



Hooker 1979-93 Ford Mustang LS Swap Technical/Compatibility Information

Overview

The Hooker LS swap system of components for 1979-93 Mustangs has been comprehensively designed to provide the user with the highest level of build flexibility and component compatibility available for this application. The concurrently-developed engine mounting brackets, headers, transmission crossmembers and exhaust systems that exist within this system will reduce the time, research, effort and frustration required to complete this swap, while increasing the quality of the end result.

The engine mounting arrangement of this system replicates the stock nominal engine crankshaft height, inclination angle and passenger-side offset of the Ford 5.0L SB engine and is designed to allow the user to perform this swap utilizing the 1985-93 stock (4 or 8 cylinder), Maximum Motorsports **MMKM-1**, AJE **MU-40-UM**, or Team Z **LS/X Swap** K-members.

The Hooker **71221013HKR** engine mounting brackets were designed for use with the stock, or Maximum Motorsports K-members, and GM 4th-gen F-body motor mounts (Anchor Industries 3064 or stock clamshells with Prothane polyurethane inserts specifically). Stock-height or ½"-drop Hooker engine brackets are available for users of the AJE (**71221022HKR**-stock height, **71221023HKR**- ½" drop) or Team Z (**71221020HKR**-stock height, **71221021HKR**- ½" drop) K-members on 1979-93 cars.

Hooker engine brackets for aftermarket K-members are for current production K-members only. The UPR 5.0L based K-member was also evaluated as part of this project and was found to possess design geometry that was incompatible with the Hooker LS swap system components.

The Hooker **71222015HKR** and **71222016HKR** Fox Body transmission crossmembers have been developed, along with a few adapters, to provide for the installation of multiple transmissions in 1979-93 Fox Body Mustangs. These crossmembers are specifically designed for use with the engine positioning provided by Hooker Fox Body LS swap engine brackets. Powerglide, TH350 and TKO applications use the **71222015HKR** crossmember and TH400, 2004R, T56 (4th-gen F-body) T56, T56 Magnum, 4L60-4L70 and 4L80-4L85 transmissions use the **71221016HKR** crossmember. In addition, the following adapters will be required for the following transmissions:

12650HKR- 2004R and TH400

71223003HKR- 4L60-4L70

71223013HKR- 4L80/4L85

The Hooker **71222015HKR** transmission crossmember does not fit the narrow factory crossmember receiver brackets on 1979-81 Fox Body Mustangs.



The scope of co-developed Hooker components within this swap system also includes 2.5" and 3" full-length stainless steel exhaust systems with maximized rear tire clearance, 3" muffler/turn-down stainless steel exhaust systems with bullet mufflers and bolt-on hot side turbo system components (cast iron turbo manifolds, transmission-specific rear crossover pipes, turbine inlet pipe assembly and engine mounted turbo support bracket).

More specific details related to each component of this system, such as oil pan compatibility, can be found elsewhere in this document, and/or in the product listings for each on holley.com

Important Design/Use Notes:

- 1.) The Hooker crossmembers are designed to use a Prothane 7-1604 transmission mount, or one of equal installed height (1-3/4").
- 2.) Use of the Hooker engine brackets and transmission crossmembers will provide the user with the following benefits:
 - A nominal clearance between the passenger side cylinder head and firewall of 1.25"
 - Optimized U-joint working angles for stock height or lowered suspensions
 - Optimized header/exhaust ground clearance
 - Compatibility with the stock steering shaft and rag joint coupler with stock or Maximum Motorsports K-members
 - Installation of a Powerglide, TH350, TH400, 2004R, 4L60-4L70, 4L80/4L85, T56 (4th-gen F-body), T56 Magnum or TKO transmission
 - Clearance to permit a Vortec truck engine accessory drive alternator to fit under the stock hood (requires the use of ½" K-member shims or Hooker ½"-drop engine brackets, depending on K-member used)
- 3.) The Hooker exhaust systems for this application were designed for compatibility with the stock rear suspension system (operated at stock or lowered ride heights), aftermarket rear upper control arms, wide rear wheel tire assemblies and large diameter driveshafts. Bolt-on compatibility of these systems with altered-configuration rear suspensions (Watts link, torque arm etc.) has not been validated, and should not be expected.

Validated Parts Compatibility

K-members

The Hooker Fox Body LS swap system is designed specifically for use with the OE, Maximum Motorsports, AJE and Team Z K-members mentioned in the overview section of this document. Compatibility with other aftermarket K-members is unknown and unexpected.



Oil Pans

Installation of the Hooker system of components on the 1985-93 OE or Maximum Motorsports MMKM-1 K-members requires the use of a Holley 302-3 oil pan.

Use of an AJE or Team Z Motorsports K-member greatly increases the number of oil pans that can be used with the Hooker engine brackets, transmission crossmembers, headers and exhaust systems. Holley Engineering has confirmed that the Holley 302-1, 302-2, 302-3 and Weiland 5026WND, 5027WND, 5028WND and 5029WND oil pans are all compatible in this application, when the engine is installed using Hooker engine brackets for these aftermarket K-members.

Use of the Holley 302-1 pan with the Hooker ½"-drop engine brackets for the mentioned aftermarket K-members will be limited to manual steering rack applications.

Intake manifolds

Compatible with stock hood- Holley Sniper EFI street and race series fabricated manifolds, Holley single-plane cast aluminum manifolds, OE truck manifold (with trimming of top) of top, all OE car intakes

Non-compatible- Holley Hi-ram and mid-rise cast aluminum manifolds

Accessory Drive Systems

Holley Corvette-Style System- compatible with battery relocation to trunk (use Holley low-mount or hi-mount compressor bracket); installation at Corvette offset will require modification/relocation of electrical power distribution box. Clears stock hood with OE, Maximum Motorsports, Team Z and AJE K-members and specific Hooker engine brackets/mounts listed at holley.com

Holley F-Body-Style System-compatible; use of the Holley low-mount SD7B10 compressor/bracket *may* require front anti-sway bar to be spaced down with SN95 Mustang sway bar brackets (or use Holley hi-mount SD7B10 compressor bracket). Clears stock hood with OE, Maximum Motorsports, Team Z and AJE K-members and specific Hooker engine brackets/mounts listed at holley.com

Corvette- compatible, **excluding** A/C compressor (use Holley low mount or high-mount A/C bracket/compressor); requires battery relocation to trunk and modification/relocation of electrical power distribution box, clears stock hood with OE, Maximum Motorsports, Team Z and AJE K-members and specific Hooker engine brackets/mounts listed at holley.com

F-body- compatible, **excluding** A/C compressor (use Holley low-mount or high-mount A/C bracket/compressor); clears stock hood with OE, Maximum Motorsports, Team Z and AJE K-members and specific Hooker engine brackets/mounts listed at holley.com

GTO- compatible, **excluding** A/C compressor (use Holley low-mount or high-mount A/C bracket/compressor); clears stock hood with OE, Maximum Motorsports, Team Z and AJE



K-members and specific Hooker engine brackets/mounts listed at holley.com

Vortec Truck- compatible, **excluding** A/C compressor (use Holley low-mount or high-mount A/C bracket/compressor). Alternator clearance under stock hood with OE or Maximum Motorsports K-members will require use of 1/2" K-member shims; Alternator clearance under stock hood with Team Z or AJE K-members will require use of Hooker ½"-drop engine brackets specific to each K-member. Use of K-member shims, or dropped engine brackets will require spacing the anti-sway bar brackets down with SN95 brackets, or deleting the bar from the car.

Other Components

Hooker headers for this application are compatible with the stock steering shaft and rag joint coupler, as well as aftermarket shafts.

The Hooker headers may not be compatible with the stock clutch cable and specific manual transmission used in your swap. In such instances, you will have to convert your clutch to a hydraulic set-up.