

GP205 CHROME HEADER

HAS NO AIR INJECTION 88-92 FORD PICKUP 7.5L 2/4WD O2 SENSOR, EGR FITTING AUTOMATIC ONLY, E40D TRANSMISSION "OVER" TRANS CROSS MEMBER

GIBSON HEADERS ARE 50 STATE SMOG LEGAL

Thank you very much for purchasing our Gibson header for your vehicle.

If you need further assistance, please do not hesitate to call our Technical Department at (800) 528-3044 Monday through Friday 8:00 a.m. to 5:00 p.m. PST.

1270 WEBB CIRCLE CORONA, CA 92879 0904

INSTRUCTION MANUAL GP205

WHEN THESE INSTRUCTIONS ARE FOLLOWED PRECISELY, YOU WILL FIND THE INSTALLATION OF YOUR EXHAUST SYSTEM TO BE RELATIVELY SIMPLE. WE CANNOT OVER EMPHASIZE THE IMPORTANCE OF ADHERING STRICTLY TO THIS PROVEN APPROACH, AS IT WILL VIRTUALLY ELIMINATE ANY DIFFICULTIES WHICH YOU MIGHT OTHERWISE ENCOUNTER.

DUE TO RESTRICTED ROOM IN THE ENGINE COMPARTMENT, YOUR HEADERS MAY COME CLOSE TO CERTAIN BODY AND CHASSIS COMPONENTS. THIS IS A NORMAL CONDITION FOR AN INSTALLATION OF THIS TYPE. MAKE CERTAIN YOU HAVE ENOUGH CLEARANCE AROUND BRAKE, FUEL, AND ELECTRICAL LINES, ETC. IN SOME CASES, IT MAY BE NECESSARY TO RELOCATE ITEMS WHICH MIGHT BE ADVERSELY AFFECTED BY EXHAUST HEAT.

WARNING: INSTALLATION OF ANY TYPE OF "WRAPPING" MATERIAL ONTO THE HEADERS WILL DESTROY THE HEAT DISSISPATION PROPERTIES OF THE TUBING, CAUSING PREMATURE DETERIORATION OF THE METAL AND SUBSEQUENT FAILURE. **USE OF ANY "WRAPPING" WILL VOID THE WARRANTY.**

LEGAL STATUS: THESE HEADERS ARE FOR USE ON VEHICLES WHICH CAME FROM THE FACTORY WITH A CATALYTIC CONVERTER AND AN OXYGEN SENSOR.

TOOLS REQUIRED

7/16" WRENCHES (VARIOUS LENGTHS) 7/16" SOCKETS (SHALLOW AND DEEP) 1/2" WRENCHES (VARIOUS LENGTHS) 9/16" WRENCHES (VARIOUS LENGTHS) 9/16" SOCKETS (SHALLOW AND DEEP) 5/8" SPARK PLUG SOCKET 7/8" OPEN END WRENCH 15MM DEEP SOCKET 15MM BOX END WRENCH 31MM OPEN END WRENCH (PREFERRABLY A LINE WRENCH) 3", 6" AND 12" EXTENSIONS FOR SOCKETS LUG NUT WRENCH HIGH-TEMP SILICONE ADHESIVE SEALER RATED AT 600 DEGREES OR MORE GOOD QUALITY RUST PENETRANT

DISASSEMBLY

<u>NOTE</u>: Now is a good time to replace questionable motor mounts. All engines are not mounted exactly the same in all vehicles at the factory. In some cases, the motor mounts need to be loosened and the engine shifted slightly in the frame to provide the maximum clearance from some components.

<u>WARNING!</u>: THESE HEADERS WERE DESIGNED TO FIT <u>ONLY</u> FACTORY-INSTALLED ENGINES. WE CANNOT GUARANTEE THAT OUR HEADERS WILL FIT IN THE CASE OF AN "ENGINE SWAP"!

- 1. Remove air-cleaner-to-throttle body hoses.
- 2. Disconnect battery.
- 3. Raise vehicle at least 24" off of ground and support at axles with jack stands or other suitable supports.

WARNING !: DO NOT RELY ON BUMPER JACKS FOR SUPPORT!

- 4. Remove front tires. (MOTORHOMES ONLY)
- 5. Spray all exhaust fasteners with penetrant and allow to soak. Higher mileage vehicles may require soaking overnight and/or multiple doses of the penetrant so that no bolts are broken during disassembly.
- 6. Remove connector pipe-to-exhaust manifold fasteners.
- 7. NOTE SPARK PLUG WIRE LOCATIONS and disconnect spark plug wires from spark plugs BEGINNING WITH A TWISTING MOTION SO AS TO NOT DAMAGE PLUG WIRE BOOTS.
- 8. Label and remove any vacuum hoses which may interfere with the operation.
- 9. Remove spark plugs.
- 10. Loosen EGR feed line with 31MM wrench at the end of the feed tube itself. DO NOT TRY TO DISCONNECT THIS LINE BY WORKING ON THE FITTING THAT THREADS DIRECTLY INTO THE EXHAUST MANIFOLD!
- 11. Remove exhaust manifold-to-cylinder head bolts and remove exhaust manifolds from top of vehicle.

WARNING: Be sure to clean ALL TRACES of carbon deposits off of the cylinder head exhaust port surfaces. MOST HEADER SEALING PROBLEMS OCCUR BECAUSE CARBON DEPOSITS WERE LEFT ON THE SEALING SURFACES!

- 12. Remove engine oil dipstick and tube assembly GENTLY (using a twisting/pulling motion) and set aside.
- 13. Disconnect Oxygen Sensor wiring at point of exit from wiring loom (NOT at point of Entry into connector pipe!) and remove sensor using 7/8" open end wrench.

WARNING!: Failure to disconnect oxygen sensor from loom FIRST will cause lead wire to become twisted when removing sensor from connector pipe. Damaging the lead wire AT ALL can throw off the entire computer fuel control system. *DON'T TAKE THE CHANCE !!*

14. Remove all bolts from the connector pipe, then remove connector pipe from vehicle.

NOTE: While under vehicle, check to make sure that starter wiring is in good shape (not embrittled from previous heat damage) and that it is secured away from header. Starter wiring wrap and a starter heat shield are HIGHLY RECOMMENDED to prevent starter failure due to exhaust heat !

TRIAL ASSEMBLY

We HIGHLY RECOMMEND that a "dry run" of the assembly be made before the final installation of the headers. Past experiences with factory tolerances have proven to us that it is well worth the time and effort to TRIAL FIT <u>EVERYTHING</u>. To this end, the instructions will proceed through this process.

<u>ASSEMBLY</u>

1. Check header-to-head gaskets against headers and mark gaskets so as to indicate "header side".

NOTE: It is possible to install gaskets with incorrect side out. If port alignment is not checked prior to assembly and gaskets are installed wrong-side-out, SEVERE LEAKS WILL OCCUR!

- 2. Put adhesive onto gaskets and allow to cure.
- 3. Install passenger side header from bottom of vehicle. Start 2nd bolt from front to support header during the next step.
- 4. Observe header bolt holes and their locations relative to the front of the vehicle. We're calling the FRONT bolt "#1 bolt" and the REAR bolt "#8 bolt".
- 5. Remove #2 bolt and install gaskets. Re-install #2 bolt but DON'T TIGHTEN IT YET.
- 6. Install #1 and #3 bolts from original exhaust manifold into their respective holes LOOSELY.
- 7. Install remaining HEADER bolts into passenger side holes LOOSELY.
- 8. Tighten all passenger side header-to-head fasteners to approximately 35-40 ft/lbs.
- 9. Re-install spark plugs into passenger side head ELIMINATING STOCK HEAT SHIELDS.

NOTE: These headers are designed so that the cumbersome stock heat shields are no longer needed PROVIDING THAT COMMON SENSE IS USED WHEN ROUTING SPARK PLUG WIRING.

10. CAREFULLY re-install spark plug wiring onto passenger side spark plugs.

- 11. Slide under vehicle and place connector pipe-to-catalytic converter into place on studs protruding from catalytic converter flange.
- 12. Install connector pipe assembly (less driver side slip-on section) onto catalytic converter and START bottom two nuts onto studs. Install new catalytic converter flange hanger bracket (supplied) into stock rubber support and slide hanger onto upper cat flange studs. START upper nuts onto studs.
- 13. Place DRIVER'S SIDE HEADER into vehicle from underneath and start EGR feed tube nut into fitting protruding from header USING ONLY THE FIRST THREE OF FOUR THREADS (<u>DON'T TIGHTEN !</u>). Install gaskets and #8 (rear) header bolt LOOSELY into head.
- 14. Start the FACTORY ORIGINAL BOLT THAT CAME FROM THE STOCK EXHAUST MANIFOLD into the #7 bolt hole, and then start the remaining header bolts on the driver's side.
- 15. Tighten all of the header-to-head bolts on the driver's side.
- 16. Re-install the engine oil dipstick CAREFULLY into the pan and re-attach the factory dipstick support bracket USING THE 5/8" X 5/8" TUBULAR SPACER PROVIDED IN THE KIT to space the oil dipstick away from the header.
- 17. Tighten the EGR feed tube fitting.
- 18. Install slip-fit section of connector pipe into main connector pipe and rotate so as to align flanged end with bottom of header.
- 19. Install conical gaskets into bottom (collector) of both headers (steel flanged end of conical gasket into header) and attach connector pipe to headers with supplied hardware.
- 20. Install oxygen sensor into connector pipe, slide heat sleeve material over oxygen sensor wiring, and re-connect oxygen sensor wiring at wiring loom end.

WARNING!: Be sure that oxygen sensor wiring is routed away from areas of high heat, and that there is ample slack in the wire to allow for exhaust system flex!

21. Re-install spark plugs and wiring (also less factory heat shielding) on driver's side and replace any vacuum lines that were disconnected.

WARNING! We cannot be responsible for spark plug wires burning from contact with header tubes or A.I.R. (smog pump) harnesses! When the wires are properly secured, the headers will not adversely affect them.

- 22. Tighten all remaining bolts and check those previously tightened.
- 23. Replace battery cable and air-cleaner-to-throttle-body hoses, and check for any other components that may be missing.

<u>COSMETIC TIP</u>: Skin oils from your hands and engine compartment grime causes ugly "yellow" spots to appear on the chrome as it "blues" from the exposure to exhaust heat. To make the headers blue evenly, wipe them down with rubbing alcohol and a clean, dry cloth about 5 minutes prior to starting the engine for the first time.

24. Start engine and check for leaks.

<u>CAUTION!</u> Gloves or other protection should be worn to protect installer from burns due to hot exhaust components during these final steps!

25. After approximately 20 minutes of engine operation, RE-TIGHTEN ALL BOLTS! This step is VERY CRITICAL to prevent gasket failure

NOTE: HEADERS ARE NOT MEANT TO SERVE AS "EXHAUST SYSTEM SUPPORT HANGERS". Additional hangers may need to be added at the time of the installation of the headers so that THE EXHAUST SYSTEM SUPPORTS ITSELF when the collector bolts are removed. HEADERS THAT HAVE "SAGGED" DUE TO THE LACK OF SUFFICIENT EXHAUST SYSTEM SUPPORT WILL NOT BE REPLACED UNDER WARRANTY!

NOTE: Header bolts should be inspected for tightness from time to time to ensure optimum gasket life. The bolts will STRETCH some at first due to the exhaust heat, so they'll loosen WITHOUT TURNING until they "take a set". (Bolts hard enough not to stretch would BREAK!) We've experimented with the various "locking devices" on the market which prevent from turning. They DON'T WORK on HEADER BOLTS, and they greatly complicate the process of re-tightening the bolts when it's necessary.

What DOES work is this:

Go over the bolts again after the first DAY of driving (or about 100 miles- whichever comes first), then after the first WEEK, after the first MONTH, and then EVERY 6 MONTHS. Our exclusive gaskets are specially made so that the cylinder head SHOULD begin to melt before the gaskets can burn up. About the only way to kill these gaskets is to let the headers get loose and then keep driving with a leak.

Due to varying conditions between geographical locations and usage, we strongly recommend having the engine re-tuned at a reputable tune-up shop after the installation of the headers. Doing so will ensure that you get the maximum benefit from the installation of the headers.

GIBSON PERFORMANCE strives to deliver the highest quality materials, workmanship, and service. Please so not hesitate to call our technical line if you have a question or experience a problem.

NOTE: IT IS NOT UNUSUAL WHEN INSTALLING HEADERS TO GET A BURNING SMELL. THIS IS NORMAL AND IT WILL GO AWAY!