Cessna 441, Failed Hydraulic Tube Line, ATA 2910

Cessna: 441; Failed Hydraulic Tube Line; ATA 2910

"Three *(events)* of hydraulic fluid depletion have occurred on three of the Cessna 400 series aircraft that this company operates," says a mechanic. "Two were flap failures *(as in failure to extend)*—and on one the landing gear had to be extended using the emergency system. These failures were caused by a crack (and leak) forming in a 3/8 aluminum alloy hydraulic line at *(various)* bend radii.

"I would like to note: 1) the cracks formed at bends *(just barely meeting)* industry minimum recommended radii for 3/8-inch tubing, 2) these cracks formed at what looks to me as minor tool die marks or stressed areas in the bend radii.

"I do recommend all operators of a 400 series Cessna aircraft have all the hydraulic lines inspected, *(including)* removing the paint at any bend radii on 3/8 inch hydraulic lines—*(inspecting)* for tooling die and stress marks. Any line that appears to be under the minimum bend radius *(standard)* should be replaced." *(No specific part numbers were provided. Three airplanes, three cracks—check. But this airplane has a cracked line...where? Ed.)*

Part Total Time: (unknown)

Table 1: This describes Mild or Moderate Corrosion Inspections (airplanes without TKS anti-ice system). For Severe Corrosion (airplanes with TKS anti-ice system), divide the inspection intervals by 2. (Please use the PDF "zoom" function to view table—Ed.)

TASK NUMBERS	INTERVAL		ZONE	ACCESS	MAINTENANCE MANUAL REFERENCE	208B CORROSION PREVENTION AND CONTROL PROGRAM
	TI (YRS)	RI (YRS)				TASK DESCRIPTION
C32.701.02E	4	2	701	NOTE	12-21-03 32-00-00 32-20-00	Nose gear spring assembly and support assembly. Make sure you examine these areas: 02.01 Nose Gear Spring Surface. 02.02 Forward and Aft Support. 02.03 Nose Gear Spring Fork and Attach Bolts. **NOTE:** Remove the nose gear fairing to get access. STATION: FS 61.78 Models 208 and 208B
C32.701.02I	4	2	701	NOTE	12-21-03 32-00-00 32-20-00 32-40-00	Nose gear support liner, support inner bore, nose gear spring support attach location, nose gear spring fork lug inner bore. Make sure to examine these areas: 02.01 Nose Gear Support Liner. 02.02 Forward and Aft Support Inner Bore Surface. 02.03 Nose Gear Spring Surface at Forward and Aft Support Attach Location. 02.04 Nose Gear Spring Fork Lug Inner Bore Surface. **NOTE:** Remove the nose gear support from the spring to get access STATION: FS 61.78 Models 208 and 208B

(For further information contact Aerospace Engineer Gary Park; Wichita Aircraft Certification Office, 1801 Airport Road, Room 100; Wichita, Kansas; 67209; phone: 316-946-4123)

Part Total Time 3,000 Hours (Approximately)