LUFTFARTSVERKET
Luftfartsinspektionen

LUFTVÄRDIGHETSDIREKTIV
(LVD)

E. Hjälpapparater
Vakuumpump
Airborne
LVD Nr 2921

Sektion 2. Utlandstillverkad flygmateriel

TITEL: **Kontroll/byte av drivkoppling**

GÄLLER: Vakuumpumpar angivna i bifogade kopia av FAA Priority Letter AD 98-23-01

ÅTGÄRD: Utför åtgärder angivna i FAA AD 98-23-01

TID FÖR ÅTGÄRD: Inom 2 dagar efter mottagandet av detta LVD eller före flygning vilket som infaller senast.

UNDERLAG: FAA Priority Letter AD 98-23-01
Airborne Service Letter No 48 daterad 20 oktober 1998 eller senare utgåva.

REFERENS: FAA AD 98-23-01

BESLUTSDATUM: 1998-11-04

LFS 1998:72

Åtgärder enligt LVD utgör nödvändig förutsättning för ifrågavarande flygmateriels luftvärdighet. Referens BCL M 1.11.
Anteckning om åtgärd, som vidtagits i enlighet med LVD, skall införas i teknisk journal för berörd flygmateriel med hänvisning till ifrågavarande LVD-nummer. Angivet underlag refererar till senast gällande revision/utgåva. LVD utges i luftfartsverkets författningssamlingar LFS.

Postadress	Gatuadress	Telefonnummer	Telegram	Telex
601 79 NORRKÖPING	Vikboplan 11	011-192000	Civilair Norrköping	62450

98-23-01
Actions Leading to This Priority Letter Airworthiness Directive (AD)

The FAA has received approximately 50 reports of failure of the flexible coupling on certain Parker Hannifin Airborne dry air pumps, conversion kits, and coupling kits installed in aircraft or engines. To this date, no accidents have occurred due to the failure of this coupling. This condition could result in loss of primary attitude and direction references during instrument flight rules (IFR) operations.

This condition is attributed to a manufacturing defect of Lots 1 and 2 of the B1-19-1 flexible coupling. This coupling was shipped between January 1, 1998, and October 13, 1998. Dry air pumps, conversion kits, and flexible coupling kits that incorporate any of the part numbers and serial numbers referenced in the Applicability section of this priority letter could have this manufacturing defect.

Dry air pumps that could incorporate the part number (P/N) B1-19-1 flexible coupling are installed as original equipment on many airplanes, particularly Cessna, Raytheon, Piper, and Mooney airplanes. In addition, Parker Hannifin holds a parts manufacturer approval (PMA) for field replacements. The dry air pumps are the primary vacuum source on small single-engine airplanes and the secondary vacuum source on larger twin-engine airplanes.

The affected flexible coupling was shipped from Parker Hannifin between January 1, 1998, and October 13, 1998.

Airborne dry air pumps, conversion kits, or coupling kits that were installed or modified prior to January 1, 1998, would not incorporate the affected coupling. A check of the maintenance records would show whether the dry air pump, conversion kit, or coupling kit was installed or modified prior to January 1, 1998.

Those Airborne dry air pumps, conversion kits, or coupling kits installed or modified between January 1, 1998, and October 13, 1998, could incorporate the affected coupling, depending on when the material was received. The coupling could be held as spares or obtained from salvaged parts. For this reason, any dry air pump, conversion kit, or coupling kit with flexible coupling, P/N B1-19-1, that was installed or modified after January 1, 1998, could be affected by the above condition. The flexible coupling has a date code that resembles a clockface and indicates a manufacture date of either "12/97" or "5-6/98".

Relevant Service Information

Parker Hannifin has issued Airborne Service Letter No. 48, dated October 20, 1998, which specifies procedures for:

- removing the dry air pump from the aircraft;
- inspecting and identifying the P/N B1-19-1 flexible coupling; and

- replacing the P/N B1-19-1 flexible coupling with P/N B1-7-3 flexible coupling (part of Parker Hannifin flexible coupling kit, Airborne P/N 350).

The FAA's Determination

After examining the circumstances and reviewing all available information related to the incidents described above, the FAA has determined that:

1. Any flexible coupling, P/N B1-19-1, incorporated on certain Airborne dry air pumps, conversion kits, and coupling kits, that has a date code resembling a clockface and indicating a manufacture date of either "12/97" or "5-6/98" should be replaced with P/N B1-7-3 flexible coupling (part of Parker Hannifin flexible coupling kit, Airborne P/N 350); and

2. Priority letter AD action should be taken to prevent failure of the primary dry air pump caused by defective flexible coupling, which could result in loss of primary attitude and direction references during IFR operations.

Provisions of This Priority Letter AD

Since an unsafe condition has been identified that is likely to exist or develop on aircraft or engines equipped with certain Parker Hannifin Airborne dry air pumps, conversion kits, and coupling kits, utilizing P/N B1-19-1 flexible coupling that has a date code resembling a clockface and indicating a manufacture date of either "12/97" or "5-6/98", the FAA is taking priority letter AD action. This priority letter requires replacing the affected flexible coupling with P/N B1-7-3 flexible coupling (part of Parker Hannifin flexible coupling kit, Airborne P/N 350), in accordance with Parker Hannifin Airborne Service Letter No. 48, dated October 20, 1998.

Presentation of the Actual AD

This rule is issued under 49 U.S.C. Section 44701 (formerly section 601 of the Federal Aviation Act of 1958), pursuant to the authority delegated to me by the Administrator, and is effective immediately upon receipt of this priority letter.

98-23-01 PARKER HANNIFIN CORPORATION: Priority Letter issued October 29, 1998. Docket No. 98-CE-108-AD.

Applicability: The following Airborne dry air pumps, conversion kits, and coupling kits, with flexible coupling, part number (P/N) B1-19-1, that:

1. Have a date code resembling a clockface on the coupling and indicating a manufacture date of either "12/97" or "5-6/98"; and

2. Are installed in, but not limited to, the following aircraft or engine models, certificated in any category, that are listed in the Appendix to this AD:

Item	Part Number	Serial Numbers
Dry Air Pump	211CC	2AP1 through 10AP319
Dry Air Pump	211CC-9	1AP1 through 2AP5
Dry Air Pump	E211CC	11AN543 through 11AN642

		and 2AP1 through 7AP442
Dry Air Pump	212CW	2AP1 through 7AP286
Dry Air Pump	E212CW	1AP1 through 7AP492
Dry Air Pump	215CC	12AN719 through 12AN940 and 1AP1 through 9AP3510
Dry Air Pump	215CC-9	2AP1 through 7AP95
Dry Air Pump	216CW	12AN521 through 12AN660 and 1AP1 through 10AP2695
Conversion Kit	300-1	4AP120 through 4AP122 and8AP256 through 8AP258
Conversion Kit	300-2	2AP30 through 2AP43, 4AP134, 4AP136, and 4AP137
Conversion Kit	300-3	1AP1 through 1AP3
Coupling Kit	350	1AP through 9AP and N/A (see Note 1 below)

NOTE 1: Some of the part number 350 coupling kits incorporated serial numbers 1AP through 9AP, while others were marked with "N/A" in the serial number block.

NOTE 2: The affected flexible coupling was shipped from Parker Hannifin between January 1, 1998, and October 13, 1998. Dry air pumps, conversion kits, or coupling kits that were installed or modified prior to January 1, 1998, would not incorporate the affected coupling. This AD allows the aircraft owner or pilot to check the maintenance records to determine whether the dry air pump, conversion kit, or coupling kit was installed or modified since January 1, 1998. See paragraph (d) of this AD for authorization.

NOTE 3: This AD applies to any aircraft or engine equipped with Airborne dry air pumps, conversion kits, and coupling kits, that have flexible coupling, part number (P/N) B1-19-1. Aircraft or engines with the P/N B1-19-1 flexible coupling are affected regardless of whether they have been modified, altered, or repaired in the area subject to the requirements of this AD. For aircraft or engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (f) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated in the body of this AD, unless already accomplished.

To prevent failure of the primary dry air pump caused

by defective flexible coupling, which could result in loss of primary attitude and direction references during instrument flight rules (IFR) operations, accomplish the following:

(a) Within 2 calendar days after receipt of this priority letter AD or prior to further flight after receipt of this priority letter AD, whichever occurs later, replace any affected flexible coupling with P/N B1-7-3 flexible coupling (part of Parker Hannifin flexible coupling kit, Airborne P/N 350) in accordance with Parker Hannifin Airborne Service Letter No. 48, dated October 20, 1998.

(b) If parts have been ordered from Parker Hannifin, but are not available, accomplish the following:

(1) Operate the aircraft in visual flight rul (VFR) conditions only;

(2) Operate the aircraft during daytime hours only; and

(3) When parts become available, replace the coupling prior to further flight.

(c) As of the receipt of this priority letter AD, no person shall install, on any aircraft or engine, any of the affected Airborne dry air pumps, conversion kits, and coupling kits, with flexible coupling, part number (P/N) B1-19-1, that have a date code resembling a clockface on the coupling and indicating a manufacture date of either "12/97" or "5-6/98".

(d) 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 check the maintenance records to determine whether the existing dry air pump, conversion kit, or coupling kit was installed or modified since January 1, 1998. If the dry air pump, conversion kit, or coupling kit was not installed or modified since January 1, 1998, the AD does not apply and the owner/operator must make an entry into the aircraft records showing compliance with this AD in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished, provided that:

(1) The aircraft is operated in VFR condition only; and

(2) The aircraft is operated during daytime h only.

(f) An alternative method of compliance or adjustment of the compliance times that provides an equivalent level of safety may be approved by the Manager, Chicago Aircraft Certification Office (ACO), 2300 E. Devon Avenue, Des Plaines, Illinois 60018. The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Chicago ACO.

NOTE 4: Information concerning the existence of

approved alternative methods of compliance with this AD, if any, may be obtained from the Chicago ACO.

(g) Copies of the applicable service information may be obtained from the Parker Hannifin Corporation, Airborne Division, 711 Taylor Street, Elyria, Ohio 44035; telephone: (440) 937-1315; facsimile: (44) 937-5409. This information may also be examined at the FAA, Central Region, Office of the Regional Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

(h) Priority Letter AD 98-23-01, issued October 29, 1998, becomes effective immediately upon receipt.

FOR FURTHER INFORMATION CONTACT:
Mr. Roy Boffo, Aerospace Engineer, FAA, Chicago Aircraft Certification Office, Systems and Flight Test Branch, 2300 E. Devon Avenue, Des Plaines, Illinois 60018; telephone: (847) 294-7564; facsimile: (847) 294-7834.

APPENDIX TO AD 98-23-01; DOCKET NO. 98-CE-108-AD

Part Name	Part Number	Airplane/Engine Make/Model
Dry Air Pump	211CC	AIRPLANES
	215CC	Aerospatiale / TB9, TB10, TB20
	E211CC	Beech / 19, 19A, B19, 23, B23, C23, 24, A24, A24R, B24R, C24R, 76, 77 Cessna / F152, FA152, 172, FR172K R172K, 177, 177RG, FR182, R182, T T182, T303, 336, 337, F337, T337G P337, FT337, 411, 411A, 421A, 421 Grumman / AAA1B, AA1C, AA5A, AA5B Lake / LA-4-200, 250 Maule / M4-210 Mooney / M20B, M20C, M20D, M20E, M20G, M20J, M20K Navion / G, H Piper / PA-18, PA18-150, PA-22-10 PA-23-235, PA-23-250, PA-24-180, 250, PA-24-260, PA-24-400, PA-28- PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, 28R-180, PA-28-181, PA-28R-200, P 28-201T, PA-28R-201, PA-28R-201T, 28RT-201, PA-28RT-201T, PA28-235, PA-28-236, PA-30, PA-31-300, PA-3 310, PA-31-325, PA-31-350, PA-31P PA-32-260, PA-32-300, PA-32R-300, 32RT-300, PA-32RT-300T, PA-32-301 PA-32-301T, PA-32R-301, PA-32R-30 PA-34-200, PA-34-200T, PA-38-112, PA-39, PA-44-180, PA-44-180T Rockwell / 100, 112, 112A, 112B, 112TC, 112TCA, 114, 114A, 180 Lovaux Ltd. / Optica OA7, Series (FLS Aerospace)
		ENGINES
		Textron Lycoming / O-235, O-290,

			320, O-360, O-435, O-540, IO-320, IO-540, IO-720, TIO-360, TIO-540, 480, GSO-480 Continental / O-300, GO-300, IO-3 TSIO-360, TSIO-520, GTSIO-520 United Aircraft / PT6A, PT6B
Dry Air Pump	211CC-9 215CC-9	AIRPLANES	Cessna / 150, A150K, A150L, A150M F150K, F150L, F150M, FA150K, FA150L, FA150M, 152, A152 172, 177, 337 ENGINES Textron Lycoming / O-320 Continental / C90-16, O-200
Dry Air Pump	212CW E212CW	AIRPLANES Beech /	A23, A23A, E33, E33A, F33A, F33C, V35A, V35A-TC, 216CW 36, A36, A36TC, B36TC, B5 Britten Norman / BN-2A Cessna / 152, A152, 172, 180, 182 thru M, 182N and P, F182, R182, T T182, 185, U206, TU206, 207, T207 210, T210, P210, T303, 310P, 310R 340, 340A, 401, 401A, 401B, 402, 402B, 414, 414A Helio / H295 Maule / M4-220 Mooney / M20K, M22 Navion / G, H Piper / PA-31-325, PA-31-350, PA-350, PA-34-200, PA-34-200T, PA-39 PA-44-180, PA-44-180T, PA-46-310P 46-350 ENGINES Textron Lycoming / LIO-360, GO-43 TIO-541 Continental / E-185, E-225, IO-34 470, IO-470, TSIO-470, IO- 520 Franklin / 6A-335, 6A-350
Conversion Kit	300-1		Cessna / 172A, 172B thru 172H Piper / PA-22-108, PA-22-135, PA-135, PA-22-150, PA-22S-150, PA-22-160, PA-22S-160
Conversion Kit	300-2		Beech / 35 thru S35, 35-33 thru35-A33, 35-B33 Cessna / 175 thru 175A, 175B, 175 P172D, 180 thru 180H, 182 thru 18 thru 185D, 210, 210A thru 210J, 2 210-5A
Conversion Kit	300-3		Cessna / 150, 150A thru 150H
Coupling Kit	350		Coupling kit may have been put on