中国民用航空局 CIVIL AVIATION ADMINISTRATION OF CHINA

C A A C
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：CAD2004-C208-02 修正案号：39-4623

一. 标题： 检查、更换内侧襟翼前缘双臂摇臂（bellcrank）

二. 适用范围：

1、第1组，以下型号及序号的CESSNA 208 和208B型飞机：

型号	序 号
208 208B	20800001至20800369 208B0001至208B1014, 208B1017, 208B1018, 208B1020至208B1024, 208B1026,和208B1029至208B1033。

注1：保留CAD2003-C208-02（修正案号：39-4218，2003年11月13日颁发）要求的工作，但将适用范围扩大至所有位置的双臂摇臂（具体受影响件号见附件中FAA AD 2004-17-01的措施部分）。

2、第2组，所有CESSNA 208 和208B型飞机。

注2：保留CAD2003-C208-01（修正案号：39-3930，2003年1月29日颁发）要求的工作：对内侧襟翼前缘双臂摇臂进行重复检查，看是否存在裂纹，最终应替换这些双臂摇臂，另外也可以安装新设计的双臂摇臂以延长其寿命并取消重复检查的要求。

三. 参考文件：

1、FAA AD 2004-17-01,修正案号：39-13772，2004 年 8 月 5 日颁发；

2、CESSNA CARAVAN 服务通告 No.CAB03-11 修改版 1，2003 年 9 月 24 日颁发；

3、CESSNA CARAVAN 服务通告 No.CAB02-12 修改版 1，2003 年 1 月 27 日颁发；

4、CESSNA CARAVAN 服务通告 No.CAB02-1，2002 年 2 月 11 日颁发；

5、CESSNA CARAVAN 服务包 SK208-148A，2003 年 1 月 27 日颁发；

6、飞机员使用手册和飞行手册临时改版 208PHTR02，2003 年 9 月 23 日颁发。

四. 原因、措施和规定

本适航指令替代 CAD2003-C208-01，39-3930

CAD2003-C208-02，39-4218

本指令替代CAD2003-C208-01，修正案号：39-3930，2003年1月29日颁发和CAD2003-C208-02，修正案号：39-4218，2003年11月13日颁发。

本指令的颁发是由于：1、CAD2003-C208-01（参考FAA AD 2002-22-17颁发）颁发后，Cessna设计了新的襟翼双臂摇臂，寿命为40,000个起落（原寿命为7,000个起落）；2、CAD2003-C208-02（参考FAA AD 2003-21-04颁发）颁发后，对所有双臂摇臂就裂纹、焊接丢失或缺损做了进一步的分析和试验。

裂纹、变形、焊接丢失或缺损可能引起双臂摇臂失效，从而导致襟翼系统及周围结构损伤，使飞机降低或失去可控性。为防止此类事件的再次发生，自本指令生效之日起，要求完成附件中FAA AD 2004-17-01中分别针对第1组飞机和第2组飞机要求的工作。

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

附件：FAA AD 2004-17-01

2004-17-01 Cessna Aircraft Company: Amendment 39-13772; Docket No. 2002-CE-23-AD; Supersedes AD 2002-22-17, amendment 39-12944; and AD 2003-21-04, amendment 39-13339.

When Does This AD Become Effective?

(a) This AD becomes effective on September 26, 2004.

What Other ADs Are Affected by This Action?

(b) This AD supersedes AD 2002-22-17, amendment 39-12944; and AD 2003-21-04, amendment 39-13339.

What Airplanes Are Affected by This AD?

(c) This AD affects the following airplane models and serial numbers that are certificated in any category:

(1) Group 1 (retains the actions from AD 2003-21-04, and adds all flap bellcranks to the applicability):

Model	**Serial Nos.**
208 208B	20800001 through 20800369 208B0001 through 208B1014, 208B1017, 208B1018, 208B1020 through 208B1024, 208B1026, and 208B1029 through 208B1033.

(2) Group 2 (retains the requirement of AD 2002-22-17 that you repetitively inspect the inboard forward flap bellcranks for cracks, eventually replace these bellcranks, and provides the option of installing the new design flap bellcrank to increase the life limits and terminate the repetitive inspections): Models 208 and 208B airplanes, all serial numbers.

What Is the Unsafe Condition Presented in This AD?

(d) This AD is the result of (since FAA issued AD 2002-22-17) Cessna's design of a new flap bell crank with a life limit of 40,000 landings (instead of 7,000 landings), and (since FAA issued AD 2003- 21-04) further analysis and examination of cracks and missing/ incomplete welds in all of the bell cranks. The actions specified in this AD are intended to prevent failure of any bellcrank due to cracks, deformation, or missing/incomplete welds. This failure could lead to damage to the flap system and surrounding structure and result in reduced or loss of control of the airplane.

What Must I Do To Address This Problem for Group 1 Airplanes?

(e) To address this problem for Group 1 airplanes, you must do the following:

Actions	**Compliance**	**Procedures**
(1) Inspect the right inboard forward flap bellcrank assembly for cracks, deformation, and missing/incomplete welds. The affected flap bellcrank incorporates one of the following part numbers (P/N): (i) P/N 2622083-18; (ii) P/N 2622281-2; (iii) P/N 2692001-2; or (iv) P/N 2622281-12.	Within the next 25 landings after October 21, 2003 (the effective date of AD 2003-21-04). If landings are unknown, then you may multiply hours time-in-service (TIS) by 1.25. For the purposes of this AD, you may substitute 20 hours TIS for 25 landings.	Use a flashlight and a mirror as necessary to see if welds (1), (4), (5), and (6) exist and are at least 0.06-inch thick around the full circumference of the shaft. These welds and the inspection procedures are referenced in Figure 1, details A, B, and C; and Views A-A and B-B of Cessna Caravan Service Bulletin No.: CAB03-11, Revision 1, dated September 24, 2003.
(2) Inspect the left inboard forward bellcrank for cracks, deformation, and missing/incomplete welds. The affected flap bellcrank incorporates one of the following part P/Ns: (i) P/N 262283-15; or (ii) P/N 2622281-1.	Within the next 25 landings after September 26, 2004, the effective date of this AD. If landings are unknown, then you may multiply hours TIS by 1.25. For the purposes of this AD, you may substitute 20 hours TIS for 25 landings.	Use a flashlight and a mirror as necessary to see if welds (1) through (4) exist and are at least 0.06-inch thick around the full circumference of the shaft. These welds and the inspection procedures are referenced in Figure 2, details A, B, and C; and Views A-A and B-B of Cessna Caravan Service Bulletin No.: CAB03-11, Revision 1, dated

		September 24, 2003.
(3) Inspect the inboard aft bellcrank for cracks, deformation, and missing/incomplete welds. The affected flap bellcrank incorporates one of the following P/Ns: (i) P/N 2622267-1; or (ii) P/N 2622267-2; (iii) P/N 2622267-7; (iv) P/N 2622267-8; (v) P/N 2622083-1; or (vi) P/N 2622083-2.	Within the next 25 landings after September 26, 2004, the effective date of this AD. If landings are unknown, then you may multiply hours TIS by 1.25. For the purposes of this AD, you may substitute 20 hours TIS for 25 landings.	Use a flashlight and a mirror as necessary to see if welds (1), (2), (4), and (5) exist and are at least 0.05-inch thick around the full circumference of the shaft. These welds and the inspection procedures are referenced in Figure 3, details A, B, and C; and Views A-A and B-B of Cessna Caravan Service Bulletin No.: CAB03-11, Revision 1, dated September 24, 2003.
(4) Inspect the outboard bellcrank for cracks, deformation, and missing/incomplete welds. The affected flap bellcrank incorporates one of the following P/Ns: (i) P/N 2622091-1; or (ii) P/N 2622091-2; (iii) P/N 2622091-9; (iv) P/N 2622091-10; (v) P/N 2622091-17; or (vi) P/N 2622091-18.	Within the next 25 landings after September 26, 2004, the effective date of this AD. If lands are unknown, then you may multiply hours TIS by 1.25. For the purposes of this AD, you may substitute 20 hours TIS for 25 landings.	Use a flashlight and a mirror as necessary to see if welds (1) through (4) exist and are at least 0.05-inch thick around the full circumference of the shaft. These welds and the inspection procedures are referenced in Figure 4, details A, B, and C; and Views A-A and B-B of Cessna Caravan Service Bulletin No.: CAB03-11, Revision 1, dated September 24, 2003.
(5) If you find cracks, deformation, or missing/incomplete welds during the	Replace or do the flap prohibition actions before further flight after the inspection	*Replacement:* Use the Accomplishment Instructions of Cessna Caravan Service bulletin

inspection required by paragraphs (e)(1) through (e)(4) of this AD, then do one of the following: (i) Replace the bellcrank with a new bellcrank; or (ii) Prohibit the use of flaps through the actions of paragraph (g) of this AD.	required in paragraphs (e)(1) through (e)(4) of this AD. If you choose the flap prohibition, you must have the replacement done within 200 hours TIS after the inspection required by paragraphs (e)(1) through (e)(4) of this AD. After the new flap bellcrank is installed, the Temporary Revision 208PHTR02, dated September 23, 2003, should be removed.	No.: CAB02-12, Revision 1, dated January 27, 2003, and the Accomplishment Instructions of Cessna Caravan Service Kit No.: SK208-148A, dated January 27, 2003, or refer to the Maintenance Manual, Chapter 27, Flap System-Maintenance Practices, for bellcrank removal and installation procedures. *Flap Prohibition:* Use the information in the Temporary Revision 208PHTR02, dated September 23, 2003. The action is referenced in Cessna Caravan Service Bulletin No.: CAB03-11, Revision 1, dated September 24, 2003.

What Must I Do To Address This Problem for Group 2 Airplanes?

(f) To address this problem for Group 2 airplanes, you must do the following:

Actions	**Compliance**	**Procedures**
(1) *Repetitive Inspections:* Inspect, using eddy current method, any inboard forward flap bellcrank (P/N 2622281-2,	Initially inspect upon the accumulation of 4,000 landings on the bellcrank or within the next 250 landings after December 31, 2002 (the	Follow the Inspection Instructions of Cessna Caravan Service Bulletin No.: CAB02-1, dated February 11, 2002, and the applicable

2622281-12, 2692001-2, or FAA-approved equivalent P/N) for cracks.	effective date of AD 2002-22- 17), whichever occurs later. Repetitively inspect thereafter at every 500 landings until 7,000 landings are accumulated at which time you must replace as required in paragraphs (f)(2) and (f)(3) of this AD. No repetitive inspections are required when a P/N 2622311-7 (or FAA-approved equivalent P/N) inboard forward flap bellcrank is installed.	maintenance manual.
(2) *Initial Replacement:* Replace any inboard forward flap bellcrank (P/N 2622281-2, 2622281-12, 2692001-2, or FAA-approved equivalent P/N) with either: (i) a new flap bellcrank with the same P/N 2622281-2, 262228-12, 269001-2, or FAA-approved or equivalent P/N; or (ii) a new flap bellcrank (P/N 2622311-7 or FAA-approved equivalent P/N).	If cracks are found, replace or do the flap prohibition actions before further flight after the inspection required in paragraphs (f)(1) of this AD. If you choose the flap prohibition, you must have the replacement done within 200 hours TIS after the inspection required by paragraphs (f)(1) of this AD. After the new flap bellcrank is installed, the Temporary Revision	*Replacement:* For flap bellcrank (P/N 2622281-2, 2622281-12, 2692001-2, or FAA-approved equivalent P/N): Follow the Instructions of Cessna Caravan Service Bulletin No.: CAB02-1, dated February 11, 2002, and the applicable maintenance manual. For new flap bellcrank (P/N 2622311-7 or FAA-approved equivalent P/N): Follow the Accomplishment

	208PHTR02, dated September 23, 2003, should be removed. If cracks are not found, initially replace at whichever occurs later: upon the accumulation of 7,000 landings on the bellcrank or within the next 75 landings after December 31, 2002 (the effective date of AD 2002-22--17).	Instructions of Cessna Caravan Service Bulletin No.: CAB02-12, Revision 1, dated January 27, 2003, and the Accomplishment Instructions of Cessna Caravan Service Kit No.: SK208-148A, dated January 27, 2003. *Flap Prohibitions:* Use the information in the Temporary Revision 208PHTR02, dated September 23, 2003.
(3) *Life Limits (Repetitive Replacements):* (i) The life limit for the inboard forward flap bellcranks (P/N 2622281-2, 2622281-12, 2692001-2, or FAA-approved equivalent P/N) is 7,000 landings. Repetitive inspections every 500 landings begin at 4,000 landings (see paragraph (f)(1) of this AD.) (ii) The life limit for the inboard forward flap bellcranks (P/N 2622311-7 or FAA-approved equivalent P/N) is	Replace at the applicable referenced life limits	Use the service information referenced in paragraph (f)(2) of this AD.

40,000 landings. No repetitive inspections are required on these bellcranks.		

Note 1: Inboard forward flap bellcranks (P/N 2622281-2, 2622281- 12, or 2692001-2) with 7,000 landings or more do not have to be replaced until 75 landings after December 31, 2002 (the effective date of AD 2002-22-17), unless found cracked.

Note 2: The compliance times of this AD are presented in landings instead of hours TIS. If the number of landings is unknown, hours TIS may be used by multiplying the number of hours TIS by 1.25.

What Are the Actions I Must Do if I Choose the Flap Prohibition Option?

(g) Insert Temporary Revision, 208PHTR02, dated September 23, 2003, into the applicable pilot's operating handbook and FAA- approved airplane flight manual. The owner/operator holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7) may incorporate this information into the AFM. Make an entry into the aircraft records showing compliance with this portion of the AD in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).

(1) This procedure applies to Cessna Models 208 and 208B landplanes. For other FAA-approved aircraft configurations (for example, amphibian, floatplanes, and so forth), you must operate with flaps up per the appropriate airplane flight manual supplement.

(2) This procedure allows for applicable deviation from the Master Minimum Equipment List (MMEL) for these airplanes until the flap bell crank is replaced. The applicable MMEL requirements go back into effect at the time of flap bell crank replacement.

May I Request an Alternative Method of Compliance?

(h) 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, Wichita Aircraft Certification Office (ACO), FAA.

(1) For information on any already approved alternative methods of compliance, contact Paul Nguyen, Aerospace Engineer, FAA, Wichita ACO, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: 316-946-4125; facsimile: 816-946-4107.

(2) Alternative methods of compliance approved under AD 2002-22- 17 and AD 2003-21-04 are not approved for this AD.

Does This AD Incorporate Any Material by Reference?

(i) You must do the actions required by this AD following the instructions in the service information presented in paragraphs (i)(1) and (i)(2) of this AD.

(1) On December 31, 2002 (67 FR 68508, November 12, 2002) and in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, the Director of the Federal Register approved the incorporation of Cessna Service Bulletin No.: CAB02-1, dated February 11, 2002.

(2) On October 21, 2003 (68 FR 59707, October 17, 2003), and in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, the Director of the Federal Register approved the incorporation of Cessna Caravan Service Bulletin No.: CAB03-11, Revision 1, dated September 24, 2003; Cessna Caravan Service Bulletin No. CAB02-12, revision 1, dated January 27, 2003; and Cessna Caravan Service Kit No.: SK208- 148A, dated January 27, 2003 (original issue: October 21, 2002).

(3) You may get a copy from Cessna Aircraft Company, Product Support, P.O. Box 7706, Wichita, Kansas 67277; telephone: (316) 517- 5800; facsimile: (316) 942-9006. You may review copies at FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to:

<http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html>.

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