



tooling. Latest plans call for them all to share one basic body shell in '64, this designed for a "perimeter" under-frame. The side rails run outside the floor area, with "torque box" construction ahead of the passenger compartment to isolate vibration from the engine and front end. The new "A" body shell for '64 would be slightly larger than current models. GM engineers have never been satisfied with unit construction on their compacts. It's too hard to isolate road rumble, and prevent shakes and rattles. This is especially true on soft-top convertibles, where much extra steel has to be added in the body floor area to make up for the stiffness of a steel top. A separate frame acts in a kind of "anvil" to absorb pounding and shocks from the suspension — and it's very simple to beef up a frame for convertible models. Also annual styling changes are cheaper than with the complex unit body tooling.

DETROIT AND NHRA HAVE COMPROMISED on the problem of special lightweight bodies for Super/Stocks. NHRA officials have stipulated a maximum shipping weight of 7.5 pounds per cubic inch of engine displacement. It allows a

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maximum of about 3200 pounds for a 426-cubic-inch S/S engine. This lets out Dodge and Plymouth, because their shipping weights are already near the 3200 mark. But Chevrolet, Ford, and Pontiac, with weights running from 3400 to over 3900 pounds, have all scheduled limited production of special light bodies for this spring. Chevrolet will use aluminum hoods, front fenders, bumpers, brackets, and possibly radiator — to save about 230 pounds. Ford will cut a stated 164 pounds with fiberglass hood, front fenders, doors, and rear deck lid. Pontiac plans to go further yet — with last year's aluminum front end, plus new thin-gauge steel doors, deck lid, and special thin window glass. New fabricated steel-tubing exhaust headers will chop another 45 pounds or so, compared with the current huge cast-iron jobs. Pontiac hopes to get down near 3400 pounds for the upcoming drag season. Overall result: All new '63 Super/Stocks next summer will have about the same cubic inches (around 426) and should all weigh between 3300 and 3500 pounds on the drag strip. This will give everybody an equal chance. Winning will be strictly a matter of engine tuning, chassis setup, and sharp driving.

SUPER COMPRESSION WILL BE THE BIG NEW SPEED SECRET in the Super/Stock ranks next summer. All the competing makes (Chevy, Ford, Dodge, Plymouth, Pontiac) will offer standard or optional forged pistons domed for around 12.5-to-1 compression ratio (or 13.5 on the Chrysler products). Most of the cars used 11 to 1 last summer. Detroit engineers have known that there's horsepower to be gained between 11 and 12.5 to 1; but detonation and pre-ignition with available pump fuels scared them off. Now the hot competition is forcing them to throw caution to the winds. Fuel octane and spark advance are critical with these new super-compression pistons, but the cars will fly when set up right. Next summer's records will prove it.

NOT GENERALLY KNOWN BY BONNEVILLE ENTHUSIASTS: The Ostich and Arfons jet cars were *wide open* in the region of 330-340 mph on the Flats last summer. It's a popular belief that these jet cars have almost unlimited speed potential, and it's only control and stopping problems holding them back. Actually, the crude, open-wheeled bodies have

very high wind resistance, so it takes all the available 4000-6000 pounds of jet thrust to approach 350 mph. When the thrust is shut off, the wind drag slows the cars down so fast that parachutes are barely needed. Efficient afterburners might get these cars close to 400 mph, but the 500-mph jet car is a long way off.

PONTIAC FINISHED IN THIRD PLACE in the 1962 sales race. When Semon "Bunky" Knudsen took over Pontiac in June, 1956, they were sixth in new car sales. His philosophy of "selling a young man's car to an old man" is largely responsible for the fabulous success story. High styling, quality construction, excellent performance, a youth image, and a long list of options to suit every need — that's the secret. The Pontiac formula is being tried in more than one Detroit company today.

THE INCREASING INTEREST IN RACING AND PERFORMANCE around Detroit has NASCAR officials slightly concerned. They don't want to see a return to million-dollar factory racing teams. They want the small private owner and driver

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to have a chance, to be able to get the same equipment the factory boys use. The racing public is more interested in personalities than car makes. Crowds are bigger when it's driver against driver, rather than team against team. Personalities tend to get smothered in the big factory teams. NASCAR officials hope we don't come to this again.

FORD HAS BIG PLANS FOR THE FAIRLANE COBRA ENGINE. Ford's Cleveland engine plant recently started production on the initial order of 200 hopped-up Fairlane V-8s for Carroll Shelby's AC Cobra sport-racing car. But this is only the beginning. Word is that a version of this engine will soon be offered in Fairlanes — and possibly in Falcons. The performance potential of this small cast-iron V-8 has barely been scratched, even in the Cobra. It looks very promising for future Super/Stock compacts.

LINCOLN-MERCURY DIVISION IS BACK in the performance business. The recent appointment of Fran Hernandez as "performance and evaluation director" pulls the trigger. Fran was with the Stroppe team that raced Lincolns so successfully in Mexico in the early '50s — then with DePaolo Engineering, racing the '56-'57 Fords on the NASCAR tracks. He can do the job if anybody can. Mercury won't likely enter factory cars in races officially, but you can look for much more factory cooperation with professional and amateur racing men using Mercury products.

AT THE SAME TIME, LINCOLN-MERCURY MANAGER Ben Mills defended performance development in public talks. Some of his remarks: "... Performance is all the things that enable a driver to make his car do exactly what he wants with minimum strain, fatigue, and distraction... Cars with 110 hp or less have two to three times as many accidents per mile as cars with 300 hp... The race track is a logical extension of our engineering program..." This is pretty bold, plain talk even in this day of factory race cars and 400-hp engines. It suggests that Ford is more serious about its performance image today than most others in the industry.

CHEVROLET IS SUPPLYING QUITE A FEW 327-cubic-inch aluminum cylinder blocks and heads to big-time racing men.

Mickey Thompson will use a de-stroked version of this engine in his new Indianapolis car. Several big-name dragster and sports car designers also have the new engines, and are building cars around them for the '63 season. The aluminum engines are said to weigh about 350 pounds with all accessories (only 30 pounds more than the small Buick-Olds aluminum V-8), and look nearly identical to the corresponding cast-iron engine — indicating they were cast with basic production patterns. Word is that a softer alloy is used than the silicon-aluminum blend that gave so much trouble on the short-lived 1960 Corvette aluminum heads. Remember?

DOES ALL THIS MEAN CHEVROLET WILL SOON OFFER an aluminum "327" engine as a production option? It's possible. It's known that Chevrolet has been putting much effort into aluminum engine development for over a year. They've learned a lot about production problems with the Corvair engine. Some engineers feel a big aluminum V-8 could be practical — but possibly only as a performance option at extra cost. Time will tell.

SALES OF MEDIUM-PRICED CARS are starting to bounce back up — after years of dwindling market shares. The 1963 medium price lines (Olds, Mercury, Buick, Chrysler, etc.) are taking 21 per cent of the total market, compared with 19 per cent for the '62s. Not a big jump — but significant. It reverses a long-term trend. When you combine this with the drop in market share from 35 to 30 per cent for the small compacts (Corvair, Falcon, F-85, Valiant, Chevy II, Tempest, etc.), the picture starts to clear up: The American car market is not as interested in stark economy and practical utility as it was a year or two ago. It wants more luxury and performance. There is even evidence that the family car is returning as a status symbol. This could greatly accelerate the trend to larger, more costly cars.

TEMPEST'S NEW V-8 ENGINE OPTION is a booming success. In early '63 sales, nearly 34 per cent of the buyers are ordering the V-8 — compared with only one per cent who wanted the optional Buick aluminum V-8 last year. The 215-cubic-inch aluminum engine never seemed to catch on with Tempest buyers. But the new job — actually, a small-bore 326-cubic-inch version of the big Pontiac V-8 — has the torque and acceleration to sell itself in a road demonstration. Salesmen say a three-block ride is enough to sell the V-8 to any performance-minded buyer. Just one more bit of evidence that performance and luxury are just as important sales factors in the compact field as in big cars these days.

GM RESEARCH IS EXPERIMENTING with magnesium engines. Magnesium is tricky stuff, but it weighs only about half as much per cubic inch as aluminum. This would allow another important drop in engine weights — if we can learn to use it. Keep an eye on this one.

INDIANAPOLIS SPEEDWAY OFFICIALS ARE RETIRING the 35-year-old Stevens Trophy. This trophy was awarded for the top 24-hour average speed for strictly stock cars around the Indy track. It was last won by Chrysler in 1953, 89.89 mph. Reason for retiring: Stevens' rules didn't allow safety features like roll bars, heavy-duty hubs and special racing tires. Today's stockers are too hot to be safe without race-car equipment.

LOOK FOR A BIG NEW PUSH TO PUT DISC BRAKES on American cars of all sizes. The Budd Automotive Company has just announced a new disc design that's said to be more economical and practical for larger cars. The Budd brake uses a heavy cast-iron disc of sandwich design, with the two rubbing surfaces separated by internal fins or ribs. This layout not only gives air circulation for better cooling, but the large mass of metal in the disc will *absorb* the sudden high overload of heat on hard stops — thus giving lower operating temperatures. Short pad life has been the toughest problem with experimental disc brakes on large American cars. The Budd people claim to have solved it.

WORD IS THAT THE 1964 THUNDERBIRD will offer the new Budd disc brakes as optional equipment. Ford's been experimenting extensively with both Bendix and Budd designs for over a year, and they're about ready to move into production. The Bendix-Dunlop brakes are used on the Monte Carlo Falcon Sprints — and this could be a production option by next spring. Keep an eye on this trend.

DETROIT MAY OFFER A NON-RUSTING BUMPER SOON. The new experimental design uses a main structure of inexpensive sheet carbon steel — but with thin layers of stainless steel bonded to the outside surfaces with adhesives. Making the whole bumper out of stainless would be pretty expensive, but this sandwich construction could give the same result at less cost. Adhesive bonding is one of the most active areas of research in the auto industry today.

MICKY THOMPSON IS SAID TO BE BUILDING UP a special lightweight Corvette Sting Ray for Sebring. It'll use aluminum heads and block for the 327-cubic-inch engine, giving a total engine weight of around 350 pounds. The car is also said to use a light tubular frame and much aluminum in the running gear. It could weigh near 2000 pounds in racing trim.

IT'S DEFINITE NOW: GM WILL USE SEPARATE chassis frames under all its 1964 compacts except Corvair. The change would include Buick Special, F-85, Tempest, and Chevy II. All these cars now use unit bodies, with much common