



P.O. Box 117 18781 County Rd 22
Glenwood MN, 56334
PH & FAX: 320-634-4772 • 800-443-2136
www.Tanisaircraft.com

Revision: A
Date: 08-24-2010

Instructions for Continued Airworthiness

Tanis preheat system for piston engines

PREPARED by Glen Olin
CHECKED by Dirk Ellis
APPROVAL by _____

The installation is to be inspected in accordance with the following criteria or equivalent operator's Approved Airworthiness Inspection Program:

1.0 INTRODUCTION

These Instructions for Continued Airworthiness contain the necessary information for carrying out the ongoing maintenance and inspections on the Tanis preheat installation.

2.0 DESCRIPTION

Complete systems vary depending on aircraft configuration. Generally, preheating is provided for engine oil sump(s), each engine cylinder, main case(s), and the aircraft battery(s). Systems are ground/shore powered by 115V or 230V. Systems amperage draw varies from just a few amps to upwards of 12 amps. Consisting of a ground power plug, and depending on system configuration, may also incorporate such options as flush mount plug, plug door, annunciator pilot light, appropriately sized circuit protection, electrical cabling, heat elements, fire seals, and hardware as required.

Precaution: Check systems AC power requirements. There are both 115V, with North American NEMA 5-15P plug type and 230V with Europe CEE 7/7 plug type.

The installed Tanis preheat system weight is approximately 1-2 pounds.

3.0 CONTROL, OPERATION INFORMATION

The Tanis Preheat System does not operate in flight.

Systems are designed to operate on the ground utilizing ground or shore power.

4.0 SERVICING INFORMATION

N/A.

5.0 MAINTENANCE INSTRUCTIONS

Inspect the Tanis Preheat System at each annual or equivalently scheduled inspection. A minimum of 1 check per 12-month cycle is required. This inspection is a complete visual and operational inspection requiring only a single logbook entry. Inspections shall be accomplished by an appropriately rated mechanic assigned to this aircraft. Inspections and other maintenance requirements are to be performed under 14 CFR AC 43.13-1B Chapter 11 of the Federal Aviation Regulations unless an alternative FAA approved program is in force.

1. Examine the system for security of attachment.
2. Inspect the system power plug, cable leads, connectors, and junctions.
3. Follow cable leads to each element.
If any portion of the cabling shows signs of fatigue due to chafing, flexing, airflow, or vibration, re-secure or repair as required conforming to AC 43.13-1B.
4. Inspect bolt elements for sealant cracking or disbonding from element bolt bodies and for any damaged or worn wire insulation. If damage noted remove and replace element(s).



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5. Inspect all pad heat elements for proper installation and bonding. If any portion of a pad heat element comes loose, it may be re-bonded. Use only Tanis supplied silicone. If a pad heat element develops a gray colored area it will require replacement. Reference Tanis bonding instruction NO. 186. For information on North American flush mount plug repairs reference Tanis instruction TN02070.

For more information, refer to manufacturer's installation and maintenance instructions and Tanis Service Bulletins, available on line at www.tanisaircraft.com.

6.0 TROUBLESHOOTING

For a general wiring schematic, refer to Tanis drawing 2576. The system can be checked with a continuity light or ohmmeter with the system disconnected from the power source. There should be no continuity between either of the power leads and the engine ground. Resistance should exist between the hot and neutral leads. The proper resistance values for the system can be found in the installation manual. If the system is connected to a power source but there is no power at the heating elements, check the circuit protective device in the power lead (fuse or circuit breaker). If necessary, reset the circuit breaker or replace the fuse after determining the cause of the fault and implementing repairs. Individual heating elements can be tested with an ohmmeter by disconnecting the element from the wiring harness and measuring resistance across the element wiring leads. Resistance values for individual elements can be found in the installation manual.

Simple test: After applying power for 30 minutes, areas adjacent to heat elements should start to feel warm.

Caution: Do not touch elements as they may burn you.

7.0 REMOVAL AND REPLACEMENT INSTRUCTIONS

Refer to Tanis's installation instructions.

8.0 DIAGRAMS

For a general wiring schematic, refer to Tanis drawing 2576.

9.0 SPECIAL INSPECTION REQUIREMENTS

N/A.

10.0 APPLICATION OF PROTECTIVE TREATMENTS

N/A.

11.0 STRUCTURAL DATA

N/A.

12.0 LIST OF SPECIAL TOOLS

N/A.

13.0 FOR COMMUTER CATEGORY AIRCRAFT

N/A.



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14.0 RECOMMENDED OVERHAUL INTERVALS

No additional overhaul time limitations.

15.0 AIRWORTHINESS LIMITATIONS

No additional airworthiness limitations.

16.0 REVISIONS

A letter will be submitted to the FAA with a copy of the ICA. The representative accepts the change by sending a letter back including the following statement: "The attached revised/new Instructions for Continued Airworthiness (date_____) for the aircraft _____ or component major alteration have been accepted by the FAA, superseding the Instructions for Continued Airworthiness (date_____)."

No additional airworthiness limitations.

REVISION HISTORY:

"A" Initial Release _____

08-24-2010 GLEN OLIN

***** NOTHING FOLLOWS *****