

MOUNTING SUCCESS

Setting up a Motor and Trans in an IFS-Equipped '47-'53 Chevy

by Rob Fortier

Seems like forever ago that folks were fashioning motor mounts out of scrap steel—and that was the norm because, unlike today, folks didn't have the so-called luxury of pre-made components at the ready. Problem is, some people are still resorting to the scrap metal option, oftentimes missing the "mark" with placement, let alone structural integrity. For those folks alone, we'd like to present the proper way in which to mount an engine in a Mustang II-equipped classic Chevy pickup.

It's quite simple, really, just keeping in mind the importance of angles, interference of other components (harmonic balancer/water pump pulleys with crossmember, valve covers/distributor with firewall, stuff like that), and, of course, the quality of the installation itself (good penetrating welds, and so on).

Classic Performance

Products (CPP) helps greatly when it comes to the simplicity factor with their weld-in, side-mount pedestals for small-block Chevys (which, with their FitRite adjustable engine plates, will accommodate LS swaps as well); no more cobbled together scrap. While we were over at CPP covering the various transformations being done on a '49 3100

they were R&D'ing, we were able to document the process of properly installing engine mounts, as well as their bolt-in/adjustable transmission crossmember.

Unlike the placement of the suspension crossmember, there is no "exact" set of measurements in which to follow when installing an engine and trans—basically, you want everything to

fit nicely between the boundaries, those being the

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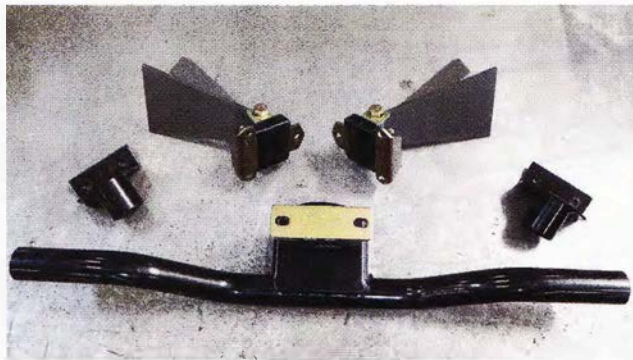
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radiator and firewall for the most part. Typically, you can do so without having to butcher up the firewall, however, when running a mechanical fan (rather than a slimmer, radiator-mount electric for instance), you'll need more engine setback, in which case you may need to relieve some sheetmetal to accommodate the distributor. In our case, no portions of firewall were harmed or altered at any point during the procedure.

With that said, let's get started.

01 We'll be installing CPP's weld-in-style engine pedestals (PN CP4810-S, top, pictured with a set of poly mounts) and bolt-in transmission crossmember (CP9424, bottom, also pictured with a poly mount).



02-03 With the Mustang II crossmember—and corresponding IFS components—already in place, we first had to remove the remaining stock transmission crossmember. This was done by ridding the framerail-attaching rivets and then slicing the crossmember in half with a plasma.



04 Next, we dropped a plastic small-block Chevy engine—with semi-tall valve covers bolted on for clearance reference—between the framerails for subsequent pedestal placement. Notice, too, that the core support and radiator are also in place, as we need to ensure adequate fan clearance.



05 A Turbo 350 was bolted behind the dummy block, with CPP's tubular crossmember attached—also for placement reference sake.



06-07 Whilst setting the engine/trans up, a bit of interference was encountered between the bellhousing and forward-most portion of the stock inspection/access cover flange—that area was quickly relieved with a cutoff wheel (the cover can still be bolted on with no visible signs of modification).

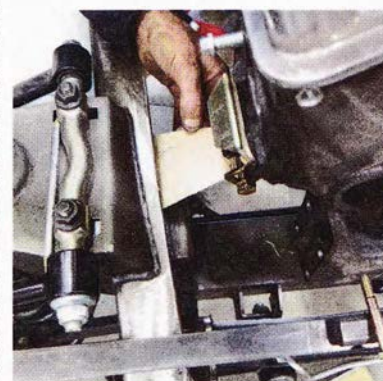
08 To stabilize and subsequently maneuver the engine/trans into place, we laid a piece of 1-inch square tubing across the 'rails, perching the block atop via two bolts installed in the lowermost accessory holes—this will allow front-to-rear movement using the floor jack beneath the transmission, and side-to-side off the piece of tubing.



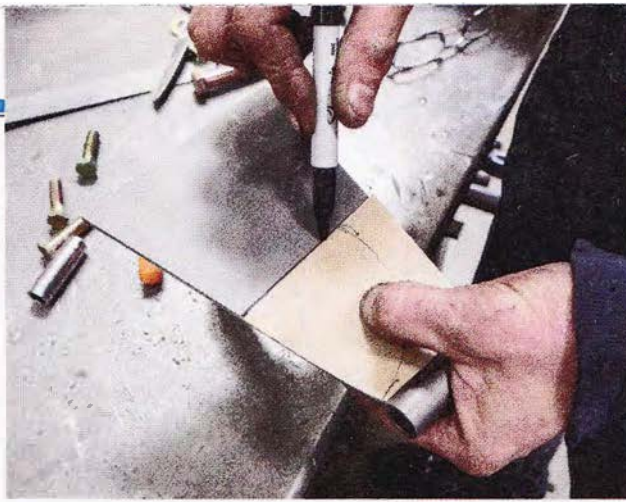
09 Once an 8-inch harmonic balancer was test-fit, however, we had to add a couple 1-inch spacers to bring the engine up and provide adequate clearance for the power rack-and-pinion unit. Elevated sufficiently, the engine was then centered, as evidenced by the marks on the tubing.



10 OK, now onto the actual pedestal adaptation. We started by making cardboard templates of the top portions ...



11... and with the actual motor mounts bolted to the engine block, trimmed the templates to fit.



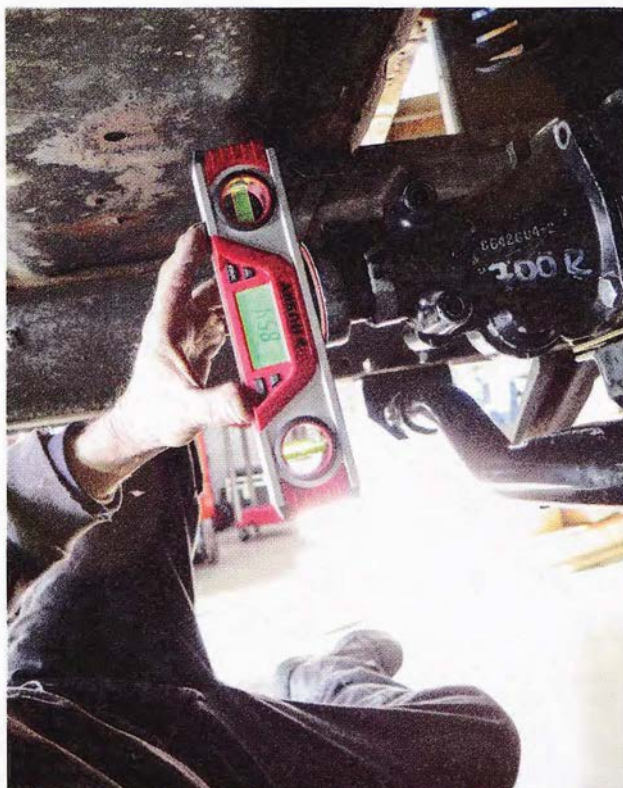
12-13 The modified templates were transferred back onto the pedestals, which were then trimmed to size using a cutoff wheel (the lower gusset portions also trimmed back).



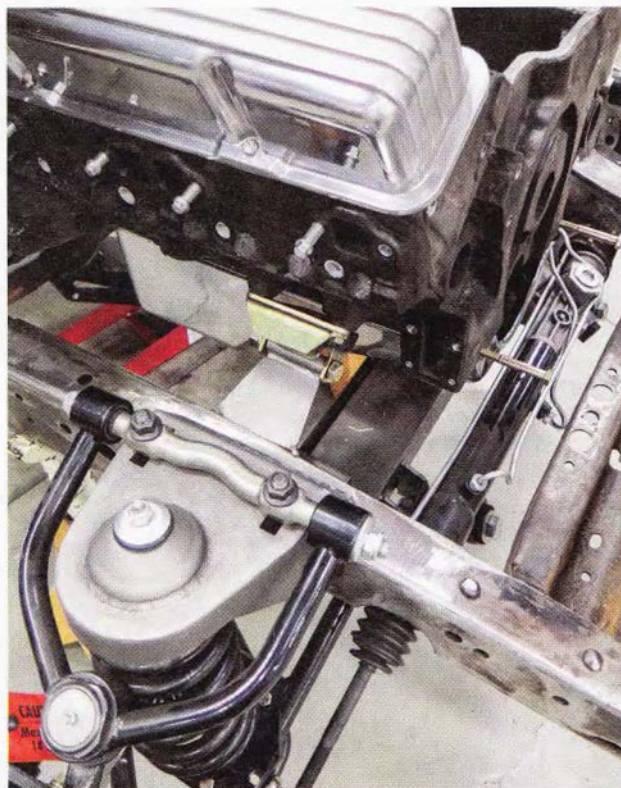
14 We cut the upper side so it would sit nearly flush with the top of the framerail; the gussets will join with the surface of the M11 crossmember



15 With the engine still supported atop the frame and the pedestals mocked onto the mounts, the transmission crossmember was installed. It can be bolted on, as shown, or welded together and onto the lower lip of the framerails.



16 The angle of the transmission tailshaft was checked and set while the engine pedestals were still able to be adjusted.



17 Then, the pedestals were finally tack-welded to the frame and crossmember.



18 The mockup engine and trans, as well as the radiator and core support, were removed so that the pedestals could be properly and fully welded up.



19 Done deal—onto the next portion of the project.