



TClinic

CARBS—MODIFICATIONS TO CORRECT AIR LEAKS

Another sticky problem has reared its ugly head again—air leakage between the carb and the intake manifold. The stickiness is in the fact that you don't usually realize there's a problem until after you've burned a valve (heigh-ho, probably needed a valve job anyway), but that only cures the effect, not the cause. The air leak is generally caused by incorrect fit of the carb to the intake manifold. Now the manifold is a casting with a machined surface—the carb. The carb is pot-metal with a gasket between them. After being removed and replaced several (?) times, the "ears" of the carb (where the bolt holes are) become bent, presenting a curved surface. When this curve becomes pronounced, it is virtually impossible to maintain a proper seal. There are several solutions. If the curvature is not too bad, (place straight edge across bolt hole center line), slightly file the "ears" to regain a flat surface—be very careful here, as you don't want to remove much material. Then mount it with two or three gaskets, liberally spread with gasket cement (CAUTION: DO

NOT OVER TIGHTEN—THAT'S WHAT CAUSED THE TROUBLE IN THE FIRST PLACE). Another method is to place a thick $\frac{1}{4}$ " fiber-asbestos spacer between the carb and the manifold. File (or grind, as I did) one side of the spacer to match the curve of the carb. The other side remains flat. Use gasket cement. This works great—if you can get the spacer (see Mike Goodman). But the best solution comes from Joe Douglas. He cut a square groove in the face of the carb between the air passage and the bolt holes, and placed an "O" ring, making an air tight seal. At this writing, this idea is being further explored and hopefully I will have some facts and figures in the near future.

When you are all through with your gaskets and stuff, test for air leaks by squirting oil (messy, messy) onto the joint while the engine is running at a fast idle. If any air leaks remain, you will be able to see them, as the oil will magically disappear.

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2002 Update

1. The pot-metal throttle bodies as used on the TC did not wear well. In addition to the ears deforming, the actual throttle bore could ovalize thus causing the butterfly valve to not seat properly. Find a pair of 1 $\frac{1}{4}$ " aluminum throttle bodies from a TD and swap them out and assemble using the other TC carb parts.
2. Mike Goodman is retiring in a couple years so if you want spacers from him you better do so soon or find another supplier.