Ensuring correct torque tightening

2 General

Effectivity:	All Hoffman HO-V72 propellers that have not been serviced directly by Hoffman propellers (see 5.1)
Reason:	Several propellers were found with improperly tightened blade retention nuts
Description:	This service document supersedes the ASB001 B. This service bulletin describes required instructions and the proper procedure for tightening the blade retention nut with the correct torque.

3 Revision History

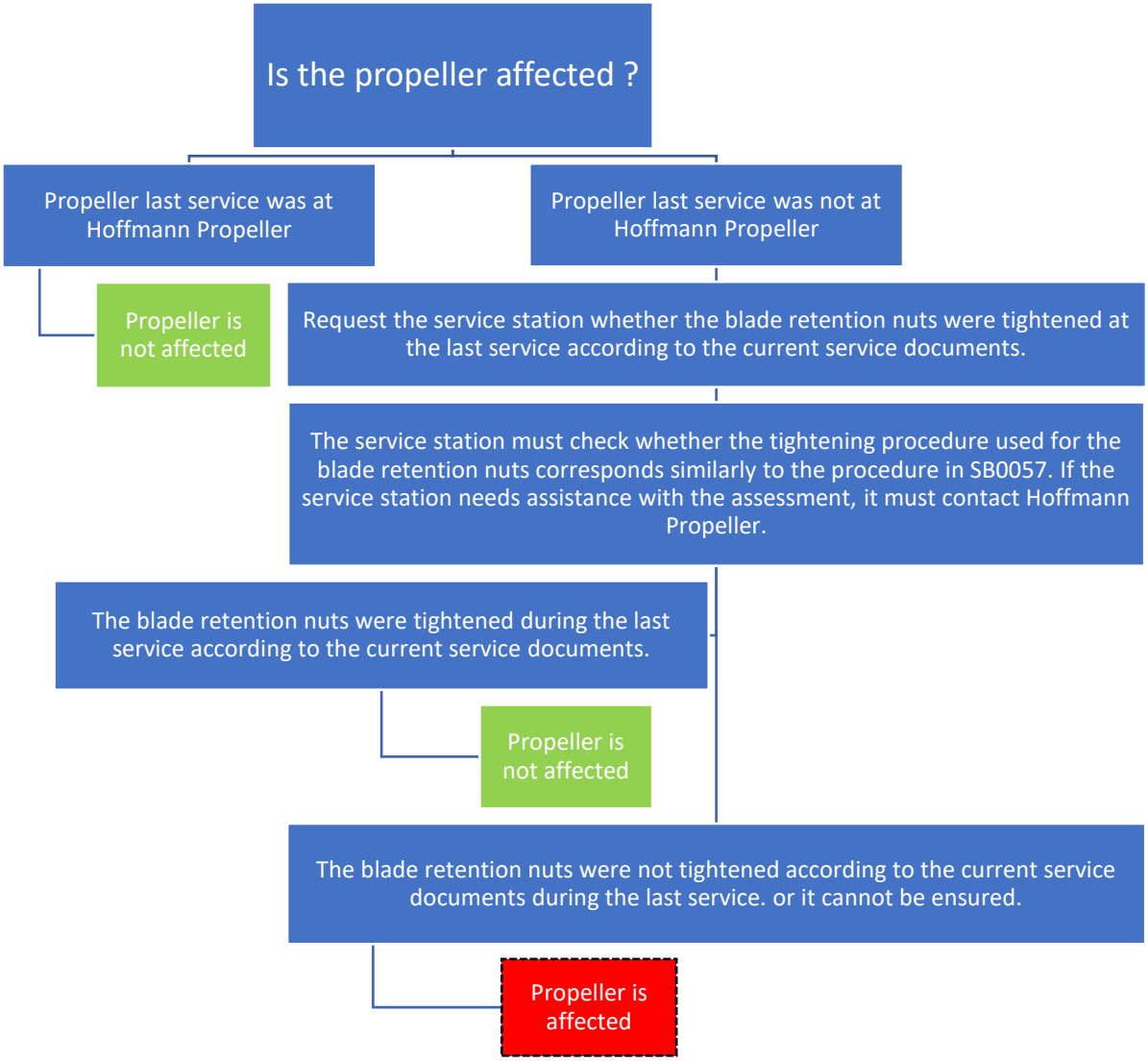
Revision	Description/Reason for Revision	Date
A	Initial Issue	*2022-02-11*
B	*Effectivity limited to HO-V72 propeller type, inclusion and summary of the alert service bulletin 001, ref SB058 added, ref CMM deleted*	*2022-02-23*

4 Description

Manpower:	2 – 6 hours (depending on number of blades)
Material – Cost and Availability:	On request (approx. 50€/per blade) VP-parts available at Hoffmann Propeller / Silicon etc. available at Hoffmann Propeller or at public stores.
Tooling:	As described in 5.3.
Weight and Balance:	N/A
Electrical Load Data:	N/A
Software Accomplishment Summary:	N/A
References:	Operation and Maintenance Manuals (E243 & 2505.73) as applicable, SB057, SB053, SB058
Other Publications:	None
Family Tree Chart of Modification Relationship:	N/A
Interchangeability or Intermixability of Parts:	N/A

5 Accomplishment Instructions

5.1 Effectivity evaluation and required steps



If the propeller is not affected, no further steps are required.

If the propeller is affected the following instructions are required:

- Before each flight check blades for shake. If blade shake is found the propeller is not considered serviceable and the aircraft should not be flown.
- If vibrations occur during flight, reduce the power, and land as soon as possible, the propeller may not be serviceable, the cause of the vibration should be investigated and if propeller suspected it should be considered unserviceable and aircraft should not be flown.
- Within next 90 flight hours the procedure according to the following chapter 6 in this service bulletin and the final check according to the following chapter 7 in this service bulletin must be carried out.

After the steps described in the following chapters 6 & 7 of this service bulletin has been carried out the propeller can be operated normally.

5.2 Needed parts and consumable materials

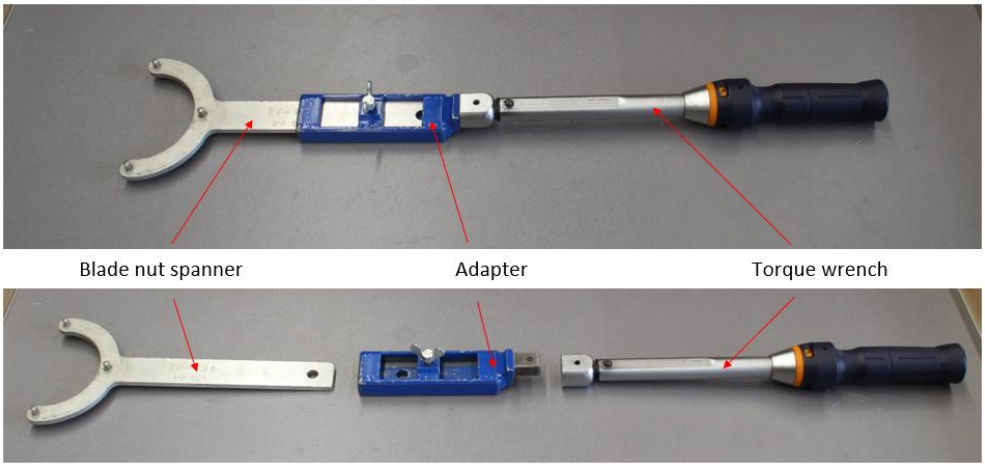
- One locking plate each blade. For the correct part number see Table 1. (Available by Hoffmann Propeller)
- Stainless steel locking wire 0.8 mm (0.03 inch)
- Silicone according Table 1 (Available by Hoffmann Propeller)
- Masking tape
- Cleaning agent

Propeller type	**Part-No. Locking plate**		**Silicone**
	symmetric	asymmetric	
HO-V72	VP20-572		RTV 109 (silver)

Table 1: Part numbers of locking plates and silicone type.

5.3 Tools required

- Blade nut spanner and adapter according SB057 (Available by Hoffmann Propeller)
- Calibrated torque wrench with adaptor according SB057 (Available by Hoffmann Propeller)
- Wire Lock plier



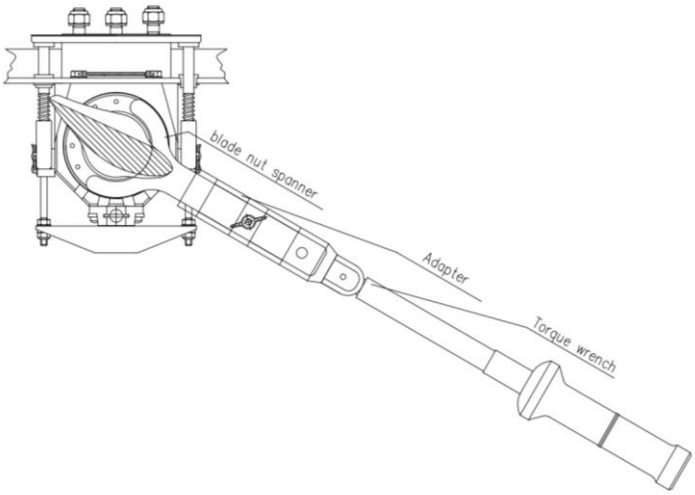


Figure 1 Tool designations

6 Procedure

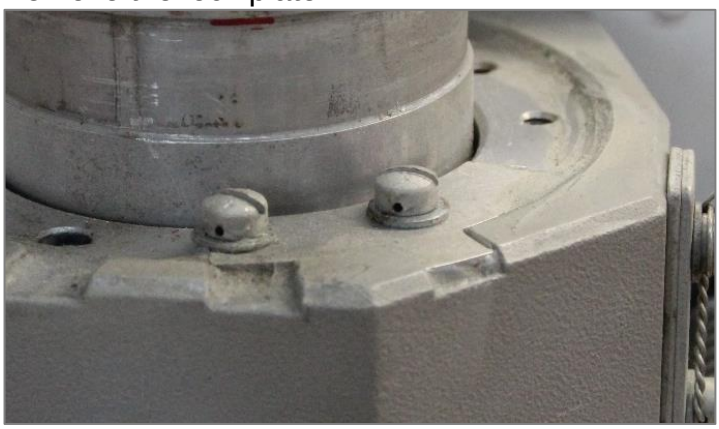
6.1 General Preparation

- Mark the position of the spinner to ensure it can be reattached
- Remove the spinner by loosening the Philips screws
- Mark the position of the counterweight to ensure it can be reattached

- Remove the counterweight by loosening the stop nuts.

6.2 Blade preparation and installation

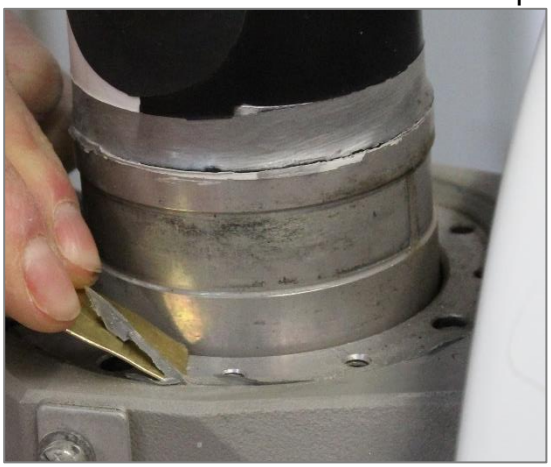
- Remove the lock plate



- If balance weights are installed on the blade retention nut mark the position and remove them also.

- Cut the silicone joint, take care not to damage the propeller hub or blade retention nut

- Remove the silicone with a brass or plastic spatula



- Clean the surface with cleaning agent
  Caution do not use acceton / MEK (Methyl Mthyl Ketone)
- Break off the rest of the silicone by opening the blade retention nut half a turn, using the blade nut spanner
- Remove the residual silicone as before
- Retorque according to SB057 “procedure of tightening blade nuts”
- If needed drill a new lock plate
- Prepare area for silicone application (cleaning etc.)
- Use sealing compound RTV 109 and fill the gap (joint) between hub socket (It is recommended to mask the blade retention nut with insulating tape or similar to obtain a clean seal).
- Attach lock plate and tighten it with slotted screws (3Nm).
- Attach balance weight in wet silicone if any were installed before. Use position as marked before removal and tighten it with slotted screws (3Nm).
- Wire lock the slotted screws
- Install counterweights, if applicable, as marked before, showing in the correct direction. Torque stop nuts M8 with 10 - 12 Nm. (To see the standard position of the counterweights refer to SB058)
- Attach spinner to the marked position as described in the applicable OMM

7 Final checks

- Before first use, check that the silicone seal between the blade nut and the hub is fully sealed and that the silicone has completely cured.
- Check if all screws are wire locked.
- Check if all lock plates and balance weights are at the right position.
- Check the blades for blade play.
  Only blade angle play up to 0.5° is allowed.
  Axial play is not allowed.
  It is recommended to mark all screws and bolts with locking varnish.

8 Approval Statement

The technical content of this document is approved under the authority of the DOA ref. EASA. 21J.083.