### 中国民用航空局



# CAAC 适 航 指 令

#### AIRWORTHINESS DIRECTIVE

本指令根据中国民用航空规章《民用航空器适航指令规定》(CCAR-39)颁发,内容涉及飞行安全,是强制性措施。如不按规定完成,有关航空器将不再适航。

编号: CAD1996-MULT-36R1

修正案号: 39-4633

一. 标题: 测试/改装燃烧集气管及其气压电门

#### 二. 适用范围:

标有符合TSO-C20标准且型号为B1500、B2030、B2500、B3040、B3500、B4050和B4500的Kelly Aerospace动力系统公司(以前也称为Janaero Devices, Janitrol, C/D, FL Aerospace, 及 Midland-Ross Corporation)B一系列燃烧加温器,安装于但不限于以下所列飞机(所有序号):

制造厂	型号
雷神飞机公司	58, 58P, 58TC, 60, A60, 76,和95-B55系列。
庞巴迪公司	CL-215-1A10 (灭火飞机) CL215-6B11 (CL-215T 改型)
	(CL415 改型)。
塞斯纳飞机公	208, 310F, 310G, 310H, 310I, 310J, 310K, 310L, 310N,
司	310P, 320C, 320D, 320E, 320F, 337系列, 340, 340A,
	414, 414A, 421, 421A, 421B,和421C。

注1: 型号为B2500, B3500, 和B4500的B-系列燃烧加温器安装有件号为P/N 94E42的燃烧气压电门。对安装有件号为 P/N 94E42的燃烧气压电门的飞机, 无需对此气压电门进行操作测试。件号标识用墨水压印在燃烧气压电门的侧面。

### 三. 参考文件:

1、FAA AD 2004-21-05,修正案号: 39-13826, 2004年10月13

日颁发:

- 2、Janitrol 维护和翻修手册 24E25-1;
- 3、JanAero Devices 公司服务通告 A-103, 1995 年 9 月颁发。

四. 原因、措施和规定 本适航指令替代 CAD1996-MULT-36, 39-1759

本指令的颁发是由于有报告指出,新的有陶瓷涂层的集气管发生与旧的没有陶瓷涂层集气管相同的故障。为防止燃烧加温器系统失效会造成燃烧室副产品(一氧化碳废气)和燃油从燃烧加温器中渗漏,从而导致飞机着火或爆炸,或机组和旅客一氧化碳中毒,要求自本指令生效之日起,完成FAA AD 2004-21-05要求的工作,除非己事先完成。

完成本指令可采取能保证安全的替代方法或调整完成的时间,但 必须得到适航部门的批准。

附件: FAA AD 2004-21-05

2004-21-05 Kelly Aerospace Power Systems (Formerly Janaero Devices, Janitrol, C/D, FL Aerospace, and Midland-Ross Corporation):

Amendment 39-13826; Docket No. FAA-2004-19118; Directorate Identifier 2004-CE-25-AD; Supersedes AD 96-20-07; Amendment 39-9773.

#### When Does This AD Become Effective?

(a) This AD becomes effective on November 19, 2004.

### Are Any Other ADs Affected by This Action?

(b) This AD supersedes AD 96-20-07, Amendment 39-9773.

# What Airplanes Are Affected by This AD?

(c) This AD affects Kelly Aerospace Power Systems B-Series Combustion Heaters, Models B1500, B2030, B2500, B3040, B3500, B4050, and B4500, marked as meeting the standards of TSO-C20, that are installed on, but not limited to, the following aircraft (all serial numbers), and are certificated in

any category:

Manufacturer	Models
Raytheon Aircraft Company	58, 58P, 58TC, 60, A60, 76, and 95-B55 Series.
Bombardier Inc	CL-215-1A10 (Water Bomber) CL215-6B11
	(CL-215T Variant) (CL415 Variant).
The Cessna Aircraft	208, 310F, 310G, 310H, 310I, 310J, 310K,
Company	310L, 310N, 310P, 320C, 320D, 320E, 320F,
	337 Series, 340, 340A, 414, 414A, 421, 421A,
	421B, and 421C.

**Note 1:** B-Series Combustion Heaters Models B2500, B3500, and B4500 incorporate a new combustion air pressure switch, P/N 94E42. Airplanes that are equipped with P/N 94E42 do not need to conduct an operational test of the combustion air pressure switch. The part number is ink-stamped on the side of these combustion air pressure switches.

#### What Is the Unsafe Condition Presented in This AD?

(d) This AD is the result of reports that the new ceramic-coated combustion tubes are subject to the same distress as the non-ceramic coated combustion tubes. We are issuing this AD to prevent combustion by-products (carbon-monoxide exhaust) and fuel leakage from the combustion heaters caused by failure of the combustion heater system. This failure could result in fire or explosion in the airplane and possible carbon monoxide poisoning of the crew and passengers in the cabin.

#### What Must I Do To Address This Problem?

(e) For airplanes with an affected B-Series combustion heater that does not incorporate an extended-life ceramic-coated combustion tube, do the following:

Actions	Compliance	Procedures
(1) Perform the following:	For airplanes with 450 or more	Follow the
(i) Using a pressure decay	heater hours time-in-service (TIS)	applicable
test, inspect the	accumulated on an installed	instructions in

combustion tube of the heater; and (ii)Conduct an operational test of the combustion air pressure switch. In some applications, the air pressure switch is remotely mounted on the airframe and not on the heater. Regardless of where the air pressure switch is located, the operational test requirements of this AD still apply. pressure switch, part installed, the operational test is not required.

heater since new installation or since the last overhaul: Within the next 50 hours TIS or 12 calendar months after November 14, 1996 (the effective date of AD 24E25-1. 96-20-07), whichever occurs first, unless already done. For airplanes with less than 450 heater hours TIS accumulated on an installed heater since new installation or since the last overhaul: Upon the accumulation of 500 heater hours TIS or within the next 12 calendar months after (iii) If an air November 14, 1996 (the effective date of AD 96-20-07), whichever number 94E42 is currently occurs first, unless already done. After doing the initial inspection and operational test: Repetitively inspect the combustion tube and perform the operational test of the air pressure switch thereafter at intervals not-to-exceed 100 heater hours TIS or 24 calendar months, whichever occurs first.

Janitrol Maintenance and Overhaul Manual

(2) After each inspection required in paragraph (e)(1) of this AD, if the heater does not pass the pressure decay test, overhaul the heater and replace the combustion tube with a serviceable tube or replace the heater assembly.

Prior to further flight after the inspection required in paragraph (e)(1) of this AD in which the combustion tube fails. After the heater is overhauled or replaced with a new heater assembly, the inspection cycle starts over upon the accumulation of 500 heater hours TIS with the repetitive inspection intervals thereafter

Follow the applicable instructions in Janitrol Maintenance and Overhaul Manual 24E25-1.

	i e e e e e e e e e e e e e e e e e e e	i
	not-to-exceed 100 heater hours	
	TIS or 24 calendar months,	
	whichever occurs first.	
(3) After each operational	Prior to further flight after the	Follow the
test required in paragraph	operational test required in	applicable
(e)(1) of this AD, if any	paragraph (e)(1) of this AD in	instructions in
air pressure switch does	which the switch failed. After	Janitrol
not pass, replace the	installing a new switch,	Maintenance
switch with one of the	repetitively test the air pressure	and Overhaul
same design or with a P/N	switch thereafter at intervals	Manual
94E42.	not-to-exceed 100 heater hours	24E25-1 and
	TIS or 24 calendar months,	JanAero
	whichever occurs first. Replacing	Devices
	the combustion air pressure	Service
	switch with a P/N 94E42 switch	Bulletin #
	terminates the repetitive	A-103, dated
	operational testing required in	September
	paragraph (e)(1) of this AD.	1995.
(4) As an alternative	As of November 14, 1996 (the	Not applicable.
method of compliance to	effective date of AD 96-20-07).	
the requirements of this		
AD, you may disable the		
heater by doing the		
following: (i) Cap the		
fuel supply line; (ii)		
Disconnect the electrical		
power and ensure that the		
connections are properly		
secured to reduce the		
possibility of electrical		
spark or structural		
damage; (iii) Inspect		
and test to ensure that the		
1		
cabin heater system is		
(4) As an alternative method of compliance to the requirements of this AD, you may disable the heater by doing the following: (i) Cap the fuel supply line; (ii) Disconnect the electrical power and ensure that the connections are properly secured to reduce the possibility of electrical spark or structural damage; (iii) Inspect	switch with a P/N 94E42 switch terminates the repetitive operational testing required in paragraph (e)(1) of this AD.  As of November 14, 1996 (the	Bulletin # A-103, dated September 1995.

that no other aircraft	
system is affected by this	
action; (v) Ensure that	
there are no fuel leaks;	
and (vi) Fabricate a	
placard with the following	
words: "System	
Inoperative". Install this	
placard at the heater	
control valve within the	
pilot's clear view.	

**Note 2:** You may use a heater hour meter to determine heater hours time-in-service (TIS). Also, you may divide aircraft hours TIS in half to calculate heater hours TIS.

(f) For airplanes with an affected B-Series combustion heater that does incorporate an extended-life ceramic-coated combustion tube, do the following:

Actions	Compliance	Procedures
(1) Perform the following:	Upon the accumulation of 500	Follow the
(i) Using a pressure decay	heater hours TIS or within the	applicable
test, inspect the combustion	next 100 hours TIS after the	instructions in
tube of the heater; and	November 19, 2004 (the	Janitrol
(ii) Conduct an operational	effective date of this AD),	Maintenance
test of the combustion air	whichever occurs later.	and Overhaul
pressure switch. In some	Repetitively inspect the	Manual
applications, the air	combustion tube and perform	24E25-1.
pressure switch is remotely	the operational test of the air	
mounted on the airframe	pressure switch thereafter at	
and not on the heater.	intervals not-to-exceed 100	
Regardless of where the air	heater hours TIS or 24	
pressure switch is located,	calendar months, whichever	
the operational test	occurs first.	
requirements of this AD		

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still apply. (iii) If an air		
pressure switch, part		
number 94E42 is currently		
installed, the operational		
test is not required.		
(2) After each inspection	Prior to further flight after the	Follow the
required in paragraph (f)(1)	inspection required in	applicable
of this AD, if the heater	paragraph (f)(1) of this AD in	instructions in
does not pass the pressure	which the combustion tube	Janitrol
decay test, overhaul the	fails. After the heater is	Maintenance
heater and replace the	overhauled or replaced with a	and Overhaul
combustion tube with a	new heater assembly, the	Manual
serviceable tube or replace	inspection cycle starts over	24E25-1.
the heater assembly.	upon the accumulation of 500	
	heater hours TIS with the	
	repetitive inspection intervals	
	thereafter not-to-exceed 100	
	heater hours TIS or 24	
	calendar months, whichever	
	occurs first.	
(3) After each operational		Follow the
test required in paragraph		applicable
(f)(1) of this AD, if any air	1	instructions in
pressure switch does not		Janitrol
pass, replace the switch		Maintenance
with one of the same design		and Overhaul
or with a P/N 94E42.		Manual 24E25-1
01 WILLI & 1/11 /4L42.	†	and JanAero
		Devices Service
	,	Bulletin #
		A-103, dated
	combustion air pressure switch	September 1995.
	with a P/N 94E42 switch	
	terminates the repetitive	
	operational testing required in	

	paragraph (f)(1) of this AD.	
(4) As an alternative	As of the November 19, 2004	Not applicable.
method of compliance to	(the effective date of this AD).	
the requirements of this		
AD, you may disable the		
heater by doing the		
following: (i) Cap the		
fuel supply line; (ii)		
Disconnect the electrical		
power and ensure that the		
connections are properly		
secured to reduce the		
possibility of electrical		
spark or structural damage;		
(iii) Inspect and test to		
ensure that the cabin heater		
system is disabled; (iv)		
Ensure that no other aircraft		
system is affected by this		
action; (v) Ensure that		
there are no fuel leaks; and		
(vi) Fabricate a placard with		
the following words:		
"System Inoperative".		
Install this placard at the		
heater control valve within		
the pilot's clear view.		

# May I Request an Alternative Method of Compliance?

(g) You may request a different method of compliance or a different compliance time for this AD by following the procedures in 14 CFR 39.19. Unless FAA authorizes otherwise, send your request to your principal inspector. The principal inspector may add comments and will send your request to the Manager, Atlanta ACO, FAA. For information on any already

approved alternative methods of compliance, contact Kevin L. Brane, Aerospace Engineer, Atlanta Aircraft Certification Office, FAA, One Crown Center, 1985 Phoenix Boulevard, Suite 450, Atlanta, GA 30349; telephone: (770) 703-6063; facsimile: (770) 703-6097.

#### **Does This AD Incorporate Any Material by Reference?**

- (h) You must do the actions required by this AD following the instructions in JanAero Devices Service Bulletin A-103, dated September 1995.
- (1) On November 14, 1996 (61 FR 51357, October 2, 1996), and in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, the Director of the Federal Register approved the incorporation by reference of JanAero Devices Service Bulletin A-103, dated September 1995.
- (2) You may get a copy from Kelly Aerospace Power Systems, PO Box 273, Fort Deposit, Alabama 36032; telephone: (334) 227-8306; facsimile: (334) 227-8596; Internet: <a href="http://www.kellyaerospace.com">http://www.kellyaerospace.com</a>. To review copies of this service information, go to the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, go to:

<a href="mailto://www.archives.gov/federal\_register/code\_of\_federal\_regulations/ibr\_locations.html">http://www.archives.gov/federal\_register/code\_of\_federal\_regulations/ibr\_locations.html</a> or call (202) 741-6030. To view the AD docket, go to the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-001 or on the Internet at <a href="http://dms.dot.gov">http://dms.dot.gov</a>. The docket number is FAA-2004-19118.

Issued in Kansas City, Missouri, on October 13, 2004. William J. Timberlake,
Acting Manager, Small Airplane Directorate,
Aircraft Certification Service.
[FR Doc. 04-23620 Filed 10-21-04; 8:45 am]
BILLING CODE 4910-13-P

## CAD1996-MULT-36R1 / 39-4633

五. 生效日期: 2004年11月19日

六. 颁发日期: 2004年11月17日

七. 联系人: 钟颖芬

民航中南地区管理局适航审定处

020-86122503