



### **BHS5188 (no coating), BHS5189 (silver ceramic), & BHS5190 (black ceramic) Hooker™ Cast Iron Center Dump Exhaust Manifolds for GM LT Engines**

These Hooker™ cast exhaust manifolds have been designed to fit into a wide variety of replacement and engine-swap applications, with final outlet connections to be fabricated by the installer or used with a matching Hooker swap exhaust system. The design of the manifold passages and the position of the exit flange provide excellent performance in street/performance applications. However, this product does not have a C.A.R.B. Executive Order Exemption and therefore may or may not be legal for all pollution-controlled application. The casting is made of a High-Silicon-Moly ductile iron material and will provide trouble-free service for street/performance LT engines. Intended applications for this product are the retrofit installation of LT engines into popular passenger car and truck chassis.

The stainless-steel mating flanges that have been included with these manifolds are intended to be utilized “as-needed” to satisfy your installation requirements. Their featured geometric dimensions will assist in the fabrication of a tightly quartered connection between the manifolds and your exhaust system. A single 2.5” x 2.5” radius U-bend (not included) can usually provide sufficient bend material to route the exhaust around any close-proximity components such as lower control arm frame perches. Once clear of these obstructions, transition to a larger tube diameter (if desired) can easily be accomplished by expanding the 2.5” tubing with a pipe expander, or welding on a tapered transition.

#### **INSTALLATION PROCEDURE**

1. Disconnect the negative battery cable.
2. Remove spark plug wires.
3. Remove spark plugs, if it appears necessary to be able to remove existing manifolds/headers from vehicle.
4. Remove engine oil dipstick tube from the driver’s side of engine.
5. Disconnect any exhaust components connected to outlet of existing manifolds/headers.
6. Remove the existing manifolds/headers from the engine.
7. If an entirely new exhaust system will be constructed to attach to your Hooker™ manifolds, remove all existing exhaust components.
8. If adapting your Hooker™ manifolds to connect to an existing exhaust system, choose a convenient interface connection point and cut and/or remove all exhaust componentry forward of that point and dress all joints for proper welding execution, as needed.
9. The knock sensor on the passenger’s side will need to be clocked for extra clearance. Unplug the sensor by pulling the gray clip back and pressing in the center. Use a 13mm wrench to loosen the knock sensor and turn as shown below. Once complete, be sure that the wire is away from the manifold. Heat sleeve or tape is recommended at a minimum or use Hooker BHS519 heat shield for best results.



**OE Position**



**New Clocked Position**

10. Install the Hooker™ cast iron manifolds to the engine. Stock GM gaskets and bolts are recommended for this purpose and are listed by part number at the end of this document for reference.
11. Install the oil level tube and dipstick. Slight bending may be needed for proper clearance. The best fitting tube and dipstick part numbers are listed at the end of this document.
12. You are now ready to install your exhaust using the supplied collectors, collector bolts, and gaskets. There are many Hooker swap exhaust systems that will bolt on with these swap manifolds. Check [www.holley.com](http://www.holley.com) for all available systems.
13. Reinstall the spark plug wires/spark plugs.
14. Reconnect the negative battery cable to the battery.
15. Start the vehicle and check for leaks. If installed manifolds are ceramic coated, perform coating set thermal cycling procedure.

**WARNING!** Breaking in an engine with ceramic-coated versions of these manifolds will most likely result in damage to the coating and VOID all warranties providing coverage to it. HOOKER™ recommends using bare cast-iron manifolds or an old set of headers to break-in engines to avoid coating damage.

Ceramic-coated manifolds require several heat cycles to fully cure before they will withstand extreme heat, so care should be taken to provide a series of 4 to 5 intermittent heat cycles to “set” the coating prior to putting the vehicle into service. An incremental increase in run duration and throttle angle should be added to each successive cycle. Initial and final run durations between approximately 1 and 7 minutes will be sufficient to set the coating.

**Part Number Reference List:**

Exhaust manifold to cylinder head gasket – **GM 12657093** (2 required)  
Exhaust manifold to cylinder head bolts – **GM 11518860** (10 required)  
Oil level tube – **Chevrolet Performance 12678823**  
Oil level dipstick – **Chevrolet Performance 12661062**  
Manifold collector gasket – **Mr. Gasket 4888G**  
Starter heat shield – **Hooker Blackheart BHS519**

**Hooker Technical Support**  
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Date: 6-5-23