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# **SERVICE BULLETIN**

Service Bulletin No. 2018-02

### **MAINTENANCE INSTRUCTION**

**SUBJECT**: alternator flange bolt

**MODELS AFFECTED**: All models

TIME OF COMPLIANCE: at next maintenance

AFFECTED SERIAL NUMBER: all engines

We are pleased to note that no further field issues have been reported. After extensive R&D, and advice from specialists, we have decided to annul this service bulletin. Specialist have confirmed that left hand thread and loctite is a well proven method for this application.

Furthermore, the required actions mentioned in the service bulletin and in the maintenance manuals may have a negative effect on safety if the work is carried out incorrectly. Even though the instructions in the SB and maintenance are well explained, there is always the risk of turning the bolt in the opposite direction and, breaking the the loctite seal which may create its own issues.

Therefore, the alternator holt check will be removed in the next undate of the

Therefore, the alternator bolt check will be removed in the next update of the maintenance manual.

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As a part of our continuous developments and a result of field experience, a number of important changes to our engine maintenance schedules have been introduced.

One of these changes covers the checking of the torque of the alternator flange bolt.

The latest maintenance manuals can be downloaded from our website http://ulpower.com/en/engines/ where you can find the manuals on the related engine pages by clicking on the tab "manuals". A detailed lists of changes made, can be found at the last page of the manual.

For your convenience, we have copied the related pages for the alternator flange bolt from our maintenance manual below .

### Related page for the maintenance schedule

## Maintenance Schedule for ULPower Aero Engines



In an action House		Check (hr.)			
Inspection Items	5	15	50	100	200
Propeller Flange					
a) check the torque of the propeller flange bolt: must be 300 Nm	Х	Х			
Oil level					
<ul> <li>a) Remove magnetic drain plug from bottom of oil sump inspect and clean magnetic pickup.</li> <li>Drain old oil and inspect for foreign particles. Record findings.</li> </ul>		х	х	Х	X
b) Replace copper sealing washers of drain plug and refit to oil sump. Torque to 25Nm.		Х	Х	Х	Х
c) Refill oil sump with approx. [3 litres (iSA: 4l) 4 cylinder] [4 litres of oil (iSA 5l) 6 cylinder]. For correct volume and type of oil, refer to Op. Manual.		х	х	Х	Х
d) Inspect oil level and add oil as necessary to maximum mark. For correct type of oil, refer to Op. Manual. Record quantity of oil added <b>NOTE: If using AVGAS, recommended oil change is 50hours</b>				Х	Х
Alternator Flange					
a) Check the torque of the alternator flange bolt: must be 280Nm					Х
Oil Filter					
a)Remove oil filter from engine and install new oil filter. Wipe clean mating surface. Lubricate mating sealing ring of new oil filter with clean engine oil. Screw on new filter by hand and torque to 15Nm. Cut old filter (without creating metal chips/fillings) and inspect filter mat. Record findings.		х	х	х	х



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## Alternator flange bolt torque cheque

Tools Needed
T063002 Alternator tool Break
Allen Key Spanr
Torque Wrench (280Nm/10Nm)

Breaker bar(s)
Spanners





1. Unscrew the 8 cap screws with an Allen key to remove alternator fan and starter ring gear. (NB Keep each pair of NordLock washers under the cap screws together.)



2. Keep starter ring gear and fan facing in the same direction as it was assembled.



3. Attach the alternator flange holder tool T063002 to the flange with 4 bolts M6X16.

NOTE: This is a 'check of torque' procedure.

DO NOT loosen main bolt.

Simply CHECK the torque.

This is a 'left hand' bolt and therefore tightens 'anti-clockwise'

When checking torque, do NOT loosen first – or you will break the Loctite seal.

If you accidently loosen the bolt you will need to re-set it with Loctite as shown on page AFR3.

If unsure contact your ULPower dealer.





# Related pages for the maintenance procedure Page AFB2

## Alternator flange bolt torque check



4. Hold the alternator flange in place while checking the torque of the central bolt. Note that the bolt has left hand thread and so you have to turn it anti - clockwise to check the torque! Check Torque of central bolt is 280Nm and record in the engine log book.

CAUTION: When checking torque, do NOT loosen first.



**5.** Remove the holder tool and collect all 8 cap screws together with the NordLock washers. The washers are in pairs and the side with the larger steps are faced towards each other.



**6.** Reassemble the alternator ring gear and alternator fan with the cap screws and NordLock washers.

Torque the cap screws to 10Nm.







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#### PAGE AFR3

## If you had to apply Loctite because the bolt was loosened, please continue with page AFB2

AFR3

## Alternator flange bolt torque cheque

### **INSTALLATION PROCEDURE**

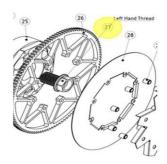






HINT: Make sure you have cleaned all surfaces before applying Loctite!

**A.** Put some Loctite 266 (RED) on the central bolt (27) thread.





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