


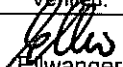

 Aviation DOA Nr.: EASA.21J.025	<b>Retrofit-/Installation Instruction</b>	Dokumentnummer : <b>UA-AT01-7900-203</b>
	Oil pressure sensor and gauge TCDS-Nr.: EASA.A.527      Projekt-Nr.: 00441	Ausgabe: A.01 Seite: 1 von 8

This Installation Instruction has been translated from the German Original UA-AT01-7900-003  
 The translation has been performed to the best of our knowledge and judgement.

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The technical content of this document is approved under the authority of DOA-No. EASA.21J.025.				
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## 1 General Information

This retrofit instruction provides all necessary information for the change of the oil pressure gauge system. The previous ROTAX oil pressure sensor is no longer available. The change of the oil pressure sensor caused a change of the oil pressure gauge, because the new sensor uses a different operating principle. Furthermore, an additional wire has to be moved from the sensor to the instrument panel.

New Version



Previous Version



## 2 Data and Required Utilities

### 2.1 Required/Applicable Documents

The following documents are required for the retrofit/installation:

Pos.	Document Number	Type of Document and Title
1	DW-AT01-8220-006	Drawing "Motorelektrik"
2	DW-AT01-8220-007	Drawing "Instrumentenbrett"

### 2.2 Tools


The following tools are required for the retrofit/ installation:

Pos.	Description	Pos.	Description
1	Standard mechanic tools	6	Extracting tool CET-F80-16
2	Standard electric tools	7	Insert tool CIT-F80-16
3	Crimping tool for terminals	8	Crimping tool DMC M22520/1-01 AF8
4	Crimping tool for round contacts	9	Cage (11851) for Crimping tool Pos.8
5	Soldering iron		

### 2.3 Measuring Equipment

Required measuring Equipment:

Pos.	Description
1	Voltmeter

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## 2.4 Material

The following materials are required for the retrofit/ installation of the:

Pos.	Quantity	P/N	Description
1	1	AT01-2840-168	Oil pressure sensor Rotax
2	1	AT01-2840-165	Oil pressure gauge Rotax
3	1	AT01-4530-596	Plug housing male
4	1	AT01-4530-597	Plug housing female
5	1	AT01-4530-599	Crimp contact socket
6	1	AT01-4530-598	Crimp contact pin
7	2,5m	AT01-4530-120	Cable AWG 20
8	1	AT01-4530-500	Terminal red, 4mm
9	to require	none	Cable ties

Pins for the engine plug are available in the plug itself. They must be removed from the housing for crimping. In the variant with solder contacts, the contacts may remain in the plug.


## 3 Implementation and Certification of the Retrofit/Installation

The repair has to be conducted by an approved Maintenance Organisation and has to be certified in accordance with EU-Regulation 2042/2003.

## 4 Accomplishment of the Retrofit/Installation

### 4.1 Work Instructions

No.	Work Step	Description	Signature Mech.	Sign. Inspect.
1	Disconnect Battery	Pull off the "instrument 2" fuse. Pull off the "Bat" fuse. Pull off the "Generator" fuse.  Disconnect the Battery		
2	Disassemble the oil pressure sensor	Remove the cowling. Remove the wire from the oil pressure sensor and unscrew the sensor.		
3	Assembling the new oil pressure sensor	Screw in the oil pressure sensor. Turn the cable in the same time <b>Caution! For the torque, refer the ROTAX Maintenance Manual</b>		
4	Cable of the oil pressure sensor	Place the cable of the oil pressure sensor from below to the hose and attach to the existing wiring harness. (See Figure 1+2). Cut the Cable to appropriate length.		

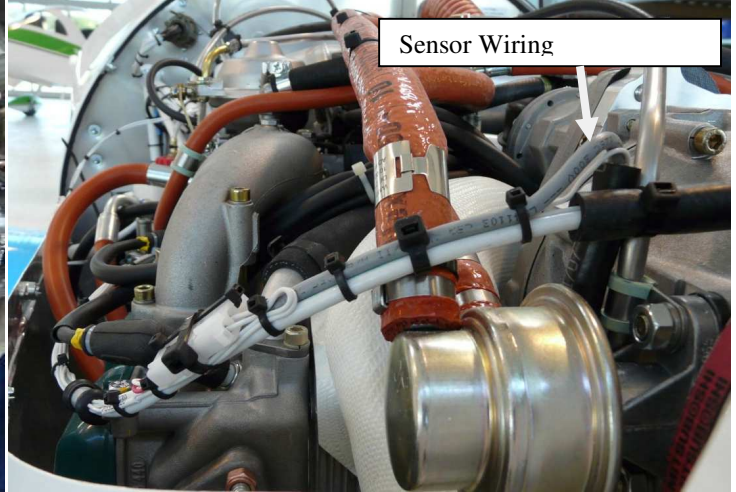
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No.	Work Step	Description	Signature Mech.	Sign. Inspect.
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Figure 1

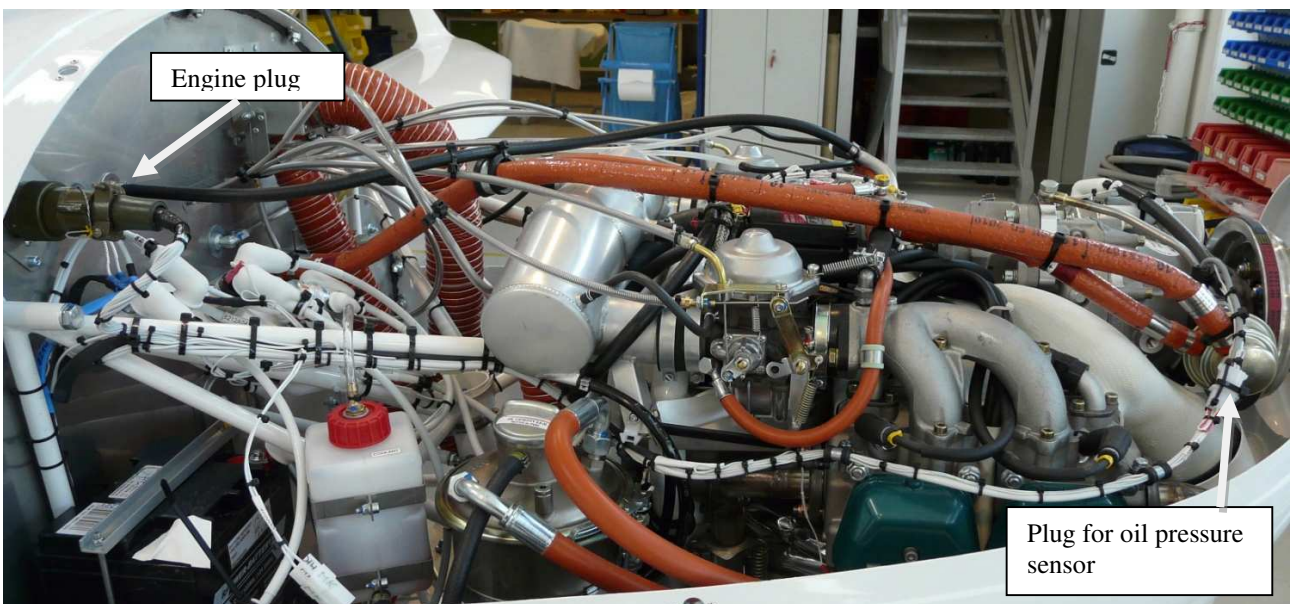


Figure 2







5.1.	Laying the additional Wire	Cut the existing sensor wire and crimp the socket pin on it.		
5.2		Place the sockets of the existing and new Wire in the plug housing. (New wire on No. 1, existing wire on No. 2). See DW-AT01-8220-006.		
5.3		Place the new wire along the wiring harness to the engine plug at the fire wall. Fix the wire with cable ties. (see figure 3)		

Figure 3

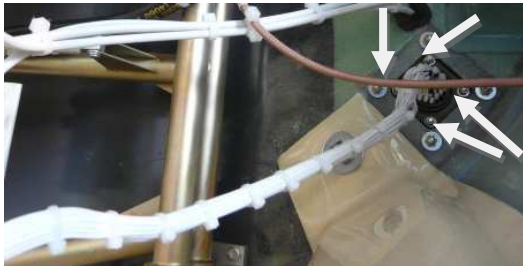
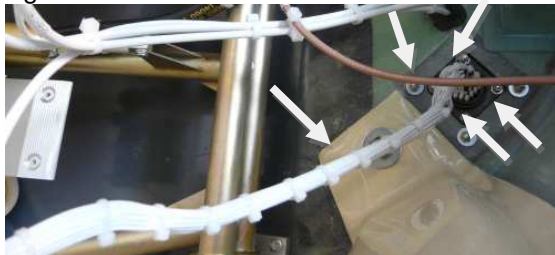


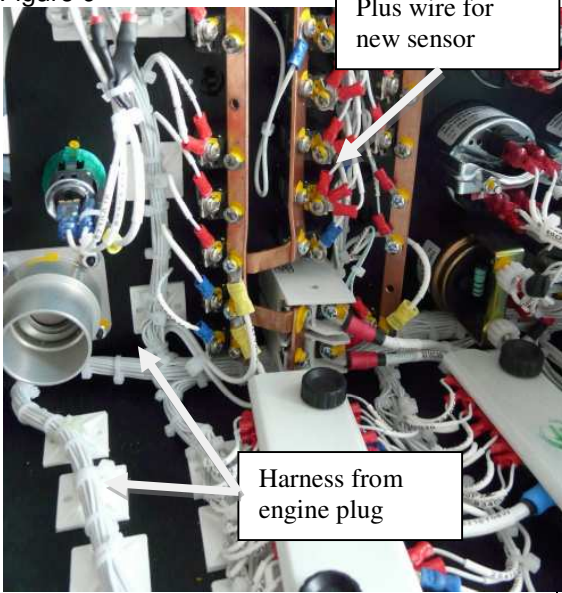

6.1	Engine plug front fire wall	Unscrew and remove the engine plug from the fire wall.		
6.2		Disassemble the engine plug.		


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No.	Work Step	Description	Signature Mech.	Sign. Inspect.
		Figure 4 		
6.3a	Engine plug with solder contacts	The new wire must be soldered to the "U" contact of the cable connector.		
6.3b	Engine plug with crimp contacts	Push out the "U" contact by using tool No. 6. Crimp it on the new wire. Figure 5  Push the "U" contact back into the engine plug by using tool No. 7. Figure 6 		
6.4		Reassemble the engine plug		
7.1	Instrument panel cover	Unscrew and remove it from the instrument panel. Pay attention to the plug of the panel light.		



No.	Work Step	Description	Signature Mech.	Sign. Inspect.
7.2	Engine plug back firewall	<p>Unscrew and remove the engine plug from the bulkhead.</p> <p>Figure 7</p> 		
8.3a	Engine plug with solder contacts	Soldering the new wire on the "U" contact of the cable connector		
8.3b	Engine plug with crimp contacts	<p>Push out the "U" contact and crimp it on the new wire.(see figure 5)</p> <p>Push the "U" contact back in the engine plug.(see figure 6)</p>		
9.1	Laying the new wire to the instrument panel and connect it	<p>Place the new wire along the wiring harness from the engine plug at the bulkhead to the fuse C24 (Instruments 2)</p> <p>Fix the wire with cable ties.</p> <p>Figure 8</p> 		
9.2		Strip the wire and press the ring terminal on it.		

No.	Work Step	Description	Signature Mech.	Sign. Inspect.
9.3		Connect the wire at the fuse C24.  Figure 9 		
10.1	Engine plug back firewall	Reassemble the engine plug at the bulkhead.		
10.2		Connect the plug until it locks into place and lock it by safety wire. (see figure 4)		
11	Disassemble oil pressure gauge	Unscrew and remove the gauge. Disconnect the electrical wire.		
12	Assemble the new oil pressure gauge	Assemble the new Gauge and connect the electrical wire. Refer to drawing: DW-AT01-8220-007).  Figure 10 		

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## 4.2 Final Inspection and Functional Testing

No.	Work Step	Description	Signature Mech.	Sign. Inspect.
1	Instrument panel cover	Reassemble the instrument panel cover.		
2	Cowling	Reassemble the Cowling (bottom and upper part)		
3	First test	Connect the Battery Push on the "Generator" fuse. Push on the "Bat" fuse. Push on the "Instrument2" fuse Switch on the Bat-switch.  The indicator of the gauge move to "0".		
4	Engine ground run	Check the indicated oil pressure to its sincerity		