

PM's NINTH ANNUAL AUTO SECTION '61

AS WE TURN the corner into a new year, the automobile industry stands smack in the middle of what may be its greatest period of change. It's an evolutionary era in which things are happening so fast that the results seem revolutionary when looked at from the perspective of just a couple of years ago.

In the 1960-model year, four new cars were introduced, five if you count Dart separately. For 1961 we have four more new ones, and before another 12 pages are torn off the calendar there will probably be one, possibly two more. And, like most of the compacts of the past two seasons, these new cars to come will not be built up of bits and pieces from a sister car's parts bin, but will be new designs, fresh off the drawing board.

The present period of restless turmoil in the auto market was the result of the public's expression of disenchantment with the large, powerful and uneconomical medium-priced cars which accounted for such a large slice of the market in 1955 and which have been shrinking in numbers ever since.

The cold reception to the Edsel in 1957-58 was the tip-off to top management.

So the industry gambled, and Falcon, Corvair and Valiant won out with massive sales last year, repeating the success of Rambler and Lark a year or so before.

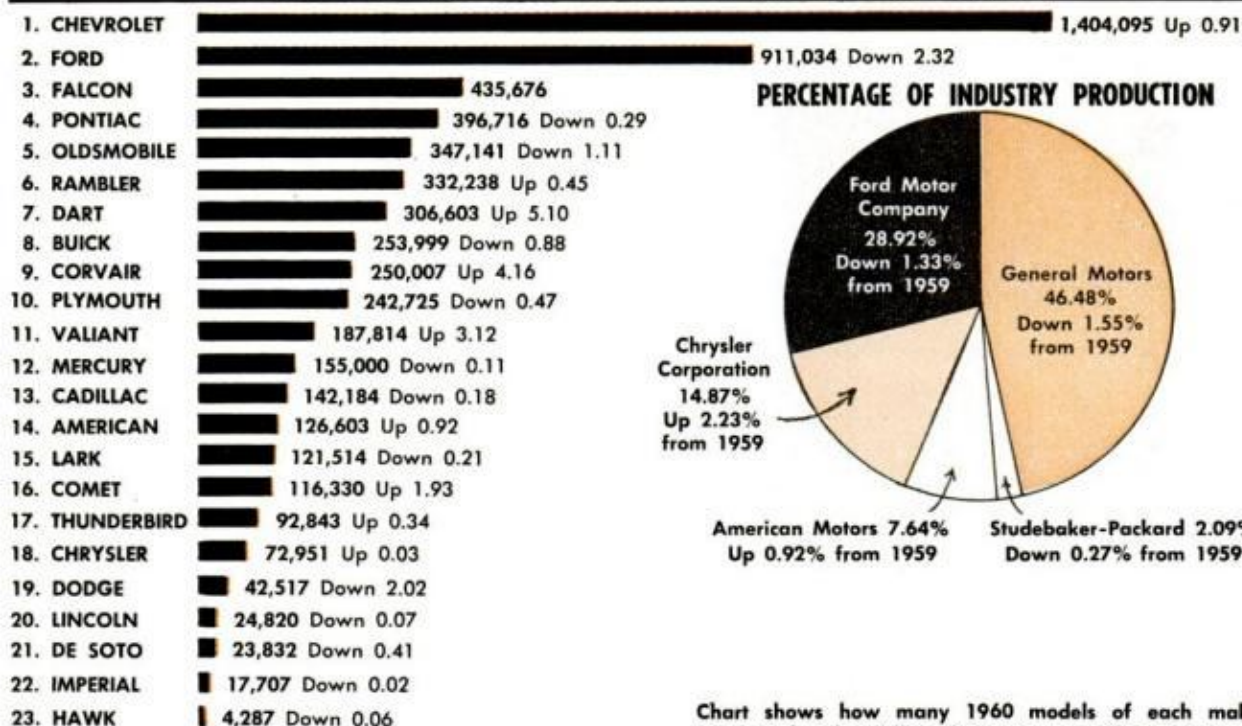
In 1960 Ford Motor Company's Comet proved that compact-car buyers could be coaxed into paying a few dollars more for a bit more comfort and luxury as long as the selling price remained within the basic economy-car price range.

Another happy fact established was that Detroit hasn't lost the knack of producing truly practical cars. Buyers of the new compacts, as well as owners of the established Rambler and Lark, rejoiced in the simplicity and efficiency of their cars and marveled at their high degree of comfort and roadability.

The light weight and efficient use of limited space, as well as the

(Continued to page 248)

PRODUCTION OF 1960 MODEL PASSENGER CARS



PERCENTAGE OF INDUSTRY PRODUCTION

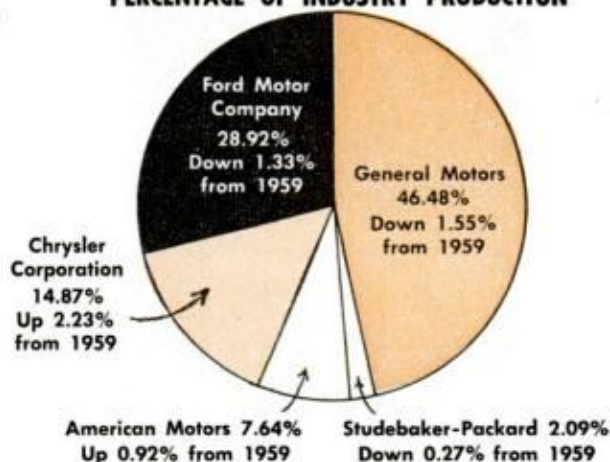
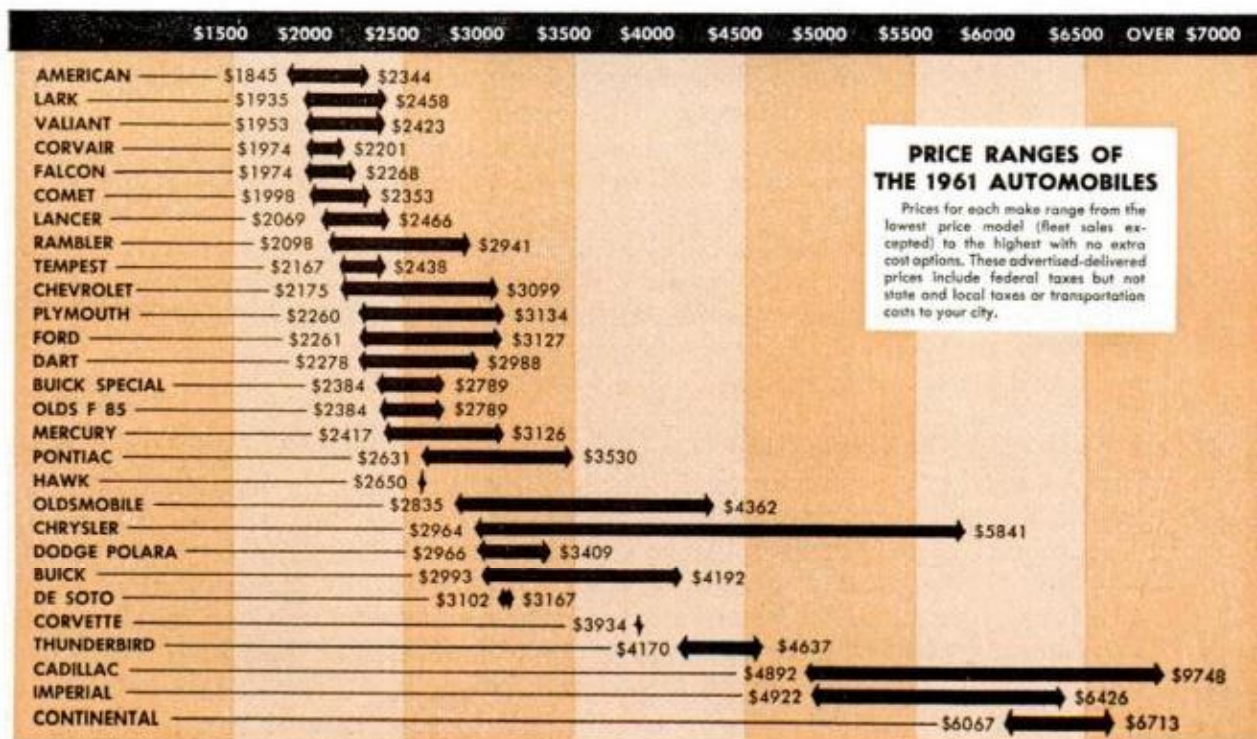


Chart shows how many 1960 models of each make were produced and how this compares with 1959. Period covered is approximately a year, beginning August 1959.

PRODUCTION FIGURES for the 1960-model year are shown above on bar graph for individual makes. Percentages, following numerical totals at ends of graph bars, indicate the rise or decline of a given make in terms of any "Up" or "Down" in its percentage of the total industry production. For example, in the case of Chevrolet, "Up 0.91" indicates a production increase of 9/10 of a percent (of the industry total) over 1959. In the case of Corvair, Comet and Valiant, their "Up" percentages are their totals as well. Falcon's percentage (not indicated above) was 7.24 percent. Rambler's graph includes the Ambassador production

PRICE RANGES of individual makes for 1961 illustrate the close price grouping that places more than half of the makes within the \$2000 to \$3000 range. Note the wide range of Chrysler cars. You can buy one for either the price of a Dodge Dart or a low-priced Cadillac



PRICE RANGES OF THE 1961 AUTOMOBILES

Prices for each make range from the lowest price model (fleet sales excepted) to the highest with no extra cost options. These advertised-delivered prices include federal taxes but not state and local taxes or transportation costs to your city.



BUICK SPECIAL

PONTIAC TEMPEST

DODGE LANCER

OLDS F-85

Comparing the NEW '61 COMPACTS

By Jim Whipple

Photos by Don Honick

THE PURPOSE of this multiple-car road test was to learn as much as possible about the four new 1961 compacts, Buick Special, Pontiac Tempest, Olds F-85 and Dodge Lancer, and to compare them.

In testing these cars we drove five of them for a total of approximately 4000 miles. (Two Lancers were tested, one with a 101-horsepower engine, the second with an optional 145-horsepower version of the Dodge slant six.)

In all cases, except the Tempest, at least 500 miles of break-in driving was put on

each car before making the 168-mile economy run or taking performance figures. On the Tempest, which was tested in a short period before announcement date, mileage was over 300 when the test commenced.

In an effort to be consistent, cars were equipped with automatic transmissions. (Once again our Tempest, a stick-shift job, was the exception, being the only car available at the time.)

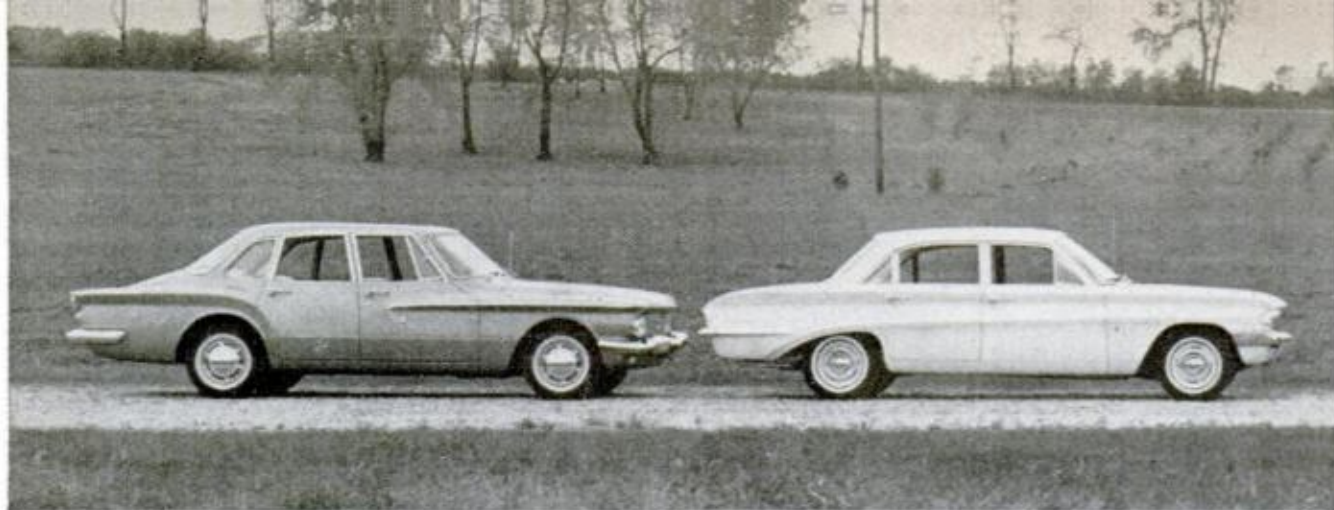
The cars were driven in dense city traffic, on winding dirt roads, on boulevards, high-speed turnpikes and country highways.

CAR:	DODGE LANCER		PONTIAC TEMPEST	OLDS F-85	BUICK SPECIAL
Model:	770	770	Standard	DeLuxe	DeLuxe
Engine:	OHV 6	OHV 6	OHV 4	OHV V-8	OHV V-8
Cubic Inches:	170	225	195	215	215
Horsepower:	101	145	110	155	155
Axle Ratio:	3.23:1	3.23:1	3.55:1	3.23:1	3.08:1
Miles Per Gallon*	20.0	17.9	16.7	17.7	17.5
Acceleration: miles per hour in secs.					
0-60	17.4	13.7	15.7	12.5	12.0
40-60	10.1	6.0	8.0	7.3	5.2
50-70	11.2	9.8	9.5	8.7	7.0
60-80	15.2	12.2	10.8	11.5	9.1

* Measured over 168-mile course; 96 miles turnpike, 34 miles country road, 38 miles city traffic. All fuel was Phillips 66 Regular from same pump.

Alike as two peas in a pod and offering equal entry and exit space, legroom, seating height and width are these two GM compact bodies, the Pontiac Tempest on the left and Olds F-85 on the right. The third member of the GM compact trio, the Buick Special, not shown, shares the same body and general interior dimensions





Lancer's lively Six and its accessories are easily reached for service. Engine is satisfactorily smooth and quiet at normal speeds



Even the compact engine compartment of the Olds F-85 seems huge as it surrounds the neatly designed, lightweight aluminum V-8

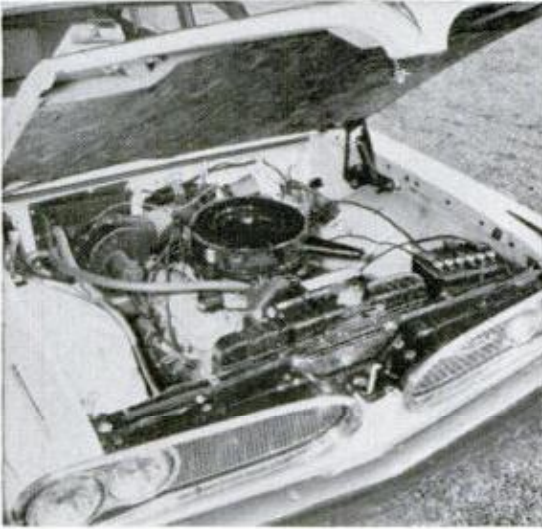
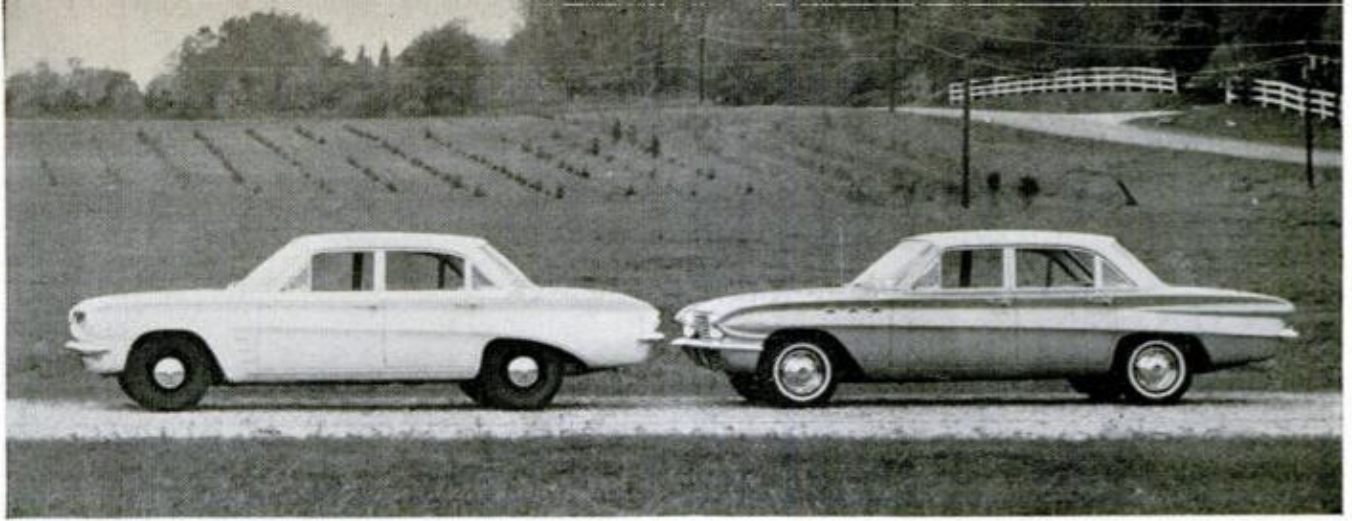
The Cars

Buick Special; four-door sedan, deluxe trim, automatic transmission, radio and heater. Base price, \$2519 (including federal excise tax, but not optional equipment). Olds F-85; four-door sedan, deluxe trim, automatic transmission, radio and heater.

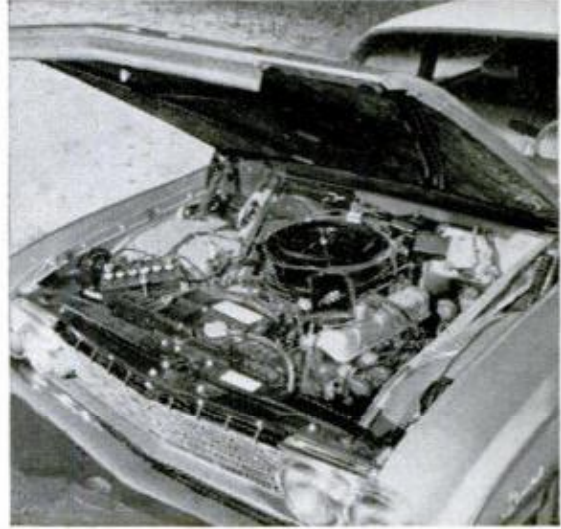
Base price (as above) \$2519. Pontiac Tempest; four-cylinder four-door sedan, standard trim, manual transmission, heater, \$2167. Dodge Lancer four-door sedan, deluxe trim, automatic transmission, 170 and 225-cubic-inch displacement engines, \$2154 and \$2197 respectively.

Lancer's front door opening, left, is a full 36 inches high, as the yardstick shows, compared to 34-inches for the Special, F-85 and Tempest. Lancer's front seat is 1½ inches lower than the other three new compacts





Tempest's cast-iron Four is easy to work on, weighs about 200 pounds more than either aluminum V-8. Note thick, glass-fiber silencing pad



Plugs, carburetor, distributor and other accessories are easy to reach on the Buick Special. Generator is placed low on right side

Bodies

All four cars have unit-construction body frames composed of hundreds of stamped steel parts welded together into an integral structure. Front fenders bolt on, as do bumpers, grilles, and of course, the hinged doors, hoods and deck lids.

The Buick Special and Olds F-85 bodies are exactly the same except for shape of fenders, grilles and obvious trim items. All interior dimensions on those two cars are virtually identical.

Pontiac Tempest has more legroom in the front compartment (center and sides) due

Rear-door opening on the Lancer, left, is $1\frac{1}{2}$ inches higher than the Special's and its rear-seat cushion is a full $13\frac{1}{2}$ inches from the floor—one inch higher than Special's. Cars are equally easy to enter or leave





Stick-shift Tempest made 0 to 60 m.p.h. in 15.7 sec. Good passing punch logs 50-70 m.p.h. in 9.5 sec., 60-80 m.p.h. in 10 sec. Top speed, just under 90



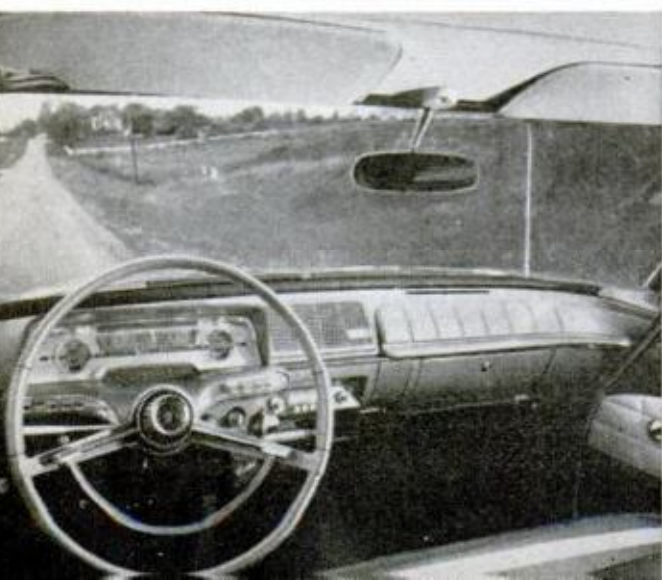
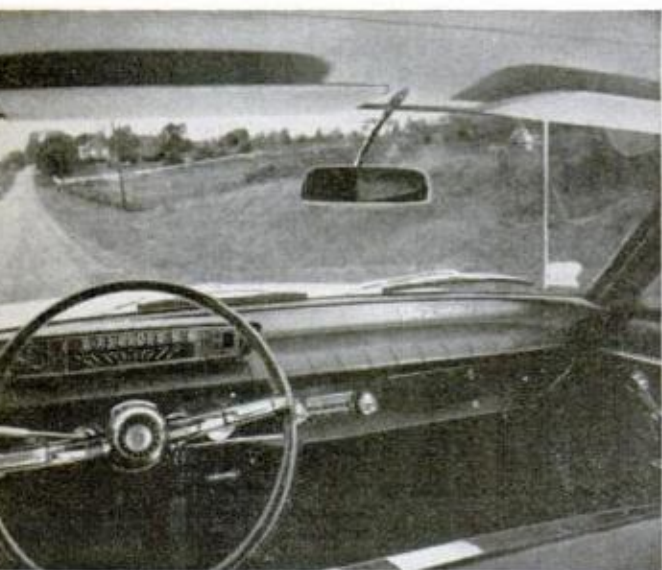
With a smaller engine, Lancer was slower than others in the group, doing 0 to 60 m.p.h. in 17.4 sec., 50 to 70 m.p.h. in 11.2 sec. and 60 to 80 m.p.h. in 15.2 sec.



Tempest handles well at normal speeds. Steering—precise, though slow. Corners hard under light load, rear swing-axles “camber”—rear end slides out



Lancer steers easily, precisely; rolls least of all four in cornering; hugs the curves nicely and stays on course better when the going starts getting rough



to rear location of transmission. Thanks to curved torsion-bar drive shaft, Tempest's tunnel creates less of a floor bulge in both front and rear compartments.

Interiors

In the other three cars tunnel bulge and transmission humps are easier to live with than most new cars. And there's not one of the four in which you “bottom” in the center of either front or rear seats.

On the three GM cars, the driver's seat is a bit higher, angled for a more erect seating position. The Lancer front seat is a bit lower and a bit softer. Lancer's front-seat design will please those who prefer a more lounge-like seating situation; one that caters to the passenger rather than the driver.

As in any other compact or small car, and some big ones too, front seat positions turn out to be compromises, best suited to the average physique, to an extent neglecting those whose size puts them on the smaller or larger-than-average ends of the curve.

A man with longer-than-average legs will find that none of the four front seats adjusts quite far enough to the rear.

[\(Text continued on page 260\)](#)

F-85's vision and instruments, above left, are typical of GM compacts. Windshield is deeper than Lancer's, below, but latter's sloped hood gives equal visibility



Olds has good passing punch with Hydra-Matic transmission which can be placed and held in "S" (third gear) for powerful uphill climbing or for downhill braking



Buick Special is best in passing with 40-60 m.p.h. acceleration time of 6 sec., 9.8 sec. for 50-60 m.p.h. New automatic transmission is the secret



Olds F-85 with smooth, light easy steering is a delight, though softer-acting suspension tends to produce more lean in sharp cornering than do the other three



With the least roll of all three GM compacts, and coming close to cornering ability of Lancer, was Special. All cars took same curve at 45 m.p.h.



Two big two-suiters and two over-nights outside Lancer's flat trunk



Here cases fit into Lancer's trunk with almost room enough for another set



Lancer makes trunk space with spare tire under floor

F-85's spare tire hogs space. Same cases fit with little room to spare

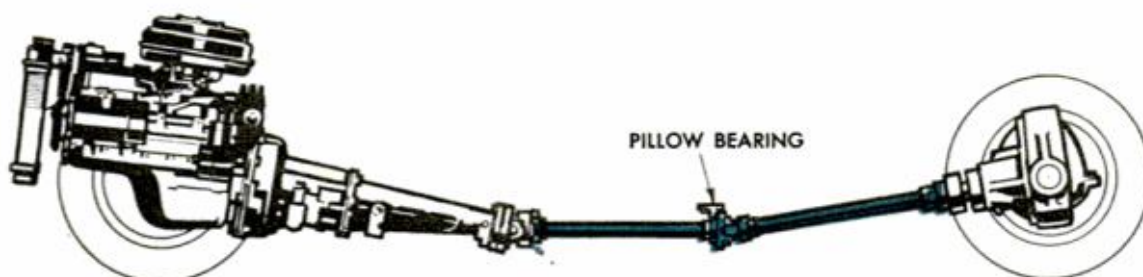
Same story with Special's trunk—housings for hinges block precious space

Spare near floor center gives Tempest the least space



An Engineer Analyzes the

By Roger Huntington, ASAE



OLD WAY

Keeping pace with the demands for improved passenger space, engineers have tackled the problem of "mid-floor hump" with a totally new idea in drive shafts. Illustrations on these two pages compare old with new. Above is old design—two shafts and three universal joints

TEN YEARS AGO the chassis on American cars were all pretty much alike—big "X" frames, coil springs and "wishbone" independent suspension in front, solid axles on coil or leaf springs in the rear and simple one-piece drive shafts. Either everybody was right or everybody was wrong in those days. Things are different today.

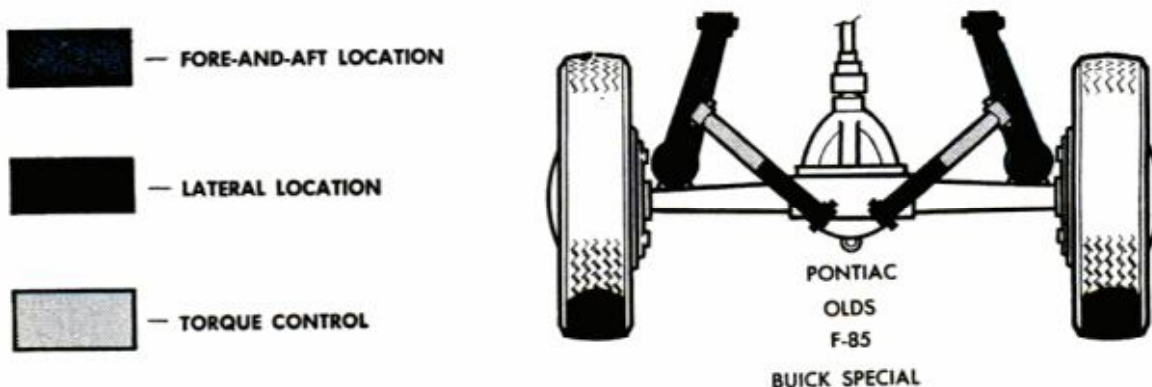
Under the 1961 cars you will find frames of all shapes, or even no frames at all; every type of spring from leaf to torsion bar; four-link rear suspensions and strut-type front suspensions; two-piece drive lines, and rear-mounted transmissions with independent rear suspension.

It seems as if everyone is trying something new and different this year, and the reason seems pretty obvious: The average buyer is becoming smarter and more particular these days. He's not buying mere size, style, horsepower and prestige as he once did; he's looking for basic value, utility, advanced engineering and economy as well. Thus, Detroit is straining to please everybody and the result is a pretty wide variety of basic mechanical designs. Let's have a closer look at the '61 chassis.

The Frame Problem

The biggest problem in frame design today is whether to use a frame at all! For many years our most progressive auto makers have been welding up their bodies in sturdy box units and attaching the running gear directly to the box without any massive subframe. We call this "unit" construction.

Shown below and on the facing page are basic rear-suspension designs employed by General Motors on some of its 1961 cars. Basic to all of them is a solid axle and coil springs





NEW WAY

A new concept in drive shafts is that employed in the Pontiac Tempest, above. In place of the bulky shaft sections is a thin, $\frac{5}{8}$ -inch torsion bar that bends and twists like a speedometer cable. It permits a lower shaft tunnel, absorbs much of the vibration and requires no universal joints

All our new compact cars feature it, and Chrysler and Lincoln-Thunderbird use the principle for their big cars. It works very well, resulting in a very stiff body, fewer rattles, lower floors and potentially lighter weight because they've eliminated the heavy frame.

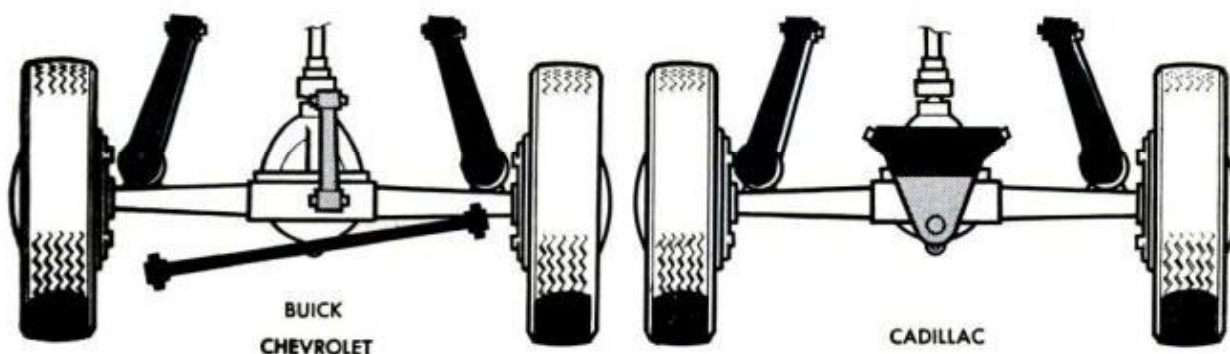
But Detroit is far from unanimously in favor of unit construction these days. GM and Ford-Mercury stick doggedly to the old frame on the big cars. They don't like the high cost of converting regional assembly plants to unit-body production, and they contend that it also costs more to make annual styling changes.

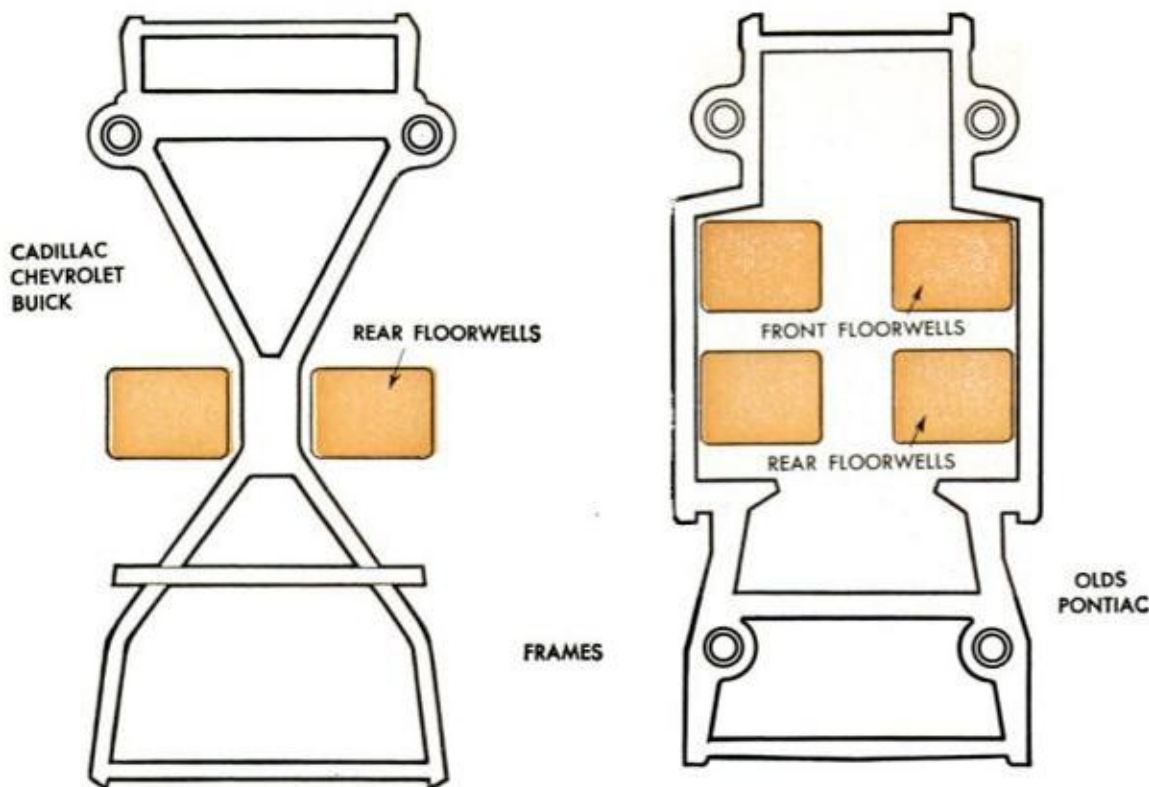
Then too, that big frame is doing more of a job than we give it credit for, especially on long-wheelbase cars. Some body designers say it acts as a heavy anvil for the springs and shock absorbers to pound against, absorbing road shocks and preventing them from being transferred to the passengers. On a unit body the boxlike body-frame may, in effect, become a huge bass drum and actually amplify road rumble.

There are still plenty of problems with both the separate frame and the unit bodies, but as of now it looks as though both will be around for some time.

It's interesting to note the differences in frame design between the various GM divisions. Cadillac, Buick and Chevrolet use a massive "X" design without side rails, with foot wells for the back seat only. Olds and Pontiac use wide-spread box frames with no central "X" member and side rails

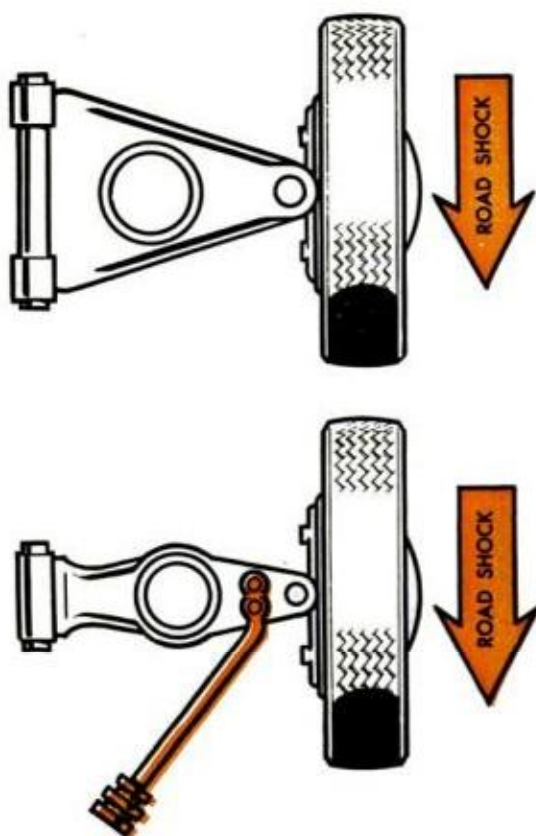
Linkages shown below control fore-and-aft location (blue), lateral location (black), torque, which tends to twist the axle, (gray), and combined torque-and-lateral control (black and gray)





Evolution in automobile-body design must begin with new ideas in the frame. Above right, General Motors' wide-spread "box" frame, used on the big Olds and Cadillac, allows deep, step-down foot wells in the front passenger compartment. Though more rigid, the "X" frame doesn't allow as low a front floor

Shown below is General Motors' newest addition to improved suspension systems. The two illustrations compare the old "wishbone" (top) with the new torque strut employed by Corvair, Pontiac Tempest, and Cadillac. The advantages of the torque strut are better anchorage and bracing against road shock



running outside the floor area. These have "step-down" floors in both front and back.

Which layout is best? The "X" frames are stiffer—might show fewer squeaks and rattles after years of wear—but the box frames give more foot room and chair-height seats in front. Take your choice.

The Transaxle

When Corvair came out with independent rear-wheel suspension and a rear-mounted transmission last year, nobody in the industry got very excited—simply because the car had the engine in the rear, and this layout requires the independent suspension and in-unit transmission.

But when Pontiac chose the "transaxle" for the new front-engine Tempest compact this year, Detroit sat up and took notice. Progressive auto engineers have been beating the drum for this layout for years. Not only do you approach the ideal 50-50 weight balance on front and rear wheels, but the heavy transmission mass at the rear acts in conjunction with the engine mass at the front to increase the "dumb-bell effect" of the body. This slows down the

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IT'S BEEN 12 years since the American auto industry has brought out a true "milestone" engine—a basic design that pointed the way for the whole industry for years after. The last time was the Olds and Cadillac introduction of the short-stroke overhead-valve V-8 layout late in 1948.

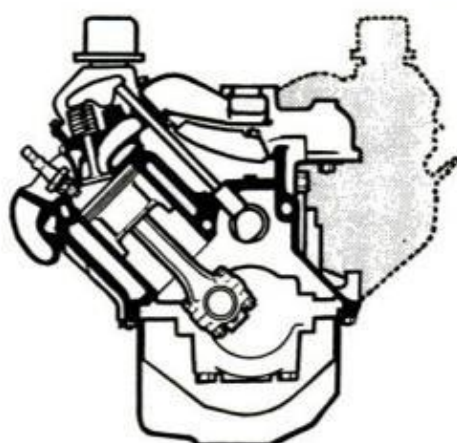
Today, we have another such design in the small, aluminum V-8 engines for the new Olds and Buick compact cars. This is a prototype of tomorrow's American passenger car engine. This type of power plant should be standard or optional equipment in almost every make of car by 1965.

Aluminum Is Here to Stay

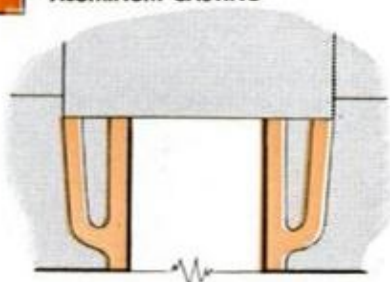
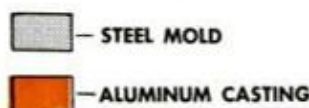
There are a number of reasons why aluminum is considered the "material of tomorrow" in our auto industry. A big factor, of course, is lighter weight. You can whack 200 pounds off the weight of an engine by casting it of aluminum instead of iron.

Not only is this 200 pounds saved directly, but the lighter engine allows the frame, suspension and steering components to be designed just a bit lighter too. Result: quicker

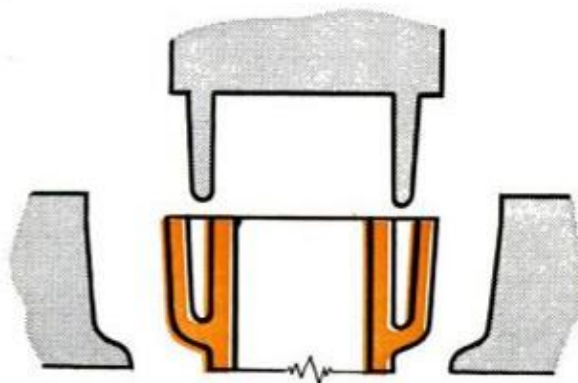
ENGINES



New Pontiac Tempest's slanted four-cylinder engine is, in effect, made by leaving off the left bank of the big Pontiac V-8. Machined on the same production line, it uses the same heads, pistons, rods and valves as the V-8, but weighs about 100 pounds less. To date, it is the only American "four" on the road



MOLDS IN PLACE

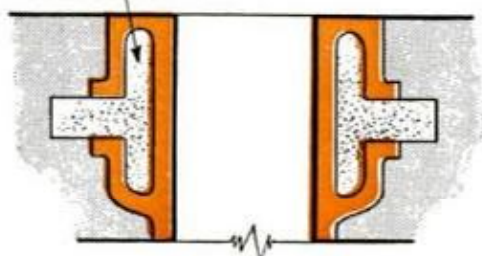


MOLDS WITHDRAWN

American Motors' aluminum engine blocks are die cast by forcing molten aluminum into steel molds and around steel cores. Resulting water passages are thus open at the top, and in the completed engine must be sealed at the top by the engine's cylinder head. Though tooling for this process has proved to be more expensive, it has the advantage of permitting high-speed production of more highly finished parts

Illustration below shows the "semipermanent mold" technique used by General Motors. Here, sand cores are used in conjunction with steel molds and the molten aluminum is poured in rather than forced in under pressure. Once the molds are removed, the sand cores are blown out and the water passages have only to be sealed by core plugs in the block. This represents an older and somewhat cheaper method of production

SAND CORE

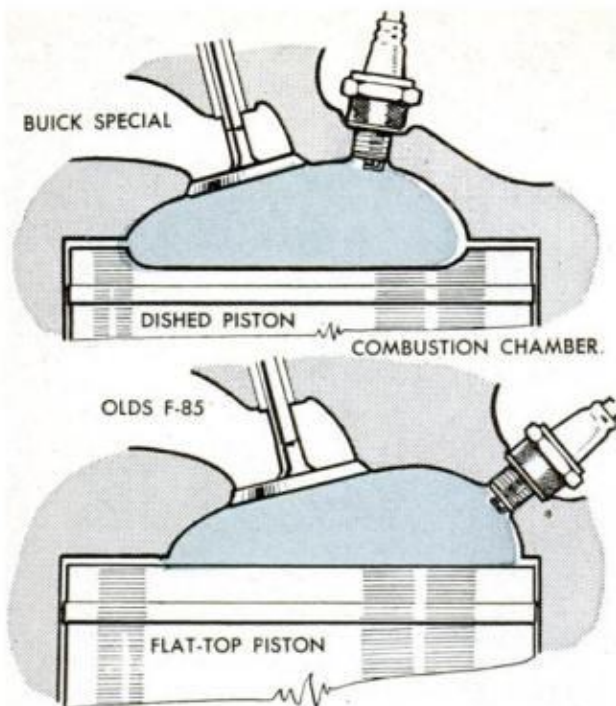


MOLDS AND CORE IN PLACE



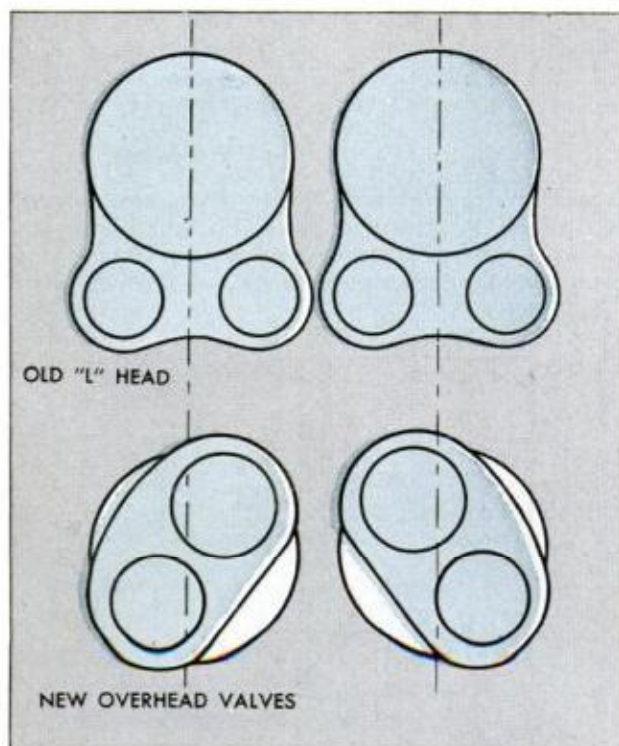
MOLDS WITHDRAWN

SAND BLOWN OUT OF CASTING



Though the new Buick Special and the Olds F-85 use the same aluminum V-8 block, their heads and combustion chambers are different. Shown at top are Buick's oval chamber and "dished" pistons with the spark plugs placed near top center of the chamber. Olds, above, uses the conventional "wedge"-shaped chamber, flat-top piston and larger ports and valves

Not to be outdone, Studebaker-Packard has come up with a new overhead-valve cylinder head featuring staggered valves. This allows larger diameter over the original three-inch bores and narrow-bore center-to-center distance fixed by original block tooling. Intake-valve area has thus been increased 30%, exhaust 20%, and horsepower is up from 90 to 112



acceleration with a given horsepower rating, better gas mileage, and a more maneuverable, better-handling car. Cutting weight is always the best way to improve performance.

But Detroit engineers would never have switched to aluminum if its only advantage were lighter weight. Perhaps the biggest factor with them is cost—and we all know aluminum costs four or five times as much per pound as iron. The equalizing factor is that aluminum is easier to cast and machine. With its low melting point (around 1100 degrees F.), aluminum can be cast quickly and easily in steel molds. Finished castings can be shelled out of the special casting machines like popcorn. And when you die-cast there's no fussing with time-consuming sand molds and cores.

Also, casting dimensions can be held closer with steel molds, so less machining is required for the finished part. Finally, aluminum is very soft compared with iron, so it can be machined in a fraction of the time required for iron. Over-all result: even though the metal costs more than iron, the cost of a finished aluminum engine can actually be less.

This is the reason for aluminum engines. But one very significant difference should be noted in the way GM and American Motors cast their aluminum engines. GM uses the "semipermanent mold" method, where there are steel external molds, but internal passages are made with sand cores, and the molten metal is poured into the mold by gravity. American Motors uses the high-pressure die-casting technique. The casting must be specially designed to avoid internal passages and undercuts, so all-steel molds can be used, and the molten aluminum is forced into the mold under 8000 pounds pressure.

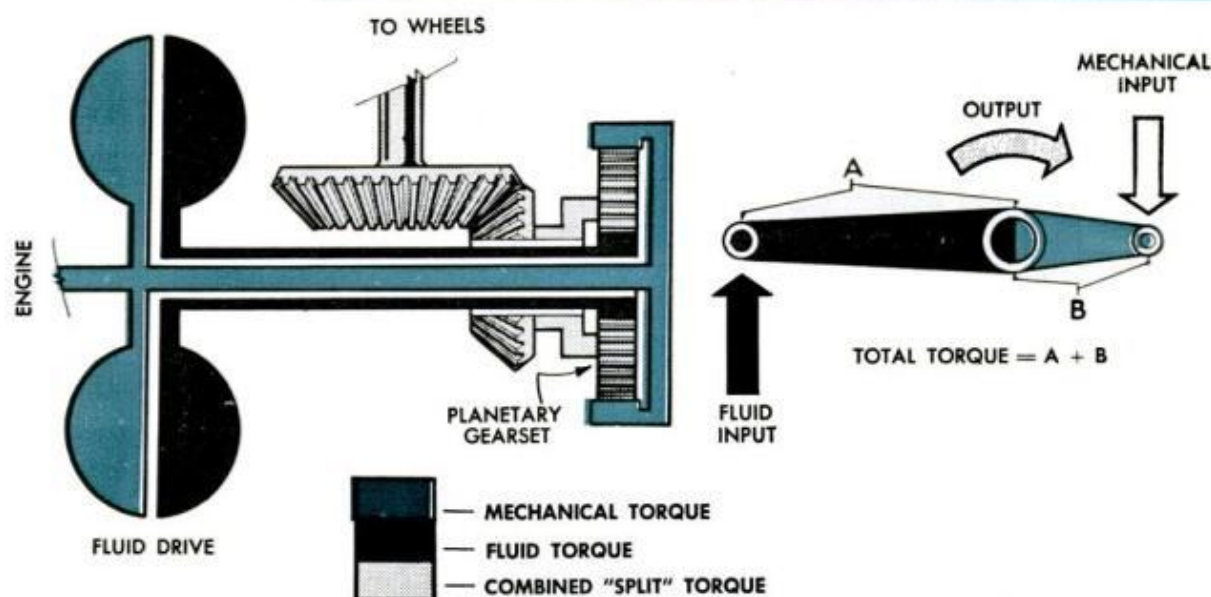
The die-casting method is quicker, requires less floor space and gives a stronger casting structure; also, thinner sections can be used for lighter weight. The big disadvantage is that the huge die-casting machines cost a lot more than permanent-mold equipment. Time will tell who's right.

The new aluminum engines have many interesting features. All use separate cast-iron cylinder sleeves to withstand friction of the moving pistons. These are placed in the mold before casting and the molten metal poured around them to lock them firmly in place.

The Buick-Olds V-8 requires cast-iron inserts for the valve seats and guides. The soft aluminum head material could never take the pounding of the valves. (They have very hard silicon-aluminum alloys that will stand the gaff, but Detroit hasn't learned how to cast and machine them eas-

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TRANSMISSIONS



Three new automatic transmissions—Hydra-Matic, Buick Special's and Tempest's—feature "split torque" in high gear. Output direct from engine and via fluid turbine is fed to different elements of planetary gearset, above left, splitting torque load between them, above right, according to gear ratio (usually 40-60 mechanical and fluid). In effect, the transmission works like a two-handle crank employing different-length arms

IT BEGINS TO LOOK as if Detroit's recent "economy wave" may have as much effect on transmission design as it has on the shapes and sizes of cars in general. The all-new 1961 transmission designs show a complete reversal of thinking. The last new designs three years ago were just plain complicated, and expensive, too, with their triple turbines, switch-pitch stators and multiple gears.

In performance they probably came closer to the theoretical ideal than any designs we've ever had; but the fact remained that they were expensive to buy and maintain—and the public was fast getting fed up with costly family transportation.

Detroit has changed the script for '61. New designs brought out this year are simpler, lighter, cheaper and have fewer parts, gears, clutches and turbines. They get the job done, and the cost of producing and maintaining them is only a fraction of the more complex designs. The "ideal" transmission may be delayed another five years, but you'll drive for less money in the meantime.

So let's have a look at the designs that can be considered completely new for 1961.

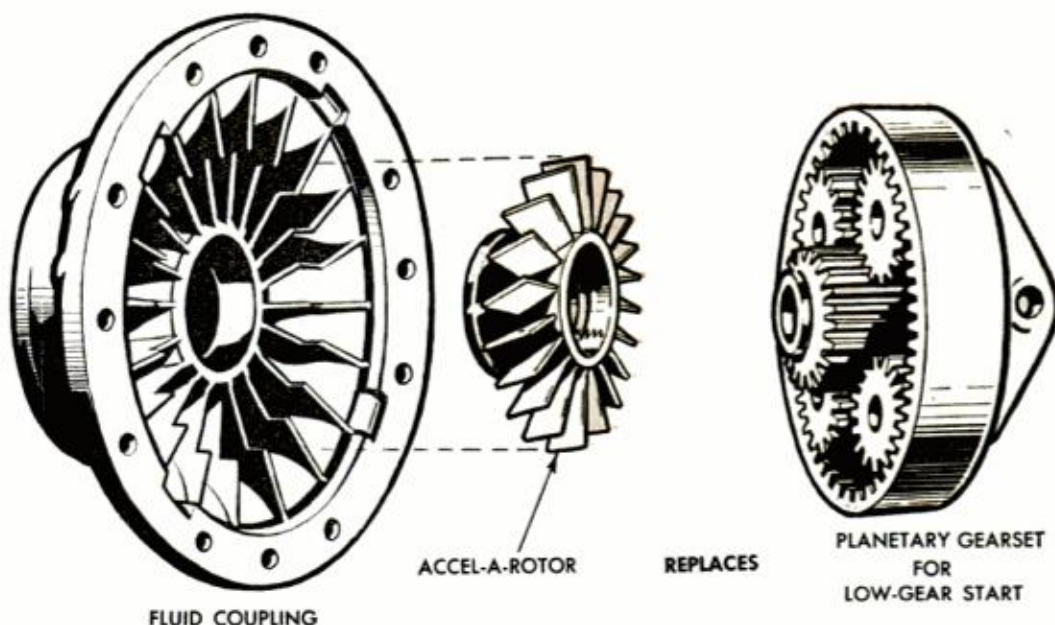
The Three-Speed Hydra-Matic

General Motors' basic four-speed Hydra-Matic transmission has been with us, with relatively minor design changes, for no less

than 22 years! In many ways it was obsolete. It was too big, too heavy, had too many parts and was too complicated. But it was also probably our quickest-accelerating transmission from a standing start with its "power" low gear. GM transmission engineers were given the job of designing a new three-speed Hydra-Matic that would have virtually as good performance—yet be a lot smaller, lighter, have fewer parts and be cheaper to produce. They have done just that.

There are two major design changes in the new Hydra-Matic. First, there's a secondary turbine (called the "Accel-A-Rotor") between the two main turbines of the fluid coupling unit, geared direct to the rear wheels. The small Accel-A-Rotor's turbine blades deflect the normal oil flow and have the effect of *multiplying* the engine's torque (turning effort) 1.3 times when the car starts up from a standstill. Then, as the car picks up speed this secondary turbine rotates with the main units, and we have a normal fluid clutch. Thus a simple bladed turbine wheel takes the place of "low gear" in the old four-speed Hydra-Matic and eliminates one complete planetary gearset!

The other innovation in the new Hydra-Matic is that its main fluid coupling unit has been reduced in diameter from 11.6 inches to 8.0 inches. Normally, just a small reduction in the diameter of any type of fluid



Secondary turbine (Accel-A-Rotor) in new three-speed Hydra-Matic multiplies torque 1.3 times at start giving the same effect as the old low gear while eliminating one complete planetary gearset from the transmission

coupling will cut the torque capacity drastically. But GM engineers had an idea. Why not boost the "charging pressure"—the pressure at which the oil is pumped into the turbine unit—to achieve the same effect as using a heavier, thicker oil? It worked. They're now running a charging pressure of 180 pounds per square inch on the new Hydra-Matic, compared with 45 pounds on the old four-speed. The problem of oil seals to resist this terrific pressure caused plenty of headaches.

The over-all result: The new three-speed Hydra-Matic is only a fraction of the size of the old four-speed, weight has been reduced from 220 to 145 pounds (120 pounds on the small model for the Olds F-85), there are 185 fewer parts, it's a lot cheaper to build and service and acceleration performance is comparable to that of the old model.

Buick Special's Torque Converter

Buick engineers have scored a real triumph when it comes to *simplifying* an automatic transmission! Their new two-speed torque converter for the Buick Special is a marvel of simplicity and efficiency in a package of minimum size and weight.

There are several important features. For one thing they get by with *one* simple planetary gearset for all gearing functions. Normally, you need two simple planetary gearsets or one compound type, for a two-speed transmission. Buick's secret is in the reversing system.

To reverse, the control lever engages a clutch that locks the fluid turbine *output* element that normally drives the rear wheels. The *stationary* reactor then becomes the output turbine, the oil circulates in the opposite direction in the fluid unit—

and the car backs up! It's so simple that nobody ever thought of it before.

The Special's transmission also features "split torque" in Drive range. In this case the output torque from the engine is split so that about 40 percent goes direct to the rear wheels through gears, and only the remaining 60 percent is subject to fluid slippage in the turbine.

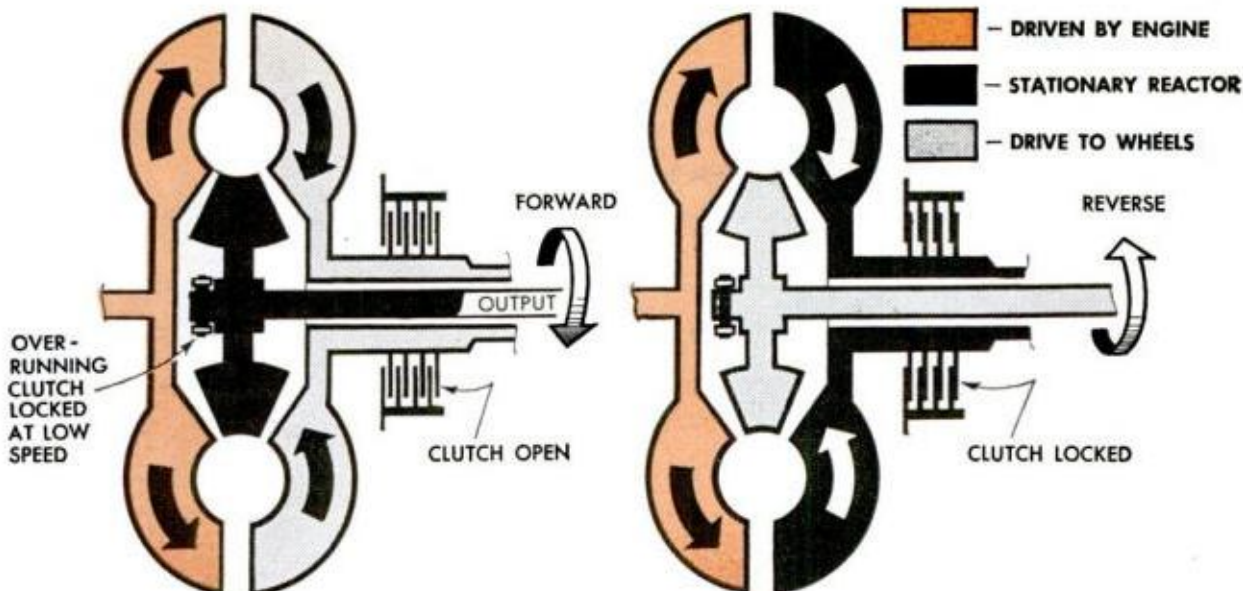
This feature is only possible with a three-element planetary gearset. Normally one of the gear elements is locked. But if you feed torque from the engine-driven turbine to one element and torque from the output turbine to another—with no element locked—you can take the *total* of the two torques off the third element to drive the wheels; result is less slippage in the fluid coupling and better gas mileage on the road. (The new Hydra-Matic and Tempest-Powerglide transmissions also have this feature.)

The Special's transmission is a midget alongside comparable designs in other cars—and weighs only 96 pounds. Beautiful engineering!

A New Stick Shift

Chrysler has tooled up for a brand-new, heavy-duty stick-shift transmission for its high-performance 1961 models. This doesn't sound too special until you realize that most of our basic manual-shift transmissions were designed and tooled more than 20 years ago, and relatively little engineering has been done on them since. With automatics taking a bigger and bigger share of the market there was no reason for changing. But now, the new economy trend in American car design has changed all that. The stick shift may be here to stay!

Chrysler's new design can take all the



Buick Special's new automatic transmission obtains reverse by switching the function of the driven members in the torque-converter unit. Temporarily, the stator itself functions as the reverse turbine, thus

reverse by switching the function of the driven member—forward-driven member becomes the stator and the eliminating the need for an extra planetary gearset

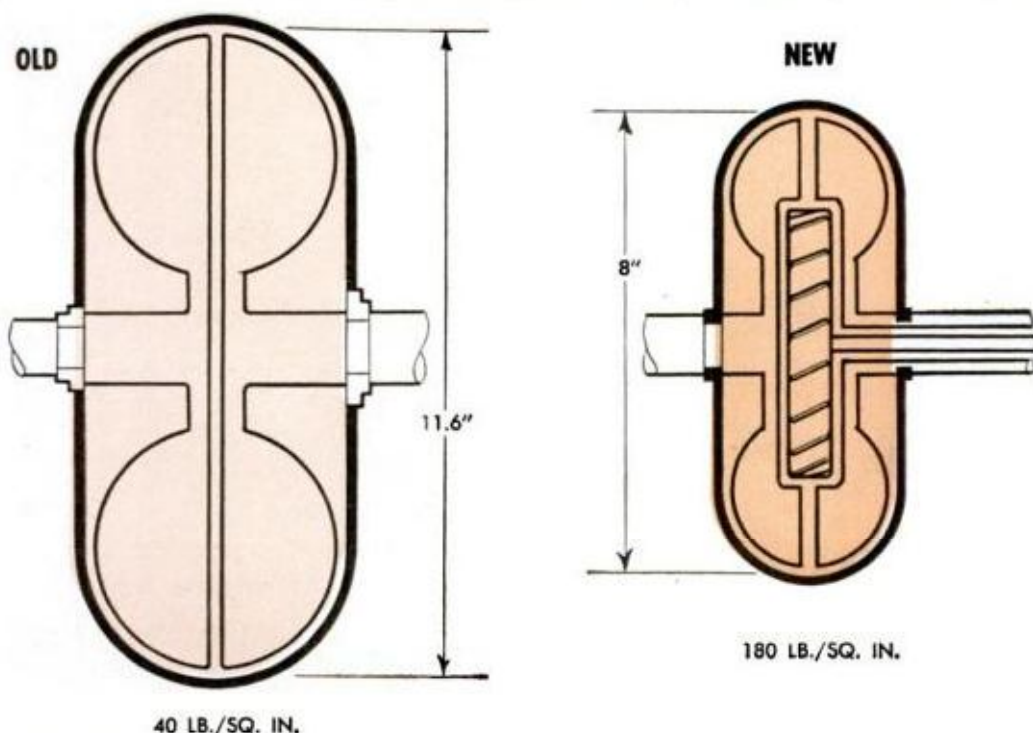
punishment you can put to it with a big, modern high-torque engine. It features a closed case for maximum strength, positive pin-type synchronizers, wider gear centers and a rear ball bearing. Chrysler may still be using this box in 1970!

Other 1961 transmission developments and trends: Ford now controls automatic shifts by a smooth vacuum "linkage" instead of the old throttle rods. More and more aluminum is being used in our transmissions, both to reduce weight and to reduce costs by taking advantage of precision die-

casting. Even the old four-speed Hydra-Matic gets a new aluminum case this year for the lower-priced GM lines. And one of the craziest trends yet is the reappearance of the four-speed floor-shift transmission. Chevrolet brought back the idea for the Corvette sports car in 1957. Now you can order an optional four-speed on Chevrolet, Pontiac, and Corvair sedans, on Studebaker Hawks, and rumor has it that Ford may have one ready by next spring!

Don't try to predict what Detroit will do next—they'll fool you every time. ★ ★ ★

To reduce the size of the Hydra-Matic fluid coupling, engineers use greater "charging pressure" of oil in a unit 3.6 inches smaller. The effect is the same as would be obtained by using heavier oil. The advantage, of course, is that the same amount of torque can be as efficiently handled by a turbine of smaller size



Automobiles of 1961

By Jim Whipple

SELDOM HAS DETROIT offered the motoring public a greater number or greater variety of cars from which to choose. The range is wide, running from Rambler's perky, stylish little American with its 100-inch wheelbase and \$1894 price tag, to the handsome, elegant Cadillac Fleetwood 75 with its 149-inch wheelbase and sleek bulk measuring over 20 feet in length selling for \$9748.

Not since the reckless and affluent 1920s has there been a total of 28 different name plates in the showrooms. In 1940, for example, there were only 17 makes at announcement time. Low tide was reached in 1950 when only 15 makes were marketed.

This year the industry has made an effort to provide cars of every size, price and equipment option. No longer are there just the low, medium and high-priced fields. Now there are economy compacts, Rambler, Lark, Falcon, Corvair and Valiant; medium-priced compacts, Comet, Lancer and Pontiac Tempest; and upper-level compacts, Buick Special, Olds F-85 and, if you care to stretch the definition, American Motors' powerful Ambassador.

The compact concept has made a pass at the luxury-priced class where, until now, better was always synonymous with bigger. This year we see the Lincoln Continental, not a true compact in itself, but costing just as much as Imperials or Cadillacs and measuring slightly smaller than last year's Ford. It surely offers the buyer a chance to spend money for luxury without bulk. Indeed, the weight-watching idea seems to be in the process of storming the auto industry.

A somewhat different trend is the developing rush of traditionally medium-price cars into the "low-priced" field. This part of the market, once the exclusive province of Ford, Chevy and Plymouth, is now crowded with Dodge Dart and Mercury as well as the trim, powerful F-85 and Special.

AMERICAN DELUXE

Price	\$1894
Wheelbase	100
Length	173.10
Width	70.0
Height	56.2
Shipping Wt.	2541
Headroom, front	35.0
rear	33.0
Hiproom, front	58.0
rear	45.25
Legroom, front	44.0
rear	37.50
Trunk Volume	23.8
Horsepower@RPM	90@3800
Displacement	195.6
Bore & Stroke	3.12 x 4.25
Torque @ RPM	160@1600
Compression	8.0:1
Axle Ratio	
Manual	3.31:1
Automatic	3.31:1



RAMBLER AMERICAN

Based on the same 100-inch-wheelbase chassis and suspension used last year, the American has an entirely new unit-construction body from roof to rocker panel. Improvements include a larger windshield, better all-around vision, and a 50 percent larger trunk that's much more accessible. Deluxe and Super models continue to use L-head six of 90 horsepower. Custom models have 125-horsepower, overhead-valve engine.



RAMBLER CLASSIC

A completely restyled grille and front end distinguish the '61 Rambler Classic which retains unit body-chassis of 108-inch wheelbase. Six-cylinder engine of 127 horsepower now has an aluminum block, is 80 pounds lighter. Optional 200-horsepower V-8 of 250-cubic-inch displacement is unchanged.

	CLASSIC SIX	CLASSIC V8
Price	\$2098	\$2397
Wheelbase	108	108
Length	189.8	189.8
Width	72.4	72.4
Height	57.3	57.3
Shipping Wt.	2915	3255
Headroom, front	36.0	36.0
rear	34.5	34.5
Hiproom, front	59.7	59.7
rear	60.0	60.0
Legroom, front	43.0	43.0
rear	40.0	40.0
Trunk Volume	27.8	27.8
Horsepower@RPM	127@4200	200@4900
Displacement	195.6	250
Bore & Stroke	3.12 x 4.25	3.5 x 3.25
Torque @ RPM	180@1600	245@2500
Compression	8.7:1	8.7:1
Axle Ratio		
Manual	3.78:1	4.10:1
Automatic	3.31:1	3.15:1



LARK

Lower and smoother looking is the '61 Lark thanks to a totally new hood and cowl structure, a body mounted lower on the frame and new rear window. Suspension has been modified for better ride, and steering improved. A new six-cylinder overhead-valve engine develops 112 b.h.p. V-8 remains at 180 b.h.p.

	LARK SIX	V8
Price	\$2005	\$2140
Wheelbase	108.5	108.5
Length	175.0	175.0
Width	71.4	71.4
Height	56.5	57.7
Shipping Wt.	2665	2941
Headroom, front	35.25	35.25
rear	34.75	34.75
Hiproom, front	59.5	59.5
rear	59.0	59.0
Legroom, front	43.5	43.5
rear	40.0	40.0
Trunk Volume	15.2	15.2
Horsepower@RPM	112@4500	180@4500
Displacement	169.6	259.2
Bore & Stroke	3.0 x 4.0	3.56 x 3.25
Torque @ RPM	154@2000	260@2800
Compression	8.5:1	8.8:1
Axle Ratio		
Manual	3.73:1	3.07:1
Automatic	3.73:1	3.07:1



CORVAIR

Two new station wagons, the six-passenger Lakewood and nine-passenger, van-type Greenbrier have been added to Corvair's '61 lineup. Relocation of air cleaners has enabled placement of Corvair spare tire in engine compartment. This in turn made possible larger gas tank and much larger trunk space up front.

	CORVAIR 500
Price	\$1974
Wheelbase	108.0
Length	180.0
Width	67.0
Height	51.5
Shipping Wt.	2355
Headroom, front	33.5
rear	33.5
Hiproom, front	58.5
rear	58.0
Legroom, front	44.0
rear	36.5
Trunk Volume	29.1
Horsepower@RPM	80@4400
Displacement	145
Bore & Stroke	3.43 x 2.60
Torque @ RPM	128@2300
Compression	8.0:1
Axle Ratio	
Manual	3.27:1
Automatic	3.27:1



FALCON

Big news for '61 on Falcon is more hustle under the hood in the form of an optional 170-cubic-inch-displacement version of the lightweight cast-iron overhead-valve six. This larger engine develops 101 horsepower to the 144-cubic-inch power plant's 85. A new convex aluminum grille changes appearance.

FALCON

Price	\$1974
Wheelbase	109.5
Length	181.2
Width	70.6
Height	54.5
Shipping Wt.	2315
Headroom, front	38.9
rear	37.3
Hiproom, front	57.1
rear	56.5
Legroom, front	44.6
rear	40.1
Trunk Volume	23.7
Horsepower@RPM	85@4200
Displacement	144.3
Bore & Stroke	3.50 x 2.50
Torque @ RPM	138@2000
Compression	8.7:1
Axle Ratio	
Manual	3.10:1
Automatic	3.50:1



VALIANT

Valiant's successful styling has been continued with just enough change to point up the 1961 model. A new two-door sedan has been added to the V-100 line and a handsome two-door hardtop to the V-200 series. Four-door sedans and wagons come in both series.

VALIANT

Price	\$2014
Wheelbase	106.5
Length	185.4
Width	70.4
Height	53.5
Shipping Wt.	2590
Headroom, front	37.9
rear	37.4
Hiproom, front	56.8
rear	56.9
Legroom, front	43.0
rear	39.7
Trunk Volume	24.9
Horsepower@RPM	101@4400
Displacement	170
Bore & Stroke	3.40 x 3.125
Torque @ RPM	155@2400
Compression	8.2:1
Axle Ratio	
Manual	3.55:1
Automatic	3.23:1



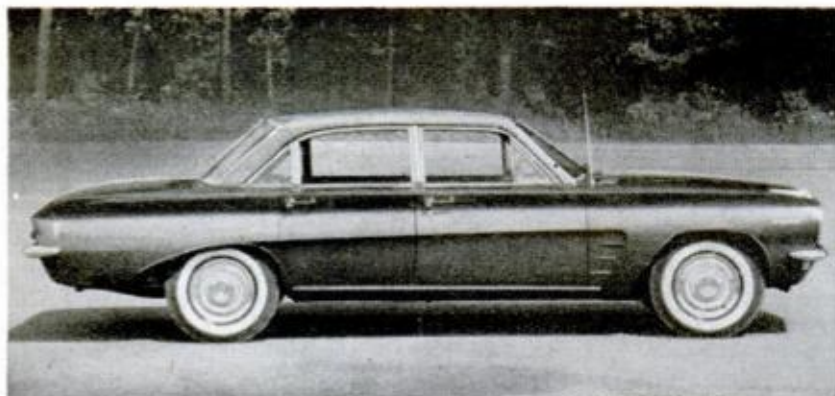
COMET

Comet like Falcon has been given a new grille for 1961, this one with horizontal instead of vertical bars. A welcome option is a longer stroke version of the Comet's six-cylinder engine with a displacement of 170 cubic inches. This new power plant is rated at 101 horsepower instead of the 144-cubic-inch engine's 85.

COMET 144 170

Price	\$2053	N. A.*
Wheelbase	114.0	114.0
Length	194.8	194.8
Width	70.4	70.4
Height	54.5	54.5
Shipping Wt.	2412	2429
Headroom, front	33.8	33.8
rear	32.7	32.7
Hiproom, front	57.0	57.0
rear	57.0	57.0
Legroom, front	43.3	43.3
rear	39.4	39.4
Trunk Volume	26.6	26.6
Horsepower@RPM	85@4200	101@4400
Displacement	144.3	170.0
Bore & Stroke	3.50 x 2.50	3.50 x 2.94
Torque @ RPM	134@2000	156@2400
Compression	8.7:1	8.7:1
Axle Ratio		
Manual	3.50:1	N. A.
Automatic	3.50:1	N. A.

*Not Available



PONTIAC TEMPEST

Clearly the engineering idea car of the year, Pontiac's Tempest provides comfortable accommodation for six passengers in its unit-construction body. Its big, rugged short-stroke front-mounted four-cylinder engine delivers plenty of speed and acceleration through curved driveshaft and "transaxle" unit.

	TEMPEST FOUR	V8
Price	\$2167	\$2383
Wheelbase	112	112
Length	189.3	189.3
Width	72.2	72.2
Height	53.5	53.5
Shipping Wt.	2870	N. A.
Headroom, front	34.0	34.0
rear	33.7	33.7
Hiproom, front	58.6	58.6
rear	58.2	58.2
Legroom, front	44.1	44.1
rear	37.8	37.8
Trunk Volume	27.5	27.5
Horsepower@RPM	110@3800	155@4600
Displacement	194.5	215
Bore & Stroke	4.06 x 3.75	3.50 x 2.80
Torque @ RPM	190@2000	220@2400
Compression	8.6:1	8.8:1
Axle Ratio		
Manual	3.55:1	3.55:1
Automatic	3.08:1	3.31:1



FORD

Although Ford shortened its thoroughly restyled body by four inches and narrowed it by two inches, passenger compartment remains roomy and trunk is much more accessible. Reliability has been improved by 30,000-mile sealed-in chassis lubrication, galvanized rocker panels, self-adjusting brakes.

FAIRLANE SIX FAIRLANE 500 V8

	FAIRLANE SIX	FAIRLANE 500 V8
Price	\$2315	\$2430
Wheelbase	119.0	119.0
Length	209.9	209.9
Width	79.9	79.9
Height	55.0	55.0
Shipping Wt.	3683	3691
Headroom, front	38.2	38.2
rear	37.6	37.6
Hiproom, front	62.1	62.1
rear	63.5	63.5
Legroom, front	45.3	45.3
rear	43.3	43.3
Trunk Volume	29.7	29.7
Horsepower@RPM	135@4000	175@4200
Displacement	223	292
Bore & Stroke	3.62 x 3.60	3.75 x 3.30
Torque @ RPM	220@2000	279@2200
Compression	8.4:1	8.8:1
Axle Ratio		
Manual	3.56:1	3.56:1
Automatic	3.56:1	3.00:1



OLDSMOBILE F-85

Oldsmobile's sleekly styled version of the new GM compact with 112-inch wheelbase, 188-inch over-all unit-construction body, shares suspension and driveshaft with Buick. However it has its own design aluminum V-8 engine developing 155 horsepower and a compact version of redesigned Hydra-Matic transmission.

OLDS F-85

	OLDS F-85
Price	\$2384
Wheelbase	112.0
Length	188.2
Width	71.5
Height	52.6
Shipping Wt.	2566
Headroom, front	34
rear	33.6
Hiproom, front	58.6
rear	58.2
Legroom, front	44.0
rear	37.8
Trunk Volume	25.4
Horsepower@RPM	155@4800
Displacement	215.0
Bore & Stroke	3.50 x 2.80
Torque @ RPM	210@3200
Compression	8.75:1
Axle Ratio	
Manual	3.07:1
Automatic	3.23:1

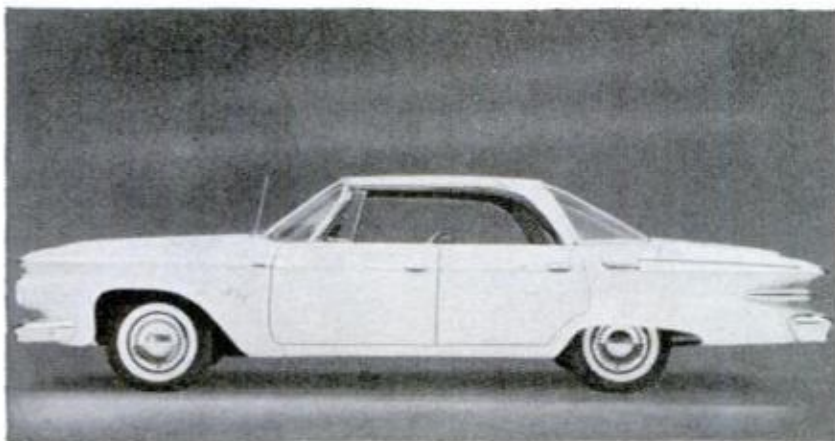


CHEVROLET

An all-new series of bodies slightly shorter and narrower is the big change on the 1961 Chevys. Trunks are much larger and more accessible. Interior dimensions have been improved slightly, seats are higher and more comfortable. Transmission and driveshaft tunnel are less obtrusive.

BISCAYNE SIX BEL AIR V8

Price	\$2316	\$2438
Wheelbase	119.0	119.0
Length	209.3	209.3
Width	78.4	78.4
Height	55.5	55.5
Shipping Wt.	3500	3520
Headroom, front	34.5	34.5
rear	34.0	34.0
Hiproom, front	63.5	63.5
rear	63.5	63.5
Legroom, front	45.0	45.0
rear	42.0	42.0
Trunk Volume	29.7	29.7
Horsepower@RPM	135@4000	170@4200
Displacement	235.5	283.0
Bore & Stroke	3.56 x 3.94	3.87 x 3.0
Torque @ RPM	217@2000	275@2200
Compression	8.25:1	8.5:1
Axle Ratio		
Manual	3.36:1	3.36:1
Automatic	3.36:1 (PG)	3.08:1 (PG)



PLYMOUTH

All-new sheet metal at front and rear quarters of Plymouth's unit-construction body, plus a new grille has changed its looks completely. Interior and exterior body dimensions are unchanged. Suspension is by torsion bars in front and leaf springs in the rear. Battery is now charged by an alternator.

SAVOY SIX BELVEDERE V8

Price	\$2310	\$2558
Wheelbase	118	118
Length	209.5	209.5
Width	80.0	80.0
Height	54.6	54.6
Shipping Wt.	3310	3470
Headroom, front	37.8	37.8
rear	38.0	38.0
Hiproom, front	63.8	63.8
rear	62.9	62.9
Legroom, front	44.3	54.3 44.7
rear	42.1	42.1
Trunk Volume	N. A.	N. A.
Horsepower@RPM	145@4000	230@4400
Displacement	225	318
Bore & Stroke	3.40 x 4.12	3.91 x 3.31
Torque @ RPM	215@2800	340@2400
Compression	8.2:1	9.0:1
Axle Ratio		
Manual	3.54:1	3.58:1
Automatic	3.31 (TF)	3.31:1 (PF)



DODGE LANCER

Based on the Valiant unit-construction body and chassis, Dodge's Lancer has a considerably different appearance both inside and out. Although wheelbase is identical to Valiant, Lancer is four inches longer than its sister car. Optional 225-cubic-inch six-cylinder engine ups output from 101 to 145 horsepower.

LANCER 170 225

Price	\$2069	\$2154
Wheelbase	106.5	106.5
Length	188.8	188.8
Width	72.3	72.3
Height	53.3	53.3
Shipping Wt.	2595	N. A.
Headroom, front	33.6	33.6
rear	33.1	33.1
Hiproom, front	56.8	56.8
rear	56.9	56.9
Legroom, front	42.8	42.8
rear	39.8	39.8
Trunk Volume	24.9	24.9
Horsepower@RPM	101@4400	145@4000
Displacement	170	225
Bore & Stroke	3.4 x 3.12	3.4 x 4.12
Torque @ RPM	155@2400	215@2800
Compression	8.2:1	8.2:1
Axle Ratio		
Manual	3.55:1	N. A.
Automatic	3.23:1	3.23:1



BUICK SPECIAL

Buick's new 112-inch-wheelbase compact has plenty of room for six passengers in both four-door sedan and station wagon models. Car rides on 13-inch wheels, has all coil-spring suspension system completely insulated from unit-construction body by rubber insulation. Aluminum V-8 develops 155 horsepower.

SPECIAL V8

Price	\$2384
Wheelbase	112
Length	188.4
Width	71.3
Height	52.5
Shipping Wt.	2610
Headroom, front	34.0
rear	33.9
Hiproom, front	58.6
rear	58.2
Legroom, front	43.5
rear	38.7
Trunk Volume	25.5
Horsepower@RPM	155@4400
Displacement	215
Bore & Stroke	3.50 x 2.80
Torque @ RPM	220@2400
Compression	8.8:1
Axle Ratio	
Manual	3.36:1
Automatic	3.08:1



DODGE DART

A complete appearance change for Dodge's Dart is the result of all new sheet metal on hood, deck and fenders. Body shell is Dodge's 118-inch wheelbase, unit-construction job with Torsion-Aire suspension. Standard engine is the 145-horsepower slant-six. Two V-8s of 230 and 265 horsepower are optional.

SENECA SIX PIONEER V8

Price	\$2330	\$2578
Wheelbase	118.0	118.0
Length	209.4	209.4
Width	78.7	78.7
Height	54.8	54.8
Shipping Wt.	3335	3510
Headroom, front	33.3	33.3
rear	33.5	33.5
Hiproom, front	63.8	63.8
rear	62.9	62.9
Legroom, front	45.1	45.1
rear	42.1	42.1
Trunk Volume	31.6	31.6
Horsepower@RPM	145@4000	230@4400
Displacement	225	318.0
Bore & Stroke	3.40 x 4.125	3.91 x 3.31
Torque @ RPM	215@2800	340@2400
Compression	8.2:1	9.0:1
Axle Ratio		
Manual	3.54:1	3.58:1
Automatic	3.31:1	3.31:1 (PF)



AMBASSADOR

American Motors top-of-the-line Ambassador billed as a "luxury compact," has had a face lift involving new hood, grille and front-end sheet metal. Wheelbase of 117 inches and over-all length of 199 inches remain unchanged. Engine is the 250-horsepower V-8 of 327-cubic-inch displacement.

AMBASSADOR CUSTOM V8

Price	\$2682
Wheelbase	117.0
Length	199
Width	73.6
Height	56.9
Shipping Wt.	3380
Headroom, front	36.0
rear	34.5
Hiproom, front	59.7
rear	60.1
Legroom, front	43.0
rear	40.0
Trunk Volume	27.8
Horsepower@RPM	250@4700
Displacement	327
Bore & Stroke	4.0 x 3.25
Torque @ RPM	340@2600
Compression	8.7:1
Axle Ratio	
Manual	3.54:1
Automatic	2.87:1



MERCURY

Mercury is really "all-new" for 1961 with very little remaining from 1960. It's a smaller car with 120-inch wheelbase and an over-all length of 214.6 inches, down six and five inches. Interior dimensions are better than last year. Car features 30,000-mile lubrication interval, unique rubber-cushioned suspension.

METEOR 600 SIX METEOR 800 V8

Price	\$2471	\$2765
Wheelbase	120	120
Length	214.6	214.6
Width	79.9	79.9
Height	55.0	55.0
Shipping Wt.	3617	3667
Headroom, front	33.5	33.5
rear	33.9	33.8
Hiproom, front	62.1	62.1
rear	63.5	63.5
Legroom, front	43.4	43.0
rear	41.6	40.7
Trunk Volume	32.2	32.2
Horsepower@RPM	135@4000	175@4200
Displacement	223	292
Bore & Stroke	3.62 x 3.60	3.75 x 3.30
Torque @ RPM	200@2000	279@2200
Compression	8.4:1	8.8:1
Axle Ratio		
Manual	3.56:1	3.56:1
Automatic	3.56:1	3.10:1



DODGE

The 122-inch-wheelbase Polara is the single large Dodge series for 1961. It shares the same grille and front-end treatment with its little sister the Dart, but has a different version of the swept-down fins and tapered rear deck. Tail lamps are "rocket tubes" faired into fenders. Engine is a 265-horsepower V-8.

POLARA V8

Price	\$2966
Wheelbase	122.0
Length	212.5
Width	78.7
Height	54.9
Shipping Wt.	3700
Headroom, front	33.3
rear	33.6
Hiproom, front	63.8
rear	62.8
Legroom, front	45.1
rear	42.4
Trunk Volume	32.8
Horsepower@RPM	265@4400
Displacement	361
Bore & Stroke	4.12 x 3.38
Torque @ RPM	380@2400
Compression	9.0:1
Axle Ratio	
Manual	3.23:1
Automatic	2.93:1

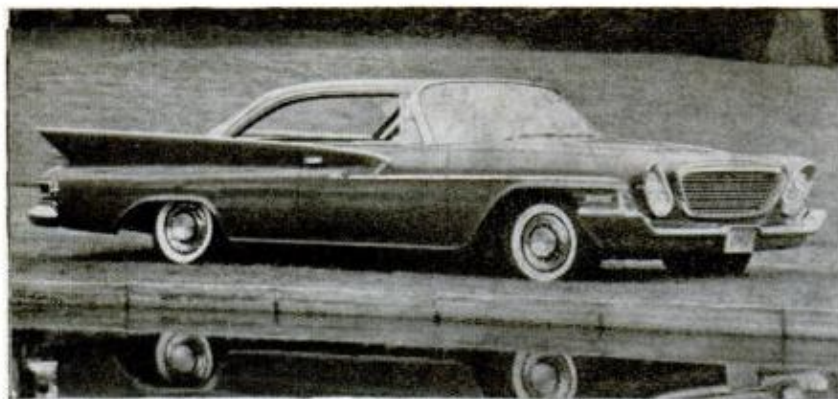


STUDEBAKER HAWK

Unchanged yet improved for 1961 is Studebaker's "touring sports" coupe, the Hawk. Modified bucket-type front seats are new as is an optional four-speed, fully synchronized floor-shift transmission. Only engine available is 289-cubic-inch V-8 rated at 210 horsepower. A power pack ups the ante to 225.

SPORT COUPE V8

Price	\$2650
Wheelbase	120.5
Length	204.0
Width	71.3
Height	55.5
Shipping Wt.	3205
Headroom, front	34.5
rear	33.7
Hiproom, front	59.5
rear	58.0
Legroom, front	44.0
rear	37.0
Trunk Volume	14.9
Horsepower@RPM	210@4500
Displacement	289
Bore & Stroke	3.56 x 3.62
Torque @ RPM	300@2800
Compression	8.8:1
Axle Ratio	
Manual	3.31:1
Automatic	3.07:1



CHRYSLER

Big news from Chrysler for 1961 is the bottom of-the-line Newport series on 122-inch-wheelbase unit-construction body-chassis. Windsor is now the middle series, also on 122-inch body. New Yorker remains top-of-the-line with 126-inch wheelbase. Engines are V-8s of 361, 383 and 413 cubic inches respectively.

NEWPORT V8 WINDSOR V8

Price	\$2964	\$3218
Wheelbase	122.0	122.0
Length	215.6	215.6
Width	79.4	79.4
Height	54.9	54.9
Shipping Wt.	3710	3730
Headroom, front	33.3	33.3
rear	33.6	33.6
Hiproom, front	63.8	63.8
rear	62.8	62.8
Legroom, front	45.1	45.1
rear	42.4	42.4
Trunk Volume	N. A.	N. A.
Horsepower@RPM	265@4400	305@4800
Displacement	361	383
Bore & Stroke	4.12 x 3.38	4.25 x 3.38
Torque @ RPM	380@2400	395@3000
Compression	9.0:1	10.0:1
Axle Ratio		
Manual	3.23:1	3.23:1
Automatic	2.93:1	2.93:1



OLDSMOBILE

Brand-new bodies on brand-new, wider frames and a totally new styling concept make Olds a different car for '61. Interior body dimensions have been changed to give more headroom, seat height and leg room. The 98 has three inches greater wheelbase and offers more rear seat legroom than 88 or Super 88.

DYNAMIC 88 NINETY-EIGHT

Price	\$2900	\$3887
Wheelbase	123	126
Length	212	218
Width	77.2	77.2
Height	55.8	56.6
Shipping Wt.	4024	4209
Headroom, front	34.5	35.2
rear	34.4	34.4
Hiproom, front	63.3	63.6
rear	63.3	63.2
Legroom, front	44.4	44.5
rear	41.4	44.3
Trunk Volume	29.5	30.0
Horsepower@RPM	250@4400	325@4600
Displacement	394	394
Bore & Stroke	4.12 x 3.69	4.12 x 3.69
Torque @ RPM	405@2400	435@2800
Compression	8.75:1	10:1
Axle Ratio		
Manual	3.41:1	N. A.
Automatic	2.87:1	3.23:1



DE SOTO

● For the record, there was a 1961 DeSoto. However, Chrysler Corporation has announced that it will discontinue production of DeSoto cars when current orders are filled. Owners of 1961 DeSotos purchased prior to the shutdown will be allowed \$300 toward the purchase of any 1961 or '62 Chrysler Corp. product.

FIREFLITE V8

Price	\$3167
Wheelbase	122.0
Length	215.8
Width	79.4
Height	55.0
Shipping Wt.	3820
Headroom, front	37.6
rear	38.1
Hiproom, front	63.8
rear	62.8
Legroom, front	45.1
rear	42.4
Trunk Volume	N. A.
Horsepower@RPM	265@4600
Displacement	361
Bore & Stroke	4.12 x 3.38
Torque @ RPM	370@2400
Compression	9.0:1
Axle Ratio	
Manual	3.58:1
Automatic	2.93:1



PONTIAC

Shorter Pontiacs for 1961 have more room on the inside as a new, wider frame permits lower floors for better seat height and two inches greater headroom. Wheelbases are 119 for Catalina and Ventura, 123 inches for Star Chief and Bonneville. Basic engine is 389-cubic-inch V-8.

CATALINA V8 BONNEVILLE V8

Price	\$2702	\$3331
Wheelbase	119.0	123.0
Length	210.0	217.0
Width	78.2	78.2
Height	55.8	55.9
Shipping Wt.	3720	3895
Headroom, front	34.2	34.1
rear	34.4	33.8
Hiproom, front	63.2	63.0
rear	63.2	63.0
Legroom, front	45.3	44.9
rear	40.8	40.9
Trunk Volume	33.2	39.5
Horsepower@RPM	215@3600	235@3600
Displacement	389	389
Bore & Stroke	4.06 x 3.75	4.06 x 3.75
Torque @ RPM	390@2000	402@2000
Compression	8.6:1	8.6:1
Axle Ratio		
Manual	3.23:1	3.23:1
Automatic	2.69:1	2.69:1



THUNDERBIRD

An all-new T-Bird has a 390-cubic-inch engine that puts out 300 horsepower and delivers a solid 427 ft.-lbs. of torque. Car comes as convertible or hardtop. Entirely new body of unit construction is larger on inside than 1958-60 four seater. Automatic transmission is standard. Wheelbase remains at 113 inches.

THUNDERBIRD

Price	N.A.
Wheelbase	113.0
Length	205.0
Width	75.9
Height	52.5
Shipping Wt.	3887
Headroom, front	37.7
rear	37.6
Hiproom, front	59.2
rear	56.8
Legroom, front	45.4
rear	38.9
Trunk Volume	20.1
Horsepower@RPM	300@4600
Displacement	390
Bore & Stroke	4.05 x 3.78
Torque @ RPM	327@2800
Compression	9.6:1
Axle Ratio	
Manual	None
Automatic	2.91:1



BUICK

An all-new body perched on a new "hourglass" X-type frame has made Buicks decidedly different cars for 1961. A two-piece driveshaft has replaced the torque-tube and makes for lower floors. New bodies have better vision, increased headroom. LeSabre has 250-horsepower engine, other models rate 325 b.h.p.

LeSABRE V8 INVICTA V8

Price	\$3107	\$3515
Wheelbase	123	123
Length	213.2	213.2
Width	78.0	78.0
Height	56.3	56.3
Shipping Wt.	4146	4249
Headroom, front	34.5	34.5
rear	34.1	34.1
Hiproom, front	63.3	63.3
rear	63.2	63.2
Legroom, front	44.5	44.5
rear	41.4	41.4
Trunk Volume	N.A.	N.A.
Horsepower@RPM	250@4400	325@4400
Displacement	364	401
Bore & Stroke	4.12 x 3.4	4.18 x 3.64
Torque @ RPM	384@2400	445@2800
Compression	10.2:1	10.2:1
Axle Ratio		
Manual	None	None
Automatic	3.07:1	3.23:1



IMPERIAL

Imperials come in three series, Custom, Crown and LeBaron; all are powered by Chrysler's biggest V-8, a 430-cubic-inch giant rated at 350 horsepower. Imperials have separate frame and body construction with Torsion-Aire suspension. Free-standing headlamps are high spot of restyled front end.

CUSTOM V8 IMPERIAL

Price	\$5109
Wheelbase	129.0
Length	227.1
Width	81.7
Height	56.7
Shipping Wt.	4740
Headroom, front	34.4
rear	33.8
Hiproom, front	61.0
rear	60.2
Legroom, front	46.9
rear	42.9
Trunk Volume	31.8
Horsepower@RPM	350@4600
Displacement	413
Bore & Stroke	4.18 x 3.75
Torque @ RPM	470@2800
Compression	10:1
Axle Ratio	
Manual	None
Automatic	2.93:1



CONTINENTAL V8

Price	N.A.
Wheelbase	123.0
Length	212.4
Width	78.6
Height	53.5
Shipping Wt.	4771
Headroom, front	33.6
rear	33.4
Hiproom, front	59.7
rear	60.7
Legroom, front	44.0
rear	40.0
Trunk Volume	22.9
Horsepower@RPM	300@4100
Displacement	430
Bore & Stroke	4.30 x 3.70
Torque @ RPM	465@2000
Compression	10.0:1
Axle Ratio	
Manual	None
Automatic	2.89:1

LINCOLN CONTINENTAL

Not only is the Lincoln Continental a brand-new car in two models, a four-door sedan and four-door convertible, but it is the first of the "compact luxury cars." It measures just 212 inches from bumper to bumper, has a wheelbase of 123 inches and stands just 53 inches high. Engine is rated at 300 b.h.p.



CADILLAC

Comfort and greater convenience are the keynotes of the greatly restyled 1961 Cadillac. An entirely new group of bodies rest on the Cadillac's massive X-type frame. Rear doors are considerably wider on four-door models and leg room has been increased. Engine is 325-horsepower V-8.

SIXTY SPECIAL V8 SERIES 62 V8

Price	\$6233	\$5080
Wheelbase	129.5	129.5
Length	222.0	222.0
Width	79.8	79.8
Height	56.6	55.8
Shipping Wt.	4936	4846
Headroom, front	34.4	34.4
rear	34.1	34.1
Hiproom, front	63.3	63.1
rear	63.1	63.1
Legroom, front	46.0	46.0
rear	44.5	44.5
Trunk Volume	N.A.	N.A.
Horsepower@RPM	325@4800	325@4800
Displacement	390	390
Bore & Stroke	4.0 x 3.8	4.0 x 3.8
Torque @ RPM	430@3100	430@3100
Compression	10.5:1	10.5:1
Axle Ratio		
Manual	None	None
Automatic	2.94:1	2.94:1

POPULAR MECHANICS

Imported Cars-1961

Here, in the approximate order of their current sales volume, are the 29 best-selling imports. Unfortunately there isn't enough room to include every make imported.

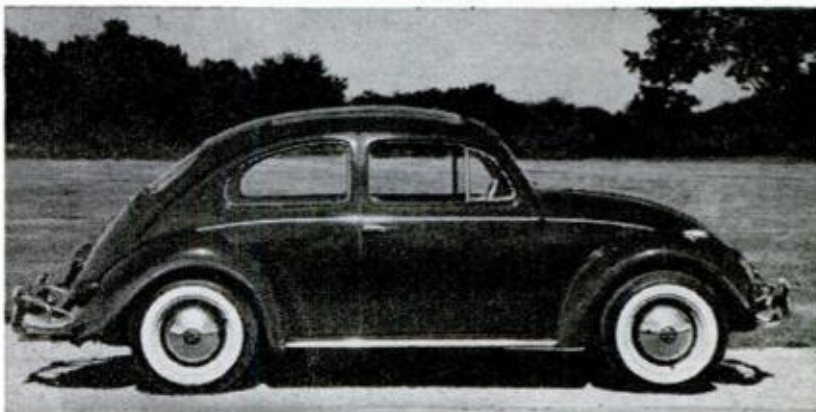
However, here are those of greatest interest to the most people. Space limits prevent

showing more than one model series or body style for each make. In almost all cases the latest or most popular model of each make is shown. The list runs from Volkswagen with 100,000 annual sales to Rolls with its 700-plus.

For Mechanical Specifications of the Imports, see page 264.

VOLKSWAGEN

Unchanged on the outside, the '61 Volkswagen embodies more changes than ever before. The engine, although not increased in displacement, is entirely new and delivers four more horsepower. A new gas tank permits a front luggage compartment that's 65 percent larger. Transmission is synchronized on all four speeds. Price is \$1565 on the East Coast.



RENAULT

Renault's Dauphine continues as next to the top in imported car sales, well above its next nearest competitor. Its water-cooled four-cylinder engine develops 32 horsepower, enough to roll its 1397 pounds along at 70 m.p.h. Suspension is by independent coil spring all around with air-filled booster springs that allow softer acting metal springs. The Dauphine sells for \$1585 East Coast P.O.E.



FORD ANGLIA

By far the best selling economy car from England is Ford's two-door Anglia, a sturdy little car with a modern short-stroke four-cylinder engine. This overhead-valve power plant develops 41 horsepower from just 61 cubic inches of displacement. Adding to the enjoyment of driving is a crisp-acting fully synchronized four-speed transmission. The car sells for \$1608 in New York.



OPEL

Buick dealers in selected cities throughout the U.S. will sell you an Opel sedan for \$1958 (East Coast) or a station wagon for \$2263. Opel Rekord is solidly built by Adam Opel A.G., General Motors' German subsidiary. Seats four and performs well, thanks to a 57-horsepower, four-cylinder engine.





FIAT

Fiat imports an entire line of cars from the miniature two-cylinder "500" to the smartly styled and beautifully-made "2100" sedan. Probably the best value of all Fiats is the best-selling "600" series, a well-made four-passenger four-cylinder rear-engined job, costing \$1398 in New York. It has 28.5 horsepower.



TRIUMPH

Although the TR-3 sports two-seater is the best-selling Triumph, the car shown here, the Herald, is winning many friends as an economy sedan with a comfortable ride and real sports car handling and roadability. Herald's four-cylinder engine develops 40 horsepower. It sells in New York for \$1849.



AUSTIN-HEALEY

One of America's favorite sports cars for the past six years has been the exciting Austin-Healey. Now there are two A-H sports cars; the solid little 48-horsepower Sprite two-seater and the powerful A-H 3000 with its 130-horsepower six.



SIMCA

Chrysler Corporation took the Simca under its wing a couple of years ago and its dealers have been handling the line ever since. Shown here is the Etoile (a-twal) four-door sedan powered by a sturdy four-cylinder, overhead-valve engine of 50 horsepower.



MG

Best known MG is of course the "A" series sports two-seater selling at \$2444 in New York. For a family car of 4-5 passenger capacity there's the Farina-styled MG Magnette sedan, an attractive car with leather upholstery, four doors and a 66.5-horsepower four-cylinder engine at \$2695.

PEUGEOT

A solid-value compact car in any land is the very popular French Peugeot 403, a roomy four-door sedan with 105-inch wheelbase and over-all length of 176 inches. Its 66-horsepower four-cylinder engine coupled to a four-speed transmission will cruise it at 75 m.p.h. all day and deliver mileage in the high 20s. Price, \$2250.



MERCEDES BENZ

Probably more people throughout the world would rather own a Mercedes Benz than any other car. Few cars can compare in engineering excellence, workmanship and elegance. Shown is the 220 sedan; 105 horsepower, priced at \$4283.



VOLVO

Sweden's gift to the performance-loving family man is the sturdy and lively Volvo two-door with its hot, 85-horsepower four-cylinder engine and four-speed synchromesh transmission. Beautifully finished and built to last a long time, it weighs 2140 lbs. and sells for \$2195, on the East Coast.



METROPOLITAN

Metropolitan is made by Austin of England for American Motors who intended it as their "people's car" when it was designed some years ago. It is in steady demand even though it comes only as a two seater. Its 90 cubic-inch engine develops 55 horsepower.



HILLMAN

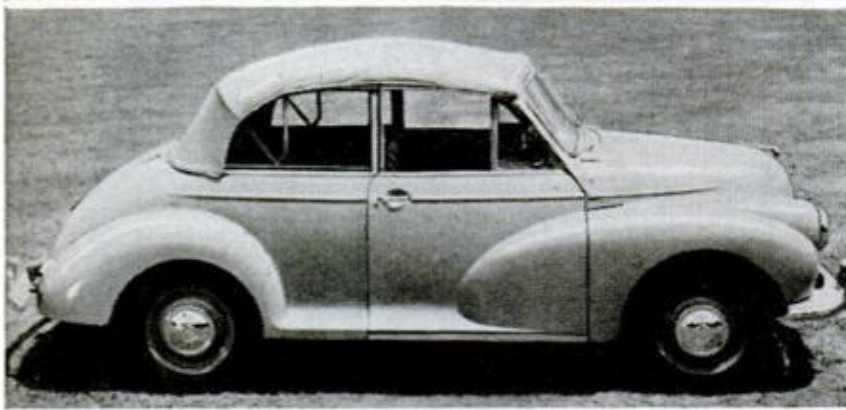
Hillman is a solidly made, attractive and purposeful car from Rootes Motors, one of England's top auto makers. The Minx four-door sedan shown is roomy (for four) and sports a 57-horsepower engine. It sells for a reasonable price of \$1735 in New York. An automatic transmission is available at \$199.





VAUXHALL

Vauxhall is produced by GM's English subsidiary and is sold in the U.S. by Pontiac dealers. It is a soft-riding, smooth-running, roomy four-passenger car that looks as if it might have been a compact Chevy of 1957. It costs \$1958 in New York, has 55 horsepower.



MORRIS 1000

Although it now looks dated, the Morris is probably England's favorite postwar car. It's incredibly sturdy, has brisk performance and shifts and handles like a sports car. Its 38-horsepower engine moves its 1600-plus pounds rapidly. At \$1495 it's a real buy for the economy-minded motorist looking for a small car that will "get up and go."



JAGUAR

Jaguar is best known for its XK150 roadster and coupe, powered by a 250-horsepower six-cylinder engine. For the family that can afford a high-priced car, there's the sedan shown here with the same 3.8-liter engine, disk brakes and sports-car handling for \$4765 delivered at New York.



SUNBEAM

Sunbeam is imported in two versions; an outright sports car, the Alpine, with a 91-cubic-inch, overhead-valve four developing 83 horsepower; and the Rapier, a four-passenger hardtop and convertible, shown here. Both cars have four-speed transmissions. Alpine sells for \$2595, Rapier for \$2499, New York.



BORGWARD

Borgward's big sellers in the U.S. are the Isabella sedan and station wagon, solidly built, four-cylinder two-door models. The Borgward is approximately the size of one of our smaller compacts. Wheelbase is 104 inches and weight 2200 lb. Price is \$2495.

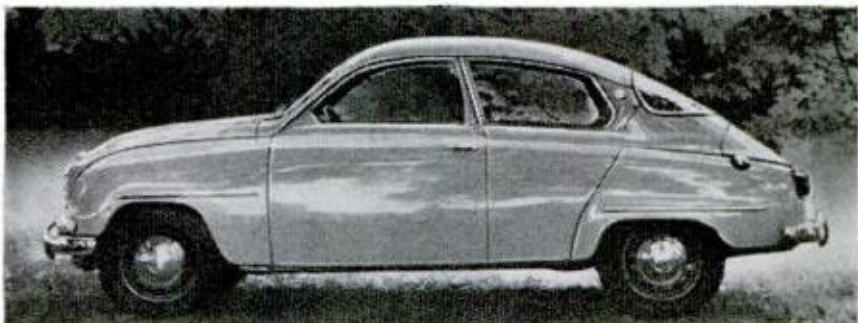
AUSTIN

Austin Division of the mammoth British Motors Corp. imports the ultracompact "Mini-Minor" four-passenger car shown. Its 37-horsepower engine moves it at brisk, U.S. traffic speeds. Other Austins are A-55 four-door sedan and A-40 two-door semiwagon. Mini-Minor sells for \$1295.



SAAB

Both a five-passenger sedan and seven-passenger wagon, both two-doors are imported by Saab from Sweden. They are powered by three-cylinder, two-cycle engines of 42 horsepower. Sedan is \$1895, wagon \$2265 at New York.



PORSCHE

Superb handling, comfortable ride and luxurious though simple accommodations for two mark the speedy, quiet and economical Porsche coupes, roadsters and convertibles ranging from \$3780 to \$4800 East Coast P.O.E. Standard four-cylinder air-cooled engine is rated at 60 horsepower.



NSU PRINZ

This solid, lightweight car for two adults and a pair of children, is the German-made NSU-Prinz which weighs only 1080 pounds. It is powered by a two-cylinder, air-cooled engine of 26 horsepower, making it a fine runabout. Suspension is independent via coil springs on all four wheels. Top speed is about 65 miles per hour. The car is priced at \$1498 East Coast P.O.E.



CITROEN

Now a convertible has been added to the four-door sedan and station wagon of the French Citroen DS19. This unique automobile has front drive, and an amazing hydraulic system that adjusts suspension height, power-boosts brakes and steering, and shifts gears. Prices begin at \$2545.





DKW

Shown here is the DKW Junior, a sturdy and attractive four-passenger two-door sedan with a wheelbase of 85.7 inches. The engine is a three-cylinder, two-cycle job rated at 39 horsepower. The Junior has front-wheel drive and four-wheel independent torsion-bar suspension. It costs \$1665 delivered at New York.



LLOYD

Lloyd's attractive and sporty Arabella four-passenger sedan is another interesting front-drive import. It is powered by a water-cooled engine with four cylinders in horizontally opposed pairs. Wheelbase is 86.6 inches, horsepower is 45, and suspension is independent all around. Car costs \$1745 East Coast P.O.E.



ALFA ROMEO

Alfa Romeo is an old Italian firm noted for its fast sports cars with custom-made bodies. Graceful, streamlined Alfas, like the coupe shown here, are powered with high-performance, four-cylinder engines with twin overhead camshafts. Prices start at \$3250 for roadsters.



TOYOPET

Japan's Toyota Motor Co. produces and imports the attractive and sturdy Toyopet sedan which has a wheelbase of 99 inches and is roomy for four passengers and can accommodate five or six average-size people very snugly. Four-cylinder engine of 88 cubic inches displacement develops 65 horsepower. Price is \$1795, East Coast P.O.E.



ROLLS ROYCE

This is the automobile that sets the standard for most of the world in the realm of automotive craftsmanship. The Rolls is not outsize, and is designed to carry four (five at the most) passengers in exquisitely comfortable seats. Price, \$15,655.