

Chrysler Ups Horsepower

***More powerful engine
and fully automatic
transmission are featured
in five-model line***

THE COMPLETELY REDESIGNED CHRYSLERS for 1954 introduce a new 235-horsepower FirePower V-8 engine—the most powerful and efficient passenger-car engine in America today, the company says—and many major engineering advancements combined with smart exteriors and interiors.

In addition to new FirePower V-8's and new colorful styling, engineering features designed for luxurious performance include the new PowerFlite fully automatic transmission, proved by use in 1953 Imperials, a new Airtemp air conditioning unit, full-time power steering and power brakes, and new anti-roll front suspension, all of which, Chrysler claims, add up to a "solid feel" ride and a new high in driver control.

The '54 Line

The 1954 Chrysler is offered in five models with a total of twenty body styles. The lines this year are: the Windsor Deluxe, the New Yorker, the New Yorker Deluxe, all on a 125½ inch wheelbase; the Custom Imperial, with a wheelbase of 133½ inches; and the Crown Imperial line, with a wheelbase of 145½ inches.

The Windsor Deluxe is available in six-passenger sedan, club coupe, special Newport hard-top coupe, convertible coupe, Town and Country wagon, and 8-passenger sedan models. New Yorker models are available in six-passenger sedan, club coupe, special Newport club coupe, Town and Country wagon, and 8-passenger sedan; and New Yorker Deluxe models in six-passenger sedan, special Newport club coupe, and convertible coupe.

The Custom Imperial is available in six-passenger sedan, Newport, and six-passenger Town limousine models. The Crown Imperial is available in either the 8-passenger sedan or limousine model.

NEW ENGINEERING

The big news from Chrysler for '54 comes from the engineering department. Emphasis is on the increased horsepower and fully automatic transmission.

Horsepower Going Up

The Chrysler engineers point out that since the introduction of the 180-horsepower FirePower V-8 engine, it has become apparent that this basic design is capable of developing an amazingly large amount of power. Taking advantage of just a portion of this power potential, new, more efficient, high-power engines are used on the Chrysler New Yorker, New Yorker Deluxe, and Custom and Crown Imperial models for 1954.

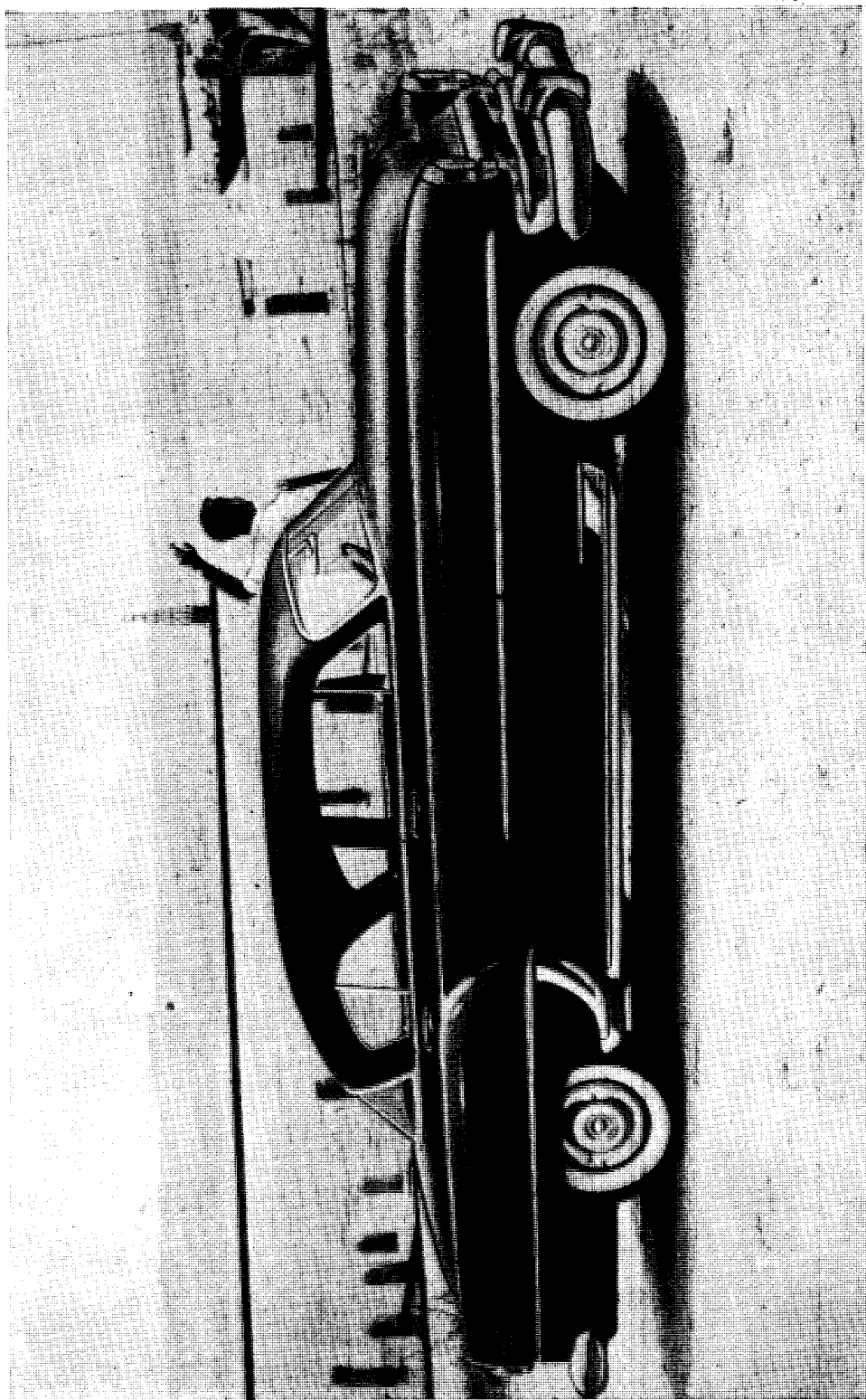
This is aimed to give the Chrysler owner a power bonus for swift, safe maneuvering and acceleration over the entire cruising-speed range.

Expanding the premise on which the Chrysler V-8 engine was designed—"getting more air into the engine and using it more efficiently for more power"—the redesigned FirePower uses an enlarged, wide-open intake system and a more free-flowing exhaust system.

In the New Yorker FirePower V-8 engine, the brake horsepower has been increased from 180 to 195, mainly by enlarging the intake valve and port diameter by ⅛ inch, and the exhaust valve and port diameter by ¼ inch. These changes, together with some other minor modifications, permit a greater unrestricted passage for the intake and exhaust gases.

New Yorker Deluxe, Custom Imperial and Crown Imperial models have adopted six major engine modifications, resulting in an increase from 180 to 235 brake horsepower. The torque has also increased from 312 to 330 foot-pounds. These revisions, designed to improve the "breathing" characteristics, include:

Carburetor: A four-barrel carburetor enables the engine to inhale a greater charge of air at wide-open throttle conditions.



The Windsor Deluxe six-passenger sedan has a wheelbase of 125½ inches.

Carburetor Air Cleaner: Enlarged three inches in diameter with the filter case flared out farther and deeper, the new cleaner provides more filter area while improving air flow through the filter.

Intake Manifold: Retaining the principal feature of the original manifold, the division into two isolated distribution systems, the cross-sectional areas of the branches have been increased and a secondary pair of risers added.

Cylinder Head: The intake valve and port diameter is enlarged by $\frac{1}{8}$ of an inch, and the exhaust valve and the port diameter by $\frac{1}{8}$ of an inch, permitting a greater unrestricted passage for the intake and exhaust gases.

Exhaust Manifold: The diameter of the outlets of the new exhaust manifold has been increased from $1\frac{1}{2}$ to 2 inches.

Exhaust System: To further reduce back pressure and improve silencing, dual exhausts are used. Exhausting each bank of the engine through separate systems reduces the pumping, or back pressure, losses. Silencing is improved by adopting the three-pass, reverse-flow type of muffler.

Improved control, stability, and riding comfort on turns is achieved, the engineers point out, with new high-roll-center front suspension, which reduces body-lean on turns. They say a smoother operation at low speed is obtained by newly-designed "shear type" engine mountings with high vibration-damping ability. A stiffer frame, redesigned front and rear body mountings, new rear spring mountings, and added insulation for the cowl and the underbody are designed to give a smoother, more solid ride.

The Automatic Transmission

PowerFlite, Chrysler's new, fully automatic transmission, is standard equipment on all 1954 V-8 models and optional on the Windsor Deluxe.

Consisting of a new torque converter and two-speed planetary transmission, PowerFlite represents the culmination of years of research and development work by Chrysler with automatic transmission. Its performance is keyed to its over-all torque multiplication ratio: 4.47:1, the highest in the industry for passenger-car drive range operation. This is achieved by the high torque-converter starting ratio: 2.6:1, again the highest for passenger-car use, and the

1.72 starting gear ratio furnished by the planetary transmission.

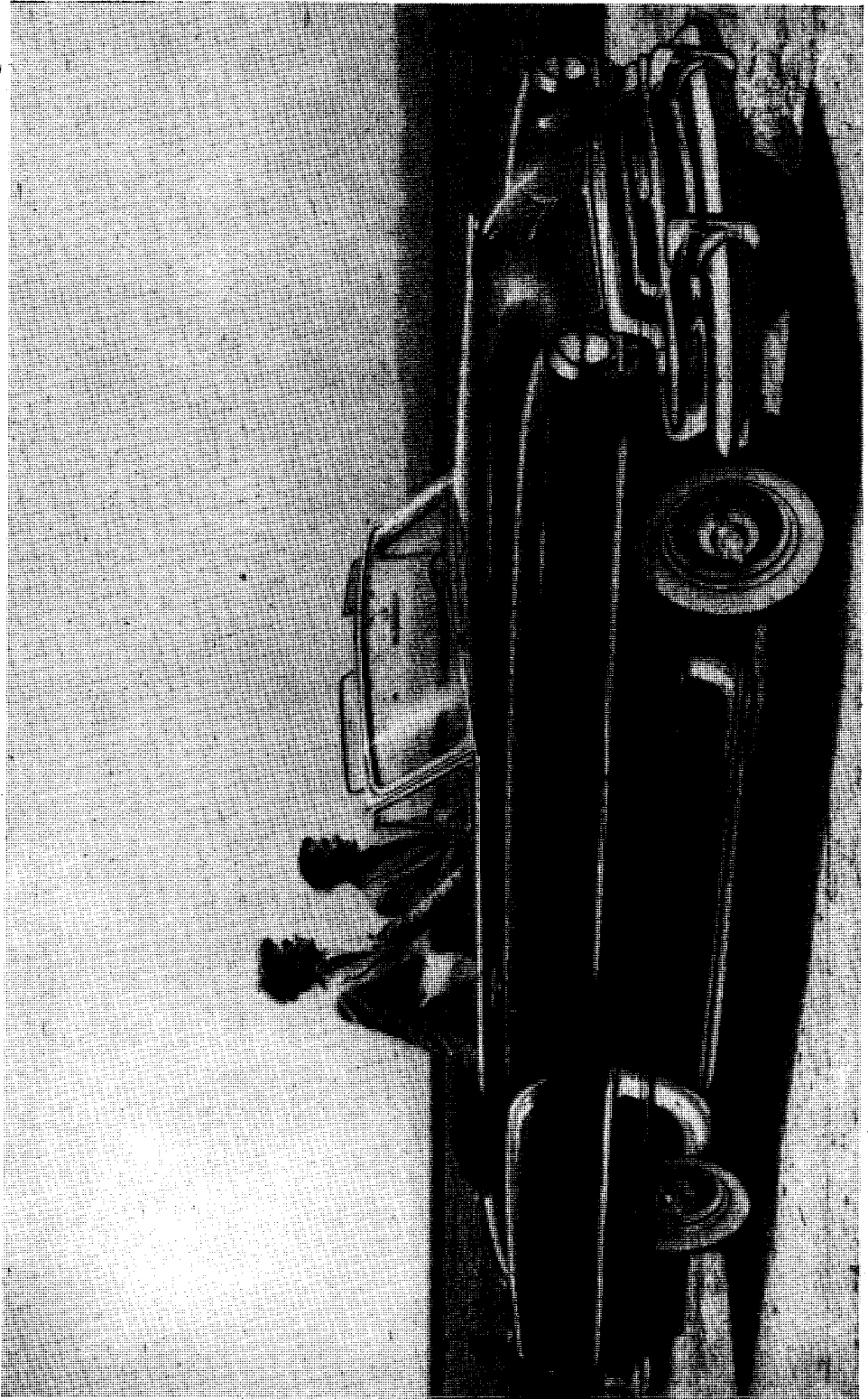
PowerFlite's design is about the simplest of all automatic transmission. It is the lightest, weighing as much as 100 lbs. less than competitive designs, and uses the fewest number of major parts by a considerable margin.

For the selector lever on the steering column, Chrysler has chosen an easy-to-operate shift pattern. The four positions—Reverse, Neutral, Drive, and Low—are arranged to give simple but foolproof shifting selection. The "gating" of the selector lever makes it possible to shift gears by feel without even looking at the indicator. Neutral and Drive, the most common positions, are located at the left and right hand extremes, respectively, when the lever is operated in its normal position. Similarly, Reserve and Low are at the left and right hand extremes, respectively, when the selector lever is pulled toward the steering wheel. The latter arrangement simplifies rocking the car in sand or 'mud, since the driver need only pull the selector lever toward the steering wheel and move it from one extreme to the other.

Parking position is eliminated on the selector lever because an internal-expanding hand brake is used, a careful and deliberate decision on Chrysler's part. Independent of the regular hydraulic brakes, the hand brake acts through the drive train. It is, Chrysler engineers point out, capable of holding a car parked under any circumstances and has the further advantage of serving as an emergency brake. Since no parking sprag is necessary within the transmission, this possible source of jamming or self-disengaging is done away with.

Starting the engine with the transmission in gear is prevented by a switch which completes the starting circuit only when the shift lever is in the neutral position. Once the engine is started and the selector lever has been moved to Drive, the driver does not need to remove his foot from the accelerator until he wants to slow down. The transmission performs a fully automatic power shift from the 1.72 starting gear to direct drive at some speed between 15 to 65 mph, depending upon the degree of pedal depression by the driver.

If additional acceleration is desired after the transmission has shifted to direct drive,



If you want a New Yorker Deluxe convertible, it also has the high horsepower.

the driver kicks down to low gear by depressing the accelerator pedal completely to the floor board. The transmission also automatically downshifts any time the car speed falls below 11 mph.

The Instrument Lighting

Chrysler has replaced the more conventional type of gauges for oil pressure and amperes with indicator lights. If oil pressure or battery current should reach a low point, a red light flashes on the panel, attracting the driver's attention.

The instruments, including the radio and clock, are illuminated by the edge-lighting principle. Only the numerals, pointer, and dial graduations glow brightly on each instrument. The rest of the panel is completely dark to provide maximum visibility and freedom from eye strain.

STYLING FOR '54

In its exterior styling this year, Chrysler is emphasizing a lightness of line. The solid side trim is designed to highlight the lines of the body. These metal trim parts are new and their distinctive shapes help give a feeling of forward motion.

The grilles are formed of heavy chromed horizontal bars, which impart a road-hugging appearance. You'll note that the grilles vary from model to model but they all have a family resemblance.

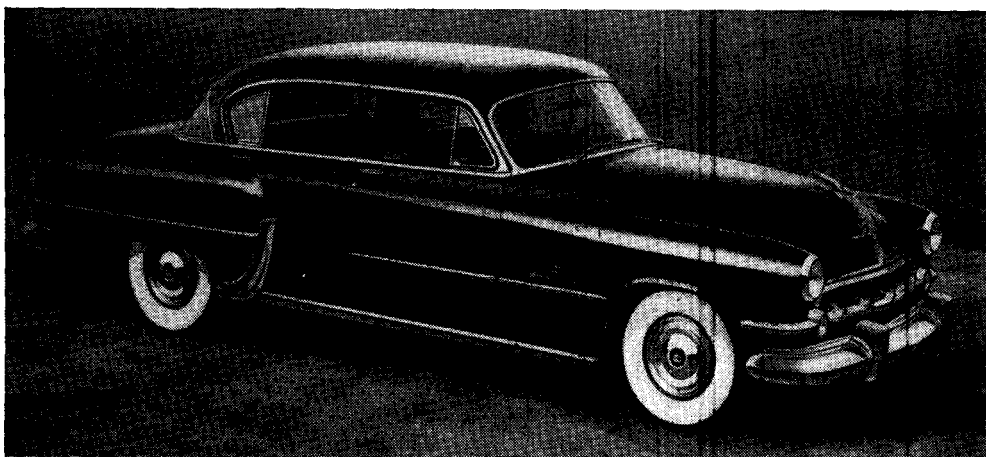
New grille medallions, hood crests, mas-

sive bumpers, and chrome-trim "eyebrows" above the headlights add to the distinctive appearance of the cars. The directional lamps are in the chrome frame below the headlamps; arrows are set into the plastic lenses for clear turn-signalling.

This year the moldings flare out thickly at the bottom and tilt more of their surface toward the observer, thus reflecting more light. The front and rear fender moldings and door moldings extend in a sleek, tapering spear more than half the car length.

All lines feature new wheel covers, and side nameplates of gold or chrome identify all the models. The "K" rear-door outline, introduced in 1953, is continued. The designers say the larger opening allows passengers to enter and leave the rear seat without awkward twisting. A one-piece, wrap-around rear window eliminates the pillar and increases visibility. Chrysler also has a new rear bumper and new tail lamps. The tail, backup, and stop lights are combined in one large, vertical unit, emphasizing maximum visibility. All models have new deck-lid crests and deck-lid lifts.

In its interior styling for '54, Chrysler is emphasizing what it calls "the bolstered seat design." On the New Yorker Deluxe, for example, the bolster material is medium-dark, contrasting with the pastel-shaded seat cloth. Dark colored welt strips distinctively outline the bolsters and form "box sections" on the seat back. Both front and rear seats on Deluxe models have reclining center arm rests.



CHRYSLER'S luxury car, the '54 Custom Imperial sedan, has the 235-horsepower V-8

engine. The wheelbase is 133½ inches. Also to be had as a four-door limousine.

SPECIFICATIONS

Windsor Deluxe

Engine: In-line, L-head, 6-cylinder. Bore, 3 7/16 inches; stroke, 4 1/4 inches. Piston displacement, 265 cubic inches. Compression ratio, 7.0 to 1. Horsepower, 119 at 3600 RPM. Torque, 218 foot pounds at 1600 RPM.

Lubrication: Full-pressure lubrication to all moving parts. Crankcase capacity, 5 quarts. Full-Flow oil filter.

Fuel: Capacity, 17 gallons. Carburetor, downdraft single type. Automatic manifold heat control. Integral automatic choke. Oil-bath air cleaner.

Cooling: Capacity, 15 quarts.

Transmission: Conventional transmission on the Windsor, with PowerFlite optional. Exposed-type drive shaft. *Rear axle ratio:* with conventional transmission, 3.9 to 1.

Brakes: Four-wheel hydraulic, 12 inches in diameter, internal expanding. Power brakes standard on Windsor Deluxe 8; available at extra cost on other Windsor Deluxe body styles.

Suspension: *Front:* Independent, with coil springs. *Rear:* Semi-elliptic springs with grooved and tapered leaves. Direct-acting shock absorbers.

Steering: Mechanical steering; over-all ratio, 25.8 to 1. Power steering optional.

Dimensions: *Wheelbase,* 125 1/2 inches. *Over-all length,* 215 1/2 inches; *over-all width,* 77 1/2 inches; *over-all height,* 62 1/2 inches. *Tread:* Front, 56 5/16; rear, 59 inches. *Tire size,* 7.60 by 15.

New Yorker, New Yorker Deluxe, Custom Imperial, Crown Imperial

Engine: Eight-cylinder, 90-degree V-type, laterally inclined overhead valves. Bore, 3 13/16 inches; stroke, 3 3/8 inches. Piston displacement, 331.1 cubic inches. Compression ratio, 7.5 to 1. Horsepower, 235 at 4400 RPM. Torque, 330 foot pounds at 2600 RPM.

Transmission: PowerFlite, fully automatic torque converter, with planetary gear set. Ratios: torque converter starting, 2.6 to 1; combined torque-converter and planetary-gear breakaway, 4.46 to 1. Up-shift from 15 to 65 MPH; automatic downshift at 11 MPH. *Rear axle ratios:* New Yorker and New Yorker Deluxe, 3.36 to 1; Custom Imperial and Crown Imperial, 3.54 to 1.

Brakes: Power brakes standard.

Suspension: *Front:* Independent, with coil springs. *Rear:* Semi-elliptic, with grooved and tapered leaves. Direct-acting shock absorbers.

Steering: Power steering standard on Crown Imperial, optional on all other models. Over-all ratio, 16.2 to 1.

Dimensions: *Wheelbase:* New Yorker, 125 1/2 inches; Custom Imperial, 133 1/2 inches; Crown Imperial, 145 1/2 inches. *Over-all length:* New Yorker, 215 1/2 inches; Custom Imperial, 233 1/2 inches; Crown Imperial, 236 1/2 inches. *Over-all width:* New Yorker, 77 1/2 inches; Custom Imperial, 77 1/2 inches; Crown Imperial, 82 1/2 inches. *Over-all height:* New Yorker, 62 1/2 inches; Custom Imperial, 63 inches; Crown Imperial, 68 1/2 inches.

Cunningham Improves Coupe

The Continental Coupe gets its body and chassis slicked up

THE CUNNINGHAM C-3 CONTINENTAL Coupe, now being turned out by the B. S. Cunningham Company at its West Palm Beach, Florida, plant, is, the engineers say, an obvious improvement over the earlier models. The policy has been to make changes only when definite improvements have been perfected. This policy saves re-tooling costs that do not necessarily improve a car, they point out. This year only minor changes are listed for the coupe.

Body Changes

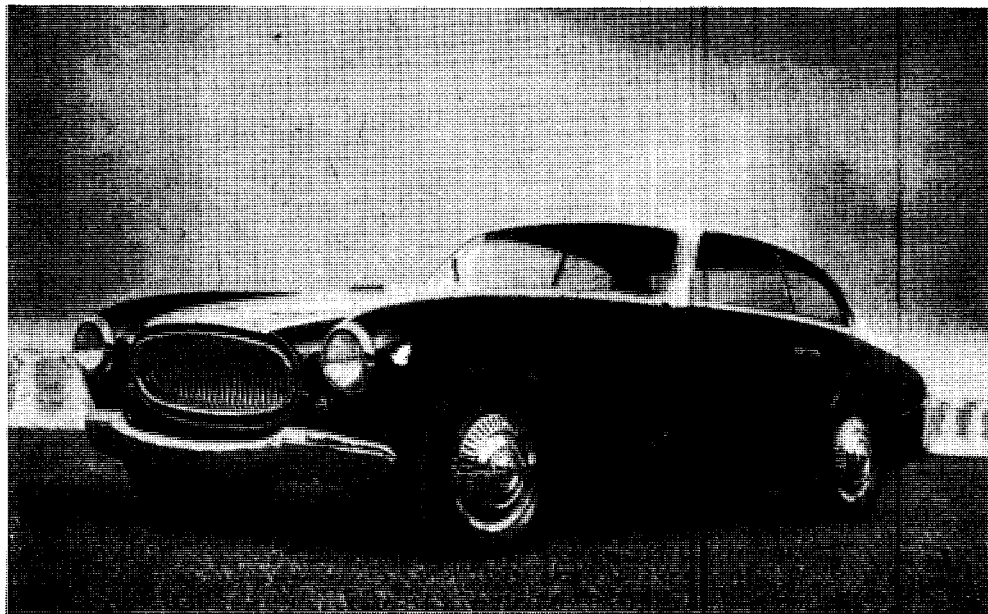
The body of the C-3 Continental Coupe is made by Vignale in Italy. Recently arrived from Europe, the first of these cars is finished in contrasting tones of cream, black, and deep blue, is fitted on a 107-inch wheelbase, and has a very low silhouette—defi-

nately resembling a Ferrari. Curved glass is used for both windshield and side windows, and visibility is exceptional for a car of this type. Provisions have been made for full opening of the front quarter windows. And electrically controlled windows are offered as optional equipment.

Other interior improvements include redesigned seats for greater leg and shoulder support, repositioned arm rest, and a new type of heater and radio.

Engineering Improvements

Amazing performance should be obtained from the new coupe, the company says. With a 220-horsepower Chrysler V-8 engine, mounting four carburetors, and a dry weight figure of only 2800 pounds, they hope for remarkable acceleration. Top speed has not been announced, but they say a guess in the 130 MPH area would not be overly optimistic. Even higher speeds are possible with a specially tuned version of



THIS YEAR'S model presents no basic change. Instead, Cunningham has concentrated on

improving and refining the qualities already inherent in its car.

the Chrysler engine (approximately 300 brake horsepower).

The wheelbase is two inches longer than on last year's model, and the wheels may be either 15 or 16 inches. The transmission is a torque converter with semi-automatic

gearbox. The chassis is of welded steel tubing, and is equipped with cold-spring suspension front and rear, combined with "Oriflow" shock absorbers. The disk wheels are made of magnesium in order to reduce unsprung weight to a minimum.

SPECIFICATIONS

Engine: Chrysler V-8, overhead valve (reworked). Bore, 3 13/16 in.; stroke, 3 3/4 in. Piston displacement, 331.1 cu. in. Compression ratio, 7.5 to 1. Horsepower, 220 at 4000 RPM. Maximum torque, 312 foot-pounds at 2000 RPM.

Lubrication: Pressure. Crankcase capacity, 5 quarts. Full-flow oil filter.

Fuel: Capacity, 18 gallons. Four Zenith carburetors. Mechanical fuel pump.

Electrical: Six-volt battery system. Capacity, 130 ampere hours. Auto-lite ignition.

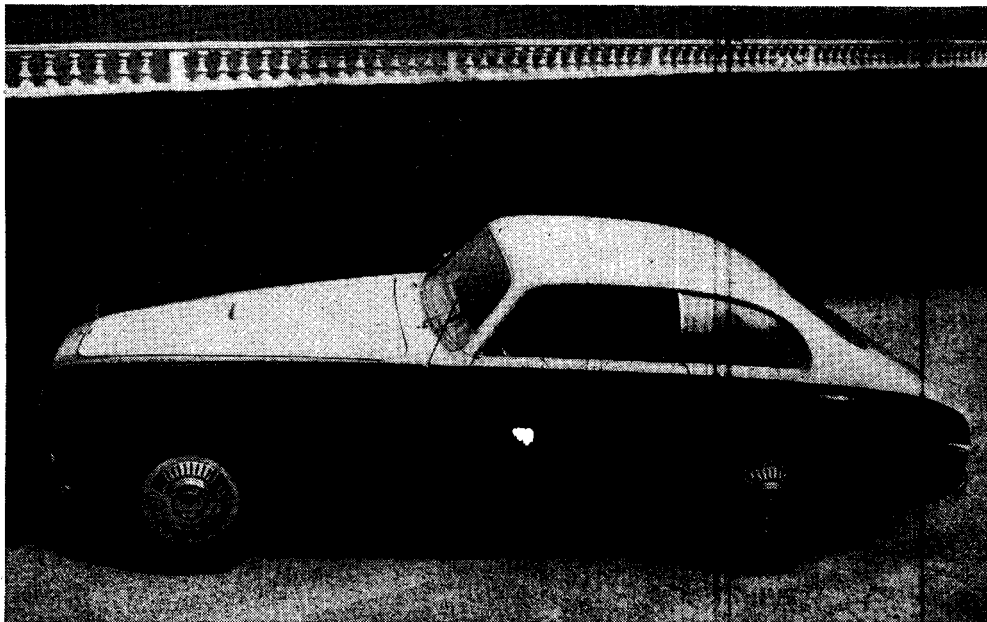
Cooling: Water capacity, 25 quarts.

Transmission: Torque converter with semi-automatic gearbox. Rear axle ratio, 3.54 to 1.

Brakes: Four-wheel, hydraulic. Twelve-inch drums. Hand brake operates mechanically through the drive shaft on the rear wheels.

Suspension: Coil springs and wishbones on front. Coil springs on rear. Chrysler "Oriflow" direct acting shock absorbers.

Dimensions: Wheelbase, 107 inches. Over-all length, 168 inches. Over-all width, 70 inches. Over-all height, 53 inches. Tread: front, 58 inches; rear, 58 inches. Tire size: 8.00 x 15, or 7.00 x 16.



THE Cunningham Continental Coupe combines European body styling with American

engineering to produce a stock sports car that is one of the leaders in its field.

De Soto Is Ready For '54

With improved engineering under the hood and new styling inside and outside

THE DE SOTO POWERMASTER AND FIREDOME models for 1954 continue with those chassis features which the De Soto engineers feel have contributed so much to their reputation for safety, riding comfort, ease of handling, and economy of operation. The wide frame, with the shorter overhang body brackets, is retained because of its resistance to twisting. The result is a rigid body-and-frame combination. The use of De Soto's Safety-rim wheels, the all-steel rigid body, and the Safe-Guard hydraulic brakes with an independent parking brake emphasize its reputation as a safe and long lasting car. Splay-mounted rear springs and "sea-leg" shock absorbers are used. The engineers point to an improved FireDome engine, new front suspension, new frame, and new, fully automatic PowerFlite transmission as prime improvements in De Soto.

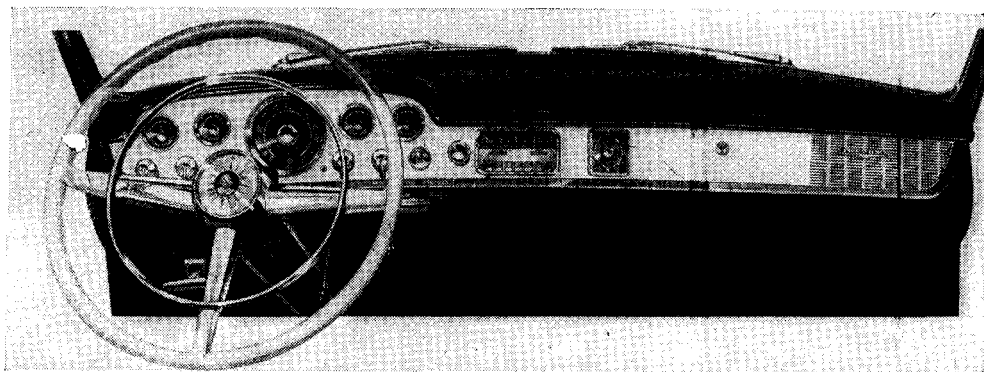
The Improved FireDome

Increased from 160 to 170 brake horsepower, the FireDome V-8 offers greater economy and improved torque at medium speeds. The engineers say this is achieved

by increasing the compression ratio to 7.5 to 1, while retaining all the outstanding features of De Soto's V-8 engine. Increased torque in this critical speed range is said to offer the driver more acceleration when needed; dangers, when passing, are minimized; and the car becomes safer, and more comfortable to drive.

Smoother operation is aimed at in FireDome models through a reduction in low-speed engine vibration effects. Newly designed "shear-type" engine mountings, used at the front of the FireDome V-8, have a greater vibration damping ability; they are highly effective in isolating the frame and body from the rocking motion induced in the engine by torque impulses, particularly while idling.

The new mountings consist of rubber bonded between two metal plates and are mounted on the frame so that these engine vibration forces act through the rubber in a direction parallel to the plates. According to the engineers, the action of the rubber when loaded in shear is much softer than when it is loaded in compression, which is the conventional way. It is this softer action which provides the greater vibration absorbing quality of the new shear type of mountings and thus, they say, smoother performance of the 1954 De Soto FireDome cars.



YOU CAN SEE they have gone to work on the instrument panel, too. Edgelighting is used

here as on other Chrysler cars. The radio speaker is now at the extreme right.



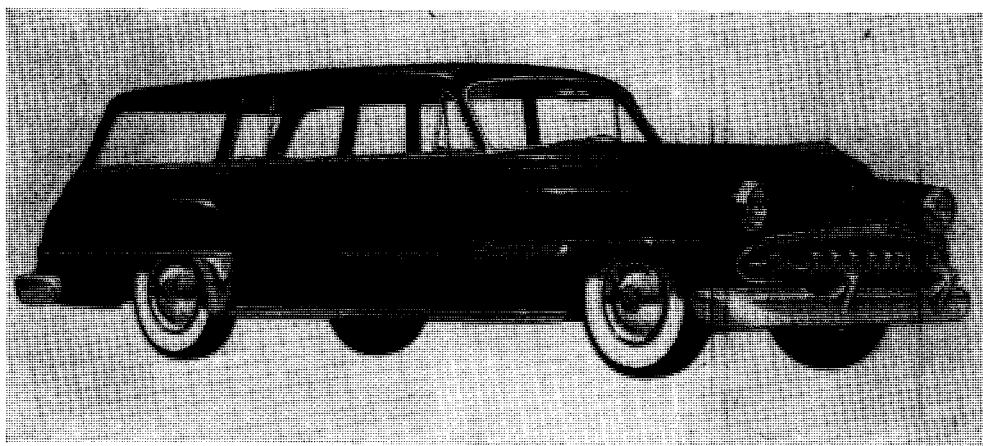
The Sportsman is one of six models in De Soto's '54 FireDome Series.

New Front Suspension

De Soto has aimed at improved control, stability, and riding comfort while turning, with the adoption of a new high-roll-center front suspension of the non-parallel control arm type. By lowering the inner pivot of the upper control arm and lengthening the steering knuckle support, a suspension arrangement has been developed which, they believe, reduces the tendency of the body to lean during turns. Ordinarily in any car when turning a corner, the body normally tends to tilt outward. This is due to centrifugal forces acting through its "roll center." (Roll center is that point about which

Flite is the end product of years of research and development in automatic transmissions. The over-all torque ratio is 4.47 to 1. The torque-converter starting ratio is 2.6 to 1; and the starting gear ratio is 1.72 to 1.

The "Blind-Fold Shift" selector lever on the steering column features an easy-to-operate shift pattern. The four shift positions—Reverse, Neutral, Drive and Low—are arranged for simple selecting. The gating of the selector lever makes it possible to shift gears by feel without even looking at the selector. Reverse is located adjacent to neutral, eliminating the possibility of unexpectedly jumping forward when shifting



HERE'S WHAT De Soto can give you if you want an up-to-the-minute station wagon.

This one is in the PowerMaster series. You can get a FireDome model, too.

the car naturally rolls or tilts.) Thus, in a turn, the outside suspension and wheels tend to be forced into the high, or jounce, position. With the new suspension the tops of the wheels approach the car center-line in jounce, while the bottoms move farther away. The side forces exerted by the road on the tires tend to push the bottoms of the wheels back toward the car center-line, a movement exactly opposite to that caused by the tilting of the car. This reaction force from the road has the effect of straightening up the car body, and in this way the new suspension produces a more stable ride on even the sharpest turns.

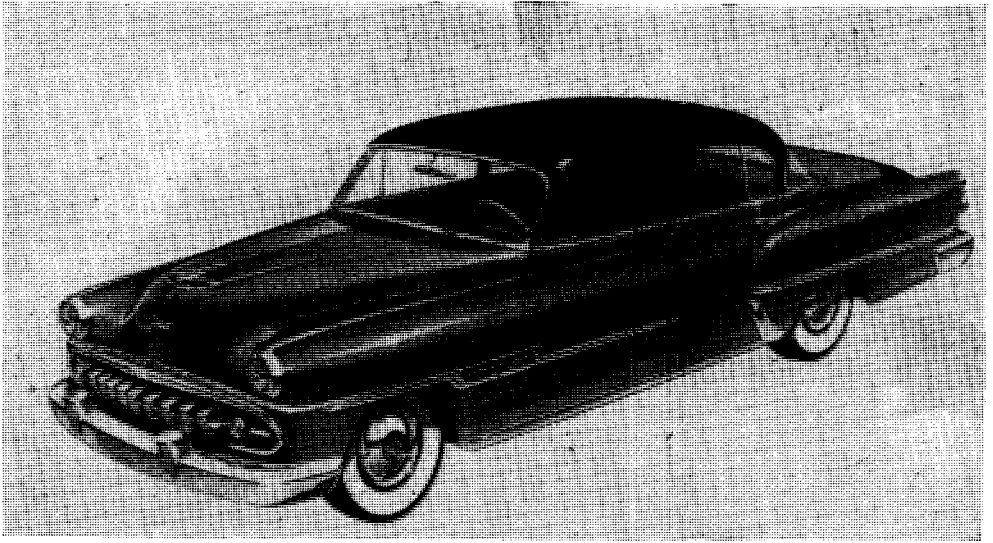
Automatic Transmission

Offered as optional equipment on all 1954 De Soto models is the PowerFlite transmission. With a new torque converter and two-speed planetary transmission, Power-

between these two gears. Neutral and Drive, the most common positions, are located at the left and right hand extremes, respectively, when the lever is operated in its normal position. Reverse and low are at the left and right hand extremes respectively, when the selector lever is pulled toward the steering wheel. The latter arrangement simplifies rocking the car in sand or mud, since the driver need only pull the selector lever toward the wheel and move it from one extreme to the other.

Because De Soto, like other Chrysler cars, uses an internal-expanding hand brake, no parking position is needed on the selector lever. The hand brake acts through the drive train; thus no parking sprag is required within the transmission, and one potential source of trouble is eliminated.

De Soto is proud of its independent hand brake and says it will hold a car parked



THIS CLUB COUPE shows off very well the designing and styling that have gone into

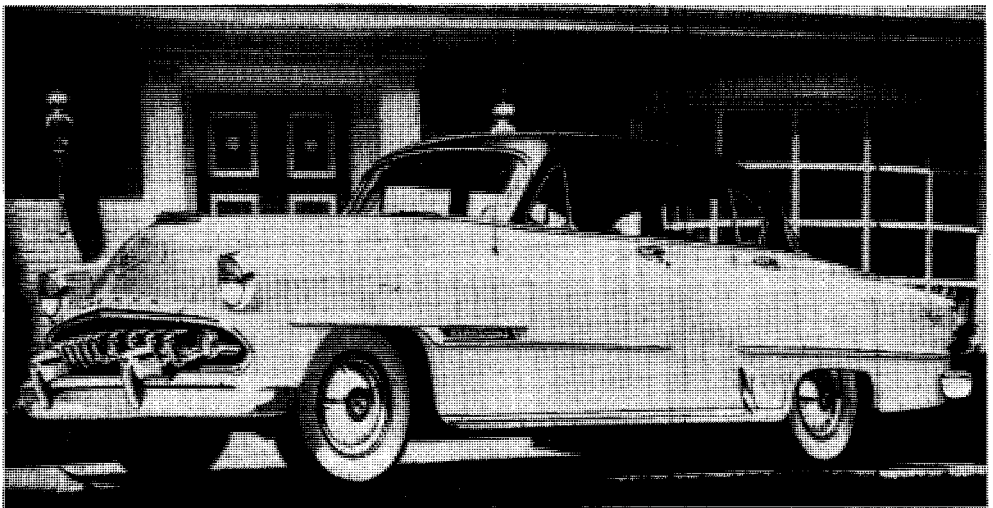
the new De Sotos. '54 has a longer, wider look, with clean lines.

under any circumstances and also serves as an emergency brake.

The driver is prevented from starting the engine with the transmission in gear by a switch which completes the starting circuit only when the shift lever is in the neutral position. When the engine is started and the selector lever is moved to Drive, the driver need not remove his foot from the accelerator until it becomes necessary to slow down. The transmission performs a fully automatic power shift from the 1.72

starting gear to direct drive at some speed between 15 and 65 mph. After the transmission has shifted to direct drive and additional acceleration is desired, the driver may kickdown to low gear merely by depressing the accelerator pedal completely to the floor board. The transmission also automatically downshifts anytime the car speed falls below 11 mph.

PowerFlite's design is the simplest of all automatic transmissions; it is the lightest and uses the fewest number of major parts.



THE FOUR-DOOR SEDAN, the most popular of all body types, is shown here in the Fire-

Dome V-8 series. The engine is up to 170 horsepower with a 7.5 to 1 compression ratio.

The oil level of the PowerFlite transmission calls for checking at every 1,000 mile chassis lubrication, and the independent 12-quart oil supply should be changed every 20,000 miles.

Styling For Today

The designers of the 1954 De Soto have achieved a lower, wider look by the use of several devices, including a floating grille bar, a new streamlined bumper, and "forward brow" head-lamp bezels.

The new grille spans a greater portion of the car's front than before. The horizontal bar stretches from one head lamp center line to the other. The new circular parking lamps are an integral part of the horizontal grille bar. And the grille is surrounded by a chromed picture frame which diminishes in width as it approaches the fender.

The front bumper is fashioned into a gentle curve around the front of the car, unbroken by dips or changes in direction. The bumper guards are patterned after the vertical grille bars, although they are thicker and taller.

The parking lamps on the new models are round and are concentric with the frame moldings surrounding the grille opening.

The hood emblems which identified the PowerMaster and FireDome models for 1953 have been retained on the new models. Both these emblems incorporate the De Soto medallion. For the PowerMaster, the medallion is placed in a long, horizontal chrome setting, and for the FireDome, within a chrome, Roman V.

Viewed from the front, the grille presents several modifications. The grille is again placed on a stronger horizontal base, say the designers.

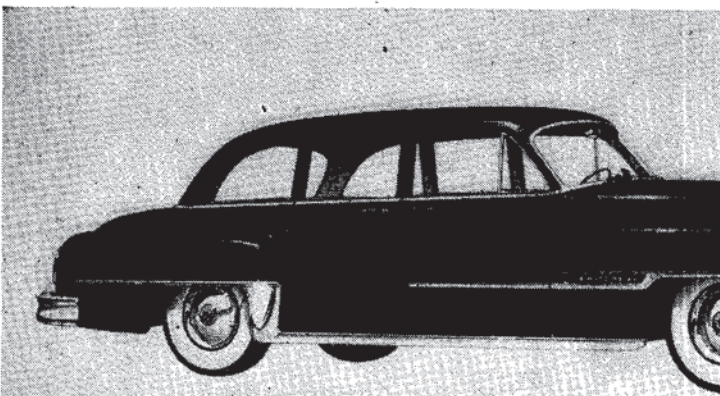
The taillight, side light are combined in a single unit, a Chrysler treatment. The grille is divided into two circular sections. The upper section houses the taillight lens. The lower section contains the standard backup light lens between the turn signal and the reflector button.

Although the overall look of the bumper is slightly different from the front, the designers have carefully tailored the rear. Two full-width bumper guards at the rear are similar to the front bumper. The guard plate, which is mounted on the inner face of the bumper lid. The license-plate is mounted on the inner face of the bumper lid.

'54 Models Released

In the PowerMaster line, De Soto offers the coupe, sedan, and four-door sedan body types for 1954. The coupe, estate wagon, and sedan.

In the FireDome line, you have your choice of the club coupe, the sedan (coupe), convertible, and eight-passenger.



SPECIFICATIONS

FireDome V-8

Engine: Eight-cylinder, 90-degree type, inclined lateral overhead valves. Bore, 3 $\frac{3}{8}$; stroke, 3 $\frac{11}{32}$ inches. Piston displacement, 276.1 cubic inches. Compression ratio, 2.5 to 1. Horsepower, 170 at 4400 RPM. Torque, 255 foot-pounds at 2000 RPM.

Lubrication: Full pressure to main, connecting rod, and camshaft bearings. Floating-type oil intake. Fixed-shunt type oil filter.

Cooling: Capacity, 23 quarts with heater, 22 quarts without. Full length water jackets. Four blade, 18-inch diameter shrouded fan.

Electrical: Six-volt, 17 plate battery, 120 ampere hours capacity.

Transmission: Standard equipment, 3-speed manual shift. Special equipment: PowerFlite fully-automatic transmission; Overdrive (available with 3-speed shift only). Manual shift ratios: First, 2.57 to 1; second, 1.83 to 1; third, 1.00 to 1; reverse, 3.48 to 1. Overdrive ratio, 1.7 to 1. Power drive shift ratios: starting, 4.47 to 1; drive range (low), 1.72 to 1; drive range (direct), 1.00 to 1; low range, 1.72 to 1; reverse, 2.39 to 1.

PowerMaster Six

Engine: Six-cylinder, L-head. Bore, 3 $\frac{7}{16}$; stroke, 4 $\frac{1}{2}$ inches. Piston displacement, 250.5 cubic inches. Horsepower, 116 at 3600 RPM. Torque, 208 foot-pounds at 1600 RPM.

Lubrication: Full pressure to main, connecting rod, and camshaft bearings. Floating type oil intake. Oil filter.

Crankcase capacity, 5 quarts.

Cooling: Capacity, 16 quarts with heater, 15 quarts without. Full length water jacket. Four-blade, 17-inch diameter fan.

Electrical: Six-volt, 17-plate battery, 120 ampere hours capacity.

Transmission: Standard equipment, 3-speed manual shift. Special equipment: PowerFlite fully-automatic transmission; Overdrive (available with 3-speed shift only). Manual shift ratios: First, 2.57 to 1; second, 1.83 to 1; third, 1.00 to 1; reverse, 3.48 to 1. Overdrive ratio, 1.7 to 1. Power drive shift ratios: starting, 4.47 to 1; drive range (low), 1.72 to 1; drive range (direct), 1.00 to 1; low range, 1.72 to 1; reverse, 2.39 to 1.

Both De Soto Lines

Brakes: Four-wheel, hydraulic, internal expanding. Twin-cylinder type in front; heavy section, high rib, 12-inch diameter drums; with 201 square inches of contact surface. Power brakes available as special equipment. Parking brake is the drum type, operating on the rear of transmission.

Suspension: Front: independent with coil springs. Rear: semi-elliptic, five-leaf springs. Oriflow direct-acting shock absorbers, vertically mounted in front, "sea leg" angle-mounted in rear.

Steering: Power steering, full-time type, hydraulic, available as special equipment.

Dimensions: Wheelbase: 125 $\frac{1}{2}$ inches. Maximum length: 214 $\frac{1}{2}$ inches. Width: 77 $\frac{1}{2}$ inches. Height: 62 $\frac{1}{2}$ inches.