



# **GP209**

## **CHROME HEADER**

**HAS NO AIR INJECTION  
FORD TRUCK 7.5L 2/4WD  
HAS O2 SENSOR, EGR FITTING  
AUTOMATIC ONLY, E40D TRANSMISSION**

**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*

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 “HEAT WRAPPING” MATERIAL ONTO THE HEADERS WILL DESTROY THE HEAT DISSIPATION PROPERTIES OF THE TUBING. THIS WILL CAUSE PREMATURE DETERIORATION OF THE METAL AND SUBSEQUENT FAILURE. **USE OF ANY “HEAT 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.

## **SUGGESTED TOOLS**

**7/16" WRENCHES (VARIOUS LENGTHS)**

**7/16" SOCKETS (SHALLOW AND DEEP)**

**1/2" 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 (A LINE WRENCH)**

**3", 6", AND 12" EXTENTIONS FOR SOCKETS**

**SCREWDRIVERS AND/OR NUT DRIVERS (FOR HOSE CLAMPS)**

**SAWZALL (HAND –HELD POWER HACK SAW)**

**LUG NUT WRENCH**

**HIGHT TEMP SILICONE (UNTRA COPPER BY PERMATEX)**

**GOOD RUST PENETRANT**

## **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!**

4. 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.
5. REMOVE CONNECTOR PIPE-TO-EXHAUST MANIFOLD FASTENERS.
6. 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.
7. LABEL AND REMOVE ANY VACUM HOSE, WHICH MAY INTERFERE WITH THE OPERATION.
8. REMOVE SPARK PLUGS.
9. 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!
10. 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 EXHSUST PORT SURFACES. MOST HEADER SEALING PROBLEMS OCCUR BECAUSE CARBON DEPOSITS WERE LEFT ON THE SEALING SURFACES.

11. REMOVE ENGINE OIL DIPSTICK AND TUBE ASSEMBLY GENTLY (USING A TWISTING/PULLING MOTION) AND SET ASIDE.
12. DISCONNECT OXYGEN SENSOR WIRING AT POINT OF EXIT FROM WIRING LOOM (NOT AT POINT OF ENTRY INTOCONNECTOR PIPE!) AND REMOVE SENSOR USING 7/8" OPEN 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!!

13. CUT CONNECTOR PIPE WITH SAWZALL 2 OR 3" DOWNSTREAM OF RIGHT-LEFT JUNCTION. REMOVE AND DISCARD THE CUT OFF PIECES.

**NOTE:** WHILE UNDER VEHICLE, CHECK TO MAKE SURE THAT STARTED WIRING IS IN GOOD SHAPE (NOT EMBRITTLED FROM PREVIOUS HEAT DAMAGE) AND THAT IT IS SECURED AWAY FROM HEADER.

### **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 **EVERYTHING**. TO THIS END, THE INSTRUCTIONS WILL PROCEED THROUGH THIS PROCESS.

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. TRIAL FIT AIR INJECTION LOOMS (SUPPLIED IN KIT) ONTO HEADERS BEFORE INSTALLING HEADERS ONTO VEHICLE. NOTE THAT THE INLET OF BOTH LOOMS SHOULD BE FROM REAR OF THE VEHICLE (SAME AS THE STOCK DIRECTION OF APPROACH). AFTER ANY ADJUSTMENTS TO THE LOOMS ARE MADE, REMOVE LOOMS AND LAY ASIDE FOR INSTALLATIONS AFTER THE HEDERS ARE IN PLACE.
3. PUT ADHESIVE ONTO GASKETS AND ALLOW TO CURE.
4. INSTALL PASSENGER SIDE HEADER FROM BOTTOM OF VEHICLE. START 2<sup>ND</sup> BOLT FROM FRONT TO SUPPORT HEADER DURING THE NEXT STEP.
5. 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".
6. REMOVE #2 BOLT AND INSTALL GASKETS. RE-INSTALL #2 BOLT BUT DON'T TIGHTEN IT YET.
7. INSTALL #1 AND #3 BOLTS FROM ORIGINAL EXHAUST MANIFOLD INTO THEIR RESPECTIVE HOLES LOOSELY.

8. INSTALL REMAINING HEADER BOLTS INTO PASSENGER SIDE HOLES LOOSELY.
9. TIGHTEN ALL PASSENGER SIDE HEADER-TO-HEADER 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. CAREFULLY RE-INSTALL SPARK PLUG WIRING ONTO PASSENGER SIDE SPARK PLUGS.
12. INSTALL CHECK VALVE (SUPPLIED IN KIT) ONTO PASSENGER SIDE AIR INJECTION LOOM AND THEN INSTALL AIR INJECTION LOOM ONTO PASSENGER SIDE HEADER.

**NOTE:** THE CHECK VALVE WILL GO ONTO THE LOOM EASIER IF A SPOT OF GRESE IS APPLIED TO THE END OF THE THREADS. DON'T WASTE YOUR TIME WITH THREAD SEAL TAPE OR ANYTHING ELSE EXOTIC!

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 OR FOUR THREADS (DON'T LIGHTEN!). INSTALL GASKETS AND # 8 (REAR) HEADER BOLT LOOSELY INTO HEAD.
14. START THE FACTORY ORIGINAL BOLT THAT CAME FROM THE STOCK EXHAUST MANIFOLD INTO #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 SPARK PLUGS, SPARK PLUG WIRING (ALSO LESS FACTORY HEAT SHIELDING), AND ANY VACUUM LINES THAT WERE DISCONNECTED.
19. INSTALL AIR INJECTION LOOM (WITH CHECK VALVE IN PLACE).
20. SLIDE UNDER VEHICLE AND TRIAL-FIT THE CONNECTOR PIPE INTO PLACE. RE-CUT THE ORIGINAL CATALYTIC CONVERTER INLET PIPE. BE SURE AND LEAVE ENOUGH OF THE ORIGINAL CAT INLET PIPE TO GO TO THE BOTTOM OF THE SLIP FIT IN THE CONNECTOR PIPE!  
**DO NOT WELD THIS UP YET!!**
21. INSTALL SLIP-FIT SECTION OF CONNECTOR PIPE INTO MAIN CONNECTOR PIPE AND ROTATE SO AS TO ALIGN FLANGED END WITH BOTTOM OF HEADER.
22. INSTALL CONICAL GASKETS INTO BOTTOM (COLLECTOR) OF BOTH HEADERS (STEEL FLANGED END OF CONICAL GASKET INTO HEADER) AND ATTACH CONNECTOR PIPE TO BOTH SIDES OF THE HEADERS WITH SUPPLIED HARDWARE. AGAIN, LEAVE IT LOOSE FOR NOW.
23. MAKE FINAL ALIGNMENT ADJUSTMENTS, TIGHTEN COLLECTOR-TO-CONNECTOR-PIPE HARDWARE TO 35 FT/LBS AND THEN WELD CONNECTOR-PIPE-OUTLET-TO-CAT-INLET JUNCTION TOGETHER.  
**CLAMPING THIS JUNCTION TOGETHER WILL NOT WORK!!**
24. INSTALL OXYGEN SENSOR INTO CONNECTOR PIPE, SLIDE HEAT SLEEVE MATERIAL OVER OXYGEN SENSOR WIRING, AND RE-CONNECT OXYGEN SENSOR WIRING AT WIRING LOOM END.

**CRITICAL NOTE:** IF STOCK O2 SENSOR WAS IN DRIVER-SIDE ONLY SECTION OF THE CONNECTOR PIPE, RE-INSTALL IT IN THE SIMILAR POSITION ON THE CONNECTOR PIPE. IF THE O2 SENSOR CAME STOCK IN THE LEFT-RIGHT JUNCTION TOWARDS THE END OF THE CONNECTOR PIPE, RE-INSTALL IT IN THE SIMILAR POSITION IN THE CONNECTOR PIPE LEFT-RIGHT COLLECTOR. INSTALL 18MM PLUG INTO UNUSED O2 SENSOR LOCATION. **FAILURE TO DUPLICATE THE STOCK LOCATION WILL CAUSE MAJOR PROBLEMS!!**

**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!

25. TIGHTEN ALL REMAINING BOLTS AND CHECK THOSE PREVIOUSLY TIGHTENED.

## HOOKING UP THE AIR INJECTION

26. FOLLOW AIR INJECTION FEED LINES BACK UPSTREAM TO THE JUNCTION BOX ABOVE THE PASSENGER SIDE VALVE COVER. YOU WILL NOT BE WORKING ANY FURTHER UPSTREAM THAN THIS JUNCTION BOX
27. STARTING WITH THE DRIVER SIDE FEED SYSTEM, SPLICE SUPPLIED SMOG HOSE INTO STOCK FEED HOSE AT STEEL-TUBE-TO-HOSE JUNCTION DIRECTLY BEHIND INTAKE MANIFOLD/ ABOVE TRANSTORQUE CONVERTER WITH 5/8" O.D. TUBULAR SPLICE PIECE (ALSO SUPPLIED IN KIT). HOOK UP TO CHECK VALVE AND CLAMP AT ALL NEW CONNECTIONS (3 PLACES) WITH CLAMPS SUPPLIED.
28. CUT STOCK RUBBER HOSE AT END OF STRAIGHTAWAY SECTION JUST BEHIND THE OLD CHECK VALVE IN THE STOCK EXHAUST MANIFOLD. AS WITH THE DRIVER SIDE, USE HOSE, CLAMPS, AND SPLICE PIECES SUPPLIED IN KIT TO CONNECT NEW SECTION OF SMOG HOSE TO THE NEW CHECK VALVES WHICH SHOULD NOW BE ON THE HEADERS. AGAIN, SECURELY CLAMP ALL JUNCTIONS WITH CLAMPS SUPPLIED IN KIT.

**CRITICAL NOTE:** SHOULD IT BE NECESSARY TO REPLACE THIS HOSE FOR SOME REASON AT A LATER DATE "HEATER" HOSE WILL NOT WORK! HIGH-HEAT, HOT-OIL-VAPORRESISTANT "SMOG" OR "EMISSION" HOSE IS THE ONLY TYPE THAT WILL LIVE THROUGH EXHAUST SERVICE CONDITIONS! OUR EXPERIENCES WITH THE USE OF "HEATER" HOSE IN THESE CONDITIONS HAS YEILDED DISSOLVED HOSE AND COMPONENTS FULL OF CRUSTY, BURNED RUBBER IN LESS THAN TWO DAYS.

29. REPLACE BATTERY CABLE AND AIR-CLEANER-TO- THROTTLE-BODY HOSES, AND CHECK FOR ANY OTHER COMPONENTS THAT MAY BE MISSING.

**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. TO MAKE THE HEADERS BLUE EVENLY, WIPE THEN DOWN WITH RUBBING ALCOHOL AND A CLEAN, DRY CLOTH ABOUT 5 MINUTES PRIOR TO STARTING THE ENGINE FOR THE FIRST TIME.

30. START ENGINE AND CHECK FOR LEAKS.

**WARNING!** GLOVES OR OTHER ROTECTION SHOULD BE WORN TO PROTECT INSTALLER FROM BURNS DUE TO HOT EXHAUST COMPONENTS DURING THESE FINAL STEPS.

31. AFTER APPROXIMANTELY 20 MINUTES OF ENGINE OPERATION, RE-TIGHTEN ALL BOLTS! THIS STEP IS VERY CRITICAL TO PREVENT GASKET FAILURE!

**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 BOLTS 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 THE GASKETS IS TO LET THE HEADERS GET LOOSE AND THEN KEEP DRIVING WITH A LEAK.

DUE TO VARYING CONDITIONS BETWEEN GEOGRAPHICAL LOCATIONS AND USAGEM WE STRONGLY RECOMMENED 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.

## **PART LIST**

- 1 HE-215 LEFT AND RIGHT MANIFOLD ASSEMBLY
- 1 YP-5 CONNECTOR PIPE
- 2 9214 HEADER GASKETS
- 2 592451 STEEL DONUT GASKETS
- 1 5757 2 ½" CLAMP
- 1 BO-908 BOLT KIT FOR Y-PIPE
- 1 GP-318 5/8" " x 5/8" ROUND SPACER
- 1 GP-319 5/8" X 1-3/4" ROUND SPACER
- 1 BO-1022 HARDWARE KIT
- 1 ANTI SEIZE
- 1 OHD6025 FLANGE