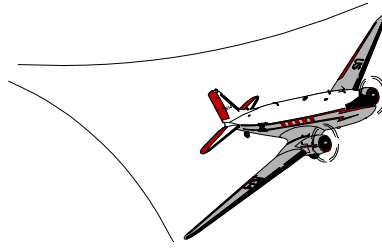


# SPECIAL AIRWORTHINESS INFORMATION BULLETIN



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

No. CE-03-29  
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Aircraft Certification Service  
Washington, DC

*We post SAIBs on the internet at [www.airweb.faa.gov](http://www.airweb.faa.gov)*

***This is information only. Recommendations are not mandatory.***

## **Introduction**

This Special Airworthiness Information Bulletin (SAIB) provides safety information to you, an owner or operator of **Cessna 180 airplanes** equipped with fuel selector valve P/N 0311070-1 that have been repaired since June 2001. The potential swelling of valve O-rings in aircraft fuel systems using aviation gasoline (AVGAS) creates a potentially serious safety issue.

## **Background**

In November 2001, an aircraft maintenance base notified the FAA Airworthiness Inspectors of an occurrence with a Cessna 180 in which the fuel selector valve, P/N 0311070-1 was resealed by replacing the O-rings. Immediately after this work was done, the aircraft was taxiing for takeoff when the engine quit on the taxiway. The pilot could not restart the engine. Further maintenance troubleshooting found that there was no fuel flow to the engine from either wing fuel tank. They disassembled the fuel selector valve and noted that the newly installed O-rings were swollen or enlarged to approximately twice their size in both outside diameter and ring diameter. This caused the fuel flow through the valve to be obstructed completely.

The O-rings were identified as P/N MS29513-112; Lot Number 60002401. Valtec (Parker) manufactured the O-rings with a Package Date of 06/01 and a Cure Date of 1Q01.

The parts suppliers facility conducted a fuel soak test in which the installer purchased the O-rings. Dimensional inspection of another O-ring from the same production lot, submerged in 100LL AVGAS for approximately one hour, revealed that it had enlarged in ring diameter by .030. The outside diameter had increased significantly and the swelling appeared to be non-uniform. An additional O-ring of the same part number, but different production lot subjected to a similar test, suffered no swelling or deformation from the test.

After notification, the manufacturer, Parker, and the distributor, Valtec, immediately quarantined any material from the previously mentioned lot number, and issued a recall for all O-rings sold to customers from this lot. Valtec notified all customers having purchased the material to pull all affected O-rings from their stock. The recall resulted in a large percentage of the affected O-rings being returned to Valtec, and another portion being removed from service by the distributors and their customers. It is unclear how many of the affected O-rings remain in circulation.

**Recommendation**

We are recommending, but not requiring at this time, that owners and operators of Cessna 180 aircraft who have had maintenance performed on the fuel selector valve, P/N 0311070-1 since June, 2001 have the valve inspected. If Valtec P/N MS29513-112 O-rings from Lot Number 60002401 have been used in the repair or if there is evidence of swollen O-rings, you should replace the O-rings.

**For Further Information, Contact**

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