SERVICE BULLETIN
N° 25-001-a

Date	10-10-2025
Propellers affected	This SB concern **exclusively** the **Excalibur-5** (5 bladed propeller) when mounted on the **Super Petrel XP** with the **Rotax 915iS and 916iS** engines
SB subject	Reported case of breakage on the **5 inner bolts** holding the hubs
Required action	Set the tightening torque of the 5 inner bolts to **8 Nm** (previously 11Nm)
Issued by	Nicolas Parrein
Signed by	Jérémie Buiatti

1. CONTEXT

Several cases of bolt breakage have occurred on the **Super Petrel XP** aircraft when equipped with the **Rotax 915iS** and **Rotax 916iS** engines (Fig.1).

Fig. 1 Excalibur-5 on a Super Petrel XP

It concerns only the **inner bolts** that hold the hubs together (Fig.2).

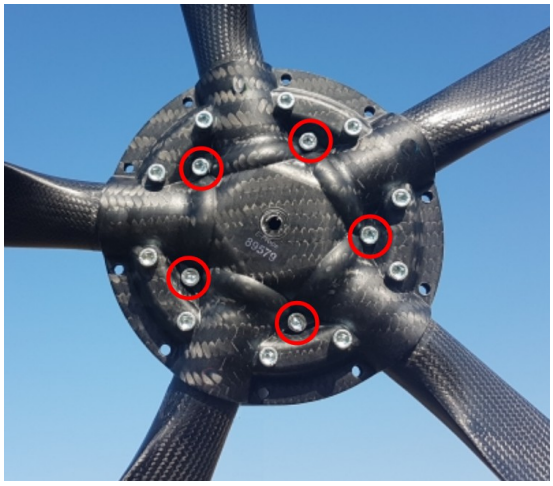
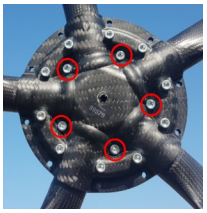


Fig.2 inner bolt that require a tightening torque adjustment

These bolts are under a lot of stress, witch is amplified by vibrations of the airflow due to the aerodynamics of the Super Petrel. To ensure that the bolt does not exceed their stress limit, their tightening torque has to be reduced. This tightening torque change does not affect the blade retention or the safety of the assembly.

2. CORRECTIVE ACTIONS

Change of the tightening torque of the 5 inner bolts only.

Impacted parts	**5x M6x25mm bolts** located in the center of the hub. 
Modification	Change of the tightening torque: 11Nm → **8 Nm** To do so, start by l**oosening the bolts** completely, and then **tighten them to 8 Nm** using a calibrated torque wrench.
Additional information	The tightening torque of the other bolts is not changed.

3. REMINDER

It is very important to ensure that propeller bolts are **correctly tightened** to guarantee user safety.

Please note that the E-Props Propeller Assembly and Maintenance Manual is provided with each new propeller; the latest updated version of this document is **published on the company's website:**

www.e-props.fr / AIRCRAFT / MANUALS

In addition, here are some best practices for tightening the bolts on our propellers:

Use the supplied bolts	The bolts supplied with the propeller have **specific quality, length and threading.** This is essential to ensure correct assembly and tightening. It is **prohibited** to use other bolts than the one supplied with the propeller.
Follow the user mounting manual	There are different ways to tighten bolts (washers, thread lock, etc…). We specify an assembly and it must be strictly adhered to. For instance, on the Durandal / Excalibur propellers, **usage of thread lock is prohibited.**
Respect the tightening torque	The tightening of any bolt has to be done with a **calibrated torque wrench.** → If the fastening torque is too low, the bolt might get loose. → If the fastening torque is too high, the bolt might break over time.
Star shape pattern tightening	Propeller bolts must be tightened in a **star shaped pattern** so that no single bolt is subjected to excessive stress during tightening (or loosening). This is a **very important operation** to ensure the longevity of the propeller bolts.