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Zephyr, Zephyr 2000 wing bolts check

- Applicable on:** UL aircrafts made by ATEC v.o.s., type ZEPHYR, ZEPHYR 2000.
- Reason:** Sporadic occurrence of wing bolt head failure.
- Situation:** The wing is attached to the steel midsection by two vertical pins, diam. 20 mm. Those are secured against falling off by bolt M10, which goes through the upper pin, and which is screwed in the lower pin. Prescribed moment for the bolt is 20 Nm. After the bolt is tightened, it is secured by self-locking nut M10. The thread must overlap the nut at least of 3 mm. The manufacturer has been reported, that during disassembly of Zephyr's wing the bolt's head has been broken away. The reasons could be: imperfect weld joint, corrosion, over-tightening or combinations of those.
- Requested activity:** Unmount the wing bolts (unmounting the vertical pins is not necessary) and check their head's strength. This should be done by torque wrench, or by proper weight, hanged on the ratchet wrench. Testing moment is 30 Nm (3kpm) to both directions. During the test the bolt is clamped by nut lock. The nut lock must be at least 90 mm from the end of bolt, so as the functional part of thread is not loaded.
- Troubleshooting:** When the bolts does not pass the test (permanent deformation, breaking off the head or wrong length), the manufacturer will supply a new set of bolts to replace. The owner will assure the replacement.
- Realized by:** The owner of the aircraft.
- Term of acquital:** Before the next flight.