

The Volt Vette Project

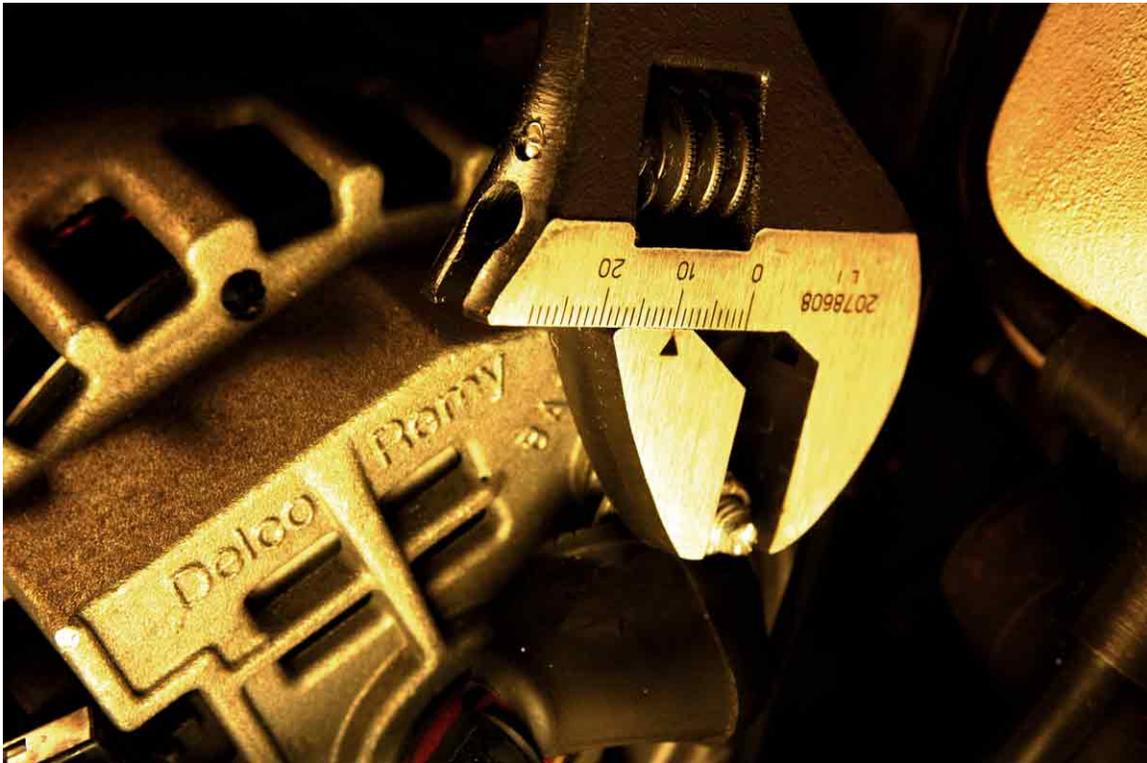
Chapter 5

Engine Removal 101 or 2

I dive under the hood and start pulling parts. But not for long. Some bolts were metric, but others were English and there was no pattern, no logic to any of it.

I had to run out and buy a lot of metric wrenches to go with my English hand tools.

Going back and forth made the work go slowly. A measuring wrench helped somewhat.



I thought the engine removal process would be rather simple and not too difficult, but I was wrong. I needed a lot of help.

Work nights and work days were set up for the project. At these times members of the Electric Auto Association would come by and help me take the engine apart.

I tried to photograph every sequence and label every part.

Chris and I started by pulling out the distributor, wiper motor and the air filter compartment.



This was followed by the alternator and the air conditioning compressor.

Next came the heavy clamshell hood. I was hoping we wouldn't have to remove the hood, but we couldn't get at the radiator with it in place. I scribed each mounting bolt, and then 3 of us grabbed the hood while Chris unscrewed the bolts.

Steve found 3 radiators under the hood, one to cool the engine, another to cool the oil, and one to cool the driver. To my surprise, the total weight of the radiators was only 15 pounds!

We crawled under the Vette and removed the starter motor.

I sprayed penetrating oil on the rusted exhaust pipe bolts 3 days running before I could loosen the bolts.



We were able to remove the complete exhaust system as a single unit. I was unhappy to see that someone had removed the 3 catalytic converters and then welded the pipes back together. So we were removing a very polluting car from the road.



Chris and Jim tackled the driveshaft.

The Corvette engineers had gone to great effort to keep the car as light as possible. The driveshaft is perhaps the finest example of this. Even with the front U-joint it weighted only 10lb. This could be a real problem, later. I will need a longer drive shaft to connect to the electric motor, if it is high tech like the old shaft, it might break my budget.

Now for the dicey part, trying to lift something like 800 pounds of engine and transmission, as a single 5 foot long unit, up and out of the Corvette. On my own, I took two 6 inch long eyebolts and screwed them into the top of the engine. Next, I put a load leveler on the engine hoist and tried to connect it to the eyebolts



Problems arise!

Even with the hoist arm extended as far as it would go, the load leveler could not drop straight down to the eyebolts. The nose of the Vette was too long to permit this. If I tried pulling the engine at an angle, the engine might smash into the frame cross-member in front of it.

Brad did not think the eyebolts were strong enough, in any case. He had the best background in removing engines, so I let him take charge. I grabbed two of my cameras and took photos of this important event.



Brad got rid of the load leveler and had me remove my eyebolts. With the help of Jim and Phil, Brad placed the hoist to one side of the car and wrapped chains around the engine. The hoist was connected to the chains; and the last engine mount bolt was removed.



Brad had picked exactly the right pick-up point and I was amazed at how smoothly the engine came out.