

# '69 BUYER'S GUIDE: SPECS & PRICES

# MOTOR TREND

50c

NOVEMBER, 1968

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'69 TESTS: Chevrolet-Ford  
Plymouth-Ambassador

NASCAR: Atlanta 500

USAC: Milwaukee Stocks  
& Championships



Sunset Strip Car Collage



**Plymouth**



Road Runner 2-Door Hardtop

## The 1969 Road Runner. There's still only one place to catch it.

If you want a high-performance car, Road Runner is one car to think about. This year, there are three Beep-Beeps.

A brand new convertible for 1969.

Road Runner hardtop.

As well as the great original—our 2-door sport coupe.

The Road Runner is a real performer. But not because it costs a lot of money. It doesn't.

It comes, nevertheless, with a standard 383 cubic inch V-8. A 4-barrel carburetor. An unsilenced air cleaner. And dual exhaust trumpets.

A 4-speed transmission with Hurst Linkage. A high lift cam. And Red Streak Wide Boots.

Options include a tachometer, and our new 160-position driver's adjustable bucket seat that does everything a

power seat does. At roughly half the cost. Another new option: functional hood scoops, or "air grabbers."

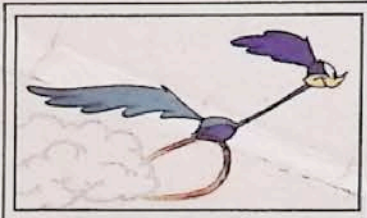
Now there is a larger, full-color Bird on the deck lid, doors and instrument panel. Plus a new deluxe steering wheel—with the Bird perched right on the hub.

And this year's Road Runner comes in eighteen exterior colors. With broad

black sport stripes on the hood, optional. Pity the poor coyote.

If Road Runner doesn't baffle him with numbers, he surely will with plumage. "Beep-Beep!"

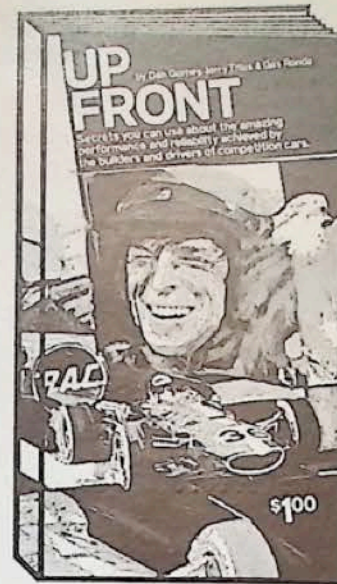
You can catch the Road Runner. At your local Plymouth Dealer's. That's the place, and 1969's the time to . . .



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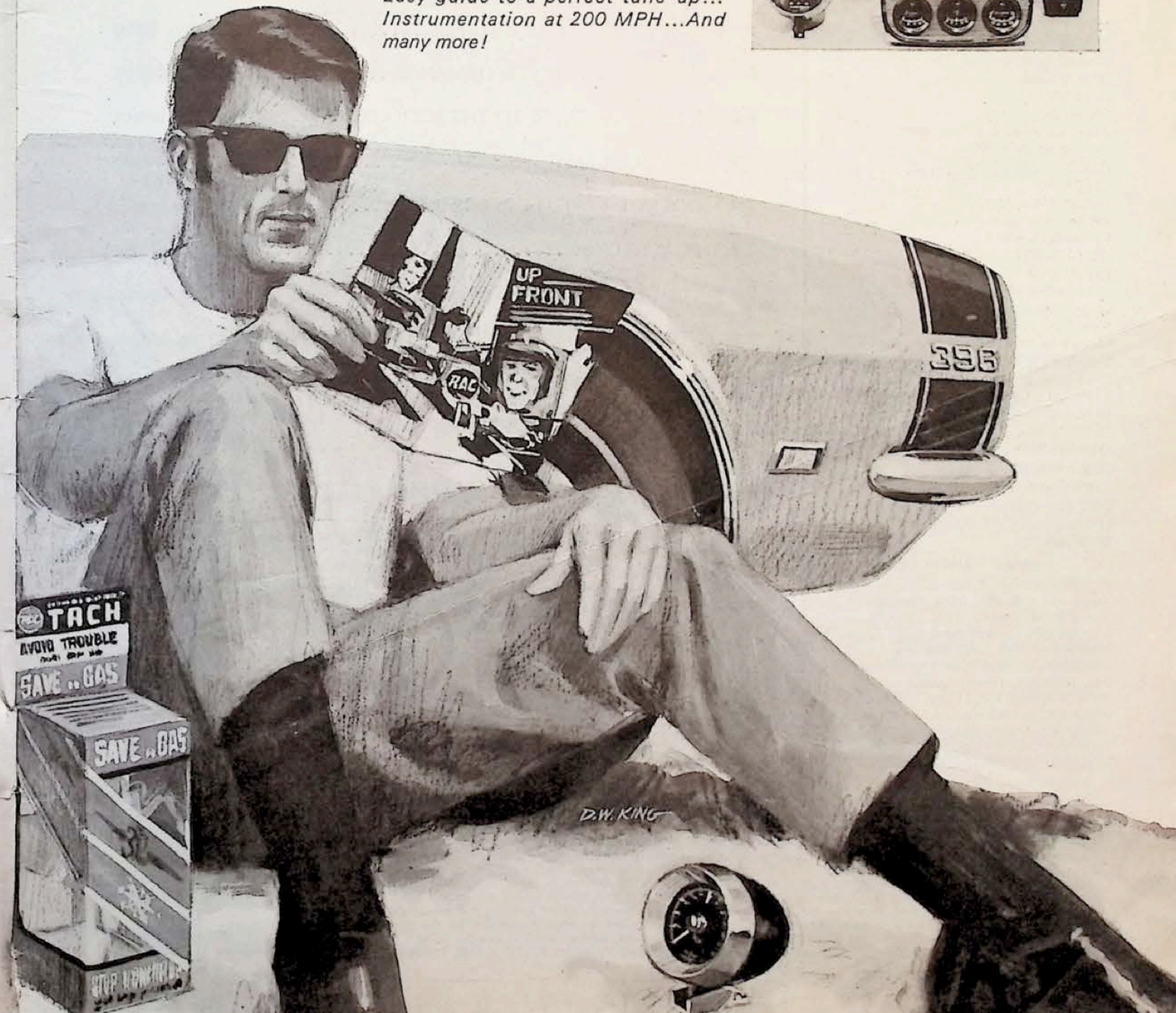
Look what Plymouth's up to now.



### YOU CAN'T BUY IT... IT'S FREE

Brand-new 100-page book, written by All-American Racers' Eagle builder-driver Dan Gurney; pro-driver and author Jerry Titus; and drag star Gas Ronda, contains factual information never before published to help you get better performance and mileage, save on repair bills, and keep your car in top tune. Loaded with performance secrets, this book tells how to get the most out of your machinery. Chapters on... Competition cars, streets machines, and dragsters... The professional view of instrument placement in the cockpit... How to understand the language of gauges... Easy guide to a perfect tune-up... Instrumentation at 200 MPH... And many more!

There's no way you can drive a car right, without reading the right instruments. So we put together this authoritative, factual, exciting book, "Up Front" and your choice of RAC driver-approved instruments. Take your choice of RAC top-quality gauges, tachs, and test instruments—and the book is free. Buy one for a gift, or for yourself. (Or drop a hint somewhere!) Prices start under \$7.50. See them at major auto centers, including discount stores.



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PUBLISHER/Ray Brock  
 FEATURE EDITOR/Julian G. Schmidt  
 ROAD TEST EDITOR/Bill Sanders  
 TECHNICAL EDITOR/Eric Dahlquist  
 PRODUCTION EDITOR/Ellen Merlo  
 ART DIRECTOR/Tom Uhler  
 ASST. ART DIRECTOR/George Foon

### ASSOCIATE EDITORS

Robert W. Irvin / DETROIT  
 Leo Levine / EAST COAST  
 Edouard Seidler / EUROPE  
 Bob E. Meyers / STOCK CAR RACING  
 V. Lee Oertle / TRAVEL  
 Michael Lamm / USED CARS

### ADVERTISING OFFICES

NEW YORK  
 770 Lexington Ave  
 New York, N.Y. 10021  
 (212) 751-5260  
 DETROIT  
 Robert Brown, Mgr.  
 2208 Detroit Bank & Trust Bldg.  
 Detroit, Mich. 48226  
 (313) 963-8040  
 CHICAGO  
 Everett Allen, Mgr.  
 401 No. Michigan Ave  
 Chicago, Ill. 60611  
 (312) 222-1920  
 CLEVELAND  
 John Millar, Mgr.  
 One Public Square  
 Suite 905  
 Cleveland, Ohio 44113  
 (216) 696-7900  
 ST. LOUIS  
 Chris Moran, Jr., Mgr.  
 34 N. Brentwood Blvd  
 St. Louis, Mo. 63105  
 (314) 727-7220  
 LOS ANGELES  
 Clark Graves, Mgr.  
 8490 Sunset Blvd.  
 Los Angeles, Calif. 90069  
 (213) 657-5100

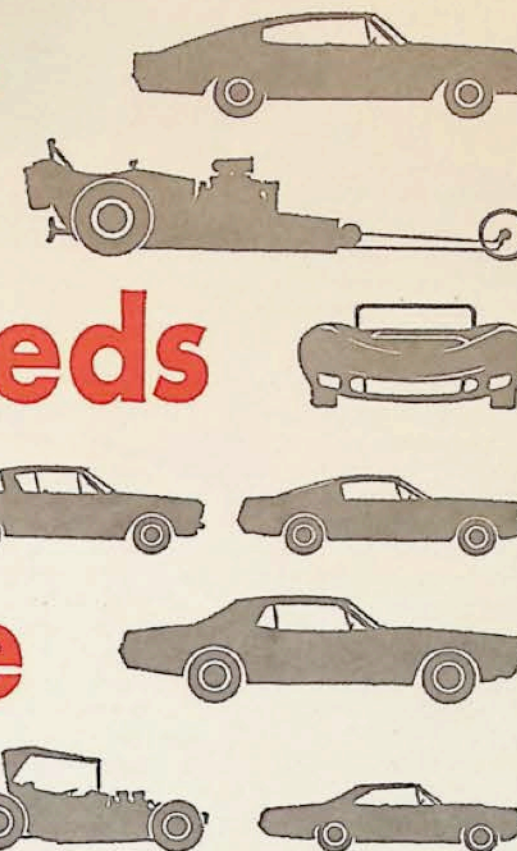
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# Profile of the one oil that meets the needs of all performance cars



- GT-1 Racing Oil resulted from Kendall's field experience with Grand Prix, sports car and dragster teams.
- This experience proved that, no matter how they are driven, all high torque engines are plagued by 6 critical problems: valve train wear, lubrication loss through oil foaming, corrosive wear, sludge and varnish build-up, valve lifter sticking and r.p.m. loss due to friction.
- Kendall GT-1's special formulation overcomes these problems on the track, turnpike or in stop-and-go city traffic.
- Kendall GT-1 is now used by amateur and professional drag and road race drivers. It is the official oil for the Grand Prix of the U.S. and other events at Watkins Glen, New York and the choice of leading drag eliminators, such as Eddie Schartman, Ron Rivero and Larry Reyes.
- If you drive a performance car, for competition or everyday use, protect its engine with Kendall GT-1 Racing Oil. It exceeds car manufacturers' MS sequence test requirements.

**KENDALL REFINING COMPANY**  
 BRADFORD, PENNA. 16701

Division of Witco Chemical



## PUBLISHER'S PAGE by Ray Brock

Greetings! I don't mean to sound like the government sending you a draft notice but I'm new on the job here at MOTOR TREND and thought I should start off by introducing myself. As the heading at the top of this column indicates, my name is Ray Brock, and although this is my first issue as publisher, I'm not completely inexperienced in this office since I acted as editorial director of MOTOR TREND for several months back in 1965-66.

My most recent job has been as publisher of *Hot Rod*, a companion publication under the Petersen Publishing Co. banner, and five years was spent in that position. Prior to becoming publisher of *Hot Rod*, I spent 10 years working up the ladder after starting out as the assistant technical editor in 1953. In just a couple of months this will total up to 16 years in the automotive enthusiast magazine field. When former publisher Walt Woron resigned last month to fulfill a longtime desire to operate his own public relations and advertising agency, bossman Robert E. Petersen tapped me for this job at MOTOR TREND, and I honestly jumped at the opportunity.

Although a longtime hot rodder and still vitally interested in everything automotive, it seems as though I no longer have the time to get my hands dirty working on my own cars. There is a beautiful '32 Ford Touring sedan sitting in my garage right now which is near completion, but which has been under construction for the past couple of years. Ten years ago, what's left to finish would have taken me a month but with the pressures of travel and other business today, it might take me another year to complete the job. I'm going to finish it though, so please don't send offers to buy. The car's not for sale!

I am interested in everything automotive and want to keep up with all the latest engineering features and new concepts in transportation, but I really don't have time enough to take care of everything on my automobiles like I used to. For that very reason, I think that I am a lot like the average MOTOR TREND reader and qualified to direct MOTOR TREND's future. Today, when something doesn't work right on my car, I diagnose the trouble by the way the car sounds or feels, then take it to the local dealer and relay my opinions

to the service manager and let him assign a mechanic to the job. The diagnoses are usually pretty close and a certain amount of personal satisfaction is my reward even though I don't make the repairs or adjustments myself.

This is who we on the staff of MOTOR TREND intend to direct our editorial pages to; the person who is interested in all things automotive but not necessarily a do-it-yourselfer. Our tests of both domestic and imported automobiles will point out advantages and disadvantages impartially. Race coverage will not be heavy but it will be steady and will include varied types of events: Championship cars, stock cars, sedan racers, Can-Am races, etc. We won't have much to say about the drags or sports car events, where imported cars predominate, because we have companion publications within the company which are expert in these fields (*Hot Rod* and *Car Craft*, drags; *Sports Car Graphic*, sports cars) and they can do a more complete job in these areas. The racing events we do cover will be of major status and our reporters will search out behind-the-scenes happenings and politics of racing rather than just a rundown on who passed whom on which lap.

For the antique and classic car enthusiast, you can expect interesting, well-illustrated stories every month on a variety of cars. Our editors will also be talking with personalities associated with the automobile industry to record their expert opinions on what is happening or will happen with automobiles. And while on the subject of editors, several have been featured in the publisher's column in recent issues and we have a very strong lineup, both here in the home office as well as in the key locations of Detroit, New York and Paris. In addition, we have freelance contributors strategically based in other locations where automotive news is taking place. The bill of fare is going to be varied and we have the writers to handle the assignments.

One of the projects in which our editors are soon going to be involved is the selection of the recipient of our annual MOTOR TREND Car of the Year Award. During the past several months, as the American automobile manufacturers have held their advance previews to show the members of the automotive press their 1969 offerings,

MOTOR TREND's staff has been inspecting these cars in a most critical manner. The editors have driven representative models of all the candidates and the early line on betting is that those entrants in the 1969 race are more equal in greatness than ever before.

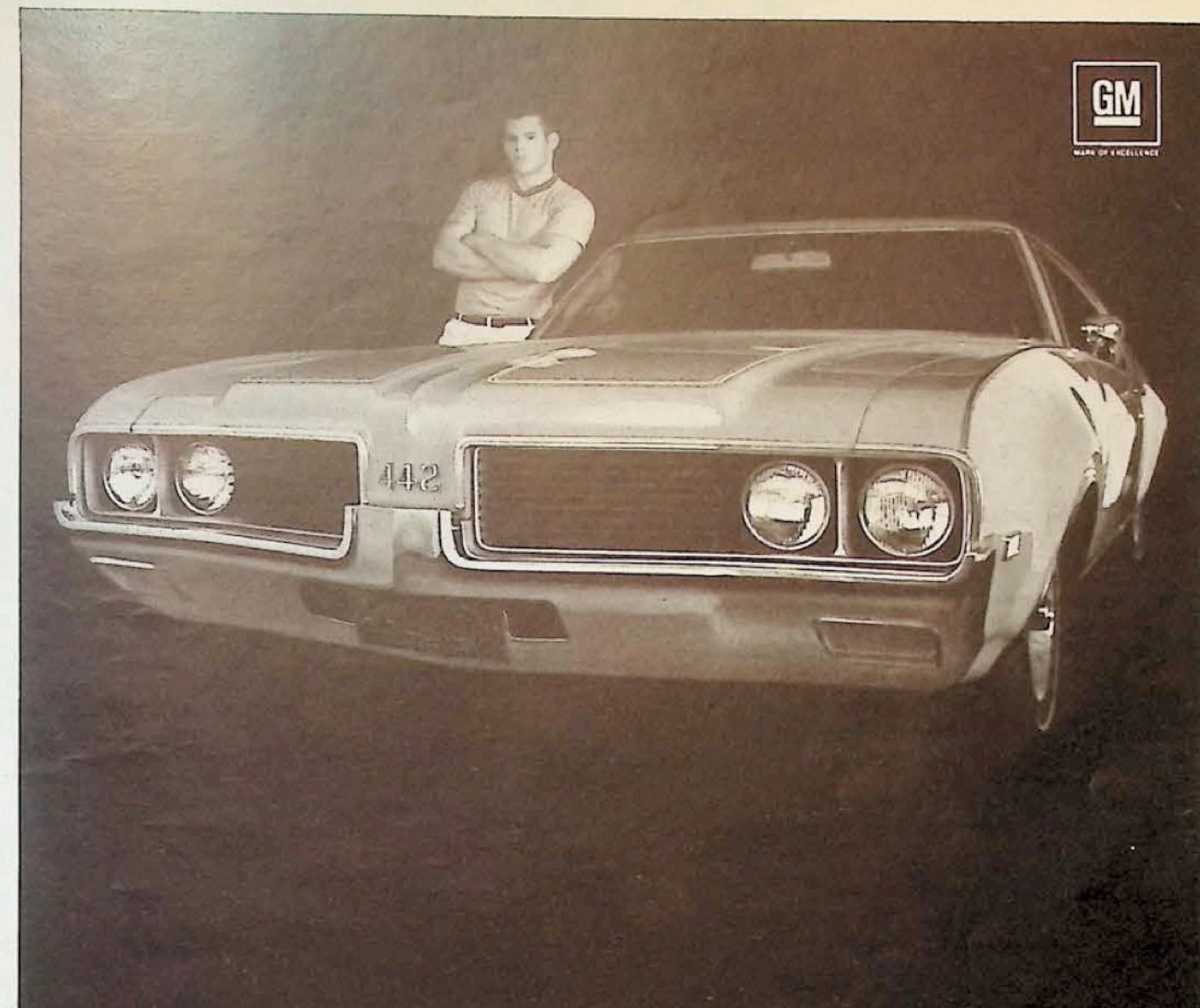
A wide range of features are considered when making the Car of the Year selection. Included are engineering excellence, originality, functionality of design, styling, safety, timeliness in the market, and so on down the list. Judging all the 1969 cars and coming up with just one winner is a tough assignment but one we look forward to.

Probably our next biggest project of the year, aside from producing 12 issues of the magazine, is sponsorship of the MOTOR TREND 500 at Riverside, Calif. It has been suggested that perhaps we should add the name Dan Gurney someplace in the title because with the lone exception of 1967 when Parnelli Jones came home first, Dan has won the grueling stock car race with ease. Don't think the racing hasn't been fierce, it has, but Gurney knows the twisting course like no other driver and with the famous Wood Brothers preparing his Ford, he's an odds-on favorite to make it six out seven races next January 19. Parnelli Jones, A. J. Foyt, Al and Bobby Unser, and the cream of NASCAR's southern Grand National drivers will do their utmost to keep the name of the race from being changed permanently.

If you are going to be in southern California area on the above date, we suggest you get your ticket order in early for choice seat reservations in grandstands along the Esses or turn six. Plenty of action takes place in these areas and with this race the No. 1 event on the 1969 Grand National NASCAR circuit, it will also be the first outing for the 1969 stockers.

Now that I've introduced myself and given you a brief outline on what you can expect in future issues plus some of our special projects, I'd like to invite you to check into this column every month to see what MOTOR TREND and I have to say. We will try to be topical and help you keep abreast of automotive problems of the day.

So come on around next month and all the following months. We are going to do our best to make you a well-informed automobile enthusiast. /MT



# Built like a 1<sup>3</sup>/<sub>4</sub>-ton watch.

We hover over every 1969 Oldsmobile like a mother hen. But when we get to the 4-4-2, we become downright fanatical.

Critical parts in this precision machine are individually selected. And matched. And fitted. To extremely close tolerances. If a part hasn't got it, it gets the thumb.

Sure, it takes time. But you wind up with a great timepiece.

**ENGINE**  
Type ..... Rocket 400 V-8  
Bore x stroke, inches ... 3.87 x 4.25

Displacement, cubic inches ..... 400  
Compression ratio ..... 10.5-to-1  
Bhp ..... 350\* at 4800 rpm  
Torque, lb.-ft. .... 440 at 3200 rpm  
Carburetion ..... 4-bbl.  
Exhausts ..... Dual

\*325-hp Rocket 400 V-8 with 4-bbl. carb and 10.5-to-1 compression ratio standard with Turbo Hydra-matic 400.

Availabilities: Force-Air Induction System (W30). 360 bhp at 5400 rpm. Teams with close-ratio 4-on-the-floor transmission or Turbo Hydra-matic 400.

All 4-4-2 engines for 1969 feature individually branched exhaust manifolds for improved tuning and increased performance through entire drive range.

**DRIVE TRAIN**  
Transmission .... Fully synchronized, heavy-duty 3-on-the-floor with Hurst Shifter

Availabilities: 4-on-the-floor (close- or wide-ratio with Hurst Shifter) or Turbo Hydra-matic 400.

8 axle ratios ... 2.56-to-1, 2.78-to-1, 3.08-to-1, 3.23-to-1, 3.42-to-1, 3.91-to-1, 4.33-to-1, 4.66-to-1. (Availability depending on engine selection.)

**CHASSIS**  
Suspension ... Heavy-duty. Includes

heavy-duty springs and shocks, front and rear stabilizers.

Steering ratio ..... 24-to-1  
Wheels ..... Heavy-duty 14-inch with extra-wide rims

Tires ..... F70x14", Nylon-Cord Wide-Oval Red-Lines

**GENERAL**  
Wheelbase ..... 112"  
Overall length ..... 201.9"  
Overall width ..... 76.2"  
Overall height ..... 52.8"  
Curb wt. (lb.) Holiday Coupe ... 3675  
Tread ..... front 59.0", rear 59.0"

**SAFETY**  
GM safety features are standard, including seat belts for all passenger positions, and new ignition, steering and transmission lock on steering column.

**The 1969 Olds 4-4-2**  
Make your escape from the ordinary.

You want to get turned on by a new car?

Look at Pontiac's Grand Prix. No, this isn't a commercial, and maybe the Grand Prix really isn't that great, but if you've taken a good look at all the new stuff to come out of Detroit in the past few weeks, you'll know why the Grand Prix has created such a demand in the marketplace.

It's because everything's relative, baby, and 1969 isn't exactly what you'd call a vintage year for the American automobile industry.

Detroit, it would seem, is still too shaken by Federal intervention and too confused by its own marketing mumbo-jumbo to make the great majority of the new cars really new, or even halfway new. The state of the art for 1969, it would seem, does not show any great improvements over the previous model year. To put it in plainer English, although the manufacturers have shifted a few panels around and slapped a couple of new chrome strips on the outside, with a few notable exceptions your new car isn't going to be much different from the one you could have (or may have) purchased last season.

Engineering advances are for the most part still minor ones—nobody has yet come up with a full independent suspension for an American sedan, for example—and rising costs have reduced the annual model change to little more than the aforementioned shifting of the sheetmetal. It is a rather dark picture, and when there is a ray of light, it shines all the brighter because of its being such a sometime thing. That's why the Grand Prix stands out.

Let's split the rest of this up into two parts: engineering advances, such as they may be, and the most interesting of the new models.

As far as the engineering is concerned, the biggest news—although the factory seems to want to keep it a secret—is the increased availability of Ford's new 429-inch engine. Last year you could get it only in Thunderbirds and then later, in 460-inch form, in Lincolns. The successor to Ford's 428, which was the last step in the 332-352-390-406 series, the new powerplant is of more modern conception and is a more efficient item. The catch is that it's available only in full-size Fords and Mercurys, not in the medium-sized models such as Fairlanes and Montegos. These have to make do with the older 428, as the new one doesn't fit; it sounds

## VIEWPOINT



by Leo Levine

like the left hand didn't tell the right hand what it was doing.

The other big engine change also comes from Ford, this being a 351-inch version of last year's 302 (originally 221, then 260 and later 289). In this respect Ford is still trying to catch up with Chevy's 350, which started life as a 265 (in 1954), then went to 283 and later to 327. The small-block Chevy has proven itself to be the finest production powerplant ever built in this country; the jury is still out on the chances of Ford's 351 making a dent in its sales.

Everyone else's engines are more or less the same as last year—detail changes only, and most of those caused (even though few will admit it) by the Government's increasingly tough emission laws.

On the chassis side, Chevrolet is now putting a rear anti-sway bar on some of its bigger models (as an option), Ford has a safety-designed front on its frame, and almost all the General Motors cars have what they call side-guard beam designs in the doors to protect you against the "T-bone" type of accident.

Among the gimmicks is Dodge's new Super-Lite, which is a good thing for night driving, but is unfortunately being used as a marketing tool for the higher-priced models rather than as a general improvement to all their cars; Chevrolet's headlight washer, which is being used in the same manner, and the Grand Prix's hidden radio antenna, which is truly a gimmick, and a good one. (Now all those juveniles will have to search elsewhere for weapons.) Also falling into the gimmick-cum-sale-promotion-item category is Ford's new anti-skid device: it may be a great thing, but the only way you can get it is to buy an expen-

sive car. Aren't Falcon owners entitled to safety?

Four-wheel disc brakes will be available as options on the Camaro and several other performance-oriented Chevys, and the Corvette will even have 8-inch wheels. Ford has gone up to 6-inch wheels on several models, notably on the Fairlane Cobra, which is an imitation of Plymouth's successful Road Runner and which comes with the 428-inch engine.

From a personal standpoint, the most appealing car of the whole bunch is the Grand Prix (you got that message in the first paragraph), not because the mechanical parts of the vehicle are different from last year—except that it is slightly smaller with a 118-inch wheelbase—but because the concept is different. It is being built as the poor man's Eldorado, and as such is going to appeal to a lot of cats who don't have the money to buy a Cadillac. In addition, it will bite off a hunk of the Thunderbird-Toronado-Riviera market. Simple, isn't it? Then why didn't anyone else do it first? It comes only as a hard-top coupe, incidentally, and if the J and SJ model names seem familiar to those of you in the geriatric crowd, it's because Duesenberg used them first (Ferrari used GTO first, but that didn't seem to slow sales of similarly named Pontiacs).

Other new—or pseudo-new—cars appealing to this corner:

The Dodge Dart, if for no other reason than it is neat, clean and comes with such a great variety of engines. If the other compacts had done the same thing, maybe their sales wouldn't be slumping so badly.

The Mercury Marquis Brougham, which looks as good if not better than the Lincoln, and at a much cheaper price.

The Chevelle, which when it presents its high-performance face looks quite purposeful.

The Ford LTD station wagon, still the best-looking of that bunch.

And on the don't-like list:

The new Cougar. Line it up next to one of last year's and you'll see why. Must everything be bigger and better? All the time?

The Corvette. For a great car, they sure did manage to make it big, bulky and all the rest of that stuff. Of course, it wasn't any different last year.

The Chryslers—which look like a bad imitation of the Cadillacs. /MT



# my dad can beat your dad

## Mark Donohue wins USRRC and Trans-Am with Sunoco 260 super premium gasoline

Young Mike Donohue has a lot to brag about. His dad swamped the competition in a Roger Penske "Sunoco Camaro" to win the 13-race Trans-American sedan series. Then dad encored with his second straight U.S. Road Racing Championship, driving Penske's McLaren-Chevy "Sunoco Special." In both victories, Donohue's fuel was straight Sunoco 260—the world's highest octane pump-grade gasoline. The very same 260 you can buy at any Sunoco station. Try some in the family Ferrari. After all, look what it did for the Donohues.



Get the world's highest octane at any Sunoco station

# INSIDE DETROIT

## Group Auto Insurance

A pioneering group auto insurance policy has been written to cover 300 members of the Michigan Credit Union League. The group approach has long been mentioned as an answer to mounting insurance rates. The new group policy was handled by the Farm Bureau Insurance Corp. It will cost each employee an average of \$60. The Credit Union League will pay another \$52 per employee. The normal cost for such a policy on an individual basis had been \$130 per year.

## Is Rubber Obsolete?

Owens-Corning predicts that well over half the new tires sold for passenger cars in 1970 will have glass

fiber belts. The firm is so bullish about the outlook it's even building a new fiberglass textile plant in Jackson, Tenn., to be ready next year. Fiberglass belted tires are expected to reach an annual rate of better than 25 million by the end of this year. As volume increases, this should enable tire companies to lower somewhat the premium price for the tires.

## Ballooning Problems

Balloons like you buy in the local dime store are no longer just a children's plaything. They've become a symbol of distress for New York motorists. Drivers have been asked to buy the balloons and display them from their car windows or antenna if they

become stranded. A standardized balloon code calls for a stranded motorist to indicate his problem by using one of three colors—red for emergency medical aid; green for police assistance; and blue for mechanical help or fuel. "This is not a gimmick," says Motor Vehicle Commissioner Vincent L. Tofany. "We purposely chose a novelty item because it would prompt curiosity and thus call attention to the overall problem of highway safety." He says balloons are more eye-catching than the handkerchiefs which up to now have been the standard distress signal. Moreover, he says a balloon can be easily spotted by a traffic patrol airplane. The state isn't giving balloons away but just recommending that the public start buying and using them.

## And Leave The Driving To . . .

Two new electronic control systems for cars are being tested by Ford. One is called "Automatic Highway Control." It's designed for use on heavily traveled urban freeways. An electronic beam and a computer carried in the cars would keep them a safe distance apart by automatically controlling the brakes and throttle. The second system is an improvement on the first. It's called "Minigap." It would link cars together by electronic beams into highway caravans that follow special leader vehicles. Besides controlling the brakes and accelerator, the on-board computer would also take over the car's steering. Ford engineers see the devices as a forerunner of automatic highways. Jim Heywood, chief research engineer for Ford's Product Development Group, says "our studies show that fully automatic transportation systems, using cars and highways such as we have today, will be technically possible, if costs will permit, within a few years. Practicality of the system will depend on further orderly development of transportation technology and on cooperation between the public and private sectors of our society."

## What's New for 1970?

It looks like 1970 will be a year of modest styling changes for the auto industry's bread-and-butter cars. With the full-size cars all new for 1969, the next year will see only sheetmetal revisions. At General Motors, the standard "B" body cars will have new grilles along with some fender, hood and trunk lid changes. The Dodge and Plymouth cars will have front end changes while the Chrysler and Imperial cars will have rear end restyling. Look for similar treatment at FoMoCo. The restyling will be more pronounced on the intermediates,

which will be in the third year of their current cycle. Some of the specialty cars will have major changes in 1970. For example, it's expected that the Olds Toronado, Buick Riviera and Cadillac Eldorado will have a new body shell next fall. Ditto for the Thunderbird.

## Briefs

Do you own a blue car? Better watch out! British authorities studied 2000 accidents and found that blue cars were involved in about 25% of them, followed by green at 20% and white at 12%. Maybe they just build more blue cars in Britain.

Chrysler's come up with a new way of training mechanics in remote areas. It's built a flying classroom—a modified DC-6B outfitted with all the gear necessary to train technicians how to maintain Chrysler cars. Complete with a portable 110-volt power supply, the airborne classroom planned to visit 18 Latin American countries this year.

More rumors that Ford may import its British-built Escort car. English Ford officials confirm they're considering selling the car in the United States but aren't saying when this might come about. Ford's only import now is the Cortina, also British-built.

## The Eye Is Watching

The Bureau of Public Roads has selected a 50-mile stretch of Interstate 4 between Tampa and Orlando, Fla., for a test of a new system that will enable drivers to summon help for stranded motorists merely by flashing their car lights. The system is known as FLASH—meaning, of course, Flash Lights And Send Help. When drivers see someone in need of aid, they will flash their headlights at one of 22 electronic detection units which will be activated by the flashing. They will be linked to a nearby highway patrol station which will dispatch help. Signs will inform drivers of the program. The program will begin by year's end.

## The Ghost Rides Again

A suburban Detroit man told Police his wife couldn't pay a ticket for running a red light because she had died. He even had a death certificate and a newspaper clipping about her demise. The prosecutor later said, "I've heard of many excuses and attempts to avoid paying traffic tickets, but no one who ever went to this extreme." It seems that upon checking, police found the death certificate was faked

and the newspaper story was a hoax. The prosecutor said, "I am very happy to report that his wife is alive and well." She had to pay the ticket and her husband had to face charges of making a false report.

## Used Car Safety

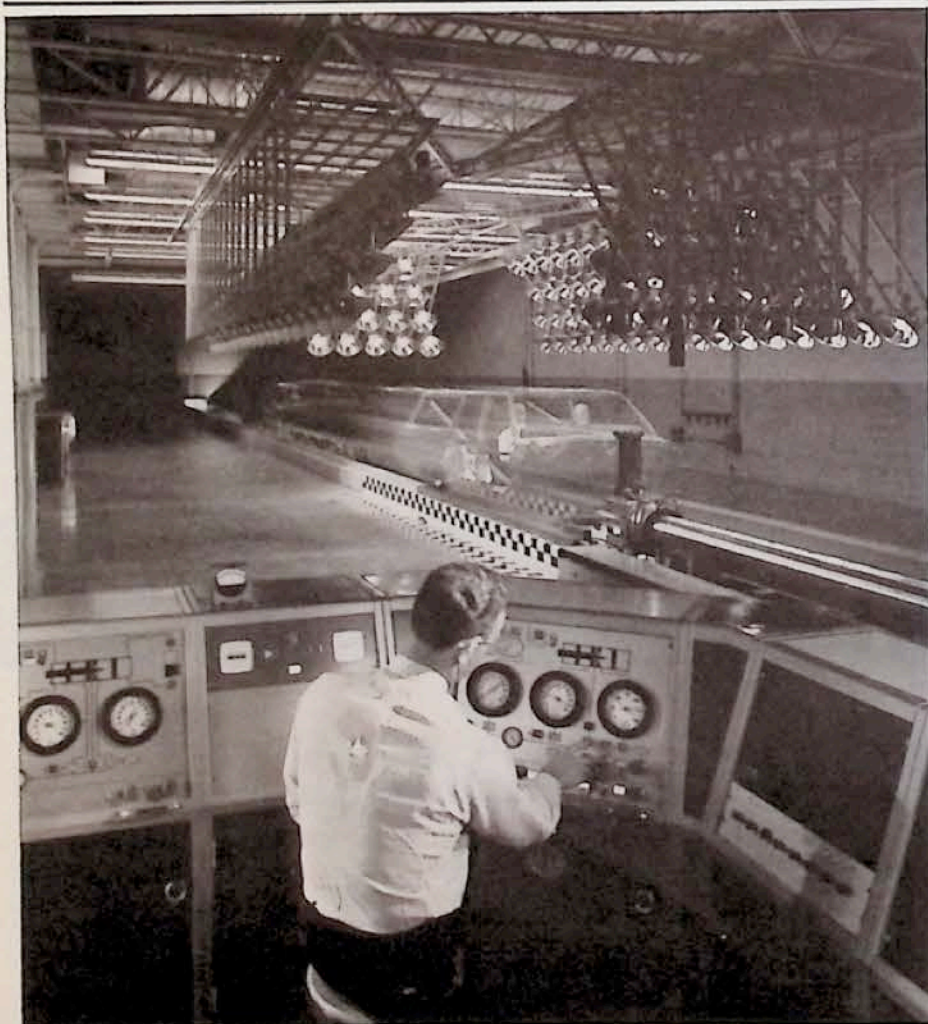
The long-awaited initial used car safety standards are expected to be ready this fall—at least a few of them. The proposed standards for the nearly 100 million cars and trucks in use will cover the "most critical aspects of safety performance"—including brakes, steering and tires. It will be up to the states to see that cars meet these standards through motor vehicle inspection programs. A total of 31 states now have such systems, while eight others spot check vehicles. Six states permit local governments to inspect cars and five states have no programs at all. Transportation Secretary Alan Boyd says "the standards will define the requisite safety performance of the vehicle from the time it leaves the showroom floor until it is finally scrapped."

## Cycle Helmet Statistics

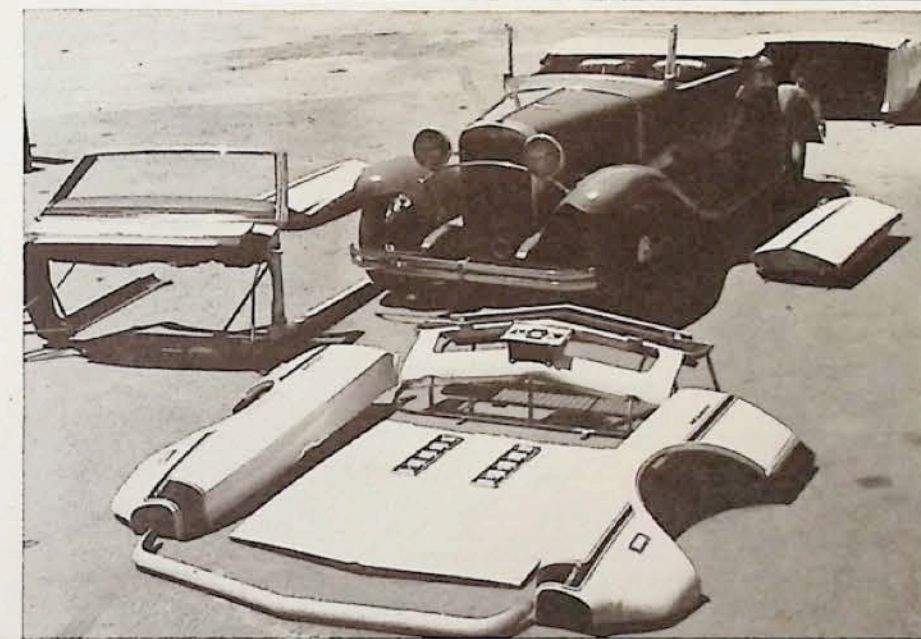
Michigan motorcyclists are complying with the letter of a new law requiring bikes to be equipped with helmets. This law was passed after courts ruled unconstitutional another law requiring motorcyclists to wear helmets. The bikes are now "equipped" with helmets—attached to the handlebars or the luggage carriers but all too seldom to anyone's head. On the other hand, New York state has experienced a 42% drop in motorcycle deaths since its helmet wearing law passed, while California has seen motorcycle deaths rise without a law.

## Chrysler Electric Car

Chrysler is the latest auto company to experiment with an electric car. The car, built this past summer, is a modified Simca, built by Chrysler's French subsidiary. It's stuffed with batteries. Chrysler President Virgil E. Boyd, who's driven the car, says, "I don't think it's an acceptable vehicle because of the range of 60 or 70 miles." Like other auto execs, he says "I don't see any



The phantom image of a car is a multiple photographic exposure taken of Chrysler Corp's impact simulator sled in action at company's Chelsea Proving Grounds. Used to simulate front, rear and side impacts, the sled carries experimental car bodies down 140-foot rail.



A 1931 Chevy converts to a 1968 Camaro every week on the Gold Diggers—summer replacement for the Dean Martin Show. The transition is made in just 63 seconds by beautiful showgirls. Because some of the original '31 parts were too heavy for the girls to maneuver with grace, fiberglass was used for the Camaro. The car is completely driveable as both a '31 Chevy and a '68 Camaro. As you can see, photo at top shows Chevy with Camaro parts in readiness for assembly. In the second shot the car starts to transform, and then finally, wham—it's 1968.

## INSIDE DETROIT *continued*

future for an electric vehicle until there is a breakthrough in the power source." His boss, Chrysler Chairman Lynn A. Townsend, says of the electric car, "Substantial volume production is a long way off."

### But No Sub-Compact

Chrysler will not have any sub-compact car built in North America during the 1970 model year. "We are researching this, looking at models on the drawing board and researching costs, but have nothing coming," says one top Chrysler official. The company is betting that it can meet the import challenge by rebuilding the market for its Simca and Sunbeam cars built in France and England. Chrysler wasn't able to import the 1968 models because they didn't meet federal safety standards, but plans to be out soon with cars that do qualify. In 1968, the company had to be content with importing 1967 models of these cars.

### Belts Aren't Used

Shoulder belt usage is pretty dismal. But some safety engineers believe the percentage of people using them is still better than the ratio of people using lap belts when they were first made standard equipment in 1964. Shoulder belts are standard on all cars built after last Jan. 1. "But less than 10% of the people with shoulder belts in their cars are using them," one safety expert said. Chrysler Safety Engineer Roy C. Haeusler blames the National Highway Safety Bureau for not doing more to educate the public on seat belt usage. He believes the same thing may happen with head restraints on 1969 cars—people will take them off because they don't understand the value of them.

### Gasoline Not Harmful?

Leaded gasoline may not be as harmful as some auto critics have

been claiming. A recent study by the World Health Organization found that over the past 30 years the lead content in humans hasn't changed significantly. In fact, the health researchers found that the natives in New Guinea had a higher lead content and people in Finland had the highest of all. As far as lead, "the air you breathe is far less important than what you eat," says Charles Heinen, Chrysler's emission control expert.

The over square engine may be on the way out. Air pollution engineers say Ford's on the right track with its new longer stroke engines. They run cleaner and with them it's easier to meet federal air pollution standards.

An accident investigation program is being expanded at Chrysler. The firm's chief safety engineer, Roy C. Haeusler, had a fellow engineer working for some months this year with Don Huelke, the famed accident investigator at the University of Michigan. The engineer, Tom Hildebrand, expanded wrecked cars near Detroit to see how they were damaged, and what improvements could be made.

Dodge officials confirm they have a new sporty car in the works. But they say it will be at least another year before it's ready for market. It's believed the car — and a companion version for Plymouth—will be introduced as 1970 models. The Plymouth version will be a new Barracuda.

### Cigar Smog

Are cigars as dangerous as cars? Chrysler's air pollution engineer, Charlie Heinen, is a cigar smoker. One day, he recalls, "I was checking an exhibit of equipment used to measure emissions and I decided to try my cigar

smoke in it." He figured the carbon monoxide content would be high but not the hydrocarbons. "But both were as bad as the average car," he said. "I wonder if the cigar was that bad or the car that good?"

### Auto Airlift

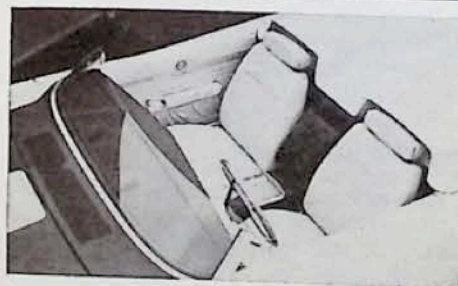
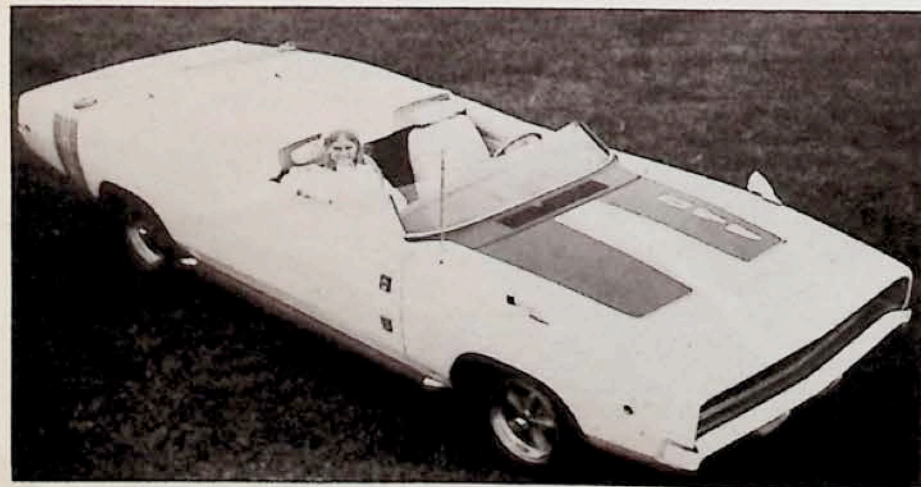
Auto manufacturers are thinking of airlifting their cars to the West Coast from Detroit. The cars would be carried in the big jumbo jets that are expected to go into service in the early 1970s. The companies would ship the luxury cars now built primarily in the Detroit area, such as the Cadillac, Lincoln, Continental Mark III and Imperial. The big Boeing 747 could carry 30 Cadillacs while the Lockheed 500 could carry 65.

### AMC Mini?

Import cars have peaked. This is the view of American Motors Chairman Roy D. Chapin, Jr. "I believe that the 900,000 foreign-car sales this year will be a high-water mark," he said. The reason "is because there are going to be other American-made products competing with them," he said. Chapin admitted AMC is working on such a car which will be "about the size" of the present Rambler. It's understood AMC's car will be introduced as a 1970 model to replace the present Rambler, and be about two inches smaller than that car.

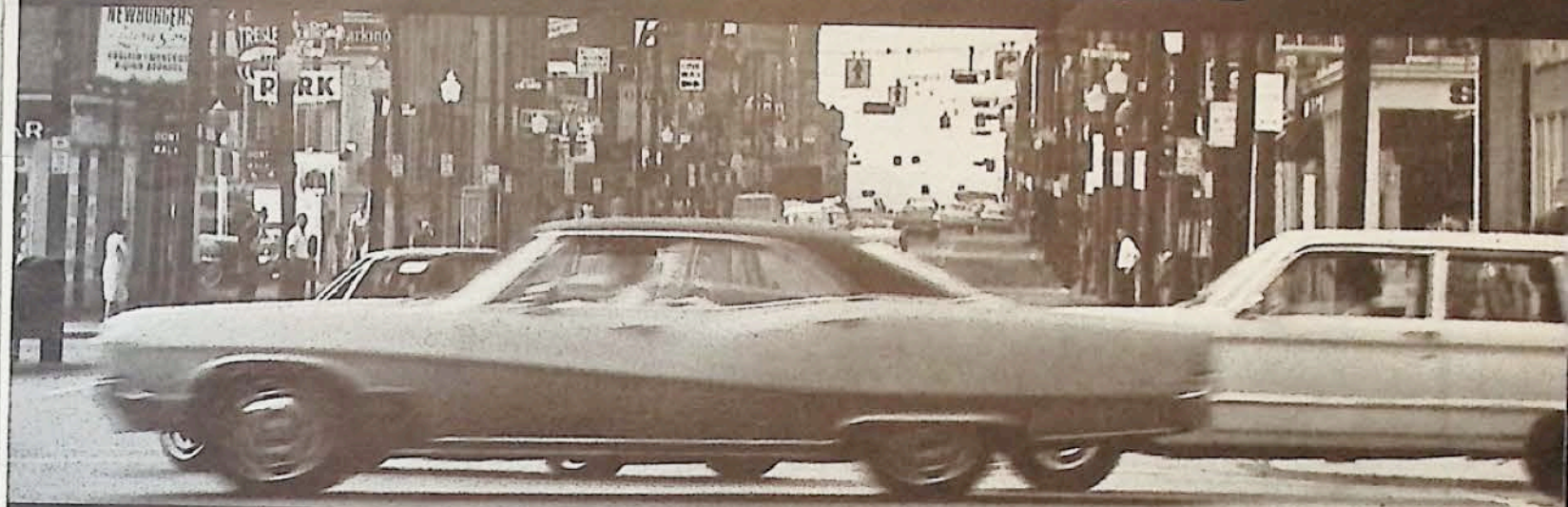
### GM Junkyard

General Motors figures it's got the answer to the growing and unwanted stockpile of junk cars. It's recommending a combination of equipment designed to mutilate an old car, removing all the unwanted materials and making the rest suitable for reuse by steel mills. The size of the problem can be measured by the fact that 6.6 million cars are being junked each year but it's believed less than that number are used for scrap. GM estimates that by 1975 eight million cars a year will be junked. /MT

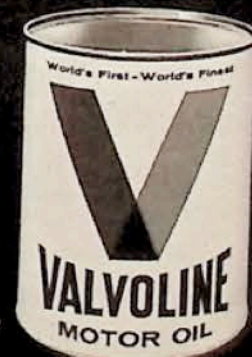


Elwood P. Engel, Vice President of Styling for Chrysler Corp., is continually prodded to ideas when driving his "idea" Charger R/T convertible. The body has been cut down at belt line, it has a custom windshield, twin headrest cowls tapering from bucket seats, heated stainless steel steering wheel and mags.

# The Everyday Endurance Run



There are times when normal driving can be tough on your car's engine. With moments of stress equalled only in competitive racing. Moments that cause excessive engine wear. That's why your car needs the full-time extra protection built into Valvoline—the motor oil that's race proved to meet the rigors of everyday driving. Every can of Valvoline contains the power, performance, and protection know-how distilled from millions of miles of racing. Take the wear and tear out of your engine's toughest moments. Ask for Valvoline.



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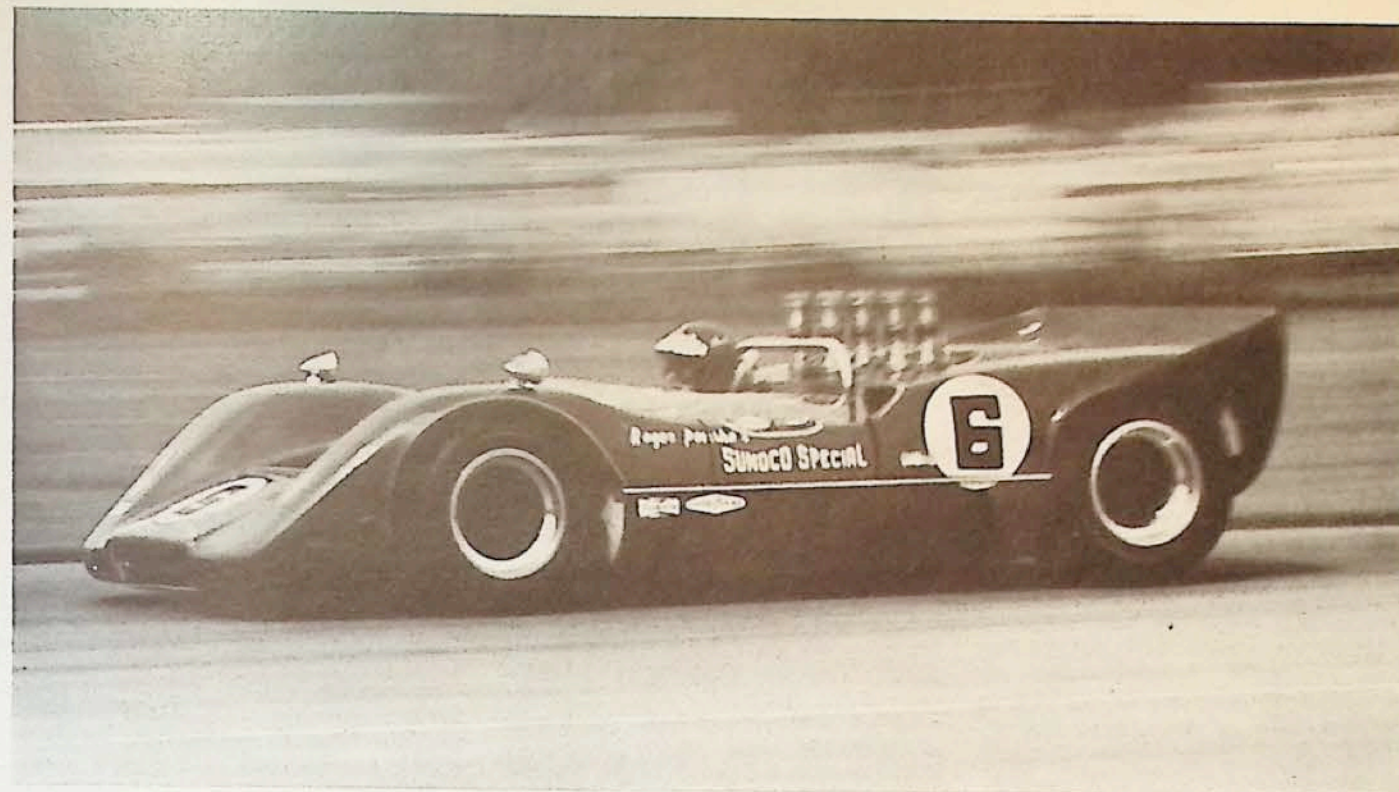
# Mark Donohue captures the 1968 USRRC and Trans-American Championships— sparked by Champions!

When the green flag dropped for the start of the big Mid-Ohio—the last race on this year's United States Road Racing Championship schedule—a mere 4 points separated the leading contenders for the 1968 USRRC crown. But by the end of the first lap, the 33,000 spectators generally agreed that the driver who was already leading in points would wrap the title up for keeps. And they were not to be disappointed. Taking the lead on lap one and holding it throughout the 180-mile, 75-lap grind, Mark Donohue piloted Roger Penske's Chevy-powered McLaren Sunoco Special to a new 90.77 mph record—straight to his *second* Champion-sparked Sports Car Club of America USRRC title in a row!



Mark Donohue's other big triumph came in this year's SCCA Trans-American Sedan Championship series. Driving another hot entry from the Roger Penske stables, the Champion-equipped, "Sunoco blue" Camaro, Mark won the 9th race on the 13-race schedule, the Loudon, N.H. Bryar 200. This marked his *8th* straight win, earning him enough points to cinch the 1968 Trans-Am title!

In every USRRC and Trans-Am race this year, both of Roger Penske's winning cars were sparked by *Champions!* And their winning record on these rugged SCCA road circuits offers more proof Champions deliver *outstanding performance*. Why settle for less in your car? Insist on Champion spark plugs!



Racking up victories at Riverside . . . Laguna Seca . . . St. Jovite . . . Watkins Glen . . . and Mid-Ohio, Mark Donohue pilots Roger Penske's Champion-equipped, Traco Chevrolet-powered McLaren Mk 6-A Sunoco Special to the 1968 USRRC title—becoming the first driver ever to wear the crown two years in a row



Mark Donohue maneuvers Roger Penske's Champion-equipped Traco Chevrolet-powered Sunoco Camaro to wins at Sebring . . . War Bonnet . . . Lime Rock . . . Mid-Ohio . . . Bridgehampton . . . Meadowdale . . . St. Jovite . . . and Bryar to capture the 1968 Trans-American Sedan Championship



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## Have Car, Will Pay!

The average Frenchman, as the world sees him, wears a beret and a moustache, loves wine, women and vacations, and holds some kind of world record when it comes to tax evasion. Times have changed though. Berets and moustaches are definitely out. Women and wine are still in, while Coca-Cola is not far behind. And if tax evasion is still a national sport, there is at least one type of individual who can't play along any more: the motor-car owner.

Taxing motoring, as a matter of fact, has always been the very first move of any French government whenever it needed additional cash. In May and June, student unrest and industrial strikes halted every activity in the country, with the exception of manufacturing Molotov cocktails, raising barricades, burning cars and throwing stones in the streets of Paris. Among others, the booming national auto industry lost 10% of its yearly output and came out of the strike with an 8% hike in production costs. Renault, Citroen, Peugeot and Simca immediately raised their prices by an average 3% on the French market and announced a further probable increase before year's end. Managers sadly gave up their vacations and locked themselves up in their offices to try to solve this impossible problem: how to pay their workers a global yearly wage increase of \$80 million, when the net profits of the whole industry before this hike in salaries amounted to only \$22 million in 1967.

"There is only one way out," commented Renault's president, Pierre Drefus, "and that is expansion."

Before being hit by France's month long strike, Renault was well on its way to setting an all-time production and sales record. France's leading manufacturer could not produce enough cars to meet all demands: exports to Germany alone went up by 20%. And



Renault was expecting a continued boom with the launching of its latest model, the Renault 6—a front-wheel-drive economy car designed as a "small Renault 16" and first shown at the Paris motor show in October.

"Now we don't know," remarked a company official. "Exports can progress only if the national market is strong. And no one can tell how the French market will react after the various measures put in force by the government."

The measures: \$145 million—more than one-third of all additional taxes levied in 1968 to cover wage increases granted to government employees—will be paid by car owners. Registration fees have been doubled on all cars. The vignette, a special tax on automobiles, originally created to provide needy retired people with an increased income "social subsidy," now costs \$48 instead of \$24 for all average size cars, and runs as high as \$200 per year on big-engined American cars.

As if the penalty were not sufficient on the car industry, the government decided a further increase in the price of gas. French gasoline has been the most expensive in the world for years. The new rates, including a state tax of 77.6%, will be difficult to match: ordinary gasoline now costs 75.2 cents a

gallon. High test gasoline is sold at over 80 cents a gallon.

"French car owners," industry officials commented, "buy automobiles but cannot afford to drive them. On the average, a car in France used to run less than 6200 miles per year, less than half as much as a car in Germany. If motoring taxes keep going up, Frenchmen will end up buying cars only to look at them. They might also stop buying them altogether. Who will pay the taxes then?"

## BRIEFS

**New step in Japan's offensive on the European car market.** The first Japanese assembly plants are to open shortly in Portugal. For a start, Toyota and Nissan plan on assembling 1000 cars each per year.

**It was the highest price ever paid for a single Maserati.** Mr. Neil Corner, an English enthusiast, wrote a check for \$80,000 and drove away with the 2.5-liter Formula 1 Maserati in which Juan Manuel Fangio won 1957's world championship of drivers. "I would not sell it for a million dollars," said Mr. Corner.

**It took Volkswagen of Brazil almost 10 years to produce 350,000 cars.** It will not be long before VW builds a similar amount in any single year. Before 1970, daily output will be brought to 1000 units. VW already invested 100 million dollars in its Sao Paulo factory. Another \$25 million will further present expansion plans.

**Belgium, one of the rare European countries without a national car manufacturer, is well on its way to becoming a major industrial power.** Thanks to a series of first-class assembly plants (among others: Ford,

Opel, BMC, Renault, Volvo, etc. . .), Belgium has assembled 475,150 cars in 1967. 360,000 were exported.

**Pope Paul VI might well follow in Ralph Nader's footsteps.** Addressing a crowd of pilgrims from his balcony at Castle Gondolfo, the Pope said: "We are worried by the risks and dangers of traveling by road. Be responsible. Be careful, for your own safety and for the safety of others."

## A Challenger for Fiat

"Whether we have a government or not is unimportant," Italian political analysts say, "as long as we have Fiat."

Fiat's former president was made a Senator. "They could have made him president of the Republic, for that matter," Italians say. "Whatever happens, Italy will always be Fiat country."

Fiat is the most integrated of all of Europe's manufacturers. Better known for its cars, Fiat transports all of Italy, on ground, on water and in the air. In Italy, the company owns Autobianchi cars and OM trucks; in Germany, Neckar cars; in France, Unic trucks. Fiat has assembly plants all over the world. It is helping the USSR set up a factory that will produce 600,000 Fiat 124s by 1970. In Italy, more than three out of every four cars registered are produced in Torino's huge Mirafiori plant. Under the leadership of Giovanni Agnelli, a grandson of Fiat's founder who perfectly impersonates the image of a modern tycoon, the Italian company took first place among all importers on almost every major European market (Germany, France, Belgium), scoring impressive sales victories over such opponents as Volkswagen, Renault and Opel.

Fiat's turnover is equal to 3% of Italy's Gross National Income. Torino's giant accounts for 6% of all of Italy's

exports. Fiats account for 21% of all cars produced in the Common Market, and the company is responsible for 6% of the world's car production.

No one ever challenged Fiat's empire, and it looked as though no one ever would. Someone did, however, and intends to keep on fighting. This new and brave challenger is Alfa-Romeo: a glorious name, but a tiny company by modern standards. While Fiat produced over 1,400,000 cars last year, Alfa-Romeo put out a mere 70,000 units.

"We can do better than that," said Alfa's president, Giuseppe Luraghi (who writes novels and free-lance articles in his spare time). And he boldly proceeded to prove it.

After a severe political battle, state-owned Alfa-Romeo got enough government support to build a brand new plant near Naples, under the name of *Alfa-Sud* (Alfa-South). The plant will start operating in 1970 or '71 and build only one model: a relatively cheap 1-liter sedan, which is to be produced at the rate of 300,000 units per year, and which is intended to bite into Fiat's exclusive position on the popular car market.

In the meantime, Alfa-Romeo is steadily enlarging its share of the expanding sports and semi-luxury car market. Since 1960, the proportion of cars with top speeds of over 95 mph has moved from 7 to almost 15% within the European Common Market countries. In 1960, only 9% of all European cars had more than 80 hp. The proportion is now in excess of 20%.

Says Giuseppe Luraghi: "Europeans used to love our cars. Now, they can afford them."

Scoring a major hit with its new "1750" model, Alfa-Romeo had its best year ever in 1968. While overall registration in Italy dropped by 3.3% during the first semester, Alfa proudly announced an increase in national sales of almost 27%. Exports boomed even

more: so far, Alfa-Romeo's increase in foreign sales amounts to 40%.

Fiat has already started fighting back. Along with its prestige model—the Dino—Torino is enticing Europe's sports car fans with a series of high-performance and low-cost sedans and specialty cars: the "125" can carry an average European family at speeds above 100 mph. for \$2200. The 124 sports coupe and convertible match Alfa's performance (if not finish and quality) with sales tags showing savings of \$800 to \$1000. Next on Fiat's production schedule: a 2.5-liter V-6 sedan, the "130," which will roll off the Mirafiori lines sometime next Spring. At the same time, Fiat is testing a new 1-liter car, as an opponent to Alfa's future "popular" model. Fiat, it is rumored, would launch this car only weeks before Alfa-Sud shows its own, and Torino intends to undersell Naples by at least \$100.

Alfa-Romeo, acting like a brave David against Torino's Goliath, seems unimpressed. They, too, are carrying the fight into enemy land. Alfa already had a "Junior" sedan on their production program. In the fall, they will introduce a new series of "Junior" coupes and convertibles. The appearance of the new cars is the same as that of Alfa's standard line. Instead of the 1.6- and 1.79-liter engines, however, the "Junior" models come with a smaller 1.3-liter powerplant. The Junior spider, nevertheless, cruises at 106 mph., and the little Junior GTA 1300 has a top speed of 110 mph.

"The European and national markets are big enough for Italy to have two major car manufacturers," says Alfa's Giuseppe Luraghi.

"Europe has entered the age of major mergers," Fiat's Giovanni Agnelli replies. "Ten years from now, there won't be more than 10 large manufacturers in Europe. Mr. Agnelli obviously does not think that Alfa-Romeo should or will be among those 10. /MT



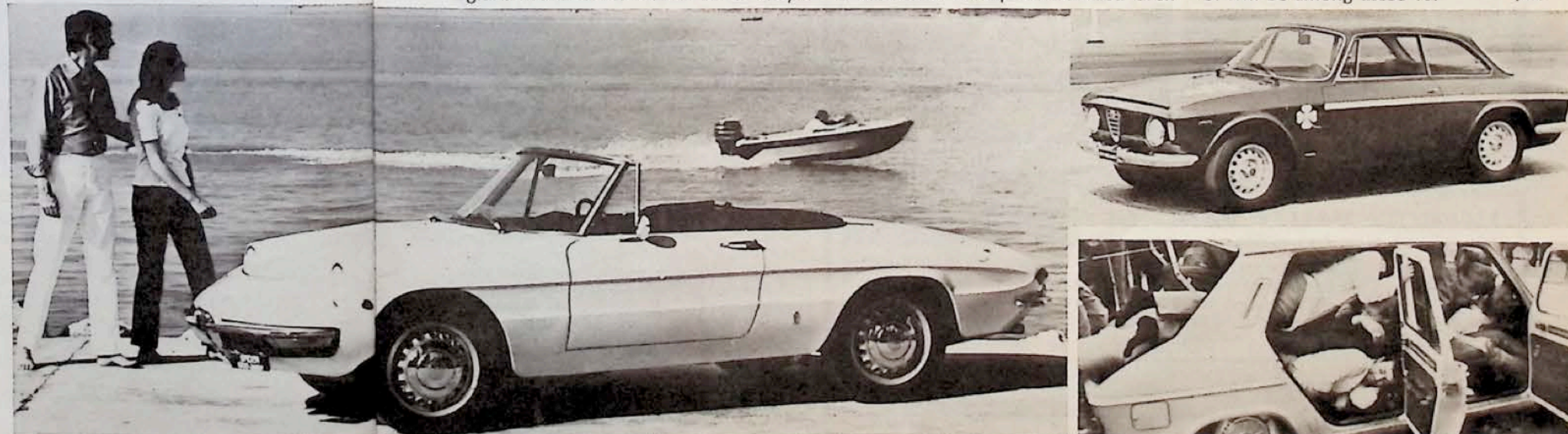
(Above left) New VW 411 no longer bears resemblance to a Bug.

(Below left) The BMW 200 sedan has a quieter engine and improved interior.

(Right) Alfa Romeo's "Junior" Spyder has had the 1290cc engine reinstalled. It develops 103 hp @ 6000 rpm, for 106 mph. It retains a 5-speed gearbox.

(Above right) "Junior" GTA has same engine with 110 hp, 110 mph, stock.

(Below right) Simca's 1.1-liter front-wheel-drive sedan, which will soon be introduced on the U.S. market by Chrysler, is normally intended for four—maybe five—rather small passengers. However Swedish students in Jonkoping had different ideas. They got 26 into the car before the doors were closed.





# Sid Caesar doesn't mind paying a little less.



Comedian Sid Caesar may pay \$2.50 for a good cigar, but he rents from AIRWAYS RENT-A-CAR because he really doesn't mind paying a little less. When he rents a Pontiac GTO or other new car from AIRWAYS, he gets more and pays less. He can rent a car at most AIRWAYS offices for only \$5.00 a day and 7¢ a mile, gas

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## INTERCHANGE

### August Super Dogs

"If you feel compelled to fill MT pages with supercar garbage, for crying out loud don't—I repeat, don't—make statements like, and I quote (MT, Aug. '68) where the Cobra-Jet Cyclone GT article appears, 'Put on a No. 21 and you turn into Cale Yarborough'; also quote 'and suddenly you're Dan Gurney at Riverside winning the MOTOR TREND 500.' That's 100% baloney. No car—super or not—can make anyone an instant Yarborough or instant Gurney even if you consider the majority of your readers live in some kind of moronic dreamworld. Your much-beloved-supercars (?) are, in-the-main, being driven by guys and gals (also sterile and semi-sterile males seeking a sex symbol) who know no more about handling one of these over-powered coffins than a chimpanzee.

"If you feel you must push the Cobra Jets, Road Runners, the souped-up Mustangs and the rest of the fancy-named, over-powered heaps you should also have the decency to assume the responsibility of telling your readers the whole story. That is; a big overcubed engine tied onto 4-on-the-floor and linked to truck-like suspension, disc brakes, and oval tires, etc., does not automatically produce expert or even mediocre drivers.

"Readers could be rendered a very real service if MT contained fact-filled articles on driver education. How many drivers know how to handle a car in a skid? How many drivers know that tires become distorted ovals at high speeds? And, how many drivers know of the radical changes that occur in stopping distances as the speed of a car increases? The answer to any of these questions and many more like them would have to be a definite—damned few! Are you afraid that running driver-education articles might take away some of the kid-stuff glamour of the supercar and, thereby, set up a howl from your sacred cow supercar and hot rod equipment advertisers?"

James Greer Mt. Prospect, Ill.  
The thought had crossed our minds. The Editors.

"Upon comparison of acceleration and performance results of tests involving the Mercury Cyclone CJ (MT, Aug. '68) and the Chevrolet Corvette and Shelby Cobra (MT, March, '68), I shockingly discovered that the Mercury with a 335-hp, 428-c.i.d. engine had similar results to those of the 435-hp, 427-c.i.d. 'Vette and the 360-hp, 428-c.i.d. Cobra. The Mercury Cyclone was put in adverse testing conditions in comparison with the other two cars, as it was equipped with a 3-speed automatic gearbox vs. the 4-speed manual transmissions in the Chevy and Cobra. Also, the Cyclone outweighed the Corvette by some 455 pounds and the Shelby car by 215 pounds. Either the 428-c.i.d. powerplant in the Cyclone is underrated at 335 hp, or the 435-hp 'Vette and 360-hp Cobra engines are overrated. What's up? Thanking you for your assistance..."

Robert Hindi Albuquerque, N.M.

"Referring to Leo Levine's article 'Does Racing Help Sales' in the August issue. Why does he knock the Cobra Jet for being rated at 335 hp when Eric Dahlquist states in his article 'Cyclone Cobra Jet' that this is a very conservative estimate due to insurance penalties on high hp cars?"

"If I'm not wrong, the current 390-c.i.d. is rated at 335 hp, so surely a hopped up 428 puts out more hp than that."  
Thomas Wolfe MacClenny, Fla.

Funny you should mention that, Wolfe, Chrysler and Chevy have said the same thing all year long. The Editors.

"I was very disappointed with the two road tests which appeared in the August issue of MT entitled, 'Cyclone Cobra Jet' and 'The Sports Car is Dead.' Instead of sounding like road tests, they sounded like a reject from a funny farm wrote them."  
Jeffrey Alix Pawtucket, R.I.

"The ultimate Cobra Jet can be tastefully styled, reasonably priced, and ought to cost no more to run than a Matthews yacht. It will surely make a hit with scientists, doctors and clergymen."  
Tom Pond Huntsville, Ala

"You may be interested in knowing that, as a special reading teacher, I have taught several teenagers to read by using MT. The interests of these young men were deeply rooted in performance of cars.

"Your magazine is well put together, has good advertising and offers well written articles."  
Mrs. Mildred Kling Ventura, Calif.

### I Remember Indy

"Your August issue was great. The Indy 500 by Eric Dahlquist was very funny, but at times inaccurate. One such point was about Carl William's car being on fire. Brief? It lasted nearly 10 minutes and killed the turbines (I was there and saw it). Also, you said that only a few people will remember Bobby Unser's victory. Bull! I remembered Jimmy Clark's runaway victory and I will remember Bobby Unser's."

Lawrence Polhamus  
Terlingua Racing Team Piqua, Ohio

"I wish to thank Karl Ludvigsen and MT for presenting the article 'Why the Turbine Lost Indy' (Aug. '68). Mr. Ludvigsen points out excellently that through Andy Granatelli's tremendous efforts and energy, Colin Chapman's superb engineering and designing, the use of 4-wheel-drive, and the wedge body, the turbines became competitive under restrictions.

"It makes me mad that USAC would further restrict or eliminate turbines and 4-wheel-drive from racing!"  
Scott Stamper Indianapolis, Ind.

The best way to get anything banned in America is to be progressive, creative and competitive all at the same time. The Editors.

### The Ultimate Cortina

"I would like to thank you for the very good article concerning the Ford Cortina in the August issue. As a pleased owner of a 1968 Cortina, I was greatly interested in your article. However, I am unhappy to

# This is our new Elite. It's a premium tire. Whatever that means.



Definitions vary. All we know is what "premium" means to us.

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\*Pat. No. 3,024,825



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All high-performance oils are not the same. Most don't even meet the engine sequence tests. True, any oil of the right weight can lubricate and remove heat. But . . . here's the catch: oil is also the engine's "garbage disposal" system. The oil must take all the "garbage" that pours into the crankcase and hold it harmlessly in suspension until it's drained. D-A Speed-Sport Oil is specially blended with sludge and varnish inhibitors, anti-foam ingredients and film strength to keep your engine running smoothly, quietly and responsively. Oil really takes a beating in today's engines. If the oil doesn't stand up . . . the engine doesn't either! Check your oil. You (and your engine) will be happier switching to Speed-Sport.

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**INTERCHANGE** *continued*

say that as stated in the specifications, my car does not have 1599 cubic inches. Obviously a misprint, this figure is the total amount of cubic centimeters. 97.9 would be the correct amount of cubic inches.

"I also felt that it would have been better if you would have made it clear that the model you tested is a 1967 since the four gauges are elevated above the rest of the dash. This also means that the car had no anti-smog device, thereby improving performance somewhat. The car was probably built as a 1968 model but since the anti-smog device was required after Jan. 1, 1968, Ford would have to sell it as a 1967. My father is with Ford and this is how I come by my information. My car was built on January 15, one of the first to have the anti-smog device in this country. Top speed is lowered to about 96 mph, and the best quarter-mile time I have yet to turn is 18.75 with straight exhaust. I would say that gas mileage is the same, at least within one gallon. I am interested in how you came by the stated curb weight of 2164 pounds. My car is listed as 2028, but with a radio and several other extras, I am sure it would go 2100 pounds.

"One more thing, the Delta, by Ford, on page 42 of the same issue, will not come out until late April but will prove a very interesting road test. My father says that it will be built at the Kansas City plant but will not replace the Falcon and it looks similar but not quite as flashy as pictured. It will be called Delta.

Jim Mehne, Jr. College Park, Ga.  
*The '68 Cortina GT does have its gauges above the dash. The Editors.*

**Recognizing The '36 La Salle**

"It seems strange that a first-class magazine with first-class writers (Borgeson, Ludvigsen, Stein; et al) should hurt its image with the knowledgeable reader by printing a caption beneath the photo of a 1936 LaSalle (MT, Aug. '68) which reads 1937 or 1938 LaSalle. Surely, SOMEBODY at MT knows the difference! No two years of LaSalle looked exactly alike, you know."  
Bob Gegen Miami, Fla.  
*We do now. The Editors.*

"The LaSalle shown on page 86 of the August, 1968, issue of MT in the article, 'Dusie In That Barn Revisited,' is incorrectly labeled as a '37 or '38 model. It is in reality a '36 model and visibly similar to the '34 and '35 cars. The grille and front end sheetmetal design shown is typical of the '34 thru '36 models. Bumpers, wheels and certain body contours particularly the trunk back sedans were changed between '34 and '35 and the divided 2-piece windshield was introduced with the '35. Hood side louvers, however, were identical for '34 and '35, five individual round units being used on each side hood panel. The '36 was nearly identical to the '35 except for another bumper change and the long horizontal hood louvre which labels the model shown as a '36. There were, of course, mechanical and interior decor changes during the '34-'36 period although these were relatively minor. The '37 and '38 cars were completely different in every bit of hardware, from the '34-'36 series

with the grille and front sheetmetal, but little else, differing appreciably between '37 and '38."

Marshall Thomton Granby, Conn.

**More Lies For '69**

"In reference to your article, 'A Closer Look at '69s,' (MT, Aug., '68), page 33 reads as follows: 'Ford Motor Co. follows Chrysler Corp. with the multiple-action wagon tailgate, but goes a step further.' I do not believe that Ford Motor Co. has ever followed Chrysler Corp., especially on the 2-way tailgate. We have had the tailgates for two years since 1967, and 1969 will be the third year. Ford still has better ideas."

Julian Harrison Ford, Inc. Rome, Ga.  
*We have the letters to prove it. The Editors.*

... "Ford did not follow anybody!"  
Patrick Kelly Memphis, Tenn.

"Each year you come out with big titles saying you got the first pictures of the new cars. Not only have I already seen all the pictures you have shown but other magazines have already shown a second month's collection of photos. In my humble judgment you may be a good mag, but the best? You guys need new blood."

R. W. Clemens College Park, Md.  
*We're all for that. Whose did you have in mind? The Editors.*

"Regarding Mr. Irvin's fine article, 'A Closer Look at the '69s,' Aug., 1968. Is the Plymouth factory at maximum security (and if so, why?) or was it simply a physical impossibility for you to include all makes of cars in the interesting previews?"

D. Coons Plattsburgh, N.Y.  
*Our artist ran out of paper. The Editors.*

**Managed (Performance) News**

"After receiving your August MT and reading all about the Mustang Mach 1, the 'Cyclone Cobra Jet' and 'Ford Performance—'69 Style,' I had to write. Informing us of Ford performance and plans is good, but I was wondering if you planned separate articles on Chevrolet performance and cars?"

"I'm sure there are many Ford fans, but what about us Chevy fans? In this issue, you had three articles on Ford alone, while having not one separate article on Chevrolet. This is fair??? Despite your apparent disinterest in Chevys, I still think you have a fine magazine. An improvement would be coverage of drag racing."

Rande Taylor New Lenox, Ill.  
*In our own sweet way, we'll touch bases with everyone. The Editors.*

"I know right now that you won't print this letter but I'm writing anyway. In your August MT all you talked about was Ford. First of all, in your article on the '69s, you wouldn't say FoMoCo copied the Road Runner or Pontiac's rear window heater or Chrysler's wagon tailgate or Buick's accent line (on the Cougar). You would say something like follows or getting into the act or something like. Then you imply that the Road Runner would run from a Ford."

"Next, your other articles. Clearly, Ford has scooped the entire industry ('Ford Performance . . . '69 Style')! Then all the other articles were about Ford except Indy. But



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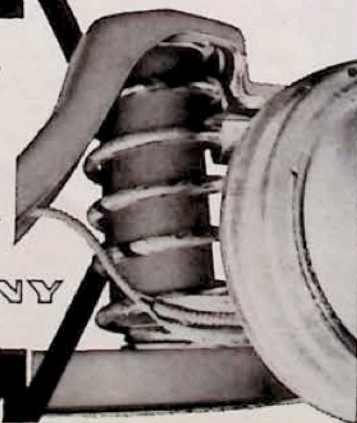
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## INTERCHANGE *continued*

the one that really got me was the one about the Rebel 400. You said that Chrysler was behind everybody and all you talked about was Ford's greatness and how much better it is than Chrysler. You hardly said anything about the race.

"But when you practically said that Petty's Plymouth was illegal ('Interchange') that was the last straw. Okay, so it was 6 mph faster than the other MoPars. Well, so how come the Fords were that much faster. You guys have a great magazine, but I don't appreciate it when you put out one like this."

John Lawrence                      Roanoke, Va.

"I enjoyed your article on 'Ford Performance . . . '69 Style' (Aug., 1968) very much. I was intrigued by the discussion of the new 351-c.i.d. engine to be released next year. So, imagine my delight when you stated that the heads and push rods could be purchased '68 1/2 and then bolted on a standard 289 (one of which I own). But disappointment followed, alas, none of the local Mercury dealers seem to know what the hell I'm talking about.

"I would appreciate it very much if you could send me the part number, name of a dealer in the Washington, D.C. suburban area that carries the package or where else I can write. Hurry I want to go Road Runner hunting."

Glen Stephens                      Silver Springs, Md.

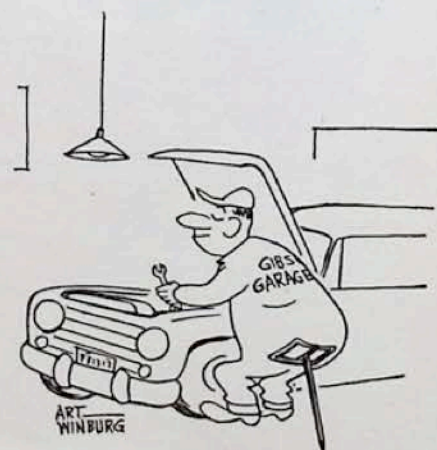
If you go into any authorized Ford agency and ask for C90E-6C-056A they should be able to get the 351 head kit. Better watch those Road Runners. *The Editors.*

## Babbitt

"I am a subscriber to your magazine and in your August issue, I was reading 'Viewpoint' by Leo Levine. Near the end of the article he was talking about 368 models that come from Detroit. It was stated if I could write down half without other help or without leaving the table I'd win a prize. Well, I honestly did exactly what you said. As a matter of fact, if your requirements were to write down all, I'm sure I could have done that. I did it last night from about 12:30 a.m. to 1:30 a.m. I have the list enclosed in the envelope. What will I receive?"

R. W. Babbitt                      Paducah, Ky.

*All right, Leo, it's your show. The Editors.*

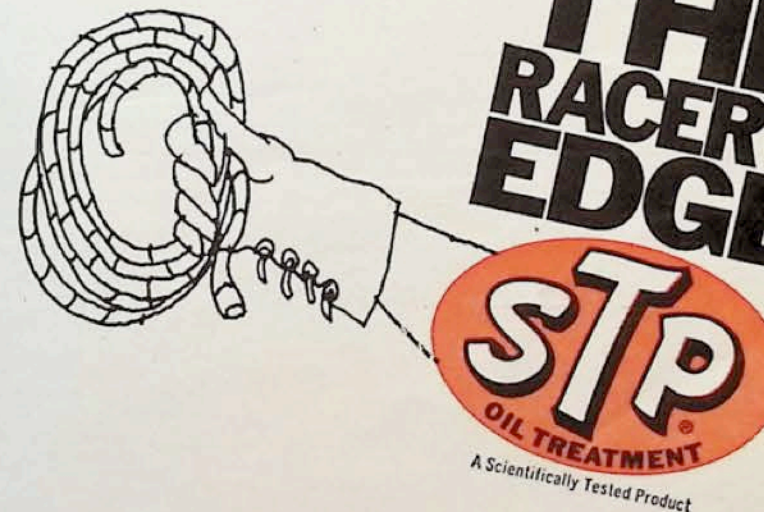


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# If You Want To Test A Car In August...

Motor Trend goes on its own odyssey in search of family-type test cars before model production has begun.

By Bill Sanders

## Plymouth Fury III

If you want to test a 1969 Plymouth in August . . . go to Atlanta, Ga. That's where the cars are. Chrysler Corp. was having their annual new car preview in Atlanta this year, so we had to travel to the grits and corn bread country to test our '69 Fury III. It was a good trip, the humid Atlanta climate gave a chance to fully test the Fury III's air conditioning and performance.

Plymouth did their homework well in redesigning the 1969 models. In every category—ride, comfort, performance, styling—the '69 Fury III is far superior to its 1968 counterpart. Although styling changes are evolutionary rather than revolutionary, subtle body modifications have wrought an entirely new personality and appearance. The stodgy, boxy look of 1968 is gone. Side glass has been curved inward, giving a sleek rounded appearance to the top of the car. Rear roofline slopes down smoothly, giving the whole car a more luxurious look.

During our day-long drive through the lush green Atlanta countryside, on the likes of "Old Bill Cook Road," to grooving towns like "Tell," "Welcome All," "Snapfinger," and lastly, "Social Circle, Ga.," with its graceful and beautiful antebellum mansions, our 1969 Fury III got many appreciative, yet puzzled looks; eloquent testimony that Plymouth's styling approach may touch a public sales nerve this year.

### Powertrain & Performance

Our test car was equipped with Chrysler's 383-c.i.d. V-8 with 4 bbl. carburetor, a good engine choice for

(Top) And away we go . . . Plymouth acceleration was surprisingly fast, even with air conditioning going. The 383 engine really puts rear end down. (Top center) Impala, with front discs, performed as expected with short, straight stops. High-speed handling was exceptional, even at 122 mph. (Bottom center) Nifty nosedive reveals intensity of LTD's great stopping power. Brakes were more responsive than '68, and wide tires helped. (Bottom) Ambassador SST had longer stopping distances, but narrower treads. Comfort and convenience are still rated over performance.

this car. Combined with a 3.23:1 rear axle ratio, which our car also had, and a 3-speed automatic transmission, the 383 has a good power reserve when needed, without gulping as much gas as some larger displacement engines. Power to weight ratio seemed ideally matched. A wide range of rear end ratios are available from very low to very high. The 3.23:1 is just about in the middle and is a good compromise ratio, whether accelerating or cruising on the freeway.

Our tour of the Georgia landscape included a stop at the Atlanta Speed Shop Dragway to record a few times. Acceleration was surprisingly brisk, and the fast getaway must be partly attributable to the wide-tread Polyglas tires our car had. The new Polyglas tires really put the rubber on the ground for good traction. That traction showed immediately in our performance figures, which were much better than anticipated.

Passing, both from 40 to 60, and 50 to 70 mph was fast, with the extra power reserve giving a good margin of safety. Plymouth's automatic transmission shifts down immediately and the carburetor air valve secondaries open up with a roar, pushing the car out right now. As expected, air conditioning proved to be a definite drag on power, affecting all performance figures. The comfort value of that option far outweighs the slight cost in extra hp though.

### Handling, Steering & Stopping

There's a definite new feel to the Fury for 1969. Even with power steering, there is a heavier, more solid road feel that communicates itself in high-speed driving, and especially when going through tight curves and city streets. Probably several factors are responsible. Wide Polyglas tires definitely have a considerable effect. The redesigned body shell and roofline are aerodynamically cleaner, a fact that must have a significant effect on the stability of the car. Steering is firmly neutral in normal situations, with a mild understeer evident on the few gentle curves we encountered. An attempt to power through a couple of bends on back country roads brought on just a hint of oversteer, with the Polyglas tires holding it in a smoothly controlled drift.

Plymouth's power steering is effortless at speed or parked, but still has a rather loose feeling and could use a shorter turning radius, with fewer turns lock-to-lock.

Brakes also seem vastly improved for 1969. Our Fury had power front discs with single piston operation. Stops were straighter and truer than they were with similar equipment in 1968, without the difficult-to-control swerving. In fact, front discs held so effectively they caused the rear wheels to hop or bounce in slower panic stops from 40 to 30 mph. That tendency is annoying and could prove difficult to control if it appeared at higher speeds. To be fair, we must state that our test car was a prototype, and that habit may be corrected in production models.

Overall handling and steering characteristics seem so vastly improved, that it was almost like driving an entirely different car. Redesigning and the use of the optional wide-tread Polyglas tires give Plymouth a rebirth of enjoyable driving in 1969.

### Comfort, Convenience & Ride

Plymouth's front bench seat supplies adequate comfort, and, psychologically, the luxurious comfort feel is even more noticeable than in 1968. But, Plymouth's front seat still doesn't have a solid, heavy feel when adjusting the seating position, suggesting an over frugality in quality. Rear seat comfort is ideal, even for three people. Rear seat knee room is excellent, even with the front seat all the way back. In fact, the Fury has much more rear seat leg room than comparable cars in its category. Safety catches are well located at the bottom of front seatbacks and are easy to reach.

After a day behind the wheel we didn't feel overly fatigued, which attests to the seating and the adequate front seat leg room. Air conditioning vents are well located on the instrument panel for directing air flow and maintaining passenger comfort.

The 1969 redesigned instrument panel is a tremendous improvement over 1968 which we felt was also a good design. The instrument panel itself has been moved closer to the driver, although it is still recessed under an overhanging shelf of padding. The large speedometer/odometer and easy-to-read instruments are located directly in line of

# A Car In August...

sight through the steering wheel. Radio placement makes tuning harder than in '68, and the ashtray has a longer reach for the driver and is set too deep in the padded dash.

Eliminating side vent windows and redesigning the instrument panel has created an expansive feeling of spaciousness for front seat passengers that adds to the psychological feeling of increased luxurious comfort. Wind and road noise have been profoundly reduced this year, either with windows up or down, a remarkable improvement over 1968, a year that saw numerous

complaints about this very problem. Ride quality, another area of dissent, has also made a whole new scene in '69. Improvement seems to have come not from the suspension, which is virtually unchanged, but from the aerodynamic restyling and use of the Polyglas tires. A soft, boulevard type ride is still manifest, but the entire car has the vault-like solid feel of a much heavier car, a capacity not often found in previous Plymouths.

## Plus & Minus Features

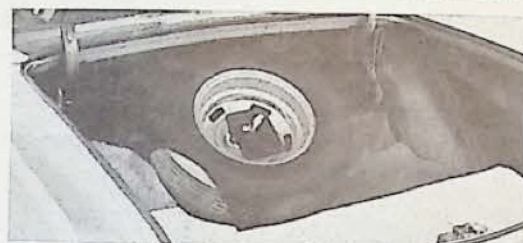
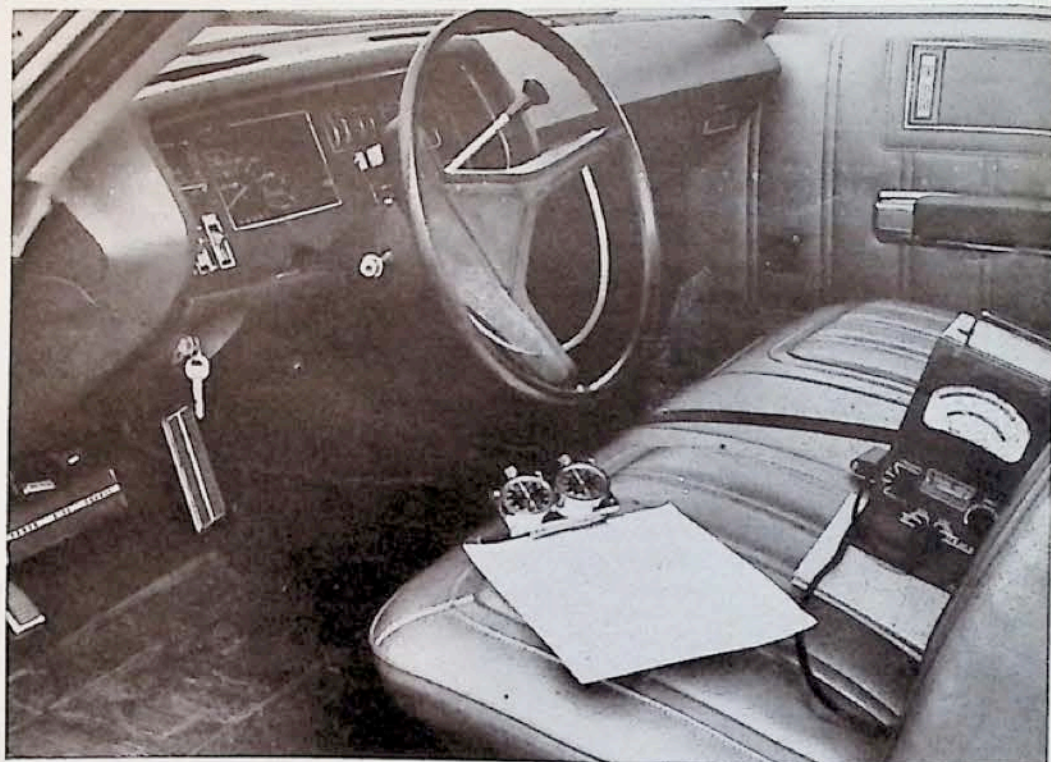
Getting a solid, heavy ride and handling feel into the car is probably the biggest plus of 1969. New roofline styling adds a definite advantage to the

line, not only in looks, but in ride stability as well. A redesigned instrument panel and removal of vent windows also adds a plus to appearance and physical comfort. Plymouth still has a large capacity trunk with a low lift-over, which is also laudable.

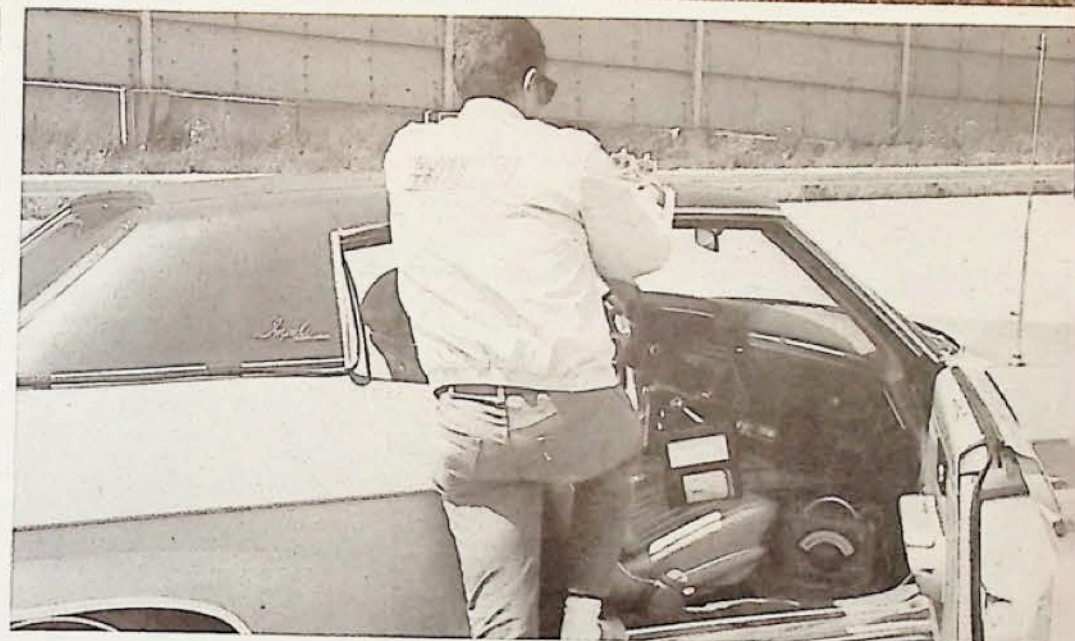
The loose feeling of construction in seats, doors, deck lid, hood still persists. They don't have the solid feel, such as the "klunk" of a closing door, that is achievable. Wheel hop that occurs during breaking is disconcerting and will definitely be a minus if it exists in all production cars. Still, the plus features in 1969 appear to outweigh Plymouth's distracting qualities, of which there are fewer this year.



(Top) Southern charm of Georgia mansion makes perfect setting for redesigned Fury. New, curved side glass creates less wind noise, better stability. (Right) 1969 instrument panel is closer to driver, with less padding overhang. Safety can add interest; passenger side of dash is smoothly contoured. Ignition has moved to left side of steering column. (Below) Tastefully redesigned roofline has lots of class; rear window follows Chrysler limousine look. Removal of vent windows had added dramatic, spacious appearance to hardtop coupe. Deck lid design still affords low liftover for trunk, which is also still spacious. Ride qualities have improved radically, with solid, heavy feeling.



(Top) An infinite prairie of grass accentuates Impala changes for 1969, including flared wheel wells and ventless side glass. Although Impala sports entirely new sheetmetal, subtle body changes are not immediately apparent. (Above) 1969 trunk space is adequate and similar in size to 1968. Spare is still far forward and difficult to reach for women. (Right) Equipment fills floor and bucket seat. Chevy bucket seats are contoured to fit the back firmly and are extremely comfortable; there is little sliding or swaying in even the tightest corners.



## Chevrolet Impala

If you want to test a 1969 Chevrolet in August... go to Milford, Mich. and the General Motors Proving Ground. That's where the cars are. Accompanied by security guards and engineers, you can take the one-of-a-kind prototype out and drive it for the day on twisting, curving blacktop roads and at ultra high speed on the long, 3-mile, north/south straightaway.

A completely new body shell with all-new sheetmetal surrounds a virtually unchanged chassis and suspension. Even though the body shell is new, Chevy's big car lines are quite similar to those of 1968. New, scalloped wheel openings, fender skirts, and a convex rear window present an immediate distinctive change in appearance. Other changes sneak up on you more slowly.

### Powertrain & Performance

A 427-c.i.d. engine — that's where it's

at if you want a bomb. Add 4-on-the-floor and it's practically a supercar. Not exactly the abstract concept of what the mass of men leading lives of quiet desperation have parked out in the garage. But, to be fair to Chevrolet, it was the only Impala available before production got started. If you want to test a car in August, you take what you can get.

Our test car, in addition to the 427-c.i.d. engine with 4-bbl. carburetion, turning out 390 hp., plus the 4-speed manual transmission, was hooked up to a 3.31:1 rear axle ratio with positraction. Luckily, a low, low rear end hadn't been included with the package, and performance was more of the family type, with good, nominal engine rpm at highway speeds. With 427 inches and a 4-speed, there was little doubt about acceleration performance, which turned out to be, like fast, as was expected. Chevy's 427 ran smoothly and quietly, even when abused repeatedly with missed speed shifts at high rpms.

Four-on-the-floor with a Muncie shifter... not what the average housewife would clamor for to run the kids to school or make several daily hops to the supermarket. But, if you still enjoy driving a car instead of the other way round, the 4-speed is an ideal adaptation in the Impala. The shifter is located conveniently for comfortable, relaxed driving and doesn't necessitate an overly long reach. We're not exactly in love with the operation of most Muncies, and this one was no exception. Finding second in downshifts wasn't always the easiest thing in the world.

### Handling, Steering & Stopping

There's not a hell of a lot you can do to change the basic family car suspension from year to year. Chevrolet does employ a platoon of cunning computers now to determine spring rates on each car, for its specific use, which supposedly keeps every car at its designed ride level and trim angle. *continued*

## A Car In August...

Suspension on the test Impala had the usual soft sedan feel, but with Chevrolet's unique, inviolate firmness evident in handling and steering. Handling characteristics are good, similar to 1968. Chevy's slightly contoured, resilient bucket seats hold down driver and front seat passenger slipping, sliding, pitching and rolling to a minimum. That fact and cohesive power steering that allows a substantial road feel, gives a mobile smoothness to handling the Impala. Going through tight corners, is always road hugging business. Steering is neutral in normal corners, but aggressive driving brings on built-in understeer. Controlled oversteer occurs in sharp power drifts coming out of turns of less than 90°. On steep, abrupt rises or similar dips, the test car had a tendency, when pushed hard, to bottom mushily, with a rear fender (or some part of the body) hitting noisily. This only happened when the body was twisted considerably in a turn/dip at high speed, and, as this was a prototype, that problem will probably be eliminated in production models.

The Chevy, too, was equipped with wide-tread Polyglas tires, which had a noticeable effect on handling, steering, and especially stopping. Chevrolet power front disc brakes and drum rear, which our car had, have been a great combination since they were intro-

duced. Stops were always straight and easy to control. Even after repeated use during high-speed acceleration runs (up to 122 mph), there was no fade or burning with the Impala brakes.

### Comfort, Convenience & Ride

Front bucket seats are firm, yet immensely comfortable. Bench seats might be more practical for a family sedan, but there is no compromise with the Chevy buckets. Leg room and pedal placement are also well planned for comfort. A large ashtray in the redesigned instrument panel is easy to reach and use by both driver and passenger, as is the radio, and a hidden ashtray in the center console is an added benefit for heavy smokers. Easy to see and read, a large speedometer/odometer is centrally located behind the steering wheel. The newly designed steering wheel for 1969 is easy to handle and has horn buttons in each side of a padded center bar. Unfortunately, when the bucket seatback on the driver's side is pushed forward for rear seat entry or exit, the seatback head restraint makes perfect contact with the horn buttons and a rather noisy fanfare announces your intention. A design computer must have goofed.

Rear seats are comfortable, although seatbacks seem unusually straight. The convex rear window throws lots of light on the rear seat passengers and could become uncomfortably warm if parked in the sun. The window gives unusually good rear-view mirror visibility though. Rear seat knee room is

cramped with front buckets all the way back. Headroom in the rear is unusually good and would be adequate for top hats or bouffant hair. Safety seat push buttons are located in the center of front seatbacks and are difficult to find when getting into the back seat.

The Chevrolet-Fisher Body combination continues to exemplify quality craftsmanship and construction. This reflects in the ride, that is softly American, yet at the same time surrounds you with adamant security. Wide Poly tires unquestionably do their part in the excellent ride qualities. Removal of vent windows on the Impala have also added to the feeling of spaciousness in this car, too. Ride is extremely quiet, with little or no wind and road noise.

### Plus & Minus Features

The bottoming body scrape when the suspension gets an unusual amount of activity and the unfortunate match of the steering wheel horn buttons with the front seat head restraint are probably the most outstanding minus features in an otherwise seemingly ideally designed car. More rear seat knee room is needed for good back seat comfort.

Ride and handling are primary among plus features. Bucket seat comfort is a close second. Trunk space is more than adequate and should hold a considerable amount of luggage. The trunk, in fact, is so large that the forward located spare is difficult to reach without actually getting into the trunk. Fisher styling still makes the Impala a bon vivant among the big car set.

## Ford LTD

If you want to test a 1969 Ford in August . . . go to Dearborn, Mich., and the FoMoCo test track. That's where the cars are. Don't let the humidity get you down, just be glad your test car has air conditioning, an option no self-respecting family car should be without these days. If you dig your comfort, maybe you should pay a few bucks more and opt for Ford's big 429-c.i.d. engine just like our test car had. With that big displacement and torque, an air conditioner has little effect on performance.

Styling philosophy isn't much different at Ford than anywhere else. The LTD sports a new grille, showing Lincoln-Continental's influence, and new deck lid and tail light treatment. Outside, the hardtop coupe, like all good children, bears a marked resemblance to its 1968 ancestor. Inside, innovations are much more apparent and exciting. Creativity has settled gently on the interior and shazam, the LTD gets into the atomic-jet age with class and style.

### Powertrain & Performance

With 429 inches, topped by a 4-bbl. jug, 360 hp won't blow your cool. More impressive is the 480 lbs.-ft. torque @ 2800 rpm. The latter helps take care of the numerous power-operated goodies more and more family wagons have installed as they roll out the showroom door. Our test LTD had power steering, brakes and air conditioning. Take all

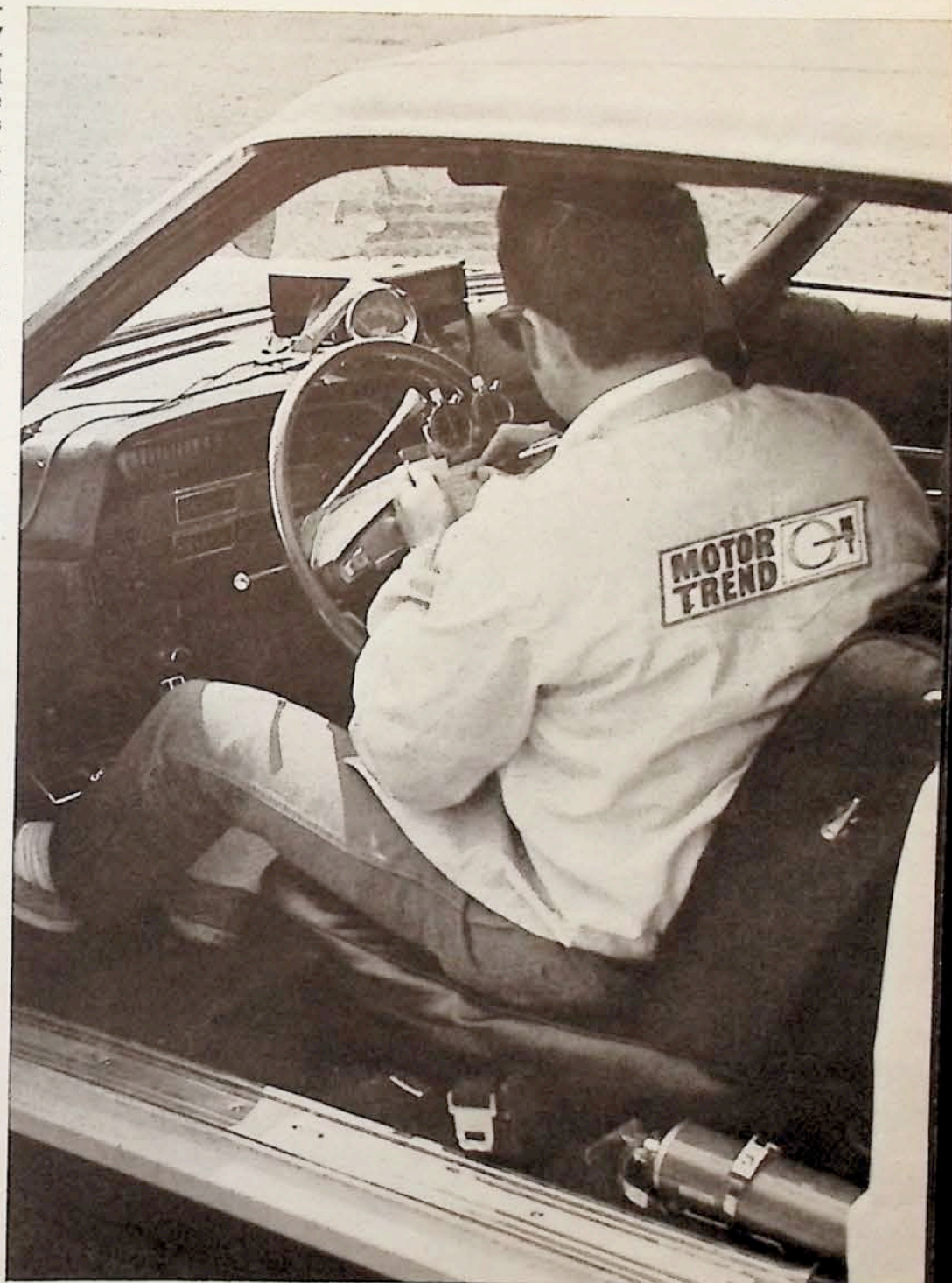
that displacement, horsepower and torque, and plug it into a mild 2.80:1 rear axle ratio and you have a damn good family-type performance machine. While acceleration figures weren't overly fantastic, they were palatable. Air conditioning had little effect in short acceleration runs. At higher speeds and rpms, acceleration performance suffered slightly. A 2.80:1 rear end is a good choice with this engine and Ford's 3-speed automatic transmission. Powertrain operation is smooth and quiet and gas mileage should be better than average. In "Drive" position, the automatic shifts evenly and precisely with no roughness.

### Handling, Steering & Stopping

A quick glance under the car verified that the LTD had them, too; Good-year H70 x 15 wide-tread Polyglas tires. The great adhesion characteristics were immediately apparent in the first curve. The '69 LTD has a hefty, well-defined, solid capability in the corners and isn't handicapped by its sedan suspension. Mild understeer is inherent going fast through tight turns but throttle use on the way out maintains a sports car like drift that always spells c-o-n-t-r-o-l. Tires also get credit here; there is no wheel lift in hard cornering, and the car stays ab-



(Left) Ford brakes, like Plymouth and Ambassador, had noticeable burning smell after repeated high-speed stops and slow-downs from 100 mph or more, but Ford front discs never came close to fading, and, seemed much improved over 1968. More rubber on the road with wide-tread Polyglas tires added to shortness of full lock-up stops. (Above) Even with low rear axle ratio, high torque, 429-c.i.d. engine with 4-bbl. carburetor got the big LTD off the line fast. Acceleration was good with automatic, compared to Chevy 4-speed manual. (Right) 1969 instrument panel makes the wrap-around scene with style and efficiency; all instruments are easy to read, and controls are easy to reach.





## A Car In August...

solutely flat. Steering is relatively neutral in all situations except the sharpest curves. We experienced very little rolling, sliding or lean on the bench seats, and there was no tendency to plow in the corners, even with the heavy 429 up front. Baby carriage type bouncing was minimal in dips, but the ride was still luxuriously soft.

Ford's front disc, drum rear brake combination seems much improved over 1968, at least on our test car. There was no grabbing with the power system, a tendency some Fords seem to develop, and our test car had nearly 14,000 miles on the odometer. Although there was some burning smell after a hot afternoon of repeated high speed stops, there was never any fade, and the brakes constantly pulled us down in panic stops with no swerve or loss of control. The only swerve occurred after three or four panic stops from 60 mph. Power steering has just under 4 turns lock-to-lock, and was always responsive, with no lag or looseness, even in the most critical situations.

### Comfort, Convenience & Ride

Grooviest feature inside is the new "wrap-around" instrument panel that gives the impression of surrounding the driver in padded safety with a "Command Seat" straight out of the rocket ship in that old flick, "Destination Moon." Instruments are all centrally located for easy readability, and an ashtray mounted on the right side of the protruding, "wrap-around" panel is convenient for both driver and passenger. New instrument panel design puts the driver far back from the main center air conditioning vent though, which reduces the amount of direct air flow. The vacuum door-locking button has been located on the instrument panel instead of the left door, and is easier to reach. Ford's cruise control activating button is again placed on the steering wheel center bar, a good location. Radio controls are found on the inside curved part of the panel, but left of the steering wheel. This is a great spot for the driver to reach, but there is no way the front seat passenger can turn on or tune in. Dropping out must be the only answer.

Front bench seats in the LTD are almost as comfortable as the bucket variety, and there is an abundant amount of leg room for the driver without bumping the steering wheel or dash panel. The new dash panel on the passenger side is straight up and down, very flat and far forward for safety. Absence of front vent windows really gives the LTD an airy, roomy feeling

with the dash so far forward. The glove compartment has moved way down near the floor and is almost impossible for the driver to reach from his side, and, because it is so low, even the passenger has difficulty seeing into it.

Rear seat leg room in the 2-door is adequate, but could and should be better for a car that has had the wheelbase increased two inches to 121 inches. Rear seat comfort is good, but, although the rear roofline is long, headroom is limited. Reading lights located in the rear roof quarter panel are well located and aimed precisely for reading.

Ride characteristics, while bouyant, have the comfortable, luxurious solidness of a heavier car such as a Thunderbird, but with more interior room. There is very little wind noise with windows down, and good insulation makes road noise almost nil with windows up.

### Plus & Minus Features

Ford's redesigned instrument panel is far superior to the 1968 version, and location of instruments, switches and buttons is much better. Quietness and smoothness of operation are paramount for a family-type car. Rather long doors make rear-seat entry an uncomplicated operation. A steering column mounted shift lever and indicator is easier to see and operate than the console mounted horseshoe type.

On the minus side, the LTD trunk still could use more cubic feet for storage space. Radio placement where only the driver can reach the controls isn't too good an idea. Finding minus features is difficult with the '69 Ford. We were much impressed with improvements throughout the car, and, although no dramatically exciting changes have taken place in exterior styling, the '69 has a facile capability that's easy to live with day after day.

## Ambassador SST

If you want to test a 1969 Ambassador in August... go to Milwaukee, Kenosha, and, finally, to Burlington, Wisc., and the American Motors Proving Ground. That's where the cars are. Luckily, American Motors' corporate size has restricted a total commitment to an Orwellian 1984 environment. No blue shirted security guards are hovering at every corner, not even at the main gate. In fact, there is no main gate. There's no gate at all.

Ambassador styling has probably received less change than any of the other cars tested, but the few changes that have appeared, especially in the hood and grille treatment, improve looks immeasurably. Front end treatment gives the Ambassador an unfet-

tered, bold continental look that puts down the Nash-Kelvinator image once and for all. The '69 Ambassador is also wider, and four inches longer than it was in '68, which definitely puts it in the same class as the other cars tested.

### Powertrain & Performance

With AMC's 243-c.i.d. mill under the hood, our Ambassador SST had the lowest hp rating of the four cars tested, with 280 hp at 4800 rpm. Even so, performance was still brisk for a family car, with a 4-bbl. Carter carburetor and 10.2:1 compression. American Motors' Shift-Command automatic transmission shifts smoothly, although there seems to be a rather lengthy time lag between shifts. A relatively high rear axle ratio of 2.87:1 worked well with the 343-c.i.d. engine for highway cruising, but acceleration suffered slightly. If you want to get away from stoplights faster, a lower gear ratio might be the answer. Our test SST wasn't geared highest though, that honor went to the Ford LTD.

There was the usual slight loss of performance with air conditioning, but, as that accessory is a standard item, there's not much you can do about it except turn it off, and in Wisconsin in the summer man, there's no way. Performance also suffered in comparison to the other cars, although it is difficult to tell how much, as the SST was the only car tested that didn't pack a set of wide-tread Polyglas shoes. In fact, the Ambassador was fitted with 14-inch wheels and all the others had 15-inch steel.

### Handling, Steering & Stopping

Anything other than a soft, boulevard ride would be a surprise in the Ambassador, and we weren't surprised. Suspension is fluid and supple, but we did have a slight surprise when it came to handling. AMC has come up with a new rear suspension geometry on the '69 Ambassador, for a more stabilized ride and reduced vibration. Lower control arms have been moved upward 1 3/8 inches at the forward end. This change aids the ride, but adds a noticeable amount of oversteer, just the opposite of the other cars tested. The movement of the control arms tends to curve the rear axle under and forward, which raises the nose of the rear axle and levels the U joint, creating less vibration.

A slight understeer is still evident in the very tightest corners, but a full throttle drift coming out lets you know this car does oversteer. Taking a normally gentle curve at high speeds of 70-75 mph will put the SST into a definite drift. The marked oversteer and drifting is a great driving feeling, but it

could get out of hand, especially for a woman, as it sneaks up on you at higher speeds.

Power steering, while easy to operate, had the same loose feeling as the Plymouth, and could use a shorter turning radius for a car this size. Brakes, even with front discs were a little touchy, and tended to swerve somewhat. Stopping distances were excellent though, and there was never

any fade problem. Tires also made a difference in braking. Without the advantage of the wide treads, the SST performance was very good compared to the other cars.

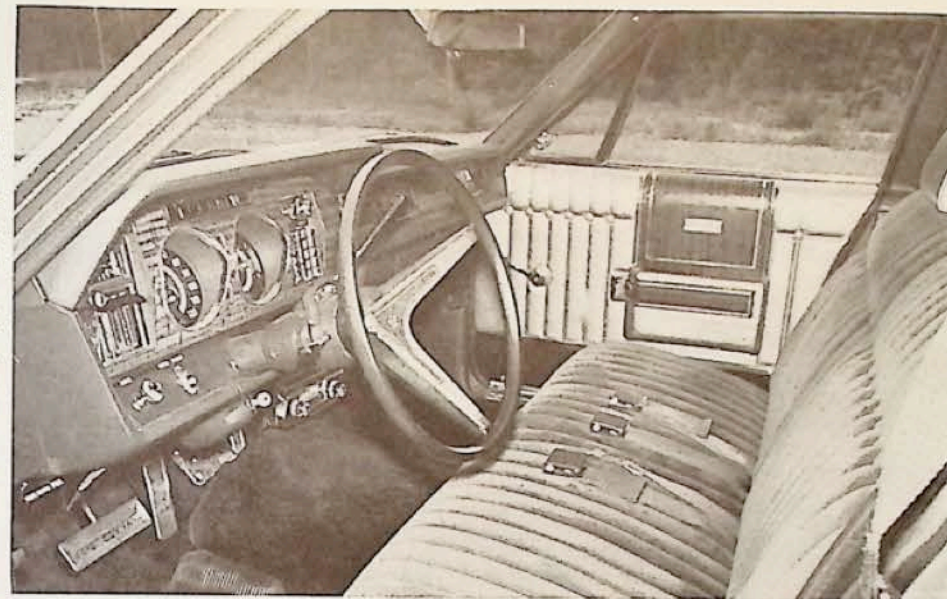
### Comfort, Convenience & Ride

This is where the Ambassador really shows star quality and class in the family car race. Standard features like air conditioning and fully reclining seatbacks make the Ambassador a real

family utility wagon... and it looks great besides. Reclining seats are not only great for camping or resting, but make a relaxing change in driving posture. The SST air conditioning has the familiar AMC vent in front of the driver, directly behind the steering wheel, and is excellent for keeping awake or just plain cool comfort.

Front seats are individually adjustable for leg room, but at the same time can be used as a bench-type seat if

(Right) Ambassador instrument panel is quite similar to 1968 version. New trim is available on SST model. A certain ambivalence affects objectivity toward the Ambassador; lighting up the rear end isn't a total commitment. Standard air conditioning and fully reclining seatbacks go a long way down the road to personal comfort — and if that means a lot, a lead foot probably isn't your bag anyway. (Below) A few changes here, a few changes there — and voila, the Ambassador front end makes a whole new gig. Austerity has bit the dust, and the 1969 restyle job should boost sales, which AMC would dig.



## A Car In August...

three want to ride up front. The instrument panel has two round dials for speedometer/odometer on the left, and instruments on the right. Instruments are sometimes difficult to check, depending on the positioning of the steering wheel. Climate control and radio are both easy to reach and adjust, but climate control adjustment is left of the driver, and impossible to reach by the passenger. The dash glovebox is located close enough so the driver can reach into it without moving over. An under dash location for the ignition switch makes it hard to locate, especially in the dark. American Motors' attempt at an unobtrusive shoulder harness, as now required by our great benevolent father in Washington, has met with much greater success than any of the Big 3. Instead of being stored clumsily on the headliner over each front door, it hangs, securely out of sight behind the door.

Cramped knees seems to be a habit in the back seat with all except Plymouth, and the SST is no exception. Headroom is adequate. Front seat safety catches are found at the bottom of the front seats, on the outside, a good location. They seem to protrude rather far and can catch a pant leg, which can make for a hilarious surprise as you jump from the back seat. For some reason, the back seat seems unusually hard to get out of and takes a little struggle.

### Plus & Minus Features

Whatever it may lack in power and performance, the Ambassador has its own bag when it comes to comfort. Standard air conditioning and reclining seatbacks have just got to be a special kind of groove. Although somewhat more conservative inside than Ford or Chevy, the '69 Ambassador has new seat trim styles, colors and fabrics and new nylon-pile carpeting.

Trunk space, while adequate, is still small—similar to the LTD. Rear seat armrests are located for comfort, but they also contain the rear seat ashtrays—so just watch that sleeve there, fella. Air/heater control location, a carry-over from 1968, makes it impossible for the front seat passenger to adjust interior temperatures.

American Motors, like Chrysler, still hasn't mastered the touch of getting an overall beefy solidity into seats, doors and the general feel of the car. But, with an eye to interior comfort and utilitarian use, the Ambassador, being the only car with air conditioning as a standard item, will probably influence a lot of mothers, who in turn will influence the old man. /MT



## Chevrolet Impala

### SPECIFICATIONS:

Engine: 90° V-8, OHV. Bore & Stroke: 4.25 x 3.76 ins. Displacement: 427 cu. in. Hp: 390 @ 5400 rpm. Torque: 460 lbs.-ft. @ 3600 rpm. Compression Ratio: 10.25:1. Carburetion: 1 4-bbl. Quadrajet. Transmission: 4-speed manual. Muncie shifter. Final Drive Ratio: 3.31:1 w/positraction. Steering Type: Power. Ratio: 21.2:1. Turning Diameter: 41.0 ft. curb-to-curb, 4.0 turns, lock-to-lock. Tires: G 70 x 15 Good-year wide ovals. Brakes: Power, single piston front disc, drum rear. Suspension: Front: Coil spring independent. Unequal length control arms, anti roll bar. Rear: Coil springs, solid axle with trailing link attachment, anti-roll bar. Body/Frame Construction: Separate body/frame. Dimensions, Weights, Capacities: Overall Length: 215.9 ins. Overall Width: 79.8 ins. Overall Height: 54.2 ins. Wheelbase: 119 ins. Front Track: 62.5 ins. Rear Track: 62.4 ins. Curb Weight: 4475 lbs. Fuel Capacity: 24 gals. Oil Capacity: 4 qts.

### PERFORMANCE

Acceleration: (2 aboard)

0-30 mph	3.5 secs.
0-45 mph	5.5 secs.
0-60 mph	7.7 secs.
0-75 mph	11.4 secs.
Standing Start 1/4-mile	15.7 secs.
93 mph	15.7 secs.
Passing Speeds: (3rd gear)	
40-60 mph	4.0 secs. 292.80 ft.
50-70 mph	4.1 secs. 360.80 ft.

Speeds in Gears:

1st	48 mph @ 5000 rpm
2nd	64 mph @ 5000 rpm
3rd	83 mph @ 5000 rpm
4th	122 mph @ 5000 rpm

MPH per 1000 RPM: 22.2 mph

Stopping Distances:

from 30 mph	30 ft.
from 60 mph	147 ft.



## Ford LTD

### SPECIFICATIONS:

Engine: 90° V-8, OHV. Bore & Stroke: 4.36 x 3.59 ins. Displacement: 429 cu. in. Hp: 360 @ 4600 rpm. Torque: 480 lbs.-ft. @ 2800 rpm. Compression Ratio: 10.5:1. Carburetion: 1 4-bbl. Transmission: automatic. Final Drive Ratio: 2.80:1. Steering Type: Power. Ratio: 17.1:1. Turning Diameter: 41.9 ft. curb-to-curb, 3.99 turns, lock-to-lock. Tires: H70 x 15 belted Polyglas. Brakes: Front disc, drum rear. Suspension Front: Drag strut with coil springs. Rear: Three link with track bar. Body/Frame Construction: Unitized. Dimensions, Weights, Capacities: Overall Length: 214.0 ins. Overall Width: 79.7 ins. Overall Height: 53.7 ins. Wheelbase: 121.0 ins. Front Track: 63 ins. Rear Track: 64 ins. Curb Weight: 4240 lbs. Fuel Capacity: 25 gals. Oil Capacity: 5 qts.

### PERFORMANCE

Acceleration: (2 aboard)

0-30 mph	3.8	with air	without air
0-45 mph	6.1	3.7 secs.	6.0 secs.
0-60 mph	9.5	8.7 secs.	13.0 secs.
0-75 mph	14.3	13.0 secs.	
Standing Start 1/4-mile (without air)			
86 mph		16.3 secs.	
Passing Speeds: (passing gear) (without air)			
40-60 mph	5.0 secs.	366.0 ft.	
50-70 mph	5.3 secs.	440.0 ft.	

Speeds in Gears:

1st	50 mph @ 4600 rpm
2nd	84 mph @ 4600 rpm
3rd	110 mph @ 4000 rpm

MPH per 1000 RPM: 27.5 mph

Stopping Distances:

from 30 mph	29 ft.
from 60 mph	138 ft.



## Plymouth Fury III

### SPECIFICATIONS:

Engine: 90° V-8, OHV. Bore & Stroke: 4.25 x 3.38 ins. Displacement: 383 cu. in. Hp: 330 @ 5000 rpm. Torque: 425 lbs.-ft. @ 3200 rpm. Compression Ratio: 10.0:1. Carburetion: 1 4-bbl. Transmission: Automatic. Final Drive Ratio: 3.23:1. Steering Type: Power. Ratio: 15.7:1 overall, 19.1. Turning Diameter: 42.8 ft. curb-to-curb, 3.5 turns, lock-to-lock. Tires: H 70 x 15. Brakes: Front disc, drum rear. Suspension: Front: Torsion bar. Rear: 5 leaf springs. Body/Frame Construction: Unit construction. Dimensions, Weights, Capacities: Overall Length: 214.5 ins. Overall Width: 79.6 ins. Overall Height: 54.5 ins. Wheelbase: 120 ins. Front Track: 62.1 ins. Rear Track: 60.7 ins. Curb Weight: NA. Fuel Capacity: 24 gals. Oil Capacity: 4 qts.

### PERFORMANCE

Acceleration: (2 aboard)

0-30 mph	3.0	with air	without air
0-45 mph	4.8	4.4 secs.	4.4 secs.
0-60 mph	8.5	7.5 secs.	7.5 secs.
0-75 mph	11.6	10.6 secs.	10.6 secs.
Standing Start 1/4-mile (without air)			
93 mph		15.7 secs.	
Passing Speeds: (passing gear) (without air)			
40-60 mph	4.2 secs.	307.44 ft.	
50-70 mph	4.3 secs.	378.40 ft.	

Speeds in Gears:

1st	58 mph @ 5000 rpm
2nd	93 mph @ 5000 rpm
3rd	104 mph @ 4000 rpm

MPH per 1000 RPM: 26.0 mph

Stopping Distances:

from 30 mph	23 ft.
from 60 mph	148 ft.



## Ambassador SST

### SPECIFICATIONS:

Engine: 90° V-8, OHV. Bore & Stroke: 4.08 x 3.28 ins. Displacement: 343 cu. in. Hp: 280 @ 4800 rpm. Torque: 365 lbs.-ft. @ 3000 rpm. Compression Ratio: 10.2:1. Carburetion: 1 4-bbl. Carter. Transmission: Automatic. Final Drive Ratio: 2.87:1. Steering Type: Power. Ratio: 17.5 box, 20.9 overall. Turning Diameter: 42.8 ft. curb-to-curb, 4.4 turns, lock-to-lock. Tires: 7.75 x 14. Brakes: 11.2 in. dia. front, disc, drum rear. Suspension: Front: Direct acting independent, coil springs and sway bar. Rear: four-link, trailing arm, coil springs. Body/Frame Construction: Unit construction. Dimensions, Weights, Capacities: Overall Length: 206.5 ins. Overall Width: 77.2 ins. Overall Height: 53.6 ins. Wheelbase: 122.0 ins. Front Track: 60.0 ins. Rear Track: 60.0 ins. Curb Weight: 3805 lbs. Fuel Capacity: 21.5 gals. Oil Capacity: 4 qts.

### PERFORMANCE

Acceleration: (2 aboard)

0-30 mph	4.4	with air	without air
0-45 mph	8.5	6.0 secs.	6.0 secs.
0-60 mph	13.3	12.0 secs.	12.0 secs.
0-75 mph	18.6	17.0 secs.	17.0 secs.
Standing Start 1/4-mile (without air)			
78 mph		18.2 secs.	
Passing Speeds: (passing gear) (without air)			
40-60 mph	6.0 secs.	439.2 ft.	
50-70 mph	6.3 secs.	528.0 ft.	

Speeds in Gears:

1st	58.8 mph @ 5000 rpm
2nd	93.7 mph @ 5000 rpm
3rd	130 mph @ 5000 rpm

MPH per 1000 RPM: 26.0 mph

Stopping Distances:

from 30 mph	34 ft.
from 60 mph	153 ft.



# SWINGER

## DART SWINGER 340



Play your cards right, and three bills can put you in a whole lot of car this year. Dart Swinger 340. Newest member of the Dodge Scat Pack. You don't make it on looks alone. 340 cubes of high-winding, 4-barrel V8. A 4-speed Hurst on the floor to keep things moving. All the other credentials are in order. Just check below. Then check with your Dodge Dealer. Especially about the price.

- STANDARD DART SWINGER 340 EQUIPMENT
- 340-cubic-inch 4-bbl. V8
  - 4-speed full synchromesh with Hurst shifter
  - Heavy-duty suspension
  - Dual exhausts
  - D70x14 wide-tread tires
  - Dart Swinger bumblebee stripes
  - Performance hood with die-cast louvers
  - 3.23 axle ratio. 3.55 and 3.91 are optional ratios, with Sure Grip differential.

LIFE IS SHORT ... DON'T MAKE IT SHORTER. DRIVE SAFELY.

Dodge Scat Pack ... the cars with the Bumblebee stripes



# Maybe your second car should be more than just a second car

These better-idea Fords do all a second car can do, plus a great deal more.



Fine-car luxury in a hard-working pickup . . . Ford Ranchero. It looks just like a fine car. Rides and handles like one. But in the rear is a roomy 6½-foot pickup box to carry bulky loads no car ever could. Color-coordinated interiors with choice of bucket seats, AM/FM Stereo Radio, SelectAire conditioner, power steering and power front disc brakes. Seven engines including two 428-cu. in. V-8's.




Carry 12 people comfortably in Ford's new Club Wagon. Wagons always make great second cars, but here's the "greatest"—the roomiest wagon ever built! Room for as many as 12 adults, or room for over *twice* the cargo ordinary wagons hold, plus five people. Wide choice of interior plans. Smooth-riding Twin-I-Beam front suspension. Power up to a 302-cu. in. V-8. Manual or SelectShift Cruise-O-Matic transmission.



Go anywhere with a 4-wheel drive Ford Bronco. A nimble, round-the-town second car, or a spirited hunting and fishing companion that dares to go where roads don't! 4-wheel-drive traction sails you through mud, snow, sand. Smooth riding with Mono-Beam front suspension; easy handling with 33-ft. turning clearance; sure going with powerful Six or V-8 engine up to 205 hp. Many accessories including snowplow.

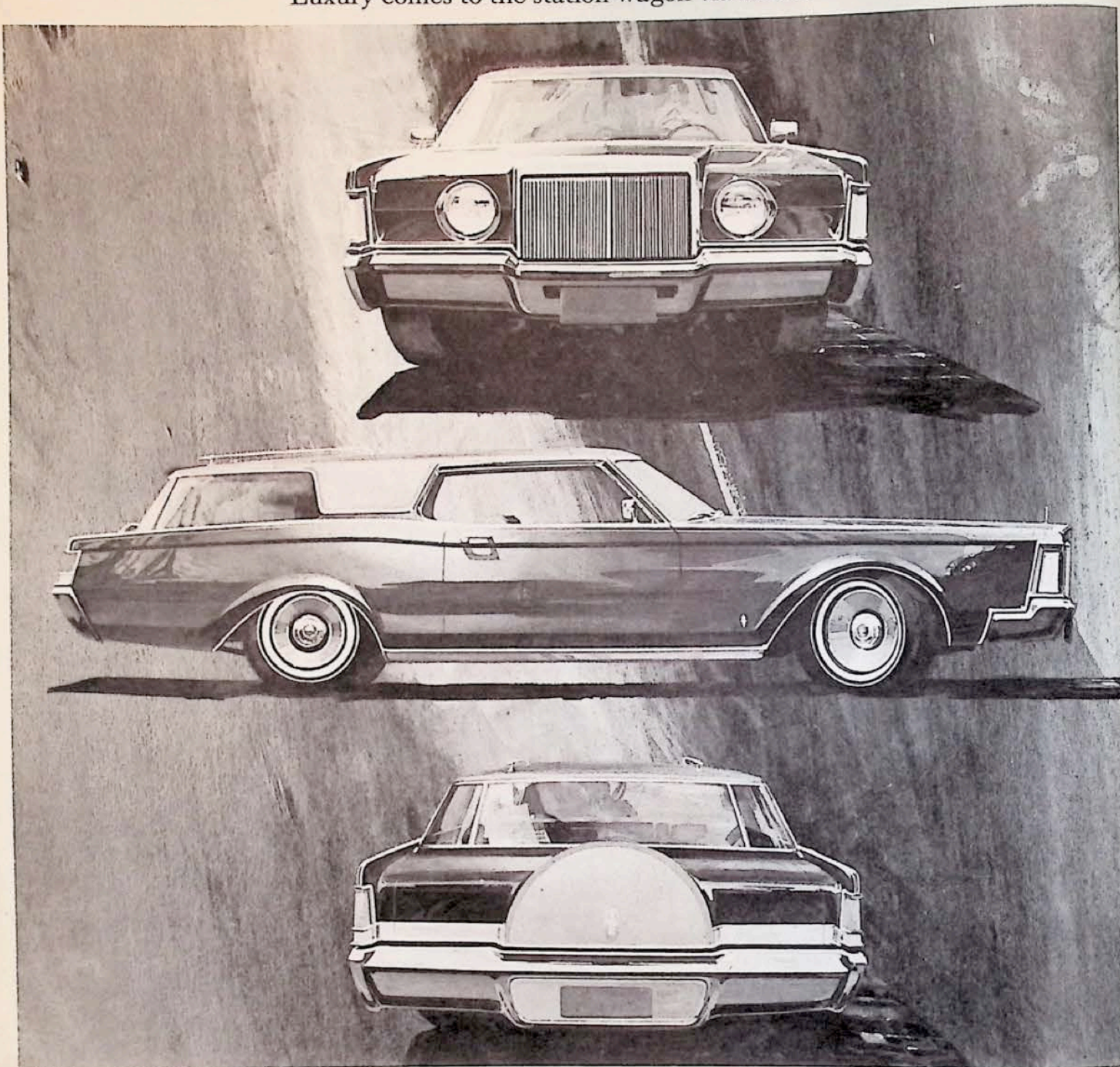


Enjoy motel facilities wherever you are with a Ford Camper Special. Ford, the pickup that works like a truck and rides like a car, is already a popular second car, and the Camper Special model has all the heavy-duty components to handle camper bodies up to 14 ft. Twin-I-Beam front suspension smooths your way. Options include power steering and brakes, SelectShift Cruise-O-Matic transmission, air conditioning.

**FORD** 

# MARK III STATION WAGON

Luxury comes to the station wagon via M-H-P



More than a generation ago, wooden station wagons were commonly owned by the wealthy and had special prestige. Through the years, many body types have enjoyed dominance as the prestige body style... Roadsters, Phaeton, Limousines, etc. The designers, Marcks Hazelquist Powers, feel that the cycle is shifting to the point where the station wagon will again be selected as the basis for a number of prestige models. With that in mind, they have created the

Mark III wagon — perhaps the ultimate in wagons. They have retained the long hood, traditional grille and spare tire look and have added a new formal roof. The wagon offers detailing found in yachts such as the padded canvas rear deck and roof coverings and roof rack. The Mark III wagon will be available through Lehman-Peterson, builders of Lincoln-Continental limousines for luminaries like President of the United States, Pope Paul and Jackie Gleason. /MT

The whole idea  
of a man's cologne  
is to start a kind of fire  
in a woman.

**Burley**  
starts the kind of fire  
a woman can't put out.



Z is for "Zap!"

Translation: a 302 V8 with mechanical lifters, hi-performance cam, aluminum intake manifold, Holley 4-barrel.

Plus: multi-leaf rear springs,

heavy-duty shocks, new white-lettered tires on 15 x 7 wheels.

And a Hurst shifter for the 4-speed.

While you're at it, why not add the new 'Vette type 4-wheel

disc brakes?

By now you know the mean streak isn't just painted on—it's built in.



Putting you first, keeps us first.

# We've got a mean streak.



MARK OF EXCELLENCE

## Z/28 Camaro.



## The annual Pure Oil hardware show

Every year, more and more races are won with PURE Firebird® Racing Gasoline. The gasoline that's Number One in racing wins, Number One in racing records.

PURE is the world's Number One supplier of racing gasoline . . . that's

why PURE knows how to make a powerful gasoline for you. It's called PURE Firebird Super . . . from the Number One name in racing.

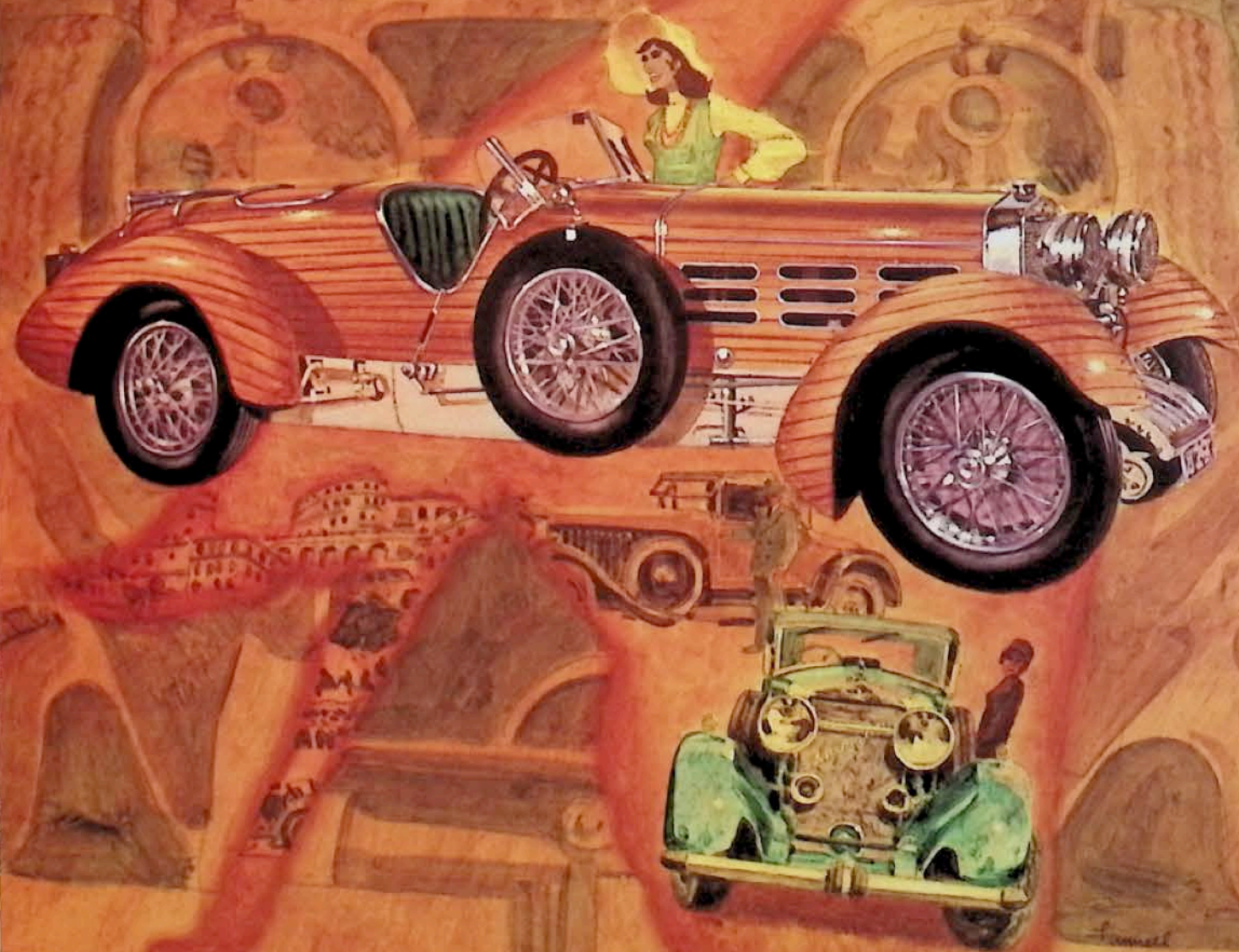


**uni76n**

Pure Oil Division

# HISPANO-SUIZA

## Saga of the Silver Stork



by Louis William Steinwedel

Illustration by James Finnell



"This car charmed the eye. Like a huge yellow insect that had dropped to earth from a butterfly civilization, this car, gallant and suave, rested in the lowly silence of the Shepherd's Market night. Open as a yacht, it wore a great shining bonnet, and flying over the crest of this great bonnet, as though in proud flight over the heads of scores of phantom horses, was the silver stork by which the gentle may be pleased to know that they have just escaped death beneath the wheels of a Hispano-Suiza. . . ."

Some 40 years ago the English novelist Michael Arlan composed that opulent prose to introduce one of the leading characters of his popular novel, *The Green Hat*. Today it serves just as well to recall the legend which time has woven around one of the most extraordinary automobiles ever created. The Hispano-Suiza—"Hisso" to her friends—is no more. And perhaps that is just as well, for she would probably feel just a touch out of place in an age of plastic, pop art and production-line automobiles.

In her prime the Hispano was the world's most expensive standard production car at \$13,750 for the bare chassis. But sheer cost was the least measure of her charms. The Hispano had the unique ability to appeal to an astonishing variety of tastes. People who might ordinarily prefer the prestige of a Mercedes, the propriety of a Rolls-Royce, or the performance of a Bugatti found themselves intensely satisfied with one Hispano-Suiza. She was the most technically sophisticated machine of her day, from whom even the lordly Rolls-Royce borrowed unashamedly. To the artistic mind, the Hispano-Suiza seems to have been a challenge to self-expression, for the Hisso chassis carried some of the most eye-filling and tasteful coachwork ever created. Finally, to wealthy eccentrics like Andre Dubonnet, the Hispano could be pure passion, inspiring his grandly suicidal gesture of driving a bizarre wooden bodied car in the deadly Targa Florio.

An undeniably flamboyant machine, the Hispano was created by an ironically unflamboyant but very precise Swiss engineer named Marc Birkigt. Finding little to challenge his talents amid the Alpine scenery, Birkigt came to Barcelona at the turn of the century where some Spanish financiers were building electric locomotives. For a fledgling engineer just out of the *Ecole des Arts et Metiers* at Geneva, the position of chief designer was prestigious, but to Birkigt, unchallenging. More than anything, he wanted to build automobiles. Fortunately, he found a wealthy Spaniard who shared his fascination for cars, and the sudden success they could bring. Señor Damien Mateu had watched fortunes made and dynasties founded by foresighted men like Emile Jellinek who had agreed to back Gottlieb Daimler's cars if he would name them for his daughter Mercedes.

The new marriage between Swiss ingenuity and Spanish cash gave birth to a combine called the "Societe de Construction d'Automobiles," which began life with gusto. The first Hispano-Suizas, so called for their bi-national origin, were exhibited at the Paris Salon of 1906 and excited immediate interest. There were a pair of 4-cylinder cars, one of 100x120mm bore and stroke and the other slightly larger at 130x140mm. The following year an expensive pair of 6-cylinder cars were added for the luxury trade. The 6s were interesting for their "square" engines of equal bore and stroke, a choice more in line with modern than classic practice and prognostic of Birkigt's uncanny ability to anticipate his rivals by years.

Alphonso XIII, ruler of Spain in 1909, decided that France and Germany and even backward Russia had held the limelight long enough with their spectacular country-

to-country and Grand Prix races. The only Spanish finger in the Grand Prix pie had been the great Paris to Madrid race of 1903, which had been a debacle so deadly that horrified officials ended it before the survivors reached the Spanish border. So, Alphonso set out to remedy this injustice in 1909 by building an 18-mile racing circuit outside Barcelona and offering a magnificent trophy called the Catalan Cup to the car which could circumnavigate it ahead of anyone else.

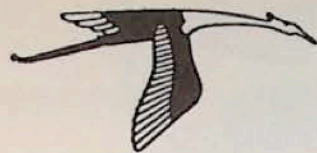
As the sole builder of automobiles in the entire country, Hispano-Suiza was rather well obligated to uphold the national honor and enter a car in the king's new road race. Birkigt was equally anxious to establish himself in big-time competition but cautious about facing well-entrenched French racing marques like Peugeot, de Dion Bouton, and Sizare-Naudain. He decided on a forthright and uncomplicated T-head engined car of 65x140mm, and his choice proved prudent when he finished right on the heels of the highly favored Peugeot. With his feet enticingly wet, Birkigt pushed the racing venture hard. The next year he had the prototype of a remarkable and historic car which immediately attracted attention by winning the *Coupe des Voiturettes*, a special race for small cars.

The "war to end all wars" provided a profitable proving ground for Hispano-Suiza. There had been experiments with lightweight alloys, ways of increasing engine efficiency, lucrative licensing agreements, and days of drama in the clouds over France which gave Hispano its coveted mascot. Now, quietly sure of himself, Birkigt did an abrupt about-face and forgot all about sports cars in favor of a luxury carriage such as the world had never seen. The world got its first chance to savor such an incredible machine at the Paris Salon of 1919, and reeled under the impact of a true masterwork.

The new Hispano was pure class on wheels. Not the smallest crevice between the big Marchals up front and the tail light concealed anything but the best. It was an abundant machine with absolutely nothing held back. It was the sort of automobile which an enormously wealthy man might order created for himself, if he had both the technical talent to appreciate it and the taste to enjoy it.

Beauty aside, the Hisso engine was a good bit more than merely fine sculpture. It could move the big car satisfyingly well even with the most opulent coachwork. "One of the most lively cars ever produced," wrote one commentator, "if not the fastest, nothing can touch it for rapidity of acceleration to 50 mph." The technique of its ponderous, slow-revving powerplant is difficult for the modern motoring mind to master, accustomed as it is to ads hawking vast and violent V-8 machines aimed principally at prep school mentality. The Hisso offered at best about 135 hp, a grocery cart beneath contempt by modern Michigan measurement. But the difference is that while the contemporary engine is committing a subtle hari kari at high revolutions, the Hispano did not lose its cool even at nearly top speed. The practical result was that the driver and passengers felt a genuinely luxurious sense of vibration-free floating power of such enormous torque that top gear starts were easily at hand and the 3-speed gearbox was virtually superfluous.

If the Hispano could go better than most cars, it could certainly stop better than any of them. In the early days of motor car development, builders were usually more successful at producing speed than stopping ability. Most marques were well into the Twenties before they started using even 4-wheel brakes. But the brakes on the 1919 Hispano-Suiza were literally lifted four decades out of the



future. The power-assisted brakes operated from a servo mechanism connected to the gearbox and they easily made the Hissso the most stoppable car on the road. Even the arch perfectionist Sir Henry Royce was non-plussed. When his own system of 4-wheel braking went awry and occasioned embarrassing recalls not unlike those on the contemporary Silver Shadow, he relented and fitted his cars with a modified version of Hispano-Suiza brakes. And he paid Marc Birkigt for the privilege. While he was about it, Sir Henry decided that he may as well borrow Hispano's beautiful and very safe-locking hub wire wheels. Not unnaturally, considering Rolls-Royce's reluctance to mess with the status quo, the basic Hispano system continued in use on Rolls-Royce cars until the Silver Shadow went over to discs in 1966.

Now, the Hispano-Suiza lacked only one thing. And that was a suitable aristocratic mascot atop its regal radiator to herald its approach. In the war one of the most enthusiastic boosters of Hispano excellence had been Captain Georges Guynemer whose Hissso-powered Spads had accounted for some 50 odd of the Kaiser's *flugmaschinen*. Guynemer's squadron has been the *Escadrille des Cigognes Volantes*—"The Flying Storks," named for the graceful birds of Alsace. Birkigt accepted the great bird, "in proud flight over the head of scores of phantom horses" as fittingly splendidous to symbolize the Hispano-Suiza.

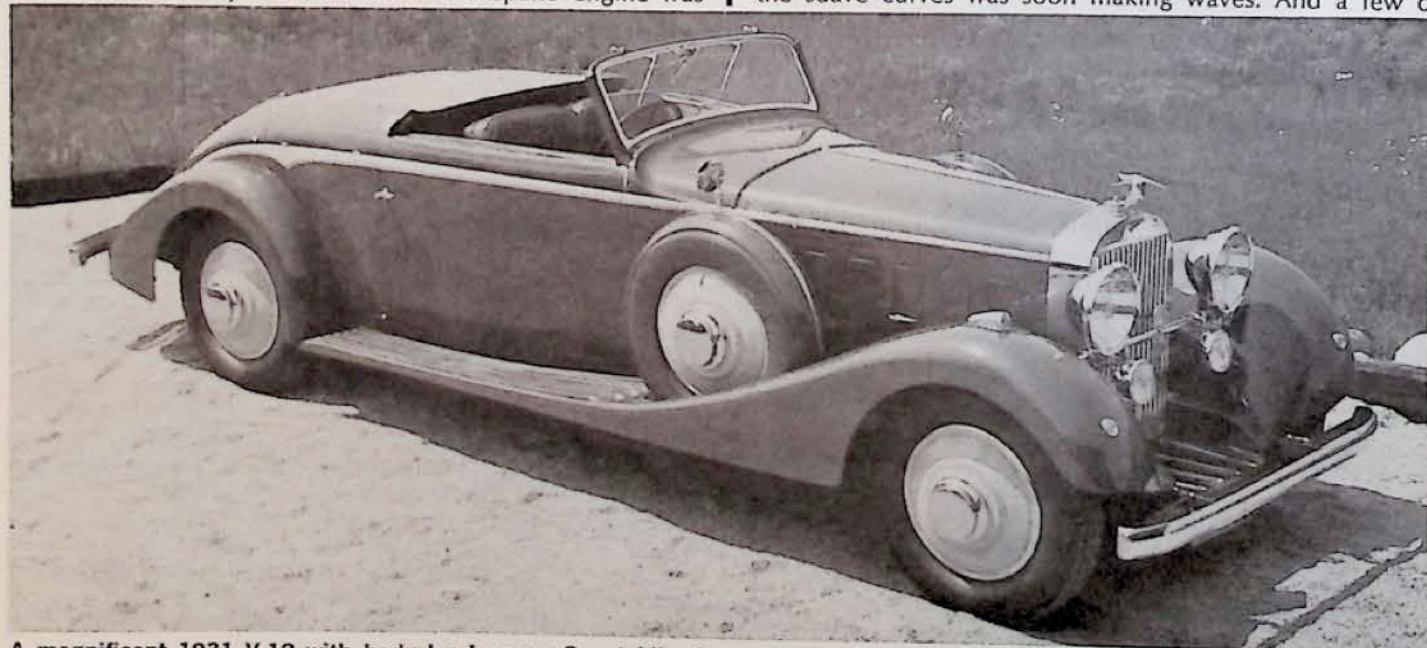
With some notable exceptions, the French have been rather nonchalant about the excellent cars once built within their borders. Bugatti, for instance, was much more appreciated trans-Channel than in his adopted homeland. However, when lubricated with sufficient *nouvelle francs* the French can produce an emotion vaguely resembling civility, and when the situation called for an auto aficionado of the breed usually grown in England they responded with typically Gallic extremism. Andre Dubonnet had a name with sufficient currency for the job. His inevitable apertif ads penetrated places even the Surete didn't know about. And his passion for Hispano cars rose to flights of fancy which most Frenchman usually reserve for the gentler joys of life.

Dubonnet firmly believed that the Hispano engine was

overly conservative with its emphasis on mid-range luxury driving. It was his feeling that, if properly breathed upon, the car could be a first-rate sports machine. But just as Walter Owen Bentley did not approve when a wealthy sportsman wanted to supercharge Bentley racers, Marc Birkigt was reluctant about bastardizing his well-bred luxury car. However, the "hot Hispano" was not to be denied and Birkigt began to relent in 1922 when he prepared a shortened and lightened version called the *Monza* for an Italian race. The next step was to bore out the engine to a full eight liters, which substantially enhanced the car's virility on the road. Only 15 such energetic cars were built. Two of them were entered in a French race called the *Coupe de Boulogne* and returned an easy win. Andre Dubonnet promptly laid hands upon the first available "Boulogne" Hispano in the summer of 1923 and drove it to victory in a race at San Sebastian, Spain. Following close behind were the two cars which had scored at Boulogne.

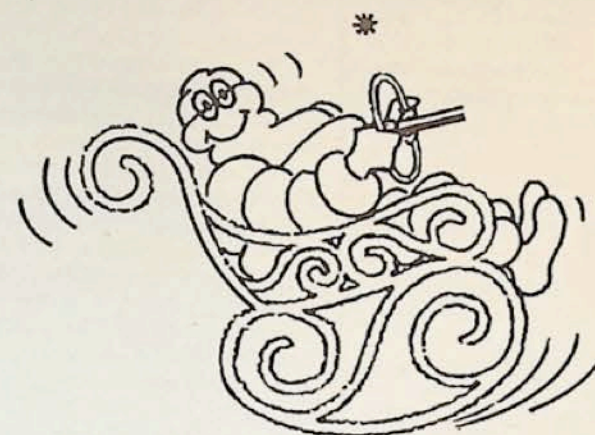
Birkigt remained stoically unimpressed at the racing victories but Dubonnet was ecstatic. The apertif king went to Bois Columbes and what he cajoled into creation amounted to the ultimate Hispano. A new high-lift racing camshaft now offered perhaps 120 mph flat-out but Dubonnet was still unsatisfied. He had his own craftsmen lighten and lower the chassis and slash the radiator into racing trim. Then there remained the dainty problem of an automotive bikini, something which would cover the essentials as unobtrusively as possible. It was a challenge to the coachwork couturier and the solution cried out for Dubonnet unorthodoxy. The Nieuport Aviation Co. which had built the World War I Nieuport fighters was consulted and suitably conjured up a paper-thin alloy shell frocked in steam-formed staves of tulipwood which were held in place by scores of aluminum rivets. Of course, it resembled a dance floor on wheels; but it was light and flexible—and exotic to the first magnitude. After the car itself the Targa Florio was an anti-climax since Dubonnet neither won nor killed himself. He did manage sixth place, after blowing out half a dozen tires.

Hispano's new reputation for rippling muscles under the suave curves was soon making waves. And a few of



A magnificent 1931 V-12 with body by Jacques Saoutchik of Paris. The 9.5-liter was the most expensive standard pro-

duction car in the world with a chassis price of \$13,750. This complete convertible cost an astronomical \$26,500.



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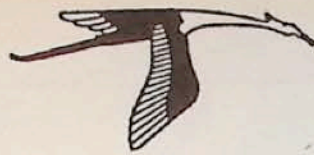
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them lapped across the Atlantic to America. Shortly after the war, a Frenchman named Charles Weymann had patented a way to make what he called a fabric body. This consisted of a variety of patent leather stretched over the body frame instead of the usual steel or aluminum. With the advantage of being light, quiet and not too expensive, fabric bodies rode the crest of a fad for a while in the Twenties. In 1928 Weymann came to the U.S. to negotiate with Fred Moskovich, the president of Stutz, who was then building the famous "Black Hawk Stutz." Accompanying Weymann was a gorgeous Hispano, coyly fitted with the high-lift racing cam. Moskovich couldn't help admiring the car, but allowed as how it couldn't stand up against one of his red blooded Stutzes on the track.

The gauntlet had been flung and, with the flourish of the Code Duello, Weymann picked it up. Indianapolis was the appointed site of battle and the time was to be 24 solid hours, the same as at Le Mans. This was to be an affair of honor, but that didn't preclude a little \$25,000 side bet. Soon, however, Moskovich began to wish it had when his sure-fire Stutz began to burn bearings and eventually trickled off to the wayside. With the speedy ease of the Blue Train, the Hisso finished the full time to collect a little over a \$1000 an hour for its efforts.

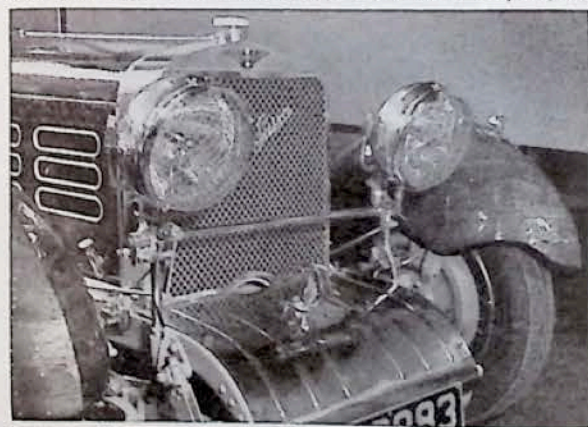
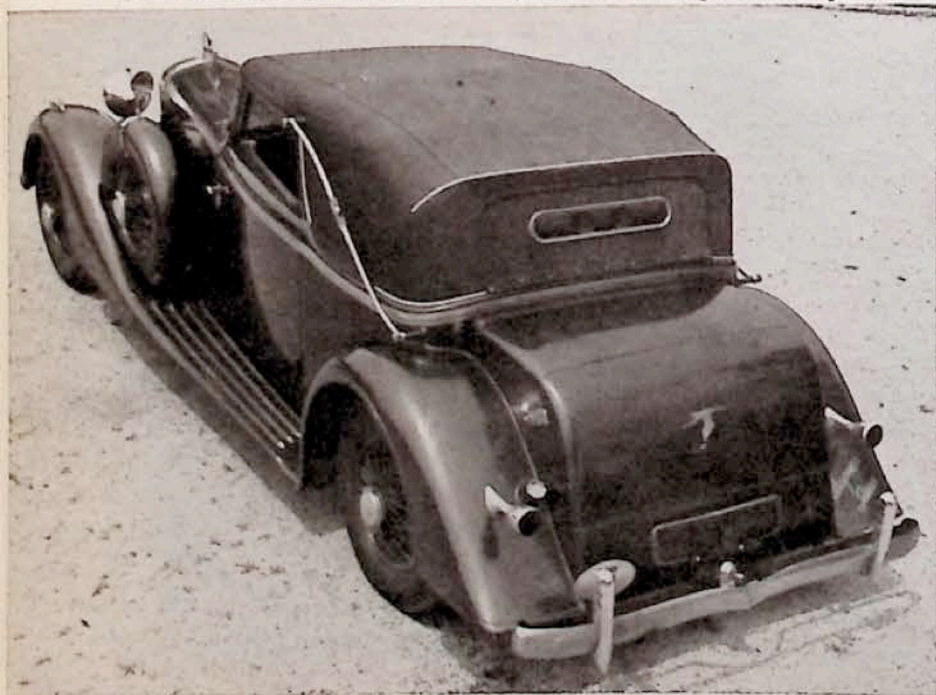
The unpleasantness of October, 1929, put a damper on the market for \$15,000 automobiles and struck cold fear into the hearts of motorcar makers. But while lesser men looked for ways to retrench, Marc Birkigt sallied forth in fresh attack. In fact, he led a full cavalry charge into the face of depression with a new machine of even greater displacement than the big Boulogne, double the number of cylinders, and the world's grandest price for a standard production automobile—\$13,750 for the unclad chassis.

The new Hispano was totally Arthurian in character. There was now more authority under the hood. The well-mannered old 6 was superseded by a savage 9.5-liter V-12 of square dimensions which could push a posh luxury carriage with all-out sporting verve. The new Hispano could go from 0 to 50 in 9.4 seconds or 0 to 60 in 12 seconds, figures which have not been substantially bettered by 35 years of intervening engineering on non-sporting cars. A little later a still more astounding stroked

version of the giant engine was offered for use in short chassis specials. These devoured some 11.3-liters or the equivalent of more than half a dozen modern MGBs.

The surprising thing was not that Birkigt could construct such a stupendous car; that was *fait accompli*. What was truly remarkable was that in such tenuous times when other respected marques were dropping like Custer's command at the Little Big Horn that such a costly masterpiece could succeed. Hispano-Suiza, like Rolls-Royce, had never resorted to anything beyond the most subdued soft sell to move its products into the most prestigious garages on six continents. But like Rolls-Royce's famous London to Edinburgh endurance run of 1907, feats of mechanical prowess were well within the rules. The new V-12 came up with a dilly. A fresh Hispano was warmed up at the Paris showrooms and Charles Faroux slid behind the wheel and took off on a round trip to Nice. As a respected motoring pioneer, president of the Auto Club de France, and co-founder of the Twenty-Four Hours at Le Mans, Faroux could be counted on not to baby the Hispano under him. Hours of flat-out driving and some 650 miles later he was back in the showroom with a big piece of white paper under the car daring a single drop of oil to fall. None did.

The Hispano-Suiza was one of those few institutions which genuinely become legends in their own time. The legends, usually rooted in the cold light of simple truth, continue to this day. Like the one about the English gentleman who had repairs done on his 42-year-old Hispano at the still operating service depot in Paris. As he left, the manager suggested that he might stop by more frequently—anything in the next 60,000 miles or so would be splendid. Many stories have grown out of novelists' inability to keep Hispanos out of their tales, and this long before the Fleming flair for name dropping. Where would Pierre Frondaie's *Man In The Hispano* have been without his equipage? Or could *The Man Who Stole Portugal* have quite as stylishly pulled off the job without his Hisso? But the Anglicized Armenian Michael Arlan whose portaiture began this reminiscence turned traitor in the end. When he got his first \$27,000 royalty check for *The Green Hat* he treacherously blew the whole wad on a Rolls-Royce. /MT



(Far left) Graceful lines of "Hisso" are touched off with Silver Stork on trunk.  
(Above) Lights on '25 model were controlled by outside lever (left). Also part of outside control was gear shift lever.

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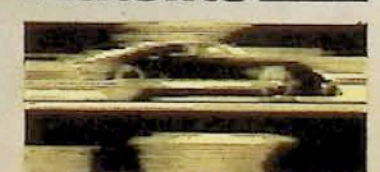
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# THE FAMILY CAR

Used to be, back when half the U.S. population was still unborn, that the "family car" was whatever old banger the folks had around the house. There would be just one car, and it did all the jobs a family had. It wouldn't matter much whether it was old or new, since all cars were, really, pretty much the same. A Model A gave you scant room for five people, no mechanical options and no trouble. And that's all you got if you bought, say, a nice new '39 Ford. Five seats, a 3-speed gearbox, plain cloth upholstery . . . that was it, and everyone accepted it. Why not? The car was not as much of a symbol then. What you did with it was more important than what people *might* think you *could* do with it. Your car



might say something about your financial or social position, but it did not have to represent your masculinity, your youth, your cosmopolitanism. Your car didn't label you quite as strongly as cars do today, which isn't all bad.

Has your car ever embarrassed you? Or maybe it's not that it embarrasses you so much as it annoys you. Maybe it's a little too small for anyone to ride in the back seat. Maybe it's too big to park downtown. Maybe it's too slow to take on a cross-country trip. No doubt it's a good car for some purposes, but it's not a good car all the time.

That's the key to the problem with cars today. Most of them are so specialized that you find yourself dislik-

ing whatever you've got a significant part of the time.

Let's face the fact that most of the fancy specialty cars made today are the automotive equivalent of dime-store candy. They attract you on impulse, they please you to have when you first get them, but the sweetness fades quickly and the aftertaste is sometimes bitter. It's easy to make candy-cars, and very hard indeed to make practical general-purpose ones. American makers have just about forgotten how. They either offer you a toy or they sell you a jazzed-up version of dad's old car . . . without the simplicity or reliability.

Not that imports, as a class, are so much better. They're probably worse, really, except for a scattered few designs. But those exceptions are the best cars that exist today for just plain "caring." I've been trying a few of the best ones lately, and I think I can show you what it takes to make a really good all-round family car.

As an example, let's take a good close look at a car that was frankly designed for family use in the 1970s, to see what it can tell us about modern requirements. I'm talking about the Renault R-16, a car that was planned for a long, long production life, that had completely new plants built for its production, and which has been carefully developed through the first four years of that production. Certainly the desires and needs of the French family were given prime consideration, but the R-16 was also designed for full acceptance in the European Common Market.

The important thing about the R-16 is its body configuration. Not just having four doors . . . any sensible car would have that many if there is any serious intention to carry passengers in the back seat. Not just having a strong, well-engineered body shell . . . you find that in Volvos and Peugeots and Mercedes. But if you want to carry something more than people and suitcases, only the R-16 will do.

The R-16 is neither a sedan nor a wagon, yet it is both. Renault calls it a sedan-wagon, and they seem to have inspired a lot of other manufacturers. Even conservative Volkswagen, with the new 411 is copying the R-16 line, if not its layout advantages. I fully ex-

A good one is hard to find, but the Renault R-16 proves that it is worth looking for.

Text and Illustrations by Robert Cumberford

pect to see this sedan-wagon body become the standard family car form in the next decade.

To make this body work properly is no light task. There are no full diaphragm members to stiffen the structure, such as the panel behind the back seat in the ordinary sedan. If you are not to have rattles and groans, there must be an exceptionally strong floor pan, and the various pillars must be of fairly substantial section. No American unit-construction car has a really stiff underpan, and a lot of work would have to be done to develop one. The R-16 is very similar to the Citroen DS in its structure, with the difference of having roof rails of extraordinary strength. These prominent ribs serve purposes in the R-16: they control airflow over the aerodynamic roof profile, preventing side spillage; they allow a higher opening for the tops of doors; and they serve as rollover bars. You could, no doubt, put an R-16 upside down on these ridges with no more damage than some scratches in the bright metal trim (which is stainless steel, anyway, so it wouldn't rust afterward . . . a valuable family-car feature in itself). If you should want to add a luggage rack, this form of reinforced roof will support it easily.

All this would be academic if the R-16 were not a fairly sound car. In fact it is as solid a car as I know of, and it is completely rattle-free. I've driven several of them, including an early model with 40,000 miles of rental service behind it, and they were all tight and quiet. The entire shell is double-wall, and that seems to make the difference.

The use of an extremely rigid body structure permits other advantages. You can establish a much softer suspension with much greater wheel travel if you know that the mounting points for the suspension are not going to be moving as well. The Renault has almost 12 inches of rear suspension travel, and is capable of taking in its stride terribly bad road surfaces. This is another attribute of the family car that is going to become more and more important.

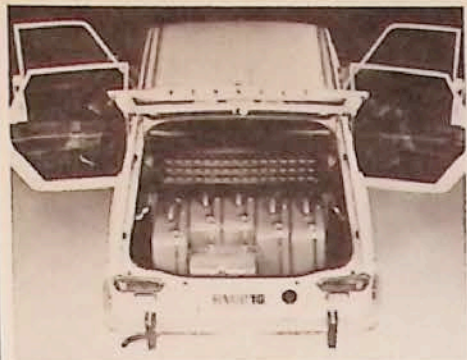
Renault obtains the flexibility of its suspension through the use of long trailing arms attached to transverse torsion bars which lie under the back

seat. Thus there is no rear axle to intrude in the passenger/cargo space in the back of the body. Front-wheel-drive, long featured in French cars and now becoming much more widespread, permits this space-saving layout. Pioneered in the ugly utility model—the R-4—Renault's suspension features two wheelbase lengths . . . on the same car. On the R-16, the left-side wheelbase is  $2\frac{3}{8}$  inches longer than the right-side wheelbase. They use the same length trailing arms for both wheels, and put the torsion bars one ahead of the other to save height. There is absolutely no detectable difference in handling, and a clever styling trick assures that there is no readily detectable difference in appearance. The different lengths are disguised by having different dimensions between the trailing edge of the back doors and the leading edge of the wheelhouse openings. Wheelhouses are the same length on both sides, and the rear bumper tips appear to reach the same distance from the back of these openings. So the rear bumper is longer on the right than on the left.

By now the seating system of the R-16 should be well-known. It allows seven basic arrangements of seating/cargo space. The whole system is very well engineered. This is something else that is going to be required on family cars in the future: that features included in the car work properly. Take the folding rear seats in Corvairs in contrast. The spring-and-rubber clips are cheap to make all right, but it is a nasty job to pull the rear seat-back down from them. I can think of a number of other cars with similarly-conceived adjustments for seating which are nearly impossible to deal with in practical terms.

The seats in the Renault point the way for the future in other ways. They are comfortable, and they are arranged to give plenty of leg room, headroom, and hip room. So are the seats in the Volvo 144, the Mercedes-Benz sedans and a great many other European cars. They are adjustable, not just in a single fore-and-aft plane, but in backrest angle, and by judicious use of tools, in cushion height and angle. Think about the seats in any \$5000 U.S. sedan in contrast to those in \$2500 Euro-

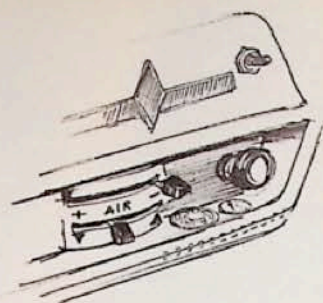




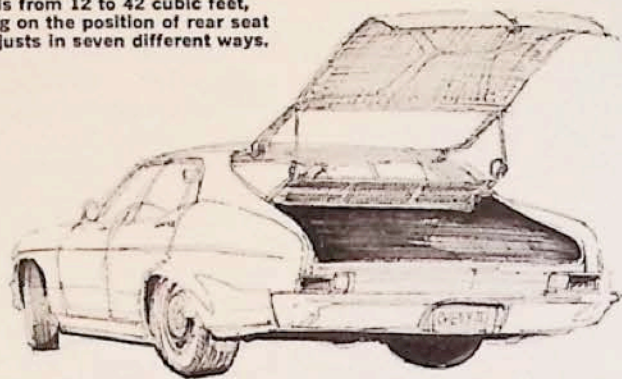
Fifth door reveals interior cargo area that yields from 12 to 42 cubic feet, depending on the position of rear seat which adjusts in seven different ways.

# THE FAMILY CAR

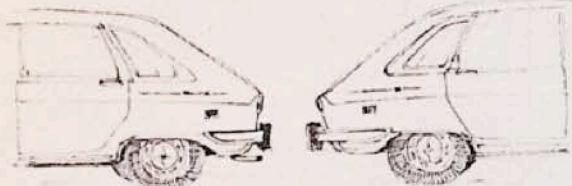
continued



Plastic surround of the lighter and heater controls makes a perfect place to put coins for tolls, and they stay put under hard driving.



Only slight change in deck opening is required to make Chevy II a sedan-wagon with fuller body shape at rear.



(Above) Interior of R-16 shows comfortable, reclining seats. (Left) Difference in wheel-base is taken up in body between wheel-house and rear door trailing edge. Position of side marker reflector gives the game away, but no one seems to notice.

pean models. They have better and fancier upholstery material, but they offer almost no adjustment.

Since you do vary the use of a family car so much, it would be nice if you could maintain fairly constant performance characteristics in all situations. This is an area in which European cars fall down. Add 1000 pounds of people and junk to the curb weight of any of them, and they are seriously compromised in performance. Acceleration, probably not too good to begin with, is down a lot, braking is changed a little and the handling may change a great deal. Here is another point for the R-16 and its front-wheel-drive. It doesn't make as big a difference to a front-wheel-drive car as it does to a rear-engined one if you vary the load. You'll still have power-on understeer, and a corner taken too fast can be "made" by letting off on the gas . . . usually. Giant-engined American sedans are much more consistent in their behavior. If we really do get Hadrons on our cars to hold them to 80 mph maximum speeds, I would expect to see an electronic tie-in that will allow a loaded car to use more power while accelerating, to result in equal 0-80 times for all gross weights. This would be a far greater safety feature than a limited maximum speed.

Fuel consumption has to be considered in thinking about family cars.

Even if the difference in cost is minor, it seems wrong to use premium fuel in a mundane car, yet this is what the little European machines demand. Probably this has more to do with air-pollution controls on the engines than it does with absolute octane requirements. One result of the air-pollution standards may very well be the eventual elimination of various types of gasoline. If there were only a single basic fuel, engines could be optimized for its convenience rather than for its savings in money, anyway. I, like many people, hate to stop in gas stations, and I like a car to go at least a week without having to be refilled.

Even though it is a highly significant "milestone" car, the R-16 has its weak points and in one important respect it is seriously deficient for today's market. That deficiency is the lack of an automatic gearbox. I cannot believe that the designers of this excellent car are unaware of the need, and I am certain that they will have an automatic by 1970, but they really should have it now.

What else is going to be required? Air conditioning, I think. Just as heaters slowly became a part of the order for every car, to the point where they became standard equipment in the middle Fifties, air conditioners have reached the point of being ordered on more than half of all new U.S. cars.

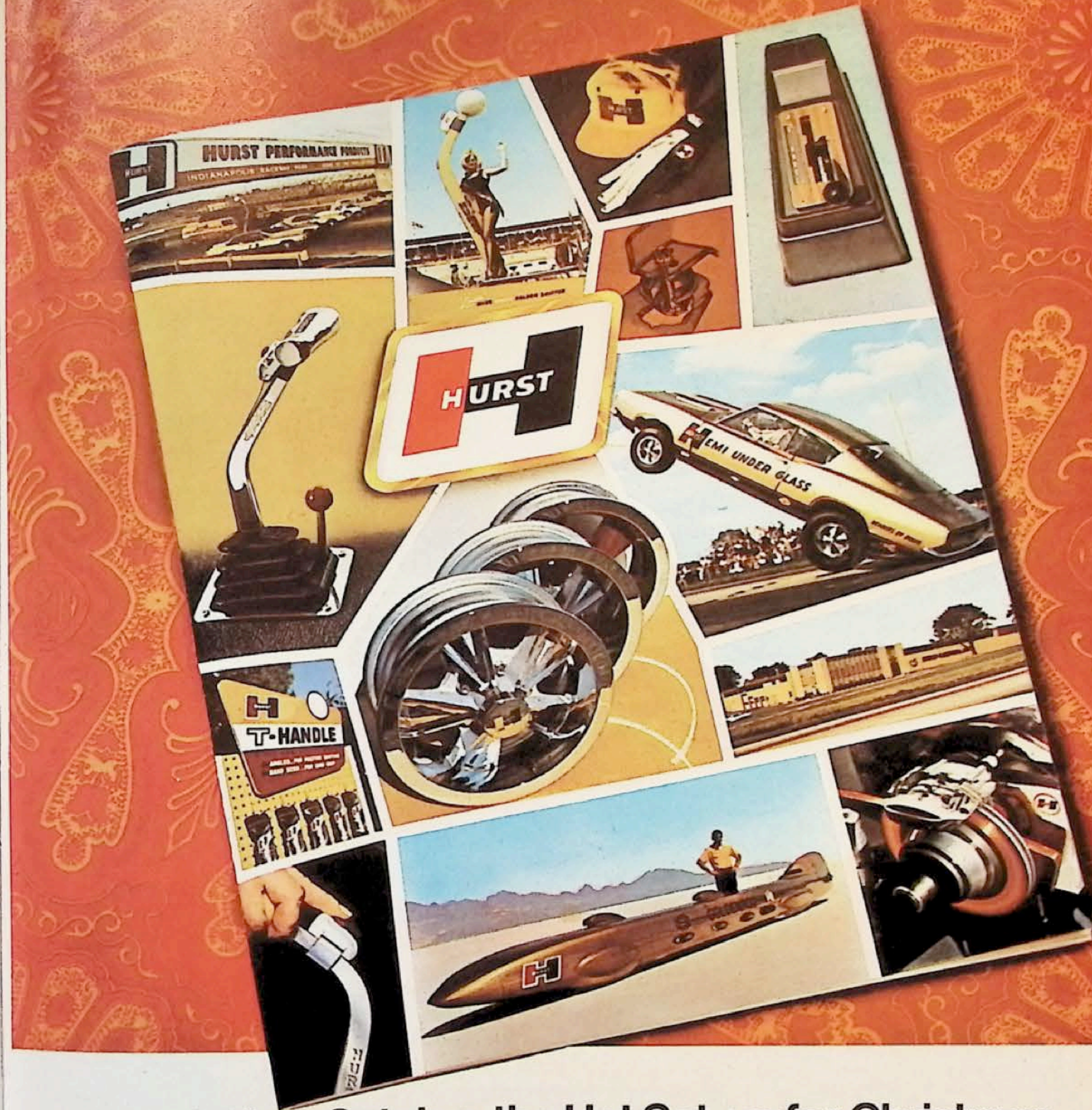
Our exemplary R-16 has an American-made optional until in this country, but the factory has not joined those who offer this feature from the production line.

The R-16 concept, then, comes about as close to the ideal family car as any on the market today. The car is adaptable, safe, comfortable. It seems to be durable, and it is equipped for long service, even to the inclusion of 40,000-mile-guarantee tires. It can be driven by very tall men and very short women without difficulty. Its performance is fair, with an easy gait and good road-holding.

There are minor annoyances: the hard-to-reach and hard-to-use parking brake, the awkward-to-adjust safety belts, the noisy ventilation fan and the strip instruments. But none of these are enough to spoil the practical, friendly, character of the car. Here is a machine that can do all the jobs one is likely to want to do with a car, except actual racing; one that can do all these jobs with off-hand ease. You don't need to be particularly skillful to drive it, but it will reward skillful driving. It certainly doesn't require much owner maintenance, and probably won't need much from the dealer either.

Let's hope that some of the first of the R-16s sold in this country get into the right hands in Dearborn, Detroit, Hamtramck and Kenosha.

/MT



## Hurst's New Catalog, the Hot Set-up for Christmas

Hurst's new, full-color, '69 catalog is just off the press, just in time to help you choose all that good go-faster stuff you want for Christmas. It contains over 400 Hurst Performance products, so if you have any trouble making up your mind, you can buy one of our Christmas Gift Certificates from your nearest Hurst outlet and select at your leisure. Send a dollar for the big new Hurst dream book today and watch Santa Claus set a new record in December. Face it, an old guy like that, with only eight reindeer-power, needs all the help he can get.

Hurst Performance Inc., Department MT, Warminster, Pa. 18974



### Carb Idle Adjustment

It's the simplest of all engine adjustments, but many weekend mechanics don't tackle it because they're afraid. Never fear. Here's how.

In the good old days, carburetors came with as many as three sets of adjustments—idle, mid-range and high-speed. Modern carbs, though, have only the idle screws. These stand at the base of the carburetor, right at the manifold. They almost always face front, and they're slotted for a short screwdriver.

Before you start adjusting, be sure your ignition system is perfect, timing as well as working parts. Compression has to be even in all cylinders; valves have to be in good order; in short, you can't adjust out basic engine ills. Also, the carb has to be clean, with float levels set to spec, no leaks at the manifold, and the idle-adjustment needle must be sharp and ungrooved (take them out to check).

Okay. You're set to start as soon as the engine is warm. One-barrel carbs are easiest—they have only one screw. Turn this in lightly until it seats. Don't twist it hard against resistance, because this will groove the needle. Once seated, unscrew it half a turn. The engine will now run, though probably lumpily. Keep unscrewing slowly until the engine idles its fastest. Just beyond this point, if you keep unscrewing it'll suddenly bog down. Turn the needle back to the fastest setting, a quarter turn or so.

Two-barrel carbs are a little tougher. Repeat the above, unscrewing a half turn from seating. Then slowly unscrew both needles one by one, a little at a time. They should never be more than a quarter turn different. Fastest idle again tells you the optimum setting.

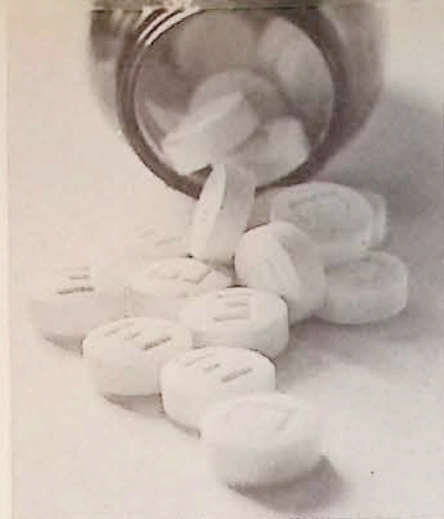
Four-barrels are the same as two-barrels—they have only two adjustment screws, none for the rear barrels.

After adjusting the carb needles, you might find that the engine idles more quickly than you want. In that case, back off the throttle idle adjustment where the throttle rod enters the carburetor. Also, be sure the automatic choke is properly set to release its fast-idle detent.

### Turn-Signal Troubles

Sooner or later it happens to every driver—his turn signals start playing tricks. Usually it's a simple malfunction that's easy and inexpensive to fix. Here are the most common turn-signal troubles and their cures.

*One dashboard winker light blinks double-time.* This means one of the signal bulbs (stop or parking light) is loose or has a burned-out filament. First, make sure the non-lighting bulb is making good contact. If it is, check to see if a filament is broken. (NOTE: Tail lamps are often accessible through



## Forestalling Excedrin Headaches Nos. 47, 29, and 103

# WORTH KNOWING

BY MICHAEL LAMM

the trunk; no need to remove the lens.)

*The dashboard winker lights burn steadily and don't blink when you activate the turn-signal lever.* In this case, it's probably a defective flasher unit. These 2-inch-long, silver, cylindrical flashers are now often set into the fuse panel on the firewall. It slips in and out like a radio tube. Older cars hide theirs behind the dash somewhere. Take out your bad flasher, buy a new heavy-duty one, install it.

*Dashboard winker lights and external signal lights don't come on at all.* A number of things could be wrong here: (1) a burned-out fuse, (2) again a defective flasher, (3) a broken or shorted wire, (4) worn or faulty switching mechanism inside the steering column. Check out the possibilities in the order given.

*One dashboard winker light blinks but the other doesn't, even though you can hear the flasher ticking and can see all outside signal lights working.* This simply means a bad bulb in the winker. Find it behind the dashboard and replace it.

*The turn-signal lever on the steering column doesn't cancel itself.* Here you have a bad switching mechanism. It's not easy to get at on most cars. It demands removing the steering wheel, which most often means taking it off with a wheel puller. Even when you pull the wheel, the switch is fairly complicated, not easy to repair. So better leave this job to a good mechanic.

*Miscellaneous other possible trouble*

*sources:* (1) The wiring through the ignition switch may be loose or broken. Most turn-signal systems are wired through the key. (2) Make a similar check of the Emergency Hazard Warning system on late-model cars—sometimes wiring at this switch can cause problems in the turn-signal system. (3) Corrosion at the tail and parking lights can keep them from making good electrical contact. Be sure all these lights are well grounded. (4) The flasher unit sometimes works itself loose. Before replacing it, make certain it's installed tightly.

### Preparing Your Car For Storage

If you're headed for college, going into the service, off on a long overseas vacation, or if your job takes you out of town for several months, you might have to leave your car while you're gone. Here's the proper way to store it.

(1) Drive the car into the storage area with as little gas in the tank as possible. Drain or siphon out all remaining gas; then, with the garage doors wide open, run the engine at fast idle until gas lines and carburetor float bowl are empty (until the engine quits). Old gasoline anywhere in the system causes gum build-up.

(2) For any extended storage period it's a good idea to first drain both the radiator and the block—most cars have petcocks in both places; if not, remove the bottom radiator hose. Then fill the cooling system with a good grade permanent anti-freeze to help protect against electrolysis and rust.

(3) Now take out the battery. If you'll be gone more than three months, there's probably no economical way to keep it from running down and eventually sulfating. In that case, you might as well write it off as a trade-in on the new battery you'll have to buy when you get back. If you know someone with a trickle-charger, though, he can probably keep the battery alive.

(4) Set the car on jack stands or blocks. To do this, use something other than a bumper jack—either a screw or scissor jack gets the tires off the ground sooner and more safely. If you use bricks to keep the car in the air, be sure to lay a board over the top one so it doesn't crack.

(5) Sprinkle mothballs onto the front and rear floors of cloth-upholstered cars. And cover the interior of any stored vehicle with a 25-cent plastic dropcloth—the kind used by painters.

(6) Roll up all windows, close all air vents, be sure the top is stretched taut on convertibles. Now lock the car.

(7) Cover the car's exterior with another plastic dropcloth (large cars will probably need two, scotch-taped together). Tape the plastic down all around the bottom edges. If the car's to be stored outside, invest in a special car cover.

/MT



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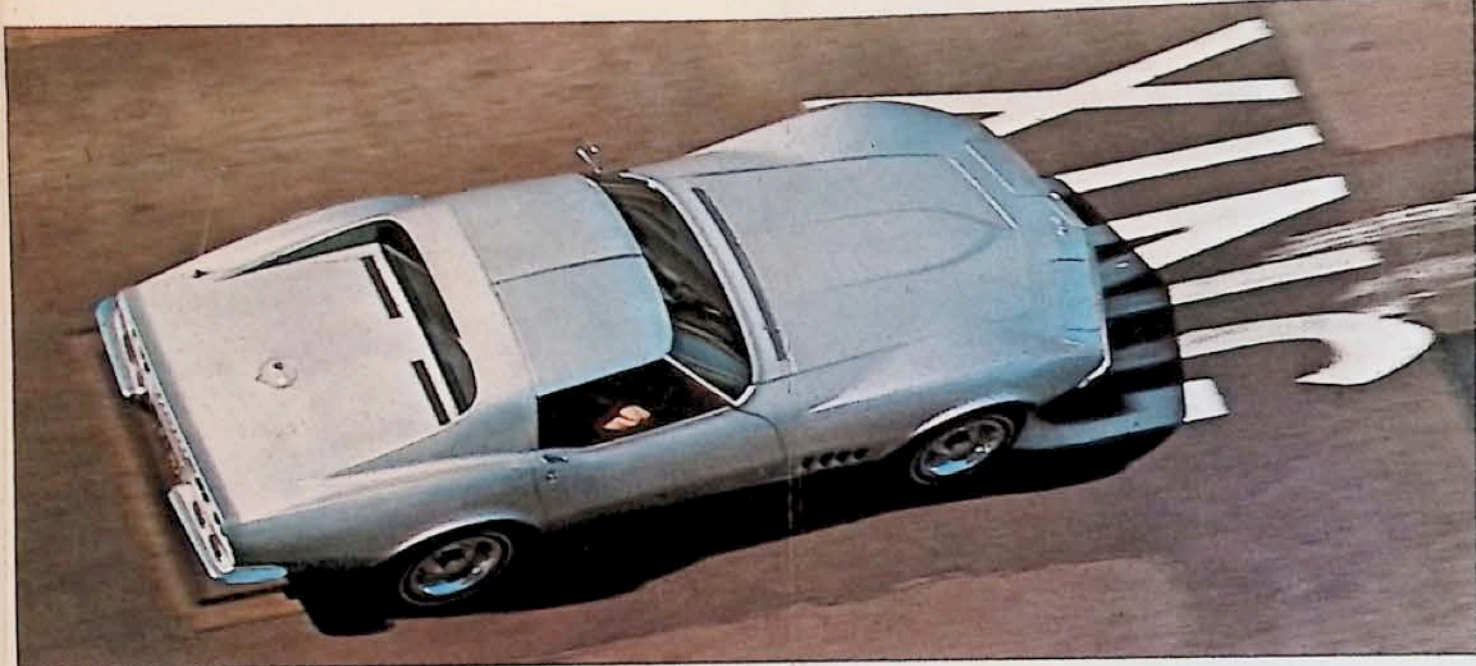
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# Sunset Strip Car Collage

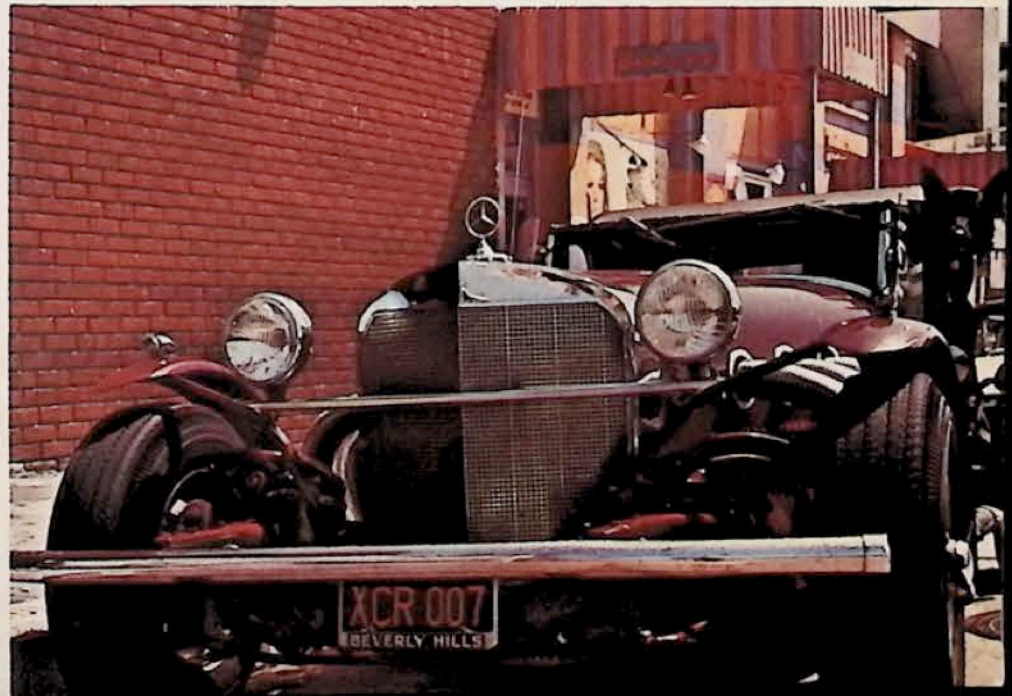
On any given hour of any given day the Sunset Strip holds the most expensive, exotic and beautiful cars in the world. A Ferrari, then a Maserati will be snubbed by a silver Rolls, then a Citroen 2CV panel truck will come along and put them all down. The "Strip" has to be the capital for the "In" cars of the world; also, for the "Out" cars that are so far out, that they become Camp and are very much in again.



(Top, left to right) New Corvette, Karen, Rolls convertible. (Center, left to right) Playboy Club courtesy car, Citroen 2CV, the original Cobra. (Bottom left) Ferrari 330 GTS. (Below) Excalibur. continued



COLOR BY GEORGE FOON



# Sunset Strip Car Collage

continued

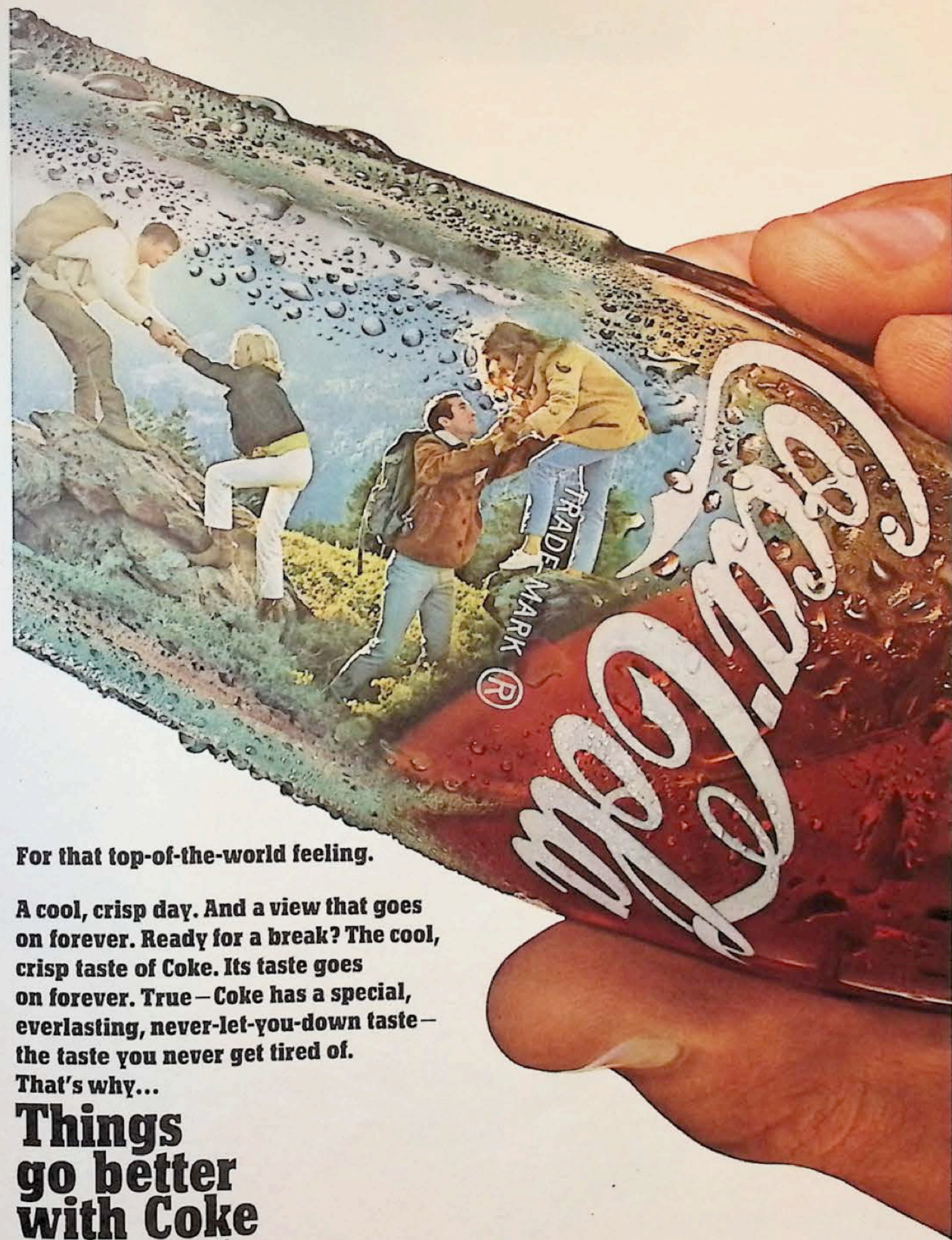
All of the photos were hastily taken over a hectic 2-day period, a total of approximately six hours, using fast shutter speeds. The photos used are only a small portion of those actually taken, the others were withheld to protect the photographer. If the cars don't do anything for you there's always the pretty girls . . . if not, the boys are pretty too!



(Clockwise, from top left) The Flying Shoebox, Janet, The Silver Lady, Whatchamacallit.



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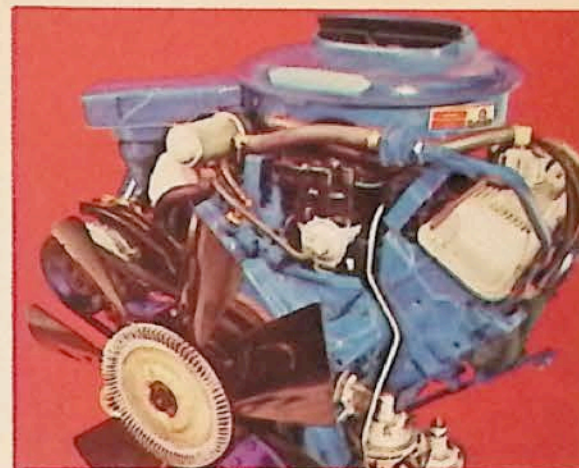
Cougar with CJ 428 Ram

# Lincoln-Mercury's zip code: CJ 428



Cyclone CJ with CJ 428 Ram

CJ 428 is guaranteed to move the U.S. male. Advertised horsepower 335 @ 5200 rpm; torque 440 @ 3400. Huge 735 cfm 4-barrel carburetor. 10.6:1 compression. Performance-tailored camshaft, free-flow breathing, and low restriction dual exhausts and air cleaner. 3.50:1 rear axle. Competition handling package. Fiberglass-belted wide tires. Everything it takes for special delivery! CJ 428 is optional with all Cougars, Montego MX, Montego, Comet Sports Coupe, and Cyclone. It's standard with Cyclone CJ. "More" you ask? "CJ 428 Ram" we answer! Deep-breathing Ram air induction with functional hood scoop is



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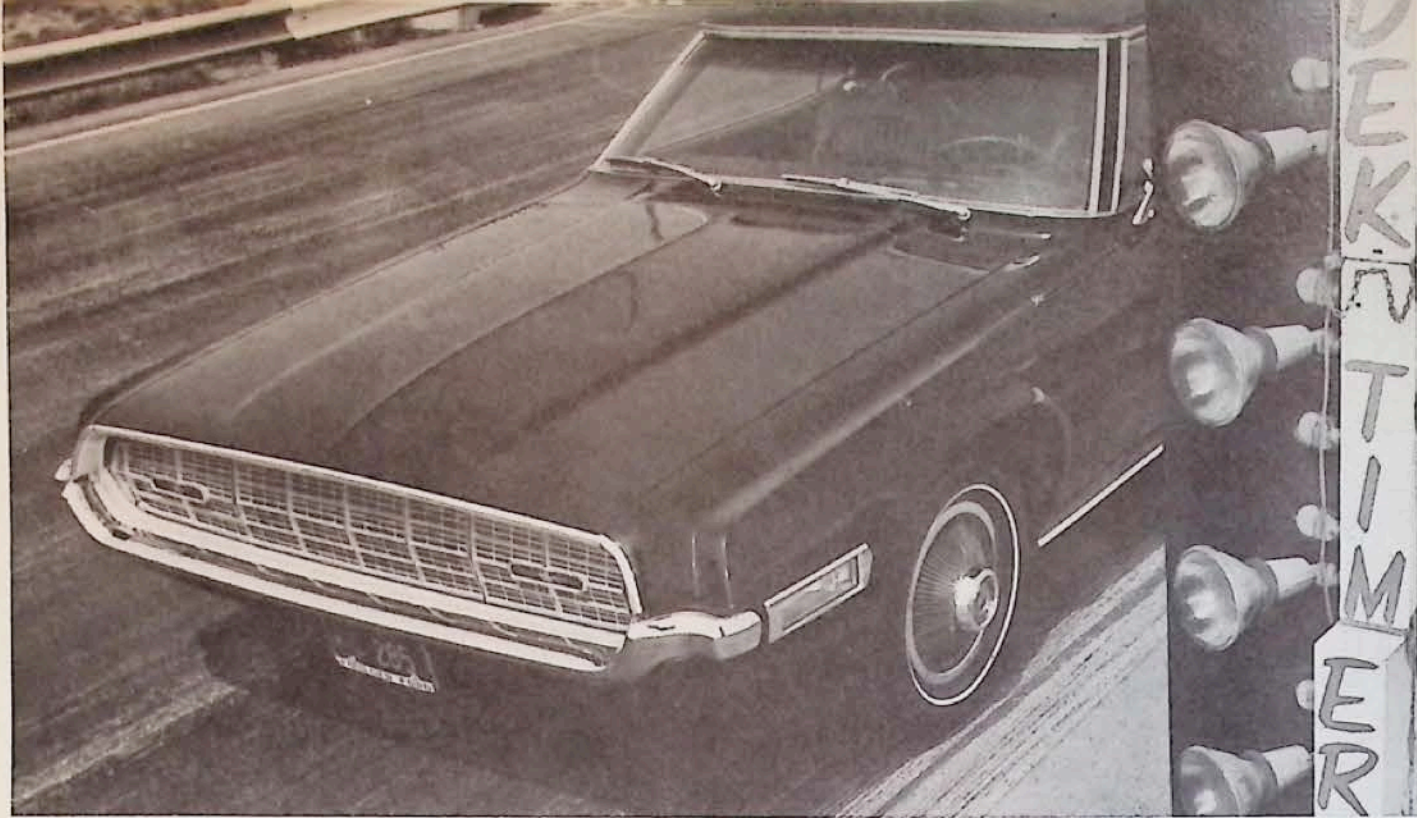
Decisions, decisions. You choose the right engine and body style, and then start on the options. Tires, tachs, and tinted glass. Traction-Lok differential. Racing mirrors. Select-Shift, or 4-speed manual with wide or close ratios. Heavy-duty batteries. Power steering and front disc brakes. Optional axle ratios. Buckets. Vinyl roof. Styled steel wheels, or deluxe wheel covers. AM/FM stereo radio. Et cetera. You don't have to read between the lines to see that we can give you anything you want in high performance.

ENGINE:	351-2V	351-4V	390-4V	CJ 428
C.I.D.	351	351	390	428
Adv. H.P. @ RPM	250 @ 4600	290 @ 4800	320 @ 4600	335 @ 5200
Adv. Torque Lb.-Ft. @ RPM	355 @ 2600	385 @ 3200	427 @ 3200	440 @ 3400
Compression Ratio	9.5:1	10.7:1	10.5:1	10.6:1
Carburetor	2-Barrel	4-Barrel	4-Barrel	4-Barrel
Exhaust	Single	Dual	Dual	Dual
Availability:				
Cougar	Std.	Opt.	Opt.	Opt.
Cougar XR-7	Std.	Opt.	Opt.	Opt.
Cyclone CJ	N.A.	N.A.	N.A.	Std.
Cyclone	Opt.	Opt.	Opt.	Opt.
Comet Sports Coupe	Opt.	Opt.	Opt.	Opt.
Montego	Opt.	Opt.	Opt.	Opt.
Montego MX	Opt.	Opt.	Opt.	Opt.
Montego MX Brougham	Opt.	Opt.	Opt.	N.A.

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## THE LUXURY OF PERFORMANCE

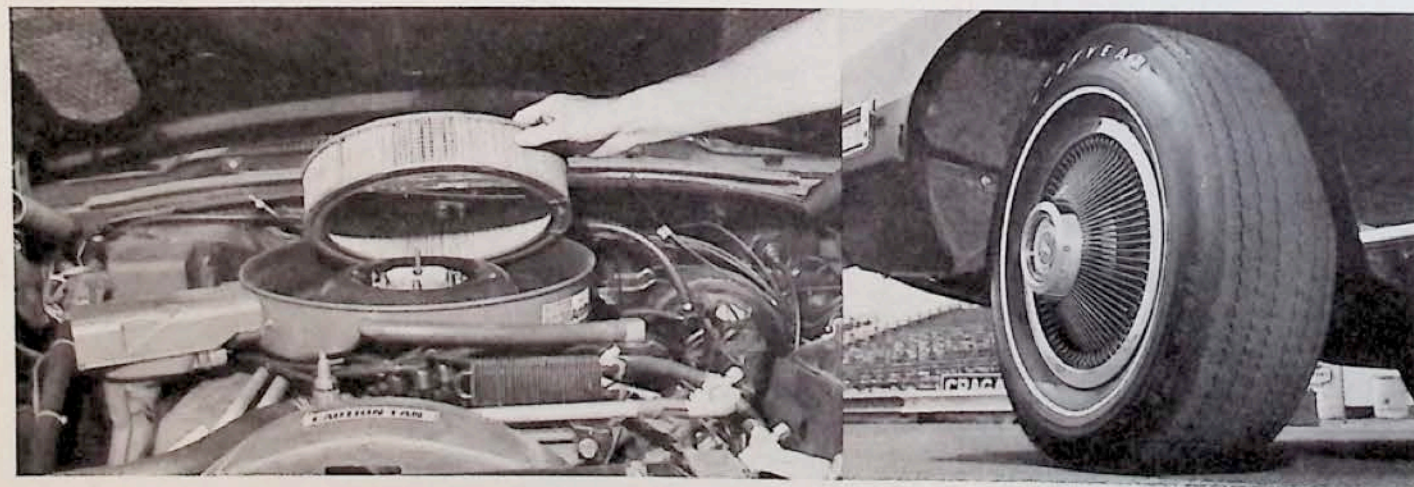
Are you ready for a Cobra-Jet T-bird? Neither are your neighbors.

So you've made it. And you've got a new T-bird to prove it. There are a couple of other ways you could have gone, but that sporting image of those good old 2-seater days still lingers somehow. But a 'Bird was never a Corvette, and Ford wasn't unhappy about it because when the 4-seat version appeared in '58, they found opulence and sales plotted parallel escalating curves on the money-graph. Real performance was out except for image and that's all you needed for there wasn't a competitor in sight.

Now there are. It was no surprise then, when a sleeker Thunderbird came along in '67 and a new-generation 429 engine a year later. What was significant was how the canted valve tunnel-port powerplant hustled 2½ tons of personal car down the road—you could grab rubber on the 1-2 shift even. About this time, too, a few forward thinking souls in the Ford organization divined that being

last away from the light may not always have been best, even for a luxury liner. Finally, and possibly most important of all—though we shall probably never know—Ford was becoming alarmed at a rate directly proportional to the growing file on their newest competitor, Pontiac, whose '69 Grand Prix would offer such interesting touches as 428 Ram-Air power, 4-speed transmission and axle ratios out the tube. Getting nosed out by a Riviera was one thing, but train-lengthed by a Pontiac? Never.

Jacque Passino gave us some idea of the performance Thunderbird flight path last spring (Ford Performance—'69 Style, MT, Aug. '68) but the only concrete example of new life at initial '69 product displays was an optional handling package that just about doubled the big machine's ability to get through the esses. More exotic things, we learned, were being tried and would be along, per-



(Above) Now who would go around fooling with the air filter in a big, old sled like the Thunderbird? For openers, try the Ford Motor Company. Non-restrictive silencer helped performance a little and removing the cleaner altogether was best because of high underhood temperatures. Ford 429 tunnel-

port engine is standard in 'Bird and makes excellent foundation for slight modifications. It's a case of untapped potential, you see. Goodyear Polyglas H-70-15 tires put a large footprint on the road (above) and improved traction significantly. Modified T-bird is all-time street sleeper.

Text and Photos by Eric Dahlquist

haps at mid-year. So we had to wait, and take our chances with everybody else at getting an early story, right? Wrong. We called Chuck Foulger, of Foulger Ford in Monrovia, the same Chuck Foulger who lately ran Ford's drag racing program, and asked to have a 'Bird built with those things that would be offered later.

But one car compared to another, just plopped out there, bloop!, can be deadly dull so we thought a step-by-step rundown on how you get from point A to B quicker might be more meaningful. The car ordered was a normal 2-door hardtop with all the personal car stuff like air conditioning and a stereo radio that brought the total weight to a sagging 4860 pounds. Equipped with the optional 3.50:1 rear end ratio and given a standard tuneup, the 'Bird ran 16.38 seconds @ 85.6 mph in the quarter-mile. During these runs a slight amount of wheel spin was registered, so a set of Goodyear Polyglas H-70 tires were mounted for a better 16.20-86.0 mph.

The amazing performance of the Cobra Jet engine was the combination of existing Ford production parts, and the same thing applies here. Ford makes a 10°, dual-point distributor advance plate (COAF 12152A, plate; FDS12171, dual points; 17RA12300, condenser) that can be bolted in. Total advance is 38° with a rate of 1° @ 500 rpm, 3.0° @ 1000 rpm, 5.5° @ 1500 rpm, 10° @ 2000 rpm. In the carburetor (C8SZ9510A), two coils were removed from the secondary vacuum diaphragm (P-valve) and the secondary air bleeds were blocked. Along in here it was found that a non-restrictive air filter element (C8SZ9510A) helped, but removal of the air cleaner altogether was best. These things pared the elapsed time to 15.81 seconds and bumped speed to 88 mph.

Subsequent engine checks revealed that the installed

valve spring height was off a bit so it was re-established at 1.81-inch for the intakes and exhausts. This work was topped with a good valve job and equalled a 15.50-90.30. In a Thunderbird especially, the Ford-O-Matic shift points are quite soft and not suited to the car's new character. B&M Automotive firmed up the gear changes somewhat by reworking the transmission accumulator valve body. This was good for 15.38 seconds @ 91 mph.

If you read our '68 Supercar story (Dec. '67) then you know that a Thunderbird running this well is very little slower than a standard GTO (15.3 seconds vs. 15.1). In terms of accomplishment this is like having the Goodyear blimp barely nosed out by a twin-engined Beechcraft. The most surprising aspect of the whole project was that the 'Bird lost little of its luxury feel except that it no longer wallowed along undulating road surfaces. Washboard highways and raised tar strips revealed the higher-rate suspension something like you had over-inflated the tires by six or seven psi, but it is not objectionable.

As far as actual utility goes, the hotted-up Thunderbird is pretty much like the cool versions except that it's more fun to drive. Gas mileage in one of these rigs rarely exceeds 10 mpg and this did not change either way. These minor modifications did not raise the interior noise level of a T-bird which is like the reading room in the library and nothing short of open exhausts will intrude.

Some people at Ford think that perhaps 20% of their Thunderbird customers would be interested in something with a bit more hair like our test car. If this is so, the best way to initiate a faster program at the factory is to start those cards and letters pouring in to Dearborn, Mich. 48121. You'll probably just ruin the whole year for some of those new Grand Prix owners. /MT



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CLIP THIS CERTIFICATE

Following the USAC midwestern state fair circuit can be as hot and hairy as one of its races

BY JULIAN G. SCHMIDT

# SWINGER'S GUIDE TO THE PODUNK TRAIL



The Arabian Giantess, over nine feet tall, petrified by nature, lies alone and forsaken behind the rotting, gray plywood walls of her booth. Only her faithful barker is by her side and the once clarion charm of his spiel has long since been dulled by its own monotony.

Across the hog pens, through the carnation garden, beside the cake booth, past the preserves display and beyond the Junior Livestock Arena, a force even stronger than the macabre, the bizarre of the Giantess, draws the teeming crowd unconsciously onward.

Throughout history, its cogent power has never weakened, and this year it's as potent as ever. An ominous, almost votive assurance of The Spectacle of Peril and Battle always guarantees an audience, especially if enhanced by noise and violence, by human defiance of the laws of physics, by a willingness of competitors to place themselves in the throes of danger, in a sacrificial gesture to give the spectators what they came for.

And come they did—30,000, 40,000, strong, inundating the sprawling grandstands with bored, Penney-shirted fathers carrying a library of farm market reports, women with skirts puritanically protecting their calves, stuffing corn dogs and cotton candy into the mouths of kids whose once-innocent stomachs are now bloated with synthetic carnival-garbage. They gush through gates even before the drivers arrive, bombarding and ricocheting off each other, unconscious of mob presence.

The Big Boys are coming . . . Foyt, Andretti, Jones, the Unser, and when practice begins only three hours before the race, they chant the drivers to faster and faster speeds, adjuring them beyond the limit, because if a celeb screws up in real style before 40,000 slobber-lipped rednecks, it's worth five years of 9-foot tall Arabian Giantesses petrified by nature.

Racing combines contradictory bedfellows, and both parties use it to feed their polar opposites. The crowd is static and watches the motion, with violence as their climax. The racer is motion. Money is his climax. Between events, the kinetic racer moves among static multi-bodies of state fair crowds at a pace that never subsides from Indy through September.

Join their itinerary on any given weekday, say Thursday, August 15th, at Milwaukee, Wisc., and you leave the quiet life of luxury behind. Follow the steps of, say Al Unser, and you see why they pop down Super-Plenamins like peanuts. Races are often one day apart, one state apart, and a private plane is often the only means of getting there in

time to catch three hour's sleep.

The shoestring boys rough it, piling into their tow car with maybe two mechanics, and alternating driving chores throughout the night.

But like his brother Bob, Al is a success. He's one of the lucky few who can afford the ride in a private plane. What's more, he drives for successful racing team owner/organizer, George Bignotti, so he can generally catch a ride in George's plane at will.

Nevertheless, if the race starts at 2 p.m., he's lucky to be in town by 10 a.m. That gives him a half hour, maybe forty-five minutes, to drive to the track and change before practice.

fact, has won every race he's finished this year. He won Milwaukee on Thursday.

Oh, Foyt and McCluskey were there and took the lead for eight and 11 miles, respectively, but the ham-fist specialists—White, Hartman, Norm Nelson and Jack Bowsher—grabbed the game for themselves, though White, Hartman and Nelson might have done it partly for Chrysler Corp. They were driving two Chargers and a Road Runner, in that order. Bowsher brought up the first Ford, followed by current points leader, Foyt, also in one of Bowsher's Fords.

A broken brake drum in the Rudy



Until the State Fair races begin, it's all business for racers and their crews in the pits. But as hairy and wild as dirt track races are, they require some of the most delicate chassis tuning of any form of competition, and tires are constantly being changed.

But on the ovals, practice is only brief familiarization. In the time normally allowed in a Big Race for precision-honing the driver to the track, the fair schedule packs chassis tuning, gear changing, engine sorting and driver practice into a commensurate interval.

Add to this, competition of the caliber of Mario Andretti, Bobby Unser, A. J. Foyt, Parnelli Jones, Roger McCluskey, Joe Leonard, Art Pollard—to mention a few—plus the enthusiasm of rudimentary racers like Billy Vukovich and Jim Malloy. Cold, intent, precise, each one is dedicated to making the fair circuit pay off. It has to.

Thursday's race was for stockers in Milwaukee, or more accurately, West Allis, home of the local pride, Allis-Chalmers. Where some like Don White and Butch Hartman don't dig sprints, stockers become their bailiwick, and even the likes of Unser, Foyt and Andrettis may be at their mercy. White is the reigning USAC stocker, and, in

Hare Charger driven by Al Unser subsequently blew a tire and dropped Al from his close second in points, to fourth. One race. Pow!

The vicious circle. To make racing pay, you accumulate points. In order to accumulate points, you hit as many races as you can. The more races you hit, the more it costs in time and energy.

But the pressure doesn't stop there. With this caliber of driver on a mile track, it can be the most competitive kind of racing in existence. It doesn't take long for Great Ones to develop consistently perfect laps on a mile oval. And perfect is perfect, regardless of who you are. All you do is pray that the other guy will turn a slightly less than perfect lap, maybe a tenth of a second slower than you, because one mistake—one mistake, regardless of how small—cannot be made up by braking later or snicky shifting or hairy cornering. Milwaukee's Thursday stocker run



## PODUNK TRAIL

typified the competition. Bowsher, winner of another stock car race on the same track four days earlier, led for the first 109 miles, but his early pit stop dropped him from contention. Actually, it was malplanned, and he underestimated the acts of God. Rain was obviously on the way, but Bowsher didn't expect it until after the race. White did, so he did not pit, hoping the rain would come in time to stop the race before he ran out of fuel. Believing pays.

Before White took over, there were two other leaders — Foyt for eight laps and Roger McCluskey for 11.

You can feel a slight relief in the crowd when the race is over. A 200-

drive the distance, paying the \$1.85 toll-way fees if they're lucky enough to not have to tow a car, and staying at a motel 65 miles outside of town if they can get there before sundown.

Springfield, Illinois. You may have heard of it. Faithful fair followers, who emerge from their sylvan retreats once a year, have. It's located about four Howard Johnsons and six Stuckeys south of Chicago, and an even 50 miles below Funk's Grove. Maybe you remember it from 4th grade geography. You know, the state capitol of Illinois?

This year, it's the home of the Sesqui-centennial State Fair. It's also the home of one of the fastest dirt tracks in the country, and the drivers are given almost 25 minutes to completely re-orient themselves from stock cars on a paved

during which his son, Gary, made a sensational showing. Gary Bettenhausen and Al Unser were both recently raised on the dirt, and their confident command of this race was challenged only by veteran Roger McCluskey, who tailed closely but safely to have the win politely handed to him after both Bettenhausen and Unser dropped out with mechanical problems.

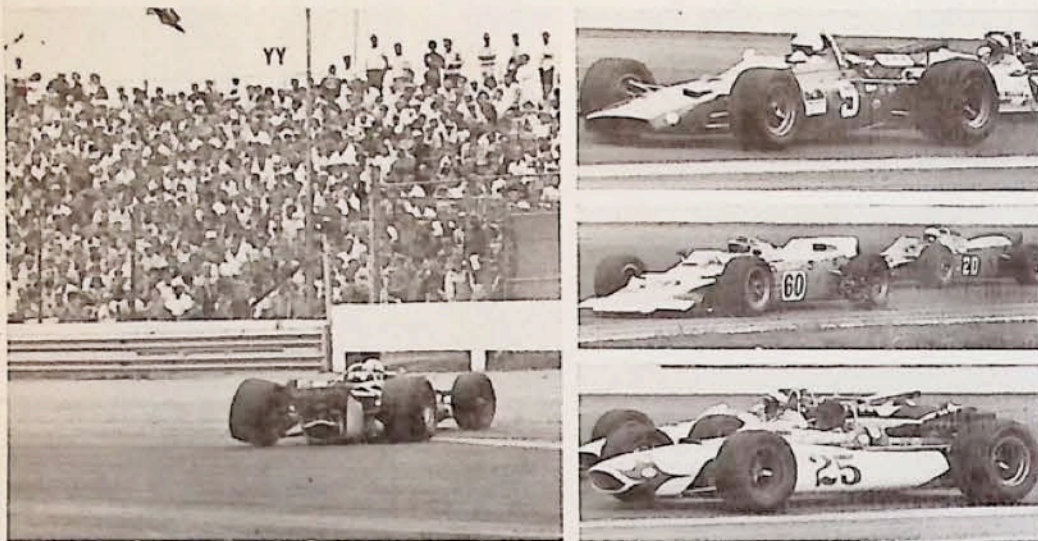
But for the major part of the race, it was a side-by-side duel between Bettenhausen and Unser that generated enough excitement to raise even die-hard Milking Derby fans from their seats. Unser had the pole at the start, with 34.96 seconds at about 103.5 mph. Bettenhausen and Foyt both had 35.19s and McCluskey was next with 35.25. Andretti, who had been flying during practice with some unofficial laps in the 33s, seemed to lose just a bit of his cool during both qualifying laps and could only manage a 35.38.

Bettenhausen jumped into an early lead and immediately started running the high groove while McCluskey and Unser were inhibiting each other with their King-of-the-Mountain tactics for the same groove. Foyt and Andretti in a simultaneous bid for the lead, collided and sat out the rest of the day. When Unser finally took control of second, he moved quickly up to Bettenhausen and the challenge continued for the next dozen laps. Bettenhausen still had the high groove and was hopelessly consistent, forcing Unser to dive deep into the turns in an attempt to cut him off before Gary could give himself that big push off the bank for the straights. But the bottom of the track was too slick, and the lack of a push for Unser could only bring him side-by-side with Bettenhausen on each straight.

A desperation attempt was Unser's only hope. He threw his Bignotti Special sideways into Turn 1 and squeezed in front of Bettenhausen. About two inches too much. His right front wheel brushed the wall, pranged the suspension, and after a few unsuccessful laps he was out.

Bettenhausen's engine fell apart, and that was all the Home Town Hero's crowd could take. A rapid drain began in the grandstands. Gum-chewing state troopers started kicking everyone out of the pits — press and all — except punk sons of prominent local cronies and the Commonwealth Post 118 Drill Unit, and when it became evident that the end was too near for drivers to take suicidal chances, the remaining spectators moved slowly through the exits, mumbling about the lack of excitement.

An announcer even floundered in boredom, and with a sigh, said, "After McCluskey, there seems to be great confusion as to what the order might be," while McCluskey, Roger West, Wally Dallenbach, Arnie Knepper and Larry Dickson, in that order, continued to



(Left) Podunk Trail action was hot and heavy at Milwaukee as Jigger Sirois in his turbo charged Offy, with fading brakes and broken half-shaft, spun out in turn one. (Right, top to bottom) Al Unser and Mario Andretti battled throughout most of race, with Unser taking the lead after turbines (60 and 20) quit, but Unser ran out of fuel, giving win to Lloyd Ruby.

miler with no tragedy isn't what they came to see. But high school drop-outs with cigarette packs rolled in the sleeves of their humidity-matted T-shirts and their pregnant girl friends with fiber wigs, stick to their seats, for the grandstand's Really Big thrill of the day — a smashing Eddy Arnold song fest — shall begin promptly at 8 p.m.

Al Unser has a day of grace before the next race 275 miles away in Springfield, Ill., so it's just enough time to catch a few bites of a motel meal, a few hours sleep, and a plane for Indianapolis the next day to confer with George Bignotti on the dirt track car Al will be driving at Springfield on Saturday, and the championship car he'll be driving back at Milwaukee on Sunday. Dispatching these cars is a business in itself, with cars being shipped in different directions on different schedules at the same time.

Al will then fly into Springfield from Indy another hour before practice on Saturday. But the shoestring boys will

track to front-engined championship cars on a dirt track. Before they begin practice, the crowd is spilling into the grandstands, outpulling such sterling performances as the coonhound show in the Junior Livestock Building, the Country Continentals on the Farm-A-Rama stage, the Flower Arrangement Tour and "Uncle" Johnny Barton's Cornbelt Country Style Show.

The only similarity between the Springfield race and the two in Milwaukee is the length of track. There's no doubt that dirt is the most unpredictable of the three. In one lap, the surface changes from hard and slick to soft and dusty. The chassis must be tuned to a delicate sensitivity and the exact balance to transmit only, but all, useful impulses to the driver. Transitions from one driving technique to the other extreme must occur at exactly the proper moment and speed.

Tony Bettenhausen memorial races are in this summer, and, fittingly, this was the first of two in as many days

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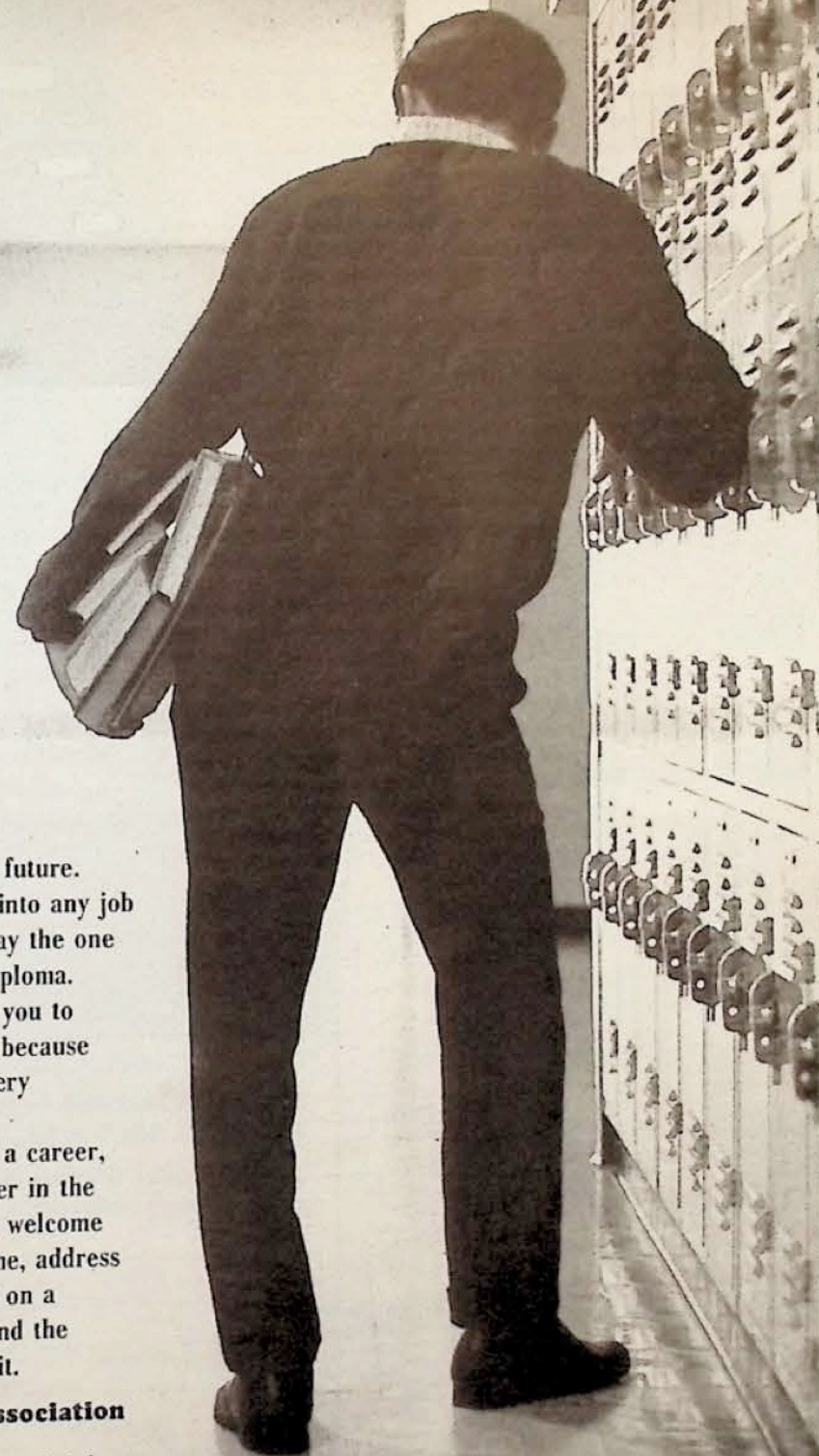
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## PODUNK TRAIL

filing 40-foot high roostertails over far turn walls and continued their 30° power slides onto straights at 100 mph in a feverish effort to justify their presence.

Two down, one to go for the weekend, and there was no time for a leisurely dinner, or even a big bed at Howard Johnson's. The next race was back in Milwaukee, and practice begins in less than 17 hours. Some have to drive the return trip, but during coffee stops there would be ample conversation with occasional race spectators on their way home, to assuage the drivers' racing nerves.

Waitresses and gas station attendants will ask, "Did anybody get hurt? Were there any accidents?"

Others will assure them that the oval track is their favorite, "Yeah, ya can't see anathin' on them damn sporty car tracks. But with th' ovals, when somethin' happens anyplace on the track, Man! It's right there in fronta ya!"

Once in a while, a humble 9-year-old might ask them who won.

For an early afternoon Sunday race, the drivers are practicing by 11 and have a bit of a lead on the crowd — but

not by much, and the grandstands are filled by qualifying time. This is a big one for the folks . . . the last day of the fair, and they've been reading all that publicity about Art Pollard and Joe Leonard's STP-Lotus turbines, Al Unser's 4-wheel-drive Lola-Ford, turbo-charged Offys and magical Fords. It's a big one for the drivers, too — with a \$57,128 purse.

Consistently the fastest cars, the turbines again dominated the first moments of the race. Art Pollard, in the first super-sweeper, captured pole position and the early lead. Bob Unser worked his way into the lead, but had to pit to fix a broken wheel, which dropped him nearly a lap behind the field. Wally Dallenbach, with three laps of inspiration, put himself in front and stayed there until a faulty magneto ended his bid.

For the majority of the first 123 laps, it was all turbine, with Pollard and Leonard seeming to swap the lead according to a well-written script, while Gordon Johncock, Mario Andretti and Al Unser all battled for third. First it was Unser, Johncock, Andretti, then Johncock, Andretti, Unser, while Lloyd Ruby stayed close in sixth. Meanwhile, Bob Unser had inconspicuously nailed it and moved back to seventh.

But the curse hangs on. On lap 123, a

brake locked up on Leonard's car, the half-shaft broke in Turn 1, the car spun and retired. On lap 129, Pollard's brakes mysteriously faded, he slowed, circulated for a few more hopeless laps, and the track was all noise once again.

The contention was also too much for Johncock, who pitted. Al Unser proved the worth of his 4-wheel-drive Lola-Ford by taking the lead and extending it each lap, his Lola flowing smoothly over the irregularities in Turn 2 while conventional cars bobbled.

It was Unser's race up to lap 168. The engine was running beautifully but was failing to pick up all the fuel. Unser pitted, the Bignotti crew added another three gallons, and Unser re-entered in second place behind Lloyd Ruby. Another pit stop for the same problem dropped Unser to third behind Andretti's Hawk-Ford, too late to make up the time.

In the meantime, Bob Unser had continued his fantastic drive, moving up to fourth behind brother Al just before the flag dropped for Ruby, seven seconds in front of Andretti.

Gary Bettenhausen finished fifth, but he has a problem. He's improving extremely well, but he's doing it by consistency rather than by flamboyance. Better learn to please the crowd, Gary, or it's back to the Giantess. /MT

## You can win one of six Buick GS 400's

How to enter the "Pit-Stop"  
Drive like a Pro Contest

Examine the picture on opposite side of this page and on entry form or facsimile, tell us in 25 words or less what is happening in the pit.

When you have completed the form, print your full name, age, address and zip code in the space provided and mail.

The contest is limited to residents of the United States, its possessions and military personnel. If the winner is under 18 years of age the car will be titled in the name of his parents or legal guardian. Employees of The Coca-Cola Company, "Pit-Stop" Company, Petersen Publishing Company or their advertising agencies are not eligible.

Judging will be on the basis of technical accuracy. Decision of the judges is final. This contest offer is subject to all federal, state and local regulations and is void where prohibited by law. Winners assume all tax liabilities. NO PURCHASE IS REQUIRED. You may use the entry form provided, or a reasonable facsimile.

Neither The Coca-Cola Company, Coca-Cola Bottlers, "Pit-Stop" Company, or Petersen Publishing Company assumes any liability subsequent to the delivery of the cars.

All entries must be postmarked by May 30, 1969 and received by the judges no later than June 16, 1969. Winners will be notified by mail.



### OFFICIAL ENTRY FORM 'PIT-STOP' DRIVE LIKE A PRO CONTEST

To enter, fill out and mail this form or a reasonable facsimile to:  
'PIT-STOP,' Box 51108, Los Angeles, California 90051.

In 25 words or less tell us what you think is happening in the pit,  
as seen on opposite page.

Name \_\_\_\_\_ Age \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_



## Tell us what you think is happening in this pit and you may win one of six 1969 BUICK GS 400 Sport Coupes.

The Coca-Cola Company feels that it is important to know the rights and wrongs of competition and performance driving. We want you to drive like a pro, even though you've probably never driven a Formula 1 or Group 7 car on the Grand Prix Circuit. Chances are that you'll never run a souped up Stocker or get behind the wheel of a AA/Fueler. So we made a movie on racing. We call it 'Pit-Stop'—You should see it.

To win one of the GS400's, just use the entry form on the opposite page and tell us in 25 words or less what you think is happening in the pit which appears above. Mail this entry to 'PIT-STOP' DRIVE LIKE A PRO CONTEST, Box 51108, Los Angeles, California 90051.

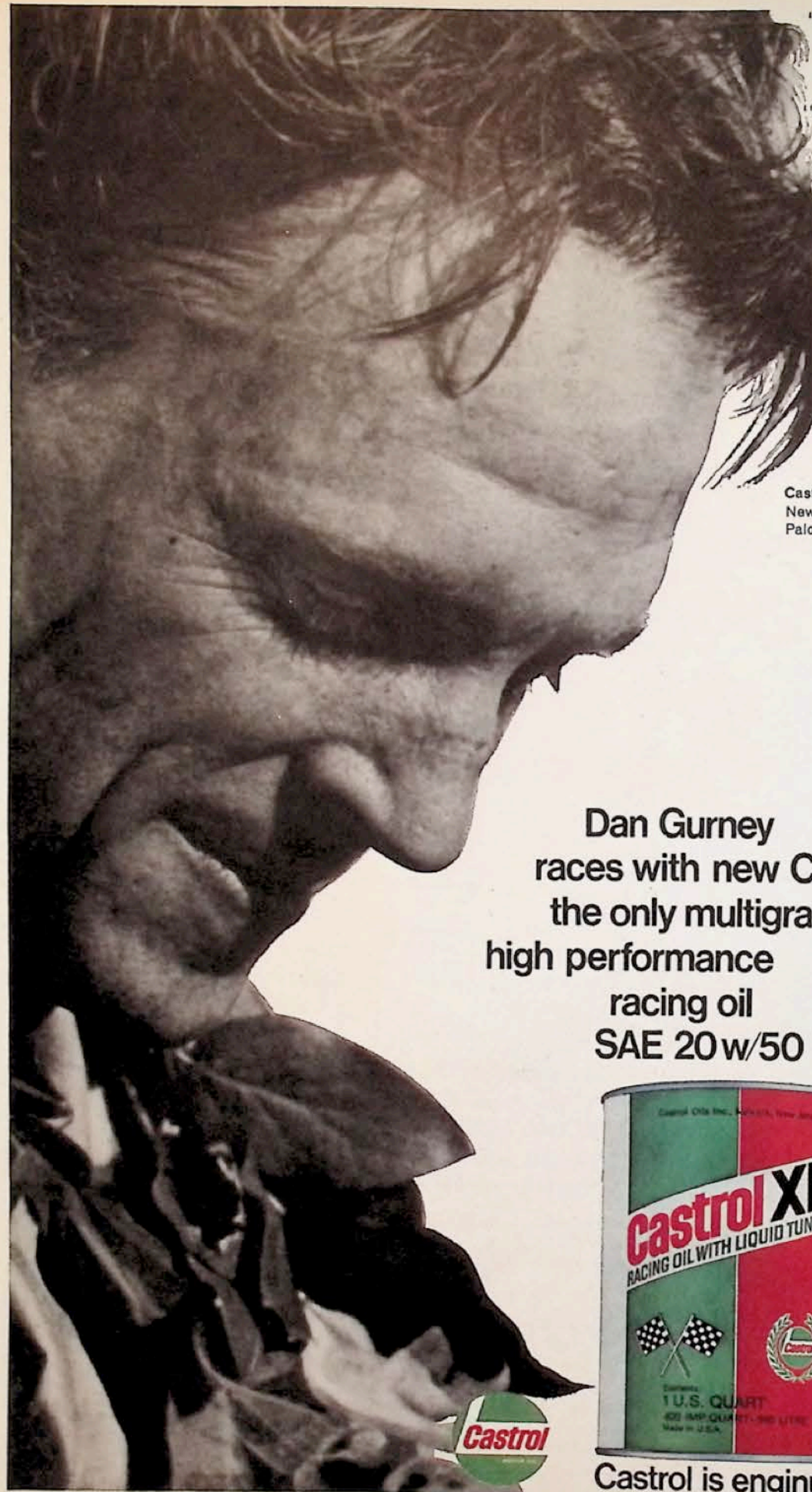
### 'PIT-STOP' POSTER OFFER

To receive a set of 4 original Racing Posters including the one above and a 'Pit-Stop' Racing Decal, send \$5.00 to:

'Pit-Stop' Racing Posters, Suite 1300,  
555 Madison Avenue, New York, N.Y. 10022

THIS CONTEST IS OFFERED AS AN ADDED INCENTIVE TO ALL PETERSEN READERS TO 'DRIVE LIKE A PRO.' IF THE 'PROS' DO IT RIGHT, YOU SHOULD TOO! IT'S A GOOD WAY TO BE, AND STAY, AROUND FOR THE FUN. AND SPEAKING OF FUN—NEXT TIME YOU'RE DRY OR THIRSTY... MAKE A 'PIT-STOP' AND HAVE A COKE.





"Of all the oils I might have picked—and I've tried a lot of them—," says Gurney, "I settled on the new Castrol XLR racing oil because this multigrade oil is fortified with Liquid Tungsten to give superior performance under the most severe service. I recommend Castrol XLR for *any* car, racing or not, if the owner really cares about his power plant."

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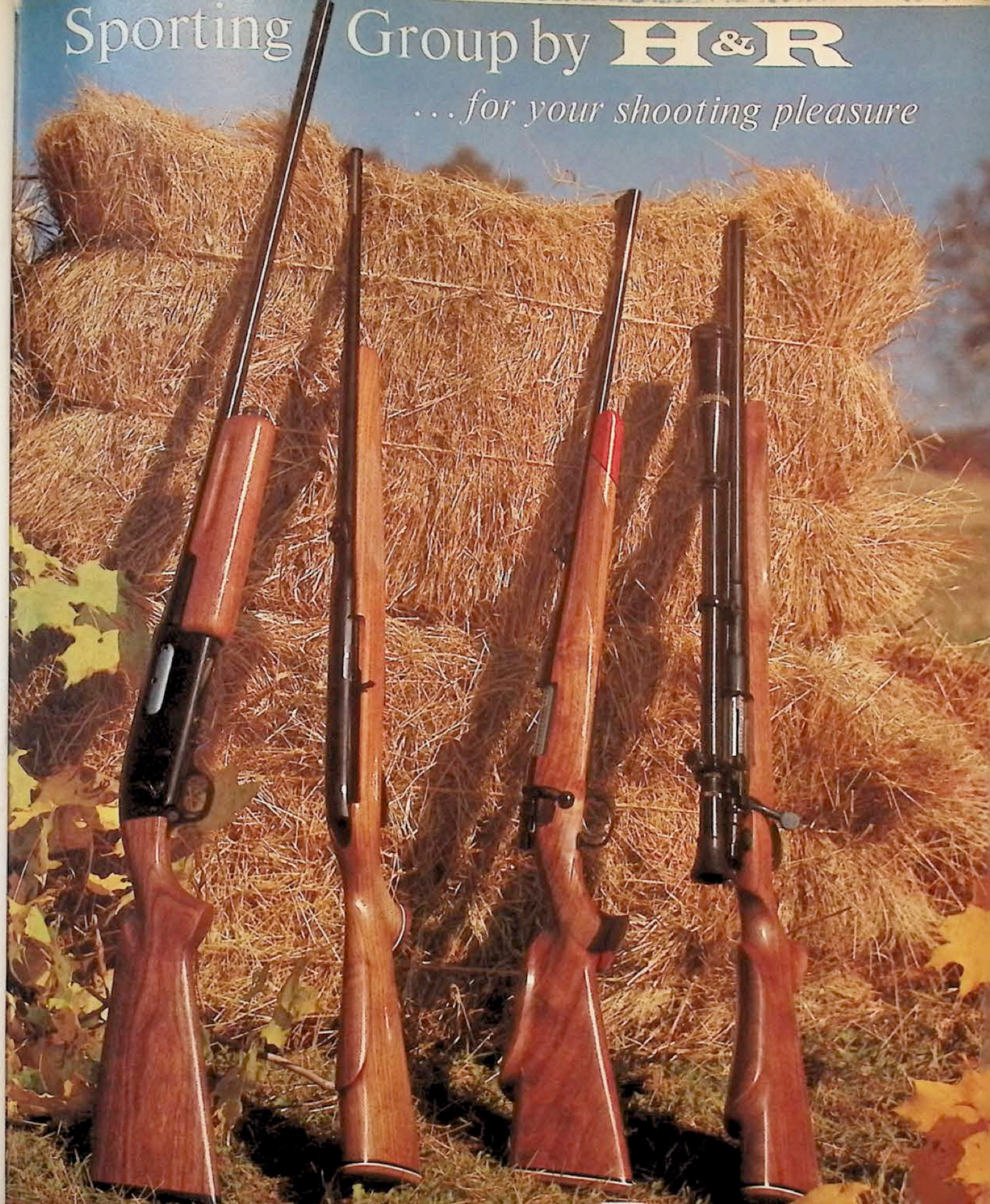
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\$2195 each, f.o.b. any port, for the gasiest diesel you've ever seen. It's worth twice that just for comfort, and half again as much when it turns the heads of the most celebrated of the Hollywood hierarchy.

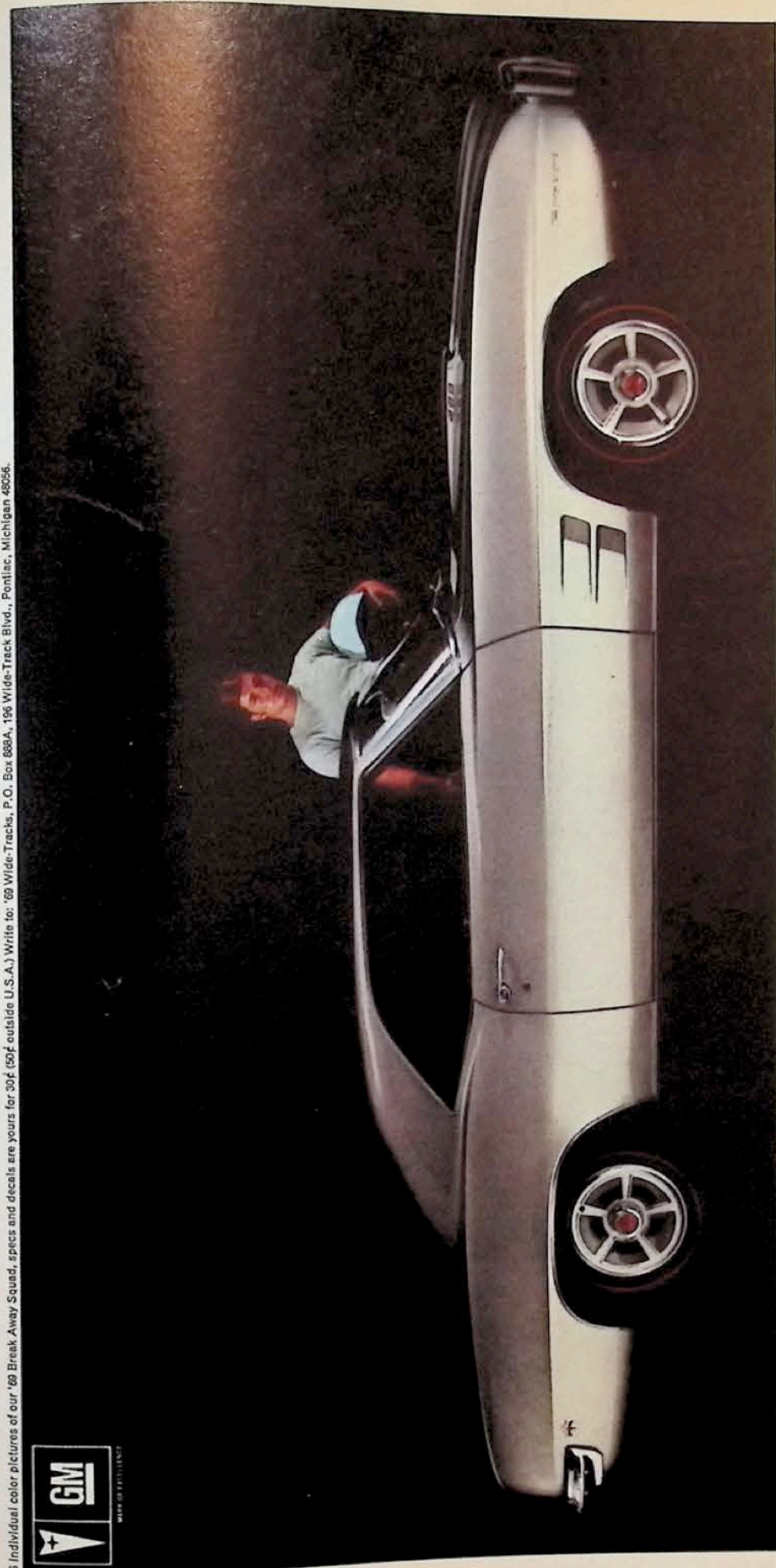
## Ode to a Shakespearean GAS by Julian G. Schmidt

When with dismay of "In"-ness and of style  
 You all at once bewep that vapid prate,  
 And ache to rend that superficial guile  
 With clear, ineffable superior state,  
 The greatest In-car, the London Taxi,  
 Establishes cosmopolitan class  
 As English nitty-gritty honesty,  
 A crumplet bag Ferraris can't surpass.  
 The quintessence of Mod, chicks flock and squeal  
 Into the trap of walk-in, head-high space,  
 Of leather pleats, of padded seats, a feel  
 Of sensuous capacity and grace  
 Besprent with trivia, with ads and billings,  
 With taximeter for pence and shillings.

The throb of Austin's diesel-four intrudes  
 Upon the cabbie folded tightly fore  
 But not upon the tender interludes  
 Within the bulbous cave behind that more  
 Than properly enfolds five vis-a-vis.  
 Charles Engel has his hands on five hundred  
 Of these, to save them from the threnody  
 Of discarded charm, lamented when dead.  
 The last of the three-doors, they're now for sale.  
 All made in '57, each does run  
 Reliably and guarantees to nail  
 A quail or two or merely just clean fun.  
 It provokes bards though talent may be gone  
 And's more British than Stratford-on-Avon.

continued

5 individual color pictures of our '69 Break Away Squad, specs and decals are yours for 30¢ (50¢ outside U.S.A.) Write to: '69 Wide-Tracks, P.O. Box 888A, 186 Wide-Track Blvd., Pontiac, Michigan 48056.



## The Graduate.

We'll grant you two wheels are better than none. But look what happens when Firebird swoops onto the scene. If it's our 400 version.

You won't believe how this one handles. Don't let the smoothness fool you. New rear axle, new load rates on our multi-leaf rear springs and a set of sticky wide-ovals (mounted on 7-inch rims) put new shine on Firebird's cornering reputation. A 400-cubic-inch, Quadra-jet V-8 attached to a 3-speed, heavy-duty transmission, stirred by a Hurst, is your standard power setup. But there's also our two-scoop Ram Air IV that you can order with a 4-speed hand shifter or with 3-speed Turbo Hydra-matic, if you just tell your dealer.

Obviously, all that genius is below decks. Topside, Firebird comes on with all-new looks. Inside, new comfort. With wider, more heavily padded bucket seats wrapped in Pontiac's own woven vinyl. Also, an all-new highly readable instrument panel.

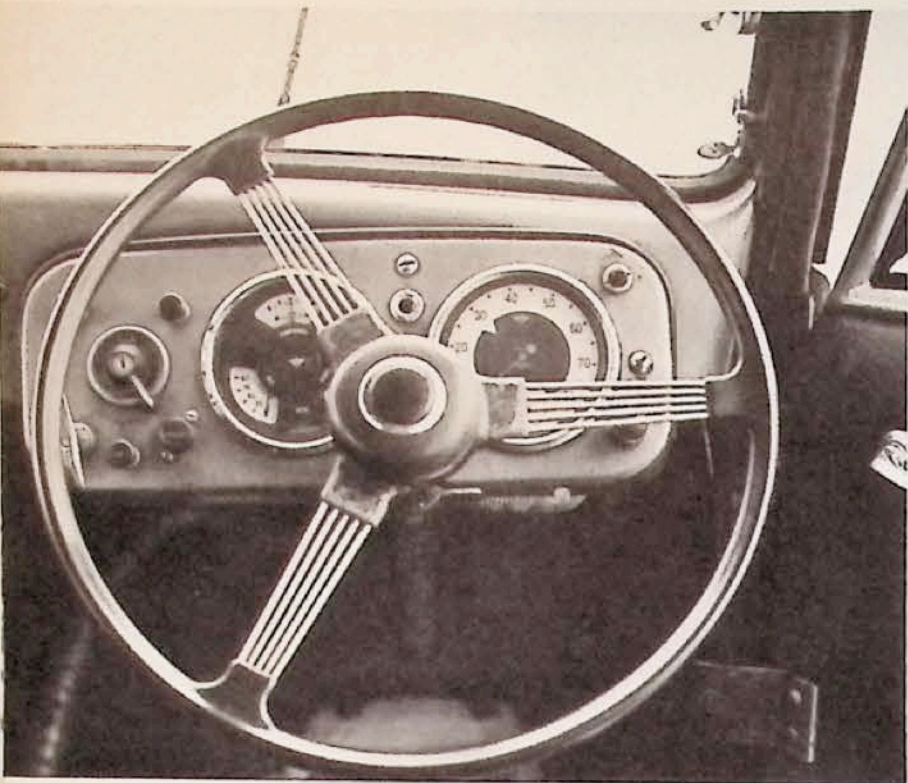
Hood tach, front disc brakes, variable-ratio power steering, polyglas-cord, wide-tread rubber . . . all that great Pontiac stuff . . . will practically let you build your own Firebird . . . if you want to.

And that's a liberal education in itself.

The Wide-Track Family for '69: Grand Prix, Bonneville, Brougham, Executive, Catalina, GTO, LeMans, Custom S, Tempest and Firebird. Pontiac Motor Division

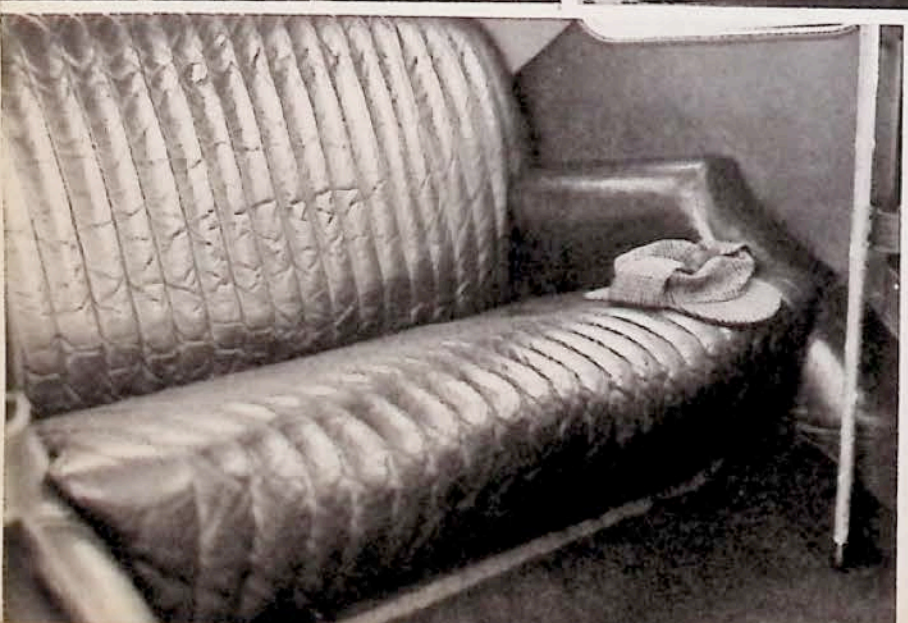
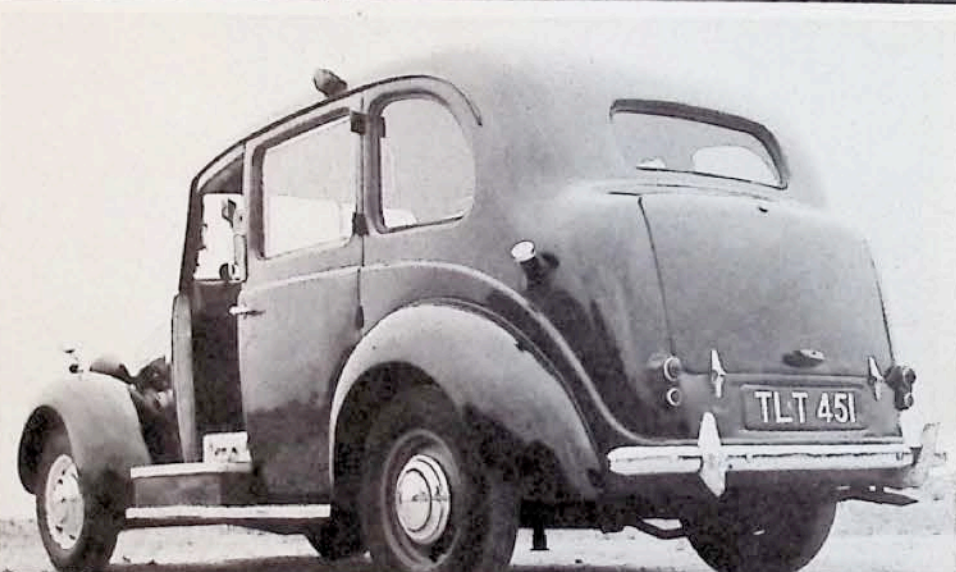
Firebird 400 by Pontiac





(Left) Fascia board is a masterpiece of charm. To start the diesel, "switch on the master switch, make sure the Stop control is fully home, depress Heater for a full minute, and pull the Starter."  
(Below) Front seats have dual purpose.

Photos by George Foon



(Left center) The taximeter ticks away, but you have to do your own conversion from pence and shillings to American Way of Bread if you're serious about business. Comfort is, in our opinion, unsurpassed by any other car in the world. Soft leather seats have head-high backs, and you can walk around in the rear compartment's "leg room." Engel, a Hollywood TV producer, is bringing over 500 of these '57 3-doors. Stateside parts are already available. Economy? It's the same price as a VW, gets the same mileage with cheaper fuel.

# 1969 Buick Stage I.



No wonder Buick owners keep selling Buicks for us.

When Buick builds a premium performance machine, even enthusiasts start talking. Here's what you'll hear.

Stage I begins with a specially modified GS400. Those hood scoops are completely functional. They ram cool, clean air into the carburetor.

The 400 cubic inch engine displacement stays the same. Increased

output comes from a high-lift camshaft, a low-restriction dual exhaust system with bigger, 2 1/4 inch tailpipes and a modified quadrajet four-barrel carburetor with bigger throats.

At the rear wheels, a 3.64 Positraction rear axle.

You can select a specially-calibrated TH-400 automatic trans-

mission that provides higher shift points and firmer shift engagement.

And don't forget that the heavy-duty rallye suspension and front power disc brakes are yours for the ordering.

That's Stage I by Buick for 1969. It's a lot to talk about.

It's something else to drive.

Wouldn't you really rather have a Buick?



AL MICHAELIAN COLLECTION

Cigar-chewing Barney Oldfield guns his kerosene burning Maxwell to lead start of 301-mile 1914 road race on 2.77-mile circular course at Corona, Calif. Trailing are Eddie O'Donnell, Duesenberg; Billy Carlson, Maxwell; and Art Klein in Stutz. (Inset) Winner was Eddie Pullen in Mercer, averaging 87.7 mph for the 109 laps.



## DX SUPER SPORT POSTER POWER

These two large wall posters  
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with purchase of Super Sport Oil.



"Wheels"—a stunning blowup of high performance exotica. If you love cars, you'll dig this poster.



"Little Old Lady From Pasadena"—The personality poster of the year... a blowup of a typical "Sweet Little Old Lady," but with crash helmet and hot rod... worth \$1.50 alone!

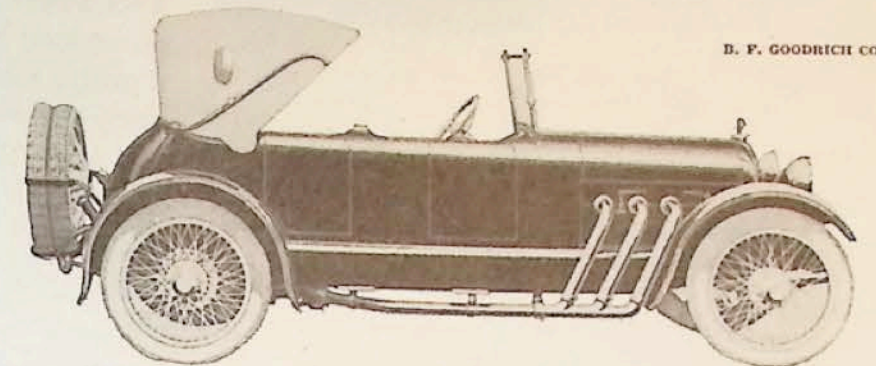
See your DX dealer for details on how to obtain both of these "In" posters for only \$1.50 with Super Sport Oil purchase. These posters, \$2.00 in the mail without purchase (cash, check or money order, only). Be sure to include return address. If no DX dealer nearby, send mail orders to: Poster Power, P. O. Box 7545, St. Louis, Mo. 63159.



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## MOTORRANDOM

Flashbacks by Al Michaelian



B. F. GOODRICH CO.

DELCO-REMY

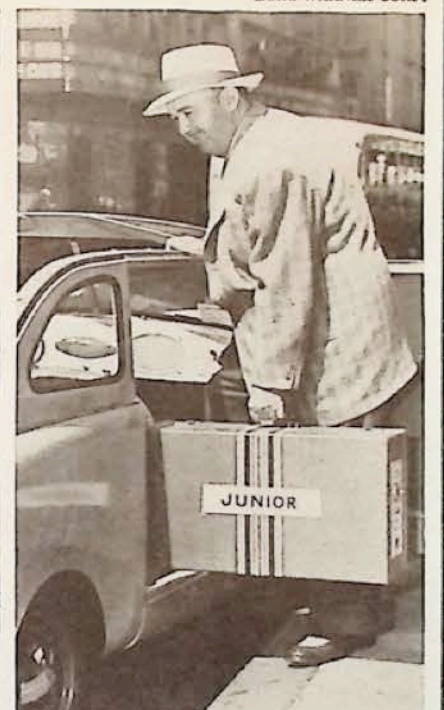
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Designed and built by  
Fred S. Duesenberg, the  
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Outrun and Out-  
last, any car  
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(Top) Sporty 1918 Velie Biltwel 6 sold for \$1850. Firm also made trucks and tractors in Moline, Ill. (Above left) Initial ad of Los Angeles dealer for speedway-proven 1921 Duesenberg Model A production car. (Above right) Bandleader Paul Whiteman used a 1948 Crosley as a means for getting around town during his frequent New York dates.



HUMPHILL-HOYT, INC.

Dario Resta's Peugeot overtaking Cooper's Stutz to win 1915 Chicago board track 500-miler.

# Dick Teague:

Vice President of Automotive Styling at American Motors is successfully performing a pretty exciting transplant in what was once a rapidly failing corporate body. But everything's okay; he has the best credentials possible.

By Julian G. Schmidt

Time plays some pretty dirty tricks on your perspective. All we remember about those primordial days of Southern California "hot rods" are the guttural throbs — the window-shattering explosions of dual straight pipes, chopped and channelled roadsters, the hiss-roar of twin-pot manifolds, and the squeal of tires that wouldn't bite. We remember the Levis and boots, the beanies and leather garrison caps, but we don't remember the rebels themselves. We remember that it was a rebellion of sorts, and that it was anathema to the establishment, but we don't remember its significance. All we seem to know is that it faded and died as a result of its own evolution. It diversified and specialized, and the resulting sophistication of its various branches seemed to leave the original "hot rod" image behind like a withered, dead, molted skin.

But a movement — or era — like this isn't begun by the shallow, purposeless passion of youth. There was passion, all right, and it really asserted itself, but there was also a goal that has proven itself by successes years later.

Flashback to those early days of the California "lakesters" and you'll see some real mechanics, some great drivers and some budding designers. You'll see guys like Ed Iskenderian, and Clay Smith, too. And their best buddy, a petulant, dark-haired kid from Dorsey High named Dick Teague, bursting with enthusiasm. He loved cars, their romance and glory, and he loved them for their beauty and feel. In fact, he was in traffic school twice at the same time for loving them so much.

But Dick Teague's love went deeper than the roar of the exhaust and the thrill of dragging on Southern California's dry lakes, and at the age of 19 or 20 he scraped up \$250, jumped into his full-house '32 B-Ford roadster and towed home his second love, a curved-dash, tiller-type 1904 "Merry Oldsmobile" — which was in deplorable condition.

Dick Teague was hooked, but not only by the sensual appeal of cars. He enrolled at Los Angeles Art Center during World War II, attending classes at night and designing aircraft during the day for Northrup Aircraft Corp. John K. Northrup, himself, liked the young kid — at that time less than 20 years old — and his talent. Whenever Northrup wanted a wild, advanced design rendition, he would turn it over to Teague to vent some of his enthusiasm. In fact, the very first drawing of the famous "Flying Wing" was Teague's.

His experience at Northrup permitted him to exercise his imagination on another of his hobbies — aircraft — but

(Left) Dick Teague stands proudly beside one of his prize creations, the AMX-GT, which was the hit of the New York Show. Watch for it to influence future AMC sports cars.

It also blended him compatibly into the business world. When the war was over, Teague was in a prime position for the newest industry of the day — missile design. In its inchoate stage, Teague was a logical designer, and for three years he established himself in aircraft and missile design proposals in the L.A. area.

Even today, one of Teague's hobbies is drawing wild-looking planes, but his first love is still the car, and in 1948, at the age of 25, came his first opportunity to enter the automotive industry. General Motors had an opening in the staid styling studios of Oldsmobile and Cadillac — but it was an opportunity, nevertheless. For nearly three years he was with GM, taking them through the transition period from the traditional Forties to the slab-sided, "molded" look of the early Fifties.

Before long, Packard — that famous incubator of some of the brightest talents in the industry today — hired Teague away from General Motors as Chief Stylist, making him the youngest chief stylist in Detroit. In 1953, he moved up to Director of Packard Styling, and stayed there throughout the existence of the company.

After the gentle demise of Packard, Teague joined Chrysler Corp. as chief stylist for Chrysler Div., but his past was piebald with challenges, and on this he thrived. American Motors had a reputation, but one not exactly scintillating with inspirational design. Nevertheless, AMC was small, a quality which itself offered the possibility of facile communication, with subjects not being bogged down in bureaucracy. There was a frustrating, provincial administration and prosaic cars, which the administration seemed convinced should reflect the solidity of America. It was a difficult prospect, but Teague could see the inevitable conclusion. AMC would have to change, so in 1959 he accepted the position of American Motors' assistant automotive styling director.

"A lot has happened in eight years," says Teague. "Whereas before, the board told us what to design, but Roy Chapin now encourages us to submit new designs to him. The styling department was only a tool for the use of certain other individuals before, but now we have a distinct influence. We're still small — only 65 men in the entire department — but we like it that way. We still have the excellent flow of communication."

But most important, there is a different state-of-mind at American Motors since Teague's first proud objects of satisfaction — the Javelin and AMX — have succeeded so well. Within one year, the company morale has gone from one of almost rampant lassitude, to elation and fervid enthusiasm. On nearly every wall in the Detroit headquarters are photos of the continually improving racing status of the Javelin. Drawings and renditions of both the Javelin and AMX in competition environments are disseminated through offices like company memos.

This is not difficult to fathom. Teague, himself, is a charisma. He sits at his desk, surrounded by models of classic cars, flails his arms and yells with enthusiasm when discussing even moderately exciting ones.

Teague explained, "The average age — and I don't mean the median or the mode — in the styling department, is 34.2 years, and they're all car nuts. Some are wild about classics, some about sports cars, some about hot rods. And we hope to see our cars reflect this in the future. At least management is letting us show them things now, which wasn't the case years ago."

Evidence of this new attitude can be seen in the wildest experimental design to come out of Detroit this year — the new AMX-GT, with shaded paint, which made its debut at the New York Auto Show. What is most important about the GT is that it is a realistic car — a stock AMX of standard dimensions with only the rear end modified. It's paradigmatic of Teague's sophistication, for according to Teague, "We patterned it after the current

'breadbox' fad, begun by Alfa Romeo with their Scarabeo show car."

A refreshing departure from the typical Detroit automotive employee, Teague takes his fervor home with himself — or vice versa. He, his wife Marian, and his three children, Rick, 15, Jeff, 12, and Lisa, 5, contentedly share four acres of land in Franklin Village, Mich., with nine of the most valuable classic and antique cars in existence. In fact, the entire family is so serious about the car game that the four acres were purchased complete with a 30x26-foot barn, in which the cars are cherished and nurtured to perfection.

Teague's taste reflects his class. Some of his favorites are the Mercedes 300SL Gullwing coupe (perhaps his favorite car of all time), Farina Ferraris and the Porsche 911s, but at present he lavishes all his attention on his heritage-bound classics. His famous 1936 540K Mercedes was first sold to Barbara Hutton — her gift to her first husband. His '32 Alfa 2.6 was the second most expensive car in the world at that time when equipped with the Jano engine. His 1904 Pope-Toledo is the only surviving one. His 1904 Packard Model L was borrowed by Bill Harrah so that Harrah could duplicate an exact model for his world-renowned museum. His 1904 4-cylinder 650-c.i.d. Fiat was a Gordon-Bennett race car. Elsewhere in the barn, and equally cherished, are a 1904 Model L Rambler, a 1912 50-hp Pope-Hartford, a 1913 Baby Peugeot and a 1906 Panhard-Lavassor, which he and his wife drove to Watkins Glen, N.Y., from Detroit to intercept the rerun of the 1908 New York to Paris race. It was one of the typical outings of one of his typical car clubs — he belongs to three: Veteran Automobile Club, Antique Car Club and The Horseless Carriage Club — and one of their codes of honor is that, if they are struck with mechanical misfortune, the car nevertheless must be driven home, regardless of how wicked their fate. As if to occasionally test the integrity of their vows, the timing gear of the Panhard-Lavassor broke. There not being a superfluous supply of 1906 Panhard-Lavassor timing gears in Watkins Glen this time of year, there was cause for concern, and Teague was on the tenterhooks of anxiety. The fortuitous finger, however, was pointing that day, and Bob Frost's machine shop at Milliken's Corner easily accommodated the fabrication of a new gear via the legerdemain of a friend, Don Pryor. Oh yes, about Teague's "class?" — the new gear was cut from solid brass.

So Dick Teague has proven himself to more than the automotive industry. In Feb., 1967, he was presented an honorary degree by the Los Angeles Art Center. The Florida Air Academy claims him as a member of its Board of Trustees, and he is a member of S.A.E.

There's plenty of new joy in Mudville now. Look around and the original enthusiasts are there — Granatelli, Iskenderian, Smith, Stevens, Fitch, Teague — and "there" is where it counts, more than it ever has. And with their emergence, you see it in the industry, you feel it in the spirited cars they're fostering and in the new automotive enjoyment that's now available to more people, in more ways, than ever before.



Only an example of Teague's collection of car gems, his 1936 540K Mercedes was first bought by Barbara Hutton.



Road Test by Eric Dahlquist

# Peugeot 404

*What do you expect for under three grand? A car that has an automatic transmission, cruises at 80, gets over 20 mpg, stops and corners like a sports car and can live through an elephant crash?*

Like all things French, the Peugeot is unexpected. To begin, when getting in the first time, you find that where the turn indicator lever ought to be there is the headlight/parking light/dimmer switch handle and the turn indicator is really on the right side of the steering column. And the door locks lock up instead of down which is only sensible because it is infinitely harder to push a door lock button down than pull it up with a flexible instrument like the old coat hanger gambit. The Peugeot 404 is like that—instead of building a machine with a few tricks on it, they built an entire trick car. The most impressive trick of all is that it's great.

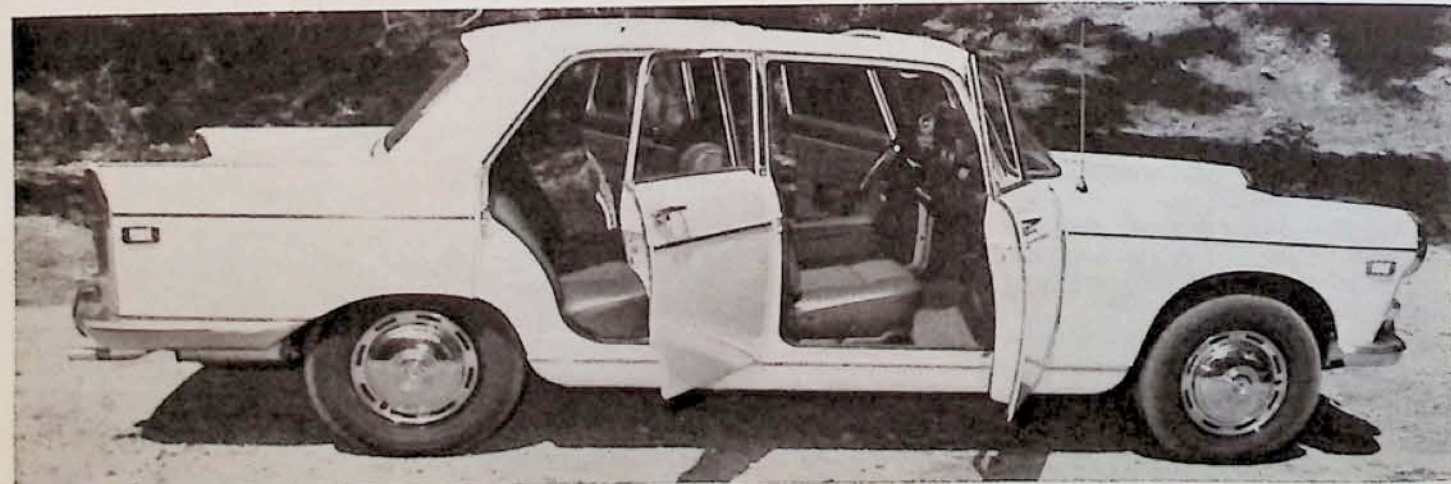
This dawns on you after you've gotten a new 404 in hand and are making it for home on the freeway and you realize that you're sitting in an automobile and maybe for the first time in your life nothing feels out of place. You have that sensation of freedom

of coasting down a long hill, the only noise a little whisper from the wind and an occasional thump of the steel-braced Michelin-X tires. Almost imperceptibly the road is slipping away beneath the front wheels though the rack and pinion steering does not betray it with shock to the large steering wheel. For all you know the semi-bucket seats could have been yanked from a Mercedes-Benz because they exude that plush comfortable look and feel like a favorite easy chair. Everything blends, you are building a relationship with the car. That's another one of their subtle French devices see, nobody can drive a Peugeot for more than a day or so and ever give it back.

Why? That's not so easy. The Peugeot has all the same pieces as a lot of other cars around, but the secret seems to be in the mix. The car looks smaller than most American compacts yet at 104.3 inches, the wheelbase is only 1.7

inches shorter than a Valiant and 4.7 less than the Falcon and Chevy II. Of course, the French are not believers in overhang so the Peugeot is 10 full inches shorter than the Falcon, 18 than the Valiant and 19 than the Chevy II. That's what gives our cars, even our compacts, such a ponderous feeling. Put in a Peugeot turning diameter of 32 feet (five feet less than the compacts and even four feet better than a VW), and you have the rarest of all commodities, a people-sized traffic decongestant.

It seems almost incredible but the 9mm thick sheetmetal was designed by Pininfarina back in 1960 and still does not look dated, a situation which says much for Pininfarina and very little for Detroit. An interesting footnote to Peugeot's somewhat perpendicular styling is that casual observers seem bound to confuse it with the new "cheapie" Mercedes-Benz that was introduced recently. A lot of this mis-



(Above) Any way you look at it, the 404 is a lot of machine for the money. It will carry four people at 80 mph all day and nobody will complain, not even the car. (Top of page) No, it isn't the African Safari but it could be. Pick any year you like.

taken identity syndrome is the interior and those fat seats with "air-pocket" leatherette upholstery that looks like real and puts an invisible shield between you and a sticky bottom.

All Peugeots since 1948 have used unit-body, all-steel welded construction which certainly contributes to the general feel of solidness. Front suspension is a modified McPherson strut type similar to current Ford products but instead of stamped steel the French use genuine authentic I-beam steel members. You've got to remember, folks, the Peugeot only scales in at 2400 pounds. Those I-beams and anti-roll bars that are big as some we've seen on American jobs—only 600-700 pounds heavier—give it that old never break reliability. The darned car is one of the few we've really loved in the curves, near neutral in cornering, shading to mild understeer, with just a slight initial body roll that seems to correct itself automatically.

Looking under the back of a 404 is a little like looking under a '48 Ford in that both use a torque-tube rear end but that's about where the similarity ends because for one thing the Peugeot has a worm-drive instead of ring and pinion. The Peugeot is coil sprung at all four corners with super-long shocks that level out the road like a pool table and crosswinds are no bother. Like we said nothing exotic, it just works like hell.

You may not believe this but Peugeot had won the Indianapolis three times before most of the current hot dogs were ever thought of. That was 1913, '16 and '19. They're not at Indy in competition anymore, (Peugeot still gives away a trophy to a winning foreign driver) but they still win the East African Safari with the same monotonous regularity (1963, '66, '67, '68) because the car doesn't die when you hit something like an elephant in a water hole. The 98.7 c.i.d. five main bearing engine with 80 hp piddles by comparison with something like a Cobra Jet yet its electric motor like silence is deceiving because the car is able to keep abreast of traffic easily even fully loaded. Our test 4-door sedan came with one of the two options available, a 3-speed automatic transmission (the other is a radio). There were two positions on the column indicator L and D. With the selector in L, the transmission began in low and shifted automatically to second, then high. Using D, the transmission started in second and shifted to high, but if you floored the accelerator, it would downshift to low and go through the sequence. Either way, acceleration times were approximately identical. The automatic transmission is the one thing that will lure Americans into Peugeot after they find out over 20

mpg is within their grasp as well as low depreciation. About the only thing we could fault the transmission on was that it upshifted occasionally at just the wrong time during hard cornering and the rpms went kaput. Nothing is kaput with the brakes, the power-assisted disc/drum anchors work better than almost any others we've tried. Little seems to phase their high efficiency, whether the machine is loaded or empty.

Which brings us back to the great American highway where the Peugeot will cruise with unparalleled ease at any posted speed limit in the country. The manufacturer says that the top speed of the 404 is 97 mph, but he is being just a little conservative as the car will slide along without complaint at 90 although wind noise tends to become quite high. Interestingly, high-speed air sound, an outside rear-view mirror that vibrated continually and a hand choke that was difficult to get accustomed to were really our only reservations about the 404. All the controls

## SPECIFICATIONS

Engine: ohv 4-cyl. Bore & Stroke: 3.31 x 2.87 ins. Displacement: 98.7 cu. in. Hp: 80 @ 5600 rpm. Torque: 97.5 lbs.-ft. @ 2500 rpm. Compression Ratio: 8.3:1. Carburetion: Solex 1-bbl. Transmission: 3-speed automatic. Final Drive Ratio: 4.2. Steering Type: Rack & pinion. Ratio: 18.6:1. Turning Diameter: 32 ft. curb-to-curb, 3.7 turns, lock-to-lock. Tires: 5.90 x 15 Michelin. Brakes: Disc front, drum rear 304.7-sq.-in. (swept area). Suspension: Front: Independent coil, McPherson struts, lower wishbones, anti-roll bar. Rear: Coil with live axle, torque tube, Panhard rod. Body/Frame Construction: Welded steel. Dimensions, Weights, Capacities: Overall Length: 174.0 ins. Overall Width: 64.0 ins. Overall Height: 57.1 ins. Wheelbase: 104.3 ins. Front Track: 53.14 ins. Rear Track: 49.25 ins. Curb Weight: 2405 lbs. Fuel Capacity: 14.5 gals. Oil Capacity: 4.5 qts.

## PERFORMANCE

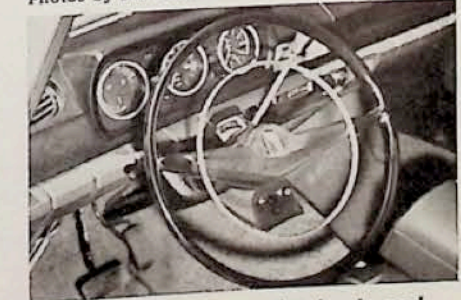
Acceleration: (2 aboard)  
 0-30 mph ..... 6.4 secs.  
 0-45 mph ..... 11.8 secs.  
 0-60 mph ..... 20.4 secs.  
 0-75 mph ..... 38.5 secs.  
 Standing Start 1/4-mile ..... 22.8 secs.  
 63 mph

Passing Speeds: (Drive gear)  
 40-60 mph ..... 10.9 secs.  
 50-70 mph ..... 15.2 secs.

Stopping Distances:  
 from 30 mph ..... 29 ft.  
 from 60 mph ..... 142.8 ft.

Mileage:  
 Range: 21-24 mpg  
 Average: 23 mpg

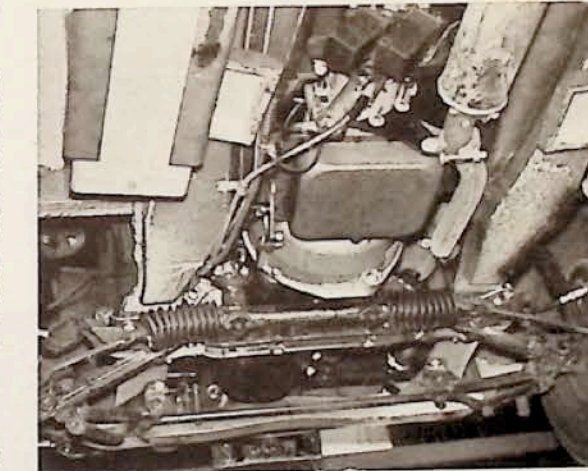
Photos by Pat Broilier



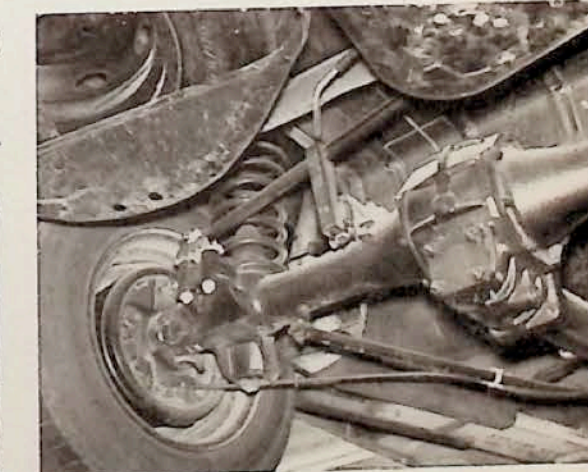
The instrument cluster is simple and easy to read. Americans should be happy because there is an idiot light for the oil pressure. Driving position is tops.

are easy to reach and operated without hangup. Windows up draft-free driving is very comfortable thanks to an interior ventilation system that is almost a mini air-conditioner. There are at least \$500 worth of accessories on the 404 and the whole works, including the automatic transmission and the Michelin-X tires good for 70,000 miles, is \$2990 p.o.e.

So if the Peugeot is such a magnificent machine, you say, candidate for bargain of the decade honors, why aren't there more around? It's like this. All foreign manufacturers, with the obvious exception of VW, suffer from rather questionable dealer organizations. Most, including Peugeot, have recognized the problem and are correcting it but it's going to take time because they started reorganizing like last year. Such a pity, too. Here they've got one of the 10 best cars in the entire world and as far as most of the U.S. is concerned it is one of the better kept secrets since the Manhattan Project. /MT



Peugeot front suspension is like you wouldn't believe. None of that stamped stuff for the control arms, no sir, folks, those are real life I-beams. And, honest-to-goodness rack-and-pinion.



Color the Peugeot rear end stout. Looks a little like a '48 Ford, doesn't it? But no Ford rode or handled like this. Spare tire drops down at flick of lever.



By Leo Levine

By now you've seen all those new Fords and Chevys and Plymouths and all the rest of the 1969 Detroit iron and they're not bad, if you're looking for that sort of thing.

But now supposing you're rich. Really rich, and you want to, like well, swing a little, soothe that old psyche, and whether it cost you \$10,000 or \$20,000 the money doesn't mean a thing. What you gonna buy?

Forget about the Jaguar XK-E and those Mercedes 280SLs and Porsche 911s. They only cost maybe \$6-8000 and that's for the proles. Almost everybody has them; you can even go to the bank and borrow money to buy one. Forget about those Rolls Royces and Bentleys and the rest of that stuff, too. . . . they got like, well, they got four doors, and all that. They have an image, but it's not what you're looking for. If it is, turn the page and read about the hidden windshield wipers on the new Dodge or how you can get a Turbo-Hydra-Matic on practically all the Chevys, or some other example of what the Great Technology, vintage 1969, hath wrought.

You got money — a lot of money — and you want to swing? There are really only four cars, to wit: Maserati Ghibli (\$18,900)

Lamborghini 400 2+2 (\$15,750)  
Ferrari 330 GTC (\$15,750)  
Aston Martin DBS (\$17,200)

Now before you start nit-picking, it is time to admit there are a few others. There's the Lamborghini Miura, for instance, which is rear-engined and is perhaps the most far-out car being built today, but there's absolutely no room for any sort of luggage and much worse, there's no air conditioning. You want to roll up to the Beverly Hills Hotel, or the Del Monte Lodge or the Regency in New York all sweaty? Even if you do, the broads won't stand for it; perspiration and Pucci don't mix.

There is a certain philosophy that accompanies the sale, purchase and use of these ultra-expensive, ultra-high-performance cars, which have a minuscule market of perhaps 750 units per year in this country. The fact that they all happen to be fine automobiles, from an engineering angle, is almost beside the point. Most — the great majority — of the persons who buy them accept this as a matter of course, but that is not why they purchase them. They are not really automotive enthusiasts, they are merely persons living in an era of conspicuous consumption — and if the

thing doesn't look like it cost a bloody fortune, for them, at least, it has lost its *raison d'être*. The 280SL, for example, although it lacks the brute power of these four, has all the engineering features, is as well made and comfortable, it even comes with two tops and air conditioning, and you can buy two of them for the same price as one of these.

But it doesn't have the mystique, it has no charisma. And that is what you pay for. These cars place you in a different class, one in which the tariff, be it \$15,750 or \$18,900, is inconsequential. It is as J.P. Morgan said to the man who asked him what his yacht cost to maintain — if you have to think about the price. . . .

In the words of a well-known Park Avenue psychiatrist who doesn't want his name used because too many of his patients are owners of these machines, "The purchase of any of the more mundane sports cars, such as an MG or a Triumph, is calculated to add perhaps a half inch to the phallus. A Maserati or a Ferrari is guaranteed for at least six."

Now where else are you going to get a warranty like that?

Since the four cars in question are, for this country at least, boulevard sports cars, the remarks and impressions that follow come from testing them as such. There is little to be gained, when attempting to judge them in this frame of reference, from seeing how quickly they can cover the quarter-mile or from discovering their relative lap speeds

Photos by Dan Rubin

around a road circuit. Let it suffice to say they all go like hell, with top speeds in the 140-mph range if you ever get to Nevada, they all have good brakes and their roadholding capacities are far in excess of what the average driver will ever demand from his machine. For the record, the fastest terminal velocity attained in any of them was an indicated 135 in the Lamborghini, at which point there were still a few thousand revs to go before the red line and at which point fear of the highway patrol overcame all visceral and/or intellectual curiosity.

#### MASERATI GHIBLI

The Ghibli, as a welcome relief after a long line of rather nondescript Mexico, Quattroporte, Mistral, etc., models, is truly spectacular. From a styling standpoint the Ghia-bodied car is perhaps the new-era archetype of what a luxury grand touring vehicle should look like. Although it lacked a little in mechanical refinements when compared with the other three, it was the only one that really created a sensation when driven down the street (and if you are going to consume conspicuously, that's what the car is supposed to do).

It is a 2-seater, and there is so much cockpit space the only alteration needed in the one delivered to the 7-foot, 2-inch Wilt Chamberlain was to install a smaller steering wheel so he could tuck his legs into their proper position. The interior, as with the others, is

liberally coated with leather and deep-pile carpeting, and as standard equipment there are such items as an adjustable steering wheel, infinitely adjustable seats, tinted glass, air conditioning, power windows, electrically-heated rear window and even two horns (one town, one country). There are also numerous dials and a myriad of bayonet type switches, all of them telling you something or enabling you to do something else, and all of them making you feel like maybe this is really a Boeing 707.

On the minus side, the car is something of a bear to drive in traffic, as the steering is extremely heavy (power assist is expected on later models), and the 5-speed ZF gearbox is not all that it should be. The gate is extremely narrow, and catching fifth instead of third was a frequent occurrence. Double-clutching to go from first to second made that movement considerably easier. The car is also the only one with a live rear axle and leaf springs.

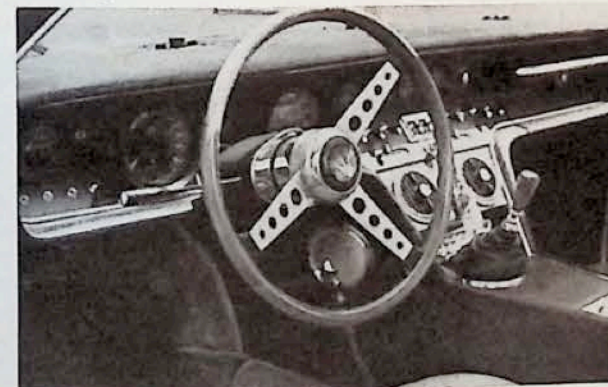
Visibility directly in front was poor, leading to some rather awkward maneuvering in close quarters, and the 4.7-liter, four overhead camshaft V-8, originally a Maserati racing engine in 1957, did not run as clean as the others at low revs. After 15 or 20 minutes in town (in which only first and second gears could be used effectively, leading to much noise in the cockpit), the engine had to be cleaned out with a little running at 4500 rpm. It also has such odd items

We herein serve as the medium for contact with beings of another world. They are of unusual configuration and can be identified as Ferrari, Aston Martin, Lamborghini and Maserati.

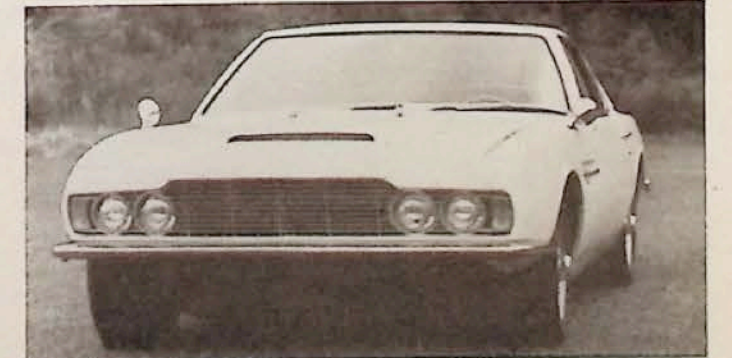
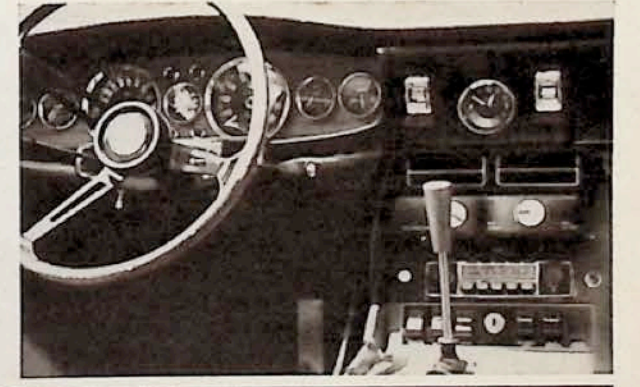
## Road Testing the Twilight Zone



Maserati Ghibli



Aston Martin DBS



Twilight Zone *continued*

as two gas tanks, meaning you are almost obligated to have the filling station jockey drag his hose over the Ghia's expensive aluminum shape.

But everybody stops, and everybody looks. Some of them even applaud, an almost purely reflex action which they couldn't explain even if they tried. The Ghibli is something like having a date with one of Movieland's Love Goddesses. Supposing you made love to her and discovered that she wasn't very good in bed. Would you admit it to anybody — even yourself?

ASTON MARTIN DBS

To buy one, you have only three things to do: specify the color, whether you want the standard 5-speed ZF or the Borg-Warner automatic (no extra charge), and sign the check.

For your money you get what is not only the best thought-out vehicle in the bunch — from a comfort and convenience standpoint — but you even get a spare switch on the dash.

There it sits, neatly labeled.

"Spare."

Spare what? Spare button, that's what.

You want to install a tape deck, or maybe even one of James Bond's used machine guns, you got a switch for it; none of those messy afterthought installations, mate.

On the performance side the Aston is the weakest, but performance in this frame of reference is a relative

term; it will still run 100 all day long. Returning to the amenities, such things as air conditioning, radio, tinted glass, heated rear window, automatically adjustable rear shocks, footrest for front-seat passenger, electric antenna, excellent power steering and great power brakes, cigarette lighters and ashtrays on each side, large glove compartment plus two in the doors, variable density foam rubber in the seats, good ventilation, town and country horns, easily legible dash instruments (many of them, as you would expect), etc., are all standard. It also has a surprisingly large trunk — the biggest of all of them.

On the mechanical front the car is still equipped with Aston's age-old straight 6, at present in 4.0-liter configuration. Regardless of how you slice it (or carburet it, for that matter), it never had the muscles of the Ferrari or the Maserati when it was racing against them, and it doesn't now. The transmission seemed not quite up to those of the Ferrari or Lamborghini, but not quite as difficult as that in the Maserati (also a ZF). Braking, steering and general roadholding were excellent (in this connection it should be noted the car has a de Dion rear axle and inboard rear discs). The styling — and for the first time Aston has done the body in the house instead of going to Superleggera in Milan — is very good, as is the general quality. It is unfortunate the car is designed as a 2+2, because 2+2s are inherently dumb cars (if you have enough to buy one of these, you have enough to buy a bigger car

when you want to transport more people).

And one more thing: The Aston also has two tank openings — but only one tank. It doesn't matter which side of the car is next to the pump. Thought, mate.

LAMBORGHINI 400 2+2

Once upon a time Ferruccio Lamborghini was one of Enzo Ferrari's best customers, and every time Enzo brought out a new model, there was Ferruccio with a couple of bushel baskets of lire waiting to buy it. Then one day Lamborghini had the temerity to suggest to Ferrari that he make a few changes in the car.

Old Enzo told Ferruccio what he could do with his changes, and Lamborghini, who's got enough money, in petty cash, from building tractors and other things, to buy Ferrari, stormed off down the road to Bologna where he set up a factory to build an even better car.

In certain respects, he's done it. The 400 is the quietest high-performance car ever built. It is so quiet, that with the windows closed you almost literally cannot hear the engine (much less the exhaust) at speeds above 100 mph. Of the four cars tested, none came up to the Lamborghini's standard in this department, nor did any show the same low-speed engine flexibility. Although 4.0-liter V-12s with two overhead camshafts per bank and six side-draft Weber carburetors are simply not supposed to run with such a total absence of commotion, or be able to function smoothly in traffic

at such ridiculous revs as 1000 in fifth gear.

The engine is great, as is the gear-box, the roadholding is excellent and so is the quality (even the strut that holds the hood open is chromed), but the styling is not up to the rest of it. The body, by Superleggera, is something less than an artistic triumph, especially the bulbous headlights, and the air conditioning installation (the car is \$1000 cheaper without it) ruins what is an otherwise well laid out and business-like interior. With the air — and without it things can get very hot — you are forced to put up with lumpy additions to the dash, and with your radio being installed on the far right-hand side. For that kind of money they should do better. As far as the 2+2 design goes, the back seat is not quite as roomy as that of the Aston, but the trunk is almost as big.

FERRARI 330 GTC

Now all that quiet stuff may be all right for you Lamborghini fans, but Enzo knows something about being quiet; when a guy pays all that money for overhead cams and V-12 engines, it's like he's got to hear it a little, he's got to know that all those sophisticated goodies under the hood are really busy going up and down, round and round, whirryclick. We'll have none of that pocketapocketa, Mr. Mitty, this is 1968. . .

The trend toward luxury in a high-powered grand tourer has also made itself felt in Maranello, and whereas in previous years the quality of the appointments may not have been up to the engine and chassis standards of the Casa Ferrari, that seems to be a thing of the past. The 2-seater 330 GTC, which is now the more or less "standard" Ferrari, was the liveliest, most responsive and easiest to drive of all the test cars. But in one sense, it was a flop. In its evolution from a fire-engine red, raucous monster that woke everyone within a 5-mile radius to a truly civilized luxury vehicle, the lovely Pininfarina lines somehow became conservative, almost understated. Now, when you drive one of these down the street, hardly anyone turns to look — and that's not the objective of conspicuous consumption.

The 4.0-liter engine, which is a single cam version, was the only obtrusive item in the car. Aside from that, it was hard to single out anything. Where the others had certain features that were outstanding and other things that were not up to par, the Ferrari seemed to be almost completely in harmony: everything good, nothing objectionable.

But you get that little figure of a prancing horse on the front of the car. Charisma, man.

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<input type="checkbox"/> Sideburns \$3	<input type="checkbox"/> Medium Brown
<input type="checkbox"/> Van Dyke \$3	<input type="checkbox"/> Dark Brown
<input type="checkbox"/> All items \$5 (Save \$3.00)	<input type="checkbox"/> Black <input type="checkbox"/> Auburn (Red)
	<input type="checkbox"/> Blonde <input type="checkbox"/> Silver (Grey)

Name .....

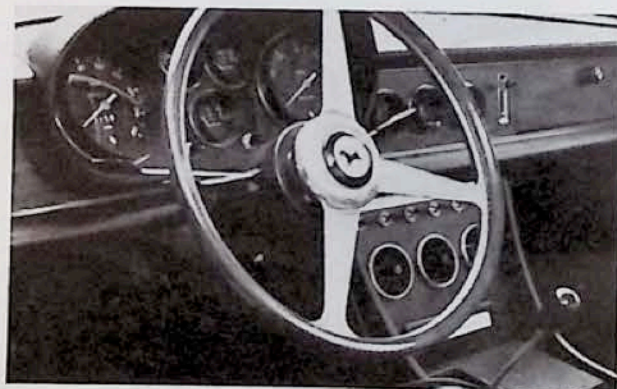
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City, ..... State & Zip .....

Lamborghini 400 2+2



Ferrari 330 GTC







BY BOB MYERS

It's Ford again  
only it's  
spelled "Mercury."

# ATLANTA dixie 500-miler

A couple of years ago Southern stock car racing fans had to resort to their bifocals to pick a Mercury out of the field in high-speed superspeedway events. Perhaps the best known is the black and maroon machine driven by Darel Dieringer and put together, oft-times with baling wire, by Bud Moore of Spartanburg, S.C.

Moore's last-stand operation had been the-blessings of that division of Ford Motor Co., but little else. And it's difficult to buy parts for high-performance engines with blessings alone unless one happens to be a member of the cloth.

But in 1966, that old Mercury won the Southern 500-mile classic at Darlington Raceway in a cotton field in the South Carolina farming hub by the same name. And winning the Southern 500 is about as far as you can go in stock car racing as far as tradition and prestige are concerned. The raceway is the oldest superspeedway in the nation and the race itself is like vintage wine.

Now, in 1968, Bud Moore, the 20-year builder in Spartanburg, S.C., still has a Mercury running the big tracks in the Southeast. It is driven by a hulking man of 270 pounds named Tiny Lund. Except nobody pays much attention to Tiny Lund and Bud Moore this season because they still have little more than blessings, and Dieringer has joined Chrysler in Plymouths.

This story, it should be injected here, is not about Bud Moore and Tiny Lund, but it is about Mercury. Their part is merely a preface.

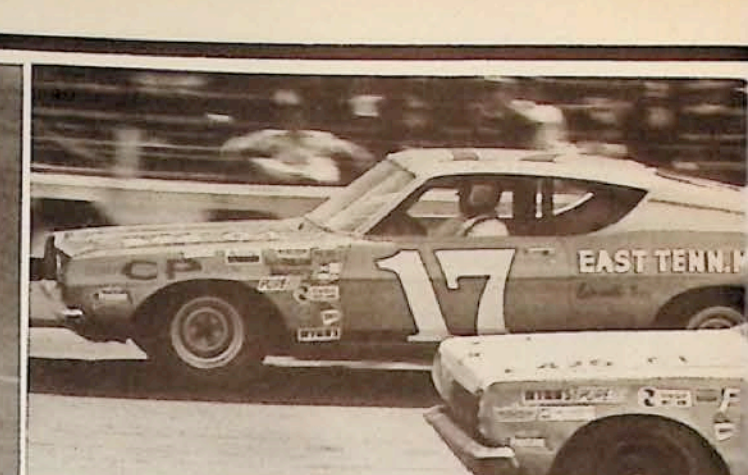
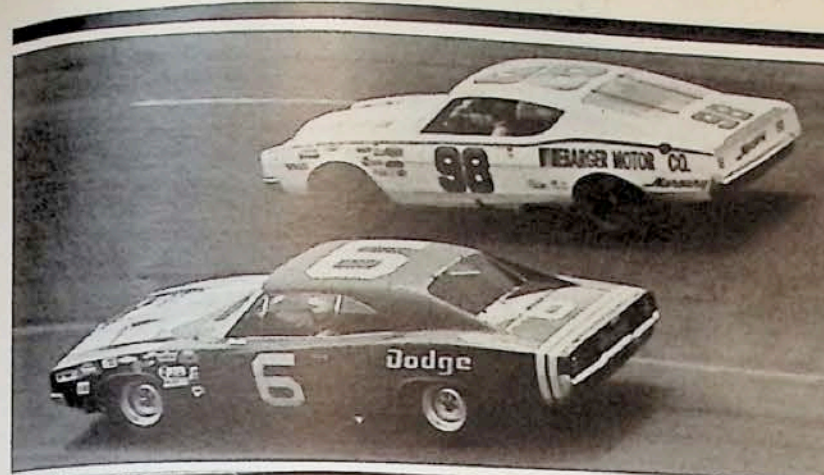
Truth is the situation with Mercury has changed drastically this season. Ford Motor Co. is getting all the credit for having won all but one of the races of 400 miles and longer on the NASCAR Grand National grind this year. Ford won seven of the first eight superspeedway races staged, losing only the World 600-miler at Charlotte to the factory Dodge of Buddy Baker in May.

But there's a catch to it. Ford has won only three of the seven, its Torinos prevailing in 500-milers at Riverside (Dan Gurney aboard), at Rockingham, N.C. (Donnie Allison at the wheel) and at Darlington in a 400-miler (David Pearson driving).

Mercury, as the slogan says, has got it,



Lee Roy's chief mechanic, Herb Nab, admonishes him to remember not to blow it.



(Above) David Pearson led the race at one point, ran with the leaders but finally finished 4th. Charlie Glotzbach in Cotton Owens' Dodge Charger (above left), put on an awe-inspiring display of raw speed that Lee Roy (98), or no one, could match. He broke on the 155th lap. (Left) Richard Petty, unbeatable last year when he shouldn't have had a chance, just can't get started this season. Here, he finished 5th.

Photos by Don Hunter

which means four big ones, both the 500 and 400 at super-fast Daytona Speedway and at 1 1/2-mile Atlanta Raceway.

The latest for Mercury was the Atlanta Dixie 500-miler with Lee Roy Yarbrough, the hard-luck king of NASCAR, in front of the Dodge Charger of Bobby Isaac when the 334 laps were history before 51,000 fans broiled lobster red by a relentless sun which sent temperatures in the shade to 95° and asphalt track surface readings to 141°.

It is interesting to question the logic behind Ford's decision to run Mercury Cyclones in the races of 250 miles and longer this season, when it would seem they are family rivals, big brothers fighting for sales, though they come home daily to the same offices. Certainly the boys in the Ford performance offices have no desire to promote Mercury. And, after all, if Mercury has wanted to make a noise on the Southern speedways the past two years, it had neither the permission of performance brass within Ford, or a whistle loud enough to be heard.

There is some reasoning in allowing two divisions of the company (Lincoln probably is not mad) to share in the advertising glory and the salesmanship gained from winning auto races. At Daytona, before the 500-miler in February, the Cyclone proved faster by a couple of mph than the Torino. Now it's pretty obvious Ford didn't want some non-factory operation happening upon a Cyclone and discovering that it would outrun the Torinos and every-

thing else around. So the decision, probably by Ford chief Jacque Passino, was made to use the Cyclones in races greater than 250 miles and to intersperse a few Torino machines for good measure. That measure has resulted in Ford winning every race of 250 miles and longer—the first 11 of the year to be precise.

Actually, the Cyclone and the Torino are strikingly similar save for the sheet-metal and aerodynamics. And for those in the Dearborn Dynasty who designed the Mercury for high-speed racing, give them an "A" for excellence.

Ford's decision to use two members of the family was a wise one. Pearson, the 32-year-old from Spartanburg, S.C., had won a dozen races, more than any other driver at this writing, and the majority over 100 miles in Torinos built by Ford's outlet, Holman-Moody Co. of Charlotte. That's only three short of Pearson's triumphs when he won the Grand National point title in 1966.

Chrysler has suffered a royal beating this year. Its ace, Richard Petty, wherever he goes, posted 10 wins in his first 33 starts, but failed to win an event longer than 100 miles. Ford considers the small races so insignificant that only Pearson is running for the point championship, and this can be credited more to Holman-Moody than Ford. The company actually announced early in the season it would not compete in races of less than 100 miles because of a tight budget. The obvious reason is that 100-mile races do not give the

company exposure anywhere equal to the expense.

Last year, Petty rewrote all the NASCAR Grand National records with 27 victories, including a streak of 10 straight wins and \$130,000 in winnings. Though Ford, sans Mercury, dominated the big tracks, Petty became an agitating thorn in its side, not because of the magnitude of his wins, but the number. Said John Cowley, the performance vice-chief of Ford, "Every time we picked up a paper, either on the West or East Coast, it had a paragraph about Petty winning. He hurt us."

Already this year, Ford's Cale Yarborough (or is it Mercury's?), somebody's next superstar after sweeping floors and cleaning warehouses at Holman-Moody as recently as two years ago, has won four major races and won more than \$100,000 in machines prepared by the famed Wood Brothers of Stuart, Va. Three of those wins—the Daytona 500 and 400 and the Atlanta 500—were in Mercury cars. And, before he finally saw the checkered flag, Yarborough (they're confusing, but the spelling is different) had chased Cale home as the bridesmaid at Daytona in the 500 by one second, at Atlanta by 20 seconds and at Daytona in the 400 by a lap. Of course, Lee Roy was driving the Mercury then, too. Only time Cale has won in a Torino was a 250-miler at Martinsville, Va.

Chrysler has tried everything to subdue the Ford-Mercury monopoly, to little avail. Earlier this year, ACCUS



Lee Roy Yarbrough almost didn't know how to act in Victory Lane, it's been so long. But recovered quickly with wife Gloria (center), Johnson (smiling), Nab (behind MC).

## ATLANTA *continued*

granted Chrysler permission to use dual carburetors on its hemi-engine. Probably because Chrysler would not tool the proper manifold system, little was accomplished. "I can't believe the company did not tool a new manifold," said a well-known mechanic. "All it did was move the mounts far enough apart to bolt two carburetors to it."

At Atlanta, Chrysler officials raised hell with NASCAR over the legality of Ford products, charging the front end of the machines were too low. The grievance even went so far as a threat to pull out if something wasn't done. It was. Ford was ordered to raise its cars. It did.

Whether the Chrysler ultimatum and the fact that Buddy Baker won the pole in a Dodge Charger with a 4-lap average speed of 153.356 mph compared with Yarborough's 152.749, second fastest, had any connection with the decree is a matter of conjecture. But Chrysler was satisfied, momentarily, anyway.

Then there was the matter of tires at Atlanta, a matter of prime importance anywhere in these scientific times. Firestone had the faster tire by two to three mph in trials, but its durability was questioned.

Yarborough qualified on the slower Goodyear tire fifth at 152.091 mph, primarily because his Junior Johnson supervised team has a contract with that company and primarily why chief mechanic Herb Nab said "we sort of sacrificed the pole thinking the Goodyear would outlast the other tire."

Cotton Owens, who builds the Dodge cars driven by one of the truly rising stars of high-speed racing, one Charles Glotzbach of Georgetown, Ind., also had a contract with Goodyear. But Cotton, the veteran former driver and skillful mechanic that he is, wanted to run Firestone. It took an act of Chrysler through Akron to get Owens permis-

sion to run Firestone. Glotzbach qualified third.

As it turned out, the Firestone tire was just as durable as its competitor's, and Glotzbach ran off and left everybody. That is, he would have had caution slowdowns not forced him to play catch-up until he cut down a tire that actually blew up the right front fender and broke the lower control arm at 155 laps of the 334-lap tour.

Yarborough had better luck. When Glotzbach and the others in the Ford army were outrunning Lee Roy, the decision to switch to Firestone was made after the race was one-third gone. In fact, it was the 142nd lap when Glotzbach blew a tire before cutting down the right front which proved to be the coupe de grace.

Lee Roy picked up speed, easily outran Isaac and rival Donnie Allison, who was third; David Pearson's fourth-place Torino and Richard Petty's Plymouth. Both Petty and Isaac pined, "I ran the wrong tires." Guess.

The Johnson crew would not have paled had Lee Roy, who led the final 40 laps, gone backward when he changed tires. They are no stranger to adversity. A Johnson-supervised car had not won a race longer than 300 miles since the Chicken Farmer quit driving in 1965. The North Wilkesboro, N.C., mountaineer hadn't enjoyed a victory since he won the Rebel 400-miler

Atlanta 500 Results			
POS.	DRIVER	CAR	LAPS
1	Lee Roy Yarborough	68 Merc	334
2	Bobby Isaac	68 Dodge	334
3	Donnie Allison	68 Ford	334
4	Dave Pearson	68 Ford	334
5	Richard Petty	68 Plym	333
6	James Hylton	68 Dodge	328
7	Bud Moore	68 Dodge	328
8	John Sears	67 Ford	327
9	Friday Hassler	66 Chev	318
10	G. C. Spencer	67 Plym	316
11	Bill Seifert	68 Ford	310
12	Bob Moore	66 Ford	306
13	Frank Warren	67 Dodge	303
14	Dr. Don Tarr	66 Chev	301
15	Willie Crane	68 Ford	300

at Darlington before he quit. Chief mechanic Nab, who was the wrench behind retired Ford superstar, Fred Lorenzen, now out of racing altogether, hadn't had a machine in Victory Circle in two years, either.

Prior to victory in the Northern 300-miler at Trenton, N.J., in July, Yarborough had posted three second places and two thirds in seven starts. That's not too bad especially for a driver who has won \$74,000 this year until the details are revealed.

In the Daytona 500, Lee Roy finished second to Cale by one second. He misread a pit sign which said P-1 near the end of the race.

Lee Roy interpreted the sign as "pit in one lap."

What it actually meant was he was in first place or "place one." That is, he was until he got the signals crossed.

In the Atlanta 500, Yarborough wound up 20 seconds back of Yarborough. A few laps from the end, Lee Roy was black-flagged for passing under caution, an offense with which he charged Cale at the same time and posted \$100 in protest fees. Lee Roy was penalized, Cale wasn't.

Up to Atlanta Lee Roy had been in position to win nearly every race he had entered. The details are omitted because this is not intended to be a tear-jerker.

But for the sentimental and sympathetic, read on. Yarborough went to Indianapolis in May and was promised one of the turbine-powered jobs by Andy Granatelli. Twenty minutes before Yarborough was set to qualify, Granny put Art Pollard in it.

Lee Roy, one of the few, three I believe, strictly NASCAR stock car drivers ever to make the Indy 500 field, called the 1968 incident politics, which seems to be a favorite subject these days and is every year at the Brickyard. But Granatelli was understanding, telling Yarborough, not from a stump, but from Gasoline Alley that "you WILL drive one of my cars here in the future."

"You don't have enough money to get me to drive one of your cars," Lee Roy returned.

"Oh, yes, hell I do," said Granatelli. And Lee Roy believed. Anyway, that's the way he tells it.

So it was at sun-drenched, overheated, people-clogged Atlanta Raceway on a torrid August Sunday. Lee Roy put that Mercury out front 148 laps through 11 slowdowns of 67 laps and 29 lead changes among nine drivers at a turtle's average pace of 126.814 mph.

He had said during the rash of misfortune, "if my luck ever changes, I'm going to be hard to stop."

That's something else for Chrysler to worry about.

And tell the boys in Mercury Division they have a winner!

/MT

# The Wood Brothers

By ERIC DAHLQUIST

Photos by Don Hunter

Dan Gurney has won the MOTOR TREND 500 five times. He lost once in 1967. He did not have the Wood Brothers that year. Parnelli Jones did. Parnelli Jones won the race. In 1965 Jimmy Clark won the Indianapolis 500. He spent 44½ seconds in the Wood Brothers pit, the continuing record. Cale Yarborough drives for the Wood Brothers. Just this year he has won the Daytona 500, Atlanta 500, Daytona 400 and Darlington 500. The Wood Brothers run only major races.

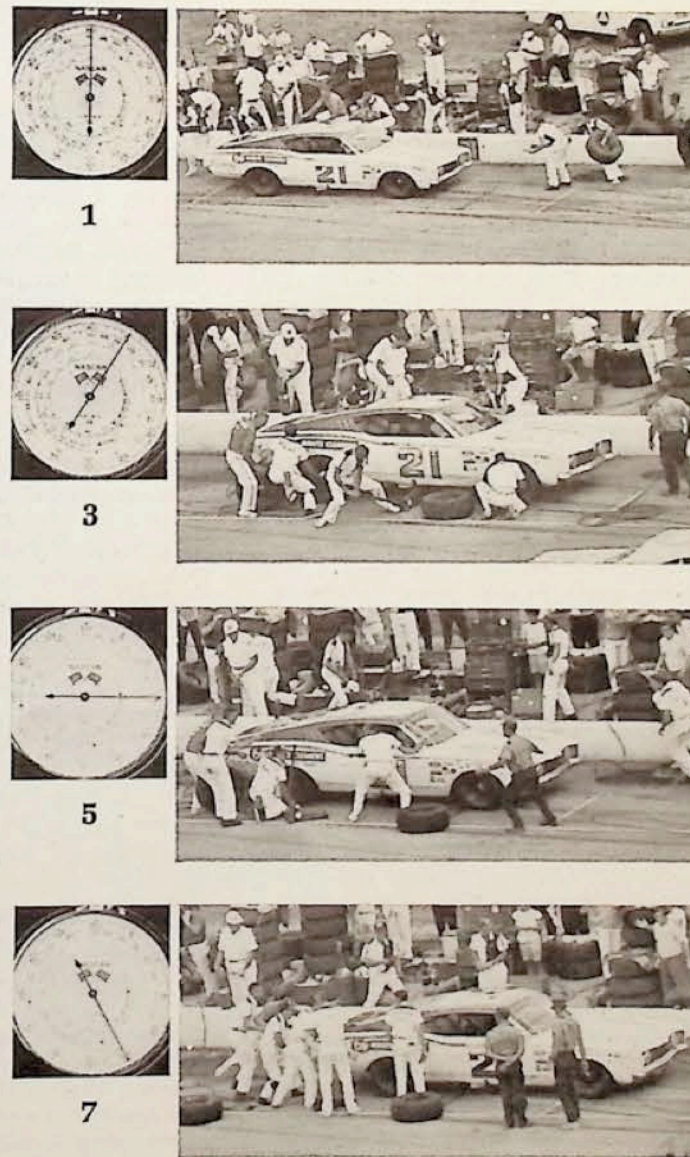
You do not need the Wood Brothers to win, but it will help. At the MT 500 in Riverside this January the engine the Brothers gave to Gurney had 300-400 rpm more than anyone else's. Leonard Wood looks at you and squints slightly. "All the tunnel-port Fords are the same, it's just fine tuning." All the 427 Ford wedge engines were the same, too. The Wood Brothers still had 300-400 rpm more than the rest. It makes you wonder.

There is no puzzle about how the crew works during the organized confusion of a race. From the time Glen steps out from the pit wall to guide the driver to a stop, it looks as if they were all members of a mechanized ballet that had toured together for years, each individual learning not only his own

part until it became a conditioned reflex but the movements of all the others as well so that, if he saw a single frame of film, he would know exactly the precise position of each person in the next frame or the next or what ever one you picked at random. The way the ball Y.A. Tittle had thrown was always there when Frank Gifford looked over his shoulder.

In his dreams Glen must always be carrying a 70-pound wheel and tire over the wall for Clay who has the air-driven impact wrench and changes the right front tire. Delano is rooted to a spot trying to jack a car up faster than it has ever been before. Leonard puts on the rear tires brought over by Ralph Edwards. One side of the car is done at a time. Cousin Ken Martin is topping off the tank with fuel. At the front of the car Glen can tell by the position of Kenny's feet how fast the gas is going in. In the pit, Grover Adkins is taking it all in, timing the stop, counting the laps. If he misjudges by one lap, they lose.

Only one member of the crew is under 30—kids do not win the Daytona 500. "We don't do anything much different from anybody else," Glen reflects. "We just work at it. Most people 'round here look at racing as just what we do." /MT





## TIRES *continued*

more detailed information relative to loads.)"

**(11) Q:** If tires are inflated to the same pressure, will all tires of the same size rating have identical diameters?

**A:** Some engineers say that tire diameter should not fluctuate more than one or two tenths of an inch per size. But one research expert of the University of Iowa claims that tires of the same size rating can vary more than an inch from one brand to another. Tires of unequal diameter on opposite ends of the same axle will not steer properly, and the car will swerve toward the tire with the larger diameter when braking. This can be a critical factor when dealing with axle-ratios, too.

### Comments:

**ARMSTRONG RUBBER CO.:** "Our engineers are wondering if you have seen the new Federal Standards 109 and 110. These place very definite limits on sizes, data branding, and so forth. We are following the standards, of course, and we are confident all other manufacturers are doing the same."

**FIRESTONE:** "Hard to believe! Detroit builds into their automobiles the ability to safely operate on tires that have diameters varying up to three-tenths of an inch."

**(12) Q:** Why is nitrogen being boosted for use inside tires?

**A:** Truck-fleet managers found that oxida-

tion damage often deteriorated tires from inside-out. To get away from the problem it was necessary to use a gas without oxygen. Nitrogen is relatively cheap, easily available and safe to handle. After a long period of field testing, some truck-fleets announced that tire-life increased from 10% to 50% when tires were inflated with nitrogen. On passenger cars, they mention a figure of 25% possible longer tire life. (Usual charge is \$1 per tire.) There is quite a controversy over nitrogen inflation. Some tire experts are not convinced it makes sense.

### Comments:

**ARMSTRONG:** "Tires contain chemicals to retard or offset oxidation. Nitrogen is not used much now."

**FIRESTONE:** "Our engineers say, after exhaustive testing on passenger tires, that absolutely no benefit is realized in nitrogen inflation in passenger car tires. Firestone tires have built-in liners that protect the carcass from oxidation damage."

**GOODYEAR:** "One major nitrogen inflation program was recently discontinued as a flop with the public."

**(13) Q:** If a tire manufacturer says not to inflate tires more than 10 psi above normal why isn't it all right to bleed air from hot tires? I've seen readings up to 25 psi above normal.

**A:** Because readings taken off a hot tire are false readings. The tire really isn't inflated 25 psi above normal. Air already in the tire simply expanded. If you bled air from a hot tire it would be

underinflated after it cooled off. Tires run underinflated are mushy, dangerous and they'll wear faster. Inflate tires when they are cool, then leave them alone during the hot part of the day.

### Comments:

**ARMSTRONG:** "Hot tires should not increase this much. Even under most adverse conditions, we would only expect a build-up of approximately 12 psi."

**FIRESTONE:** "... (your figures) rather high; 15 pounds maximum (overinflation) for passenger tires."

**(14) Q:** How much mileage can we now expect on a set of new tires?

**A:** On cheap tires about 9000 to 15,000 miles, depending on usage. Good tires run from 15,000 to 25,000 miles. On belted-bias tires and radial tires you can expect 25,000 to 50,000 miles depending on your driving conditions. There is tremendous variation in the factors which determine tire wear, but those shown here are the average quoted by many tire dealers.

### Comments:

The only comment on the question of wear-life came from:

**ANONYMOUS:** "There are two key factors in anticipated mileage from a new set of tires:

1—Where you live is important rather than driving habits—Carolinas, Georgia and Utah have lower tire mileage than other states largely because of:  
2—High-crown roads, abrasive paving material aggregate and hilly terrain are factors causing accelerated tread wear."

(Author's note: Maybe so—but a bad driver can wear out skins on smooth roads in less than 10,000 miles. Driving habits are still the most important factor with younger persons.)

**(15) Q:** What do they mean when they say, "don't mix your tires?"

**A:** Tire companies are concerned with mixing radial-ply tires and snow tires with ordinary tires. The result is that one type tire stops faster—which might throw the vehicle into a slide. The higher the speed, the greater the danger from this sort of mixing. Just remember:

- 1—Don't mix radial tires with snow tires.
- 2—Don't mix steel-belted radials with fabric-belted radials.
- 3—Don't put radials and bias-ply tires on opposite ends of the same axle.
- 4—Don't put steel-belt radials up front and snow tires on rear.
- 5—Steel-belted radials should go on the rear—even on front-drive cars.

### Comments:

**FIRESTONE:** "Firestone is now producing radial snow tires."

(Author's note: In this event, No. 1 would not apply.)

**GOODYEAR:** "Radial tires should be used only in a set of four—never with bias-ply tires."

**ANONYMOUS:** "We cannot find anybody to support No. 2 on list."

**(16) Q:** What's new in studded tires? How many studs per tire? Can they be used on all 4 wheels?

**A:** One major company, at least, feels that from 85 to 110 studs per tire is an ideal number for American vehicles on American roads. They use more studs per tire in Europe, as they will here some day. Also in Europe, most cars use studs in all four tires. The Cornell Aeronautical Laboratory reports that studded tires only on the rear reduces stopping distances on icy roads by 30%, studding all four tires reduces stopping distance on icy roads by 50%.

### Comments:

**ANONYMOUS:** "One stud supplier is coming on the market with a tire tungsten carbide steel stud rather than just a tungsten carbide jacket. Most tire companies agree that there should be between 85 to 110 studs per tire."

**(17) Q:** MOTOR TREND announced the new FOLD-AWAY-SPARE TIRE over a year ago. How has it worked out in actual practice?

**A:** Word from tire servicemen is this: in most areas, the Space-Saver spare

tire works according to plan. But there have been a few problems. For example, when the tire is extremely cold it may require more air to fill it than the pressurized-can contains. Another problem is that where a heavily-loaded vacationer has a flat and the Space-Saver spare tire replaces it, the driver may have difficulty finding a spot in which to jam the flat tire. He's got to transport it to a repair station. If the tire is hot and dirty (as usual) this can pose a temporary annoyance. Otherwise, once inflated the Space-Saver spare has worked fine.

### Comments:

**B. F. GOODRICH:** "New larger can of freon gas is now on the market. This provides enough gas to fill even an extremely cold tire."

**(18) Q:** When a new tire carries an "UNCONDITIONAL" guarantee, why should we have to pay for mileage when it blows out?

**A:** There is no other fair method of making tire adjustments. The tread-wear-cost covers a reasonable amount of wear-use and is probably a permanent policy of tire makers. All tire warranties are based on customer usage, and tread-depth measurements are standard adjustment practice. An "unconditional" guarantee does not alter

that practice. If a tire cost you \$30 and it blew out at about half its tread life, you got \$15 worth of driving from it. The dealer merely charges you for that wear when he installs a replacement.

### No Comments.

**(19) Q:** When a tire blows out, why does the car veer toward the side on which the blow-out occurs?

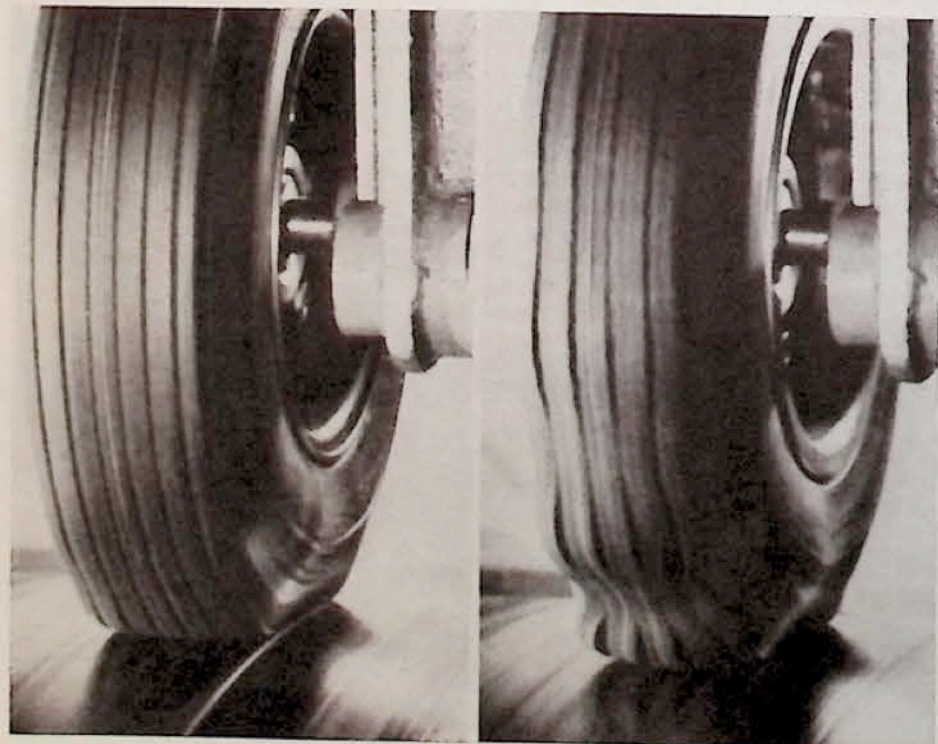
**A:** Maybe it doesn't, if we can believe a new study by Northwestern University Traffic Institute. They say that research of accidents where blow-outs occurred shows this: that the vehicle might veer either way—and not necessarily toward the blow-out. Another interesting research development: rear tires seem to fail more than front tires, perhaps because most drivers keep best tires up front.

### No Comments.

**(20) Q:** Are retreads as good as new tires?

**A:** General consensus is that retreads get about the same mileage as new tires, but casing strength depends on retreading efficiency and condition of tires before retreading. Tests on Texas track showed that new tires fail at about the same rate as retreads.

### No Comments.



Reason for substantial tread life in the new Goodyear Power Cushion Polyglas tire is demonstrated in photos of tires spinning at 140 mph. The tread of bias-ply tire (right) distorts as it rotates against wheel. Fiberglass belts prevent this on new tire.

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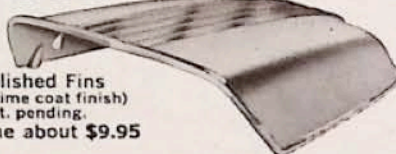
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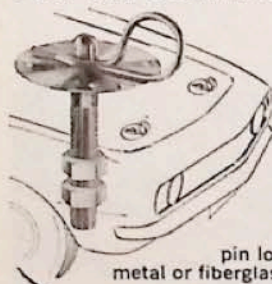
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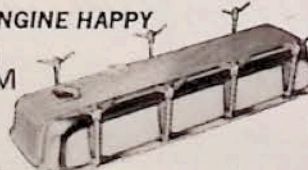
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**Q & A**

**corvaair buggy**

**Q** I am interested in building a beach buggy when I return to the States. Using a '65 or later Corvaair intrigues me more than the usual combination of a VW floorpan and fiberglass kit. How much should the wheelbase be shortened? Benjamin H. Williams APO San Francisco

**A** There are no hard and fast rules when it comes to wheelbases for such vehicles. For steep dunes, stretched wheelbases seem to be the answer. For general use, the standard wheelbase is fine, and time, money, and effort saved will be considerable. You may or may not be aware that the Corvaair floorpan is welded to the body. Therefore, work won't be as straightforward and cut-and-dried as is the case with VW-based buggies. But there's no reason it can't be done, and the results should be rewarding.

**wo ist der messerschmitt?**

**Q** A small, 2-seater, tandem, 3-wheel vehicle with a bubble canopy used to be manufactured in Germany by Messerschmitt. Can you tell me if it is still in production and, if so, are dealerships available in this country? John McMahon Binghamton, N.Y.

**A** This minimum-transportation curiosity was imported into this country in the early Fifties. Some were even raced in sports car events of that era. It never could compete saleswise with the BMW Isetta—another bubble car—in Germany or elsewhere. Production was short-lived, as European prosperity put an end to the bubble-car market. It's passing was un mourned on both sides of the Atlantic. The name Messerschmitt is more honorably remembered for a WW II fighter plane it produced.

**whistlin' mother**

**Q** The alternator makes a whistling noise at idle and no load on my 1968 Impala 396 Wagon. It has been checked and the belt tension adjusted. The bearings have been replaced and the charging rate cut down, but still there is a whistling noise. Any idea what could be causing it? Murray D. Price Glendale, Calif.

**A** Vee belts rubbing on pulleys quite often make a whistling noise. Try rubbing some soap on the contact surfaces of all belts on your engine.

**clutch problems**

**Q** I've been having clutch problems with my 1967 Olds 4-4-2. I'm currently on my third disc and pressure plate and have also had two throwout bearings go out on me. Some dealers adjust the clutch to come in as soon as it is let off the floor while others set it so it comes in near the top. What is the correct way? James M. Schottenstein Columbus, Ohio

**A** About one inch of pedal travel from the top before the clutch begins to re-

lease is proper. It should be completely released by the time the pedal is one inch from the floor.

**more ponies for a pony**

**Q** I own a '66 Mustang with the 200-hp 289 2-bbl. engine. If I were to put a 4-bbl. carburetor in place of the 2-bbl., would that increase my horsepower by 25 to equal that of the stock 225-hp 289 4-bbl.? Or are the bore and stroke different in these two engines? John Best Manhattan, Kan.

**A** You can't just bolt on a 4-bbl. carb in place of the 2-bbl.—you would also need a 4-bbl. intake manifold. Even then you wouldn't get a full 25-hp increase primarily because your present engine, intended for use with regular fuel, has a lower compression ratio than does the premium-fuel 225-hp version. For complete conversion you would have to install different pistons, camshaft, intake manifold and carburetor. Bore and stroke, by the way, are identical.

**more on leaky rear mains**

**Q** Re the '58 Ford oil leak in the June Q & A, here is an interesting experience I had with my '65 Rambler Classic 6 at 87,000 miles: an oil leak persisted after the rear main seal was replaced, so I prepared to pull the engine, considering the rear camshaft plug as a possible source. (At this point the "safety" air jack dropped the car on me—three broken ribs and a swollen jaw. Consequently, most of the remainder of the work was done by others.) The cam plug was okay. After much hassling with new seals we located the leak at the top half of the (new) seal. We did this by filling the crankcase with solvent, standing the engine on end, and applying air pressure to the oil filler pipe. A new seal got rid of the leak only after the crank was turned and undersized main inserts were installed.

We concluded that crank whip caused the problem, although there was no audible bearing knock! Sound logical? Jim Slepik Fayetteville, N.C.

**A** Yes, if by "whip" you mean radial movement of the crank rather than flexing. Badly worn rod journals always knock but sometimes worn mains can only be heard with a stethoscope.

**zip for turbocharged corvaair\$**

One way to increase horsepower on turbocharged Corvaairs is to wrap the exhaust system leading to the turbocharger with asbestos paper and wrap that with heavy-duty aluminum foil. I found that aluminum tape works very well to keep everything together. The thicker the wrap the more power is realized, since the hotter the exhaust gases are when they reach the 'charger, the more energy they will have to drive it. Limited space around the pipes prevents overdoing it and burning out the turbocharger. I tried this trick on my Corva, and it worked very well.

Larry Smith Norwich, Conn.

**A** A very sound principle. The Indy Turbo Ford uses a metal asbestos blanket around the exhaust system for the same reason. JMT



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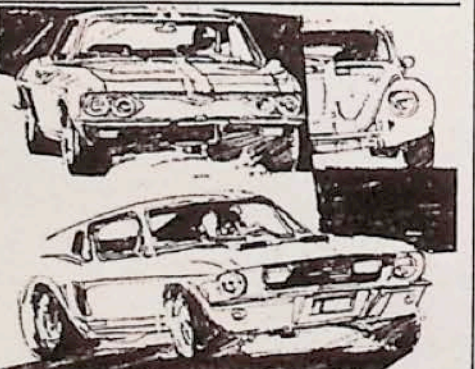
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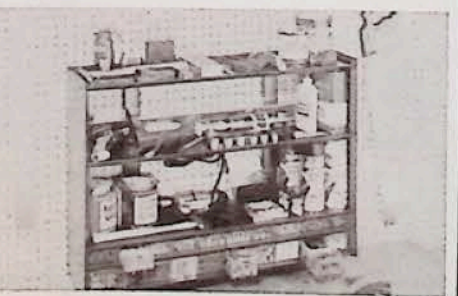


**High-Speed Patrol Tire**

Because of numerous requests, the new high-speed "Super Silent Safety Patrol Special" tire developed by the Gates Rubber Co. for police, highway patrol and other law enforcement agencies, has been released to the general public. The 6-ply nylon cord tire has a wide cross-section to height ratio which increases high-speed performance and the lower center of gravity gives positive control during quick lane changes, cornering and stopping. Additional safety features are wraparound shoulder tread for better steering on wet pavement, a 5-rib tread design for improved braking response and a highly heat-resistant chlorobutyl inner liner with excellent air-retention qualities to allow constant inflation pressures. The Patrol Special is guaranteed for the full life of the tread with no time or mileage limit. The guarantee includes failures due to defects or road damage, including blowouts, cuts and bruises. On sale now at your local Gates tire dealer.

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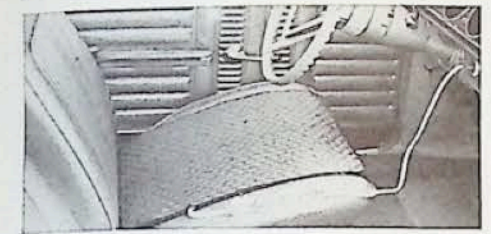
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**Warm Undercurrents**

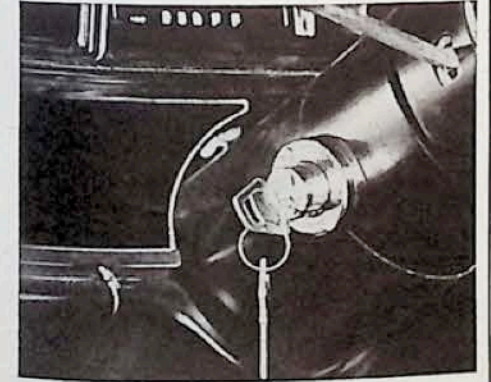
If you suffer from cold spots other than your feet, Electro-Warmth may get to the root of your problem. Now you can avoid the chill of cold car seats with this new warming cushion that starts heating the instant you sit on it. With a zero-to-fully-warm in 60 seconds, the cushion can be switched from high to low setting to avoid an unintentional hot seat. And, the instant you get up from the seat, the unit turns



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Blaupunkt builds boss radios, right? Their latest, the Derby deluxe maxi-mini, isn't going to blow their image either. In fact, it will probably be all things to all people. Get this. It offers minimum size and weight with maximum sound and features. Mini-

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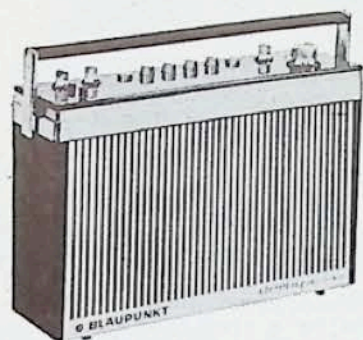
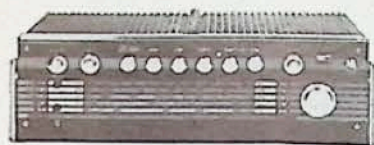
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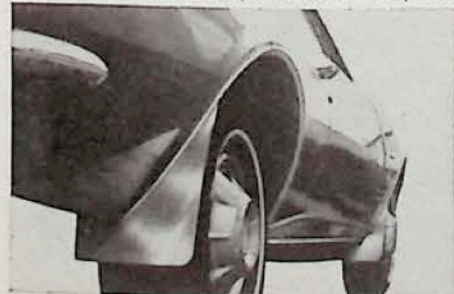


maxi, right? It's a car radio; a home radio; an AM and FM radio; a longwave and shortwave radio; an FM tuner for a hi-fi phonograph system; a speaker for a tape recorder or record changer; and when you plug in its earphone, it becomes your own personal sound system. Everything works with pushbuttons. About the only thing it won't do is mix your drink and put ice in it.

With characteristic German thoroughness, the technical features of the Derby look like the government specifications for the Gemini command center. The unit has 10 transistors and nine diodes including stabilizers, whatever they are. Output with the six 1.5-volt batteries is two watts or, if you're plugged into the electrical system of an automobile, three. Of course, there is an indicator to tell you how your batteries are and a lockable bracket to keep the auto pilfering rate down. Detroit's been talking about a universal radio like this for years and, as usual, the foreigners beat 'em to it. Send all blank checks to: Robert Bosch Corp., 111 Crossways Park West, Woodbury, L.I., N.Y. 11797.

**Mud Flaps By Any Other Name**

You see a lot of so-called pony cars running around California these days equipped fore and aft with little metal splash guards. And with good reason. The severely tucked under fenders however stylish, violate a state law concerning minimum wheel coverage and the cops were issuing tickets like a Chinese lottery. Besides that, the



lower portions of these cars not only are continually mud splattered but chipped by flying stones. Now you can be a legal-eagle and protect your car with Durachrome's stainless steel splash guards. Their one model fits Mustangs, Camaros, Cougars, Firebirds and Javelins. Durachrome, Inc., 3499 East 15th St., Los Angeles, Calif. 90023.



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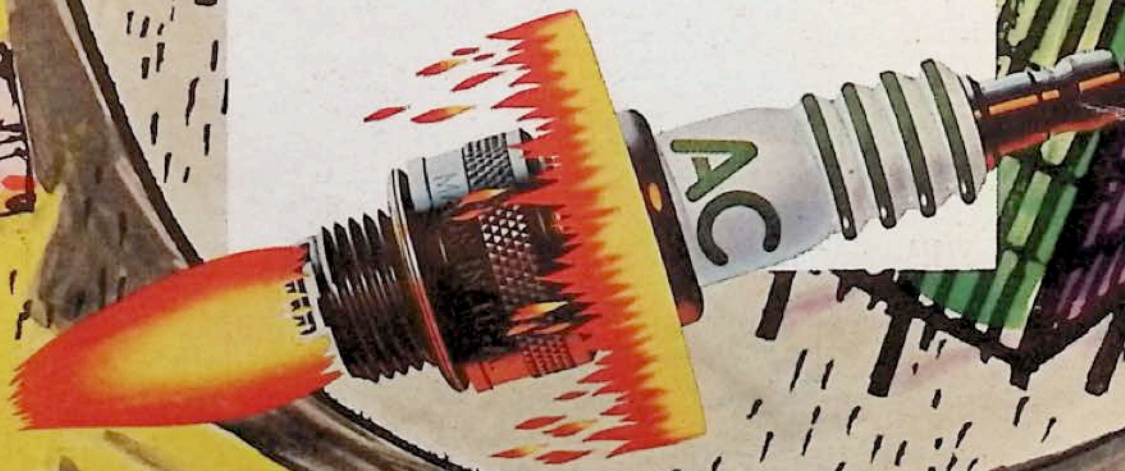


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