

1955-57 BIG BLOCK SIDE MOUNT ENGINE AND TRANSMISSION INSTALLATION



Randy Irwin - Technical Writer

Randy has been involved in the Chevy parts business for over 25 years. He is a wizard at creating, making and modifying custom parts for Chevys. Randy also heads up Eckler's Classic Chevy International Product Development and Technical Services department.

In early 1991 Classic Chevy International was the first to introduce a completely bolt-in installation kit for a big block Chevy engine. This installation kit took everything into consideration. The engine was moved forward 2-1/4" so that the firewall did not have to be modified. A custom oil pan was built by Moroso exclusively for Classic Chevy to clear the drag link as well as the rack and pinion unit. Headers were built by Hedman to work with any steering system. All you needed was a big block Chevy and you were on the way to having big block power in your Tri-Five!

Back then, a 454ci engine was about the biggest big block you ever heard about. Now the sky is the limit. You can start with a 502ci, 502 horsepower engine from GM and go way up from there. Today a 454ci engine seems small and with bigger engines you need larger exhaust. The original big block engine kit utilized 1-3/4" tube headers. Now a new 2" tube header has been designed by Classic Chevy to work in your Tri-Five. The new 2" tube header P/N 24-56 and 24-56C will also work with our new side engine mount kit for big blocks P/N 18-271. The new side engine mount kit will work with any automatic or standard transmission and will still move the engine forward 2-1/4" to clear the firewall just as our front mount kits do. If you use the new side mount kit, the factory rear engine mounting frame brackets (frame horns) must be removed. This allows the new headers to be tucked higher in the frame giving greatly improved ground clearance. This is especially important on lowered cars.

With the engine moved forward to clear the firewall the #5 exhaust port on the driver's side lines up directly with the steering box. With the larger 2" header tubes a steering box (original, 605 or 670) cannot be used. Only our rack and pinion steering system will work.

With the new side mounts and 2" tube headers, the stock frame horns must be removed and a CCI rack and pinion steering system must be used. In photos 1-3, we will summarize how the earlier design front mount kit and headers fit. Photos 4-16 outline our brand new side mount kit and 2" headers.

Tools Needed:

Electric Drill & 3/8" Drill Bit
3/8" Wrench
9/16" Wrench
Ratchet With Assorted Sockets

Time Frame:

5 Hours



Parts Needed:

- 18-271 Big Block Engine Side Mount Kit
- 24-56 Big Block 2" Tube Headers
- 24-56C Big Block 2" Tube Coated Headers
- 19-153 Tubular Transmission Crossmember Kit

To order parts call 1-800-456-1957 or visit ClassicChevy.com



Photo #1a, 1b, 1c & 1d: The Classic Chevy big block engine front mounting kit moves the engine forward 2-1/4" to clear the firewall and utilizes the factory 6-cylinder engine mounting holes in the forward frame crossmember, the stock rear frame horns that are welded to the inside of the frame rails and a transmission crossmember to support the rear of the transmission. This kit really holds the engine and transmission in place well and simply requires that four holes are drilled for the rear crossmember brackets.

Assembly Diagram

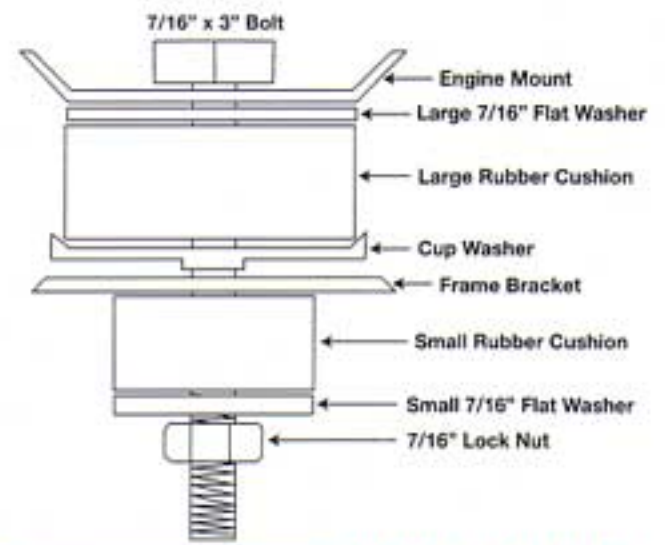


Photo #2: The 1-3/4" headers that are designed for the front mount kit exit just under the rear engine mounting brackets. The 3" header collector hangs about 1-1/2" below the bottom of the frame.

Photo #3: The P/N 24-52 headers used with the front mount kit are tucked right up tight to the engine block to clear any type steering box or the rack & pinion coupler shaft. With the engine moved forward 2-1/4" the #5 exhaust port lines up directly with the steering box so the largest header tube that can be used here is a 1-3/4".



Photo #5a & 5b & Diagram: The side mounts bolt to the frame brackets with a 7/16" X 3" grade 5 bolt with washers, rubber grommets and a locking nut. Support the engine with an engine hoist or a jack under the oil pan and bolt the frame brackets to the side mount brackets.



Photo #4a, 4b & 4c: The frame brackets for the new big block side engine mounting kit P/N 18-271 mount to the factory front engine crossmember just like the front mounting kit does. There are three bosses on the side of all big blocks where the side engine mounts attach with three 3/8" X 3/4" bolts and lock washers that are supplied with the mount kit.



Photo #6a & 6b: With the frame brackets bolted to the engine brackets, the lower legs of the frame brackets will be on the back side of the front engine crossmember. The top of the frame brackets will be to the outside of the factory front engine mounting holes.



Photo #7a, 7b & 7c: Mark the engine crossmember where the eight 3/8" holes will need to be drilled. Now raise the engine up out of the way and drill the eight mounting holes.

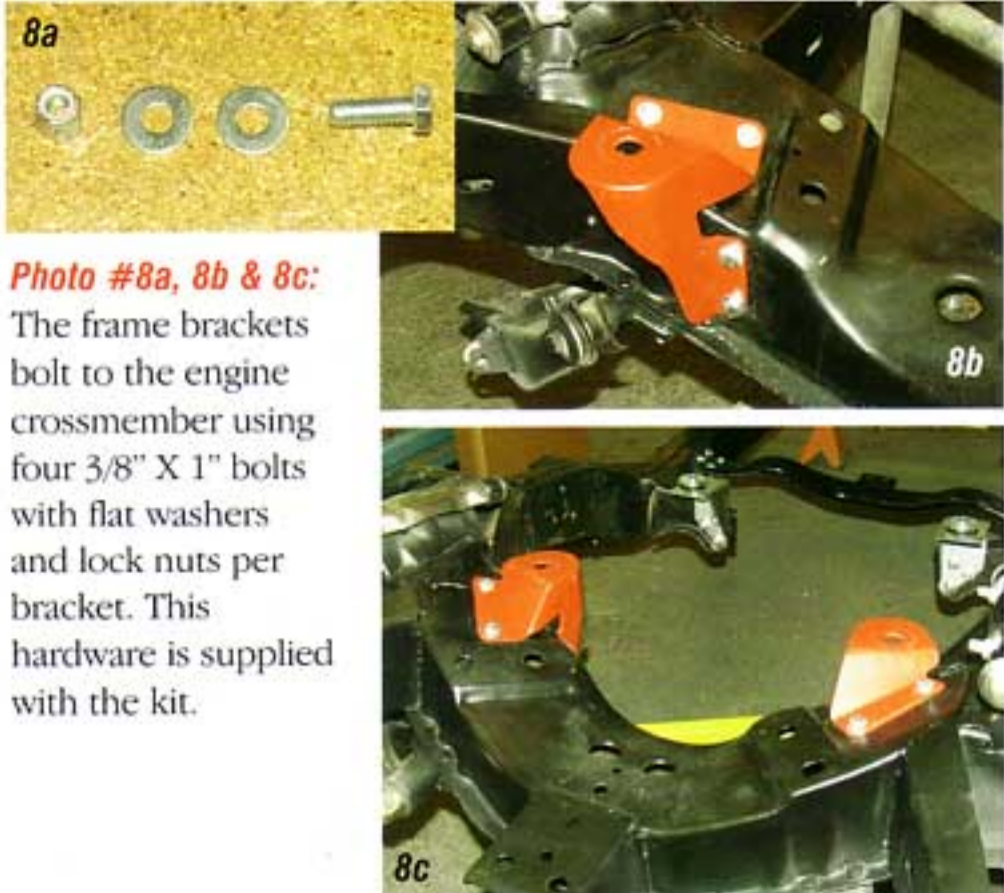


Photo #8a, 8b & 8c: The frame brackets bolt to the engine crossmember using four 3/8" X 1" bolts with flat washers and lock nuts per bracket. This hardware is supplied with the kit.



Photo #12: When installing the transmission crossmember, position it so that the center output shaft of the transmission measures 6-1/2" up from the bottom of the frame.



Photo #9: With the frame brackets bolted to the front engine crossmember, lower the engine back down. Using the bolts, grommets, washers and lock nuts, bolt the engine into place.



Photo #13a & 13b: With the engine now side mounted and the transmission installed, the factory frame horns can be removed. These can be cut from the frame with a torch or cut-off wheel.

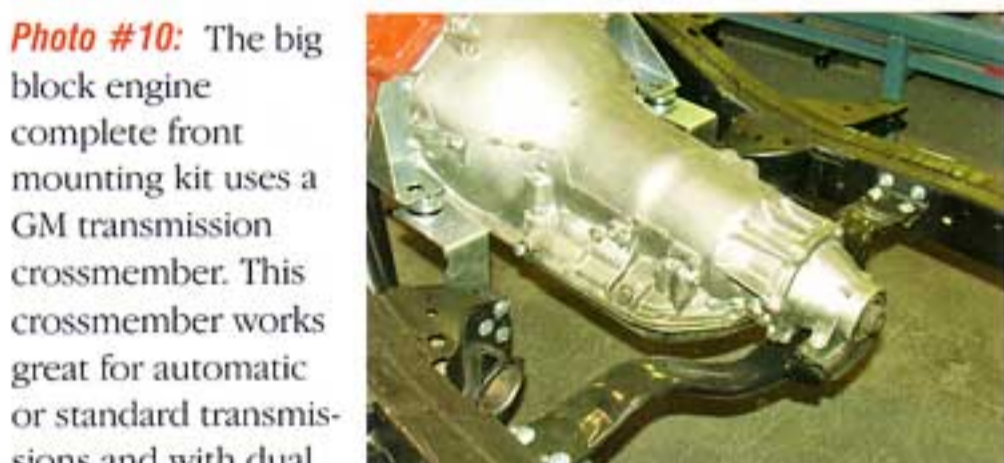


Photo #10: The big block engine complete front mounting kit uses a GM transmission crossmember. This crossmember works great for automatic or standard transmissions and with dual or single exhaust. In January 2001 we introduced a new tubular transmission crossmember P/N 19-153 to replace the stock GM type crossmember.



Photo #11: The tubular crossmember kit P/N 19-153 can be used with automatic or standard transmissions and bolts to the frame using two elbow brackets. The elbow brackets are slotted for any variation in the frames. The tubular crossmember has a more custom look and takes up less space than the GM crossmember.

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Photo #14a & 14b: Now for the icing on the cake: big tube 2" headers for a big block engine! A new 2" big tube header set P/N 24-56 and 24-56C has been developed for higher performance engines that require larger tube headers. These headers have an extra thick 5/16" flange at the cylinder head for leak-proof sealing and a huge 3" collector and 2" primary tubes. These headers will flow more than enough for any big block in a Tri-Five car. They will also work with any of our Turbo or Flowmaster exhaust systems.



Photo #15: The 2" tube headers are designed to be used with rack and pinion steering only due to lack of clearance around the large primary tubes. The tubes are pulled up close to the engine block to properly clear the steering shaft for the rack and pinion.



Photo #16: The P/N 24-56 and 24-56C headers are designed to tuck up inside the frame for plenty of ground clearance, which is great for lowered cars. These headers will work with automatic or standard shift transmissions.

With the new big tube headers and side mounts, you will have plenty of room on the front of the engine for any type of pulley set-up giving you plenty of exhaust flow and extra ground clearance.
Good Luck!