

TAD 494.6

AC NO: 43-8

DATE: 1-2-75



# ADVISORY CIRCULAR

## DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

**SUBJECT:** MAINTAINING HOT AIR BALLOONS IN AN AIRWORTHY CONDITION

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1. PURPOSE. Hot air ballooning is a fast-growing sport. Its current popularity calls for a better understanding of the maintenance rules which apply to hot air balloons. This circular contains information designed to assist balloon owners and operators in maintaining hot air balloons in an airworthy condition.
  2. REFERENCES. Federal Aviation Regulations Parts 1, 43, and 91.
  3. DEFINITION. Hot air balloons are subject to the same maintenance rules that govern other types of U.S. registered aircraft. They operate from self-contained, generated heated air and are considered, by definition, a "lighter-than-air aircraft." (FAR Part 1, Section 1.1)
  4. RESPONSIBILITY FOR MAINTENANCE. The owner or operator of a hot air balloon is primarily responsible for maintaining the balloon in an airworthy condition. The persons performing maintenance are responsible for the manner of performance and the approval for return to service after the work is completed. The owner shall, between inspections, have defects repaired and ensure that appropriate entries are made in the maintenance records. The responsibility for recordkeeping for all maintenance is the owner's or operator's. While the person performing the maintenance is most likely to be the person making the record entry, it does not relieve the owner or operator from assuring that the record entry is properly made.
  5. APPLICABLE MAINTENANCE RULES. Maintenance rules of FAR Part 43 apply to balloons having a Standard Airworthiness Certificate. When such a balloon is issued an Experimental Certificate, these maintenance rules
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Initiated by: AFS-340

continue to apply. However, they do not apply to a balloon that has an Experimental Certificate and has never been certificated in a previous category. Special maintenance rules may be established as a condition for the issuance of any Experimental Certificate.

6. PERSONS AUTHORIZED TO PERFORM MAINTENANCE. Inspections, repairs, and alterations must be performed by persons holding a mechanic certificate with an airframe rating or by an appropriately rated, approved repair station. Persons working under the supervision of a holder of a mechanic certificate may perform the maintenance, preventive maintenance, and alterations that the mechanic is authorized to perform, if the mechanic personally observes the work being done to the extent necessary to ensure that it is being done properly, and if the mechanic is readily available in person for consultation. However, this privilege does not permit the performance of 100-hour or annual inspections, nor may such persons approve a balloon for return to service after a major repair or alteration.
  - a. Balloon manufacturers holding Repair Station Certificates may perform repairs and other maintenance on their products.
  - b. A certificated balloon pilot may perform preventive maintenance consisting of simple or minor preservation operations and replacement of small standard parts not involving complex assembly operations.
7. APPROVAL FOR RETURN TO SERVICE AFTER MAINTENANCE. Whenever maintenance is performed, there must be an approval for return to service. For example, when a mechanic makes a repair, he must enter into the maintenance records a description of what he did, the date, and then affix his signature and certificate number. This entry constitutes approval for return to service of the work described in the entry. If the mechanic performs a 100-hour inspection, he must certify into the record that he has inspected the aircraft and that the aircraft is approved for return to service. Mechanics holding an inspection authorization and appropriately rated, approved repair stations may approve balloons for return to service after work is performed, as described in paragraph 6, above.
8. MANUFACTURERS TECHNICAL DATA. Owners and operators are urged to rely on the manufacturer for methods, techniques, and practices for the repair and inspection of their balloons. If other methods and techniques are used on a balloon which is being repaired, they must ensure that the balloon is at least equal to its original condition. It should be kept

in mind that major repairs and alterations must be done in accordance with approved data. All other maintenance must be accomplished by methods, techniques, and practices acceptable to the Administrator.



R. P. SKULLY, Director  
Flight Standards Service

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