

956004 POWER EXHAUST SYSTEM FORD 460 FUEL INJECTED CLASS A MOTORHOME DRIVER SIDE EXIT HAS AIR INJECTION NO CATALYTIC CONVERTER

Thank you very much for purchasing our Gibson Exhaust System for your vehicle.

If you need further assistance, please do not hesitate to call our Technical Department at (800) 528-3044 Monday through Friday 1270 Webb Circle, Corona, California 92879 8:00 a.m. to 5:00 p.m. PST

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.

LEGAL STATUS: INSTALLATION OF HEADERS ON VEHICLES WITH CATALYTIC CONVERTERS AND/ OR OTHER EMISSION CONTROL EQUIPMENT MUST BE ACCOMPLISHED IN ACCORDANCE WITH ALL GOVERNMENT REGULATIONS PERTAINING TO SUCH EMISSIONS STANDARDS. These HEADERS ARE 50 STATE SMOG LEGAL.

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.**

E.O. STICKER INFORMATION

PLACE THE STICKER IN AN AREA THAT IS PROTECTED FROM HIGH WEAR OR FREQUENT EXPOSURE TO DIRT, WATER, ETC. MAKE SURE THE AREA IS CLEAN BEFORE APPLYING. E.O. ARE USUALLY UPDATED ANNUALLY, YOUR E.O. STICKER DOES NOT NEED TO BE REPLACED TO REFLECT CHANGES THAT ARE MADE. SMOG INSPECTION STATIONS ARE UPDATED REGULARLY.

TOOLS SUGGESTED

1/4" ALLEN WRENCH 3/8" BOX END WRENCH AND/OR 3/8" DEEP SOCKET 7/16" SOCKETS (ONE SHALLOW/ONE DEEP) 1/2" COMBINATION WRENCH 1/2" SOCKET 9/16" COMBINATION WRENCHES 9/16" LINE WRENCH 5/8" THIN WALL SPARK PLUG SOCKET 15MM DEEP SOCKET 22MM OPEN END WRENCH **PLIERS** 1/4" BOLT AT LEAST 1" LONG HEATING TORCH AND SELECTION OF HAMMERS HIGH TEMP SILICONE SEALER (RATED 600 DEGREES OR MORE) MIG WELDER **EXHAUST JACK STAND**

HEADER INSTALLATION INSTRUCTIONS

DISASSEMBLY

- 1. Remove air-cleaner-to-throttle body hoses.
- 2. Disconnect battery.
- 3. Raise vehicle at least 36" off of ground and support at axles with jack stands or other suitable supports.

WARNING! DO NOT RELY ON BUMPER JACKS FOR SUPPORT!

<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"!

- 4. Remove front tires. (MOTORHOMES ONLY)
- 5. Spray all exhausts fasteners with penetrant and allow soaking. 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. Disconnect air injection hoses at back of exhaust manifolds. 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. Loosen, but don't remove, bracket bolts for both factory air injection pipes from back of Head and intake manifold. This will make it easier to bolt up to dedicated A.I.R. tubes on header.
- 13. Remove engine oil dipstick and tube assembly GENTLY (using a twisting/pulling motion) and set aside.

14. 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!!*

15. Remove the front snubber bolt on the driver's side to allow the brake line shield to be removed.

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.

ASSEMBLY

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 curing.
- 3. Install passenger side header from bottom of vehicle. Start 2nd bolt from front to support header during the next step.
- 4. Observe header boltholes 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. Install passenger side air injection fitting using gasket, bolts and washers provided: then tighten.
- 9. Tighten all passenger side header-to-head fasteners to approximately 35-40 ft/lbs.
- 10. 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.

11. Tighten factory air injection bracket bolt.

- 12. CAREFULLY re-install spark plug wiring onto passenger side spark plugs.
- 13. Slide under vehicle and put connector pipe in place (less driver side slip-fit piece.) Attach connector pipe LOOSELY to the collector of the passenger side header using conical gaskets and hardware supplied. LEAVE CONNECTOR PIPE LOOSE.
- 14. If you are using the stock exhaust system, attach inlet pipe adapter with one or two bolts finger tight and check length and alignment. Trim more off of the inlet pipe if necessary, but make sure you leave enough straight tubing to hook cat inlet pipe adapter up onto.
- 15. 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 (DON'T_TIGHTEN!). Install gaskets and #8 (rear) header bolt LOOSELY into head.
- 16. Start the FACTORY ORIGINAL BOLT THAT CAME FROM THE STOCK EXHAUST MANIFOLD into the #7 bolthole, and then start the remaining header bolts on the driver's side.
- 17. Install driver side air injection junction and tighten using thin open-end wrench.
- 18. Tighten all of the header-to-head bolts on the driver's side.
- 19. Reinstall the brakeline heat shield and snubber bracket.
- 20. 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.
- 21. Tighten the EGR feed tube fitting.
- 22. Tighten factory air injection pipe bracket bolt.
- 23. Install slip-fit section of connector pipe into main connector pipe and rotate so as to align flanged end with bottom of header.
- 24. 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. Tighten all connector pipe flange bolts.
- 25. Install oxygen sensor into connector pipe, slide heat sleeve material over oxygen sensor wiring, and reconnect 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!

- 26. Re-install spark plugs and wiring (also less factory heat shielding) on driver's side and replace any vacuum lines that were disconnected.
- 27. Tighten all remaining bolts and check those previously tightened.
- 28. Replace battery cable and air-cleaner-to-throttle-body hoses, and check for any other components that may be missing.
- 29. Start engine and check for leaks.

COSMETIC TIP: 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

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

IT IS CRITICAL that all bolts be re-tightened **HOT** after about 20 minutes of operation 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-tune 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.

WE TRULY WISH TO HAVE ONLY SATISFIED CUSTOMERS!!

EXHAUST INSTALLATION INSTRUCTIONS

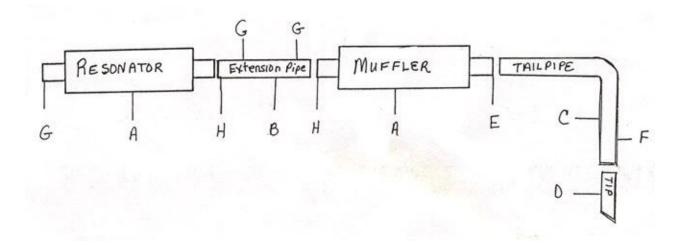
WHEN INSTALLING THIS EXHAUST SYSTEM MAKE SURE TO USE ALL THE PROPER SAFETY PRECAUTIONS. USE JACK STANDS WHEN UNDER TRUCK SET PARKING BRAKE, BLOCK TIRES AND USE SAFETY GLASSES. DO NOT WORK WITH HOT PIPES!

- 1. Lay out the Gibson Exhaust System on the floor so it looks like the drawing. (NOTE: Drawing is not exact but for placement of parts only!)
- 2. Apply WD-40 to loosen old hangers. Unbolt stock exhaust from behind the header Y-pipe. Remove all other factory hangers from original rubber grommets.
- 3. Install item # A onto header Y-pipe (note: Inlet of Resonator will have inside louvers facing towards the front of the vehicle). Slip hanger# G onto resonator inlet. Do not tighten until everything is installed.
- 4. Slip clamp # H on resonator outlet then install Extension Pipe (Item# B) onto the outlet of the resonator. Install O.E style hangers # G on the extension pipe in the correct position. Do not tighten any hangers until everything is in place.
- Install Muffler Item #A onto the Extension Pipe # B with the Louvers facing forward towards the front of the vehicle. Once the muffler positioned in a level position install Clamp #H on the muffler inlet and install the O.E. style hanger #E on the muffler outlet.
- Install Tailpipe # C and the rear hanger # f. Once this is hanging up go back and check that both the resonator and muffler are sitting in a level position. Once these are done then tighten the front clamp and work your way back towards the rear of the exhaust. Now, go back and check one more time to ensure you have minimum of a 1.5" clearance from all fuel lines, Brake lines, Tires, Etc.
- 7. Now install your polished Stainless steel tip. Use any chrome or aluminum cleaner to polish your tip.

MAKE SURE YOU HAVE A 1 -1/2" CLEARANCE ON ALL PIPES FROM ALL RUBBER BRAKE LINES, SHOCK BOOTS, TIRES, ETC

EXHAUST INSTALLATIONS

956004



ITEM	PART #	QUANTITY	DESCRIPTION
	GP213	1	TRI-Y CHROME HEADER
	YP-4	1	CONNECTOR PIPE ASSEMBLY
A	788025	2	3" SUPERFLOW MUFFLER
В	70037	1	3" X 40" EXTENSION PIPE
С	50036R	1	3" LEFTSIDE TAILPIPE
D	500360	1	3-1/2" STAINLESS STEEL TIP
E	4106	1	3" O.E. T-HANGER
F	4107	1	3" O.E. CLIP HANGER
G	500364	3	3" O.E. L-HANGER
Н	OHD300	3	3" CLAMP
I	500031	1	STARTER HEAT SHIELD

ADDITIONAL PARTS FOR LONG WHEELBASE

TO BE USED BETWEEN RESONATOR AND MUFFLER

555540* 1 3" X 40" EXTENSION PIPE OHD300 1 3" CLAMP

*CUT AS NEEDED FOR CORRECT LENGTH