

This Mandatory Service Bulletin revises ZBWT9 19A / 2015, Revision 0 dated 02.04.2015.

SUBJECT:

Modification or replacement of water thermostat.

AFFECTED:

DY-486/2013; DY-489/2013; DY-490/2014; DY-492/2014; DY-495/2014; DY-497/2014;
DY-498/2014; DY-503/2014; DY-505/2014; DY-506/2014; DY-509/2014; DY-512/2014;
DY-513/2014; DY-517/2014; DY-518/2014; DY-519/2014; DY-520/2014; DY-521/2014;
DY-535/2015;

Further all airplanes with water thermostat Silent Hektik type F1102 or type F1104 and engine with new cylinder heads as spare part or during engine repair/general overhaul as identified by Rotax Service Bulletins SB-912-066UL and SB-914-047UL, actual valid revision.

COMPLIANCE:

At next periodic inspection or end of April 2015, whichever comes first.

MASS DATA:

Weight change: None
Moment change: Unaffected

REASON:

Uneven cylinder heads temperatures until the water thermostat opens have been observed at the airplanes equipped with engines (new cylinder heads) identified by Rotax Service Bulletins SB-912-066UL and SB-914-047UL.

ARRANGEMENTS:

Modification or replacement of the original water thermostat according to the procedures below.

Refer also to airplane the Airplane Maintenance Manual (AMM) and Maintenance Manual for Rotax Engine Types 912/914 Series.

Warning: Allow the engine to cool sufficiently before proceed any intervention in the engine water cooling system!

D1 - Procedure for Fixed Landing Gear and Engine Rotax 912:

1. Remove the engine cowlings.
2. Drain the coolant (Figure 1).
 - 2.1. Open the expansion tank cap (1),
 - 2.2. Release the clamp (2), pull out the hose (3) from the water radiator (4) and drain the coolant to a suitable tank.
 - 2.3. Put the hose (3) on water radiator (4) and finalize the clamp (2).

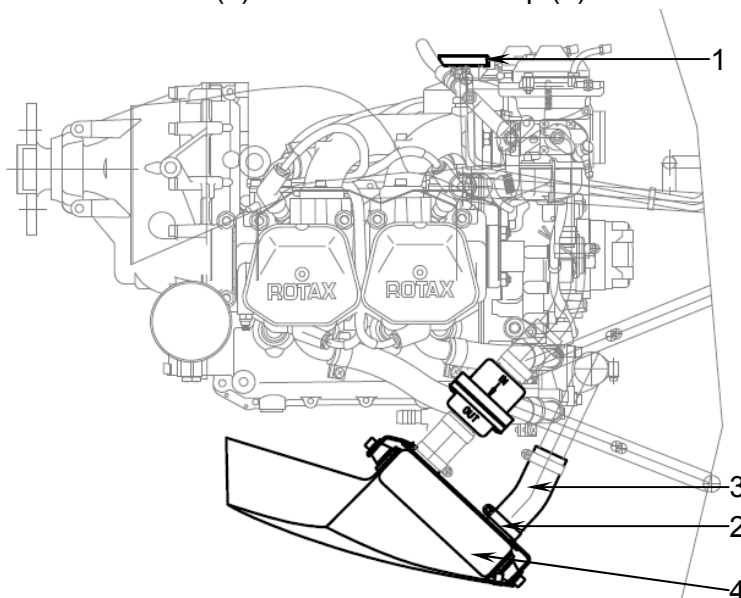


Figure 1

3. Water thermostat modification / replacement (Figure 2).
 - 3.1. Release the clamps (5) and remove the original water thermostat type F1102 (6).
 - 3.2. Modify the original water thermostat according to instructions in document AS-GDO-00-011E. or use the replacement water thermostat part no. DYN-170-141. Install modified / replacement water thermostat (7) at the same position. Check the correct IN/OUT direction of thermostat.
 - 3.3. Finalize the clamps (5).

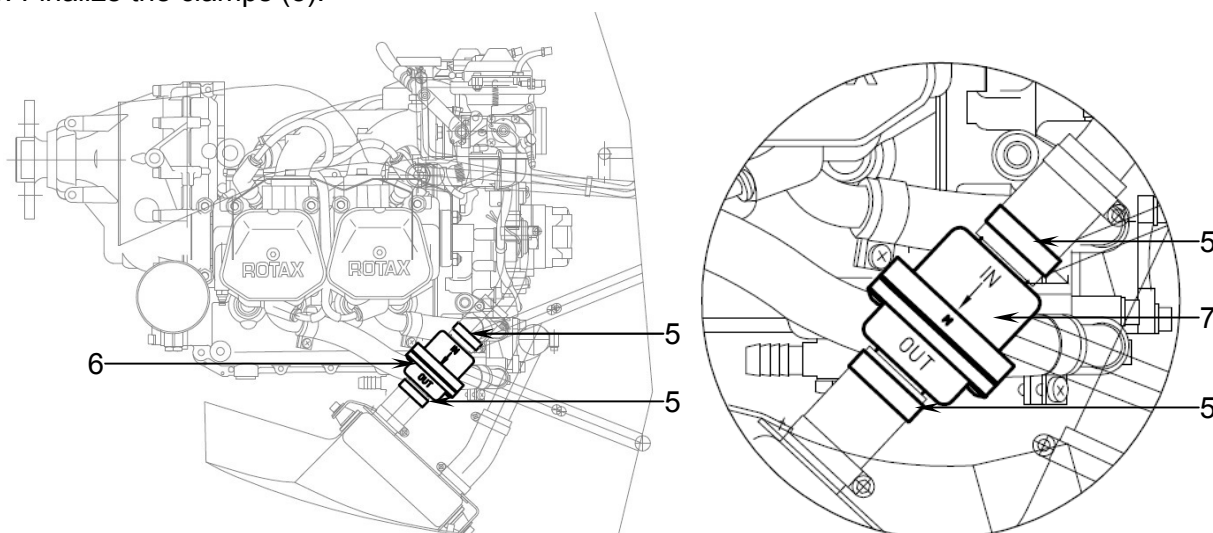


Figure 2

4. Refill the coolant and vent the cooling system.
 - 4.1. Refill the coolant into the expansion tank and overflow bottle.
 - 4.2. Perform visual check of cooling system leakage.
 - 4.3. Install the engine cowlings and perform engine ground test.
 - 4.4. Let the engine to cool down.
 - 4.5. Perform visual check of cooling system leakage. Check the coolant level and refill as necessary.

D2 - Procedure for Retractable Landing Gear and Engine Rotax 912:

1. Remove the engine cowlings.
2. Drain the coolant (Figure 3).
 - 2.1. Open the expansion tank cap (1),
 - 2.2. Release the clamp (2), pull out the hose (3) from the water radiator (4) and drain the coolant to a suitable tank.
 - 2.3. Put the hose (3) on water radiator (4) and finalize the clamp (2).

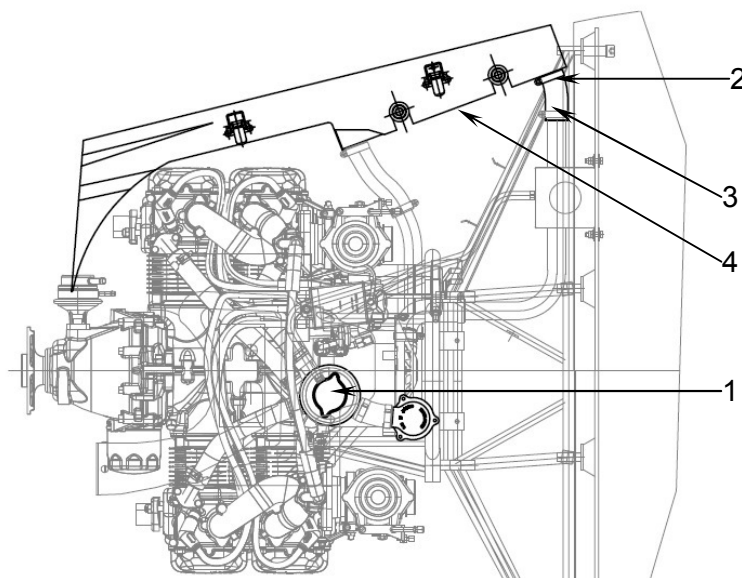


Figure 3

3. Water thermostat modification / replacement (Figure 4).
 - 3.1. Release the clamps (5) and remove the original water thermostat type F1104 (6).
 - 3.2. Modify the original water thermostat according to instructions in document AS-GDO-00-011E. or use the replacement water thermostat part no. DYN-170-142. Install modified / replacement water thermostat (7) at the same position. Check the correct IN/OUT direction of thermostat.
 - 3.3. Finalize the clamps (5).

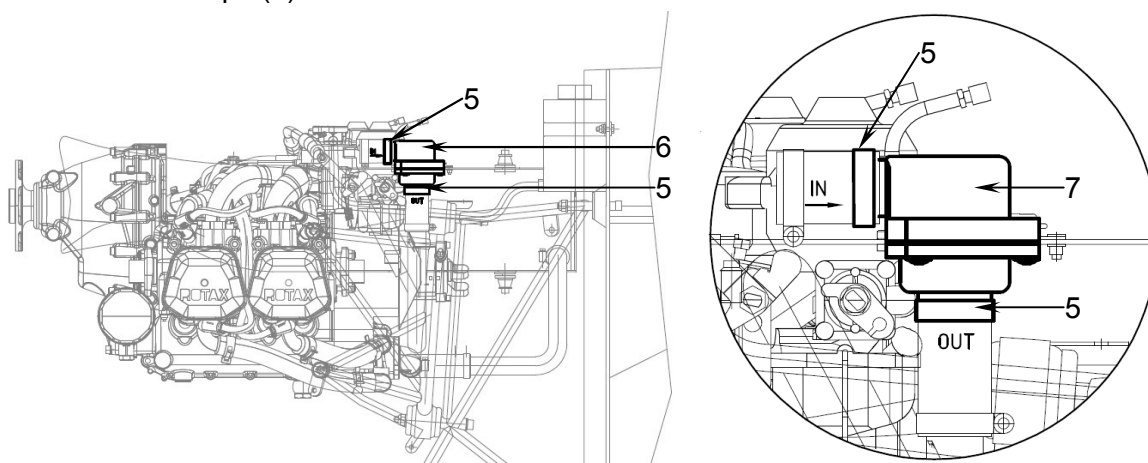


Figure 4

4. Refill the coolant and vent the cooling system.
 - 4.1. Refill the coolant into the expansion tank and overflow bottle.
 - 4.2. Perform visual check of cooling system leakage.
 - 4.3. Install the engine cowlings and perform engine ground test.
 - 4.4. Let the engine to cool down.
 - 4.5. Perform visual check of cooling system leakage. Check the coolant level and refill as necessary.

D3 - Procedure for Fixed / Retractable Landing Gear and Engine Rotax 914:

1. Remove the engine cowlings.
2. Drain the coolant (Figure 5).
 - 2.1. Open the expansion tank cap (1),
 - 2.2. Release the clamp (2), pull out the hose (3) from the water radiator (4) and drain the coolant to a suitable tank.
 - 2.3. Put the hose (3) on water radiator (4) and finalize the clamp (2).

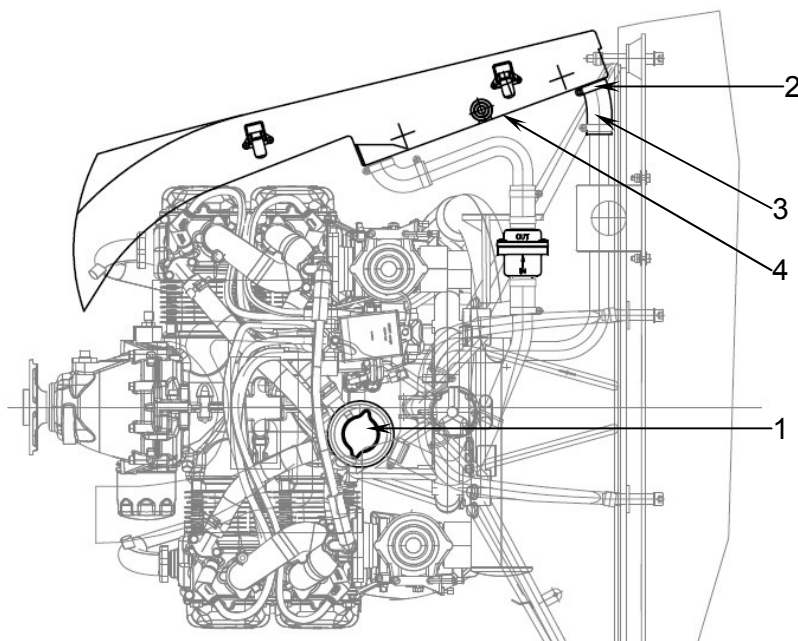


Figure 5 (Illustrative figure)

3. Water thermostat replacement (Figure 6).
 - 3.1. Release the clamps (5) and remove the original water thermostat type F1102 (6).
 - 3.2. Modify the original water thermostat according to instructions in document AS-GDO-00-011E. or use the replacement water thermostat part no. DYN-170-141. Install modified / replacement water thermostat (7) at the same position. Check the correct IN/OUT direction of thermostat.
 - 3.3. Finalize the clamps (5).

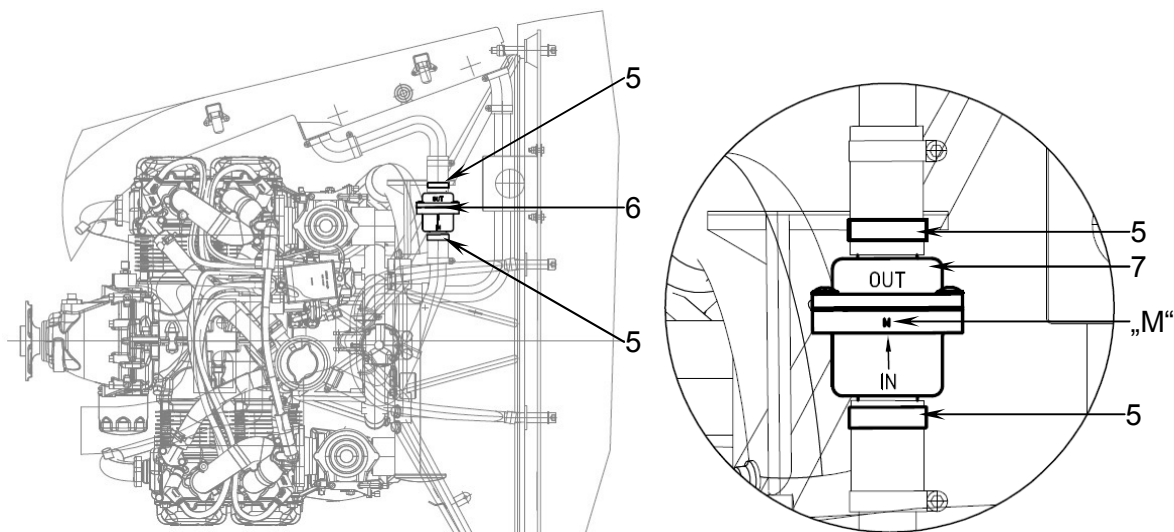


Figure 6 (Illustrative figure)

4. Refill the coolant and vent the cooling system.
 - 4.1. Refill the coolant into the expansion tank and overflow bottle.
 - 4.2. Perform visual check of cooling system leakage.
 - 4.3. Install the engine cowlings and perform engine ground test.
 - 4.4. Let the engine to cool down.
 - 4.5. Perform visual check of cooling system leakage. Check the coolant level and refill as necessary.

MATERIAL:

For material purchase contact the airplane manufacturer's local representative or contact airplane manufacturer directly at spareparts@aerospool.sk.

Material for water thermostat modification:

Part Name	Part Number	Quantity
Bolt M5x16 ISO 7380-2 A2	908425-16	3 pcs
Loctite 243	-	-
Vaseline	-	-
Cutting oil	-	-

Material for water thermostat replacement:

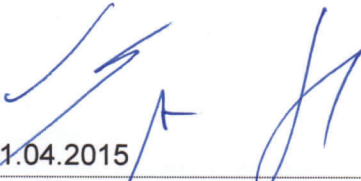
Airplane configuration	Part Name	Part Number	Quantity
Fixed landing gear, engine Rotax 912	Water thermostat	DYN-170-141	1 pc
Fixed / Retractable landing gear, engine Rotax 914			
Retractable landing gear, engine Rotax 912	Water thermostat 90°	DYN-170-142	1 pc

DOCUMENTATION:

Record the compliance with this Service Bulletin in the airplane documentation and inform the airplane manufacturer or its local representative.

ENCLOSURES:

AS-GDO-00-011E Modification of water thermostats, Revision 2.

Issued by:	Approved by:
 Prievidza, 21.04.2015	
Place, date, signature	CAA of Slovak republic