



## Header Installation Instructions:

### Small Block Ford Street Rod Headers

#### **SWS PART # 440-2499, 440-2500, 440-2501, 440-2502**

WARNING: The product accompanying this document is legal only for off-highway use (except in California or states that have adopted California emission standards), racing use or for use on pre-emission-controlled motor vehicles/motor vehicle engines (pre-1966 domestic vehicles certified to California standards, pre-1968 domestic vehicles certified to federal standards and all pre-1968 foreign vehicles), per the manufacturer's application guide.

Note: Installation of this product requires an adequate work space, general mechanic's tools, general mechanical "know how" and a reasonable level of experience. Most auto enthusiasts with these resources will have little difficulty installing these headers. However, you should carefully read these instructions before attempting to install these headers. If in doubt, consult a professional mechanic. (Better to do it now than to get stuck halfway through the installation.)

Check to make sure that you have received the proper parts for your installation. The header number will be stamped on the engine flange. 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.

**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.

The purchaser is responsible for following all installation instructions and safety guidelines supplied with your new headers. SWS assumes no responsibility for damages resulting from improper operation, misuse, abuse, or lack of reasonable care, or any problems resulting from incompatibility with other manufacturer's products.

**Attention:** It is important when installing the header, to install all bolts loosely, and then tighten evenly to ensure the flat installation of the flange. The torque sequence from one flange to another will vary, but generally every bolt on a header should be first fit snug, starting from the inside of the flange working out, alternating from top to bottom so that the bolt connects the flange to the manifold to the point where they barely touch. Second, using the same inside-out pattern, tighten each bolt until finished. This method will help prevent leakage and will give the user the best possible performance out of their new set of headers.

- 1) Place the vehicle in a location where the floor is solid and flat, with adequate lighting. Do not attempt to work on a hot engine. Heat causes metal to expand and makes removal of fasteners difficult at best. **Disconnect the battery cables from the battery.** Raise the front of the vehicle to obtain adequate access to the bottom exhaust manifold flanges. Use large base jack stands to support the vehicle. Do not rely on the jack! Block the tires to prevent the vehicle from rolling off of the jack stands.
- 2) Disconnect the spark plug wires by grasping and gently twisting the spark plug wire boots. Do not pull on the wires! Brush or blow off any debris which may have collected around the manifolds or spark plugs. This will help prevent foreign matter from entering the combustion chamber when the manifolds are removed. Spray WD-40 or some type of penetrating lubricant on all accessible exhaust manifold fasteners and fittings before attempting to remove them.
- 3) Typically the exhaust pipes in these early vehicles are corroded to the extent that they are difficult to modify for use with the new headers, these instructions contemplate the removal of old components and the installation of a new exhaust system by an exhaust shop. These instructions cover only the installation of the new headers. The necessary exhaust system modifications should be left to an exhaust shop.
- 4) Unbolt the driver's side exhaust manifold and remove. Remove the gaskets and any gasket material or carbon deposits that remain on the head surface. The use of a gasket removal agent will ease the removal of any gasket material. Use care not to get any debris into ports or spark plug holes.
- 5) Bolt the header to the head using the supplied gasket, header bolts and header lock washers. Apply anti-seize to the header bolts if installing on aluminum heads. Torque to 30 lbs./ft. on iron heads and 23lbs./ft. on aluminum heads.
- 6) Unbolt the passenger side exhaust manifold and remove. Remove the gaskets and any gasket material or carbon deposits that remain on the head surface. The use of a gasket removal agent will ease the removal of any gasket material. Use care not to get any debris into ports or spark plug holes.
- 7) Install the passenger side header using the same method as the drivers' side header.
- 8) Reinstall the spark plugs (if removed) and spark plugs wires.
- 9) Check that all bolts are tight. Make sure that all wiring, fuel lines, transmission lines, brake lines, etc. are clear of the headers and the exhaust and relocate if necessary. Otherwise, the heat from the headers could damage these components.
- 10) Reconnect the battery cables.
- 11) The installation of the headers is now complete.
- 12) 3 bolt flanges and bolts are included to adapt the exhaust system to the new headers. Welding is required to complete the exhaust system.
- 13) After the exhaust modifications have been made to connect the exhaust system to the new headers, recheck everything. Make sure that all bolts are tight.
- 14) Start the engine and check for leaks. Allow the engine to warm up, then shut the engine off and allow it to cool. Recheck the header bolts and other fasteners to make sure that they are tight.
- 15) Tubular headers require periodic maintenance including checking and retightening of the header bolts.