

Dodge's 440-cubic-inch engine in a pony car may not be mankind's answer to world problems, but it's liable to satisfy some yearnings



By Steve Kelly ■ Citizens of this country's auto-building community love to call their latest developments and designs "new." Around model introduction, "all-new" is a term applied loosely to everything from a larger ashtray to a reshaped bumper guard. Unless an automobile has three wheels, steam power or radar guidance, no "new" car model is truly new. Several names have been added to the Detroit roster in 1970, and everyone has heard by now that they are "all-new." They're not. Each is new to the showroom floor, but they are still cars, designed for sale as transportation, which is in itself sometimes a buried fact. Among the marques making an entrance to the over-populated car market for 1970 is Dodge's Challenger, which is a smooth-looking and relatively normal-configuration pony car. Dodge Division (and/or Chrysler Corporation) accomplished the design without getting carried away, and their only error is introducing it in 1969 instead of 1966 or '67. Both the Barracuda and Challenger can make inroads on the pony-sized auto market during their first six months on the stands because of GM's decision to advance their '71 Camaro and Firebird to a mid-'70 model-year debut. Without this free-time blessing, the job of just getting possible customers to look at the MoPar cars would be difficult at best. At least now the public has a good opportunity to be advised of the fresh duo of cars in a relatively quiet advertising atmosphere. Both are good cars and fit the category well. The Challenger is slightly larger



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than the Barracuda, and the size probably won't discourage prospective Mayflower customers from getting the Dodge, because equipment is almost identical and the prices are very close to each other. The Challenger has a bit more flair in styling, if that matters.

Our test Challenger was a very, very early-model-run car, and its performance was below any standards that we could set for such a machine — not much, but enough to be disappointing. The 440-cubic-inch Magnum V8 (375 horsepower) had enough torque to fry rear tires, but because of extra-hard previous use by who-knows-how-many drivers, it was weak on the top end. Performance ranged from a low of 14.54 seconds elapsed time over Orange County International Raceway's quarter-mile, to a high of 14.76 seconds. Speeds stayed in the range of 98 mph, and if nothing else, the car was very consistent. The factory-established 9.7:1 compression ratio from a Magnum engine is rather low for such a brute engine, but a set of "Six Pack" heads would

be an easy substitute and would boost horsepower and compression to 10.5:1. In token defense of the 440's potential, this one bore the markings of unwarranted abuse, and other 440-powered MoPars we've pushed through the quarter were almost always capable of 14.0 seconds or less. If possible, we'll make a return visit to a Challenger 440 later on, making sure we get a true representative of the production-built car, in proper shape.

The engine ran well enough around town and on commuting junkets, so that it presented no problems. The exhaust emits a noticeable sound, but one that is easy on the ears of anyone who digs a bit of hot rod flavor. The engine runs very quietly. After several quarter-mile runs, we removed the cooling thermostat, and the 440 was too cold from that point on. Idling it in the staging area would just barely warm it to the point where it wouldn't stumble. One trip home with the thermostat out proved it has to be in for regular driving. A lower-rated

LEFT — "Hair" length of the driver is revealed by car's angle around curvy asphalt ribbons. Big-engine Challengers understeer too easily. BELOW — Large 440 fits underhood space with room to spare. RIGHT — Bubbled hood with phony scoops can be made functional, or a shaker scoop can be purchased. BELOW, CENTER — Instrument panel is a study in sensible design. This is the optional Rallye Cluster. Lighting is indirect. BOTTOM — Appearance is great from any angle. Fuel-fill inlet is in right rear fender panel.

thermostat would be a good compromise, but if the engine runs too cool, exhaust emissions are affected, as well as spark plug life. The air cleaner has a twin snorkel inlet to the filter element. Taking the element out lessens airflow restriction to the carb. The bottom pan should be left on to keep engine heat from warming up incoming air. With the top cover off, this means the pan must be securely anchored with small springs or wire to prevent it from flopping around while the car is moving.

A new slick-shift gate is available for automatic-transmissioned Challengers, and it allows one-at-a-time upshifts by just moving the lever forward. An automatic stop prevents the lever from moving more than one stop, and there's no need for pressing the lever to the side;

stints. High-speed driving or cornering pursuits also call for higher-than-normal pressures, like 36-38 front, 34 psi rear. The ride may be bumpy, but the tires resist rolling under.

The ride is bumpy in an R/T Challenger, no matter what tire pressures are. R/T Dodges of any variety are pretty stiff in the spring department, so if firm ride isn't one of your favorite features, restrict your investigations of Challengers to 383- (or smaller) engined models. The 440-inch cars aren't particularly valuable for quick, smooth corners. They make it okay, but the frontal weight puts the front end in heavy control. A 340 Challenger we had occasion to run through a few quick turns put the 440 to shame by comparison. Stiffer front torsion bars will help cure the big-engined cars' problems.



straight forward does it. When the driver releases tension on the lever, it releases the lockout to the next higher gear. Neutral can be reached only by pushing down on the lever-top button. Our test car's shifter worked better than its transmission, which is sad, because Torque-Flites are great when they are working right. Part of the slower-than-anticipated clockings were a result of this Torque-Flite's slowness in reaching the next higher gear. Again, some undetected previous abuse caused the hangup. Shifts have to be made manually with the stock unit, which we did at 5200-5300 rpm. In "Drive," the transmission shifts up around 4500 rpm, well below the horsepower curve and engine potential. A 3.55:1 limited-slip rear axle here didn't make quarter running any easier on the engine, but this is a good ratio for highway use and was a good pick for some cornering work we executed (attempted?). The F70-14 tires stuck to the pavement in good order, but front tire air pressure should be raised to 40-45 psi during drag

In lieu of this rather expensive undertaking, dropping the front end an inch or so (by way of torsion bar adjustment) might provide a slight remedy.

It's almost positive that Dodge will have a pair of Challengers competing in the 1970 Trans-Am series, with reduced size 318 blocks fitted. The car will make a good roundy-round runner, but the 6-7-inch inset grille isn't going to help aerodynamics. Front end overhang is 38.5 inches, with a good portion of this being "dead" space. The stylists did their thing here, at the expense of performance.

Before anyone gets the idea that the Challenger has a lot of flaws, or that we didn't like it, we'll clear up the matter. The Challenger did impress us, and while it — and ours — has some flaws, a good many of them aren't in the original design. Criticism leveled here is meant to be constructive, as well as a reminder to someone in control of cars released for test that just any car on the lot shouldn't be shunted off for use as a test

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TOP—Flush door grips, smooth windshield angle and moldings, and slippery shaped front end all contribute to low wind noise. Wheel spider caps bolt on from back. BELOW, LEFT — The back seat could be larger; if any smaller, it would no longer fit the description. RIGHT — Trunk is for bachelors who travel only by airplane.



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subject. Overall, the Challenger fits the pony car description as well as its "Brand X" buddies, and better than some of them.

Interior layout is sensible and very much in the manner of a larger car. It could measure more, but it wouldn't mean more. Instruments and radio/heater controls are grouped in a cutaway portion of the dash in front of the driver. Ashtray and fresh-air vents are in the dash center, so both front seat passengers can reach them. The high-back bucket seats are very comfortable, but the rear seat bottom cushion is a real abbreviation. Long trips there for adults aren't recommended. Top height is low, and the windshield angle is steep, which means head room is a feature only for those who don't wear a hat while they're inside a car. This car had a rim-blow steering wheel. The wheel shape, appearance and feel are excellent, but that rim-blow feature is no outright benefit. It is too easy to honk the horn, surprising drivers when it is accidentally operated. There's still nothing wrong with a center-hub button. At least it's always in the same place.

Trunk space is only worth mentioning with a car that has a collapsible spare tire, and this is a Challenger option. The test R/T had a trunk luggage rack (about \$30 extra), which is a help with or without the collapsible spare.

Challenger uses the Coronet/Charger

sub-frame assembly, and one of the reasons for going in this direction was to be able to fit all of the MoPar engines under and within the hood and engine compartment confines. So everything from a hemi (now with "all-new" hydraulic lifters) to a 225-cubic-inch six are offered. And in either R/T or "regular" configuration, an appearance-helping option, the Special Edition, can be added. If you want to make the Challenger bright enough to be seen from a helicopter through a layer of smog, there are such colors as Sub-Lime, Plum Crazy, Go-Mango, Hemi Orange and Banana (one of the bunch?). The basic Challenger has a suggested retail price of around \$2770 — and they'll probably never sell one like that. Enough options and equipment have been included on order sheets so that the car could top five grand. But who wants a "clean" car, anyway? Those ten-day sales reports indicate nobody does.

Dodge will make a showing in the performance and pony car sales yard, though possibly not to the degree of those who have gone before. The car is something of a two-hatter: an intermediate-sized personal coupe or convertible that fits into the compact field. It is interesting enough, and has enough inanimate personality, to develop a strong following. Whatever manufacturing problems are connected with delivering a truly solid Challenger, Dodge has most likely overcome them by now. Sometimes being a late starter can be an imagined handicap. At least this full-fledged attempt is contemporary in concept and design, even though it isn't "all-new." ■ ■

VEHICLE

Dodge Challenger R/T coupe

PRICE

Base \$3067.00
As tested \$4293.75

ENGINE

Type OHV V8
Cylinders 8
Bore & stroke 4.32 x 3.75 in.
Displacement 440 cu. in.
Compression ratio 9.7:1
Horsepower 375 @ 4600 rpm
Torque 480 lbs.-ft. @ 3200 rpm
Valves: Intake 2.08-in. dia.
Exhaust 1.74-in. dia.
Camshaft:
Lift 450-in., intake; 465-in., exhaust
Duration 268° intake; 284° exhaust
Overlap 46°
Tappets Hydraulic
Rocker arm ratio 1.5:1
Carburetion Single Carter 4-bbl.
AVS-4740S
Exhaust system Dual

TRANSMISSION

Type TorqueFlite automatic. Torque converter with automatically operated planetary gears. Floor-mounted (console) lever with single shift upshift movement feature
Ratios: 1st 2.45:1
2nd 1.45:1
3rd 1.00:1

DIFFERENTIAL

Type Unitized-type rear carrier housing
Ring gear diameter 9.75 in.
Final drive ratio 3.55:1

BRAKES

Type Power-assisted drum type
Dimensions 11-in.-dia. drum
Total swept area 380.1 sq. in.
Total effective area 234.1 sq. in.
Percent brake effectiveness, front 60%

SUSPENSION

Front Independent front with torsion bars each side. Spring rate at wheel: 130 lb. per in.
Rear One-piece rear axle housing with semi-elliptic, parallel leaf spring. Spring rate at wheel: 165 lb. per in.
Shocks Tubular, 1.0-inch-diameter piston
Stabilizer: Front88-in. dia
Rear none
Tires F70-14 fiberglass-belted
Wheel rim width 6.0 in.
Steering:
Type Chrysler, recirculating ball with integral power assist
Gear ratio 15.7:1
Overall ratio 24.06:1
Turning circle 39.9 ft., curb to curb
Wheel diameter 16.0 in.
Turns lock to lock 3.5

PERFORMANCE

Standing start quarter-mile (best) 14.54 sec., 98.36 mph

FUEL CONSUMPTION

Best reading 13.06 mpg
Poorest reading 10.52 mpg
Average 11.79 mpg
Recommended fuel Premium

DIMENSIONS

Wheelbase 110.0 in.
Front track 59.7 in.
Rear track 58.7 in.
Overall height 51.4 in.
Overall width 76.4 in.
Overall length 191.3 in.
Shipping weight 3580 lb.
Test weight 3850 lb.
Body/frame construction Unitized
Fuel tank capacity 18 gal.