

Service Letter Number: 58A

Date: March 23, 2006 (Supersedes Service Letter Number 58 dated 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 58A.

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MANDATORY REPLACEMENT TIMES FOR AIRBORNE AIR PUMPS	
Airborne Air Pump Model Number	<u>Mandatory</u> Replacement Times
Engine-Driven Air Pump:	
Any model no. beginning with 200 through 216	500 aircraft hrs. or 6 years from date of manufacture, whichever comes first
E211CC or E2I2CW	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
Auxiliary Motor-Driven Air Pump and Elapsed Time Indicator:	
Any model no. beginning with 4A2 or 4A3	500 pump 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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If the product nameplate has been lost, obliterated, or for any reason the year of manufacture cannot be substantiated, replace the air pump.

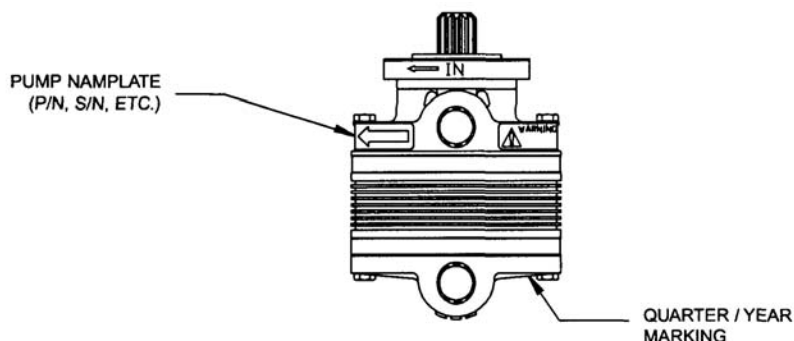


Figure 1

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:

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