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FLIGHT MANUAL SUPPLEMENT

TFMS2513

REV A, APR-23-2013

FOR

ENGINE PREHEAT SYSTEMS

TSP4CYL-2513-115 AND TSP4CYL-22513-230

(115VAC AND 230VAC)

ON

JABIRU 2200 SERIES AIRCRAFT ENGINE

Aircraft Reg. No. _____ Serial No. _____

This supplement must be attached to the Flight Manual when the aircraft is modified by the installation of the Tanis Preheat System.

The information contained herein supplements or supersedes the basic flight manual only in those areas listed. For limitations, procedures, and performance not contained in this supplement, consult the aircraft's approved flight manual.

PROPRIETARY DATA

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RECORD OF REVISIONS

When updated, this document is changed in its entirety.

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SECTION 1. LIMITATIONS

The Tanis Preheat System installed on this aircraft does not operate in flight and is not connected to or dependent on aircraft systems. The system is only capable of operation when connected to an appropriate ground based power source (Figures 1 and 2). The aircraft is not to be fueled and engine is not to be operated while the system is plugged in, or connected to an extension cord.

The installation of the preheat system does not change existing environmental flight restrictions. For specific instructions that apply to this aircraft regarding cold weather operations and starting procedures, reference appropriate Flight Manual and/or Flight Manual Supplements as well as FAA Advisory Circulars, (AC).

1.1. Placards and Markings

The system's shore power plug is located on/or near the engine oil filler tube, or accessible through a cowl opening, or located on the airframe with or without a door, and placarded accordingly. System voltage requirement is identified by plug type, and placard.

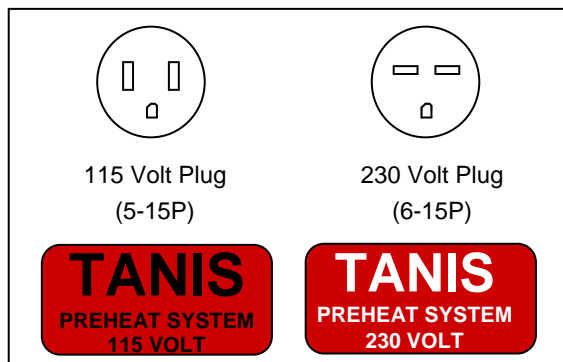


Figure 1 - Shore power plug types, and placards.

<i>Extension cord specifications</i>		
<i>Conductor gauge/wires:</i>	<i>Max amps:</i>	<i>Max length:</i>
16/3	13A	50'
	10A	100'
14/3	15A	50'
	13A	100'
12/3 10/3	15A	100'
	15A	100'

(System circuit protection 12A)

Figure 2 - Extension cord specifications.

SECTION 2. NORMAL PROCEDURES

Only operate the aircraft with preheat system unplugged.

Use proper fluids and oils as recommended by the manufacturer for conditions of flight.

Only operate the preheat system with aircraft fluids at operational levels.

The system can be operated immediately after full engine shut down.

Reference SECTION 1. LIMITATIONS, for shore power location, markings, and extension cord requirements (Figures 1, 2 and 3).

2.1. Preheat System Operation and Control

2.1.1. Activation of the system is controlled by connecting (plugging) the system in to appropriate shore power.

2.1.2. To deactivate the system disconnect (unplug) the shore power.

2.1.3. When the system is connected to power, elements will begin to heat. If equipped with optional red indicator light the light will turn on.

2.1.4. The system may be operated at all times while in standby status.

2.1.5. For the system to be of maximum benefit when temperatures are at or below 0°C (32°F), it should be in continual use for a minimum of 6 hours before engine start.

2.1.6. When operating at -12°C (+10°F) and below, the use of insulated engine cover and/or cowl and plugs increases the efficiency of preheating operation, retaining heat, and acting as a windbreak.

2.2. Preflight Procedures

Follow the aircraft's Normal Procedures, perform Pre-Flight Check, and add the following:

2.2.1. Check to see the system has been in operation during standby, and if installed, check that the indicator light is on.

2.2.2. Remove engine and airframe cowl plugs and/or covers, if used.

2.2.3. Unplug the aircraft preheat systems from the extension cord.

2.2.4. Latch Doors that were open.

2.2.5. Appropriately stow extension cord.

2.2.6. Start the aircraft following normal starting procedures.

2.3. Post Flight Operation

The preheat system may be plugged in as soon as practical after full engine shut down.

2.3.1. Once the aircraft is secured, access the power plug and plug in the system.

2.3.2. If used, install engine and airframe cowl plugs and/or covers per manufacturer's instructions.

2.3.3. After 30 minutes, verify the system is operational by checking for warmth. This can be done by touching an area adjacent to an element, and if installed, by checking to see that the red indicator light is on.

SECTION 3. EMERGENCY AND MALFUNCTION PROCEDURES

Should a malfunction be detected, such as tripped circuit protection (blown fuse) or no heat being detected, disconnect the system from power source, flag as inoperable and inspect before flight. Repairs are to be conducted by an appropriately rated and certified mechanic with airframe and power plant experience on this type of aircraft.

SECTION 4. PERFORMANCE

No change from the basic flight manual.

SECTION 5. OPTIONAL EQUIPMENT SUPPLEMENTS

No change from the basic flight manual.

SECTION 6. WEIGHT AND BALANCE

Equipment List and Weight and Balance figures recalculated at time of system installation per aircraft manufacturer's standards.

SECTION 7. DESCRIPTION

The Tanis Preheat Kit installed on this aircraft is for the engine(s). Consult the aircraft equipment list for optional Tanis systems that may be installed in conjunction with the engine system.

Preheating is a cold weather aviation procedure that increases reliability and safety of operations, reduces thermal stress, and launch times.

Engine preheating is accomplished through electrical resistance heat located in each cylinder assembly, and on the sump. Power is routed to the heat elements through a dedicated wiring assembly with circuit overload protection. The system is self-regulating through design. Heated components reach an average state of thermal equilibrium in six hours.

The system is placarded adjacent to the plug (Figure 1). Kits are available in two separate AC voltage configurations: 115 volt or 230 volt. Voltage requirement is identified by part number, power plug, and placard.

Circuit protection is 12 amps. Design is for operation at plus or minus 10% of system voltage requirement.

SECTION 8. HANDLING, SERVICING AND MAINTENANCE

For detailed information regarding maintenance, illustrations and electrical values reference Instruction for Continued Airworthiness.

SECTION 9. SUPPLEMENTAL PERFORMANCE INFORMATION

No change from the basic flight manual.

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