

# HDR78SK-K-1

## 2015-17 Mustang Long Tube Header Kits

HDR78SK-1: 2015-17 Mustang GT Long Tube Header Kit w/ Catted Mid-Pipes

Thanks again for purchasing your new stainless steel Pypes Performance Exhaust Long Tube headers. Please be sure to confirm all the components in the kit were received in your shipment before beginning installation. If you find any components missing, please contact our office at 800-421-3890 for replacement. Technical assistance is available both on line at [www.pypesexhaust.com](http://www.pypesexhaust.com) or by calling 800-421-3890.

Pypes exhaust are designed for the savvy home installer but highly recommends hiring a professional, one that is familiar with the installation of high performance exhaust products. Headers are designed to increase the performance of your vehicle, and as such are designed differently than your stock exhaust system. Extra care must be taken to ensure that hoses, cables, electrical lines, fuel lines, hydraulic lines, or any other objects are not in contact with, or located too close to your installed system.

**Work Safe:** When supporting a vehicle on jack stands, be sure the ground surface is level and solid, hot asphalt will not support jack stands. Double check your placement before sliding under the vehicle.

**Note:** Many factors may affect the installation: broken, worn or aftermarket motor mounts, aftermarket suspension components, bent frame or chassis components from accidents, different engines or cylinder heads.

**Disclaimer:** By installing any PPE products, you indicate that you have read the following and agree to these terms:

The purchaser is responsible for following the instructions and safety guidelines set by PPE. PPE assumes no responsibility for any damages from improper installation, abuse, lack of care or incompatibility with other manufacturer's products. The purchaser is responsible for any damage to the products if returned. These products are manufactured using 304 stainless steel. Exhaust heat will turn the finish to a bluish/gold color. This is normal and not a cause for a warranty claim or return.

**Warranty:** PPE will repair or replace the product at no charge (See enclosed warranty card). We are not responsible for any labor charges or shipping fees.

While this installation can be done on the floor with the use of jack stands we strongly recommend that this job be completed utilizing a hydraulic lift. You will need 24 to 30 inches of ground clearance to slip the header into position from the bottom of the vehicle. Please allow the engine to cool for a minimum of 90 minutes before starting the removal and installation steps. The use of safety goggles will protect you from falling debris that may be dislodged from the bottom of the vehicle during the removal and installation process.

**Stock system removal: \*2013+ uses OEM bolts**

- Begin by locking the steering column in place so it cannot rotate once the steering shaft is disconnected in a later step. Failure to do so may result in damage to the steering wheel controls if your vehicle is so equipped.
- Remove the battery terminals by starting with the negative cable first followed by the positive. We have found no need to remove the battery and tray but if you choose to it will give you more room to remove and install the top side manifold bolts.
- Remove the strut tower brace bar if your car is so equipped along with the engine cover.
- Loosen the clamp that holds the air inlet tube to the mass air sensor and remove the tube from the mass air. Again we found no need to remove the factory air box but if you feel the need it will gain you better access to the manifold bolts.
- Remove the outside nuts holding the cats to the manifolds on both sides as well as the nuts on top of the engine mounts.
- At this time you can raise the car with either jack stands or a hydraulic lift. Again we strongly recommend the use of a lift for the following steps.
- Loosen and remove the 2 rear O2 sensors in the mid-pipes and mark their locations so they can be reinstalled in the same positions in your new mid-pipes.
- Loosen the butt clamps securing the mid-pipes to the cat-back system. Next, slide the cat-back system rearward just enough to disengage the mid-pipes from the cat-back.



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### Parts List

- 1 Set of Pypes Long Tube Headers
- 1 Set of (16) header bolts
- 4 each collector bolts with washers and nuts
- 4 each O2 extension cables
- 1 set of Mid-Pipes

### Required Tools

- 7/8" open end wrench or O2 sensor socket
- Assorted metric sockets and wrenches
- Ratchet and extensions
- Miscellaneous hand tools
- Floor jack and jack stand or hydraulic lift
- Anti-seize



- It is now time to remove the stock manifolds. Removal of the manifold bolts may be more accessible from either the top or bottom of the vehicle. Start by loosening the steering u-joint at the rack and slide upwards to separate the joint from the rack.
- Remove the red protective cap on the starter terminals and disconnect the wiring from the terminals. Loosen and remove the 3 bolts that retain the starter. Note two bolts are visible and the third is blind, all three must be removed to get the starter out.
- Next lift the front of the engine up as far as it will go; the bell housing will hit the firewall preventing you from lifting the engine too high. Remove both the left and right engine pedestal mounts at this time.
- Remove the stock manifolds from the car as well as the O2 sensors marking their location so they can be reinstalled in the same place.
  - We recommend using your factory stud & nuts. The bolts supplied may not work for your specific year. You can certainly try to thread them into your head by hand before installing the headers. If the customer wants to purchase new bolts, they have to buy (16) M10 X 1.25 X 30mm.

### Installing your new header system:

- Start by using a solvent cleaner to clean the exhaust face surface of the cylinder heads. Take care not to get excess solvent or debris of any type in the ports of the cylinder heads. Also treat the tips of the bolts with a small amount of anti-seize if you chose to use them. \*\*\* Do not use the supplied bolt kit: Use OEM studs & nuts
- Using the supplied gaskets (you may reuse the factory MLS gaskets if they are in excellent condition) apply a small amount of O2 sensor safe high temp. RTV sealant to the cylinder head side of the gasket. This will not only aid in the sealing but also hold the gasket in place. The use of the factory studs is very help full with this step.
- From under the vehicle slip each header into place being careful not to dislodge the gaskets. Start all the bolts holding each header in place. Make sure you start each bolt used a few turns to prevent cross-threading. Tighten all bolts from underneath that can be reached to approximately 20 lb/ft. We recommend you using the factory studs follow the same procedure using the factory nuts. Note there maybe some bolts that may need to be tighten from the top, you can do those when you finish the under car procedures.
- Re-install the left and right engine pedestal mount and lower the engine into position on the mounts. Install the steering shaft and torque the universal joint to 18 lb/ft.
- Re-install the starter and attach the starter cables including the protective boot.
- Using a small amount of anti-seize on the threads of the forward most O2 sensors install them in the same relative locations as they were removed. Note be careful not to contaminate the tips of the O2 sensors with anti-seize or any other foreign matter that would cause the sensors to malfunction.
- Now it is time to install your new Pypes mid-pipes. Depending on the model you chose different cat-back options are available. For the best sound we highly recommend either our H-box or X-box 3" cat-back systems. Both are tuned specifically to your long-tube headers to give you the most sound and performance.
- Start by loosely connecting each mid-pipe to the header collector using the supplied hardware. Now you can reconnect your cat-back system and make any alignment adjustments. Once you are satisfied with the alignment of your system finish tightening the header flanges and butt connect clamps.
- Connect the oxygen sensor wire to the factory harness using the supplied extender on the passenger front. There is enough slack in the factory harness to connect the remaining 3. Again be careful routing the harness so that it is not in contact with any moving parts and heat source.
- You can now make one more check of all your work under the car before lowering it and moving under the hood.
- Now that the under car is completed start by tightening any header bolt you could not reach from under the car.
- Next re-install the nuts on engine mount as well as the battery and battery tray if you removed it.
- Attach the battery cables and tighten starting with the positive cable first.
- Install the intake hose to the throttle body and tighten by re-using the factory clamp.

### Final checks:

- Check all work for completeness: bolts tight, connectors connected, lines replaced and clamped, etc. Check that no wires or lines are close to the headers where heat damage could occur or near moving parts. Check for mis-placed tools and rags as well as fluid leaks.
- Once you are satisfied with all your checks you can now start your car. Listen for any exhaust leaks. Check around each connection for leaks. If leaks are found make sure that the connections and gaskets are installed properly and the joint or clamp is tightened properly.
- Note in some instances you may experience a check engine light. We have found some models to record slow heat response or temperature errors which in turn set off the check engine light. This has no adverse effect on the performance or operation of the engine. There are several commercially available tuners and specialty tuning shops that can provide you with diagnostics and advanced tuning capabilities to turn off the light and maximize the performance of your new header system.
- As a last maintenance item re-tighten all bolts and connections as necessary after the system has gone through several heat cycles until they take a set. Periodic checking will add to the longevity of your system.