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SERVICE BULLETIN

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MANDATORY REPLACEMENT

SUBJECT: broken spring in oil thermostat

MODELS AFFECTED: All models

TIME OF COMPLIANCE: either within 10 engine hours, or before next flight if oil temperatures are high

AFFECTED SERIAL NUMBER: all engines with serial numbers below 194202 and all oil thermostats supplied before 01/12/2019

WORKTIME REQUIRED: will vary from installation to installation

The ULPower oil thermostat contains a small bi-metal actuator which, in interaction with two springs, allows or prevents (depending on the oil temperature) engine oil to flow to the oil cooler as part of the oil cooling system.

Under normal circumstances, when the oil reaches 80°C, (176F) the bimetal actuator expands, pushing the springs, thereby opening a gateway for oil flow to the oil cooler.

Further to occasional field reports of oil temperatures suddenly running higher than usual, investigations revealed that one of the springs inside the oil thermostat had broken.

As part of our ongoing development policy, and to ensure correct operation of the thermostat for optimal and correct cooling of the engine oil, we have now changed the springs used in the thermostat and a mandatory replacement of these two springs is needed to ensure appropriate oil circuit performance, and with it optimal operation of the engine.

All users are reminded that oil temperatures exceeding the maximum value of 120°C (248F) may result in engine damage and even engine stoppage.



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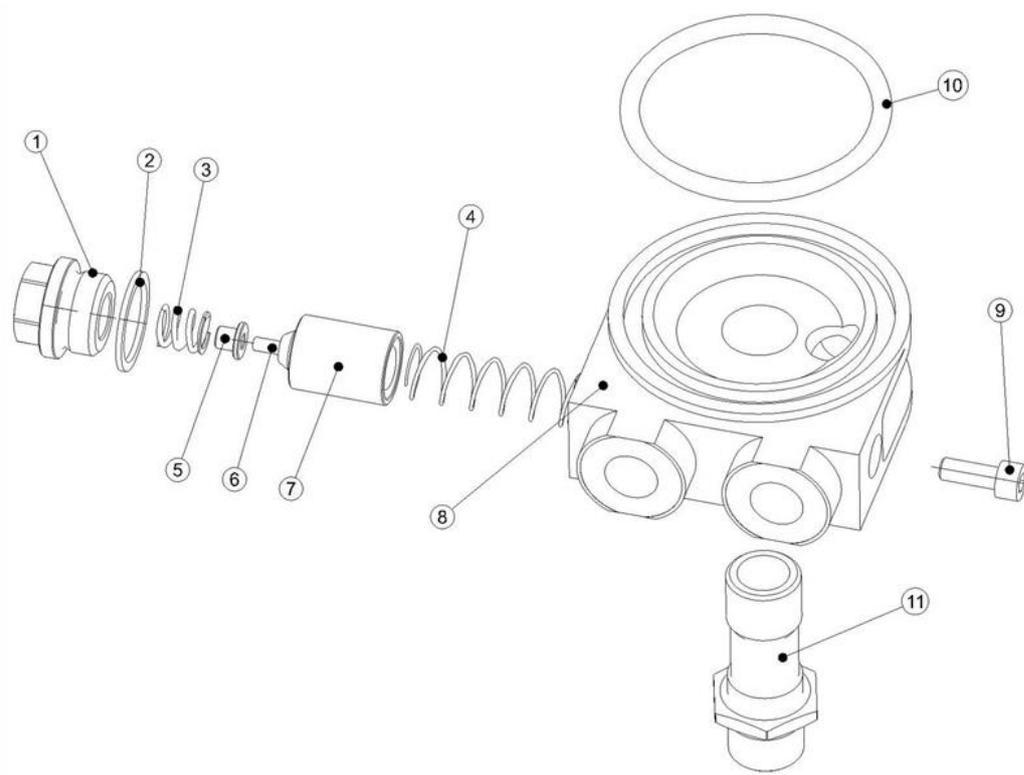
Replacing the springs in the oil thermostat

Parts needed : Item 3 in drawing below F2010010 small spring
Item 4 in drawing below F2010020 large spring
Item 2 in drawing below S3222715 Copper sealing

A Thermostat spring replacement kit is available from your ULPower dealer.

Tools needed: wrench 19 mm and pliers

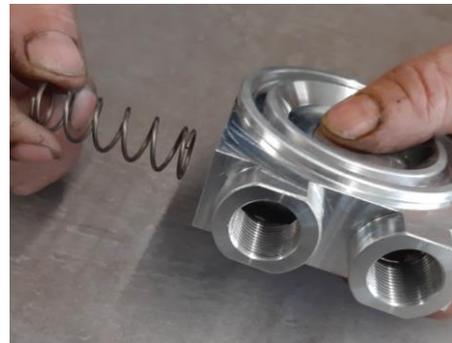
There is no need to remove the oil thermostat from the engine for the replacement of these springs. There will be a small amount of oil loss though .



Guideline :

- 1) Unscrew the plug M22 X 1.5 (item 1). Remove the spring (item 3), replace the oil seal, (item 2) and put the spring holder (item 5) back in the plug. Put them aside.

When unscrewing, remember the spring is under pressure. Make sure you don't lose the spring holder !



- 2) Remove the bimetal actuator and bimetal actuator cover (item 6 + 7) and put them aside.
Replace the large spring (item 4) with the new one. Slide the bimetal actuator and cover back in.

- 3) Insert the small spring (item 3) into the plug (item 2) and finish off with the spring holder (item 5).
Torque the plug (item1) to 20Nm



After this replacement, check if the normal oil pressure is achieved within 5 seconds and check for oil leaks