

MUFFLER FIT TO MANIFOLD: QUESTIONS AND ANSWERS.

From time to time, we get phone calls from people saying their muffler may not fit correctly to the manifold. This is usually an angle problem. Below are things to check to see where your problem might be:

1. If using an older or original manifold, you should check the alignment of the exhaust ports. The rear port on older manifolds is almost always out of alignment. This will not only affect the muffler fit up, but also may allow an exhaust leak in this area. Sometimes it is so bad that you can see it if you look carefully from the top with the manifold installed on the car.

If the manifold is off the car, lay a straight edge along the bottom of the ports, and then you can easily see the misalignment. $1/16''$ is about the maximum allowed; even this much will keep you from installing the muffler with correct alignment. You may have to purchase a new manifold. If you do this, be sure to have someone surface the intake and exhaust manifolds as an assembly, before installing. With a new manifold, you will also be able to install the exhaust port glands. These keep the manifold from warping in the future. See photos of exactly how to do this measurement.



This photo shows how to lay a straight edge across the exhaust ports. You must carefully set the edge starting at the #1 port then working across to #2 then #3. You want to set it exactly at the bottom of each port, starting with #1. Then you see how #4 looks. It will generally show a gap due to distortion of the manifold.



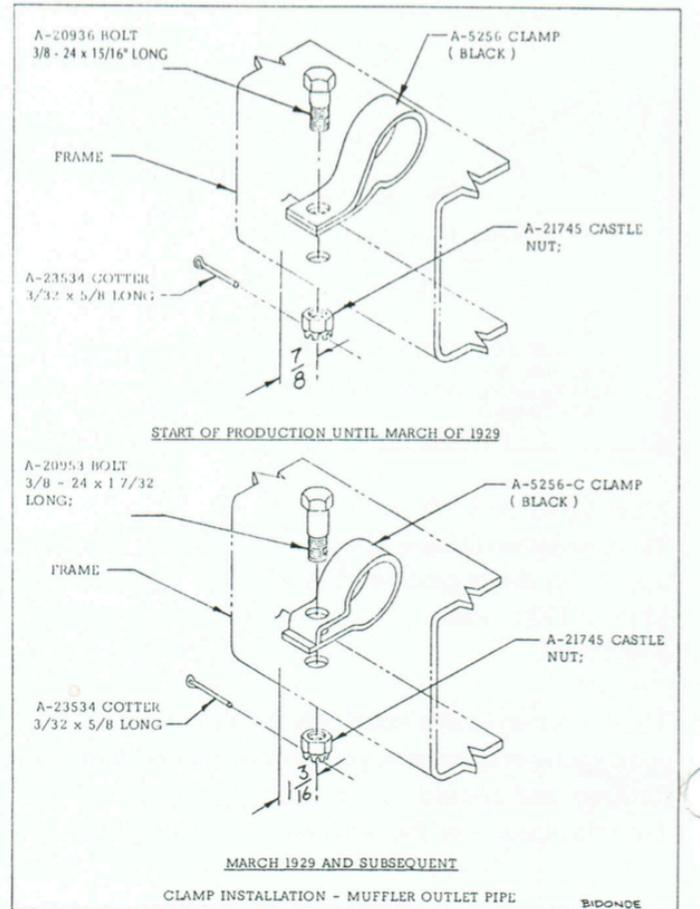
Close up of #4 Port, this manifold is no good, should be scrapped. Gland rings will not fit and it will leak at #4 Port. Anything over $1/32''$ misalignment will keep you from installing the gland rings.

2. Be sure your crank fits easily into the front pulley, many times the front motor mount is not set at the correct height, usually too high, but I have seen too low as well. The original spring setup works the best and is totally adjustable. Many years ago, they made a single piece spring assembly with two coils connected together; these are not good and will result in the engine sitting higher in the front.

Continued on next page

MUFFLER FIT TO MANIFOLD: QUESTIONS AND ANSWERS.

3. Do you have Float-O-Motors? If you do, your engine is probably sitting lower in the rear than is proper. The new rubber pads sold by Bratton's should bring the height to the proper level, the older pads most people have are not correct and the engine will sit lower in the back, making muffler alignment difficult. Sometimes, you even have to shim the Bratton pads slightly to get this right. **ENGINE ALIGNMENT IS CRITICAL; YOU DO NOT WANT AN EXCESSIVE ENGINE ANGLE, AS THIS WILL WEAR OUT YOUR U-JOINT PREMATURELY.**
4. The Tail pipe clamp, is it correctly installed? Be sure you have the tail pipe clamp correct as shown in the judging standards. See drawing from the Judging Standards at the right.
5. Tail Pipe Clamp Tightness: Many reproduction tail pipe clamps are too small and cannot be adjusted to a loose fit. Having the tail pipe clamp too tight will cause warpage in the manifold, as the muffler expands in length and pushes the manifold at the connection. This will cause the last exhaust port to be pulled downward and eventually result in an exhaust leak. Having the correct loose fit on the tail pipe clamp is critical; we sell exact duplicates of the Ford part and they work correctly.



Illustrations by Bob Bidonde

#####