



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.

同等追加型式設計変更届出書

東京航空局先任航空機検査官

利 根 義 則 殿

平成 19 年 12 月 25 日



申請者 1270 Aberdeen Street, Hawkesbury, ON, K6A1K7,
Canada
Dart Aerospace ltd

申請代理人 東京都港区麻布台 1-4-3 エグゼクティブタワー
エアロファイン株式会社
代表取締役 木下 幹巳

下記の航空機について、同等追加型式設計承認の変更をしたいので、関係書類を添えて届出します。

航空機	種 類	回転翼航空機		
	型 式	ベル式 206A/B/L/L-1/L-3/L-4 型及びベル式 407 型		
	型式証明書番号	—	製 造 番 号	—
	耐 空 類 別	回転翼航空機 普通 N		
	適用される航空法 第 10 条第 4 項の基準	ベル式 206A/B/L/L-1/L-3 型 ベル式 206L-4/407 型	第 1 号及び 3 号 第 1 号、2 号及び 3 号	
	設計者氏名又は名称	Bell Helicopter Textron, A Subsidiary of Textron Inc. Ft. Worth, Texas, U.S.A		
	設 計 者 住 所	Bell Helicopter Textron CANADA, Division of Textron Canada Ltd. Mirabel, Quebec, CANADA		
	製造者氏名又は名称	Bell Helicopter Textron, A Subsidiary of Textron Inc. Ft. Worth, Texas, U.S.A		
製 造 者 住 所	Bell Helicopter Textron CANADA, Division of Textron Canada Ltd. Mirabel, Quebec, CANADA			
追加型式設計を行う設計者氏名又は名称	Dart Aerospace ltd			
追加型式設計を行う設計者住所	1270 Aberdeen Street, Hawkesbury, ON, K6A1K7, Canada			
追加型式設計を行う製造者氏名又は名称	Dart Aerospace ltd.			
追加型式設計を行う製造者住所	1270 Aberdeen Street, Hawkesbury, ON, K6A1K7, Canada			
変 更 事 由	同等追加型式設計承認 第 STC-90-TYO 号にて承認を受けた Bearpaw (D206-559) 設計国のカナダ STC No.SH92-17 が issue No. 6 から No.7 (Oct/26/2001)に改訂されたことによる。			
追加型式設計変更の内容	追加飛行規程 ベア・パウ装置 D206-559 型の適用が削除、また整備手順書が MMS から ICA-D206-559 rev 0 に変更され損傷限界が明確に設定された。 カナダ航空局の承認された技術書類の改訂で、重量、バランス、構造強度、信頼性、運航特性、その他の耐空性などの要件については、変更ない。			



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 thereof 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-----



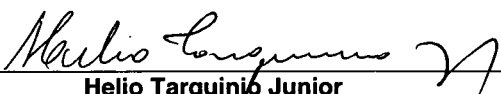
AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL

**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.



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

Tel: 1 613 632 5200

Fax: 1 613 632 5246

e-mail: heli@dartaero.com

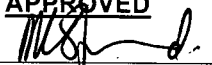
<http://www.dartaero.com>

MASTER DOCUMENT LIST

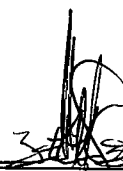
MDL-D206-582

Utility Equipment Installation

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

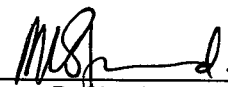
CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION BRANCH DAO # 01-O-01	
APPROVED	
BY:	 D. SHEPHERD (DE # 02)
DATE:	MAR.26.2012
CERT. NO.:	SH92-17
ISSUE NO.:	7

Prepared By:



Marc Bellavance
Mechanical Designer

Released By:



D. Shepherd, P. Eng
DE #02

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Revision: **M**
Date: 12.03.26

DESCRIPTION

Aircraft Type:	Model(s):	Type Certificate(s):
Helicopter	Bell 206A/B, 206L/L1/L3/L4, 407	H-92
Modification Description:		
Utility Equipment Installation (Cargo Mirror, Bearpaw, Preflight Kits)		

LOG OF REVISIONS

Revision	Date	Description of Change
M	12.03.26	Update to current format. Revise D2071 to Rev. G, D3778 to Rev. B, D4105 to Rev. B, add DSI 9604 Rev. A

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Revision: **M**
Date: 12.03.26

DATA

ITEM	REVISION STATUS	DRAWING #	REV	DESCRIPTION	DATE	COMPLIANCE AUTHORITY
MAINTENANCE AND OPERATING DATA						
1	N/C	D206-558	C	CARGO MIRROR INSTL'S, SINGLE & DUAL	01.10.03	N/C
2	N/C	D206-559	L	206/407 BEARPAW INSTALLATION	11.04.08	N/C
3	N/C	D206-581	C	INSTALLATION INSTRUCTIONS	10.07.10	N/C
4	N/C	ICA-D206-558	0	INSTRUCTIONS FOR CONTINUED AIRWORTHINESS	01.09.20	N/C
5	N/C	ICA-D206-559	3	INSTRUCTIONS FOR CONTINUED AIRWORTHINESS	11.04.08	N/C
6	N/C	ICA-D206-581	1	INSTRUCTIONS FOR CONTINUED AIRWORTHINESS	10.08.11	N/C
7	N/C	FMS-D206-582	C	FLIGHT MANNUAL SUPPLEMENT	01.10.03	N/C
8	N/C	DSI 9237	A	ALTERNATE BEARPAW INSTALLATION	02.07.10	N/C
9	N/C	DSI 9430	A	WEARPLATE KIT	09.01.15	N/C
10	N/C	DSI 9431	A	WEARPLATE KIT	09.01.15	N/C
11	N/C	DSI 9527	A	BOLT CHANGE	10.06.30	N/C
12	N/C	DSI 9412	A	BRACKET SUBSTITUTION	08.04.28	N/C
13	N/C	DSI 9416	A	CARGO MIRROR ARM	08.07.07	N/C
14	N/C	DSI 9436	A	CABLE CHANGE	08.12.04	N/C
15	N	DSI 9604	A	MIRROR UPGRADE	12.03.26	Dart DE#02
16	N/C	SB11-3	A	SERVICE BULLETIN	11.09.06	N/C
MANUFACTURING DATA						
100	N/C	D2011	G	MIRROR ASSEMBLY	08.10.06	N/C
101	N/C	D2052	D	BRACKET	08.04.28	N/C
102	N/C	D2053	C	BRACKET	08.04.25	N/C
103	N/C	D2054	B	BUSHING	01.12.20	N/C
104	N/C	D2055	C1	CLAMP	01.06.05	N/C
105	N/C	D2056	B2	BELL CRANK	01.12.20	N/C
106	N/C	D2057	C	PLUG	08.06.10	N/C
107	N/C	D2058	-	STEP DETAILS	92.01.20	N/C
108	N/C	D2059	-	STEP DETAILS	92.01.21	N/C
109	N/C	D2065	C	ARM	08.06.13	N/C
110	N/C	D2066	C	ARM	08.06.12	N/C
111	N/C	D2067	B	CONNECTOR	11.01.17	N/C
112	R	D2071	G	CABLE	12.03.26	Dart DE#02
113	N/C	D2127/D2128	-	PAD, RUBBER	92.03.17	N/C
114	N/C	D2182	C	RUBBER CUSHION	97.05.14	N/C
115	N/C	D2274	F	RADIUS BLOCK	98.08.11	N/C
116	N/C	D2432	F3	BEARPAW	02.01.23	N/C
117	N/C	D2435	E1	BEARPAW	02.12.17	N/C
118	N/C	D2438	C	CLAMP	98.05.12	N/C
119	N/C	D2529	E	WASHER	07.04.17	N/C
120	N/C	D2639	A	RUBBER SPACER	98.05.26	N/C
121	N/C	D2671	B1	BEARPAW	02.12.17	N/C
122	N/C	D2672	B1	BEARPAW	02.10.22	N/C

REVISION STATUS	COMPLIANCE AUTHORITY
R = Revised N/C = No Change N = New	Dart DE #02 = David Shepherd TCCA = Transport Canada N/C = No Change

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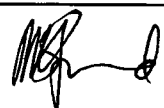
Revision: **M**
Date: 12.03.26

ITEM	REVISION STATUS	DRAWING #	REV	DESCRIPTION	DATE	COMPLIANCE AUTHORITY
123	N/C	D2689	B	MATERIAL SPECIFICATION	99.04.20	N/C
124	N/C	D2727	A1	PUNCH DT8012 SPEC CONTROL	01.12.20	N/C
125	N/C	D2732	B1	RUBBER EXTRUSION	02.05.23	N/C
126	N/C	D2829	B	THREADED STUD	08.10.03	N/C
127	N/C	D3014	A	LOCKNUT	01.04.23	N/C
128	N/C	D3778	B	BRACKET	12.03.15	Dart DE#02
129	N/C	D3859	A	WEARPLATE	09.01.26	N/C
130	N/C	D3860	A	WEARPLATE	09.01.21	N/C
131	N/C	D4010	D	BEARPAW	10.05.14	N/C
132	N/C	D4011	B	CLAMP	09.11.11	N/C
133	N/C	D4012	B	CUSHION	10.12.07	N/C
134	N/C	D4013	C	WEARPLATE ASSEMBLY	09.11.11	N/C
135	N/C	D4015	B	WEARBAR WELDMENT	09.11.13	N/C
136	N/C	D4101	B	PRE-FLIGHT STEP ASSEMBLY	10.08.05	N/C
137	N/C	D4102	B	SHIM	10.08.06	N/C
138	N/C	D4103	A	STEP/HANDLE	10.05.17	N/C
139	N/C	D4104	A	DOUBLER ASSEMBLY	10.05.06	N/C
140	R	D4105	B	STRAP	10.09.13	Dart DE#02
141	N/C	D4355	B	206L/407 BEARPAW	11.04.26	N/C
142	N/C	D4360	B	206L/407 WEARPLATE ASSEMBLY	11.05.13	N/C
143	N/C	D4379	A	WEARPLATE CUP	11.04.21	N/C
144	N/C	DEO 9143	A	BEARPAW COUNTERBORE	99.03.03	N/C

CERTIFICATION DATA

200	N/C	QR-D206-558	B	QUALIFICATION REPORT	97.11.27	N/C
201	N/C	206-559.ACP	A	AIRWORTHINESS COMPLIANCE PROGRAM	96.02.15	N/C
202	N/C	ACR-D407-559-1	B	AIRWORTHINESS COMPLIANCE REPORT	11.05.13	N/C
203	N/C	FTP-D407-559-1	B	FLIGHT TEST PLAN	09.11.02	N/C
204	N/C	FTR-D407-559-1	A	FLIGHT TEST REPORT	09.11.16	N/C
205	N/C	SR206-559	A	STRESS REPORT B206 BEARPAW	96.02.07	N/C
206	N/C	TP-D407-559-1	A	TEST PLAN - STRUCTURAL LOAD TEST	09.10.05	N/C
207	N/C	TR-D407-559-1	A	TEST REPORT - STRUCTURAL TEST	09.11.09	N/C
208	N/C	TR-D407-559-2	A	TEST REPORT - STRUCTURAL TEST	09.11.09	N/C
209	N/C	ACR-D206-581-1	A	AIRWORTHINESS COMPLIANCE REPORT	10.08.11	N/C
210	N/C	DOC-D206-581-1	A	DECLARATION OF CONFORMITY	10.08.11	N/C
211	N/C	QR-D206-581	B	QUALIFICATION REPORT	97.11.27	N/C
212	N/C	SR-D206-581-1	A	STRESS REPORT	10.06.18	N/C
213	N/C	TP-D206-581-1	A	TEST PLAN STRUCTURAL TESTING	10.06.18	N/C
214	N/C	TR-D206-581-1	A	TEST REPORT STRUCTURAL TESTING	10.08.03	N/C

STATEMENT(S) OF COMPLIANCE

Compliance Authority	Statement of Compliance	Signature
Dart DE #02	By the authority vested in me by Transport Canada, I hereby certify that the data listed above has been examined in accordance with established procedures and found to comply to the best of my knowledge and belief with the applicable requirements per ACR-D407-559-1 Rev. B, ACR-D206-581-1 Rev. A, and QR-D206-558 Rev. B.	

REVISION STATUS	COMPLIANCE AUTHORITY
R = Revised N/C = No Change N = New	Dart DE #02 = David Shepherd TCCA = Transport Canada N/C = No Change

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Revision: **M**
Date: 12.03.26



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CANADA

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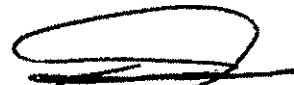
INSTALLATION INSTRUCTIONS

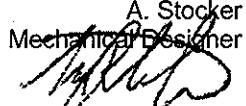
D206-559

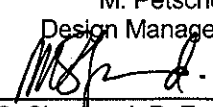
Bearpaw Installation

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

CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION BRANCH DAO # 01-O-01	
APPROVED	
BY: 	
D. SHEPHERD (DE # 02)	
DATE: May 13, 2011	
CERT. NO.: SH92-17	
ISSUE NO.: 7	

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Revision: **L**
Date: 11.04.08

Revision Record

Revision	Issue Date	Description
A	90.06.01	New Issue
B	96.01.30	Re-design of paw
C	96.02.19	Add float compatibility and 407
D	96.06.06	Clamp re-design and stainless steel paw removal
E	97.02.28	Adjust 407 compatibility
F	98.05.19	Change clamping system and added narrow bearpaws
G	99.03.03	Changed nut and bolt
H	07.11.16	Changed -011/-021 bearpaw configurations on float skidtube and incorporated DSI 9237
I	09.10.22	Addition of -113 Kit; removed -015/-025 kits (no longer manufactured and respectively replaced with -013/-023)
J	09.11.02	Revised design to ensure compatibility with OEM saddles; Incorporate DSI 9430 and DSI 9431 Rev. A
K	09.11.16	Optimized -113 Kit; updated Figure 5 accordingly
L	11.04.08	DSI 9527 incorporated. Manufacturing process for Bearpaw in -113 Kit changed from thermoforming to machining. Part numbers for -113 Kit updated accordingly.

1.0 INTRODUCTION

The Dart D206-559-011/-013/-021/-023 and D407-559-113 Bearpaw kits provides improved stability on soft terrain for Bell 206 A/B/L/L1/L3/L4 & 407 series rotorcraft.

The Dart D206-559-011/-013/-021/-023 and D407-559-113 Bearpaws mount to the aft end of the skidtubes. One Bearpaw is installed on each skidtube and is attached with clamps and standard hardware. Figure 1 shows the Bearpaw installed on a standard skidtube.

The D206-559-031 Wearplate Kit is available for the D206-559-011/-021 Bearpaw Installation to provide anti-slip and wear protection for the bearpaws.

The D206-559-033 Wearplate Kit is available for the D206-559-013/-023 Bearpaw Installation to provide anti-slip and wear protection for the bearpaws.

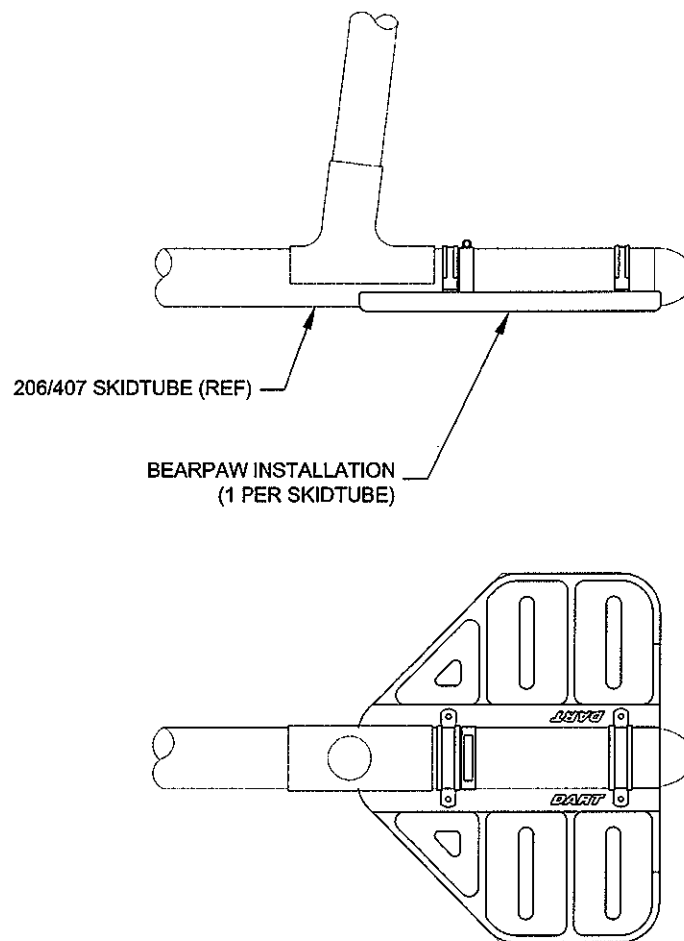


FIGURE 1: BEARPAW INSTALLATION (TYPICAL)

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.

WORKMANSHIP

Unless otherwise stated, all workmanship should be to the standard set by the Aircraft Maintenance Manual.

CONTINUING AIRWORTHINESS

This installation should be maintained in accordance with the Instructions for Continued Airworthiness ICA-D206-559. Refer to Aircraft Maintenance Manual for standard shop practices not referred to in these Installation Instructions.

3.0 INSTALLATION PROCEDURE

3.1 For D206-559-011/-013/-021/-023 Bearpaw Kits only

- 3.1.1 Jack up the aircraft. If installed, remove any existing bearpaw installation. Skid wearplates and/or wear pads may be removed in the area of the bearpaw. Seal holes using Sikaflex-241/-291 or Proseal 890 or MIL-S-8802 Class 2B sealant. Ensure skid is serviceable and free from wear and/or damage.
- 3.1.2 If installing the bearpaw over the wearplates/wear pads, the bearpaw may be relieved to clear wearplates/wear pads mounting screws provided the relief leaves 0.375" (9.53mm) minimum thickness.
- 3.1.3 For D206-559-011/-021 bearpaws, position D2435/D2671 in accordance with Configuration 1 or Configuration 2 (Figure 2).
NOTE: Installation of D2435/D2671 bearpaws per Configuration 1 **IS** compatible with ground handling wheel devices while installation of D2435/D2671 bearpaws per Configuration 2 **IS NOT** compatible with ground handling wheel devices.
- 3.1.4 For D206-559-013/-023 bearpaws, position D2432F/D2672F in accordance with Configuration 3, Configuration 4 or Configuration 5 (Figure 3).
- 3.1.5 Attach the D2438 clamps with D2182B050 rubber cushions using the hardware shown in Figure 4. Note that on the D206-559-011/-021 installations, QS200M44S clamps must be installed behind the fwd D2438 clamps to ensure that the bearpaw doesn't slip.
CAUTION: The torque on the nuts should be limited to 20 in-lb.
- 3.1.6 For D206-559-013/-023 bearpaws, install D2732-050 rubber cushion instead of D2182B050 rubber cushions under the clamps to improve fit as required, such as for tapered skid tubes.
- 3.1.7 To accommodate various sizes of skid tubes, the bearpaws should be installed with either the AN4-17A bolts or the AN4-20A bolts to ensure that 1.5-4 threads are in safety on the nuts. Extra AN960JD416 washers may also be installed under the nuts. Although not generally necessary, it is also acceptable to use longer or shorter AN4 bolts, if required.
- 3.1.8 Lower the aircraft.

3.2 For D407-559-113 Bearpaw Kit only

- 3.2.1 Jack up the aircraft. If installed, remove any existing bearpaw installation. Skid wearplates and/or wear pads may be removed in the area of the bearpaw. Seal holes using Sikaflex-241/-291 or Proseal 890 or MIL-S-8802 Class 2B sealant. Ensure skid is serviceable and free from wear and/or damage.

3.2.2 If installing the bearpaw over the wearplates/wear pads, the bearpaw may be relieved to clear wearplates/wear pads mounting screws provided the relief leaves 0.125" (3.18 mm) minimum thickness.

3.2.2 Refer to Figures 5A and 5B. Position the bearpaw on the aft end of each skidtube so that the bearpaw clamps are located on either side of the aft saddle as applicable.

3.2.3 Install the D407-559-113 Kit to the skidtube using the D4011-1/-5 Clamps, D4012-1 Cushions and associated hardware as shown in Figures 5A and 5B.

CAUTION: The torque on the nuts should be limited to 20 in-lb.

3.2.4 To accommodate various sizes of skidtubes, the bearpaws should be installed with the D4011-1/-5 Clamp combination using AN4C20A, AN4C21A or the AN4C11A bolts as shown in Figures 5A & 5B to ensure that 1.5-4 threads are in safety on the nuts. Although not generally necessary, it is also acceptable to use longer or shorter AN4 bolts, if required. AN960JD416 washers may also be installed under the nuts.

3.2.5 Lower the aircraft.

3.3 Installation of D206-559-031 Wearplate Kit

The D206-559-031 Wearplate kit can be installed on D206-559-011/-021 Bearpaw installations. The D3860-041 Wearplates should be installed on the D2435 or D2671 Bearpaws as shown in Figure 6. The Bearpaws should otherwise be installed on the skidtube per Section 3.1 of these instructions.

Customers with old style bearpaws will need to rework the counterbore on the bottom of the bearpaws per Figure 6.

3.4 Installation of D206-559-033 Wearplate Kit

The D206-559-033 Wearplate kit can be installed on D206-559-013/-023 Bearpaw installations. The D3859-041 Wearplates should be installed on the D2432F or D2672F Bearpaws as shown in Figure 6. The Bearpaws should otherwise be installed on the skidtube per Section 3.1 of these instructions.

Customers with old style bearpaws will need to rework the counterbore on the bottom of the bearpaws per Figure 6.

4.0 WEIGHT AND BALANCE

Table 1: D206-559-011/-013 STANDARD BEARPAWS

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
CONFIGURATION 1	8.5 lb	0.0 in	0.0 in-lb	135 in	1148 in-lb
-011 A/B LOW	3.86 kg	0.0 m	0.0 m-kg	3.43 m	13.24 m-kg
CONFIGURATION 1	8.5 lb	0.0 in	0.0 in-lb	134 in	1139 in-lb
-011 A/B HIGH/FLOAT	3.86 kg	0.0 m	0.0 m-kg	3.40 m	13.12 m-kg
CONFIGURATION 2	8.5 lb	0.0 in	0.0 in-lb	126 in	1071 in-lb
-011 A/B LOW	3.86 kg	0.0 m	0.0 m-kg	3.20 m	12.35 m-kg
CONFIGURATION 2	8.5 lb	0.0 in	0.0 in-lb	125 in	1063 in-lb
-011 A/B HIGH/FLOAT	3.86 kg	0.0 m	0.0 m-kg	3.18 m	12.27 m-kg
CONFIGURATION 3,4	13 lb	0.0 in	0.0 in-lb	157 in	2041 in-lb
-013 'L' HIGH	5.91 kg	0.0 m	0.0 m-kg	3.99 m	23.58 m-kg
CONFIGURATION 5	13 lb	0.0 in	0.0 in-lb	149 in	1937 in-lb
-013 'L'/407 LOW	5.91 kg	0.0 m	0.0 m-kg	3.78 m	22.34 m-kg
CONFIGURATION 5	13 lb	0.0 in	0.0 in-lb	148 in	1924 in-lb
-013 'L'/407 HIGH	5.91 kg	0.0 m	0.0 m-kg	3.76 m	22.22 m-kg

Table 2: D206-559-021/-023 NARROW BEARPAWS

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
CONFIGURATION 1	7.5 lb	0.0 in	0.0 in-lb	135 in	1013 in-lb
-021 A/B LOW	3.41 kg	0.0 m	0.0 m-kg	3.43 m	11.69 m-kg
CONFIGURATION 1	7.5 lb	0.0 in	0.0 in-lb	134 in	1005 in-lb
-021 A/B HIGH/FLOAT	3.41 kg	0.0 m	0.0 m-kg	3.40 m	11.59 m-kg
CONFIGURATION 2	7.5 lb	0.0 in	0.0 in-lb	126 in	945 in-lb
-021 A/B LOW	3.41 kg	0.0 m	0.0 m-kg	3.20 m	10.91 m-kg
CONFIGURATION 2	7.5 lb	0.0 in	0.0 in-lb	125 in	938 in-lb
-021 A/B HIGH/FLOAT	3.41 kg	0.0 m	0.0 m-kg	3.18 m	10.84 m-kg
CONFIGURATION 3,4	11 lb	0.0 in	0.0 in-lb	157 in	1727 in-lb
-023 'L' HIGH	5.00 kg	0.0 m	0.0 m-kg	3.99 m	19.95 m-kg
CONFIGURATION 5	11 lb	0.0 in	0.0 in-lb	149 in	1639 in-lb
-023 'L'/407 LOW	5.00 kg	0.0 m	0.0 m-kg	3.78 m	18.90 m-kg
CONFIGURATION 5	11 lb	0.0 in	0.0 in-lb	148 in	1628 in-lb
-023 'L'/407 HIGH	5.00 kg	0.0 m	0.0 m-kg	3.76 m	18.80 m-kg

Table 3: D407-559-113 LARGE BEARPAW

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D407-559-113	19.4 lb	0.0 in	0.0 in-lb	162 in	3143 in-lb
ON 'L'/407 LOW	8.82 kg	0.0 m	0.0 m-kg	4.11 m	36.25 m-kg
D407-559-113	19.4 lb	0.0 in	0.0 in-lb	161 in	3123 in-lb
ON 'L'/407 HIGH	8.82 kg	0.0 m	0.0 m-kg	4.09 m	36.07 m-kg

Table 4: D206-559-031 WEARPLATE KIT

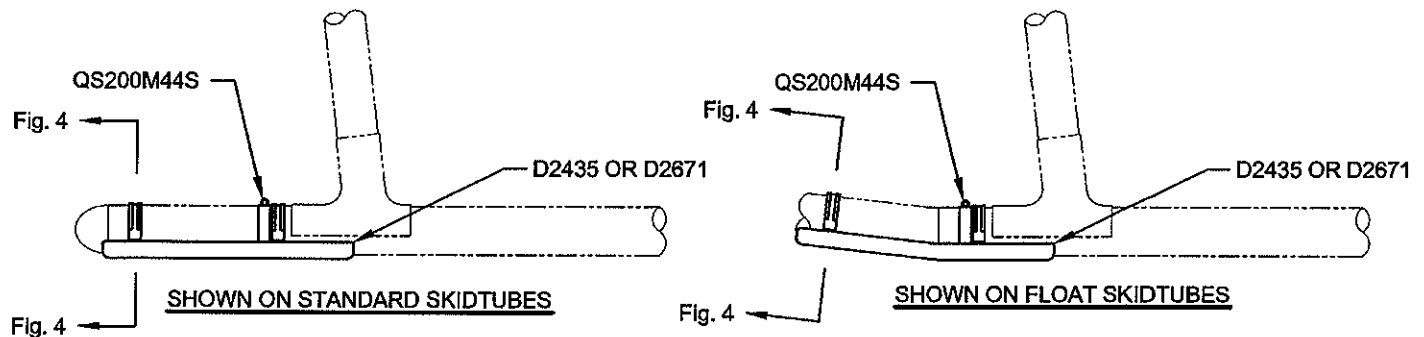
Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
CONFIGURATION 1	1.72 lb	0.0 in	0.0 in-lb	135 in	232.2 in-lb
-011/-021 A/B LOW	0.78 kg	0.0 m	0.0 m-kg	3.43 m	2.68 m-kg
CONFIGURATION 1	1.72 lb	0.0 in	0.0 in-lb	134 in	230.5 in-lb
-011/-021 A/B HIGH/FLOAT	0.78 kg	0.0 m	0.0 m-kg	3.40 m	2.65 m-kg
CONFIGURATION 2	1.72 lb	0.0 in	0.0 in-lb	126 in	216.7 in-lb
-011/-021 A/B LOW	0.78 kg	0.0 m	0.0 m-kg	3.20 m	2.50 m-kg
CONFIGURATION 2	1.72 lb	0.0 in	0.0 in-lb	125 in	215.0 in-lb
-011/-021 A/B HIGH/FLOAT	0.78 kg	0.0 m	0.0 m-kg	3.18 m	2.48 m-kg

Table 5: D206-559-033 WEARPLATE KIT

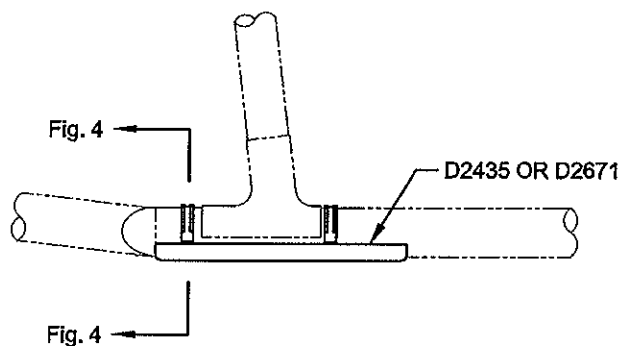
Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
CONFIGURATION 4	3.00 lb	0.0 in	0.0 in-lb	157 in	471.0 in-lb
-013/-023 L HIGH	1.36 kg	0.0 m	0.0 m-kg	3.99 m	5.43 m-kg
CONFIGURATION 5	3.00 lb	0.0 in	0.0 in-lb	149 in	447.0 in-lb
-013/-023 L/407 LOW	1.36 kg	0.0 m	0.0 m-kg	3.78 m	5.14 m-kg
CONFIGURATION 5	3.00 lb	0.0 in	0.0 in-lb	148 in	444.0 in-lb
-013/-023 L/407 HIGH	1.36 kg	0.0 m	0.0 m-kg	3.76 m	5.11 m-kg

5.0 PARTS LIST

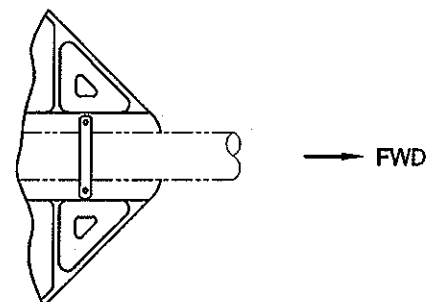
Qty -011	Qty -013	Qty -021	Qty -023	Qty -031	Qty -033	Qty -113	Part Number	Description
X							D206-559-011	Bearpaw Kit 206 A/B
	X						D206-559-013	Bearpaw Kit 206 L/L1/L3/L4/407
		X					D206-559-021	Narrow Bearpaw Kit 206 A/B
			X				D206-559-023	Narrow Bearpaw Kit 206 L/L1/L3/L4/407
				X			D206-559-031	Wearplate Kit
					X		D206-559-033	Wearplate Kit
						X	D407-559-113	Large Bearpaw Kit 206 L/L1/L3/L4/407
4	6	4	6				D2182B050	RUBBER CUSHION
8	12	8	12			16	D2274	RADIUS BLOCK
2							D2435	19" X 16" BEARPAW
	2						D2432F	19" X 24" BEARPAW
		2					D2671	13" X 16" BEARPAW
			2				D2672F	13" X 24" BEARPAW
4	6	4	6				D2438	CLAMP
8	12	8	12				D2529	WASHER
	6		6				D2732-050	RUBBER CUSHION
						8	D3456-1	WASHER
					2		D3859-041	WEARPLATE
				2			D3860-041	WEARPLATE
						8	D4011-1	CLAMP, SHORT
						8	D4011-5	CLAMP, SHORT (OEM)
						8	D4012-1	CUSHION
						2	D4355-1	BEARPAW
						2	D4360-041	WEARPLATE ASSEMBLY
						8	AN4C11A	BOLT
8	12	8	12	8	12		AN4-17A	BOLT
8	12	8	12	8	12		AN4-20A	BOLT
						16	AN4C20A	BOLT
						16	AN4C21A	BOLT
16	24	16	24	8	12	16	NAS1149D0463J	WASHER (OR AN960JD416)
8	12	8	12	8	12		MS21042L4	NUT (OR MS21042-4)
						24	MS21043-4	NUT
2		2					QS200M44S	CLAMP



D206-559-011/-021 INSTALLATION: CONFIGURATION 1
COMPATIBLE WITH GROUND HANDLING WHEEL DEVICES
(206 A/B MODELS)



D206-559-011/-021 INSTALLATION: CONFIGURATION 2
NOT COMPATIBLE WITH GROUND HANDLING WHEEL DEVICES
(206 A/B MODELS)



TYPICAL ORIENTATION

FIGURE 2: 206 A/B BEARPAW INSTALLATIONS
(CONFIGURATIONS 1 AND 2)

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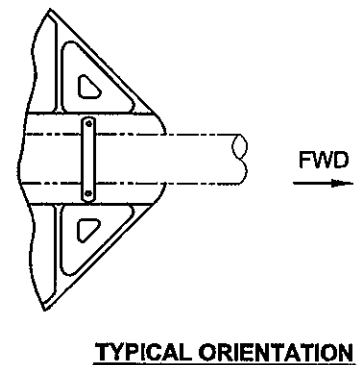
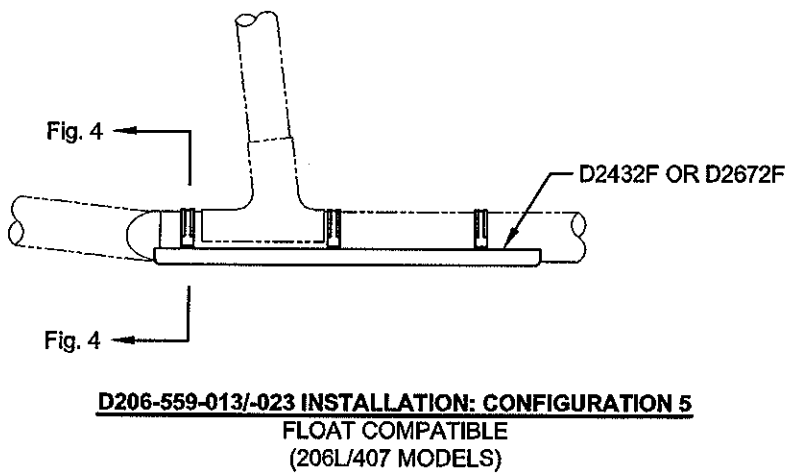
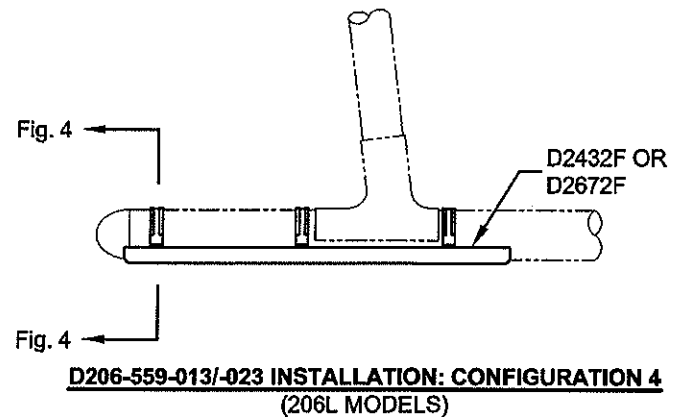
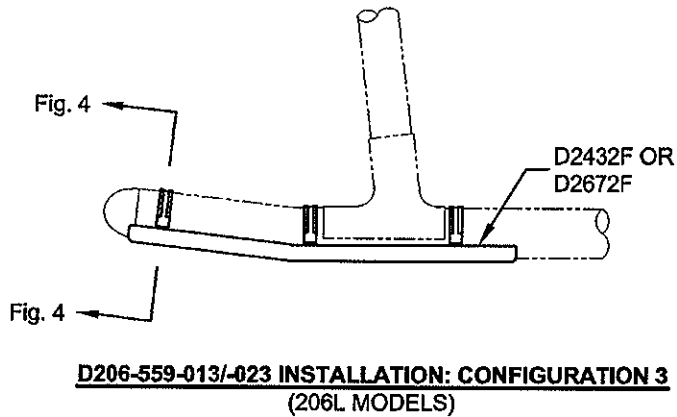
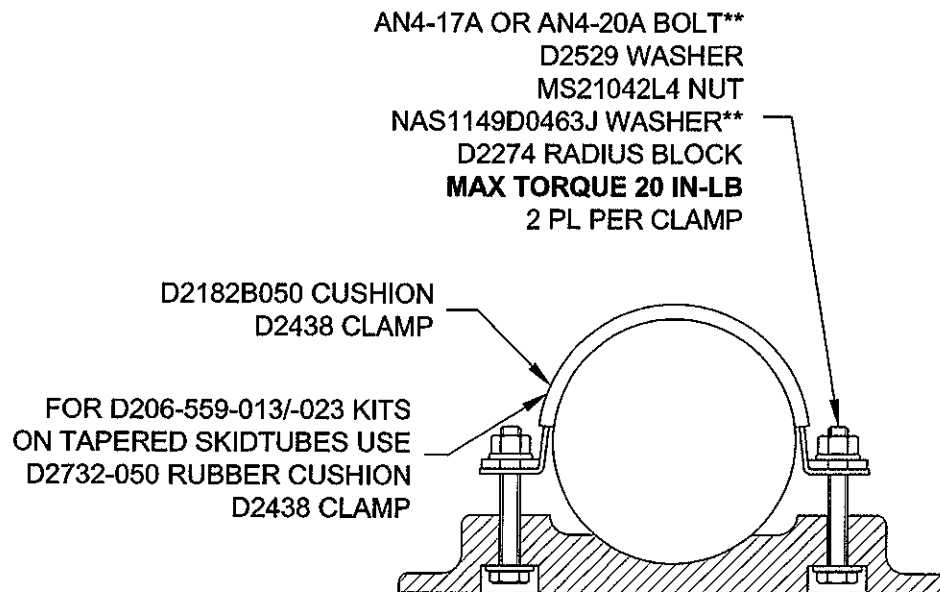
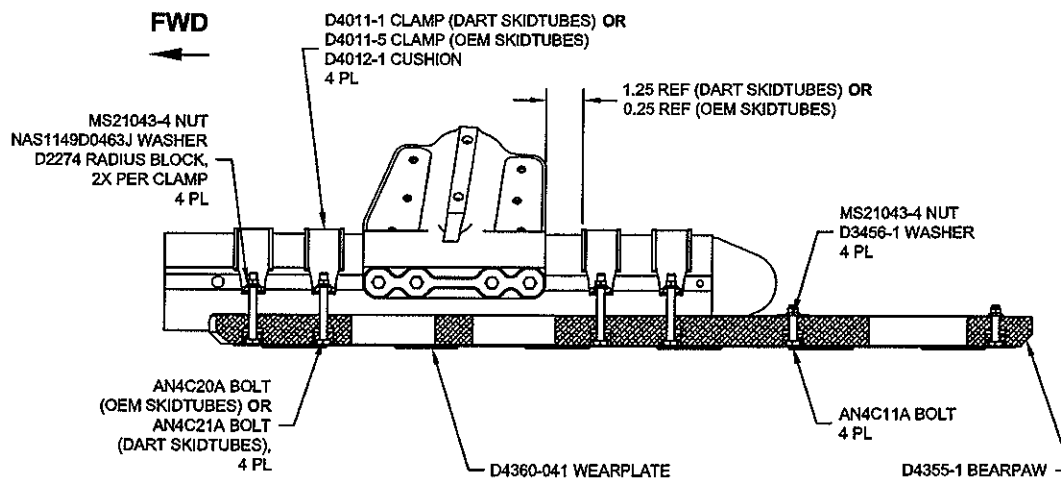
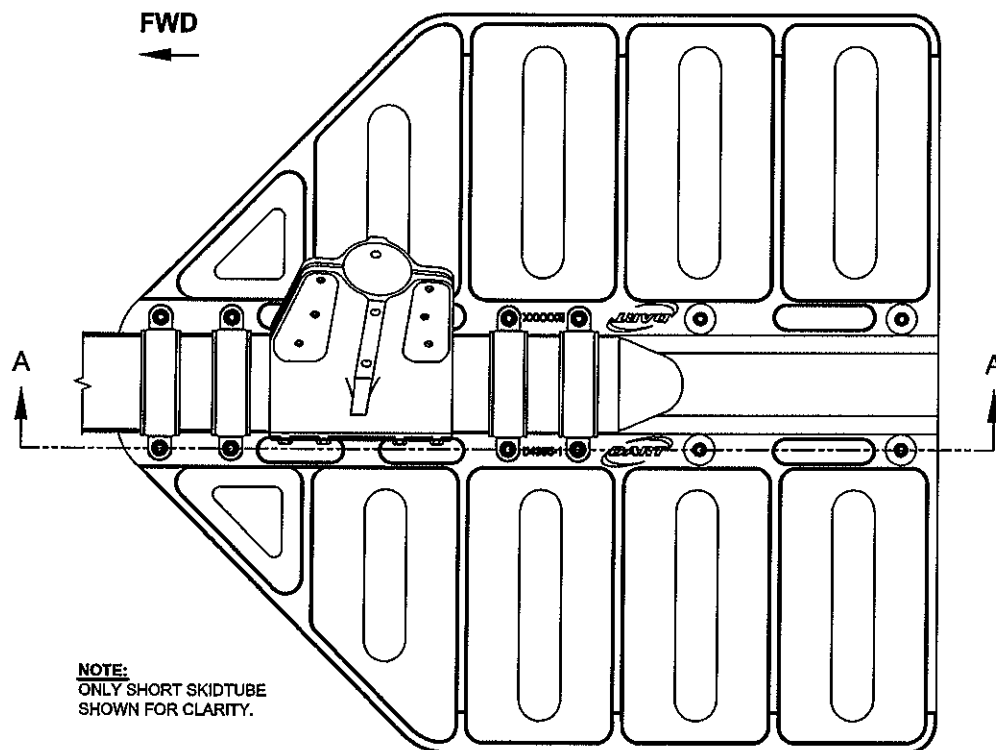


FIGURE 3: 206 L/L1/L3/L4 AND 407 BEARPAW INSTALLATIONS
(CONFIGURATION 3, 4, AND 5)



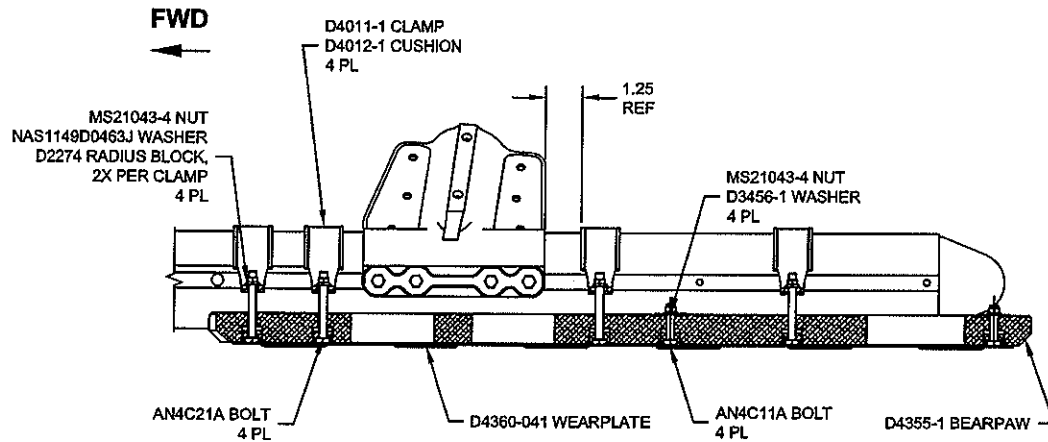
****USE AN4-17A BOLTS WITH AN NAS1149D0463J WASHER IF INSTALLING BEARPAW ON 3.0" DIA. TUBE OR SMALLER. USE AN4-20A BOLTS WITH TWO NAS1149D0463J WASHERS IF INSTALLING BEARPAW ON TUBE LARGER THAN 3.0" DIAMETER (DART TUBE). ADDITIONAL NAS1149D0463J WASHERS MAY BE ADDED UNDER NUT TO ENSURE 2-4 THREADS IN SAFETY**

FIGURE 4: TYPICAL CLAMPING DETAIL

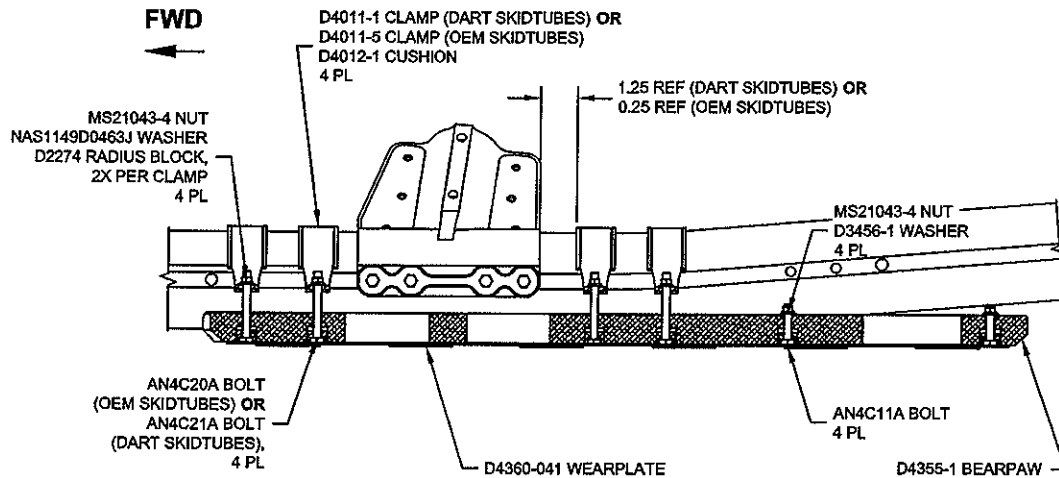


SECTION A-A: 206L/L1/L3/L4 AND 407 SHORT SKIDTUBES ARRANGEMENT

FIGURE 5A: D407-559-113 BEARPAW INSTALLATIONS ON 206 L/L1/L3/L4 AND 407



**SECTION A-A: 206L/L1/L3/L4 HIGH GEAR,
DART LONG SKIDTUBES ARRANGEMENT**

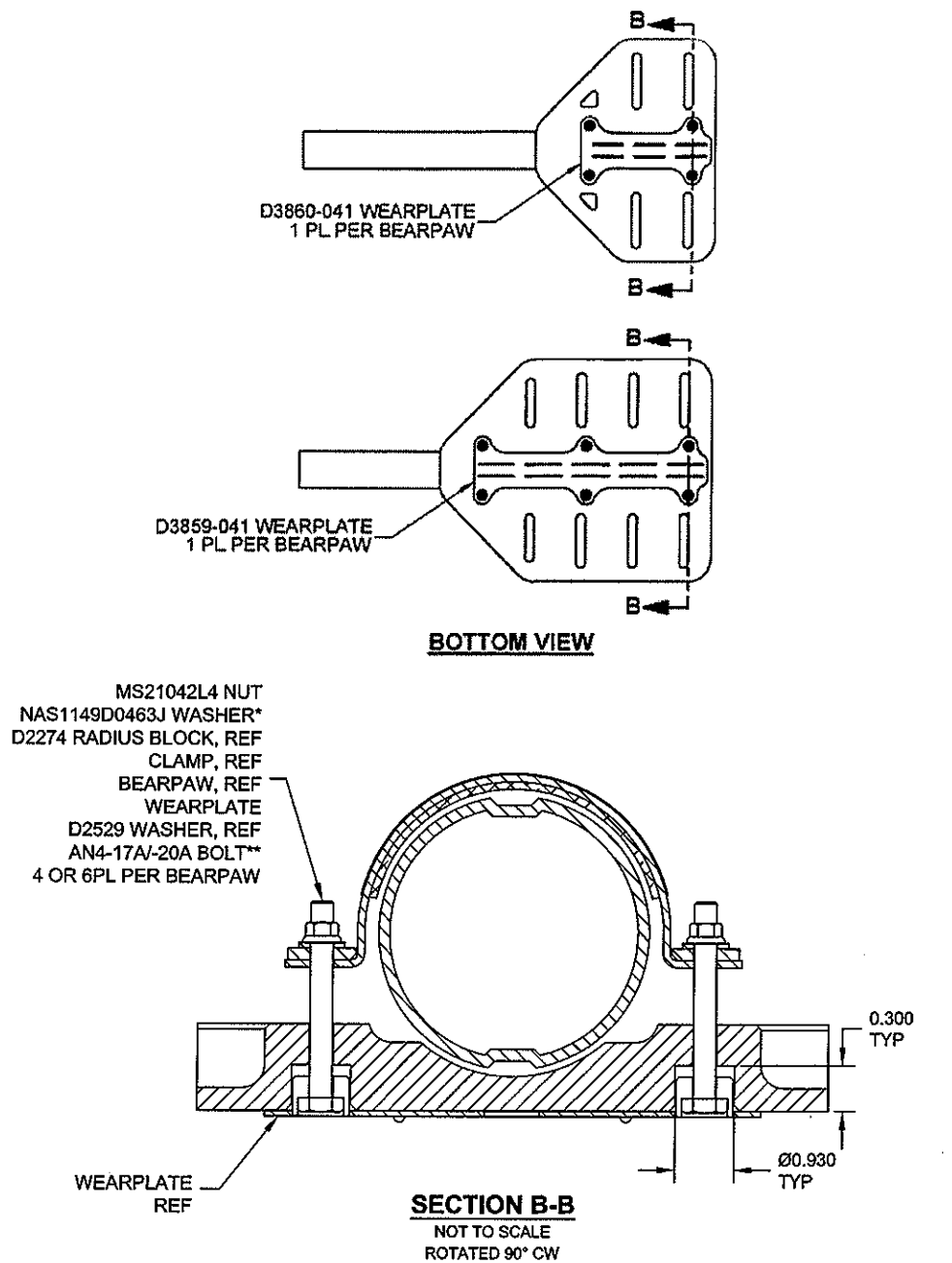


**SECTION A-A: 206L/L1/L3/L4 HIGH GEAR OEM SKIDTUBES
AND 206L/L1/L3/L4 AND 407 FLOAT GEAR SKIDTUBES ARRANGEMENT**

FIGURE 5B: D407-559-113 BEARPAW INSTALLATIONS ON 206 L/L1/L3/L4 AND 407

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* ADDITIONAL NAS1149D0463J WASHERS MAY BE INSTALLED UNDER NUTS TO ENSURE 1.5 - 4 THREADS IN SAFETY ON BOLTS. ALTHOUGH NOT GENERALLY NECESSARY, IT IS ALSO ACCEPTABLE TO REPLACE THE AN4-17A/-20A BOLTS WITH LONGER OR SHORTER AN4 BOLTS, IF REQUIRED.

** RECOMMENDED TO USE AN4-17A BOLTS WITH (1) NAS1149D0463J WASHER IF INSTALLING BEARPAW ON Ø3.0 OR SMALLER SKIDTUBE. USE AN4-20A BOLTS WITH (2) NAS1149D0463J WASHERS IF INSTALLING BEARPAW ON TUBE LARGER THAN Ø3.0 (DART TUBE).

FIGURE 6: D206-559-031/-033 WEARPLATE KIT INSTALLATIONS

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Date: 11.04.08

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D206-559 Rev. L AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D206-559 REV. 3

REF CANADIAN STC: SH92-17

REF FAA STC: SH1031NE

REF LBA STC: 0796/3034

REF JCAB STC: STC-90-TYO

REF BRAZIL STC: 2010S10-08

1.0 PURPOSE

The purpose of this Dart Service Instruction is to add the D407-559-115 Bearpaw Kit to this approval. The D407-559-115 Bearpaw Kit is designed to be compatible with D206-642-311/-312/-313/-314/-411/-412/-413/-414 Skidtubes equipped with D206-642-XXX Run-On Landing Wearplates. The D407-559-115 Bearpaw Kit is also compatible with the D206-642-XXX Skidtubes equipped with standard wearplates/wearshoes.

2.0 INSTALLATION

To install D407-559-115 Bearpaw Kit on Dart D206-642-XXX Skidtubes equipped with D206-642-XXX Run-On Landing Wearplates refer to Figures 1 & 2 of this Service Instruction as well as the following:

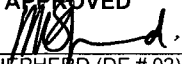
- 2.1 Jack up the aircraft and ensure the skidtubes are serviceable in accordance with ICA-D206-642.
- 2.2 Position D2432-3 Bearpaw on the aft end of each skidtube so that the bearpaw clamps are located on either side of the aft saddle as shown in Figure 1a - 1c of this Service Instruction. The bearpaws should be installed over the run-on landing wearplates.
- 2.3 Attach the D4011-1 Clamps with D4012-1 Cushions using hardware shown in Figure 2 of this Service Instruction. Additional AN960JD416 (or NAS1149D0463J) washers may be installed under the nuts to ensure 1.5-4 threads in safety on the bolts. Although not generally necessary, it is also acceptable to replace the AN4-20A bolts with longer or shorter AN4 bolts, if required.

CAUTION: The torque on the nuts should be limited to 20 in-lb (2.3 Nm)

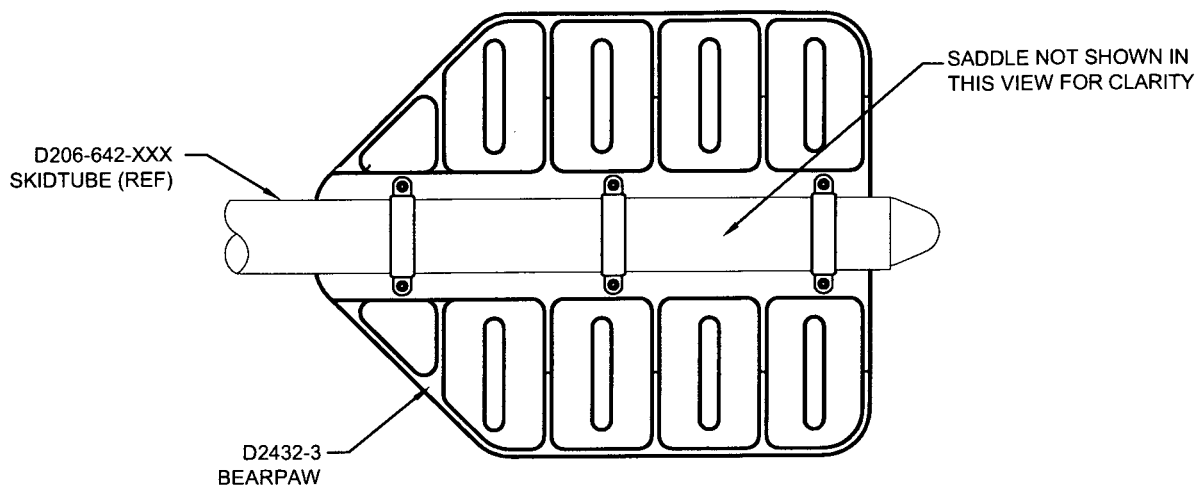
- 2.4 Lower the aircraft.
- 2.5 Update the aircraft log book to indicate installation of the D407-559-115 Bearpaw Kit and adjust the empty weight and balance record for the rotorcraft with the information given in section 5.0 of this service instruction.

3.0 MAINTENANCE

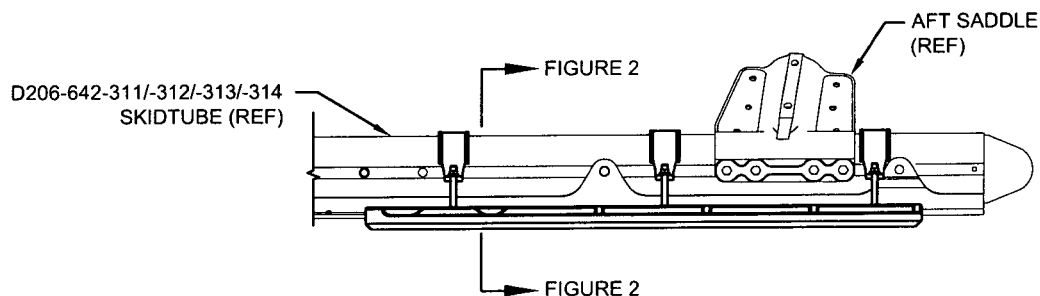
The D407-559-115 Bearpaw Kit should be maintained in accordance with ICA-D206-559.

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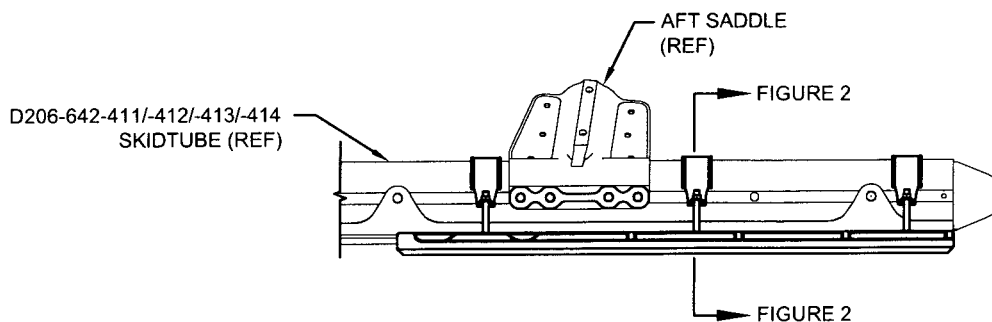
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**Figure 1a - Bearpaw Location
(Top View)**



**Figure 1b - Bearpaw Installation (Side View)
(Installed on D206-642-311/-312/-313/-314 Skid tubes)**



**Figure 1c - Bearpaw Installation (Side View)
(Installed on D206-642-411/-412/-413/-414 Skid tubes)**

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AIRCRAFT CERTIFICATION
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DAO # 01-O-01

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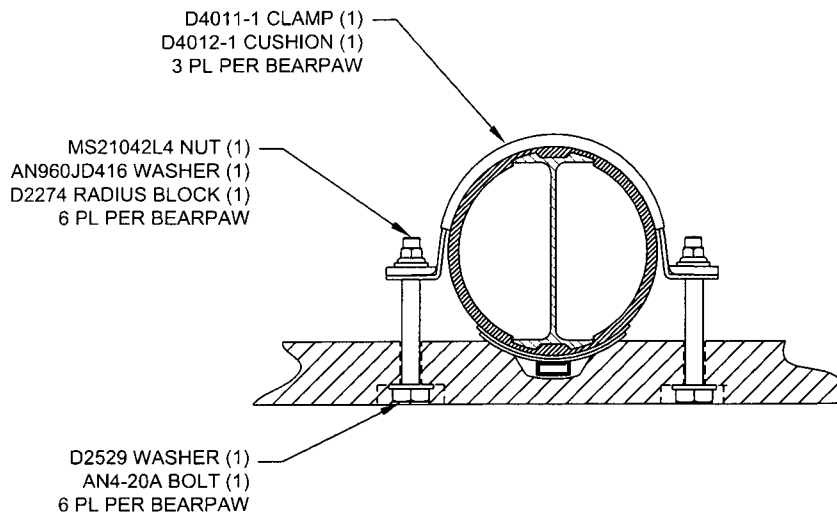


Figure 2 - D4011-1 Clamp Installation

4.0 PARTS LIST

QTY -115	PART NUMBER	DESCRIPTION
	D407-559-115	BEARPAW INSTALLATION
12	D2274	RADIUS BLOCK
12	D2529	WASHER
2	D2432-3	BEARPAW
6	D4011-1	CLAMP
6	D4012-1	CUSHION
12	AN4-20A	BOLT
12	AN960JD416	WASHER (NAS1149D0463J)
12	MS21042L4	NUT

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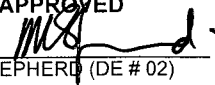
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5.0 WEIGHT AND BALANCE

INSTALLATION	WEIGHT	LATERAL		LONGITUDINAL	
		ARM	MOMENT	ARM	MOMENT
D407-559-115 Bearpaw installation (Bell 407 High Gear)	13.9 lb 6.30 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	148 in 3.76 m	2057 in-lb 23.69 m-kg
D407-559-115 Bearpaw installation (Bell 206L/407 Low Gear)	13.9 lb 6.30 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	149 in 3.78 m	2071 in-lb 23.81 m-kg
D407-559-115 Bearpaw installation (Bell 206 L High Gear)	13.9 lb 6.30 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	157 in 3.99 m	2182 in-lb 25.14 m-kg

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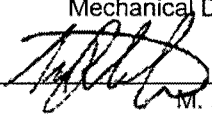
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

ICA-D206-559

Bearpaw Installation

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

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Released By: 
D. Shepherd, P. Eng
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REVISION RECORD

Revision No.	Issue Date	Description	Date Inserted	Inserted By
0	01.09.10	New Issue		
1	07.11.19	Revised -011/-021 attachment location Incorporated DSI 9237		
2	09.11.13	Reformat; Addition of -113 Kit; Removed -015/-025 kits (no longer manufactured and respectively replaced with -013/-023); Incorporate DSI 9430 and DSI 9431 Rev. A		
3	11.04.08	DSI 9527 incorporated. Manufacturing process for Bearpaw in -113 Kit changed from thermoforming to machining. Part numbers for -113 Kit updated accordingly.		

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CHAPTER 1 – INTRODUCTION (01-00-00)

1.1 SCOPE

This manual provides the requirements set forth in Appendix A of FAR Part 27 for the Instructions for Continued Airworthiness of the Dart D206-559-011/-013/-021/-023 and D407-559-113 Bearpaw Kits installed on the Bell 206 A/B/L/L1/L3/L4 & 407 model aircraft. These Instructions for Continued Airworthiness are to be referred to for inspection and maintenance when the Dart bearpaws are installed on, removed from, or in service on the rotorcraft.

1.2 ARRANGEMENT

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

There are no abbreviations, acronyms, or symbolization which 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.

1.3 DISTRIBUTION

Any changes in the content or revision level of this document will be made available to any owner/operator at www.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.

1.4 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.

1.5 SYSTEM DESCRIPTION

The Dart D206-559-011/-013/-021/-023 and D407-559-113 Bearpaw kits provides improved stability on soft terrain for Bell 206 A/B/L/L1/L3/L4 & 407 series rotorcraft.

The Dart D206-559-011/-013/-021/-023 and D407-559-113 Bearpaws mount to the aft end of the skidtubes. One Bearpaw is installed on each skidtube and is attached with clamps and standard hardware. Figure 1-1 shows the Bearpaw installed on a standard skidtube.

The D206-559-031 Wearplate Kit is available for the D206-559-011/-021 Bearpaw Installation to provide anti-slip and wear protection for the bearpaws.

The D206-559-033 Wearplate Kit is available for the D206-559-013/-023 Bearpaw Installation to provide anti-slip and wear protection for the bearpaws.

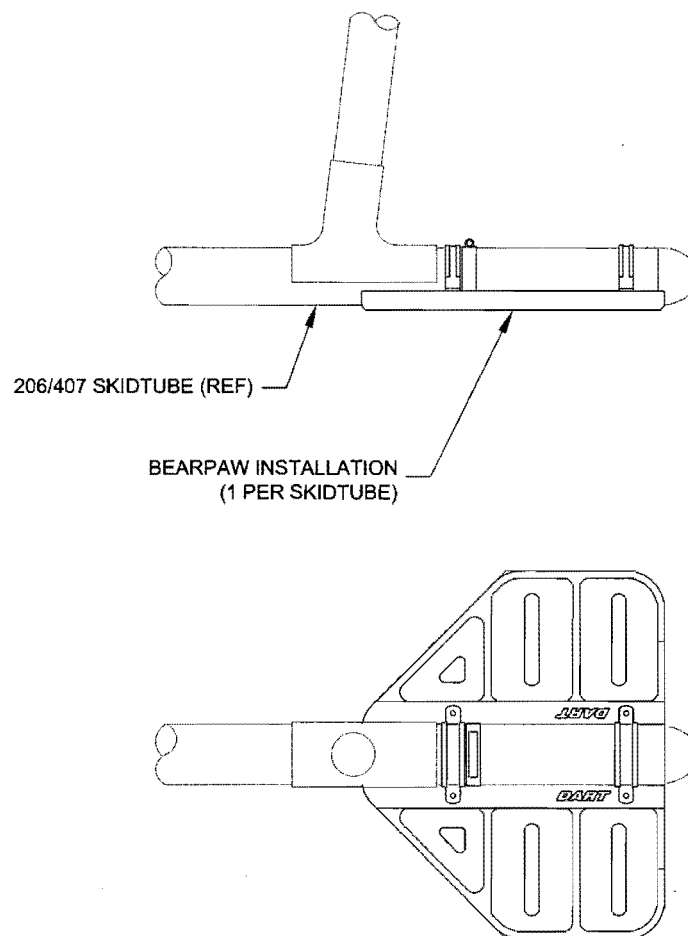


FIGURE 1-1: BEARPAW INSTALLATION (TYPICAL)

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

The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister

No airworthiness limitations associated with this type design change.

CHAPTER 4 – AIRWORTHINESS LIMITATIONS (04-00-00) FOR FAA CUSTOMERS

The Airworthiness Limitations section is FAA approved and specifies maintenance required under Sections 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

No airworthiness limitations associated with this type design change.

CHAPTER 5 – INSPECTION REQUIREMENTS (05-00-00)**5.1 300 HOUR / ANNUAL INSPECTION**

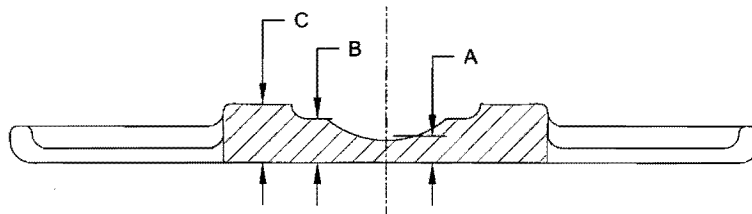
(TO COINCIDE WITH LANDING GEAR INSPECTION OR IF DAMAGE FOUND ON DAILY INSPECTION)

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. Concurrence and final approval of inspection interval tolerance by the governing civil aviation authority is the responsibility of the owner/operator.

- 5.1.1 Remove the Bearpaws per Chapter 32 of these instructions and inspect the Bearpaws and clamps for damage and/or wear. If the D4010-041 thermoformed Bearpaws are installed as part of D407-559-113 Change 001, they should be removed, destroyed and replaced with a new D407-559-113 Bearpaw Kit from Dart at Change 002 or later.
- 5.1.2 The D2432F, D2435, D2471 and D2472F Bearpaws may be worn by a maximum of 0.125" (3.18mm) down to the minimum allowable values specified in Table 5-1. Outside the shaded region of Figure 5-2, it is acceptable to have worn areas up to a maximum of 0.125" (3.18mm) deep over a maximum area of 2 sq. in (1290 sq mm). The edge of a damaged region must be a minimum of 2" (51mm) away from the edge of nearest damaged region. To prevent wear in critical areas, Dart recommends installing the D206-559-031/-033 Wearplate Kits as applicable.

Table 5-1: Bearpaw Damage Limits

Dimension	Nominal Thickness	Max. Allowable Wear	Min. Allowable Dimension
A	0.375 in 9.53 mm	0.125 in 3.18 mm	0.250 in 6.35 mm
B	0.750 in 19.05 mm	0.125 in 3.18 mm	0.625 in 15.88 mm
C	0.950 in 24.13 mm	0.125 in 3.18 mm	0.825 in 20.96 mm

**FIGURE 5-2: DAMAGE LIMIT DIAGRAM FOR D2432F, D2435, D2471 AND D2472F BEARPAWS**

- 5.1.3 For D2432F, D2435, D2471 and D2472F Bearpaws, cracks are acceptable in the unshaded portion of Figure 5-2 as long as they are restricted to the pockets of the bearpaws. Cracks that penetrate the stiffening ribs of the unshaded regions are unacceptable. Stop drill all cracks up to 0.50" (12.7mm) long with Ø0.188 (4.8mm) drill.

- 5.1.4 For D4355-1 Bearpaw, cracks are acceptable in the unshaded portion of Figure 5-3 as long as they are restricted to the pockets of the bearpaws. Cracks that penetrate the stiffening ribs of the unshaded regions are not acceptable. Stop drill all cracks up to 0.50" (12.7mm) long with $\varnothing 0.188$ (4.8mm) drill. Cracks are not acceptable in the shaded portion of Figure 5-3. Outside the shaded region of Figure 5-3 it is acceptable to have worn areas up to a maximum of 0.125" (3.18mm) deep over a maximum area of 2 sq. in (1290 sq mm) The edge of a damaged region must be a minimum of 2" (51mm) away from the edge of nearest damaged region. In the area underneath the Wearplate, wear, gouges and chips are acceptable to a maximum depth of 0.030" (0.76mm).

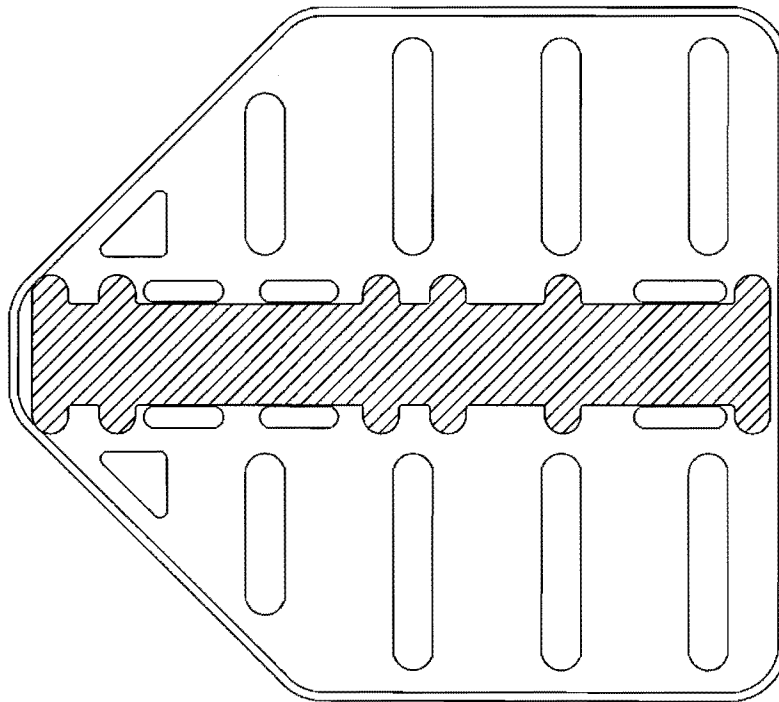


FIGURE 5-3: DAMAGE LIMIT DIAGRAM FOR D4355-1 BEARPAWS

- 5.1.5 If the D206-559-031/-033 Wearplate Kits are installed on D206-559-011/-013/-021/-023 Bearpaw Kits, the D3859-041 and D3860-041 Wearplates should be checked for excessive wear/damage. On D407-559-113 Bearpaw Kit, the D4360-041 Wearplate Assembly should be checked for excessive wear/damage. If the hardcoat weld beads have been worn down, they may be built back up to 0.06" (1.5mm) to 0.13" (3.4mm) by TIG welding per AMS-STD-2219 using 2059B Hard Coat welding rod. Cracks in the Wearplates can be repaired by TIG welding per AMS-STD-2219 using ER316L or ER308L filler rod. The Wearplates must be replaced if they have been worn through to the Bearpaw surface.

- 5.1.6 On D206-559-011/-013/-021/-023 Installations, inspect the D2438 Clamps for cracks or elongation. If cracks are detected, replace clamps immediately. Slots should be 0.257" wide by 0.357" long. If the slots are elongated more than 0.025" (0.63 mm), replace clamps per Chapter 32 of these instructions. Inspect the D2182B045 Rubber Cushions on the clamps for deterioration and suitability for continued service.
- 5.1.7 On D407-559-113 Installations, inspect the D4011-1/-5 Clamps for cracks and hole elongation. If cracks are detected, replace clamps immediately. Holes should be Ø0.257". If the holes are elongated more than 0.025" (0.63 mm), replace clamps per Chapter 32 of these instructions. Inspect the D4012-1 Cushions on the clamps for deterioration and suitability for continued service.
- 5.1.8 Report all damage in excess of indicated limits to Dart Aerospace Ltd. for evaluation and disposition.
- 5.1.9 Replace damaged or worn parts per Chapter 32 of these instructions.
- 5.1.10 The Bearpaws should be re-installed per Chapter 32 of these instructions.

5.2 OVERHAUL REQUIREMENTS

NO COMPONENT OVERHAUL REQUIRED FOR THIS DESIGN CHANGE.

CHAPTER 32 – LANDING GEAR (32-00-00)**32.1 D206-559-011/-013/-021/-023 AND D407-559-113 BEARPAW REMOVAL**

To remove the Dart D206-559-011/-013/-021/-023 and D407-559-113 Bearpaw from the Bell 206/407 helicopter:

- 32.1.1 Jack up the aircraft.
- 32.1.2 Loosen the clamp bolts and remove the bearpaws and clamps. Ensure the skidtubes are serviceable. If the bearpaws are being removed from service, re-install any wearplates that were removed during installation per the Aircraft Maintenance Manual or applicable STC documentation.
- 32.1.3 Lower the aircraft.

32.2 D206-559-031/-033 WEARPLATE KIT REPLACEMENT

To replace the Dart D206-559-031/-033 Wearplate Kits:

- 32.2.1 Jack up the aircraft.
- 32.2.2 Loosen the clamp bolts and remove the wearplate kits, bearpaws and clamps. Ensure the skidtubes and bearpaws are serviceable.
- 32.2.3 Repair or replace the D3859-041/D3860-041 Wearplates per Chapter 5 of these instructions.
- 32.2.4 Locate the replacement/repaired D3859-041/D3860-041 Wearplates on the D2435/D2671 or D2432F/D2472F Bearpaws as shown in Figure 32-5.
- 32.2.5 Complete the Bearpaw installation per Section 32.4.

32.3 D4360-041 WEARPLATE REPLACEMENT

To replace the Dart D4360-041 Wearplate:

- 32.3.1 Jack up the aircraft.
- 32.3.2 By referring to Figures 32-4A and 32-4B, remove the D407-559-113 Bearpaw Installation Kits by unfastening the (8) MS21043-4 Nuts and NAS1149D0463J Washers from the AN4C20A/21A bolts that hold the D4011-1/-5 clamps in-place. Ensure the skidtubes and bearpaws are serviceable.
- 32.3.3 Remove D4360-041 Wearplate Assembly from D4355-1 Bearpaw by removing the (4) remaining MS21043-4 Nuts and (4) NAS1149D0463J Washers from the (4) AN4C11A bolts.
- 32.3.4 Repair or replace the D4360-041 Wearplate Assembly per Chapter 5 of these instructions.
- 32.3.5 Fasten the replacement/repaired D4360-041 Wearplate Assembly to D4355-1 Bearpaw using (4) MS21043-4 Nuts, (4) NAS1149D0463J Washers and (4) AN4C11A Bolts as shown in Figure 32-4A/-4B.
- 32.3.6 Complete the Bearpaw installation per Section 32.5.

32.4 D206-559-011/-013/-021/-023 BEARPAW RE-INSTALLATION

To install the Dart D206-559-011/-013/-021/-023 Bearpaw on the Bell 206/407 helicopter:

- 32.4.1 Jack up the aircraft. If installed, remove any existing bearpaw installation. Skid wearplates and/or wear pads may be removed in the area of the bearpaw. Seal holes using Sikaflex-241/-291 or Proseal 890 or MIL-S-8802 Class 2B sealant. Ensure skid is serviceable and free from wear and/or damage.

- 32.4.2 If installing the bearpaw over the wearplates/wear pads, the bearpaw may be relieved to clear wearplates/wear pads mounting screws provided the relief leaves 0.375" (9.53mm) minimum thickness.
- 32.4.3 For D206-559-011/-021 bearpaws, position D2435/D2671 in accordance with Configuration 1 or Configuration 2 of Figure 32-1.
NOTE: Installation of D2435/D2671 bearpaws per Configuration 1 **IS** compatible with ground handling wheel devices while installation of D2435/D2671 bearpaws per Configuration 2 **IS NOT** compatible with ground handling wheel devices.
- 32.4.4 For D206-559-013/-023 bearpaws, position D2432F/D2672F in accordance with Configuration 3/4/5 of Figure 32-2.
- 32.4.5 Attach the D2438 clamps with D2182B050 rubber cushions using the hardware shown in Figure 32-3. Note that on the D206-559-011/-021 installations, QS200M44S clamps must be installed behind the fwd D2438 clamps to ensure that the bearpaw doesn't slip.
CAUTION: The torque on the nuts should be limited to 20 in-lb.
- 32.4.6 For D206-559-013/-023 bearpaws, install D2732-050 rubber cushion instead of D2182B050 rubber cushions under the clamps to improve fit as required on tapered skid tubes.
- 32.4.7 To accommodate various sizes of skid tubes, the bearpaws should be installed with either the AN4-15A bolts or the AN4-17A bolts to ensure that 1.5-4 threads are in safety on the nuts. Extra NAS1149D0463J washers may also be installed under the nuts. Although not generally necessary, it is also acceptable to use longer or shorter AN4 bolts, if required.
- 32.4.8 Lower the aircraft.

32.5 D407-559-113 BEARPAW RE-INSTALLATION

To install the Dart D407-559-113 Bearpaw on the Bell 206L/L1/L3/L4 and 407 helicopter:

- 32.5.1 Jack up the aircraft. If installed, remove any existing bearpaw installation. Skid wearplates and/or wear pads may be removed in the area of the bearpaw. Seal holes using Sikaflex-241/-291 or Proseal 890 or MIL-S-8802 Class 2B sealant. Ensure skid is serviceable and free from wear and/or damage.
- 32.5.2 If installing the bearpaw over the wearplates/wear pads, the bearpaw may be relieved to clear wearplates/wear pads mounting screws provided the relief leaves 0.125" (3.18 mm) minimum thickness.
- 32.5.3 Refer to Figures 32-4A and 32-4B. Position the bearpaw on the aft end of each skid tube so that the bearpaw clamps are located on either side of the aft saddle as applicable.
NOTE: The D4360-041 Wearplates MUST be installed as part of the D407-559-113 Bearpaw Installation.
- 32.5.4 Install the D407-559-113 Kit to the skid tube using the D4011-1/-5 Clamps, D4012-1 Cushions and associated hardware as shown in Figures 32-4A and 32-4B.
CAUTION: The torque on the nuts should be limited to 20 in-lb.
- 32.5.5 To accommodate various sizes of skid tubes, the bearpaws should be installed with the D4011-1/-5 Clamp combination using AN4C20A, AN4C21A bolts to ensure that 1.5-4 threads are in safety on the nuts. Extra NAS1149D0463J washers may also be installed under the nuts. Although not generally necessary, it is also acceptable to use longer or shorter AN4 bolts, if required.
- 32.5.6 Lower the aircraft.

32.6 WEIGHT AND BALANCE

Table 32-1: D206-559-011/-013 STANDARD BEARPAWS

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
CONFIGURATION 1 -011 A/B LOW	8.5 lb 3.86 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	135 in 3.43 m	1148 in-lb 13.24 m-kg
CONFIGURATION 1 -011 A/B HIGH/FLOAT	8.5 lb 3.86 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	134 in 3.40 m	1139 in-lb 13.12 m-kg
CONFIGURATION 2 -011 A/B LOW	8.5 lb 3.86 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	126 in 3.20 m	1071 in-lb 12.35 m-kg
CONFIGURATION 2 -011 A/B HIGH/FLOAT	8.5 lb 3.86 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	125 in 3.18 m	1063 in-lb 12.27 m-kg
CONFIGURATION 3,4 -013 'L' HIGH	13 lb 5.91 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	157 in 3.99 m	2041 in-lb 23.58 m-kg
CONFIGURATION 5 -013 'L'/407 LOW	13 lb 5.91 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	149 in 3.78 m	1937 in-lb 22.34 m-kg
CONFIGURATION 5 -013 'L'/407 HIGH	13 lb 5.91 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	148 in 3.76 m	1924 in-lb 22.22 m-kg

Table 32-2: D205-559-021/-023 NARROW BEARPAWS

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
CONFIGURATION 1 -021 A/B LOW	7.5 lb 3.41 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	135 in 3.43 m	1013 in-lb 11.69 m-kg
CONFIGURATION 1 -021 A/B HIGH/FLOAT	7.5 lb 3.41 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	134 in 3.40 m	1005 in-lb 11.59 m-kg
CONFIGURATION 2 -021 A/B LOW	7.5 lb 3.41 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	126 in 3.20 m	945 in-lb 10.91 m-kg
CONFIGURATION 2 -021 A/B HIGH/FLOAT	7.5 lb 3.41 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	125 in 3.18 m	938 in-lb 10.84 m-kg
CONFIGURATION 3,4 -023 'L' HIGH	11 lb 5.00 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	157 in 3.99 m	1727 in-lb 19.95 m-kg
CONFIGURATION 5 -023 'L'/407 LOW	11 lb 5.00 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	149 in 3.78 m	1639 in-lb 18.90 m-kg
CONFIGURATION 5 -023 'L'/407 HIGH	11 lb 5.00 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	148 in 3.76 m	1628 in-lb 18.80 m-kg

Table 32-3: D407-559-113 LARGE BEARPAW

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D407-559-113 ON 'L'/407 LOW	19.4 lb 8.82 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	162 in 4.11 m	3143 in-lb 36.25 m-kg
D407-559-113 ON 'L'/407 HIGH	19.4 lb 8.82 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	161 in 4.09 m	3123 in-lb 36.07 m-kg

Table 32-4: D206-559-031 WEARPLATE KIT

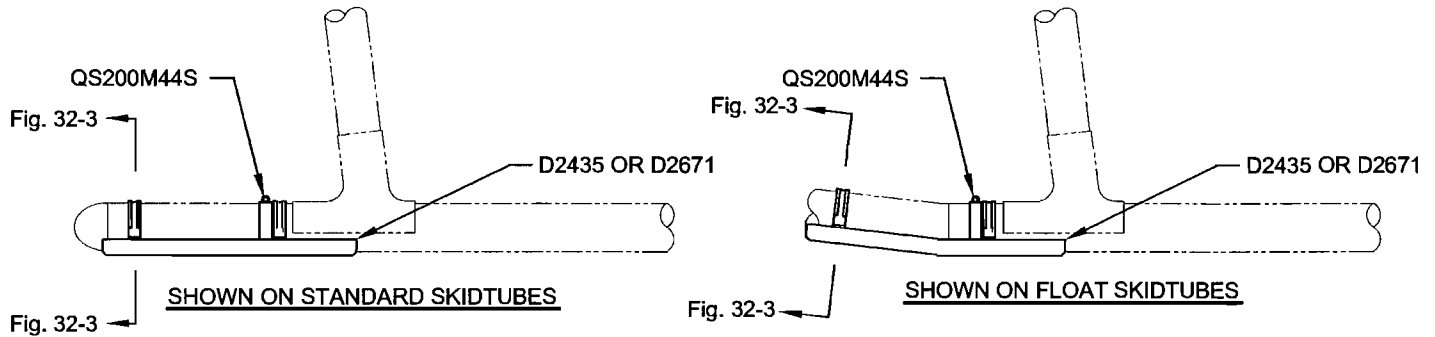
Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
CONFIGURATION 1 -011/-021 A/B LOW	1.72 lb 0.78 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	135 in 3.43 m	232.2 in-lb 2.68 m-kg
CONFIGURATION 1 -011/-021 A/B HIGH/FLOAT	1.72 lb 0.78 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	134 in 3.40 m	230.5 in-lb 2.65 m-kg
CONFIGURATION 2 -011/-021 A/B LOW	1.72 lb 0.78 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	126 in 3.20 m	216.7 in-lb 2.50 m-kg
CONFIGURATION 2 -011/-021 A/B HIGH/FLOAT	1.72 lb 0.78 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	125 in 3.18 m	215.0 in-lb 2.48 m-kg

Table 32-5: D206-559-033 WEARPLATE KIT

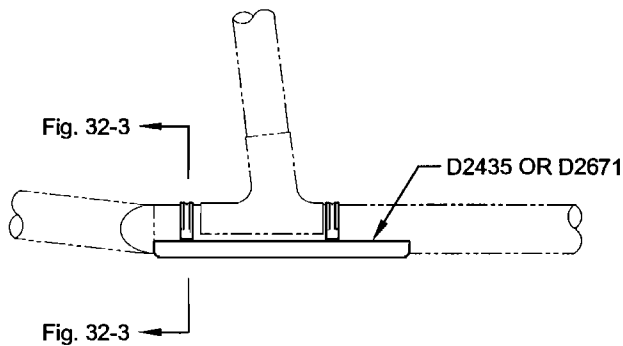
Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
CONFIGURATION 4 -013/-023 L HIGH	3.00 lb 1.36 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	157 in 3.99 m	471.0 in-lb 5.43 m-kg
CONFIGURATION 5 -013/-023 L/407 LOW	3.00 lb 1.36 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	149 in 3.78 m	447.0 in-lb 5.14 m-kg
CONFIGURATION 5 -013/-023 L/407 HIGH	3.00 lb 1.36 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	148 in 3.76 m	444.0 in-lb 5.11 m-kg

32.7 PARTS LIST

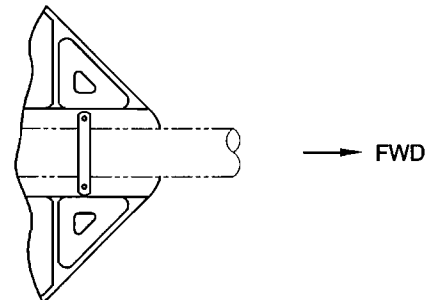
Qty -011	Qty -013	Qty -021	Qty -023	Qty -031	Qty -033	Qty -113	Part Number	Description
X							D206-559-011	Bearpaw Kit 206 A/B
	X						D206-559-013	Bearpaw Kit 206 L/L1/L3/L4/407
		X					D206-559-021	Narrow Bearpaw Kit 206 A/B
			X				D206-559-023	Narrow Bearpaw Kit 206 L/L1/L3/L4/407
				X			D206-559-031	Wearplate Kit
					X		D206-559-033	Wearplate Kit
						X	D407-559-113	Large Bearpaw Kit 206 L/L1/L3/L4/407
4	6	4	6				D2182B050	RUBBER CUSHION
8	12	8	12			16	D2274	RADIUS BLOCK
2							D2435	19" X 16" BEARPAW
	2						D2432F	19" X 24" BEARPAW
		2					D2671	13" X 16" BEARPAW
			2				D2672F	13" X 24" BEARPAW
4	6	4	6				D2438	CLAMP
8	12	8	12				D2529	WASHER
	6		6				D2732-050	RUBBER CUSHION
						8	D3456-1	WASHER
					2		D3859-041	WEARPLATE
				2			D3860-041	WEARPLATE
						8	D4011-1	CLAMP, SHORT
						8	D4011-5	CLAMP, SHORT (OEM)
						8	D4012-1	CUSHION
						2	D4355-1	BEARPAW
						2	D4360-041	WEARPLATE ASSEMBLY
						8	AN4C11A	BOLT
8	12	8	12	8	12		AN4-17A	BOLT
8	12	8	12	8	12		AN4-20A	BOLT
						16	AN4C20A	BOLT
						16	AN4C21A	BOLT
16	24	16	24	8	12	16	NAS1149D0463J	WASHER (OR AN960JD416)
8	12	8	12	8	12		MS21042L4	NUT (OR MS21042-4)
						24	MS21043-4	NUT
2		2					QS200M44S	CLAMP



D206-559-011/-021 INSTALLATION: CONFIGURATION 1
COMPATIBLE WITH GROUND HANDLING WHEEL DEVICES
(206 A/B MODELS)



D206-559-011/-021 INSTALLATION: CONFIGURATION 2
NOT COMPATIBLE WITH GROUND HANDLING WHEEL DEVICES
(206 A/B MODELS)

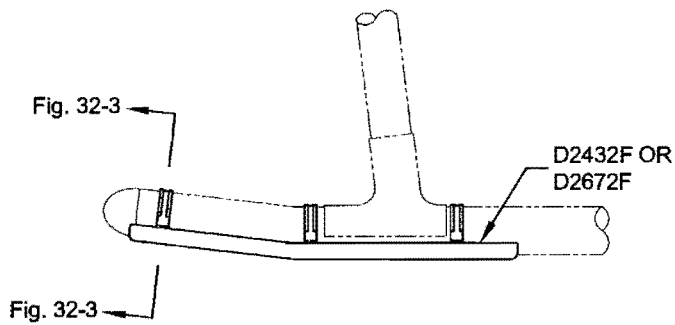


TYPICAL ORIENTATION

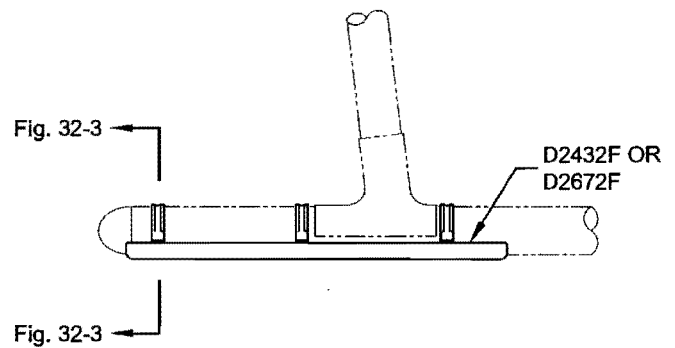
FIGURE 32-1: 206 A/B BEARPAW INSTALLATIONS
(CONFIGURATIONS 1 AND 2)

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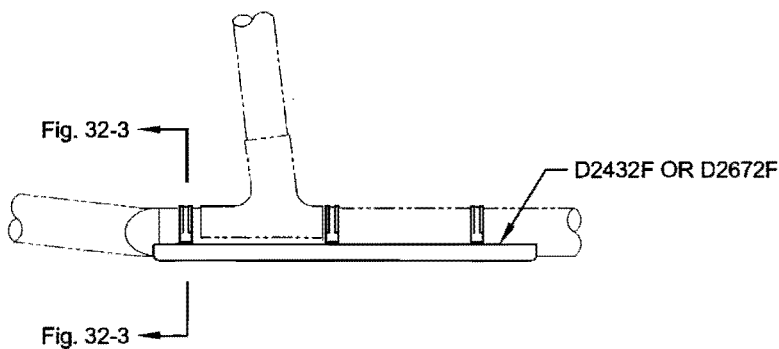
32-00-00



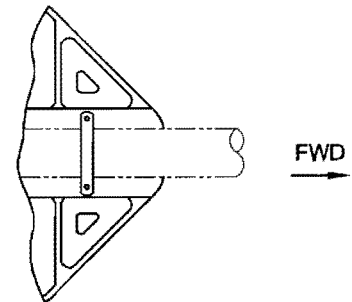
D206-559-013/-023 INSTALLATION: CONFIGURATION 3
(206L MODELS)



D206-559-013/-023 INSTALLATION: CONFIGURATION 4
(206L MODELS)



D206-559-013/-023 INSTALLATION: CONFIGURATION 5
FLOAT COMPATIBLE
(206L/407 MODELS)

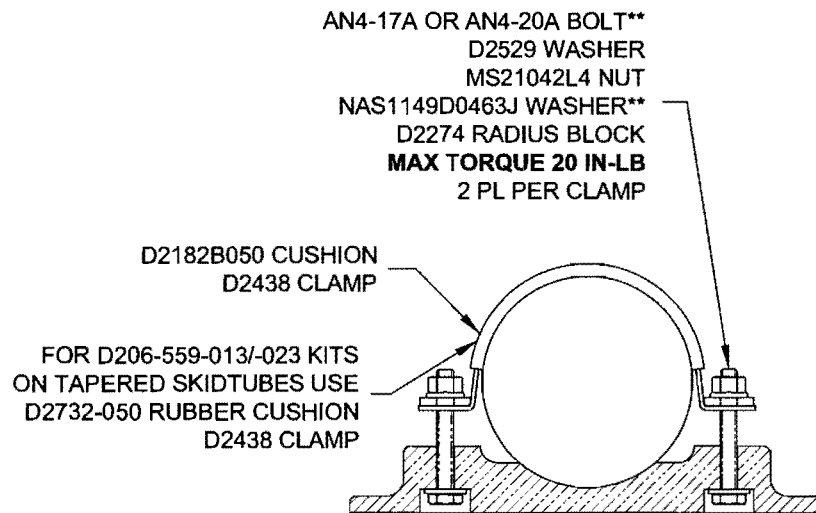


TYPICAL ORIENTATION

FIGURE 32-2: 206 L/L1/L3/L4 AND 407 BEARPAW INSTALLATIONS
(CONFIGURATION 3, 4, AND 5)

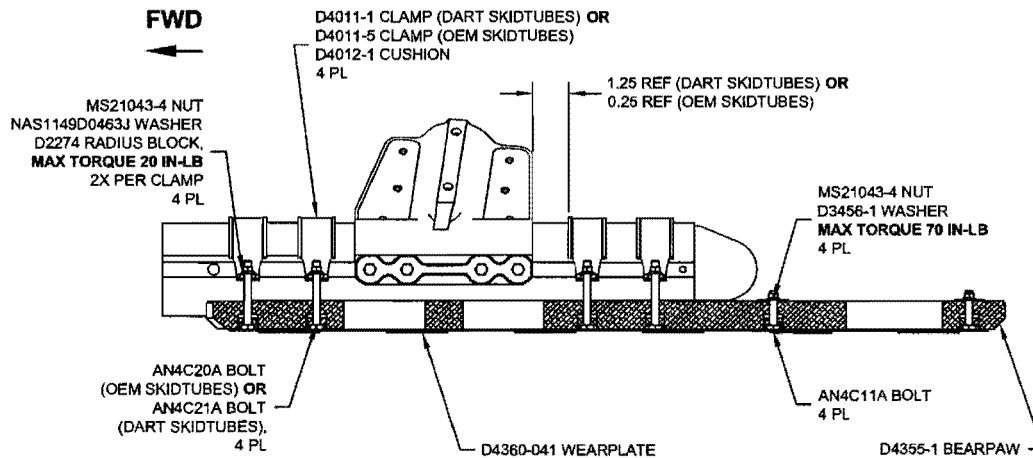
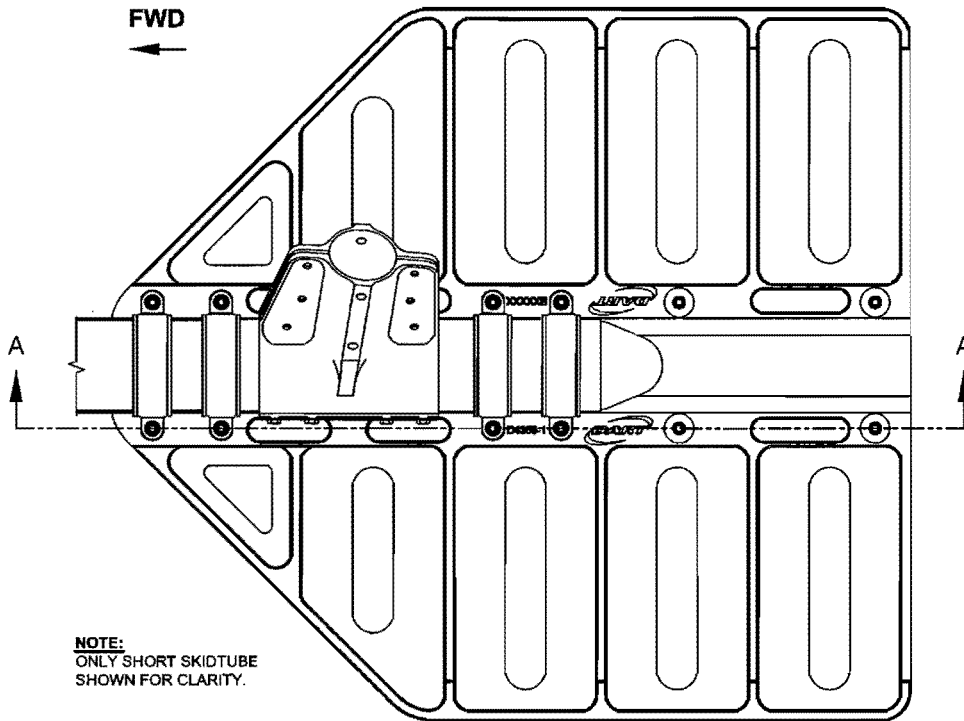
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****USE AN4-17A BOLTS WITH AN NAS1149D0463J WASHER IF INSTALLING BEARPAW ON 3.0" DIA. TUBE OR SMALLER. USE AN4-20A BOLTS WITH TWO NAS1149D0463J WASHERS IF INSTALLING BEARPAW ON TUBE LARGER THAN 3.0" DIAMETER (DART TUBE). ADDITIONAL NAS1149D0463J WASHERS MAY BE ADDED UNDER NUT TO ENSURE 2-4 THREADS IN SAFETY**

FIGURE 32-3: TYPICAL CLAMPING DETAIL

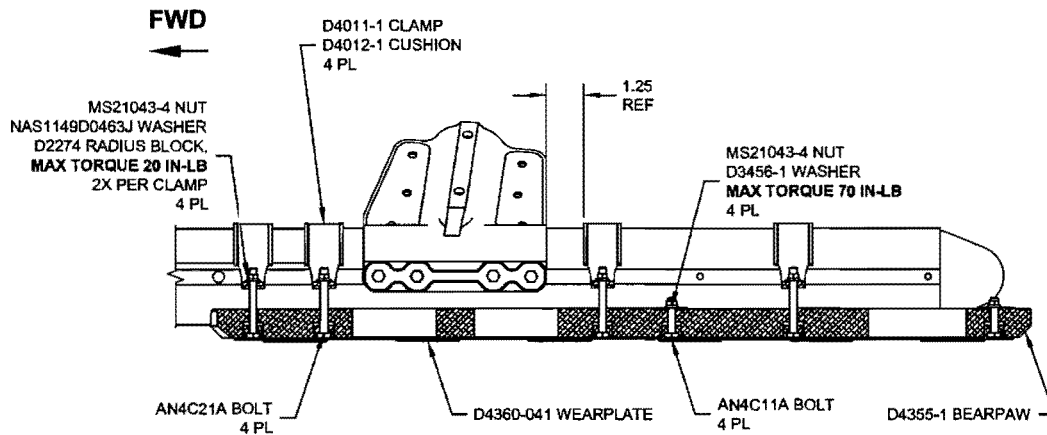


SECTION A-A: 206L/L1/L3/L4 AND 407 SHORT SKIDTUBES ARRANGEMENT

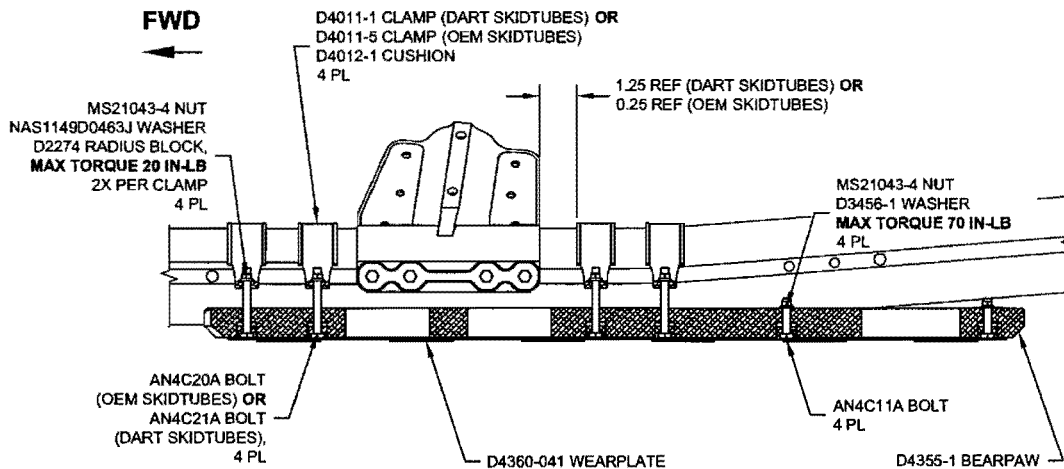
FIGURE 32-4A: D407-559-113 BEARPAW INSTALLATIONS ON 206 L/L1/L3/L4 AND 407

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**SECTION A-A: 206L/L1/L3/L4 HIGH GEAR,
DART LONG SKIDTUBES ARRANGEMENT**

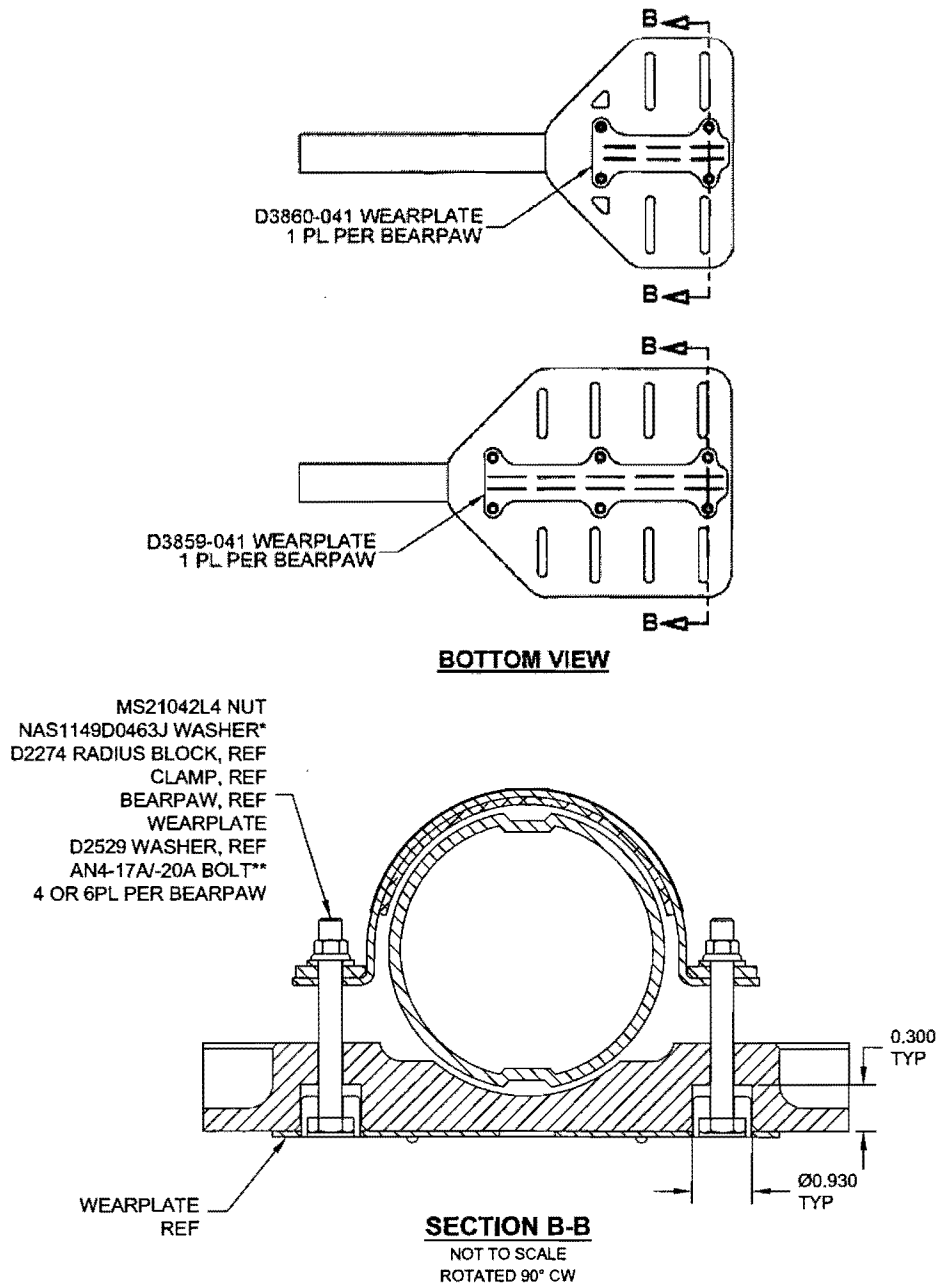


**SECTION A-A: 206L/L1/L3/L4 HIGH GEAR OEM SKIDTUBES
AND 206L/L1/L3/L4 AND 407 FLOAT GEAR SKIDTUBES ARRANGEMENT**

FIGURE 32-4B: D407-559-113 BEARPAW INSTALLATIONS ON 206 L/L1/L3/L4 AND 407

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* ADDITIONAL NAS1149D0463J WASHERS MAY BE INSTALLED UNDER NUTS TO ENSURE 1.5 - 4 THREADS IN SAFETY ON BOLTS. ALTHOUGH NOT GENERALLY NECESSARY, IT IS ALSO ACCEPTABLE TO REPLACE THE AN4-17A/-20A BOLTS WITH LONGER OR SHORTER AN4 BOLTS, IF REQUIRED.

** RECOMMENDED TO USE AN4-17A BOLTS WITH (1) NAS1149D0463J WASHER IF INSTALLING BEARPAW ON Ø3.0 OR SMALLER SKIDTUBE. USE AN4-20A BOLTS WITH (2) NAS1149D0463J WASHERS IF INSTALLING BEARPAW ON TUBE LARGER THAN Ø3.0 (DART TUBE).

FIGURE 32-5: D206-559-031/-033 WEARPLATE KIT INSTALLATIONS

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