

# Tiger/Alpine Fuel Shut-off Valve

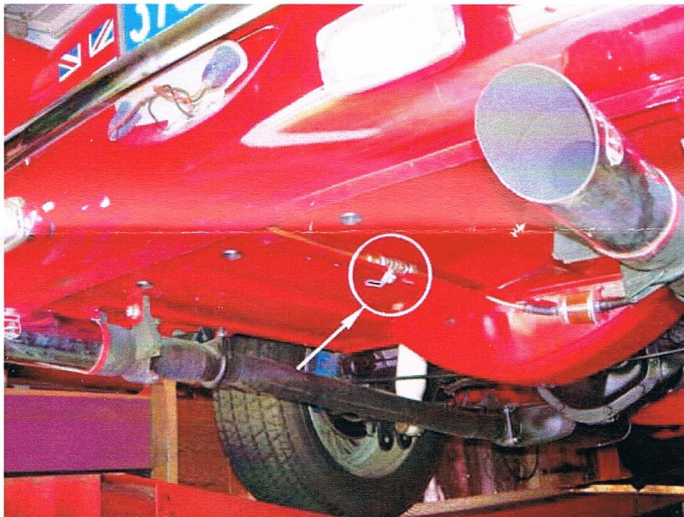
By John Logan

## Why install a fuel shut-off valve on a Sunbeam Tiger/Alpine?

With a valve, you can shut off the fuel to:

- **store** the car for extended periods of time to protect against leakage.
- **replace** the fuel filter, old and brittle rubber lines and the fuel pump without draining the tank. This is very handy when you have a problem on the road! I have pinched the rubber line at the pump with vice grips, but that can be a disaster if it cracks.
- use as an **antitheft device**, since the car won't travel far with the fuel shut off!

## Locating the Valve

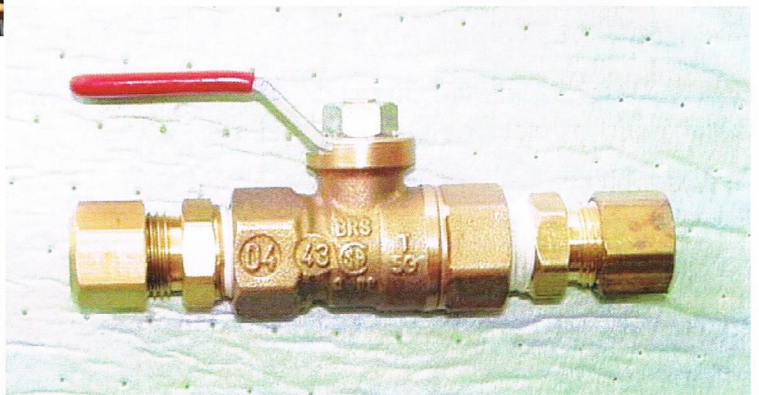


If you look under the trunk floor of your Sunbeam, you will see two metal guards welded to the floor to protect the fuel line. These guards are separated by a notch in the middle of the floor. It's an ideal place for a valve and is within easy reach from the rear of the vehicle.

It is my unsubstantiated belief that a Rootes engineer who was responsible for designing the fuel system designed in a notch between the sheet metal guards for a shutoff valve, and some bean counter deleted the valve during a cost-cutting exercise. Maybe someone has another reason for the notch.

## The Valve

I used a 5/16" ball valve that would accommodate compression fittings for 5/16" copper lines at a hardware store. If you want to use 3/8" lines you must use a 3/8" valve. I didn't use a valve with soldered ends to avoid damaging the valve ball or seal.



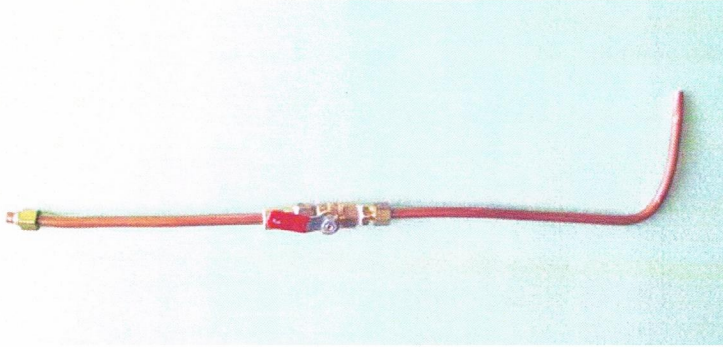
## Testing the Valve

Before I used the valve, I wanted to make sure it would hold up under continued exposure to gasoline, so I soaked it in a bottle of gasoline for six months. I found no leakage or degradation to the plastic ball or seals. The valve has been installed on my Sunbeam for four years now and shows no signs of leakage. However, many of these valves are made in China or Italy with questionable quality control, so I recommend you also test the valve you are going to use before installing it on your car.

**(Continued on P. 8)**



## Fuel Shut-off (from Pg. 7)



### Fabricating the Line

There are several ways to fabricate the fuel line. It must be a hard line to support the valve.

- **Fabricate a new line.** I used 5/16" copper tube with compression fittings. You can reuse the original Sunbeam long nuts with a 5/16" ferrule at the pipe coming out of the crossover and at the

fuel pump. Install the lines to the valve so that the valve handle will center in the notch of the fuel line guard. Next, put the required bends in the line, and cut it to the proper length using your present line as a guide. Most lines have been modified in some way. I have a non stock fuel pump and filter, so I have a rubber line attached to the tube.

- **Use your present line.** If it is original, the line and nuts may be rusty steel. If they are reusable, mark the center of the notch on the line, remove it, cut out a segment for the valve and fittings and install the line on the valve.
- **Enlarge the fuel line to 3/8" with a 3/8" valve.** Here are instructions supplied by Tom Ehrhart. "An upgrade is to use a 3/8" line with mating nut and ferrule. But the cross tube receiver fitting must be modified. I use a 15 degree reamer to enlarge the port to receive the ferrule. A 3/8" compression nut is a tad loose on the cross tube threads. However, it can be tightened satisfactorily if being careful not to over tighten. Tom at [tt@tigertoms.net](mailto:tt@tigertoms.net) has pictures of the reaming process that I'm sure he will E-mail if needed.

Ron Fraser at [rfraser@bluefrog.co](mailto:rfraser@bluefrog.co) has dimensions of the nuts and ferrules. If you need additional information or if you want to buy English hardware, go to [www.hoseandfittings.co](http://www.hoseandfittings.co).

### Install the Assembly

Simply install the line the same way the original was installed. The metal guard will hold the hard line.



I regret to inform you that a former member of the Beam Team, Jon Lehman, passed away March 31, 2014. A fellow Beam Team member Darrell Howe paid him a visit about a day before he died of cancer at the Veterans Administration Hospice in Coatesville, PA. Jon raced a Sunbeam Tiger back in the late 60s-early 70s. He and Darrell had matching BRG tigers with orange stripes, numbers 76 and 78. From Deidre Lehman, wife of Jon.

