

# SERVICE BULLETIN



Service Bulletin No.: DA20-79-08 Rev 2

Date Issued: December 17, 2012

Title: Introduction of a new Oil pressure Indicator

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1. **ATA Code:** 7930
2. **Effectivity:** All DA20-A1 Aircraft equipped with ROTAX 912 F3 and 912 S3 engines.
3. **General:** This Service Bulletin addresses:
  - Introduction of an Oil Pressure Sensor P/N 456180 on ROTAX 912 engines via ROTAX Service Instruction SI-912-020 R6.
  - Installation of a new Oil Pressure Indicator.
4. **Reason:** In the course of further development and standardization Rotax has introduced a new oil pressure sensor.
5. **Compliance:** Mandatory if ROTAX 912 engine is equipped with oil pressure sensor P/N: 456180. Otherwise this Service Bulletin is Optional.
6. **Approval:** Engineering data referenced or contained in this Service Bulletin is approved as part of the type design.
7. **Labour:** Approximately 2 hours will be required to accomplish this Service Bulletin.

*This estimate is for direct labor performed by a technician and it does not include setup, planning, familiarization or tools acquisition.*
8. **Material:** In addition to parts defined by ROTAX Service Instruction SI-912-20 R6 the following materials are required to accomplish this Service Bulletin:

Part Number	Description	Qty.	Kit Part Number
20-7930-00-00	Oil Pressure Indicator	1	DA20-79-08-AMK1
36151	Ring Terminals	2	
20-7931-00-00	Assembly, Fuse	1	

**NOTE:** For aircraft serial number 10145 and subsequent, or aircraft in compliance with Service Bulletin DA20-79-01 revision 1, or earlier, the following parts will also be required. (Not required if the oil pressure sensor P/N: 456180 is installed on the engine).

Part Number	Description	Qty.	Kit Part Number
20-7910-02-02	Bracket, Oil Pressure Sensor	1	DA20-79-08-AMK2
AN316C10	Nut, Jam	1	
20-7910-02-03	Fitting, Bulkhead	1	
AN816-4J	Fitting, Straight	1	
MS35333-80	Lock washer	1	
NAS1149C1032R	Washer	1	
MS51958-63	Screw	1	
AN960-10	Washer	1	
MS14222-3	Locknut	1	

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**NOTE:** If required, oil pressure sensor (P/N 456180) and oil pressure sensor wire assembly (P/N 864250) may be acquired through a ROTAX distributor.

**9. Special Tools:** None

**10. References:** DA20-A1 Maintenance Manual (AMM) Document number: DA201.  
DA20-A1 Flight Manual (AFM) Document number: DA202  
DA20-A1 Flight Manual (AFM) Document number: DA202-VLA  
DA20-A1 Flight Manual (AFM) Document number: DA202-100  
DA20-A1 Flight Manual (AFM) Document number: DA202-100-VLA  
ROTAX Service Instruction SI-912-20 R6 or latest approved revision  
ROTAX Maintenance Manual (Heavy Maintenance), Ref No: MMH-912

**11. Accomplishment Instructions:**

**11.0.1** Remove the engine cowlings (Refer to the AMM, Chapter 71-10).

**11.0.2** Disconnect the battery (Refer to the AMM, Chapter 24-31).

**11.1 Oil Pressure Sensor Replacement**

**NOTE:** If ROTAX 912 F3/S3 engine is already equipped with oil pressure sensor P/N 456180 proceed to Section 11.2 (Oil Pressure Sensor Wiring Installation).

**11.1.1** Remove the oil pressure sensor (Refer to AMM, Chapter 79-30).

**11.1.2** Installation of new oil pressure sensor (P/N: 456180) and wire assembly (P/N: 864250):

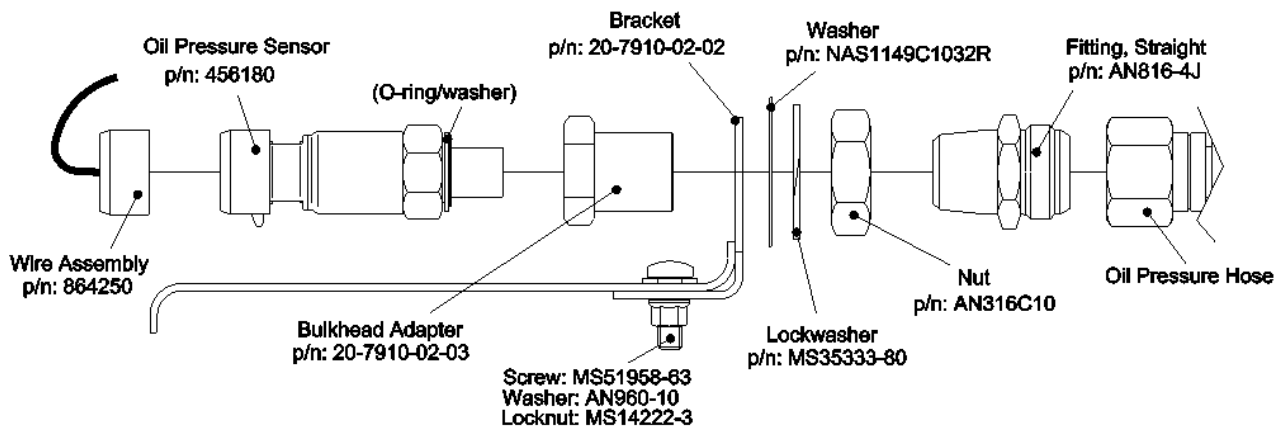
**11.1.2.1** Firewall installation:

**NOTE:** On aircraft serial number 10145 and subsequent, or aircraft in compliance with Service Bulletin DA20-79-01 revision 1, or earlier (located on the Aft RH engine compartment). Install as shown in the Figure on Page 3.

**11.1.2.1.1** Install the oil pressure sensor (with o-ring/washer) and fitting (P/N: AN816-4J) to Bulkhead adaptor (P/N: 20-7910-02-03) with Loctite 243.

**11.1.2.1.2** Torque the oil pressure sensor to 15Nm (98 in.lb) (maximum).

**NOTE:** Discard the existing mounting bracket and fitting.



### 11.1.2.2 Oil Pump Housing Installation:

Install in accordance with ROTAX Service Instruction SI-912-020 R6.

## 11.2 Oil Pressure Sensor Wiring Installation

- 11.2.1** Route the new oil pressure sensor wire assembly (P/N 864250) in place of existing wire 79304A20 (or previous oil pressure sensor pigtail) to the electrical shelf located on the firewall. Secure wiring using standard aircraft practices and procedures. Remove and discard existing wire 79304A20.

**NOTE:** Trim the Sensor wires to length as required.

- 11.2.2** Crimp ring terminals (P/N 36151) to RED and WHITE Sensor wires.
- 11.2.3** Connect the new oil pressure sensor wire assembly to the electrical shelf as shown in table below.
- 11.2.4** Install Fuse Assembly (P/N 20-7931-00-00) from the battery relay to terminal block post #5 as shown in the Figure on Page 4.

Sensor Wire Assembly (P/N 864250)	Location
RED	TERMINAL POST #5 on Terminal block TB2400-01
WHITE	TERMINAL POST #2 on Terminal block TB2400-02

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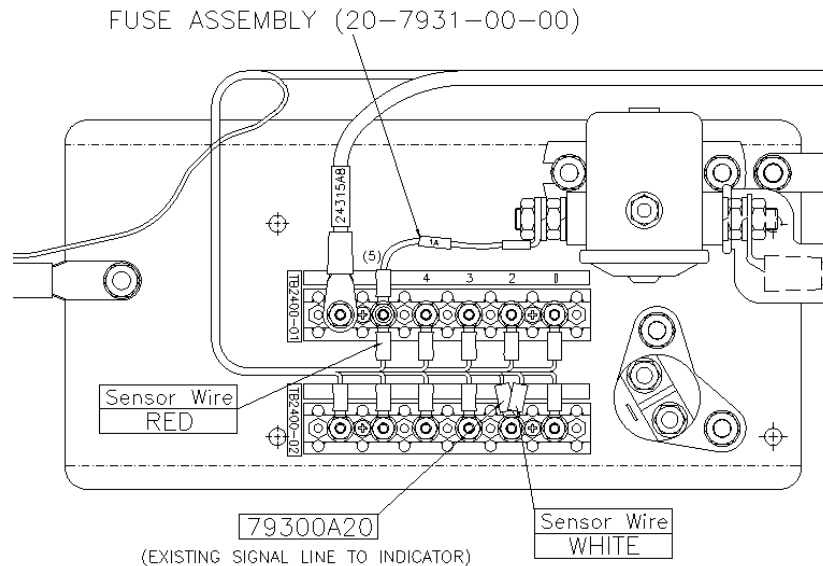


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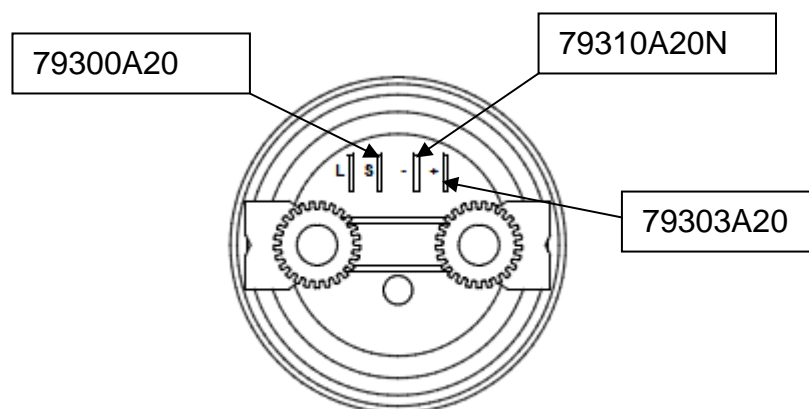
## 11.3 Oil Pressure Indicator Installation

11.3.1 Remove the Instrument Panel cover (Refer to the AMM, Chapter 25-10).

11.3.2 Remove the existing Oil Pressure Indicator.

11.3.3 Install Oil Pressure Indicator (P/N 20-7930-00-00).

11.3.4 Secure wires 79303A20, 79310A20N and 79300A20 to the Oil Pressure Indicator as shown below.



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11.4 Install instrument panel cover (Refer to the AMM, Chapter 25-10).

11.5 Connect the battery (Refer to the AMM, Chapter 24-31).

11.6 Install the engine cowlings (Refer to the AMM, Chapter 71-10).

11.7 Perform a ground run (Refer to Chapter 4 of the applicable AFM).

11.7.1 Check for proper operation of the Oil Indicating system.

11.7.2 Confirm that there are no oil system leaks.

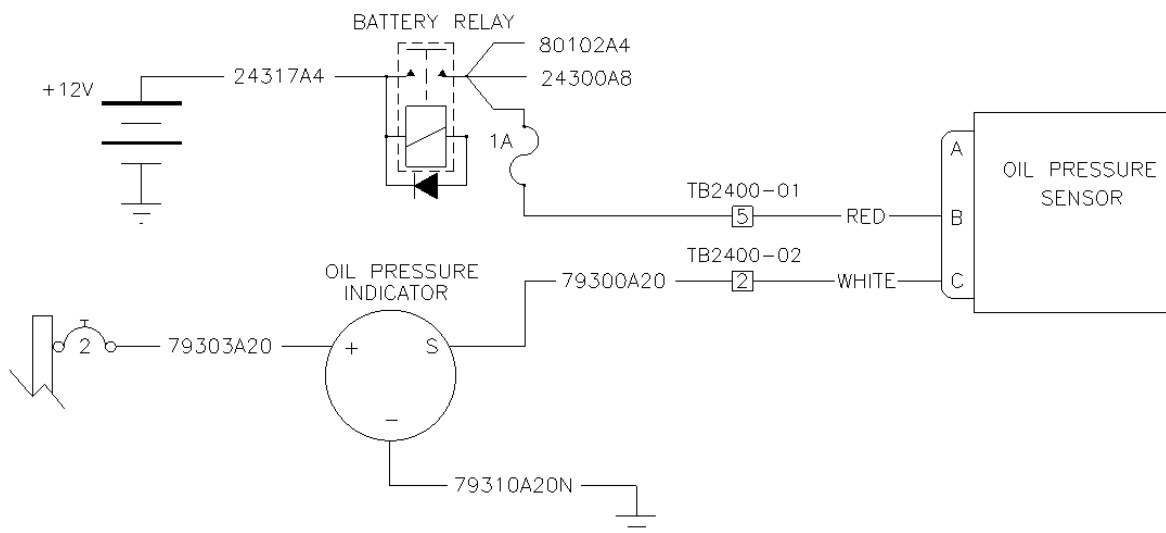
11.8 Perform an engine shut-down (Refer to Chapter 4 of the applicable AFM).

11.9 Make a log book entry that this Service Bulletin has been incorporated.

11.10 Insert the applicable Temporary Revisions into the manuals listed below.

- DA202-VLA TR 11-01 into AFM DA202-VLA revision 7.
- DA202-100-VLA TR 11-01 into AFM DA202-100-VLA revision 4.
- DA202.TR 12-02 into AFM DA202 revision 18.
- DA202-100.TR 12-02 into AFM DA202-100 revision 6

## Oil Pressure Sensor Wiring Schematic



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## 12. Weight and Balance:

The effect on Weight and Balance is Negligible.

## 13. Electrical Load:

Part number	Description	Current (mA)
456180	Oil Pressure Sensor	20mA

## 14. Availability:

Contact Diamond Aircraft Industries Inc.

## 15. Labor Credit:

None

*To obtain satisfactory results, procedures specified in this service bulletin must be accomplished in accordance with accepted methods and current government regulations. Diamond Aircraft Industries Inc. cannot be responsible for the quality of work performed in accomplishing the requirements of this service bulletin. Diamond Aircraft reserves the right to void continued warranty coverage in the area affected by this Service Bulletin if it is not incorporated.*

*If you no longer own the aircraft to which this service bulletin applies, please forward it to the current owner and send the name of the current owner to Diamond Aircraft Industries, Inc., at the address below*

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