

Zane Brown
Aviation Accident Investigator
AS-WPR

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Subject: Inflatable Harness Examination

Contact: Kevin Keeslar, AMSAFE, Phoenix, AZ
Loren Golden, AMSAFE, Phoenix, AZ
Dakota Lowe, Air Tractor, Onley, TX

Investigators examined the inflatable restraint systems from N8525V and N2032K at the restraint system manufacturer's facility.

N2032K

The inflatable restraint system from N2032K was in normal condition. The seat belt was manufactured in February 2011, and the inflator assemblies were manufactured in October 2009.

During the accident sequence, the left airbag appeared to have inflated normally. The right airbag inflated but sustained a rupture in its lower section. Examination of the airbag found that the rupture was consistent with impact loading that exceeded the restraint system's design and certification criteria.

N8525V

The inflatable restraint system from N8525V was in generally poor condition, with the harness webbing in normal condition. The leather coverings over the airbags were significantly dried and deteriorated. The seat belt was manufactured in June 2011. The inflator assemblies were manufactured in October 2011 and November 2011.

During the accident sequence, the left airbag appeared to have inflated normally. The right airbag did not inflate, although the inflator was discharged. Examination of the airbag revealed a hole in the right airbag transfer tubing near where the tubing passed

through the aft cockpit wall. The damage was consistent with chafing of the tubing at that location.



Figure 1 Inflatable restraint system from N8525V (NTSB)

Service Life Information

According to the manufacturer's component maintenance manual, the inflatable restraint assembly has an on-condition service life. The inflator assembly has a service life of 10 years from its date of manufacture.

Based on their respective dates of manufacture, all four inflator assemblies installed in N8525V and N2032K were beyond the manufacturer-specified 10-year service life at the time of the accident.