UNAPPROVED PARTS NOTIFICATION

SUSPECTED UNAPPROVED PARTS PROGRAM OFFICE, AVR-20 45005 AVIATION DRIVE, SUITE 214 DULLES, VA 20166-7541

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U.S. Department of Transportation Federal Aviation Administration

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AFFECTED AIRCRAFT

Hot air balloons.

PURPOSE

The purpose of this notification is to advise all aircraft owners, operators, manufacturers, maintenance organizations, and parts distributors regarding unapproved pressure relief valves (PRVs) that were installed in propane cylinders used in hot air balloons.

BACKGROUND

Information received during a Federal Aviation Administration (FAA) suspected unapproved parts investigation revealed that PRVs designed for automotive use were approved for return to service for installation in propane cylinders used in hot air balloons. The unapproved PRVs, identified as part no. 236213, were approved for return to service by Mr. Ragene Washburn, owner of G&J Aircraft Service, 20048 Pearre Lane, Boonville, MO 65233. Mr. Washburn, holder of mechanic certificate (airframe and powerplant ratings) and inspection authorization (IA) no. 1419452, approved the PRVs for return to service during employment in Columbia, MO.

Below are the affected propane cylinder part numbers:

Aluminum 10-Gallon Cylinder: part numbers 3229, 3035, and 3258 **Stainless Steel 15-Gallon Cylinder:** part numbers 3661-1 and 3661-2

The subject PRVs, which were designed for automotive use, release at a lower pressure (180 - 200 psi) than the PRVs approved for installation in hot air balloons (375 psi). Attached to this notification are photographs with accompanying text describing the characteristics that distinguish the unapproved PRV from the approved PRV, which is part no. 3435-3 and intended for installation in propane cylinders used in hot air balloons.

RECOMMENDATION

Regulations require that type-certificated products conform to their type design. Aircraft owners, operators, maintenance organizations, parts suppliers, and distributors should inspect their aircraft, aircraft records, and/or parts inventories for the above-referenced PRVs identified as part no. 236213. If an above-referenced PRV is installed in a propane cylinder for use in a hot air balloon, contact the FAA Flight Standards District Office (FSDO) given below for guidance regarding the appropriate action to be taken. If any of the referenced PRVs are found in existing parts inventory, it is recommended that the PRVs be quarantined to prevent installation in a hot air balloon propane cylinder until a determination can be made regarding each part's eligibility for installation.

FURTHER INFORMATION

Further information concerning this investigation and guidance regarding the above-referenced PRVs may be obtained from the FAA FSDO given below. The FAA would appreciate any information concerning the discovery of the above-referenced part from any source, the means used to identify the source, and the action taken to remove the part from service.

This notice originated from the Kansas City, MO, FSDO, 10015 N. Executive Hills Boulevard, Kansas City, MO 64153, telephone (816) 891-2100, fax (816) 891-2155; and was published through the FAA Suspected Unapproved Parts Program Office, AVR-20, telephone (703) 661-0581, fax (703) 661-0113.

(See attached photos and text)



Photo 1

A washer and a star nut retain the poppet spring on approved part no. 3435-3 (on right). On the unapproved PRV (part no. 236213), a star retainer and two quarter-inch nuts retain the poppet spring.

The unapproved PRV poppet spring is 3/16 inch shorter than the poppet spring on approved part no. 3435-3.

The stamped marking above the external threads on part no. 3435-3 indicates: UL CLASS CGA S-1.1 (space) SHERWOOD PV435A. The stamped marking above the external threads on the unapproved PRV indicates: UL CLASS CGA S-1.1N375-.072.



Photo 2

Top view of the unapproved PRV (on left) shows the following stamped markings: C1.18545AK REPLACE BY 04=07. No stamped markings appear on the top of the approved PRV valve.

The thickness of the hex head on the unapproved PRV is 0.040 inch thinner than the hex head of approved part no. 3435-3.

The head of the poppet valve on part no. 3435-3 has three tabs. The head of the unapproved valve does not have tabs.

When installed in a balloon propane tank, the unapproved part can be distinguished by the absence of tabs on the head and the incorrect markings on the top of the valve.