

**You
or
Repair
Station
?**

**Preventive
Maintenance**

**Regulations
Part 43**

**Title 14: Aeronautics and Space
(Federal Aviation Regulations)
PART 43—MAINTENANCE,
PREVENTIVE MAINTENANCE,
REBUILDING, AND ALTERATION**

§ 43.3 Persons authorized to perform maintenance, preventive maintenance, rebuilding, and alterations.

...Those items, the performance of which is ...preventive maintenance, are listed in appendix A.

(g)... the holder of a pilot certificate issued under part 61 may perform preventive maintenance on any aircraft **owned or operated by that pilot** which is not used under part 121, 129, or 135 of this chapter...

§ 43.5 Approval for return to service after... preventive maintenance...

No person may approve for return to service any aircraft... that has undergone ... Preventive maintenance... unless—
(a) The maintenance record entry required by §43.9...has been made;

§ 43.7 Persons authorized to approve aircraft...for return to service after ... preventive maintenance...

(f) A person holding at least a **private pilot** certificate may approve an aircraft for return to service after performing preventive maintenance under the provisions of §43.3(g).

§ 43.9 Content, form, and disposition of...preventive maintenance...records (except inspections performed in accordance with part 91)

(a) *Maintenance record entries...*
Each person who ... performs preventive maintenance...on an aircraft... shall make an entry in the maintenance record of that equipment containing the following information:

- (1) A description...of work performed
- (2) The date of completion of the work performed.
- (3) N/A
- (4) If the work performed on the aircraft...has been performed satisfactorily, the signature, certificate number, and kind of certificate held by the person approving the work.



Appendix A to Part 43— Major Alterations, Major Repairs, and Preventive Maintenance

(c) *Preventive maintenance.*
Preventive maintenance is limited to the following work, provided it does not involve complex assembly operations:

- (5) Replacing defective safety wiring or cotter keys.
- (6) Lubrication not requiring disassembly other than removal of nonstructural items.



- (7) Making simple fabric patches ...In the case of balloons, the making of small fabric repairs to envelopes (as defined in, and in accordance with, the balloon manufacturers' instructions) not requiring load tape repair or replacement.



- 9) Refinishing decorative coating of ...balloon baskets... when removal or disassembly of any primary structure or operating system is not required.
- (10) Applying preservative or protective material to components where no disassembly of any Primary structure or operating system is involved...



(11) Repairing upholstery and decorative ... balloon basket interior when the repairing does not require disassembly of any primary structure or operating system or interfere with an operating system or affect the primary structure of the aircraft.



(21) Replacing any hose connection except hydraulic connections.
(22) Replacing prefabricated fuel lines.
(24) Replacing and servicing batteries.



(25) Cleaning of balloon burner pilot and main nozzles in accordance with the balloon manufacturer's instructions.
(26) Replacement or adjustment of nonstructural standard fasteners incidental to operations.





(27) The interchange of balloon baskets and burners on envelopes when the basket or burner is designated as interchangeable in the balloon type certificate data and the baskets and burners are specifically designed for quick removal and installation.



Logging Preventive Maintenance

- 14 CFR 43.9 requires:
- Date
- Description of work
- Signature, certificate number & type of certificate

EXAMPLE:

November 29, 2011
Replaced both 9 v batteries in instruments.
Bob Brown commercial LTA
0555443

Preventive Maintenance Summary

Adams: Not addressed in manuals
Aerostar: See Instructions for Continued Airworthiness
Cameron: See Instructions for Continued Airworthiness
Firefly: Not addressed in manuals

Head: Not addressed in Manuals
Kubicek: See Instructions for Continued Airworthiness

Lindstrand: See Instructions for Continued Airworthiness
Thunder/Colt: See Instructions for Continued Airworthiness
Ultra Magic: See Instructions for Continued Airworthiness

What you should expect from your
REPAIR STATION

Inspections

■ 43.15 Additional performance rules for inspections.

- (a) *General.* Each person performing an inspection required by part 91... of this chapter, shall—
- (1) Perform the inspection so as to determine whether the aircraft, or portion(s) thereof under inspection, **meets all applicable airworthiness requirements;**

- (c) *Annual and 100-hour inspections.* (1) Each person performing an annual or 100-hour inspection shall use a **checklist** while performing the inspection. The checklist may be of the person's own design, one provided by the manufacturer of the equipment being inspected or one obtained from another source. This checklist must include the scope and detail of the items contained in appendix D to this part and paragraph (b) of this section.

43.16 Airworthiness limitations.

Each person performing an inspection or other maintenance specified in an Airworthiness Limitations section of a **manufacturer's maintenance manual or Instructions for Continued Airworthiness** shall perform the inspection or other maintenance in accordance with that section...

Appendix D to Part 43—Scope and Detail of Items ... To Be Included in Annual and 100-Hour Inspections

(a) Each person performing an annual or 100-hour inspection shall, before that inspection, remove or open all necessary inspection plates, access doors... He shall **thoroughly clean** the aircraft...

(You have more on handout...)

Instructions for Continued Airworthiness (Maintenance) Manual

I. FABRIC.....
A. FABRIC STRENGTH, ENVELOPE
30 lbs., 1" grab test over 3 inch span, both ripstop directions (not parachute)

Grab (pull) Test



Instructions for Continued Airworthiness, Issue 3

BALLOONS

Appendix B
Inspection Check List

DAMAGE AND REPAIR LOG

DAMAGE	AREA or COMPONENT	REPAIR METHOD	REPAIRED BY
1)			
2)			
3)			
4)			
5)			
6)			
7)			
8)			

Gore-by-Gore



K. TEMPILABELS

_____ latest installed: reading on envelope _____ Date _____

Temp Tab



Temp Tab Installed



Burner

■ J. BLAST VALVES

■ MK IV ULTRA.....

_____ toggle handle set screws tight

■ _____ Ultra grip handle screws tight

■ _____ disassemble, inspect & lube "O" rings

■ SIROCCO

■ _____ Dual Action handle & trigger tight & functional

■ _____ disassemble, inspect & lube "O" rings



Burner Test





VIII. INSTRUMENTS.....

E. FLYTEC 3040 & TT34

- _____ temperature readout checked @ boiling and ambient temp. (+/- 5°)
- _____ variometer zeroing correct
- _____ altimeter reads correct altitude
- _____ new batteries installed in transmitter & receiver

IX. BASKET.....

K. RATTAN

- _____ no broken "broomsticks" in floor
- _____ floor weave not worn away under "U" tubes or lower frame
- _____ floor weave in good condition
- _____ number of broken uprights acceptable

X. FUEL TANKS

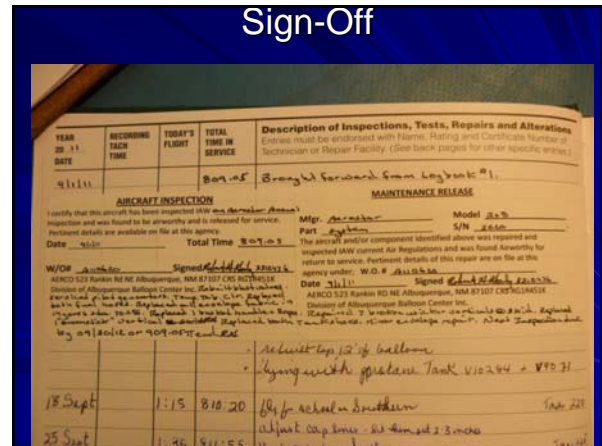
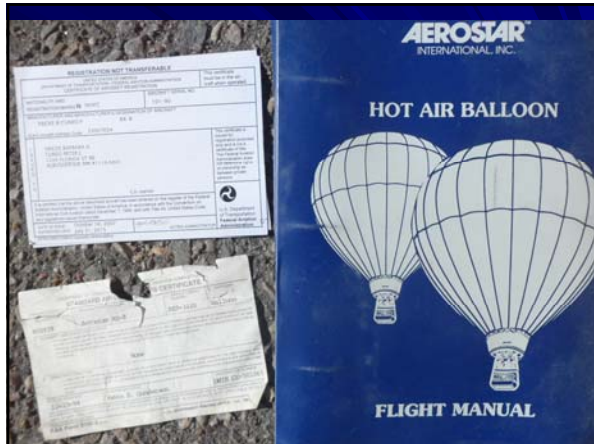
#1 S/N _____ #2 S/N _____ #3 S/N _____

- #1 #2 #3
- _____ C. liquid valve handle tight
- _____ D. liquid valve outlet O-ring & rubber washer not damaged (N/A Tema)
- _____ E. liquid valve outlet self seal not leaking
- _____ F. liquid valve bonnet stem or Worcester handle stem not leaking



XII. DOCUMENTS.....

- A. LOG BOOK
- B. FLIGHT MANUAL
- C. FAA AIRWORTHINESS CERTIFICATE
- D. FAA REGISTRATION CERTIFICATE



Repairs

43.9 Content, form, and disposition of maintenance, preventive maintenance, rebuilding, and alteration records (except inspections performed in accordance with part 91...)

(a) *Maintenance record entries.* Except as provided in paragraphs (b) and (c) of this section, each person who maintains, performs preventive maintenance, rebuilds, or alters an aircraft, airframe, aircraft engine, propeller, appliance, or component part shall make an entry in the maintenance record of that equipment containing the following information:

- (1) A description...of work performed.
- (2) The date of completion of the work performed.
- (3) The name of the person performing the work if other than the person specified in paragraph (a)(4) of this section.

(4) If the work performed... has been performed satisfactorily, the signature, certificate number, and kind of certificate held by the person approving the work. **The signature constitutes the approval for return to service only for the work performed.**

YEAR	RECORDING	TODAY'S	TOTAL	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
20 11	TACH	FLIGHT	TIME IN	
DATE	TIME		SERVICE	
9/11/11			809.05	Brought forward from logbook #1.
AIRCRAFT INSPECTION			MAINTENANCE RELEASE	
I certify that this aircraft has been inspected IAW <u>FAA Section 43</u> Inspection and was found to be airworthy and is released for service. Particular details are available on file at this agency.			Mr. <u>Archie</u> Model <u>260</u> Part <u>system</u> S/N <u>2600</u>	
Date <u>9/11/11</u>	Total Time <u>809.05</u>		The aircraft and/or component identified above was repaired and inspected IAW current Air Regulations and was found airworthy for return to service. Particular details of this repair are on file at this agency under: <u>W.O.# 2110530</u>	
W/O# <u>Archie</u>	Signed <u>Archie</u> <u>22032</u>		Signed <u>Archie</u> <u>22032</u>	
AERCO 523 Rankin Rd NE Albuquerque, NM 87107 CRF021451K Division of Albuquerque Balloon Center Inc. 2400 1/2 West Street 2nd Floor, Suite 200, Albuquerque, NM 87102 Phone: 505-243-1100 Fax: 505-243-1101 E-mail: info@albuquerqueballooncenter.com			AERCO 523 Rankin Rd NE Albuquerque, NM 87107 CRF021451K Division of Albuquerque Balloon Center Inc. 2400 1/2 West Street, Albuquerque, NM 87102 Phone: 505-243-1100 Fax: 505-243-1101 E-mail: info@albuquerqueballooncenter.com	
				recheck top 12 ft balloon flying with the problem. Tank V10244 + V10231
18 Sept	1:15	8:10:20		By: <u>Schooler Smith</u> <u>Tom 228</u> adjust cap lines - set them at 2.3 inches