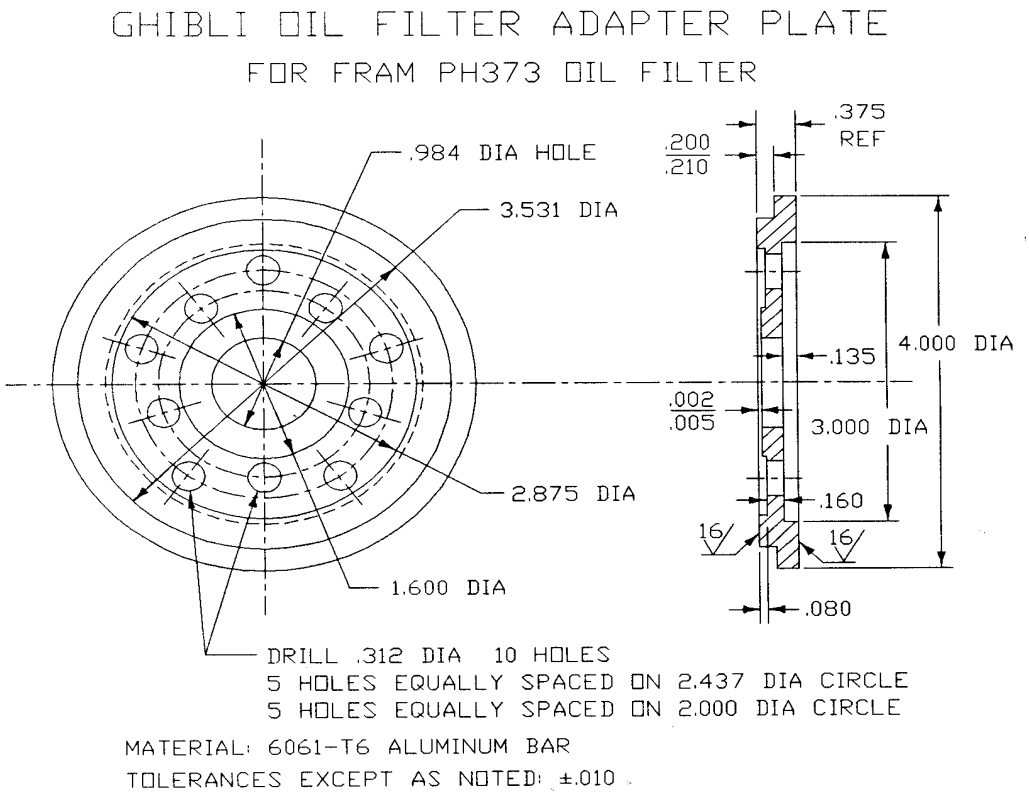
Ghibii Spin-on Oii Fiiier Conversion

By Chuck Sternburg SUMMER 1990

Early model Ghibli V8 engines, with the oil filter cartridge inside the heat exchanger, can be converted to use a spin-on oil filter. Late model Ghibli engines (and all other Maserati passenger car V8s) were equipped with a spin-on oil filter and did not have the heat exchanger, indicative that such was unnecessary except for sustained high performance driving. I had to change because my Ghibli heat exchanger had developed an oil leak, turning the engine coolant to unpalatable mayonnaise.



A Fram PH373 oil filter, which is used on Chevrolet and GMC trucks, has been selected because of its large capacity. The conversion is accomplished by installing an adapter plate for the filter seal and a double ended threaded fitting to hold the adapter plate onto the filter mount on the engine and provide for the threaded part for the spin-on filter.

The adapter plate can be made from aluminum, four inches in diameter and .375 inches thick, with the seal surfaces to match the filter mount and the filter seal. Dimensions for the adapter are shown in Figure 1.

The double ended threaded fitting can be made from 11/4 inch steel hexagon bat stock. A 25 mm x 1.5 metric thread is required on the end that fits into the engine filter mount and a 13/16-16 NF thread is needed on the other end for the spin-on filter. Dimensions for the fining are shown in Figure 2.

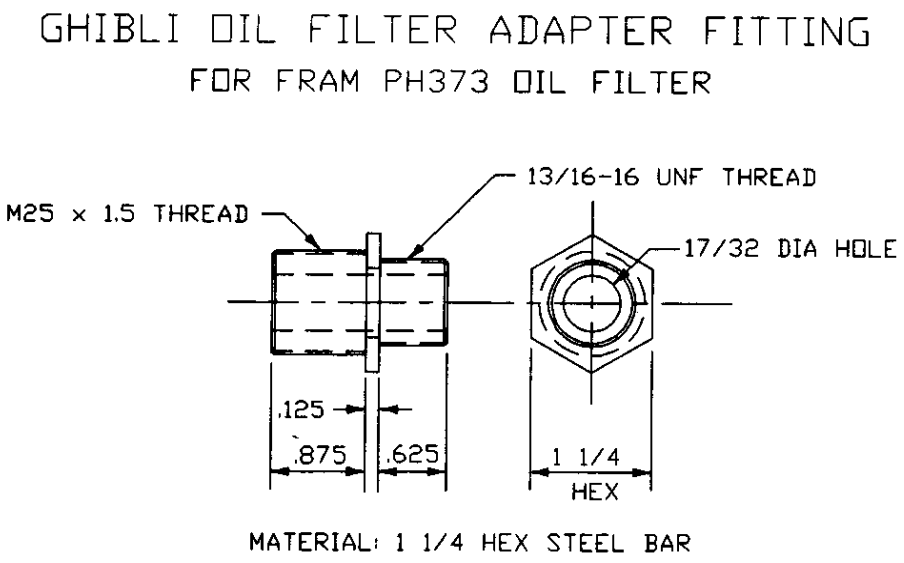


Figure 2

The adapter plate mounts against the original O-Ring seal in the body of the filter mount. The .002/.005 recess on the engine side of the adapter plate is to insure that the O-Ring is properly contained by the seal surfaces. The spin-on filter has it's own seal, which mates with the adapter plate. As always, it's a good idea to moisten this seal with oil before spinning it on.

The original heat exchanger with the filter cartridge is shown in Figure 3.

Figure 3

The spin-on filter installation is shown in Figure 4.

Figure 5 shows the adapter plate and the threaded fitting before installation. (The rod through the center is not part of the installation–it's to hold the pieces for the photograph.)

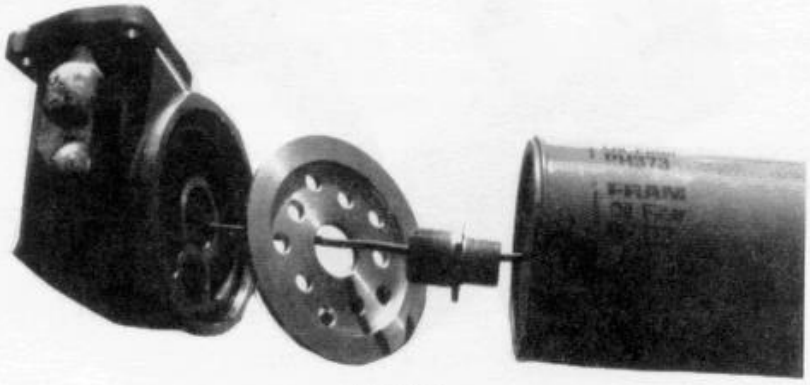


Figure 5

Figure 6 shows the adapter plate and the threaded fitting installed on the filter mount.

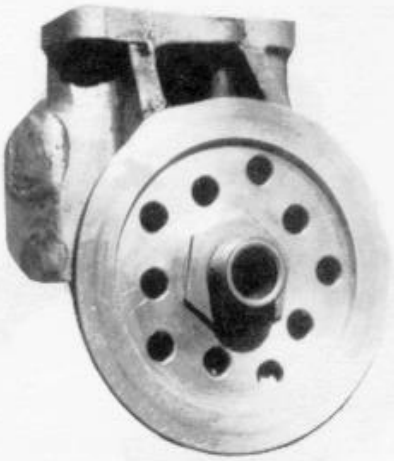


Figure 6

The cooling system will require a water manifold to take the place of the heat exchanger and the curved manifold that was between the water pump and the radiator.

The manifold can be made from 1 5/8 inch diameter steel tubing nine inches long with a 1 1/4 inch diameter outlet for the hose to the intake manifold and a 9/16 inch diameter outlet for the heater hose. Figure 7 shows the water manifold.

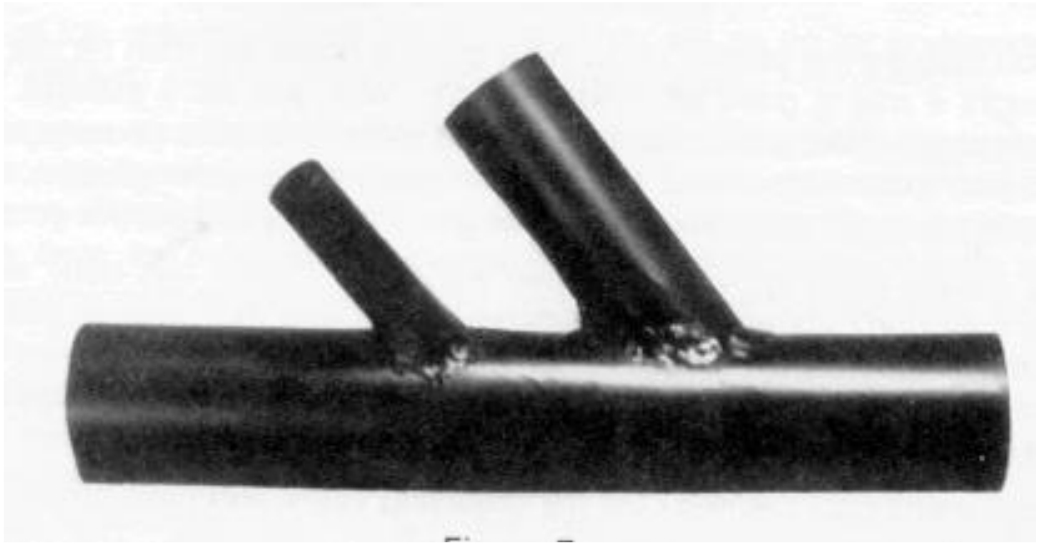


Figure 7

The hose between the water pump and the new manifold is a 90 deg. bend molded hose with a 1 1/2 inch inside diameter. The hose between the radiator and the new manifold is a 30 deg. bend molded hose with a 1 1/2 inch inside diameter The hose from the intake manifold to the new manifold is a 15 inch long flex hose with a 1 1/4 inch inside diameter.