4443

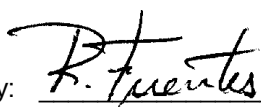
e-mail: heli@dartaero.com
<http://www.dartaero.com>

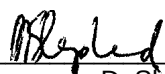
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

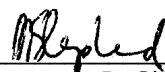
ICA-D206-558

Cargo Mirror Installation

BELL 206A/B/L/L1/L3/L4 & 407 MODELS

Prepared By: 
R. Fuentes
Mechanical Designer

Checked By: 
D. Shepherd, P. Eng.
DE#02

Released By: 
D. Shepherd, P. Eng.
DE#02

REVISION RECORD

Revision No.	Issue Date	Description	Date Inserted	Inserted By
0	01.09.20	New Issue		

LIST OF EFFECTIVE PAGES

DESCRIPTION	PAGE(S)	REVISION
COVER	1, 2 BLANK	0
REVISION RECORD	3, 4 BLANK	0
LIST OF EFFECTIVE PAGES	5, 6 BLANK	0
TABLE OF CONTENTS	7, 8 BLANK	0
CHAPTER 0 – INTRODUCTION	9,10 BLANK	0
CHAPTER 4 – AIRWORTHINESS LIMITATIONS	13,14 BLANK	0
CHAPTER 5 – INSPECTION REQUIREMENTS	15,16 BLANK	0
CHAPTER 25 – EQUIPMENT AND FURNISHINGS	17,18 BLANK	0
CHAPTER 25 – EQUIPMENT AND FURNISHINGS	19,20 BLANK	0
CHAPTER 25 – EQUIPMENT AND FURNISHINGS	21,22 BLANK	0
CHAPTER 25 – EQUIPMENT AND FURNISHINGS	23,24 BLANK	0

Transport Canada Accepted *Alex Pongrac* Date: 26/10/2001

TABLE OF CONTENTS

CHAPTER 0 – INTRODUCTION (00-00-00)	9
0.1 SCOPE	9
0.2 ARRANGEMENT	9
0.3 DISTRIBUTION	9
0.4 COMPATIBILITY	9
0.5 SYSTEM DESCRIPTION	9
CHAPTER 4 – AIRWORTHINESS LIMITATIONS (04-00-00)	13
CHAPTER 5 – INSPECTION REQUIREMENTS (05-00-00)	15
5.1 300 HOUR INSPECTION	15
5.2 OVERHAUL REQUIREMENTS	15
CHAPTER 25 – EQUIPMENT AND FURNISHINGS (25-00-00)	17
25.1 CARGO MIRROR INSTALLATION	17
25.2 CARGO MIRROR REMOVAL	23
25.3 WEIGHT AND BALANCE	23
25.4 PARTS LIST	23

APPENDIX A: APPROVALS**APPENDIX B: FLIGHT MANUAL SUPPLEMENT**

CHAPTER 0 – INTRODUCTION (00-00-00)

0.1 SCOPE

This manual provides the requirements set forth in Appendix A of FAR Part 27 for the Instructions for Continued Airworthiness of the Dart D206-558-041/-043 Cargo Mirrors when installed on the Bell 206A/B/L/L1/L3/L4 and 407 model aircraft. These Instructions for Continued Airworthiness are to be referred to for inspection and maintenance when the Cargo Mirror is installed on, removed from, or in service on the rotorcraft.

0.2 ARRANGEMENT

The manual is arranged in ATA-100 format. This manual is only applicable to the model 206A/B/L/L1/L3/L4 and 407 rotorcraft modified with the Cargo Mirror.

There are no abbreviations, acronyms, or symbolization that are not common to the aviation industry in this manual.

Units of measurement are expressed in Imperial and metric values and all torque values are standard values for the specified fastener combinations as defined in FAA AC 43.13, unless specified in this document.

No other Instructions for Continued Airworthiness for any product or appliance is inferred or addressed herein.

0.3 DISTRIBUTION

Any changes in the content or revision level of this document will be made available to any owner/operator who possesses this STC when requested in writing. Requests should be made to:

Dart Aerospace Ltd.
1270 Aberdeen St.
Hawkesbury, ON K6A 1K7
Fax: (613) 632 4443
Email: heli@dartaero.com

Additionally, any changes will be sent to Transport Canada. All changes will be recorded in the Record of Revisions page at the front of this manual.

0.4 COMPATIBILITY

Compatibility of this installation with the aircraft is the **responsibility of the installer**. Ensure that this installation does not conflict with a previous modification.

0.5 SYSTEM DESCRIPTION

The cargo mirror is available as either a single (D206-558-041) or a dual (D206-558-043) and allows the pilot to view the hook/load for safe hookup and release. The dual mirror kit is used primarily for pilot training. Using the control cable inside the cabin, the cargo mirror can be easily adjusted or stowed for cruise flight.

• COPYRIGHT © 2001 BY DART AEROSPACE LTD. •
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

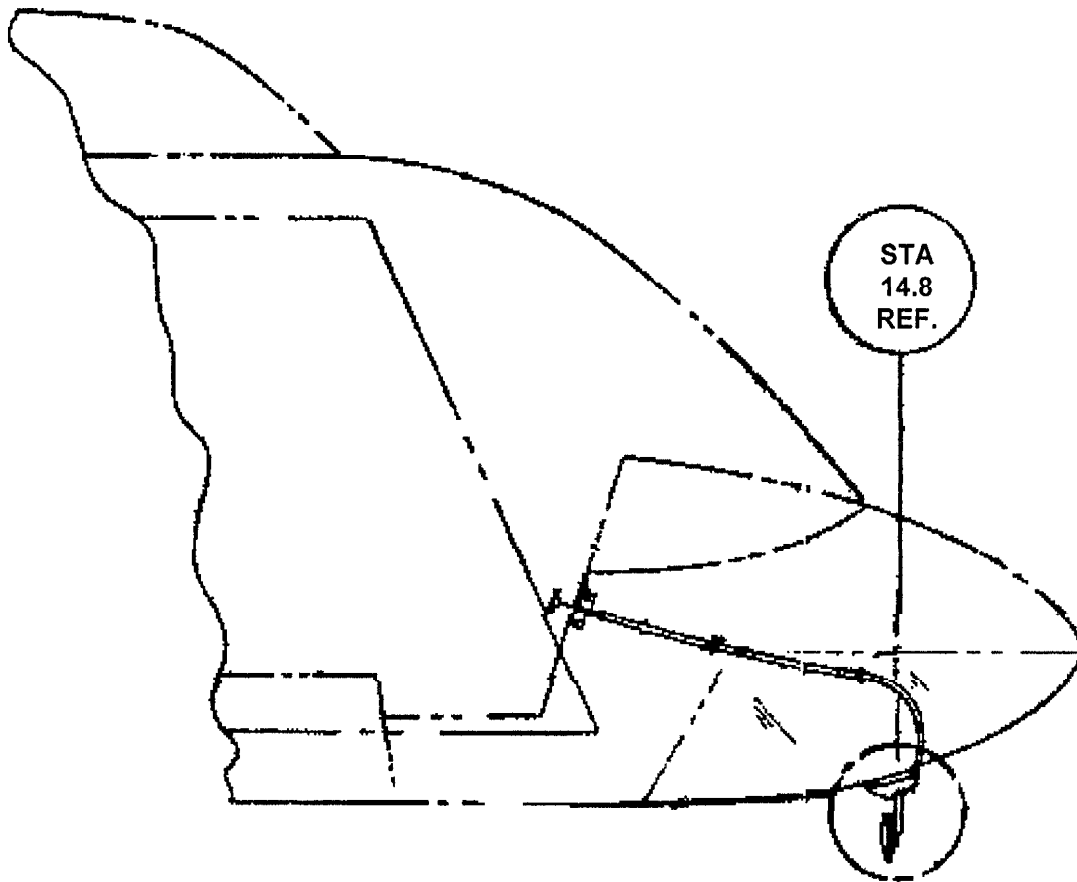


Figure 0-1: D206-558-041/-043 Cargo Mirror Installations (Shown in Deployed Position)

• COPYRIGHT © 2001 BY DART AEROSPACE LTD. •
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED
OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

CHAPTER 4 – AIRWORTHINESS LIMITATIONS (04-00-00)

No airworthiness limitations associated with this type design change.

• COPYRIGHT © 2001 BY DART AEROSPACE LTD. •

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

CHAPTER 5 – INSPECTION REQUIREMENTS (05-00-00)

5.1 300 HOUR INSPECTION

TO BE CONDUCTED EVERY 300 HOURS (OR IF DAMAGE DETECTED ON DAILY INSPECTION)

Note: For the convenience of scheduling maintenance, the tolerance for scheduled inspection intervals is +/-10% (+/- 30 hours). In each case, the subsequent interval will be adjusted to re-establish the original schedule. When an inspection is done more than 10% early, subsequent inspections will be advanced as required not to exceed the maximum tolerance.

1. Inspect all components of the installation for damage or wear and suitability for continued service. Parts that are cracked should be replaced immediately per item 5.
2. Check all fasteners for tightness.
3. Ensure that there is still a good seal on the mirror itself.
4. Inspect the operation of the cable in stowing and deploying the mirror.
5. Replace excessively damaged or worn parts per Chapter 25 of these instructions.

5.2 OVERHAUL REQUIREMENTS

NO COMPONENT OVERHAUL REQUIRED FOR THIS DESIGN CHANGE.

CHAPTER 25 – EQUIPMENT AND FURNISHINGS (25-00-00)**25.1 CARGO MIRROR INSTALLATION**

Install the Cargo Mirror as follows:

1. Install D206-558-041/-043 cargo mirror assembly using AN3-4A bolts and AN960JD10L washers. Pickup existing anchor nuts in 4 places.
2. Install D2067 connector onto D2056 bellcrank assembly to locate hole for MS35489-9 grommet. With the mirror in the deployed position, mark and drill $\varnothing 0.125$ " (3.2mm) hole in landing light window panel where the grommet should be located. Open pilot hole to $\varnothing 0.563$ " (14.3mm). Install grommet.
3. Install D2053 bracket using AN526-1032R9 screws. Pickup on existing anchor nuts.
4. Position D2071 cable as shown. Install MS21919DG5 clamps using AN526-1032R9 screws where required. Pickup existing rivnuts or anchor nuts if available.
5. Install D2071 control cable using D2067 connector. Connector should rotate freely in bellcrank when MS21042-3 nut is torqued and cable clamped.

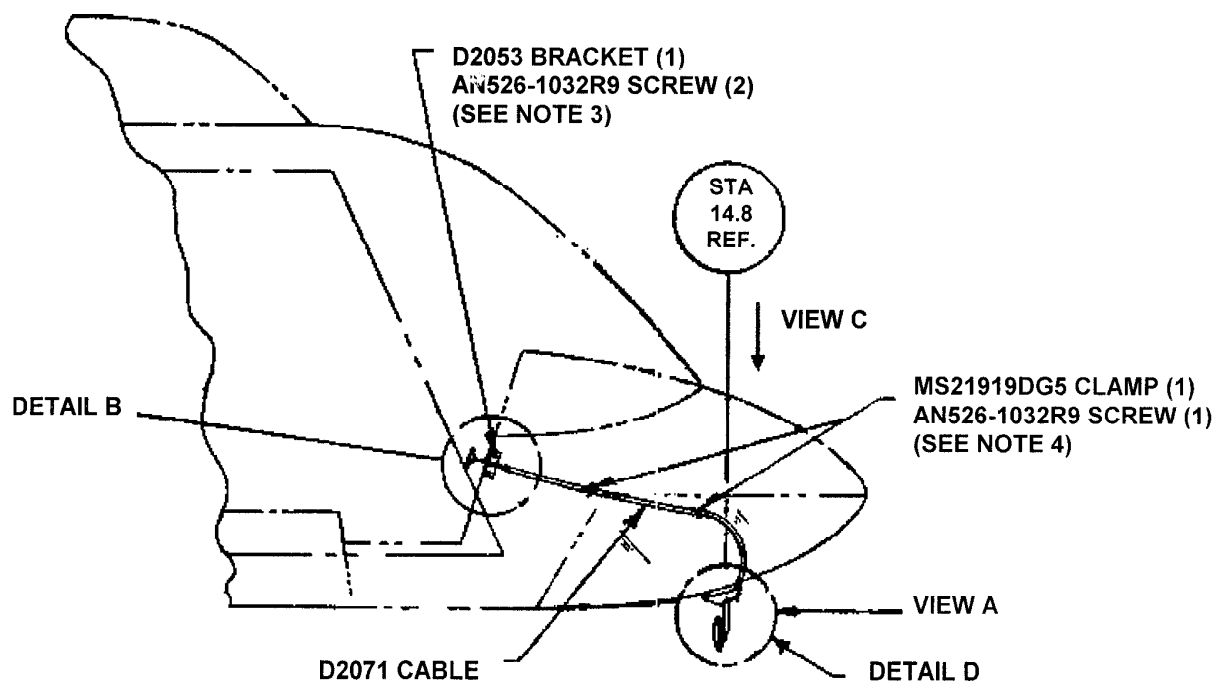


Figure 25.1 – Dart D206-558-041/-043 Cargo Mirror Assembly.
(Shown in deployed position)

• COPYRIGHT © 2001 BY DART AEROSPACE LTD. •
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED
OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

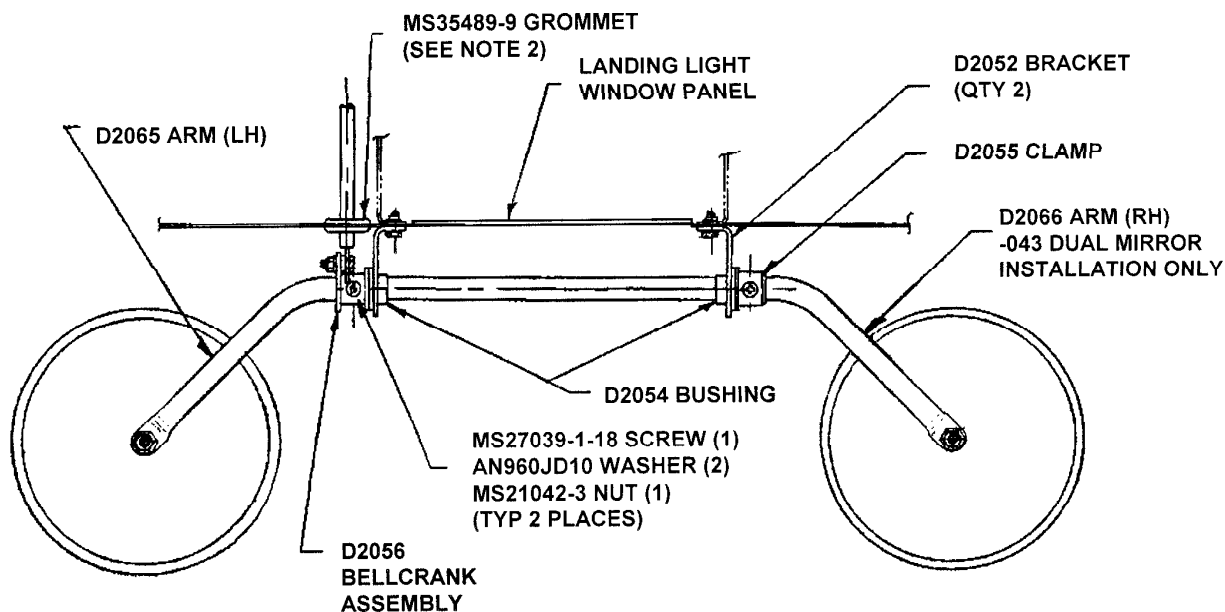


Figure 25.2 – View A: Looking Aft.
(D206-558-043 Mirror Shown)

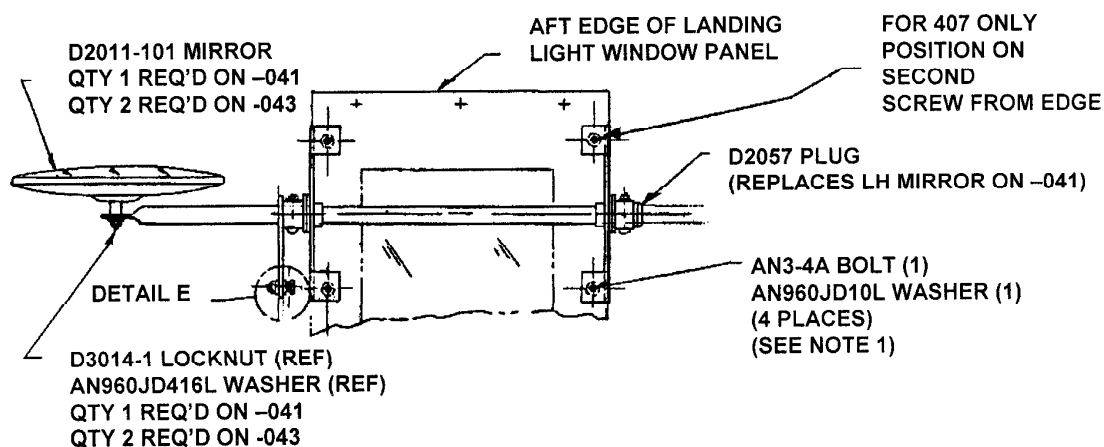


Figure 25.3 – View C: Looking Down on Mirror Installation
(D206-558-041 Mirror Shown)

• COPYRIGHT © 2001 BY DART AEROSPACE LTD. •

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

25-00-00

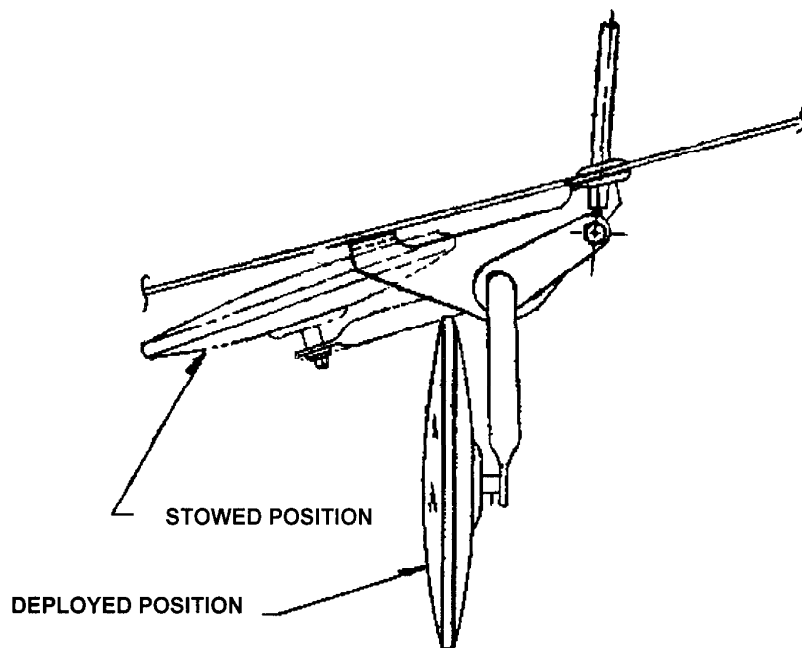


Figure 25.4 – Detail D: Looking from Side on Mirror Installation
(D206-558-041/-043 Mirror Shown)

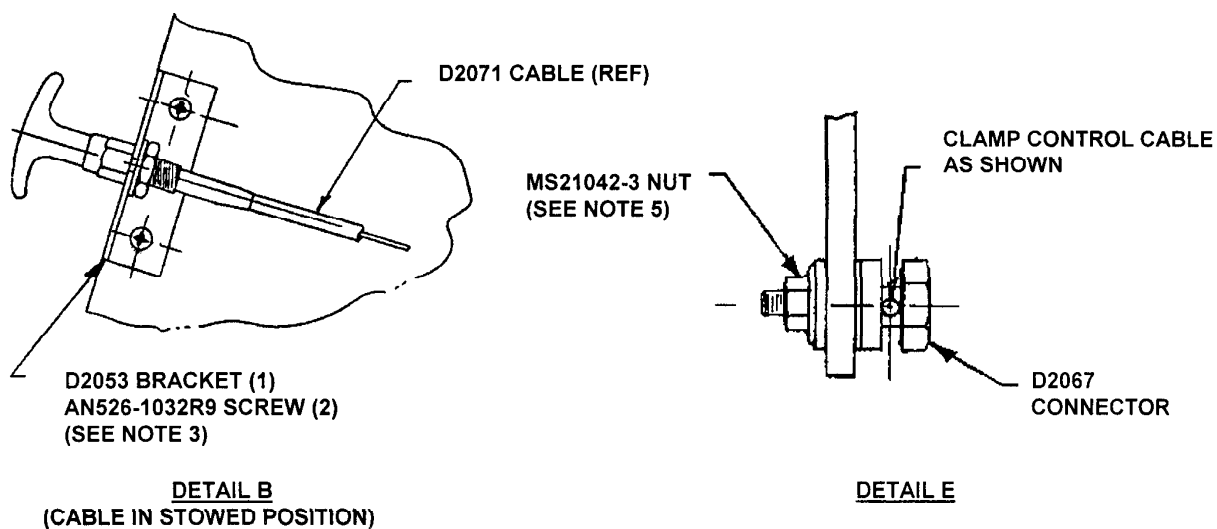


Figure 25.5 – Details B and E on Mirror Installation
(D206-558-041/-043 Mirror Shown)

• COPYRIGHT © 2001 BY DART AEROSPACE LTD. •
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

25.2 CARGO MIRROR REMOVAL

1. Loosen MS21042-3 nut and remove D2071 control cable from D2067 connector.
2. Remove (4) AN3-4A bolts and remove D2052 bracket.
3. Remove (2) AN526-1032R9 screws and (2) MS21919DG5 clamps.
4. Remove (2) AN526-1032R9 screws, the D2053 bracket and the D2071 cable assembly.

25.3 WEIGHT AND BALANCE

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D206-558-041 Bell 206A/B/L/L1/L3/L4 Bell 407	2.4 lb 1.09 Kg	+5.0 in +0.13 m	+12.0 in-lb +0.14 m-Kg	+14.8 in +0.38 m	+35.5 in-lb +0.41 m-Kg
D206-558-043 Bell 206A/B/L/L1/L3/L4 Bell 407	3.0 lb 1.36 Kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-Kg	+14.8 in +0.38 m	+44.4 in-lb +0.52 m-Kg

25.4 PARTS LIST

Qty -041	Qty -043	Part Number	Description
X		D206-558-041	SINGLE CARGO MIRROR ASSEMBLY
	X	D206-558-043	DUAL CARGO MIRROR ASSEMBLY
1	2	D3014-1	* LOCKNUT
1	1	D2071	CABLE ASSEMBLY
2	2	D2054	BUSHING
1	1	D2067	CONNECTOR
	1	D2066	ARM
1		D2065	ARM
1		D2057	PLUG
1	1	D2056	BELLCRANK ASSEMBLY
1	1	D2055	CLAMP
1	1	D2053	BRACKET
2	2	D2052	BRACKET
1	2	D2011-101	MIRROR ASSEMBLY
4	4	AN3-4A	BOLT
4	4	AN526-1032R9	SCREW
1	2	AN960JD416L	* WASHER
4	4	AN960JD10	WASHER
6	6	AN960JD10L	WASHER
3	3	MS21042-3	NUT (or MS21042L3)
2	2	MS21919DG5	CLAMP
2	2	MS27039-1-18	SCREW
1	1	MS35489-9	GROMMET

* INCLUDED AS PART OF D2011-101 MIRROR ASSEMBLY

• COPYRIGHT © 2001 BY DART AEROSPACE LTD. •

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

25-00-00

APPENDIX A: APPROVALS



Department of Transport

Supplemental Type Certificate

This approval is issued to:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ontario
K6A 1K7

Number: SH92-17

Issue No.: 7

Approval Date: June 19, 1992

Issue Date: October 26, 2001

Responsible Region: Ontario

Aircraft/Engine Type or Model: Bell 206 A, B, L, L-1, L-3, L-4, 407

Canadian Type Certificate or Equivalent: H-92

Description of Type Design Change: Utility Equipment Kit

**Installation/Operating Data,
Required Equipment and Limitations:**

The Utility Equipment Installations, consisting of Cargo Mirror, Bear Paw and Preflight Sure-Grip Steps, are to be carried out in accordance with Dart Master Document List drawing no. D206-582, Rev. H, dated 01.10.01, or later Transport Canada approved revision.

Approved Combinations: These installations may be used in any combination provided the aircraft effectivity restrictions of the individual kits, as defined on the Dart Master Document List, are followed.

Required Equipment:

1. Flight Manual Supplement No. FMS-D206-582, Rev. C, dated 01.10.03, or later Transport Canada approved revision (for mirror installation)
2. Maintenance in accordance with the following ICA's (as required by combination installed):
ICA-D206-558, Rev. 0, dated 01.09.20 (Mirror),
ICA-D206-559, Rev. 0, dated 01.09.10 (Bear Paw),
ICA-D206-581, Rev. 0, dated 01.09.26 (Steps), or later Transport Canada accepted revisions.



Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the modified product.

Alex Pompei
Alex Pompei
For Minister of Transport

Canada

Supplemental Type Certificate

IMPORT

Number SH1031NE

This certificate issued to Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 6/10.10 of the Civil Air Regulations.

Original Product -- Type Certificate Number : H2SW

Make : Bell

Model : 206A, 206B, 206L, 206L-1, 206L-3,
206L-4, 407

Description of Type Design Change:

The installation of Utility Equipment Kit consisting of Cargo Mirror, Bear Paw and Preflight Sure-Grip Steps in accordance with Dart Master Document List drawing number D206-582, Revision H, dated October 1, 2001, or later Transport Canada approved revisions.

Limitations and Conditions :

1. Dart Aerospace Flight Manual Supplement No. FMS-D206-582, Rev. C, dated October 3, 2001, or later Transport Canada approved revisions, is required for mirror installation.
2. The following Dart Aerospace Instructions for Continued Airworthiness are required, or later Transport Canada accepted revisions:
ICA-D206-558 Rev. 0 dated September 20, 2001 (Mirror)
ICA-D206-559 Rev. 0 dated September 10, 2001 (Bear Paw)
ICA-D206-581 Rev. 0 dated September 26, 2001 (Steps)
3. Kit installations may be used in any combination provided that the aircraft effectivity restrictions of the individual kits, as defined on the Dart Master Document List are followed.
4. Compatibility of this design change with previously approved modifications must be determined by the installer.
5. If the holder agrees to permit another person to use the certificate to alter the product, the holder shall give the other person written evidence of that permission

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application : March 17, 1992

Date reissued :

Date of issuance : December 11, 1992

Date amended : October 07, 1994, October 21, 1998,
November 9, 2001



By direction of the Administrator

[Signature]
(Signature)

[Signature]
Vito A. Pulera
Manager
New York Aircraft Certification Office

(Title)

**Mitteilung
über die
Ergänzung der Musterzulassung
Nr.: 0796/3034**

Revision: -

EMZ-Inhaber:	Dart Aerospace Ltd.
Anderung:	Einbau Außenspiegel, Einsinkschutz und Trittstufen
Muster/Baureihe:	Bell/AB 206A, -B, -L, -L-1, -L-3, -L-4 und 407
Geräte-Kennblatt Nr.	3034

Die Musterzulassung des o.a. Drehflüglers wird durch folgende Angaben ergänzt:

Der Einbau Außenspiegel, Einsinkschutz und Trittstufen entsprechend dem Canada Supplemental Type Approval SH92-17 ist zugelassen.

So umgerüstete Drehflügler sind zu betreiben nach dem

- Maintenance Manual Supplement „Cargo Mirror Installation“ vom 06.06.96,
- Maintenance Manual Supplement „Bearpaw“ vom 19.08.96 und
- Maintenance Manual Supplement „Pre-Flight Steps“ vom 31.08.93

oder jeder späteren DOT-anerkannten Fassung.

Unterlagen sind zu beziehen bei:

**Dart Aerospace Ltd.
2071 Malaview Avenue
Sidney, BC, V8L 5X6
Canada**

Diese Mitteilung gilt in Verbindung mit dem Drehflügler-Kennblatt Nr. 3034, der jeweils gültigen Ausgabe.



ANAC

AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRASIL

CERTIFICADO SUPLEMENTAR DE TIPO

(Supplemental Type Certificate)

NÚMERO 2010S10-08
(Number)

Este certificado, emitido com base na Lei nº 7565 "Código Brasileiro de Aeronáutica", de 19 de dezembro de 1986,
(This certificate, issued in the basis of the Law No. 7565 "Código Brasileiro de Aeronáutica", dated 19 December 1986.

é conferido ao (à): Dart Aerospace Ltd.
is granted to:) 1270 Aberdeen Street
Hawkesbury, Ontario, K6A 1K7
Canada

por ter a modificação ao projeto de tipo do produto abaixo citado, observadas as limitações e condições
(for having the change to the type design of the product mentioned below, with the limitations and conditions therefor as)
especificadas, satisfeito aos requisitos de aeronavegabilidade aplicáveis.
(specified hereon, met the applicable airworthiness requirements.)

Produto Original - Número do Certificado de Tipo: * See attached ANAC Approved Model List (AML),
(Original Product - Type Certificate No:): Rev. IR, dated 06 Oct. 2010, or later approved revision.

Fabricante: *
(Manufacturer:)

Modelo(s): *
(Model(s):)

DESCRIÇÃO DA MODIFICAÇÃO AO PROJETO DE TIPO:
(Description of Type Design Change:)

Installation of Utility Equipment Kit, consisting of Cargo Mirror, Bear Paw and Preflight Sure-Grip Steps in accordance with Dart Master Document List No. D206-582, Rev. K, dated 11 Aug. 2010 or later approved revisions.

This CST validates in Brazil the STC # SH92-17, issued by TCCA (Canada).

LIMITAÇÕES E CONDIÇÕES:
(Limitations and Conditions:)

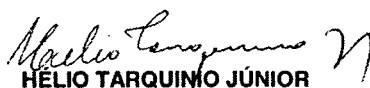
See continuation sheet for applicable data.

DATAS:
(Dates of:)

Do Requerimento: 01 Sep. 2010
(Application:)

Da emissão: 06 Oct. 2010
(Issue:)

Da reemissão:
(Reissue:)


HÉLIO TARQUÍNIO JÚNIOR

Gerente-Geral Substituto, Certificação de Produto Aeronáutico
(Acting Manager, Aeronautical Products Certification)



DINO ISHIKURA
Superintendente de Aeronavegabilidade
(Airworthiness Superintendent)



ANAC

AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRASIL

Folha de Continuação ao
(Continuation Sheet to)

CERTIFICADO SUPLEMENTAR DE TIPO
(Supplemental Type Certificate)

NÚMERO 2010S10-08
(Number)

LIMITAÇÕES E CONDIÇÕES:
(Limitations and Conditions:)

- I. The approval of this type design change should not be extended to other aircraft of this model on which other previously approved modifications are incorporated unless it is determined by the installer that the relationship between this change and any of those other previously approved modifications, including changes in Type Design, will introduce no adverse effect upon the airworthiness of that aircraft.
- II. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.
- III. Operation must be performed in accordance with TCCA approved Rotorcraft Flight Manual Supplement - RFMS, document No. FMS-D206-582, Rev. C, dated 03 Oct. 2001, or later approved revision.
- IV. This modification must be Inspected and Maintained in accordance with applicable TCCA accepted Instructions for Continued Airworthiness (ICA) specified below:
 - Document No. ICA-D206-558, Rev. 0, dated 20 Sep. 2001, or later accepted revision, for the Mirror;
 - Document No. ICA-D206-559, Rev. 2, dated 13 Nov. 2009, or later accepted revision, for the Bear Paw; and
 - Document No. ICA-D206-581, Rev. 1, dated 11 Aug. 2010, or later accepted revision, for the Steps.
- V. Kit installation may be used in any combination provided that the aircraft effectivity restrictions of the individual kits, as defined on the Dart Master Document List, are followed.
- VI. A copy of this Certificate and the Supplement referred on item III above shall be maintained as part of the permanent records of the modified aircraft.

-----END-----



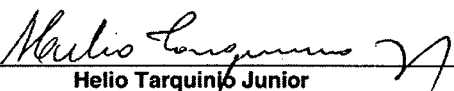
AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL

**ANAC APPROVED MODEL LIST
FOR CST 2010S10-08**

Item	Aircraft Make	Aircraft Model	Type Certification Number	Master Data List	
				Reference Document	Revision and date ^[1]
1	Bell Helicopter Textron Canada Limited	206 A, 206 B, 206 L1, 206 L3 and 206 L4	H-92 (TCCA)	D206-582	Rev. K, 11 Aug. 2010.
2	Bell Helicopter Textron Canada Limited	407	9603 (ANAC)	D206-582	Rev. K, 11 Aug. 2010.

[1] Or later approved revisions.

ANAC Approved: _____


Helio Tarquinio Junior
Gerente-Geral Substituto, Certificação de Produto Aeronáutico
(Acting General Manager, Aeronautical Product Certification)

ANAC Approved Date: 06 Oct. 2010

Revision: I.R.

APPENDIX B:

FLIGHT MANUAL SUPPLEMENT



DART AEROSPACE LTD.
1270 Aberdeen Street
Hawkesbury, ON, K6A 1K7
CANADA

Tel: 1 613 632 3336
Fax: 1 613 632 4443

e-mail: heli@dartaero.com
<http://www.dartaero.com>

FLIGHT MANUAL SUPPLEMENT

Utility Equipment

BELL 206 A/B/L/L1/L3/L4 & 407

This supplement must be attached to the approved Flight Manual when the listed equipment is installed. The information contained herein supplements the information in the basic Helicopter Flight Manual. For limitations, procedures and performance not contained in this document, consult the Helicopter Flight Manual.

COMPLIANCE WITH SECTION 1, LIMITATIONS, IS MANDATORY.

CANADA	
DEPARTMENT OF TRANSPORT	
AIRCRAFT CERTIFICATION	
BRANCH	
OCT 26 2001	
APPROVED	
BY <u>Alexander</u>	
CERTIFICATE NO <u>5492-17</u>	
ISSUE NO. <u>7</u>	

Prepared By: C. Provencal (01.10.03)
C. Provencal

Checked By: D. Shepherd (01.10.03)
D. Shepherd (DE #02)

Released By: D. Shepherd (01.10.03)
D. Shepherd (DE #02)

• COPYRIGHT © 1997 BY DART AEROSPACE LTD •

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Revision: **C**
Date: 01.10.03

LOG OF AMENDMENTS

Rev. No.	Pages Revised	Revised By and Date	Approved By and Date	Inserted By	Date Inserted
A	None	Brad Williams 97.02.24	J. Nehera 97.02.24		
B	All	David Shepherd 97.11.28	L. B. Samoil 97.11.28		
C	All	Chris Provencal 01.10.03	<i>Alan Pongau</i> 26/10/2001		

• COPYRIGHT © 1997 BY DART AEROSPACE LTD •

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Revision: C
Date: 01.10.03

SECTION 1 - LIMITATIONS

a) Airspeed Limitations

When installed, the D206-558 Cargo Mirror should be stowed for flight over 91 mph (78 kts).

SECTION 2 – NORMAL PROCEDURES

a) Preflight

Amend daily preflight inspection to check physical integrity and security of the D206-558 Cargo Mirror to ensure that it is securely fastened to the rotorcraft.

SECTION 3 – EMERGENCY PROCEDURES

No Change.

SECTION 4 - PERFORMANCE

No Change.

TC Approved: OCT 26 2001
(DATE)

• COPYRIGHT © 1997 BY DART AEROSPACE LTD •

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Revision: **C**
Date: 01.10.03

MASTER DOCUMENT LIST

Installation

D206-558
Cargo Mirror

Effectivity

206 A/B/L/L1/L3/L4 & 407

Required Documentation

D206-558 Rev. C Dated 01.10.03
ICA-D206-558 Rev. 0 Dated 01.09.20
FMS-D206-582 Rev. C Dated 01.10.03

D206-559
Bearpaw

206 A/B/L/L1/L3/L4 & 407

D206-559 Rev. K Dated 09.11.16
ICA-D206-559 Rev. 2 Dated 09.11.13

D206-581
Preflight Kits

206 A/B/L/L1/L3/L4 & 407

D206-581 Rev. C Dated 10.07.10
ICA-D206-581 Rev. 1 Dated 10.08.11

K	REVISED D206-581 TO REV. C & ICA-D206-581 TO REV. 1	RF	10.08.11
J	REVISED D206-559 TO REV. K & ICA-D206-559 TO REV. 2 NOTE: D206-559 REV I AND J USED FOR DEVELOPMENT OF NEW D407-559-113 BEARPAW INSTALLATION ONLY	MB	09.11.18
I	REVISED D206-559 TO REV. H & ICA-D206-559 TO REV. 1	MB	08.04.29
H	CHANGED FROM MMS TO ICA	RF	01.10.01
G	D206-559 UPDATED TO REV. G	DS	99.04.20
F	MODIFIED ALL MMS	DS	98.01.15
E	ADDED FMS-D206-582, MODIFIED MMS	DS	97.02.28
D	NEW REV D206-559, MMS-D206-559	BW	96.08.19
C	NEW EFFECTIVITY	JB	96.06.06
REV.	DESCRIPTION	BY	DATE

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 10.08.11
CERT. NO.: SH92-17
ISSUE NO.: 7

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. K
MFG. APPR.	N/A	D206-582	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		UTILITY EQUIPMENT INSTALLATION	NTS
DATE	10.08.11	COPYRIGHT © 1995 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



DART AEROSPACE LTD.

1270 Aberdeen Street
Hawkesbury, ON, K6A 1K7
CANADA

Tel: 1 613 632 3336

Fax: 1 613 632 4443

e-mail: heli@dartaero.com

<http://www.dartaero.com>

INSTALLATION INSTRUCTIONS

D206-558

Cargo Mirror Installation

BELL 206A/B/L/L1/L3/L4 & 407 MODELS

CANADA	
DEPARTMENT OF TRANSPORT	
AIRCRAFT CERTIFICATION	
BRANCH	
DAO # 01-O-01	
APPROVED	
BY:	<u><i>D. Shepherd</i></u>
D. SHEPHERD (DE # 02)	
DATE:	<u>OCT. 03, 2001</u>
CERT. NO.:	<u>SH92-17</u>
ISSUE NO.:	<u>7</u>

Prepared By: *R. Fuentes*
R. Fuentes
Mechanical Designer

Checked By: *D. Shepherd*
D. Shepherd, P. Eng.
DE #02

Released By: *D. Shepherd*
D. Shepherd, P. Eng.
DE #02

• COPYRIGHT © 2001 BY DART AEROSPACE LTD. •

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Revision: **C**

Date: 01.10.03

REVISION RECORD

Revision No.	Issue Date	Description
-	92.01.20	New issue
A	93.08.31	Added L4
B	97.02.21	Added 407
C	01.10.03	Re-formatted

• COPYRIGHT © 2001 BY DART AEROSPACE LTD. •

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Revision: **C**
Date: 01.10.03

1.0 INTRODUCTION

The cargo mirror is available as either a single (D206-558-041) or a dual (D206-558-043) and allows the pilot to view the hook/load for safe hookup and release. The dual mirror kit is used primarily for pilot training. Using the control cable inside the cabin, the cargo mirror can be easily adjusted or stowed for cruise flight.

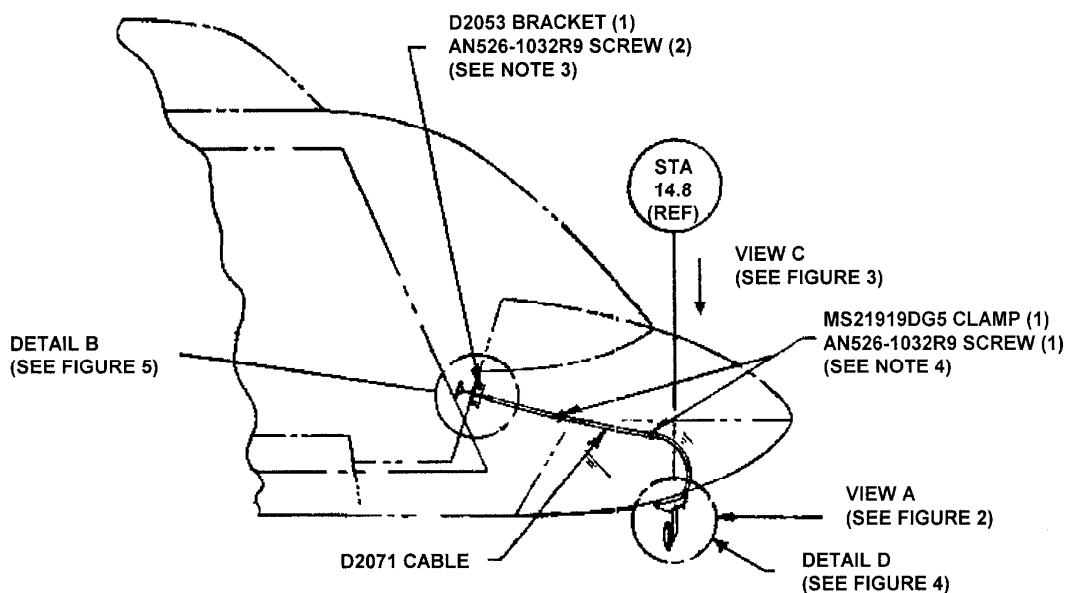


Figure 1: D206-558-041/-043 Cargo Mirror Installations (Shown in Deployed Position)

2.0 GENERAL NOTES

COMPATIBILITY

Compatibility of this installation with the aircraft is the **responsibility of the installer**. Ensure that this installation does not conflict with a previous modification.

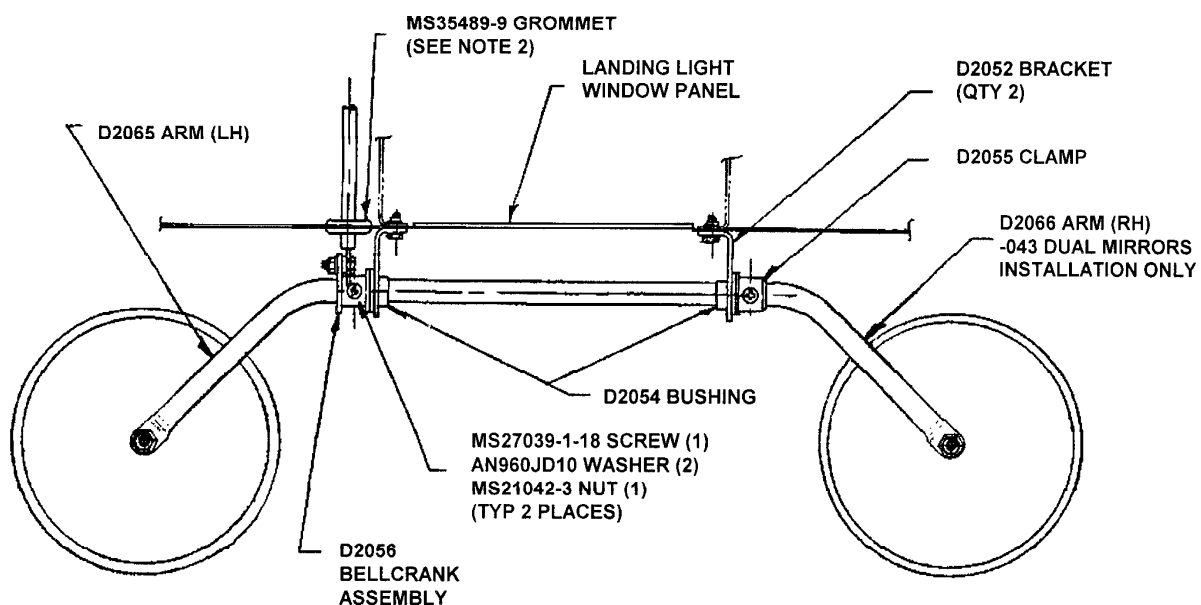
CONTINUING AIRWORTHINESS

This installation should be maintained in accordance with the Instructions for Continued Airworthiness **ICA-D206-558**.

3.0 CARGO MIRROR INSTALLATION

Install the Cargo Mirror as follows:

1. Install D206-558-041/-043 cargo mirror assembly using AN3-4A bolts and AN960JD10L washers. Pickup existing anchor nuts in 4 places.
2. Install D2067 connector onto D2056 bellcrank assembly to locate hole for MS35489-9 grommet. With the mirror in the deployed position, mark and drill $\varnothing 0.125"$ (3.2mm) hole in landing light window panel where the grommet should be located. Open pilot hole to $\varnothing 0.563"$ (14.3mm). Install grommet.
3. Install D2053 bracket using AN526-1032R9 screws. Pickup on existing anchor nuts.
4. Position D2071 cable as shown. Install MS21919DG5 clamps using AN526-1032R9 screws where required. Pickup existing rivnuts or anchor nuts if available.
5. Install D2071 control cable using D2067 connector. Connector should rotate freely in bellcrank when MS21042-3 nut is torqued and cable clamped



**Figure 2: – View A: Looking Aft.
(D206-558-043 Mirror Shown)**

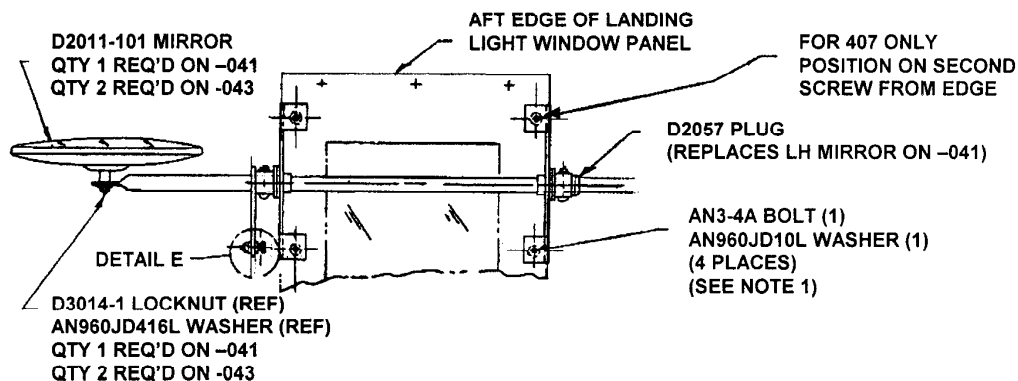


Figure 3: – View C: Looking Down on Mirror Installation
(D206-558-041 Mirror Shown)

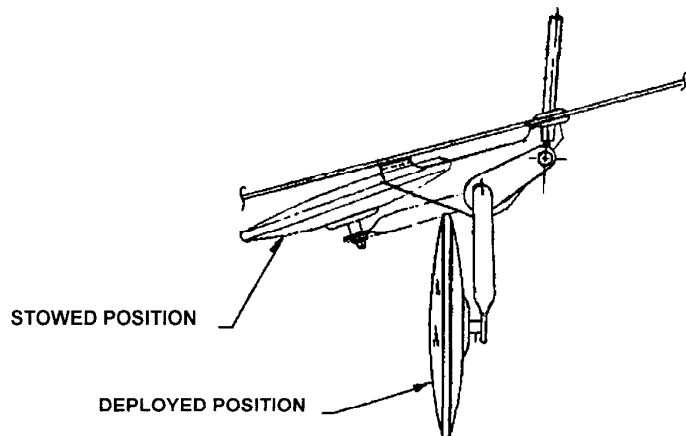


Figure 4: – Detail D: Looking from Side on Mirror Installation
(D206-558-041/-043 Mirror Shown)

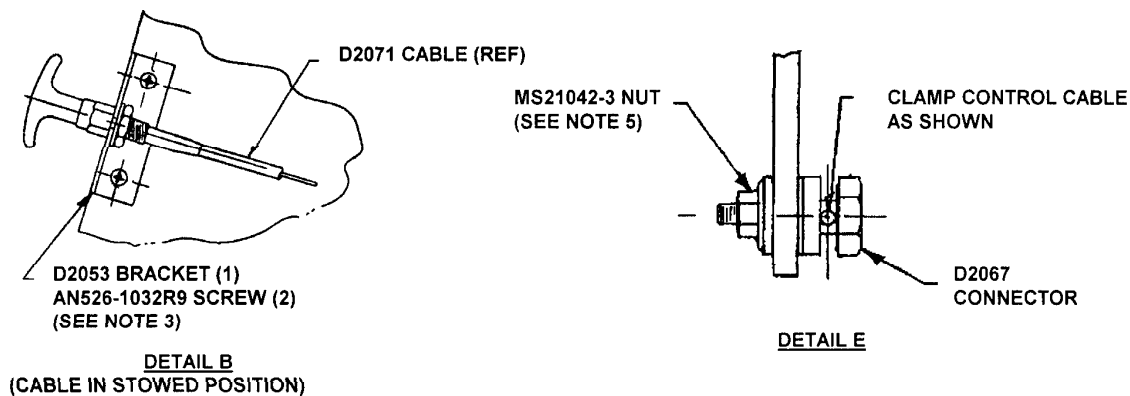


Figure 5: – Details B and E on Mirror Installation
(D206-558-041/-043 Mirror Shown)

4.0 WEIGHT AND BALANCE

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D206-558-041 Bell 206A/B/L/L1/L3/L4 Bell 407	2.4 lb 1.09 Kg	+5.0 in +0.13 m	+12.0 in-lb +0.14 m-Kg	+14.8 in +0.38 m	+35.5 in-lb +0.41 m-Kg
D206-558-043 Bell 206A/B/L/L1/L3/L4 Bell 407	3.0 lb 1.36 Kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-Kg	+14.8 in +0.38 m	+44.4 in-lb +0.52 m-Kg

5.0 WEIGHT AND BALANCE

Qty -041	Qty -043	Part Number	Description
X		D206-558-041	SINGLE CARGO MIRROR ASSEMBLY
	X	D206-558-043	DUAL CARGO MIRROR ASSEMBLY
1	2	D3014-1	* LOCKNUT
1	1	D2071	CABLE ASSEMBLY
2	2	D2054	BUSHING
1	1	D2067	CONNECTOR
	1	D2066	ARM
1		D2065	ARM
1		D2057	PLUG
1	1	D2056	BELLCRANK ASSEMBLY
1	1	D2055	CLAMP
1	1	D2053	BRACKET
2	2	D2052	BRACKET
1	2	D2011-101	MIRROR ASSEMBLY
4	4	AN3-4A	BOLT
4	4	AN526-1032R9	SCREW
1	2	AN960JD416L	* WASHER
4	4	AN960JD10	WASHER
6	6	AN960JD10L	WASHER
3	3	MS21042-3	NUT (or MS21042L3)
2	2	MS21919DG5	CLAMP
2	2	MS27039-1-18	SCREW
1	1	MS35489-9	GROMMET

* INCLUDED AS PART OF D2011-101 MIRROR ASSEMBLY

• COPYRIGHT © 2001 BY DART AEROSPACE LTD. •

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Revision: C

Date: 01.10.03

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D206-558 &
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D206-558

REF TCCA STC SH92-17

FAA STC SH1031NE

FOR D206-558-041/-043 AT CHG 006 OR LATER, THE D3778-1 BRACKET HAS BEEN ADDED TO THE KITS TO ALLOW FOR INSTALLATION OF THE VENT CONTROL. THE D2053 BRACKET CAN BE REPLACED BY THE D3778-1 BRACKET AS DESCRIBED BELOW:

- 1) IF INSTALLED, REMOVE THE EXISTING VENT CONTROL BRACKET AND REMOVE THE VENT CONTROL.
- 2) PICKING UP ON EXISTING ANCHOR NUTS, INSTALL THE D3778-1 BRACKET USING AN526-1032R9 SCREWS.
- 3) INSTALL THE VENT CONTROL IN THE UPPER SLOT. INSTALL THE D2071 CABLE IN THE LOWER SLOT.

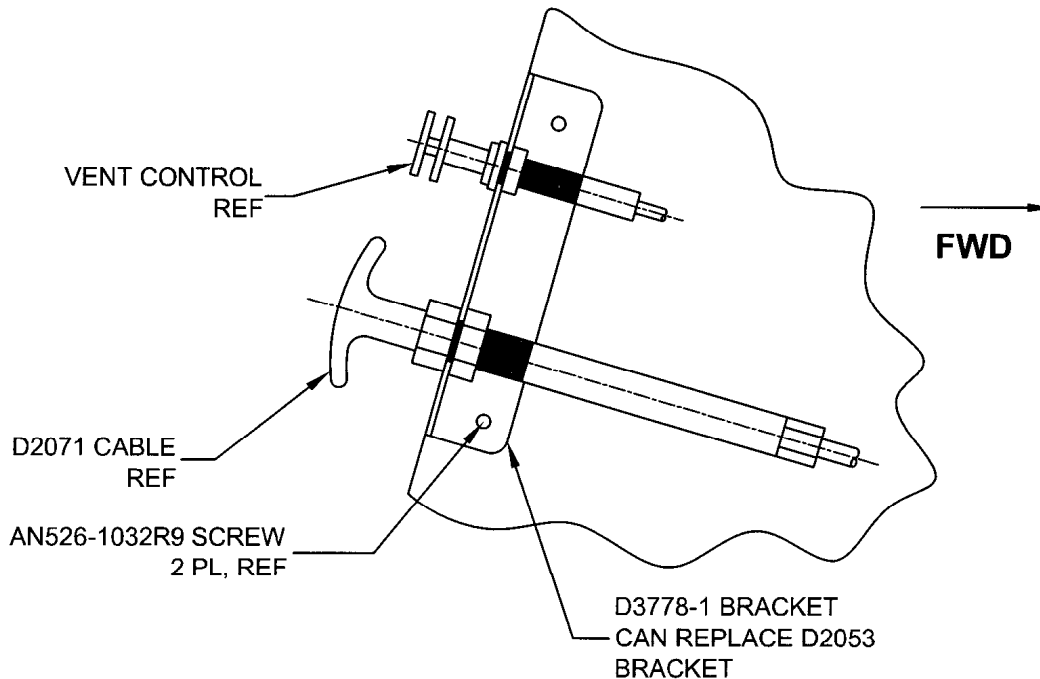


FIGURE 1 - BRACKET SUBSTITUTION

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: *[Signature]*
D. SHEPHERD (DE # 02)

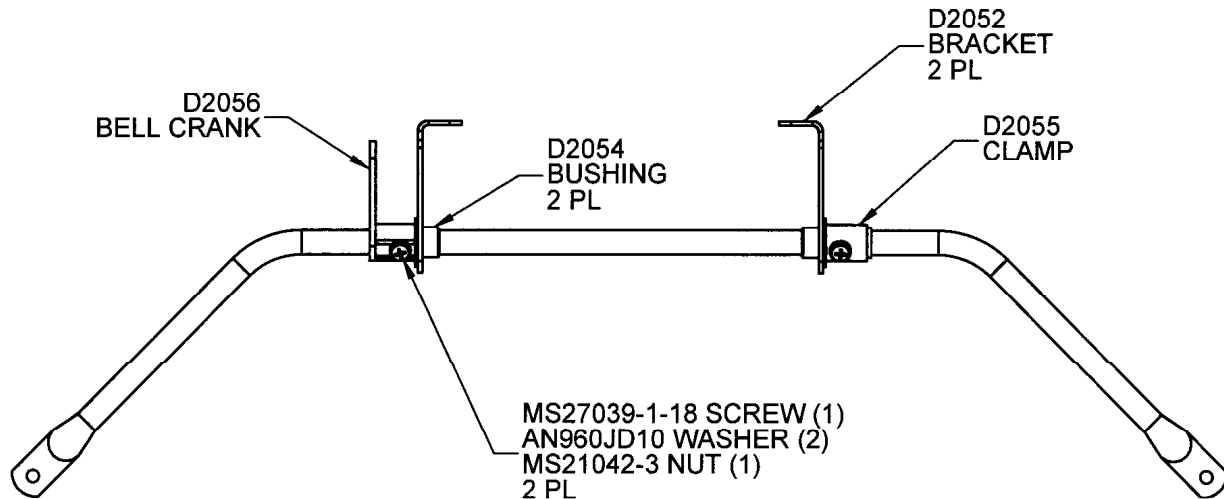
DATE: 08.04.28
CERT. NO.: SH92-17
ISSUE NO.: 7

A	NEW ISSUE	PH	08.04.28
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>PH</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>PH</i>		
CHECKED	<i>CP</i>	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9412	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	BRACKET SUBSTITUTION	NTS
DATE	08.04.28	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D206-558 REV. C OR EARLIER AND
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D206-558 REV. 0
REF: CANADIAN STC: SH92-17
REF: FAA STC: SH1031NE

THE PURPOSE OF THIS SERVICE INSTRUCTION IS TO CLARIFY THE PARTS THAT ARE INCLUDED
WITH THE D2066 ARM. IF ANY OF THE COMPONENTS BELOW NEED TO BE REPLACED,
A NEW D2066 ARM IS REQUIRED.



D2066 ARM

RELEASED
08-07-23

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: [Signature]
D. SHEPHERD (DE # 02)

DATE: 08.07.07
CERT. NO.: SH92-17
ISSUE NO.: 7

A	NEW ISSUE	PH	08.07.07
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	PH		
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9416	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		CARGO MIRROR ARM	NTS
DATE	08.07.07	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D206-558 REV. C OR EARLIER
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D206-558 REV. 0

REF: CANADIAN STC SH92-17

REF: FAA STC SH1031NE

IT HAS COME TO DART'S ATTENTION THAT A LONGER CABLE IS REQUIRED WHEN INSTALLING THE DART D206-558-041/-043 SINGLE/DUAL CARGO MIRROR ASSEMBLY ON A BHT 407 AIRCRAFT. THIS IS DUE TO THE MIRROR INSTALLATION BEING MOVED FORWARD TO PICK UP ON EXISTING SET OF SCREW HOLES ON THE BELLY OF THE AIRCRAFT AS SHOWN IN FIGURE 3 OF INSTALLATION INSTRUCTIONS D206-558 REV. C OR EARLIER.

IT IS ACCEPTABLE TO REPLACE THE D2071 CABLE ASSEMBLY WITH D2071-3 CABLE ASSEMBLY. FURTHERMORE, IT MAY BE NECESSARY TO REPLACE THE MS35489-9 GROMMET WITH MS35489-67 GROMMET TO ACCOMODATE A POSSIBLE VARIANCE IN MATERIAL THICKNESS ON A BHT 407 AIRCRAFT AS OPPOSED TO A BHT 206 AIRCRAFT.

CUSTOMERS INSTALLING EXISTING D206-558-041/-043 KIT ON A BHT 407 AIRCRAFT MUST PROCURE THE FOLLOWING KIT FROM DART:

DSI 9436-011 PARTS LIST:

Qty -011	Part Number	Description
X	DSI 9436-011	CABLE CHANGE KIT
1	D2071-3	CABLE ASSEMBLY (REPLACES D2071)
1	MS35489-67	GROMMET (REPLACES MS35489-9)

INSTALL THE D2071-3 CABLE ASSEMBLY AND MS35489-67 GROMMET PER INSTALLATION INSTRUCTIONS D206-558 REV. C OR EARLIER AND MAINTAIN PER ICA-D206-558 REV. 0.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 08.12.04

CERT. NO.: SH92-17

ISSUE NO.: 7

A	NEW ISSUE	MB	08.12.04
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9436	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		CABLE CHANGE	NTS
DATE	08.12.04	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

FROM THIS POINT FORWARD, CUSTOMERS SHOULD ORDER D407-558-045/-047 IN LIEU OF D206-558-041/-043 WHEN PROCURING SINGLE/DUAL MIRRORS FOR BHT 407 MODELS. AMEND SECTIONS 4.0 AND 5.0 OF INSTALLATION INSTRUCTIONS D206-558 REV. C OR EARLIER AND 25.3 AND 25.4 OF ICA-D206-558 REV. 0 AS FOLLOWS:

4.0 WEIGHT AND BALANCE (D206-558 REV. C OR EARLIER)

25.3 WEIGHT AND BALANCE (ICA-D206-558 REV. 0)

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D206-558-041 Bell 206A/B/L/L1/L3/L4	2.4 lb 1.09 Kg	+5.0 in +0.13 m	+12.0 in-lb +0.14 m-Kg	+14.8 in +0.38 m	+35.5 in-lb +0.41 m-Kg
D206-558-043 Bell 206A/B/L/L1/L3/L4	3.0 lb 1.36 Kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-Kg	+14.8 in +0.38 m	+44.4 in-lb +0.52 m-Kg
D407-558-045 Bell 407	2.4 lb 1.09 Kg	+5.0 in +0.13 m	+12.0 in-lb +0.14 m-Kg	+14.8 in +0.38 m	+35.5 in-lb +0.41 m-Kg
D407-558-047 Bell 407	3.0 lb 1.36 Kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-Kg	+14.8 in +0.38 m	+44.4 in-lb +0.52 m-Kg

5.0 PARTS LIST (D206-558 REV. C OR EARLIER)

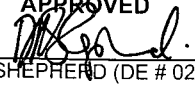
25.4 PARTS LIST (ICA-D206-558 REV. 0)

Qty -041	Qty -043	Qty -045	Qty -047	Part Number	Description
X				D206-558-041	SINGLE CARGO MIRROR ASSEMBLY
	X			D206-558-043	DUAL CARGO MIRROR ASSEMBLY
		X		D407-558-045	SINGLE CARGO MIRROR ASSEMBLY
			X	D407-558-047	DUAL CARGO MIRROR ASSEMBLY
1	2	1	2	D2011-101	MIRROR ASSEMBLY
2	2	2	2	D2052	BRACKET
1	1	1	1	D2053	BRACKET
2	2	2	2	D2054	BUSHING
1	1	1	1	D2055	CLAMP
1	1	1	1	D2056	BELLCRANK ASSEMBLY
1		1		D2057	PLUG
1		1		D2065	ARM
	1		1	D2066	ARM
1	1	1	1	D2067	CONNECTOR
1	1			D2071	CABLE ASSEMBLY
		1	1	D2071-3	CABLE ASSEMBLY
1	2	1	2	D3014-1	* LOCKNUT
1	1	1	1	D3778-1	BRACKET
4	4	4	4	AN3-4A	BOLT
4	4	4	4	AN526-1032R9	SCREW
1	2	1	2	AN960JD416L	* WASHER
4	4	4	4	AN960JD10	WASHER
6	6	6	6	AN960JD10L	WASHER
3	3	3	3	MS21042-3	NUT (or MS21042L3)
2	2	2	2	MS21919DG5	CLAMP
2	2	2	2	MS27039-1-18	SCREW
1	1			MS35489-9	GROMMET
		1	1	MS35489-67	GROMMET

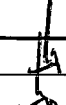
* INCLUDED AS PART OF D2011-101 MIRROR ASSEMBLY

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 08.12.04
CERT. NO.: SH92-17
ISSUE NO.: 7

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9436	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		CABLE CHANGE	NTS
DATE	08.12.04	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	