

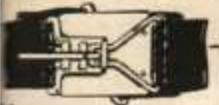
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THE DODGE DART

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Continuing with the engines for the Dart, the optional D-500 engine, available in Phoenix models only, is a 361-cubic inch V8 identical to the Golden Commando Plymouth engines for 1959 but fitted with an exotic looking and able performing intake manifolding which Dodge calls Ram Induction. Best illustrated by a photo such as the color reproduction on the cover of this issue, two cast aluminum intake manifolds are used, one to each cylinder bank. The two manifolds intertwine as they cross over the opposite rocker arm cover to a Carter four-barrel carburetor on each side of the engine. The two carburetors are about four feet apart with centrally controlled throttle linkage which opens the barrels simultaneously. Each carburetor operates on the two primary barrels until maximum throttle opens the secondary barrels.

The passages inside the manifolds are one and seven-eighths by one and one-eighth inches in cross section and approximately 30 inches long from the carburetor venturi to the intake valve. This "tuned" intake system is based upon the speed of sound, the speed at which air travels when filling a partial vacuum such as that created in the cylinder of an engine when the intake valve opens. The column of air rushes into the cylinder but when the intake valve closes, the air does not stop instantly, instead it packs into the 30-inch intake tubes to such a degree that it actually reaches higher than atmospheric density. When "tuned" for a particular engine rpm, this "packing" can actually be used to supercharge the cylinders slightly. Chrysler's engineers "tuned" their intake system for maximum torque at 2800 rpm so that the reserve power at passing speeds was greatly increased. Torque is far greater than the same engine equipped with a conventional dual quad intake manifold atop the engine. Actual comparison tests prove the Ram Induction system to give higher torque readings throughout the low and middle speed ranges with as much as 10% greater torque. The power rating is 310 at 4800 rpm with 435 ft/lbs of torque at 2800 rpm.

The standard engine for the low priced Dodge Matador is a 361-inch V8 with a single two-barrel carburetor. This engine has a 4.12-inch bore, 3.38-inch stroke, 10 to 1 compression, a power rating of 295 at 4600 and 390 ft/lbs of torque at 2400. The same engine with an eighth-inch larger bore, 383 cubic inches and a four-barrel carburetor is used in the top Dodge model, the Polara. It is rated 325 horsepower at 4600 rpm and 425 ft/lbs of torque at 2800 rpm. Both the Matador and the Polara can be purchased with the

optional D-500 Ram Induction intake system described above but whereas the Dart's optional engine has 361 cubic inches of displacement, the Dodge D-500 package is used on the 383-inch V8. Its maximum power rating is 330 horsepower at 4800 rpm with a maximum torque reading of 460 ft/lbs at 2800 rpm. Notice the maximum horsepower rating of the 383-inch engine with a single four-barrel is 5 hp less than the D-500 engine with Ram Induction and dual quads but take a look at the torque ratings. The single quad 383 is 35 ft/lbs short of the 460 ft/lbs maximum of the Inducted engine at 2800 rpm.

We drove a Dodge equipped with the Ram Induction and not much time was needed behind the wheel for us to be convinced that this was the answer to getting needed passing power in a car that is equipped with a high axle ratio for economical cruising. At 40 miles per hour, a slight tickle of the throttle was all that was needed to get a surge of power that would get you around a slower vehicle without having to resort to the kick-down position on the throttle. We haven't been informed just how much extra the Ram Induction is going to cost but if you are performance minded, better check with your dealer.

To transmit the power from the engine to the rear wheels, Dodge and Dart have three standard shift transmissions and three automatics. The three standard transmissions vary in ruggedness depending upon which engine they are to be used behind. There is one for the six, another for the Dart V8's and the Dodge Matador V8, and still another for the Polara V8. Standard transmissions cannot be purchased with D-500 Ram Inducted engines for either the Dart or the Dodge.

In the automatic transmission department, a new three-speed TorqueFlite unit was designed to fit behind the overhead valve six cylinder engine. It operates the same as and has the same planetary gear ratios as the conventional TorqueFlite automatic but is slightly smaller and lighter. The PowerFlite two-speed automatic transmission is available behind the 318-inch Dart V8's or the 361-inch Dodge Matador. V8 Dodges and Darts can also be fitted with the optional TorqueFlite automatic. Dart Phoenix or Dodge models, when equipped with the D-500 Ram Induction, come fitted with a special heavy-duty TorqueFlite that has increased oil pressure to prevent slippage and clutch wear on full-throttle shifts. Chrysler's TorqueFlite is in our opinion, one of the best automatic transmissions being offered today and we strongly recommend it over the two-speed PowerFlite.

Rear axle ratios vary according to the engine and car model. The standard shift cars have a 3.54 axle ratio while six cylindered automatics use a 3.31 ratio. Dodge and Dart V8's use a 3.31 with PowerFlite

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