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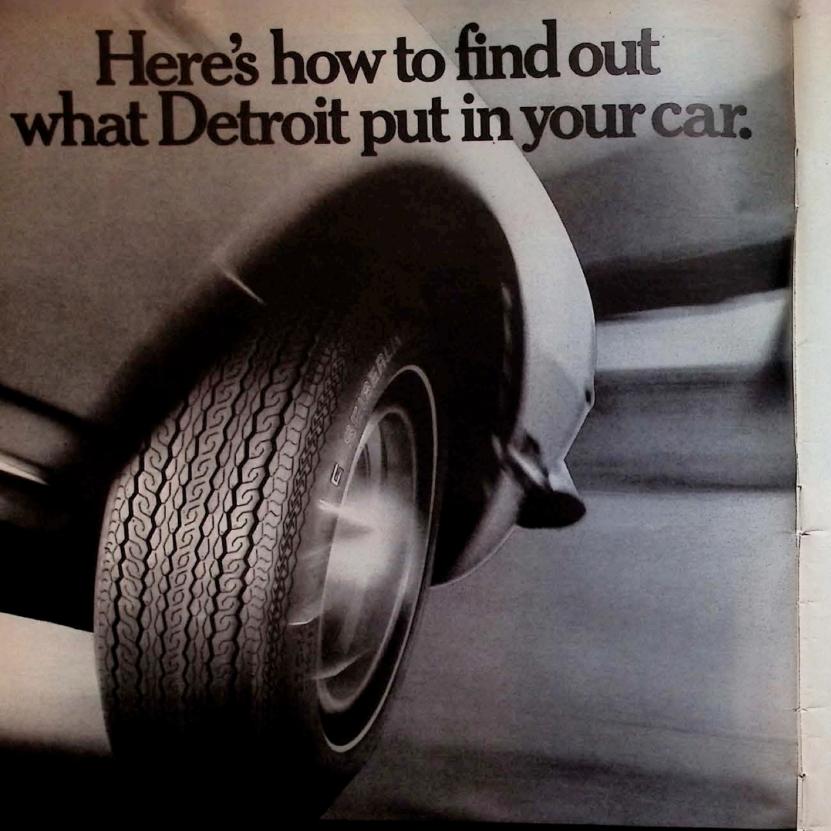
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OPINION & COMMENT

AT A STAFF LUNCHEON RECENTLY

from the publisher

A Driver Is A Driver Is A Driver. Don't You Believe It!

the subject of drivers and driving came up. Automotive subjects have a way of doing that when we get together. The younger members on staff were knocking old drivers (non-staff) as being the ones who caused most of the accidents mainly because of the way they hog the road, staying in the center lane at speeds slower than the normal flow of traffic. The older ones on staff - not in defense of the older drivers, necessarily - pointed out that as many accidents were probably caused by young drivers who drove faster than they should, weaving in and out of traffic to get where they are going in more of a hurry than necessary. Women, and particularly young girls, came in for their share of criticism as the fastest and most reckless of all drivers.

One sage staff member (I have to say that because it was I) observed that much of what one driver considers as bad driving in others is a relative matter. If you're in a hurry, then the slow driver, no matter what age, is "bad." If you don't normally drive too fast and you see other drivers, young or old and of either sex, constantly passing you on both sides, they're "bad." If you're a guy, chances are you'll consider most women as "bad" drivers, and viceversa if you're a gal.

All agreed that "drunk" drivers were the worst and were certainly the group of drivers who caused the majority of accidents. Various statistical studies continue to prove that one-half or more of the accidents are caused by drunk drivers, so it's more than obvious that drinking and driving do not mix. Every step necessary should be taken to inform drivers of this fact and to enforce drunk driving laws.

What this all boils down to, of course, is that drivers are not as good as they should be - or even think they are. What was left unsaid but needs saying is that every effort should be expended toward improving inept drivers who have been unleashed on our highways in one form or another. With all the concentration by safety "experts" and authorities on the improvement of car interiors for "survival," too little attention is being paid to driver training, driver licensing and ways of improving the standards of our current drivers.

On the weekend following the staff luncheon, I had an opportunity to drive a Toyota 2000 GT over a 500-mile route that took in winding hilly and mountain roads, 6-lane divided Interstate highways, 2-lane desert roads and 2-lane rural roads. The comments about drivers were on my mind as I enjoyed the beautiful handling and responsive machine (May, '68 MT), and I consciously began to notice what other drivers were doing (being careful, however, to watch my own driving first and foremost). Some of what happened was undoubtedly caused by curiosity regarding the car - like riding the Toyota's bumper to see what it was -BUT, there can be no excuse for these other stupid moves: 1) refusing to move over for mile after mile on a mountain road, even though a line of cars built up behind and numerous "turn-outs" were available; 2) refusing to move over to a lane reserved "for slower cars" with no cars in front that the driver might have been excused for wanting to pass himself; 3) allowing a child to hang out - yes, hang out! the window of a car doing about 45 mph; 4) driving into a turn with a VW faster than what felt "comfortable" with the Toyota (admittedly, this could have been an ego-building crutch for that driver); 5) suddenly cutting into the inside lane of a 4-lane divided highway as I attempted to pass, causing a sharp application of brakes (thank God for those powerful discs!); 6) not observing the centerline on blind curves; 7) changing lanes too abruptly and in many cases without signalling; 8) tailgating; 9) weaving from lane to lane of the 4 lanes of an 8-lane freeway; 10) looking everywhere but straight ahead while driving; etc., etc.

And we let the safety "experts" and legislators tell us if we just "clean up" continued on page 70



Under the hood are all the King's horses.

A car that has a heritage of winning over 500 international events including the '67 RAC World Rally Championship (third time in four years) has to have something rather racy under its hood.

In the case of Ford's Model C Cortina GT, it's the engine. It's an all-new 89hp 1600 cc OHV 4-cylinder engine that incorporates an all-new Cross-Flow cylinder head with intake and exhaust ports on opposite sides for greater thermal efficiency, a Bowl-in-Piston combustion chamber that creates better control over combustion shape, volume and surface finish, a Five-Bearing crankshaft that reduces stress on moving engine parts, tuned headers, a high-performance camshaft and a two-barrel Weber carburetor. But the GT engine isn't the whole GT story.

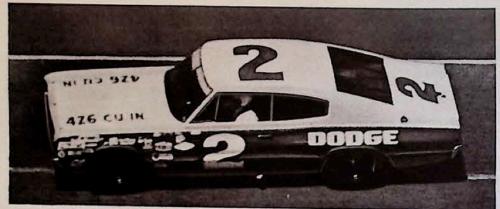
The rest of the car includes: a fully synchronized 4-speed gearbox with console mounted shift lever, front disc brakes, an extra-stiff suspension system with rear radius arms, radial ply tires, bucket seats, a fully instrumented dash and GT racing stripes. The Cortina GT is built in the same sensible tradition as Ford's Model A.

And it's at Ford's local Cortina dealers now. Just holding its horses 'til you get there.

Ford's Model C

Iggy Katona carries "Dodge Fever" to another winner's circle as he captures the ARCA National Championship in his Championequipped Dodge





Don White captures his 2nd USAC Stock Car Championship-the fifth stock car championship of his careerwith the Dodge-Champion combination

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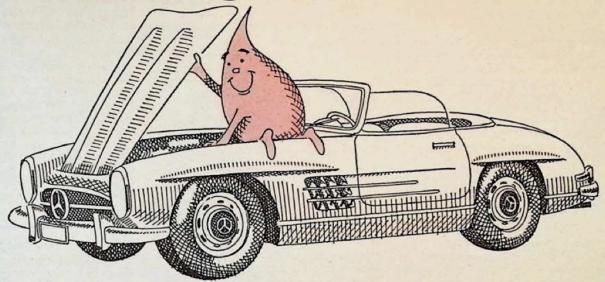


CHAMPION SPARK PLUG COMPANY . TOLEDO, OHIO 43601

ALL ABOUT OIL

NUMBER 2 OF A SERIES

How Oil Seals



When, and if, the average car owner thinks about oil, his impression usually is that oil's sole purpose in an engine is to lubricate. Unquestionably, the lubricating function of oil is vital to the operation of a car's engine (as we discussed in the first article of this series).

But because of the design and operation of an engine, it is also essential that oil have the capabilities of sealing, cooling and cleaning. And while each of these requirements directly affects an engine's performance, the ability to seal has the most immediate affect on power output.

The reason for this is found in the fundamental theory of internal combustion engines whose source of energy is the expansion of gases created by the combustion of fuel. When this fuel is burned in the engine's combustion chambers above each piston, gases are formed under high pressure. It is the pressure of these gases against the head of each piston which causes the engine to run. It is necessary, therefore, to prevent these gases from leaking past pistons and piston rings if the engine is to operate at maximum efficiency. Due to the nature of metal, it is impossible to achieve an effective seal by strictly mechanical means.

Even finely machined metal has jagged surfaces when seen under a microscope. When these microscopically rough surfaces oppose each other, as on piston ring against cylinder wall or piston ring against piston groove, channels exist that permit leakage or blow-by of gas pressure. It is oil's job to fill these tiny channels and form a seal against gas pressure. How effective oil seals depends on its characteristics.

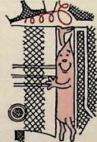
In its role as a sealant, the primary requirement of oil is the ability to resist excessive thinning. If an oil becomes too thin under the high temperatures created during engine operation it will "give way" under the pressure of gas, permit blow-by and the subsequent loss of engine power. The measure of oil's resistance to excessive thinning is its viscosity index (often called V. I.).

Viscosity is that physical property of a fluid which offers resistance to relative motion of its parts. Viscosity stability is an oil's physical ability to maintain consistency under specified conditions of operating speed, temperature and pressure. Viscosity is directly related to the thickness of the film which oil assumes as

MOTOR OILS

it circulates through the engine. It is this oil film that acts as a sealant and when we realize that the film is often one hundred times thinner than the diameter of a human hair, we can appreciate the

need for strength. This strength can be called viscosity stability. Thus, the capacity of oil to maintain its resistance to thinning and giving way under heat and pressure is imperative to proper engine performance.



Many oils seek to assure a high viscosity through the use of additives called V. I. improvers. Unfortunately, these artificial agents usually lose their potency under the stress of engine operation. The car owner's most reliable guide to selecting an oil that offers reliable protection against thinning, loss of sealing ability and consequent loss of engine power is the oil's natural viscosity stability. The fact that engine oils refined from the richest Pennsylvania grade crude oil offer highly stable viscosity without artificial improvers is generally recognized.

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Corvair Might Be Alive and Well in '69

General Motors has a study program to replace the Corvair with a frontwheel-drive car in 1972 - but so far it's just on paper. The current Corvair is still a mighty sick car in the marketplace. Sales this model year will total about 12,000 down from 27,000 in 1967 and 293,000 in 1962. But GM officials insist there will be a 1969 Corvair. How do you spell "Stubborn?"

Governors: One Way or Another

The auto industry cried "No" with a loud voice at the thought of speed governors on cars. That was Detroit's reaction to a formal proposal for such a device from federal auto safety officials. The Automobile Manufacturers' Assoc. (AMA) said the whole idea was ill-advised. First of all, because relatively few accidents are caused by speeding, the AMA noted, adding that most fatals are caused by drunk driving. American Motors said it would be too costly and Chrysler said it would "present an irresistible challenge" to people who wanted to go speeding and would try and deactivate the device. As an alternative, the AMA sug-

gested a warning system that would sound an alert when a car exceeded the highway speed limit. "Such a system might, for example, cause the blowing of the horn and the flashing of lights," the AMA suggested. Think of a car's horn and lights wired up this way! Get one mile over the speed limit and it would be like making a public confession. But maybe this would be illegal because isn't there something in the Constitution about self-incrimination - the Fifth Amend-

Is Ford Serious About Steam?

Ford's been interested for some time in steam-powered cars. It got the first one a year or so ago from a Pennsylvania firm. But what's more interesting is the fact that Ford recently signed a working agreement with a Massachusetts firm, Thermo Electron Corp., for joint development of a small steam engine. Ford emphasizes that initially the project will be aimed at low-power applications, including outboard motors and golf carts. But Ford is also ready in case something more should develop. Part of the agreement is a

royalty license to Ford covering car, truck and certain tractor applications of any steam engine made by Thermo Electron. Ford also will be granted options to buy up to 100,000 shares of the company. Ford's interest is evident by this, plus the fact that it has agreed to provide up to \$1 million worth of engineering help.

Rumors:

- Imperial will have a new engine: True. Chrysler is working on a new 480-inch powerplant for this car but it's not expected until 1970. It would be the largest in the U.S. industry, topping Cadillac's 472 inches and the 460-inch engine on the new Continental Mark III. Current Imperial engine is 440 inches. When the "480" is ready it will also be available on the Chrysler.
- Cadillac would like to drop the front-wheel-drive on the Eldorado: True. Cadillac is developing a normal drivetrain for use in the early

More Safety Item Cost Skepticism

That \$23 price hike which went into effect in January when the government ordered the industry to put shoulder belts on all cars has come under scrutiny by the U.S. Bureau of Labor Statistics. The BLS said the belts actually accounted for only \$8 of the increase, and that includes allowing for installation and mark-up profit. It all serves to lend substance to charges by auto critic Ralph Nader and some senators that the belts actually cost the manufacturers only \$3, a charge denied by executives here. One thing is clear: those safety standards published by Washington are giving Detroit a per-fect excuse for hiking prices.

Maturing of a Rambler

Some of those once-compact American Motors cars are getting bigger. The 1969 Ambassador is being stretched four inches. The new overall length will be 206.5 inches. The wheelbase will be up an equal amount. How times have changed! There was a big to-do in 1962 when reporters gleefully learned that the compact Rambler was going up four inches with the 1963 models. But it turned out that while the wheel-

Exemplar I, a prototype car commissioned by the Bridgeport Brass Co. Division of National Distillers and Chemical Corp., has silicone bronze exterior trim and 11 different copper alloy combinations available for decorative applications. It also features several engineering innovations, including twin copper and brass radiators and copper disc brakes.



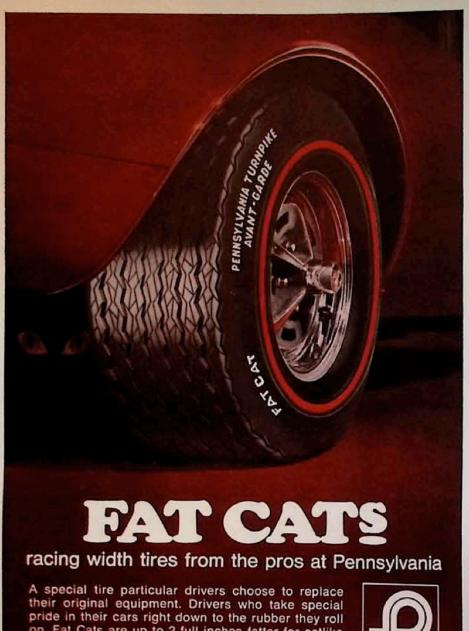












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INSIDE DETROIT continued

base was being lengthened that much, the overall length of the car would actually be down a couple of inches. The wheels at AMC at the time took great pains to point this out, even giving reporters tape measures so they could check for themselves. That won't happen when the 1969s come out because the new team at American is more interested in selling cars than in defending the compact car image with which the company once prospered. As a matter of fact, the 1969 Ambassador will be 18 inches longer than the 1963 model. So much for sacred cows!

Briefs:

- Chevrolet will have a new 3speed automatic in 1969. It will be used for engines up to 350 cubic inches. Buick will build its own version. The transmission will also be available on the small Pontiacs and Oldsmobiles.
- The 1969 Pontiac Grand Prix will have a concealed radio antenna. Competitors are trying to find where it will be hidden. Those in the know aren't saying much, except to insist it's not in the trunk lid. Some say it will be in the Apillar around the front windshield.
- Is Chrysler trying the back door approach to the Japanese auto industry? No American auto company - or any outsiders for that matter - can build cars in Japan. But word from Japan is that Chry-sler's French subsidiary, Simca, is negotiating to buy Toyota engines and is talking with a Toyota affiliate about importing some automobile parts. However, Simca officials in Paris flatly deny the report.

Bunkie Isn't Static

Bunkie Knudsen didn't waste time taking charge at Ford Motor Co. One of the first things he did was to look at some future product programs and suggest changes in them. Stories have been flying around town about some of the comments he's supposed to have made. One report had him looking at plans for the 1970 T-bird and commenting only, "Change it!" And, as rumor has it, he looked at one 1969 model and said, "If that's all you're doing with it, why bother doing anything at all?" That from the new Ford President.

Shortly thereafter, Bunkie really went into action. He has already ordered a new feature for the 1969 Thunderbird - only a matter of weeks from production. He triggered a crash program to equip the new T-bird with an

People write to



Have a question about motor oil? Lubricants? Engines? Ask the Pennzoil experts...

Letter from Vietnam. Last year I bought a 1963 Stingray. It's always had Pennzoil in it. My dad wants to put the car on blocks in his garage until I get back from Vietnam in January, 1969 and try to preserve it with special oils. I want him to drive it around the block occasionally. What do you think?

J.F.D., F.P.O. San Francisco

The best protection for your engine would be to have it run occasionally. That would be a lot better than trying to preserve it with special oils. It would also circulate oil in the transmission and differential to coat gears and prevent rust. A special preserving oil would not be necessary.

Mix Doesn't Match. A friend of mine puts oil in his gas tank and claims he gets better gas mileage, better starting in winter and a longer lasting engine. Sounds pretty good, doesn't it? Should I do the same?

E.R., Minneapolis, Minn.

Usually, the addition of oil to gasoline is not a good practice, especially in late model cars. Modern high-powered engines require the use of a premium fuel at a given octane rating. Mixing oil with gasoline, however, lowers the octane value and can contribute to inefficient engine operation. Use a good quality motor oil and a good quality gasoline ... and forget about mixing the two.



Short 'N Sweet. Is Pennzoil Z-7 okay to use in all engines? R.T., Cypress, Calif.

Pennzoil Z-7 is the proper type of oil to use in all four-cycle gasoline and most diesel engines. In certain two-cycle engines (like outboards) where fuel and oil are mixed together, Z-7 should not be used, but rather a two-cycle type oil which contains different additives. Ours is called Pennzoil two-cycle oil.



Sick Stick. Explain this, will you? My six-cylinder car calls for four quarts of oil at each oil change. Yet my dipstick reads FULL after I put in three quarts. And whether the engine is warm or cold, the dipstick reads a quart over if I put in the prescribed four quarts. How come?

R.D.D., Salt Lake City, Utah

Occasionally, the wrong type of dipstick is installed in an engine. Or the tube holding the dipstick could be of incorrect length or sliding into the pan. We suggest that you check all three possibilities.

Goodbye Sludge. I am rebuilding an engine that has accumulated a lot of sludge. How do I get rid of it? And what weight oil should I use after the engine's rebuilt?

D.G.C., San Jose, Calif.

Boiling out your engine will remove the accumulated sludge. And after the boiling, rinse your engine with clean water and dry it as soon as possible to prevent rust from forming. As extra rust prevention, spray the cylinder walls and other engine parts with a light coating of detergent SAE 10W oil before you put the engine back together again. If the engine is completely rebuilt, use SAE 20 detergent oil.

Friendly Persuasion. Friends have told me that since I've switched from a hydraulic cam to a high RPM solid lifter cam, I should now use a nondetergent oil. They say the only reason to use a detergent oil is to keep the hydraulic lifters clean, and that a detergent oil tends to foam at high RPM. True?

W. W., Robins AFB, Ga.

Nope. The use of non-detergent oil often results in increased cam and lifter wear, due to the absence of proper antiwear compounds. Aside from keeping the valve lifters clean, detergent oils contain compounds that retard cam and lifter wear. As for foaming, you don't have to worry about it with Pennzoil Z-7 Motor Oils. They contain foam inhibitors.

Over 65 Blues. I have a 1961 Detroit car with everything on it. I can drive it all day at 65 m.p.h. But when I hit 70 or more, the hydraulic lifters clatter. I've tried all those additives. Nothing helps. Help!

U.E., Orange, Calif.

It sounds like some of the springs in the hydraulic lifters are weak. That's not the car's fault. It can happen from normal engine wear. The best way to stop the noise is by replacing the weak lifters. Or don't go over 65.

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MOTOR TREND/JUNE 1968 13

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INSIDE DETROIT continued

electrically-heated rear window. The wires running through the backlight will serve as a defroster and defogger. It's been used before on some highpriced European cars such as the Rolls Royce and the Maserati, but is new to the American auto industry. The reason Knudsen's so hot on the idea: Bunkie knows Pontiac is planning the same thing on its 1969 Grand Prix. Having it on the T-bird will wipe out a Pontiac claim to another industry "innovation." The electric rear window is such a last-minute program at Ford that it may not even make Job 1 on the T-bird - the startup of production. But some will be ready by introduction time in September. The device will not be standard equipment. Rather, it will be sold as an option, probably for around \$50.

Bunkie Knudsen also knows a good man when he sees one. Take Jack

Rumors:

- The top-of-the-line American Motors' Ambassador model will have disappearing headlights next year: False. However, AMC is planning to have them on the 1970
- General Motors' 1969 styling change is not as major as originally planned: Probably true. Word is that GM was scheduling sweeping new designs for its full-size cars, then backed off because of the safety controversy a couple of years ago. It is known that GM isn't increasing the curvature of the side window glass on the standard cars, while Chrysler and Ford are next

Humbert, for 10 years the key man in the Pontiac styling studio of General Motors. No sooner had he taken over as Ford president after quitting GM than Knudsen tried to hire his old friend. GM must have pushed the panic button at the thought of losing Humbert for they quickly gave him a big pay raise and a promotion - a new job as head of Buick-Olds-Pontiac styling. Word is that Bunkie, unphased at losing one bid, is still looking for some other key GM people, particularly in the manufacturing area. There have been some wild - but wholly unsubstantiated rumors going around that he would like to hire John Z. DeLorean from Pontiac and Pete Estes from Chevy. Come to think of it, Bunkie probably would like to hire them both but it's unlikely he could entice them to Dearborn. Some Ford people note, however, that there's a spot open on Dearborn's organization chart for a group VP in charge of domestic car divisions.

An electronically controlled Mustang is going to be road tested within a year. Ford is doing the work in a joint project with the Massachusetts Institute of Technology. The car will be tested on a 2-mile stretch of experimental highway to be built near the MIT campus west of Boston. A computer will regulate the car's speed and tell it when to stop. A sensing device on the side of the Mustang will pick up electronic impulses from relay sta-

- A 2-door hardtop will be added to the Chevy II lineup in 1969. True. It's another sign of GM's efforts to make the "II" more appealing as a competitor to the imports. There are reports that GM is considering cutting the discount rate-or dealer's markup-on this car, also.
- Dodge is working on a sporty car. True. It's expected to be introduced as a 1970 model. The Barracuda will be all-new that year and Dodge will get its own version. Latest name is "Challenger," though others are considered such as "Bobcat" and "Bearcat."

tions along the road. The impulses will come from the computer. It will be the first full-scale test by one of the auto companies of the "automatic car," an idea long discussed as a means of feeding more traffic along a given roadway. continued



AMX-GT, so far without engine, is nice exercise.



Leyland Experimental has mid-engined

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your engine's toughest moments.

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INSIDE DETROIT continued

New Safety Direction

General Motors is working on a way to protect people in side-impact accidents. Too often, such a crash caves in the side of a car, injuring or killing the passengers. GM is thinking of adding a U-channel member inside the doors at bumper height to give the car more crush resistance. It would add 38 pounds to the weight of a car. The cost might argue against this idea. It's likely however, the development would be hailed by safety men in Washington and elsewhere. Arnold Siegel, a highlyrespected safety researcher at UCLA, has said finding a way to protect people in side impacts represents the next major challenge facing automotive safety engineers.

Rumors:

- Intermediate Chrysler Corp. cars will have plastic grilles next year. True. But that's all that will be changed, except for the tail lights and some ornamentation.
- Ohrysler's full-size '69s will stick with vent-type side windows, except for the 2-door hardtop. True. Even though all Ford and GM fullsize cars will have the ventless type.
- Base V-8 for the full-size Chev-rolet next year will be the 327-cu.in. version. True. It will not be the 307, nor will it be phased-out by the 350.

"They Don't Make 'Em Like . . ."

Taping the cars together - that's what Ford is doing. It's using a super strength adhesive tape to attach some exterior trim parts to new cars. The tape is being used instead of metal fasteners. Ford engineers say the double-coated foam tape is being applied to nameplates or name letters, plastic reflectors and a stainless steel molding. It is then bonded to painted steel surfaces by pressure. The leading application for the tape is in letters and decals on station wagon tailgates and sedan trunk lids. Engineers regard it as a quality improvement for the customer because using the tape eliminates holes in the metal that formerly provided avenues for water, dust and rust tape, which is made by the 3M Co.

Anti-Skid and Front Disc Brakes

start of the model run, Heitman noted.

"The rate is definitely growing and will be substantially more in 1969," he said. As for anti-skid systems, he said in an interview that with a crash program these could become available on American cars as early as the 1970 models, but that probably the earliest will be the 1971 models. Bendix, TRW and Kelsey-Hayes are in a hot competitive race "and we hope we win," Heitman said. Bendix is aiming for a device that would be used on all four wheels, while other competitors feel it should be installed on two wheels first. then used on all four wheels later. Bendix is also working on control systems for electric cars. "All four auto companies know what we're doing, are very interested and think we should continue at our own expense," he said. "It's obviously something we can't



Nic-L-Silver has good looking electric.

Memo to GM President Ed Cole:

Remember saying something about how safety and racing don't mix, and this is why you don't want to get back into all-out competition again? Did you notice who Bill France had as his Grand Marshall for the Daytona 500? Alan S. Boyd, the secretary of transportation who oversees the National Highway Safety Bureau. Boyd apparently doesn't see any conflict between safety and racing, summing it up this way at Daytona: "It's a great develop-ment ground for motor vehicles and highway safety . . . the people who drive on the streets and highways in this country should learn to drive following the rules and keeping their cars maintained and having the proper attitude the way these (race) drivers do, and we would have a much safer highway system in this country."

Good News for Small Operators

The federal legislation to exempt to enter. Ford is the first to use the small auto companies from the safety standards finally made it through the House, a few months after the regulations actually went into effect. Thus, By 1971, all cars will have front disc brakes, says Charles Heitman, execumal have been violating the law but tive vice president for automotive and safety officials chose to ignore this automation at Bendix. The installation since it was clear there was no real rate this year may hit 10%, but was opposition to the bill and that it was only a matter of time until it became only a matter of time until it became

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BLMC Still Changing

BLMC is in the beginning of a program to realign and streamline its product offering in both the car and truck field but Jaguar is in an enviable position, since — with the exception of the low-volume Austin Princess and Rover 3-liter — there is no remotely luxury-class car in the super-corporation.

As with other names like Wolseley, Riley and Austin, the corporation is likely to retain a whole spectrum of medallions on virtually the same simplified line. Whatever engine goes into the newest Jag will also go into the big Rover and the Princess.

Our informant claims the fate of Austin-Healey is in the balance, as is the Triumph Vitesse. He says unification of Leyland and BMH in the U.S. is a long way off so you'll continue to buy your Triumphs and your MGs at separate venues.

Triumph Gets Some Life

Triumph's 250 and the 1-off 250K are examples of a new type of "hybrid." Both these cars were results of the American branch of the company modifying the existing product. Though this model has unusual lighting the car conforms to lighting standards for passenger vehicles; as a race car, there was no need to put on side running lights.



Audi Might Try Agai

Don't be surprised if one of the big imports introduces the Audi front-drive to this country. Market studies are being made and the car would come into a segment of the market not now inhabited by this company. Survivor of the Auto Union complex, Audi is quite modern in design but may be underpowered.

Guess who's going to build an electric car? The Russians. An official of the Soviet auto industry says researchers have a big project going to develop such a vehicle. What's more, they hope to have a practical electric car developed by next year.

Note To Married People

If your baby is born in a VW the company will give it a \$100 bond, we understand. According to VWoA, about 20 qualify each year. Official project name: babies-born-in-Beetles.

Import Prices Higher

Import cars may cost more very soon. The importers are worried that the federal government will hike the duty on foreign cars brought into this country. The result would obviously be to hurt import sales. The reason would be to slow the flow of dollars abroad, thus helping to solve the nation's balance of payments problem. Japanese press reports say some of that country's diplomats were told by American officials that the present duty would go up. This worries Detroit manufacturers who fear such action would invite retaliation against American cars.

British Turbine Emphasis Shift

Rover's gas turbine development program in Britain is being redirected from cars toward heavy-duty trucks. It's a part of the reshuffling going on in the British auto industry. First Leyland acquired Rover. Then British Motors and Leyland merged to form British Leyland Motor Corp. (BLMC). Now comes word that the former Rover Gas Turbines Ltd. has been re-

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organized under the new name Leyland Gas Turbines Ltd. so that it can concentrate on developing a low cost gas turbine powerplant for heavy vehicles. Spokesmen for the firm in this country say they believe there'll be a large market for gas turbine powered trucks and buses in the 1970s and 1980s.

Watch Japan In '70

The Japanese cars are going to be very different for 1970. It's because they want to have something new for Expo 70 in Osaka, Japan, our informant tips. Anyone with an evolutionary change is going to lose face. Incidentally, the fact that Japan is No. 2 to the U.S. in motor vehicle production is something that must be interpreted. For instance, only 38% of that production is passenger cars (Germany is 92% cars, U.S. 82%) and, of that 38%, more than half have engines below 1000cc.

Saab and Volvo have the ultimate anti-theft lock under study. It is a lock without a keyhole, opened by matching magnets in the key and the door.

Britain has come up with a device called a Muni-Quip which "brings within reach of the smallest municipality the sophistication of speed timing." The fuzz can nail you from a moving car with this one, the makers claim.

Ford of Europe, a comparatively recent concept which aims at integrating Ford facilities in the various countries to share manufacturing, design and production is beginning to bear fruits. A remote-shift lever gearbox designed at Ford Taunus in Germany is being made for one model of English Ford in England. Future plans call for common engines and running gear in more and more models. But body styling will remain different because of Ford's conviction that each nation will respond to specialized styling.

- Transistorized ignition as standard could be the next selling point for some of the imports. Both Bosch and Marchal have systems which are meant especially for economy cars. They are not as complicated as some of the capacitive discharge ignitions offered Stateside but they do the job for less original cost.
- There's a voltage regulator on the Mark III Continental with microelectronic circuitry so small that it fits on the back of the alternator. It is said to prolong the life of a car battery. Research on English Ford's Comuta electric car is said to have contributed to development of this unit, about the size of a pocket watch.

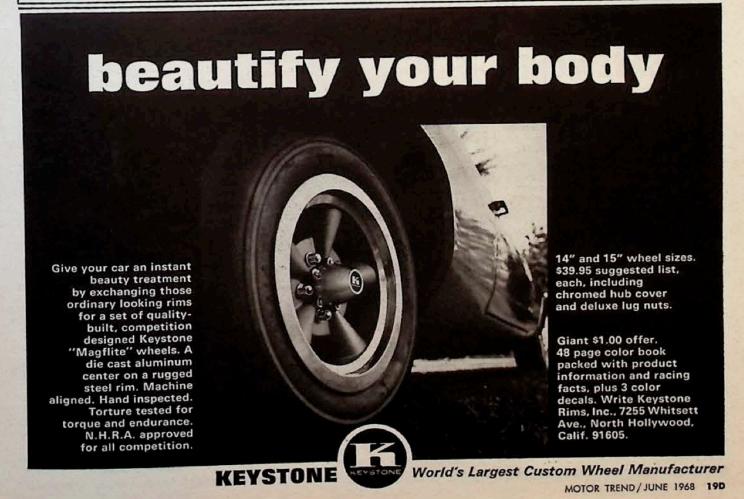
For Armchair Enthusiasts

Redifon Air Trainers Ltd. of Aylesbury, Buckinghamshire, has a new type of car driving simulator which permits the learner to select any "route" he wishes. All controls and instruments in the Auto-Tutor function as in a real car. View of the road ahead is provided by a 3-dimensional moving land-scape model linked to the driver's controls and rotating with the movement of the steering wheel.

This one is so realistic that the simulated engine noise varies with accelerator pedal pressure and it is possible to "stall" the engine. Even reverse gear works. The unit, complete with brake reaction tester, comes for under \$2000

delivery in the States.

France First Again Which overseas country leads in parking meters? France by far. The country's northern part has most of these, but now the meters are being installed on the Riviera in increasing numbers. They are closer together and, therefore, a Cadillac limousine might impinge on two meters. Just thought we'd warn you Cadillac limousine owners. Where do the meters come from? One American firm, Duncan, supplies 65% of the world's parking meters. It has a new model called VIP for Vault Insured Protection. The way a thief can get the money out is to saw the meter down. Every Western Euro-





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OVERSEAS REPORT

continued

pean country has parking meters and most enforce time limits more strictly than in the U.S.

 Most imported car companies have cancelled plans to take dealer groups back to the home country as part of their cooperation with the U.S. effort to redress its balance of payments problem.

More On V-12 Jag

The long rumored new Jaguar series is supposed to be introduced at the London Auto Show this Fall. It will not supplant the E-type but will attempt to instill new glamour in the sedan line. Since it is as much an export item as for domestic trade, U.S. safety and smog standards will determine whether or not it gets the V-12 Jaguar engineered even before it becomes a part of British Leyland Motors.

The Geneva Show

Because it is held on a neutral ground in a country without its own automobile manufacturers, everyone concerned with the automobile industry always watches the Swiss market with great interest. It seems to reflect European sales trends and innovations. The Swiss buyer - being also the most difficult, demanding type - can supply a sure source of information on the qualities and defects of the cars purchased by him. An interesting indication was the fact that the Geneva Show





(Top) Lamborghini's 4-seater, highlighted later, was the hit of the show for luxury production sedan aspirants. (Above) Popular Spyder and Coupe versions of Fiat's 850 Series have been improved by 900cc displacement engine which now gives 56 hp instead of 48. Coupe has a top speed of 90 mph, Spyder will do 96. Cars now have different front treatment. Coupe has twin lights.





(Top) Recent sensation de Tomaso Mangusta by Ghia is now emphasized by roadster. (Above) Renault has a new R16 T.S. for the sporty minded. With 1600cc and 92 hp, the car will now do 100 mph, 0 to 50 in 8 seconds, 0 to 60 in only 13 seconds.

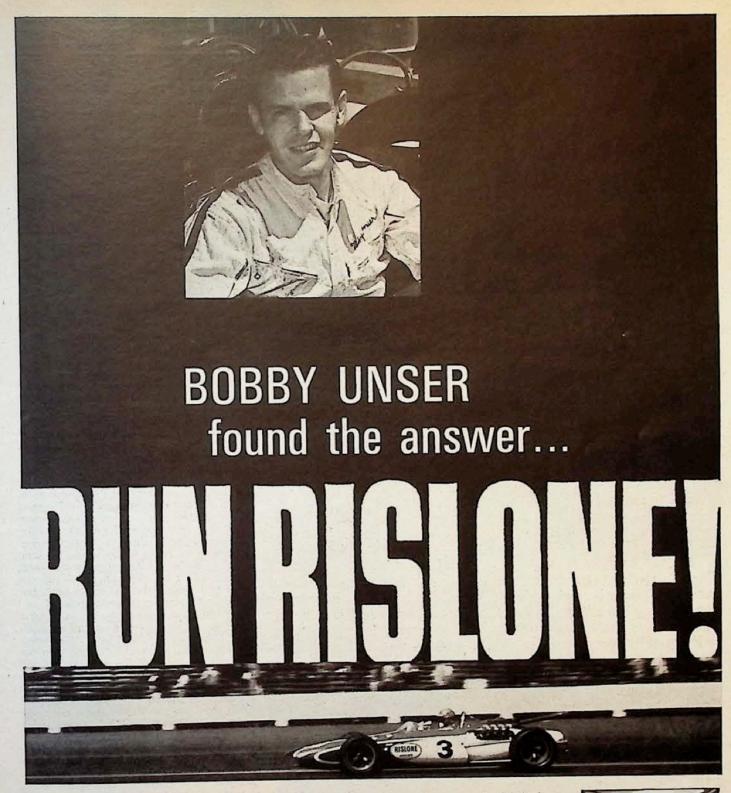
was chosen by a group of 84 automobile manufacturers from all over the world (not including the American industry) for a very special conference dealing with the safety problem. All the directors of those companies, a truly unique achievement, announced there to the press that from now on they were intending to work very closely together toward the standardization of safety advancements and techniques. This is a very significant move which will no doubt help the various governments enforce the various safety measures.

Germany has been for many years now the No. 1 import country for Switzerland, but England and Italy are now progressing rapidly. Japan is also selling in Switzerland, and although the sales of Japanese cars are still modest, their rise has been spectacular with an increase from 192 units in 1966 to 876 units in 1967.

For a small country which totals 153,000 vehicles sold in 1967, Switzerland buys a surprisingly large amount of expensive cars, as many, in fact, as in the USA (this, of course, does not include American luxury cars). For the record let us point out that in 1967 the following high-priced cars were sold in wealthy little Switzerland: 49 Rolls-Royces and Bentleys; 58 Ferraris; 33 Maseratis; 23 Lamborghinis; and 17 Isos. The American prestige cars did not do too well comparatively with Cadillac selling 31 cars, Lincoln nine and Chrysler Imperial five. Plymouth was the No. 1 American seller, followed by Chevrolet and Ford Mustang.

The 1968 Geneva Show was again up to its traditional standard of quality with several nouveautes presented there by both the coachmakers and the automobile manufacturers.

show photos continued on page 28



He found the answer to the kind of car preparation that wins USAC championships . . . never run without RISLONE. A car finishes first at season's end by finishing races all season long. And the RISLONE Special finished in the money more often than any other car, often enough to win USAC's 1967 Big Car Championship.



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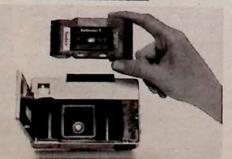
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PRODUCT TRENDS

Kodak



book of the month - the year?

Here is the automobile. Here is art. Here is color and excitement and action shifted just an edge from past the looking glass to precisely here, before our eyes in Automobile Year No. 15 distributed by Walter K. Haessner and Associates but printed in Europe (\$32.50). The automobile as art is beautiful. Dennis Hulme leaps off the dust jacket past your right ear in a Repco Brabham V-8 and slams into the esses, beyond the joints and angles of the pits just before the trees. In the competition section is Jim Hall's Chaparral where it damn well belongs - with Texas license plates - resting quietly in the Italian sunlight at the Targa Florio, with the rear cowling off so you can see how the airfoil is fitted. No photographer in the States ever got so close.

There are two page 71s. On both are a picture of a young couple in a silvery Lamborghini Marzal stopped by a little mirrorlike pool on the road to Udine with the mountains rising in the distance beyond the green tree-covered plain. When you first glance at the scene it appears as though the Marzal is reflected in the pool but then you see the image is not quite duplicate, that the girl has the gull-wing door open and you realize the whole thing has been staged to catch your eye - make you look and think. Additional reasons to stop and taste the crisp Bertone lines seem almost unnecessary. Perhaps it was unintentional that two page 71s were bound into the book yet it is the type of picture the editors might feel should be carefully removed and framed for display. It's pretty to think so anyway.

Automobile Year is like that. There are Fiat Dino 2000 Spyders by Pininfarina backdropped by weathered medieval castles; 50 years of BMW; Cars of the Year where the American examples somehow look awkward and gawdy even against the Japanese; detailed specifications for most of the world's production machines; and fantastic international competition coverage. It is a very creative book for the aficionado. And as you feel the smooth slick paper, paper that has a real snap of

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Obviously, there's more to a car than cylinders. There are many other things in the Renault 10 that are made the way they're made to make sure they won't give you any trouble later on.

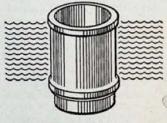
It has 5 main-bearings supporting the crankshaft.

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Cobra, 1965-63 (R)	ST-721	5.60
Cobra, 1963 (To Ch. CSX 2125) (F)	ST-705	9.75
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Jaguar, 1966-64 4.2 Litre "E" Type (F or R)	ST-717	7.60
Lotus, 1966-64L Elan Series 2 (R)	ST-708	5.05
Lotus, 1965-63 Super Seven (F)	ST-707	6.20
Lotus, 1966-64L Elan Series 2 (F)	ST-754	5.60
M.G., 1967-63 M.G., Midget, M.G. 1100 (F)	ST-745	5.05
Mini-Cooper "S", 1966-64 All (F)	ST-747	5.55
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Porsche, 1966-63 901, GT 904, 911, 912 (R)	ST-735	4.15
Porsche, 1966-64 901, GT 904, 911, 912 (F)	ST-736	4.15
Shelby, 1967-66 Mustang G.T. 350	ST-730	9.00
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Triumph, 1967-66 GT-6 (F)	ST-719	7.50
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PRODUCT TRENDS continued

substances to it as you thumb, identify the special smell of rotogravure printing and watch the pack come at you out of the mist at the Dutch GP, you wonder why so ancient a civilization remains so fresh.

in getting to turn 6 on time

Question: when is a bicycle not a bicycle? Answer: when it's a Bronco Colt. The new Bronco Colt, built by Garelli and exclusively imported by Engine Specialists Inc., Cornwell Heights, Pa., is the successful combination of a dependable gas engine to a beefed-up bicycle frame.



Powered by Garelli's world-famous 21/2hp 50cc engine, the Colt knocks out 225 mpg (got that?) economy with a top speed of 35 mph. The 1-cylinder 2-stroke engine features simplified starting and shiftless automatic transmission. There is virtually no exhaust and no noise, and steering and driver control are reliable and effortless. Other trick stuff includes internal expanding safety brakes, 2-beam headlight and tail lamp, electric horn, telescopic front fork, adjustable rubber seat and full chain covers. Weight is a reasonably light 88 pounds making the Bronco an easy stash on the back or front bumper of your camper. Fuel tank capacity is 3/4 gallon (who needs more than a 168-mile range on a bike?) and colors are green, yellow, orange, purple and red.

Priced out-the-door at \$175 retail, the Bronco Colt offers a previously unavailable form of convenient, economical motor transportation for students, beginners, vacationers and the like. Although the bike must be licensed for street driving, inspection is unnecessary in most states.

in restoring america to its former greatness

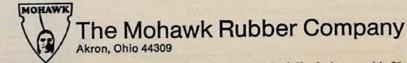
In September of 1966 we heard massmedia philosopher Marshall McLuhan lecture eloquently at the University of Colorado about the plight of man as he races headlong toward the integrated space/electronic age. One of his most intriguing points was that as we go further and faster into unfamiliar realms there will be a corresponding conservative backlash where the individual will seek the comfort of simpler, earlier times they understand. Manifest by reversion to modes and fashions of the recent past, McLuhan noted the current mania for Tiffany lamps, colonial furniture, restored cars, even completely renovated cities.

Now you enterprising Americans, who want to turn your avocation into a regular thing, even if you don't know McLuhan from Ravi Shankar, may find this restorative deal may be just your bag. Take Thomas J. Lester. Here he is a noted car



cision control and dual whitewalls are standard. If you buy either XR-70's or Ultissimos and then win a set, your money will be refunded.

exciting GT Racing Decall See your Mohawk dealer!



No purchase required! Here's all you do:

Complete entry form available from participating Mohawk dealers, or write your name and address and the name of your Mohawk Tire Dealer on a plain 3" x 5" piece of paper. Enter as often as you wish, but mail each entry separately to: Mohawk GT 500 Sweepstakes, Box 178 New York, N. Y. 10046. Winners will be piece of paper. Enter as often as you wish, but mail each entry separately to: Mohawk GT 500 Sweepstakes, Box 178 New York, N. Y. 10046. Winners will be determined in random drawings conducted by D. L. Blair Corporation, an independent judging organization whose decisions are final. One prize to a family. No determined in random drawings conducted by D. L. Blair Corporation, an independent judging organization whose decisions are final. One prize to a family. No substitutions for prizes. Winners will be notified by mail. Sweepstakes open to licensed drivers in the U.S.A. except Wisconsin and where prohibited by law. substitutions for prizes. Winners will be notified by mail. Sweepstakes open to licensed drivers in the U.S.A. except Wisconsin and where prohibited by law. substitutions for prizes. Winners will be notified by mail. Sweepstakes open to licensed drivers in the U.S.A. except Wisconsin and where prohibited by law. substitutions for prizes. Winners will be notified by mail. Sweepstakes open to licensed drivers in the U.S.A. except Wisconsin and where prohibited by law. substitutions for prizes. Winners will be notified by mail. Sweepstakes open to licensed drivers in the U.S.A. except Wisconsin and where prohibited by law. substitutions for prizes. Winners will be notified by mail. Sweepstakes open to licensed drivers in the U.S.A. except Wisconsin and where prohibited by law. Sweepstakes open to licensed drivers in the U.S.A. except Wisconsin and where prohibited by law. Sweepstakes open to licensed drivers in the U.S.A. except Wisconsin and where prohibited by law. Sweepstakes open to licensed drivers in the U.S.A. except Wisconsin and where prohibited by l



Not recommended for drivers under 18.

Du Pont Golden "7" is the high-performance motor oil additive. The one made to give your car top power and top performance. We figure it's not kid stuff.



.. through chemistry

SAFETY IS NO ACCIDENT

Prevent the accident -Don't just survive it



Hadley automotive air horns today's safest driving accessory - alert the other driver at a safe, stoppable distance. Accepted by

windows up, radio and air conditioning operating, your standard horns cannot be heard. For more effective defensive driving, mail

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PRODUCT TRENDS continued

collector and knows that as many times as not after a vintage machine is brought back from the abyss of the scrap metal press's hungry maw, there's no rubber of the approximate size to put on the rims. All that will be over thanks to Lester and his Lincoln Highway Tire Co. in Bedford Heights, Ohio. At the company's first press open house he commented, "Lincoln Highway is in a position to supply 40 basic sizes of tires to cover owners of collector cars built from 1900 thru 1959. This solves the rubber replacement problem of a vast majority of owners of older vehicles."

The Lincoln Highway plant will serve many functions. It will be a distribution center for tires, tubes, flaps, rims, wheels, extruded brass molding and collector supplies such as specially compounded waxes, polishes and epoxy filling materials.

Another important feature will be a complete machine shop staffed with skilled technicians capable of reproducing any automotive part from a clevis pin to a

Lester said, "In this service division at Lincoln, we will specialize in the rebuilding of complete engines, transmissions and other mechanical components of old cars. We want Lincoln known as the place for these services. Racing car people have expressed interest in our machine-shop facilities because of our well-known mechanics, one of whom is trained in foreign cars."

in polarization of thought

Who's that behind those Foster ... er, Bushnell's? Why it's international racing champion, Bob Bondurant, testing a new type of driving glasses at his School of High Performance Driving recently opened at Orange County Raceway in Southern California.



The special lenses are yellow to sharpen contrast and heighten visual acuity and include a unique polarized filter, sandwiched between two layers of optically ground and polished glass. Polarization blocks out both angled light from the sun and reflected glare from road and car hood to markedly improve the straightahead vision. Further, the polarized glass lens, because of its "safety glass" type of construction, affords a good measure of eye protection.

They're also available in Air Force gray with a built-in polarizing filter. Gold-filled frames with nose pads and temples that shape easily to fit the individual, make the glasses one of the most comfortable driving aids available to both long-distance and professional drivers. For further information write D. P. Bushnell & Co. Inc., Pasadena, Calif. \$18.95.

Opel Rallye Kadett. Manufacturer's suggested retail price: \$2325.26, includes Federal Excise Tax, suggested dealer delivery and handling charge. Transportation charges, accessories, optional equipment (chrome wheels on model shown below \$62.30 additional), state and local taxes additional.



The Mini-Brute loses.



Even the toughest economy import ever to cross an ocean will lose some contests.

Not many. The rallye stripes on this new Opel Rallye Kadett are for more than show.

A good look under the sheet metal will prove it.

Look at the standard equipment: An 80 horsepower (1500 c.c.) cam-in-head engine (equipped with an alternator instead of a generator). Available: a 102 (1900 c.c.) cam-in-head version. Special ratio 4speed console-mounted transmission. New heavy-duty clutch, drive line and rear axle. Power-assisted front disc

brakes. New, stronger front suspension and steering. A completely new rear suspension with coil springs-three link and track bar design. Roller bearings for all four wheels.

And then there are the obvious good things, Radial-ply tires. Simulated wood three-spoke steering wheel. Special console mounted instrument cluster, including oil pressure and ampere gauges and electric clock, 0.1 mile odometer. Tack. Fog lamps. Comfortable front bucket seats.

You can see the special paint and wheels in the picture.

And you can find out more about the Rallye Kadett and five other Mini-Brute models at your nearest Buick-Opel dealer.

Here are some of the contests Opel Kadetts haven'tlost. Win records



in some of the world's most punishing car contestsover all types of roads and through all kinds of driving conditions—these rallies are severe tests of a car's durability. And Opel Kadetts outlasted all other cars in their class.

Rallye Monte Carlo January 11-22, 1967 1st in class-Lambart

Tour d'Europe September 1-10, 1966 1st in class-Beck 2nd in class-Lambart

Rallye dei Fiori February 22-26, 1967 1st in class-Beck/Heuser 2nd in class-Lambart/Vogt

Tour d'Europe September 4-16, 1967 1st in class-Falkenberg/Maarfeld 2nd in class-Arend/Spork

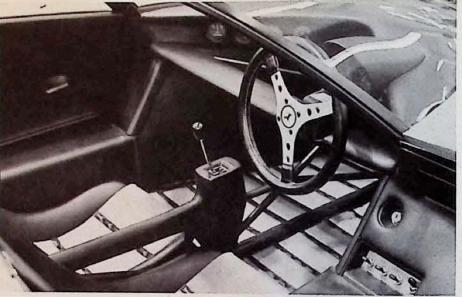
Buick's New Opel Kadett.

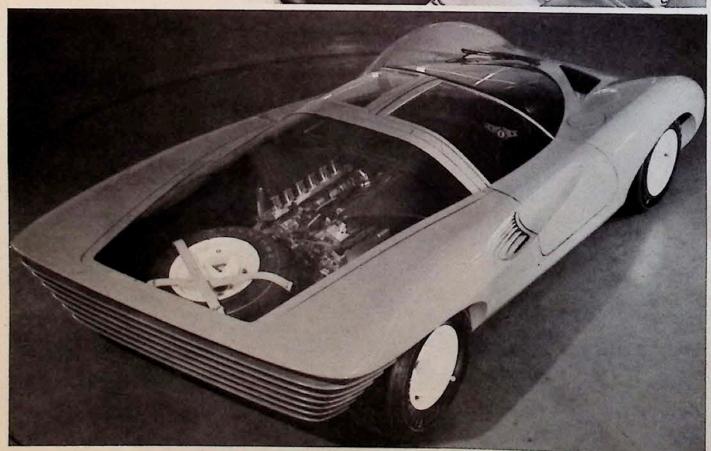


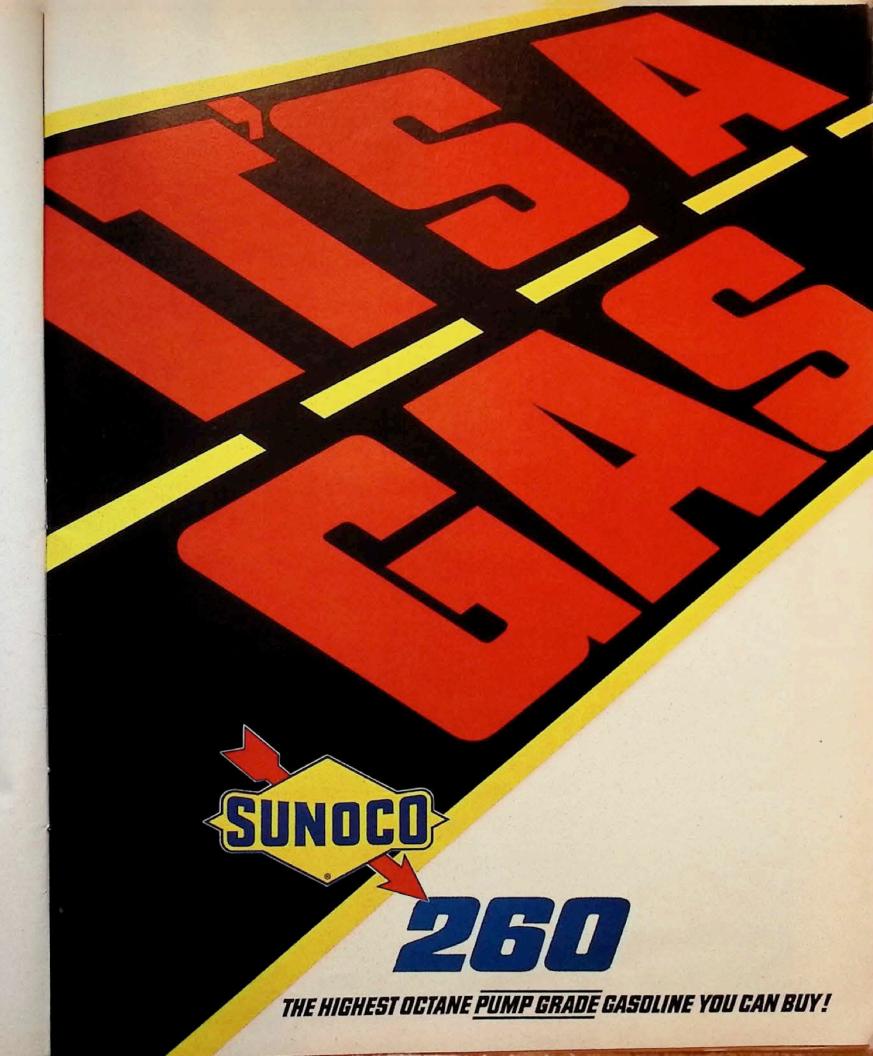


P5 Ferrari
Before the famed 3-seater P365 had even
been allowed to cool down, Ferrari
again managed to command the show with
the Pininfarina P5. Just as impressive
as the exterior is the 4 ohc, 3-liter
V-12 which produces 400 hp at 9500 rpm.
The body, with gull-wing doors, has a
length of 160 inches and a height of 38.5.
An eerie front end has, by the genius of
Pininfarina, been fitted with a horizontal
group of eight lights, six of which
are long-range driving beams and the
other two, low beam and turning signals.
continued on page 32











Let's suppose the shortest distance between two points is full of curves.

Then you're in luck—if you're behind the wheel of one of the sweet-handlers at left—Pontiac's Firebird 400 Convertible and Hardtop and Chevy's SS 396 Camaro Hardtop and Camaro Convertible. The same as you would be if your mount happened to be Chevrolet's Corvette, or Chevelle SS 396. Or a 4-4-2 out of Oldsmobile. Or Buick's GS 400. Or Pontiac's GTO.

Because our engineers figured out years ago, that if an automobile knows what it's doing in a corner, the straight-ahead stability will take care of itself.

In fact, it takes a catalog all by itself to tell you the complete story of the suspension systems available on the jobs we've mentioned above. Heavy-duty designs, with stiffer shocks, if you want 'em. Combinations of coil springs front and rear or coil front and leaf rear, plus stabilizers that glue you down for good when the road starts to toss and turn.



Driven one of our curve-straighteners yet? Why don't you—just to find out what our mark of excellence means to the guy who knows what a highway is all about.

The more you look, the more our mark of excellence means.

Chevrolet • Pontiac • Oldsmobile • Buick • Cadillac • Opel Kadett • GMC Truck

OVERSEAS REPORT continued from page 28

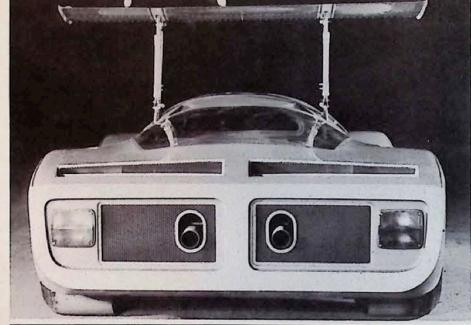
Panther Bertone

Much of the show's attention was levelled at a new sports prototype racing car called the Panther, displayed on the Bertone stand. Bertone built it in close collaboration with the technically minded Italian racing champ, Umberto Maglioli. The car has had an obvious influence by the Chaparral, not only because of its wing air-spoiler but also because of its general appearance. Unlike most exotic cars at the show, the Panther is for real, and is definitely intended to be well into competition toward the middle of the racing season. Powered by a V-12, 380-hp, 3-liter BRM engine, success should be only a matter of serious attempts.



DAF

Always underestimated in the past, DAF is now out to revitalize their micro-car status with an exciting new prototype by Michelotti. Regardless of the potency of the car, it looks genuinely fast. Interior is luxurious for its class, and, at the show, the car appealed to all manners of gentry who appeared. Since DAF's beginning in 1959, it has been viewed with considerable respect. The car has been reliable and soundly engineered, even though very low in price. Fortified in confidence by impressive wins, such as the Marathon de la Route at Nurburgring and in the Alpine Rallye, DAF can now proceed to establish itself as a "hotter" car than some 30% larger. continued on page 34







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.







OVERSEAS REPORT continued from page 32

Lamborghini Espada
Nearly as radical as the Marzal, though
claimed to be more realistic, is the
exciting Lamborghini 4-seater by Bertone.
Even though it's front-engined, the car
is hardly less sensational than the
renowned Miura. Power is from a quadoverhead-cam 4-liter V-12 that produces
325 hp DIN at 6500 rpm. The car is
easily capable of 150 mph. Naturally,
gearbox has 5 speeds. Overall length
is 187 inches, wheelbase is 105 and
height is only 46... for a 4-seater?
It's called, petulantly... Espada.
continued on page 36





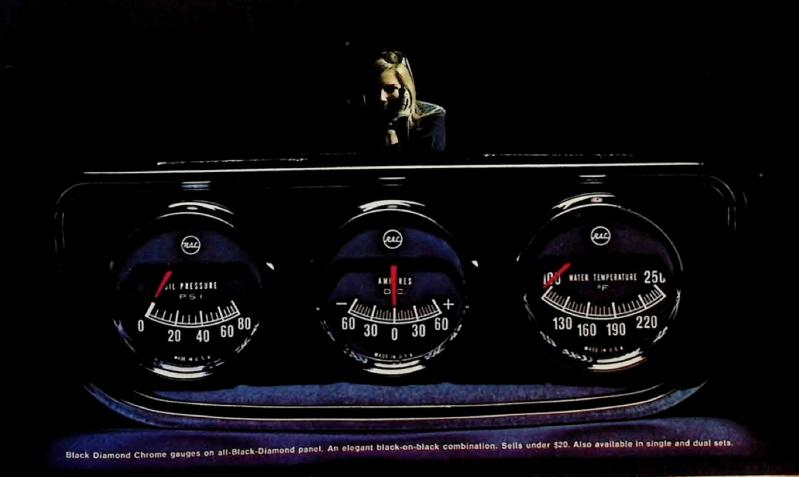
The great Black Diamond discovery RAC combined the severe elegance of cockpit black with the lustre of bright chrome — and discovered Black Diamond Chrome, a brilliantly black and totally new finish. Then we added a brand-new Continental styling to the instruments themselves. Everything, from the suspended pointer to the classic dial, is new and exclusive. Everything except the quality that's made RAC instruments the choice of champion drivers like Dan Gurney. You'll find RAC gauges, tachs, and test instruments at most leading auto-accessory stores.



Tomorrow's Products Today



Black Diamond Chrome gauges, set in an exotic viny-text panel surrounded by bright chrome. Sells under \$20. Also available in single and dual sets.



OVERSEAS REPORT

continued from page 34

Lamborghini Islero

Lamborghini's originals immediately clove the camps of GT taste in two. Basically, their latest Islero, a frontengined modification of the 350 and 400, leaves few dissenters. Very conservative but expensive-looking, it is considerably different from prior models - especially the front-end treatment. Good taste, consistency of design and compatibility on all quarters make it desirable to all. It is made in the old Touring factory.





Matra Sport Matra has come on strong in the last two years, building a sensational record and reputation in competition and an impressive image in production. Recognized as one of the more foresighted organizations, they upheld their image at the Geneva show by displaying a Matra Sport styled by Vignale. It is a good improvement over the production 530.

Our oil was good enough for everybody. Except us.

People thought Dino Supreme was about the best oil you could buy.

But it still wasn't good enough. For us!

So we set up some new standards. Even above those of the car makers. And developed a new 10W-40 oil.

Then we tested this newly formulated oil against four top multi-graded motor oils.

We came out ahead. In protection against wear.

Against rust. And ahead in resistance to sludge formation as well.

It proved we were good enough. For ourselves.

And better than good enough for your car.

In fact, if your car had a mind of its own, it wouldn't run without us.







Gordon Johncock turbo Offy-ed '67 Gerhardt to victory at Hanford. The '68 cars will be slimmer, have lower fuel capacity.

'68 INDY PREVIEW

Turbine or Turbo?

There will be some fast cars and there will be some reliable ones. But the car that takes this year's 500 has to be fast and reliable.

by John Ethridge



s we roll up toward this year's Indy 500, a curious paradox emerges: there is more known, yet more paradox energies, there is unknown, about the cars that will be competing since, perhaps, the earliest races run in this classic. The mystery surrounding suspensions that dropped like a throw net over Gasoline Alley with the advent of the rear-engine cars four years ago has been unraveled. The causes and cures of such maladies as bump steer or excessive under- or oversteer and camber change are widely understood. And virtually every car entered has a computer study somewhere in its genealogy. But science can only go so far, and from there on, the unknown takes over. A good part of this uncertainty is due to the fact that there are actually two races, each of a vastly different nature, to be run during May. The first, only 4 laps - qualifying - must be successfully completed before getting a shot at the big one. But it causes the most headaches. The driver is out there alone and under great tension, so mistakes are more likely to occur.

Then there is the weather at Indy which, at this time of year, can be anything from turned up collars and seeing your breath to heat prostration. It can even change enough to significantly affect performance during the time a car is waiting in line to qualify. Depending on the type of powerplant, this could mean that it is either down on power or detonation and disaster.

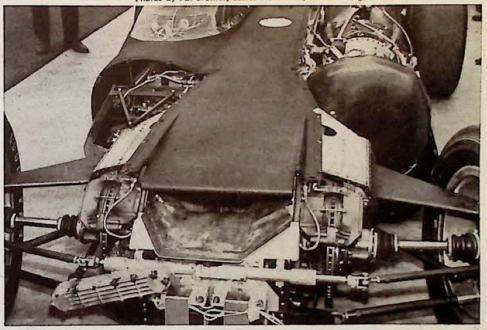
In the days when everyone ran Offys and liked one another, the caprices of weather on a given day penalized all about equally. But with three basically different kinds of power (turbine, normal piston, and turbocharged piston) present, weather can harm or help some more than others. For example, a really scorching hot day might knock the turbines out of qualifying, where a crisp, cool day would do much more for turbines than it would for the other engines.

Which brings us to the great engine dilemma. The Ford, ironically, comes to the Speedway this year as something of an underdog, precisely the role it thrust upon the

Photos by Pat Brollier, Lester Nehamkin, John Ethridge



(Above) Ken Wallis, always at eye of turbine hurricane, designed General Electric powered, 4-wd Shelby turbine cars to ... be driven by Denis Hulme, Bruce McLaren. (Above right) Side by construction with massive hydraulically coupled gearboxes at each end, oil coolers at rear bear Wallis trademark. GE engine output runs at turbine speed, reduction takes place in rear gearbox. Finned object at front is steering transfer case. (Right) Wallis himself taking car on maiden voyage at Riverside. Engine used for this trip had not yet been modified to bring inlet area down to 15.999-sq.-in. USAC limit. Judging from the heat monkeys generated by this car, fans will be able to lean over fence and roast marshmallows.



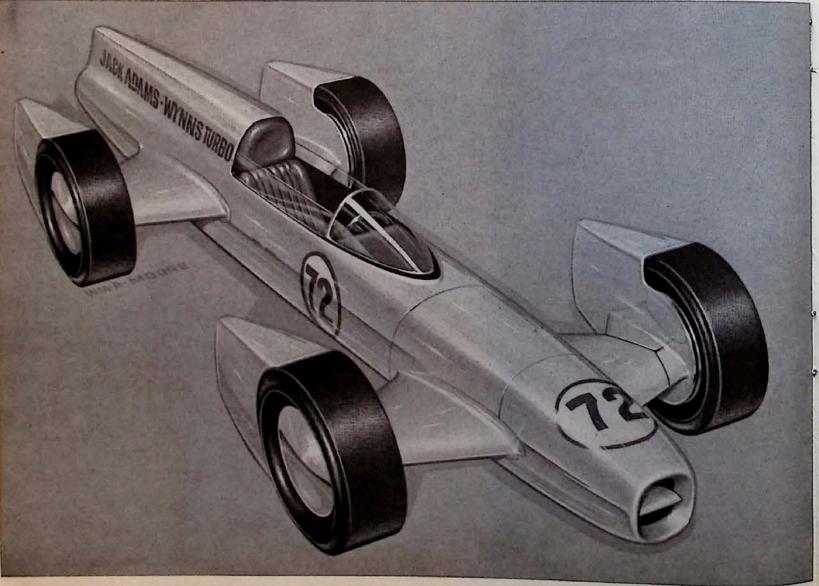


'68 INDY PREVIEW continued

(Below) One of most unusual cars ever to come to Speedway will be 4-wd Allisonpowered turbine owned by Walls, Miss. aircraft dealer Jack Adams and sponsored by Wynn Oil Co. (Far right) Professor Glen Bryant of Miss. State U. Aerophysics Department, noted aircraft designer, checks engine installation with son James. Bryant designed and built this ultra-low drag car which uses many aircraft principles. Slim body is only 24 inches wide and length is 16 feet - the maximum rules will allow. Suspension is de Dion front and rear located by Watt links. Power is divided right and left at each end, and front and rear with 3 differentials. Fiberglass monocoque chassis uses steel sub-structure which also houses fuel bags. Allison 250 turbine sits at angle in front with small diameter shaft under seat to drive rear wheels. Bryant thinks 178-mph lap speeds are possible when everything gets sorted out! (Near right) Bob McKee, holding front/ rear differential, built suspension, driveline hardware in his Palatine, Ill. shop.







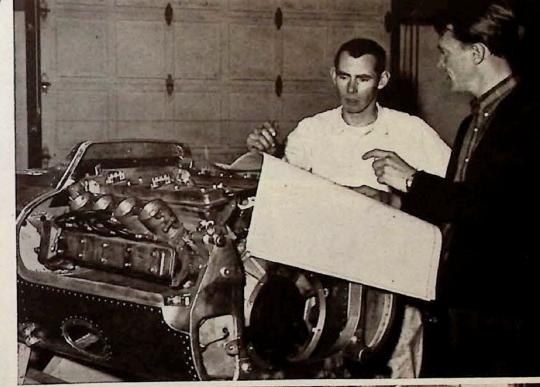
Offy in 1965. The Turbo Offy, on the other hand, has shown clear superiority on "power" circuits like Hanford, and the Speedway is one of these. The Turbo Ford, tested but untried, is undoubtedly capable of giving everything else a run for the money in qualifying, including the Turbo Offy. These, and even a good conventional Ford using nitro, could make the starting grid very crowded for the turbine cars.

Time and budgets will not allow the bulk of the entrants more than one choice of power, which must be made before all facts are known. You decide on a Turbo piston engine. What will it be, the 600-plus reliable horses of the Turbo Offy or the 700-plus dark horses of the Turbo Ford? Or, along with most of the big money in this race, will you take your chances with a turbine? You trust that your power deficit won't matter too much and rely on a more favorable torque curve, sophisticated 4-wd chassis, and perhaps superior aerodynamics to weather you through qualification.

If you qualify your turbine, you then enter into the Valhalla of racing. When the green is waved you're carrying as little as 35 gallons of fuel weighing only six pounds per gallon while your friends in the Turbos are loaded with 55-60 gallons of the 8-pound stuff. Low weight plus your torque advantage from pace car speed to well beyond the second turn will allow you to squirt past many of these that blew you off in qualifying. From then on you let engine reliability carry you through. So long-lived and reliable are these turbine engines that if only used annually for practice, qualifying, and running the 500, most would, without overhaul, be still going strong beyond the year 2000! But then you may not make the starting lineup with this particular combination. In trying to come up with the winning combination a Ouija board and a computer are about equally valuable. Look over the new crop in the following pages. What's

vour choice? continued

There are a whole flock of new shovel-nose Eagles from the Gurney aerie due for the 500. Flat, wide beaks on these cars aren't as pretty as old, but generate downward aerodynamic forces to hold the road, eliminate need for airfoils seen lately on old Eagles. Steel reinforced aluminum monocoque construction follows lines of old cars, but front shocks are now located outboard in airstream. (Wind tunnel tests showed drag reduction was nil.) Suspension geometry has been slightly revised. (Right) Dan Gurney discusses engine installation with technician. Eagles are being made for Gurney-Weslake, Ford and Turbo Offy engines.







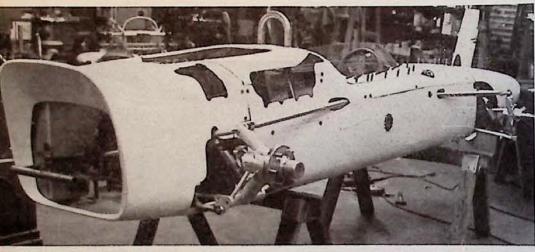
'68 INDY PREVIEW continued

(Right) A. J. Foyt's Coyotes have monocoque chassis work done in Eddie Kuzma's shop. Shown in background is number 14 car that Foyt won Indy with last year. Late car is quite similar in appearance and aluminum and steel construction. A. J. has spent lots of hours in these in addition to his racing testing tires for Goodyear and the Turbo Ford. He loves the power this engine cranks out, hopes it proves successful, and would like to start the race with it.



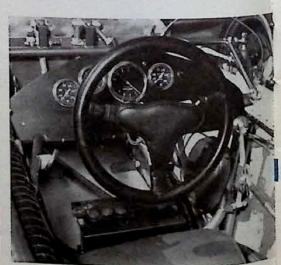
There will be some old Eagles circling the brickyard this year although Bobby Unser, shown here trying very hard in Turbo Offy powered specimen, will be getting one of the shovel-nose '68s.





(Left) A. J. Watson has returned to monocoque construction for 1968 because of weight advantage. Car shown here will take either standard or Turbo Ford. (Below left) Mario Andretti's new car uses essentially same "tub" as Foyt's Coyote and was also built in Eddie Kuzma's shop with much of the same tooling. Suspension, however, differs from the Coyote and is more on the order of that of his old Brawner-Brabham tube frame car. Mario also has hopes for a Turbo Ford in his future. (Below) Diminutive Mario fairly rattled around in the cockpit of his old car, but new monocoque should fit him more snugly.





Andy Granatelli looks pleased with his 1968 creation, the STP-Lotus. He'll be running five cars, just like the one at right, at the Speedway this year. The cars will use a 4-wheel-drive modified Ferguson system somewhat like the one used last year, except the engine is now behind the driver. Admiring the car are, left to right, Granatelli; Jimmy Clark; Parnelli Jones; Bill McCrary, Firestone Director of Racing; and Colin Chapman. Jones, Graham Hill and yet-to-be-selected third and fourth man will drive, with the last car being held in reserve. drive, with the last car being held in reserve. The late Jimmy Clark had also been scheduled to drive.





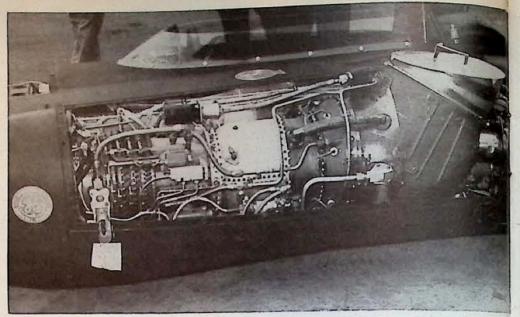
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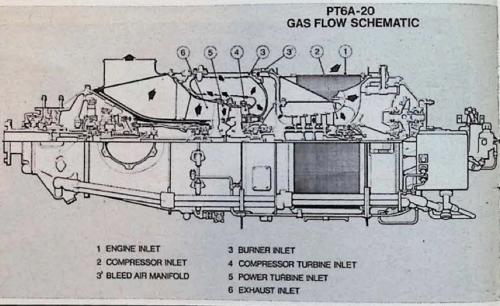
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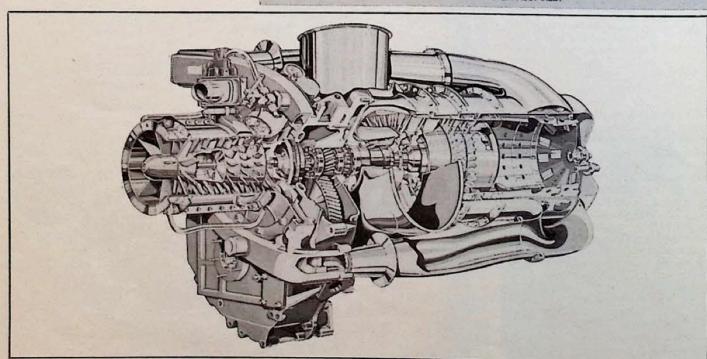
'68 INDY PREVIEW

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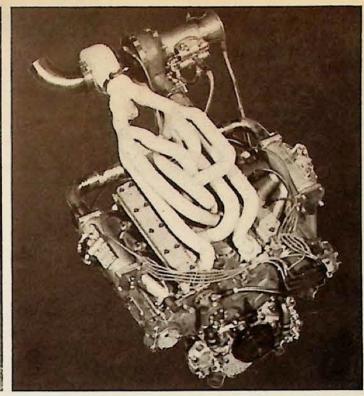
Shown here are the 3 turbine engines that will be in silent contention during May and, perhaps, afterward. (Top) General Electric - powering the Shelby cars is largest, heaviest - around 300 pounds, and most expensive - \$60,000 unmodified. (Center) Pratt & Whitney, power for last year's No. 40 STP car and the new STP-Lotus cars, is shorter, lighter — 245-270 pounds, and costs about \$35,000 unmodified. (Bottom) Allison, of recent design and to power the low-drag Wynn's Adams car, is less than 41 inches long, weighs 139 pounds soaking wet, and costs a shade over \$23,000 - actually slightly less than the Ford 4-cammer. Power output of actual engine going in Wynn's Adams car is close to 380 hp. While no figures have been released for the others, 460-500 hp has been estimated after modifications to bring the inlet areas down to the 15.99-sq.-in. limit. The Allison has only 12-sq.-in. - 25% smaller than the rules allow. Reducing inlet areas can be expensive and complicated, but effectively enlarging them is well-nigh impossible. Hence the all-out effort to streamline and bring dry weight to absolute minimum on Wynn's Adams car. Probably the heaviest when dry is the Shelby because the GE has no integral reduction gearbox as does the P & W and Allison. Souping turbines is possible 3 ways: 1) valving in more fuel in the air-rich burner which raises temperatures, 2) over-riding power turbine governor and over-revving, and 3) water or water/ alcohol injection - verboten under USAC rules.







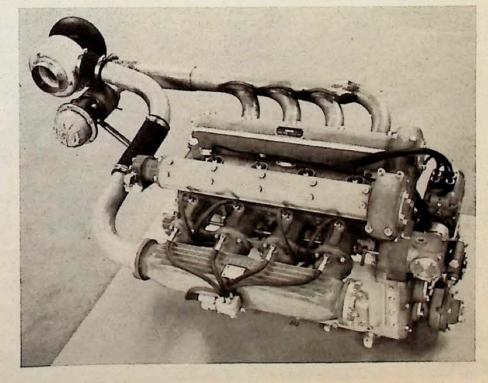




And in this corner we have the piston engines — noisy, steeped in sentiment and tradition, complex, and thought by some to be the symbol of The Establishment. Square in the middle of these is A.J. Foyt and his Coyote-Ford, the combination that took both the 1967 500 and the Championship, to remind us that, for the time being at least, piston engines are still king.

(Above) Pushrod Gurney-Weslake, winner of Rex Mays 300, is both powerful enough to qualify and reliable enough to finish. (Above right) Turbo Ford, tubing salesman's dream and plumber's nightmare, easily the most powerful thing at the Speedway this year, may have to de-tune after qualifying to hope to last the grind. (Bottom-right) Turbo Offy, not far behind Turbo Ford in power but more reliable, will be present in quantity in good chassis, could be the one that boots one home should the turbines falter.





MOTOR TREND/JUNE 1968 45



ercedes engineers, because of the racing background of the company, are mostly sports minded, with sharp new ideas for their work. And yet Mercedes has failed to show us an exciting new high-performance car since the days of the forward-looking and very fast 300 SL. Mercedes' high-finance-type management is obviously more interested in the making of mass-production cars rather than a limited series of glamorous fast sports cars, and this in spite of the fact that the Mercedes image was built upon their racing successes.

In any case — and fortunately for those who like unusual "rubber burning cars" with that very certain "go" — the Mercedes management, encouraged by their sales, has decided to reward their good, faithful engineers by letting them build something with a little love besides scientific accuracy.

The recette de cuisine is quite simple if you have the right ingredients: you take a long wheelbase Mercedes 250, throw away the 2½-liter 6-cylinder engine, replace it with a meaty 6.3-liter twin-cam V-8 with fuel injection, reinforce the chassis, add bigger ventilated disc brakes and wider wheels with high-speed tires. This gives you your plat de resistance, the 300 SEL 6.3-liter — a designation typical of unimaginative German automobile naming.

The result of the entertaining engineering exercise is quite spectacular. Here is a compact sedan, 196 inches long, which—with 300 hp under its hood—is capable of competing in both handling and performance with most of the world's famous high-performance cars.

The price tag is not cheap — \$10,000 picked up at the factory — but the car is spectacular, comfortable and immensely satisfying to drive.

I had one of the very first 6.3-liter cars on test and I came back highly enthusiastic. Frankly I could not really find very much wrong with this new German "Hot Frankfurter," except, of course, its price tag and its conservative appearance which is not even dressed up by some of those beautiful magnesium wheels now available. The interior, too, is dull, and I believe that Mercedes could have easily found a "juste milieu" in this field which could please both the conservatives and the liberals (but earlier there was mention about the people who named this car the "300 SEL 6.3-liter").

What surprises you immediately when you drive the 6.3-liter is the large amount of comfort—around you, under you and everywhere. Second—and here you must beware—you do not realize while driving that you are actually going fast, very fast indeed! Naturally you very quickly become accustomed to that unusual combination of speed, fierce acceleration, quietness and comfort. However, at first you have a tendency to go quicker than you think, that is until that first nasty curve comes at you like a wall!

The ohc V-8 engine is a beautiful unit, with a remarkable torque figure of 434 lbs.-ft. at 3000 rpm. The block is made of iron, but the head is in aluminum. Direct Bosch fuel injection with 8 plungers is used. Mercedes gives a 300-hp SAE figure at 4100 rpm which is modest by American standards. Yet the new Mercedes — which is no light baby with a curb weight of 3835 pounds — is capable of out-accelerating the majority of American sedans claiming 100 hp more! (This does not refer to handling because the new Mercedes obviously handles far

better than any American car as well as out-brake them time after time.)

With three people aboard and the automatic in position No. 4 (that's right - four), I recorded the following speed and acceleration figures which speak for themselves:

0 to 50 mph in 5.1 seconds

0 to 60 mph in 7 seconds

0 to 70 mph in 10 seconds

0 to 80 mph in 12.1 seconds

0 to 100 mph in 17.8 seconds

Standing kilometer: 27.8 seconds

TOP SPEED: 136 mph

The quarter-mile figure was not recorded but should be around 15½ seconds. For comparison the 911S Porsche, the Iso Rivolta Chevrolet and the Ferrari 330 GTC do 0 to 60 respectively in 7.6, 7.7 and 7 seconds.

All this speed and acceleration are not felt in the 6.3, and at all times you think you are going at a leisurely pace, except that you are sometimes cruising along at 120 mph with all the speed, comfort and silence that many cars do not have at 70 mph.

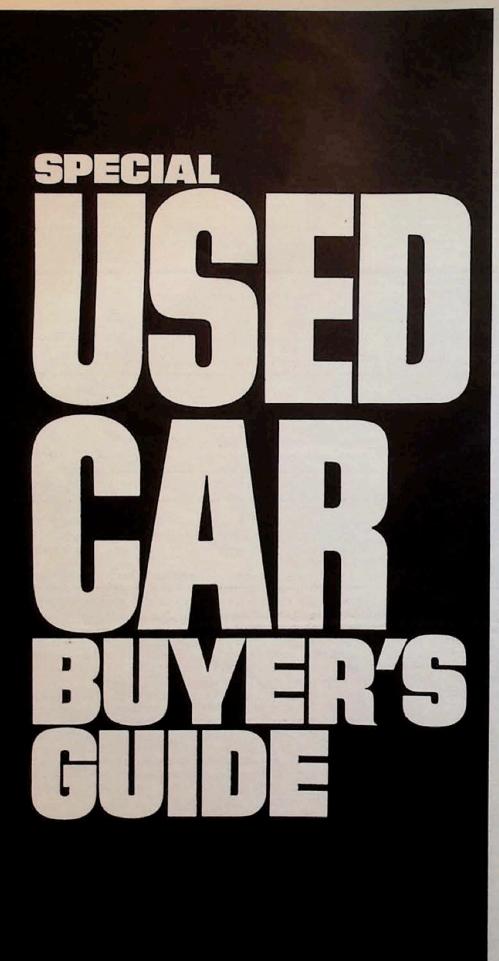
As said earlier, the interior of the 6.3 is dull – truly a misfortune because the minute you drive that great car you wish you had something better to look at, inside and out. But then there is another point of view: this conservative looking car will please a certain kind of person from the serious type to the sporty type, who, for the fun of it, is going to remove the "6.3-liter" insignia from the trunk just to infuriate Porsche or Ferrari drivers who think they are actually competing with a 300 SEL with a modest 180 hp.

The driving position and seats are great, and the general finish of the car is superb. The one I drove had an optional air conditioning unit and the electric windows which are standard equipment. The power steering and the brakes were the best I have ever experienced on a sedan. The very quick-action 4-speed automatic gearbox (standard equipment) which is operated by a well located floor type shift was also of the highest standard for operating ease and comfort.

The suspension, while being set for this 136 mph car, is similar to that of the 300 SEL — meaning it is independent in front with swing type axles at the rear. This suspension is completed by rubber air cushions and a self-leveling unit to keep the car in the same horizontal position regardless of load. A very forgiving car on open roads, the swing type rear axle does not appreciate too many mountainous, tight, curved roads where hard braking causes the rear wheels to dig in. Still, the 6.3-liter is a magnificent machine to drive. With it you find as much pleasure as you do driving a big sports car, differing only in that you are truly comfortable and you can converse with your companions (note plural).

The 6.3 understeers, which is normal for a car with an engine weighing over 700 pounds up front, but at no time does this understeer become alarming, and that quick, smooth-as-silk, 2½-turn steering really does the job for

I consider the 6.3-liter Mercedes to be the safest, fastest and most comfortable 4-door sedan made today, considering the fantastic speeds you can achieve in full safety and relaxation.



John Collins Buys His First Used Car

Wherein the myriad trials and tribulations faced by an earnest young Yale man searching eagerly for a "good deal" are placed into sharp and enlightening perspective.

by Michael Lamm

Nor the past three months, John had set aside half an hour each day to rustle through his local newspaper's classified ads. The used car pages. An hour on Sunday morning after chapel.

"Golly," sighed young John, "what an overwhelming wealth of choice. I wonder whether I'll ever be able to land the right car for me."

John had yet to go out and face a used-car salesman. The prospect frightened him at the moment. Friends at Yale had warned John that it was no pleasant task for someone of his particular friendly, trusting, outgoing nature to meet with dealers, especially those with fast-talking salesmen.

The path to purchasing a really firstrate used car, especially at a price John could afford, was strewn with snares and pitfalls. He knew that. Some could be so subtle that John might not rightly realize himself the victim until after he'd been victimized.

"So many decisions face me," John muttered to himself while staring out onto the Yale campus from his dorm window in Phi Theta Theta fraternity. "But I believe myself capable of making them." He uttered this last with great resolve.

Among the major decisions that haunted John:

- Should he buy a used car at all? This seemed to John a question so basic that it needed immediate answer.

Or should he buy a new car instead?

— If used, should he purchase from a private party, or could he reach a more satisfactory "deal" from a dealer?

- Are used car salesmen all evil and conniving, or are they less bestial than his Yale friends had warned?

- Since poor John couldn't possibly ante up enough cash to pay for the entire car outright, how could he avoid excessive interest rates when financing his new acquisition?

-He also wondered what was involved in getting adequate insurance coverage without paying excessively.

- How could John take advantage of a used car's depreciation curve?

-To whom should he turn for an honest evaluation - a checking-out as it were - of the used car candidate he might be considering? Should he have the cars checked by independent mechanics, should he take them to an

auto diagnostic center, or what?

- What sort of warranty could he expect on a used car?

- How do dealers "detail out" used cars, and how does this practice obscure a car's history?

- What's the scoop on high-mileage, late-model used cars? Can these be good deals sometimes?

- Which used cars are "in" and which are "out"?

John's poor brain absolutely reeled. But upon calming himself and coming to grips with his runaway emotions, he decided the best way to answer all these questions (and others) was to go out and face his fate. Which is what he did.

Know Thyself

by Michael Lamm

The adventure of buying a used car confirms the old adage about "a little knowledge..." After all, everyone knows he's a good judge of car flesh. Everyone likewise considers himself bilk-proof. But while trying not to sound the general alarm, and without meaning to give otherwise confident used-car buyers feelings of insecurity: it is a rough world out

Good cars at reasonable prices do they exist? Yes, believe it or not, they do. Still, a buyer's chances of connecting with solid, economical used transportation are less than 50/ 50 unless he can answer these questions with resounding yesses:

Do you really know what you want? Most people don't, so they can easily be steered to the nearest suckerwagon.

Are you patient? It often takes weeks or even months to decide on, shop for and check out the proper car plus a suitable financing and insurance package.

Thus if a large portion of used-car buyers get rooked, it's largely their own doing. They're too greedy, too hasty, too ignorant to fare better. Not that they don't get plenty of outside help along the way.

If you've been through the usedcar mill a few times, the following story will probably carry a familiar ring. Yet even so, you're assured of picking up a few new pointers and points of view.

John Collins heading back toward the dorm from his part-time supermarket job, succumbed to the neon magnet. "Drive In Here. Cash for Your Car, Paid For or Not," the sign read. John wheeled his '58 Chevy into the lot's driveway and pulled up in front of the immovable trailer that served as office.

A lone salesman, chair propped back on the trailer porch, puffed mightily on his stumpy cigar. He looked down into the circle of light where John sat, but he didn't budge. "What can I do for you?" he asked

"You buy cars?" John poked his head out the car window.

"Sure. That one there? Yours?"

"It's been in the family ever since my mother bought it new. I got it from her a couple of years ago. Graduation present. What'll you give me for it?"

The salesman rocked his chair forward, rose, ambled slowly down the steps, casually looked the Chevy over. "Make you a good trade."

"How much?" John asked again.

"What you have to have for her?" "You tell me."

A pause. The salesman feigned deep thought. After standing there with his eyes shut a minute or so, cigar wagging, he smiled for the first time. "Sixty-five bucks."

John immediately shifted into reverse and started to back out.

"Hey! Make you a good trade! Got some real cherry...." But that was all John heard. The rest trailed off or the salesman didn't say it.

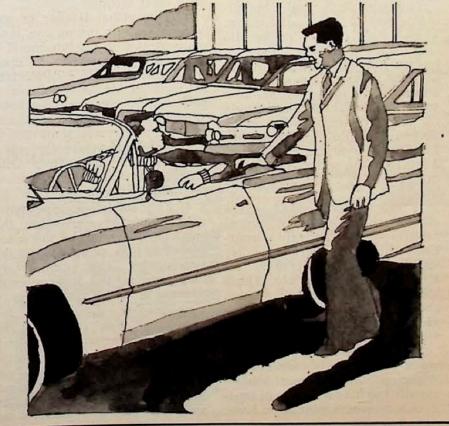
COLLEGE JUNIOR, \$60-a-week parttime assistant supermarket stock manager, John Collins faced what he considered one of the major crises of his 21 years. Should he keep his ail-

ing '58 Chevy or should he trade it off on something less tired? He'd have to decide fairly soon, he knew that. His Chevy already needed at least two new tires, a new set of shocks, probably some expensive front-end work to correct a 50-mph wobble and, in about 3000 miles, a brake reline. That came to more than the car was worth - a lot more.

He made his decision that night. He would trade off his Chevy. As for what to get to replace it, that was something he'd find out as he looked around. He lost no time.

His first step was to check the classified used car ads that evening. He made several phone calls. Next morning, since he had no classes and work didn't start until noon, John followed up a few private-party offerings. The first was a 1962 F-85 Cutlass coupe with "only 17,000 miles." Price: \$795 - too good to pass up. The housewife John had talked to on the phone hadn't bothered to mention until he got there that the "17,000 miles" were put on since an engine overhaul. In all, the Cutlass had some 90,000 miles to its credit.

The second ad John answered, one boasting a '64 Futura in "showroom condition" for \$595, turned out to be a flood victim. Cleaned up but still pretty soggy, this car would be in showroom condition only in Atlantis. After seeing these two cars, it was already noon and time to go to work. John knew that one of his stock-





room buddies, a young clerk named Jerry, had a brother-in-law who ran a used car lot. John approached Jerry

about getting help.

"Okay, you bet," said Jerry. "My brother-in-law, Chick, is a good guy. I've bought two cars from him myself. You know that Chrysler I'm driving? Bought that from him. And before that a Ford. Paid wholesale wholesale both times. Unbeatable cars. Unbeatable deals. Chick will steer you right. No obligation. You ever buy a used car before?"

"No," said John.

"What kind of car you looking for?" "I don't know. Something in the \$500 range. Plus my old crock. I took it to a dealer yesterday, and he said he'd give me \$65 outright." John realized he was giving away trade secrets, but he trusted Jerry.

"Sixty-five. Chick can do a lot better than that."

"Now look," said John. "I'm not sure

Detailing Used Cars

IF THOSE GLISTENING beau-

ties you've been eyeing on used

car lots look a little too glittery,

too new, too good to be true.

there's a reason. They've been

detailed. Detailing might put the

bloom back on a wilted rose, but

at the same time it hides all traces

To anyone in the trade, "detail-

ing" means reconditioning.

There's hardly a car on the lots

these days that hasn't been at

least a little detailed. An entire

satellite industry has grown up

around detailing — there are now

so many specialists that a single

car might undergo half a dozen

different detailing processes be-

fore it's set onto the front row of

a lot. Here are some of the steps

involved in detailing the average

1) The dealer himself makes

all obvious necessary mechanical

repairs - transmission over-

hauls, tune-ups, replacing noisy

mufflers, relining brakes, re-

aligning front ends, etc. These

jobs are done in the dealer's own

shop if possible; if not, the indi-

vidual lot usually has mechanics

ways ships all his cars out for

"cleanup." The cleanup detailer

usually has his own place of busi-

2) The used car manager al-

who come in to do the work.

of the car's history.

used car:

I'll buy from Chick. You said 'no obligation,' remember? All I want is advice and help."

THAT EVENING they went to see Chick, a balding, middle-aged salesman dressed in blue slacks and a yellow tie over a pale blue shirt. He looked almost too much the part. For a long time they just talked. Things in general, Finally, John turned conversation to the reason he'd come. "Why should I buy a car off a lot and not from a private party?"

"So who says you shouldn't buy from a private party? Just because you get no warranty, just because the car's got all the present owner's problems still in it, just because most private parties lie in their ads; those aren't reasons you shouldn't buy from a private party....

John broke in, "But isn't it true that you can get the same car for less money from a private party?"

lots in the area. Here, the car un-

dergoes steam cleaning of the en-

gine compartment, block, under

the fender wells, tires, door

jambs, and sometimes trunk. This

detailer also repaints the engine

its original color, replaces or

Vaselines engine decals to make

them look new. He paints the

radiator and often the firewall.

cleans the battery and sprays it

other, usually a roving one, then

concentrates on the interior. If it

needs only a shampoo, he does

this with a foam that deodorizes

as well as cleans. Deodorizing

gets rid of cigar and perfume

smells that a potential customer

might find offensive. If necessary,

he also spray-paints the vinyl

seats, redyes the carpets with

another vinyl spray, and touches

or a specialist cleans out the

trunk by hand, paints the spare

and other tires, often replaces the

trunk mat, and touches up

blemishes in the luggage com-

same one then rubs out and

waxes the exterior, using a cheap

needs partial or complete reup-

holstery, it's sent out to another

6) At this point, if the car

wax and often a rotary buffer.

5) Another detailer or the

4) That done, the same detailer

3) This same detailer or an-

with clear lacquer.

up worn places.

"You're a funny kid," answered Chick, "Very funny, Listen. You see this here?" He pulled a little blue book out of his pocket. "This here is my little Blue Book. It tells me what cars sell for - both wholesale and retail. For instance. See the Chevy II Nova over there? She has the 283 V-8 and 4-speed stick. She's worth \$1585. see, it says so here in the little Blue Book. But if that same car has the 4cylinder engine and twice the miles. it's worth only \$975 list. Now what private party's going to know that? The private seller sees my ad in the paper for \$1585. So he asks \$1585. After all, it's the same car, right? And the buyer, God bless him, pays it. Even though that car would go for \$975 or less at any dealership. What I'm saying is that you - the buyer - need a lot more knowledge to shop the 3line private ads than you do the fullpage ones a dealer takes out. Stick

He does work for any number of that. This detailer replaces worn

7) If any windows are cracked, pocked or broken, a glass de-

9) Every used car lot has its

armrests, floor rugs, puts seat covers on older models.

with the dealer, boy.

tailer usually gets the car next. 8) And if tires need replace-

ment, the car usually travels to a tire shop for that purpose.

so-called lot men, who, as the final step to getting a car as saleable as possible, take care of smaller items like replacing cracked tail light lenses, replacing missing dashboard knobs, cigarette lighters, chrome trim, hubcaps, lamp bulbs, etc.

Minimal detailing - even interior and exterior cleanup alone - usually costs the dealer at least \$12.50. Steam cleaning adds \$5, as does painting the engine or trunk. A redye job on headliner, seats, or floor carpets costs \$12.50 each. A set of new tires runs between \$45-\$75, depending on quality. So it's easily possible for a dealer to invest \$50 or so in detailing alone - sometimes more. But this comes back double or triple when the car is sold.

Obviously (or perhaps not so obviously), there's very little left to reveal to a potential customer the sort of wear a car has seen. Detailing is intended to make all used cars uniformly new-looking. But there are ways to read the clues left by detailers, and these ness somewhere near Auto Row. specialist who does nothing but are outlined in our story.

"Another thing," Chick went on. "You often have more hidden costs than you think when you buy from a private party. In this state, you get around paying state sales tax, true enough. But when you're ready to reregister the car, you suddenly find the state slaps a "use tax" on you. If you paid, say, \$1500 to a private party for your new car, the use tax is \$75."

"But what about being able to tell more about the car a private party's selling?" John asked. "Isn't the car less likely to be reconditioned?"

"Sure, we recondition our cars - we call it detailing," said Chick. "Who wants a bunch of dirty, sloppy cars all over the place? But look at it this way. First, we don't shove back odometers anymore. Many of us used to do it, sure. But nowadays it's the easiest way I know of to lose my license; new state laws pretty well scotched doing that. And detailing doesn't really hide a car's condition - not if you know how to read through it. Come over here. I'll show you."

Chick led John and Jerry over to a 1965 Coronet. "See this car here? I put \$65 into this baby just yesterday - simple detailing." He opened the door. "See this on the step plate here? Paint overspray from redying the vinyl carpet. Right? You look for that and you know right away the carpet's been repainted. In this case, so has the dash. Look." Chick pointed out another tinge of overspray on the radio buttons. "And the seats. Sloppy. Got to talk to that guy. But at least you see a clean car here. It might be phony clean, but it's clean. Who wants a filthy second-hand car? A dealer will also go through the mechanical parts of a car like this. He'll fix what needs to be fixed - sometimes doing a good job, sometimes not. But a private party usually sells his car because he doesn't want to sink money into repairs. Is that what you want?"

"I'm not sure," said John. "I think I'd rather know the history of this car than just have it look good. Now if I asked you who owned this car last, would you tell me? Would you give me his phone number?"

"Man, that's a laugh," laughed Chick. "The guy who owned this car before happens to be a wholesaler. Auctioneer. Hundreds of cars pass through his hands every week. And before that, some other dealer somewhere upstate owned it. And before that, who knows? I can give you the name and number of a guy to call, sure. He's another salesman. He'd pretend he used to own this car."

"I see." John thought about this awhile. Then he said, "All right, what about my having this car checked out? Or any car-dealer's or private party's? Would you object to that?"

"Me? Not me. In fact, I'd think you were pretty crazy not to get it checked out. The best insurance or warranty you can give yourself is a check-out. Mechanic or automotive diagnostic center, doesn't matter. Just do it. Cost you between \$6 and \$12.50. Cheap insurance at that, even if you check out three or four different cars. And if the dealer won't let you take the car off his lot to get it checked out, forget that car. And don't let his mechanics check it out, either. Get someone who's got no interest in the car."

"What kind of car you think I ought to get, Chick?" John asked. "I mean, I don't really know yet what I'm looking for. Like I told Jerry here, I'll probably spend about \$500. What can I get for that that's decent?"

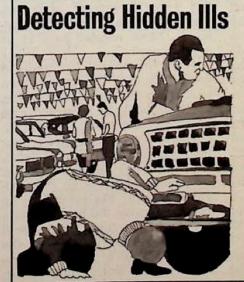
"You mean you've got \$500 cash you want to pay? Am I to understand you want to pay \$500 cash and that's all? If that's it, you won't get much. Not unless you're luckier than I am. First of all, no dealer wants cash. The more financing he can sell you, the better he'll like it. We call it 'three ways to skin a cat.' First there's the money we make on the car itself. Second, bucks on the financing. Third, bucks on the insurance. And we also make money other ways-like on your trade."

"All right," said John. "But let's suppose I were going to pay straight cash. What's available for \$500?"

"For \$500 cash," answered Chick, "you can buy yourself \$700 worth of trouble. That means you'd better have \$200 set aside to make repairs."

"You mean I'm going to have to sink another \$200 into any \$500 car right away?"

'That's about it. But don't be a dum-dum. Buy on time like everybody else. With \$500 front money, you could be looking at \$2000 cars. Or even \$2500 with your Chevy as trade." "Yeah, but I'm no millionaire," re-



NEVER TRUST your own judgment in appraising a used car's condition. You have to make the usual preliminary on-the-lot and driving tests yourself (like jumping up and down on the bumpers to test shocks, and accelerating and decelerating quickly to check play in the drivetrain). But before it comes down to serious haggling, always take your candidate in to an auto diagnostic center or to a reputable mechanic.

- 1) If there's a diagnostic center in your community, make an appointment. Arrange with the dealer or private party to drive the car at that time.
- 2) About half an hour after you get there, the diagnostician can tell you what's wrong with the car plus repair estimates.
- 3) This total service usually costs between \$9 and \$12.50 per car. And it's well worth more.
- 4) If you have no diagnostic center handy, take the car to a good mechanic. Usually a newcar dealer's service department (of a competing car make) can give the most objective evalua-
- 5) Here are the basic tests ou'll want performed:
- a) Compression check. All cylinders should read equally in a reasonably high range.
- b) Pull one front wheel and check brake lining. How many useful miles are left?
- c) Check front-end alignment, condition of steering and suspension components.
- d) On a hoist, have mechanic check under car for possible frame and sheetmetal damage caused by accidents. Also check condition of muffler and exhaust system; leaks from engine, brakes, transmission, differential.
- e) Have mechanic road test car and check for unusual noises from body, engine, transmission and drivetrain.
- 6) Such a mechanic's check usually costs from \$6 to \$10, depending on how much time has to be spent with the car.
- 7) Report your findings to the owner, and try to have him deduct that amount from the sales price.



joined John. "I'm not about to mortgage my soul for a car."

"Well, listen, boy. You're a lot better off picking something newer and paying a little more for it. You won't get anything for \$500 - just a bunch of trouble. I'm not trying to highpressure you. You tell me how much you can afford to pay each month and I'll tell you more or less what kind of car you can afford. But it's up to you to decide if it's to be a convertible or a sporty car or a wagon or an import or what. That's your decision no one can do that for you."

NEXT DAY, Saturday, John and his college roommate, a business major named Curt Willens, drove around to some of the city's more noisy and aggressive used car lots on Auto Row. Out to do some comparison shopping, John brought Curt along not only for moral support but also to figure the economics involved in financing and insuring his possible new car.

First stop: the biggest independent lot in town, the one that advertised unbelievable bargains on television.

Having parked his Chevy half a block away (as suggested by an article in Esquire), John and Curt entered the lot and were immediately taken in tow by a jolly, round salesman who asked them what they were looking for, how much they could spend, how

much they'd like to pay in monthly installments, all the while chuckling, cracking jokes, and seeming somehow as personable as John's own father. This salesman, whom John later recognized as a "liner," showed the boys one, two, three cars in hurried succession, saying they were "just right for college fellows like you." And then the liner just as hurriedly turned John and Curt over to another salesman as soon as they showed interest in a red Mustang coupe.

The second salesman seemed more relaxed. He sipped coffee from a paper cup. "Come on into my office," he invited, "and I'll get you guys some coffee, too."

John and Curt followed. The office was small, spartan, with a ring of wooden chairs lining the walls - like those found in a school library. Not very comfortable. "Just what kind of car you boys looking for?" the second salesman asked. "You kinda dig that little Mustang out there, huh?"

John said he didn't know for sure - it seemed awfully expensive, but before the salesman could cut in, John mentioned one of the TV specials one of those bargains shown in a commercial the night before. He took a slip of paper from his shirt pocket and read off the year, make and license number.

"Oh, that one. Yeah, I remember it." The salesman wasn't happy, " didn't sell it; one of the other salesman did right after we made that commercial. Some customer saw all the TV cameras and came up afterward and took the car for cash. But that was a terrible car. You wouldn't believe the mileage. Something like 165,000. You wouldn't want a car like that. I wouldn't sell it to you if you did. Lucky it's already gone. Now about this Mustang here. . . . '

"Well, then what about the '67 Fairlane 2-door for \$1350? Is that one already sold, too?" John again read off the license number. "It's another one you advertised last night."

"Say, you guys have to excuse me a minute. I'll be right back." The salesman got up and walked out.

Curt looked around. "He's ticked off. Sometimes they bug these offices," he said. "I read that once in Consumer's Reports."

"Come on," John said. "Let's get out of here. Forget the Mustang. It's too much anyway."

On cue, the salesman reappeared. He had a clipboard in one hand and a pencil in the other. Without fanfare, he ran down the clipboard with his pencil, reading off names of cars. Whenever he came to one he thought might appeal to John, he stopped for a reaction. "1963 Dodge convert;

Financing Traps

EASY TERMS and all that sounds great. And yet while you're making terms easy on yourself, you know you're paying dearly for that ease. Just how dearly you don't know. The few sentences below can save you bundles.

1) There's only one way to know for sure how much you're paying in interest. First find out what the car would cost if you paid cash. Then compare that full contract period and subwith what you'll have to pay by financing it. The difference is your total interest. Then divide by the number of years of the contract, and you have the true good record of repayment, own annual interest.

2) Remember that no dealer likes to sell for cash, unless he has something like a consignment

annual interest rates charged by various lending institutions:

> a) If you borrow on your life insurance: 51/2% simple.

b) Banks: 8%-12% simple.

union: as much as 9%-121/2 % discount.

d) Finance companies: up to 36% discount.

e) If you finance through the dealer: 15%-40% discount.

4) Always try to borrow at simple, not discount, interest. Simple interest (computed as a percentage of your unpaid but diminishing balance) costs about half of discount interest (computed on the total loan over the tracted before you begin payment). Most normal auto loans are discount.

5) If you have good credit, a or are buying your own home, you'll probably be rewarded with lower interest rates. Conversely, if you're a poor risk, have a poor car. He'd rather finance the car. job record, outstanding debts, 3) Here are the normal true etc., you'll pay through the nose.

6) If you borrow on the cash value of your life insurance, be sure you repay the loan within a reasonable length of time. You'll have to do this yourself — the But if you anticipate no problem company won't send you rec) If you belong to a credit minders. If you don't do it, much as possible.

though, you'll negate the savings of this type of loan.

7) The longer your contract. the more interest you pay.

8) You usually pay a higher interest rate on old cars than latemodel used ones.

9) The car isn't yours until you've made the final payment. Until then, it usually remains the dealer's or lender's. Some dealers write so-called "balloon payments" into their contracts. This means you have to make one huge final payment. If you can't meet it, the dealer can legally repossess the car, thereby netting the down payment, all interest, plus the car itself, which he then resells. If you make this kind of deal, make sure you are in a state that has a law similar to California's Unruh Act, wherein you do not necessarily lose everything if you fail to make the last payment.

10) In a few states, you lose your down payment if you default on monthly installments. If you're on shaky financial ground, put down as little as possible. meeting payments, put down as

Money-Saving Tips

1. First decide what year, make and what model you want. This can save indecision and the possibility of being sold up to something you didn't originally intend to buy. It will also allow you to shop, looking only within the range you have established for yourself (unless you run into an irresistible bargain in something else), and you will be able to make more valid comparisons. Allow yourself plenty of time, so you aren't rushed into making an unsure purchase.

2. Peruse the classifieds first before going to a lot. This will enable the prospective buyer to check both private party and retail offerings. The classifieds should be checked for some time before making a foray into used car jungle land. This is done for several reasons.

A. Allows you to check-out private parties. Often these cars are priced lower than retail.

B. You can check the model, etc., you want in various dealer ads to arrive at average prices.

C. You can get some information over the phone, especially from private parties.

3. At the Dealer: if you see a car you like and want, try to talk him down. Don't be afraid to bargain. Don't let him see your car or he will try to sell you accordingly, using your car as a bargaining point.

If you don't get the deal you want, and you aren't in a hurry (the time factor again), walk away. But check the lot once a week or so to see if the car is still there. Return once a week and re-bargain. They will know you are still warm and may bargain if the car isn't moving and they're on the verge of wholesaling it.

1. If you want to pay a minimal amount, decide on a make and model that doesn't move too well for some reason based on equipment. Go after one with a 3-speed column shift in a



Unlike Arabs, Americans do not follow intricate rules of haggling. We simply bludgeon each other with insults and shouts. Perhaps that's why we have precious few flexible prices left to haggle over.

Automobiles, like horses before them, remain the most common objects of haggling. Without formal ground rules, certain basic points hold the key to success in haggling. As you read these below, look at them from both sides-buyer's as well as seller's.

1) The entire idea is to gain a moral advantage over your opponent. You do this by attacking his view of himself, not by attacking his reason or honesty.

2) He who shouts least shouts loudest. The less you say, the better. In dickering for a car, the buyer's best gambit is to say absolutely nothing after the salesman quotes his first price. Hearing no response, the salesman will often lower his own figure without further verbal prodding.

3) After briskly traded offers and counter-offers subside, the haggler who breaks off negotia-

top-of-the-line model, for instance; or a car with no radio and black walls. (You can always dress up the car yourself, at probably less than dealer mark-up.)

Always have a professional mechanic friend check over any car in which you are interested.

tions carries the advantage. The one who reopens them loses the advantage.

4) Always try to keep figures as simple as possible. An argument can often become bogged down in details if too many parts of the deal hinge on other parts.

5) Emotion has its place. Where certain obvious displays of demonstrative logic can influence the haggling, they should be introduced. For example, if you can prove a car's inferiority by knocking off a fender with your fist, do so. But, be prepared to pay damages!

6) Corroborating evidence in the form of, say, an automotive diagnostic center's report of ill health may also be used to bring the seller's price down in partial payment for repairs.

7) When answering a seller's opening bid (after observing #2 above), make your offer at least 25% less than you're willing to pay. Example: seller asks \$1000 for car. Buyer willing to buy for \$800, thus offers \$600.

8) If negotiations run into days, weeks or months, never be the one to phone the other party, no matter on what pretext.

9) Keep your temper at all times. Loss of temper means you're nearing softening. Notice that salesmen never get angry.

mumble...1964 Rambler Classic 2door; mumble, mumble...1962 Valiant coupe . . . any of those grab you?" "How about some prices?" asked

"You let me know which ones you'd like to drive and we'll go over and look at them. Then we'll talk money, okay? I haven't even seen your trade

"No," said John in counter-proposal. "You tell me first what you're asking, and then we'll go over and look. Or let's just get started looking." No one could ever seem to get the ground rules set. They kept having to be made up.

John started to walk out, and Curt followed. By this time both were becoming peeved. Restless. The salesman followed, talking quickly. John spotted a '62 T-bird convertible and headed that way. He climbed into the car, started it up, let the engine idle, listened closely, noted the odometer at 73,478, then got out and walked around the car. It looked better than it should have. Detailed, obviouslynew blackwall tires, probably 3rd-line



and surely incongruous; a reconditioned engine compartment you could eat out of; new trunk mat; same old spare, though. Like an egg. "How much is this one?" John asked.

The salesman looked at his list again. "Says here \$895, but I'll see you boys get it for a lot less than that."

"How much less?"

"Let me take a look at your car. Then I can tell you better."

They all walked out to John's '58 Chevy, half a block away. By now that car looked awfully cloddy. He should have washed it at least. There were gum wrappers on the floor. It desperately needed detailing, inside and out.

The salesman didn't seem to care about these small distractions. He got in, cranked the engine to life, and disappeared around the corner. John and Curt looked at one another. Then they walked back to the lot offices.

For 15 minutes they waited ... silent ... hands in pockets... unattended by anyone in the lot. They were trapped, and now they knew it. Their salesman returned on foot - no telling where he left John's car.

"Tell you what," the salesman said in happy greeting. "For \$600 and your car, I'll give you the T-bird. Have we got a deal?"

"Have we got a car?" John asked. "Where'd you put my Chevy?"

"Oh, it's around the corner. What do you think about \$600 and your

"That means you're giving me less than \$295 for my Chevy."

"Why less?" countered the salesman. "I am giving you \$295. And that's about \$200 more than I'll ever get back for it. It also means I'm giving you the Thunderbird for \$695 - your \$95 car and \$600. That's pretty fair if you ask me. Any terms you want. How much you say you'd like to pay a month?"

Curt interrupted. "Suppose we do finance the T-bird, pay say \$300 down. trade in John's Chevy, carry the rest. How much would payments come to?"

"Depends on how long you finance it for. I'd have to let my sales manager give you the exact figures. If you want me to, I'll let him give you the whole tally. How's your credit?"

Figuring they'd come this far, Curt and John looked at each other and agreed to take the next step - just to see what would happen. "Credit's fine," said John.

THE SALES MANAGER came on small and hungry-looking. Everything about him meant business - his suit, his jangly keychain, his worried look, even the sales-achievement diplomas plastered over his office walls.

The sales manager introduced himself as "Gruder," then kept the boys waiting while he whispered into his

Buying Insurance

WHENEVER YOU BUY a used car on time, either the dealer, the lender or both will insist that you also buy certain insurance coverages to protect your ability to fulfill the finance contract.

You're always required to buy collision coverage plus comprehensive/fire/theft. Most sellers and lenders also recommend (but don't insist) that you buy life/ accident/health insurance at the same time.

Collision coverage, either \$50 or \$100 deductible, protects their car in case it gets mangled in an accident. This way, supposing you have minimum equity in the car and an outstanding balance of \$2000, the car will be repaired and you can't simply say, "Okay, it's smashed. Take it back. I don't want to pay for fixing it."

Comprehensive similarly protects their car (it's theirs until you make the final payment) in case of vandalism, windstorm, etc.

And in case you die, have an accident, or come down with an illness that takes you away from work, the recommended life/accident/health term policy guarantees the dealer and lender of being paid in full, though it doesn't mean you will stop making payments.

In all these coverages, the dealer and/or lender benefit directly. You benefit only indirectly.

Cost of coverage varies, depending on locale, your age, credit rating, driving record and the type and age of the car you're buying. In very round figures. though, all the above coverages

telephone. Finally he hung up and

said, "Well, I hear you're interested

in the '62 Thunderbird convertible

out there. Quality car. Yessir, lots of

good miles in it. How you want to

him \$300 cash down, \$295 allow-

ance for John's trade-in, and the other

Curt took over at this point. He told

"How much you want to pay a

"As little as possible," Curt returned.

"If you're serious about that, we

"Suppose John did pay the \$300

can stretch payments out over 36

out over 36 months. How much would

months. Be glad to do that."

pay it out?"

\$300 financed.

month?"

taken together average roughly \$150 a year for the married male over 25 if bought through a dealer. For unmarried males under 25, it's nearer \$250 a year.

When you must buy "finance insurance," you have the option of getting it through the dealer and/or lender - or of buying it on your own. When you buy through a dealer, he handles the insurance purchase as a sort of "option" attached to the car. A \$1500 car, for instance, with \$150 worth of insurance, would be treated as a \$1650 car. The full \$1650 would be financed at a single interest rate.

By all means, search thoroughly for V.S.I. - "Vendor's Single Interest"-an insurance that assures payment of the outstanding debt to the dealer in case the car is wrecked. This insurance is very cheap - vastly more so than any normal insurance.

Put simply and briefly, here are some rules you should follow when buying "finance insurance" on a used car:

1) Avoid buying life/accident/ health coverage if possible. You won't need it if you have adequate life and health insurance of your own.

2) Shop around for collision and comprehensive/fire/theft coverage. This can easily save you \$10-\$30 by shopping around.

3) Never lie about your driving record. If you've been involved in accidents, have made insurance claims, or have been cited for moving violations within the past 3-5 years, say so. You can't fool the DMV's computers, and lies can only cost you money when detected.

that mean in payments each month?" The sales manager hunched down over his calculator and quickly set it whirring. Two minutes later he had the answer. "Ten dollars a month, as-

suming your credit's good."

Curt did some quick calculations of his own. "That's 20% interest a year," he said almost in a shout. That's crazy."

"But it's only \$10 a month," returned the sales manager. "Anybody can afford that. I'm including all insurance, naturally, and we'll even toss in title transfer and license. Then there's a 90-day or 3000-mile warranty to cover all parts and labor. You won't

find better than that, boys. What do

you say?" He was already reaching into his desk for a contract.

"We say no," blurted Curt. John, in a cooler state, remained rational. "Well, let us think about it and shop around some more. We'll let you know."

"Whatever you say, boys."

It took them 45 minutes to find the salesman who'd taken the keys to John's Chevy. And 15 minutes to walk to the spot where it was parked.

"Let's go over and see Chick and find out what interest rate he charges," suggested John as they headed for the lot Jerry had taken John to the night before. John let Chick get off the phone before putting the question to him. "What interest rate do you charge on cars you sell?" he asked straight out.

"Whoa, there. Slow down," Chick said. "Is that where we left off last night? What kind of question is that?"

John told Chick what had happened -the whole story, about the 20% interest on the 1962 Thunderbird, the stalling, the runarounds.

"Sounds typical. You got the royal treatment all right.

"Well, on the subject of interest rates, many dealers charge as low as 41/20/o. Then there are others who charge what they can. That's really not too bad, 20%. Some charge 30%, 36%, even 40%. It's a sliding scale the higher the risk, the more the interest, partly because the payments are stretched out longer, partly because it's an older car. But it isn't a sliding scale like a doctor's - car dealers don't charge on a person's ability to pay. Just the opposite. The poorer or riskier the buyer, the more he pays. So consider yourself lucky at 20%. Flattered, even. Sure, most states have usury laws preventing dealers from charging more than 12%, and in some states it's 10%, except on small loans where they can charge as high as 30% on the first hundred.

"Anyway, here's how it works," Chick went on. "Very few dealers, especially independents, carry their own contracts. They might say they do, but they don't. We make up contracts, sure. If I make you up a contract for what amounts to 20%, I'll turn around and sell it to a finance company that gets about 15% out of it, and I'll be ahead by 5%. I get my money right away. All I do is guarantee that you'll be good for the payments. If you aren't, I repossess the car, pay off the outstanding balance, and sell the repo again. No problem. I get your down payment plus the car. You with me?"

"Yes," said Curt. "But why can't I go straight to the same finance company and get the same loan for 15%? That's still outrageous, of course, but it's bet-

-- .. UNCI A. WUIT



for you, too?"

"More or less, yes. Well, there's no reason you can't go out and shop for better interest rates. You should, in fact. Most people don't because they are either too lazy or don't know how. But most lenders - banks, life insurance, credit unions, saving-and-loan associations - give better rates than dealers. No secret about it. Having the dealer make you a package deal is a lot easier, though - takes a lot less time. So people take it.

"The other place - the third way to skin the cat - is on insurance. Some dealers make you take out certain insurance. It's all for their benefit, in case you die before you pay off the car or in case you wreck it. You pay for all this coverage, but the dealer collects if anything happens. You need similar insurance of your own. If you want to save, buy all this insurance yourself, either through your regular agent or any other. But not through the dealer, because he'll finance it for you, at the same rates he finances the car and at the same time. No insurance company charges rates like that.

"And here's the important thing. Always make sure you read the contract very carefully before you sign. I mean like a lawyer. Here, let me show you." At this point, Chick pulled out a blank contract. "It's foolproof. You sign here and it means you're making a bid on the car-you're asking and promising to buy it. And you sign here and it means you've read everything in the contract and agree with all its points and stipulations. Naturally you haven't read it and you never will. Even if you one thing I still don't understand. The

on the back, in this small type, it says I reserve the right to reappraise your trade-in anytime before you take delivery of the car I'm selling. In other words, according to this contract, I can legally quote you one allowance for your trade and then give you a lower one later on. That's also covered here where it says any promise made verbally is superceded by written agreements put down here. Or it says that any warranty must be written out in full on a separate piece of paper. Mostly I just give a spoken warranty, and if I weren't the good guy I am, I could welch whenever I wanted. I don't, of course, but some dealers do."

"How do I know I can trust you?"

"Would I be spilling all these trade beans if you couldn't trust me?" Chick replied. "Now I'm trying to be good to you, but you don't make it easy." "Okay, I apologize. You're right."

"Now let me tell you something else," Chick continued. "You were darn lucky - just dumb lucky - you found out the total cash price of that T-bird before you got into financing figures and interest rates. Most people will first tell how much they want to pay each month. That way they never can pit cash price against total financed costs. You're always best off offering cash first, just to see what that comes to. By the way, is that Thunderbird the sort of car you're looking for?"

"I don't think it is," said John. "We were just testing the salesmen with that car. I sort of had my eye set on a red Mustang they had sitting there. But

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'62 T-bird came to \$695, even though it probably cost \$4500 new. The 1965 Mustang, at maybe \$3000 new, still sells for around \$1600. If depreciation rates were more constant, both cars should be worth about the same with the 3-year age difference. Or?"

"Now you're entering the nonsense world of depreciation. There's very little rhyme or reason to it - different cars depreciate at different rates. The old '62 Thunderbird, especially the convertible, depreciates fairly quickly. The Mustang, meanwhile, holds its resale value better than most. That does not mean one car has to be better than the other. In fact the T-bird could be better, with more miles left, more reliability, and the rest of it. It depends. But if anything, it's a matter of supply and demand. If people want Mustangs, then Mustangs depreciate slowly. Some expensive cars are drugs on the market after they've been driven a few years. You can pick up a used Corvair for a song nowadays."

"But is depreciation only a matter of supply and demand?" asked Curt. "I thought it was more involved."

"It is," continued Chick. "A used car's value depends on a number of things - its age, its mileage, accessories, body style, general condition and, probably most important, its brand and model. And image. For instance, if you can see yourself driving a 6-cylinder '64 Valiant sedan, you can get it for a lot less than, say, a '64 GTO in identical shape, even though both will give you the same number of usable miles. Both cars will get you the same places, offer the same comfort and capacity, and so forth. Naturally, the GTO commands more prestige, and it's more in demand. So it costs more. So does gas and insurance for it."

"So it's largely a matter of how I see myself," said John. "Whether I consider myself the GTO kind of guy or the Valiant kind."

"Well, which do you?" asked Curt.

"Then, before you answer, ask yourself this," Chick put in. "Can you afford the image you think you need? I know a butcher who fancies himself an exotic British sports car owner. All his life he's wanted to own one of those gorgeous babies. New they cost too much, though. Used they're even more expensive, because he knows that every 30,000-40,000 miles his will go flooey and need a new everything. So this butcher, being basically sensible, drives a 4-year-old Plymouth. He's miserable, but at least he's not broke. Now lots of other people aren't so sensible. They can't afford the new Cads and Rivieras and Imperials, but they're driving them anyway, going deeper and deeper into debt just to prove something - I don't know what."

"Well," said Curt. "You're taking the

Glossary

EVERY LINE of business has its own distinctive jargon. Following are some of the more colorful words and phrases common to the used car industry. It's salesmen's talk, and to anyone who isn't a salesman, it's pure Sanskrit if you're hearing it for the first time.

— Front Money. Down payment on a new or used car.

- Leak. A poor credit risk.

— Mickey. A leak who doesn't have enough cash for front money. A used car salesman will steer the typical mickey to a "mickey house."

— Mickey House. A loan or finance company that offers easy credit. By accepting a mickey's furniture, home or other assets as collateral, a mickey house will sometimes advance not only the front money but the total contract. This then becomes what's referred to as a "full mickey."

— Liner. The first salesman you meet, the big, smiley fellow — the official greeter. His main job is to make you feel at home, at ease. He then hands you over to one of the "suede shoe boys."

— Suede Shoe Boy. The ordinary but usually fast-talking salesman who listens to a customer's needs, recommends certain makes and models, and prepares the customer for the ultimate sale. The suede shoe boy often has no authority, though, to close the deal himself.

— Closer. The man who does have authority to quote final figures, make the actual sale and take care of nagging details like terms and insurance. Liners and closers are more common to new car showrooms than used car lots, although the larger lots do have them.

— Door Pop. The buyer who comes onto the lot looking for one particular model and who refuses to look at anything else.

— Flake. Someone who comes onto the lot with a particular car or particular price in mind but who, after a little coercion from the salesman, backs down and considers other choices.

— Laydown. Any buyer who's especially easy to sell.

conservative attitude. There must be a way to have your cake and eat it too. Aren't there some cars that depreciate quickly at first and then level off, so if you buy them used, you can sell later and not lose too much?"

"Sure, but that takes a real expert. Also, remember that you don't always know how long you're going to keep a car. Your situation changes. You get married. Or drafted. Or change jobs. So you have to get rid of your new used car before you figured. It's very important to plan ahead. But where does all this leave us? Are you going to buy one of my good deals, or are you still going to shop around some more?"

"The only type of dealer we haven't tried," said John, "is the new-car dealer — his used car lot. Maybe we ought to check out a few before we give up and let you sweet-talk us into one of your clunkers."

SUNDAY, the next day, John took Curt back downtown to a new-car dealer. Here, they were again met by a "liner," who turned them over to a "T-O" man (take-over man in suede shoes). Then they ran up against the stall treatment again. But all in all, it wasn't nearly so bad as the big-volume dealer they'd gone to the day before. The new-car dealer's used car salesmen were less pushy, seemed more above board. Their cars were more expensive but generally in better condition, largely because most were late models. A few late-model cars carried appealing price tags, but John found out these were extremely high-mileage lease vehicles. Some 1967s showed 90,000 to 100,000 miles on the odometer. The salesman assured John that all these cars had very good care and could probably withstand another 35,000 miles of service. For someone who wanted latemodel, prestige transportation at a low initial price, they seemed all right. But John didn't need wheels of that sort.

John was now ready to begin test driving and bringing used car candidates to the local auto diagnostic center. He'd start Monday, comparing the cars and deals he could get from newcar dealers' used car lots versus those Chick offered. John was in no hurry now. The initial fervor had worn off he didn't have to replace his Chevy right then and there. Things could take their own natural set. He'd shop for financing and insurance as soon as he had a definite car picked out. And he was clear in his own mind what sort of car he wanted, even though he hadn't pinned it down to one specific make, model and body style.

Suddenly the confusion of all those days before vanished. He could see daylight again. He was about to buy himself a used car. And probably do a good job of it.

Your Best Buy?

HOW TO READ: Upper figures give current new and used prices. Lower percentages represent remaining value as compared with each specific car's price when new (not the 1968 new price). Values for U.S. cars are for 4-door sedans with V-8, radio, and automatic transmission except as otherwise noted. For imports, values are again for 4-doors (except when not available) with radio but without automatic unless otherwise noted. Prices for all new (1968) cars include the aforementioned options plus federal excise tax and duty (if any) but exclude destination and preparation charges. Values were taken from the Kelley Blue Book, Western Edition, March-April, 1968, issue, with permission.

IMPORTED CARS							
	NEW 1968	1967	1966	1965	1964	1963	1962
Alfa Romeo's	4303	3535	2980	2750	1745	1420	Ξ
Sprint GT	100%	82%	71%	64%	48%	39%	
Austin-Healey	3685	3220	2750	2410	2115	1805	1455
3000 conv.	100%	87%	75%	65%	59%	50%	42%
Cortina	2053	1550	1265	985	805	735	Ξ
Deluxe	100%	76%	62%	48%	39%	35%	
Datsun PL-510	2056 100%	1680 ¹⁴ 84%	1265 ¹⁷ 73%	1075 ¹⁰ 61%	9551* 54%	2	=
Fiat 1100	1614	1105	955	805	665	525	430
4-cyl. sedan	100%	69%	60%	49%	39%	33%	25%
Jaguar ¹	5585	4310	4195	3785	3065	2670	2440
XKE coupe	100%	77%	75%	67%	55 %	45%	41%
Mercedes-Benz	6282	5355	4760	3095 ²¹	2585 ²¹	2235 ²¹	1870 ²
250-SE	100%	82%	73%	58%	49%	42%	35%
MGB	2565	2500	2205	1930	1680	1485	1015 ²⁴
convertible	100%	90%	79%	69%	62%	53%	38%
Opel Kadett ^{is}	1815	1585 86%	1265 70%	1015 56%	835 46%	=	Ξ
Porsche!	5990	4870	4365	3690 ²²	3190 ²²	3035 ²²	2695 ¹
911 coupe	100%	81%	68%	78%	65%	64%	56%
Renault	1805	1420	1045	865	735	595	
R-10/R-8	100%	81%	59%	47%	39%	31%	
Toyota Corona	1840 100%	1680 92%	1455 80%	865 ¹⁷ 51%	===	=	Ξ
Triumph TR-4A	2835	2500	2205	1965	1680	1485	Ξ
convertible	100%	83%	75%	67%	58%	51%	
Volkswagen ¹⁵	1759	1775	1550	1295	1170	1045	955
beetle	100%	100%	90%	75%	71%	60%	57%
Volvois	2835	2325	1995	1710	1455	1265	1135
122-S	100%	84%	74%	64%	55%	48%	42%

FOOTNOTES: 16-cylinder; 2called "400"; 2called "LeSabre"; 4coupe (not fastback); 3called "Lancer"; 44-door hardtop; 2called "Deluzer"; 3called "Classic 770"; 3called "Ambassador 400"; 3called "Classic 400"; 3called "Super 88"; 3called "V-200"; 3called "Belvedere." 3called "Super 88"; 3called "V-200"; 3called "Belvedere." 3called "Super 80"; 3called "V-200"; 3called "Belvedere." 3called "Belvedere." 3called "Belvedere." 3called "Super 80"; 3called "V-200"; 3called "Belvedere." 3called "Be

DOMESTIC CARS	3150			n di k			13-5-1
	NEW 1968	1967	1956	1965	1964	1963	1962
Ambassador 990	\$3176 100%	2385 79%	1900 64%	1585 53%	1230 41%	985 33%	630° 21%
American 440	2343 100%	2025 84%	1615 63%	1265' 52%	9851	735 ¹ 31%	595 ¹ 26%
Barracuda fastback	2961 100%	2555 86%	2085 72%	1710 61%	1360 49%	Ξ	Ξ
Belvedere II	282714		1805	1485 55%	=	=	=
Bulck Le Sabre Custom	3335 100%	2835 81%	2385	1930 56%	1390' 41%	10751	835 ² 24%
Cadillac Eldorado	6705 100%	6760 105%	=	=	=	Ξ	=
Cadillac Sedan de Ville	5885 100%	5140 88%	4030 70%	3160 54%	2235 38%	1745 30%	1295
Camaro	2944 100%	2470 89%	-	=	-	-	-
Charger fastback	3290 100%	2835 84%	2385 70%	=	=	2	Ξ
Chevelle	2830	2265	1775	1485	1230 46%	-	-
Malibu Chevrolet	3201	2325	1805	1520	1265	1045	865
Impala Chevy II	100% 2769	76% 2175	1745	50% 1455	42% 1230	35% 925'	770
Nova Chrysler	100% 4580*	82 % 3375	70%	56% 2355	48% 1650	38% 1265	31% 895
New Yorker Comet Cyclone	100%	78% 2525	66% 2205	55% 1775	39% 1390	30%	21%
Coronet	100%	84% 2325	70%	63% 1485	48%	-	
440 Corvair ¹	100%	82%	66%	54%	1045	865	700
Monza coupe	100%	77%	63%	51%	42%	35%	28%
Corvette fastback	4763 100%	4030 85%	3535 75%	3035 64%	2695 59%	2355 51%	18054
Cougar XR-7 coupe	3482 100%	2375 71%	=	=	=	=	=
Dart 270	2738 100%	2325 85%	1870 71%	1550 59%	1230 47%	955 ¹ 39%	665° 27%
Dodge Polara	3255 100%	2585 78%	2115 66%	1775 55%	1265 41%	1045 34%	865 ¹ 22%
Fairlane 500	2882 100%	2205 79%	1710 62%	1420 52%	1075 41%	895 34%	770 29%
Falcon Futura	2812 100%	2115 79%	1680 64%	1390 54%	1135 44%	955 36%	595° 24%
Firebird coupe	2887 100%	2835 94%	=	2	Ξ	Ξ	Ξ
Ford Galaxie 500	3221 100%	2325 75%	1805 59%	1485 49%	1170 39%	925 30%	700 23%
GTO coupe	3351 100%	2805 93%	2385 79%	2105 68%	1620 51%	=	=
Imperial Crown	5734 100%	4085 74%	3410 ⁴ 58%	25554 42%	1930* 33%	1325	985 17%
Lincoln Continental	6050 100%	4930 83%	3660 62%	2780 44%	2235 36%	1775 28%	1420 23%
Mercury Park Lane	3802 100%	2780 71%	2295 60%	1840 49%	1390 37%	=	=
Mustang	2958 100%	2610 92%	2175 79%	1805 67%	=	Ξ	Ξ
Oldsmobile Delta 88	3607 100%	2980 82%	2440 68%	1930 54%	132512	985 ¹² 27%	735"
Olds F-85 Cutlass	3030 100%	2265 78%	1995 68%	1745 ⁴ 60%	1390 ⁴ 48%	1105 ⁴ 38%	865° 30%
Plymouth Fury II	3015 100%	2295 77%	1840 62%	1520 52%	1200 ¹⁴ 42%	1015 ¹⁴ 36%	6651 25%
Pontiac Bonneyille	3910 100%	3125* 79%	2440° 63%	2025° 52%	1485* 39%	1135 ⁴ 29%	895 ⁴ 23%
Rebel 770	2898 100%	2085 75%	1650° 62%	1325* 48%	1015* 36%	835° 30%	560'- 21%
Riviera coupe	4715 100%	3970 87%	3285 73%	2500 56%	2175 49%	1840 41%	=
Tempest Le Mans	100%	25254 81 %	2085* 68%	1615 56%	1420 ⁴ 50%	11354	20%
Thunderbird coupe	4796 100%	3625 79% 3755	2640 59%	2145 48%	1805 40%	1230 27%	1045
Toronado coupe	4830 100%	79%	3035 65% 1775 ¹²	1455"	117013	9251,12	7001.1
Valiant Signet	2824 100%	2295 82 %	69%	57%	46%	39%	29%

It's an innate sense with the Beautiful People, and they can't explain it until after the fact. They just know that as soon as the ticky-tacky dum-dum brown-shoe lemmings, spread wall-towall in suburbia, accept something, then it's a wise reaction for groovy people to reject it. So there might be a formula – "Collective Rejection" for anything "In"... and "Collective Acceptance" for anything "Out." Whatever it is, it's not logical or reasonable, because logic and reason are customary among those ticky-tacky dum-dums.

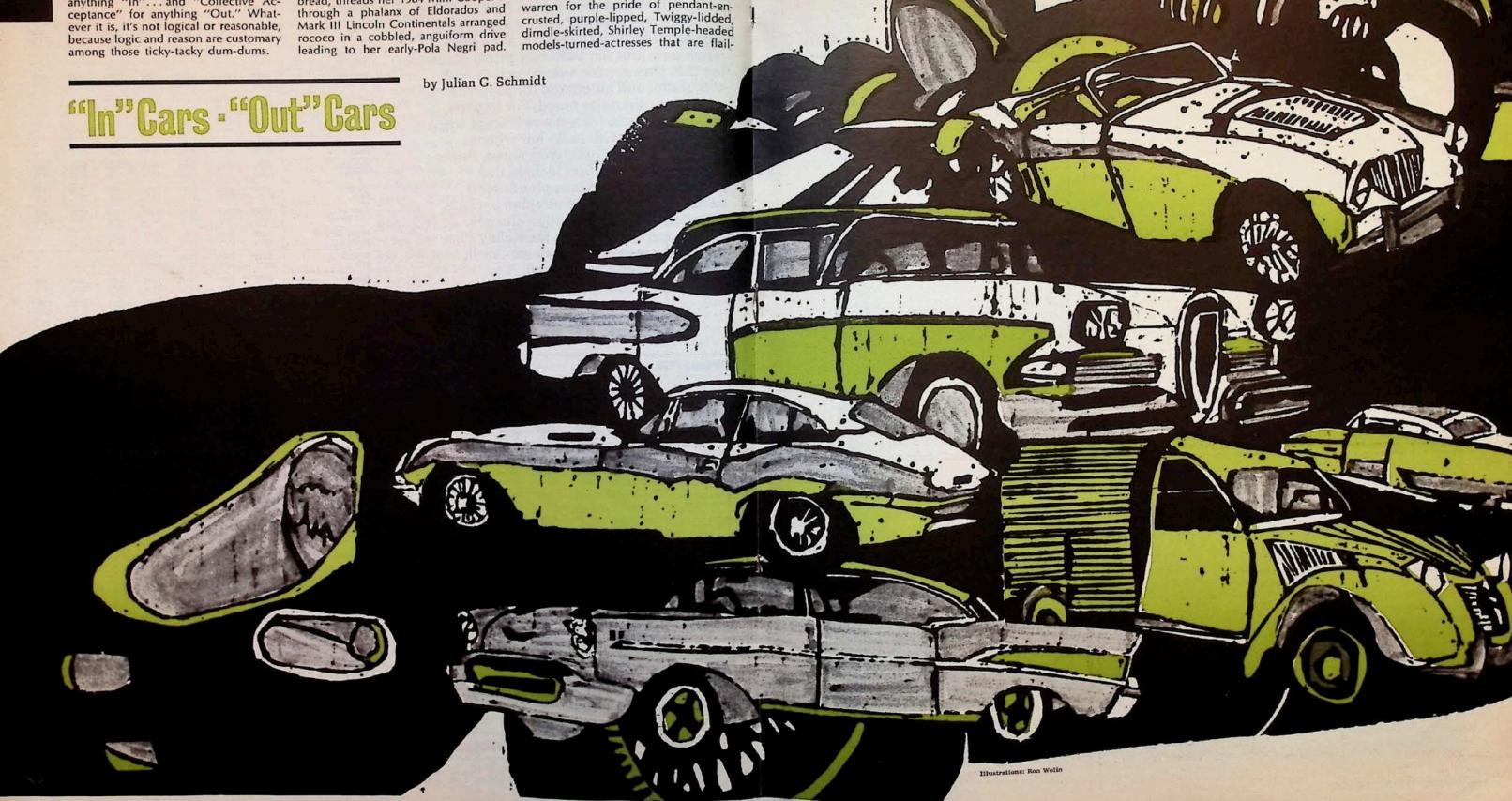
"Nice" has become a 4-letter word, sensible behavior is a drag, and thousands now think they're pretty smart after having just discovered it within the past three years, even after Hoflowers, though the world should think

me mad," all the way back in B.C.
So somewhere an in-gear bird with bread, threads her 1964 Mini-Cooper S through a phalanx of Eldorados and

She's throwing the party in her wideknit micro dress without the body stocking. She's absolutely out of sight. Boss City's movin' mage. The New Wave nitty-gritty. She's got Soul.

Across the street a 35-year-old, 4-day rancher, 3-day Trans-Am campaigner,

after-6-Guru-suited-swinger plugs in his \$300,000 Samoan discotheque-bedroom that doubles as the West Coast warren for the pride of pendant-en-crusted, purple-lipped, Twiggy-lidded, dirndle-skirted, Shirley Temple-headed





"In" Cars, "Out" Cars

ing their vinyl legs from subterranean doors of Lamborghinis and Bizzarinis. His 1965 Ferrari 250 LM - its original engine recently rebuilt-is on the lawn, still hot.

On Malibu, a 17-year-old bitchin' head just finished a teevee stand with his new group, "The Infinite Regress," then traded his '67 Camaro for a '64 Corvair Monza Spyder and headed for the New Zealand surfing championships, using his mother's American Express card since his sister took his ol' man's for the Cannes Film Festival.

Pattern? You figure it out. The only way you can define "In" is to discover your clique's collective bias, declare yourself "sophisticated," cite history to determine where the outside majority stands, then do the opposite and stay ahead until the squares realize their former rejections were, after all, Fun, and begin trying to catch up.

Somewhere among the selections of 1968's In used cars is at least one for each of the vagaries of Beautiful People, and nearly all of them within reach of the poor ones. The complex images they satisfy prevent a rating system. Nevertheless, there are distinct leaders.

1965 Ferrari 250 LM . . . Though wealth is a marginal, and many times unreliathings being equal, it makes you just a little bit more Beautiful. Besides, it's the only way you can have a Ferrari 250 LM. There is nothing more In than a pure Ferrari racing car that won at Le Mans, converted to the street - a qualification that fills marginal pseudo-Beautiful People with dubiety only because they will never dig anything more than the superficialities that marginal pseudo-Beautiful People dig.

Citroen 2CV panel truck ... Close behind is the opposite extreme - the ridiculous rendered sublime. Citroen's Clemenceaunian breadbox, a perennial In leader for anyone who doesn't take it seriously. The greatest internal-combustion put-on ever conceived.

Possession of both these gems is unequivocally out of sight. It cannot be improved upon. A state that is In with

But with lesser folk the rating system is not so simple. Once below the peak, the "peer preference" factor must be applied, so you begin determining your biases. Whatever the determination, any one of nine other cars can give you an assured chance in many of several groups. '57 Chevrolet Bel-Air hardtop

'64 Mini-Cooper S

'53 Hudson Hornet Coupe with twin H-power

'54 Healey Le Mans

'66 Chevy II with 350-hp engine Any Edsel

'64 Corvair Monza Spyder Any Triumph TR-3

Any Jaguar XKE Coupe

A number of others deserve Honorable Mention. Though their respective gratifications are slightly more specialized, they, too, boast fervid support from many sophisticated circles. With

ble, factor, let's face it ... all other even a random choice from one of the following, you will still be safe.

'55 Kaiser '65 Saab Monte Carlo

'60 Porsche Carrera Any station wagon with

blacked-out windows

'61 Pontiac Ventura hardtop '60 Sprite

Panel truck of any year '55 Studebaker Commander

'65 GTO

'65 396 Chevelle

Blind loyalty, unsuccessful attempts hamstrung by compromise and/or frugality, intrinsic bad taste, avoirdupois, and uninspired professionalism all contribute to force many cars far Out beyond even the most sympathetic understanding of the most tolerant liberal. As minimal transportation, they're still embarrassing. As objects of ridicule, they're not even Low Camp.

'59 Ford

'61 Renault Dauphine

'60 Rambler Ambassador

Any Aston-Martin DB2

'59 Chevrolet '64 Austin Healey

'58 DeSoto

'60 Jaguar XK-150

'63 Studebaker Hawk Any Mercedes 190 SL

'60 Mercury Comet

'58 thru '60 Thunderbird

'58 Arnolt-Bristol

'66 Rambler Marlin

'58 Borgward station wagon

'60 Plymouth

'61 Maserati 3500 GT

'61 Studebaker Lark

'60 Opel

'58 Buick

'67 Skoda

'62 White Ford Fairlane with dented hood

The "Sleepers" by Julian G. Schmidt

The "economy" car myth is about to be blown right out the window. You, yourself, have known loudmouths who claim they have the best economy car in the world because it gets 52 mpg, even though it costs them thirty bucks a week just to keep the engine turning. Others brag about the fact that their economy car only depreciated \$1000 in four years, but they don't mention it doesn't have enough comfort and room to satisfy even the most primitive

Well, fella, if you want economy . . .

and we mean real cost accountantbasic pennies and dimes "economy," there's only one answer. The Sleepers. As a second car, there is nothing cheaper for 15 or 20,000 miles. As a commuter, there is nothing more comfortable and roomy for the money. As a palliate for the nerves, there is nothing more dependable. As a joke, there's nothing more Camp. As long-distance fulfill. transportation, there's nothing more dangerous.

But the fact remains that those net numbers under "total cost of car" can-

not be lower than they can with a Sleeper. These mobile quiddities of simplicity live because of that very fact, and today, with such a strong emphasis on planned obsolescence, shoddy quality control and complex conveniences and accessories approaching those of the Plaza Hotel, Sleeper qualifications are becoming drastically difficult to

Nevertheless, standards remain strict, for each car must satisfy all of the following:

(a) Purchase price not exceed \$250.

(b) Car must be cheapest model of (f) Absolutely no power-assist equiplowest line.

(c) Must be sitting in back of dealer's lot - untouched from trade-in or wholesale condition. You must request, if not beg, dealer to sell it to

(d) Powerplant must be crudest rendition of an internal combustion engine with as few moving parts as possible. Engine should be, preferably, a flathead with no more than six cylinders. Exceptions can occasionally be made upon study, such as overhead valves with six cylinders, and occasional V-8s. V-8s however, should never have overhead valves.

(e) Only 3-speed manual transmissions. Column shift preferred.

(g) Total absence of service record. Conditions are ideal if it has not been touched for at least 10 months.

Since few cars qualify, they are therefore difficult to locate. For that reason, any of the following are modestly recommended if they are not rife with ominous noises while operating, or hunkered pathetically over a pool of oil or other essential liquids. In fact, the more dry and rusty the engine and drivetrain, the greater your chances of its reliability.

One word of caution: do not ... we repeat - do not touch any portion of the car's mechanical apparatus. The annals of history contain the most intimate secrets of Man's knowledge and wisdom, but nowhere among the most profound texts of our scientific reservoir is there an adequate explanation as to why Sleepers continue to run. Whatever it is, it is the only facet of modern civilization that must not be guestioned. It must remain above the inquiry of mankind, and therefore beyond the tampering of our imperfect hands.

1946 Mercury 1948 Chevrolet

1948 Ford 1948 Plymouth

1950 Chevrolet 1950 Ford

1950 Studebaker

1954 Ford Mainline 1958 Rambler American

Sleepers are swell, if you look at them right.



Motor Trend's first annual

used car awards program by Julian G. Schmidt



INTERMEDIATE — 1966 Oldsmobile Cutlass

Another era has ended. The Days of Soul are here, and it is no longer possible to merely consult omnipotent charts and tables with traditionally naive empiricism and mathematically derive the most practical used car for mundane utilitarian purposes. If that's all you want, then turn directly to "Sleepers," page 61, because simplicity is your only answer.

On the other hand, if you still prefer to gratify a few of those ego-fostered idiosyncracies and/or good taste and a touch of class and you still remain rational, Motor Trend presents here the Used Cars of the Year Awards Program.

There are generally acknowledged groups into which cars can now be classified because of their design/function concept, price, size and other distinguishing characteristics. The fact that these cars are not new is irrelevant. Prestige or image indicate humanity and possession of aesthetic senses, and Motor Trend highly recommends, for those interested, that these qualities be considered. As "passion without reason is blind," and "reason without passion

is dead," the entire matrix of depreciation tables, durability and changing life styles have been consulted equally in all choices.

SPORTS - 1964 Sting Ray

Give it one more year, and the Sting Ray will be venerable. The last of America's short-bodied, visceral beasts for primitive, virile desires, it was packaged in an unsophisticated but honestly sexual body, bulging with sundry suggestive lumps and projections instead of being the obvious, arty phallic rendition that is fashionable now, but that reflects too much studied refinement. The Sting Ray looked like an impulse, not a decision, and for the unadulterated enthusiast, that's exactly what it should be. With the '65 model, you get 4-wheel disc brakes, 4-wheel independent suspension, and a car that's not too old to make "new" nor too new to have a prohibitive initial cost. Most important, body problems inherent in early models were corrected by 1964, and it remains indistinguishable from models three years newer.



photos by Pat Brollier & George Foon

CAMPACT - 1964 Corvair

INTERMEDIATE - 1966 **Oldsmobile Cutlass**

Resistance to planned obsolescence can be a source of ridicule from superprogressives these days, but the 1966 Oldsmobile Cutlass is one of those unobtrusive but pleasant designs that, if kept polished, will never appear to be more than one year old. Lines are elegant and simple, and it appears to belong to a category approaching luxury status. Quality control that year was excellent, as were materials, and a change into a new body style from '65 was a comparatively major one. Depreciation for this model has been unjustly excessive compared with its competitors, thereby making it a good buy.

SPORTS/PERSONAL - 1965 Mustang

The further we move into the sports/ personal imbroglio, the more painfully we lament the passing of the 1965 Mustang. It was uncluttered and, as such, carried off a good compromise between European grand touring and

American luxury. With the famed 289 engine, it was a light, agile, reliable and very potent car that, even three years later, is not only hard to beat on tight road courses, but still offers as much interior room as any since ... and that should be the measure of "sports/personals."

COMPACT - 1964 Corvair

By 1964 Corvair had solved its problems. The body was good, it achieved fine economy and reliability, and it was the most sophisticated automobile in the United States. The suspension had been beefed-up with traction bars, and camber/caster problems had been solved. The economy car public is a skeptical one; therefore, also the most scrutinizing. They don't realize it now, but we predict that within five months, the many virtues of the 1964 Corvair will be realized, with a resultant effect on its price. Buy now.

FULL-SIZE - 1964 Dodge Polara

Take full-size literally. On those terms, the enormous '64 Dodge Polara,

with its choice of enormous engines, enormous wheelbase, enormous weight, enormous interior space, but with an initial and used price not much higher than its smaller "full-size" competitors, is the logical choice. Fuel economy is not one of its virtues, but durability is, and if you want an inanimate object that will sustain the assault of a child-ridden family, that's what's important. Because of its size, the '64 Dodge conveys an impression of luxury not unlike its larger sibling -Chrysler - and the design, being nondescript, will wear well with the years.

LUXURY/SPECIALTY - 1963 Riviera

Many called it a Sherman tank, others "gruesomely beautiful." Regardless of tastes, it was imposing, ostentatious and brazenly "luxurious." If you hated it, you did so because of its awesome, crude pretention, which was nevertheless awesome, crude luxury. A subsequent model change has made them even more obvious and has also con-

MOTOR TREND/JUNE 1968 63

tributed to a lower used cost. As a first-attempt luxury car, Buick had to build a good one, so statistics are with you that it will last.

PRESTIGE - 1964 Cadillac

It's still expensive, but if you are going prestige, we recommend you go all the way. The 1964 Cadillac is still expensive by depreciation standards, but on the other hand, the price has dropped to 38% of its original value, a percentage that few other cars can equal at that stage. Most important, the division's reputation for peerless quality combined with the likelihood that all the car's miles have been easy ones, make it a logical choice. 1964 began a period of understated elegance for Cadillac - fins were subdued, the grille was refined and there are overall similarities with all subsequent models.

IMPORTS

Our shrinking world has germinated a growing queue of those who associate "sophistication" only with imported cars, regardless of price category. With the tyro, therefore, a Sprite can signify a more cosmopolitan character than a Cadillac. It must be qualified here that this syndrome is not all vanity; in fact, it can usually be agreed that imported cars generally reflect a higher degree of sophistication of mechanical design than do domestics, though it is also quite commonly agreed that they do not possess the domestic's degree of durability or reliability, nor do they compare as favorably on the depreciation and resale charts here in the States. Because of the irrelevance of comparing the virtues of both positions, MT is awarding imported used cars separately.

TRIUMPH TR-3

The pendulum is just beginning to swing away from effeminate, exotic designs, which means that the indomitable TR-3, in all its crude homeliness, will soon become the object of every mod bird's affection and will strike at the very heart of mother instincts, regardless of a female's convictions to the contrary. Bug-eye Sprites and MGAs make as much sense, but more than mothers can love them, which means they will not be loved as deeply. Simplicity is the TR-3's promise of durability, and each one virtually guarantees eternal, though not necessarily troublefree, service. It's easy to find one for only a couple of hundred dollars. If its appearance is dreadful and only the essentials work, keep it that way.

ANY 2-STROKE SAAB

For economy in a used car, you must consider purchase price, maintenance and gas economy. Volkswagen is still insuperable in gas economy among the



IMPORT-Peugeot 403

popular cars, while Saab costs less in are easy to find. For these reasons they maintenance and purchase price. So far they're equal, but when comparing other qualities, the used Saab is incontestible. Front-wheel drive and advanced design is excellent, construction is among the best in the world, comfort approaches that of large sedans, and safety features have been integral with the car for many years. If you only want gas economy and good resale, buy the VW, though we suspect if that's all you wanted you wouldn't have read this in the first place.

PEUGEOT 403

It only cost slightly more than \$2200 new, so a model five to eight years old can be obtained for only \$300 or \$400. What is important is that almost any 403 will be a good car with several discreet miles left on it. Comfort and construction are superb. If you're lucky enough to find one, buy it.

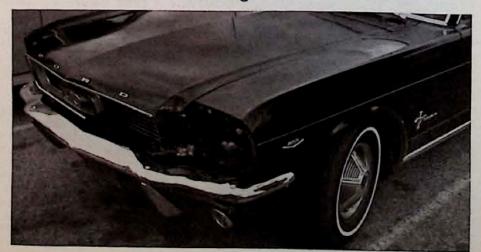
'65 JAGUAR XKE

are an excellent used buy. However, make sure you know the history of yours; it could cost you a fortune . . . many do ... but if the major servicing plateau has passed, you will probably have some time to enjoy the car before the next is reached. Buy it old enough - as long as it's a 4.2-liter - keep it in good shape, and you won't lose much on the resale.

'63 ISO RIVOLTA

The Iso is not a popular car, body changes have been less than obvious since the beginning of its time, it is powered by a Chevrolet engine and it's made in Italy - qualities all of which combine to lower its resale price drastically from the original \$9500 range. The '63 version will give you a car not unlike the latest, with a tasteful, very expensive Italian-looking body that belies its hybrid nature, but with a reliable, easily serviced American engine for a used car purchase price that will Jaguars depreciate rapidly, and they not withstand a hard bargainer. /MT

SPORTS/PERSONAL — Mustang



Modern gasoline is one more reason you need AC Spark Plugs.



Today's powerful mileage-boosting gasoline should be ignited with a clean spark to assure you maximum performance.

That's why you need self-cleaning AC

Fire-Ring Spark Plugs.

AC Fire-Ring Spark Plugs burn off lead and carbon deposits that cause fouling. Give you the cleaner spark you need for high performance operation. ACs really deliver Full Time Firepower.

Get all the zip built into your car. Get

Full Time Firepower. Just ask for AC Spark Plugs. The ones that are self-cleaning.

AC SPARK PLUG DIVISION **Full Time Firepower**

For Safety's Sake, Check Your Lights-Replace with AC Guide Lamps.

MOTOR TREND/JUNE 1968 65

Foul weather awaited brave group after departing amidst Angels Camp's morning rush.

GUETU DUS UU



by Steve Kelly

"How do you think a Chevy II would stack up against the new, fuel-injected VW 1600 in economy?"

"Don't know," we replied to the questioner on the other end of the line, "but why do you ask?"

"Well," came the reply from Dick Wilmshurst, president of 49er Chevrolet, Angels Camp, Calif., "I'd like to prove that our 4-cylinder Chevy II is pretty competitive to the 1600, in price, economy, comfort and roadability. VW is the No. 2 selling car up here in the northern part of the state, you know. We'd like to set up a 2-day run, in cooperation with Volkswagen, and we'd like MOTOR TREND to act as observer."

"Okay," we agreed, "as long as we can call 'em as we see 'em."

Several days later we were in Angels Camp (if you can't find it on a map, you'll find it referred to in Mark Twain's "Jumping Frog of Calaveras County"), which was to be the start of the 409-mile run. It was to take in altitudes ranging from 4500 feet to nearly 8000 feet, until we wound up at sea level in San Francisco. Temperatures were to range from 45° down to 0°F (though that was a surprise).

The Chevy II was a stock 2-door sedan, using a 4-banger and 3-speed stick shift, while the VW 1600 fast-back was a new fuel-injected job with

4-speed stick. The Chevy II was to be driven by Wilmshurst and the VW was to be handled by Herman Ultsch of Reynold C. Johnson (VW dealer in San Francisco.) Photographer Gerry Stiles and I were to follow in a back-up car with a calibrated speedometer/odometer.

After topping up both gas tanks we took off together, edging out of town north on Highway 49 to Highway 50—a road alternating from wide high-speed 4-lane asphalt to a narrow twisting 2-laner cutting through mountains capped with snow and armies of pine trees, following the course of the American River. Continuing northward, we crossed over 7382-foot Echo Summit, past Lake Tahoe to Tahoe City, 133 miles later and our afternoon lunch stop.

The cars went along perfectly from the beginning of our trek with an average speed hovering around 54 mph until we reached the 5000-foot level. From there until long before Tahoe's shores, snow covered everything and we had to put chains on the cars and drop maximum speed down to nearly 30 mph. Driving with chains didn't help our mileage and there were a number of times the cars went to lower gears just to keep from stalling while following a slow-moving pack of cars. The VW had the advantage

during our crawl-session, since the car comes with a 4-speed box and intermediate gears give it an advantage over the 3-speed Chevy II. Another minus feature of the Chevy II was that after all that snow driving, there were pounds of slush stacked up on the outsides of the fenders just aft of the front and rear wheels.

Just outside of Reno we filled the gas tanks for the first time since leaving Angels Camp, bouncing the cars to remove any trapped air. We had traveled 175.5 miles and both gas gauges appeared to have stayed on "Full." On this first leg, to say we were surprised by the economy of the Chevy II (30.79 mpg), would be putting it mildly, but we were astonished by the fuel-injected VW (37.29 mpg). However, these were nothing compared to what was to come on the last leg of the trip.

That unbelievable last leg took us 185.4 miles from Reno west on Highway 50 through snow country over 7000-foot levels, down through Placerville, to the state capital, Sacramento, and on to Interstate 80 into San Francisco. Admittedly, it was not as rough a leg as the first one, lots of it being downhill and much of it no-stop roads, though we did plow through evening rush-hour traffic in



Snow packed road and watchful Highway Patrol proved VW pilot's driving expertise.

CHEVY II vs VW continued

Sacramento. The Chevy II's mileage went up to 33.10, but then came the shocker.

Filling the VW, it seemed the meter had just started when it stopped. Only 4.1 gallons and the tank was full, and this gave the VW a...hold on for this now.... 45.21 mpg score. What? We checked again. Okay, it's right. It's hard to believe, but we all verified it. Both machines weighed in above factory given specs, and no tampering had been done to engine or carburetion/injection sizes. Even though Dick Wilmshurst proposed and organized the test, he was the first to admit the VW 1600 had won the economy run. But, the Chevy II doesn't have to hang its head for its performance either. Besides, an interesting point we didn't think to tell him but which one should keep in mind when comparing economy figures of these two cars is this: the lower-compression VW needs the higher-priced premium fuel (unless you can find regular with an octane rating of 94 or more), while the Chevy Il needs only regular fuel (generally 4c per gallon less). Therefore, on a cost per mile basis, some part of the

VW's advantage would be crossed out.

Another point to keep in mind is that every comparable VW or Chevy Il cannot be expected to achieve the same economy. Cars are set up differently and it also takes a conscientious driver, one who doesn't use jackrabbit starts, drives ahead to avoid panic stops, stays close to speed limits (as we did), and generally drives conservatively. The difference between driving at reasonable speeds vs. high speeds is very evident in what we achieved on the two "economy legs" and a short, "high speed" leg. This was when we wanted to check out top speed.

Though it took awhile, the Chevy II finally wrung out at just under 80 mph, while the fastback VW nicked 86 mph - sans the vibration and noise encountered with the 4-banger. After this test phase, we drove awhile longer to a gas station, where we carefully topped up again before starting on the second leg of the "economy run." We saw that we had driven 48 miles with each car. The VW dropped to 30 mpg, while the Nova dropped to a low of 17.45 mpg.

Rating the two cars in areas other economy run.

than fuel economy, we would have to conclude this: the comfort and quietness of the fastback Volks are much better than the II-top speed is greater, there's more versatility with the 1600 and certainly greater fuel economy is inherent. There's more room with the Chevy II, and we like its styling better. But in its base existence, everything about it is extremely spartan. Neither car is any great shakes as a handler, so we won't rate them in this area but confine our evaluation to domestic qualities.

Our best suggestion is for Chevy II hunters to choose nothing less than a 6-cylinder engine. The little 4-cylinder is great for low-cost operation, but you can quickly forget any thoughts of performance and smoothness of operation as the quad-cylinder engine is rough at both ends of the scaleat idle and top speed. Overlooking the small engine, the Chevy II is an attractive and appealing package that comes in more combinations than any other compact car on the market today.

So, Dick, don't hang down your head. You've got plenty to be proud of, even if you did lose your own

CHEVY II

Total Miles Traveled 406.4 ml

Total Amount of Fuel Used 14.05 gals.

Average Miles Per Gallon-Full Trip 28.92 mpg

Average MPG Economy Test

31.725 mpg **Best MPG**

33.10 mpg

Poorest MPG (economy portion) 30.35 mpg

High-Speed (65-75 mph) Fuel Consumption 17.45 mpg

Type of Fuel Used Regular

Fuel Tank Capacity

18 gals.

ENGINE

In-line 4-cyl, overhead valve

Displacement 153 cu. ins. Bore & Stroke: 3.875 x 3.25 Ins. Compression Ratio: 8.5:1 Horsepower @ RPM: 90 @ 4000 Torque @ RPM: 152 lbs.-ft. @ 2400 Carburetion: 1-bbl., downdraft

TRANSMISSION

Manual 3-speed. Column-mounted shifter. Synchro in all forward gears. Ratios: 1st, 2.85; 2nd, 1.68; 3rd, 1.00:1

FINAL DRIVE RATIO

3.08:1

STEERING: Manual. Semi-reversible recirculating ball nut. Gear ratio: 24:1 Overall ratio: 28.3:1 Wheel turns, lock-to-lock: 4.8 Turning circle: 38 ft., curb-to-curb.

BRAKES: Drum type, 9.5 in. diameter front and rear.

TIRES: 7.35 x 14

SUSPENSION: Front: independent with single lateral arm with coil spring. Rear: salisbury (one-piece unit) type axle with two single leaf springs.

> Double acting, direct acting shocks at each wheel.

Overall Length: 189.4 ins. Overall Width 72.4 ins. Overall Height: 54,1 ins. Wheelbase: 111.0 ins. Front Track: 59.0 ins. Rear Track: 58.9 ins. Curb Weight: 2890 lbs. PRICES & OPTIONS

Manufacturer's suggested retail price: \$2284.00

Automatic Transmission: 163.70 "Automatic Stick Shift": 65.00° Overdrive Trans.: not offered Tires: 31.35 AM Radio: 61.10 (°Torque-Drive, price is approx.)

VOLKSWAGEN 1600

406.4 ml.

10.4 gals.

39.07 mpg

41.005 mpg

45.21 mpg

36.80 mpg

30.00 mpg

Premium

10.6 gals.

Horizontally-opposed 4-cyl. overhead valve 96.66 cu. Ins. 3.37 x 2.72 ins. 7.7:1 65 @ 4600 87 lbs.-ft. @ 2800 Electronically metered

fuel Injection

Manual 4-speed. Floor mounted shifter, All forward gears synchro meshing. Ratios: 1st, 3.80; 2nd, 2.06; 3rd, 1.26; 4th, 0.89:1

4.125:1

Manual, Roller-type

п.а. n.a.

36.3 ft., curb-to-curb. Disc front, 10.9 in, and drum rear, 10.9 in.

6.00 x 15

Independent, with torsion bars. Independent, with torsion bars, Transaxle type drive.

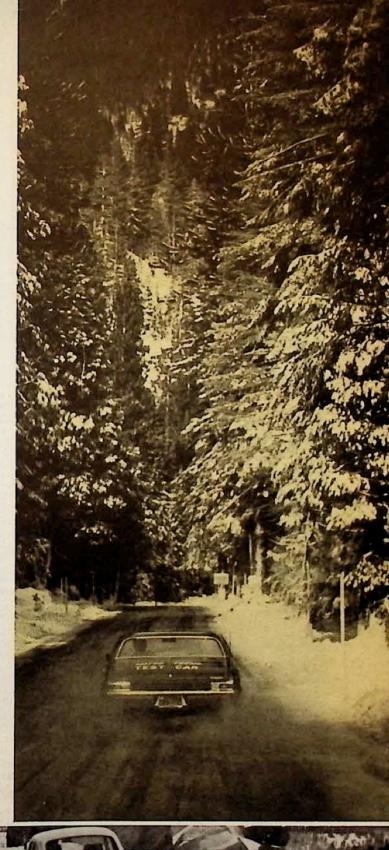
Double acting shock, telescoping type at each wheel.

166.3 ins. 63.2 ins.

58.1 ins. 94.5 ins.

51.6 ins. 53.0 ins. 2116 lbs.

\$2279.00, P.O.E. West Coast. not offered not offered not offered 29.50 (whitewalls) Dealer available only





Meet the EXCITERS



Grant Rambler Robet SST, Courtesy Grant Industries and American Molors, Photographed at Orange County International Raceway, Calif.

You'll find them wherever exciting people meet. For these are the exciting new cycles from Yamaha. If you want to "trip with the light fantastic," hang ten on this new 180 Street Scrambler. It comes with Yamaha's famed 2-cylinder, 5-port engine and 5-speed transmission. And it goes where you want to go-for a lot less money than performance like this has cost before. See all 20 Exciters at your Yamaha dealer's now. INTERNATIONAL CORPORATION

Other 180 features:

- · Top speed 80-90 mph (equal to many 250cc machines)
- · Autolube oil injection Tube frame
- · Rubber fork boots
- Engine guard plate

Stripe-trimmed tank

While you're there, ask for your free copy of Yamaha's brochure of all the Exciters for '68 Or write P.O. Box 54540, Los Angeles, California 90054, Department MT-6-8 - Canadian Distributor Yamaha Division of Fred Deeley Limited, British Columbia,

a little thing like motor oil can do for an engine!

AMALIE has ridden with the winners and the losers . . . at the big tracks and the little ones. And we know a little judgment error, or bad break can cost you a race.

But friction, wear, heat, or oil pressure loss by foaming can't cost you an engine ... not with AMALIE PENNSYLVANIA Rac-

ing Oil.

The GT-350 Mustang, winner of the '67 Sebring 12 hour race, with a bycovered 962 miles with a bypassed oil cooler. No damage, negligible wear, oil temperature never over 240 degrees. AMALIE NEVER NEEDS "beefing up" under any condition. What else could you ask for?

Available in 20-30-40-50-60 grade for passenger cars and high performance engines - standard or modified. Ask for it where you buy



OPINION & COMMENT

continued from page 6

the insides of our cars and use restraint devices that we can survive that next crash! What's wrong with training the drivers to avoid accidents? Why not have more rigid tests - written, physical, driving at normal speeds - to bring out the worst in drivers as well as the best, as most of the so-called driver tests now do. You have to be really incompetent to fail the "driver tests" in most states. Most courses are in out-of-the-way locations and are conducted at speeds much below what a driver maintains either before or after the "test." In Los Angeles, for example, where much of the driving is done on high-speed freeways, there would be no indication to the examining officer from the test given that the motorist taking the test is competent to drive on the freeway. How about a road course that takes in all possible situations a driver will encounter in a normal day's, week's, month's or year's driving? Simulated conditions could be set up with little effort and minimal cost to thoroughly test a driver, with such conditions as a car suddenly changing lanes, a child darting into the street, a preceding car stopping too suddenly, etc.

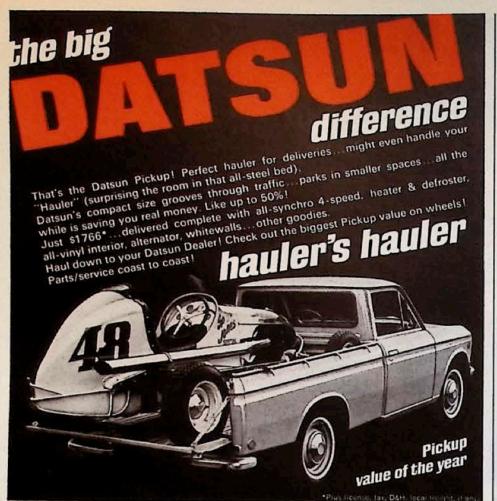
No matter how good a driver any of us thought we were when we first got our driver's license, there's nothing to guarantee that we'll always be a good driver. So, as a follow-up to such tests, why not a compulsory, annual driver test to make certain that every driver has not lost any of his skills, or evesight, or judgement? If I knew that everyone else had to go through the same procedure, I sure wouldn't object to what otherwise might be considered a terrible inconvenience. Being able to renew a license as easily as is possible in most states is an affront to all good drivers.

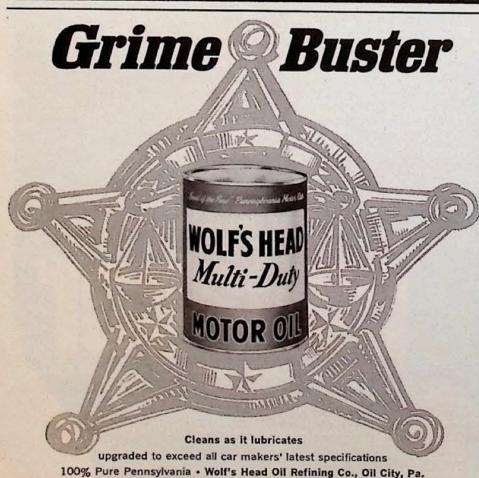
And maybe written tests for driversto-be could be improved by including some "psychological-type" questions in addition to "when can you pass a school bus?" and "what color is a yield sign?" The purpose of these would be to probe a person's inner reactions to peculiar situations, the answers to which would not be found in a manual on vehicle codes.

You know what's wrong with all of these suggestions? Whether they are right or wrong, whether they will save lives or not, such moves would not be popular. Legislators don't want to pick on their constituents. It's much more popular to stick barbs into Detroit and overseas manufacturers and to tell them how to build cars. After all, they don't mean that many votes one way or the other, do they?

- Walter A. Woron







BOOK REVIEW

THE COMPLETE BOOK OF ENGINE SWAPPING by Tex Smith. 192 pages. Petersen. \$2.00.

The enthusiast whose car is ripe for higher performance is faced with a series of considerations and alternatives. Rebuild? It will cost several hundred dollars. Rebuild and hop up? It may not be dependable. Engine swap? It may be the happy solution to a dilemma, or the dilemma itself. The Complete Book of Engine Swapping gets down to realities like the cost of new and used engines, necessary components for a swap, how to save money, do-it-yourself or farm it out and resale value of the swap combination. It's all designed to help the car owner make decisions and avoid any

Tex Smith takes readers on a wellorganized tour of factors to consider prior to the transfusion; power-toweight ratios, mileage vs. power, total expense vs. result, etc. — all in significant detail. Car buffs who have questions about swapping will finally find the answers. Is a Ford 289 better suited to a Falcon or a Chevy 396, for example? Smith says Falcon, and then proceeds to spell out the reasons.

The book is a gold mine of data about engine/transmission/rear end adapters who makes what and where, as well as how to check adapters for correct alignment, repair and crankshaft flange rework.

The new book fills nearly 300 pages with such down-to-earth plans as arranging the ideal marriage of transmission and rear end, the proper choice of coolers, and a thorough briefing on wiring. Mr. Smith explains that it's possible, but unusual, to make a swap and then be able to bolt up the original exhaust head pipes, muffler and tailpipes, then goes on to describe what to use and how to use it, including a discussion of header assemblies and kits that make swaps easier.

It's all there, including blow-by-blow descriptions of the more popular swaps, such as various engines for Chevys, how to make swaps in Fords and the trick set-ups for MoPars. The book doesn't stop at passenger cars, either. It's chock full of comprehensive vital statistics on swapping for drag racers, pickup trucks, sports cars and off-road vehicles.

In sum, The Complete Book of Engine Swapping is faithful to its title. A must for every car buff's library, it's on sale at newsstands, or direct from Book Division, Petersen Publishing Co., 5959 Hollywood Blvd., Los Angeles, Calif. 90028



Who would ever pay \$5.00 for a tin of car wax?

A tin of Classic Car Wax costs more than our three biggest competitors' products added together. But you'll consider Classic the biggest bargain of them all after you've tried it.

Classic Car Wax has two outstanding features: It is fast and easy to apply, and the lustrous, jewel-like finish it produces lasts longer than any other wax. It is a paste because no liquid can contain enough wax to do the job. But Classic is totally different from any other paste wax.

How Classic is different

The hardest, most durable wax known comes from the carnauba wax palm of Brazil. And it's expensive. This may be the reason why other manufacturers use so little of it. They use paraffin. Classic is loaded with carnauba wax.

When you open the tin, the first thing you notice about Classic is the amount of it in the tin, and how solid it is. It's not "pre-softened" because such a term is ridiculous. Soft wax is soft and hard wax is hard; "pre-softening," or whipping, merely adds more air to the mixture and reduces the amount of wax in a tin.

As you apply Classic, a special nonabrasive cleaning agent called diatoms (the better toothpastes have it) removes all surface stains, grime, and oxidized paint. Classic goes on with such surprising ease, you'll suspect at first that it's not going to do anything. But a quick look at the "before" and "after" on your hood will tell you differently.

There's just the right amount of jeweler's rouge in Classic's secret formula, and that gives your painted finish a brilliant luster. At the same time, carnauba wax fills in microscopic hollows and cracks and lays a tough, smooth blanket of wax over the entire surface. How tough? Carnauba is almost as hard as plate glass; you can't scratch it with your fingernails.

Wax a car in the sun

You can wax right in the sun; Classic won't streak or smear. And there's no buffing or hard rubbing. You don't have to work in patches. You apply Classic over the entire car and merely dust it off later. The ingredients do the work, not you. The fellow who tells you waxing a car is hard work hasn't used Classic Car Wax.

Best wax job in town - 80¢

Our 1-pound, 2-ounce tin contains enough Classic Wax to do at least six wax jobs if you have a Cadillac-size car. That averages out to a little over 80c a waxing. For a smaller car, the cost is even lower. And Classic's protection outlasts all others.

A terrycloth applicator comes along with the Classic Car Wax in a plastic pouch. But don't think you're paying \$5 for frills; you're buying \$5 worth of wax. And if you don't think it's worth \$5 after trying it, return the unused portion and you'll get your money back. Fair enough?

NOW AVAILABLE IN CANADA

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	State	Zip

They were there, ready and waiting. Even before Javelin made its public debut, the speed merchants were prepared for the great occasion with innumerable dress-up and hop-up goodies. American Motors was making the plunge. Go for broke. And, the performance beautification experts were going along. Bing, bong . . . Avon Calling . . . a glittering array of high-performance accessories made the scene. Staid old AMC came back in a great display of one-upmanship by introducing an all-new 390-cu.-in., 315-hp, extremely rugged V-8, drawing off a big 4-bbl, carburetor. Now what could be more enticing to the hot-blooded, hairy-chested, lead-footed, NHRA-loving, All-American male species than that potential combination? Out-ofsight: wild new car, wild new engine, wild new performance accessories. Who could resist?

It was inevitable. MOTOR TREND submitted eagerly to the temptation a Javelin project car. Next question: what do we want, mild street machine, hotter drag competitor? With a brand new car, engine and unlimited experimental approaches to explore, the answer was inevitable too: all out. Wide open. Like AMC we'd go for broke and build a high-performance racing machine. The excitement was catching.

We wanted to take a stock, off-theshowroom-floor Javelin and turn it into same 8 x 8-inch steel plates that hold a completely modified, lightweight the roll tage. This mutual connection bomb, in a way that any knowledge- gives added rigidity to both roll cage licate without too much difficulty or tion bars added about 100 pounds.

expense. To accomplish our "Lightning" project in a context of reality, we ordered our Javelin complete with accessories many buyers are ordering.

When delivered, our test car weighed in at 36981/2 pounds, including options and accessories. Our first job consisted of removing all non-essentials (see chart for list of items removed and weights), which got the weight down to 3393 pounds. Next, we took the car to Al Holbrecht, Roll Safe Bar Co., in Van Nuys, Calif. Al installed a complete, NASCAR-type roll cage which is fabricated from 13/4-inch diameter tubing with 1/8-inch thick walls. length of the car, two 8 x 8-inch steel chor the roll cage securely. Installation of the roll cage necessitated removal more pounds. Also added at that time was a quick-release seat belt, shoulder harness (with two straps) combination.

Extra heavy-duty traction bars were the next items to be added as work progressed. These were handmade fit the rear axle, welded to both axle

To avoid the possibility of breaking Paul Wilson's world pole vault record - if the driveline snapped at speed we added a steel strap under the driveshaft for safety. Bolted through the floor pan to a 4 x 4-inch, 1/8-inch thick back-up plate, the 1/4-inch thick, 3-inch wide strap is held in place with 1/2inch bolts and should prevent the car from being catapulted over the traps instead of going through them if torque gets out of hand.

To augment our instant knowledge of what's perking inside the mill at all times, a new Sun super tachometer. plus water temperature, oil pressure. Because the Javelin unit body construct and fuel pressure gauges were installed tion has no frame rail running the in the center section of the dash panel. Complying with rules of both NHRA plates were used - one on top of the and the Southern California Timing floor pan and one underneath - to an- Assoc., two GT hood pins have also been added for safety.

Directing our attention to exterior of the back seat cushions, eliminating treatment again, our Max Factor facelift proceeded on schedule with the addition of two sprint mag wheels, from Ansen Automotive, Gardena, Calif., at the rear. Inglewood positraction, 7-inch cheater slicks were popped on for added grip. Stock Goodyear from 1950 Oldsmobile traction bars, tires and steel wheels are still being with 2 x 6-inch box steel tubing, cut to used on the front. Doug's Headers, Los Angeles, then installed equal length and traction bar. Forward, traction bars headers using 15/8-inch tubing. Headers are secured to the body by utilizing the were adapted to the stock muffler system using flanges welded to headers on one side and tailpipes opposite. Flanges are then bolted together for able enthusiast would be able to dup- and traction bars. Roll cage and trac- street use, or can be easily parted for track use. As the car began to take

shape, a 1/4-inch thick shaped steel scatter shield, manufactured by Roadster Engineering, Downey, Calif., was adapted to the frame to cover the bell housing as protection for the driver. Sometime in the not-too-distant future a new hydraformed safety steel bell housing will be available for the Javelin. Lakewood Chassis and R.C. Industries of Ohio, and Ansen, each have one planned.

With so much work and no fun, we decided it was about time to give our rolling laboratory a little workout, and headed for the SCTA-sponsored 1/2mile drags at Riverside Raceway on February 18. Six runs were made that day, three in street trim and three uncorked. Powertrain at that time consisted of the stock 390-cu.-in. engine, 4-speed gearbox, and a 3.54:1 rear axle ratio. Stock plugs were also used. Our project car is also equipped with front disc and heavy-duty rear brakes, quick ratio manual steering that replaced the power unit, twin-grip differential, and heavy-duty suspension. Top speed with mufflers on was 102.22 mph, with an e.t. of 25.62 seconds. With the header system unplugged and tire pressure reduced from 30 to 12 pounds, we turned the 1/2-mile in 23.96 seconds at 111.38 mph. It's easy to see from these figures, with an increase of more than 9 mph, the big back pressure with mufflers hooked up really stifles the horses. On the uncorked runs, fan belt was disconnected to produce additional power.

continued on page 76



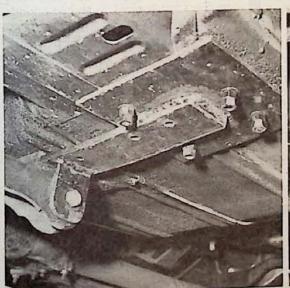
ENGINE SPECIFICATIONS:

4.17 x 3.57 in. Bore & Stroke Displacement 390 cu. in. 315 @ 4600 rpm 425 lbs.-ft. @ 3200 rpm Compression Ratio 1 4-bbl. Carter Carburetion

"LIGHTNING" THE LOAD

	Eldililia ilia	destroit destroit
	Accessories removed f	
	Javelin project car	
	ITEM	WT. (LB
Ħ	Litter basket	11/2
	Floor mats	5
	Vibra-tone (speaker application)	
	Stereo	15
	Safety belt-vest	2
	Bumper guards	8
	License plate frames	1
ı	Back-up lights	1
1	Windshield washer	2
	Hood insulation	2
1	Vinyl roof	20
	Headrests	10
	Power steering	60
	Power brakes	20
	Clock	1
	Vanity mirror, trunk	
4	light, 2 courtesy lights,	
1	glovebox light,	
3	parking brake light	3
8	Radio	11
J	Fan shroud	8
	Block heater	1
	Compass	1
1	Spare tire cover	2
1	Door-edge guards	1
1	Mileage minder	1
4	Window screens	3
	Spotlight	3
Ą	Door kit	4
	Tissue dispenser	2
	Vent shades	2
ı	Cruise command	3
1	Air-conditioning	107
	TOTAL:	3051/2







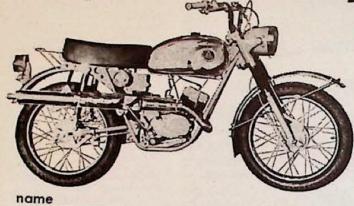


(Above left) Because Javelin has no frame, traction bars are welded to roll cage plate under body for extra rigidity. (Above center) Header-tailpipe connection is easily unbolted for drag strip use. (Above right) Roll cage has been formed to fit interior with minimum restrictions on movement or visibility. Additional instruments and tach have been added to center dash console.



MOTOR TREND/JUNE 1968 75

If you're thinking motorcycles, think about the HODAKA '100' five-speed, national trailbike champion the last two years. It's worth looking into.



The HODAKA success story is truly unique in the industry. Designed with the idea of building one molorcycle perfectly, the HODAKA has been tudied and improved o a level of performance and reliability hat sets industry tandards. You can earn more about the mazing HODAKA by isiting your HODAKA aler or writing to:

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Sorensen Cross Cut points guarantee top ignition performance and maximum point life from your present distributor. Cross Cut's cooler operation and longer lasting service is due to Sorensen's patented 4-way point ventilation. Sorensen solid Epoxy Coils resist "under the hood" high temperatures, moisture and vibration. Cross Cuts and Epoxy Coils are individually designed for all original equipment ignition systems; they are a positive guarantee of longer mileage at peak R.P.M.'s . . . Send for free Cross Cut demonstration booklet. For Sorensen Ignition, Wire, Cable, Switches and Carburetor "Quik" Repair Kits, see your local dealer or parts jobber. P. SORENSEN MFG. CO., INC. · GLASGOW, KY. 42141

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JAVELIN LIGHT-NING

continued

Still enthusiastic after our first foray among the blown hemis, Fords and Chevies, we decided to talk to Fred Offenhauser about his new 360-degree aluminum intake manifold for the Javelin. It looked so promising, we decided to add aluminum valve covers and a new low-profile air cleaner too. Exchanging the lightweight aluminum intake manifold for its stock, cast iron predecessor also lightened the engine by several pounds. Following our first test, we also installed Monroe coil shocks over the rear axle to raise the rear of the car for better tire clearance. With our new intake manifold, we also thought we should be jamming more air into the 4-barrel. So, we added a low-profile, wide-spread, Mo-Par fiberglass hood scoop to push more oxygen into the carburetor.

After the second phase of modifications was complete, we headed for Riverside and the 1/2-mile drags again on March 10. With the new intake manifold and using Champion H 10Y spark plugs, which are one range colder than stock, we were able to cut through the 1/2-mile at 118.26 mph with an e.t. of 23.35 seconds for an increase of 7 mph over our previous unplugged attempt. On March 12 we headed for Orange County Raceway and the 1/4mile strip. Twelve runs were made through the 1320 traps, six plugged and six with the headers wide open. With mufflers still hooked up and 30 pounds air pressure in the rear tires, top speed was 99.33 mph with an e.t. of 14.66 seconds. When the headers were uncorked, even the normal sang-froid of track officials was broken, and several looked up in surprise to see an unknown Javelin pulsating on the line, making all that noise. Running free, with tire pressure down to 12 pounds and fan belt off, top speed was 104.25 mph with e.t. of 13.97 seconds. Rpms were kept in the five grand range during all runs, as this seems to be a maximum for the stock cam.

Our Javelin SL (Super Light) is being groomed for an eventual trip to Bonneville, and a 343-cu.-in. engine is also in sight for Class B competition. As we move into phase three, next additions will include a Schiefer flywheel and clutch, Iskenderian cam, Grant flame thrower, Ansen pistons and rods, porting and valves by Valley Head Service, Reseda, Calif., and a bell housing by Lakewood. Chassis and dyno tuning will be done at Ed Iskenderian Racing Cams, Gardena, Calif.

"Light-ning" Javelin, without the aid of diet pills, is now down to 3260pounds, and is beginning to shape up into a real performer.



Why are so many Volkswagen owners moving up to BMW?

German craftsmanship means to automobile quality.

So what does BMW give them?

We give them the car that many automotive experts, writing in magazines like Car and Driver, Time, Road & Track, and Sports Car Graphic, believe is the best automobile buy in the world. Sample: "The new BMW is the most spectacular bargain in the whole spectrum of imported cars. It looks, drives, and feels like it ought to cost at least a thousand dollars more."

Take performance. This car will ac-

Because they've come to know what tually cruise at 100 mph. Which gives you an idea why it is that in Germany, where high-speed driving is a national sport, BMW leads the pack.

> Or take roadability. We wanted to make BMW not only one of the fastest cars in the world, but one of the safest. So we build them with a unique, fullyindependent suspension for roadholding that can't be matched by any other

> And does all this mean that we've sacrificed things like reliability or lowcost operation?

It does not. A BMW will give you

up to 30 miles to a gallon of gas, and rarely needs attention.

But at the same time, it will give you a new kind of dash and excitement, and a new standard of comfort and luxury.

Do you have to own a Volkswagen to appreciate a BMW? Not when you discover that a new

BMW costs only \$2600. See your BMW dealer.

Suggested retail prices start at \$2,597 P.O.E. New York, U.S. Importer: Hoffman Motors Corporation, 375 Park Avenue, New York, N.Y., 1862 S. La Cienega Blvd., Los Angeles, Calif. Dealers coast to coast. Advantageous European Delivery Program. Write for free brochure.

Bayarian Motor Works



The Sportsman's Car





We didn't win at Sebring.

We had never raced the Javelin before.

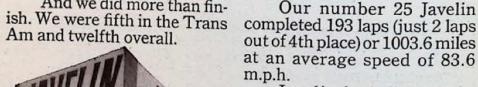
In fact, we had never Am and twelfth overall. raced anything in an event like this before.

Despite this monumental lack of experience, we worked some miracles.

We finished.

Only 36 of the 68 cars that started the 12 hour endurance race accomplished that.

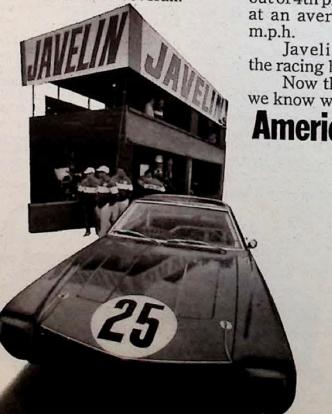
And we did more than fin-



Javelin is definitely in the racing business.

Now that we have a past, we know we have a future.

American Motors



the thirst slaker

Falstaff-brewed clear to drink fresh. The one that wets down a thirst with cold, foaming flavor. FALSTAFF BREWING CORP ST. LOUIS, MO. Falsta ff

Colding the Lily Does your Eldorado go unnoticed in the Brown Derby parking lot?

Does your Eldorado go unnoticed in the Brown Derby parking lot?

Has the "power-thrust" hood of your Continental exhausted its force on the minds of doormen at the Century Plaza Hotel?

Worse still, has your new Rolls lost its identity to a '41 Packard?

If such upper class frustrations are bringing on Excedrin headache #17,

Marcks-Hazelquist-Powers of Detroit and lately L.A. have just the thing in their real English leather portfolios — individually styled trim groups. These ne-plus-ultra handmade pieces compliment not only your fine car's design but more importantly set it tastefully apart from any other of the same manufacture. Each job takes its direction from the owner who receives detailed renderings of how the finished product will look.

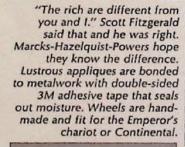
If all of this sounds expensive it's only because it is.

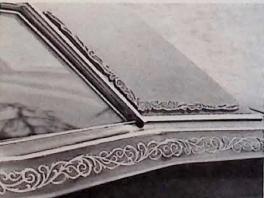
Marcks-Hazelquist-Powers are not looking toward the high school crowd, unless, of course, it's a high school in Newport, R.I.,

West Palm Beach, Fla., or Beverly Hills, Calif.















ALL-NEW RANCHERO BY FORD



Long, low, lively luxury?

See the light!

Not just new. But completely, excitingly, all-over new! That's the '68 Ranchero, Ford's better idea in pickup luxury. The look is longer, lower, leaner! Inside you can have every luxury, every option you could ask: color-coordinated styling, crush-grained vinyl trim, bucket seats, full carpeting, AM/FM could ask: color-coordinated styling, crush-grained vinyl trim, bucket seats, full carpeting, AM/FM could ask: color-coordinated styling, crush-grained vinyl trim, bucket seats, full carpeting, AM/FM could ask: color-coordinated styling, crush-grained vinyl trim, bucket seats, full carpeting, AM/FM could ask: color-coordinated styling, crush-grained vinyl trim, bucket seats, full carpeting, AM/FM could ask: color-coordinated styling, crush-grained vinyl trim, bucket seats, full carpeting, AM/FM could ask: color-coordinated styling, crush-grained vinyl trim, bucket seats, full carpeting, AM/FM could ask: color-coordinated styling, crush-grained vinyl trim, bucket seats, full carpeting, AM/FM could ask: color-coordinated styling, crush-grained vinyl trim, bucket seats, full carpeting, AM/FM could ask: color-coordinated styling, crush-grained vinyl trim, bucket seats, full carpeting, AM/FM could ask: color-coordinated styling, crush-grained vinyl trim, bucket seats, full carpeting, AM/FM could ask: color-coordinated styling, crush-grained vinyl trim, bucket seats, full carpeting, AM/FM could ask: color-coordinated styling, crush-grained vinyl trim, bucket seats, full carpeting, AM/FM could ask: color-coordinated styling, crush-grained vinyl trim, bucket seats, full carpeting, AM/FM could ask: color-coordinated styling, crush-grained vinyl trim, bucket seats, full carpeting, and crush-grained vinyl trim, bucket seats, full



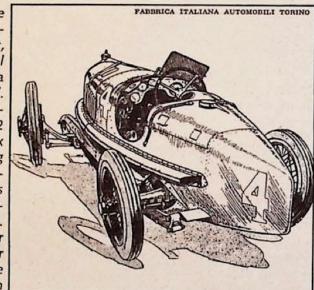
...has a better idea.

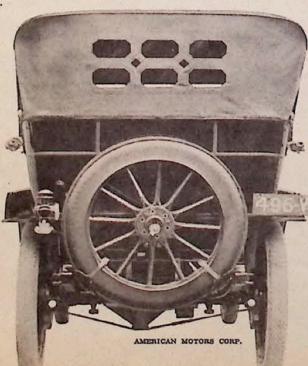
MOTORANDOM

flashbacks by Al Michaelian



(Above) Wallace Beery, Metro-Goldwyn-Mayer star, made personal appearances with a stretched 1936 Ford. (Right) Felice Nazzaro won the 1922 French Grand Prix on the Strasbourg circuit in this 6-cylinder Fiat. He was the personal chauffeur for the Pope. (Below) Rambler was first to offer a demountable spare wheel on 1909 models.







THE OLDSMOBILE ECON-OMY TRUCK, with its powerful valve-in-head motor, deep channel frame, internal gear drive and pneumatic cord tire equipment all 'round, is designed and powered to the average load—and is today the unquestioned leader in the light hauling field. It is applicable to any business, city or country.

READY FOR ACTION-\$1350 complete, with express body; with steel cab, \$1295; chassis, \$1250, f. o. b., Lansing, Michigan

OLDS MOTOR WORKS
LANSING, MICHIGAN

Oldsmobile Truck

Oldsmobile also built light trucks in 1919.





24 hours of Daytona

Would you believe a 302 tunnel-port Mustang 4th overall in the 24 hours of Daytona? Jerry Titus/Ron Bucknum would, they did it. Porsches like 53 hat-tricked first three positions. Unfortunately, 53 was destroyed.

color by Bob D'Olivo





Imagine, for a moment, that you are in charge of designing an answer to the GTO. And that this has been your task since The Great One first rumbled into reality, sending shock waves through your offices.

Each year you've sent your answer into the streets. And, each year, seen it

change into something merely mediocre alongside GTO's Hurst shifter, bulging hood scoops and Wide-Track. And, this year, humiliated by an incredible new kind of bumper.

And just when you're getting the hang of its extra-cost Ram Air (yours will surely out-GTO GTO next year),

you find Pontiac has improved theirs. With a new high-lift cam, larger swirled exhaust valves, new freer breathing combustion chambers.

When the Car of the Year is improved even before the year is over, can your car ever catch up?

Pontlac Motor Division

The Great One by Pontiac

Anxious for 5 color pictures, specs and decals of the Great Wide-Tracks? Don't be. Send 304 (50¢ outside U.S.A.) to: '68 Wide-Tracks, P.O. Bex 888A, 198 Wide-Track Blvd., Pontiec, Michigan 48056



Daytona

GT 40 Fords such as Nelson/Hailwood 18 looked good in early. stages but Titus 1 and Porsches outlasted them. And the 'Vettes? DeLorenzo/Thompson 30 broke transmission, 2 spindles, 2 discs, had 8 flats Made 27th

color by Bob D'Olivo





Olds 4-4-2: Here's what's behind the reputation.

ENGINE

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 floor shift.

ratios. CHASSIS

neavy-duty spring	Heavy-duty. Includes and shocks, front and
ear stabilizers.	24-to-1
Steering ratio	Heavy duty 17 miles
Tires	.F70 x 14", Nylon-Cord
111031111	Wide-Oval Red-Lines

OTHER AVAILABILITIES

Power front disc brakes, UHV Transistorized Ignition. Anti-Spin Differential. Rally Stripes. Rally Pac (clock, tach, engine gauges). Sports console. Custom Sport Steering Wheel. Simulated-wire and Super Stock Wheels. Special wheel discs.

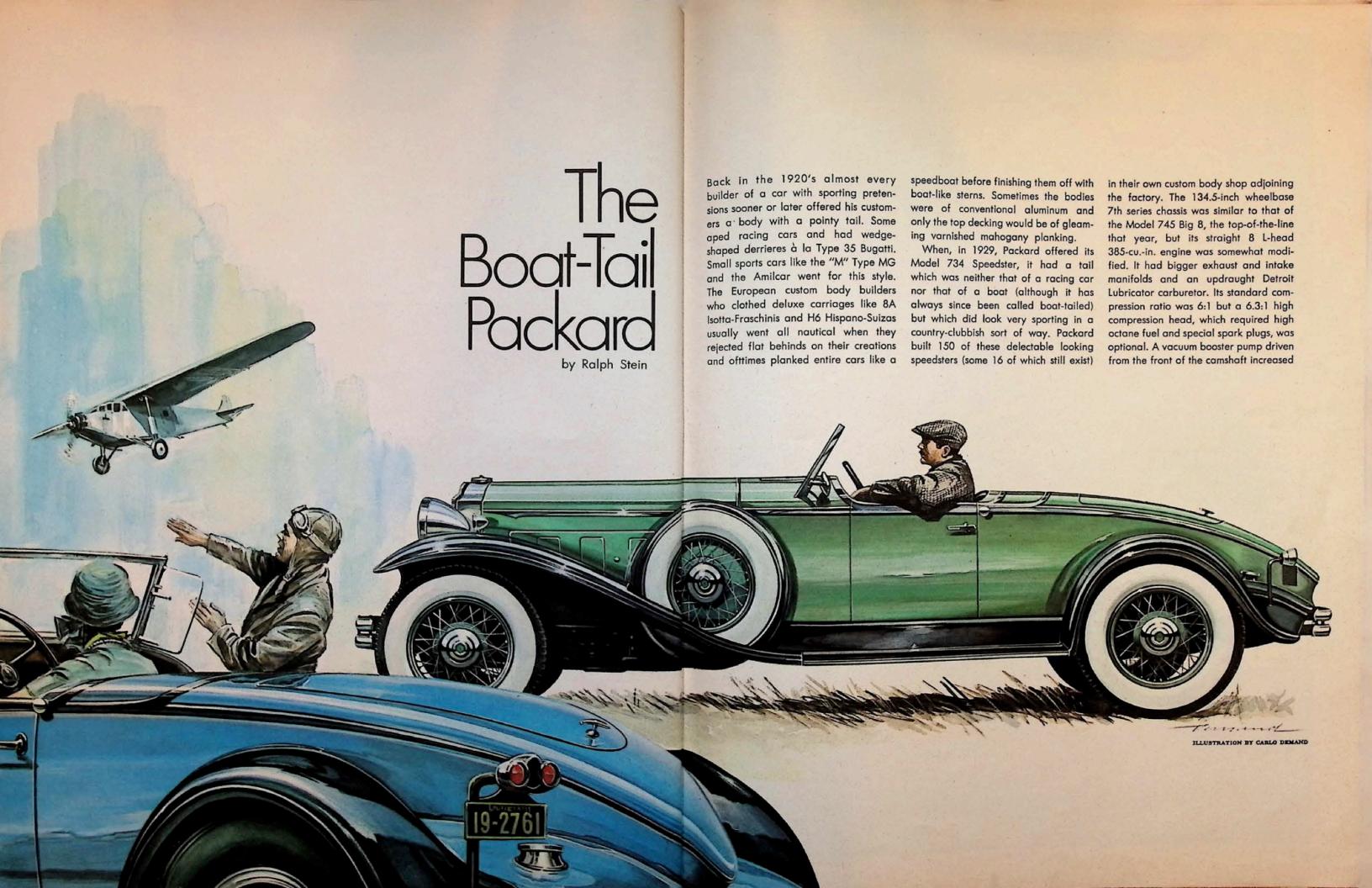
GENERAL

Wheelbase	.112"
Overall length	201.6"
Overall width	76.2"
Overall height	
Curb wt. (lb.) Holiday Coupe	.3670
Tread front 59.0", rear	59.0"

SAFETY

All the new GM safety features are standard, including energy-absorbing column, seat belts for all passenger positions.

CARS Magazine names Olds 4-4-2 "Top Performance Car of the Year."





PACKARD BOAT-TAIL continued

the manifold vacuum at wide throttle openings.

In Speedster form the engine delivered 145 hp at 3200 rpm compared to 120 hp from the standard engines. With the high-compression head and an optional 3.31:1 rear end ratio (4:1 was standard), and with the exhaust cut-out open (this made a most impressively deep roar), a speed of over 100 mph was guaranteed by the factory. This was proved. The great Tommy Milton drove each Speedster for 250 miles on Packard's factory test track after which a plate saying so was affixed to the dashboard.

In 1942 I bought such a boat-tailed Packard for \$400 - it had cost \$5210 f.o.b. Detroit when new, but its original owner had spent far more on it.

Speedster bodies were lower and narrower than standard Packard roadsters. Some of them had bench-type front seats, but the seats in my car were staggered. The passenger sat slightly farther back than the driver and could rest his left arm on the top of the body behind the driver's shoulders.

The late Mr. Maclure Halley had been the first owner of my Packard. Halley was, in those days, the great collector and connoisseur of fine automobiles, but no matter who had built them - Bugatti or Alfa-Romeo or Mercedes - Halley, upon acquisition, immediately set about Halleyizing it.

Used to the shining sculptures under the hoods of Bugattis and such, Halley felt that the Packard's engine looked downright dismal. He had almost every removable part enameled. He chromed all the nuts. He plated the control rods. The single updraught carburetor was consigned to the junkpile. Instead he installed a pair of side-draught Winfields whose complexities and pretty bronze color he found much more aesthetically satisfying.

The severe flat-fronted radiator of the Packard was also too mundane for Halley. To cover its nakedness he designed a chromed, pointed, stone guard held in place by a pair of spring clips. Being used to rev counters on his other cars, he installed one on the Packard but not, heaven forfend, in such an ordinary place as the instrument panel. continued Dunlop knew where to stop.



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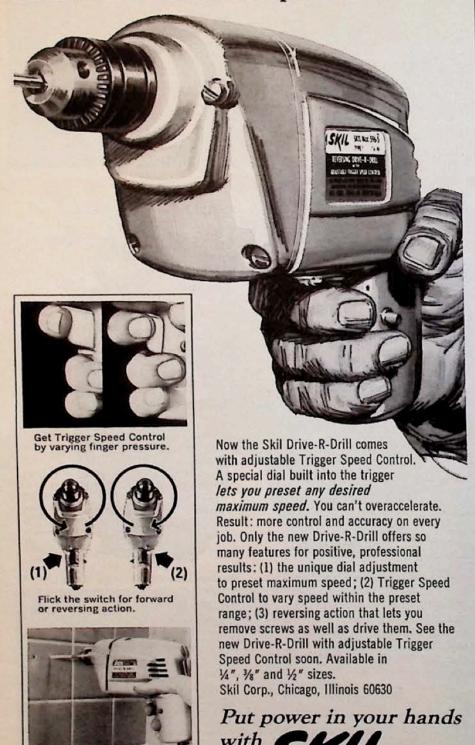
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PACKARD BOAT-TAIL

Halley insisted that this rev counter should replace the radiator ornament. At fearful expense a rev counter was set into a teardrop-shaped casing on top of the radiator shell with its drive connected to the front end of the crankshaft. At night it was, of course, invisible. So a little button-controlled spotlight was installed just ahead of the windshield.

The Packard's folding top looked sloppy by Mr. Halley's standards, Instead he ordered made a marvelously complicated mechanism of folding, chrome plated rods and silky mohair which fitted into a tiny bag which lived inside the boat-tail. (That boat-tail really didn't have room for much else.)

I owned the Packard while I was in the army. Perhaps war-time fuel was the cause but I never got it up to 100 mph. Ninety or so and 0 to 60 in about 20 seconds was the best I ever got out of it — it was in good shape, too. But you must realize too that it was no lightweight - about 4300 pounds.

I must admit, too, that I never thought its roadholding or cornering abilities particularly good. Perhaps I was wrong in comparing it in this regard to the Alfas and Bugattis I had owned in the Thirties. If it wasn't nimble, however, it was certainly comfortable - and I don't mean soft in the way a modern Cadillac is soft. The Packard had a satisfying firmness and I've seldom felt safer in a car or less tired after a long trip. The Packard had quite good vacuum-assisted brakes with a lever on the dash to control the amount of vacuum assistance. But could never quite understand why anyone would want less braking power.

Two things I didn't like about the Packard were its wheels and its 1-shot lubrication system. The wire wheels, instead of having center-lock hubs (as on most other high-priced cars), used a lot of bolts (like our cars today) for fastening them. The 1-shot system, as has always been their wont, leaked oil.

Still, I wish I had that Packard today. It was one of the very great examples of how good a car Americans used to build. Furthermore, from the greed standpoint, that \$400 boat would be worth about 30 times as much now. /MT

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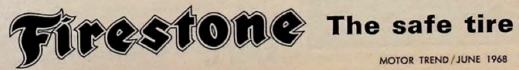
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taunus trouble

My premium-fuel 1964 Taunus Super developed a valve noise after a friend mistakenly used regular in it. Nos. 2 and 3 cylinders also fire irregularly. After removing the head, re-seating the valves, and setting tappet clearances per manual, the same problem still exists. Please advise a remedy

Gambrills, Md. E. G. True, Jr.

A Piston damage, the most likely thing to occur under prolonged detonation, should have been easily noticed when you had the head off, if it indeed was the case. Anyway, a compression check will reveal if anything of this nature is the problem. Check your distributor thoroughly to see if everything is okay, especially the advance/ retard mechanism. Likewise check the carb to eliminate it as a source of trouble. If this fails you will have to unbutton the engine for inspection. Look for badly worn tappets, lobes wiped off camshaft, worn timing chain and tensioner, rod bearings, broken rings.

metalflaking to last

 I have been considering metalflaking my sports car, but I was told that the finish would last only about a year. Is there anything I could do to make the finish last as long as a factory job? Cincinnati, Ohio Joe Wonder

A You were advised correctly. In normal use they will not hold up as long as standard linishes. Keeping the car covered or garaged out of sunlight at all times when standing might keep it looking nice for an additional year. It is also fiendishly difficult to match the old paint when making repairs, even when entire panels are re-done.

guzzling gladiator

My 1967 Jeep Gladiator camper with 327 V-8 and Turbo Hydra-Matic is quite satisfactory, but I would like to improve gas mileage, which is only about 12 mpg under the best conditions. I am thinking of installing a fuel pressure regulator (31/2 psi) and a fiberglass fan. Would these do any good? Also, I would like to install a transmission temperature gauge. Where on the transmission should I put the sending unit? Frank J. Weiss Coeur d'Alene, Idaho

A Your mileage is about average for that type of vehicle. The fan and regulator might help a little, but don't expect anything spectacular. The transmission temp sensor should be at the bottom where the fluid reservoir is. But be careful not to place it where it will get wiped off in rough going. By the way, installation of free-wheeling front hubs on 4-wd vehicles will result in a definite improvement in highway mileage.

away with the 427

Q I recently was told by a number of Ford dealers that the 427 has been dis-

continued and is no longer available in the Torino and Mustang. Is this true, and if so, how does it affect Ford's racing future? Lakeland, Fla.

A High-performance options are habitually introduced with great fanfare and withdrawn as quietly as possible. But in this case we suspect federal anti-emission regulations were too much for the 427. Discontinued as an option for private vehicles, rather than discontinued from production is more correct. Ford's racing program won't be affected unless smog laws are made applicable to race cars.

speedy steering toro

O Could you tell me if anything can be done to speed up the steering response on my 1966 Toronado? What about a parts interchange or fabrication? Allen R. Korbel Des Moines, Iowa

A Gosh, in our opinion the '66 Toro has adequate quick steering response. But raising front tire pressure will slightly improve it. We know of no parts interchange and would caution against any fabrication. Steering components on 4-wd cars carry far higher loads than on normal cars. You also should make sure your wheels are in proper alignment.

hide for my cat

I plan to buy a new Cougar XR-7. Leather upholstery is standard, with vinyl as a reduced-cost option. I plan to keep the car at least 4 years. In your opinion, which upholstery would wear better? K. T. Kintner Binghamton, N.Y.

A Generally speaking, modern synthetic materials outwear leather, but the XR-7 hasn't been around long enough for anyone to know for sure in its case. However, our experience has been that leather wears quite well in closed cars where it is protected from sun and moisture. If you want leather, you'll be reasonably safe in going ahead and ordering it. If the car were a convertible, we would emphatically advise taking the vinyl.

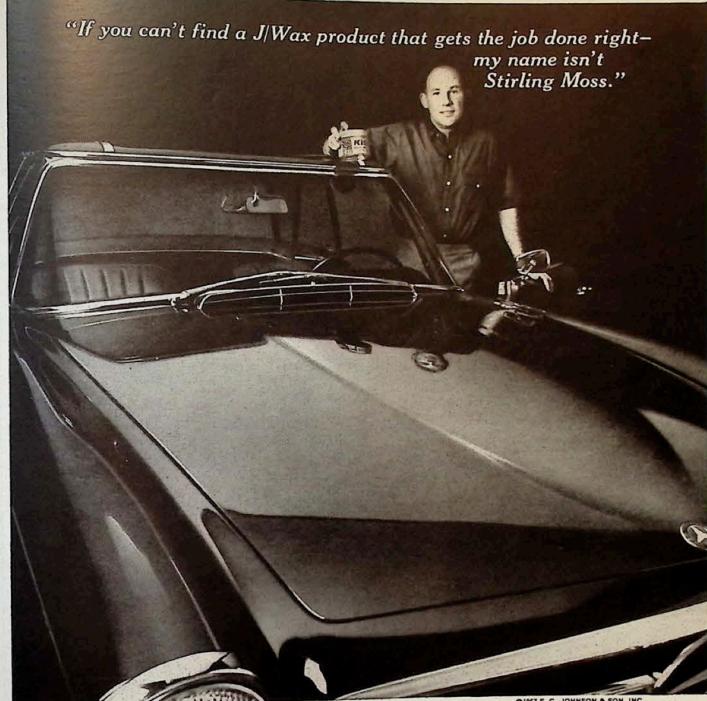
oil leak

My '58 Ford still runs well at 83,000 miles but leaks oil badly. I believe it's the rear main seal, but how can I tell for sure? I have heard that there are tools made for installing the upper half of the seal with the engine in the car but that they are tricky to use and sometimes don't do the job properly. What do you advise? Lyle Hampstead Baltimore, Md.

A We think trying the tool is well worth the risk. You can tell beforehand if it's the rear main by oil dripping from the clutch housing. (In rare cases the rear camshaft plug could loosen causing the same thing.) If the tool doesn't work, your only alternative is to remove the crank and possibly the entire engine.

removing pcv

If I wanted to remove my PCV valve on my '64 Plymouth, what would I replace it with? Could I put a regular oil filler cap on the valve cover hole where the valve was to allow crankcase fumes to



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JULY ISSUE, ON NEWSSTANDS THURSDAY, JUNE 20th

escape, then plug the hole in the carburetor where the hose was? I suppose I would then have to reset the carburetor. Is this plan feasible? East Otis, Mass. lack Dostie

A What you would have in all likelihood would not do as good a job ventilating your crankcase as the PCV setup did, when working properly. Air pollution aside, positively ventilating your crankcase has some real benefits. It cuts fuel dilution of the motor oil and buildup of moisture in the oil pan - both highly harmful to an engine and common problems with today's infrequent oil changes. You need the best ventilation you can get which means con-stant circulation at all engine speeds.

where there's smoke

My 1960 Comet smokes excessively, although it's not bad on oil - one quart each 700 miles. The smoke I'm referring to doesn't come from the exhaust; it comes from the crankcase fume pipe. It's very annoying when I stop for a light. People stare and often suggest that my car is on fire. Can you help? Charles A. Sortor Trenton, N.J.

A Your problem is blowby, caused by wear and/or stuck rings. First, change oil. Then add a reputable brand of viscosity index improver, available at most service stations. The engine should be warm because this additive is very viscous as it comes from the can. The engine should also be run immediately afterward to mix it with the oil. In addition to reduced smoking, you should get about 10% better gas mileage. This is not a permanent cure; you'll have to keep adding the vip every so often and at every oil change.

tire wear

 I have noticed that the inside of both rear tires wear down within 4000 miles of highway driving on my 1965 Polara wagon. Is this considered normal for this car? Harold Zurlo Weslaco, Tex.

A No, it isn't. Sounds like you have a sagged or sprung rear axle housing to us. You will have to have it checked on a wheel alignment machine. Replacement of the housing or straightening and reinforcing the present one are the cures.

fuel injection

Q I question whether or not to put a fuel injection system on '58 283 Corvette. What about mileage and performance compared to a 4-bbl. carb? Also, will I have to change cams? Portland, Ind. Stephen P. Starlin

A We presume you're talking about the Rochester system for '58-'65 Corvettes. Gas mileage is excellent with this setup -18 mpg on the highway being common. Performance is equal to or better than the 4-bbl. on the top end, and throttle response is superior down low. You could probably get away without changing cams, but we would advise duplicating the whole pack@ MICHELIN TIRE CORP. 1968



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Q & A continued

age, because it works extremely well when in correct adjustment. Two possible drawbacks are cost and the fact that there's never been an overabundance of mechanics around that really know how to work on the things.

engine drop

 I have both a 1965 Beaumont 396 engine with a 4-speed box and a 1966 Bonneville 421 engine with automatic. Which one of the two would drop into my 1966 Valiant 6 with a minimum amount of cost and modifications? Where would my greatest difficulty lie? Bathhurst, N.B., Can. John Boudreau

A Neither is going to drop right in, of course. The narrower of the two will be easier, but check the transmission hump, too. Modifying the floor pan can be troublesome. The steering box and linkage is something to watch out for, because it is virtually impossible to relocate without fouling up steering geometry. A few measurements of your engine compartment and the engines under consideration will give you a good idea of how difficult the job will be and help you decide whether you want to go through with it.

throw-away filter

Q I own a '55 Chevy with a '57 Chevy 283 V-8 engine. I'm tired of having to clean the filter can every time I replace the paper element. Will a throw-away filter fit my engine, or is there a conversion kit available? Robert Kuirinen Ashtabula, Ohio

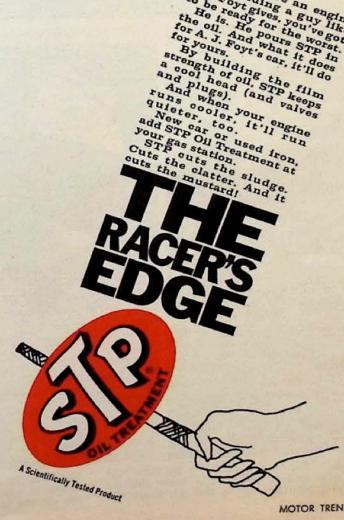
A Most people want to do just the opposite - convert to a replaceable insert filter - to save money. We suppose what you suggest could be done with the proper plumbing connections but know of no kits for this.

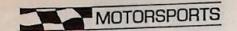
slick shift\$

My '65 Corvair always shifted hard, especially during and after wet weather. The trouble was finally determined to be a paper packing around the linkage just in front of the trans-axle, factory installed to prevent the shaft from rattling against its enclosing tube. The paper evidently absorbed moisture, swelled and jammed the linkage rod. We pulled the paper and repacked the tube with heavy grease. The Corvair now shifts with a flick of the finger. The action is uncannily like a Porsche 911 Randall Taubenheim Marina del Rey, Calif.

bucks for tips\$

Want to make a quick ten-spot? All you have to do is jot down an automotive performance tip and send it to "Q&A," MOTOR TREND Magazine, 5959 Hollywood Blvd., Los Angeles, Calif. 90028. For each tip selected and used in this column, Q&A will award \$10, but none submitted can be returned or acknowledged, nor can MOTOR TREND assume any liability.











(Top) Cale Yarborough, 21, hung it all out in his successful bid against Lee Roy Yarbrough. (Above left) Junior Johnson approaches NASCAR's John Brunner to find out about that

black flag jazz. (Above right) Darel Dieringer prepares for a couple of quick laps in Mario Rossi's Plymouth which, as you can see, is comfortably air-cooled.





(Above left) Firestone's Stu Vogel restrains Ted Berquist's enthusiasm on temperature check of Bobby Allison's skins.

(Above right) Here we go again. So what else is new? Cale and the Wood Brothers in Victory Lane.

A year ago Chrysler Corp. appealed to the Automobile Competition Committee of the United States (ACCUS) for legislation approving the use of dual carburetors on the company's hemispherical-head engine, primarily directed at high-speed stock car races is significant in more ways than one. in the Southeast.

The governing body of racing turned deaf ears to the appeal, ears deafened by the roar of an electric blue Plymouth which all but sucked everybody up the exhaust pipes in an unprecedented 27 victories in 44 starts and records that necessitated that NASCAR headquarters in Daytona Beach open up new books. Chrysler was serious about its request, but its roads were blocked by the greatest season any individual has ever known in the sport.

What rules committee was going to grant such a concession when Petty was blowing Ford and everybody else off the race tracks? But a few days before the Atlanta 500, the rules committee approved Chrysler's long-sought plea. That was March 28 when ACCUS said Chrysler may use dual carburetion, effective April 15.

The Atlanta 500 was staged on March 31 and before the largest crowd in the history of the 11/2-mile supertrack - 83,000 - Ford products ran off with the victory. Cale Yarborough, a brash young charger from Timmonsville, S.C., who has become the nearest thing to Fred Lorenzen since the superstar retired a year ago, finished 19 seconds ahead of Lee Roy Yarbrough of Columbia, S. C. Both drove Mercury Cyclones, a machine that is becoming a shotgun bride instead of a rejected suitor on the NASCAR supertrail mostly because the big M's grille doesn't trap as much air.

Ford has now embarrassed rival Chrysler, to the extent of winning five consecutive races in 1968, three of them major events and Yarborough made his points by winning two of them, both very major in the machines

built by Glen and Leonard Wood, master mechanics from Stuart, Va. The first was the Daytona 500-miler in February when he outdistanced Yarbrough's Mercury by one second.

The lateness of the ACCUS decision

There is the question of how long Chrysler will need to de-bug its dual fuel system and even if they do it quickly the prospect that ACCUS and NASCAR will revert to single carburetion for all stock car engines in 1969. The whole business also brings into sharp focus the unpredictability of Bill France's handicapping science and the fact that manufacturers take turns at befuddling NASCAR's amateur technical crew.

Chrysler's best finish on the farm South of the metropolis was fourtha Dodge Charger driven by Indianian Charlie Glotzbach. That's a funny name in the South, but it bears remembering. Glotzbach broke in last year on the superspeedways in Dodge cars owned by K and K Insurance in Fort Wayne, Ind. He got a ride whenever the company elected to enter more than one car, and that wasn't often enough to suit him. A week before Atlanta, he transacted a deal with veteran Spartanburg, S.C., builder Cotton Owens and the approving Detroit brass.

Actually, the Atlanta 500 was a 4car duel - Plymouth not really included after Petty hit the wall early and Dodge driver Buddy Baker experienced enough problems to reduce him to seventh place. "I've never driven so hard to finish seventh," was Baker's summation, and he's regarded as the No. 1 Dodge chauffeur now. "I just got outrun," said Petty.

Chrysler, having been beaten at Riverside, Daytona and Bristol prior to Atlanta, is elated with the rules change. Whether it'll be a mechanical or simply a legislative victory is not apparent as yet. "It'll give us more torque and more horsepower," said Ronnie Household-

er, Plymouth's performance field boss. think it will make our machines more equal with Ford and what testing we've done should help us perfect the fuel system more quickly. But it's expensive and anytime you talk of speed now, you're talking more money. If the specifications next year call for single carburetors, I don't know whether we have gained much or not."

Speed on the supertracks is a priority subject. The manufacturers, drivers and the tire people are most concerned and this being true, ACCUS is apt to get concerned when its members sit down in their official chambers to set forth the 1969 rules - hence, single carburetion.

The principal tiremakers were stunned and literally shook in their inner-liners when qualifying speeds reached nearly 190 mph at Daytona in February. That's some 4 to 6 mph more than the engineers had calculated, yet they had to come up with a tire that would endure.

While the speeds attained by these violently beautiful works of technology were 9 mph greater at Daytona, they were seven miles faster at Atlanta and expect to show a similar increase at Darlington and Charlotte Speedways.

After Yarbrough delighted his Junior Johnson Mercury crew - and the Dearborn Dynasty - with his pole-winning speed of 155.646 mph a 4-lap average, the tire people became concerned, then Bobby Allison blistered the highbanked facility with a 4-lap mark of 155.805 and a fast lap of 157.154 mph.

Fortunately, on race day, cooler than anticipated track temperatures and 11 caution flags of non-violent nature all but erased the high tire readings that had been feared, based on soaring temperatures on the rubber during the week of trials and preparations.

It is the consensus that Ford engines are rated some 50 hp stronger than the hemis, though this name conjures up continued on page 104

MOTOR TREND/JUNE 1968 101

ROCKINGEAN GT









(Above) Dan Gurney, left, confers with his discovery Swede Savage whose just got to be a natural with a name like that. (Above left) Javelin people will probably get this down pat. (Left) Over the wall boys and be quick about it, Tiny's on his way to the checkered flag.

Photos by Don Hunter

The first race in NASCAR's new Grand Touring division turned out to be an experiment for most of the field in the sports sedans, but an evidence that experience pays off for veteran Spartanburg, S.C., mechanic and builder Bud Moore as his Cougars captured the first two positions in the inaugural 250-mile event at North Carolina Motor Speedway in Rockingham.

Tiny Lund, an amiable fisherman from Cross, S.C., won the race by two laps and Swede Savage, a West Coast flash discovered by Dan Gurney, was a

lap ahead of third-place Paul (Bud) Moore, no relation to the builder. Moore also put the third Cougar at the head of the lineup.

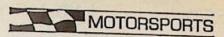
Moore, the builder, is more than three laps ahead of the 13 other driver-mechanic teams which made up the field—a disappointing debut to say the least. Last year, his Cougars finished second in the Trans-Am series, and this know-how manifested itself vividly in the first NASCAR event.

"We have run hundreds of miles at high speeds on the supertracks in an

effort to determine just what Cougars and Mustangs need to be highly competitive in the series of races scheduled this year. They have been nothing more than evaluation tests. We hope to come up with a kit available to anyone who wants to go racing on the new GT circuit," Moore said.

Results of the tests are not yet conclusive, but it is readily apparent that independents who want to build cars—and to compete with Moore and perhaps other factory-blessed operations

continued on page 108



SEBRING 12 Hours

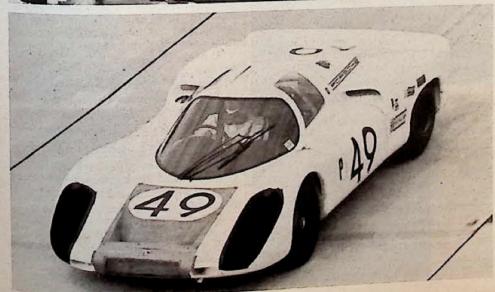








Photos by Bernard Cahler



Sebring '68 was a whole new bag. Gone were the Mark IV Fords and the Chaparral, the P3 and P4 Ferraris and, of course, the Aston Martin effort. So someone had to be there and it was Mark Donahue and Craig Fisher (above) who showed 'em why the kids have been buying Chevies all these years by picking off an incredible 3rd overall with a 302 Camaro. As a point of fact, another Penske-prepared, Chevrolet-engineered car was right behind, both encountering little down time except for usual pit stops (above left). After the threat of the GT-40 Fords melted away at hour 9 the Porsche of Herrmann/ Siffert was unopposed (left). God only knows what they would do with a 5-liter Trans-Am machine.

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ATLANTA 500 continued

some sort of magic, and Ford's Moody says Chrysler's dual carburetion should be worth at least 50 additional horses.

Moody also adds that "you can't buy the type of hemi on the street that Chrysler builds for its race cars. The racing hemi is stronger than the Ford wedge as it is now."

Because of the increased speed and expense everywhere the Grand National stockers perform this year, there is a solution to the problems which appears feasible. It concerns the single carburetor as standard equipment on

"The trouble today is that the cars are carrying too much weight to be safe at the speeds they are running," said Moody. "It is difficult to build tires that will stay on a 4000-pound automobile 500 miles at speeds of 155-200 mph.

"People are worrying about tires, wheels and hubs every race. If we could take 100-200 pounds of weight off the cars, tires would last a lot longer, the cars would run longer and safer. I'm not thinking of taking off so much weight that the cars would get out of control, I'm speaking of 100-200 pounds. The single carburetor is a step in the right direction. With one carburetor, the cubic inches displacement could be reduced and under the cubicinch to weight ratio, the cars would be lighter. You don't find many race cars now that do not have to add lead to the overall weight to meet the mini-mum requirement." The requirement is 9.36 pounds per cubic inch displacement, the maximum of which is 430 c.i.

"The solution is either build bigger, fatter tires with increased volume of air, or reduce overall weight. It's difficult now to keep wheels and hubs from breaking," Moody adds.

It is generally regarded that the avid stock car fan is more addicted to competition, such as was the case at Atlanta, than to raw speed. It becomes relative over 500 miles from 150 mph up.

A break here - or there - and four or five cars could have emerged in Victory Lane at Atlanta. Donnie Allison in his best supertrack finish, was only a lap behind the duel between Yarborough and Yarbrough, and Glotzbach finished 332 of the 334 tours.

Yarbrough has battled Yarborough fiercely in two supertrack races and finished third to another family rival, David Pearson, in a 250-miler at Bristol, Tenn.

The Atlanta outcome was not officially settled until three days after the race when NASCAR disallowed a protest filed by Lee Roy and the Johnson crew. The protest charged that Yarcontinued on page 106



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ATLANTA 500 continued

brough had been unfairly blackflagged, an automotic order to pit and be penalized, at the 300-lap point. NASCAR said Yarbrough violated the race's final caution flag by passing a car under the yellow flag. Yarbrough said Cale had passed the same car at the same time. NASCAR ruled Cale was not in violation.

While the family feud goes on, Ford doesn't really care. It just hopes Chrysler doesn't have a better idea-in carburetors. - Bob Myers

ATLANTA 500 RESULTS

POS	S. DRIVER	CAR	LAPS
1	Cale Yarborough	68 Merc	334
2	Lee Roy Yarbrough	68 Merc	334
3	Donnie Allison	68 Ford	333
4	Charlie Glotzbach	68 Dodge	332
5	Darel Dieringer	68 Plym	332
6	Richard Petty	68 Plym	331
7	Buddy Baker	68 Dodge	331
8	Bobby Isaac	68 Dodge	330
9	Sam McQuagg	67 Dodge	329
10	Butch Hartman	68 Dodge	327
11	Jim Hurtubise	68 Merc	322
12	Tiny Lund	68 Merc	322
13	Friday Hassler	66 Chev	320
14	Frank Warren	66 Chev	318
15	James Hylton	67 Dodge	313

The Death of a CHAMPION

The last time we saw Jimmy Clark was at the Rex Mays 300. We will not see him again. We will not see him qualified on yet another pole, or in Victory Lane at Indy once more, or winning his 26th Grand Prix in a compressed seven years or three World Driving Championships. For he is gone — unexpectedly veering off the rain-slick straightaway at 175 mph and crashing into the woods that border the Hockenheim, Germany, Formula II circuit. Graham Hill thought the steering was defective. "I doubt he made a mistake. He was a reliable driver and knew the course too well for that." Now we can only remember-"The Flying Scotsman" - 1935-



ROCKINGHAM G.T. continued

- will wind up with an assembly much like the Grand National cars.

There's one comforting note, however, to the backyard mechanics and drivers expected to participate in the new division. A first-class GT car, such as Moore's, can be readied for racing at about half the cost of the GN machines - or about \$5000.

"We know that we must have a complete front suspension, including spindles, hubs, brake plate, drums, shoes, upper and lower arms, ball joints, shocks, springs, sway bar mounts, steering linkage and box.

"We also must fortify the rear end suspension. That means the rear axle housing (full floating type), rear springs, hubs, brakes, absorbers, rear axle and necessary gear ratio," Moore commented.

Although Moore doesn't talk much about his machines, it was rather obvious in the initial race that his cars had all these high-performance parts - and most of the others didn't.

Moore is enthusiastic about the new GT division. "These cars are going to provide tremendous competition.

"And if spectators don't think these machines will run, wait until they see them in action, especially when a large complement of machines are built," Moore said. Lund averaged 95.846 mph over the 1-mile, slightly-banked asphalt speedway. He qualified at 113.996 mph, some 5 mph slower than the fastest official speed posted by a Grand National car - 119.422 mph by David Pearson in a Ford Torino.

While Moore's cars successfully dominated the race, there was one aspect of the event that was keenly disappointing - only 15 cars entered.

Three-time Southern 500-mile champion Buck Baker, who drove a Camaro which finished fourth, explained, "Anytime there's a new type of competition, drivers and mechanics are reluctant to participate until it is established.

"Independent builders and mechanics have suffered because of the extensive factory participation in Grand Nationals - and with good reason. But I think the circuit will grow when it's realized that an independent operation can be just as successful as factorybacked cars."

The availability of kits such as Moore recommends for the Cougars and Mustangs should be a boon to the circuit. NASCAR officials are learning also with experience. One change of the original rules now permits the use of more than one shock on each wheel and the movement of the shocks from the original location. Two 4-bbl. carburetors are also permitted on the maximum 305-cu.-in. engines.

"By the time we get the bugs worked out of the cars," added Baker, "that is, spring setup, gear ratios, tire pressures, I believe the GTs will be outrunning the Grand Nationals on some speedways. We can turn these GTs 7-8000 rpms and the engines still will stav together. In fact, I believe it possible to run the remaining nine major GT races with three engines."

As an aside, the first woman driver to compete on a Southern superspeedway - England's Jacqui Smith - made the field, but turned her Camaro over to the masculine gentry after making just three laps. The 24-year-old redhead who has driven extensively in European competition got more mileage out of her micro-skirt than her car, however.

She wrecked a Baker-built Camaro in practice and another was hastily prepared for her benefit. That the car was not set up properly combined with her lack of experience, Miss Smith left her slip showing.

The race drew 18,000 spectators, many of them curious to see Miss Smith perform. Instead, they saw Tiny Lund, whose dimensions are 6'5", 270 pounds. It is unfortunate the surprisingly large crowd did not get to see more cars and more of Miss Smith.

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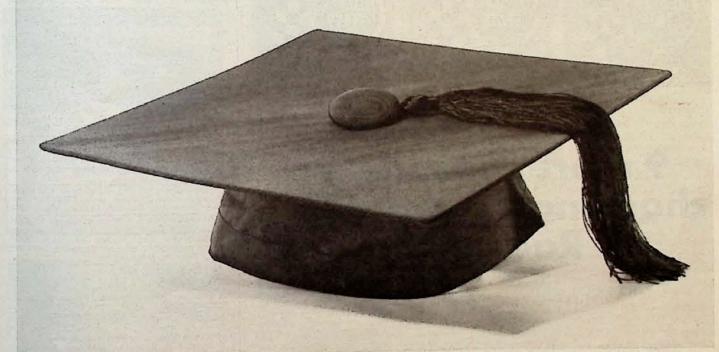
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INTERCHANGE

THIS MONTH'S UNFAIR COMPARI-SON. "I have just completed reading your comparison of the Corvette vs. Shelby Mustang in the March issue and am greatly disappointed that a magazine of your quality cannot produce a more equal match. You put a 435-hp 'Vette up against a 360-hp Shelby. The Vette had a close ratio 4-speed transmission and the Shelby an automatic. Why not use the top Shelby 427 version with its standard 4-speed?"

Norman Hubbard, Hildebran, N.C.

.... "May I bring to note two road tests conducted by Steve Kelly. In the Nov., 1967, issue of the magazine on page 58 concerning the new Cobra, Mr. Kelly has nothing but praise. He was quite sold on the new creature comforts of the car. He says, 'the fun of driving either Cobra model was as ever.' And later, ' ... even our passenger was impressed with our great driving prowess.' I especially like his last sentence. 'But it sets the stage for a new breed; doing quite a job in the process.'

"After giving the Cobra so much praise in November, '67, Mr. Kelly begins his March Cobra test by saying that Shelby American has sold out. I have been a Motor Trend fan for many years but the inconsistency of these two road tests is very infuriating."

Sammy Villegas, Mt. Berry, Ga.

.... "Your recent article on the Cobra/ Corvette in the March issue was rather slanted. Who are you trying to kid?" S. P. McPherson, Pittsburgh, Pa.

... "After reading the Cobra vs. Corvette article in your March issue I must say that injustice has been handed the basically Ford product. In curb weight alone, the Cobra is at a 240-pound disadvantage and in the engine compartment the differences are grossly outrageous."

Mike Main, Fort Riley, Kan.

... "I was very confused by your March issue of Motor Trend." Drue Rabon, Lugoff, S.C.

You're not alone anymore Cobra

.... "When was the Shelby Mustang's name changed to Cobra and why?" B. R. Horvath, San Rafael, Calif.

fan. Editor.

In the last part of 1967 when you weren't looking. The government outlawed the original, so Shelby transferred the well-known, popular name to his Mustang. Editor.

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ADVERTISERS IN THIS ISSUE | ... "I enjoyed very much your comprehensive comparison of the 427 Corvette and 428 Cobra which appeared in the March issue. However, being the proud owner of a new Corvette, I noticed a discrepancy in your specifications of the 427-435 test car. You stated that the final drive ratio was 3.55:1 and that the mph per 1000 rpm figure was 24.7. The final drive ratio must have been the 3.08:1 version rated at close to 24 mph per 1000 rpm. According to my sources a 3.55:1 ratio does about 22 mph per 1000 rpm. This would explain the slow 0-60 time of 6.3 seconds (slow only for a 435 'Vette) and rather high gas mileage you recorded."

Jon A. Perlman, Belle Harbor, N.Y.

Steve Kelly says you're right. Editor.

... "Anyone knows one cubic inch's difference doesn't make a race. It's horsepower man, horsepower. You might be interested to know that a 427 Cobra (the original Cobra) was timed from 0 to 100 and back to 0 in just 12 seconds."

Randy Freeman, Lexington, N.C.

Well, all right, after thinking the whole thing over we admit there might have been a few handicaps for the Cobra. But our intentions were pure as the driven snow, see. As originally scheduled the Cobra was supposed to be supercharged and when the blown job didn't turn up it was too late to put the comparison off. Life is like that sometimes. Editor.

IMPACT GAP. "Who is going to buy an AMX? Its styling is attractive but strictly lavelin, yet its price (according to your magazine) is going to be at least \$500 more. Why spend \$500 to have the factory shorten the Javelin and put on a custom grille? Even with the V-8 the AMX should be priced at about \$2500. It seems to me if Ford could produce a street version of the Mustang I, Allegro II or even the Ford GT in the \$2500 to \$3000 price range, both the AMX and Corvette would be in trouble."

Ronald Kennard, Dover, N.H.

So would everybody else. Editor.

FASTEST TRIUMPH IN THE WEST. "A 6-cylinder hemi for the Triumph 250? With a 10.80 quarter-mile e.t. as shown in the April, '68 MT, it seems the only answer. But then in the same test it took 11.6 for the 0-60.

Tony Gonzales, Tulsa, Okla.

And here our printer was finally about to get retribution for all those times he's been put down by XKEs and you go and ruin it. For shame Gonzales. The real figure should be 18 seconds flat. Editor.



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GT 350 ■

TRY A COBRA GT AT ANY OF THESE SHELBY DEALERS

GT 500-KR

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Write for Specifications and Literature to Shelby Automotive, Inc., Dept. MW, Box 7390, North End Station, Detroit, Michigan 48202.

COBRA GT 350 and GT 500-KR SPECIAL FEATURES

- (1) Two engine choices: GT 350, | 250 hp 302 cu. in. V-8; GT 500-KR, 335 hp 428 cu. in.
- (2) High velocity, high volume Cobra intake manifold.
- (3) Advanced design cathedral float 4-barrel carburetion.
- (4) Dual exhausts.
- (5) Low restriction custom paperelement diecast aluminum air cleaner.
- (6) Diecast aluminum Cobra rocker covers, chromed filler cap, dipstick.
- (7) High-rate front coil spring.
- (8) High capacity heavy-duty adjustable shock absorbers front and rear.
- (9) .94" diameter front stabilizer bar.
- (10) Crisp 16.0:1 steering ratio with power assist.
- (11) Heavy duty four-leaf rear springs.
- (12) Anti-windup rear spring dampers for sure acceler-
- (13) Heavy-duty rear axle.
- (14) Power-assisted floating caliper front disc brakes.
- (15) Heavy duty rear drum brakes.
- (16) Four ply polyglass Goodyear high performance tires.
- (17) 6" rim width 15" safety
- (18) Inertia-reel shoulder harnesses and seat belts for frontseat passengers (seat belts in rear).
- (19) Integral overhead safety bar in all models.
- (20) Safety-sequence wide tail lights.
- (21) Front marker lights.
- (22) Rear quarter reflectors.
- (23) Rectangular fog lights.
- (24) Dual master brake cylinder with proportioning valve and low-pressure warning light.
- (25) Collapsible steering column and safety padded center steering wheel.
- (26) Full unitized chassis and body.

STYLING APPOINTMENTS

Exterior: Precision moulded custom fiberglass hood and front assembly incorporates dual air intake scoops, functional louvered extractors. Custom self retained push-and-turn hood locks. Rectangular fog lights mounted in grille opening. LeMans type air extractors on rear quarters of roof (fastback only). Brake air scoops set in lower rear quarters. Precision moulded custom fiberglass trunk deck lid with integral air spoiler. GT stripe on lower rocker

Interior: Deluxe all-vinyl interior with bucket seats, full loop pile carpeting, matching custom styled console with padded arm-rest glove box, walnut-grained appliques on instrument panel and door panels. Full instrumentation: 8000 rpm tachometer, 140 mph speedometer, oil pressure, ammeter, water temperature, fuel gauge, electric clock. Optional folding rear seat with retractable safety luggage retaining bar (fastback only), tiedown loops on safety bar (convertible only).

COBRA JET 428 **ENGINE SPECIFICATIONS**

Horsepower335 @ 5600
Torque440 @ 3400
Displacement (In.3) 428
Bore (In.) 4.13
Stroke (In.)
Compression Ratio10.7:1
Cylinder Heads and Valves

nder Heads and Valves:

Large Intake Port with 2.06" intake valve, 1.625" exhaust

Intake Manifold:

Large Iron Version of Aluminum Manifold

Exhaust Manifold New Header
Carburetor735 cfm 4-V
Tappet—Cam
Rocker Arm1.73:1
Oil Pan Conventional
Camshaft:
Lift
.490" exhaust
Duration 290°



Buy It . . . or watch It go by

King of the Road!

Carroll Shelby has pulled the trick of the year. He's combined Ford's new drag champion 428 Cobra Jet engine with his complete road car, the Cobra GT 500. Result? Cobra GT 500-KR . . . King of the Road.

Drag champion engine? The 428 Cobra Jet grabbed Super Stock Eliminator honors at the Pomona Winternationals. It delivers 335 hp at 5400 rpm, churns up 440 lbs/ft of torque at a usable 3400. Look for 0 to 60 times that will snap your eyeballs! "Hot Rod" Magazine calls it ". . . the fastestrunning Pure Stock in the history of man."

The complete Shelby Cobra GT is ready-made for the "all-there" Cobra Jet. Power is controlled by adjustable shocks, heavy-duty suspension, four-speed transmission (with automatic a low cost option), beefy driveline and torque-sensitive locking rear. All standard—along with 16-to-1 ratio power steering, high performance tires, power disc front brakes. These essentials—plus safety features, luxury interiors and limited-edition styling—are engineered-in, not just offered as options.

The game is Follow-the-Leader. The name of the game is Cobra GT 500-KR. Or play a slightly tamer game with the Cobra GT 350. But make your play at your Shelby dealer . . . today.

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