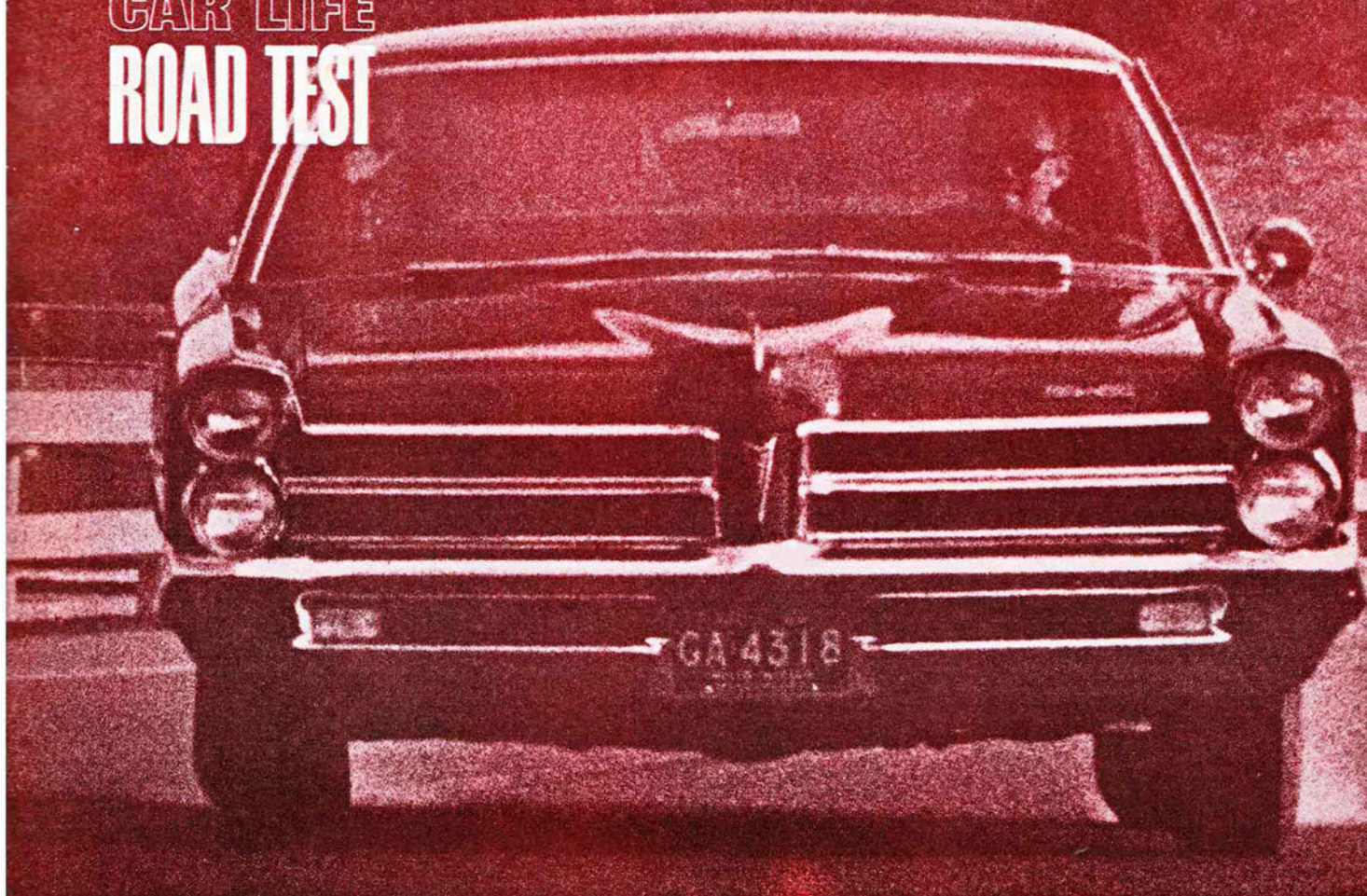


# CAR LIFE ROAD TEST



## 421-HO Pontiac 2+2

### Formula for A Youthful Elixir: 421-HO/2+2=GO!

**I**F YOU'RE A dyed-in-the-wool carnut, as most of us admittedly are, it's pretty hard not to get excited about things such as a 421-HO Pontiac 2+2. Even if you have a fixation against Pontiacs, it's easy to get excited about a car such as this, which is a lot more emotion, either negative or positive, than can be worked up over 75% of the current domestic automotive products. In fact, about all it takes to start an argument among carnuts these days is to say: "How d'ya like that new Pontiac 2+2?"

The 2+2 is the sort of car that inspires admiration, or completely rejects it. There seems to be little in-between ground and no "mixed emo-

tions" where it is concerned. It's either your kind of car, or it isn't. In our case, it was. It's one of the most satisfying cars we've ever driven.

It's a little difficult to outline just what makes the 421-HO 2+2 such a pleasure, as there are many elements which enter into, and interact with, the car as a whole. It's not just the brute power alone, nor is it the very roadable chassis, nor is it the quality of appointment nor the exterior styling. Rather, it is the balanced combination of all these things which create the overall impression of a superior sort of car.

Balance is probably the key word. The car has neither too little, nor too

much of anything. Power is infinitely controllable, despite its ability toward roaring fierceness. Road-holding is precise and predictable, yet strong and inspiring. Riding qualities are firm without harshness and comfortable without indulgence. Gearing permits stunning acceleration on demand yet allows normal-speed dawdling without nervousness. Styling and appointment give tasteful distinction and dash without resorting to garish trickery or trimery. Balance of design, of performance and of component combination is the key.

This particular 2+2 was factory-built to a set of particular specifications: The people who ordered it wanted it to give it maximum appeal to the automotive enthusiast. Along with a 421-HO, it was ordered up with the "Ride & Handling Pkg.," which means extra-stiff springs (at wheel rates of 90 and 125 lb.-in., front and rear) and shock absorbers all around and an 0.875-in. front stabilizer bar; the aluminum wheel hubs and drums, the close-ratio 4-speed transmission; quicker-ratio power steering; tachometer





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and extra instrumentation; and a lot of what dealers usually list as "Comfort & Convenience Options" (see Extra-Cost Accessories list in data panel).

The 421-HO engine, in this case with "Tri-Power" carburetion, is perhaps the most expensive of all the options, but the buyer gets 376 razzle-dazzle horses instead of the standard engine's 338 for his money. The combination of hotter camshaft, higher compression, more carburetion, and better ignition raises the horsepower peak 400 rpm and the torque peak 800 rpm, which is why a higher numerical axle ratio is usually specified with this engine. Detail differences between stock and the HO engines are: 10.75 vs. 10.5:1 compression ratio, 288/302 vs. 273/389° camshaft timing, 0.409 vs. 0.406-in. valve lift, three 2-barrel Rochester carburetors (12.19 sq. in. throttle area at w.o.t.) vs. one Carter AFB 4-barrel (7.72 sq. in.) carburetor. Progressive, mechanical linkage for the three carburetors is standard for all manual transmission cars. Additionally, the test car had Pontiac's new transistorized, breakerless ignition system.

Quick-bleed valve lifters permit higher rpm operation of this engine, giving a rev potential of nearly 6000

rpm, but for safety and longevity's sake, it is generally recommended to keep the engine below 5800 rpm. Some particularly well-produced engines will turn more rpm, some less. There also seems to be a small percentage of error in the electric tachometer calibration, which makes it read slightly higher than the engine is actually turning. On ones CL has checked, the error appears to be on the order of 5% fast (so that a 6000 rpm reading actually is 5700).

Applying the 421-HO's power to the road for maximum acceleration is not difficult, just dependent upon tire equipment. Although the test car had optional 8.55-14s instead of the standard 8.25-14s, tractive ability was a matter of a delicate touch on the throttle pedal. Feeding anything over 2500 rpm through the clutch and first gear to the 4.11 Saf-T-Track (limited slip) differential produced smoke and spin. Driving off at lower engine speeds, and feeding in throttle as the car gets launched, produces far better times through the standing start quarter-mile. When equipped for dragging with 7-in. M & H slick-tread tires on the rear, the driver can come out of the hole with 4000 rpm on the tach and get far better times.

Tires, street mufflers, driver-plus-

passenger loading and some valve lifters that pumped up too soon limited the quarter-mile performance of this particular car. It could, and should, have done better with this gearing and equipment. However, at 15.5 sec. elapsed time, the CL testers got all there was to get, when limited to 5500 rpm shift points. Attempts to attain higher shifts achieved only pumped-up lifters and poorer times. Note that the first-to-second shift was made at 5000 rpm, however, as drag racers have found the car accelerates better through the early stages with this early gear change.

Optimum times for the quarter-mile should fall into the low 14-sec. category when the car is more suitably tuned and equipped. One recommendation is to merely drop the exhaust pipes off the headers; another is to put shims under the front springs to give a little better front-to-rear weight transfer; a third is to block the heat riser passages into the intake manifold (which makes even the street mufflers noisy). Fine tuning also involves slightly larger carburetion jetting, more distributor advance and colder plugs.

However, it wasn't the accelerative ability which impressed us most about this 2+2; it was its fine over-the-road manners. Hurtling this creature along the by-ways gives the driver the impression of a sporting-type car. It belies its bulk in the way it can be heel-and-toed and tossed about. Most big American cars develop *mal-de-road* under such treatment but the HO 2+2 takes it all in a thoroughbred's style.

As we said in the beginning, it's pretty easy to get emotional about this kind of car. Sharing our opinion is reader James R. Mansfield Jr. of Louisville, Ky., who bought a similar car and had these experiences:

READ WITH great interest the report of the road test on the Pontiac Catalina 2+2 in the December, 1964, issue.

I own a basically similar machine to the one which was the subject of the road test, it being a 1963 Catalina con-

vertible with a 421-HO Tri-Power. My car was ordered out with a 3.90:1 rear axle with Saf-T-Track differential and standard steering and brakes, 4-speed close-ratio gearbox and stiff suspension. The front and rear carburetors have the factory vacuum control setup, a point which caused me some difficulty until I adjusted to it. I feel that a positive linkage is far more desirable.

To begin the story of my experience with this automobile, let me say that it is the most powerful automobile that

I have ever driven. With the 3.90 axle, it is difficult to leave a traffic light without causing enough tire squeal to attract every policeman within two blocks. If a person should accidentally open all carbs on such a take-off, the result is wild spinning and a lot of black smoke. If handled cautiously, the car is a pleasure to handle both in town and on the road, but the feeling of power flows back up through your foot to your head and you sometimes tend to feel somewhat younger than you are.

I have never put the car through an

acceleration test, but have made numerous measured mile, stopwatch runs. I was fortunate enough to be able to run the car on several super highways prior to their being opened to the public. Measuring the mile is simple and accurate when you use the marked indexes which the highway department conveniently puts in the concrete every 100 ft. I used flags at each end and hit the mile at top speeds. During one of the runs the measured mile was covered in 28.6 sec. for a computed speed of 126 mph. The factory installed ta-

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### 1965 PONTIAC Catalina 2+2

#### SPECIFICATIONS

List price.....	\$3287
Price, as tested.....	4545
Curb weight, lb.....	4110
Test weight.....	4440
distribution, %.....	53/47
Tire size.....	8.55-14
Tire capacity, lb. @ 24 psi.....	5280
Brake swept area.....	328.9
Engine type.....	V-8, ohv
Bore & stroke.....	4.09 x 4.0
Displacement, cu. in.....	421
Compression ratio.....	10.75
Carburetion.....	3 x 2
Bhp @ rpm.....	376 @ 5000
equivalent mph.....	98
Torque, lb.-ft.....	461 @ 3600
equivalent mph.....	71

#### EXTRA-COST OPTIONS

421-HO/376 V-8, 4-spd. trans., aluminum wheels, 8.55-14 wsw, non-slip diff., power brakes, power steering, am/fm radio, sports strg. wheel, instrument cluster, accessory group.

#### DIMENSIONS

Wheelbase, in.....	121.0
Tread, f & r.....	63/64
Overall length, in.....	214.6
width.....	79.6
height.....	53.9
equivalent vol., cu. ft.....	533
Frontal area, sq. ft.....	23.8
Ground clearance, in.....	5.6
Steering ratio, o/a.....	21.7
turns, lock to lock.....	4.2
turning circle, ft.....	42.8
Hip room, front.....	2 x 25
Hip room, rear.....	55.0
Pedal to seat back, max.....	44.0
Floor to ground.....	11.0
Luggage vol., cu. ft.....	19.2
Fuel tank capacity, gal.....	26.5

#### GEAR RATIOS

4th (1.00) overall.....	4.11
3rd (1.28).....	5.26
2nd (1.64).....	6.74
1st (2.20).....	9.04



#### CALCULATED DATA

Lb./bhp (test wt.).....	11.8
Cu. ft./ton mile.....	168
Mph/1000 rpm.....	19.6
Engine revs/mile.....	3060
Piston travel, ft./mile.....	2040
Car Life wear Index.....	62.4

#### PERFORMANCE

Top speed (5500), mph.....	108
Shifts, @ mph (manual).....	
3rd (5500).....	84
2nd (5500).....	66
1st (5000).....	45
Total drag at 60 mph, lb.....	150

#### ACCELERATION

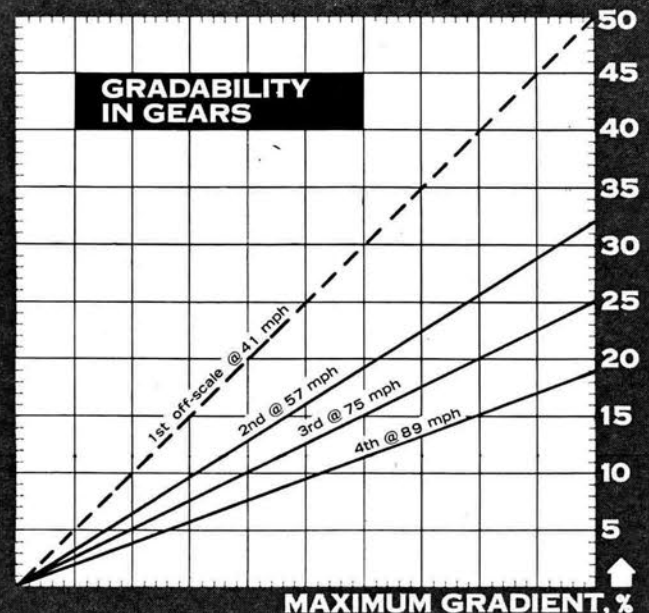
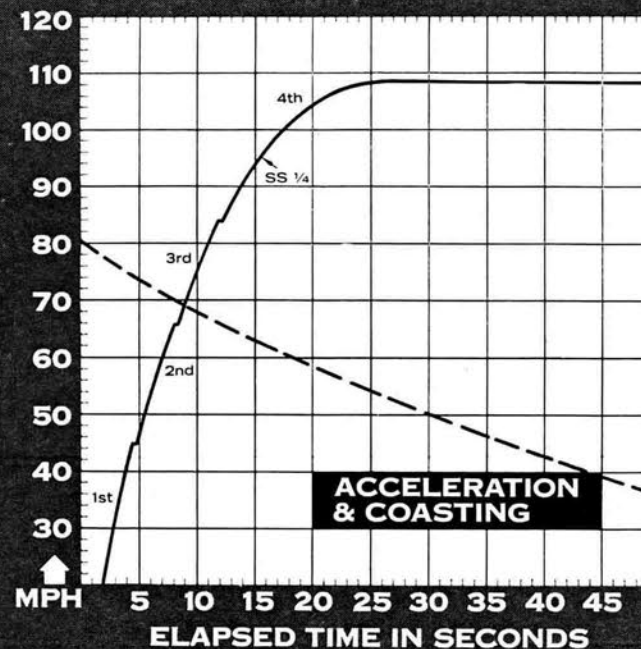
0-30 mph, sec.....	2.8
0-40.....	4.0
0-50.....	5.6
0-60.....	7.2
0-70.....	9.3
0-80.....	11.2
0-100.....	17.5
Standing 1/4 mile, sec.....	15.5
speed at end, mph.....	95

#### SPEEDOMETER ERROR

30 mph, actual.....	26.3
60 mph.....	52.3
90 mph.....	80.4

#### FUEL CONSUMPTION

Normal range, mpg.....	10-13
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STOPPING TESTS proved Pontiac's brakes were adequate and average; they faded and locked when pressed for more than 18 ft./sec./sec. decelerations.





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chometer was indicating in excess of 6200 rpm. Quite honestly, it was difficult to take my eye from the road long enough to get a perfect reading. At the same time, the speedometer needle was pointing to the word "gasoline" beneath the gauge, which probably surprises no one. For those who may wonder, I chose a strip which was as nearly level as one can find, about three miles in length, and made runs in both directions. The results were always 6200 rpm or more, and 29 sec. or less.

I always enjoy letting other automobile enthusiasts drive the car just to feel its brute power. One of these friends, an American Airlines captain who has owned sport cars and has been a car bug for years, described the power of the automobile in one word—dangerous. I had agreed with his description for some time and this, coupled with the 9 mpg which it got on a good day, caused me to change axles down to a 3.23. My gasoline mileage has now gone up above 12 and the automobile is considerably tamer at the traffic light and in the lower rpm ranges. The chief differences appear to be that I now must utilize the gearbox instead of ignoring it, and that the torque peak has moved up into the 80

mph range. The result of opening the front and back carbs at speeds in excess of 100 mph is still spectacular.

I have never had an opportunity to run a flying mile with the automobile with this new axle, but I have turned it to over 5300 rpm and it was not near top rpm. I believe the engine will still turn about 6000 or better in top gear and this would indicate a top speed of 145 mph is readily attainable.

Lest anyone think that the 3.23 axle is a cure-all, let me say that on a recent trip through the Colorado mountains, I found that the 3.23 ratio is too high for satisfactory starts on steep grades at that elevation. Also, in pulling a 1000-lb. boat and trailer, there are times when I even wished for a little more power than I have in first gear. I believe Pontiac was right when it chose the 3.42 as the best all-around ratio and, if I had it to do again, that is the gear I would choose. With that ratio, I am positive that the engine will turn 6000 with ease, which would produce a computed 139 mph top speed with attendant better take-off performance and probably very little loss of gasoline mileage over the 3.23.

One question that I have never been able to have answered is what is the factory recommended rpm limit on a

421-HO engine. My tachometer has a green strip that runs from 0 to 7000 rpm and a manual set red shift point indicator. I have frequently turned the engine to 6500 rpm with no apparent damage, and I assume from the green line that the limit must be 7000.

One thing that might be of interest to potential owners is that I have always been plagued with oil loss. Upon factory recommendation, I have used single viscosity oils, together with the Pontiac-packaged additive, EOS, at each change. I use 30-weight oil in warm weather and 20-20W in cool weather, per recommendation. It seems that multiple viscosity oils are not recommended. I lose oil at the rate of 2-3 qt. per 1000 miles. Tests indicated that the oil was not being burned, but being expelled in some manner from the engine. In fact, at one time the bottom of the car fairly dripped, and the engine compartment was covered with a fine spray. This has been partially controlled by the blocking off of the left hand breather vent with a plug of metal. However, on a recent trip of approximately 2500 miles I still used 5 qt. of oil. Factory representatives have told me that some oil loss is to be expected with this engine.

In conclusion, I will say that this is the finest road machine that I have ever driven—foreign cars included. It has comfort, performance and, in my opinion, handling that should satisfy anyone but a race course driver. ■

**ACCELERATION TESTS** on the Carlsbad Raceway gave the 2+2 a plus for performance despite street-type tires and mufflers. Too much engine rpm on starts produced wheelspin; best technique was just to drive off line.

