WORKSHEET

WO No : **18255-1/7**	ACFT REGN : **9M-PEC**	SHEET NO:
DATE OPEN : **27/12/18**	ACFT TYPE : **BELL 429**	1 of 1
RAISED BY : **HAZWAN**	A/F HOURS : **1794.3**	

DEFECT COLUMN

50 Hour Main Rotor Yoke Assembly.
(Refer to 429-MPI, Chapter 4 Table 2)

Due at TSN 1821.6.

ACTION TAKEN COLUMN

50 HOUR MAIN ROTOR YOKE ASSEMBLY INSPECTION CARRIED OUT AS PER 429-MPI CHAPTER 04-00-00, TABLE 2 FIGURE 1. FOUND SATISFACTORY

MAN	HRS	MAN/HRS	MECH	LAE SIGNATURE	LIC/APP NO and DATE
1	1.0	1.0	-		SAS LAE 037 11.03.19

DESCRIPTION	PART NUMBER	SERIAL NUMBER ON	SERIAL NUMBER OFF	QTY	BATCH NUMBER

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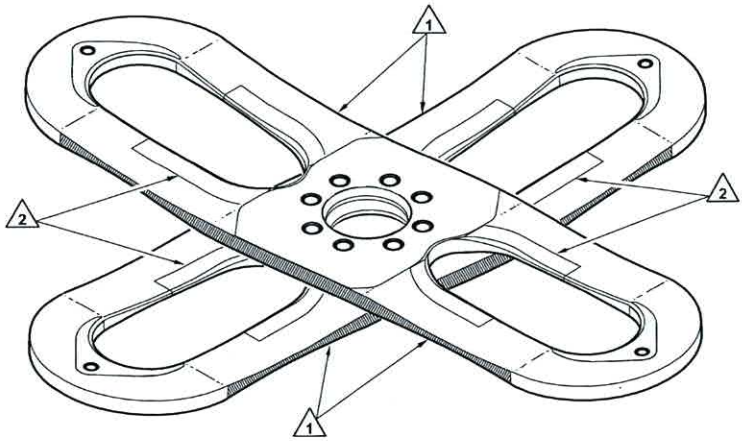


Inspection Procedure:

NOTE

This inspection may be accomplished with the main rotor yokes installed on the helicopter.

1. **Do a general visual inspection for cracks on all leading and trailing edges of the main rotor yokes in cross-hatched areas.**
2. **Do a general visual inspection of polyurethane protective tape for cracking, looseness, tearing, or peeling away from the main rotor yoke surfaces.**
3. **Refer to BHT-429-CMM, Chapter 62 for damage limits.**

The Bell Offline TechPubs application is now available in 32-bit! This app stores your technical publications rig onto your desktop for offline use. Download the installer here: http://bellhelicopter.net/#/offline/library.

WORKSHEET

WO No : **18255-2/7**	ACFT REGN : **9M-PEC**	SHEET NO:
DATE OPEN : **27/12/18**	ACFT TYPE : **BELL 429**	of
RAISED BY : **HAZWAN**	A/F HOURS : **1794.3**	

DEFECT COLUMN

50 Hour Engine Cycle Records Download.
(Refer to P&W MM 77-41-01)

Due at TSN 1821.6.

ACTION TAKEN COLUMN

50 HOURS ENGINE CYCLE RECORDS DOWNLOAD CARRIED OUT AS PER P&W MM 77-41-01.

FOUND SATISFACTORY.

ENGINE #1	ENGINE #2
CT - 2583	CT - 2540
PT - 2322	PT - 2322
IMP - 1216	IMP - 1191
CREEP	CREEP
CT - 0.06	CT - 0.00
PT - 0.02	PT - 0.00

MAN	HRS	MAN/HRS	MECH	LAE SIGNATURE	LIC/APP NO and DATE
2	1	2			SAS LAE 022 12/03/19

DESCRIPTION	PART NUMBER	SERIAL NUMBER ON	SERIAL NUMBER OFF	QTY	BATCH NUMBER

The work recorded above has been carried out in accordance with the requirements of the Malaysian Civil Aviation Regulations for the time being in force and in that respect the aircraft / equipment is considered fit for release to service.

WORKSHEET

WO No : **18255-3/7**	ACFT REGN : **9M-PEC**	SHEET NO:
DATE OPEN : **27/12/18**	ACFT TYPE : **BELL 429**	1 of 2
RAISED BY : **HAZWAN**	A/F HOURS : **1794.3**	

DEFECT COLUMN

ASB 429-11-03: 50 Hourly Main Rotor Pitch Link Rod End Bearing Inspection.

Due at TSN 1821.6.

ACTION TAKEN COLUMN

AXIAL PLAY		
	UPPER	LOWER
RED	0.005"	0.006"
GREEN	0.003"	0.003"
BLUE	0.006"	0.004"
ORANGE	0.004"	0.007"

RADIAL PLAY		
	UPPER	LOWER
RED	0.003"	0.003"
GREEN	0.004"	0.003"
BLUE	0.004"	0.004"
ORANGE	0.003"	0.004"

M/R PITCH LINK ROD END BEARING INSP & INSTALLATION CARRIED OUT AS PER ASB 429-11-03 & DMC-429-A-62-30-00-00A-720A-A, ISSUE 001 - 2019/01/10, ECCN EAR99. FOUND SATISFACTORY.

MAN	HRS	MAN/HRS	MECH	LAE SIGNATURE	LIC/APP NO and DATE
2	3.0	6.0			SAS LAE 037 11/03/19

DESCRIPTION	PART NUMBER	SERIAL NUMBER ON	SERIAL NUMBER OFF	QTY	BATCH NUMBER

The work recorded above has been carried out in accordance with the requirements of the Malaysian Civil Aviation Regulations for the time being in force and in that respect the aircraft / equipment is considered fit for release to service.

Bell Helicopter
A Textron Company

ALERT SERVICE BULLETIN **429-11-03**

19 December 2011
Revision A, 13 January 2015

MODEL AFFECTED: **429**

SUBJECT: **MAIN ROTOR PITCH LINK ROD END BEARING INSPECTION, INTRODUCTION OF.**

HELICOPTERS AFFECTED: **Serial number 57001 and subsequent which have accumulated more than 50 hours flight time.**

COMPLIANCE: Accomplish this bulletin within 10 flight hours of operation following the publication date of this bulletin and every 50 hours of operation thereafter.

DESCRIPTION:

Bell Helicopter has received reports of worn main rotor pitch link rod end bearing assemblies P/N 429-010-433-101/-103. The scheduled inspection interval in this area of 12-month, 800 hours is not sufficient to detect the current rate of wear. In addition, the combination of blade weight, positioning of the swashplate and the preload of the elastomers can make bearing play difficult to detect during a preflight exterior check. Revision A of this bulletin mandates additional inspection requirements.

APPROVAL:

The engineering design aspects of this bulletin are Transport Canada Civil Aviation (TCCA) approved.

CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Helicopter Product Support Engineering - Intermediate Helicopters
Tel: 450-437-2077 / 1-800-463-3036 / pseinter@bellhelicopter.textron.com

MANPOWER:

Approximately 2 man-hours are required to complete this bulletin. This estimate is based on hands-on time, and may vary with personnel and facilities available.

WARRANTY:

There is no warranty associated with this bulletin.

MATERIAL:

Required Material:
The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Helicopter Textron Supply Center.

Part Number	Nomenclature	Qty
429-010-433-101	Rod End Assembly (lower)	As required
429-010-433-103	Rod End Assembly (upper)	As required
MS24665-155	Cotter Pin	As required

Consumable Material:
The following material is required to accomplish this bulletin, but may not require ordering, depending on the operator's consumable material stock levels. This material may be obtained through your Bell Helicopter Textron Supply Center.

Part Number	Nomenclature	Qty	Reference *
AS100028	Lockwire	As required	C-405

* C-XXX numbers refer to the consumables list in BHT-ALL-SPM Standard Practices Manual

SPECIAL TOOLS:

None required.

WEIGHT AND BALANCE:

Not affected.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

BHT-429-MM Maintenance Manual

PUBLICATIONS AFFECTED:

BHT-429-MM Maintenance Manual

ACCOMPLISHMENT INSTRUCTIONS:

1. Disconnect all the lower pitch link rod ends from the swashplate outer ring (BHT-429-MM-1 Chapter 62).

2. Inspect both the upper and lower pitch link rod ends for axial and radial bearing play. Roll the bearings through multiple angles during inspection, paying particular attention to potential wear at locations shown in Figure 1.

3. If abnormal wear or bearing play is detected, remove the affected pitch link assembly and perform a dimensional check of both axial and radial bearing play (BHT-429-MM-1, Chapter 62). Axial and radial bearing play shall be measured at whichever angle results in the maximum play, paying particular attention to the angles that mimic the installation configuration.

4. Replace any bearing which exceeds the allowable limits (BHT-429-MM-1, Chapter 62).

5. Re-connect or reinstall the rotor pitch link assemblies (BHT-429-MM-1, Chapter 62).

6. Make an entry in the helicopter historical service records indicating compliance with this Alert Service Bulletin.

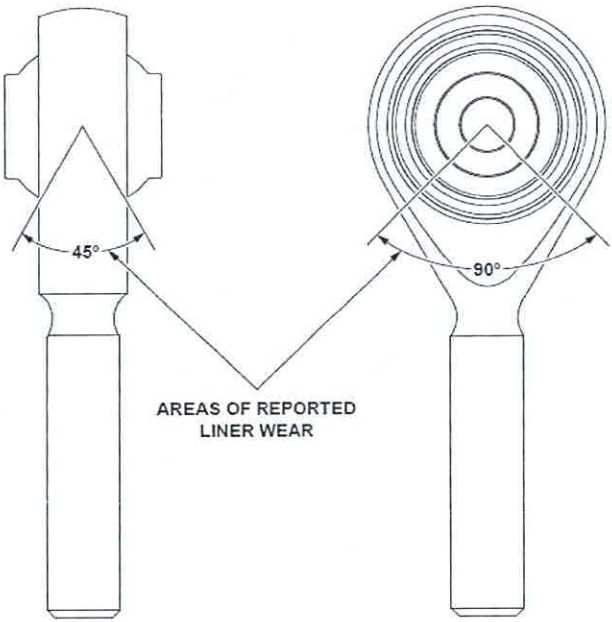


Figure 1 - Upper Pitch Link Rod End

SHEET

WO No : 18255-3/7	ACFT REGN : 9M-PEC	SHEET NO:
DATE OPEN : 11/03/19	ACFT TYPE : BELL 429	2 of 2
RAISED BY : TAN	A/F HOURS : 1798.8	

DEFECT COLUMN

DUPLICATE INSPECTION REQUIRED FOR INSTALLATION OF MAIN ROTOR PITCH LINK ASSEMBLY.
CHECK FOR – CORRECT ORIENTATION OF FASTENERS
– SECURITY OF ATTACHMENT
– PROPER LOCKING MECHANISM.

ACTION TAKEN COLUMN

DUPLICATE INSPECTION CARRIED OUT:

1st Inspection:

Signature: ..... App. No.: SAS LAE 037 Date: 11/03/19

2nd Inspection:

Signature: ..... App. No.: SAS LAE 019 Date: 12/03/2019

MAN	HRS	MAN/HRS	MECH	LAE SIGNATURE	LIC/APP NO and DATE
–	–	–	–	–	–

DESCRIPTION	PART NUMBER	SERIAL NUMBER ON	SERIAL NUMBER OFF	QTY	BATCH NUMBER

The work recorded above has been carried out in accordance with the requirements of the Malaysian Civil Aviation Regulations for the time being in force and in that respect the aircraft / equipment is considered fit for release to service.

WORKSHEET

WO No : **18255-4/7**	ACFT REGN : **9M-PEC**	SHEET NO: 1 of 3
DATE OPEN : **27/12/18**	ACFT TYPE : **BELL 429**	
RAISED BY : **HAZWAN**	A/F HOURS : **1794.3**	

DEFECT COLUMN

ASB 429-15-16 RB Part I: 50 Hourly Tail Rotor Pitch Link Bearing Inspection.

Due at TSN 1821.6.

ACTION TAKEN COLUMN

AXIAL PLAY		
	INBOARD	OUTBOARD
RED	0.001"	0.001"
GREEN	SB1280	0.002"
BLUE	0.003"	0.002"
ORANGE	0.001"	0.001"

RADIAL PLAY		
	INBOARD	OUTBOARD
RED	0.001"	0.001"
GREEN	SB1280	0.001"
BLUE	0.002"	0.001"
ORANGE	0.001"	0.001"

MAN	HRS	MAN/HRS	MECH	LAE SIGNATURE	LIC/APP NO and DATE
2	3.0	6.0			SAS LAE 019 1/03/2019

DESCRIPTION	PART NUMBER	SERIAL NUMBER ON	SERIAL NUMBER OFF	QTY	BATCH NUMBER

The work recorded above has been carried out in accordance with the requirements of the Malaysian Civil Aviation Regulations for the time being in force and in that respect the aircraft / equipment is considered fit for release to service.

Bell Helicopter
A Textron Company

ALERT SERVICE BULLETIN **429-15-16**

18 February 2015
Revision B, 15 June 2016

MODEL AFFECTED: **429**

SUBJECT: **TAIL ROTOR PITCH LINK BEARING, INSPECTION AND UPGRADE OF.**

HELICOPTERS AFFECTED: **Serial number 57001 and subsequent.**

[Serial number 57310 and subsequent are only required to accomplish **Part I** of this bulletin as parts installed at time of delivery are not affected by **Part II**.]

COMPLIANCE: **Part I** – Within 50 flight hours and every 50 flight hours thereafter.

Part II – Within 200 flight hours following completion of **Part I**.

DESCRIPTION:

Bell Helicopter has received reports of tail rotor pitch link assemblies 429-012-112-101/-103 with bearings 429-312-107-103 worn beyond the published limits and bearing liner failures. Tail rotor pitch link assemblies 429-012-112-101/-103 were required to be modified per Alert Service Bulletin (ASB) 429-15-26 by March 7, 2016.

Revision A of this ASB has been revised in its entirety. It introduces revised inspection instructions as well as a mandatory bearing 429-312-107-103 replacement for bearings manufactured prior to January 13, 2015 and that have accumulated 250 flight hours or more in service, or if their actual time in service is unknown.

Revision B of this ASB incorporates changes to the **WARRANTY** section, **MANPOWER** section, **MATERIAL** section, and **Part II**.

Part I provides the instructions for the tail rotor pitch link assembly inspection requirements. **Part II** provides the instructions to upgrade the tail rotor pitch link assemblies 429-012-112-101FM/-103FM to address the reported issues and provides component reidentification instructions. If the tail rotor pitch link assembly bearings have exceeded 250 flight hours, or the total flight hours of the bearings is unknown, **Part II** is to be accomplished within 50 flight hours, but not to exceed the next scheduled inspection of **Part I**. Helicopters that have already complied with the

recurring inspection requirement of the original release of this ASB may use the same inspection schedule for the recurring inspection of **Part I** of **Revision A** of this ASB.

Applicability of this bulletin to any spare part shall be determined prior to its installation on an affected helicopter.

APPROVAL:

The engineering design aspects of this bulletin are Transport Canada Civil Aviation (TCCA) approved.

CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Helicopter Product Support Engineering - Intermediate Helicopters
Tel: 450-437-2077 / 1-800-463-3036 / pseinter@bh.com

MANPOWER:

Approximately 2.0 man-hours are required to complete **Part I** of this bulletin. Approximately 3.0 man-hours are required for each affected tail rotor pitch link assembly to complete **Part II** of this bulletin. This estimate is based on hands-on time and may vary with personnel and facilities available.

WARRANTY:

Owners/operators of Bell helicopters who comply with the instructions in this ASB will be eligible to receive replacement bearings and labor coverage. Should you not have the capability to replace the bearings, pitch links may be returned to Bell Helicopter Piney Flats or a Bell Helicopter approved Customer Service Facility (CSF) for repair and upgrade to 429-012-112-111FM/-113FM. Based on availability, at Bell Helicopter's discretion, upgraded pitch links may be provided, which will require return of the core as an exchange alternative.

Labor entitlement for **Part I step 4.a.ii** and **Part II** bearing replacement per T/R pitch link assembly:

$300.00 USD per individual pitch link or up to a maximum of $1200.00 USD for a ship set of four pitch links.

To receive parts, labor, under warranty:

- Comply with the instructions contained in this bulletin no later than 31 December 2017.

NOTE: Owners/operators who fail to comply with the instructions in this bulletin before 31 December 2017, will not be eligible for the special warranty listed above.

MATERIAL:

Required Material:
The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Helicopter Textron Supply Center.

Part Number	Nomenclature	Qty (Note)
429-012-112-111	Pitch Link Assembly	2 (1)
429-012-112-113	Pitch Link Assembly	2 (1)
429-312-107-103	Bearing	8 (2,3)

NOTES:

1. New pitch link assemblies may be purchased. Existing pitch link assemblies may be Field Modified (FM) per the instructions in **Part II** of this bulletin, which will then be identified as 429-012-112-111FM and 429-012-112-113FM, as applicable.
2. Only required when pitch link assemblies are Field Modified (FM) per the instructions in **Part II** of this bulletin.
3. Prior to installation, make sure the manufacture date on the external surface of the outer race of the bearing is identified as January 13, 2015 or later.

Consumable Material:
The following material is required to accomplish this bulletin, but may not require ordering, depending on the operator's consumable material stock levels. This material may be obtained through your Bell Helicopter Textron Supply Center.

Part Number	Nomenclature	Qty (Note)	Reference *
2010-05988-00	SEALANT-TY I-2,CL1,GR A - MIL-PRF-81733	A/R	C-251
N/A	Isopropyl Alcohol	A/R (1)	C-285
1650-03296-00	Wire, Safety, CRES, 0.032", AS100028	A/R	C-405
2000-00697-00	Adhesive, Epoxy, Metal Repair & Fairing Compound (DEVCON 2-TON)	A/R (2)	C-298
MS24665-155	Cotter Pin	A/R	

* C-XXX numbers refer to the consumables list in the BHT-ALL-SPM, Standard Practices Manual

NOTES:

1. Procurable through local commercial distributors.
2. Dupont IMRON 500S CLEAR may be used as an acceptable alternate. It may be procurable through local commercial distributors or as 2230-05511-00 through your Bell Helicopter Supply Center.

SPECIAL TOOLS:

Refer to the BHT-429-MM-1, Chapter 67 for the cutting, roll staking tool, and workaids.

WEIGHT AND BALANCE:

Not affected.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

BHT-429-IPB, Illustrated Parts Breakdown, Chapter 67
BHT-429-MM-1, Maintenance Manual, Chapter 67
BHT-ALL-SPM, Standard Practice Manual, Chapters 3 and 4
Alert Service Bulletin 429-15-26
General Information Letter GEN-IL-04-98 Revision E

PUBLICATIONS AFFECTED:

BHT-429-MM-1, Maintenance Manual, Chapters 1 and 67
BHT-429-IPB, Illustrated Parts Breakdown, Chapter 67

ACCOMPLISHMENT INSTRUCTIONS:

Part I - Tail Rotor Pitch Link Assembly Inspection

1. Prepare the helicopter for maintenance.

CAUTION

When removing or installing the lockwire in the tail rotor pitch horns, pay particular attention to prevent damage to the lockwire attachment hole.

-NOTE-

At customer option, the links can be rotated (end for end) during the 50 flight hour inspection intervals of **Part I** in order to extend the serviceability life of the bearings. Note the orientation of the tail rotor pitch link assemblies before removal.

2. Verify the part number of the tail rotor pitch link assemblies to determine if affected by **Part II** of this bulletin.

a. If affected, make sure compliance to **Part II** of this bulletin is accomplished within the allowable compliance period.

3. Remove the tail rotor pitch link assemblies from all four locations (BHT-429-MM-1, Chapter 67).

4. Perform a dimensional check of both axial and radial play (BHT-429-MM-1, Chapter 67). With a 10X magnifying glass, visually inspect the bearing liner condition for cracks or deterioration of the liner or if the liner extrudes out of the plane (Figure 1).

   a. Replace any bearing that exceeds the allowable limits and/or if cracks or deterioration of the bearing liner are noted.

      i. Perform **Part II** of this ASB or replace the affected tail rotor pitch link assembly with an acceptable part.

      ii. If **Part II** has already been accomplished on the affected tail rotor pitch link assembly, replace the bearing per the instructions in the 429 Maintenance Manual (BHT-429-MM-1, Chapter 67) or replace the tail rotor pitch link assembly with an acceptable part.

5. Inspect the tail rotor pitch link assembly sealant (C-251) for condition.

   a. Make sure there are no pin holes or voids present in the sealant.

   b. The thickness of the sealant should not exceed 0.025 inch (0.64 mm), should extend over the roll staked lip by a minimum of 0.030 inch (0.76 mm), and remain clear of the bearing ball.

-NOTE-

Tail rotor pitch link assemblies can be rotated (end for end) during the 50 flight hour inspection intervals of **Part I** in order to extend the serviceability life of the bearings.

6. Reinstall the tail rotor pitch link assemblies (BHT-429-MM-1, Chapter 67).

7. Make an entry in the helicopter logbook indicating compliance with **Part I** of this Alert Service Bulletin.

Part II - Tail Rotor Pitch Link Assembly Upgrade

-NOTE-

Tail rotor pitch link assembly bearing replacement is mandatory for bearings manufactured prior to January 13,

2015 that reach 250 flight hours in service or if the time in service cannot be determined.

-NOTE-

As an alternate method to the following procedure, affected tail rotor pitch link assemblies may be returned through Bell Helicopter Customer Property Return (CPR), or to a Bell Helicopter approved Customer Service Facility (CSF), to have parts upgraded to the 429-012-112-111FM and 429-012-112-113FM configurations. Refer to the procedures detailed in the General Information Letter (IL) GEN-04-98 Revision E (or subsequent) for the return of the parts.

1. Remove both bearings from the affected tail rotor pitch link assembly (BHT-429-MM-1, Chapter 67).

-NOTE-

Only tail rotor pitch link assembly bearings manufactured on or after January 13, 2015, as marked on the outer race of the bearing, shall be installed.

2. Prior to installation, note the manufacture date of each bearing 429-312-107-103 for use later in the procedure. The manufacturing date will be stamped on the outer race of the bearing.

-NOTE-

Only bearings manufactured after January 13, 2015 are acceptable to be installed.

3. Install the new bearing 429-312-107-103 (BHT-429-MM-1, Chapter 67).

4. Clean the affected area with isopropyl alcohol (C-285). Apply corrosion preventative sealant (C-251) to the bearing roll stake lip and the pitch link (Figure 2).

   a. Make sure there are no pin holes or voids present in the sealant.

   b. The thickness of the sealant should not exceed 0.025 inch (0.64 mm), should extend over the roll staked lip by a minimum of 0.030 inch (0.76 mm), and remain clear of the bearing ball.

5. Reidentify the tail rotor pitch link assembly with a white permanent fine point marker, or equivalent, as follows:

a. Reidentify the pitch link assembly 429-012-112-101FM as 429-012-112-**111FM**.

b. Reidentify the pitch link assembly 429-012-112-103FM as 429-012-112-**113FM**.

c. Apply a coat of DEVCON 2-TON (C-298) on top of the new part number after the ink dries.

-NOTE-

Tail rotor pitch link assemblies 429-012-112-101FM/-111FM/-111 may be intermixed on helicopter S/N 57001 and subsequent. Tail rotor pitch link assemblies 429-012-112-103FM/-113FM/-113 may be intermixed on helicopter S/N 57001 and subsequent.

-NOTE-

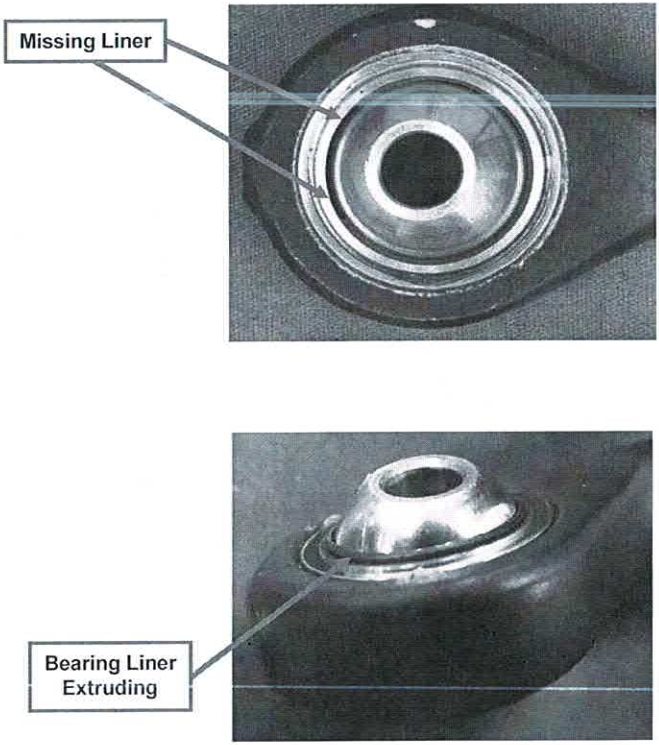
Create a Historical Service Record (HSR) card of your own or download a blank form from the following link http://www.bellhelicopter.net.

6. Create a component Historical Service Record (HSR) sheet for the tail rotor pitch link assembly 429-012-112-111FM/-113FM, as applicable.

   a. Record on the HSR the tail rotor pitch link assembly part number, serial number, and the manufacture date of each of the bearings 429-312-107-103 installed in the assembly as noted in step 2.

7. Install the tail rotor pitch link assembly (BHT-429-MM-1, Chapter 67).

8. Make an entry in the helicopter logbook and the Historical Service Record indicating compliance with **Part II** of this Alert Service Bulletin.



Note: Sealant (C-251) not shown on pitch link and bearing roll stake lip for clarity.

Figure 1 – Tail Rotor Pitch Link Bearing Liner

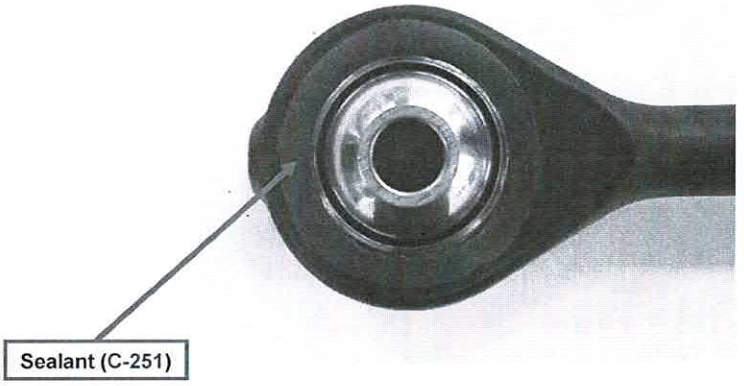


Figure 2 – Example of Sealant (C-251) Installation

SHEET

WO No : 18255-4/7	ACFT REGN : 9M-PEC	SHEET NO: 3 of 3
DATE OPEN : 11.03.19	ACFT TYPE : BELL 429	
RAISED BY : TAN	A/F HOURS : 1798.8	

DEFECT COLUMN

DUPLICATE INSPECTION REQUIRED FOR INSTALLATION OF TAIL ROTOR PITCH LINK ASSEMBLY.
CHECK FOR - CORRECT ORIENTATION OF FASTENERS
- SECURITY OF ATTACHMENT
- PROPER LOCKING MECHANISM.

ACTION TAKEN COLUMN

DUPLICATE INSPECTION CARRIED OUT:

1st Inspection:

Signature: ..... App. No.: SAS LAE 019 Date: 11/03/2019

2nd Inspection:

Signature: ..... App. No.: SAS LAE 037 Date: 12/03/19

MAN	HRS	MAN/HRS	MECH	LAE SIGNATURE	LIC/APP NO and DATE
—	—	—	—	—	—

DESCRIPTION	PART NUMBER	SERIAL NUMBER ON	SERIAL NUMBER OFF	QTY	BATCH NUMBER

The work recorded above has been carried out in accordance with the requirements of the Malaysian Civil Aviation Regulations for the time being in force and in that respect the aircraft / equipment is considered fit for release to service.

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PITCH LINK ASSEMBLIES

Installation

(DMC-429-A-67-20-00-13A-720A-A, Issue 001 - 2019/01/10, ECCN EAR99)

List of figures

Figure number	Figure title
Figure 1	Pitch Link Assembly - Removal and Installation

Preliminary requirements

Required Conditions

Action/Condition	Data module/Technical Publication	Applicability
None.		

Support equipment

Name	Identification/References	Quantity	Remark	Applicability
None.				

Consumables, materials and expendables

Name	Identification/References	Quantity	Remark	Applicability
Corrosion preventive compound	C-101	AR		
Corrosion preventive compound	C-104	AR		
Lacing tape	C-173	AR		
Epoxy polyamide primer	C-204	AR		
Lockwire	C-405	AR		

Spares

Name	Identification/References	Quantity	Remark	Applicability
None.				

Safety conditions

None.

Procedure

CAUTION

DO NOT APPLY CORROSION PREVENTIVE COMPOUND (C-104) TO BOLT THREADS OR SPHERICAL BEARINGS.

NOTE

Apply Corrosion preventive compound (C-104) to all bolt shanks prior to installation.

1 Install the pitch link assemblies (7, Figure 1) for the inboard tail rotor blades as follows:

1.1 Put the pitch link assemblies (7) in position between the pitch horn assemblies.

1.2 Apply Epoxy polyamide primer (C-204) to the barrel nuts (28).

1.3 Put the retainers (27) and the barrel nuts (28) in position in the recess of the pitch horn assembly.

1.4 Install the washers (29) and the bolts (30).

1.5 Torque the bolts (30) (T).

1.6 Safety the bolts (30) to the pitch horn assembly with Lockwire (C-405).

1.7 Install the bolts (26), washers (25), jumper assemblies (3), and nuts (24). Tighten the nuts.

1.8 Safety the nuts (24) with a new cotter pin (23).

NOTE

For the bolts (6), you do not need to follow the requirement for a minimum thread length after the nuts.

1.9 Install the washers (5), washers (4), bolts (6), jumper assemblies (3), and nuts (1). Torque the nuts (T).

1.10 Safety the nuts (1) with new cotter pins (2).

2 Install the pitch link assemblies (14) for the outboard tail rotor blades as follows:

2.1 Put the pitch link assemblies (14) in position between the pitch horn assemblies.

2.2 Apply Epoxy polyamide primer (C-204) to the barrel nuts (20).

2.3 Put the retainers (19) and the barrel nuts (20) in position in the recess of the pitch horn assembly.

2.4 Install the washers (21) and the bolts (22).

2.5 Torque the bolts (22) (T).

2.6 Safety the bolts (22) to the pitch horn assembly with Lockwire (C-405).

2.7 Install the bolts (18), washers (17), jumper assemblies (10), and nuts (15). Tighten the nuts.

2.8 Safety the nuts (15) with a new cotter pin (16).

NOTE

For the bolts (13), you do not need to follow the requirement for a minimum thread length after the nuts.

2.9 Install the washers (11), washers (12), bolts (13), jumper assemblies (10), and nuts (9). Torque the nuts (T).

2.10 Safety the nuts (9) with new cotter pins (8).

3 Wind Lacing tape (C-173) around the mounting blocks of the pitch link assemblies (7 and 14) and the jumper assemblies (3 and 10) a minimum of 2 full turns.

4 Apply corrosion preventive compound (C-101) to all bolt heads, washers, nuts, cotter pins, and exposed threads.

WARNING

MAKE SURE THAT THERE IS NO PERSONEL AND/OR EQUIPMENT ON OR NEAR THE FLIGHT CONTROLS. ACTUATION OF THE FLIGHT CONTROLS MAY CAUSE INJURY TO PERSONS AND/ OR DAMAGE TO THE EQUIPMENT.

5 With the hydraulic power off, operate the pedals and examine the pitch link assemblies for full freedom of travel and operation, binding, clearance and interference, or anything that could cause a malfunction.

Requirements after job completion

Required Conditions

Action/Condition	Data module/Technical Publication	Applicability
None.		

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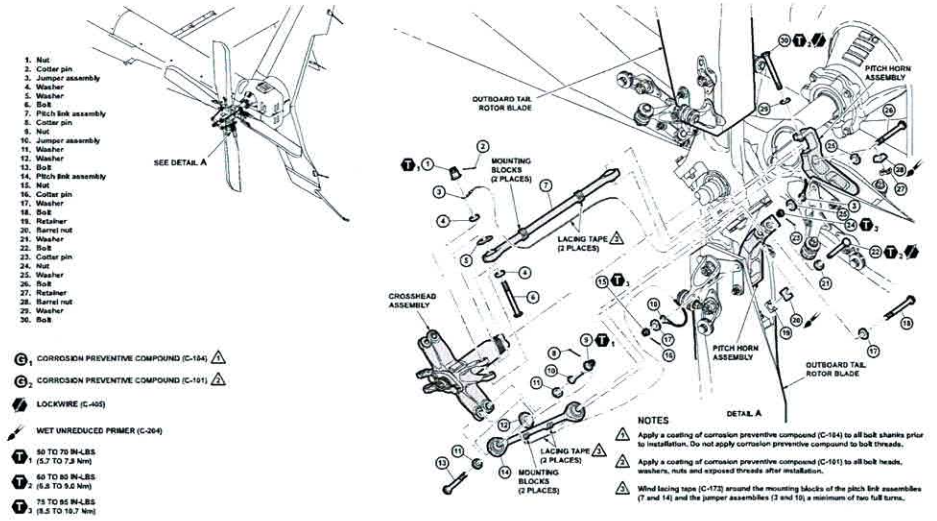


We've updated the Bell Offline TechPubs Viewer! To receive automatic updates in the future, please download the latest Viewer to ensure you always have the most up-to-date application. Click here for instructions.

X

WORKSHEET

WO No : **18255-5/7**	ACFT REGN : **9M-PEC**	SHEET NO:
DATE OPEN : **27/12/18**	ACFT TYPE : **BELL 429**	/ of 2
RAISED BY : **HAZWAN**	A/F HOURS : **1794.3**	

DEFECT COLUMN

ASB 429-15-21 RB Part II: 6 Montly Bellcrank Assembly Inspection.

Due at TSN 1821.6.

ACTION TAKEN COLUMN

6 MONTH BELLCRANK ASSEMBLY INSPECTION CARRIED OUT AS PER ASB 429-15-21 REV B PART II.

FOUND SATISFACTORY.

MAN	HRS	MAN/HRS	MECH	LAE SIGNATURE	LIC/APP NO and DATE
2	3.0	6.0			SAS LAE 037 11.03.19

DESCRIPTION	PART NUMBER	SERIAL NUMBER ON	SERIAL NUMBER OFF	QTY	BATCH NUMBER

The work recorded above has been carried out in accordance with the requirements of the Malaysian Civil Aviation Regulations for the time being in force and in that respect the aircraft / equipment is considered fit for release to service.

Bell Helicopter
A Textron Company

ALERT SERVICE BULLETIN **429-15-21**

19 May 2015
Revision B, 11 May 2017

MODEL AFFECTED: **429**

SUBJECT: **429-001-523-101/-103 AND 429-001-532-101/-103 BELLCRANK ASSEMBLY SCHEDULED INSPECTION, INTRODUCTION OF.**

HELICOPTERS AFFECTED: **Serial numbers 57001 through 57324.**

[Serial number 57325 and subsequent will have new parts installed and are not affected by this bulletin.]

COMPLIANCE: **Part I** - Upon reaching 12 months since date of manufacture or no later than April 30, 2016 for helicopters that have exceeded 12 months since date of manufacture.

Part II - Every 6 months.

DESCRIPTION:

Bell Helicopter has received reports concerning flight control systems that have intermittent restrictions. ASB 429-14-13 was published to address helicopters which did not have air conditioning drainage modifications incorporated. The latest report involved a helicopter which did not have the air conditioning kit installed. Further investigation has determined that static and in-flight precipitation can pool at the forward portion of the roof structure providing a source of contamination for the roof mounted collective and cyclic bellcrank pivot bearings. **Part I** of this bulletin introduces a freedom of rotation check of the roof mounted collective and cyclic bellcrank pivot bearings, and a freedom of rotation check for the collective and cyclic bellcrank arm end bearings. **Part II** of this bulletin repeats **Part I** every 6 months.

Revision B of this ASB removes the alternate procedure of using a hydraulic test stand to perform **Part** I and **Part II**. Field reports indicate that disconnecting the flight controls is a more effective way of detecting bearing degradation.

APPROVAL:

The engineering design aspects of this bulletin are Transport Canada Civil Aviation (TCCA) approved.

CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Helicopter Product Support Engineering - Intermediate Helicopters
Tel: 450-437-2077 / 1-800-463-3036 / pseinter@bh.com

MANPOWER:

Approximately 3 man-hours each are required to complete **Part I** and **Part II** of this bulletin. This estimate is based on hands-on time, and may vary with personnel and facilities available.

WARRANTY:

There is no warranty credit applicable for parts and/or labor associated with this bulletin.

MATERIAL:

None required.

SPECIAL TOOLS:

None required.

WEIGHT AND BALANCE:

Not affected.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

BHT-429-MM, Maintenance Manual
BHT-ALL-SPM

PUBLICATIONS AFFECTED:

Not affected.

ACCOMPLISHMENT INSTRUCTIONS:

Part I – Inspection Procedures

Perform a freedom of rotation check of the roof mounted cyclic and collective bellcrank bearings as follows:

1. Prepare the helicopter for maintenance.

2. Disconnect the forward ends of the collective control tube, longitudinal SCAS actuator, and lateral SCAS actuator (Figure 1) (BHT-429-MM-1, Chapter 67).

CAUTION

Make sure that the collective control tube and SCAS actuator are stowed to prevent binding during the following check.

3. Slowly move the cyclic stick fore/aft and laterally, and the collective stick up/down from stop to stop. If any roughness is detected in the flight control system, remove and replace the six MS27646-41pivot bearings (Item 1, Figure 2) in the collective/ lateral 429-001-523-101/-103, and longitudinal bellcrank 429-001-532-101/-103 (BHT-429-MM-1, Chapter 67).

4. Should discrepant pivot bearings be found that require replacement, contact Product Support Engineering to report findings.

-NOTE-

If binding is detected in any MS27643-4 arm end bearings, all three arm bearings must be replaced per the BHT-ALL-SPM. If tooling and facilities are not available, the arms may be sent through Bell Helicopter CPR for bearing replacement. Alternatively, arm assemblies may be purchased through spares.

5. Check that the MS27643-4 bearings (Item 2) in the 429-001-525-101 collective (Item 3), 429-001-527-101 lateral (Item 4), and 429-001-530-101 longitudinal (Item 5) arm assemblies rotate freely.

6. Should discrepant arm bearings be found that require replacement, contact Product Support Engineering to report findings.

7. Connect the forward ends of the collective control tube, longitudinal SCAS actuator, and lateral SCAS actuator (Figure 1) (BHT-429-MM-1, Chapter 67).

8. Make an entry in the helicopter logbook and historical service records indicating compliance with **Part I** or **Part II** of this Alert Service Bulletin, as applicable.

Part II – Recurring Inspection

1. Carry out **Part I** of this bulletin at 6 month intervals from the accomplishment date of **Part I**.

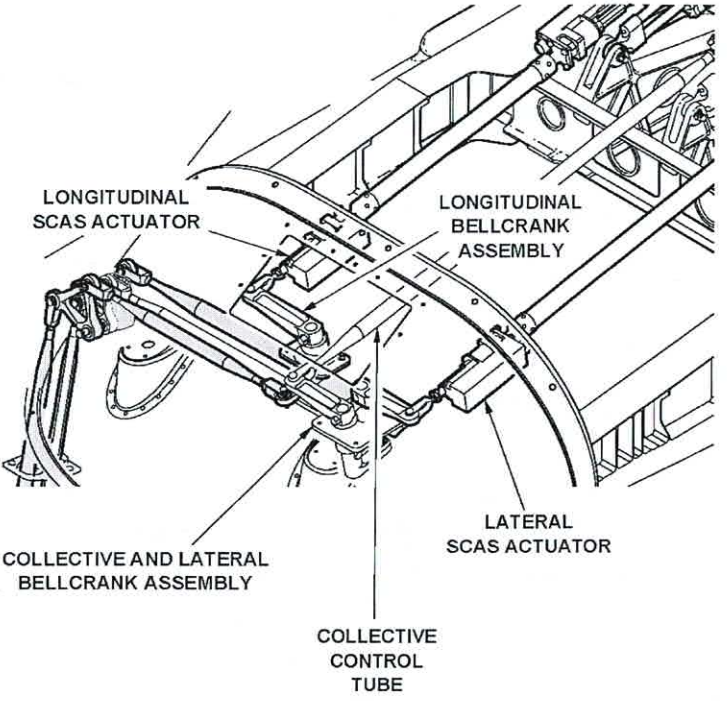
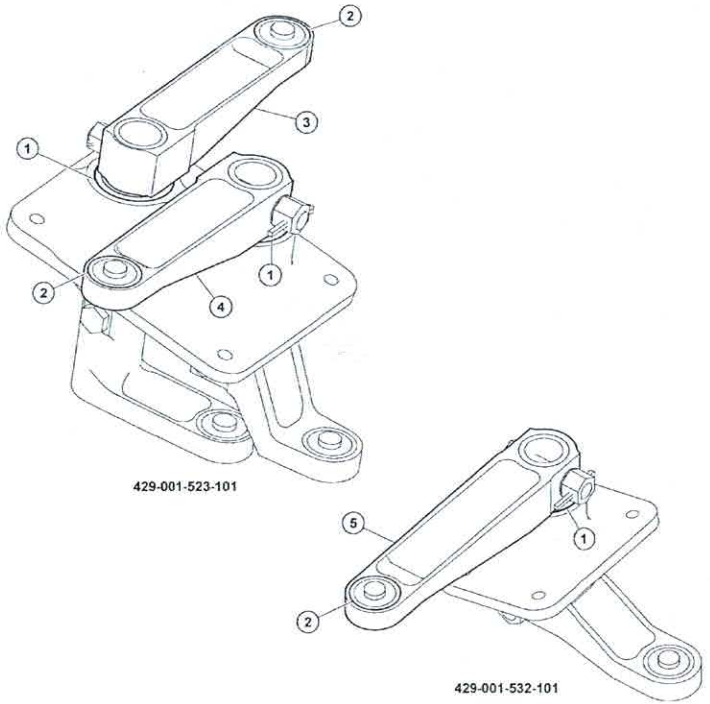


Figure 1 - Bellcrank Assemblies



1. Pivot bearing (MS27646-41) 6 Reqd
2. Bearing (MS27643-4) 3 Reqd
3. Collective arm assembly (429-001-525-101)
4. Lateral arm assembly (429-001-527-101)
5. Longitudinal arm assembly (429-001-530-101)

13562_001a

Figure 2 - Bellcrank Details

SHEET

WO No : 18255-5/7	ACFT REGN : 9M-PEC	SHEET NO: 2 of 2
DATE OPEN : 11/03/19	ACFT TYPE : BELL 429	
RAISED BY : TAN	A/F HOURS : 1798.8	

DEFECT COLUMN

DUPLICATE INSPECTION REQUIRED FOR INSTALLATION OF LONGITUDINAL AND LATERAL SCAS ACTUATOR AND INSTALLATION OF COLLECTIVE CONTROL TUBE.
CHECK FOR - SECURITY OF ATTACHMENT
- CORRECT ORIENTATION OF FASTENERS
- PROPER LOCKING MECHANISM.

ACTION TAKEN COLUMN

DUPLICATE INSPECTION CARRIED OUT:

1st Inspection:

Signature: ..... App. No.: SAS LAE 037 Date: 11/03/19

2nd Inspection:

Signature: ..... App. No.: SAS LAE 019 Date: 12/03/2019

MAN	HRS	MAN/HRS	MECH	LAE SIGNATURE	LIC/APP NO and DATE
-	-	-	-	-	-

DESCRIPTION	PART NUMBER	SERIAL NUMBER ON	SERIAL NUMBER OFF	QTY	BATCH NUMBER

The work recorded above has been carried out in accordance with the requirements of the Malaysian Civil Aviation Regulations for the time being in force and in that respect the aircraft / equipment is considered fit for release to service.

WORKSHEET

WO No : **18255-6/7**	ACFT REGN : **9M-PEC**	SHEET NO: (of)
DATE OPEN : **27/12/18**	ACFT TYPE : **BELL 429**	
RAISED BY : **HAZWAN**	A/F HOURS : **1794.3**	

DEFECT COLUMN

ASB 429-15-26 Part II: 50 Hourly Tail Rotor Pitch Link Corrosion Inspection.

Due at TSN 1821.6.

ACTION TAKEN COLUMN

50 HOURS TAIL ROTOR PITCH LINK CORROSION INSPECTION CARRIED OUT AS PER ASB - 429 - 15 - 26 PART II FOUND SATISFACTORY.

MAN	HRS	MAN/HRS	MECH	LAE SIGNATURE	LIC/APP NO and DATE
2	2.0	4.0			SAS LAE 019 11/03/2019

DESCRIPTION	PART NUMBER	SERIAL NUMBER ON	SERIAL NUMBER OFF	QTY	BATCH NUMBER

The work recorded above has been carried out in accordance with the requirements of the Malaysian Civil Aviation Regulations for the time being in force and in that respect the aircraft / equipment is considered fit for release to service.

Bell Helicopter
A Textron Company

ALERT SERVICE BULLETIN **429-15-26**
7000000141
7 December 2015

MODEL AFFECTED: **429**

SUBJECT: **TAIL ROTOR PITCH LINK CORROSION INSPECTION, INTRODUCTION OF**

HELICOPTERS AFFECTED: **PART I: Serial numbers 57001 through 57149, 57151 through 57169, 57171 through 57197, 57199 through 57214, 57216 through 57227, 57229 through 57234, 57236, 572338, 57239, 57242 through 57245, 57248, 57250, 57251, 57254, 57256 through 57259, 57266, 57268, 57269,**

Part II: Serial numbers 57001 through 57309.

[Serial number 57150, 57170, 57198, 57215, 57228, 57235, 57237, 57240, 57241, 57243, 57244, 57246, 57247, 57249, 57252, 57253, 57255, 57260 through 57265, 57267, 57270 and subsequent will have the intent of Part I of this bulletin accomplished prior to delivery.]

COMPLIANCE: **Part I**: Accomplish this bulletin within 10 flight hours or before March 7, 2016.

Part II: Accomplish every 50 hours after the accomplishment of **Part I** of this bulletin.

DESCRIPTION:

Bell Helicopter has received reports of corrosion on tail rotor pitch links present between the roll staked lip of the 429-312-107-103 bearing and the beveled edge of the 429-012-112-101/-103 tail rotor pitch link. **Part I** of this bulletin introduces an inspection for corrosion and the application of sealant. **Part II** of this bulletin introduces

a repetitive inspection. Applicability of this bulletin to any spare part shall be determined prior to its installation on an affected helicopter.

APPROVAL:

The engineering design aspects of this bulletin are Transport Canada Civil Aviation (TCCA) approved.

CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Helicopter Product Support Engineering - Intermediate Helicopters
Tel: 450-437-2077 / 1-800-463-3036 / pseinter@bh.com

MANPOWER:

Approximately 4 man-hours are required to complete this bulletin. This estimate is based on hands-on time and may vary with personnel and facilities available.

WARRANTY:

Owners/Operators of Bell helicopters who comply with the instructions in this bulletin will be eligible to receive non prorated replacement pitch links when applicable. In order to receive special warranty consideration, file a warranty claim in VISTA and attach high resolution photographs of any corroded pitch links. Bell Helicopter has recently introduced enhancements to the VISTA Portal which allocates specific warranty entitlement for a helicopter by serial number. The Product Service Letter (PSL) number which will be listed below the bulletin number on the introduction page is going to be a required field when submitting a claim for replacement parts, labor, and/or freight. If you receive an ASB or TB that does not have a PSL number, then there is no warranty entitlement for that bulletin.

Labor entitlement:

Part I initial compliance only: $340.00 USD

To receive parts and labor under warranty:

- Comply with the instructions contained in this bulletin no later than the applicable date in the "Compliance Section".
- If there is a PSL number identified in the bulletin, you will be required to enter this PSL number which will validate warranty entitlement for the selected helicopter. Please make sure that you use the Bulletin tab on the warranty section in VISTA to file your claim.

Note:
Customers who fail to comply with the instructions in this bulletin before March 7, 2016 will not be eligible for the special warranty listed above.

MATERIAL:

Required Material:
The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Helicopter Textron Supply Center.

Part Number	Nomenclature	Qty
429-012-112-101	Pitch Link	A/R
429-012-112-103	Pitch Link	A/R
MS24665-155	Cotter Pin	A/R

Consumable Material:
The following material is required to accomplish this bulletin, but may not require ordering, depending on the operator's consumable material stock levels. This material may be obtained through your Bell Helicopter Textron Supply Center.

Part Number	Nomenclature	Qty	Reference *
MIL-PRF-81733	Sealant	A/R	C-251
Commercial	Isopropyl Alcohol	A/R	C-285
AS100028	LockWire	A/R	C-405

* C-XXX numbers refer to the consumables list in the BHT-ALL-SPM, Standard Practices Manual

SPECIAL TOOLS:

None required.

WEIGHT AND BALANCE:

Not affected.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

BHT-429-IPB, Illustrated Parts Breakdown
BHT-429-MM, Maintenance Manual

PUBLICATIONS AFFECTED:

BHT-429-MM, Maintenance Manual

ACCOMPLISHMENT INSTRUCTIONS:

Part I. Initial inspection for tail rotor pitch link corrosion.

1. Prepare the helicopter for maintenance.

CAUTION

Carefully remove and install the lockwire in the tail rotor pitch horns to prevent damage to the lockwire attachment hole.

2. Remove all tail rotor pitch link assemblies (BHT-429-MM-1, Chapter 67).

-NOTE-

Do not clean the affected area prior to the accomplishment of step 3. The aluminum oxide corrosion product will appear as a white crystalline material in contrast with the black finish and any accumulated soot.

3. Use 10X magnification to inspect all eight tail rotor pitch link bearing bores for corrosion evident by the presence of aluminum oxide extruding from between the roll staked lip of the bearing outer race and the pitch link bearing bore (Figure 1). If corrosion is found, replace the affected pitch link.

4. If no corrosion is found in the previous step, clean the area thoroughly with isopropyl alcohol (C-285) and inspect using 10X magnification. If corrosion is found, replace the affected pitch link.

5. If no corrosion is found in the previous step, remove any traces of torque stripe and clean the affected area with isopropyl alcohol (C-285). Apply corrosion preventative sealant (C-251) MIL-PRF-81733 to the bearing roll stake lip and the pitch link (Figure 2). Make sure that there are no pin holes or voids in the sealant. The thickness of the sealant should not exceed 0.025 inch (0.64 mm), should extend

over roll staked lip by 0.030 inch (0.76 mm) min and remain clear of the bearing ball.

6. With a white permanent fine point marker, re-identify the tail rotor pitch links as 429-012-112-101FM and 429-012-112-103FM.

7. Install all tail rotor pitch link assemblies (BHT-429-MM-1, Chapter 67).

8. Make an entry in the helicopter logbook indicating compliance with **Part I** of this Alert Service Bulletin.

Part II. Repetitive inspection for sealant condition.

-NOTE-

In order to align maintenance intervals, the requirements of **Part II** of this service bulletin may be accomplished in conjunction with ASB 429-15-16.

1. Inspect the tail rotor pitch links for condition of applied sealant. If sealant is damaged, reapply as per **Part I** of this bulletin.

2. Make an entry in the helicopter logbook indicating compliance with **Part II** of this Alert Service Bulletin.

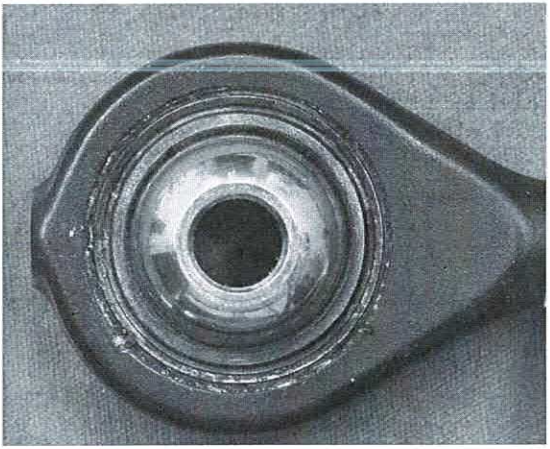


Figure 1 - Pitch Link Corrosion

Figure 2 - Sealant Application

SHEET

WO No : 18255-6/7	ACFT REGN : 9M- PEC	SHEET NO: 2 of 2
DATE OPEN : 27/12/18	ACFT TYPE : BELL 429	
RAISED BY : 74N	A/F HOURS : 1794.3	

DEFECT COLUMN

DUPLICATE INSPECTION REQUIRED FOR TAIL ROTOR PITCH LINK INSTALLATION.

CHECK FOR CORRECT ORIENTATION OF FASTENERS, SECURITY OF ATTACHMENT AND PROPER LOCKING MECHANISM.

ACTION TAKEN COLUMN

DUPLICATE INSPECTION CARRIED OUT:

1st Inspection:

Signature: ..... App. No.: SAS LAE 037 Date: 21.12.18

2nd Inspection:

Signature: ..... App. No.: SAS LAE 006 Date: 21.12.18

MAN	HRS	MAN/HRS	MECH	LAE SIGNATURE	LIC/APP NO and DATE
–	–	–	–	–	–

DESCRIPTION	PART NUMBER	SERIAL NUMBER ON	SERIAL NUMBER OFF	QTY	BATCH NUMBER

The work recorded above has been carried out in accordance with the requirements of the Malaysian Civil Aviation Regulations for the time being in force and in that respect the aircraft / equipment is considered fit for release to service.

WORKSHEET

WO No : **18255-7/7**	ACFT REGN : **9M-PEC**	SHEET NO:
DATE OPEN : **27/12/18**	ACFT TYPE : **BELL 429**	/ of /
RAISED BY : **HAZWAN**	A/F HOURS : **1794.3**	

DEFECT COLUMN

ASB 429-17-35: 50 Hourly Tail Rotor Blade Inspection.

Due at TSN 1821.6.

ACTION TAKEN COLUMN

50 HOURS TAIL ROTOR BLADE INSPECTION CARRIED OUT AS PER ASB 429-17-35. FOUND SATISFACTORY.

MAN	HRS	MAN/HRS	MECH	LAE SIGNATURE	LIC/APP NO and DATE
2	0.5	1.0		SAS LAE 019	SAS LAE 019 11/03/2019

DESCRIPTION	PART NUMBER	SERIAL NUMBER ON	SERIAL NUMBER OFF	QTY	BATCH NUMBER

The work recorded above has been carried out in accordance with the requirements of the Malaysian Civil Aviation Regulations for the time being in force and in that respect the aircraft / equipment is considered fit for release to service.

Bell Helicopter
A Textron Company

ALERT SERVICE BULLETIN **429-17-35**
16 January 16, 2017

MODEL AFFECTED: **429**

SUBJECT: **TAIL ROTOR BLADE 429-016-101-105, INSPECTION OF.**

HELICOPTERS AFFECTED: **Serial numbers 57001 through 57296 and 57306.**

[Serial number 57297 through 57305, 57307 and subsequent will have the intent of this bulletin accomplished prior to delivery.]

COMPLIANCE: Accomplish this bulletin within 50 flight hours of operation following the publication of this bulletin and each 50 hours until the helicopter reaches 300 flight hours total time.

DESCRIPTION:

Bell Helicopter has received two reports of tail rotor blade skin cracks. As such this defect will become evident as a chordwise paint crack. Applicability of this bulletin to any spare part shall be determined prior to its installation on an affected helicopter.

APPROVAL:

The engineering design aspects of this bulletin are Transport Canada Civil Aviation (TCCA) approved.

CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Helicopter Product Support Engineering - Intermediate Helicopters
Tel: 450-437-2077 / 1-800-463-3036 / pseinter@bh.com

Approved for public release.

MANPOWER:

Approximately 0.5 man-hours are required to complete this bulletin. This estimate is based on hands-on time and may vary with personnel and facilities available.

WARRANTY:

There is no warranty credit applicable for parts or labor associated with this bulletin.

Consumable Material:
The following material is required to accomplish this bulletin, but may not require ordering, depending on the operator's consumable material stock levels. This material may be obtained through your Bell Helicopter Textron Supply Center.

Part Number	Nomenclature	Qty	Reference *
2100-00006-00	Detergent (Note 1)	As required	C-318

* C-XXX numbers refer to the consumables list in the BHT-ALL-SPM, Standard Practices Manual

NOTE 1: Or equivalent aviation approved detergent.

REFERENCES:

BHT-429-MM Maintenance Manual

PUBLICATIONS AFFECTED:

None affected.

ACCOMPLISHMENT INSTRUCTIONS:

1. Prepare the helicopter for maintenance.
2. Carry out a general visual Inspection of all four tail rotor blade inboard and outboard skins for evidence of chordwise paint cracks.
3. Should a paint crack be detected in a tail rotor blade skin, please contact Product Support Engineering for further instructions.
4. Make an entry in the helicopter logbook and the Historical Service Record (HSR) indicating compliance with this Alert Service Bulletin.

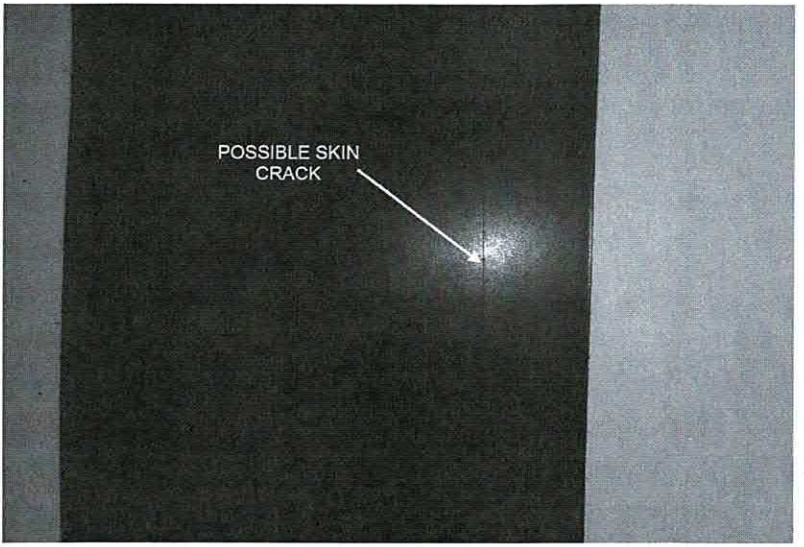


Figure 1 - Possible Skin Crack Indication