

## NOSTALGIC MOTOR CARS UNLOCKS THE HISTORY & MYSTERIES OF THE 1963-1985 AVANTIS

### Improper Carburetor Fuel Line Modifications Could Cause a Fire !

**By Dan Booth  
Nostalgic Motor Cars**

*Dan Booth has over 47 years of exclusive, hands on Avanti sales, service, collision and parts, not Studebaker cars or trucks, just 1963-1985 Avantis.*

This article is a must read for all 1974-1985 Avanti owners. It just might save you from an engine fire!

I have always suggested to my customers to carry a fire extinguisher on the rear drivers side floor—just in case you may need it in a hurry.

This article was moved up on the request list, as a new customer insisted that I inform other Avanti owners of possible non-factory modifications that are safety related. He said one of the first things he does, when he gets a new *Avanti Magazine*, is read “Nostalgic Motor Cars Unlocks the History and Mysteries of the 1963-1985 Avanti” and the second is look at my ads.

His problem is he has owned his Avanti for over 20 years and didn't know that the inline fuel filter was not factory. He had an engine fire from the jerry-rigged fuel filter and cut line. The fire cost him and the insurance company a lot of money, which could have been prevented.

He didn't know a \$100 N.O.S. fuel line was available and what a proper line looks like until he called me. The 1974-1985 Avantis had three different fuel lines installed by Avanti Motors, when your car was built. I will need you to call me Dan Booth (248) 349-4884 with the year of your Avanti, so I can get you the proper N.O.S. fuel line.

All 1974-1985 Avantis left Avanti Motors with a steel fuel line, from the carburetor to the fuel pump. The problem is finding one, unless you know about Nostalgic Motor Cars, as I have always had them on my shelves. The N.O.S. line is very easy to change with a minimal amount of tools and mechanical knowledge. I will show with pictures of the ill advised modifications that most make, so you can look at your Avanti and know if you need an N.O.S fuel line for 1974-1985, and they are only \$100. Since your fuel line is 38-49 years old, it might be a good idea to purchase one and change it.



This is a very easy way to tell if you need a new fuel line. First remove the air cleaner, compare the picture to your car, which shows a correct line from the carburetor to the fuel pump.



This picture shows the line nut, that the hex is rounded off, which is very common. It makes it difficult to tighten the line nut to the fuel filter cartridge so that it won't leak.



This picture shows a big kink, in the steel line that could leak if the line develops a crack. It obviously restricts the amount of fuel required for proper performance.



This picture shows the kink was cut out, and a section of rubber hose was installed.



This picture shows the kink was cut out, and an in line fuel filter was installed with two pieces of rubber hoses,

The problems with these repairs, is the rubber hose or hoses could spring a leak, and allow gas onto the engine which could lead to a fire.



The in-line fuel filters at the left bottom of this page have a raised barb on the end of the tubing (see picture with blue arrows at left bottom) that help keep the rubber lines from leaking, or worse yet, coming off.

The cut steel lines have no provisions to keep the fuel from leaking or the rubber lines from coming off. When a steel line is made for a rubber hose to slide on, they have what is called a “hose bead flare” which is a raised area—like a life saver shape—formed on the steel line to keep the rubber hose or hoses from leaking or sliding off. Of course those cut steel lines don't have a “hose bead flare” and they are likely sharp on the cut ends. That's where the fire worry could become a reality. Those problems/worries, could be avoided for just \$99.



Fuel filter



Filter with check valve

The 1974-1985 Avantis have their fuel filter in the carburetor. It's very easy to change. You simply remove the steel fuel supply line that connects to the carburetor. Use a one-inch open-end wrench and unscrew the fuel filter cartridge from the carburetor.

If you have the disposable paper filter as the picture above shows, it should have a check valve in the inlet side. This check valve's purpose is important, as it will help keep gas from running out of the carburetor from the gas tank if the Avanti is ever upside down.

The fuel filters should be changed before you find yourself along side of the road. They are inexpensive and cost about \$4. Of course I have them in stock.

This is a little trick I taught myself. I cut the old filter open to see how much junk is inside. This will give me a good idea if the fuel tank will need to be reconditioned. See my article on the Avanti fuel tank replacement in Issue #196 of the *Avanti Magazine* or go to my web site [NostalgicMotorCars.net](http://NostalgicMotorCars.net) click on “Tech Articles”. Click on “Tech Articles” a second time.

You will see that I have written about 50 articles for *Avanti Magazine*. Look for the one about Gas Tanks. //