



Maintenance instruction

Alexander Schleicher
GmbH & Co. Segelflugzeugbau
D-36163 Poppenhausen
ADOA AP.138

- Subject:** Bleeding the oil lines and the oil pump of rotary engines
- Applicability:** Engines AE50R, AE50RA, AE50RAB, IAE50R-AA, installed in the following aircraft types:
ASK 21 Mi, ASW 22 BLE 50R, ASH 26 E, ASH 25 M / Mi, ASH 30 Mi, ASH 31 Mi,
ASG 32 Mi, AS 35 Mi
- Material:** Filling device 800-61-8001-00 (see attached drawing)
Seals: Information in the IPC (Illustrated Parts Catalogue) of the engine
Engine oil approved for the specific engine
- Notes:** The oil lines and oil pump must be bled in the following cases:
- When the power-plant is newly assembled.
 - After maintenance work during which components of the oil system had to be removed.
 - In all cases where the engine was not in its normal position, e.g., during transport of a removed engine unit or when the fuselage with the engine installed was turned upside down without following the procedures described in the manual.
 - In all cases where the penetration of air into the oil system cannot be ruled out.
- The oil injected during the procedure described below should ideally be the same as the oil used in the respective engine, but must in any case be one of the approved oil types.
- The oil should be at about room temperature so that it is neither too thick nor too thin. Otherwise, too much oil will be lost during the assembly process described below.
- First, bleed the oil lines; then bleed the oil pump.
- The oil lines and oil pump can only be bled with the exhaust silencer removed. The engine oil tank must also be unscrewed at its upper connection to allow access to the oil pump.
- When starting the engine after the bleed-off procedures, there may be a brief increase in smoke in the exhaust gases because excess oil is still present in the combustion chamber.
- The maintenance instruction "To vent the oil pump" dated March 25, 1997, is replaced by this maintenance instruction.

					Datum	Name	Benennung		
				Bearb.	22.06.26	M. Münch	WA Wankeltriebwerke - Entlüften der Ölleitungen und der Ölpumpe (englisch)		
				Geprü.					
				Alexander Schleicher GmbH & Co. Segelflugzeugbau D-36163 Poppenhausen			800-99-0001-01	A	Blatt 1
A	Überarbeitung	26.06.26	Mü.						
Zust.	Änderung	Datum	Na.				Artikelnummer	Zust.	von 3 Bl.

Actions

Bleeding the oil lines

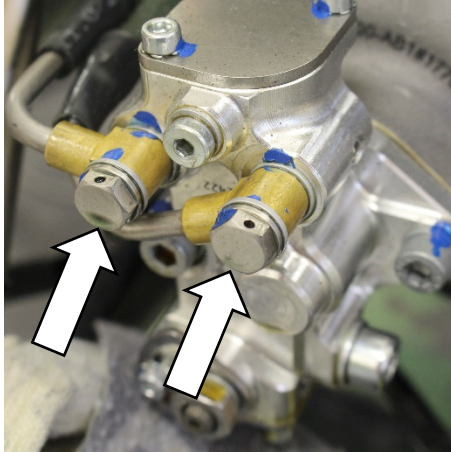


Fig. 1

Two oil lines are connected to the oil pump with hollow screws. One supplies the main bearing (usually the oil line connected to the right-hand port shown here), while the other leads to the base of the throttle body [Fig. 1].

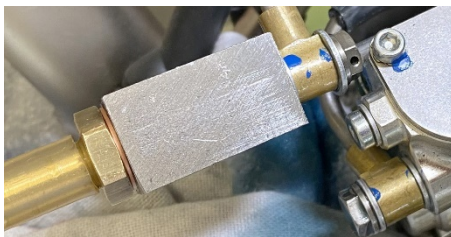


Fig. 2

One by one, each oil line is disconnected from the oil pump, and the oil-filled filling device is connected to the banjo fitting of the oil line using the original hollow screw [Fig. 2/3].

Approximately 4 ml (about 0.15 fl oz) of oil is injected into each oil line. By using a transparent connecting hose, it is possible to verify that there are no air bubbles in the oil flow during the injection process.

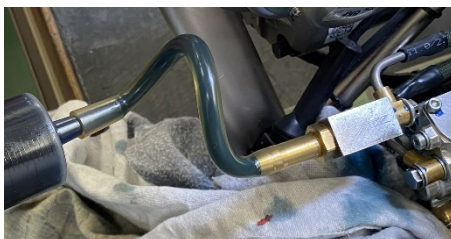


Fig. 3

If the intake manifold has been removed, you can observe the oil entering the throttle body [Fig. 4].

Before the filling device is removed again, the hollow screw and its associated seals (new seals must be used) must be set aside in such a way that they can be installed quickly and as little of the slightly viscous oil as possible leaks out of the oil line. Catch any leaking oil with a rag.

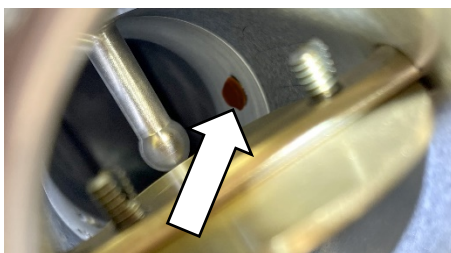


Fig. 4

Information on tightening torques and screw locking or markings on the screw connections can be found in the engine manual.

					Datum	Name	Benennung	
				Bearb.	22.06.26	M. Münch	WA Wankeltriebwerke - Entlüften der Ölleitungen und der Ölpumpe (englisch)	
				Geprü.				
A	Überarbeitung	26.06.26	Mü.	Alexander Schleicher GmbH & Co. Segelflugzeugbau D-36163 Poppenhausen			800-99-0001-01	A
Zust.	Änderung	Datum	Na.				Artikelnummer	Zust. von 3 Bl.

Bleeding the oil pump

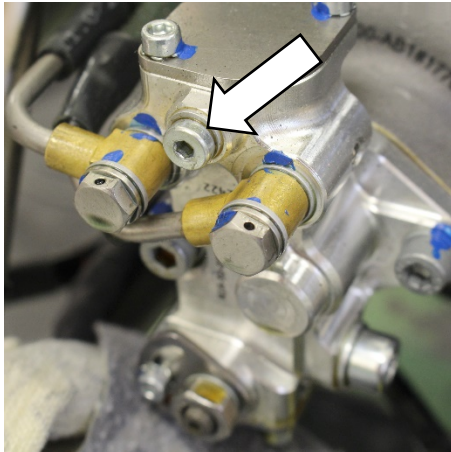


Fig. 5

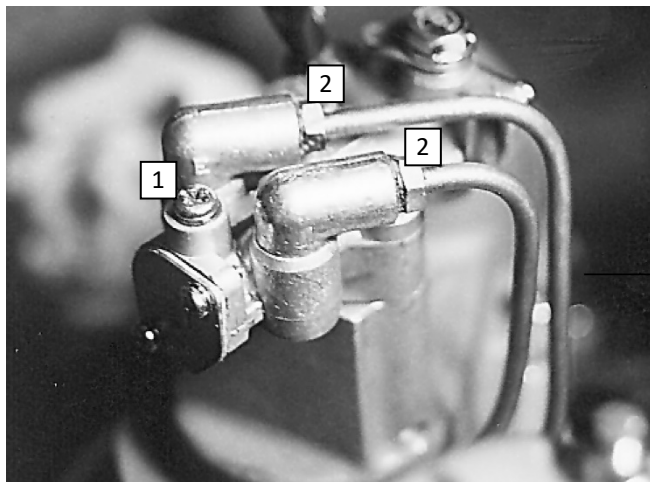
The connected oil reservoir must be at least half full and positioned similarly to how it will be when fully installed. Unscrew the bleed screw [Fig. 5] and allow the oil to flow for approximately 10 minutes. Catch the oil flowing out of the bleed port with a rag or a suitable container.

The oil tank must not run dry during this process, and it must be ensured that oil is always present at the tank's outlet and that no air can enter the system.

Then screw the bleed screw back in (use a new seal).

Particularities

In the past, other types of oil pumps were used:

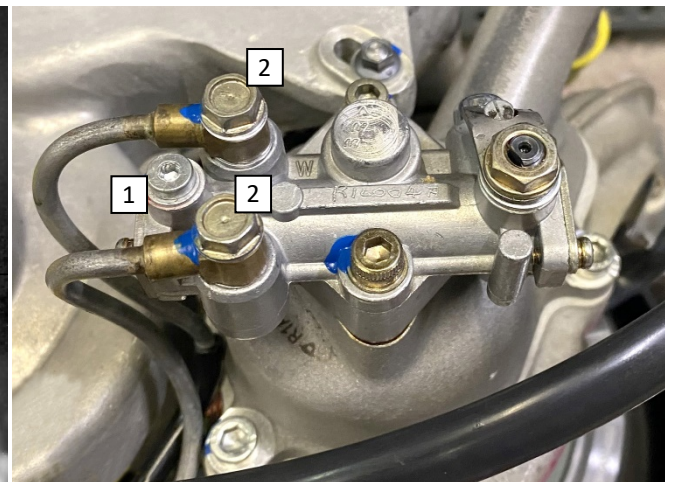


[1] Bleed screw

[2] Screw connection

After loosening the screw connection [2], oil can be injected directly into the hose line using a thin tube attached to an oil-filled syringe.

The remaining steps of the procedure are identical to the one described above.



[1] Bleed screw

[2] Hollow screw

Here, too, each oil line is disconnected from the oil pump one by one, and the oil-filled filling device is connected to the banjo fitting of the oil line using the original hollow screw.

The remaining steps of the procedure are identical to the one described above.

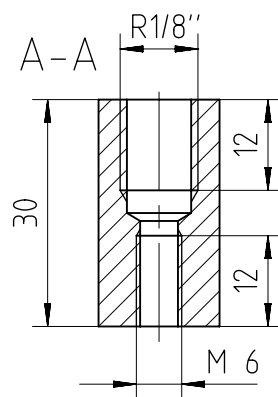
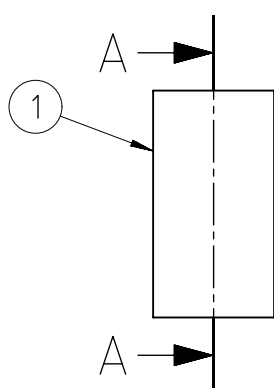
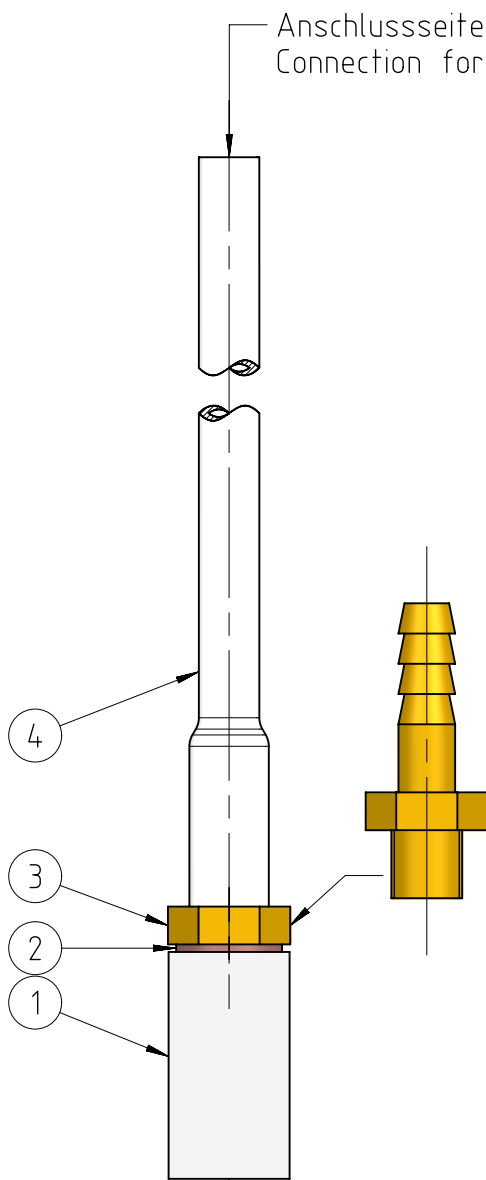
					Datum	Name	Benennung	
				Bearb.	22.06.26	M. Münch	WA Wankeltriebwerke - Entlüften der Ölleitungen und der Ölpumpe (englisch)	
				Geprü.				
				Alexander Schleicher GmbH & Co. Segelflugzeugbau D-36163 Poppenhausen			800-99-0001-01	A
A	Überarbeitung	26.06.26	Mü.				Artikelnummer	Blatt 3
Zust.	Änderung	Datum	Na.				Zust.	von 3 Bl.

Befüllvorrichtung für Ölleitung Filling device for oil line



Anschlussseite für Einweg-Spritze 100 ml
Connection for disposable syringe 100 ml

① 800-61-8001-01
Befüllvorrichtung für Ölleitung - Anschlussstück
Mat.: Stahl / steel



Anschlussseite für Ölleitung / Hohlschraube / Dichtungen
Connection for oil line / hollow screw / sealing rings

4	50-000-1660-00	PVC-Schlauch 5x1,5 mm glasklar			0,15	m	PVC hose	
3	50-000-1852-00	Einschraubschlauchtülle G1-8" außen LW6 Messing			1	Stk.	Screw-in hose fitting	
2	40-00203	Dichtring 10x14x1,0 Kupfer DIN 7603			1	Stk.	Sealing ring	
1	800-61-8001-01	Befüllvorrichtung für Ölleitung - Anschlussstück			1	Stk.	Connector	
Pos	Artikel-Nr.	Bezeichnung			Menge	Einht.	Bemerkung	
				Toleranz		Oberfläche		
				--		--		
					Datum	Name	Benennung	
				Bearb.	22.06.26	M. Münch	Befüllvorrichtung	
							für Ölleitung -	
				Geprü.			Zusammenbau	
				Alexander Schleicher			800-61-8001-00	
				GmbH & Co			00	
				Segelflugzeugbau			Blatt 1	
Zust.	Änderung	Datum	Na.	D-36163 Poppenhausen			Zeichnungsnummer	
							Zust.	1 Bl.