

## Grant Robinson

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**From:** McConnell, DAVE P <dave.p.mcconnell@lmco.com>  
**Sent:** Tuesday, September 27, 2016 9:53 AM  
**To:** Liming Qi; Michael Macgowan; Mike Goodman  
**Cc:** Manuel Padurean; Partnumber Management Norway; Grant Robinson  
**Subject:** RE: Clevis spring rod support bracket HS-HTN PN 76400-23514-047

Liming;

Per your request.

Customer:	Thai Aviation Services Limited
Aircraft Serial Number:	760731
Aircraft Model:	S-76C++
ATA:	67
Part Number:	76400-23514-047
Case Number:	C0041109
Title:	Balance Spring Bracket Assembly Hole Elongated

**Issue Description:**

TAS maintainers noted the collective spring guide rod hole in the P/N 76400-03014-135 angle attached to the 76400-23514 balance spring bracket assembly was deeply worn and elongated by chafing of the spring guide rod.

The -135 angle was noted to be fitted with what appeared to be a P/N MS21730-A37 Rivnut supporting the pitch spring guide rod.

There was no sign that there had been a Rivnut in the hole for the collective spring rod.

Reference to DWG 76400-23514 indicated that the -047 bracket assembly has a Rivnut added to the collective spring hole, and a P/N NAS557-4A grommet in the collective spring hole.

It is thought that the bracket assembly in question is a P/N -047, and that the missing grommet resulted in the observed wear of the -135 angle.

Reference to the S-76C IPC calls out only a P/N 76400-23514-043 bracket assembly, which does not have the grommet or Rivnut fitted to the -135 angle.

TAS wish to order a replacement -047 balance spring bracket assembly.

- 1) Please confirm that the -047 balance spring bracket assembly is applicable for use on S-76C-series A/C.
- 2) Please advise the A/C S/N effectivity range for the -047 bracket assembly on S-76C-series A/C. EoM

**Resolution:**

1- The -047 balance spring bracket assembly is applicable for use on S-76C-series A/C.

2- The A/C S/N effectivity range for the -047 bracket assembly on S-76C-series A/C is PSOR (per sales order request).

Best regards,

**David P. McConnell**

Senior Field Service Representative

Sikorsky, a Lockheed Martin company

Email [dave.p.mcconnell@lmco.com](mailto:dave.p.mcconnell@lmco.com) NOTE NEW EMAIL ADDRESS

Smartphone +1 (203) 873-8552 (US)  
Efax +1 (860) 998-8791 (US)  
Cell +66 (0)8 7750-7920 (Thailand)



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**From:** Liming Qi [mailto:[Liming.Qi@chc.ca](mailto:Liming.Qi@chc.ca)]  
**Sent:** Monday, September 26, 2016 3:22 PM  
**To:** McConnell, DAVE P (TH); Michael Macgowan; Mike Goodman  
**Cc:** Manuel Padurean; Partnumber Management Norway  
**Subject:** EXTERNAL: RE: Clevis spring rod support bracket HS-HTN PN 76400-23514-047

Hi Dave,

Many thanks. Our team will place an order on the website portal for UTP.

Will let you know if we have any difficulties.

Regards,

Liming Qi

+66896101555

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**From:** McConnell, DAVE P [<mailto:dave.p.mcconnell@lmco.com>]  
**Sent:** Monday, September 26, 2016 3:17 PM  
**To:** Liming Qi; Michael Macgowan; Mike Goodman  
**Cc:** Manuel Padurean; Partnumber Management Norway  
**Subject:** RE: Clevis spring rod support bracket HS-HTN PN 76400-23514-047

Liming;

There is no FTR as of yet but I can submit and let you know the result.

Dave

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**From:** Liming Qi [<mailto:Liming.Qi@chc.ca>]  
**Sent:** Monday, September 26, 2016 2:13 PM  
**To:** Michael Macgowan; Mike Goodman; McConnell, DAVE P (TH)  
**Cc:** Manuel Padurean; Partnumber Management Norway  
**Subject:** EXTERNAL: RE: Clevis spring rod support bracket HS-HTN PN 76400-23514-047

Dave,

Can you please help to take a look on below and let us know if there is a FTR number?

Regards,

Liming Qi

+66896101555

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**From:** Michael Macgowan  
**Sent:** Thursday, September 22, 2016 8:39 PM  
**To:** Liming Qi; Mike Goodman  
**Cc:** Manuel Padurean; Partnumber Management Norway  
**Subject:** RE: Clevis spring rod support bracket HS-HTN PN 76400-23514-047

Hi Liming,  
Part number has been entered.

Mike,  
Was there an FTR number raised for the bracket or only mentioned in this email?  
Just wanting to put something in the notes for substantiation.

Cheers,  
Michael Macgowan  
Maintenance Programs  
CHC Helicopters  
4300 80th Street  
Delta, BC, Canada  
V4K 3N3

Office Ph: +1 604-952-7700  
Direct Ph: +1 604-952-7897  
Email: [Michael.Macgowan@chc.ca](mailto:Michael.Macgowan@chc.ca)  
Skype: michael.macgowan.chc  
[www.chc.ca](http://www.chc.ca)



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**From:** Liming Qi  
**Sent:** Wednesday, September 21, 2016 8:48 PM  
**To:** Partnumber Management Norway <[partnumber.administration@heli-one.ca](mailto:partnumber.administration@heli-one.ca)>; Michael Macgowan <[Michael.Macgowan@chc.ca](mailto:Michael.Macgowan@chc.ca)>  
**Cc:** Manuel Padurean <[Manuel.Padurean@heli-one.ca](mailto:Manuel.Padurean@heli-one.ca)>  
**Subject:** FW: Clevis spring rod support bracket HS-HTN

Michael,

Can you please help to master below part number in AMOS.

7'219'474 | Load | New System W/O | Modify

	No. <a href="#">7219474</a> External No. Type  MAINT Due Date <a href="#">06.Oct.2016</a> Due TAH Due TAC	Workpack Inherited Proj Proj Cu
A/C Reg. <a href="#">HS-HTH</a> Flight/Log No. <a href="#">2 / 1000221897</a> A/C Type <a href="#">76C++</a> Station from <a href="#">UTP</a> Station to <a href="#">UTP</a>	Station <a href="#">UTP</a> Date <a href="#">22.Sep.2016</a> Time <a href="#">02:59</a> Sign <a href="#">CKHAMPHU</a>	ATA-Chapter <a href="#">67-13</a>  0 Type/Origin Position
+++  +++ Prio: N +++		
<b>Production View</b> <p>1  Work Step added by CKHAMPHU on 22.Sep.2016 02:59 </p> <p><b>BALANCE SPRING BRACKET ASSEMBLY SPRING CLEVIS ROD HOLE WORN</b>      THE BRACKET BALANCE SRING CLEVIS ROD (COLLECTIVE SIDE) HOLE WORN OUT.      IAW MM 67-14-00 MIXER UPP DECK BRACKET P/N 76400-23514-047 TO BE REPLACED.      Description Sign CKHAMPHU</p> <p> Action performed by CKHAMPHU on 22.Sep.2016 03:21    </p> <p><b>BALANCE SPRING BRACKET ASSEMBLY SPRING CLEVIS ROD HOLE WORN</b>      TRANSFER TO 06 OCT 2016 DUE TO PART NOT AVAILABLE ON SITE.</p> <p>INSPECTION CARRIED OUT NO EFFECT AIRWORTHINESS WITH CONDITION ACCEPTED      TO CONTINUE SERVICE IAW MM 67-14-00 AND THE BRACKET ASSEMBLY TO BE      REPLACED WHEN PART AVAIL.      Performed Sign CKHAMPHU</p> <p> Transfer </p>		
<b>Planning View</b> <p>1  Work Step added by CKHAMPHU on 22.Sep.2016 03:21 </p> <p><b>BALANCE SPRING BRACKET ASSEMBLY SPRING CLEVIS ROD HOLE WORN</b>      THE BRACKET BALANCE SRING CLEVIS ROD (COLLECTIVE SIDE) HOLE WORN OUT.      IAW MM 67-14-00 MIXER UPP DECK BRACKET P/N 76400-23514-047 TO BE REPLACED.      Description Sign CKHAMPHU</p> <p> Part Requests      Part No.  <a href="#">76400-23514-047</a></p>		

Regards,

Liming Qi

+66896101555

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**From:** Chatchai Khamphui [[mailto:Chatchai\\_k@tasl.co.th](mailto:Chatchai_k@tasl.co.th)]  
**Sent:** Thursday, September 22, 2016 10:30 AM  
**To:** Liming Qi; UTPstore  
**Cc:** Wetchayan Suwannamajo; Utapao Base Manager; Manoch Kongsong  
**Subject:** Clevis spring rod support bracket HS-HTN

Dear Tuew,

Pls be informed WO#7219474 was issued and kindly make a further process.

Thank you for your always supports,  
 Best Regards,  
 Chatchai  
 UTP Maint Team.

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**From:** Liming Qi [Liming.Qi@chc.ca]  
**Sent:** Wednesday, September 21, 2016 2:22 PM  
**To:** UTPstore  
**Cc:** Wetchayan Suwannamajo; Chatchai Khamphui; Utapao Base Manager  
**Subject:** RE: Lower intale cowling support rod detached "D" ring (HVC)

Tuew,

You can still order the part -047 on a work order.

Just leave it as is when showing "UNKNOWN PART".

Please let me know the work order # when done.

Regards,

Liming Qi

+66896101555

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**From:** UTPstore [mailto:[UTPstore@tasl.co.th](mailto:UTPstore@tasl.co.th)]

**Sent:** Wednesday, September 21, 2016 1:16 PM

**To:** Liming Qi

**Cc:** Wetchayan Suwannamajo; Chatchai Khamphui; Utapao Base Manager

**Subject:** RE: Lower intale cowling support rod detached "D" ring (HVC)

**Importance:** High

Hello Khun Liming,

Please advise for e-mail below;

Best Regards,

Tuew

Thai Aviation Services Co., Ltd.

U-Tapao Base, Thailand

Phone: (+66)038 244 371 ext:22

Fax: (+66) 038 244 373

Email: [utpstore@tasl.co.th](mailto:utpstore@tasl.co.th)<mailto:[utpstore@tasl.co.th](mailto:utpstore@tasl.co.th)>, [sasithorn\\_p@tasl.co.th](mailto:sasithorn_p@tasl.co.th)<mailto:[sasithorn\\_p@tasl.co.th](mailto:sasithorn_p@tasl.co.th)>

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**From:** Chatchai Khamphui

**Sent:** Wednesday, September 21, 2016 1:12 PM

**To:** Utapao Base Manager; UTPstore

**Cc:** Wetchayan Suwannamajo

**Subject:** RE: Lower intale cowling support rod detached "D" ring (HVC)

Dear Khun Mike,

Fyi, we are working out on this work order and I 'm doing discuss with Tuew so how we can ask for part which it not in the IPC ( [76400-23514-047](#) ) even the important on AMOS inventory.

Dear Tuew,

Pls kindly advise if this assembly would be available to make an ordering if yes so you can add this part into AMOS,please? .

Best Regards,  
Chatchai

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**From:** Utapao Base Manager  
**Sent:** Tuesday, September 20, 2016 1:25 PM  
**To:** Chatchai Khamphui; Wetchayan Suwannamajo  
**Subject:** FW: Lower intale cowling support rod detached "D" ring (HVC)

Gents,

See e mail below from Dave McConnell. We need to open a work order and order the necessary part.

*Best regards,*

*Mike Goodman*

*Thai Aviation Services*

*Utapao B.M. /S.E.*

*Utapao, Thailand*

*Office: (+66) (0) 38-244371*

*Fax: (+66) (0) 38-244373*

*Mobile: (+66) (0) 81-453-6581*

### **SMS Element for September:**

### **Risk Assessments..**

**"At CHC, we consider all risks to our business and identify controls to minimise those risks:"It's about knowing we are safe and not just thinking we are"**

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**From:** McConnell, DAVE P [mailto:[dave.p.mcconnell@lmco.com](mailto:dave.p.mcconnell@lmco.com)]

**Sent:** Tuesday, September 20, 2016 12:04 PM

**To:** Utapao Base Manager

**Cc:** Daryl Dixon; Grant Robinson; Ed Power; Boonchai Empremsilapa; Pratya Panyatip

**Subject:** RE: Lower intale cowling support rod detached "D" ring (HVC)

Mike;

What we are looking at is a P/N 76400-23514-047 Balance Spring Bracket Assembly.

The -047 replaces the -043 and is considered to be the preferred part. I don't know why the -047 still isn't in the IPC but it seems to be a great subject for a SoundOff.

The -047 differs from the -043 in that it has one P/N MS27130-A37 rivnut mounted in the P/N 76400-03014-135 bracket to support the pitch spring rod.

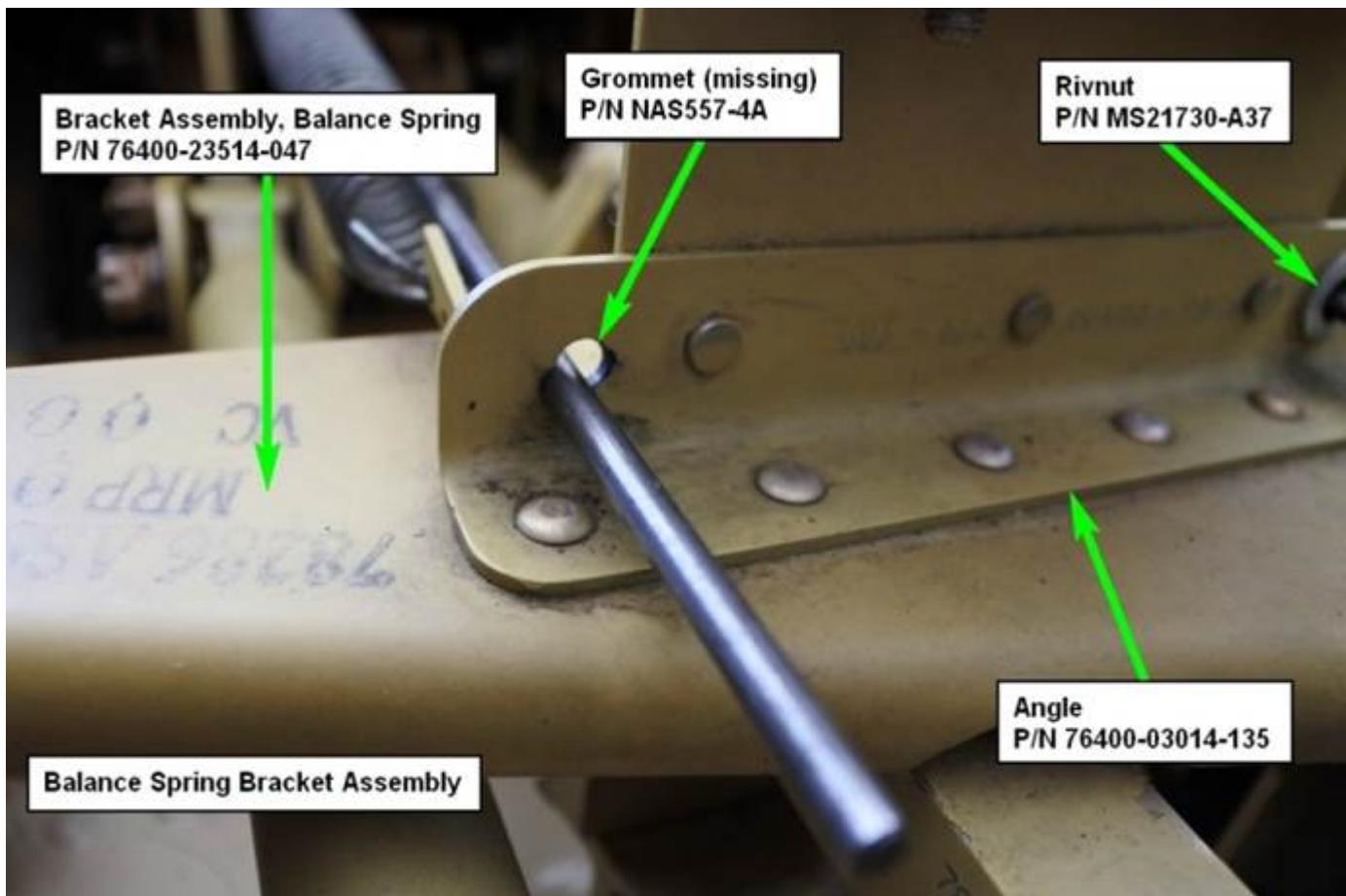
The collective spring rod hole does not use a rivnut. Instead it has one P/N NAS557-4A grommet fitted. Yours is missing.

The wear in the collective spring hole appears to be too great to simply reinstall a new grommet.

Sikorsky will recommend that you order a replacement P/N 76400-23514-047 Balance Spring Bracket Assembly. In the meantime you can continue to operate as long as the collective spring rod isn't in danger of getting stuck in the keyhole slot or contacting the -135 angle. You can clean up the keyhole slot if need be to enable the rod to travel more smoothly.

Please let me know if the lead time of the -047 bracket assembly turns out to be excessive.

Dave



**From:** Utapao Base Manager [mailto:[utapao-bm@tasl.co.th](mailto:utapao-bm@tasl.co.th)]

**Sent:** Tuesday, September 20, 2016 10:24 AM

**To:** McConnell, DAVE P (BN)

**Cc:** Daryl Dixon; Grant Robinson; Ed Power; Boonchai Empremsilapa; Pratya Panyatip

**Subject:** EXTERNAL: RE: Lower intale cowling support rod detached "D" ring (HVC)

Hi Dave,

It's funny you should ask that. Firstly, yes in fact it does have a rivnut installed in the other side of the bracket. Where was it installed ?? I have no idea. I don't imagine that this is permitted? I was going to mention this after I had already sent the e mail, but I got side tracked.

*Best regards,*

*Mike Goodman*

Thai Aviation Services

Utapao B.M. /S.E.

Utapao, Thailand

Office: (+66) (0) 38-244371

Fax: (+66) (0) 38-244373

Mobile: (+66) (0) 81-453-6581

### **SMS Element for September:**

### **Risk Assessments..**

**"At CHC, we consider all risks to our business and identify controls to minimise those risks:"** It's about knowing we are safe and not just thinking we are"

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**From:** McConnell, DAVE P [<mailto:dave.p.mcconnell@lmco.com>]  
**Sent:** Tuesday, September 20, 2016 10:01 AM  
**To:** Utapao Base Manager  
**Cc:** Daryl Dixon; Grant Robinson; Ed Power; Boonchai Empremsilapa; Pratya Panyatip  
**Subject:** RE: Lower intale cowling support rod detached "D" ring (HVC)

Mike;

Taking a closer look at the pics of the balance spring bracket wear on HTN – It's a bit hard to tell – but does the other spring have a rivnut in the hole?

Dave

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**From:** Utapao Base Manager [<mailto:utapao-bm@tasl.co.th>]  
**Sent:** Monday, September 19, 2016 6:01 PM  
**To:** McConnell, DAVE P (BN)  
**Cc:** Daryl Dixon; Grant Robinson; Ed Power; Boonchai Empremsilapa; Pratya Panyatip  
**Subject:** EXTERNAL: Re: Lower intale cowling support rod detached "D" ring (HVC)

Thanks Dave

Sent from my iPhone

On Sep 19, 2559 BE, at 17:17, McConnell, DAVE P <[dave.p.mcconnell@lmco.com](mailto:dave.p.mcconnell@lmco.com)> wrote:

Mike;

I'll research the bracket and let you know what I find out. And I'll do an FTR on the pip pin to inform the factory.

Dave

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**From:** Utapao Base Manager [<mailto:utapao-bm@tasl.co.th>]  
**Sent:** Monday, September 19, 2016 4:00 PM  
**To:** Daryl Dixon; Grant Robinson  
**Cc:** McConnell, DAVE P (BN); Ed Power; Boonchai Empremsilapa; Pratya Panyatip  
**Subject:** EXTERNAL: Lower intale cowling support rod detached "D" ring (HVC)

Gents,

*There are 2 attached files for your perusal. One titled HTN, and it has to do with the roll gradient spring hole worn at the through hole for the rod (see photos attached). I do not see any wear limits, and as you can see the extent of the wear, we will need to replace the bracket. I do not see a part number for the required bracket. Any suggestions welcomed.*

<image001.png>

*In the other attachment titled HVC, this has to do with the "D" ring becoming detached from the R/H intake cowling support rod, lower attachment area. I am sending this e mail for no other reason, except information to all parties. I have removed the D ring and have it on my desk. I'm really not keen on squeezing the D ring back on the pit pin head (possibly pit pins with the small metal plate, and a hole for the "Key Ring" ring). Someone may want to look at a different style pit pin, see below? Your thoughts gents.*

<image002.png>

<image003.png>

*Best regards,*

*Mike Goodman*

*Thai Aviation Services*

*Utapao B.M. /S.E.*

*Utapao, Thailand*

*Office: (+66) (0) 38-244371*

*Fax: (+66) (0) 38-244373*

*Mobile: (+66) (0) 81-453-6581*

### **SMS Element for September:**

### **Risk Assessments..**

***"At CHC, we consider all risks to our business and identify controls to minimise those risks:" It's about knowing we are safe and not just thinking we are"***

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**Our Purpose:** Providing unmatched helicopter services that enable customers to go further, do more and come home safely.

**SMS Element of the Month:** Crisis Management

At CHC we are prepared and ready to manage any crisis by having a robust emergency response plan and training in place.

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