CAR LIFE

ROAD TEST

DODGE POLARA 500
426 V-8 & 4-Speed

Might Makes Right—an Appreciation of a Man's Machine

SELDOM DOES A CAR come along that seems to shout "move over, I'm driving through" to other motorists along a highway. In this day and age of market and motivational research, calculator-determined sales factors and women's suffrage, the muscular, special-purpose, entirely masculine motoring machine just never appears.

Well, almost never. Once in a while a car like the 1964 Dodge Polara 500 convertible slips over the side of the colander. And when it does, it is well worth the attention of anyone who enjoys high-performance machinery.

What makes this car so special? Two things. A Paul Bunyon transmission and a big Blue Ox of an engine. Combined into a taut, good-handling chassis, these turn even the most mundane excursion into a Great Adventure. After his first tour, one of our drivers stated it for all of us with, "It's been a long, long time since I drove anything that tight, solid and *strong*."

To see the inside of the car is to become at least partially a believer. Its interior is dominated by one great appurtenance—a fixture which leaves no doubt as to the car's purpose. The manual shift lever is a rectangular chrome-steel stalk which grows diagonally out of the transmission hump and is topped by a white knob the size of a cueball, the top of which shows the 4-speeds-ahead shift pattern.

The impression of raw power this single item gives to the interior is so strong that the power-assist-buttons for the electric windows, the chrome knob for operating the convertible top, the power steering, the power brakes—give absolutely no impression of decadence or effeminacy. They have in fact, somewhat the same effect as putting a wreath of flowers around a bull's neck; the bull loses none of his identity. Neither does the Dodge.

Starting the engine for the first time is a sobering experience. The starter, obviously under some duress, whines hard for several revolutions, then the engine catches with a violent roar and the car leans to one side under the sudden torque. After this initial warning, the engine sound dies down to a deep throbbing like that of a very dis-

RALPH POOLE PHOTOS

PURPOSE AND efficiency incarnate—surrounded by a few touches of luxury.

POLARA 500

tant, very large drum, and communicates its eagerness via a pulsing vibration through the chassis of the car.

Just one female member of the *Car Life* staff drove the Dodge, and she loved it. In spite of this, we insist that it is a thoroughly masculine vehicle—in fact, one of the most honestly virile and masculine cars we have ever driven. There is only one approach to its operation: it must be driven with enthusiasm and vigor. Any other approach results in balkiness, shuddering starts, jerked heads, a killed engine—and all the other embarrassing evidences of Amateur Time.

When the car is let out as it should be, however, it is all silky, decisive power and action. The clutch, which admittedly is heavy to depress (causing one automatic-preferring driver to complain of "leg fade"), transmits power without a hint of slip or grab. The big shift lever, awkward and reluctant when pushed about timorously, jumps silently and smoothly through its gates when operated with assurance. The combination of these two gave us a feeling of positive control and, on familiarity, seemed absolutely right for the car.

The source of power for all this is the biggest passenger car engine the Chrysler Corporation has ever screwed together. A housebroken version of the 426-cu. in. drag-strip and round-track racing engines, it has the sort of torque that causes grown men to weep and women to leave home: 470 lb.-ft. at 3200 rpm. Literally translated, that means the Dodge 426-S (S for Street, to differentiate from R-for-Racing engines) will climb anything its wheels can get a bite on.

Of fairly conventional 90° V design, the 426-S has hydraulically operated push-rod overhead valves, an oversquare bore and stroke (4.25 x 3.75 in.) a wedge-type combustion chamber and single, 4-barrel carburetion. Compression is 10.3:1, but it isn't too fussy about what brand of premium fuel it uses, and its camshaft is warm enough at 268° duration to be interesting near top end rpm, without the sacrifice of too much torque in the lower range. Valve lift is a little higher than normally used, at 0.43 in., but the valve heads themselves are about average in diameter (2.08 intake, 1.60 in. exhaust).

For comparison, the Ramcharger V-8 for drag racing has a 308° cam and the standard 318-cu. in. Dodge V-8 has a 244° duration 'shaft. With 268°, the 426-S has exceptionally good

MUCH IMPROVED lines and detailing of Dodge were approved by nearly all staff critics.

"breathing" capability at high rpm, which allowed the shift points for the acceleration runs to be pegged at 5300 rpm. It should be noted, too, that the engine is docile enough so that the car can be started off from a dead stop in any one of its first three gears!

Essentially, this is the 413-cu. in. Chrysler V-8, used as basic engine for all Chrysler 300, New Yorker and Imperial models, with a larger bore. Thus it can use the same crankshaft, rods, bearings, pumps and accessories and block, heads and manifolds. The biggest difference between the 413 and the 426 is the 0.62 in. larger bore and pistons.

However, the 426-S isn't available (at least this year) in any of the Chrysler car lines, only Dodge and Plymouth, where it lists at $482.95 extra, including 4-speed transmission and several important chassis changes. Ordered with automatic transmission, the 426-S lists at $514.45. These prices are fairly commensurate with Pontiac's similar 421-HO, Chevrolet's 409 HP and Buick's 425 engine options. Ford, as yet, does not market a hydraulic-lifter 427, although one could be in the immediate offing.

The transmission is Chrysler's new heavy-duty all-synchromesh 4-speed, rushed to production because the previously-used 4-speeds couldn't hold the big V-8's power. A bit hefty at 120 lb., it nonetheless does the job of withstanding the brutal torque loads thrust upon it. Gear spacing is 3.5 in., which allows wider-faced, stronger, helical-cut gears, and all four forward speeds, plus reverse, are compacted into the case, unlike in the ubiquitous Warner Gear T-10, which has reverse gear out in the tailshaft housing.

The new Chrysler transmission tends to be a bit on the noisy side, as running clearances develop. An audible gear whine accompanies, and complements, the engine moan when the throttle is depressed and the rpm mount. Not objectionable, it offers a certain sensory gratification amplification, but further development of anti-backlash features might lower the noise level.

Gear ratios seem well-chosen for all-around work; 2.66 first, 1.91 second and 1.39 third. With the 3.23:1 axle of our test car, it worked out to shift points at 48, 65 and 90 mph with about a 10% over-rev of the engine on all-out acceleration. All four forward gears are synchronized with a blocker type of mechanism, similar to that used in the Warner Gear 4-speeds. Synchronization is so good that the careful driver can easily accomplish crunch-less gear changes without use of the clutch.

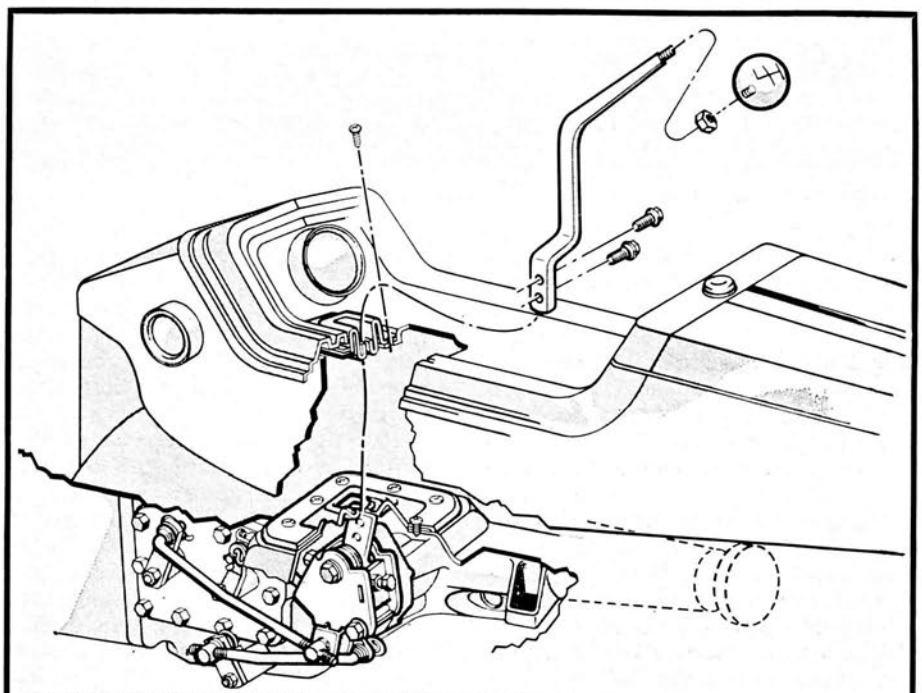
Few of the units were, as of this writing, in use in drag strip competition, most competitors preferring, at least temporarily, the consistency of starts afforded by the TorqueFlite 3-speed automatic. There were a few 4-speeds in use in NASCAR stock cars late in '63 and the ones which competed in the Golden State 400 at Riverside, Calif., developed some shifting ▶

TRUNK IS large enough for conversion to light housekeeping.

FRONTAL AREA, though somewhat busy, continues clean styling of rest of car.

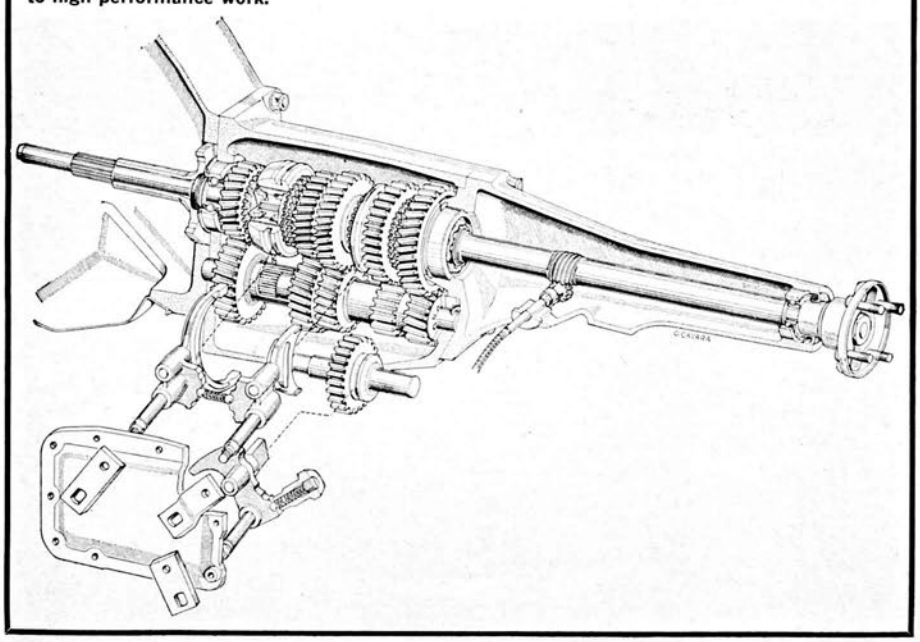
problems when the gearbox became excessively hot under protracted maximum use. The problem seemed to be in the internal forks, rather than in the external, box-to-lever linkage. However, the unit in the test car gave no indication of seizing or sticking, even after a dozen, hard, full-bash acceleration runs.

The clutch and attendant release bearing did call attention to themselves. The release bearing, after some 2300 miles of use, sounded as if it was nearly ready to quit releasing—probably due to the tendency of most drivers to ride the clutch, i.e., idle at stop lights with the clutch pedal depressed. The clutch itself is a 10.5-in. Borg & Beck with a plate pressure of 2350 lb., nearly twice that used for the normal V-8s. Small wonder it takes a hefty kick to move the pedal. The bonus is that the clutch never slips under full power, nor is it insensitive—when it begins to bite, the driver can feel it and maintain accurate control.



HURST SHIFT linkage contributed to satisfying selection of power.

WIDER, STRONGER gears make Dodge's new 4-speed particularly amenable to high performance work.



At first driving, we thought perhaps a power-assisted clutch pedal, either vacuum or hydraulic, would be a boon to preserving the driver's left leg. But, upon further acclimatization, we found the manually-operated clutch so smooth and positive that the heavy pressure required was not objectionable. In short, it's a part of the car's masculine character, which a power assist might only dilute.

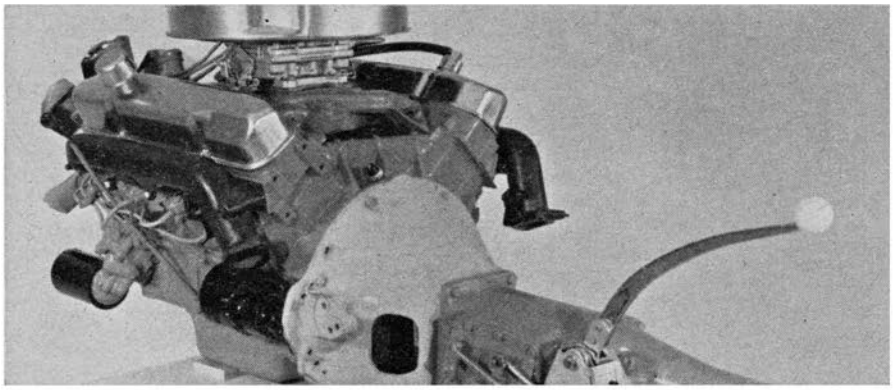
The clutch must be delicately feathered under full-throttle starts, otherwise traction disappears in a cloud of rear-tire smoke. Wider wheels and tires, such as the 8.00 and 8.50-14s used on the larger Chrysler products, might well be used in place of the standard 7.50-14s. These would also improve the stopping power, which needs improving.

Although the biggest Chrysler Corp. brakes are a mandatory addition with this engine package, they are barely up to one emergency stop from 100 mph. They stop the car, eventually, with great swerving and grabbing and locking of the wheels and nearly complete fade. An immediate repeat of such a stop is impossible. (Exactly the same problem was experienced with the Chrysler 300-H *Car Life* tested in 1962.) Perhaps the answer to this continuing problem lies in use of aluminum-finned drums, such as Buick and Lincoln have, or in disc brakes. Certainly the duo-servo, self-energizing units now specified aren't doing the job, even with 380 sq. in. of swept drum (11 in. dia.) area, and even from speeds which the car is capable of exceeding by some 25%.

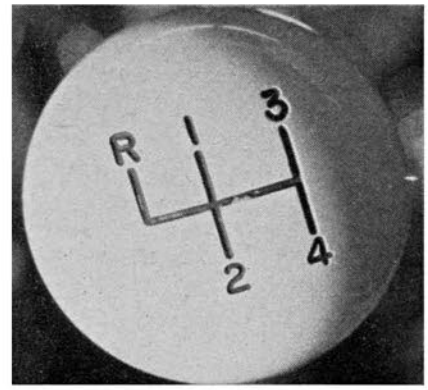
The test of brakes came about as the *Car Life* testers tried to match, or better, an advertised claim by England's Aston Martin sports car. The makers of the Aston Martin DB-4 say it will accelerate to 100 mph and stop completely within 26.2 sec. The Dodge 426 Polara did the same 0-100-0 in 25.7 sec., once! Then, after a 5-min. wait for the brakes to cool off, it did another 0-100-0 in 26.4 sec.

The convertible, of course, is the heaviest model in the line—our test car scaled 4370 lb. with two people on board and a full tank of gas—which didn't give the brakes any help. The cheaper, stripped 2-door sedan models weigh some 400-500 lb. less and would perform proportionally better, a somewhat appalling prospect.

The Dodge 426 handles extremely well for its bulk and weight. The 426



NO FLIGHT of fancy this, but the heart of a thundering thoroughbred.



AN ORB of connotation and consequence.

engine package calls for a 0.75-in. anti-roll bar attached to the independent front suspension and this provides a great deal more lateral stability and roll resistance as the Polara goes rushing down the road. Dodge added 2.1 in. to the rear track for the '64 models and this, too, aids stability. As a result, the car is an excellent tourer and, with the usual Chrysler all-power steering, is adequately maneuverable in confined spaces about town.

In traffic, we found the performance of the big convertible a source of constant excitement and pride, with its obvious ability to quell any uprisings or challenges from the flanks. And then when we finally shook off the last few hangers-on and moved out onto the high-speed expressways, none of us escaped the exhilarating sensation that he had suddenly grown taller and stronger. This, we felt, is what motoring should be like all the time. ■

CAR LIFE ROAD TEST

1964 DODGE
Polara 500 Convertible

SPECIFICATIONS

List price	$2963
Price, as tested	4211
Curb weight, lb.	4040
Test weight	4370
distribution, %	56/44
Tire size	7.50-14
Tire capacity, lb.	4340
Brake swept area	380.1
Engine type	V-8, ohv
Bore & stroke	4.25 x 3.75
Displacement, cu. in	426
Compression ratio	10.3
Carburetion	1 x 4
Bhp @ rpm	365 @ 4800
equivalent mph	113
Torque, lb-ft.	470 @ 3200
equivalent mph	76

DIMENSIONS

Wheelbase, in.	119.0
Tread, f and r	59.5
Overall length, in	209.8
width	74.9
height	54.4
equivalent vol, cu. ft	495
Frontal area, sq. ft	22.7
Ground clearance, in.	5.3
Steering ratio, o/a	18.8
turns, lock to lock	3.5
turning circle, ft.	41.7
Hip room, front	2 x 23
Hip room, rear	50.0
Pedal to seat back, max.	43.5
Floor to ground	11.0
Luggage vol, cu. ft	31.0
Fuel tank capacity, gal	19.0

EXTRA-COST OPTIONS

426 cu. in. V-8, 4-spd. trans., power steering, power brakes, power windows, wsw tires, radio, tinted windshield, w.s. washer.

GEAR RATIOS

4th (1.00) overall	3.23
3rd (1.39)	4.49
2nd (1.91)	6.17
1st (2.66)	8.59

PERFORMANCE

Top speed (5300), mph	125
Shifts, @ mph (manual)	
3rd (5300)	90
2nd (5250)	65
1st (5300)	48

ACCELERATION

0-30 mph, sec.	3.0
0-40	4.2
0-50	5.5
0-60	7.2
0-70	9.1
0-80	11.7
0-100	20.2
Standing ¼ mile, sec	15.2
speed at end, mph	89

FUEL CONSUMPTION

Normal range, mpg.	11-14

SPEEDOMETER ERROR

30 mph, actual	29.5
60 mph	60.0
90 mph	88.2

CALCULATED DATA

Lb/hp (test wt)	12.0
Cu ft/ton mile	142
Mph/1000 rpm	23.6
Engine revs/mile	2535
Piston travel, ft/mile	1580
Car Life wear index	40.1

PULLING POWER

90 mph, (4th) max. gradient, %	10.8
70 (3rd)	21.7
50 (2nd)	28.9
30 (1st)	off scale
Total drag at 60 mph, lb.	135