News for JT15D Engine Operators ● Deliver to Flight Dept.

DUNCAN INTELLIGENCE

● Edited by Ken Kuchenreuther & Dan Arrick ● Fall 2003

P&W JT15D Impeller Rear Face Grooves

By Ken Kuchenreuther

SB 7590 requires an inspection of your impeller if you have over 5000 cycles on your engine impeller since new and have a P&W JT15D-1,-1A,-1B engine with impeller PN 3020365. If this SB applies to you and you are scheduled for a Hot Section Inspection, make sure you check SB 7590 when the engine is disassembled. However, if you are not scheduled for a HSI, check this SB at the next shop visit or within 250 cycles of May 23, 2003, whichever comes first. If you have under 5000 cycles, you may check into it at your next shop visit

The good news is a lot of these engines have been looked at during recent overhauls and the impellers have probably been signed off or changed. However, there are many that will need to be changed to reduce the possibility of a fracture and major engine damage.

Approximately one hundred and seventy two impellers are listed in the bulletin by serial number as compliant with SB7590. Grab your log books, give me a call and we can check it out together.

For more information please contact Dan Arrick or Ken Kuchenreuther in BTL at 800.525.2376 or e-mail Ken at *ken_kuchenreuther@duncanaviation.com* or Dan at *dan_arrick@duncanaviation.com*.

No Throttle Response

By Ken Kuchenreuther

No throttle response or slow throttle response at altitude has been a small issue in the past with some JT15D-1 through JT15D-4 series P&W engines. Throttle response can often be reinstated by turning on the engine anti-ice or ignition. Whenever the ignition is on, the step modulator is energized open, permitting an additional amount of P-3 air to enter the fuel control unit, usually returning control to the pilot. Descending to a lower altitude also will usually allow control to return.

At the maintenance base, check the acceleration of the affected engine per the maintenance manual. Usually the acceleration is too slow compared to the opposite engine. This is an adjustment covered by the appropriate maintenance manual. Remember to adjust min flow after the acceleration adjustment.

For more information please contact Dan Arrick or Ken Kuchenreuther in BTL at 800.525.2376 or e-mail Ken at *ken_kuchenreuther@duncanaviation.com* or Dan at *dan_arrick@duncanaviation.com*.

Takeoff N1

By Ken Kuchenreuther

From time to time we get calls about trouble making takeoff N1. Though the reasons for this are many, one simple reason is N1 gauge error. Another sometimes overlooked problem can be fuel nozzle plugging.

In the JT15D-5 series maintenance manuals, there is a primary and second manifold pressure check. For JT15D-1 and JT15D-4 series engine users, this check is not in the maintenance manual. If you think there is a need for this check give me a call and I will help you through it.

For additional information, contact Ken Kuchenreuther at 800.525.2376.

Trivia Question

By Dan Arrick

The answer to last edition's question: One monopole is for the N2 gauge in the cockpit and the other N2 monopole is for compressor bleed valve operation. N2 speed is required by the controller to determine the position of the bleed valve.

Next question: What discrepancy would a P3 leak cause during engine start? The first 10 correct answers will receive a small prize.

Please respond to Dan Arrick by phone by calling 800.525.2376 or e-mail at *dan_arrick@duncanaviation.com*.