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## HEADER INSTALLATION INSTRUCTIONS D453

## **APPLICATION:**

## 1967-74 Plymouth Barracuda/Valiant, Dodge Challenger, Dodge Dart 1966-72 Plymouth Belvedere/GTX, Dodge Coronet/Charger/RT/Wagon/Super Bee 1970-72 Plymouth Duster, Dodge Demon 273-360 Motor

**NOTE:** Applications with 727 automatic must use mini starter Mopar Performance #P5249644AC or equivalent

**NOTE:** Four Speed Applications, it may be necessary to grind casting tabs on each side of the bellhousing for clearance.

NOTE: Short Oil Filter, Fram PF43 or equivalent is required.



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 1966 domestic vehicles certified to California standards, pre 1968 domestic vehicles certified to Federal standards and all pre 1968 Foreign vehicles) Only.

**PerTronix**<sup>®</sup> thanks you for choosing **DOUG'S HEADERS**, the best fitting, highest quality header on the market. In order to realize the full potential of our good fit, please read and understand these instructions completely prior to starting work.

CHECK TO MAKE SURE YOU RECEIVED THE PROPER PARTS FOR YOUR APPLICATION. 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. 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.

**Notice**: The coating of these headers can be marred or scratched during installation. If the header needs to be returned and is damaged, you will be charged for recoat.



## DISASSEMBLY

#### **DRIVER SIDE**

- 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. Apply penetrating oil to all nuts and bolts to be removed.
- 4. Drain the radiator and save the anti-freeze.
- Remove and mark all spark plug wires and then remove all spark plugs.
  NOTE: Grasp the spark plug boot, not the wire, and use a twisting motion while pulling the wire from the plug.
- 6. Remove motor mount nut from under the cross member.
- 7. Remove factory bellhousing / engine support brackets.
- 8. Remove nut from ball and socket end of pitman arm and separate the center link from the pitman arm and allow it drop out of the way.
- 9. Cut the head pipe back approximately at the location of where the header exits, then, remove the exhaust manifold.

### PASSENGER SIDE

- 1. Remove oil filter and right angle adaptor if so equipped.
- 2. Remove idler arm bolt from frame and allow center link to drop.
- 3. Cut the head pipe back approximately at the location of where the header exits, then, remove the exhaust manifold.

### CLEANING

- 4. Replace the spark plugs finger tight so debris will not get into the cylinders during the cleaning operation.
- 5. Remove any gasket material or any carbon deposits that remain on the head surface. The use of a gasket removal agent will ease the removal of any gasket material. We recommend the use of a sharp gasket scraper to remove the bulk of material and to finish the operation with a sanding block to provide a clean flat sealing surface.
- 6. After cleaning is complete remove the spark plugs again.

## ASSEMBLY

DRIVER SIDE (Note: Driver side must be installed first)

- 1. Remove the motor mount bolt and lift the engine approximately 1-2 inches.
- Apply a <u>THIN</u> film of Ultra Copper Hi-Temp Sensor-Safe Silicone Sealer to each side of the header gasket and stick the gasket to the header flange. Masking tape can be used to help hold the gasket to the header.
- Place header into position:
  Note: It will be necessary to install the starter simultaneously when putting the header into place. Bolt in the starter then let the engine down carefully. Be sure not to crush the header while letting the engine down.
- 4. Install the motor mount bolt and tighten securely.
- 5. Re-assemble the steering linkage.



#### PASSENGER SIDE

- 1. As on the driver side, remove the motor mount bolt and lift the engine as needed to put the header into position.
- 2. Apply a <u>**THIN**</u> film of Ultra Copper Hi-Temp Sensor-Safe Silicone Sealer to each side of the header gasket and stick the gasket to the header flange. Masking tape can be used to help hold the gasket to the header.
- 3. Place header into position.
- 4. Lower engine back into place.
- 5. Put the motor mount bolt back in and tighten securely.
- 6. Replace the old filter with a FRAM # PF43 or equivalent (short style) to clear the header tubes properly. If equipped with a right angle adapter, loosen the large bolt and rotate the filter out of the way as needed.
- 7. Re-install the idler arm.
- 8. Install reducers and attach to the rest of the exhaust system.
- 9. Refill the radiator with the saved anti-freeze.
- 10. Reattach the negative battery cable to the battery.

# START THE ENGINE

Start the engine and allow it to warm up to operating temperature. Check for any unusual noises or exhaust leaks. If every thing 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.

## PARTS LIST

#### Qty Description

- 1 Left side header
- 1 Right side header
- 2 Header gaskets
- 2 3" reducers
- 2 3", 3 bolt collector gaskets
- 12 5/16"-18 x 1" header bolts
- 12 5/16" lock-washers
- 6 3/8"-16 x 1  $\frac{1}{4}$ " hex head cap screws
- 6 3/8"-16 hex nuts
- 18 3/8" lock-washers

