# **Installation Instructions for 30660**(2-1/4"), **30661**(2-1/2"), **30662**(3") **X-Pipe Kit**

## **Emissions Compliance**

This product is primarily designed for off-road and racing vehicles. Many state and federal laws regulate the type of exhaust modifications that can be made to a vehicle operating on public highways. Please check all applicable emissions laws in your area before installing the X-pipe on a street vehicle.

#### Kit Includes:

1) X-Pipe Center Section

4) 40-Degree Elbows

8) Clamps

### **DANGER WARNING:**

Should the purchaser decide to install this exhaust product at home, be warned that pleasure car or light duty truck/van "bumper" jacks are intended for emergency use only. The use of frame contact jack stands in conjunction with a floor jack as main support is highly recommended to minimize accidental dropping of a vehicle while the installation proceeds. We recommend the use of a shop hoist if possible. Please use caution!

**Limitation of Liability–Disclaimers:** The regulation of emissions production, noise levels and safety standards is undertaken by the federal government, each of the fifty state legislatures, and by many local municipalities, towns and counties.

The manufacturer makes no warranties of merchantability, of fitness for a particular purpose, or that its products are approved for general use, or that its products comply with laws, regulations or ordinances in the states where they may be sold to the ultimate purchaser, the consumer.

The entire risk as to the conformity of this product in any such state and as to repair, should the product prove to be defective or non-conforming, is on the retail purchaser, the buyer, the ultimate consumer of such product and it is not upon the seller, distributor, or manufacturer.

In this connection, retail purchaser, the buyer, the ultimate consumer assumes the burden of the entire cost of any and all necessary service, alterations, and or repair.

The foregoing statement limits the liability of the manufacturer.

# **Safety Precautions**

Exhaust system work puts you underneath the vehicle, which is potentially dangerous. All precautions must be taken to prevent the vehicle from falling. The best way to lift and support the vehicle is with a hydraulic floor lift. If another method is used, the vehicle must be supported by heavy-duty axle stands at all four corners on a hard, level surface. **Do not use a bumper jack to support the vehicle when working underneath it!** 



#### Installation: DO NOT TIGHTEN ANY BOLTS OR CLAMPS UNTIL THE LAST STEP!

NOTE: Further parts, tubing, welding, cutting and etc. may be necessary for installation of this universal kit. Modifications may be necessary to clear driveshafts in certain vehicles. Not for 4 x 4's.

- 1. Raise and secure the vehicle (see Safety Precautions notes above).
- 2. Determine the best location for the X-tube. (A recommended layout is shown in the diagram). If you have existing exhaust, you will need to cut portions of it out to install the X-tube kit. Take accurate measurements before cutting, and make sure not to cut out too much of the existing exhaust system. Cut the necessary amount out at this time. You may need to cut the 40 degree elbows to length, to adjust for both the varying widths of header exits, and for the amount of space or length available for this kit. For most applications, the short legs of the 45 degree elbows will need to be the inlets off of the header reducers, and the long ends to connect to the X-tube center section. For the exit, most applications may need the short ends of the elbows connecting to the X-tube center section, and the long end connecting to either the existing exhaust or the mufflers.
- 3. Install the appropriate header reducer kit (if necessary, not included in this kit). We recommend Jeg's reducer kit numbers that have I.D. outlets, so that the front 40 degree elbow will slide inside the collector. An O.D. (standard) reducer can be used, but it must be butt-welded to this front elbow. NOTE: these can be installed on vehicles without headers as well. The following are the appropriate Jeg's header reducer kits:

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lector Size	<b>Tubing Size</b>	Jeg's Part #	$B \subset B$
3-1/2"	3"	30037	D
3"	3"	30035	REDUCER KIT
3"	2-1/2"	30034	
2-1/2"	2-1/2"	30032	
2-1/2"	2-1/4"	30031	B C D
			A

- **4.** Lay the kit out to determine how it will be installed. Make a measurement on the existing exhaust system from the outside of each header reducer to one another. Take the appropriate end (we recommend the short end) of the 40-degree elbows and as the drawing shows, measure the same distance for the A ends as the earlier measurement. Use the X-tube center section to figure the cut length on the B ends (remember to figure at least 2" that go into the I.D. end of the X-tube center section). This will adjust for the inlet width. Slide the rear portions of the front 40-degree elbows into the X-tube center section.
- **5.** You may need to trim the A ends of the front 40-degree elbows before installing to the header collectors. Install these elbows to the header collectors after cutting the A lengths if necessary.
- **6.** Take the measurement of the exhaust on the outside of the existing exhaust at the rear of the X-tube. Install the front portion of the rear 40-degree elbows (we recommend the short end for most applications). As in step 4, use this measurement to figure the width needed for the system and the amount to cut from the C ends of the tubing. Again, you may need to cut the D end to length, depending upon the space available. Install the rear 40-degree elbows to the X-tube center section.
- **7.** Using the clamps provided, clamp the 8 connection joints. Check the system for clearance of the driveshaft, all brake and fuel lines, and general clearance. Starting at the front of the system, tighten the header reducer bolts, and then the clamps. If you are welding the system, weld all joints and then remove the clamps.
- **8.** Test drive the vehicle to check for exhaust leaks or unusual noises. After the exhaust system has gone through several heating and cooling cycles, go back and retighten the clamps if used.

