

by Eric Dahlquist/technical editor

'66 SS 396—These are the call letters of a spirited new model from Chevy, designed for those who LIKE to drive

# Super Street CHEVELLE

"Have any trouble keeping it on the ground?" The question came at us through a grey wall of water, which was part of the pre-Thanksgiving deluge that engulfed Southern California and put our 396 Chevelle Super Sport test car through a wet set of paces during the thousand miles we had it. Our interrogator was everybody's idea of how a young American male should look, outfitted in a yellow Nantucket slicker with a stream of water cascading off the brim. He knew it was a 396 because it said so on the front fender and had those "wiggy" air ducts on the hood. He also wanted to know if we had taken it to the strip yet and how it compared with the 4-4-2's and GTO's and how much it cost (because he was going to buy one) and if we had had our parking ticket validated. All this in the middle of a parking lot in a pouring down rain yet!

Chevrolet has been kind of out of it for the last couple of years, as far as having their own hottest hot dog, but after the parking lot caper, it's apparent that guys still remember when she was real fine, that 409, and how Dyno Don Nicholson and Frank Sanders put 'em back on their heels at the drags in '61 with their first demonstrations of what a stocker could do. The wave of enthusiasm that the 409 created carried stovebolt-maniacs along, and the Beach Boys helped with their dragging ballad (Giddy-Up 409). So did the Daytona

"Mystery 427" which some of the executives back at the plant still say is a mystery to them as a misty look comes to their eyes with recall of how those '63's set the track on fire.

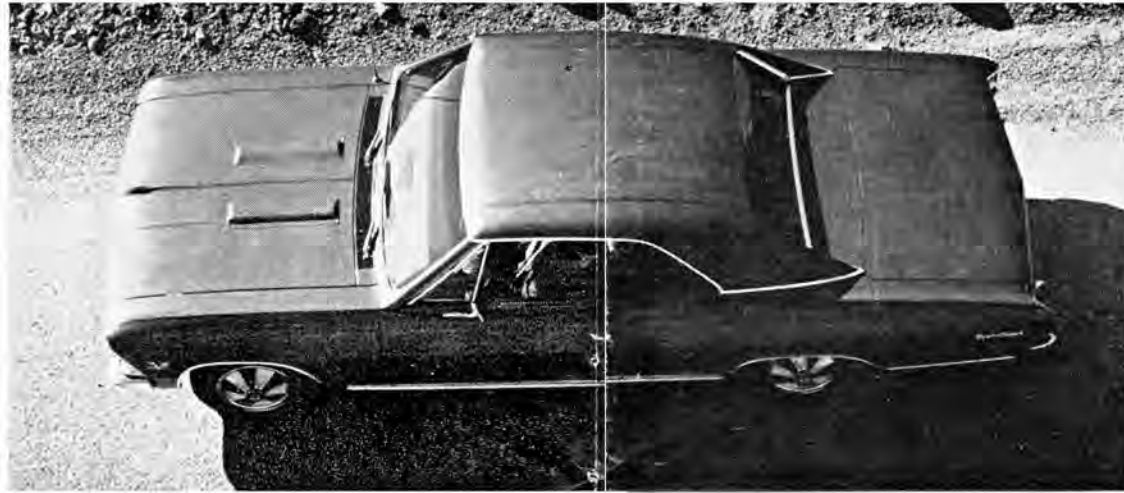
So this is what it had all boiled down to: the semi-hemi, porcupine top, 4.094 x 3.76-inch 396, like the one HRM broke the story on last year, plunked into a 115-inch wheelbase Chevelle with a black vinyl top and a lower body color known as Aztec Bronze, reminiscent of something called Titian Red from the mid-'50's. The two-door hardtop has those "in" for this season "struts" or "sail panels" (or just plain extensions), emphasizing that desirable fastback silhouette from the side, but embodying the practicality of a more vertical, recessed (in relation to the extension) back window. Then, too, this negates the manufacture of a special glass piece just for fastbacks, which, considering the volume Chevy sells, makes for a fair budgetary chunk.

Those in the know can spot the '66 SS 396 from its earlier counterpart because there has been a concerted effort made so that they can. Little changed since it was first introduced in '63, the new Chevelle has undergone such style transformation as to resemble more closely the full-sized Chevy, which it does, most handsomely. As another play to identification, all the grille bars in the SS have been blacked out except for the top and bottom, which is an inexpensive way that any Chevelle owner can escape the "I'm from Detroit-fluorescent light grating" look. All 396ers come with the red line 7.75 x 14 NF nylon tires (U.S. Royal) on wide-base 6-inch rims. Our test machine also had the benefit of a set of the optional mag-spoke hubcaps which, from anything be-

*Going or coming, the Chevelle 396 SS stood up to the challenge of the wide country, not losing its footing even on the serpentine mountain trails. Heel-over was contained in marked degree, due mostly to 30 percent stiffer springs and shocks, as well as fat anti-sway bar.*

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# SS CHEVELLE



yond twenty feet, appear more real than what they're imitating. But probably the easiest way to know that you've just been or are about to be passed by one is by reading the SS 396 signs that are hung on, as is mentioned at the beginning of the story. Since the factory has gone to all this trouble to advertise, the enterprising "Bondish" type will no doubt derive endless hours of delight by swapping his 396 emblems for 327 or, sly dog, 283 counterparts—but that's another story.

After originally announcing last year, with the inception of the new engine, that only about

*ABOVE LEFT* — Bold face in a bold land is one facet of the Chevelle's front. Spoke hubcaps and blacked-out grille add style—bumper slots vent air. *LEFT* — Shapely between-the-buckets console ends in neat, electric 24-hour clock. Inland shifter is swift and positive. *BELOW* — Almost enough to make a man abandon his horse, this "bonanza" of sleek silhouette corraling stallion's spirit.

*ABOVE LEFT* — Under the spreading bonnet the mighty 396 holds court to continual audience of interested onlookers who want to know things like horsepower (360), gas consumption (14 mpg).

*ABOVE RIGHT* — Any way you look at it there's something special about the Chevelle. Take the keen outline of the pseudo-fastback roof or the hood ventilators or everything — it's great.

200 of the 396-equipped Chevilles would be available, quite a good number more than this were run off. Although one of those original SS's was not included in our testing program, we drove a representative sample and found it to be quite interesting although a trifle nose-heavy. In '66, this negative trait has been cured to a point that even our 360 hp version with optional cam (322-degree duration and 0.3983-inch lift compared to 340 and 0.4614) and Muncie 4-speed was a totally pleasant vehicle, just the ticket for a quiet Sunday drive or drag. Helping toward this goal are the 30%-heavier-than-normal front and rear coil springs, larger-valved shocks, 15/16-inch diameter front sway bar and neat things like front ball joints that are shotpeened to frustrate the development of cracks.

It has been felt in some quarters, especially after breaking an axle, that Chevelle rear housing stabilization left a bit to be desired when it came under hard usage. Now a good part of this deficiency has been rectified. It is also quite obvious that a great deal of attention has been given to the hind quarters in general. To begin with, the stiffer rate rear coil springs and shocks will go a long way toward controlling wheel hop under acceleration or hard braking. In addition, there is a new frame reinforcement

strut between each rear upper and lower control arm pivot point which will solidify the rear section considerably. The axles themselves have a sturdy differential carrier with a big 8.875-inch diameter ring gear, which means, in practical terms, that it is a full 3/4-inch larger than the common run-of-the line unit.

The axle ratio standard with our 360 hp model was 3.73:1 but, unlike some years within easy recall, there is a veritable myriad of gear combinations from which to select. If you go for the baseline 325 model, a 3.31 ratio is standard, with 3.55, 3.73 and 4.10 on the shelf if specified. In 360-land, when the machine is equipped with 3-speed manual, Powerglide or street-type 4-speed, choices are identical to the ones just enumerated. However, should a close-ratio four-holer be beneath-the-boards, you could opt among 3.31, 3.55, 4.10, 4.56 and 4.88—the last three being Positraction as part of the deal. Limited slips can also be had in any of the other gear sets as well. Viewing the whole rear scene in perspective, it looks as though all bases are pretty much covered.

At the other end of the ship, things are not out of shape either. For your motivation, it's an either/or proposition—either the standard 325 pony package or the several-hands-higher 360. That's it—no sixes or smaller

eights to muddy up the water or drag down the car's reputation. Just two brands of hair—long and longer. But not quite as long as last year when the rated power pegged out at 375, and the machine had more of a blast effect. Why? Well, superficially at least, the '66 cam timing is less exotic, for one thing. As for the upper level decision to retrench from last year, one can only guess that the original 396 just didn't fill the bill as a machine that a great number of people would like to be married to for 36 payments. And after all, image or no, this is why the thing is on the market.

We could go into gales of specifications on the 396 engine, but this has already been done in copious form in HRM, starting with the original 396 story back in March of '65 and continued varyingly in the recent Bill Thomas and Smokey Yunick pieces. Enough research has been done on the powerplant to answer just about any question of maintenance or modification.

Today's breed of box is identified by the numerical ratio of its first gear, such as 2.52 or 2.20, the latter being most desirable and the former being what our SS came equipped with. These two transmissions are the only 4-speeds that are offered with the Chevelle 396, and both are listed as heavy-duty. For the wide-ratio transmission (2.52, 1.88, 1.46 and 1.00), as opposed to the close-ratio (2.20, 1.64, 1.27, 1.00), numerous improvements have found their way into the design. Specifically, the teeth of

the clutch gear and meshing member of the counter gear have a coarser pitch for increased durability. In addition, the new counter gear incorporates a damper to virtually eliminate backlash. Both transmissions, wide- and close-ratio, feature a larger diameter counter gear shift and reinforced synchronizer blocker rings.

Another choice heretofore not available in any Chevy product is an all-synchro three-speed. This configuration has now been added to the 396 SS line and, like the 4-speeds, is considered a heavy-duty option. With ratios of 2.41, 1.57, and 1.00, it represents a sturdy assembly that incorporates wide, constant-mesh gears. Probably most interesting of all Chevy transmissions is the one which isn't even being offered in the Chevelle line at all—the 3-speed Turbo Hydra-Matic. The outfit is decently light and responsive but for some reason it has been withheld as an option from the "A"-bodied series. We recently had the opportunity to drive a former 2-speed Chevelle which had been converted over to Turbo action and the gain in performance, seemingly at no sacrifice to economy or dependability, is startling. This is one instance where the Division is missing a good bet, and competition being what it is, little will be gained by dallying.

So now that we've surveyed the salient properties that combine to form the character of the SS 396, let's drive the thing to work for a while, bend it into a few corners at speed, ridge-run a mountain road or two, and play an odd hand at the drags. Foremost in our minds,

*ABOVE LEFT* — Underneath it all, things are stiffened up a bit with hearty springs and shocks and a new reinforcement strut (light colored) between each upper and lower control arm pivot.

*ABOVE RIGHT* — As you slip behind the burnished-spoke, wood-rimmed wheel (imitation, that is), all gauges and switch knobs fall into logical order. "Strato"-buckets are reformed and comfy.

as indicated above, the 396 is an especially nice package to get from point to point and to have a measure of fun while doing it. The 360 hp version's 3.73 final drive ratio is a happy compromise in union with the 4-speed which you can row along on its Inland shift linkage. Action with the 11-inch centrifugal clutch was generally smooth, but now and again a slight amount of shudder was evident when hot, after stop-and-go driving.

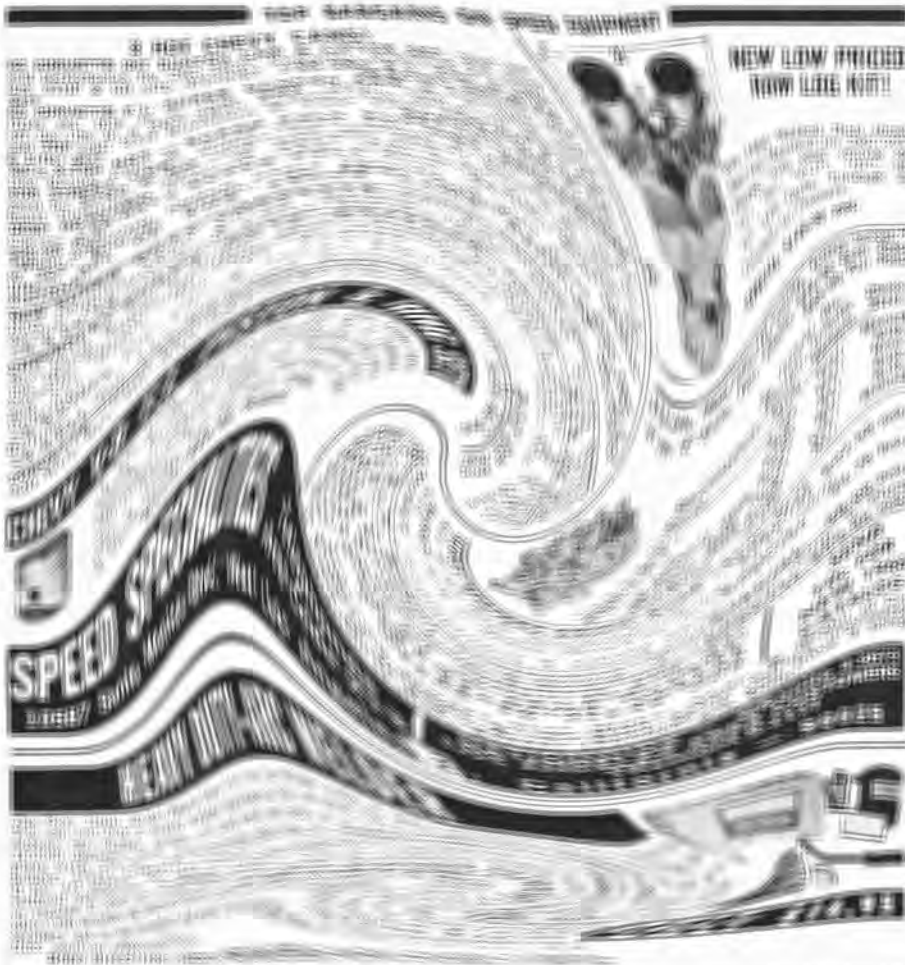
The one area we did get to examine carefully was the adequateness of water sealing. For most of the time the car was ours, the rains came with sickening regularity, day in and day out, to break all records, seasonal or otherwise. During this dampish phase, the car never sprang a leak in spite of many "river crossings" and the 2-speed electric wipers could not be faulted. However, something that does need alteration is the brakes, or rather lack of them, judging from their performance after wading through an intersection pond 6-8 inches deep in water. It is quite understandable that with a drum-type arrangement, 268.6 square inches worth, in fact, that the binders will tend to become ineffective for a short period, but more than once it was necessary to drag the pedal for several long blocks to dry them out. We put the car on a hoist to survey the

situation and it appears that the shield Chevrolet Engineering has devised to keep water out of the drum also serves as a dam to hold it in. In other portions of the water world, like heavy rain or the normal shallow puddles, no problem was encountered.

While the 9.5 x 2.5 molded asbestos binders are at least equal to the task of everyday traffic, successive stops from over sixty are not their forte as pedal effort increased and the right front wheel (on our car) tended to lock up. Fortunately, there is a cure within the RPO list—a nifty set of welded sintered iron brakes that rise to fill the breach. Although we did not have the opportunity to try the iron anchors, several owners reported that this is the way to fly—there is no warm-up problem, the things wear forever, and they stop on a dime over and over again without temperamental displays. We inquired further and learned from area dealers that, speaking for Southern California, a goodly number of SS's are sold with the metalics, so at least a portion of the buyers are playing it safe for any contingency.

We noted that even in the wet the Chevelle was admirably sure-footed when in traffic, and when the rainmaker did finally close up shop, a definite date

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was kept on some twisty L. A. County mountain roads. In the first serious encounter, an inordinate amount of tire squeal was produced by the "Tiger-Paws," so we beat it back to the nearest service station to check the air pressure, which turned out to be right on the suggested front specs. But wait—there is a hidden lie in the figures. Recommended settings are always values for cold tires, and as tire heat increases, so does air pressure. We didn't have time to adjust and readjust pressures so we settled on 28 psi (cold) all around.

As anticipated, the SS lived up to its advance billing and gave a good broken-field demonstration, limited only by tire adhesion. The car would charge into a turn, mild understeer would dissolve to neutral, and then shade to oversteer with the aid of the throttle. The "Tiger-Paws" are good, a measurable cut above the rest of the normal stuff, but there are several shoes, at least two from Europe, that would complement the Chevelle's road manners even more. That nice fellow, the average SS buyer, wouldn't find anything wrong with the Royal Red line because it was superior to his standard of comparison. But the fact of the matter is Pirelli, Michelin, Firestone and Goodyear have tires for a price that will, under near-impossible conditions, stick like glue.

Of all the things the SS 396 should be, it is competitive at the drags. We dyno tune some of our test vehicles and maybe slip on a set of slicks and/or headers. Just for a change, and because it didn't look too prosperous for a break in the weather, the Chevelle was left in pure condition except that the Holley 4-throat with its vacuum-operated secondaries was modified to open properly. For reasons of economy, the vacuum operation of the secondary is retarded by a small coil spring and, often as not, the tension keeps the back butterflies closed until quite late in the acceleration range, or until the vacuum overcomes the resistance of the spring. It was apparent while trying to get away from rest in best fashion without bogging that the engine had to be revved to about 3 grand. This induced much undesirable wheelspin. So the vacuum diaphragm housing was disassembled and two coils snipped from the spring. Presto! The low-speed power problem was corrected.

After a couple of wet weekends, the skies cleared and we went out to San Fernando Raceway for a half-dozen passes. The day was bright and sunny

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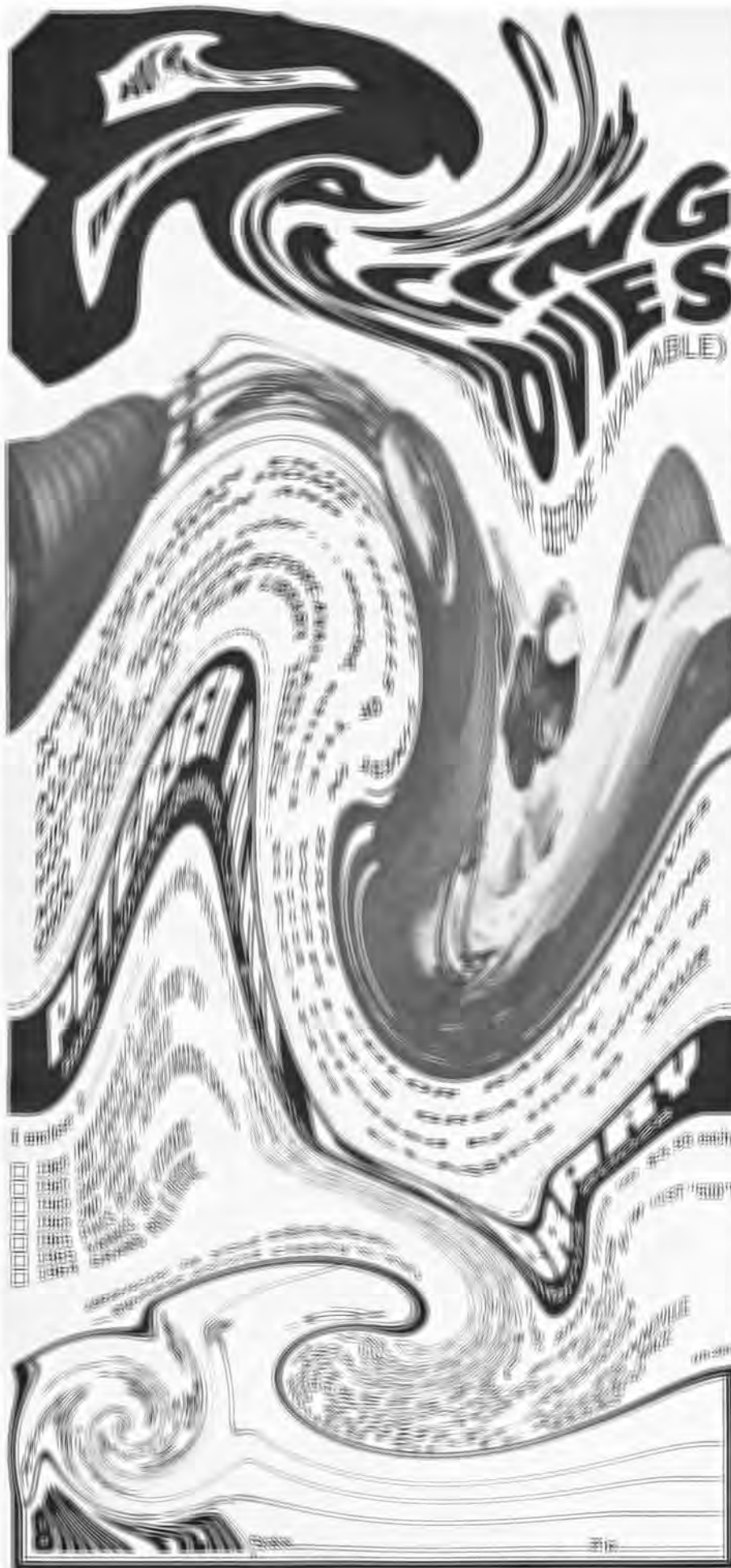
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## SS CHEVELLE

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but the temperature was down in the low 60's and a 30 mph head wind forecast not the most ideal racing conditions. Even using extreme caution, the first run produced some wheelspin, reflected in the e.t. of 16.30 seconds (86 mph). Since traction seemed the major problem, we thought a few of the match racer tricks might be of some help. So the tires were burned through puddles of bleach for super cleaning and some liquid traction compound painted on. This done, the machine recorded a better 15.70 e.t. at 92 mph. We realized that without the benefit of adequate dragging skins and a proper collector system, you can't expect miracles but the wind and cold track had something to do with it, too. Besides, there was a '65 Chevelle SS with 375 hp, NASCAR Holley, slicks, and who knows what else, that wasn't going more than a second quicker. His hydraulic lifters were adjusted a little tighter than ours and, therefore, permitted a rev limit about 200 rpm above our 5500 rpm. We also clipped off some 0 to 60's and 30's with the 3850-pound hardtop, which at 7.9 and 3.2 seconds respectively, along with the quarter-mile speed, indicates that the potential is there if plumbed properly.

All the time we drove the 396 SS it drew a great deal of attention from the younger set, who seemed to dig everything about it—especially the simulated hood scoops. Several who looked inside noted the luxurious maroon vinyl upholstery and gauges instead of idiot lights as something worth plunking down \$3800 for. The bucket seats this year feel more straight-backed than previously and generally impart the idea that they provide better support on the sides. Appointments inside were almost all class "A" with a sensible dash layout whose only bad feature was that at night the illuminated tach face cast its reflection dimly into the windshield. We regard with mixed emotions that some of the trim on the dash is now chrome-plated plastic instead of metal, but at least in damp climates it will not rust, and this is some consolation for the cheapening effect.

As a synopsis of the random reflections that ran through our mind as we returned the car to the Chevrolet zone office, it could be said this 396 SS was the type of vehicle we hated to part with. It has just the right measures of ride-handling and acceleration that would make it the nuts for all kinds of driving, especially long trips. It's a fun car for today's dull traffic, and if it helps relieve the tedium of travel, you can't ask much more. ■ ■