



## **SWS PART # 440-2187, 440-2188, 440-2189, & 440-2190**

Please read and understand these instructions completely prior to starting work.

Check to make sure you received the proper parts for your application. If you are unsure you have received the proper parts, call before you start work.

**Be sure to work safe!** Whenever you work under the vehicle be sure that it is located on level, solid ground and is supported by adequate safety stands! **Remember: Hot asphalt will not support most jack stands!**

Many factors affect the installation of headers, some of which are broken or aftermarket motor mounts, accidents that impact the configuration of the frame, and/or the installation of different engines or aftermarket cylinder heads. Most installations require some welding. If you are uncomfortable with welding operations, we recommend that you contact a professional exhaust system specialist to install your new headers.

**Attention Customers breaking in new engines:** Due to the extreme heat generated during the break-in process, the appearance of the ceramic coating may be altered in certain areas. The protection characteristics and thermal barrier properties of the coating is never compromised. It is recommended that a cast iron manifold or old set of headers be used for this process.

**WARNING:** These headers are legal for Off Highway use (except in California or states that have adopted California emission standards) or Racing use (which may never be used on a Highway), or for use on pre emission controlled motor vehicles/motor vehicle engines (pre 1974 domestic vehicles certified to California standards, pre 1974 domestic vehicles certified to Federal standards and all pre 1974 Foreign vehicles) Only.

### **DISASSEMBLY**

1. Disconnect the negative battery cable from the battery.
2. If a car lift is not available, raise the vehicle 2 feet or higher and support it with adequate safety stands. Make sure the vehicle is on a flat solid surface and is stable.
3. Remove oil dipstick tube, alternator and its brace (on early cars, A/C pump and brace on later models).
4. Unbolt stock head pipes from the exhaust manifolds and push aside.
5. Note the spark plug wire locations and remove them from the spark plugs. Use a twisting motion while pulling the spark plug boot off of the spark plug. Be very careful not to damage the spark plug boot and do not pull on the wire itself.
6. Remove the spark plug wire looms and dipstick tube bracket bolt, and any brackets attached to the exhaust manifolds.
7. Remove the spark plugs.
8. On computer controlled vehicles, carefully remove O<sup>2</sup> sensor and hang out of the way.
9. Remove the exhaust manifold bolts and remove the exhaust manifolds.
10. Remove the gaskets and any gasket material or any carbon deposits that remain on the head surface. The use of a gasket removal agent or scraper will ease the removal of any gasket material. Use care not to get debris into ports or spark plug holes.

## **ASSEMBLY**

1. Place a floor jack under the oil pan with a flat board for support. Loosen the transmission mount bolts.
2. Remove the passenger's side motor mount bolt and raise the motor approx 2-3". *check to Make sure the fan does not contact the shroud (82-84 models).*
3. Slide passenger side header in from above the vehicle; do not install any bolts yet.
4. Lower the motor and check for header clearance. (On some later models, the heater line will need to be repositioned to gain clearance).
5. Replace motor mount bolt.
6. Using the supplied header bolts, apply a small amount of anti-seize to the bolts and start the most restrictive bolts first. Tighten to a final torque of 35 ft. lbs.
7. Reinstall the dipstick tube.
8. Install the spark plugs and attach the appropriate wire to the spark plug and reattach the spark plug wire looms. It may be necessary to reroute wires to clear the headers.
9. Slide the driver side header in from above.
10. Using the supplied header bolts, apply a small amount of anti-seize to the bolts and start the most restrictive bolts first. Tighten to a final torque of 35 ft. lbs.
11. Modify the A/C bracket as shown in Illustration 1. Reinstall the modified A/C bracket and pump using the stock bolt and provided spacer.
12. Reinstall the alternator and brace and tighten all fasteners evenly, most restrictive first.
13. Install the spark plugs and attach the appropriate wire to the spark plug and reattach the spark plug wire looms. It may be necessary to reroute wires to clear the headers.
14. On computer controlled vehicles, reinstall the O<sup>2</sup> sensor using a very small amount Anti seize on the threads
15. On vehicles with no O<sup>2</sup> sensor, install the provided plug in the fitting on the left header.
16. Connect the negative battery cable.

To complete the exhaust: For connection to the factory exhaust, purchase aluminized Y -Pipe. For a custom dual exhaust system, purchase reducers.

## **START THE ENGINE**

Start the engine and allow it to warm up to operating temperature. Check for any unusual noises or exhaust leaks. If everything is OK, stop the engine and tighten all bolts while the engine is still warm.

**NOTE:** Check the bolts periodically to make sure they have not loosened. Re-tighten after the first 500 miles and then again at 1000 miles.

## **IMPORTANT CHECK LIST**

- **Be sure that all brake lines and fuel lines are clear of headers and/or connector pipes.**
- All spark plug wires, battery cables, or other electrical components should be clear of headers and/or connector pipes.
- **If dipstick tube was removed, make sure it is installed properly and that the dipstick has been replaced.**
- **Double-check the tightness of all bolts including brackets and accessories.**

