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# Service Bulletin

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S.B. No: 181

**Title:** AIRBORNE SERVICE LETTERS

**Classification:** This Service Bulletin has been classified by SAL as Highly Recommended

**1. AIRBORNE SL 058**

**Compliance:** In accordance with Airborne SL No. 058

**Applicability:** T67A, T67B, T67C, T67M, T67M-MkII, T67M200 and T67M260 fitted with Airborne Air Pumps

Attached is Airborne SL No. 058 which is reprinted in its entirety.

**2. AIRBORNE SL 059A**

**Compliance:** In accordance with Airborne SL No. 059A


**Applicability:** T67A, T67B, T67C, T67M, T67M-MkII, T67M200, T67M260 and T67M260-T3A fitted with Airborne (Garter) Air Filter Elements.

Attached is Airborne SL No. 059A which is reprinted in its entirety.

Any further information or component required to comply with this bulletin should be obtained from Airborne Division, Parker Hannifin Corporation.

**ISSUED**

12 AUG 2003

Approved by:  For and on behalf of SLINGSBY AVIATION LIMITED	Date: 12 <sup>th</sup> Aug 03	Issue 1
Kirkbymoorside, York. YO62 6EZ    Tel: 01751 432474 Fax No: 01751 431173                    E-mail: SAL5@Slingsby.co.uk	Page 1 of 1	

**Service Letter Number: 58**

**Date: May 31, 2002**

**Subject: Mandatory Replacement Times for Airborne Air Pumps.**

**Applicability:**

All Airborne Air Pump models. These air pumps which are listed on the next page are typically used on single-engine and multi-engine piston aircraft to power gyro flight instruments and de-ice systems.

**Background:**

Airframe Manufacturers typically provide replacement times for air pumps in their aircraft maintenance manuals. In the absence of air pump mandatory replacement times provided by Airframe Manufacturers, Airborne is providing these mandatory replacement times.

**WARNING:** Failure of the air pump will result in the loss of the pneumatically powered gyro flight instruments and de-ice system.

**Compliance:**

Compliance with the following is mandatory.

Airborne air pumps must not be operated beyond the Airframe Manufacturer's specification for mandatory inspection intervals or mandatory replacement times or Airborne's mandatory inspection intervals or mandatory replacement times, whichever comes first.

Any authorized technician can replace the air pump in accordance with the instructions provided by the Airframe Manufacturer in the appropriate maintenance publication. Upon completion of the mandatory replacement, ensure an entry has been added in the aircraft's engine logbook identifying compliance with this Service Letter Number 58.

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**Service Letter Number: 58 (continued)**

<b>MANDATORY REPLACEMENT TIMES FOR AIRBORNE AIR PUMPS</b>	
<b>Airborne Air Pump Model Number</b>	<b>Mandatory Replacement Times</b>
<b>Engine-Driven Air Pump:</b>	
Any model no. beginning with 200 through 216	500 aircraft hrs. or 6 years from date of manufacture, whichever comes first
E211CC or E212CW	500 aircraft hrs. or 6 years from date of manufacture, whichever comes first
Any model no. beginning with 220 through 242	500 aircraft hrs. or 6 years from date of manufacture, whichever comes first
Any model no. beginning with 28C214 or 28C444	500 aircraft hrs. or 6 years from date of manufacture, whichever comes first
Any model no. beginning with 420 through 442	400 aircraft hrs. or 6 years from date of manufacture, whichever comes first
832CW or 842CW	300 aircraft hrs. or 6 years from date of manufacture, whichever comes first
<b>Auxiliary Motor-Driven Air Pump and Elapsed Time Indicator:</b>	
Any model no. beginning with 4A2 or 4A3	500 aircraft hrs. or 10 years of service, whichever comes first

Determine the air pump date of manufacture by one (1) of the two (2) following methods:

- 1) The date of manufacture is encoded in the serial number located on the nameplate of the air pump as depicted in Figure 1. The first numbers (1 through 12) of the serial number indicate the **month** (January through December) of manufacture. The following letter combinations of the serial number indicate the **year** of manufacture:

T = 1972	E = 1979	AB = 1986	AJ = 1993	AT = 2000	BC = 2007
V = 1973	F = 1980	AC = 1987	AK = 1994	AU = 2001	BD = 2008
W = 1974	H = 1981	AD = 1988	AL = 1995	AV = 2002	BE = 2009
A = 1975	J = 1982	AE = 1989	AM = 1996	AW = 2003	BF = 2010
B = 1976	K = 1983	AF = 1990	AN = 1997	AY = 2004	BG = 2011
C = 1977	M = 1984	AG = 1991	AP = 1998	BA = 2005	BH = 2012
D = 1978	AA = 1985	AH = 1992	AR = 1999	BB = 2006	BJ = 2013

- 2) There may be an occasion when the nameplate has been lost or obliterated. Starting in 1972, a quarter/year marking may have been stamped on the back of the air pump as depicted in Figure 1. For example, 2Q02 signifies the air pump was manufactured in the second quarter of 2002.

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**Service Letter Number: 58 (continued)**

If the product nameplate has been lost, obliterated, or for any reason the year of manufacture cannot be substantiated, replace the air pump.

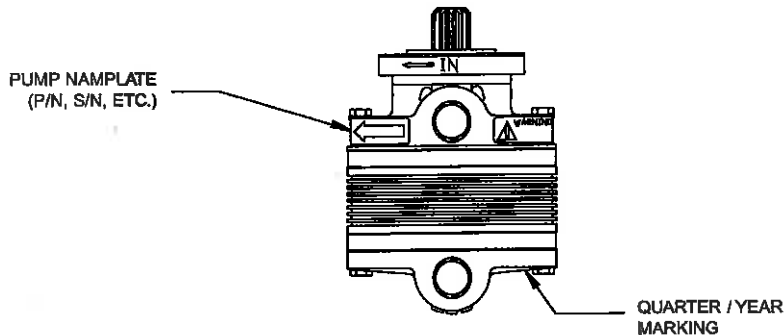


Figure 1

These **mandatory** replacement times do not take into account the shortening of air pump life caused by improper maintenance, improper regulator settings, higher than optimal air pump loads, speeds and temperatures, oil contamination, dirty filters, etc.

In no event, however, should an Airframe Manufacturer's specification for replacement times or Airborne's **mandatory** replacement times be considered an alternative to either a back-up pneumatic power source for the air driven gyros, or a back-up electric attitude gyro instrument. Air pump or pneumatic system failures can and do occur without warning, sometimes with fewer hours of service than those specified in **mandatory** replacement schedules. As stated in Airborne Service Letter Number 31, **SAFETY WARNING – Vacuum/Pressure Gyroscopic Flight Instrument Power System**, A BACK-UP PNEUMATIC POWER SOURCE FOR THE AIR DRIVEN GYROS, OR A BACK-UP ELECTRIC ATTITUDE GYRO INSTRUMENT, **MUST** BE INSTALLED IN ALL AIRCRAFT WHICH FLY IFR.

Any questions concerning this Service Letter or requests for copies of any Airborne Service Letters (can also be printed from Airborne's website) should be directed to Airborne's Customer Support Team as follows:

Toll Free Phone Number:	800-382-8422
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Website:	www.parker.com/airborne

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**Service Letter Number: 59A**

**Date: September 18, 2002 (Superseeds Service Letter Number 59, Dated May 31, 2002)**

**Subject: Mandatory Replacement Times for Airborne Air Filters and Air Filter Elements.**

**Applicability:**

All Airborne Air Filters and Air Filter Elements. These air filters and air filter elements which are listed on the reverse side are typically installed on single-engine and multi-engine piston aircraft equipped with pneumatically driven gyro flight instruments and de-ice systems.

**Background:**

Air filters and air filter elements clogged with dirt will reduce the flow of air through the air pump resulting in increased air pump operating temperatures that cause higher air pump wear rates resulting in early air pump failure. Dirty filters also affect regulator function and can cause low vacuum/pressure gage indications.

**WARNING: Failure of the air pump will result in the loss of the pneumatically powered gyro flight instruments and de-ice system.**

**Compliance:**

Compliance with the following is **mandatory**.

The components listed on the next page **must not** be operated beyond the Airframe Manufacturer's specification for **mandatory** inspection intervals or **mandatory** replacement times or Airborne's **mandatory** inspection intervals or **mandatory** replacement times, whichever comes first.

Replace all Airborne Air Filters and Air Filter Elements at each air pump **mandatory** replacement time (refer to Airborne Service Letter Number 58, **Mandatory** Replacement Times for Airborne Air Pumps), at each aircraft annual inspection, at each air pump failure and at the **mandatory** replacement times specified on the reverse side.

Any authorized technician can replace the air filter and/or filter element in accordance with the instructions provided by the Airframe Manufacturer in the appropriate maintenance publication. Upon completion of the **mandatory** replacement, ensure an entry has been added in the aircraft's logbook identifying compliance with this Service Letter Number 59.

(Continued on reverse side)

**Service Letter Number: 59A (continued)**

<b>Pneumatic System Type</b>	<b>Airborne Part Number</b>	<b>Filter Type</b>	<b>Mandatory Replacement Time</b>
Vacuum	B3-5-1 (Note 1)	Garter Filter Element for Vacuum Regulator	100 aircraft hrs. or annually, whichever comes first, and each pump replacement
Vacuum	D9-14-3 (Note 2) D9-14-5 (Note 3) D9-18-1 (Note 4) 1J10-1	Air Filter Element Air Filter Element Air Filter Element Air Filter	500 aircraft hrs. or annually, whichever comes first, and each pump replacement
Pressure	B3-5-1 (Note 1) ✕ D9-14-3 (Note 2) D9-14-5 (Note 3) D9-18-1 (Note 4) ✕	Garter Filter Element for Inlet Filter Air Filter Element Air Filter Element Air Filter Element	100 aircraft hrs. or annually, whichever comes first, and each pump replacement
Pressure	1J4-4 (Replaced by 2J4-4) 1J4-6 (Replaced by 2J4-6) 1J4-7 (Replaced by 2J4-7) 2J4-4 2J4-6 2J4-7	Inline Air Filter Inline Air Filter Inline Air Filter Inline Air Filter Inline Air Filter Inline Air Filter	500 aircraft hrs. or annually, whichever comes first, and each pump replacement

(Note 1): The B3-5-1 is used in the 1J1 Air Filter Assembly Series (all dash numbers) and 2H3 Vacuum Regulator Assembly Series (all dash numbers).

(Note 2): The D9-14-3 is used in the 1J2-2 Air Filter Assembly.

(Note 3): The D9-14-5 is used in the 1J2-1, 1J2-5 and 1J2-6 Air Filter Assemblies.

(Note 4): The D9-18-1 is used in the 1J7-1 and 1J7-2 Air Filter Assemblies.

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