



## POWER PLUMBING

### INSTALLING A SET OF HEADERS ON YOUR FORD V-10

Replacing headers on Ford trucks have always yielded in improvements for both torque and raw horsepower. Individual tube headers flow more than the factory log-style exhaust manifolds and can improve bottom-end torque and horsepower. The Ford V-10 engine is no exception to the rule. Primarily used for heavy-duty towing, the V-10 responds well to relieving exhaust backpressure, resulting in more pulling power. Gibson Performance of Corona, California allowed us to document the process as they installed their headers on a Super Duty pickup. According to Gibson, the headers improve performance, and have a great sound. Their shorty head-

ers have a lifetime warranty, and do not void the factory warranty. It is important to use headers that follow emissions guidelines, and the Gibson headers are emissions legal in all 50 states.

When installing this system, be sure to use jack stands when working under your truck. Safety should be your first concern so remember to set the parking brake, block your tires, and use safety goggles and gloves. Do not work with hot pipes, as you can become badly burned, but it also makes the headers difficult to remove. For the backyard mechanic, this install can be done in your driveway with jacks and blocks, but if you have access to a lift, it will make the job much

easier. Since we had the luxury of a shop lift, we kept the wheels and fenderwells on. If you are doing your installation at home, Gibson recommends removing the wheels and fenderwells for easier installation. To remove the fenderwells, take out the sheet metal screws and fasteners attaching it to the fender and frame.

The Ford Super Duty used in this installation had 3,000 miles on it, so it was extremely clean. However, if your truck is a bit more aged, Gibson recommends spraying WD-40 or some other type of penetrating oil on all accessible fasteners and fittings before attempting to remove them.

Because of a recent suspension lift and new larger tires, we could not dyno this truck after the installation. Gibson assures us that their dyno numbers for their V-10 headers (which they tested on the exact same vehicle) show a 30 lb.-ft torque improvement, and 22 more horsepower across the RPM range.

— By Chris Duke



As you can tell, there are a lot of differences between the Gibson header when putting it side-by-side with the stock header. Each exhaust runner has its own individual path, as opposed to sharing space as is the case with the stock "straight" header.



Start by disconnecting the battery cables, and then raise the front of your truck to obtain access to the bottom exhaust manifold flanges.



Don't forget to add that CARB sticker. It is important when you get your vehicle tested to display the Executive Order number for this product.



Loosen the bolts connecting the exhaust system to the exhaust manifold. Pry the exhaust system back to gain enough work area.



Unplug the O2 sensor on both sides. These will be reattached once the headers are installed.



Now remove the factory Y-pipe, being careful not to damage the factory gasket in front of the cat converter when removing it as it must be re-used.



Next, loosen the EGR tube located on the driver's side manifold, then disconnect it. Again, our project truck was unique in that it did not have one, so in this situation Gibson supplies (with the kit) an EGR plug, which they recommend you attach to your new Gibson header.



Now it's time to get rid of some unsightly dead weight. Remove the nuts attaching the manifold to the head. The nuts are on a stud, which also must be removed. If you end up removing both at the same time, congratulations! That is what you need to do anyway, but more often than not, you will remove the nut and then the stud separately.



The studs have a 5mm hex end on them. A 1/4" drive ratchet and a 5mm socket will do the trick. Remove the stock exhaust manifolds as well as any studs that remain.



The dipstick must now be removed. It has a separate mounting bolt on the head and uses an O-ring seal at the bottom. Take special care to protect the O-ring.



Before working on the passenger side, remove the three bolts holding the starter to the bell housing.



If carbon deposits and high spots appear on the head surface, use a scraper to remove them, being careful to not gouge the aluminum heads.



Install the gasket on the driver's side with the header bolts, leaving at least a 3/8" gap.



Now you're ready to install your new header. Gibson recommends applying a small amount of hi-temperature sealer to the exhaust pipe flare before installing them. Some twisting and wiggling of the header is usually necessary. After installing the header, re-install the dipstick, then the EGR tube (if your truck had one). Repeat header installation on passenger side.

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Re-connect the exhaust system to the new headers using the hardware provided. When re-attaching the Y-pipe, use a small amount of gasket sealer at the flange gasket behind the converter. Then, re-connect the O2 sensors.



When first starting your engine with new headers, you may smell something burning. This is completely normal and it will go away after a few minutes. Check for leaks, then after letting the engine cool, re-torque the header bolts. 