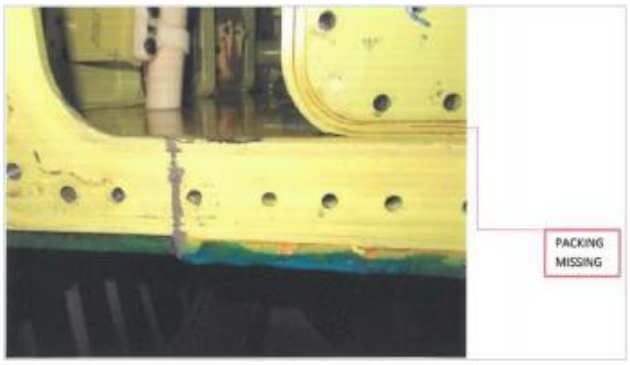
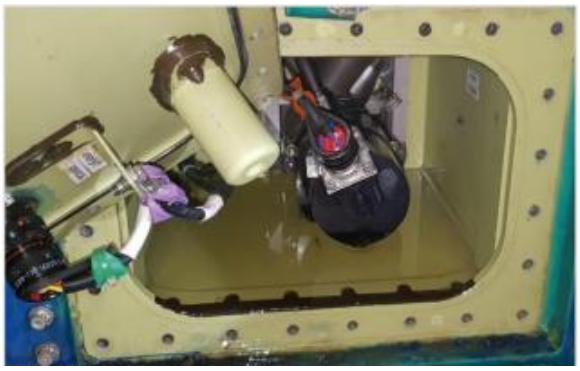
Investigation Lesson Learn: Fuel Leak due to Packing not Installed

Few months ago, on June 2021, an Airline Internal Investigation reported an occurrence during heavy maintenance of an Airbus A-330 at the Maintenance Supplier. Fuel drops were found coming out of the aft drain mast of. The source of leak was identified from a great amount of fuel on the trim tank fuel pump compartment. Several fuel pump electrical wires were soak in fuel. Then, affected compartment was dried and trim tank was completely drained to find the source of leak. Finally, packing P/N MS9021-281 was found missing (see the picture). From the last maintenance record, it was known that there was no maintenance activity in that area for 2 years after the aircraft released from C-Check in a MRO.



(a)



(b)

Figure 1a. The Location Where Packing Should Be Installed
Figure 1b. Amount of Fuel Inside the Trim Tank Transfer Pump Compartment

After an in-depth investigation by the MRO, it was found that replacement of Packing Trim Tank has been performed by Mechanic on April 2019. On the same day, the Mechanic performed Installation of THS FS Center-Box-Access Panel 319DR Ref. AMM 55-11-14-420-054-B including install new packing to the trim tank transfer pump housing. Then, Engineer performed inspection with result no discrepancy was found.

At that time, required material has been provided in the PPC, including the packing. Based on the Material Shipping Document, Material Receiving Tag, and Transfer Order, the packing P/N AS3578-281 has been consumed for the task. In other side, the leak check of Trim Tank RH Fitting Rear Spar Connection has been performed by Mechanic and Engineer several days later with result no pressure decreased for 15 minutes.

Lesson Learn:

Based on the occurrence above, it can be concluded that replacement packing P/N AS3578-281 was performed by Mechanic and Engineer and there was no discrepancy was found during installation. The leak check of Trim Tank RH Fitting Rear Spar Connection has been carried out by Mechanic and Engineer in accordance with AMM 55-11-14-720-050-A, but did not detect any failure.

Here are some tips that can be applied so that similar events do not occur in aircraft maintenance:

1. **Make a well preparation** related to jobcard, maintenance manual, tools, and materials needed. Always **read and use updated maintenance manual or procedures** when doing your job. **Pay attention to Warning and Caution** to avoid accident / incident / aircraft damage.
2. Always **maintain the communication** between maintenance personnel or crew! **Use handover book** as a communication tool so no any job/task missed.
3. Be aware of the dangers of **distraction** while working! Repeat the previous 3 steps if you experienced it.
4. Perform **double check or double inspection** of the results of your job, even with fellow coworkers. Any deviations can be more easily captured.

"Always be careful, perform double check, and maintain your awareness when doing your job. Beware on miscommunication and distraction, make sure no steps are missed!"

Scan this barcode for feedback the SBS
https://bit.ly/TQY-SBS-022-2021

Recipients can scan the code on a phone or tablet to access the form.