



**FAA
Aviation Safety**

**SPECIAL AIRWORTHINESS
INFORMATION BULLETIN**

SUBJ: Engine Exhaust; Inlet check valves on turbochargers used in the
Tornado Alley Turbo, Inc. turbonormalizing systems

SAIB: AIR-21-05

Date: March 17, 2021

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin is to advise registered owners and operators of Cirrus SR22 airplanes equipped with a turbonormalizing system per supplemental type certificate (STC) SA10588SC of the potential loss of oil pressure due to failure of the turbocharger oil inlet check valve.

At this time, the airworthiness concern is not an unsafe condition that would warrant airworthiness directive (AD) action under Title 14 of the Code of Federal Regulations (14 CFR) part 39.

Background

A Cirrus SR22 was involved in an occurrence, where during cruise flight, the pilot realized a loss in oil pressure; specifically 40 PSI to 8 PSI in two minutes. An emergency was declared and the pilot landed without incident. Upon inspection of the engine, the left turbocharger oil inlet check valve was found sheared off at the threads going into the turbo oil inlet. This caused the loss of pressure due to most of the oil being dumped overboard.

Further investigation of the turbocharger oil inlet check valve revealed that the check valve was overtorqued. This highlighted the need to remind owners/operators and maintenance personnel to understand and comply with the manufacturer's requirements for maintaining and operating their airplanes in an airworthy condition and to perform a one-time check of the turbocharger oil inlet check valve for proper installation.

Recommendations

The FAA recommends that all operators of Cirrus SR22 airplanes equipped with a turbonormalizing system per STC SA10588SC to perform the Accomplishment Instructions of Tornado Alley Turbo, Inc Service Instructions TAT SI20-10, dated August 6, 2020 at the earliest opportunity.

For Further Information Contact

Mahmood G Shah, Aerospace Engineer, 10101 Hillwood Parkway, Fort Worth, TX 76177, United States; phone: (817) 222-5538; e-mail: mahmood.g.shah@faa.gov.

For Related Service Information Contact

Tornado Alley Turbo, Inc.
300 Airport Road
Ada, Ok 74820
Phone: (580)332-3510
Internet: www.taturbo.com