



## Middle-Aged Mopar on a Budget part 1

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Brand loyalty is a mainstay of car enthusiasm but Chevy powered Fords are more than common. There are always the vocal critics who express disgust at mixed make combinations.

This project had two goals, #1 Keep it all one make in this case Plymouth and #2 keep it cost effective.

The time had come to renovate my '51 Plymouth Suburban 2-door wagon. As a long time member of the family our dogs always loved to ride in it. Middle-aged Mopars have the same problem middle-aged people have, a lack of get up and go. While the trusty 6 cylinder flathead was a dependable motivator it was not too long on horsepower. Back in the day an option would have been to warm it up with a pair of carbs, dual exhaust and a high compression aluminum head. That setup along with an overdrive transmission yielded good performance. The drawback to the hop-up scenario can be the cost for vintage or new speed parts along with paying restorer prices for the other parts.

With that in mind we decided to swap to more modern running gear, a V-8 with an automatic, maybe not as attractive on the nostalgia scale but yields equal or better performance with better parts availability in case of an unexpected event in a remote location. Pre-'55 Mopars possess a strong boxed perimeter frame with independent front suspension that is similar from '41 on and the only difficulty in engine swapping is the steering column location. According to old magazine articles and some internet sleuthing a small block Mopar V-8 would fit the bill. When the V-8 was installed in Valiants and Darts the factory utilized a unique exhaust manifold which wrapped around the



The Mr. Street Rod frame mounts utilise the stock motor mounts and transmission crossmember dropout section.



In order to get enough oil pan and fan clearance a corner of the firewall was moved back 1 1/2 inches.

steering column for clearance as well as offsetting the power train 2" to the passenger side to fit the slant 6 platform.

Our plan was to keep this on a tight budget by using a suitable donor car for much of the components. A diligent search resulted in a '71 Duster with most of the proper equipment. Part of the difficulty is that many suitable donor cars are now prized as collectibles. In this case our donor was a victim of the tin worm and beyond restoration. No doubt the purchase of a new crate motor and trans is a lot less work than disassembly of a donor car, it is a bunch more expensive.

A call was made to Mr. Street Rod to obtain their mounts for the conversion. Although they were intended for pre-'48 Mopars we figured they would work as they are designed to trim to fit each application. Manny, at Mr. Street Rod, said he had little feedback about the use of the mounts on '49 to '54 models although he knew they were similar. We started to realize we were setting our course for some uncharted waters.

A trial fit of the 318 and 904 Torqueflite showed us that we had a tight fit to allow space for the intended air conditioning condenser. After a lot of maneuvering it was decided to massage the firewall to allow more room for the passenger side valve cover and transmission dip stick. A semicircle about 1.5" deep was created with hammer and dolly. A set of patterns were made to define how much to trim the Mr. Street Rod front mounts which are used in conjunction with the stock 318 rubber insulators. Conversion to a rear sump oil pan from a Dodge truck enabled steering linkage clearance. In addition a Mopar right angle adaptor gives us more room for the oil filter. Our positioning resulted in the powertrain, including the rear end, with a 1.25" offset toward the passenger side. This did turn out as the "just miss" swap as many areas are a tight fit but once installed it looks like it grew there.

The Mr. Street Rod transmission mounts utilize the stock Torqueflite dropout in the center. Unfortunately in this area the '51 frame is wider than the '48 and earlier ones. To resolve the 1/2" shortfall we made sleeves from .125" wall square tube. Mr. Street Rod will taylor these to your application. On the plus side the stock '51 speedometer cable fit perfectly.

Most of the Duster components were adapted including the cooling and electrical systems. The '71 radiator required the mounting flange to be narrowed on one side and new mounting holes to adapt to the '51 bulkhead. A stock '71 upper hose and shortened lower hose completed the connections. New rigid lines fashioned from 60" long 5/16" steel line hook up the transmission to the integral cooler in the radiator. Space for the air conditioning condenser was



The 318 and Torqueflite is a lighter package than the 6 cylinder and 3 speed it replaced.



Mounted a little higher than the 6 cyl and 1 1/4" to the left the 318 is a good fit.



The Duster exhaust manifold tucks behind the stock steering

achieved by narrowing the hood latch brace.

The Duster charging system was utilized and the 12 volt battery fits in the original '51 location. Our original instruments were adapted to the 12 volt negative system. By reversing the leads on the amp gauge the 50 amp unit will read correctly. The gas gauge is retained by using a voltage reduction circuit, in this case one I built using a zener diode and resistor, to adapt it. Oil pressure is monitored with the stock mechanical gauge, an 80 lb. unit, adapted with fittings to the 3/16" tube. The Duster temp gauge was adapted with to the original '51 face to switch from the original Bourden tube version. Other upgrades to the electrical system included a 50 amp main circuit breaker in addition to the original 30 amp breaker on the light circuit and a relay/neutral safety switch. A nice Torqueflite feature is the integral neutral safety switch.

Throttle and shift linkages were fabbed up using a combination of parts from both vehicles. The result is a stock appearing throttle pedal and column shift.

Our donor car was a '71 so some of the components such as the brakes and rear end were not the most desirable because they had the small (4") bolt pattern and the rear axle was a 7.25". If it had been a newer model we could have used everything. A trip to the local pull-it yourself yard netted a '76 Volare 8.25" rear end with the proper 5 on 4.5" bolt pattern and the same width (60") as the '51 rear end. With some aftermarket spring mounts the 2.70 geared rear was cinched down with the stock u bolts. Shock mounts similar in design to the original '51 were fabricated from 1/4" steel and welded to the spring mounts. The donor car driveline was shortened a few inches to fit. The '51 brake line fit the later rear using the original '51 3-way fitting.

Other metal modification involved the inner fenderwells for clearance around the fatter V-8. The lower horizontal "shelf" portions were cut and narrowed in the front of the engine compartment along side of the widest part of the 318 and reattached with screws to allow easy removal for maintenance.

Our only labor buyout aside from the driveline was the exhaust system. Total expenses for the swap including purchase of the Duster was under \$2000. The result is an engine swap utilizing OEM components easily replaced at most auto parts stores. It drives great, steers and handles well, doesn't run hot. Not much bling-bling, just paint detail for now, but a good foundation for upgrades as time and finances allow.

To the older rodders this may seem like old school. But the point is, that with good shopping and some hard work, rodding can be affordable.



Although there is adequate clearance on the passenger side the engine must be positioned correctly.



To allow for the wider V-8 the inner fenders were modified.



The '51 with a heart of a '71