



L-39 sabotaged !

During an L-39 inspection and repair in France last week we run into the following problem:

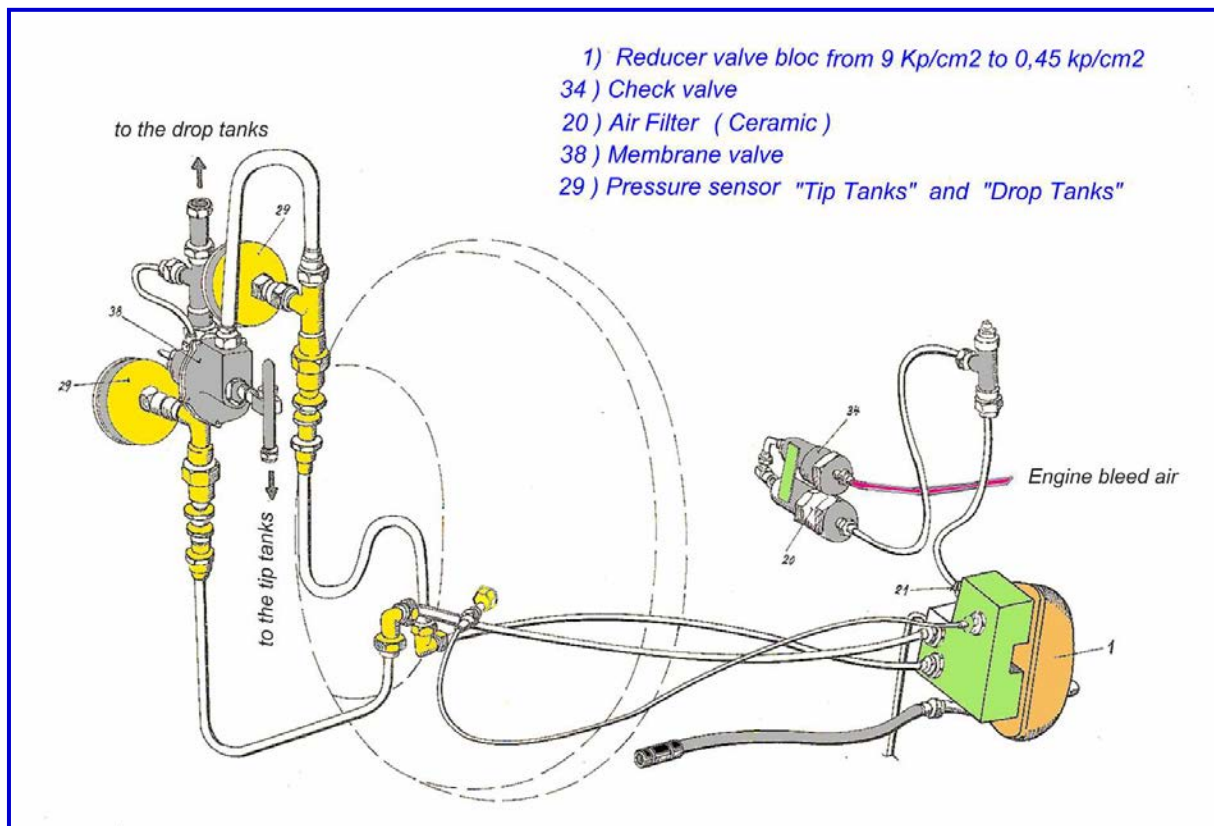
- Hydraulic pressure in main and emergency system only 130/130 kp/cm²
- Hydraulic main and emergency accumulators (old style) inop due to the broken membranes
- With LDG retraction or any other function of the main hydraulic system the Hydraulic System Failure light came ON
- The airplane (16. series) was still equipped with the old system, which uses bleed air from the engine to provide the head pressure for the hydraulic reservoir

Trouble shooting

- Exchange of rubber membranes in all 4 accumulators (27 years old !)
- Check of the head pressure in the hydraulic reservoir by installing the KV-430 gauge as per the instruction
- Head pressure found : ZERO
- Tip Tank pressure OK

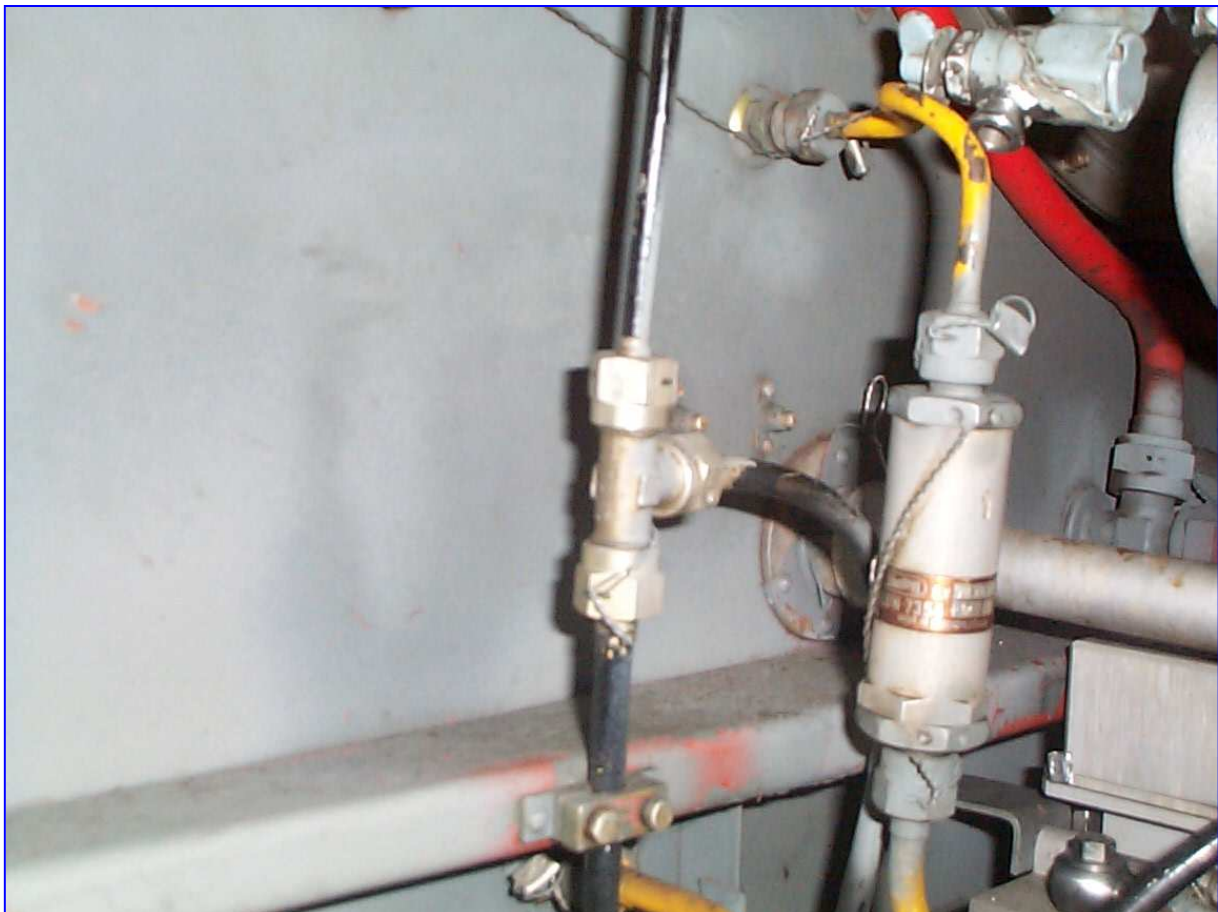
Shop air was blown in the line coming from the de-icing system. The lines have been disconnected in sections to find out where the problem begins.

- Check valve and ceramic filter next to APU oil tank found in correct condition



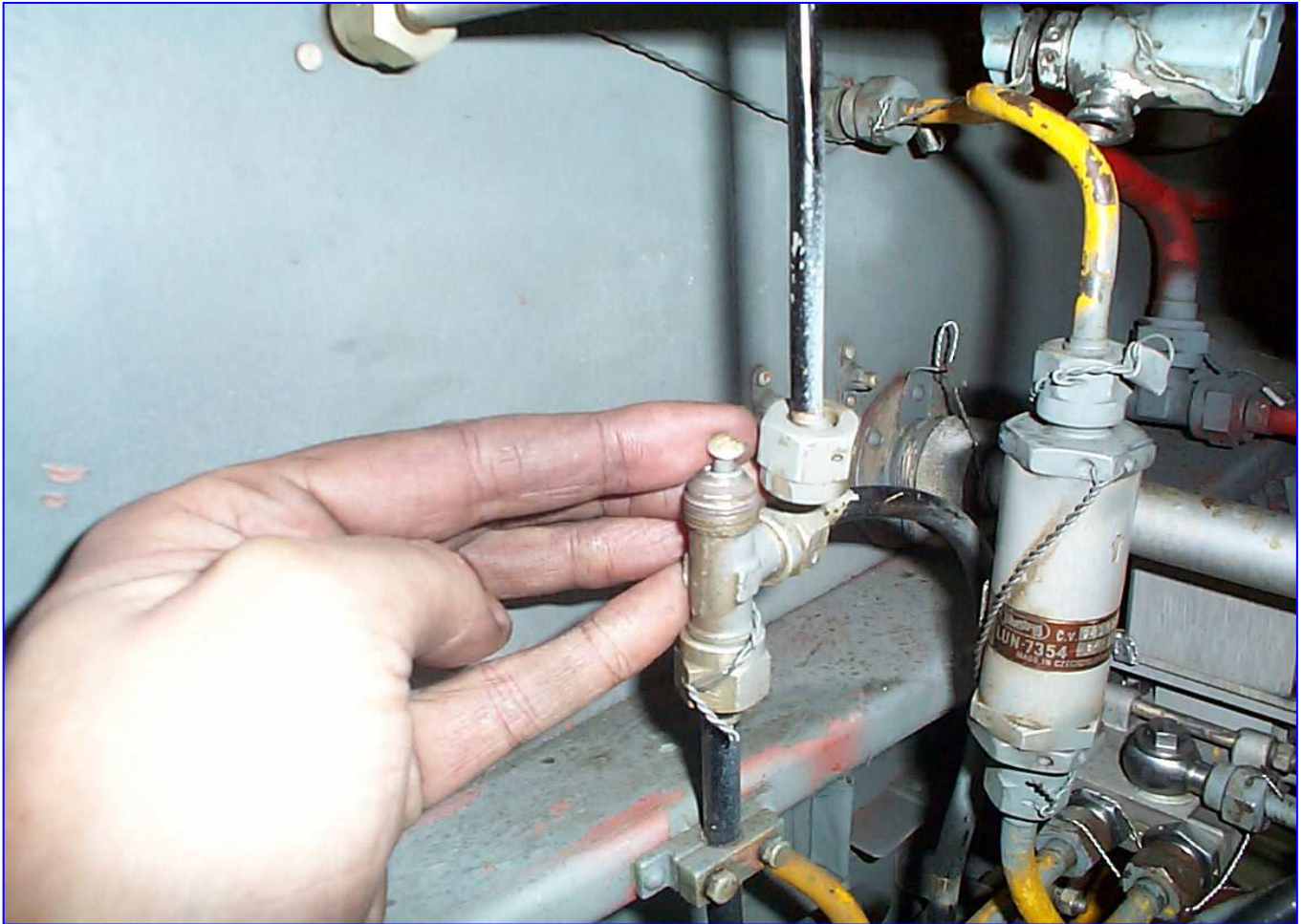


Next step was to blow shop air direct at the T-fitting on Bulkhead 32 in the line to the hydraulic reservoir. The T- fitting was original safety wired (old Russian safety wire)





Big surprise! On the upper part of the fitting we found:



Correct...**a very careful installed round head rivet, plugging the line to the hydraulic reservoir!**

The rivet was removed and the system worked just perfect. The pump produced now 150/150 kp/cm² pressure. However it was too late for the pump!

On the tail pipe we found a lot of hydraulic fluid coming out of the engine drain line. Due to the missing head pressure the pump cavitated on the suction side and was internally worn out. The permissible leak rate on Fitting No. 4 of the pump was far exceeded.



Tail pipe has been cleaned already on this picture!



If the pump would have failed in flight and because of the inop hydraulic emergency system (dead accumulators) only two options for the airplane and its crew remained

Belly landing

OR



We have found up to date 2 similar things were the bleed air system in the area of the ceramic filter was disabled and in one case where the speed brake actuator was plugged on the pressure side by a little bearing steel ball in the hydraulic line. All 4 airplanes came from the Ukraine.

Just another reason to take a close look at your airplane and check the systems as required. It is as well a good reason, to go very careful over an airplane when it arrived "in the box."

Fly safe

Bernd