



ROAD TEST BY JOHN ETHRIDGE

The Hemi- and Magnum-powered Coronets and R/Ts

DODGE'S DREADNOUGHTS

Ever since early in the model year, when we saw the more down-to-earth Magnum consistently whip one of its exotic King Kong Hemi brethren in a series of quarter-mile bashes, we have wondered about the phrase "...performance approaches that of the 426 Hemi..." in Dodge's descriptive literature for the Magnum engine. For this reason we decided to get one of each, identically equipped in all essential respects, and make a *mano a mano*, to borrow an expression from bullfighting, trial of the two.

The Magnum was in a R/T and the Hemi was in a Coronet 500. Both were equipped with such items as power brakes and steering, and radio. All these, plus hood padding and undercoating, made them very comfortable street machines, but several hundred pounds over their minimum shipping weights—the weight pros try to pare them down to for competition. Other than remembering to use the best grades of premium gasoline and watching the oil level on the Hemi (it used between one-half and one quart of oil for each tank of gas), there were no special precautions required for driving either car.

One factor not present when we first witnessed an encounter between these two cars was anti-smog devices. Both of our test cars were intended for sale in California, however, and had Chrysler's version called CAP. It's supposed to be good for our lungs, and the letters stand for Cleaner Air Package. But it definitely isn't good for a car's lungs, and, particularly in the case of the Magnum engine, might just as descriptively be called Cripple All Performance. (We're not picking on Chrysler's system. In every case where we've been able to make a comparison, the same is generally true for other kinds, too. Also, if we hadn't first driven a Magnum just as Dodge originally intended it to be—without CAP—we probably wouldn't have been disappointed. The performance is, in all fairness, impressive even with CAP.)

Ordinarily we wouldn't bore you with problems of one locality. But come 1968 by Federal law it's going to be the same the whole country over and everyone will get the blame—smog or no.

The CAP Hemi doesn't seem to suffer as much as the Magnum with the smog equipment when each is compared to its plain counterpart. The 440 Magnum gets smaller primary

carburetor venturis as part of the CAP which accounts for most of its loss in performance. Reducing their diameters from 1.69 to 1.44 inches results in a whopping 36% loss in area and breathing ability.

While the Hemi carbs used with the CAP have different parts numbers, they are basically the same as the plain ones and, with appropriate changes in calibration, can be made to function about as well. Changing the CAP Magnum for optimum running on the strip and back again for legal running on the street is possible but neither very convenient nor practical because both carb and intake manifold would have to be changed. The rather involved process required to make a real runner out of a CAP-equipped Magnum as opposed to the ridiculous ease (for those who know how) with which the Hemi with this package can be converted to (and from) this condition is why we later chose to go a little farther with setting up the latter.

Both cars came with the standard 7.75 x 14 Red Streak tires, and running them this way with two aboard and test equipment netted best quarter-mile times of 15.4 seconds and 94 mph for the Magnum and 14.9 seconds and 98 mph for the Hemi. Wheelspin was a big problem with the Magnum, while it was easy to get the Hemi off the line smoothly. This we attribute to the difference in torque characteristics: the Magnum comes on with a bang at the lower end while the Hemi doesn't get really cooking until after 3000 rpm. When running the cars against one another, the Magnum, even with a fair amount of wheelspin, could stay with the Hemi pretty well at first but would lose out drastically after passing the 1/8-mile marker.

Next, we put 28.9-inch diameter 9.50 x 14 Goodyear slicks mounted on 6-inch wide Ansen "TE" wheels. This width, incidentally, is the maximum that can be squeezed under the stock fenders. Smaller diameter tires would certainly have improved performance because of the 3.23 street gearing both cars had. But equipped this way, the Hemi got a best time of 14.8 seconds and 98 mph—almost no improvement over the stock tires. The Magnum, however, took a liking to the tires and turned 96 mph and 14.7 seconds—a spectacular increase in performance that allowed it to nip the Hemi on e.t.!



Hemi Coronet (above) with its benign appearance and good demeanor on street reigns as King of the Sleepers. Coronet Magnum R/T (opposite), on the other hand, emblazons performance from every aspect, gives ample warning of its true nature.

When running together, the Magnum would leap into the lead at the start, and the Hemi would start to close rapidly and catch it at the end — but just *after* the quarter mark and the end of the race. This kind of racing proved very exciting for both participants and spectators.

We next inquired around for a knowledgeable Hemi tuner and heard the name of Bill Hanyon at Scientific Automotive in Pasadena mentioned prominently. Bill was willing and ready and dug in immediately. Besides setting the valves, he checked the carburetors for proper butterfly opening and phasing between the front and rear. Fuel-air calibration also came under his scrutiny.

The distributor next received the benefit of Bill's know-how. The slotted plate that controls total centrifugal advance was next replaced with one that had the slots shortened to limit centrifugal advance. The reason for this became apparent as work progressed. The advance was also quickened by replacing the return springs with less stiff ones. After re-assembly the static timing was set to 14 degrees BTC. The object of decreasing the advance in the centrifugal mechanism and increasing static advance, is to keep the total advance to around 31-33 degrees. This adds punch in the lower and middle ranges, and is one of the key steps in making a Hemi haul.

Replacing the standard-for-street Champion N-10Y plugs with colder N-64Y plugs of the same make was the next important step in the ritual. These can be run on the street but with the risk of fouling during prolonged slow driving.

Everything was then buttoned up and checked on Scientific's chassis dyno. After a preliminary warm-up the power was cranked on which pegged the dyno at 5500 rpm. Hanyon was satisfied with 300-plus horses at the rear wheels, so we headed for Irwindale Raceway.

With two aboard plus instruments — air cleaner removed, and slicks bolted on — our best run was 14.3 seconds and 100 mph. After removing our fifth wheel and other instruments and letting the car stand awhile with the hood up, we tried some solo runs using the timing lights and managed to learn a good deal in the process. Right off the bat we ran 13.6 seconds and 103 mph. The next was 13.9 and 100, with subsequent runs becoming progressively

slower. After again letting the car stand with the hood raised, more runs were tried with the pattern repeating itself.

Hanyon had the answer for this, too. Ignition timing is very critical on a Hemi set up this way. He explained that when you have to make runs quickly in succession with no time for cool-down in between, it's best to retard the ignition a degree or two. The car will then never run quite as well when starting from cold, but performance won't fall off much on subsequent runs either.

Removal of the power brake and steering belts and loosening the alternator/fan belt would, we estimate, net us at least another 0.2 seconds off our best e.t. — pretty remarkable for a 4000-pound 5-passenger car with so much comfort and good street manners.

We're sure that playing with the Magnum would be just as much fun and just as rewarding. (Maybe someday...) Also, another thing we came to notice about both cars that added to our enjoyment and which we feel any owner would doubly appreciate: the sheer ruggedness and built-to-last impression we got from testing them. They seemed to thrive on the kind of treatment we gave them. No howls developed in the rear axles; nothing seemed about to break or fall off. In short, they seemed completely unaffected by all the hard running, and they ran better afterwards.

We've emphasized the straight-line performance of these cars because it is the most spectacular. But both come with good suspensions and brakes and hence make very good road cars, too. There are two items in the gripe department that we think cry out for correction: 1) the ridiculous location of the tachometer on the console; 2) electric window controls that tend to be activated by a tall driver's left knee when making a right turn (the same is true on Comets and Fairlanes).

If you like to play it safe and economical, the Magnum's your baby with its friendly price tag and full 5/50 warranty. On the other hand, if you're the type that likes to live a little, be the envy of every service station attendant, attract admirers of both sexes when you show up at the local drive-in, and have roughly \$600 extra to invest; go ahead and get the Hemi. The warranty is limited, but the dividends are high and paid promptly.

continued



performance . . .

ACCELERATION (2 aboard):			
	Hemi		Magnum
0-30	2.9 ^a	2.6 ^b	3.0 ^a 2.5 ^b
0-45	4.7	4.4	4.9 4.2
0-60	6.8	6.6	7.2 6.5
0-75	10.5	9.4	10.7 9.6
1/4-mile	15.0	14.8	15.4 14.7
	& 96	& 98	& 99 & 103 & 94 & 96

TIME & DISTANCE TO ATTAIN PASSING SPEEDS: (secs. & feet)		
40-60 mph	3.6 & 264	3.0 & 220
50-70 mph	4.0 & 352	3.6 & 317

SPEEDS IN GEARS:		
1st (mph) @ (rpm)	46 @ 5500	46 @ 5500
2nd (mph) @ (rpm)	65 @ 5500	65 @ 5500
MPH PER 1000 RPM:	23.7	23.7

STOPPING DISTANCES:		
From 30 mph (feet)	40	38
From 60 mph (feet)	163	157

SPEEDOMETER ERROR:		
Calibrated speedometer	30 45 50 60 70 80	
Hemi's speedometer	32 47 53 63 73 83	
Magnum's speedometer	30 45 50 60 70 81	

(Notes: a) With standard tires. b) With slicks. c) With special tuning, slicks. d) Same as c but with 1 aboard and no instruments.

specifications . . .

	Hemi	Magnum
ENGINE:		
Bore & Stroke (ins.):	4.25 x 3.75	4.32 x 3.75
Displacement (cu. ins.):	426	440
Horsepower @ rpm:	425 @ 5000	375 @ 4600
Torque (lbs.-ft.) @ rpm:	490 @ 4000	480 @ 3200
Compression ratio:	10.25	10.1
Carburetion:	2 4-bbl	1 4-bbl

(Except where noted, specifications below apply to both cars)

TRANSMISSION:
Type: 3-speed automatic with torque converter
Ratios: 2.45, 1.45, 1.00; 2.20 reverse

FINAL DRIVE RATIO: 3.23

STEERING:
Type: Integral power assist
Turning dia., curb-to-curb: (ft.) 40.9
Turns lock-to-lock: 3.5

WHEELS:
Type: Stamped steel disc
Size: 14 x 5.5 K

TIRES:
Type: 2-ply, 4-ply rating Nylon, Red Streak Heavy-Duty
Size: 7.75 x 14

BRAKES:
Type: Dual system hydraulic self adjusting, vacuum power assist
Front disc dia. (ins.): 11.04
Rear drum dia. (ins.): 10.0
Effective lining area (sq. ins.): 131.6

FUEL CAPACITY (gals.): 19
MILEAGE RANGE (mpg): Hemi 9-12, Magnum 10.1-13.6
USABLE TRUNK CAPACITY (cu. ft.): 22.2

CURB WEIGHT (lbs.): Hemi 4020, Magnum 3860

WHEELBASE (ins.): 117.0

FRONT TRACK (ins.): 59.5

REAR TRACK (ins.): 58.5

LENGTH (ins.): 203.0

WIDTH (ins.): 75.3

HEIGHT (ins.): 53.9

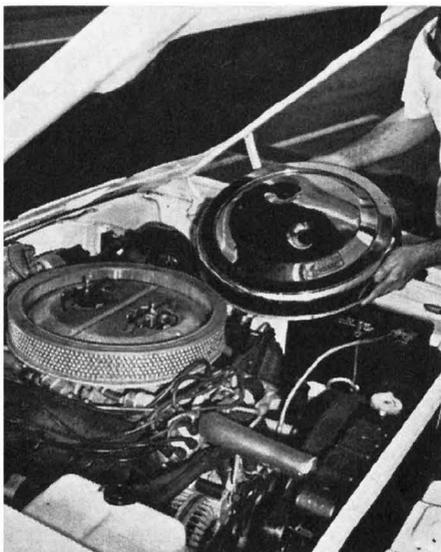
SUSPENSION: Independent front with torsion bars. Single-unit axle housing rear with longitudinal leaf springs. Tubular shocks at all wheels.

BODY & FRAME: Unit construction

prices and accessories . . .

MANUFACTURER'S SUGGESTED RETAIL: (includes federal excise tax, but excludes state and local taxes, license, options, accessories, and transportation)
2-dr. Hardtop Coronet 500 (with 225-cu.-in. 6) \$2773. 2-dr. Hardtop Coronet R/T \$3199; includes Magnum engine, handling package, HD tires and brakes, hood scoop, and choice of automatic or 4-speed transmission.

OPTIONS & ACCESSORIES:	
426-cu.-in. Hemi engine	\$907.60
TorqueFlite 8 automatic transmission	216.20
Power brakes	41.75
Power steering	94.85
Disc brakes	69.50
Tachometer	48.70
Power windows	100.25
CAP	25.00
Sure-grip differential	37.60
Radio	57.35
Vinyl top	75.10



(Top) R/T Magnum demonstrates stopping ability to match its horsepower. Discs on both test cars proved impossible to fault. Twin-snorkel Magnum (middle left) is quite similar to other 440s or even the 383 in external appearance, differs only in markings and chromed valve covers. Snorkelless, twin-carbed Hemi (middle right) is unmistakable, however. It resembles no other engine. (Below) Interiors of the two cars are identical except R/T has 150-mph speedo, Hemi, 120.

