

# 1967-1974 A-Body Mopar GEN3 HEMI Swap

P/N: BH23108 - 2.5" 304 Stainless Steel Exhaust System 111" WB P/N: BH23111 - 2.5" 304 Stainless Steel Exhaust System 108" WB 108" WB Vehicles: 67-69 Barracuda, 67-73 Valiant, 70-74 Duster, 71-72 Demon, & 73-74 Dart Sport 111" WB Vehicles: 71-74 Scamp, 67-74 Dart (exc. Dart Sport & Wagon), & 74 Valiant



# Installation Instructions

Thank you for choosing to use HOOKER<sup>™</sup> engine swap Exhaust Systems as part of your GEN3 HEMI Swap project. These Exhaust Systems are part of the most comprehensively engineered system of mounting components, headers and exhaust systems available for this application. Please read these instructions thoroughly before attempting installation.

### **IMPORTANT**:

- This exhaust system is designed specifically for 108" and 111" wheel base A-body vehicles produced between 1967 and 1974. Fitment to 108": and 111" WB A-body platform vehicles produced before or after this model year range have not been verified.
- 108" WB Vehicles: 67-69 Barracuda, 67-73 Valiant, 70-74 Duster, 71-72 Demon, & 73-74 Dart Sport
- 111" WB Vehicles: 71-74 Scamp, 67-74 Dart (ex. Dart Sport & Wagon), & 74 Valiant
- This exhaust system is designed for use with under-axle sway bar assemblies and may not work with over-axle sway bar systems.

Visit <u>www.holley.com</u> for a complete selection of Transmission Crossmember, Headers, Exhaust, and more GEN3 HEMI support products to complete your A-Body Hemi Swap.

## **COMPATIBILITY INFORMATION:**

These exhaust systems were specifically designed to be installed with **Hooker Blackheart** HEMI swap engine and transmission mounting components and headers for this same application. Attempts to install these exhaust systems with any other type or combination of engine and transmission mounting components may cause them to not provide their intended ground or vehicle component clearances.

### Supporting Hooker Blackheart parts required for use with BH23108 & BH23111 exhaust systems:

Hooker Blackheart Headers – BH23106 or BH23135 (See Holley website for specific application information) Engine Mounting Brackets – BHS571

Transmission Crossmember – BHS572

Transmission Adapter Plate - BHS573 (727 or TKX), BHS574 (NAG1)

Transmission Mount - 71223029HKR (or any standard 2-bolt Chevy Mount of the same design)

\* (see Holley website for additional new product releases not listed here)

# PARTS LIST:

Parts List		
Qty.	Description	
1	Left Header Link Pipe	
1	Right Header Link Pipe	
1	X-Pipe	
2	Mufflers	
1	Left Over-Axle Pipe	
1	Left Tailpipe Adapter	
1	Right Over-Axle Pipe	
1	Right Tailpipe Adapter	
1	Left Tailpipe Ext	
1	Right Tailpipe Ext	

Acces	Accessory Pack Contents	
Qty.	Description	
2	3" Exhaust Couplers	
2	2.5" Exhaust Couplers	
8	2.5 or 3" Band Clamps	
4	Rubber Exhaust Isolators	
2	Muffler Hanger Brackets	
2	Tailpipe Hanger Brackets	
2	1/2" x 1.75" Flanged Hex Bolt	
2	1/2" Lock Nut	
2	1/2" Flat Washer	
2	7/16-20 x 1.5" Hex Bolt	
2	7/16-20 Nylock Nut	
5	1/4-20 x 1" Thread Cutter Bolt	
10	1/2" Hanger Rod Clips	
2	Hooker Blackheart Decals	
1	199R12236 Instruction sheet	

Check the hardware package. If anything is missing, please contact Technical Service at 1-866-464-6553 or 270-781-9741.

## **TOOLS NEEDED:**

3/8" Standard Socket set to 7/8"		
15mm Deep Socket		
Drill		
13/64 Drill Bit		
Center Punch		

## **INSTALLATION:**

These instructions assume the engine, transmission, and BH23106 Or BH23135 headers are installed.

# **BEFORE STARTING:**

Your vehicle must be raised a minimum of 18 inches. A floor hoist is ideal. If no hoist is available, we strongly urge the use of axle stands as a safety measure. Please read and understand these instructions and disclaimer in their entirety before attempting installation.

# CAUTION! WORK ONLY ON A LEVEL SURFACE. USE JACKS /JACK STANDS OF SUFFICIENT CAPACITY TO LIFT AND SUPPORT YOUR VEHICLE. NEVER WORK UNDER A VEHICLE SUPPORTED BY A FLOOR OR BUMPER JACK.

- 1. Install one 3" exhaust coupler onto each header collector.
- Align the Left (driver's) and Right (passenger's) header link pipe with the expanded end of the pipe with the least amount of bend to the header collector. The end with more bend will connect to the X-pipe. Even though the pipes look very similar, they will only install correctly one way.
- 3. Align the 3" exhaust coupler with a 50-50 split over the header collector and the header link pipe and tighten the coupler to allow for adjustment of the link pipe (**Figure 1**).
- 4. Install a 2.5" exhaust coupler on to the outlet of each header link pipe.
- 5. Install the X-pipe assembly and align the X-pipe inlet to the header link pipe. Support the X-pipe at both ends.

NOTE: The X-pipe should be installed with the longer leg of the X-pipe to the passenger's side muffler.

- 6. Slide the couplers from the header link pipe on to the X-pipe inlet. Align with a 50-50 split between the header link pipe and the X-pipe. Tighten to allow for adjustment. Keep the X-pipe supported.
- 7. Align the header link pipes and X-pipe for adequate clearance on the transmission crossmember and floor pans. Start with a fingers width between these areas. Tighten the band clamps when all components are straight and level with good clearance.
- 8. Install a 2.5" band clamp onto the inlet and outlet of each muffler.

**NOTE:** Keep the outlet end of the X-pipe supported to avoid unnecessary weight on the exhaust components and headers until the exhaust hangers are installed

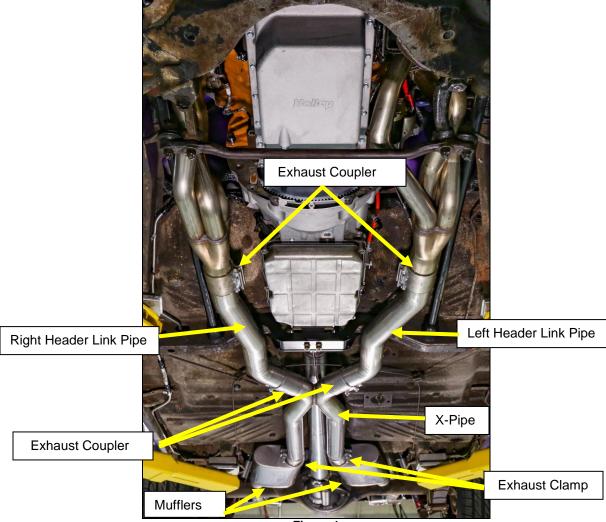
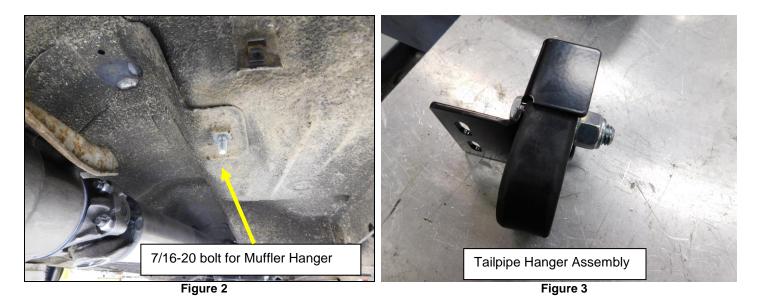


Figure 1

### Muffler and Tailpipe Hanger Brackets:

- 1. Remove the existing left and right muffler, tailpipe hanger assemblies, and clip nuts from the vehicle.
- 2. Remove the back seat.
- 3. Remove the center seat belt anchor bolt from the rear seat belts.
- 4. Replace the anchor bolt with the provided 7/16-20 x 1.5" bolt and tighten until the bolt just bottoms on the shoulder of the bolt or the seat belt anchor plate stops rotating. Then, back off ½ turn to allow the anchor plate to move. This will provide a convenient mounting point for the muffler hanger to be mounted (Figure 2).
- 5. Pre-assemble the tailpipe hanger brackets with the provided rubber isolator using the 1.75 long ½" bolt and lock nut with the washer against the rubber isolator (**Figure 3**).

NOTE: Do not over tighten or compress the rubber isolator.



- 6. Measure from the front edge of the hole in the frame rail to 2-1/4" as shown in (Figure 4) below and mark the location. Measure 3-1/8" out from the leading edge of the hole and mark that location. Place the hanger bracket over the marks and align the bracket slots with the reference marks centered in the slot, the bracket faces up with the bolt head against the frame rail (Figure 6). Trace the slots in the bracket with a sharp awl or scribe onto the frame rail (Figure 5). Make sure the ½" bolt head is tight against the frame rail during this process.
- 7. Mark the center of each slot with a center punch to be drilled in step 9.
- 8. Repeat steps 5-10 for the passenger's side tailpipe hanger assembly.

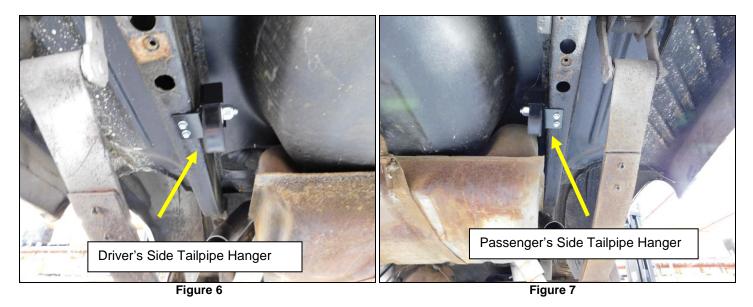


Figure 4



### Hanger Brackets:

- 9. Using a 13/64<sup>th</sup> drill bit, carefully drill at the center punched marks in the frame rail, being careful not to let the drill bit wander off center.
- 10. Use the supplied ¼-20 thread cutter bolts and anchor the tailpipe hanger bracket to the frame rail as shown in (Figures 6 & 7). An impact driver can be used to start the thread cutter, but DO NOT tighten the bolts with an impact driver. Apply Loctite® to the threads of the bolt and tighten by hand to approximately 20ft./lbs.



- 11. Install muffler hanger rod assemblies on to the 7/16-20 bolt at the seat belt anchor installed previously (Figures 8 & 9).
- 12. Install the hanger assemblies with the both hanger rods facing to the passenger side of the car. Install the 7/16 Lock nut and tighten (Figures 8 & 9).

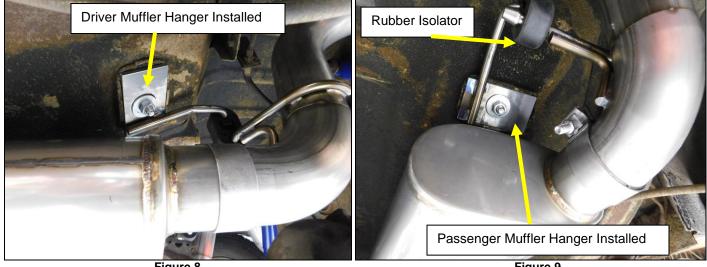


Figure 8

Figure 9

### **Mufflers and Tailpipes:**

- 13. Install the mufflers onto the X-pipe outlet (Figure 1).
- 14. Tighten the clamps on the X-pipe side of the muffler enough to hold the mufflers level while the tailpipes are installed.
- 15. Install a rubber isolator on to each muffler hanger rod (Figure 9).
- 16. Install the over-axle pipes with the short pipe into the muffler and the hanger rods facing inward (Figures 8 & 9).
- 17. Install the rubber isolator over the hanger rod and tighten the clamps to hold the over-axle pipe, but still allow adjustment.
- 18. Install a 2.5" band clamp on to the left tailpipe adapter expanded end. Install the expanded end of the tailpipe adapter on to the over-axle pipe with the hanger rod facing inward. Insert the hanger rod into the rubber isolator (Figure 10).
- 19. Tighten the clamp to allow for adjustment.
- 20. Install a clamp onto the expanded end of the Turn down tail pipe extension or optional BHC304 stainless steel tip extension, install the left and right tip extensions on to the adaptor pipe and tighten the clamp to allow for adjustment (Figure 11).
- 21. Repeat steps 14-20 for the right side tailpipes.





Figure 10

### **Final Adjustment**

- 22. Adjust the all pipes for best clearance and alignment starting at the headers and working rearward. Tighten all the clamps and couplers as you go.
- 23. Once the alignment is complete, install the locking washers on to the hanger rods with a deep socket to hold the rubber isolators in place.



Figure 11

NOTE: It is normal for the Blackheart Exhaust System to emit smoke for the first few minutes during the break-in period. Re adjustment of the tail pipes is common after the first couple heat cycles.

Any questions? Please contact Technical Service: 1-866-464-6553 or 270-781-9741. For online help, please refer to: www.holley.com.

### LIMITATION OF LIABILITY - DISCLAIMER:

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.

HOOKER<sup>™</sup> makes no warranties of merchantability, of fitness for particular purpose, or that its products are approved for general use, or that its products comply with laws, regulations, or ordinances in the state where they may be sold to the ultimate purchaser, the consumer.

Unless expressly stated to the contrary in the catalog, instruction sheet; or price list, the entire risk as to the conformity of any company 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, the retail purchaser, the buyer, the ultimate consumer assumes the burden of the entire cost of any and all necessary service, alterations, or repair.

### THE FOREGOING STATEMENT LIMITS THE LIABILITY OF THE MANUFACTURER.

California vehicle code, sections 27156 and 38391, prohibits the advertising, offering for sale, or installation of any device, which modifies a vehicle's emission control system, unless exempted, unless otherwise noted. HOOKER™ Headers that have not received an Executive Order (E.O.) exemption from these code sections are not legal for sale or use in California on vehicles originally equipped with catalytic converters, except for racing vehicles, which may never be driven upon a highway. Check with your local authorities to determine if these headers are legal for use in your particular area.

### Technical Support: 1-866-464-6553

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