1955

Chevrolet

FEATURES

PASSENGER CAR ENGINEERING ACHIEVEMENTS

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PASSENGER CAR ENGINEERING ACHIEVEMENTS

BOOK NO. 204

ISSUED TO Campbell Ewald Company
RADIO + TELEVISION DEPT

Prepared by
ENGINEERING DEPARTMENT–TECHNICAL DATA GROUP
CHEVROLET–CENTRAL OFFICE
Division of General Motors Corporation
Detroit 2, Michigan
OCTOBER 1954

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The 1955 Chevrolet is a tribute not only to the technical skill but also to the vision, ingenuity and enthusiasm of those responsible for its conception and ultimate design.

It is only fitting, therefore, that this Feature Book be dedicated to the members of the Engineering Department, whose combined efforts have produced the new passenger car presented to you here.

E. N. Cole
Chief Engineer

THE 1955 CHEVROLET

Representing the most comprehensive model change in Chevrolet's history, the 1955 passenger car is the product of an extensive research and development program, supported by a large increase in manufacturing facilities.

Scientific engineering throughout is reflected in the advanced overall design of the vehicle, which has outstanding performance and roadability. Its riding and handling qualities are the result of a complete redesign of every major chassis component as well as the body structure. In its many mechanical features there are some noteworthy additions to the list of "Chevrolet Firsts" and more than one new to the industry at large.

A sweeping appearance change, with lower overall height and extended body lines, places the 1955 Chevrolet passenger car in the forefront of contemporary styling. Every detail of the exterior is new and combines to produce the total effect of a long, extremely graceful automobile. Overall height is reduced more than two and one half inches in sedans and coupes, and more than six inches in the four station wagon models. Hood, belt and deck lines are correspoendingly lower. All models feature a wrap-around windshield and greatly increased glass area. The interiors display a new instrument panel, contoured to the shape of the windshield, gearshift concentric with the steering column, and a recessed hub steering wheel.

Supporting the styling transformation is a new body structure with greater integration of body and frame design and higher resistance to torsional stresses. Heavy-gauge reinforcements provide extra rigidity, and unitized body side construction, a new Fisher Body feature, assures accurate door fits. A completely redesigned summer ventilation system takes in air at hood high level.

Fifty per cent more twist-resistant and eighteen per cent lighter in weight, the frame structure has reshaped side members and more rigid front and rear cross member attachments.

The new front suspension, with 1.3 inches wider front tread, incorporates spherical joint steering knuckles which eliminate king pins and greatly reduce lubrication requirements. Braking dive control, a unique mechanical feature, utilizes the forward momentum of the vehicle to control dive upon brake application by up to 45 per cent.

Among the many chassis improvements which contribute to the smoothness and handling ease of the new car are Hotchkiss drive, outrigger rear springs and a new steering linkage combined with a recirculating ball-type steering gear which transfers more driver effort into steering effort.

A 162 horsepower V-8 engine of advanced design is offered as optional equipment for 1955. Developed from extensive research, the high performance characteristics of this engine go hand-in-hand with low-weight structural compactness and outstanding overall efficiency. High power output per pound, overhead valves, high-turbulence combustion chambers, 8-to-1 compression ratio, and a large displacement with a low engine bulk are some of the features that provide outstanding performance with low operating expense. For the customer who desires exceptional acceleration and speed, there is available at extra cost a high performance equipment package which boosts the horsepower of the V-8 engine to 180. The improved six cylinder engines feature more efficient cooling and lubrication as well as quieter operation. All engines have a 12 volt electrical system.

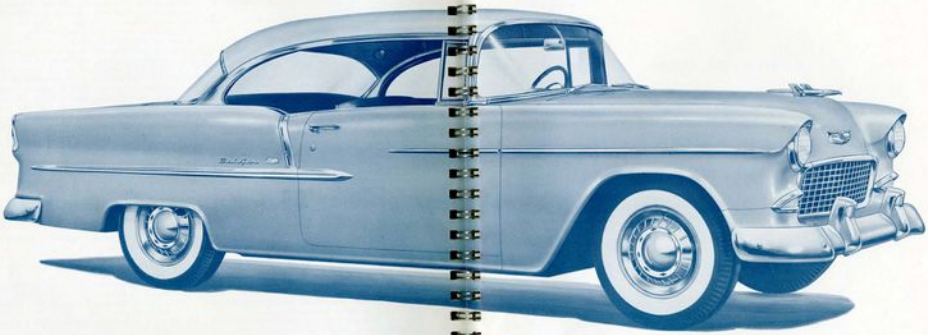
Offered for the first time by Chevrolet, an overdrive option, in conjunction with a high performance rear axle, offers greater driving flexibility and operating economy.

Thus, in 1955, the customer has a choice of six different power teams:

The 123 horsepower six engine with gearshift and 3.7 axle.
The 123 horsepower six engine with gearshift, overdrive and 4.11 performance axle.
The 136 horsepower six engine with Powerglide and 3.55 axle.
The V-8 engine with gearshift and 3.7 economy axle.
The V-8 engine with gearshift, overdrive and 4.11 performance axle.
The V-8 engine with Powerglide and 3.55 axle.

The 1955 list of extra cost equipment includes an all-weather air conditioning system of new and compact design which permits driver and passengers to select their weather and enjoy a refreshing atmosphere at any time of year.

SERIES 2400 SPORT COUPE



SERIES AND MODELS

THE 1955 LINE

The completely new Chevrolet for 1955 is presented in three Series, the 2400, the 2100, and the 1500, each distinguished by exterior trim differences and interior treatment. The addition of another station wagon to the 2100 Series brings the model line-up to a total of fourteen cars and the Sedan Delivery.

The 2400 Bel Air, or "luxury" Series, offers a choice of five body styles, a Two-door Sedan, Four-door Sedan, Sport Coupe, Convertible, and a Four-door Station Wagon.

The five models of the 2100, or "deluxe" Series, are: Two-door Sedan, Four-door Sedan, Club Coupe, Four-door Station Wagon and the new Two-door Station Wagon.

The 1500, or "standard" Series, is composed of a Two-door Sedan, Four-door Sedan, Utility Sedan, Sedan Delivery, and a Two-door Station Wagon which replaces the former Four-door model.

The four station wagon models available in the three series are all of six-passenger capacity, no eight-passenger vehicles being available. Other passenger capacity ratings remain unchanged.

SERIES 2400

FOUR-DOOR SEDAN 6-PASSENGER
MODEL 2403

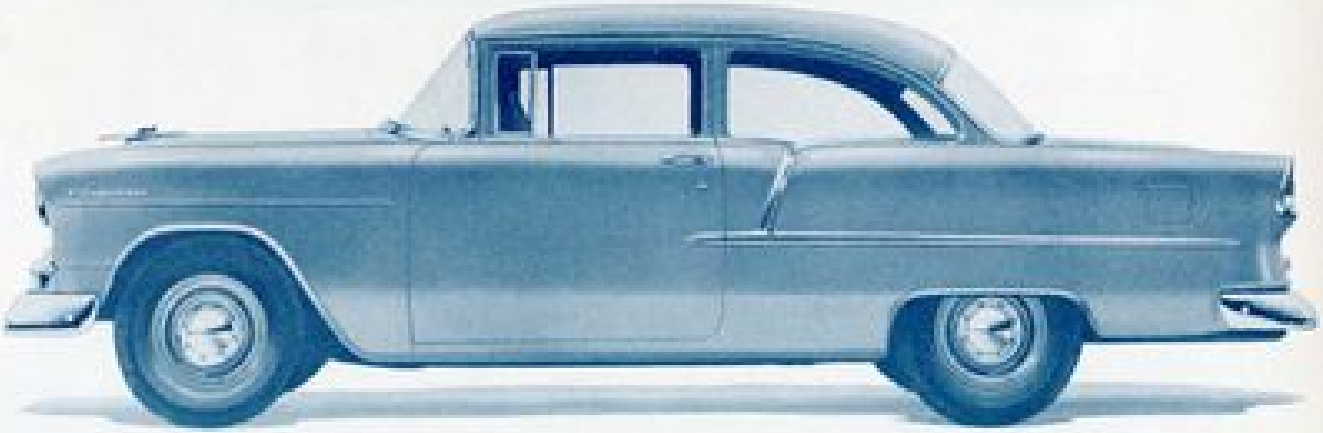
TWO-DOOR SEDAN 6-PASSENGER
MODEL 2402

SPORT COUPE 6-PASSENGER
MODEL 2454

CONVERTIBLE 5-PASSENGER
MODEL 2434

FOUR-DOOR STATION WAGON 6-PASSENGER
MODEL 2409

FOUR-DOOR SEDAN 6-PASSENGER
MODEL 2103



CLUB COUPE 6-PASSENGER
MODEL 2124

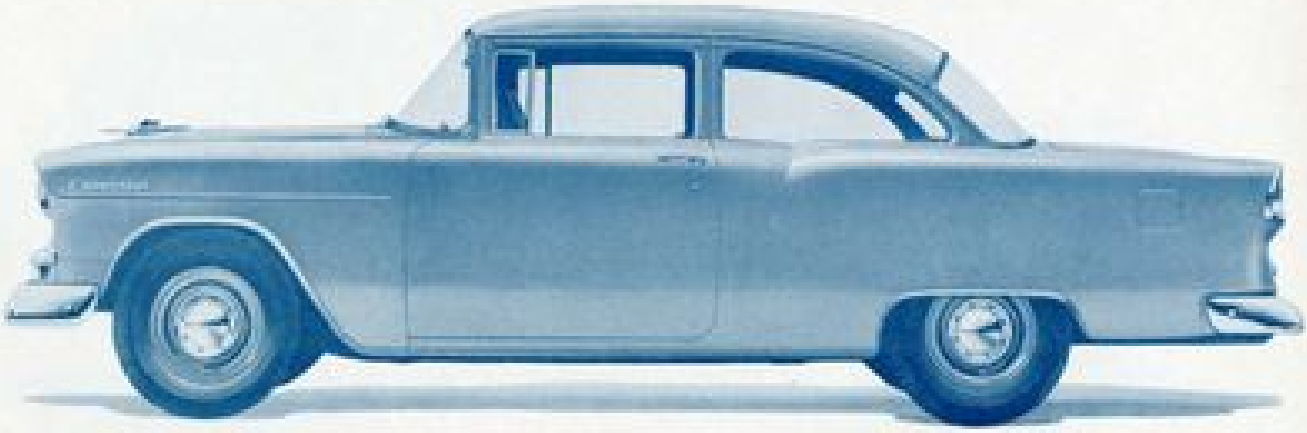
TWO-DOOR SEDAN 6-PASSENGER
MODEL 2102

FOUR-DOOR STATION WAGON 6-PASSENGER
MODEL 2109

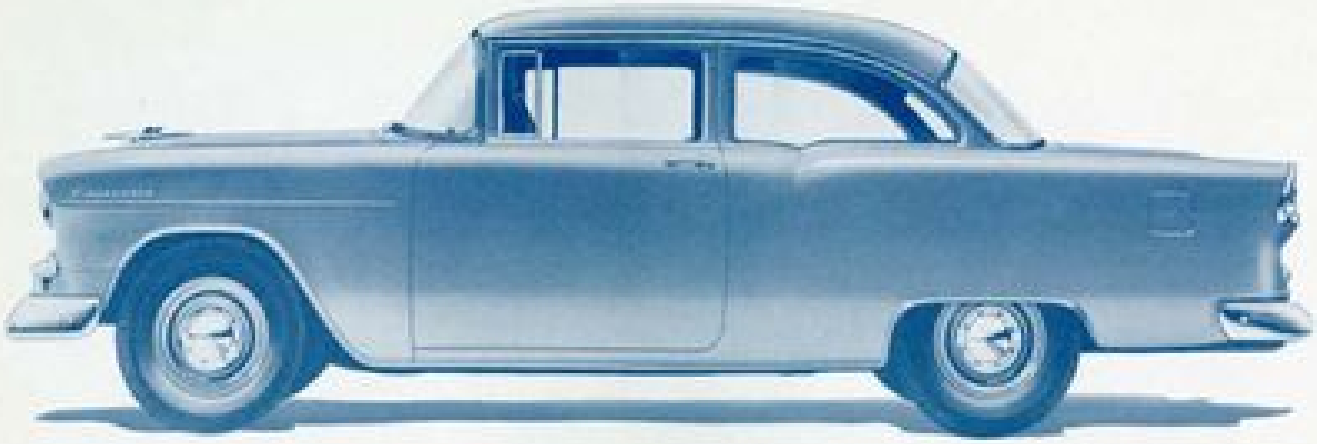
TWO-DOOR STATION WAGON 6-PASSENGER
MODEL 2129

SERIES 1500

FOUR-DOOR SEDAN 6-PASSENGER
MODEL 1503



TWO-DOOR SEDAN 6-PASSENGER
MODEL 1502



UTILITY SEDAN 3- PASSENGER
MODEL 1512

TWO-DOOR STATION WAGON 6-PASSENGER
MODEL 1529

SEDAN DELIVERY
MODEL 1508

EXTERIOR STYLING

THE 1955 EXTERIOR

The 1955 passenger car, new in almost every mechanical detail, is also dramatically new in appearance.

In this chapter, the various engineering features of the exterior are described in detail in round-the-car manner. To convey an adequate impression of the new car, however, it is necessary to consider it briefly in terms of the styling accomplishment it represents.

The new models, with a low silhouette and a long, fleet appearance, demonstrate the full beauty of the contemporary approach to automotive styling in which the functional and the purely decorative are almost imperceptibly merged. In addition, Chevrolet stylists have succeeded in creating an overall "big car" effect which virtually obsoletes previous standards of comparison between automobiles in widely-separated price ranges.

The new silhouette reveals a considerably lower car. Overall heights are reduced 2-1/2 inches in sedans and coupes and 6 inches in station wagons. Body lines flowing smoothly from front to rear, and such features as hoods over the headlights and the extended lines of the rear fenders and tail lights provide a definite impression of length. In spite of its new profile and a broad, low-slung appearance from a front and rear view, the 1955 Chevrolet preserves its compact dimensions. The new design reduces the overall length by nearly an inch and there is a decrease of more than one inch in over-all width in spite of the more spacious passenger accommodations.

One of the principle objectives of the 1955 styling, and perhaps its most striking feature, is the car's look of mobility at all times. This is true from every aspect, and is especially evident in the front end design, in which the lattice-design radiator grille is slanted forward. Long, narrow parking lights, located beneath the headlights, add to the impression of width.

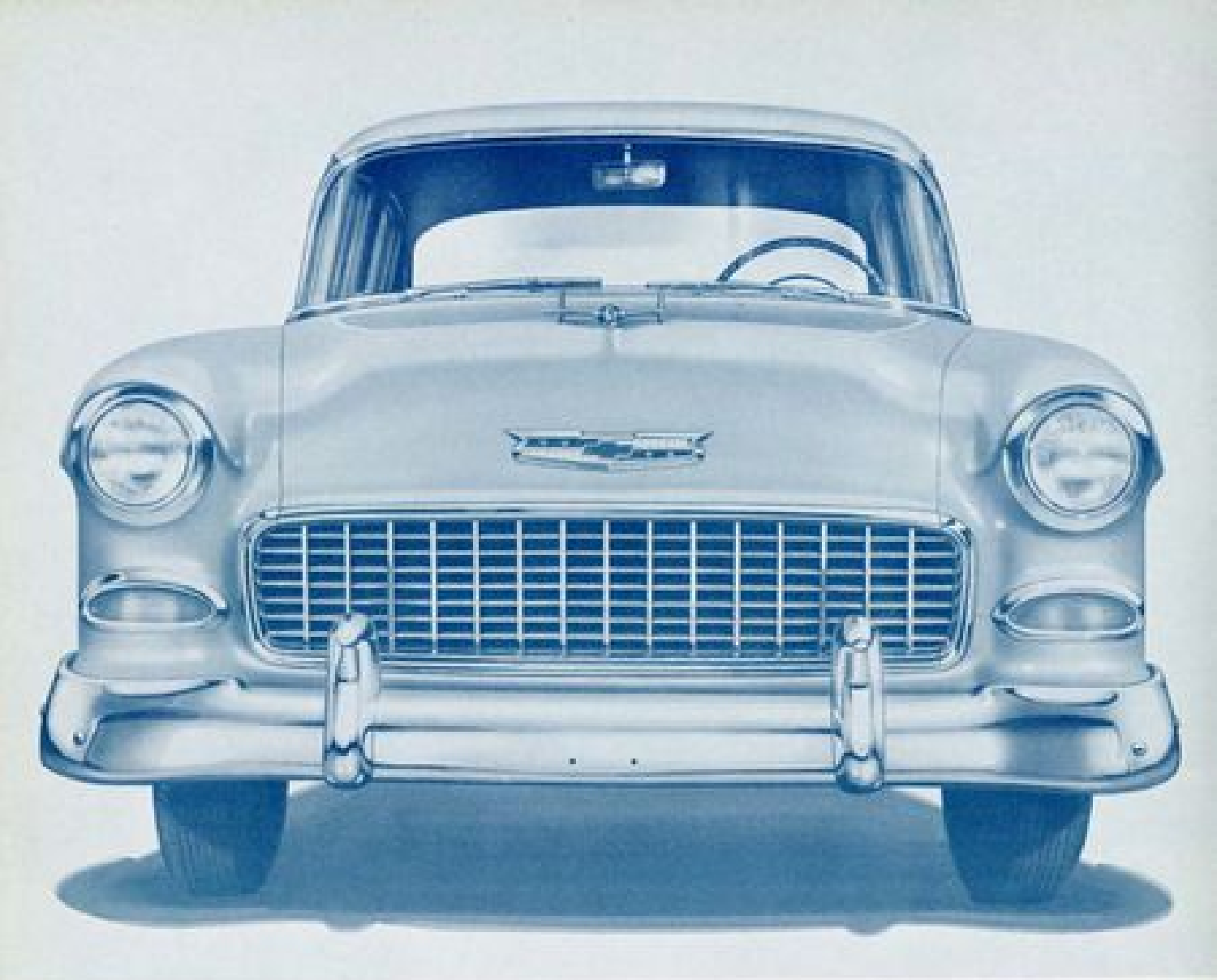
The belt line is lowered in all models and takes a well-defined dip in the rear quarter of sedans and coupes. The deck lid is lower than on previous models. Its almost horizontal surface accentuates the vehicle length, width and overall lowness. The rear fenders, which are a continuation of the rear quarter panels, form a smooth, unbroken contour from the center pillar to the rear corners. The fender top line extends horizontally rearward to the overhanging tail light.

The wrap-around windshield enhances the open appearance of the car and at the same time provides better visibility. Windshield pillars are in a vertical position to permit the windshield to wrap around to the rear. Other changes in glass area which make the Chevrolet a safer and more enjoyable automobile include much larger rear windows, the addition of stationary rear quarter windows on 4-door models and wrap-around quarter windows on the station wagons.

The four station wagons in the 1955 model line-up deserve a special word. This popular body style, so much a part of the American way of living, has received particular attention in the 1955 styling program. Their greatly reduced overall height, distinctive trim treatment, and special features give the new station wagons an arresting appearance.

Fourteen solid exterior colors, ten of them new, are offered in the 1955 color line-up, and a total of twenty-one two-tone combinations is available among the various models in the three series, including two reserved exclusively for Series 2400. A detailed listing of colors available for specific models will be found in the color charts in the Appendix.

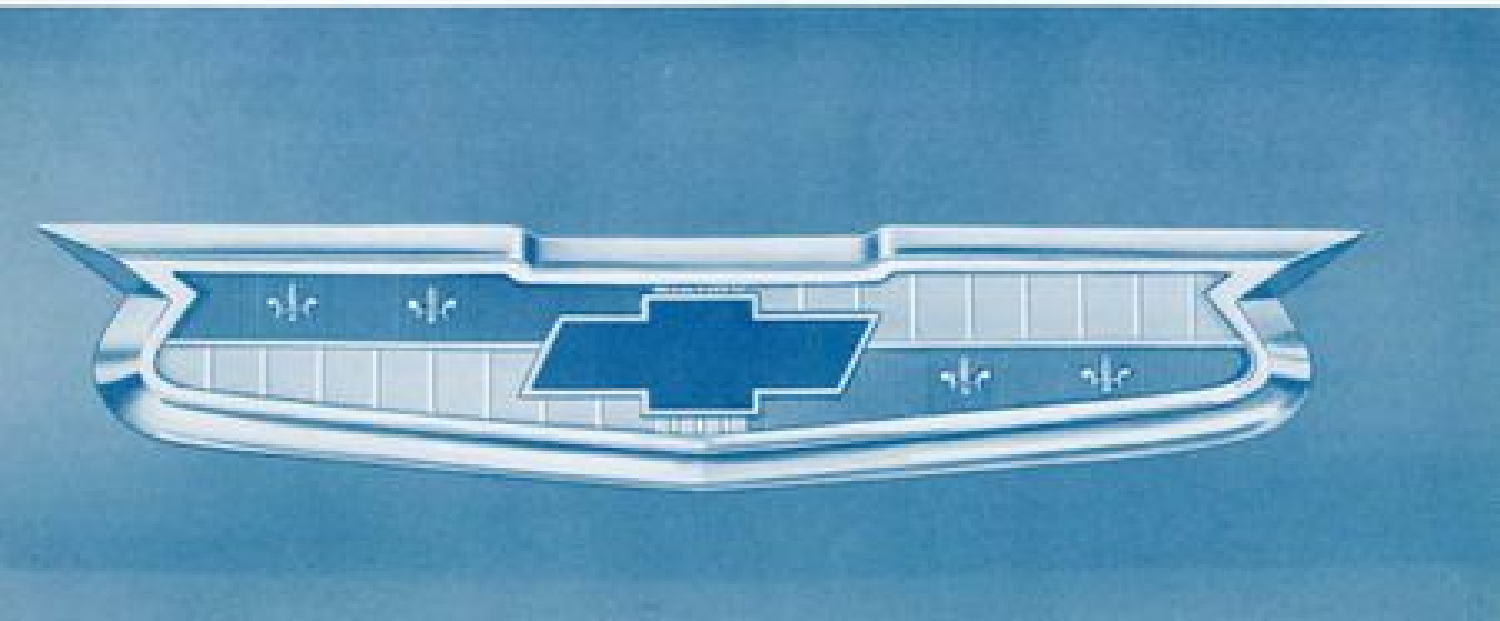
The following pages deal with styling features common to all series. The Series 2400, 2100, and 1500 are then described separately, in that order.

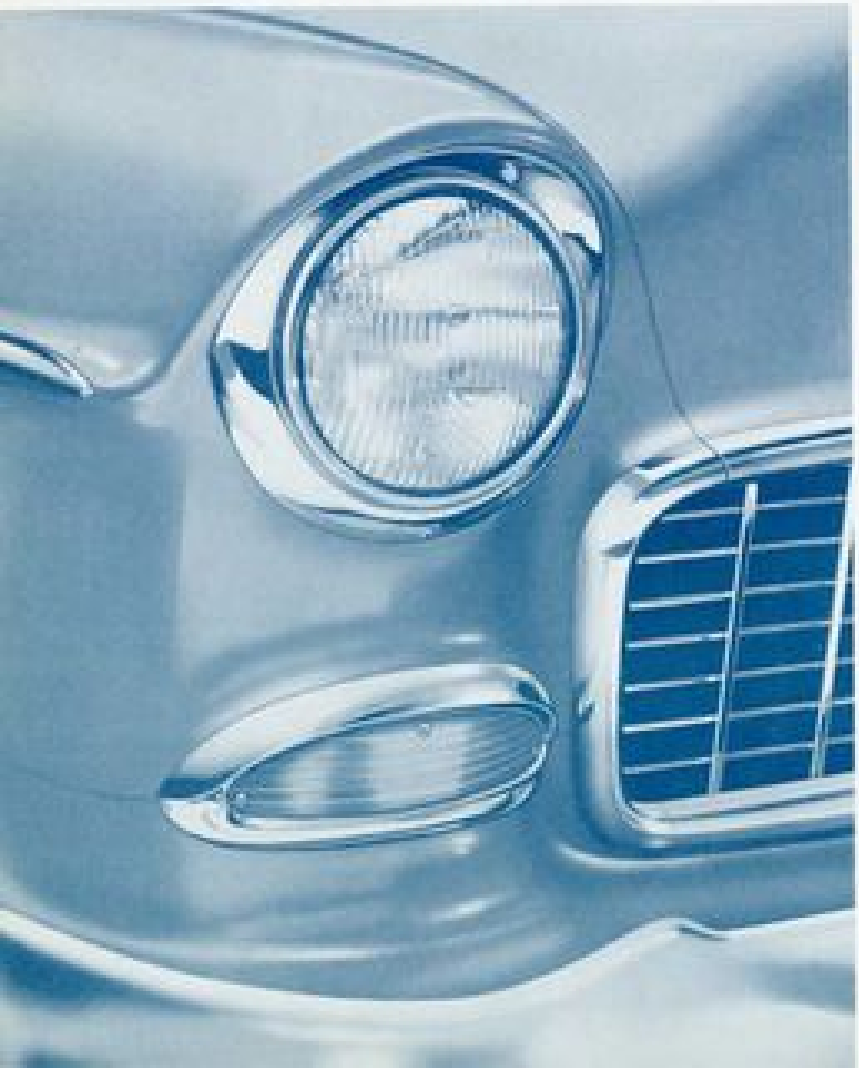


FRONT VIEW . . .
Hood and fender lines combine with the clean cut grille to emphasize the low, wide lines of the new Chevrolet. Gracefully simple, the radiator grille is balanced by the massive styling of the new bumper and bumper guards. The long narrow parking lights and the restyled hood emblem and ornament add distinction to the front-end appearance.

HOOD ORNAMENT . . .
The longer and wider eagle motif hood ornament further accents the wide horizontal lines of the front end styling. The new ornament design features back-swept wings with vertical fins set inboard from the ends.

HOOD EMBLEM . . .
Longer and narrower, the emblem retains the shape of a shield. The outer frame of bright metal encloses a plastic insert containing the blue Chevrolet trademark centered on a field divided into four quarters by silver and gold ribs. The red upper left and lower right quarters each bear two gold fleurs-de-lis. The other two quarters are white with silver vertical ribbing.





RADIATOR GRILLE . . .

Featuring clean cut simplicity, the new grille reflects the mobile look of the new models. Sloping forward, the grille is a lattice pattern of 15 vertical and 7 horizontal bright metal bars. The upper portion of the bright metal bezel framing the grille is attached to and lifts with the hood when opened.

Supplementing the grille design, the new bumpers are wide and massive. The face bar, narrower at the center than at the ends, is set inward following the front end contour; the sloped ends then curve outward before wrapping around the fenders. Bumper guards are also redesigned with the lower half following the inward slope of the bumper and the upper half sloping forward as does the grille.

HEADLIGHT AND PARKING LIGHT . . .

The front fenders extend forward to form hoods over the headlights. The hoods, materially aiding the illusion of length, blend smoothly into the windsplit line on the side of the fender. Headlight bezels curve outward at the top to form a bright metal lining for the hoods.

Parking lights, in keeping with the styling theme of the front end, also slant forward. Framed by narrow bright metal bezels, they are divorced entirely from the grille.

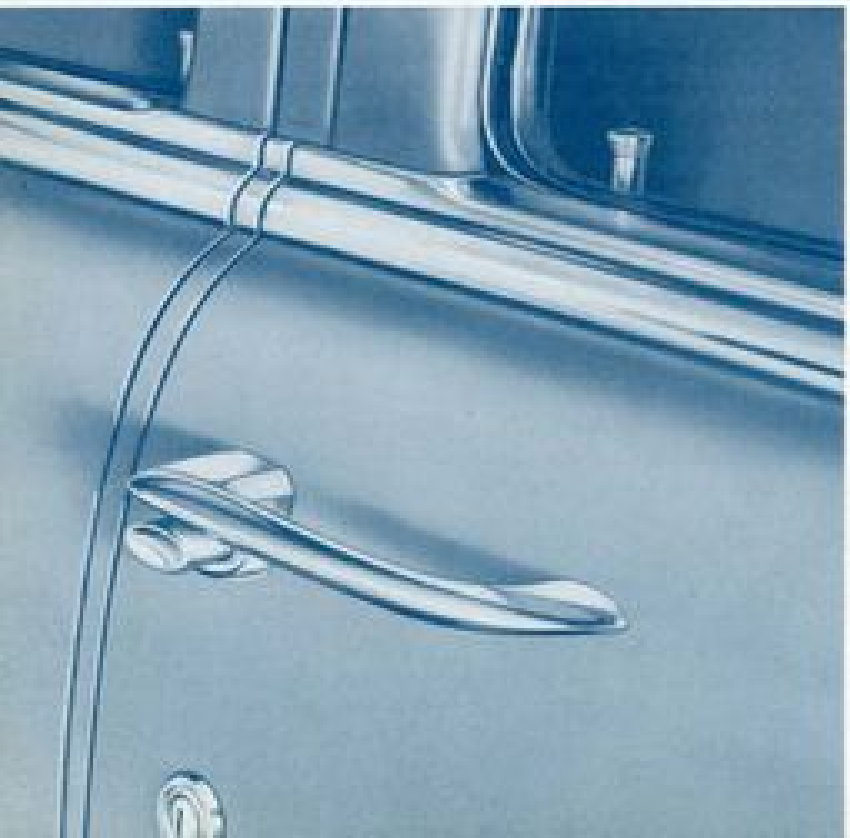
WINDSHIELD . . .
The new wrap-around windshield provides greater visibility and a more open appearance on all models. A bright metal reveal molding frames the windshield on all models except those of the 1500 Series.

VENTIPANES . . .
The front door ventipanes are rectangular in shape to go with the vertical windshield pillars. Framed in bright metal, the ventipanes are crank-controlled.

REAR FENDER . . .

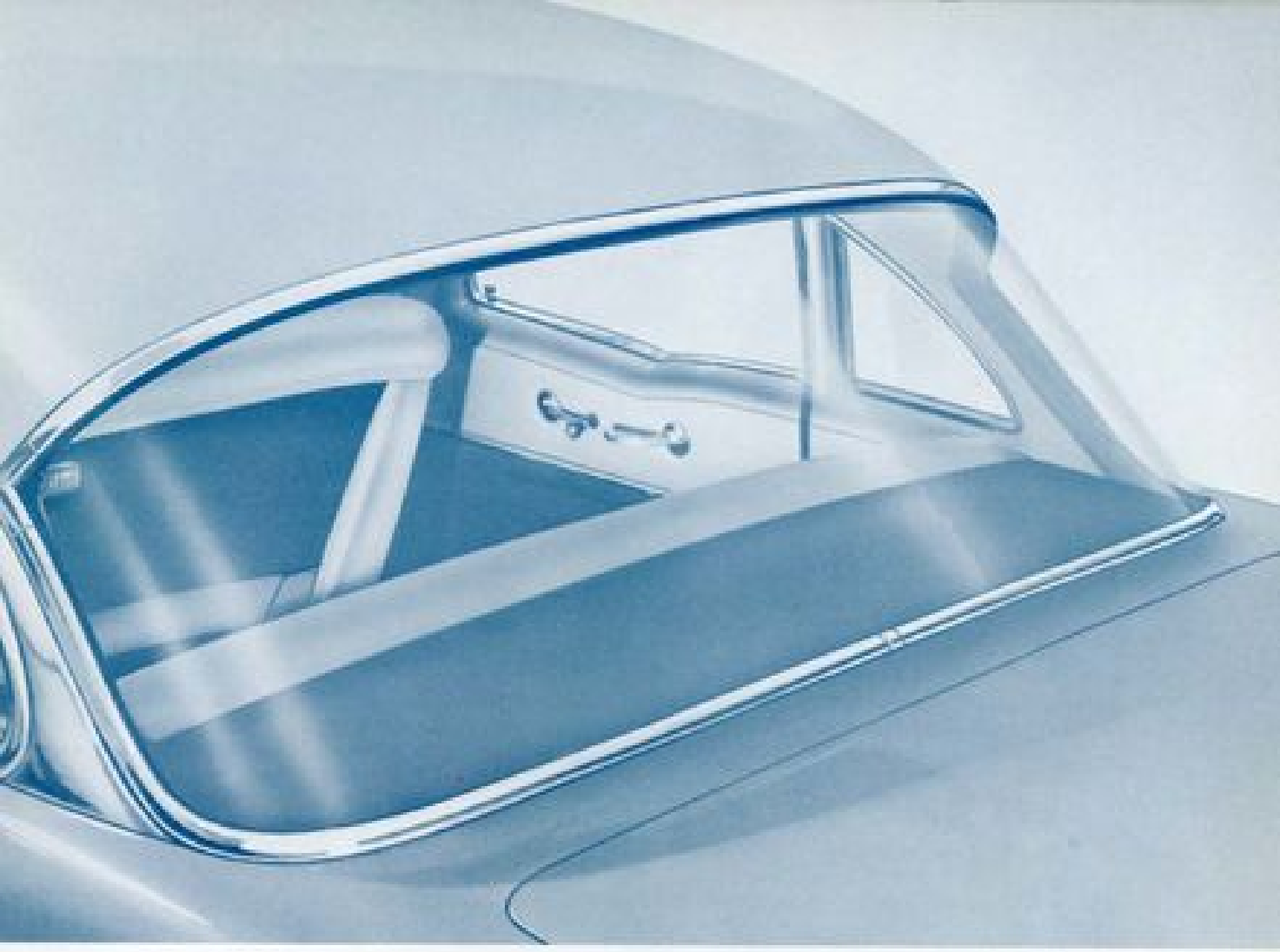
Outlined only by the dip in the belt line, the rear fenders are a continuation of the rear quarter panels. The smooth contour along the entire body side further accents the low silhouette and sleek appearance of the new Chevrolet.

Rear wheel openings are framed by raised beads continued from the front fender along the rocker panel. The rear wheel opening is styled to provide smart appearance without rear wheel cover panels, which are no longer furnished on any model.



DOOR HANDLE . . .

The slimmer, more graceful door handles retain the push button feature. However, the push buttons are offset below the handle for more convenient operation and are thus better shielded from ice and snow. Key locks are relocated to the door panels, approximately four inches below the handle.



REAR WINDOW . . .

The one-piece, wrap-around rear window features a much larger visibility area. Redesigned, with square upper corners, the window is framed by a bright metal reveal molding on models of the 2100 and 2400 Series.

TAIL AND STOP LIGHTS . . .

Integrated with the contour of the rear fenders, the new tail and stop lights further demonstrate the continuity of line which distinguishes the 1955 Chevrolet. Wedge-shaped bright metal bezels enclose the units which are divided into two sections. The upper portion contains the tail and stop lights, as well as the accessory direction signal light. The lower part with the white lens encloses the accessory back-up light. An additional margin of safety is obtained from the tail light design which permits them to be seen more readily from the side. A reflex button in the tail light lens provides a reflecting surface.

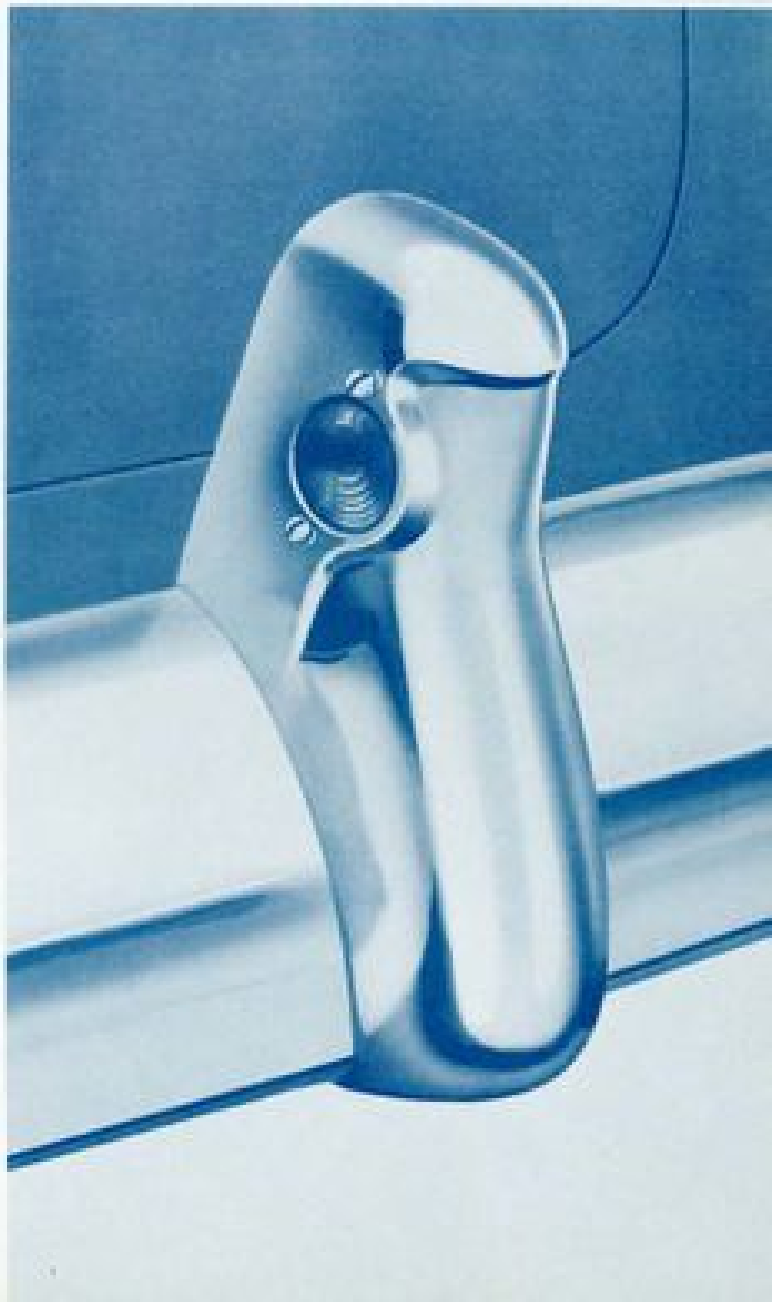
REAR VIEW . . .

The rear end of the 1955 Chevrolet capably enhances the styling theme of greater length, width and a lower silhouette. The broad expanse of the deck lid upper surface augments the horizontal lines of the belt and rear fenders as well as emphasizing the width characteristics of the new models. Curving abruptly downward, the vertical surface of the deck lid contains the handle, key lock and the license plate bracket.

The front bumper design is duplicated for the rear, with the broad center section deeply recessed before curving outward and around the fenders.

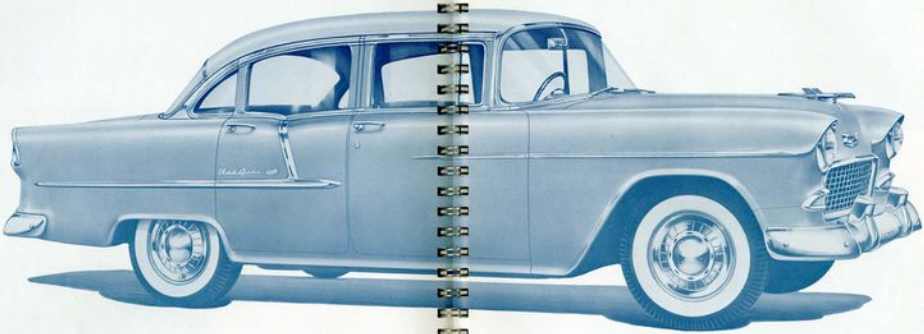
Models equipped with the optional V-8 engine are distinguished by a bright metal V emblem located below each tail light.

DECK LID HANDLE . . .
The shield design and styling details of the hood emblem are duplicated for the deck lid handle. However, a recessed section along the lower edge provides a finger grip for easy opening of the counterbalanced deck lid.



REAR BUMPER GUARDS . . .
The license plate is illuminated from either side by lights located in each of the rear bumper guards. The front and rear bumper guards are identical in shape.

SERIES 2400 4-DOOR SEDAN



SERIES 2400

The five models in Series 2400 carry their special imprint of extra luxury and an exclusive appearance.

The smart new rear fender decoration includes a wide side molding with a full length groove painted Winter White, and the Bel Air nameplate and crest located at the forward end of the molding. Window openings are generously trimmed with bright metal moldings adding to the light, open appearance of the upper part of the body. Bright metal wheel disks and front fender moldings also are included.

SPORT COUPE . . .

The belt line at the door and rear quarter window has no suggestion of a vertical surface, this area being covered by a flat bright metal saddle molding. Bright metal surrounds the entire window area, including the portion between the ventipane and the windshield.

A new beauty feature is an extension of the two-tone color treatment in which the rear deck and the entire upper portion of the rear fender down to the fender molding and as far forward as the sash molding are painted the same color as the top. This treatment is offered in addition to the usual two-tone and solid color schemes.

WHEEL DISKS . . .

All models of Series 2400 are distinguished by full-width wheel disks featuring wide conical spinners in the center. Eight Chevrolet trademarks on a Winter White background surround the spinner within the radial flutes at the outer periphery.

A new, more positive method is used to attach the disk to the wheel. Replacing the sharp edged fingers on the back of the disk is a continuous bead which snaps into place past four raised lugs on the wheel rim. This provides a more secure attachment of the disk to the wheel, yet permits frequent removal without distortion.

CONVERTIBLE . . .

As on the Sport Coupe, the low silhouette and the long appearance is emphasized by the downward slope of the belt line. This feature, coupled with the lower hood and rear deck heights contributes to the dashing look of the new car.

Appearance of the car with the top lowered is particularly sleek since the top is designed to stow practically flush with the top of the well. Thus, the bulge with the boot installed is negligible, providing a smooth, clean cut top line forward of the rear deck.

With the same contrasting rear deck and fender treatment available as it is in the Sport Coupe, the Convertible has now, for the first time, a two-tone effect of its own.

To provide a neat color separation, an ornamental molding, consisting of eight narrow grooves painted Winter White on a chrome background, is added to the lower part of the rear fender.

STATION WAGON . . .

Station wagon models of all series exhibit an entirely new appearance for 1955 with large reductions in overall height and wrap-around rear quarter windows, in addition to the main features already described for the other body styles.

The four-door model in the 2400 Series is readily identified by the same distinctive front and rear fender treatment as on the other Series 2400 models. The diagonal sash molding, however, is replaced by a bright metal wing attached to the rear fender molding since station wagons have a straight belt line. Bright metal moldings border the window areas, one encircling the body along the belt line and another beneath the drip molding.

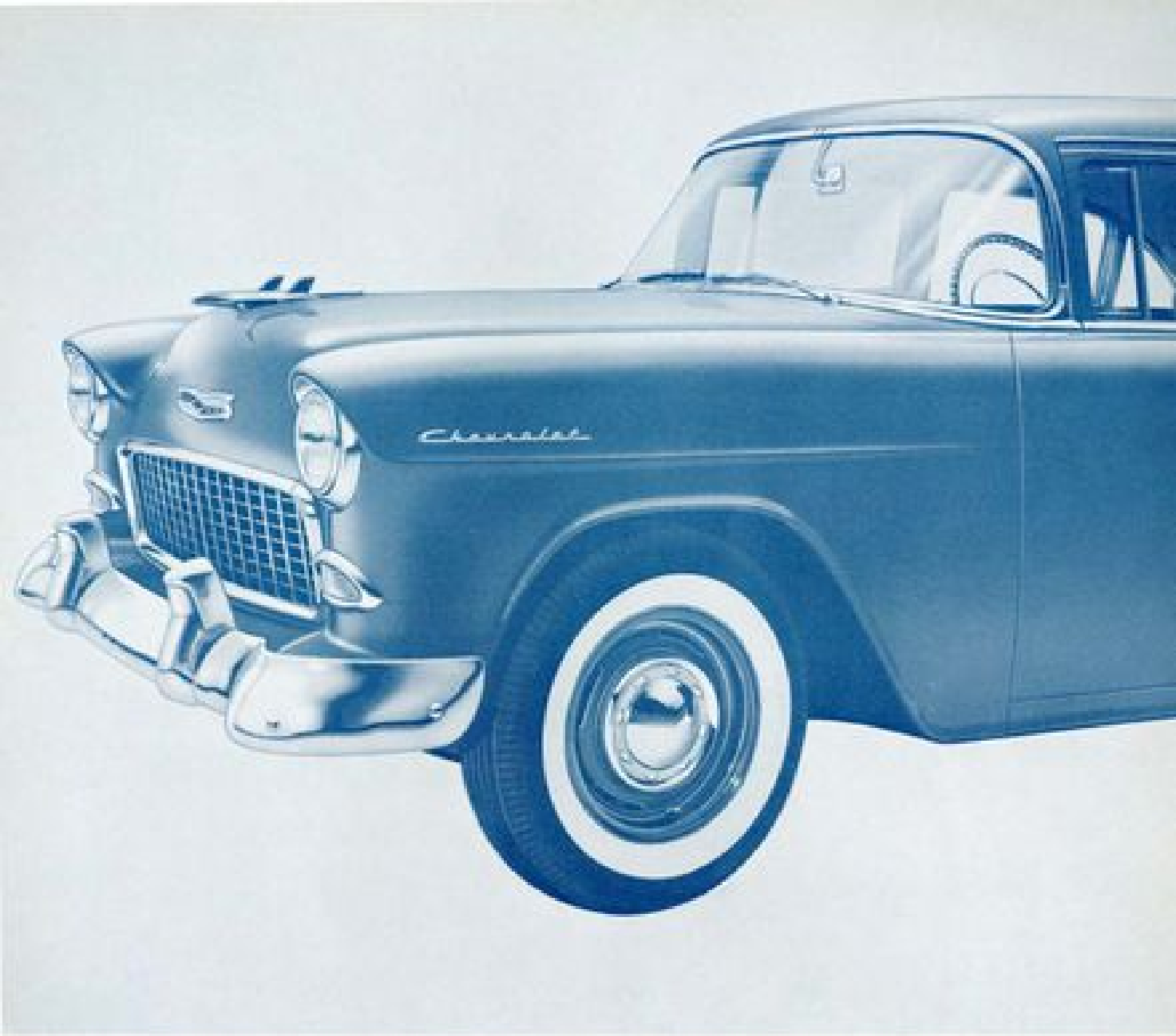
SERIES 2100 4-DOOR SEDAN

SERIES 2100

Models of the 2100 Series incorporate many of the styling refinements of the 2400 Series. The five models comprising the series are readily identified by the new hub caps, rear fender molding, front fender nameplate, windshield and rear window reveal moldings, and a bright metal side window sill molding on the sedans and club coupe.

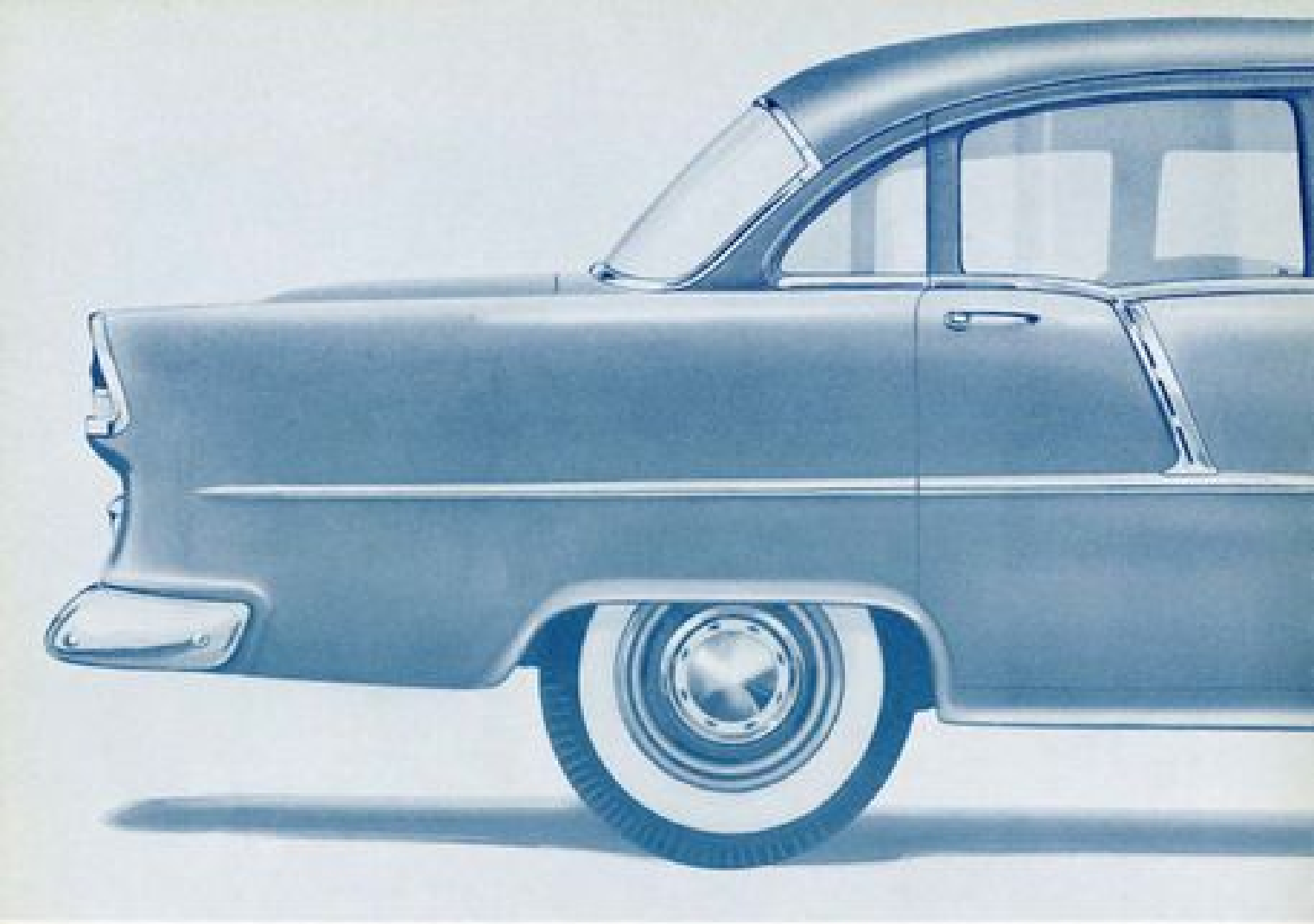
SIDE WINDOW SILL MOLDING . . .
Enhancing the belt line of sedans and the club coupe, a bright metal side window sill molding extends along the belt to the rear edge of the quarter windows. A raised embossment continues upward to surround the entire side window area. Bright metal reveal moldings frame the windshield and rear windows.

HUB CAPS . . .
All models of the 1500 and 2100 Series are equipped with stainless steel hub caps, featuring a wide conical spinner in the center. The spinner is encircled by an embossed band painted Winter White, which carries eight bright metal Chevrolet trademarks. A single stripe on the rim completes the wheel decoration on these models as before. An Onyx Black stripe is used to contrast with light wheel colors and Argent Silver is used with dark colors.



FRONT FENDER . . .

As on Series 2400, the horizontal fender crown extends forward to form a hood over the headlights. The fender hood then blends smoothly into a windsplit line running rearward along the fender side. An identifying bright metal nameplate consisting of the word "Chevrolet" in script is located on the forward section of the fender, above the windsplit. The raised flange wheel openings on all models contribute to the identity of the new vehicle.



REAR FENDER . . .

Highlighted by the spear-type bright metal molding extending along the entire side, the rear fender defines the long, clean-cut lines of the 1955 Chevrolet. The fender molding is intersected by a diagonal sash molding as on Series 2400 models. Indentations in the sash molding are filled in with black paint to simulate air intakes.

The gasoline filler door, located in the left rear fender of all models including the station wagon is hinged at the front to improve accessibility.

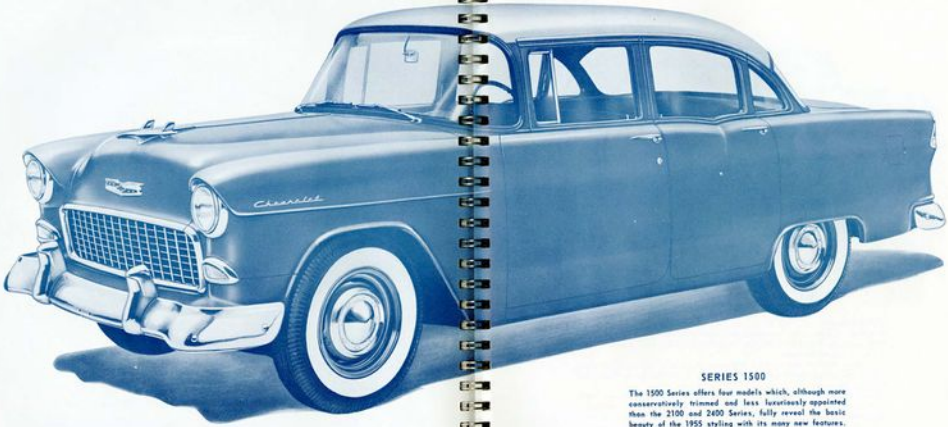
STATION WAGONS . . .

The Series 2100 station wagons, offered in both two-door and four-door models, encompass most of the styling features found on the sedans, as well as some dictated by the functional qualities of the vehicle. Belt and header moldings, extending across the tail and lift gates and around the body, frame the side and rear windows. The wrap-around rear quarter windows eliminate the rear corner panels, increasing visibility and adding to the appearance of the vehicle.

The forward portion of the rear quarter window on two-door models lowers into the body, while the four-door models offer a similar provision for ventilation with the dropping rear door windows.

An indentation in the center section of the rear bumper accommodates the license plate which is illuminated by lights located in each bumper guard. To permit lowering of the tail gate, the bumper guards are shorter than on other models. Tail gate identification repeats the hood emblem design in place of the former "Chevrolet" in script.

SERIES 1500 4-DOOR SEDAN



SERIES 1500

The 1500 Series offers four models which, although more conservatively trimmed and less luxuriously appointed than the 2100 and 2400 Series, fully reveal the basic beauty of the 1955 styling with its many new features.

All of the most important bright metal components of the other two series are also used in the economy models. These include the radiator grille, front and rear bumpers, bumper guards, headlight bezels, hood ornament and emblem, tail light bezels, and the door and deck lid handles. Identifying features include the same front fender nameplate and hub caps as used on the 2100 Series.

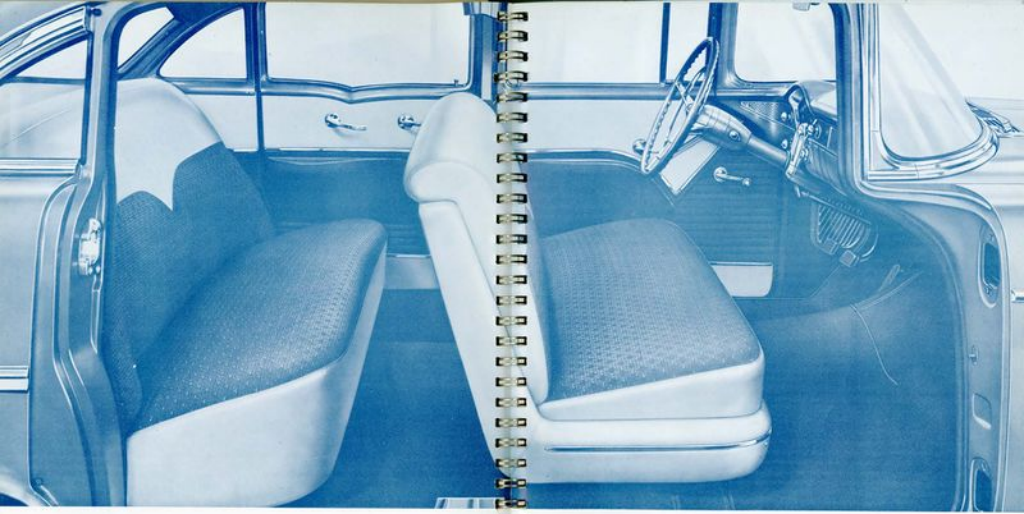
STATION WAGON . . .

Providing the same utility, roominess and convenience as its counterpart in the 2100 Series, the Series 1500 two-door station wagon differs from it only in items of trim and regular equipment.

Increased visibility and an open appearance is provided with the wrap-around windshield and rear quarter windows. Both portions of the rear quarter window are stationary, however.

Bright metal components include all those provided for other vehicles in the 1500 Series. As on other station wagon models, the rear bumper is indented to accommodate the license plate and the guards are shorter to permit opening of the tail gate. A total of five exterior color combinations is available on this vehicle.

INTERIOR STYLING



THE 1955 INTERIOR

Luxurious new interiors complement the advanced body styling of the 1955 Chevrolet. A sense of spaciousness and open comfort derives from the new wrap-around windshield, considerable increases in general glass area, and a gain in interior width.

A completely new instrument panel designed to follow the contour of the windshield, a new deep hub steering wheel, concentric gearshift control shaft concealed within the steering column, relocation of the controls for greater convenience, and suspended brake and clutch pedals are some of the features which provide an extremely smart and functional front compartment for all passenger cars in 1955.

A new selection of the latest fabrics, and new textures in the coated fabrics, vinyl and elascofab, all used in striking color combinations, bring special beauty to the 1955 interiors. The blending of these new materials is especially effective in the treatment of the sidewalls and seats, the backs of which are slightly rounded rather than square for a more graceful appearance. A completely folding rear seat increases the length of the load platform in the station wagons.

The front door ventipanes are controlled by the same convenient crank-type control as on previous models. Door and window regulator handles are of the same attractive low hub design as before.

Other new features of the interior include a new, round dome light which can be operated from the instrument panel, a centrally located glove compartment, and easily accessible control knobs.

INSTRUMENT PANEL . . . .

The instrument panel carries through the contemporary character of the 1955 styling and effectively complements the car's advanced exterior appearance.

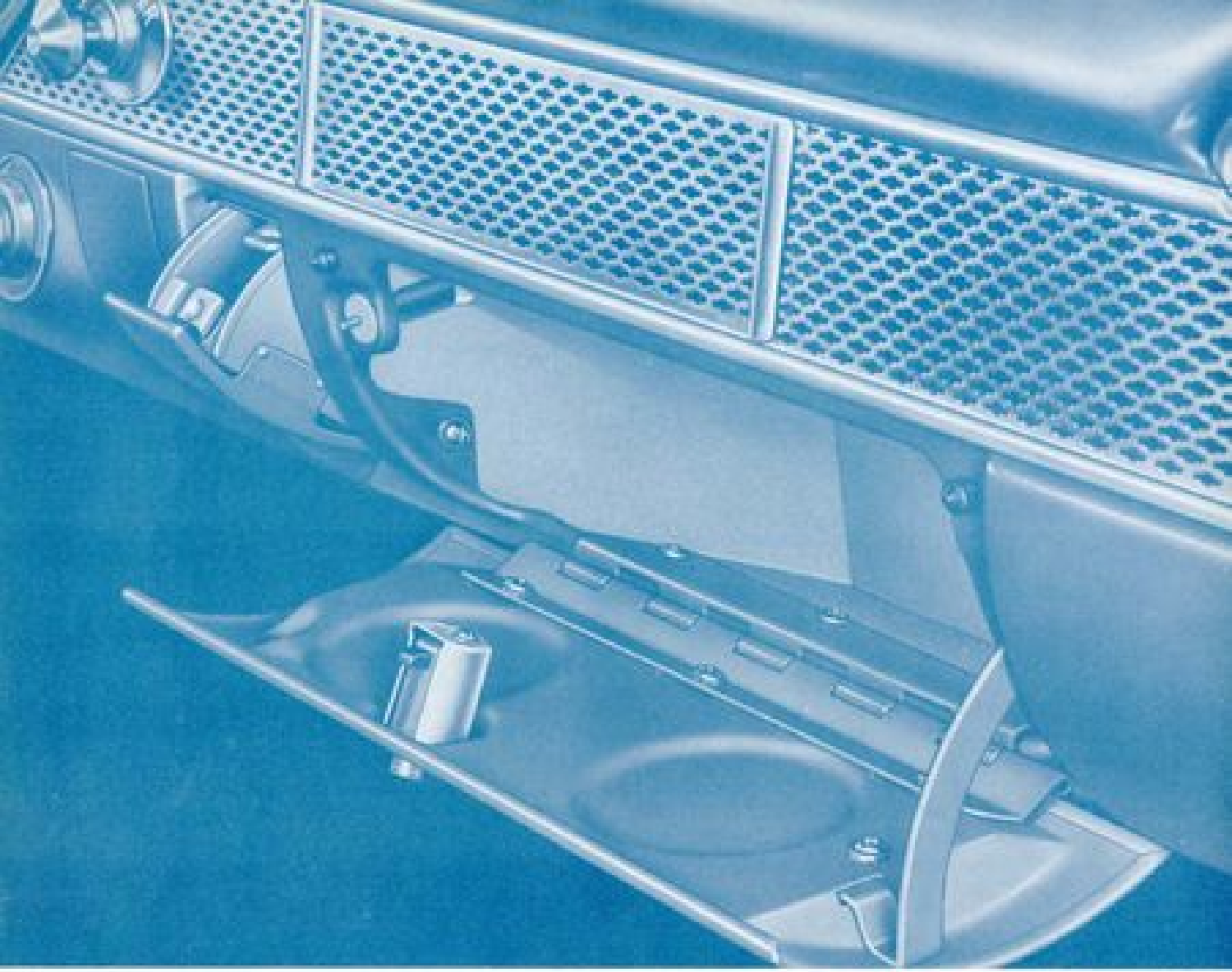
Many new features contribute to the striking effect of the new panel. The Powerglide indicator dial is located in the instrument cluster. Interior lights are operated from the instrument panel by the headlamp switch. Warning lights located in the instrument cluster replace the conventional ammeter and oil pressure gauge. The glove compartment is centrally located for greater convenience to the driver.

The wide overhanging crown spanning the entire width rises to form hoods over both the instrument cluster and radio grille. The quadrant shaped instrument cluster, located directly in front of the steering wheel, is balanced on the passenger side of the instrument panel by the radio grille. An electric clock is standard equipment on models of the 2400 Series, while a decorative plate covers the clock provisions on models of the other series. Further identifying the 2400 models, a gold-plated Bel Air nameplate in script is located on the radio grille, replaced on the Series 1500 and 2100 by the word "Chevrolet" in bright metal.

Control knobs are redesigned and relocated. To the left of the instrument cluster is the main light switch which also controls the brilliancy of the instrument lights as well as the dome light. Below and slightly inboard from the light switch is the windshield wiper control. To the right of the instrument cluster is the cigarette lighter, standard equipment on Series 2100 and 2400, while directly below the lighter, a panel covers the provisions for the accessory heater controls. To the left of this panel is the ignition lock, again featuring key-turn starting. Control knobs on the instrument panel of Series 2400 have a black plastic escutcheon surrounded by a narrow rim of bright metal. White letters on the black background indicate the function of each control. Black plastic knobs, located below and at either side of the instrument panel of all models, control the air intakes. The black plastic T-handle of the parking brake is relocated to the left of the steering column for greater convenience. To the left of the glove compartment is the ash tray, on Series 2400 and 2100 only, while above it are provisions for the accessory radio.

Two-tone instrument panels with a dark tone crown and lower portion are provided for all series. The center section, or insert, is light tone on Series 1500 and 2100 however, and bright metal embellished with black Chevrolet trademarks on the more luxurious 2400 Series models.

The instrument cluster, framed by bright metal, highlights the speedometer which extends across its full width. An overall color pattern of white letters, numerals, graduations and pointer on a dull black background is followed for the speedometer as well as for the temperature and gasoline gauges located above it. The red warning lights, located below the speedometer on a black perforated background, flash on when oil pressure or generator output drop below the normal road condition. The high-beam indicator, red when lighted, is in the shape of a Chevrolet trademark, above the odometer. Green direction signal arrows are at either upper corner of the quadrant. The Powerglide indicator dial, a part of the instrument cluster, is replaced by a bright metal insert on vehicles not so equipped.



GLOVE COMPARTMENT . . .

The utility of the centrally located glove compartment is further increased by its design. The inward and forward-sloping walls place the floor of the compartment considerably below the level of the door lower edge, thus providing a more secure stowage for small, loose articles.

In addition, a convenient shelf is provided by the inner surface of the door which, when fully opened, is a flat horizontal surface augmented by two round depressions.

STEERING COLUMN . . .

A neater, more integrated appearance results from the use of a new concentric-type gearshift control shaft which is housed within the steering column. As the switch for the accessory signal is also of concentric design, only the gearshift and direction signal control levers extend from the smooth surface of the column.

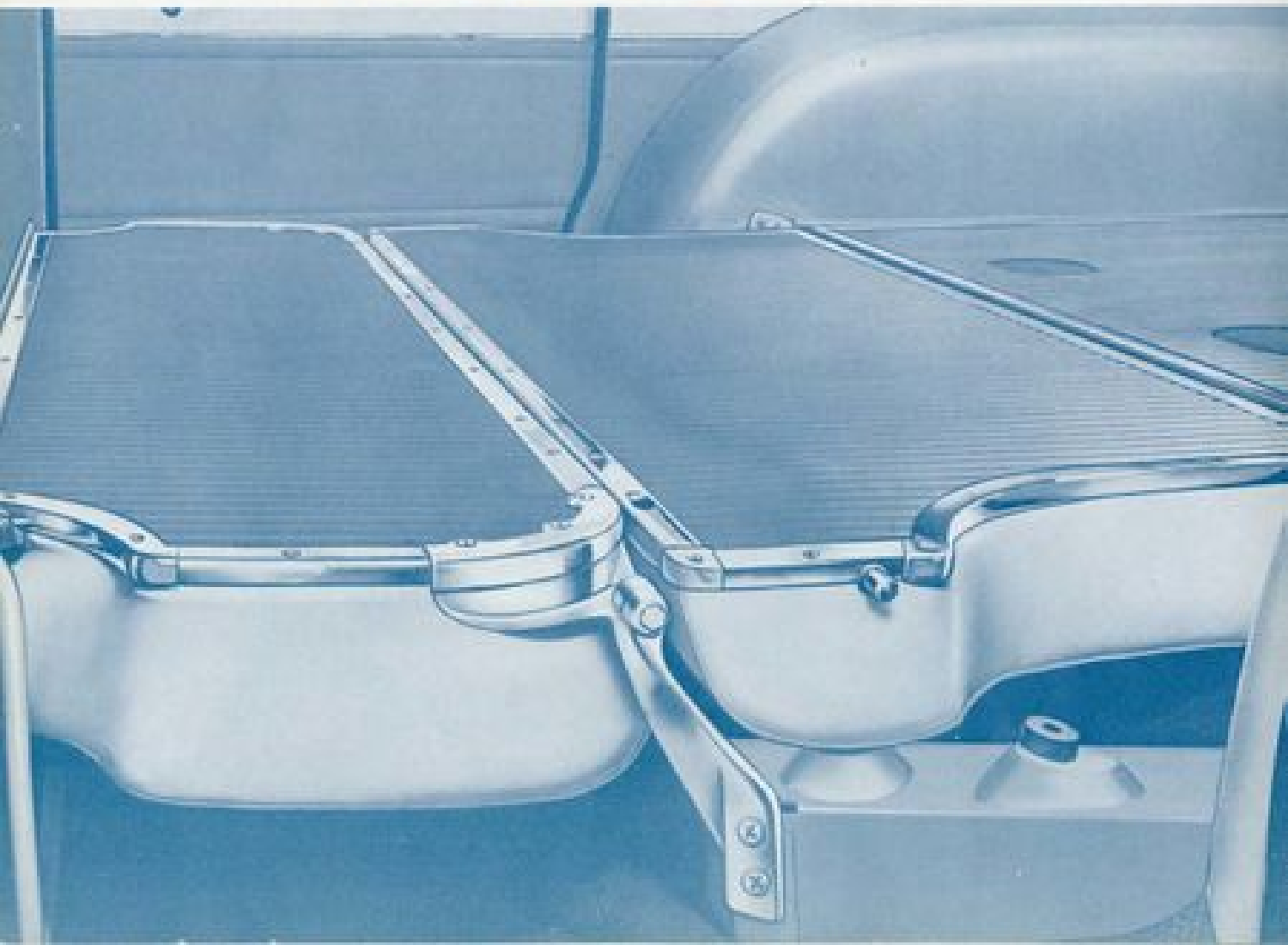
SEAT STYLING . . .
The new seat styling portrays the luxury of the interiors. With well-rounded contours for a deep cushioned appearance, the seats feature two-tone trim for all models. Upholstery materials include new fabrics and pattern cloths as well as the durable and stylish elascofabs and vinyls available in many combinations and new vertical-ribbed design, continues to be mounted on the back of the front seat on models of the 2100 and 2400 Series.

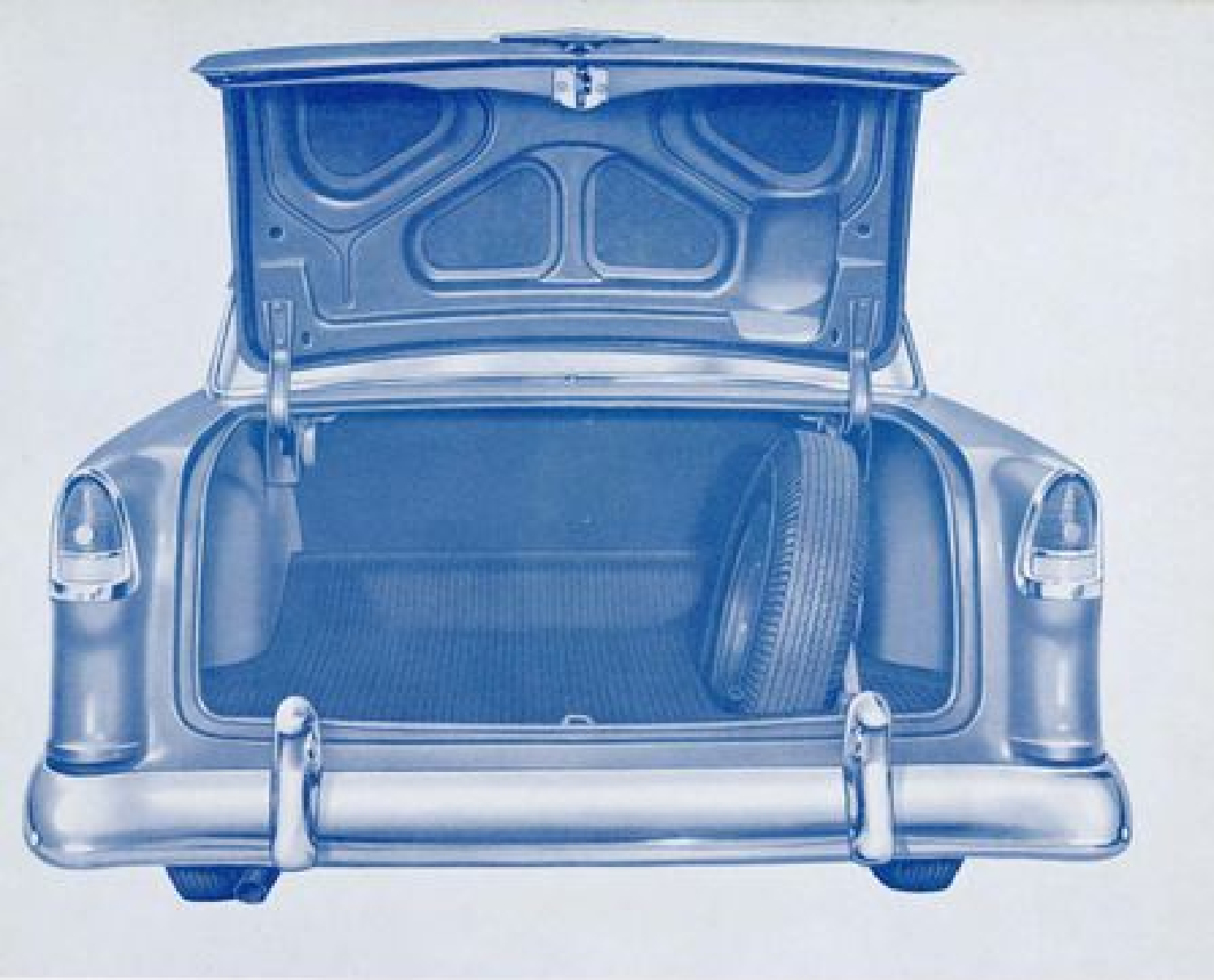
DOME LIGHT . . .

The new circular dome light, framed by a bright metal bezel, is standard on all models except the Sport Coupe and Convertible. Featuring greater operating convenience, the light is controlled by automatic switches at all doors of Series 2400 models and front doors only of models in the 2100 Series. In addition, the light may be turned on or off by the combination headlight and dome light switch located on the instrument panel.

STATION WAGON REAR SEAT . . .

All station wagon models feature a completely folding rear seat. Both the backrest and seat cushion fold flat and become part of the load platform, thus increasing the maximum length of the floor 10-1/2 inches over previous models.





LUGGAGE COMPARTMENT . . .

The 1955 Chevrolet reveals a roomy and convenient luggage compartment. Drastic styling changes, with a lower deck lid, necessarily entail a reproportioning of the compartment. However, the usable capacity, which totals 20 cubic feet in volume for sedans, is only slightly decreased.

A new feature of the luggage compartment is the convenient method of rattle-free tool and tire stowage. The combination jack handle and wheel wrench fits into the wheel well, with the tire. One end of the jack column fits into a socket on the compartment floor and the other is cradled in a bracket welded to the sidewall. The tire and wheel is then pulled taut against the jack by a wing nut, using the jack base as a clamp.

Metal panels painted lower body color form the sidewalls of the luggage compartment, while the front wall is of black composition board and the floor is covered by a black rubber mat.

SEDANS . . .

Seats are tailored in a combination of smart pattern cloth and leather grain elasco-fab which well expresses the interior elegance of the 2400 Series sedans. Continuing the two-tone effect, a blend of gabardine flat cloth, elascofab and vinyl is used on the smartly tailored sidewalls which again feature built-in arm rests. Carpeting, covering the floor of both the front and rear compartments, contributes an additional touch of luxury.

To harmonize with the exterior colors, the interiors are available in two-tones of green or blue, brown and beige, turquoise and ivory, or coral and gray.

SERIES 2400

Special luxury characterizes the interiors of models in the 2400 Series. The smart seat tailoring reveals new double arch bolster styling which blends smoothly with the new pattern cloths and coated fabrics of the cushions and backrests.

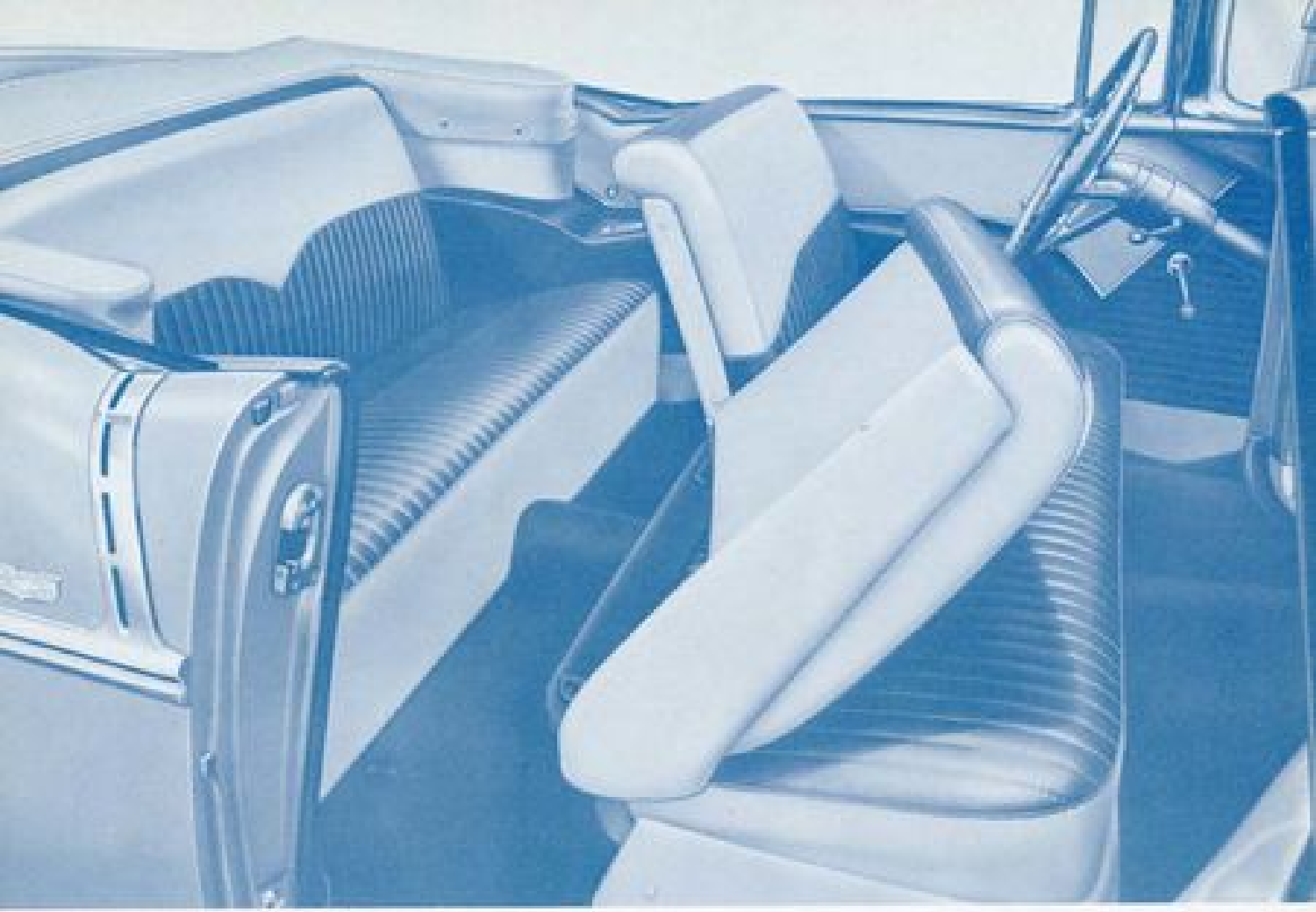
Particularly distinctive is the sidewall styling. A bright metal molding, in the shape of a flat V on the front door and sweeping rearward, divides the light and dark tone fabrics of the sidewall trim. Center panel material is continued onto the sides of the built-in arm rests which are installed on the doors of all models in the 2400 Series except the station wagon rear doors. Eighteen interior trim combinations, divided among the five models in the series are keyed to the exterior colors.

The instrument panel has exclusive features and special trim in keeping with the individual elegance of the 2400 Series models. The five cars of the "luxury" series are distinguished by a bright metal center insert on the instrument panel, the series designation "Bel Air" in gold-plated script on the radio grille, and bright metal control knobs. In addition to the cigarette lighter, ash tray, and glove compartment light, found also on the 2100 Series, the 2400 Series carries an electric clock as standard equipment. Further identifying the interior of the 2400 Series is a steering wheel of three spoke design, with a gold-plated emblem, and a distinctive bright metal horn ring. Interior lights are operated by automatic switches on all doors.

SPORT COUPE . . .

The dashing lines of the Sport Coupe are enhanced by the distinctive interior trim. New and durable straw pattern cloth is used on the cushions and backrests, complemented by the leather grain elascofab of the bolsters and facings. The all-vinyl sidewall styling repeats the seat colors.

Generous use of bright metal further accentuates the ultra-smart interiors. Included are the exposed roof bows, rear window molding, interior light bezels and the upper part of the side window molding. Floors of both the front and rear compartments are covered by carpet. Interior trim combinations are available in coral and gray, or beige with green, blue red or turquoise.



CONVERTIBLE . . .

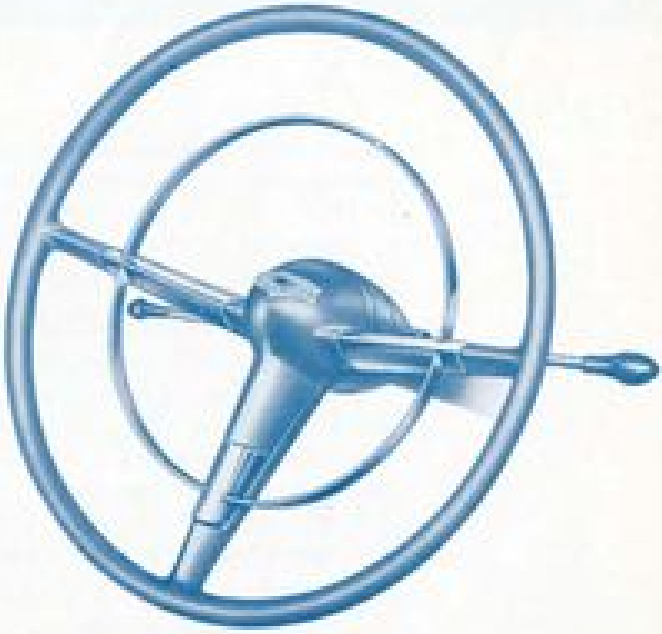
The striking interiors of the 1955 Convertible are available in six color combinations all of which feature seat trim entirely of elascofab with the rich appearance of top grain leather. The smartly styled seats have ribbed cushions and backrests, detailed by white saddle stitching. Carpeting covers the front and rear compartment floors.

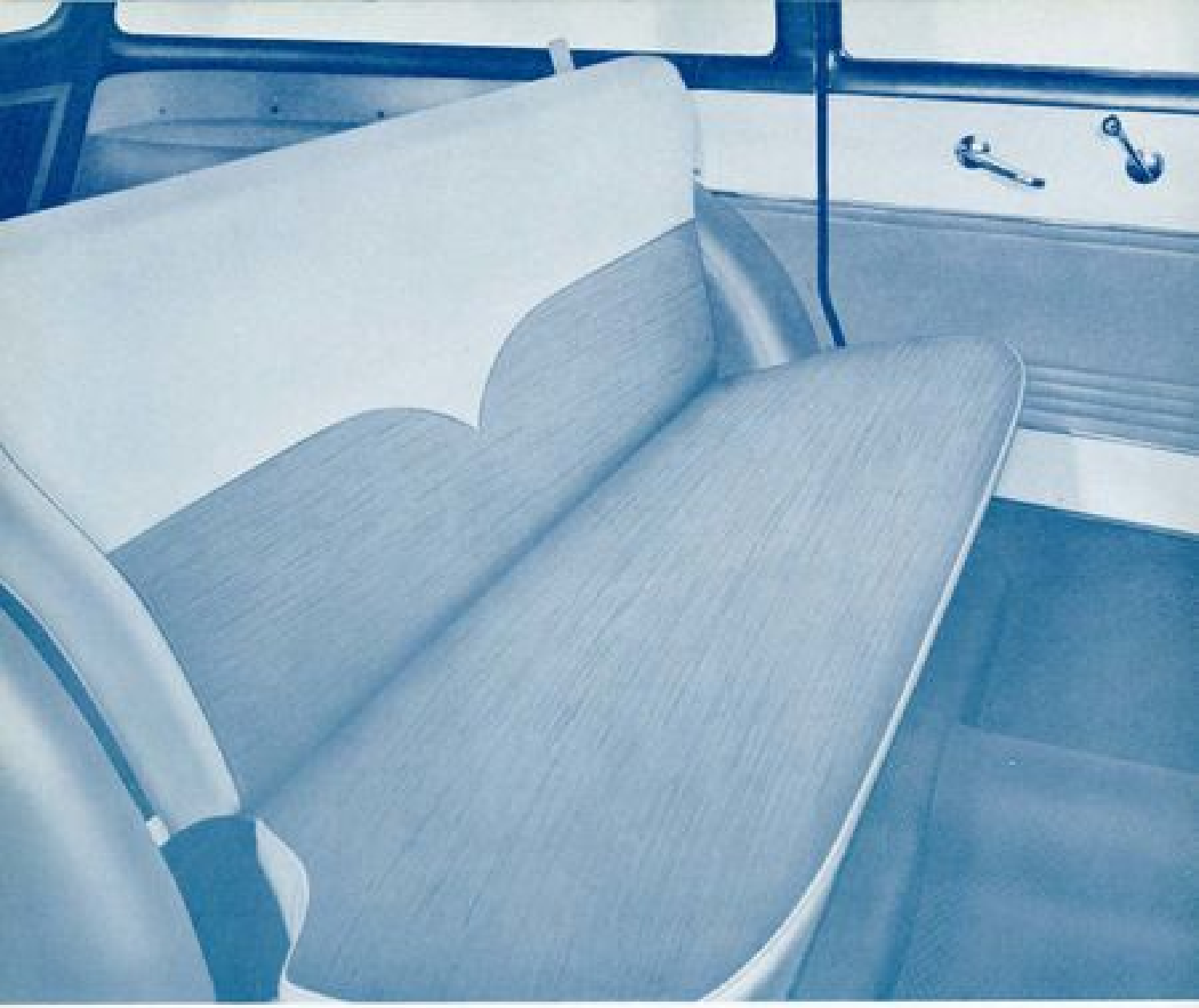
An added note of distinction is provided with the bright metal molding at the windshield sides and top which is well displayed when the top is folded.

STEERING WHEEL . . .

The three-spoke design of the new steering wheel features a deeply recessed hub on a plane considerably lower than that of the rim. The conical hub, blending into the three spokes rising upward to the rim, is trimmed with a gold-plated miniature emblem, similar in design to those used on the hood and rear deck lid. This emblem is replaced with a gold-plated V emblem on models with the optional V-8 engine.

The spokes of the full-circle horn ring partially cover the spokes of the steering wheel, adding a decorative bright metal touch to the overall design.





STATION WAGON . . .

Combining outstanding versatility with the distinguished appearance of other models in the 2400 Series, the station wagon features interiors similar to those of the Sport Coupe. Cushions and backrests are in the new straw pattern cloth with bolsters in either blue or beige leather grain elascofab. All vinyl sidewalls and headlining complete the interior trim. Colored rubber mats cover the front and rear passenger compartment floors.

A new feature of the station wagon in the 2400 Series is the built-in arm rests on the front doors, as on other vehicles in the same series.

LOAD COMPARTMENT . . .

The pleasing trim of the passenger compartment is complemented by the styling treatment of the cargo space at the rear. Sidewall upholstery is continued into the rear quarters, with the wheelhouses covered by leather grain vinyl. The load compartment floor, including the back of the rear seat backrest and bottom of cushion, as well as the tail gate, is covered by ribbed linoleum, in dark beige. Bright metal moldings bind the front edges of the load compartment as well as frame the spare tire well cover.

New tail and lift gate hinging and locking provide increased efficiency in 1955. The lift gate, on slender goose neck hinges, can be held open in two positions by new supports which hold it in either a horizontal position for ventilation or considerably above horizontal to facilitate loading.

The tail gate features two exposed hinges replacing the full-width hinge of previous models. The supports consist of steel cables which retract into the body on spring loaded reels when the tail gate is shut. New ratchet locks, operated only from the T-handle on the outside, keep the tail gate closed which in turn locks the lift gate with a slot and pin arrangement. Thus the tail gate is opened first, which then permits the lift gate to be opened.

SEDANS . . .
All-vinyl sidewalls are combined with full cloth seat trim in the smart, modern interiors of the two and four-door sedans of the 2100 Series. Pattern cloth of the cushions and backrests is blended with gabardine ripple weave cloth on the bolsters and facings. The front and rear compartments utilize rubber mats as floor covering.

Interior color schemes available are two-tone combinations of green, blue or brown.

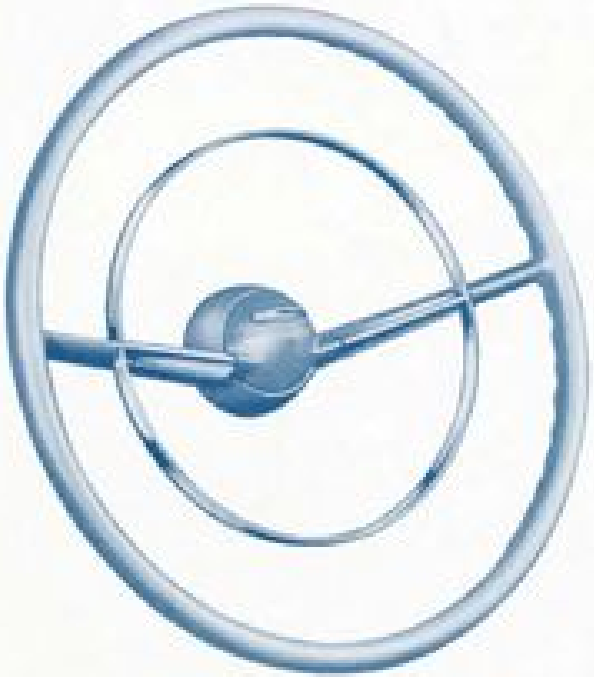
SERIES 2100

The smart two-tone interiors of all models in the 2100 Series reveal new beauty for 1955.

The instrument panel, with its quadrant-shaped instrument cluster and centrally located glove compartment, has the crown and lower portion painted in dark tones while the center section is light tone paint. A distinctive note is added with the word "Chevrolet" in script on the radio grille. Control knobs of black plastic trimmed in bright metal provide the same convenience as on the luxury models. A decorative bright metal plate covers the clock provisions below the radio grille. All models of the 2100 Series have a cigarette lighter, ash tray and glove compartment light. The new steering wheel and the concentric steering column accent the contemporary styling.

The tailored seat and sidewall trim is carried out in new pattern and plain body cloths as well as the durable and good looking coated fabrics. The all-vinyl sidewalls again have the applied-type arm rests.

Other features of the 2100 Series are automatic light switches at both front doors, two sun shades, and rear seat ash trays on sedans and coupes.



STEERING COLUMN . . .
The steering wheel of Series 2100 models is of the same recessed hub design as that of Series 2400, but two spokes only angle upward and outward to meet the rim. These are partially covered by the bright metal spokes of the horn blowing ring, giving the wheel a rich appearance. A chrome plated emblem, resembling the hood and deck lid emblems in miniature, is superimposed on the hub and is replaced by a bright metal V emblem on models with the optional V-8 engine.

CLUB COUPE . . .

The Club Coupe for 1955 continues the all-vinyl upholstery treatment successfully introduced on the previous model. Available in either blue or green combined with beige, or black and ivory, an even more striking effect is gained with the two-color, leather grain elascofab trim of the front and rear seats. Cushions and backrests are accented with white saddle stitching which forms large square panels for a tufted design. All vinyl sidewalls match the seats in color. Carpeting, front and rear completes the interior trim.

STATION WAGONS . . .

The attractive interiors of both the two and four-door station wagons in the 2100 Series are similar in appearance. Vinyls with an embossed steerhide stitched effect are featured on the cushions and backrests. Bolsters and facings are of elascofab with a leather grained finish.

Rubber mats cover both the front and rear passenger compartment floors while dark beige ribbed linoleum is used for the load space. Interior trim combinations are available in a two-tone green, beige and brown or blue and beige.

SERIES 1500

Smart two-tone interiors with gray and black seat and sidewall upholstery are used in all sedans, while the station wagon offers a choice of two trim combinations entirely in vinyl and elascofab.

The two-color styling is continued in the instrument panel. With the same modern, functional styling and convenience of other series, the panel of the 1500 models features the centrally located glove compartment, the new instrument cluster, and the parking brake handle at the left of the steering column. All control knobs are of black plastic. Provision is also made for the installation of the cigarette lighter as well as an ash tray, electric clock, glove compartment light, radio and heater.

Together with a new steering wheel and the gearshift shaft concentric with the steering column, the interior is an excellent example of utility combined with an extremely smart appearance.

SEDANS . . .
The interior treatment of Series 1500 sedans features cushions and backrests of a new gray pattern cloth which is highlighted by vertical rows of raised chevrons. Contrast is provided by the black elascofab bolsters, and the all-vinyl sidewalls match the seat trim in color and design. Floor mats are textured black rubber.

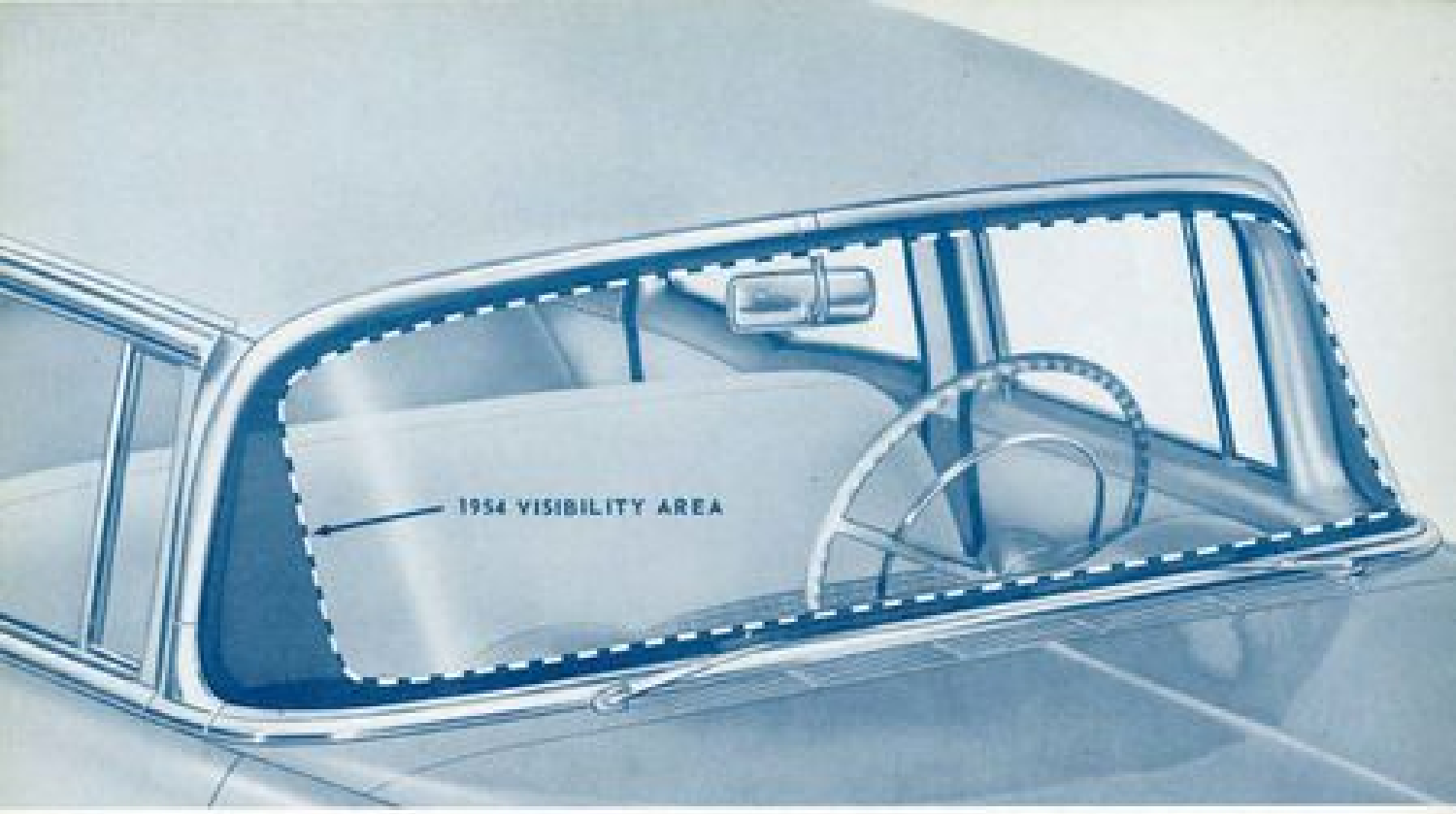
STEERING WHEEL . . .

The same basic recessed hub, two-spoke steering wheel of the 2100 models is used for the 1500 Series. However, the horn blowing ring and hub ornament are replaced by a horn button, framed in a bright metal bezel and embellished by a small decorative shield similar in design to that of the hood emblem.

STATION WAGON . . .

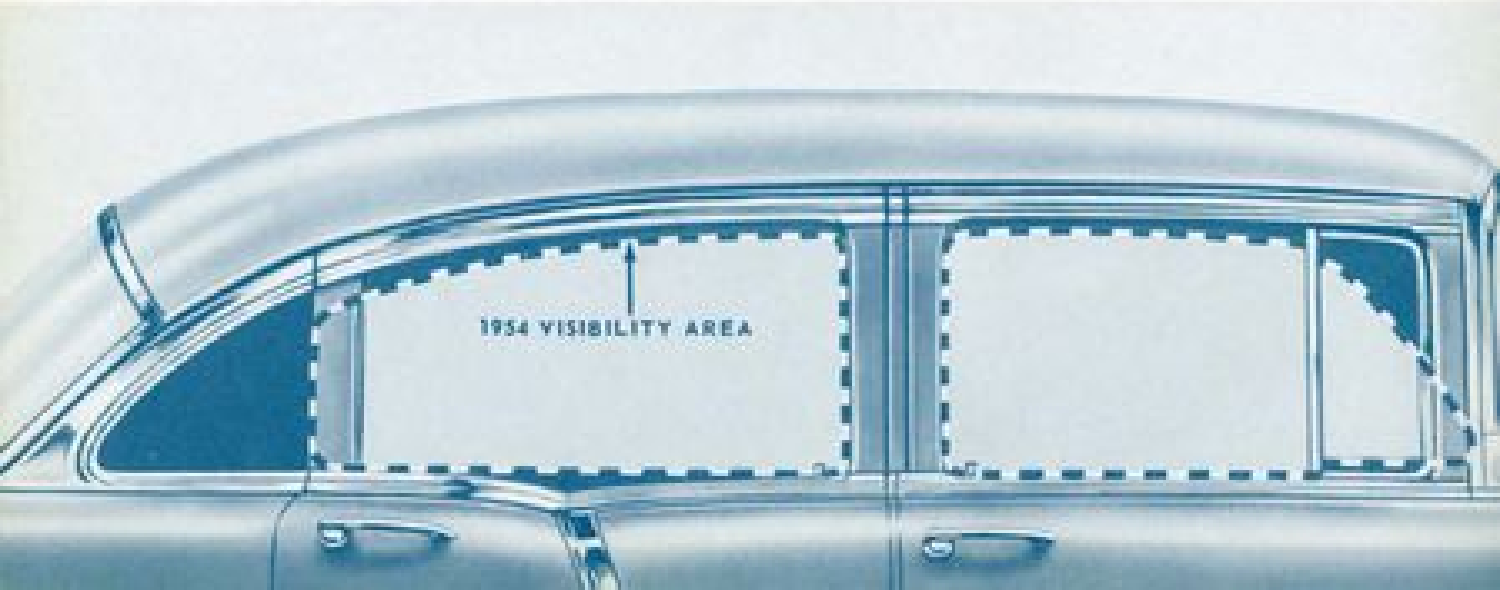
The functional qualities of the 1500 station wagon are enhanced by the interior trim. Available in two color combinations, two-tone green or beige and brown, the vinyl and elascofab interiors are as practical as they are decorative. Featured on the sidewalls, cushions and backrests is a new textured vinyl, carrying an attractive linked cord pattern.

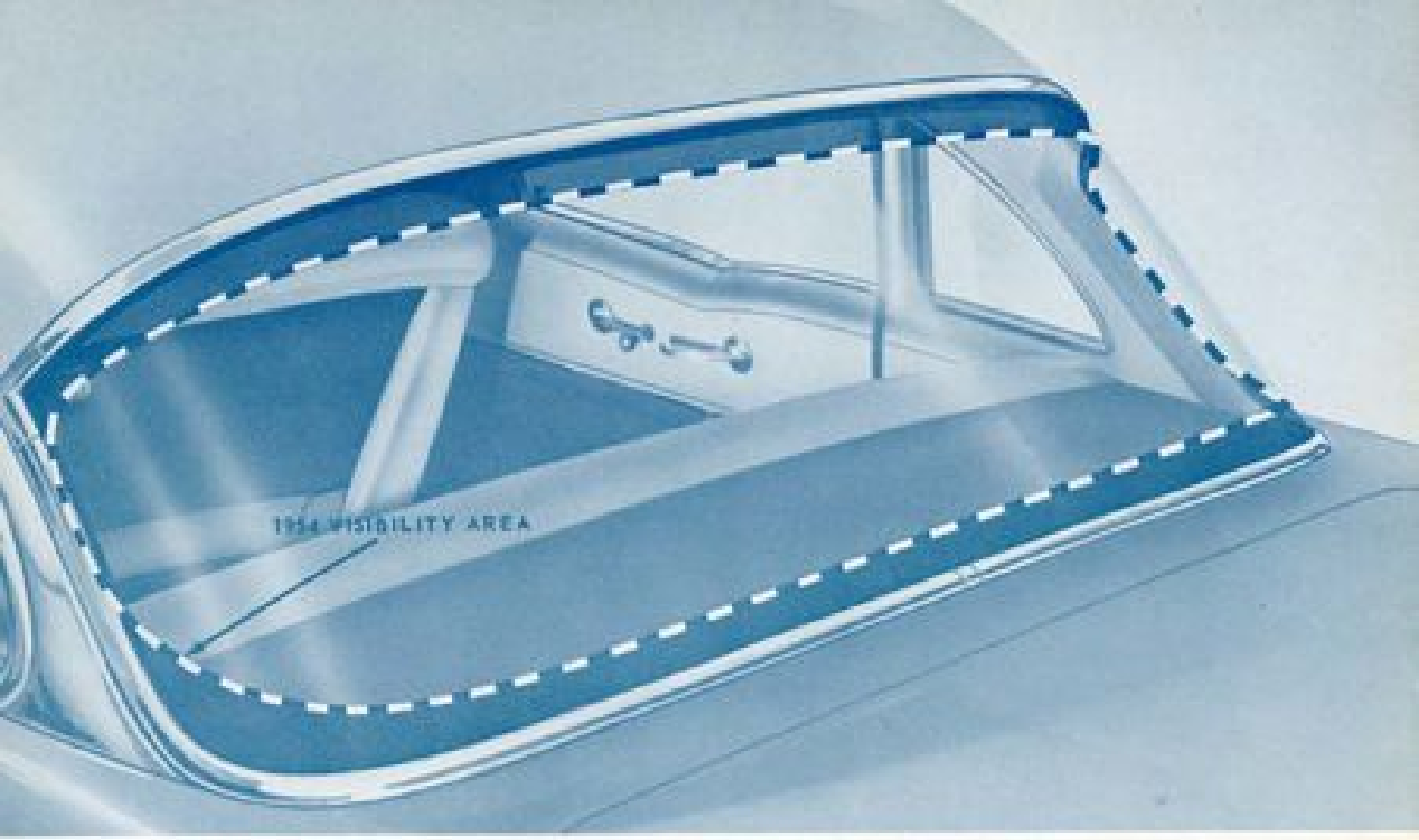
Passenger compartment floors are covered by black rubber mats, while the load space uses dark beige ribbed linoleum.



FOUR-DOOR SEDANS

AREA	1954	1955	INCREASE IN SQ. IN.	PER CENT INCREASE
Windshield	853.1	1018.5	165.4	19.4
Front Door Windows	606.0	632.6	26.6	4.4
Rear Door Windows	634.0	673.1	39.1	6.2
Rear Quarter Windows	NONE	123.7	123.7	
Rear Window	880.4	1067.2	186.8	21.2
Total	2973.5	3515.1	541.6	18.2





VISIBILITY

With the contemporary styling, longer appearance, and reduced overall height of the 1955 Chevrolet, there is also a large increase in general glass area. Driver and passengers alike enjoy a new sense of open comfort with panoramic vision and a minimum of obstruction. All four fenders are visible from the driver's seat, thus aiding judgement of vehicle width in parking or maneuvering.

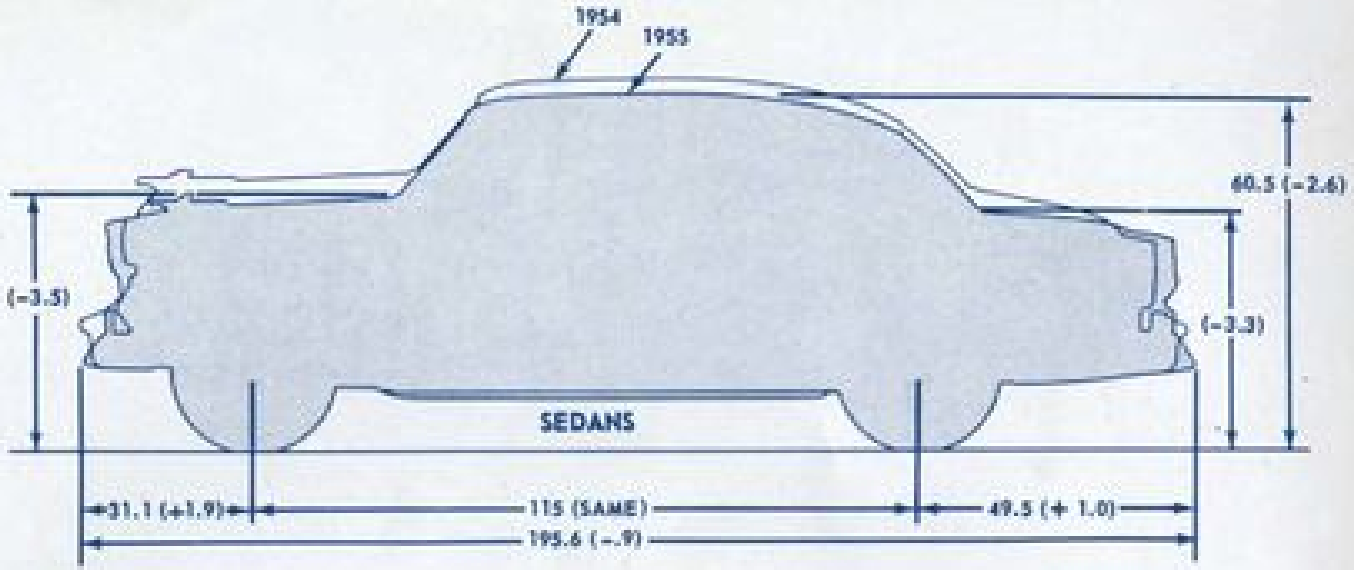
Taking the four-door sedans as a standard of comparison, the actual increase in visibility area amounts to more than 18 per cent. The new wrap-around windshield, the same size in all models with the exception of the sport coupe and convertible, features an increase of 165.4 square inches, or a total of 19.4 per cent, over the previous design. This area is greater than the combined areas of windshield and ventipanes in 1954; in fact, the 1955 windshield curves around rearward to the approximate position of the former ventipanes.

The rear window shows an even greater increase, 186.8 square inches, or a little more than 21 per cent, having been added to that area. Other increases in front and rear door window area, together with the addition of rear quarter windows, further enhance the open appearance and passenger comfort of the 1955 car.

Because of their lower silhouette, the windshield for the sport coupe and the convertible is slightly smaller in total area than it is for the sedans or station wagons. In the case of these two models, however, the total increase for the new wrap-around windshield is 204.2 square inches, or more than 26 per cent.

Body Type	Model	Area Increase Sq. Inches	Per cent
2-Door Sedans & Club Coupe	2402, 2102 1502, 2124	507	16.6
Utility Sedan	1512	490	16.1
Sport Coupe	2454	549	19.8
Convertible	2434	396	16.2
Station Wagons	2409, 2109	264	7.1

Note: 2-Door Station Wagons, models 2129 and 1529, cannot be compared since there were no similar models in 1954.



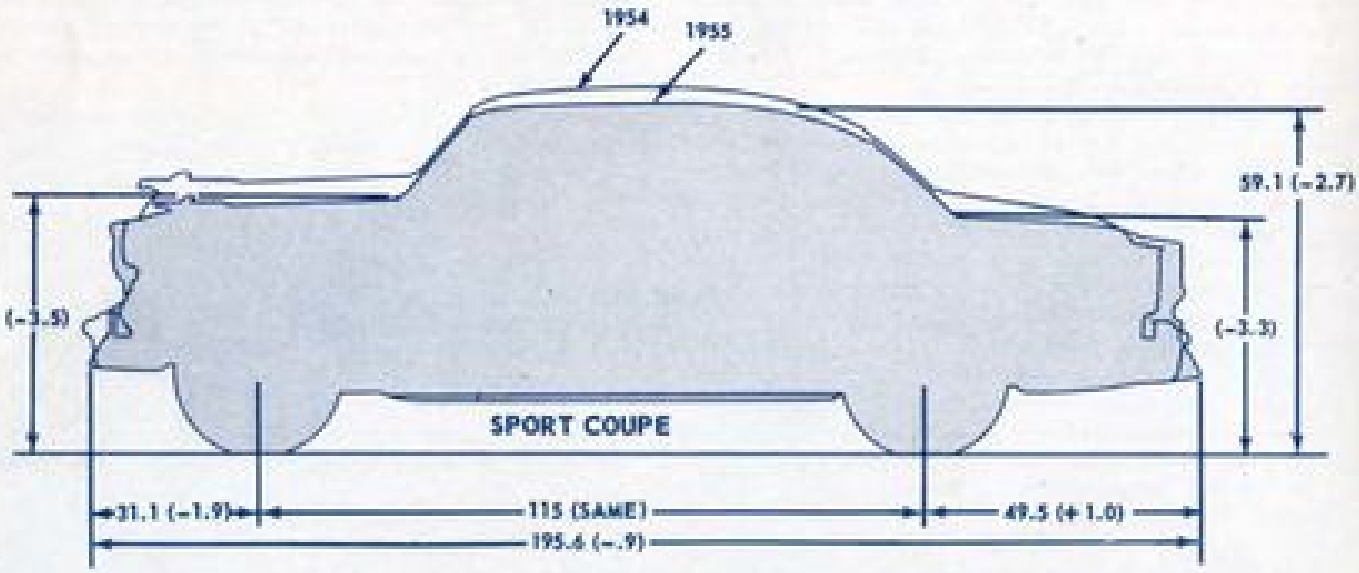
SIZE AND ROOMINESS

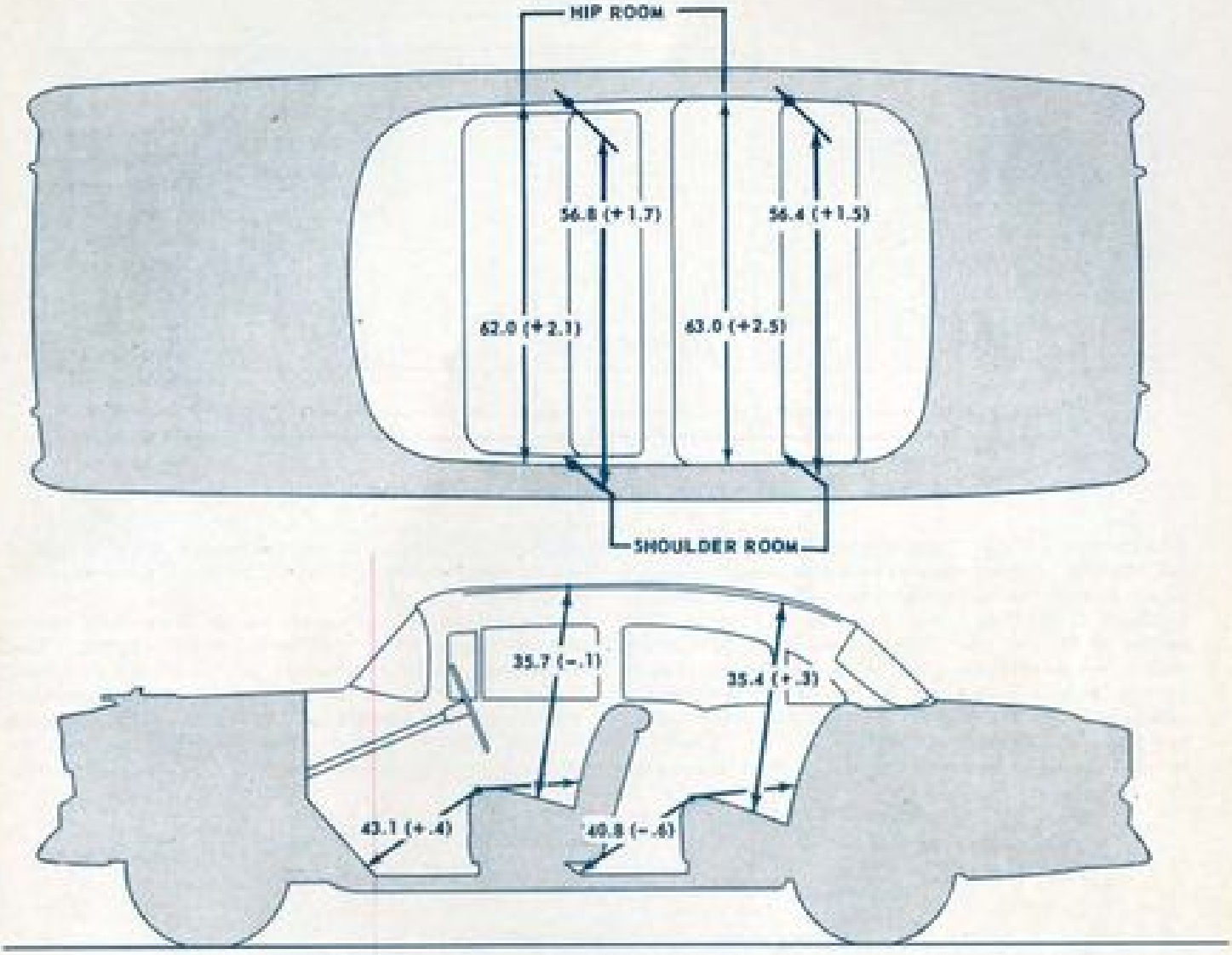
The completely redesigned 1955 Chevrolet, with its lower silhouette and longer appearance, sacrifices nothing in measurements affecting passenger comfort or maneuverability. In fact, many of the interior dimensions exceed those of previous models.

Overall heights, including those of hood and rear deck, are considerably lowered for all models while the wheelbase is unchanged and widths are reduced. Stability is increased with the lowering of the center of gravity by more than half an inch and by the wider front wheel tread. The descriptions that follow refer to the four-door sedans and station wagons, the changes for these models being typical of the entire line-up.

FOUR-DOOR SEDANS. Extensive frame, suspension, and body changes permit overall height reductions with no loss of headroom space. Overall height of the loaded car is reduced by 2.6 inches. The belt line also is lowered, with decreases of 3.5 and 3.3 inches in hood and rear deck lid heights respectively. Step heights are reduced more than an inch.

Factors contributing to these dimensional changes are many. There is a reduction of 1 inch in frame height measured at a point midway between the front and rear wheels. This center section of the frame is now 6.9 inches above the ground as compared to 7.9 inches for the 1954 models, due to the slight frame kick-up over the front suspension as well as the repositioning of the rear springs to the sides of the frame side members. Seats are also relocated, the cushion-to-floor dimension being reduced 1 inch for the front and nearly 1/2 inch for the rear. Thus, coupled with the lower chassis,





the front seat is 2.48 inches closer to the ground, with the same dimension decreased 1.56 inches for the rear.

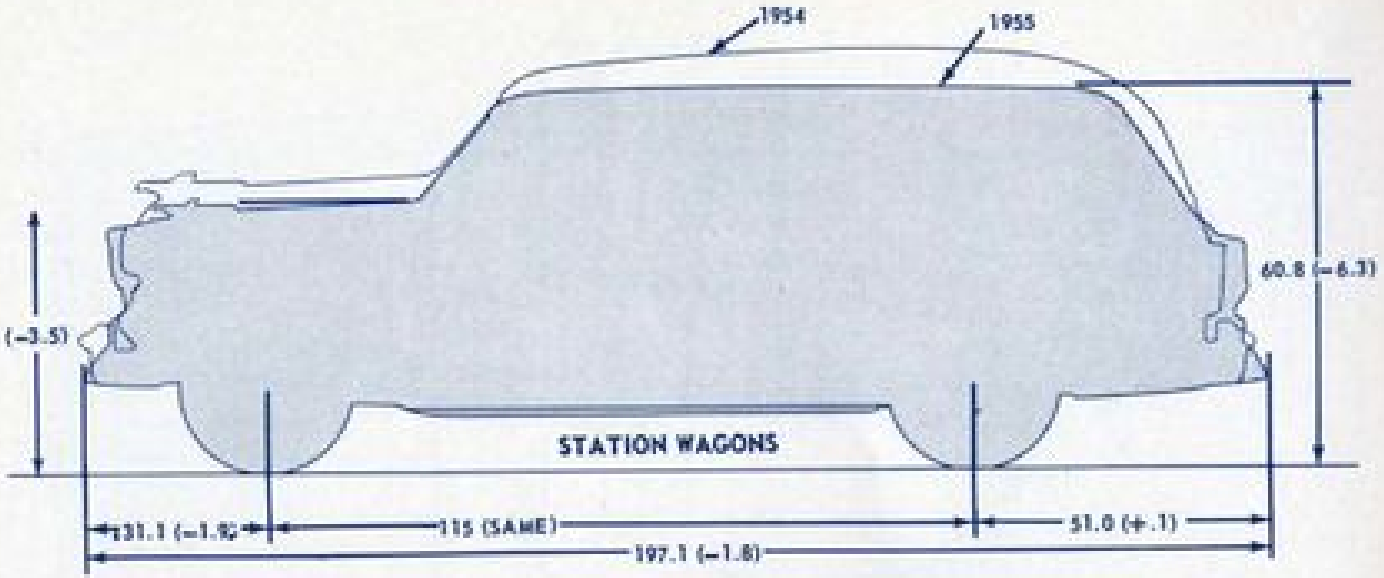
Ground clearance remains the same under the rear axle and is increased at the front. With the new spherical joint front suspension, clearance under the lowest component is now 8.1 inches as compared to 7.2 inches for previous models. However, the minimum clearance, which is under the exhaust pipe as it was in 1954, is 6.5 inches as compared to 7 inches for the previous year.

Overall length of the new models is decreased .9 inch, with the 1.9 inch reduction in front overhang and the 1 inch increase in overhang at the rear. This, of course, results in a larger angle of approach and a slight decrease in the angle of departure.

Interiors of the four-door sedan feature dimensional changes which contribute materially to increased passenger comfort. The front seat shows increases of 1.7 inches in shoulder room, 2.1 inches in hip room, for a total of 62 inches, and a .4 inch increase in leg room. Headroom is virtually unchanged.

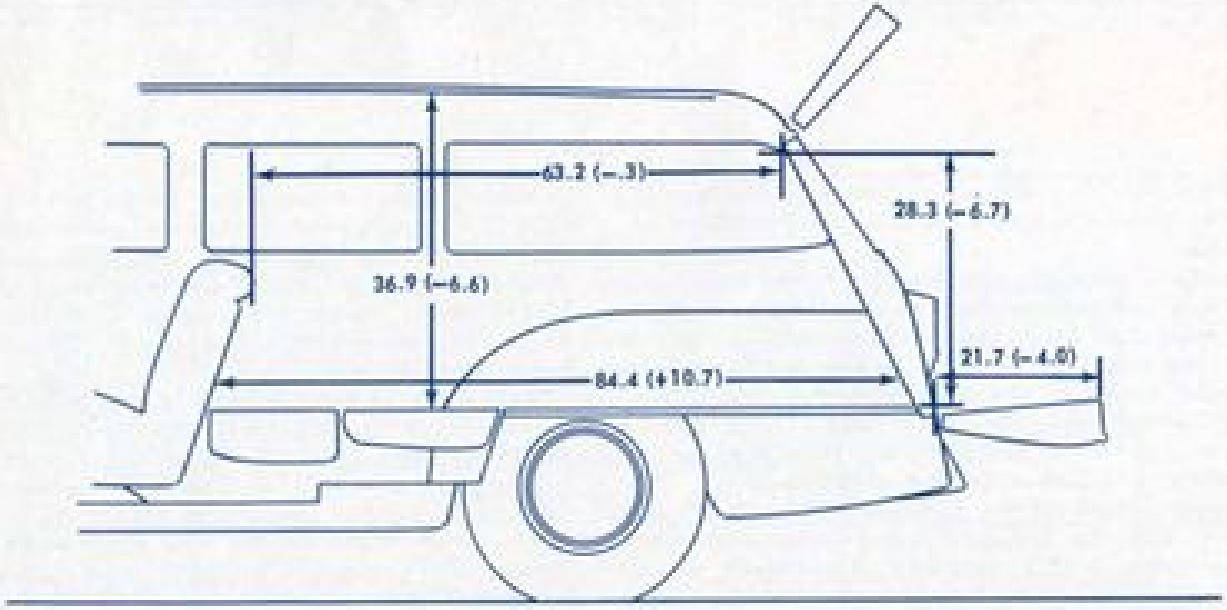
Rear seat roominess also is improved, showing increases of .3 inch in headroom, 1.5 inches in shoulder room and 2.5 inches in hip room, or 63 inches in total width. Leg room in the rear seat is slightly reduced.

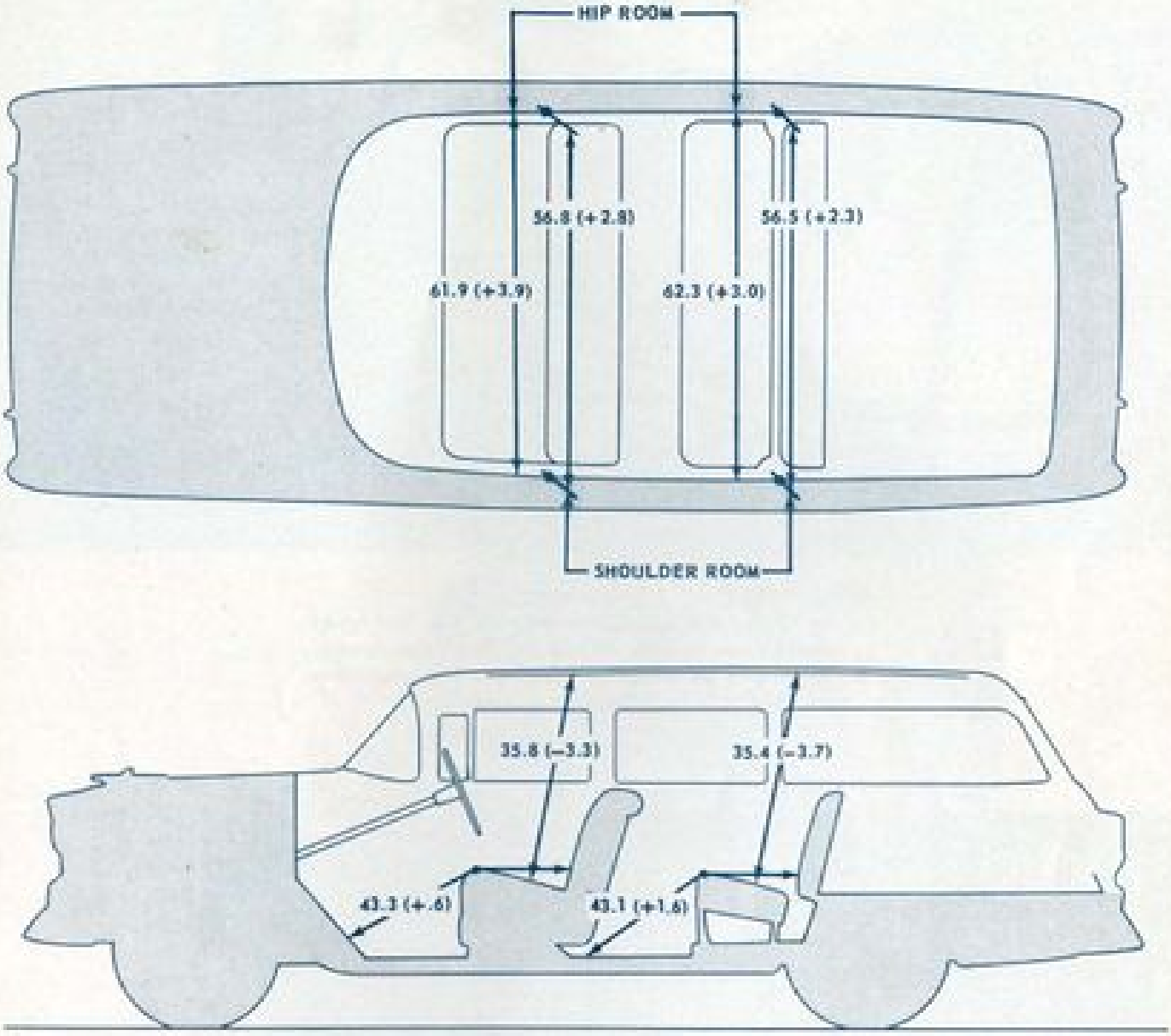
Two-door sedans and the club coupe show similar dimensional changes. The sport coupe, traditionally lower than sedan models, retains the same 1.4 inch differential with a 2.7 inch reduction, the maximum overall height under load being 59.1 inches.



STATION WAGONS. The entirely new silhouette of the station wagon involves dimensional changes more drastic than in the case of other models. Overall height has been lowered 6.3 inches, to within .3 inch of the 1955 sedans, thus permitting station wagons to have the same windshield height as the sedans. Overall length is decreased 1.8 inches with the front overhang shorter by 1.9 inches and the rear overhang longer by .1 inch. Thus, as on the sedans, the angle of approach is increased and the departure angle decreased very slightly. As in other models, overall width is decreased by 1 inch.

Reductions in headroom as well as load space height result from the lower body heights. The front seat shows a decrease of 3.3 inches in headroom. This is not as unfavorable as it appears, however. The headroom dimension of 35.8 inches is still slightly greater than it is for the sedans. Other front seat dimensions show general increases





with 2.8 inches added to shoulder room, 3.9 inches to hip room and an increase of .6 inch in leg room.

The rear seat shows similar changes with a 3.7 inch reduction in headroom to the same 35.4 inches as on the sedans. Shoulder room is enlarged by 2.3 inches, hip room by 3 inches and rear seat leg room by 1.6 inches. Thus the dimensional story of the station wagon accurately reflects the styling changes in these models which gives them a trim and rakish appearance.

With the large decreases in overall height, load space is also reproportioned. The new rear seat design, which permits both the cushion and backrest to fold flat and form part of the load platform, increases maximum length 10.7 inches. This helps to compensate for the 6.6 inch reduction in load space maximum height. Load space width between wheelhouses shows an increase of .4 inch. Cargo space capacity of the station wagon for 1955 is 87 cubic feet or a reduction of 4 cubic feet with the rear seat folded, and 45 cubic feet or a reduction of 7 cubic feet with the seat in place.

COWL INTAKE . . .
On the cowl top panel, away from road dirt, five banks of louvers admit outside air into the ventilation system. The slant-down louver design presents a trim appearance and assures a high air intake capacity.

VENTILATION OUTLET . . .
Large outlet louvers on each cowl side panel are designed for wide distribution of incoming air at the floor and body levels. Knobs at each end of the instrument panel provide convenient control of air flow to suit individual preferences of the driver and front seat passenger.

VENTILATION

Prominent among the advanced design features of the completely re-engineered body is a new "built-in" summer ventilation system. Advantages include a cleaner, cooler air supply and more effective circulation at the floor and body levels.

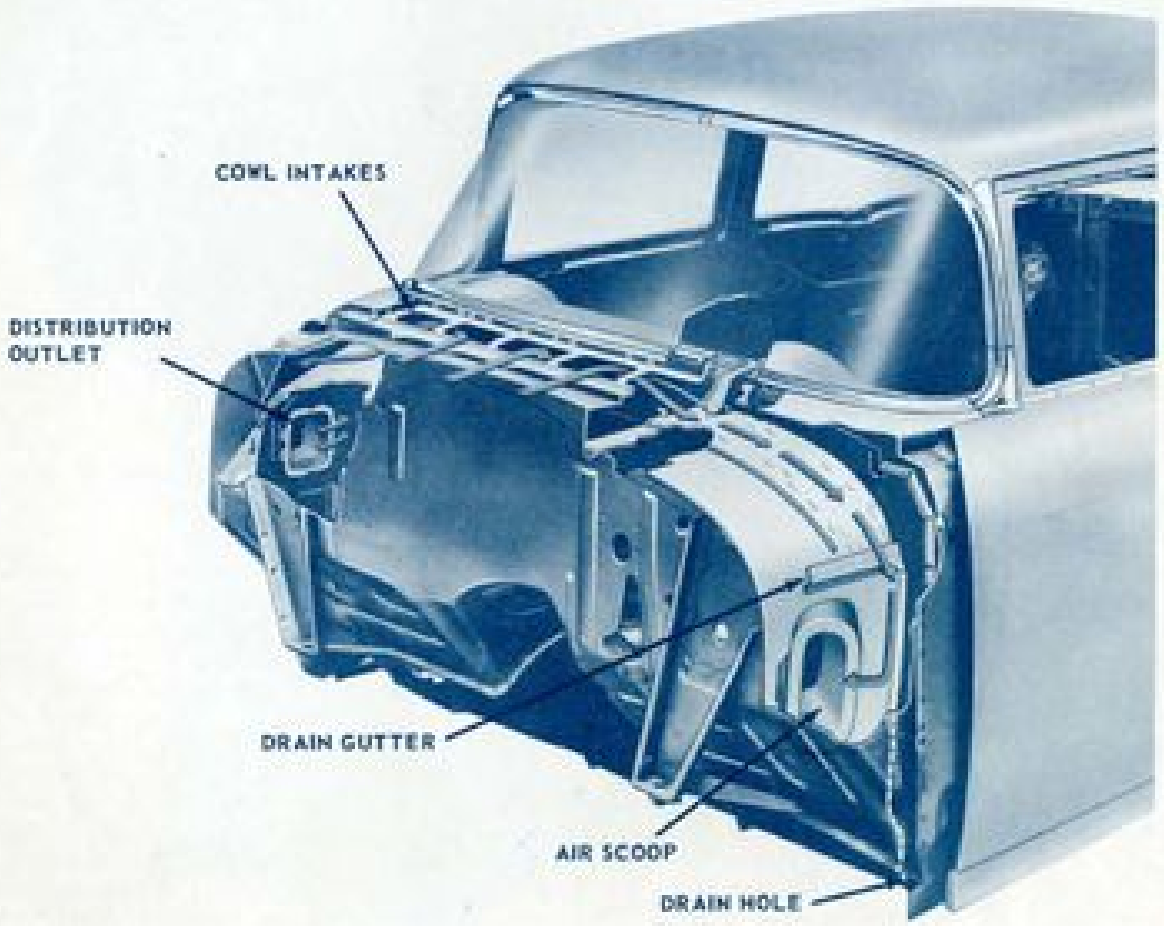
Outside air enters the system through a cowl top intake, flows through a large enclosure, called a plenum chamber, and into the passenger compartment through outlet louvers in each cowl side panel. The plenum chamber is formed by double-walled construction of the cowl top and sides.

Since intake air is no longer tunnelled through the engine compartment, the air passing through the outlet louvers is cooler. In addition, the new location of the outlets permits more effective distribution than was possible with the former straight-through design.

The area in the driver's compartment closest to engine and transmission heat now receives cross ventilation. Incoming air is also directed in a broad spread toward the front seat passengers, and when used in combination with the ventipanes and lowering windows, thorough ventilation of all levels is assured.

Pull-out knobs are cable-connected to butterfly valves housed in curved air scoops which surround the louvered outlets. The design of the air scoops creates an air flow path which water cannot follow so that, even in heavy rain, the system may be operated at full capacity. Water is simply channelled through gutters over the air scoops and out of the system through drain holes at the floor of the plenum chamber.

A separate intake is provided in the right cowl side panel for the outside air heater. With this arrangement, both the regular ventilation outlet and the summer ventilation feature of the heater are always available - either independently or in combination.



BODY AND SHEET METAL

BODY STRUCTURE

Together with the complete styling transformation for 1955, Fisher Unisteel body construction incorporates major structural improvements as well as a number of design features which provide greater passenger comfort and convenience.

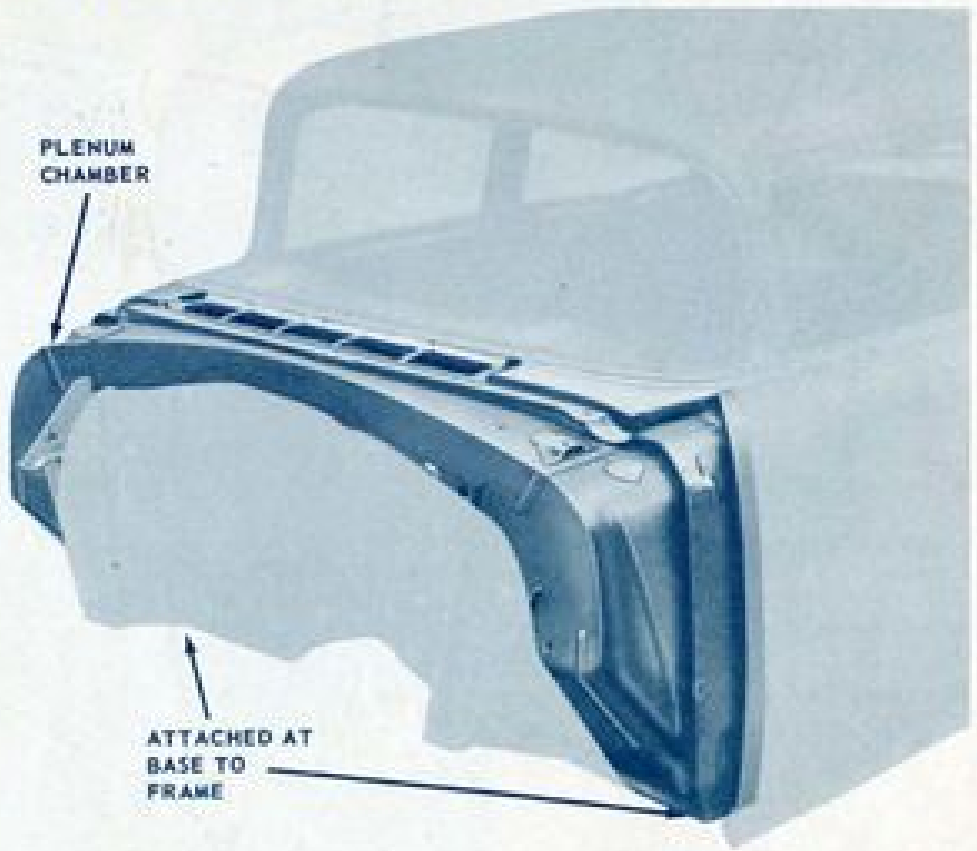
The load-bearing structure of the automobile consists essentially of two separate units — the chassis frame and the body frame. Each assumes its share of the loads according to its ability to resist deflections. In spite of considerable increase in glass area and consequent enlargement of window openings, the 1955 body-frame combination has greater torsional rigidity than its predecessor.

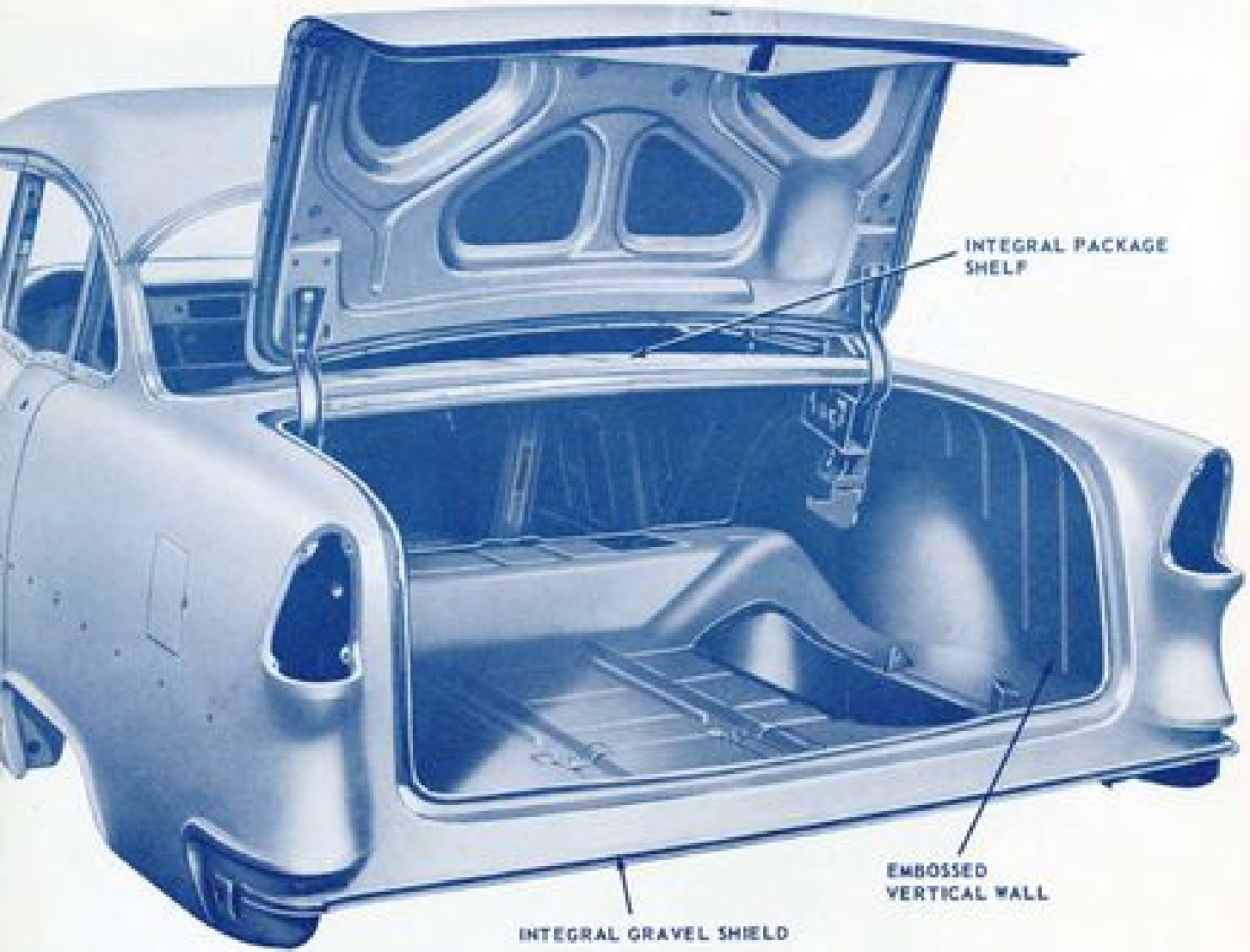
Structurally, the body is a framework of self-reinforcing box-type girders integrally joined to resist distortion. The foundation is a two-piece steel floor, welded into a single unit reinforced by embossed stiffening ribs and a ladder construction of box-type rocker panels joined by four U-channel braces. A double wall cowl assembly, new rear quarter construction, strong pillars, double wall doors and deck lid form the sides. The turret top is reinforced by box-section side rails connected at front and rear by header bars and at the center by a U-channel roof bow.

The new cowl assembly is an outstanding feature of the new body structure. A primary consideration in the choice of plenum chamber construction was the inherent structural strength of its box-section. As designed, the plenum chamber functions not only as the principal component of a highly effective ventilation system, but also as a key structural member. Its double-wall strength is used to full advantage in bringing about a closer structural integration of body and frame. Its use as a solid foundation for the arch which frames the wrap-around windshield is another important factor in the overall design of the car.

A rigid framework for the plenum chamber and the vertical windshield pillars is formed by a one-piece heavy gauge panel, called the pillar facing, which wraps around the door opening section of the

DOUBLE WALL COWL CONSTRUCTION





REAR BODY STRUCTURE

windshield pillar and hinge pillar. The flared section joining the upper and lower pillars is reinforced by a heavy gauge angle brace from the plenum chamber.

A foundation for the column framed by the cowl side panels and the pillar facing is formed by a heavy gauge reinforcement welded to the base of the pillar at the floor to assure longitudinal rigidity. To add lateral rigidity, another heavy gauge outrigger brace is welded transaversely under the floor.

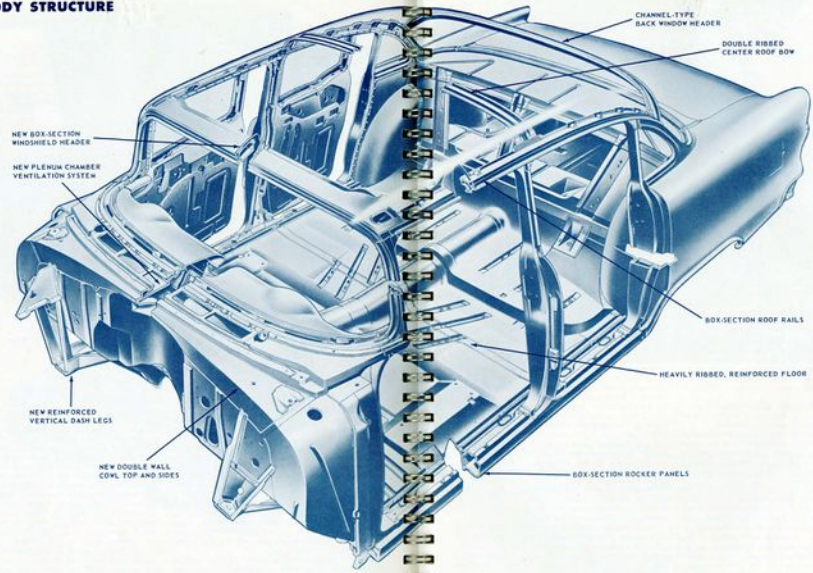
U-channel outrigger brackets from the frame side members attach to the base of the arch formed by the plenum chamber to utilize its lateral beam strength, in effect as a frame cross member. The new construction eliminates the need for the second cross member formerly used.

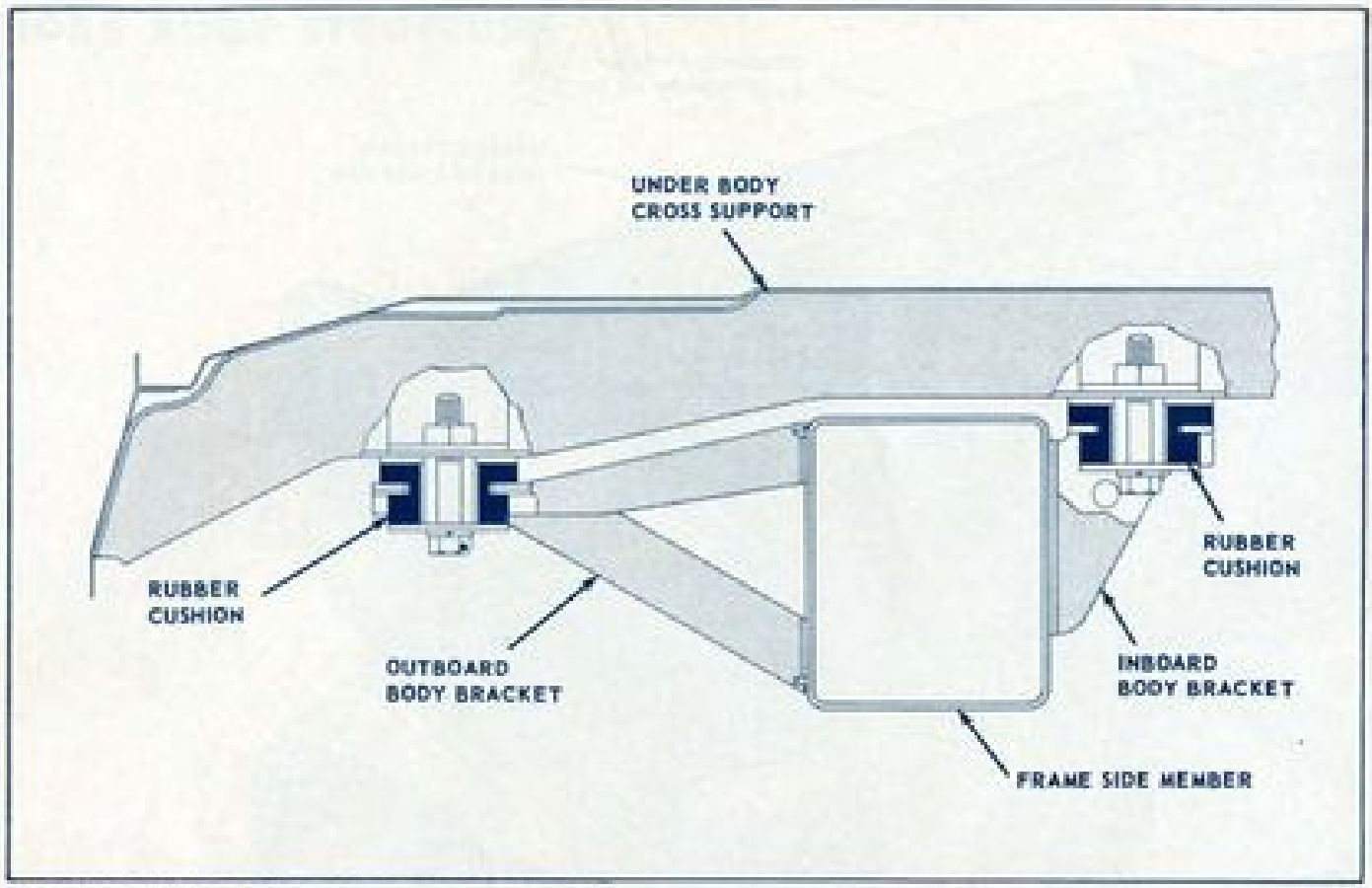
Since the dash-to-frame braces are now parallel with the front of the dash, they attach farther back on the frame side members and have less tendency to transmit front end shake to the body. U-channel braces, backed by the floor, reinforce the dash legs to maintain the beam stiffness of the body shell.

The rear quarter inner panel, from the door opening to the deck lid opening, and including a deep drawn wheelhouse, is formed from one solid piece of sheet metal. This inner wall is ribbed at the rear, welded to the outer panel along the deck lid opening, and gets solid support from the floor. By bringing sidewalls of the rear end box-structure in line with the chassis frame, vertical deflections are effectively resisted. This vertical wall construction eliminates the need for the wheelhouse-to-lid opening braces formerly used and requires no welding seam at the formed wheel openings.

The gravel shield is now integral with the body at the rear lower end panel, and the package shelf is integral with the upper end panel to provide additional resistance to torsional stresses.

1955 BODY STRUCTURE





RUBBER CUSHION BODY-TO-FRAME MOUNTINGS

The inner and outer quarter panels, outer roof rail and rocker panel, center pillar, and front pillar facing are now framed as a unit. This new fabrication process, called Unitized Side Frame Construction, improves body shell alignment and dimensional control and assures accurate fitting of the doors.

The stiffness of the center pillar, which is narrower above the belt, is maintained by increasing the length of its heavy gauge reinforcement.

Vertical windshield pillars give a rectangular shape to the front door ventipanes and increase their effectiveness during rain. Deflectors over the ventipanes are eliminated since tests, conducted under actual and simulated rain conditions, indicate no further need for their use.

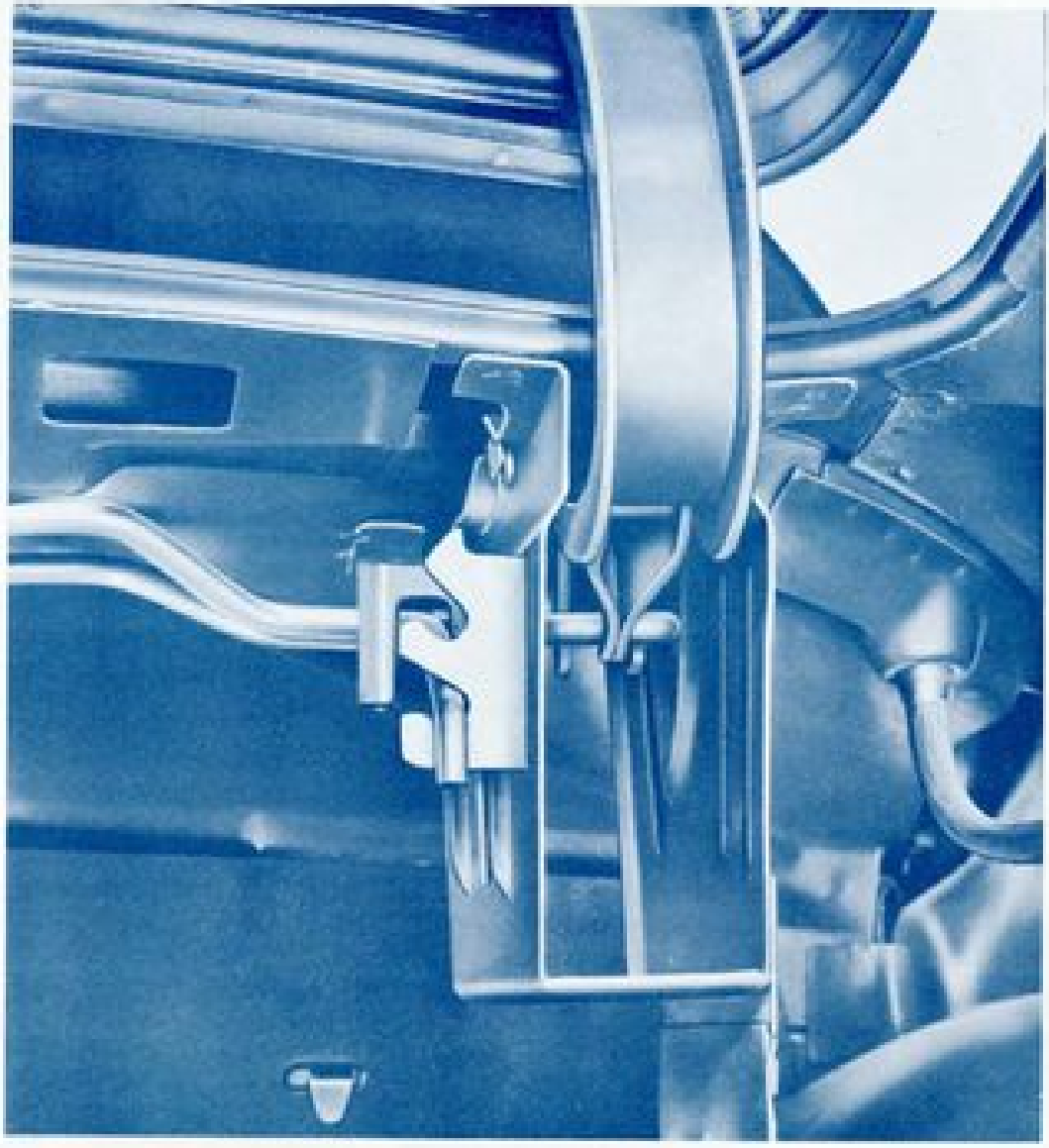
To facilitate the installation of accessories by Chevrolet dealers, many new provisions are included in the design of the body. Punched holes and locating dimples in the body panels, perforated outlines in the dash mat, as well as knock-out plugs and fasteners not only simplify installation of the accessories but assure accuracy of fit.

Provision is also made for relocating the entire front seat assembly one inch to the rear to accommodate the unusually tall driver. Four dimples in the floor panel and pilot holes in the rear bracket accurately locate the new position for easy adjustment by the dealer.

The passenger compartment on all closed body models is further isolated from the jarring effects of rough roads through new rubber cushion body-to-frame mountings. The cushions, which replace hard rubber-fabric shims, are molded from a special rubber compound having excellent sound and vibration damping properties and a low permanent set.

To take advantage of the great fatigue strength of rubber in compression, the construction places no tensile loads on the cushions. Downward loads compress the upper cushion; upward loads compress the lower cushion. The freedom of motion between body and frame required for the cushioned ride is relatively slight. Very minor frame deflections will cause the body to function as a major reinforcing member of the combined structure.

The 20 point attachment of the former sedan body-frame combination, and the 22 point attachment of station wagons, are supplanted by 14 wider-based mounting points. The sport coupe uses 18 and the convertible 20 body-to-frame mountings, four fewer than previously required.

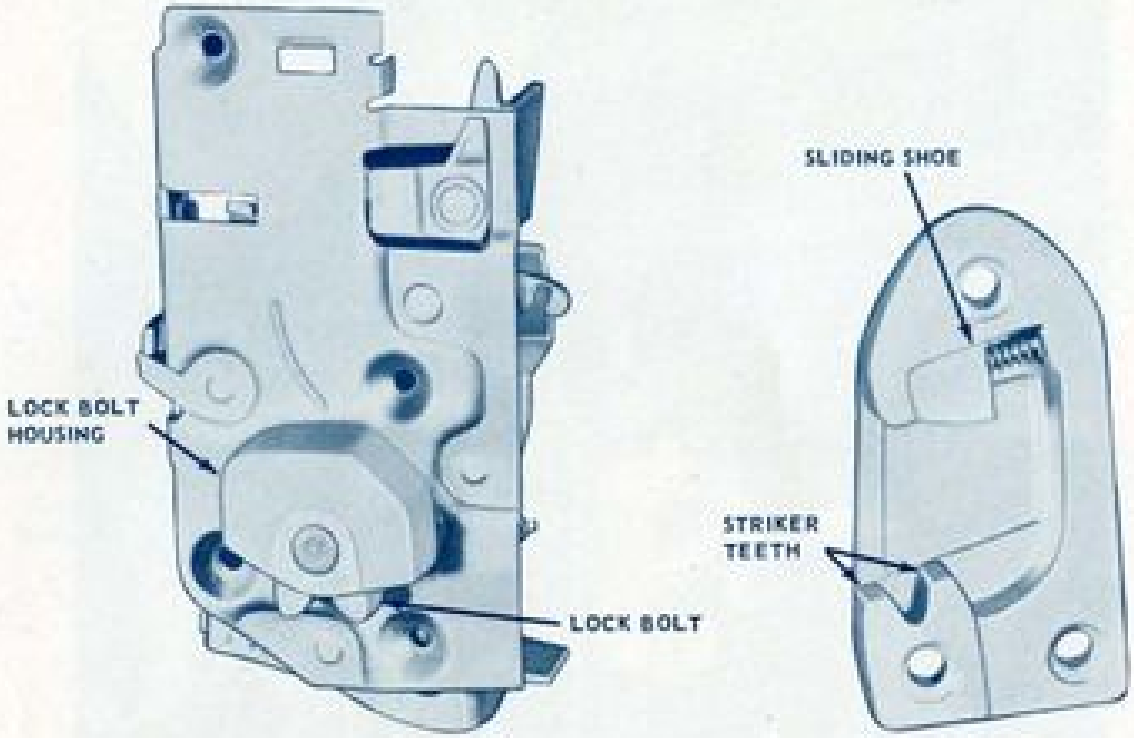


TORSION ROD HINGES . . .

To provide the widest possible span of usable clearance, the deck lid hinges are moved to the outer edges of the opening.

Two torsion rods replace the compression springs formerly used to counterbalance the weight of the deck lid. Each rod attaches to a hinge strap on the lid, and fits into a notch on the opposite hinge box. The rods are preloaded in torsion to hold the lid in the wide open position. As the lid is moved down, the torsion loading of the rods is increased. At the same time, the center of gravity of the lid moves farther out from the pivot center of the hinges. The mechanism is designed so that, at any position of the lid, these opposing forces balance each other. Since a slight force in either direction upsets this balance, raising and lowering the lid is virtually effortless.

Though lifting effort is slight, control of the operation is never lost and, since counterbalancing is uniform throughout the full travel of the hinges, the lid has no tendency to swing past the point of release.



ROTARY DOOR LOCK . . .

A new rotary door lock provides easier, quieter and more reliable operation in 1955, although fewer parts are required than in the previous design.

A substantial decrease in the effort required to operate the outside push button is achieved by increasing its travel from half an inch to the present three quarters of an inch. The increased movement of the actuating lever has the further advantages of permitting a lock design which is less critical of adjustment and does not require selective fitting of the push button stems.

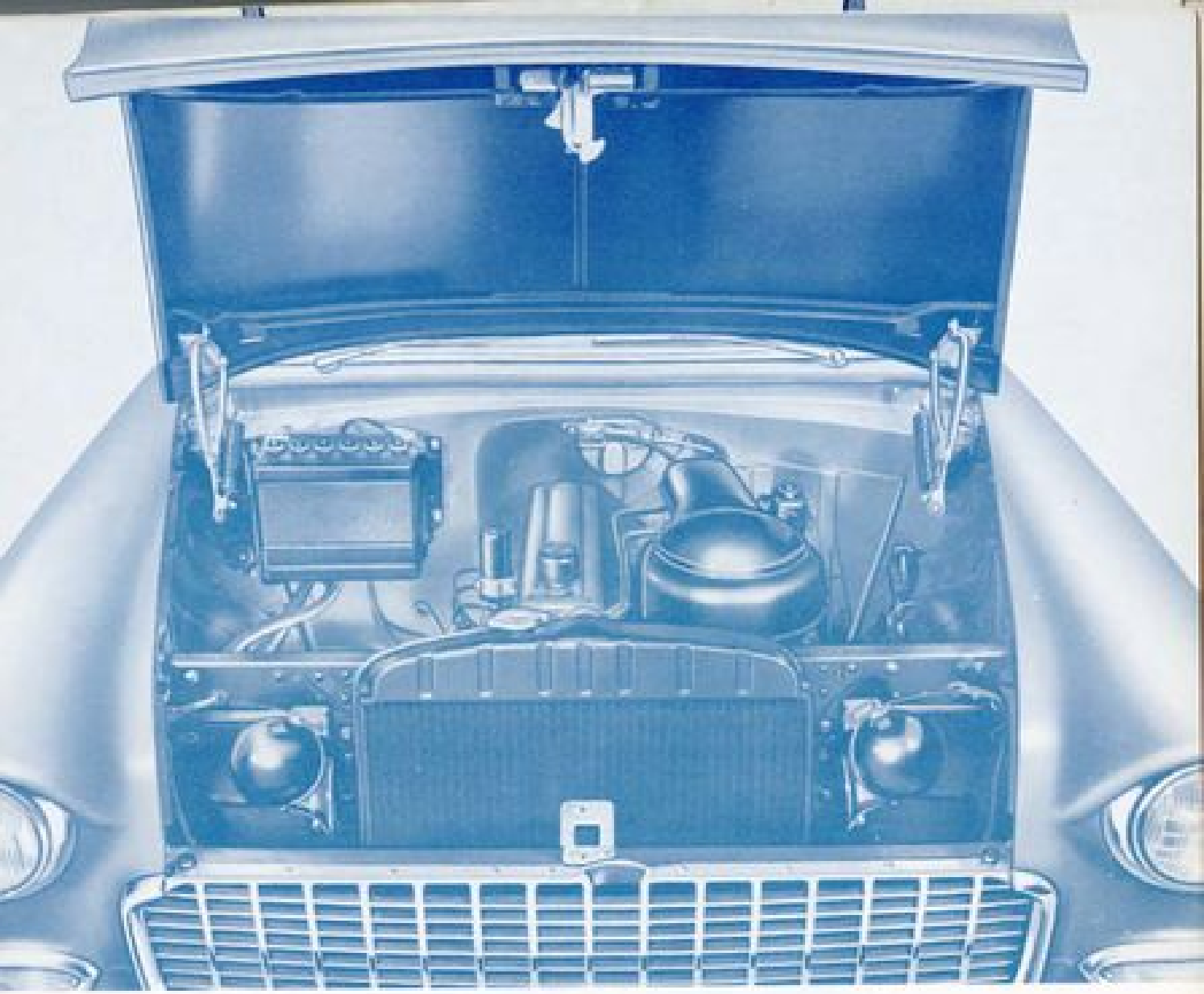
In the former design, alignment of the door in the body opening was maintained by a separate sliding wedge type slot in the striker plate and a considerable portion of the closing force was required to overcome the friction of the wedge against its slot as it forced the door into alignment with the body opening. By eliminating the separate slot in the striker opening, alignment is maintained with negligible resistance from sliding friction. In the new design, the lock bolt simply rolls on the lower teeth of the striker opening and is held in firm engagement by the force of the sliding shoe against the lock bolt housing.

Relocation of the key lock cylinder to the door panel below the handle permits the streamlined styling of the push button and makes the lock less susceptible to freezing. In the previous design, a passage was provided to a drain hole near the rear of the lock cylinder. Since the cylinder now extends into the door panel, it is possible to locate the drain hole immediately behind the key shutter and thus permit water to escape before reaching the cylinder.

In the operation of the lock, the lock bolt contacts the striker and rotates into engagement with the teeth at the lower end of the striker opening as the door is closed. A spring-loaded detent lever allows the internal latching cam, attached to the lock bolt shaft, to ratchet. When the door is fully closed against its seal, the lever engages the detent face of the latching cam. If the door is only partially closed, the first tooth acts as a safety catch.

To open the door, the detent lever must release the locking cam so the lock bolt is free to rotate. The action is initiated by either the outside push button or the inside remote control handle.

The keyless locking feature is retained in both front and rear doors. Rear door locks also continue the free wheeling feature which renders the inside door handle inoperative when the lock button is depressed. Provision is made for adjustment of the rear locks by the dealer to eliminate the free wheeling action when desired by the owner.



SHEET METAL STRUCTURE

Extensively redesigned structure supports the sheet metal, making it stronger and more effectively adapted to the time-proved Stabilized Front End principle of mounting. Operation of the new one-piece hood is easier and more convenient through use of gear-type hinges with improved counterbalancing and a lock of new design.

The fenders, grille, and surrounding sheet metal again form an integrated framework attached to the body and mounted at a central rubber-insulated point on the frame front cross member. The unitized structure receives no direct support from the frame side members and consequently escapes the brunt of road shocks to which the frame is subjected.

The windsplit line and formed wheel opening add rigidity as well as styling appeal to the front fender panels. A heavily ribbed one-piece skirt, replacing the former front and rear skirts at the sides of the engine compartment, forms a solid box-structure with the fender. The skirt is joined to the fender at the rear by a brace to the wheel opening flange and gets solid backing through supports at the dash leg and cowl side panel. A rubber seal is attached along the lower edge of the skirt where it fits against the frame side member.

Three widely-spaced cross members maintain alignment and rigidity across the front end. The grille-to-bumper filler panel connects the fender skirts and front extensions; a sturdy reinforcement spans the grille header line; and a new fender-to-fender U-channel tie bar is riveted through gussets to the radiator support side channels to serve as the main cross-beam supporting the entire structure.

To take advantage of the new frame design, the radiator support is center-mounted to a heavy gauge angle bracket welded to the frame front cross member. The new mounting eliminates the need for a separate radiator support cross member and serves as a base for both a filler panel center reinforcement and hood lock plate support.

The wrap-around front bumper ends are tied to the fenders through a bracket bolted to the fender

extension-to-fender flange. This method of attachment prevents rattle but still permits sufficient side mounting freedom to assure a full measure of the advantages inherent in the center mounting principle.

Typical evidence of the thoroughness of the 1955 engineering program is found in both the structure and operation of the one-piece hood. A marked increase in hood panel stiffness is achieved through a structural rearrangement which takes advantage of the hood shape at the front end. A heavy gauge upper lock plate bracket, attached by the hood ornament studs and riveted to the front flange, is formed to fit the downward curve of the hood front end. Two rods attach diagonally across reinforced front corners and draw the panel up tight against this reinforcing center bracket. A new radiator upper baffle, riveted to the lock plate bracket, spans the arch of the hood and is attached at the sides adjacent to the reinforcing rods to complete a rigid box structure.

The rear edge of the hood is now flanged and welded to a new three-piece reinforcement. The wide flare of the two end pieces contributes broader, more rigid cross-wise support.

HOOD HINGE . . .

New gear-type hood hinges are engineered for better operating characteristics. Uniform hinge operation is assured by interlocking gear teeth cut concentric with the lever pivots of each hinge. Common attachment to the hood at the rigid rear reinforcement precludes independent hinge action.

True counterbalancing, through full hinge travel replaces the over-center counterbalancing of the past. In any open position, the weight of the hood is supported by springs which attach at both ends to the gear-linked levers of the operating mechanism. The shift of the hood weight to the rear and the greater mechanical advantage of double-acting hood springs permit the use of lighter springs and result in a wider hold-open position.

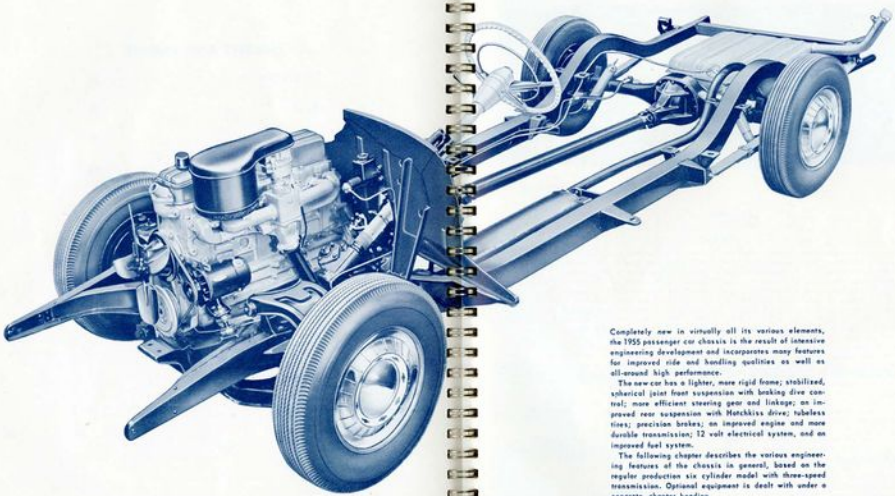
HOOD LOCK . . .

The hood is opened with one hand and in one continuous motion. The operation is reduced to reaching under the grille header bar attached to the hood, pulling the latch handle and raising the hood.

The "unlocked hood" danger is virtually eliminated by an improved safety catch and a new design self-locking mechanism. Both the safety catch and the lock catch are piloted through a hole in the lower lock plate. This restriction limits movement on all four sides so that the safety catch locks sufficient freedom to slip off the lock plate.

The lock operates on an expanding wedge principle, permitting only downward movement of the hood while the car is in motion. Positive locking is provided down to the completely closed position.

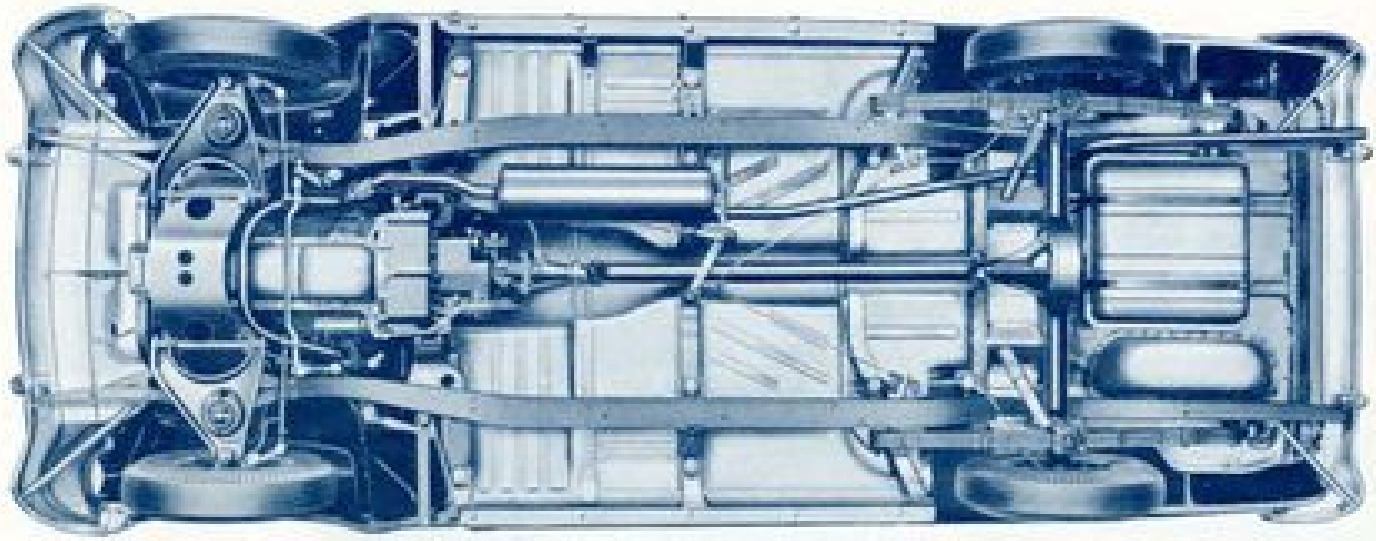
CHASSIS AND ENGINE



Completely new in virtually all its various elements, the 1955 passenger car chassis is the result of intensive engineering development and incorporates many features for improved ride and handling qualities as well as all-around high performance.

The new car has a lighter, more rigid frame; stabilized, spherical joint front suspension with braking dive control; more efficient steering gear and linkage; an improved rear suspension with Hotchkiss drive; tubeless tires; precision brakes; an improved engine and more durable transmission; 12 volt electrical system, and an improved fuel system.

The following chapter describes the various engineering features of the chassis in general, based on the regular production six cylinder model with three-speed transmission. Optional equipment is dealt with under a separate chapter heading.



FRAME

The box girder frame, a famous Chevrolet "first" is fifty per cent more rigid and more than eighteen per cent lighter in the 1955 design. The double benefit of increased rigidity with less weight is accomplished by integrating the front suspension cross member into the frame structure and deleting the former radiator support and engine rear support cross members. Also contributing to the greater rigidity are an improved attachment of the rear cross member and straighter side members with a larger, wider box section. To provide the improved cross member attachment, the frame is assembled as a complete structure and precision drilled at the fabricating plants for installation of the front suspension on the car assembly line. Previously, the front suspension and front cross member were unitized and assembled with the other frame components at the car assembly plants.

Incorporating a flanged channel section with welded-on bottom plate, the ends of the front cross member are riveted and welded to the top and bottom of the frame side members instead of being bolted to the bottom flange only, as was the case in previous designs. Also, the cross member is relieved of some vertical loading requirements since the frame side members form part of the front suspension coil spring towers. This is accomplished by splitting the frame side member just behind the front cross member and attaching the end of the inboard half to the back of the cross member. The outer half then curves around the coil spring and attaches to the front and back of the cross member. Forward of the front cross member, the side members are continued as simple channel sections and extend 10.5 inches farther forward than in 1954. By adding channel braces between the front cross member and the side member extensions, frame rectangular alignment is preserved and the forward end of the side members is made very rigid for direct mounting of the bumper. Front end sheet metal and the radiator, formerly supported by a separate cross member, are mounted on a channel section bracket welded to the front cross member.

To improve body support, and to provide the same type of attachment for the rear bumper as for the front, frame side members are extended 8.55 inches farther behind the rear axle. A channel-type rear cross member, riveted and welded to the top and bottom of the side members, replaces the former box-section member that was riveted to the bottom flanges of the side members.

In a plan view, the new frame appears more rectangular; that is, the frame side members are straighter. Since the side members pass around the front suspension coil spring towers, they are 14.2 inches farther apart at the narrowest point than at the similar point in 1954; and due to the outboard mounting of the rear springs, overall frame width is 4.25 inches less at the rear. These dimensional changes leave the side members essentially straight and parallel to eliminate twisting tendencies produced by vertical loads.

Frame side members themselves are of a new design. With approximately the same amount of steel in a maximum section as in 1954, the new side members use a uniform wall thickness to cover a greater cross sectional area than previously, thus increasing the section modulus, or the relative strength of structural members of similar design and material, by 18 per cent.

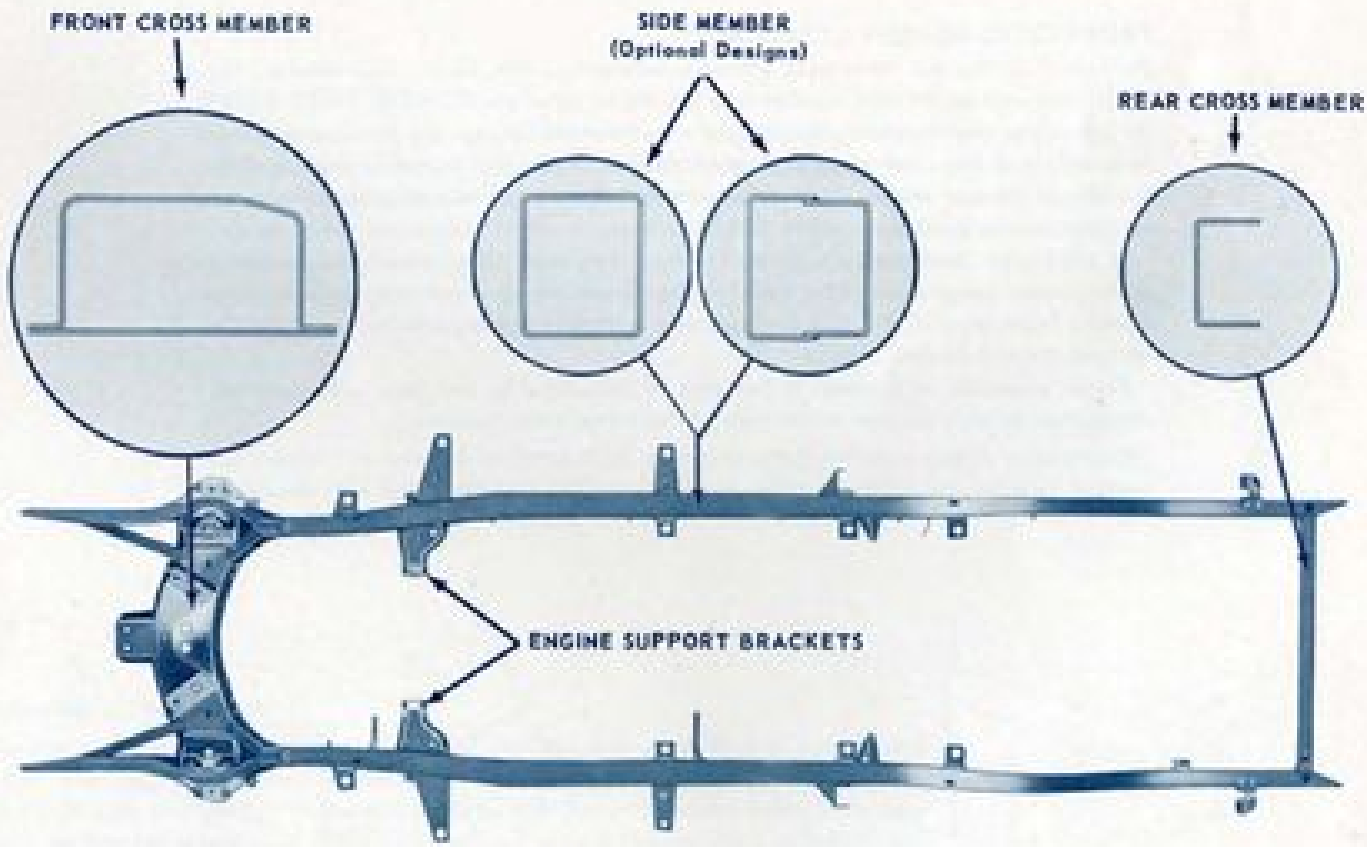
The increased cross sectional area indicates a greater resistance to twisting or torsion rather than beam strength or vertical loading because the area is increased 1.55 inches in width and retains the same height as in 1954. This resistance to twisting of the individual side members is incorporated in the complete new frame assembly through the integrated attachment of the two cross members, providing a frame that is fifty per cent more twist resistant.

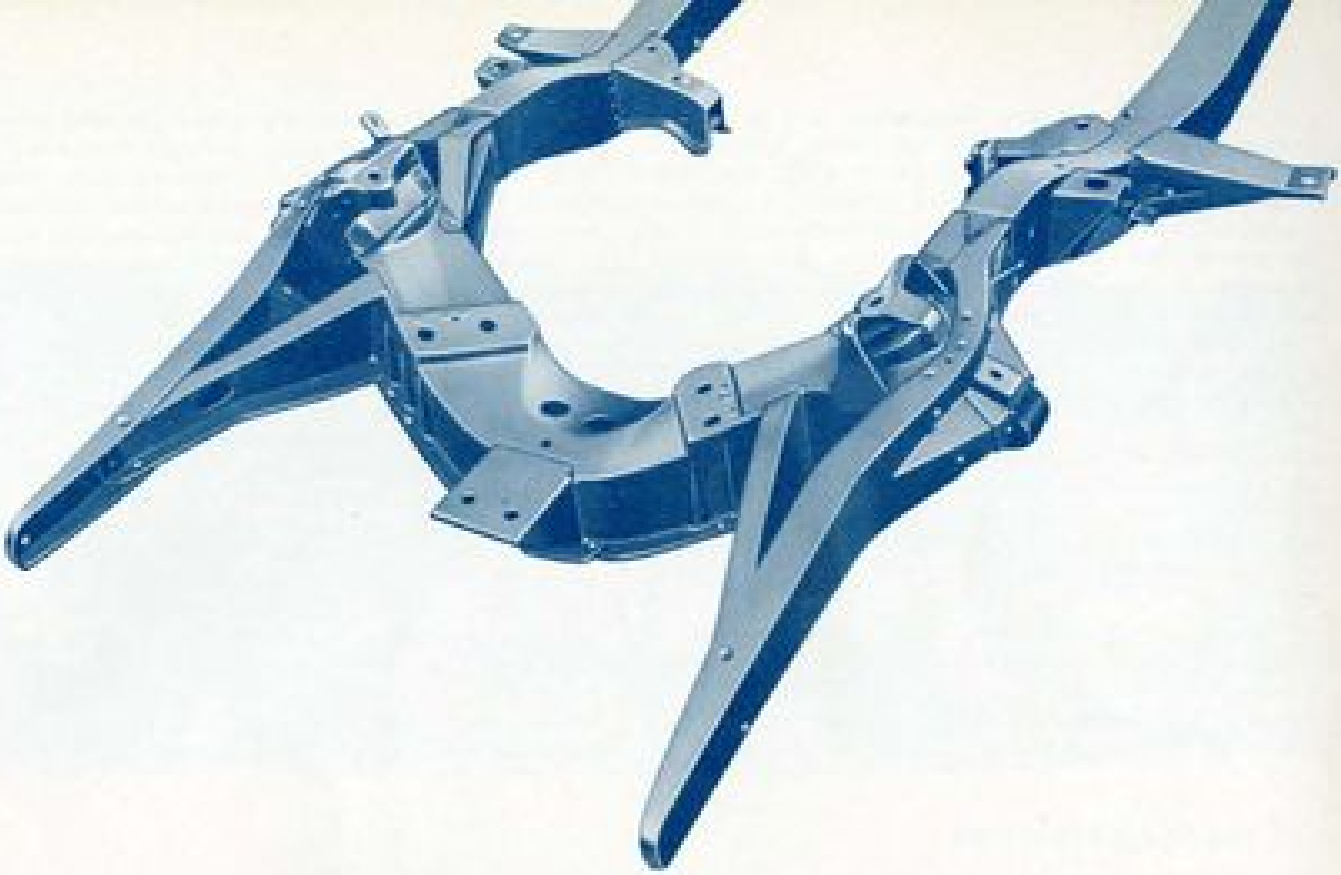
The engine rear support, which was formerly a structural cross member, now consists of two short brackets welded to the frame side members. Although this eliminates a cross member, the elimination of torque tube loads formerly transmitted to the frame at this point, the new rigid cowl construction and the inherent rigidity of the frame structure as a whole provides ample compensation. Elimination of the engine rear support cross member also facilitates removal of the transmission in service.

Two basic methods of construction are being employed in manufacturing the frames. The first design has each side member formed from a single strip of flat steel stock. The stock is first rolled and welded into a tube, then is run through a series of rollers to achieve the final rectangular section. Frames of the second design use side members made from two stamped channels, one slightly narrower than the other so they can be partially overlapped and welded to form a rectangular section.

The special frame for the convertible is of the second design with a welded-in X-member reinforcement fabricated from I-beams, and inverted channels welded to the underside of the frame side members. Both the convertible and sport coupe will again use extra body mounts, although in the case of the sport coupe, the new design eliminates the need for frame reinforcement.

THE FRAME STRUCTURE





FRONT CROSS MEMBER ATTACHMENT . . .

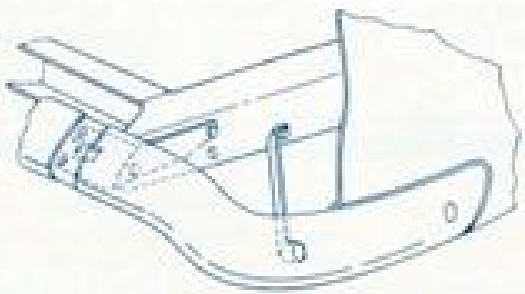
To better utilize the structural strength inherent in the front cross member, the 1955 frame integrates this member into the frame structure.

Previously, the front cross member was assembled with the front suspension as a unitized structure and then was attached with eight bolts on each side to the bottom flanges of the frame side members. However, the strength of the cross member was not fully realized in this design.

In 1955, the frame-to-front cross member structural integration also permits a much greater integration of function. As shown in the illustration, the frame side member forms part of the coil spring tower and makes provision for mounting the rebound control bumper.

Frame assembly resistance to twisting is increased by the front cross member attachment to both the top and bottom of the frame side members.

Rectangular alignment of the frame assembly is assured by the channel braces extending from the front cross member to the forward end of the frame side members.



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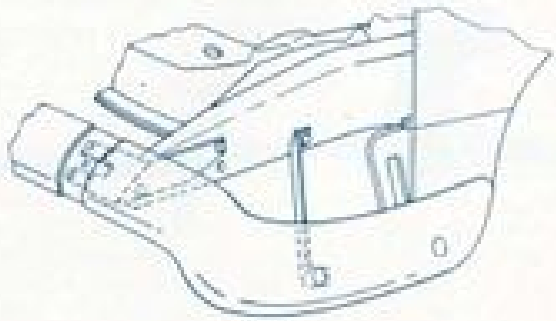
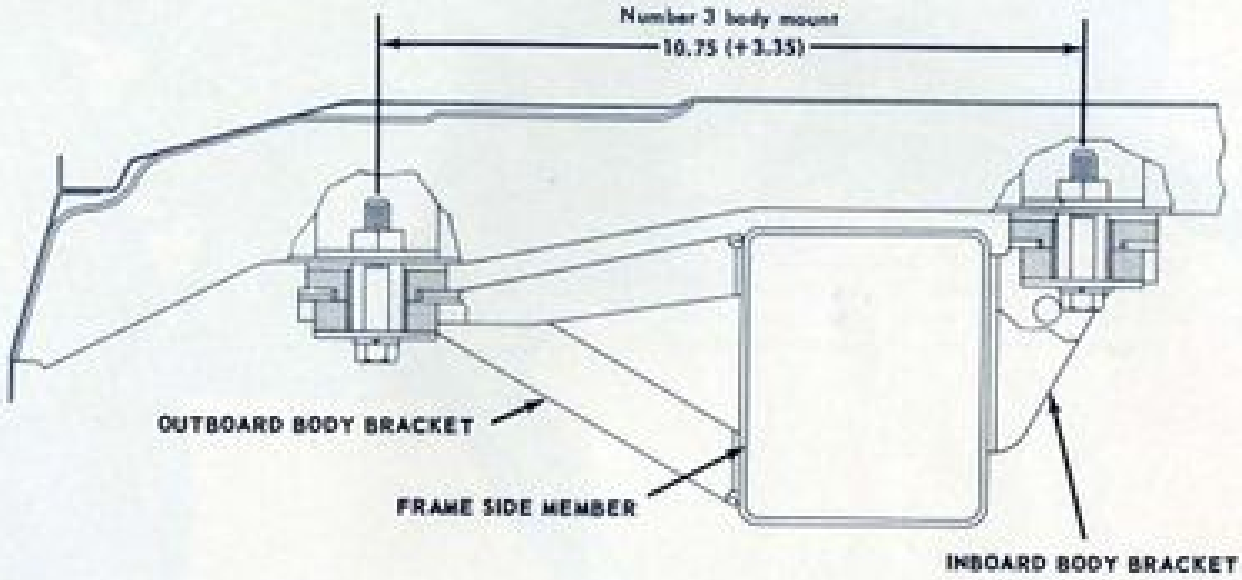


FRONT



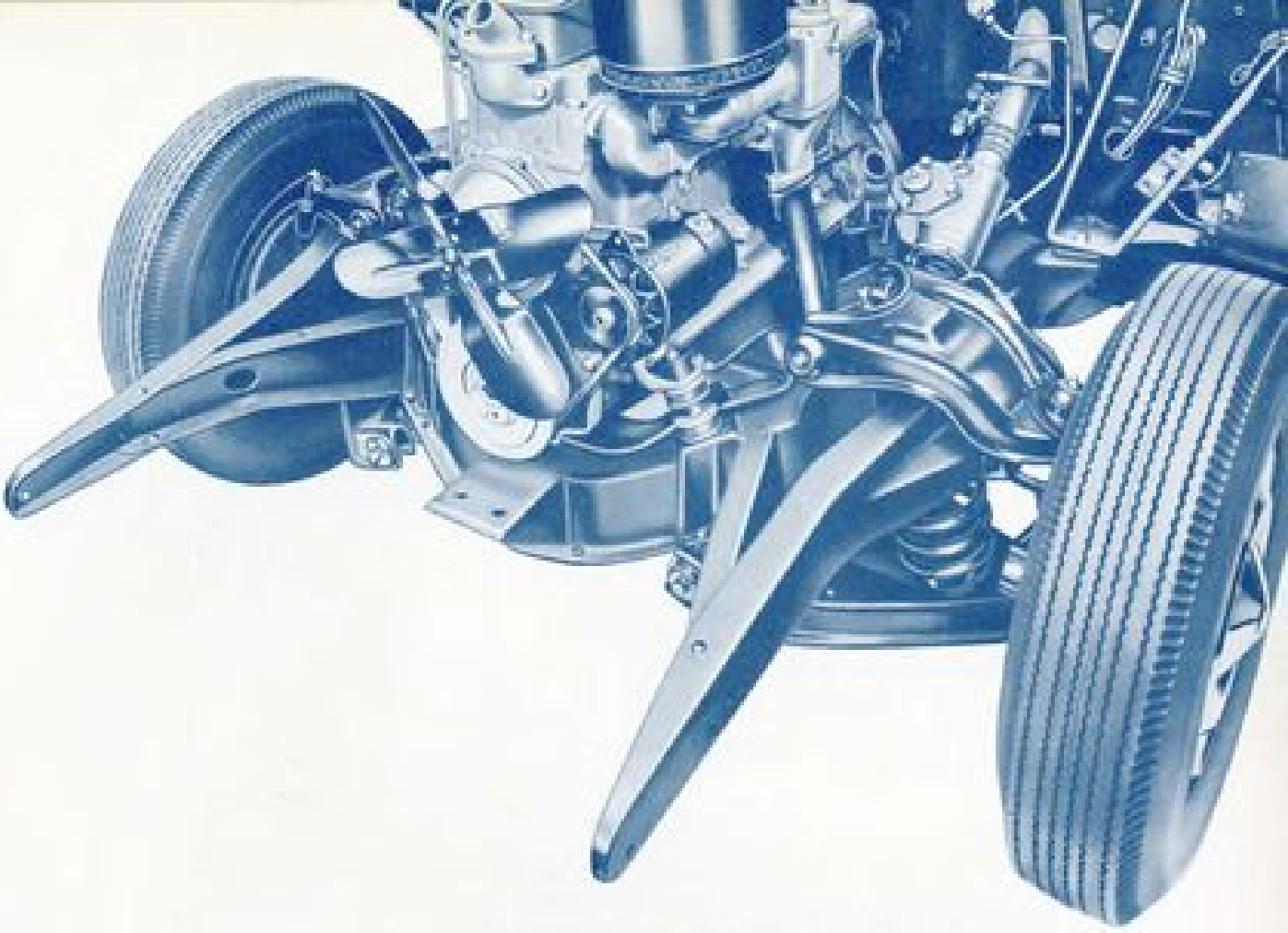
WIDER BODY MOUNTS . . .

Illustrated above, are typical body mounts which, being more widely separated in 1955, provide more uniform support of the body. Although the average width over the outer mounts is not increased, the mounts on the inboard side of the frame side members are closer to the centerline of the chassis due to the narrowing of of the overall frame width. However, the outboard body mounts of more rigid design are extended to the same average overall width as in 1954 thus creating the wider separation of mounting points.

BUMPER ATTACHMENT . . .

Greater sheet metal protection is provided with the new more rigid bumper attachment. Due to the increased length of the frame side members, the only function of the bumper brackets is to present a surface at the ends of the frame side members for bumper attachment. This stronger and more rigid mounting, plus stronger bumper face bars, insures greater protection for front and rear sheet metal and radiator grille.

Since the attachment of the bumpers to the frame side members also rigidly prevents side movements of the bumpers, the possibility of bumper, or bumper-to-sheet metal, rattles is prevented.



FRONT SUSPENSION

Chevrolet's Knee-Action Suspension, time-tested by millions of owners, incorporates important new design features for 1955 and an innovation exclusive to Chevrolet — braking dive control.

The advantages of even greater durability, improved ride and stability, as well as simplified periodic maintenance, result from such engineering developments as: unique light-weight spherical joints with non-metallic concave bearing surfaces; rubber-mounted control arms that require no lubrication and reduce the transmission of road shock and vibration; diagonally mounted coil springs and shock absorbers; and wider front wheel tread.

The coil springs and shock absorbers are again mounted concentrically, but the upper ends are inclined toward the center of the car instead of being vertical. The springs and shock absorbers thus are positioned more nearly tangent to the lower control arm arc of travel with the result that distortion of the springs in suspension movement is minimized and the suspension deflection rate is more nearly constant. The inclined position of the springs and shock absorbers also contributes to stability. In fact, the stability of the 1955 car is increased to the extent that a stabilizer bar is no longer necessary.

Durability of the front suspension has been improved by limiting to a bare minimum the number of points where friction cannot or should not be avoided. To this end, Chevrolet engineers have developed extremely durable spherical joints that replace the former control arm outer pivots, king pins, and bushings. Also, Chevrolet has utilized spherical joints for more than the immediate advantage of reduced weight and fewer bearing surfaces. For example, the ability of a spherical bearing to move in any direction has been utilized in braking dive control.

Originally developed as an improved bearing material for use in steel rolling mills and especially adapted to the new Chevrolet front suspension, the concave bearing surfaces, molded of phenolic impregnated fabric laminations, are a feature in themselves. In addition to durability, this new bearing material has characteristics which make it well suited to use in the front suspension. Compared with a metal-to-metal type bearing, it is less affected by infrequent lubrication and is less sensitive to foreign matter.

Another suspension feature which also improves durability and dampens road shock is the rubber mounting of the control arm inner pivots.

As a result of the new spherical joints and rubber bushed control arm pivots, the number of points requiring periodic lubrication in the front suspension is reduced from 16 to 4.

Control arms remain pan-like stampings and are newly designed to take advantage of other suspension

changes. The spring towers now are relatively closer to the centerline of the car so that the upper control arm no longer has to be designed in a V shape to provide sufficient clearance. Also, the upper spherical joint assembly mounting permits the control arm flange to continue uninterrupted around the outer end. As part of the overall efficiency of the front suspension, these design changes provide greater strength and longer fatigue life.

The lower control arm receives the same flange treatment at its outer end as the upper control arm, and has added support for the inner pivot bushings as well. To eliminate the possibility of accumulations of mud or snow hampering suspension movements, the lower control arm pan section is inverted from the previous design.

Since the new front cross member is integrated into the frame structure at the frame plants, front suspension assembly is performed at the vehicle assembly plants. Mounting holes for the various suspension components are precision drilled at the frame plants to insure accurate relationship with the rest of the chassis, and the suspension is precision assembled and aligned on the vehicle assembly line. Shock absorbers are recalibrated for a soft, better controlled ride, and feature a new method of lower end attachment.

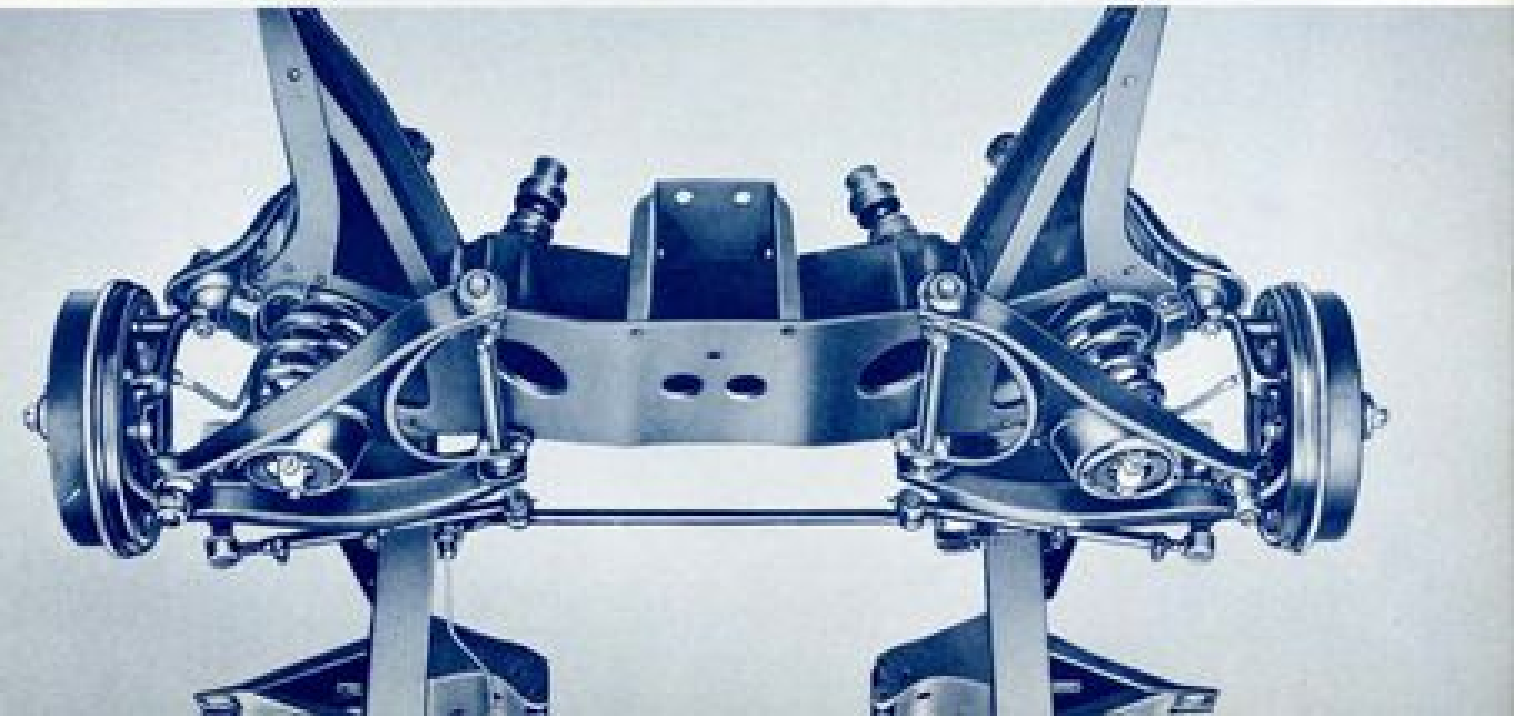
The new shock absorber lower mounting is designed to permit the shock absorber to pivot on the lower control arm during suspension movement and thus eliminate side forces on the mounting. A rubber bushed ring assembly is welded to the bottom of the shock absorber. Both ends of the inner tube of the ring are flattened and notched for attachment inside the spring seat on the lower control arm. The two attaching bolts are located on a line parallel to the control arm pivot axis to correlate motion of the shock absorber and control arm.

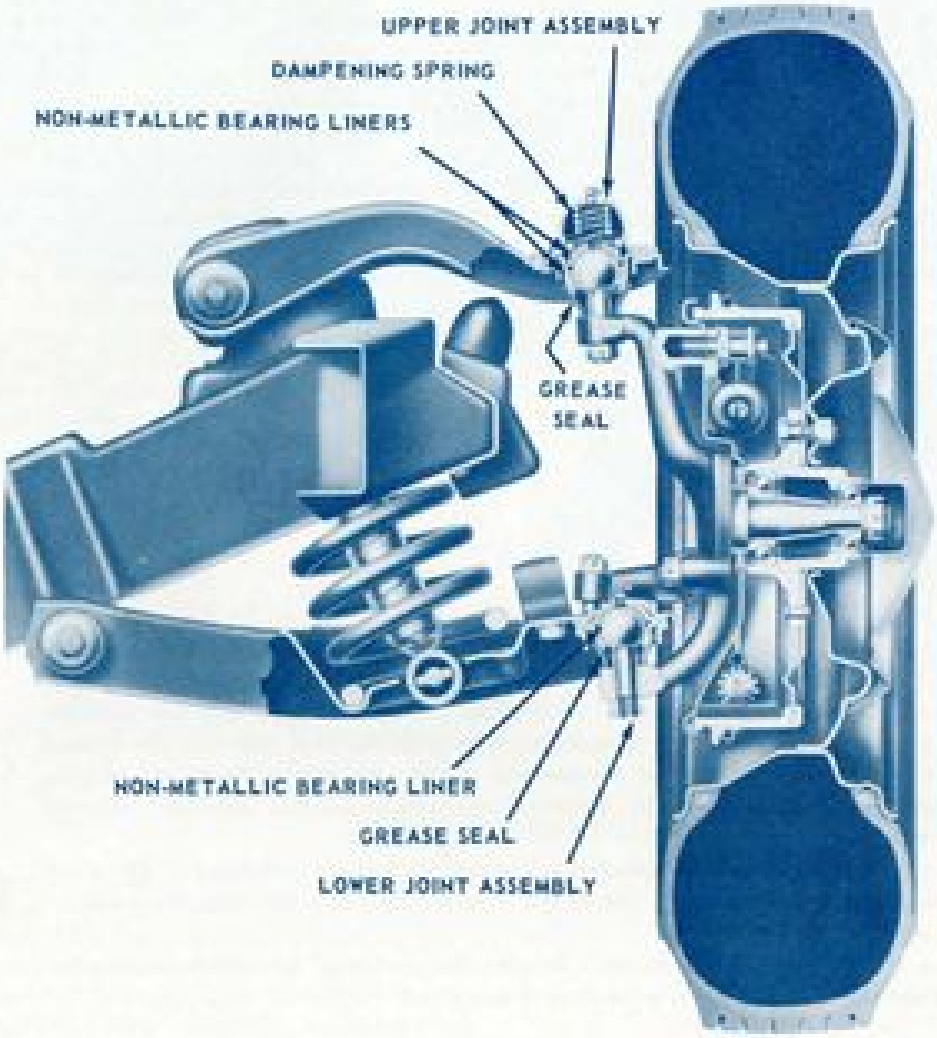
NEW FRONT SUSPENSION . . .

Chevrolet's new front suspension retains the proved short and long arm parallel link principle of independent suspension to provide the best ride over the widest range of road conditions. All components are of new design, however, to give the greatest possible durability, ease and accuracy of function with less periodic maintenance.

In addition, the tread is increased 1.3 inches so that, in conjunction with other chassis changes, stability is increased to a degree which obviates the need for a stabilizer bar.

The use of spherical joints also permits the geometric freedom necessary for the front suspension feature of braking dive control.





SPHERICAL JOINTS . . .

Unique spherical joints incorporating non-metallic bearing liners of molded, phenolic impregnated fabric laminations, provide extreme durability. The upper spherical joint spring is preloaded at assembly to 425 lbs. which dampens shock and adjusts the assembly for wear. The lower joint carries the vehicle weight, which keeps the assembly loaded in one direction and therefore requires no integral spring to keep it in adjustment.

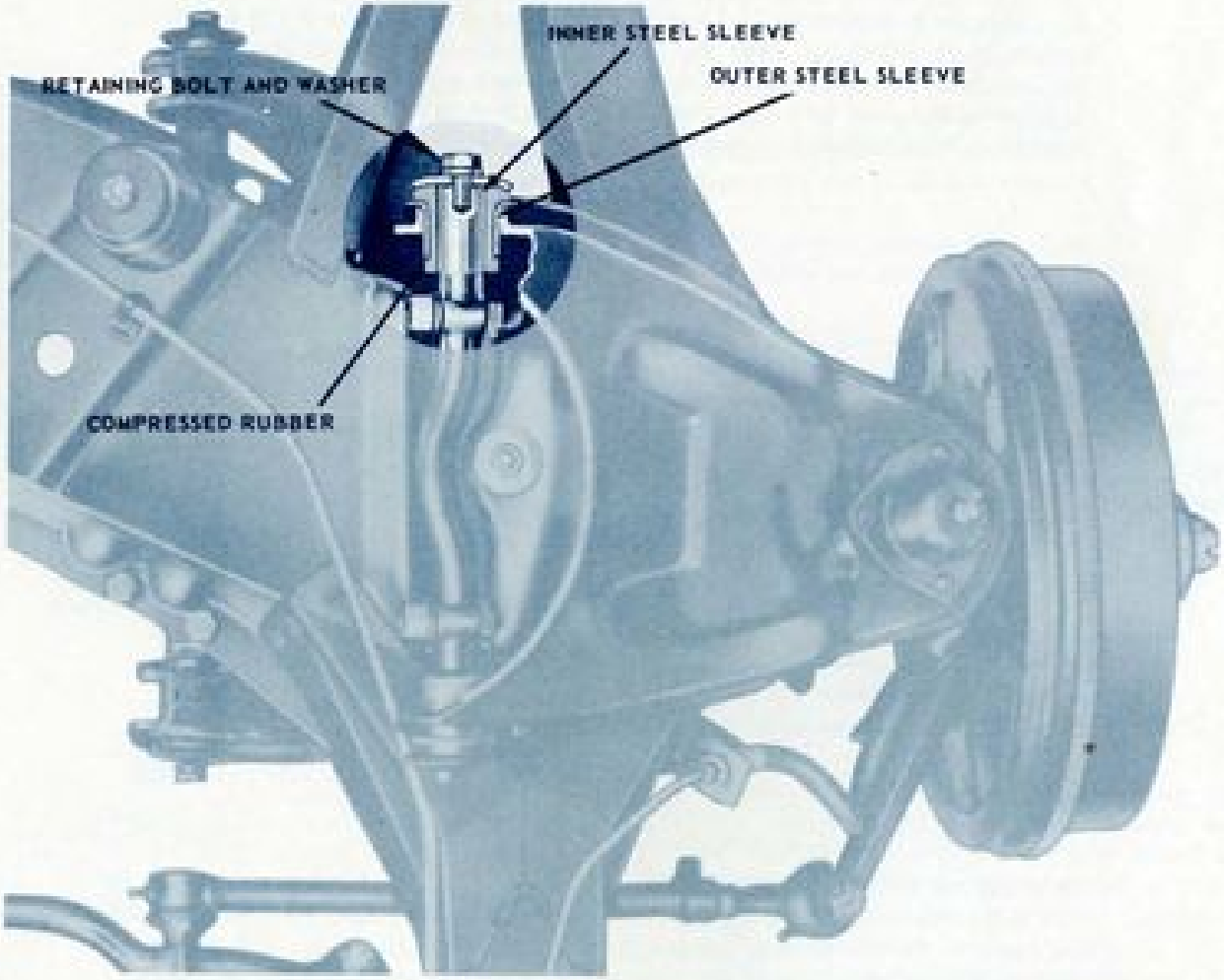
Since the only maintenance required for the spherical joints is periodic lubrication, the two halves of the housing are welded together at assembly and the joints are serviced as complete assemblies only.

CONTROL ARM PIVOTS . . .

New anti-friction control arm inner pivots eliminate the need for lubrication, and dampen road noise, shock and vibration.

By forcing rubber under pressure between two concentric steel tubes, a bushing is made that permits movement through the elasticity of the rubber with no friction or sliding contact to require lubrication. Axial movements of the control arms are limited by the extra ring of rubber compressed between the outer steel flange and the bushing retainer.

In assembly, the outer steel sleeve is pressed in the control arm boss, and the inner sleeve is held against the shoulder of the control arm mounting shaft by the retaining bolt and washer. Thus, any control arm movements are "bushed" by the compressed rubber.

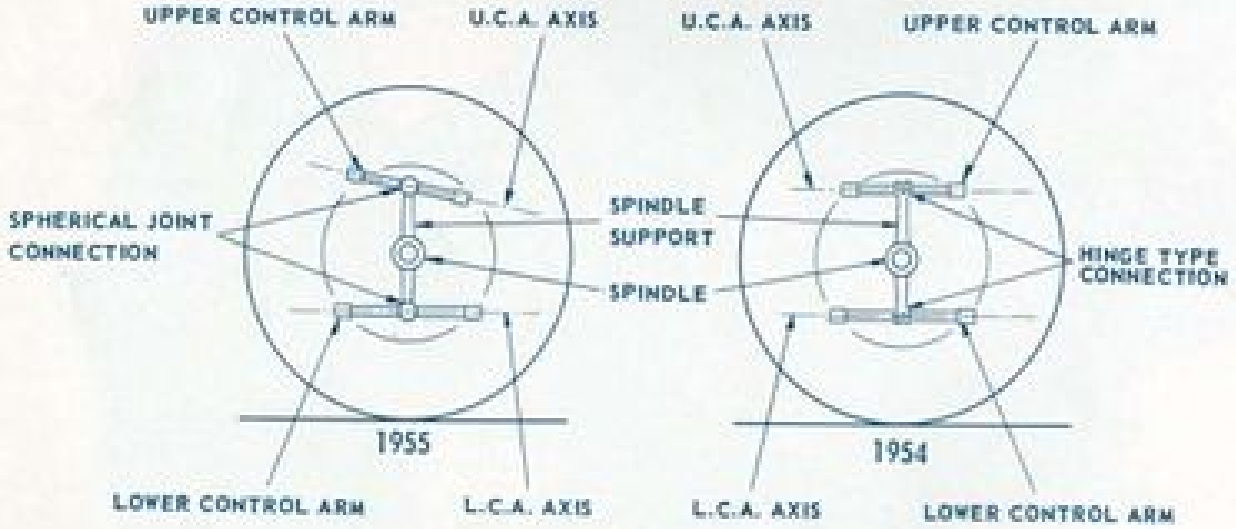


BRAKING DIVE CONTROL

1954

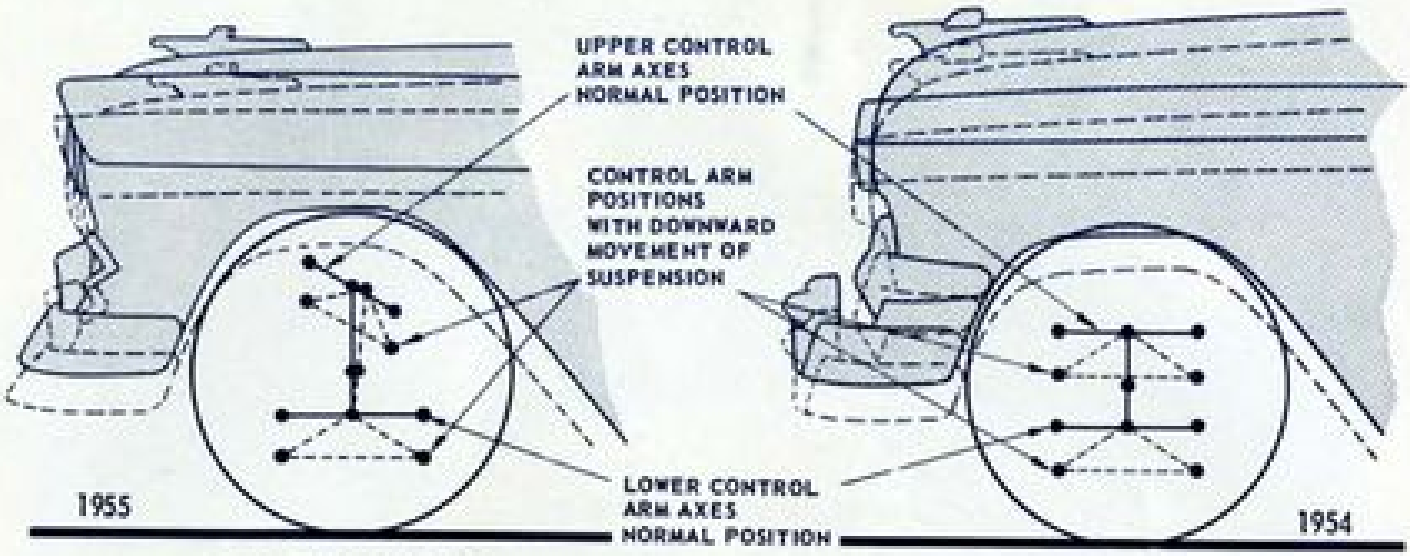
1955

Dive upon brake application is caused by the effect of weight transfer in the direction of vehicle travel when the brakes arrest the momentum of the moving vehicle. For 1955, Chevrolet has developed a unique suspension geometry that, by utilizing the same forces that cause a vehicle to dive upon brake application, actually reduces braking dive approximately 45 per cent.



SUSPENSION GEOMETRY COMPARISON . . .

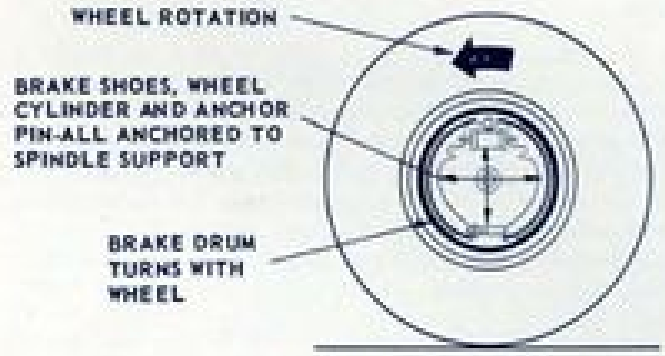
The design principle in this engineering feature is best illustrated by direct comparison with the conventional design: Geometrically, the 1955 design differs from 1954 in that the upper control arm pivot axis is placed at an angle with the lower control arm axis, rather than parallel. This is made possible by the use of spherical joints at the control arm-to-spindle support connections. In 1954, with hinge-type connections between the control arms and spindle support, the control arm axes had to be parallel.



SUSPENSION MOTION . . .

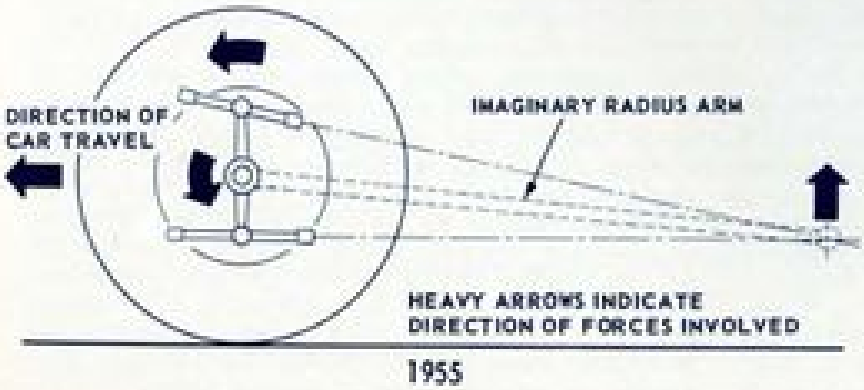
In up and down movements of the 1955 chassis, control arm geometry causes the spindle to turn on a radius about the lower spherical joint. Because the upper control arm is not parallel to the lower control arm which is parallel to the ground, the more the suspension is moved, the greater the angle the spindle support makes with the vertical, as illustrated above for downward movement of the suspension. Since the angularity of the spindle support is produced by movement of the suspension arms, the action is reversible in that the suspension can be made to move by applying a twisting force about the spindle. This is the action which is utilized in controlling braking dive.

The 1954 design was incapable of any such spindle motion because the spindle support ends had to move in the same line since the control arm axes were parallel.



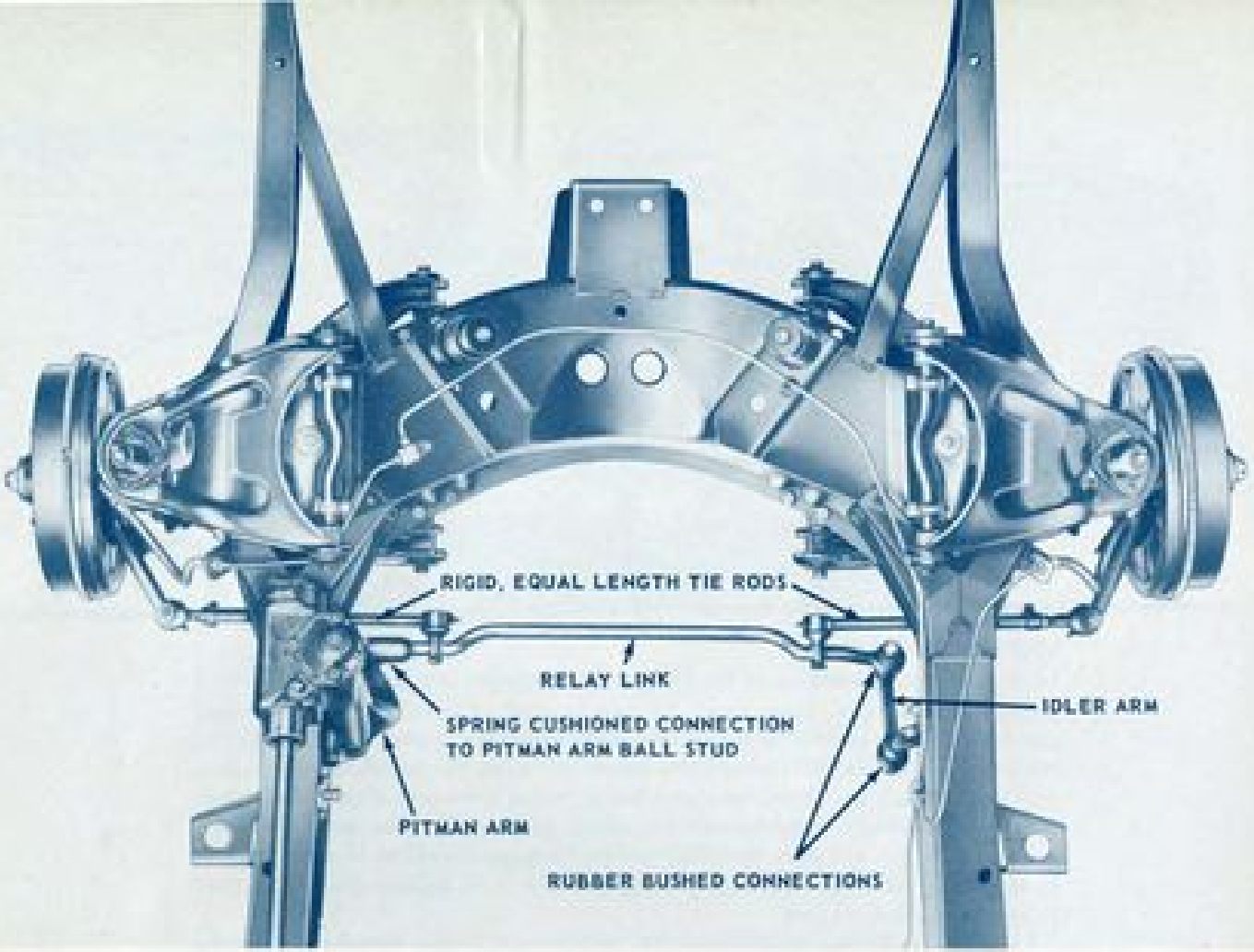
BRAKE FORCES . . .

When brakes are applied, the stationary brake shoes resist the turning drums, which rotate with the wheels. Since the brake shoes, wheel cylinder and anchor pin are all anchored to the spindle support, the brakes, in resisting the turning drums, exert a twisting force on the spindle support in the same direction as the turning wheel. Therefore, the brakes become a natural source of force to actuate the control of braking dive.



REACTION TO BRAKING . . .

When the brakes are applied on a forward-moving 1955 Chevrolet, the reaction is the same as though there were a radius arm integral with the spindle support and pivoted at the frame. The effective length of such a radius arm would be the distance from the spindle to the point of intersection of the control arm axes. The direction of the forces involved is shown. The amount of upward force at the frame end of the imaginary radius arm is proportional to the resistance developed by the brakes, which is in proportion to the tendency of the vehicle to dive.



STEERING

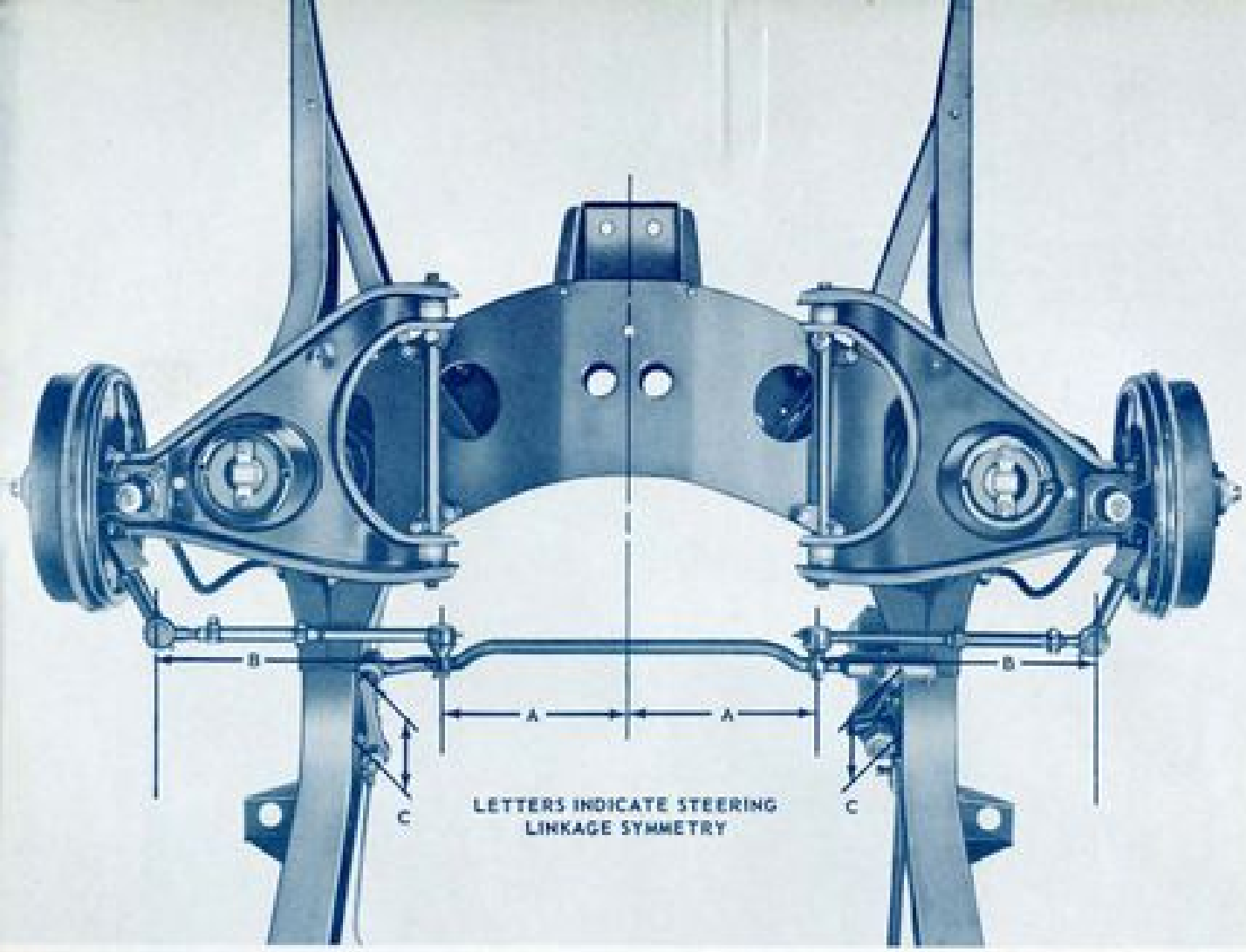
Reduced steering effort, greater operating smoothness, and increased durability are the benefits of a completely new steering system in 1955. Design changes encompass the entire range of steering functions and include: a recirculating ball and nut type gear that transfers more driver effort into actual steering effort; relay type steering linkage; and an abbreviated steering column mast jacket for better isolation of vibration and road shock.

The new steering gear has a ratio of 20-to-1 as compared to 19.4-to-1 in 1954, while the overall steering ratio is increased from 23.1-to-1 to 25.7-to-1. This, together with the increased mechanical efficiency of the new steering gear, provides much greater steering ease.

In the design of the 1955 steering system the pitman arm, extending from the steering gear, and an idler lever, supported from the right hand frame side member, are interconnected by a relay link which forms a parallelogram. Movements are governed by the pitman arm through the steering gear. Two tie rods of a common, shorter length connect the steering knuckles to the relay link to form a symmetrical steering system. The immediate advantage of this design is balance, both in effort and geometry, and in addition, transmission of road shock to the steering wheel is reduced. The balance of the steering linkage preserves correct steering geometry throughout the range of up and down suspension movements because the length and location of the tie rods were designed to provide the most desirable relationship with the wheel spindle arc of travel. Relatively much shorter tie rods insure minimum deflection under load stress.

The ends of the idler arm are mounted in rubber bushings to eliminate friction and the need for lubrication. The pitman arm ball stud connection to the relay link combines the functions of the two spring loaded ends of the 1954 drag link. That is, the pitman arm ball stud is spring loaded in two directions in the relay link to cushion road shock and vibration from the steering wheel.

Transmission of road shock and vibration to the steering wheel is greatly reduced as a result of the new steering column mast jacket design. In previous designs, the mast jacket was pressed into the steering gear housing and could transmit vibration or shock directly from the chassis to the steering wheel. The new mast jacket does not extend all the way to the steering gear housing and, therefore, cannot transmit shock from the housing to the steering wheel. Four thick felt washers are used to fill the space between mast jacket and steering gear housing to prevent entry of foreign matter.



STEERING GEOMETRY . . .

More accurate steering geometry through the full arc of wheel turn and through the full up and down travel of the front suspension is provided with the new relay type steering linkage. This results from the coordination of designs for the linkage and suspension.

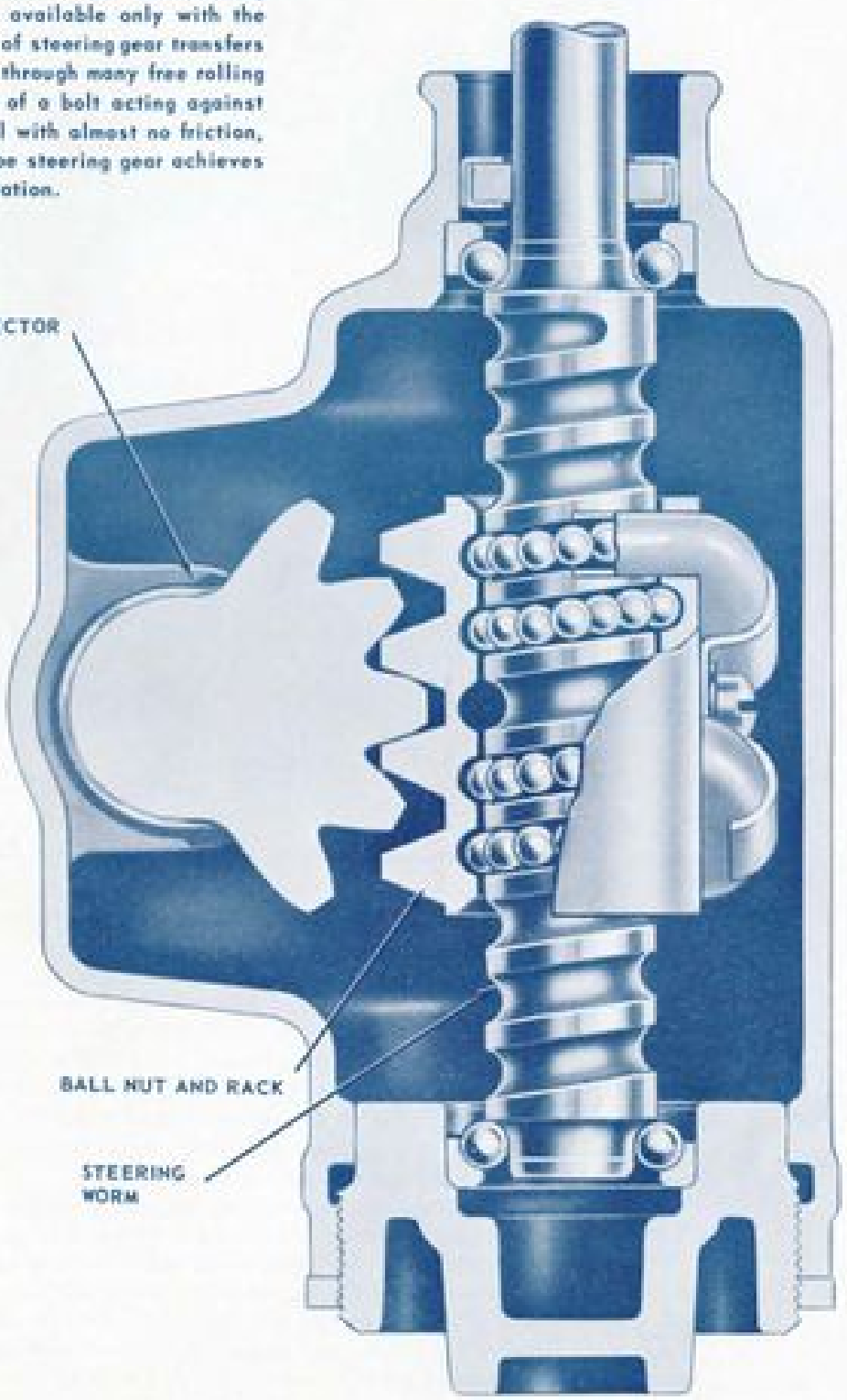
In the new construction, each front wheel turns about a spindle which is fixed to a link, or spindle support, that connects the upper and lower control arm spherical joints. Since each spherical joint moves through an arc of which the control arm is the radius, the ends of the spindle support move in arcs of different radii, and any point between the spindle support ends moves through yet another arc. This means that the spindle, which is located slightly above the lower control arm spherical joint, moves through an arc of slightly shorter radius than the length of the lower control arm yet longer than the upper control arm.

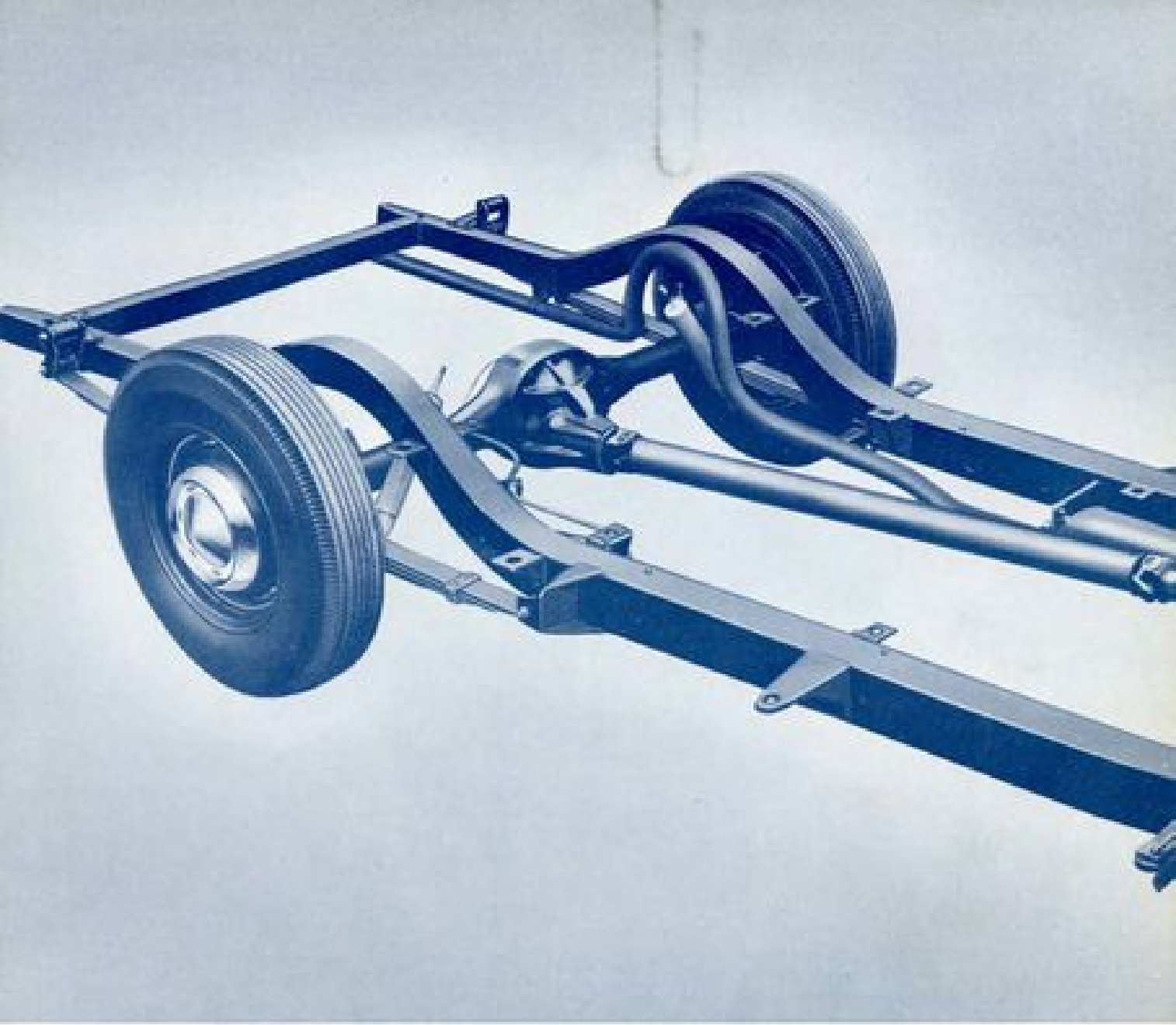
For absolutely true geometry, the steering tie rods must establish a radius that conforms to the arc of spindle travel; and the 1955 linkage geometry is designed to do just that, with one slight deviation. Directional stability is improved by providing a slight understeer when the suspension is extended. That is, the inside wheel in a tight turn will tend to return the wheels to a straight ahead position.

The complete symmetry of linkage and suspension component design insures the same geometry or steering reaction to either a left or right hand turn.

STEERING GEAR . . .

The new steering gear incorporates the recirculating ball and nut principle formerly available only with the power steering option. This type of steering gear transfers rotating force into linear motion through many free rolling balls that serve as the threads of a bolt acting against a nut. And, since a ball will roll with almost no friction, the recirculating ball and nut type steering gear achieves high efficiency with smooth operation.





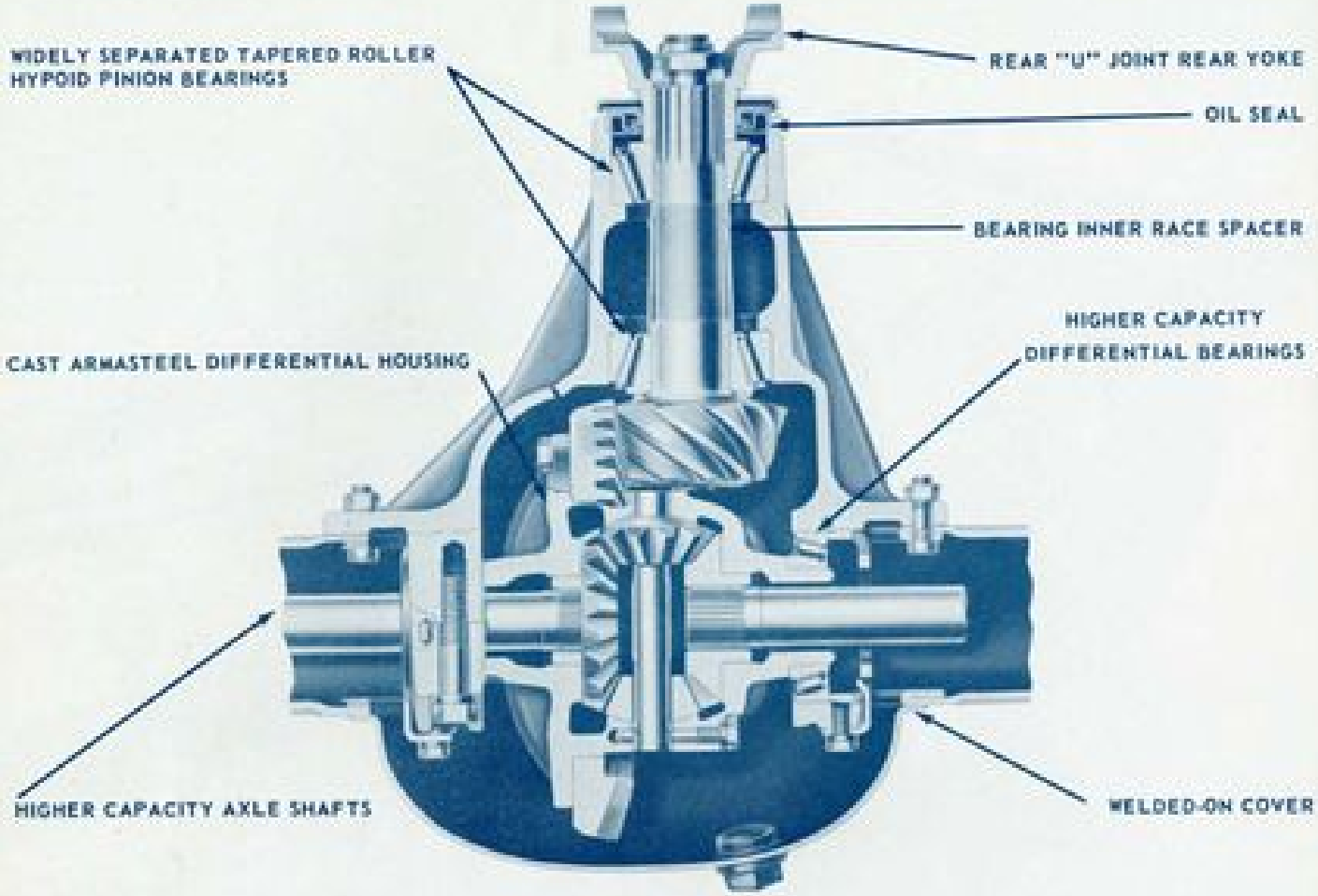
REAR AXLE AND SUSPENSION

Basic design changes in the new rear suspension provide a lower overall vehicle silhouette, greater stability, improved handling and ride, and smoother drive train reactions to torque and braking applications.

Probably the greatest single change is the replacement of torque tube drive with Hotchkiss drive. This one feature reflects a nearly complete change of functions for rear suspension components, and to varying degrees, permits a more desirable design throughout the entire power train. The influence of this basic change is manifested in a completely different dynamic character of the car, of a type usually associated with far heavier, more expensive cars.

New longer, wider mounted rear springs of more efficient design, provide durability with improved ride. By increasing the length, but maintaining a low deflection rate in the springs, durability is improved because for a given load the spring arc is less acute, which reduces elastic stresses in the spring. Roll stability is improved by the broader based support which results from the wider spaced springs. Shock absorbers are recalibrated in accordance with the design of the new rear suspension.

The rear axle assembly is redesigned to meet the requirements of Hotchkiss drive and in addition provides greater torque capacity, improved durability, and elimination of oil seal assembly problems. These features are gained by the use of more rigid pinion shaft supports, cast Armasteel differential housing, higher capacity differential bearings, heavier axle shafts, integral wheel bearings and oil seals, and more rigid axle housing.



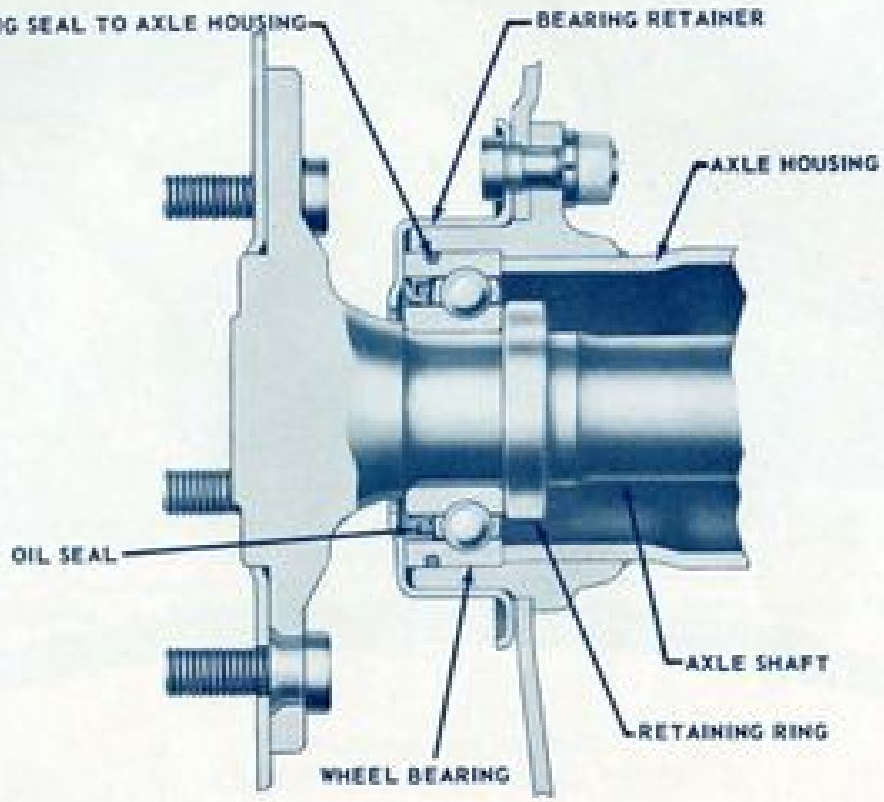
REAR AXLE . . .

The new rear axle assembly provides the extra torque capacity required with the new more powerful V-8 engine, as well as increased durability.

To improve alignment durability, the hypoid pinion shaft is rigidly supported by two widely separated tapered roller bearings. With the adoption of Hotchkiss drive and the elimination of the torque tube, the hypoid pinion shaft is sealed against oil leakage at the front of the differential housing. The rear yoke of the rear universal joint mounts on the splined forward end of the hypoid pinion shaft.

The differential housing is of cast Armasteel instead of cast malleable iron, to increase structural strength and resistance to scoring. To increase durability and torque capacity, the differential bearings are increased to the size used on the light duty truck axles. Providing increased axle housing rigidity for axle assembly durability, the access cover which formerly was bolted-on is now welded-on as an integral structural part of the housing. This feature was permitted by the new method of retaining the axle shafts which does not require access to the third member assembly.

Formerly, axle shaft inward thrust was taken by a spacer block between the axle shaft inner ends and outward thrust was taken by a "C" washer, fitted in an annular groove on the axle shaft inner end. The outside of the washer being seated in a counterbored recess in the differential side gear. Thus, a removable axle housing access cover was required to reach the spacer block and "C" washers for axle shaft installation and removal.



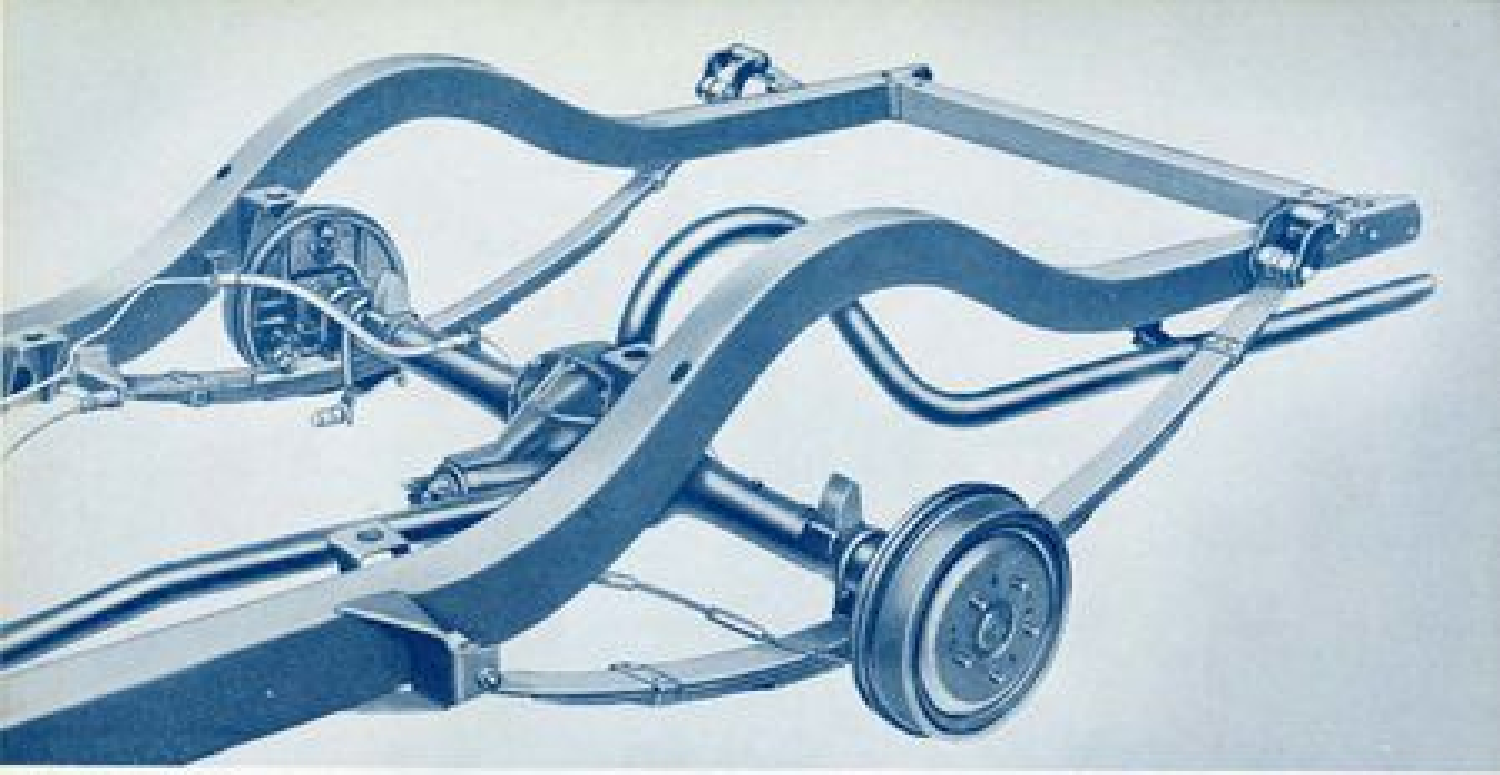
WHEEL BEARINGS AND SEALS . . .

Completely eliminating the possibility of seal damage in assembly operations, the former straight roller wheel bearings and separate oil seals are replaced by ball bearings and oil seals as complete assemblies.

Formerly, the axle shaft oil seals were pressed into the axle housing preceding assembly of the axle shaft, which was passed through the oil seal, with the constant danger of damage to the oil seal lip by the axle shaft splines and subsequent seal failure in service. The new wheel bearing assembly eliminates this problem by incorporating the seal in the bearing assembly. This is made possible because ball-type bearings require an accurately machined inner race and cannot use a surface of the axle shaft for the inner race as was possible with straight roller-type bearings. The bearing races are designed with extra width so that the oil seal can be pressed in the outer race and make sliding contact with the inner race.

Axle shaft retention is simplified with the new wheel bearings. The former straight roller bearings were not capable of handling end loads, and axle shaft retention was accomplished at the differential gears. Since ball-type bearings are capable of carrying end loads, the inner race, along with a retaining ring, is pressed on the axle shaft and the shaft is held in assembly by a retaining plate that is bolted to the axle housing and bears against the outer race.

The overall diameter of the wheel bearings is greater than it was previously through the addition of the inner race. Further, axle housing strength is greater with a 28.5 per cent increase in section modulus because, in keeping with the larger wheel and higher capacity differential bearings, the diameter is enlarged with no change in wall thickness.



SPRINGS . . .

Longer and wider, more durable rear springs, new also in their mounting design, add substantially to the smooth ride and stability of the car.

Dimensionally, the springs are 58 inches long by 2 inches wide which is 9 inches longer and .25 inch wider than in 1954. Individual spring leaves are thicker in section and fewer leaves are used so that the assembled thickness is practically the same as before. Sedan and coupe springs are 4 leaf, while station wagon springs have 5 leaves. In 1954, these models had 7 and 8 leaves respectively.

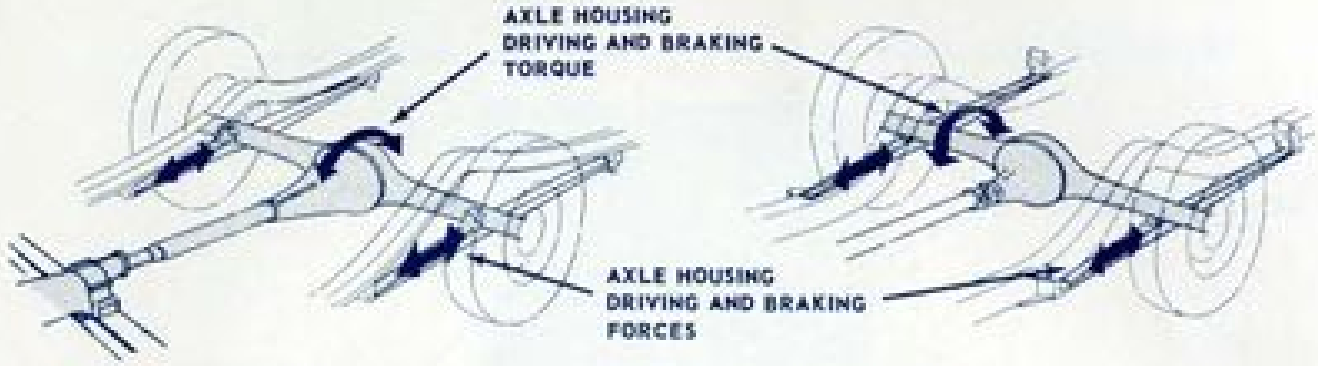
All spring leaves have a full-length longitudinal groove on the under side to eliminate unnecessary weight. Since the under side of a spring leaf is always in compression, and the top side in tension, the compression properties of steel are such that far less steel is required on the under side to equal the tension capacity of the top side.

The top surface of the main leaf is shot peened to increase resistance to fatigue, since Hotchkiss drive places additional flexing demands on the spring.

No periodic lubrication is required for the springs since the eyes are again mounted in rubber and a strip of wax-impregnated webbing, 3.5 inches long and 2 inches wide, is riveted to the top of each end of the intermediate leaves. The webbing acts as a bearing against the leaf above and replaces the nylon button inserts used in 1954.

The new springs are mounted 3/4 inch farther apart and are located outboard instead of beneath the frame side members to increase chassis stability and permit a reduction in chassis height.

Compression type shackles at the rear of the springs replace the tension type to provide maximum road clearance at this point. Also, the shackles do not influence the normal spring rate, permitting ride control to be concentrated in the shock absorbers.



TORQUE TUBE DRIVE . . .

With the former torque tube drive rear axle housing thrust was transmitted to the frame through the rear springs, while the torque was rigidly transferred to the frame through the torque tube and engine rear support. This required the engine rear support to be sufficiently rigid so that maximum axle housing torque reactions would not deflect the transmission at the engine rear support beyond certain limits. The necessary stiffness of the torque tube drive components thus delivered drive line shocks to the frame and body with little cushioning.

HOTCHKISS DRIVE . . .

Compared with the torque tube drive used previously, Hotchkiss drive provides increased drive line smoothness, easier handling, and reduced weight, and permits the lower silhouette. Using the rear suspension as the only structural attachment and reaction support for the rear axle eliminates the weight of the torque tube enclosing the propeller shaft. Then, by the addition of a second universal joint on the forward end of the hypoid pinion shaft, driving or braking forces are flexibly cushioned by the springs.

BRAKES, WHEELS AND TIRES

BRAKES for 1955 are redesigned to provide better accessibility, greater passenger comfort, and reduced weight. These features are the result of a new more rigid, weight-saving method of mounting the front wheel cylinders and anchor pins, a new master cylinder in a more convenient location, and new pendant pedal and linkage.

At the wheels, the same eleven-inch drums, duo-servo self-energizing shoes, and wheel cylinder sizes are retained.

A new master cylinder is mounted on the engine side of the dash panel. This location makes possible the direct connection of the brake pedal arm to the master cylinder actuating push-rod and permits much easier servicing of the master cylinder hydraulic fluid reservoir.

The new master cylinder bore is 1 inch in diameter as compared to 7/8 inch in 1954. This reduces the hydraulic ratio slightly, but the mechanical ratio of the pedal arm is increased to maintain the overall braking ratio and ease of operation.

Parking brakes continue to operate the service brakes on the rear wheels mechanically. The "T" handle control, however, is moved from the right to the left hand side of the steering column, permitting the driver to have his right hand free to operate the other controls while operating the parking brake. A cable and two pulleys replace the previous pull rods and bellcrank in connecting the "T" handle to the idler lever, thus reducing the engine compartment space required for the parking brake linkage. The idler lever, which formerly attached to the underside of the engine rear support cross member, now attaches to a reinforcement on the underbody.

TUBELESS TIRES are introduced as regular equipment on the 1955 Chevrolet.

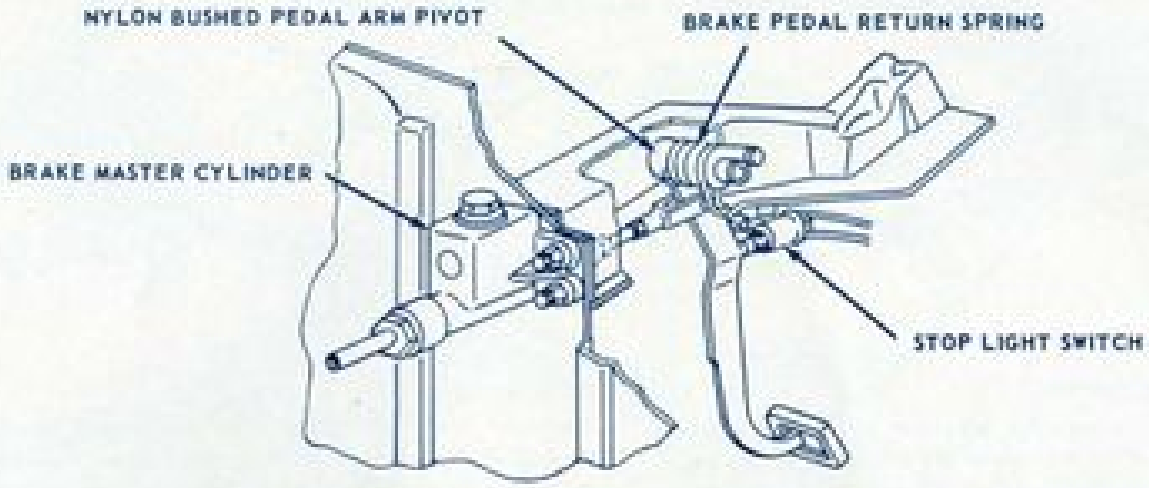
Featuring a greater safety factor, increased durability, and contributing to easier ride and handling, tubeless tires are the culmination of many years research on the part of the tire manufacturers.

Essentially, the tubeless tire is quite similar to a conventional tire casing except that it has a butyl liner cured to the inside. A self-sealing, snap-in valve core replaces the conventional valve stem.

In exterior appearance the tires are exactly like a conventional tire, except that all brands used feature new, more silent tread designs and new sidewall styling. One brand incorporated the new tread and appearance on the conventional tires in mid-season of the 1954 model year.

WHEELS are subject to closer quality control in production but otherwise they require no special consideration for use with the new tubeless tires. Special attention is given to weld finish, and rim bead seat finish to insure that the wheel rim is airtight.

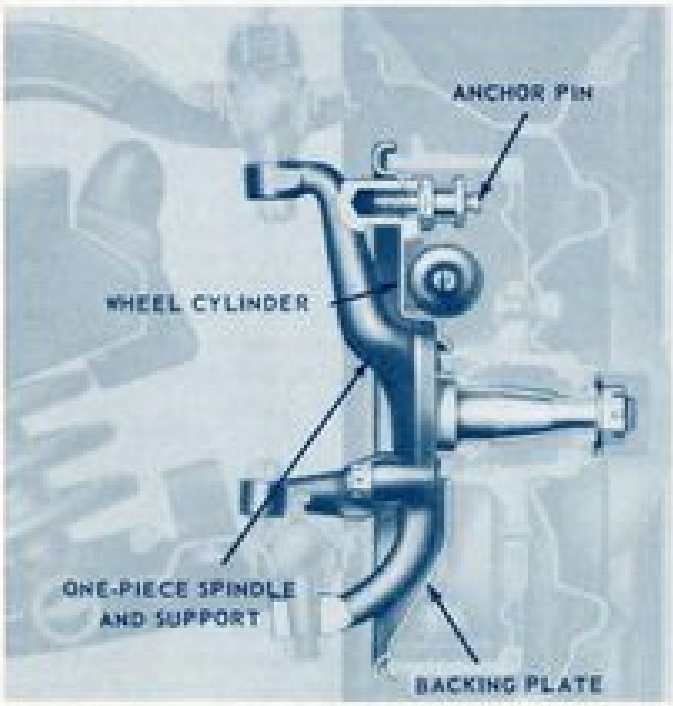
The wheels are of the same design as in 1954, except for the addition of four stamped lugs on the outside horizontal portion of the rim. These lugs are used in conjunction with the improved attachment of bright metal wheel disks.



SUSPENDED BRAKE PEDAL . . .
The new suspended brake pedal and linkage provides much easier accessibility to the master cylinder and stop light switch as well as protecting the linkage from road splash and permitting the passenger compartment to be more efficiently sealed. Nylon bushings at main points of wear eliminate the need for periodic lubrication.

The stop light switch is again of the safe mechanical type. However, the switch is relocated from the under side of the toe pan to the brake pedal bracket inside the car where it is protected from road splash and is more accessible. The new switch is of the plunger type, spring loaded toward the on position, and held in the off position by the brake pedal arm when the brakes are released.

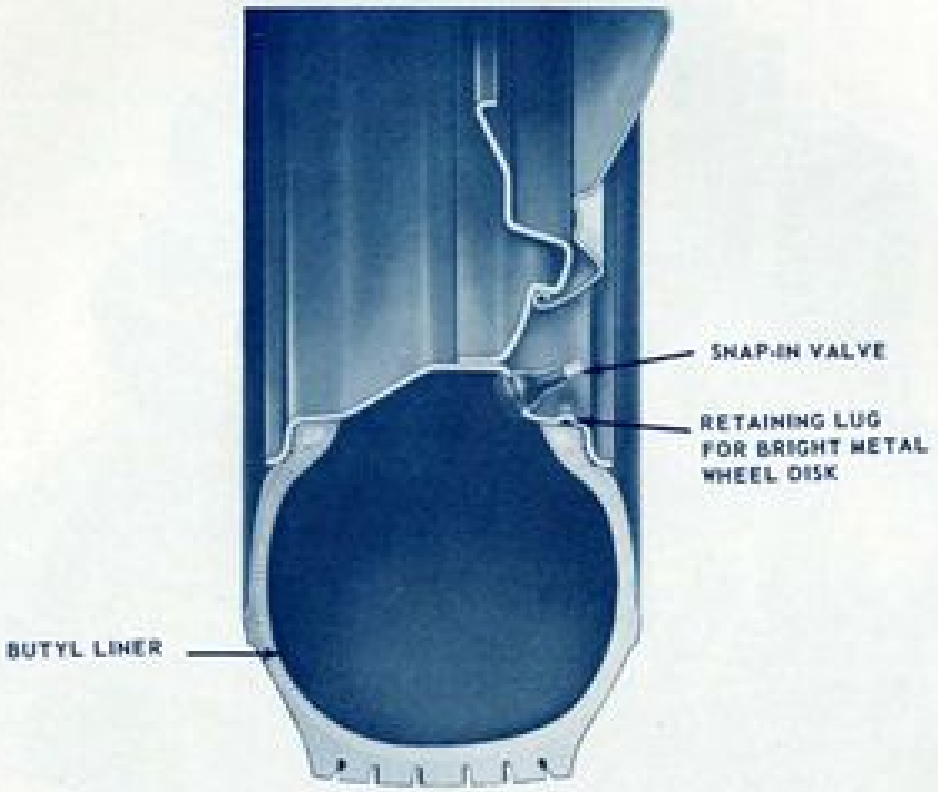
The channel section bracket from which the pedal is suspended also serves as the brace between the dash panel and instrument panel. Formerly, two rods were used to brace this area.



FRONT BRAKES . . .
An exclusive design feature that decreases unsprung weight is the new mounting of the wheel cylinder and anchor pin.

With the spherical joint suspension, the wheel spindle and spindle support become one piece. This permits the front brake wheel cylinder and anchor pin to be mounted directly to the spindle support, relieving the brake backing plate of any structural requirements. Thus, the wheel cylinder and anchor pin are rigidly supported, and since it serves only as a protective cover, the backing plate is made from much lighter material.

Both the front and rear brake assemblies have non-adjustable anchor pins and are precision assembled as units to minimize further adjustment.



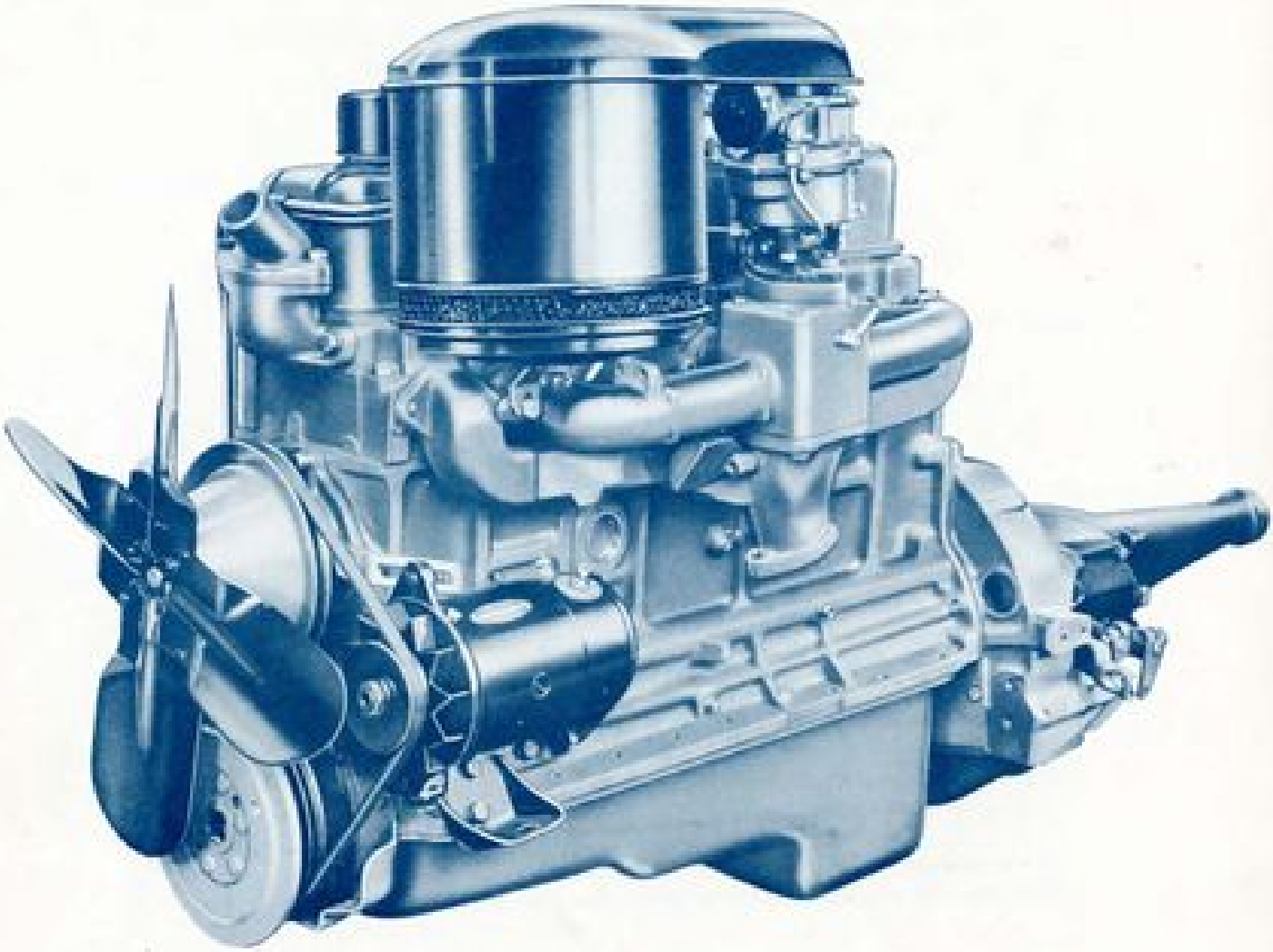
WHEELS AND TIRES . . .

The tubeless tires, used as standard and optional equipment, offer many advantages. Besides contributing to better handling, ride, and durability, tubeless tires have a higher safety factor and are comparatively easy to service.

Basically, the key to the efficiency of the tubeless tire lies in the fact that a layer of butyl synthetic rubber is cured or bonded directly to the inside of the casing. In this manner, the butyl rubber serves only to seal the casing in order to retain the air and is under no stress.

In the conventional tire and inner tube combination, a section taken through an un-inflated assembly will show that the tube fills only 75 per cent of the area within the casing. Upon inflation, the tube is stretched to fill the remaining area within the casing. This means that upon puncture the tube will tend to stretch away from the damage or, in an extreme case, rupture when punctured like a toy balloon.

In a tubeless tire, the air retaining layer of butyl rubber is under no stress and, therefore, it tends to provide a seal around a puncturing object as long as such an object is in the casing. Even when the puncturing object is removed, the rate of leaking is much slower than in a similar situation with a conventional tire and tube.

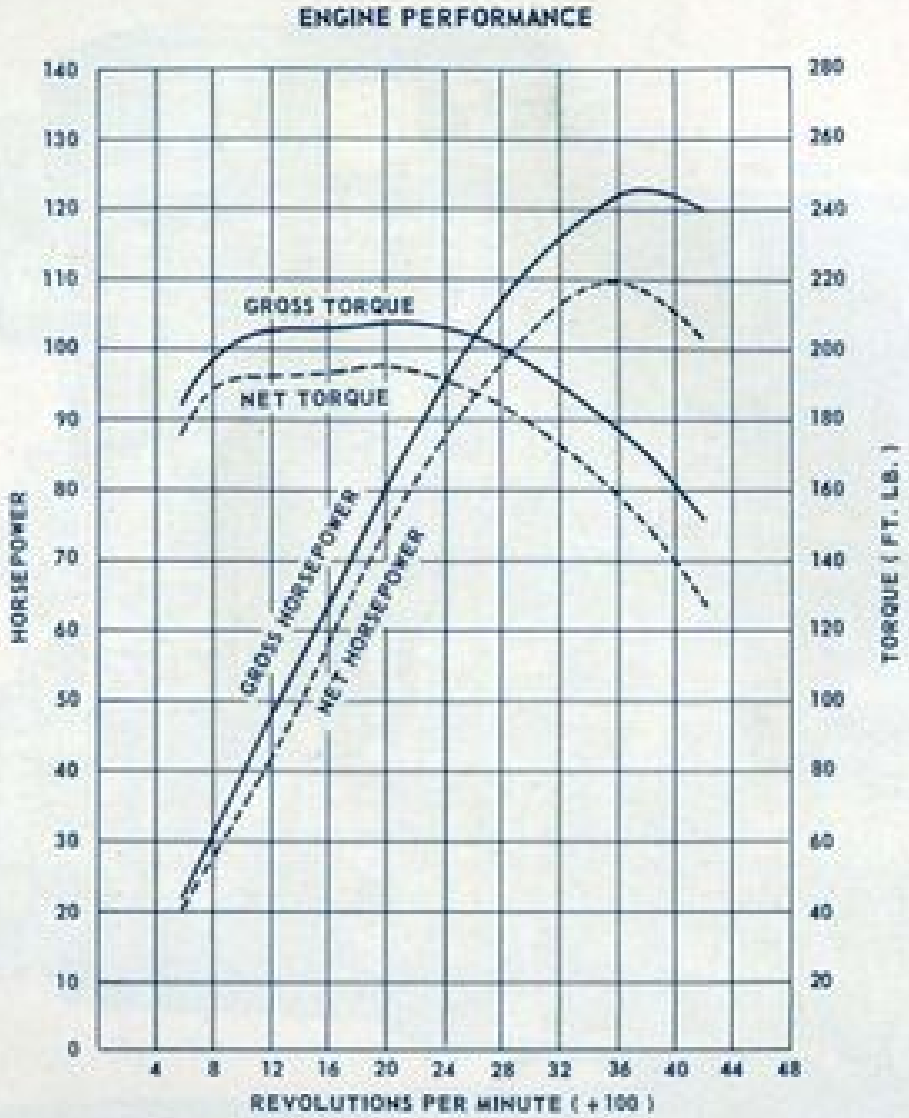


REGULAR PRODUCTION ENGINE

The regular production six cylinder engine retains the basic features introduced in 1954, plus a number of design changes which decrease overall dimensions for installation in the new chassis, and provide a quieter, more smoothly operating engine.

The test method for establishing the advertised power rating has been brought into line with competition, with the result that the maximum output ratings for the engine show an increase. Under the new procedure which liberalizes the test conditions for higher gross engine performance rating, the production exhaust pipe no longer is used; intake restriction due to the air cleaner is reduced; and exhaust heat is deflected away from the engine for better volumetric efficiency. In addition, the barometric pressure correction factor, which also applies to the net rating, gives some gain. As a result, the advertised gross horsepower for 1955 is 123 at 3800 rpm, instead of 115 horsepower at 3700 rpm, as advertised in 1954. Likewise, maximum gross torque is raised to 207 foot-pounds at 2000 rpm, compared with 200 foot-pounds at 2000 rpm in the previous model.

A lower overall height, for clearance with the 1955 hood line, is obtained with the repositioning of the water pump and fan and use of a side-mounted air cleaner. The oil pan is reshaped to clear the new steering linkage, with the front of the sump section moved farther to the rear, and the width of the sump increased. Oil capacity remains the same. An oil pan baffle is added to prevent oil surging on quick stops. The full-pressure lubrication system introduced in 1954, is continued with a redesigned oil pump which has a new floating-type pick-up. Only the cleanest portion of the oil from the pan is circulated because the new pump



pick-up floats just below the surface of the oil.

Main bearings are continued as changed during 1954 when the groove was eliminated from the lower halves. Similar to the bearing design used in diesel engines for many years, the new bearings have ample provision for lubrication and increased capacity for extended operating durability.

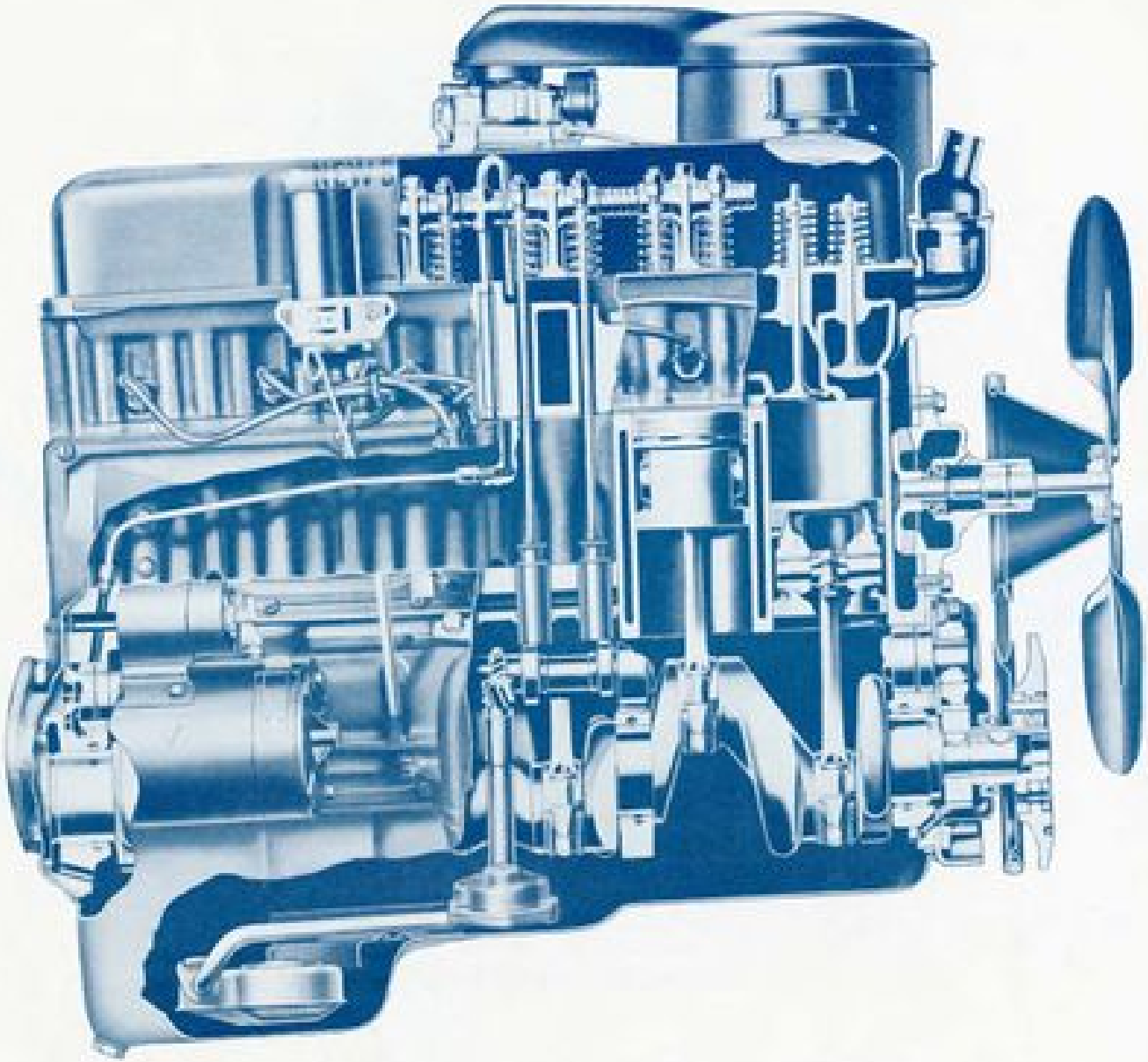
The valves and valve train are modified for quiet operation and improved durability. In mid-season 1954 a revision was made in the drilling of the rocker arms for better lubrication and the valve stem-to-guide clearance was reduced. This revision is carried over into 1955, and in addition, the XB exhaust valves are aldipped.

A new oil filler cap with a wire mesh air intake strainer replaces the plain cap and serves as the air intake for the engine ventilation system. The four air intake louvers in the rocker cover are eliminated so that any oil vapors, which formerly passed through the louvers, condense in the wire mesh and drain into the engine.

A new mounting system for the engine uses a dynamically balanced four point engine suspension, in place of the former three point suspension, for improved suppression of engine vibration.

A pendant-type pedal is one of the features of the new clutch and linkage system. The pedal is similar to the new brake pedal, and is mounted on the same support. Control of the clutch is improved with a newly designed compensating linkage for positive, vibration-free operation. This linkage permits free movement of the engine on its mounts without a reaction on the clutch pedal or the applying of fluctuating pressure on the clutch fork. To extend durability, the clutch pressure plate outside diameter is increased one-half inch to 9.5 inches making the total area 85.22 square inches, as compared with 71.86 square inches in the previous model.

A 12-volt electrical system replacing the previous 6-volt system, supplies a higher ignition reserve for high speed operation, easier starting under adverse conditions, and greater generator efficiency.



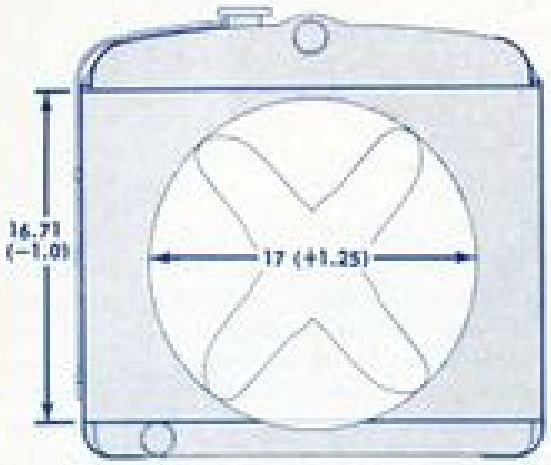
WATER PUMP AND OIL PUMP . . .

The water pump is redesigned to provide a larger impeller for increased pumping capacity and is repositioned for overall engine assembly compactness by recessing the impeller into the front of the cylinder block.

Larger sized pulleys on the crankshaft and fan drive are proportioned to reduce fan and water pump speed by one third, insuring longer impeller shaft bearing life and improved seal durability. The new speed ratio of pump to crankshaft is 0.95-to-1 compared with 1.40-to-1 in 1954.

The water connections to the radiator and engine have larger internal diameters, which improves the coolant flow, and assures adequate cooling and better temperature regulation at low engine speed.

A new inlet is provided for the lubricating oil pump. This new floating-type pick-up floats just below the surface of the oil in the sump, minimizing the possibility of drawing floating or submerged precipitants into the oil distribution system. A new baffle, welded into the oil pan, reduces the surging of oil on quick stops, and thereby minimizes the churning of oil into foam by the crankshaft counterweights.

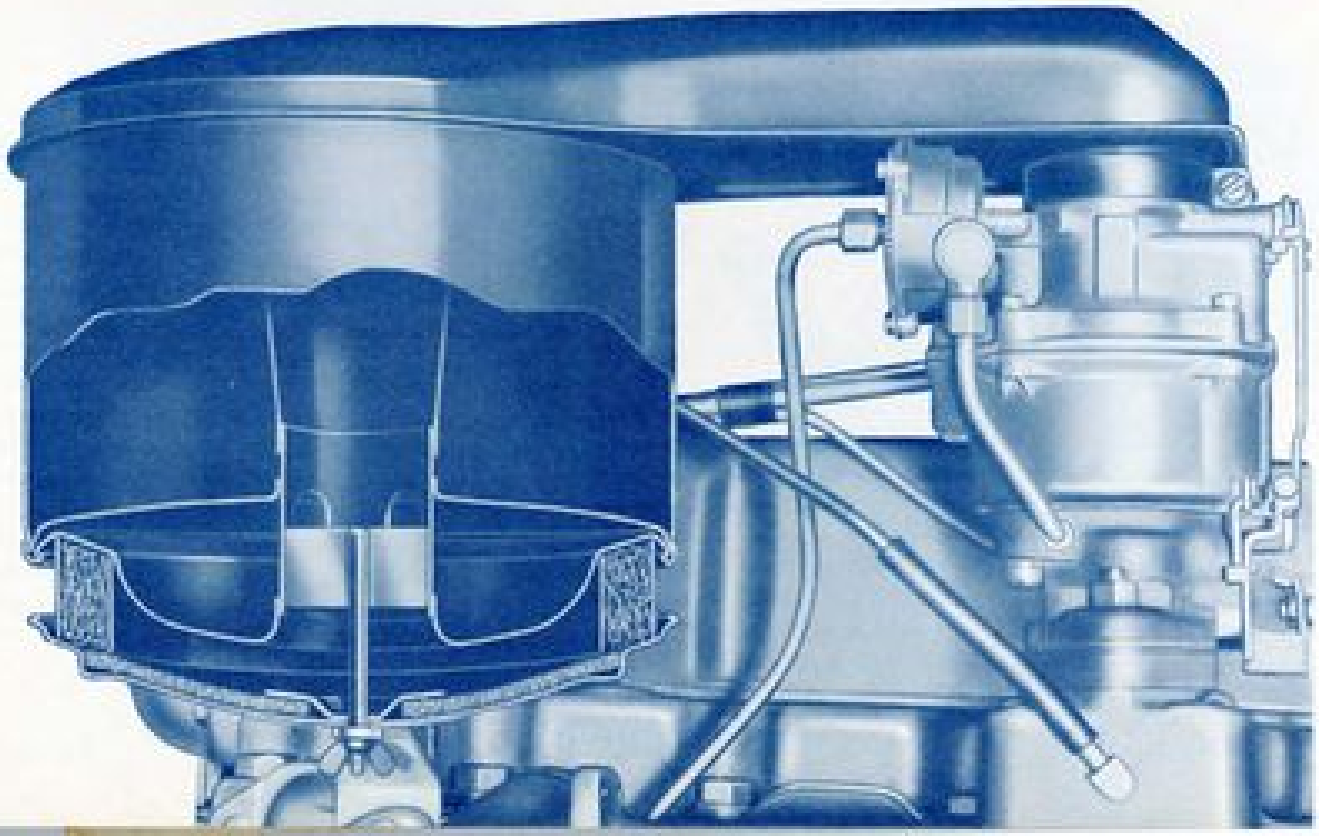


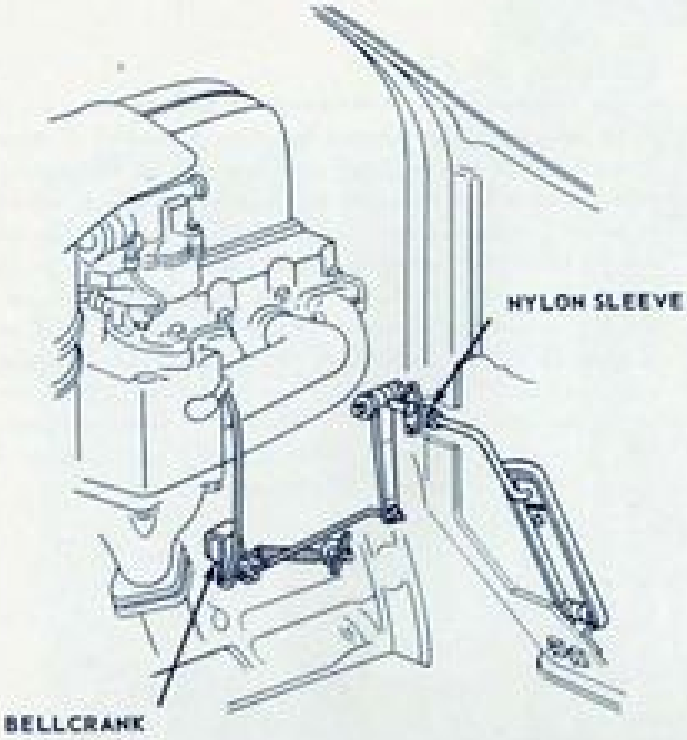
RADIATOR AND FAN . . .

A one inch reduction in the height of the radiator core is made because of the lower hood line. A number of other changes which increase the effectiveness of the cooling system include the use of a larger diameter fan, which is now 17 inches instead of 15-3/4 inches. While the fan speed has been reduced almost one-third to minimize noise, an increased pitch of the fan blades provides ample air movement through the radiator. The fan location is lowered so that the blades sweep more of the radiator core than previously, with the result that while one inch of the radiator core has been removed, there is no sacrifice in cooling ability at higher speeds, and there is a gain during low speed and idle operation.

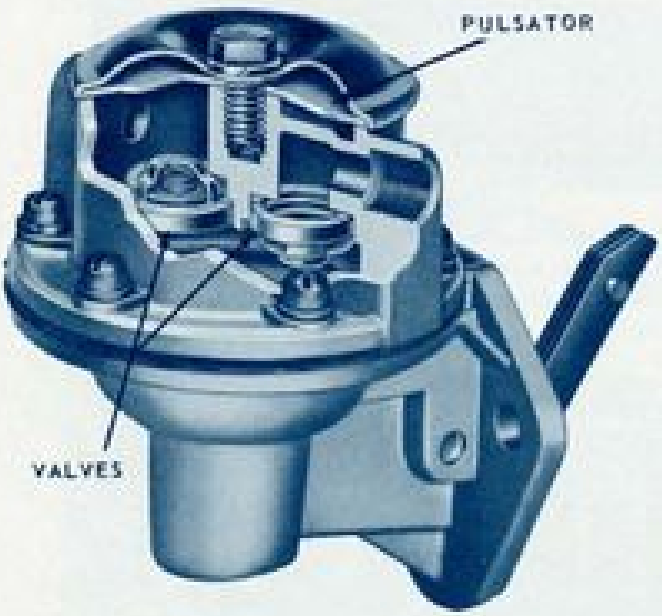
AIR CLEANER AND SILENCER . . .

An oil-wetted air cleaner and silencer, mounted beside instead of on top of the carburetor, provides the necessary clearance under the new hood contour. A revision in the carburetor main metering jet, which maintains the intake mixture balance, compensates for the slight breathing restriction associated with the side-mounted type of air cleaner.

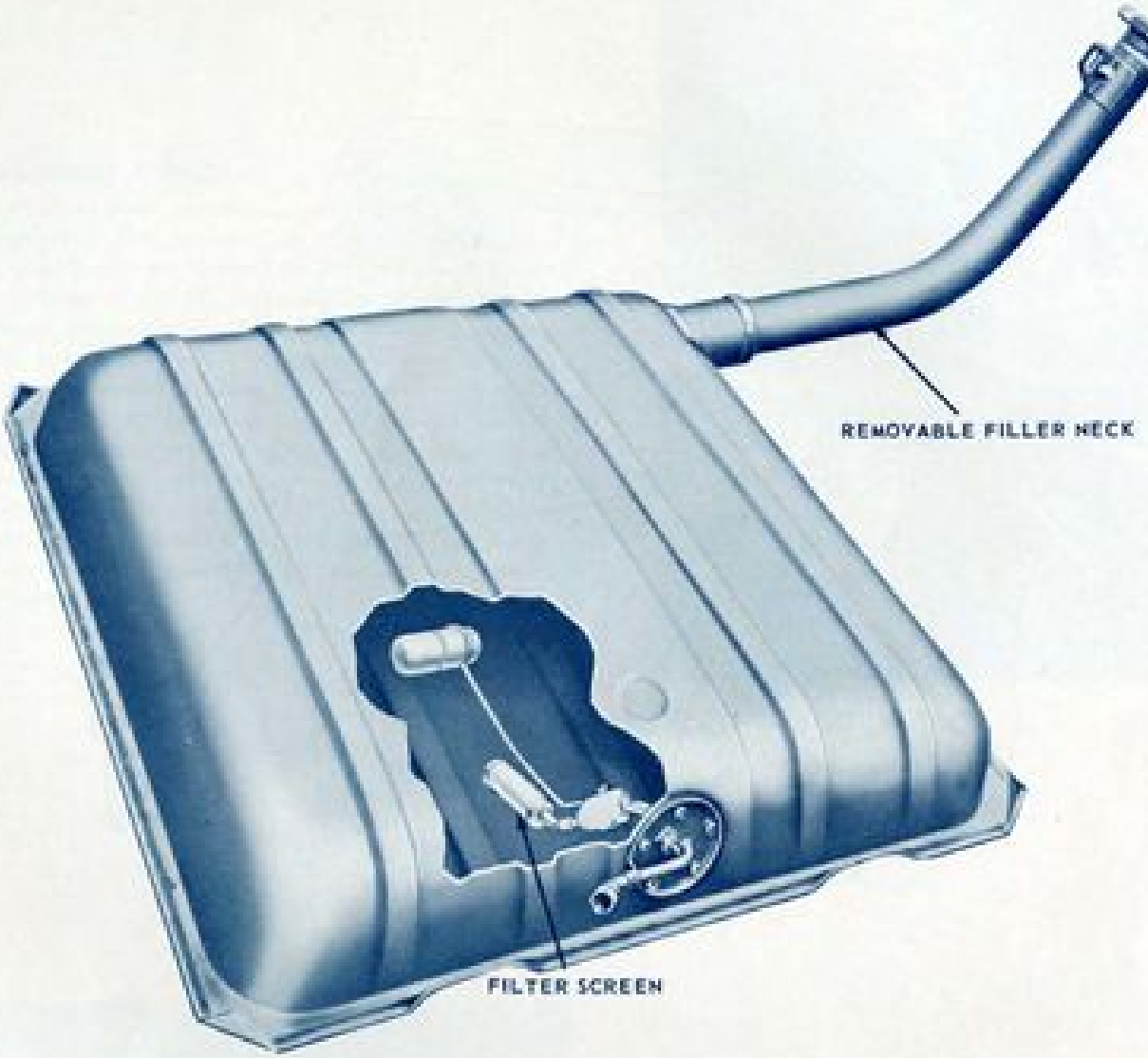




ACCELERATOR LINKAGE . . .
New carburetor throttle linkage has lower friction, better protection against road splash, and minimizes the transmission of vibration from the engine to the accelerator pedal. A nylon sleeve for the control rod passage through the dash panel provides lubrication-free ease of operation. The bearing seat for the rod end in the pedal is also of squeak-free nylon. A rocking joint links the control rod to the engine-mounted bellcrank to reduce the transfer of vibration.



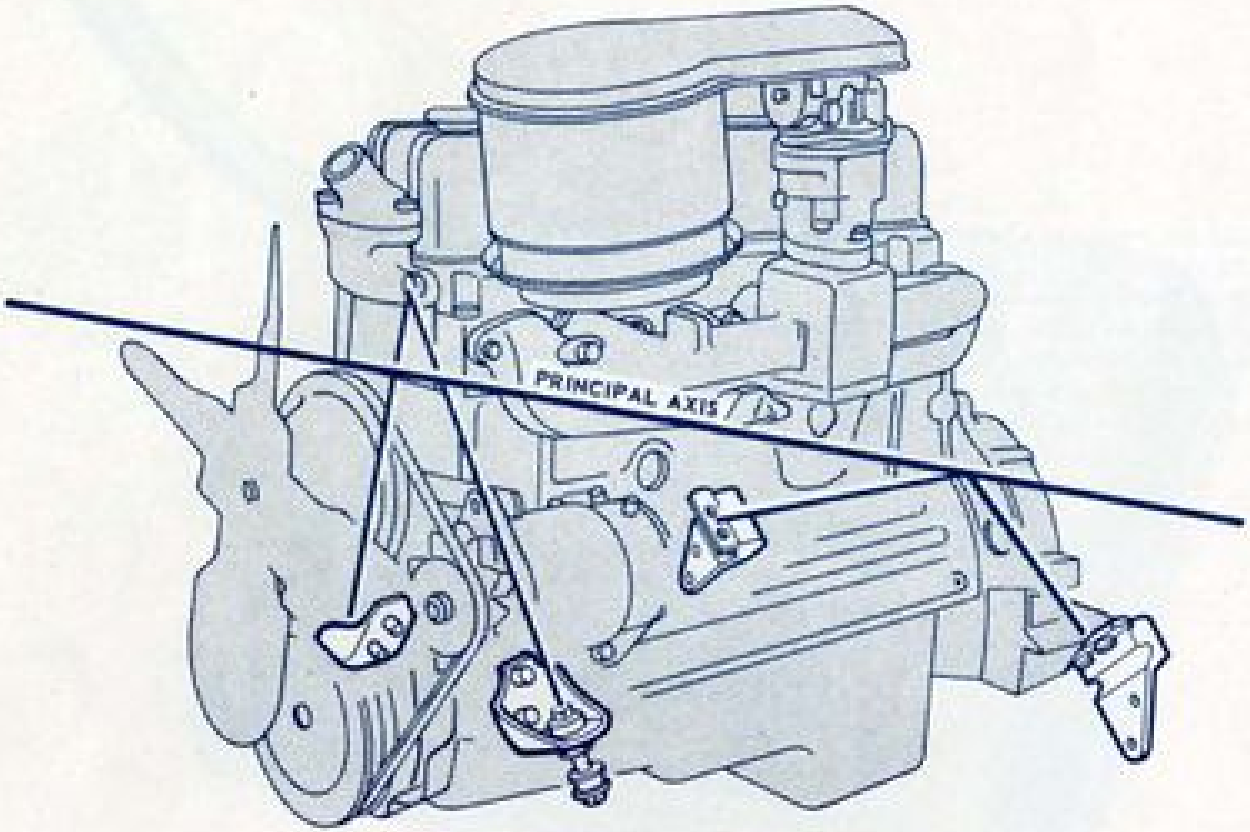
FUEL PUMP . . .
The completely new fuel pump provides improved operation and simplified maintenance. The glass bowl and the filter screen are removed, eliminating the necessity for periodic disassembly and cleaning. Called a pulsator to describe its action, an all metal air dome located above the diaphragm is a feature of the 1955 fuel pump design. During the pumping stroke, the air in this dome is compressed by the incoming fuel, and then expands when the fuel is released to the carburetor, so that a more constant fuel delivery is supplied to the engine. The pump valves are increased to one inch diameter from three-quarters of an inch for better protection against vapor lock. This change further assures a more constant supply of fuel under adverse temperature conditions.



FUEL TANK . . .

The fuel filter screen, formerly in the fuel pump, is now located on the riser pipe in the fuel tank where space permits the installation of a large capacity screen. The new large area screen is less sensitive to clogging, and does not require frequent cleaning to remove water or solid contaminants deposited by the fuel. The mesh is sufficiently fine to not only prevent the passage of water, but to insure that any particle that can pass through will be too small to interfere with valve operation in the fuel pump, or to unseat the carburetor float needle valve. The fuel filter screen may be readily removed for cleaning.

Construction of the fuel tank is the same as in previous models, consisting of two pans seam welded together, and supported by two straps attached to the underbody. For facility in assembly, the filler neck is now a separate unit. An "O" ring neck seal is used at the point of its attachment to the fuel tank. The fuel level gauge remains unchanged.



ENGINE MOUNTING SYSTEM . . .

A dynamically balanced four-point engine suspension system which better isolates power plant movements from the chassis and body replaces the three point, high side mount system. Two shear-type rear mounts are installed on the lower sides of the clutch housing, replacing the single compression-type mount formerly located near the rear of the transmission.

The four mountings are located and inclined so that the roll axis derived results in relatively minor reactions to frame and body from engine torque and firing frequency.

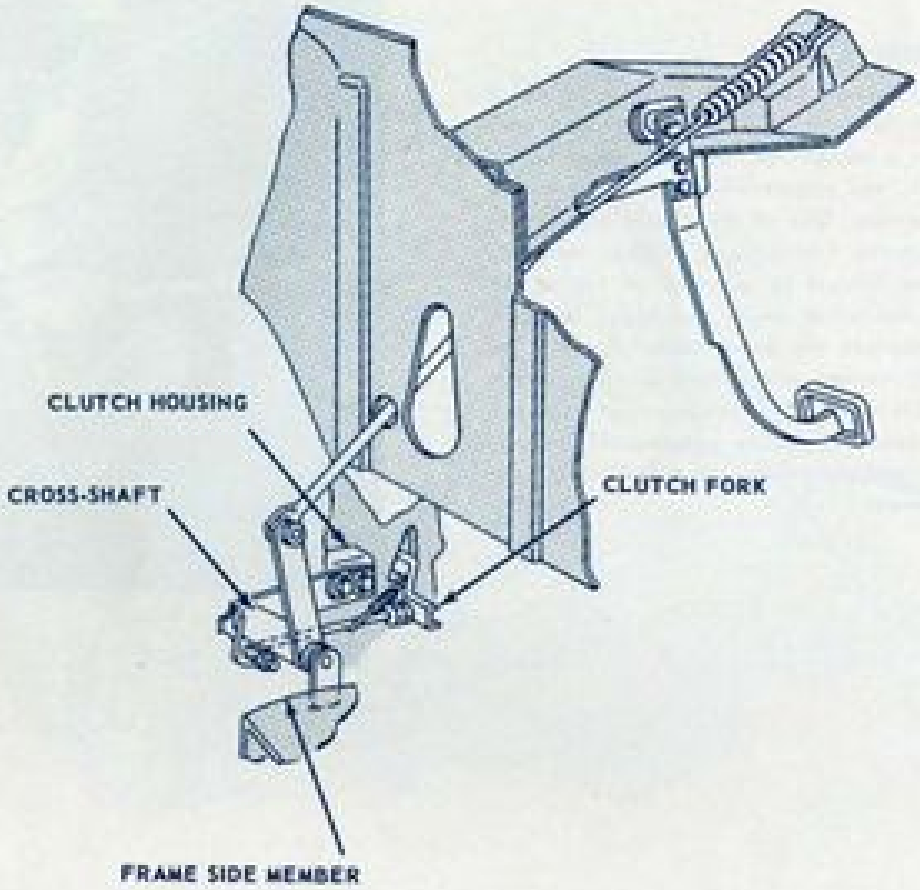
The front mounts are strut type, and attach to brackets on each side of the cylinder block at the front lower corners, and to perpendicular seats on the frame front cross member. The intersection of straight lines projected through the front mounts is in the upper part of the engine. The front mounting locations permit proper freedom of engine movement through its principal axis. The rear mounts are located between the lower rear edges of the clutch housing and short brackets cantilevered from the frame side members. The rear mounts are so positioned that, in combination with the front mounting structure, harmonious engine suspension in the chassis results.

ENGINE FRONT MOUNTS . . .

Two strut-type front mounts are used. Each consists of four circular rubber biscuits on a metal spacing stud which is secured to a bracket on the front lower corner of the cylinder block, and perpendicular to a seat on the frame front cross member. One of the rubber biscuits is mounted over the engine bracket and another under it; likewise, one rubber biscuit is mounted on top of the cross member and the other under the cross member. Downward loads compress the upper rubber biscuits on the bracket and cross member, and upward loads compress the lower rubber biscuits. This arrangement provides resilient but firm control of engine compression and rebound movements in vertical mode, and allows relatively free torsional movement.

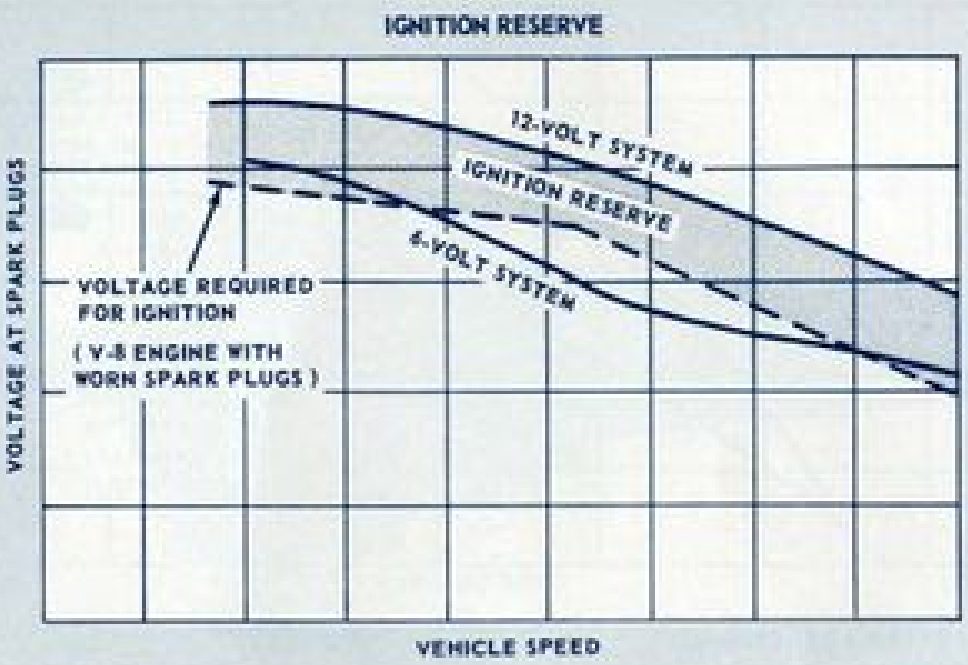
ENGINE REAR MOUNTS . . .

The engine rear mounts attach between the lower rear edges of the clutch housing and the short engine mounting brackets welded on the frame side members. Each mount consists of two interleaving metal brackets separated by integral bonded rubber of required thickness. When installed, the rubber acts in shear during engine roll, and in compression and shear for engine support. Two engine rear supports are now used in place of the one center mounting previously employed.



CLUTCH LINKAGE . . .

Compensating-type linkage connects the new pendant-type clutch pedal to the clutch release fork to permit free engine movement without transmitting vibration back to the driver's foot. This feature is provided by a bellcrank with two lever arms, mounted on a cross-shaft. One end of the cross-shaft is fastened to the clutch housing, and the other end attaches to the frame side member, the lever arms being located near the pivot ends of this shaft. The link rod from the clutch foot pedal attaches at the frame end of the bellcrank, and the rod to the clutch fork connects to the lever arm at the engine end. Consequently, the link which operates the clutch fork moves with the engine, but the link to the clutch pedal is held steady by the frame. The link length from the clutch pedal mechanism to the bellcrank lever arm thus remains constant with engine movement and vibration is not telegraphed back to the pedal. At the same time, engine movement does not cause a fluctuating pressure on the clutch pressure plate which insures friction plate durability by avoiding clutch slippage. This system allows adequate adjustment of clutch linkage to assure complete release of the clutch, and to maintain full pressure contact when the clutch is applied. Operation of the clutch is therefore more positive and proper adjustment is more easily established and maintained.



ELECTRICAL SYSTEM

Ignition dependability and long service life is provided by a 12-volt electrical system which replaces the 6-volt system. Better starting motor operation and more efficient generator performance also are assured. The higher ignition voltage required for reliable firing with high compression ratio design, particularly at higher engine speeds, is provided with adequate reserve to allow for considerable spark plug point erosion which is a normal development with accumulated mileage. For improved durability, the spark plug electrodes also are increased in size.

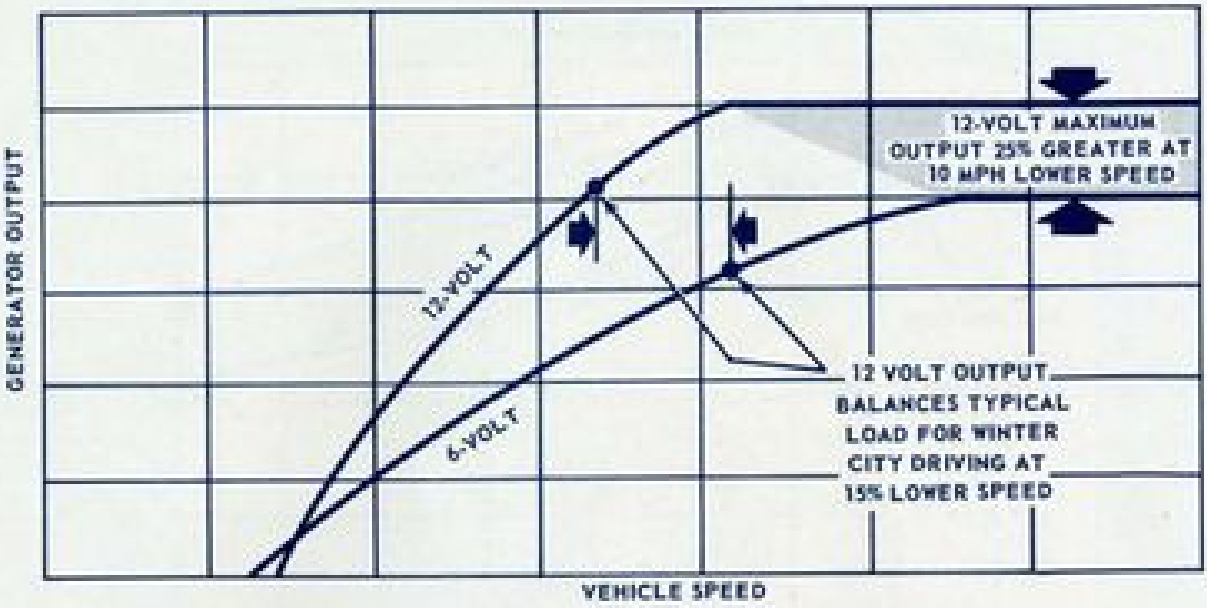
More efficient generator output is obtained with the 12-volt system to better maintain battery charge. This increased generator efficiency is desirable for maintaining an adequate battery charge during slow speed driving in heavy traffic or during cold weather when slippery streets greatly retard traffic movement, and the headlights, accessory heater and radio are being used.

Starting ease is improved particularly in cold weather when the starter imposes a high current draw to crank the engine. Not only does the 12-volt starter turn the engine faster under such adverse conditions, but the system is designed to supply adequate voltage to the spark plugs to insure firing at the same time. The greater ignition reliability during starting is provided by use of an outside resistor which supplies part of the primary resistance usually contained entirely in the coil. The external resistor is by-passed when the starter is operated. Thus, even though battery voltage is severely reduced by the drain to the starter, primary ignition current remains nearly normal and loss of voltage at the spark plugs is minimized.

Other new features in the electrical system include a dual circuit breaker in the lighting system. This isolates the headlight circuit from the other circuits for greater safety so if a short develops in one circuit the other will continue to function.

An additional feature for greater driver convenience is the addition of the dome light switch to the main lighting switch. The dome light is operated by rotating the main light switch to the end of its travel. Control of the instrument panel lights by the main light switch is retained.

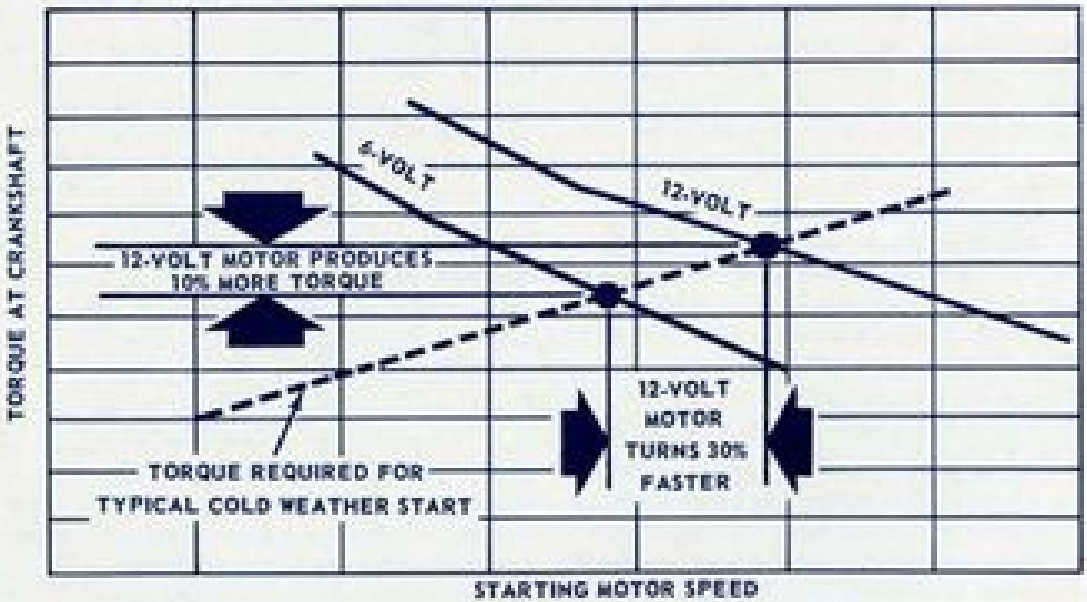
Chassis wiring is of lighter gauge for proper voltage distribution to all lighting equipment for optimum lamp life and light output. To facilitate assembly and servicing, plug-in type connections are used extensively in the system to attach wiring to the switches, fuel gauge and headlight junction blocks. Detachable light sockets also simplify removal and replacement of instrument panel bulbs.



GENERATOR PERFORMANCE . . .

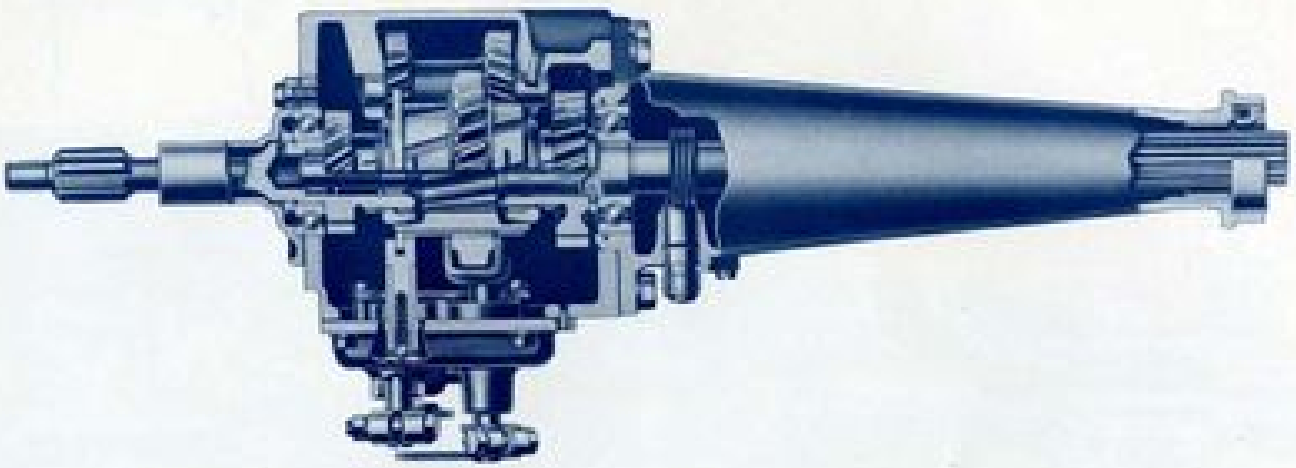
A marked improvement in generator performance is realized with the adoption of the 12-volt system and an increase in the generator-to-car speed ratio to 105.8-to-1 from 94.3-to-1. The illustration shows the new generator compared with the former 6-volt unit as installed in a car with the regular three-speed transmission.

Typical loads representative of winter time city driving and consisting of ignition, lights, radio and heater are balanced by the 12-volt generator at 15 per cent lower vehicle speed than with the 6-volt system. Over 70 per cent greater output at 20 miles per hour is further evidence of the superiority of the new generator. The greater maximum output also is reached at lower car speed than before.



STARTING MOTOR PERFORMANCE . . .

Faster cranking with higher torque is provided in the change from a 6-volt to a 12-volt starting motor. The performance shown applies to the units used in six cylinder models. The increased cranking speed results not only from the 12-volt motor but also from an increase in gear reduction ratio to 18.6-to-1 from 15.4-to-1.



THREE-SPEED TRANSMISSION

Increased torque transmitting capacity, extended durability and greater freedom from rattle result from the design changes incorporated into the 1955 standard transmission. Among the many refinements are a larger diameter mainshaft, more intensive surface treatment of the gears, modification of the sliding spline to attain a better fit, and widespread mounting centers for more rigid attachment to the clutch housing. Still other changes were made to the transmission housing extension to adapt the transmission to Hotchkiss drive.

The most obvious of all the many improvements is the new look given to the steering column by the concentric gearshift control. This design not only improves interior appearance, but eliminates the principal sources of selector lever rattle.

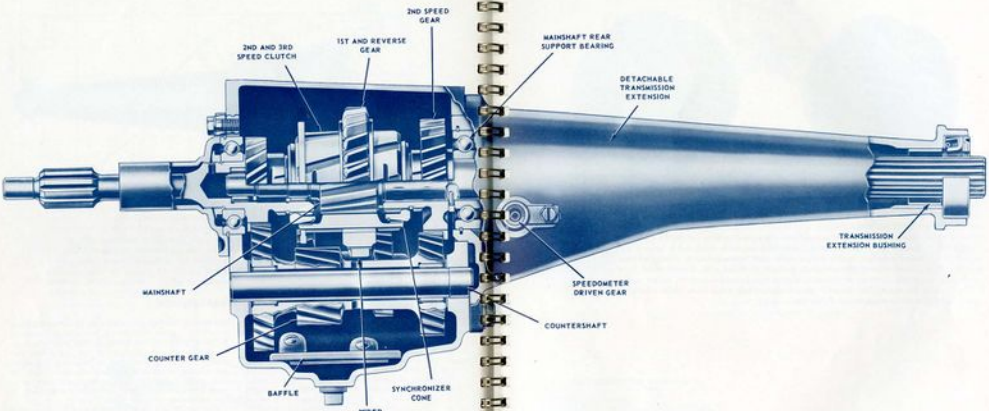
The most important change in the 1955 transmission is the mainshaft. All the heavily loaded sections are larger, thereby increasing the load transmitting capacity of the shaft. As a result of this change, all the gears mounted on the mainshaft have new dimensions. The mainshaft diameter at the clutch spline is larger and so too are the internal and external diameters of the second and third-speed clutch and the internal diameter of the first and reverse gears. Since the external dimensions of the first and reverse gear are unchanged, the increase in the internal diameter reduces the thickness of the gear. Offsetting this change, however, is an increase in the width of the gear which reduces the stress imposed on the individual gear teeth. A further advantage of widening the sliding gear is the increase in contact with the clutch surface. The longer sliding contacts improve alignment with the countergear and minimize rocking and the possibility of gear rattle.

Another change is the adaption of a "skip tooth" design as a means of coupling the first and reverse gear to the second and third speed clutch. (See illustration on page 120). This design is more easily finished within close limits, making it possible to attain better sliding fits.

Incidental to the increase in diameter of the second and third speed clutch and the clutch diameter of the second speed gear is an increase in the diameter of the synchronizer cones. The greater friction area of the cones increases the load carrying capacity and the durability of these elements.

The durability and load transmitting capacity of the gears themselves has been increased by an improvement in the tooth profile and by finer methods of surface treatment. Instead of being chamfered at an angle, the ends of the gear teeth are rounded. This modification reduces the loading at the ends

THREE-SPEED TRANSMISSION



of the teeth and minimizes the possibility of teeth chipping. After machining, all the gears are carburized for greater wear resistance and shot-peened for increased resistance to fatigue.

An extra precaution against damage of the gears and bearings is the sheet metal baffle bolted to the bottom of the transmission case. As the lubricant is circulated under the collector, it traps particles which could be deposited in the bearings or between the gear teeth.

The mainshaft rear support bearing, formerly mounted in the rear of the transmission case, is now located in the front of the transmission extension. This bearing, which is larger than that used previously, has greater load carrying capacity and increased durability.

The mainshaft gains additional support at the extreme end of the transmission housing extension which ends in a bushing in which the universal joint yoke slides due to the action of the Hotchkiss drive.

Since the spline clearance between the universal yoke and the mainshaft is close and the front end of the yoke is machined to fit the bushing, the extension bushing acts as an outboard bearing for the mainshaft, providing improved alignment and support against deflection.

The design of the new speedometer gear is greatly simplified by molding both the gear and its shaft into one piece of nylon. Since nylon has excellent bearing qualities, no lubrication is necessary and wear is minimized. The shaft rotates in a steel fitting which is held in the transmission by a retainer and sealed by an "O" ring.

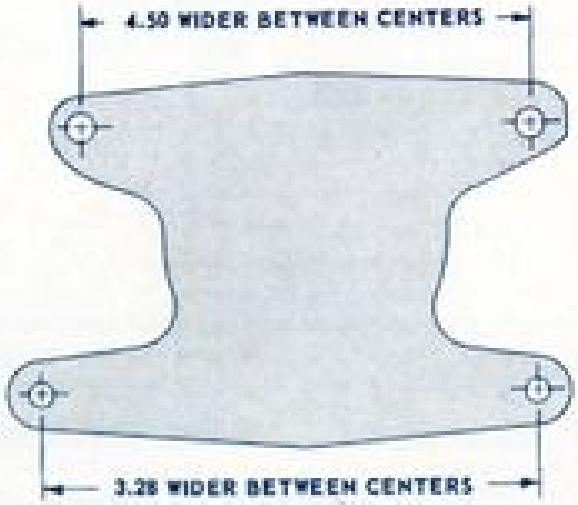
The flat on the end of the countershaft now contacts a rib on the front of the extension housing to prevent the shaft from rotating and enlarging the holes in the transmission housing. Reversing the countershaft eliminates the shaft locking hole in the clutch housing and thereby increases its structural rigidity.

1954

1955

SKIP TOOTH SPLINE . . .

The use of a conventional spline as a method of coupling the first and reverse gear to the second and third speed clutch has been abandoned in favor of a "skip tooth" design. In this design every other spline valley is eliminated from the clutch and the mating tooth is partially machined away. Enough of the tooth remains, however, to provide sufficient bearing area against the ground surface of the clutch. This design is more easily finished within close limits making it possible to attain better sliding fits.



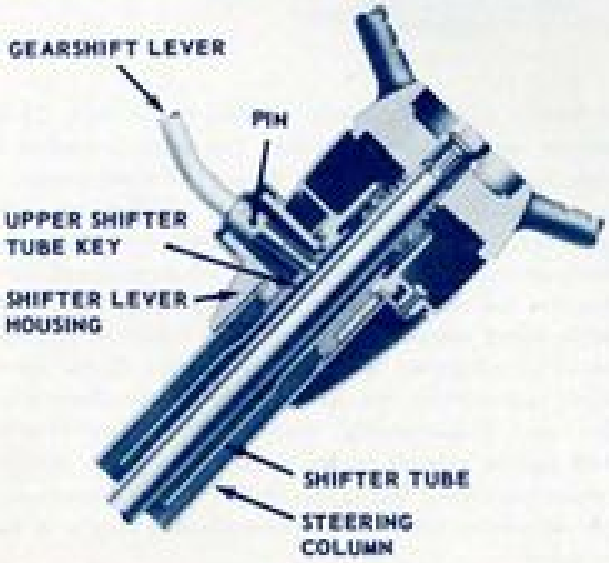
WIDER MOUNTING CENTERS . . .

The overall rigidity of the engine and transmission combination is improved by increasing the distance between the transmission mounting holes by as much as 4.5 inches. Nearly doubling the distance between the mounting centers, this change reduces the deflection peaks at the output end of the transmission mainshaft and the vibration loading on the engine mounts. The result is a reduction in frame and body shake and smoother, quieter driving.

GEARSHIFT CONTROL MECHANISM . . .

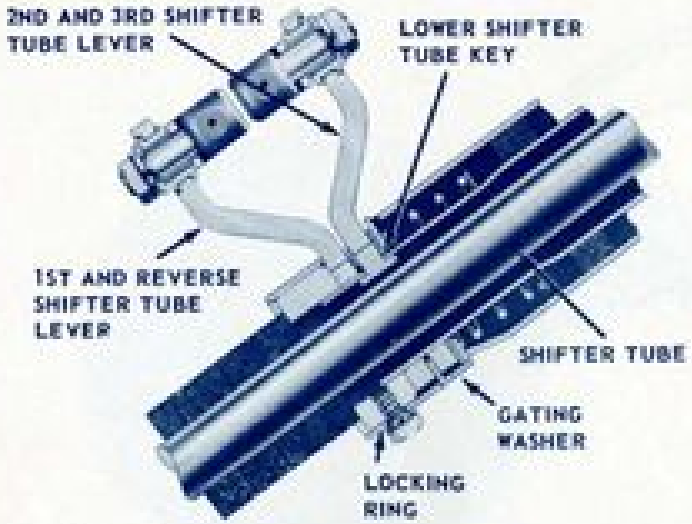
The modern, uncluttered appearance of the steering column is the most prominent advantage of the new concentric gearshift control. This control, of completely new design, is enclosed within the jacket, thereby eliminating the exposed control shaft of the previous model. As well as enhancing the interior appearance, the new design has the important advantage of appreciably less tendency to vibrate or rattle.

This improvement is due in part to the new method of mounting the steering column. The upper end of the jacket is held at the instrument panel as before, but the lower end, formerly joined to the steering gear housing, is held instead by a clamp on the engine side of the dash panel where it ends. This mounting makes the jacket a part of the body structure and divorces it from any road vibrations which reach the steering gear assembly.



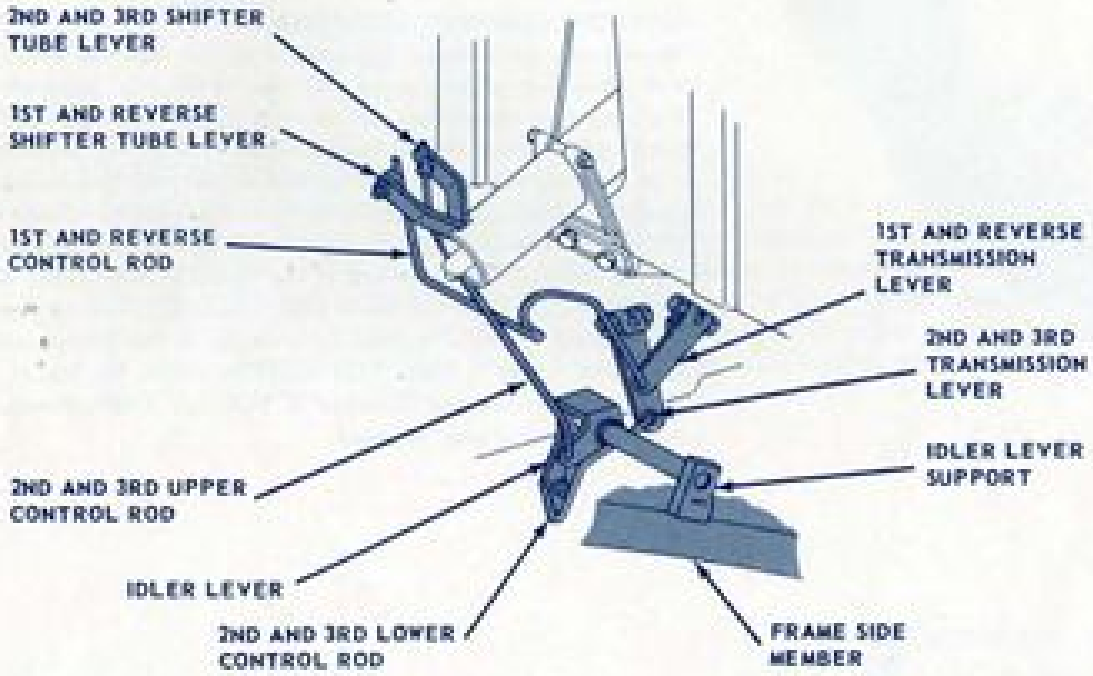
GEARSHIFT CONTROL UPPER END . . .

The shifter control itself is simple and compact. The upper and lower parts are joined by a shifter tube which fits inside of the steering column. The upper end of this tube slides on the inner sleeve of the shifter lever housing and is turned by a key which fits the slot in the housing. The ball on the inner end of the shifter lever, which is pinned to the housing, fits in a hole which extends through the key into the tube itself. Thus, an up and down movement of the lever as it rotates on the pin causes a corresponding movement of the tube. Axial movement, as in shifting from second to third gear, causes the lever, the housing, and the tube to rotate as a unit.



GEARSHIFT CONTROL LOWER END . . .

The lower end of the spring-loaded tube also has a key. Manipulation of the shifter lever causes the key to engage the keyway in either of the two shifter tube levers and to turn it to select the desired gear ratio. The levers and the slotted washer, which acts as a gating device, are held on the tube by a locking ring which is easily adjusted to establish the necessary clearance.

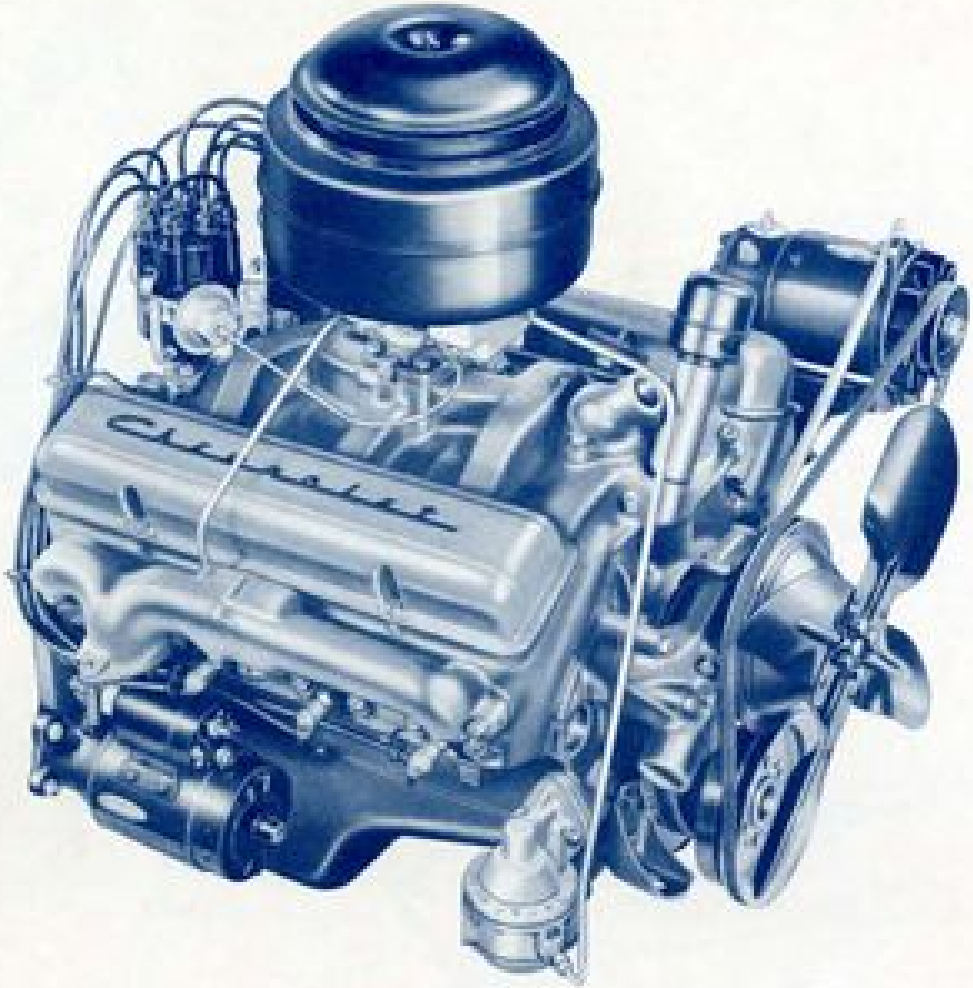


GEARSHIFT CONTROL LINKAGE . . .

Vibration of the shifter mechanism while in third gear, where it is the most noticeable, is minimized by an articulated linkage. This linkage, joining the second and third shifter tube lever to the transmission lever, is composed of an upper and lower control rod and an idler lever whose spindle is secured to the frame. Although it has flexible attachments, this linkage has the same degree of positive shifting action as the conventional rod used in the first and reverse gear linkage.

The most important element of the articulated linkage is the lower control rod which is subject to two separate types of movement. In the first of these, motion applied to the idler lever during a shift from second or third gear is transferred to the transmission lever by a backward or forward movement of the lower control rod since the rod travels in a path nearly parallel to its axis. Thus, positive shifting action results. The other movement to which the rod is subjected is the up and down motion of the transmission lever caused by the oscillations of the engine and transmission. Since this movement is approximately perpendicular to the axis of the control rod, however, the rod merely pivots about the idler lever, little motion being transferred to the idler lever. That slight amount of movement is further diminished at the spring loaded joints where the control rods are attached to the idler lever. Consequently, there is little or no vibration which can be relayed to the shifter mechanism. Another improvement for 1955 is the use of rubber bushings in both the shifter tube and the transmission levers to dampen noise.

EXTRA-COST EQUIPMENT



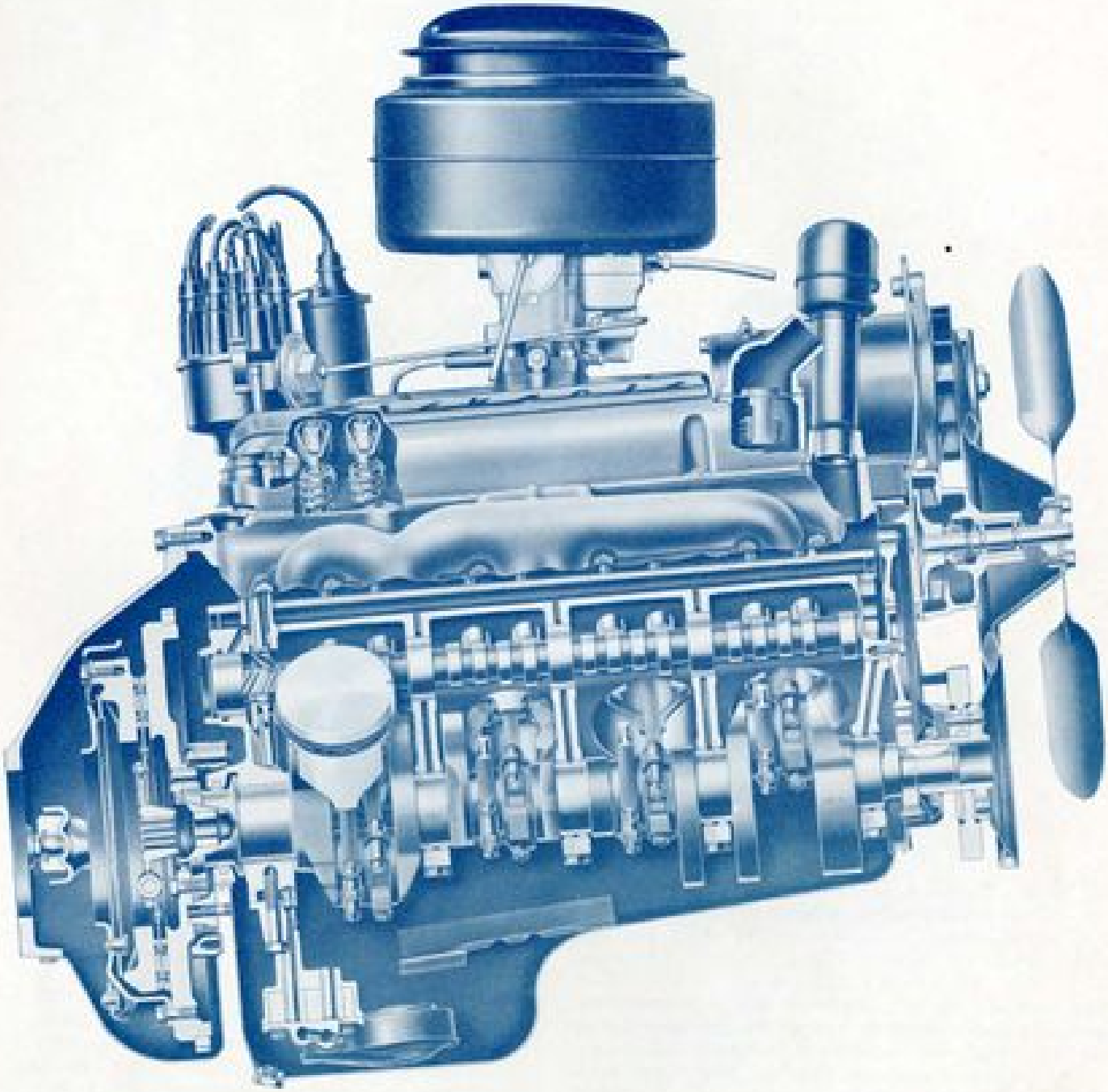
V-8 ENGINE

A completely new overhead valve V-8 engine is available as optional equipment with the regular production three speed, overdrive, or the Powerglide automatic transmissions. This new engine, the result of comprehensive research and development, features high overall efficiency, structural compactness, and low weight.

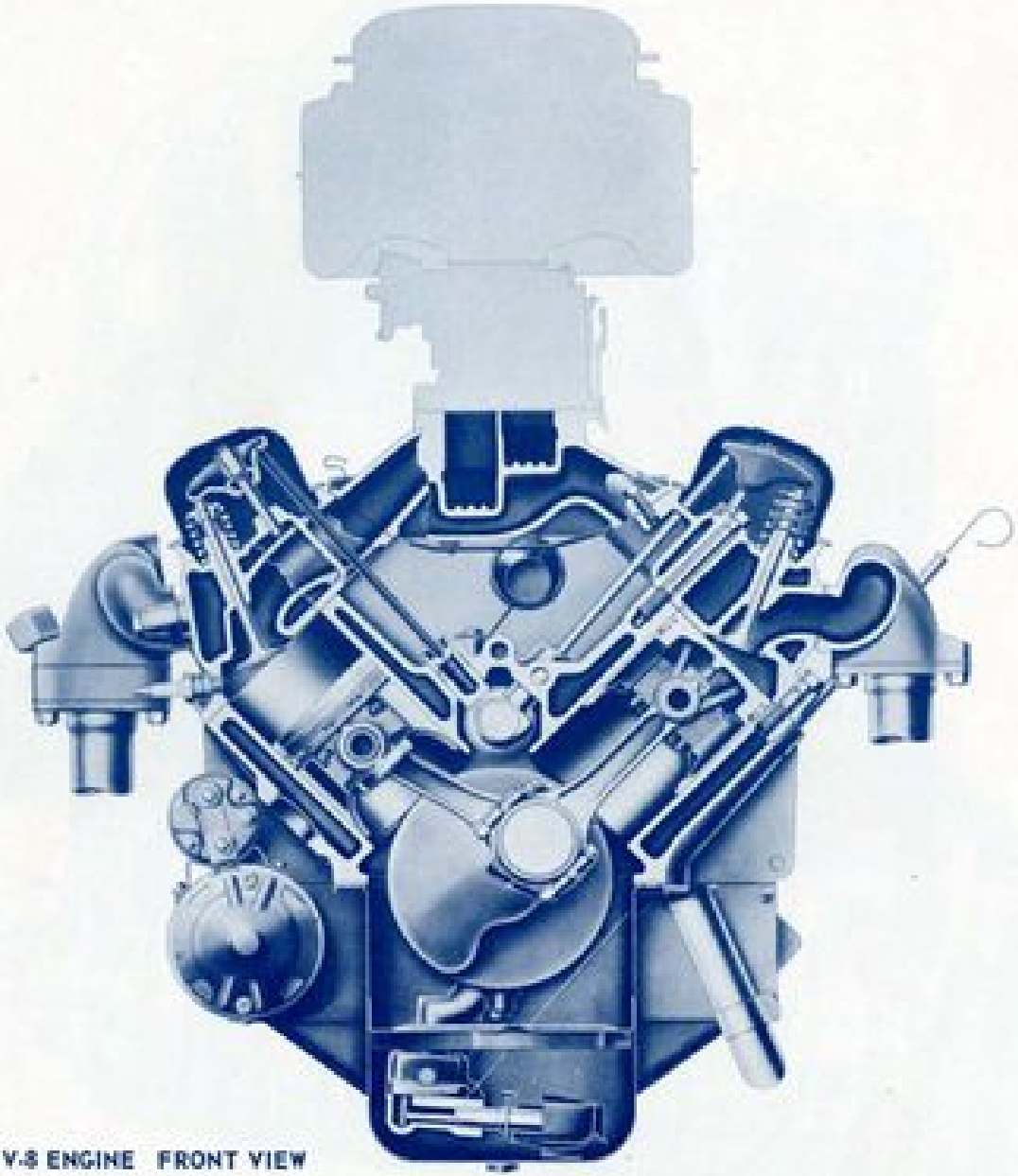
The bore is 3.75 inches, with a 3.0 stroke, and a 265 cubic inch displacement. The stroke-to-bore ratio of 0.8-to-1 is among the best attainments in over-square design of the automotive engines currently produced. Short stroke means less piston travel per mile of vehicle travel, lower reciprocating loads for smoother operation, and materially reduced wear on the pistons, rings, and cylinder bores. Gross horsepower is 162 at 4400 rpm, and gross torque 257 foot pounds at 2200 rpm. The compression ratio is 8.0-to-1.

The compactness of the new engine results in high structural rigidity and allows ample installation clearance within the engine compartment for easy service accessibility. The low weight of the assembly contributes to steering ease and long front tire life. The engine mounting system is of the same basic 4-point, dynamically balanced type as used with the six cylinder engine. Coupled with the frequent power impulses of the eight cylinders, the modern balancing technique employed results in extremely smooth operation.

New technological and processing developments have been adopted to balance the engine. The crankshaft is partially balanced on a newly developed machine which has electronically controlled indicators. Final balance is achieved after the engine is assembled. Before the oil pan is installed, the engine is placed on another newly developed machine which motors the engine. This machine indicates any out of balance of the complete engine, stops the rotation at the indicated out of balance, and drills the front and rear crankshaft counterweights



V-8 ENGINE SIDE VIEW



V-8 ENGINE FRONT VIEW

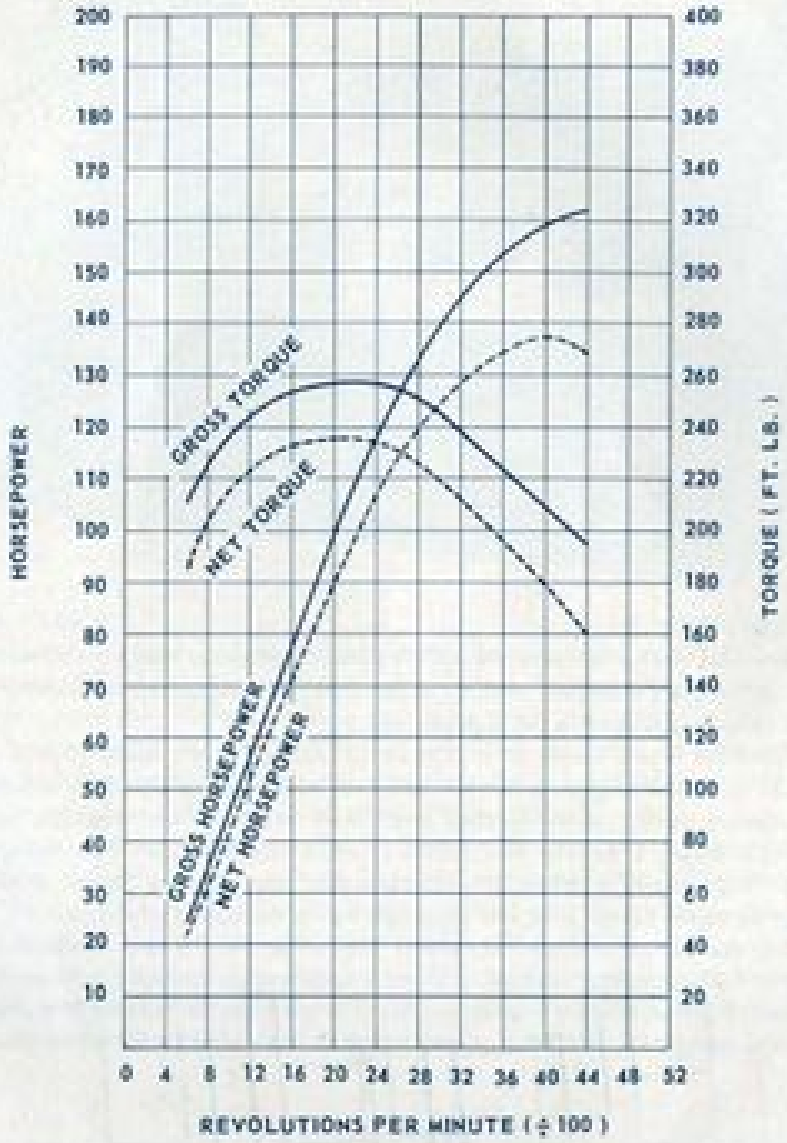
the amount required. Through this new equipment, not only the crankshaft, but all of the moving parts of the engine and clutch thus are balanced.

Optimum fuel economy and high power per cubic inch is assured by the high compression ratio of 8.0-to-1, and by the highly efficient wedge-type combustion chamber that provides turbulence for efficient combustion of the fuel mixture, and smooth pressure rise for shock-free operation. A dual-throat carburetor is used, and the convenience of an automatic choke is included. The fuel pump is of the new pulsator type with an all-metal air dome. It is located on the lower front right hand side of the engine where it is not subjected to the heat of the engine, which minimizes the possibility of the vaporizing of the fuel resulting in vapor lock.

The 3.75 inch cylinder bore provides space for the large overhead valves which open into short, direct inlet and exhaust passages for free breathing. The intake manifold casting forms the cover for the tappet chamber, and not only does it contain the intake passages for the fuel mixture and an exhaust cross-over for the carburetor heat riser, but also the thermostat housing and the coolant outlet to the radiator.

Durability and simplicity of periodic maintenance are featured in the unique low-weight valve train in which the valve rocker arms are individually

ENGINE PERFORMANCE



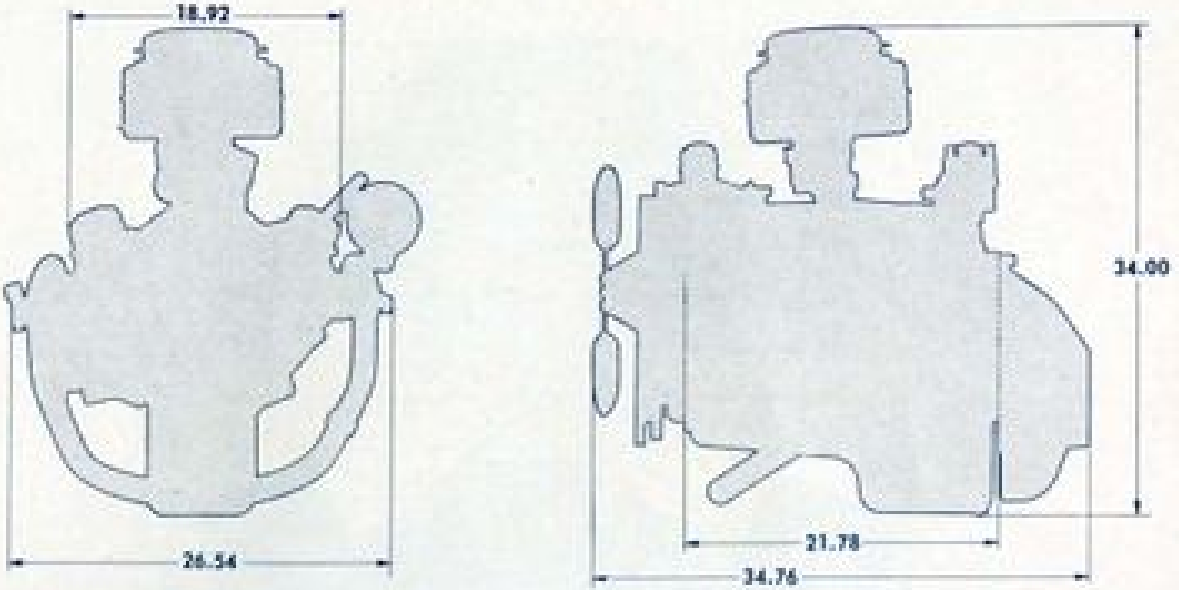
mounted. Low inertia of the system assures high speed efficiency. For durability, the exhaust valves are made from extra alloy steel and the faces are aluminum dipped.

The aluminum autothermic-type pistons are of a slipper skirt design for clearance with the crankshaft counterweights. Offset piston pins, pressed into the short, rigid connecting rods, assure quiet engine operation. Precision replaceable bearings are used for the connecting rods as well as for the five main bearings, the lower halves of which are of the grooveless type for durability.

The low heat rejection characteristics of the engine design permit a relatively low volume cooling system for low weight and small anti-freeze requirements. In addition, a low fan and water pump speed is adequate for cooling and insures bearing and seal durability in the pump. The low speed fan operates quietly at all vehicle speeds.

A 12-volt electrical system supplies a high ignition reserve, reliable high speed operation, easy starting under adverse conditions and high generator efficiency. The distributor with its integral gear is located at the rear of the engine. The vacuum spark control unit is integral with the distributor body, and the whole unit is clamped to the intake manifold. The high resistance ignition cables minimize electrical loss and radiation of radio frequency interference. The generator is mounted on a flange on the exhaust manifold for easy access.

When used with the Powerglide transmission, the engine has hydraulic valve lifters and the vehicle uses the economy 3.55-to-1 rear axle ratio. Mechanical valve lifters and a 10-inch clutch are used with the three-speed transmission, which takes a rear axle ratio of 3.7-to-1, and with the overdrive transmission, which takes a high performance rear axle with a 4.11-to-1 ratio.

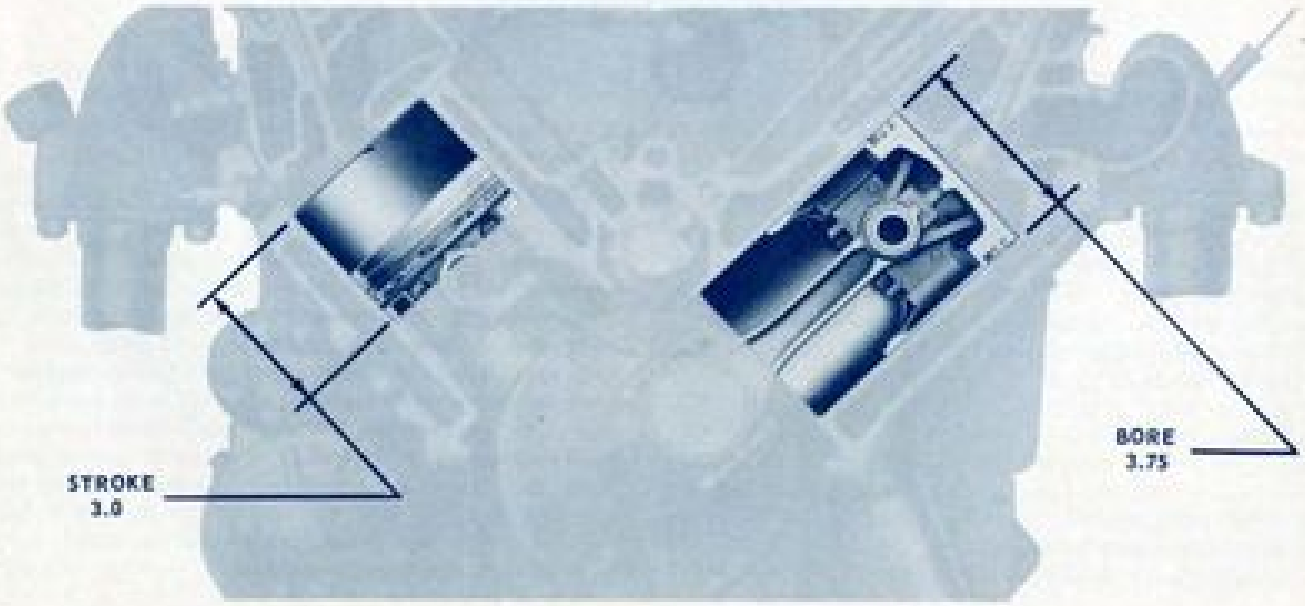


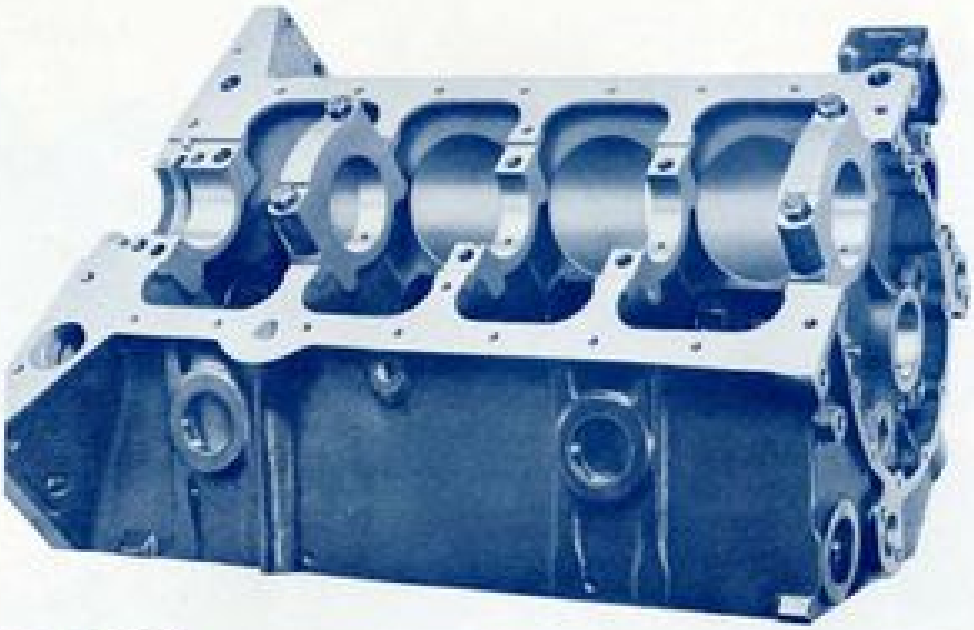
COMPACT ENGINE SIZE . . .

The new Chevrolet engine reflects the skillful basic design in which small size and economy of weight was a paramount goal. It is the smallest, lightest, commercial V-8 power package for its displacement in the industry today.

Within a cylinder block length of less than 22 inches, a 265 cubic inch displacement is provided. In spite of the large 3.75 inch bore, the short engine length is attained through thoroughly modern design in which each section of metal, coolant passage, and bearing is effectively utilized. Likewise, the engine is of low height since it is designed around the short 3.0 inch stroke and has a unitized intake manifold and tappet chamber cover. The compact structure is not only low in weight but is exceptionally rigid.

Over-square design, as exemplified in this engine by the 0.8-to-1 stroke-to-bore ratio, is well suited for use in the inherently short V-type engine because a large bore can be accommodated within a relatively short practical overall engine length. Direct advantages of over-square design are low friction and minimum wear due to the short piston travel.

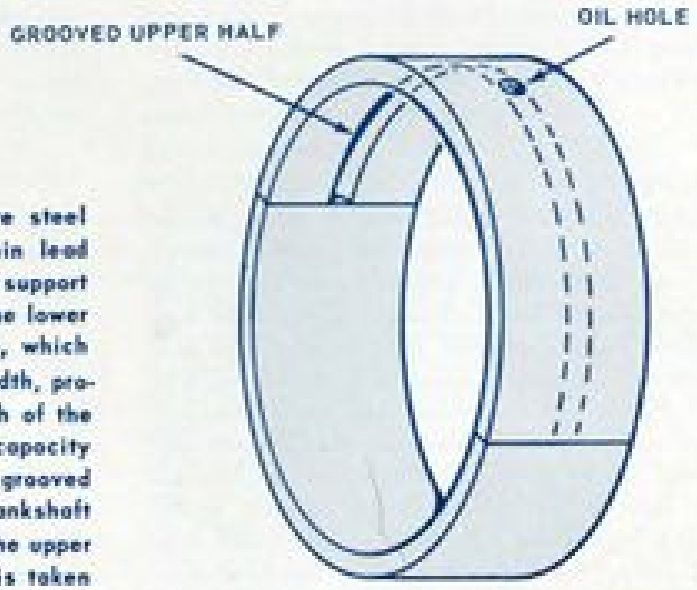




CYLINDER BLOCK . . .

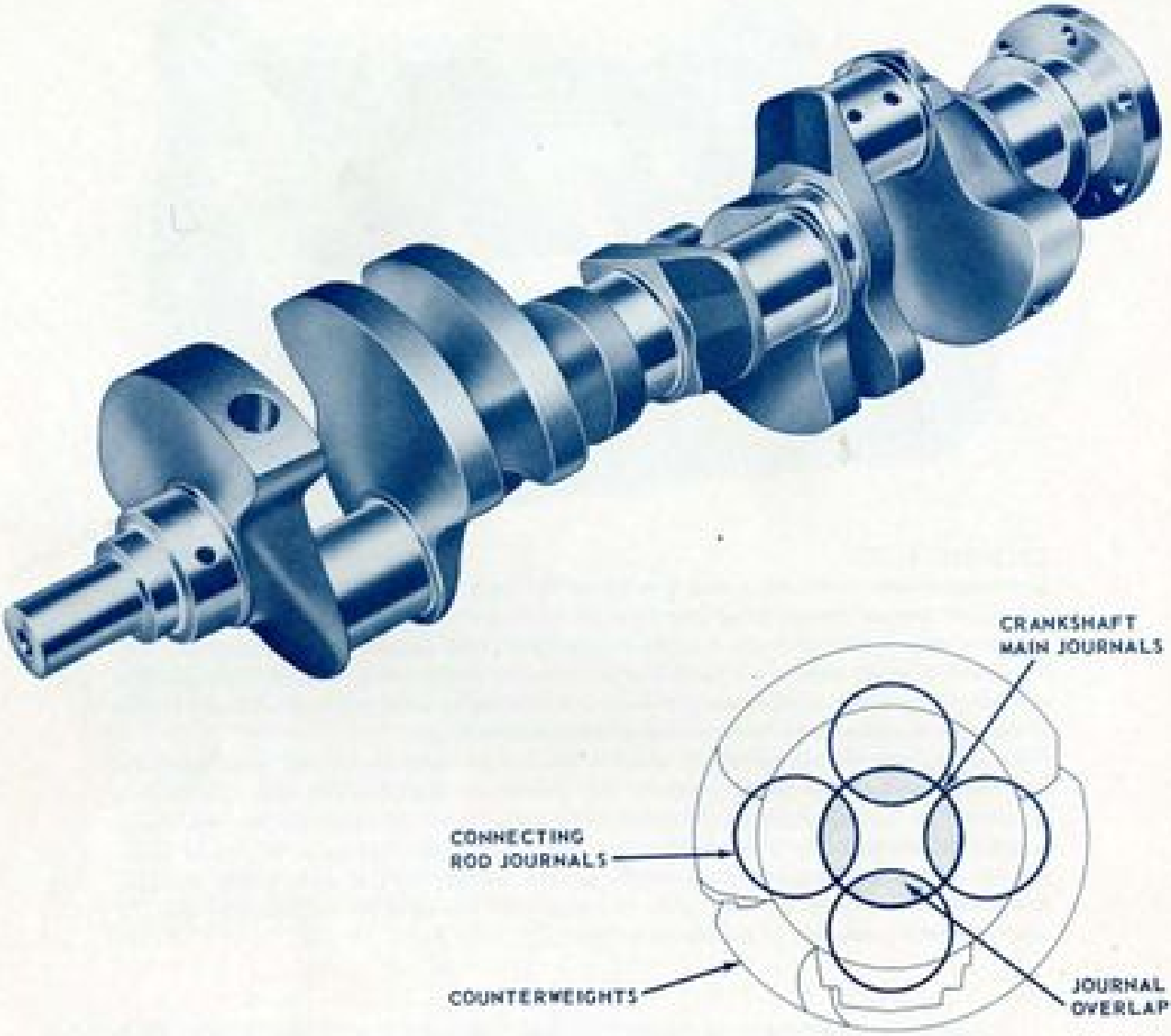
The two cylinder banks are joined together at the front and rear of the cylinder block by full depth integral panels. The rear face of the block is well blended into the casting structure across the full width, forming a very rigid lower support for the clutch housing. All clutch housing bolts are attached at the corners of the block in such locations that bolt bosses from the clutch housing to the crankcase are in solid major structural sections of the case to minimize deflections and stress concentrations.

The three intermediate bulkheads also tie into the cylinder banks, and when combined with the front and rear panels, provide the crankshaft and camshaft with five bearing supports. The compact, stiff block structure, together with the close tie into the clutch housing, results in power plant rigidity that represents modern design in an engine structure. The deep block construction with its greater weight, used in some former designs, is no longer necessary. In the new design the lower extremity of the block is only .12 inch below the centerline of the main bearings.



MAIN BEARINGS . . .

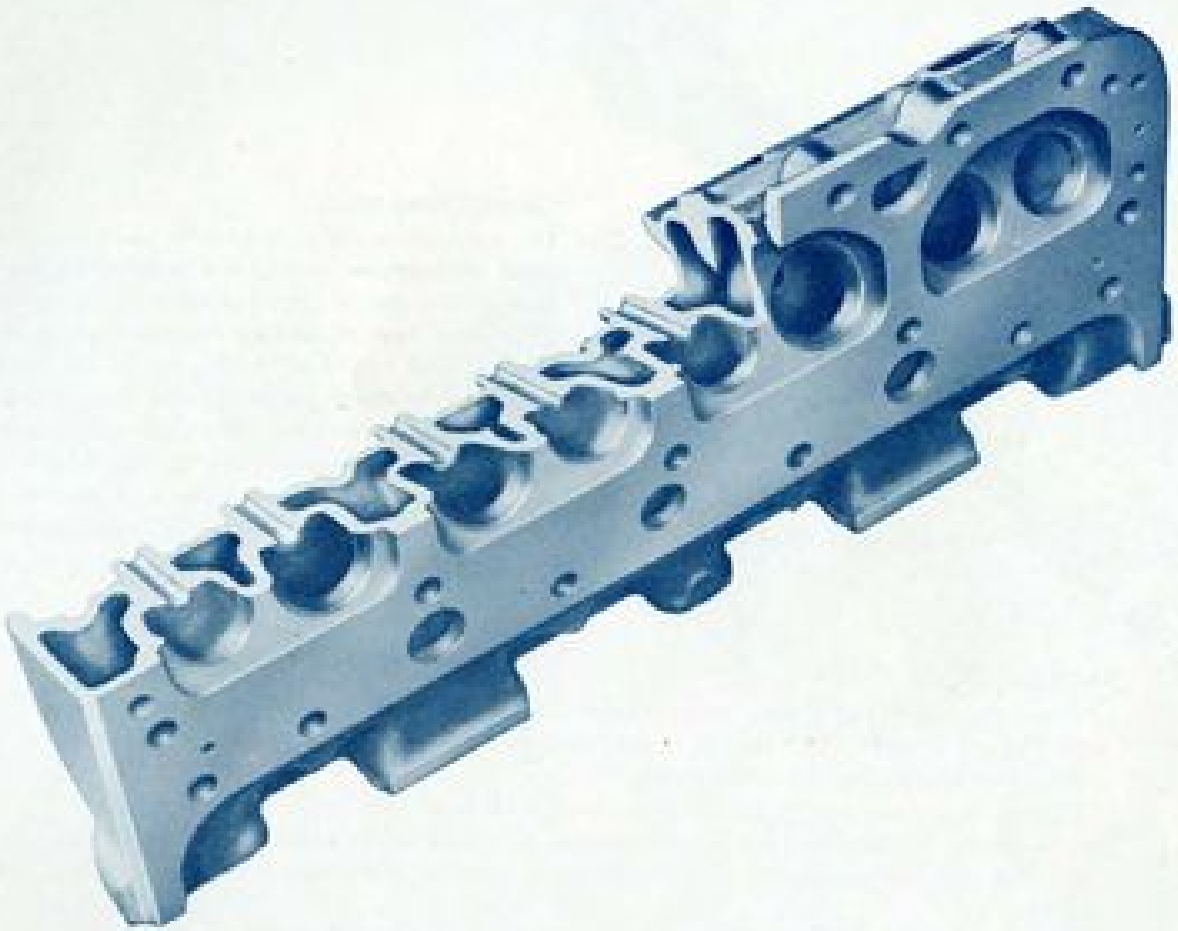
The precision replaceable main bearings feature steel backed sintered copper-nickel matrix with a thin lead alloy overlay. This lining material has high support strength and excellent bearing characteristics. The lower bearing shell is designed without an oil groove, which more than doubles the effective load supporting width, provides an unbroken oil film over the entire length of the bearing and increases the bearing load carrying capacity approximately 40 per cent as compared with the grooved type. Ample lubrication is supplied through the crankshaft oil holes to the connecting rods by the groove in the upper portion of the main bearings. Crankshaft thrust is taken by the flanged rear bearing.



CRANKSHAFT . . .

The crankshaft is made of forged steel which has a high modulus of elasticity, giving ten per cent greater stiffness compared to the same shaft if made of a high quality cast steel. Support from the five main bearings, combined with a large journal overlap of shaft and crankpin cross section, provides exceptional resistance to deflection. The low weight pistons and connecting rods permit compact, short radius crankshaft counterweights with a small outside diameter, and an extremely short dimension from the crankshaft axis to the bottom of the cylinder bores. Therefore the connecting rods also are short with high structural rigidity and low weight. The counterweights are fully cheeked and machined to permit nesting of the slipper-skirted pistons at the bottom of the short stroke. A harmonic balancer is provided to assure smooth engine operation.

Full pressure lubrication is supplied to each connecting rod bearing through a drilled oil passage in the crankshaft from the adjacent main bearing. The crankshaft oil holes at the connecting rod are located so that lubrication is supplied to the bearing approximately 60 degrees ahead of the point of maximum load. Not only does this position of the oil hole provide maximum penetration of the lubricating oil before full loading of the bearing, but it also provides a surface uninterrupted by any aperture at the point of maximum load.



CYLINDER HEADS . . .

The cylinder heads for both banks are interchangeable and incorporate a wedge-type combustion chamber. The valves are in line at a 23 degree angle to the bore axis, thus providing a quench area for maximum detonation control. The cylinder bores permit spacing of large valves in the head without cramping water passages around the valve seats, which assures adequate cooling of the seats.

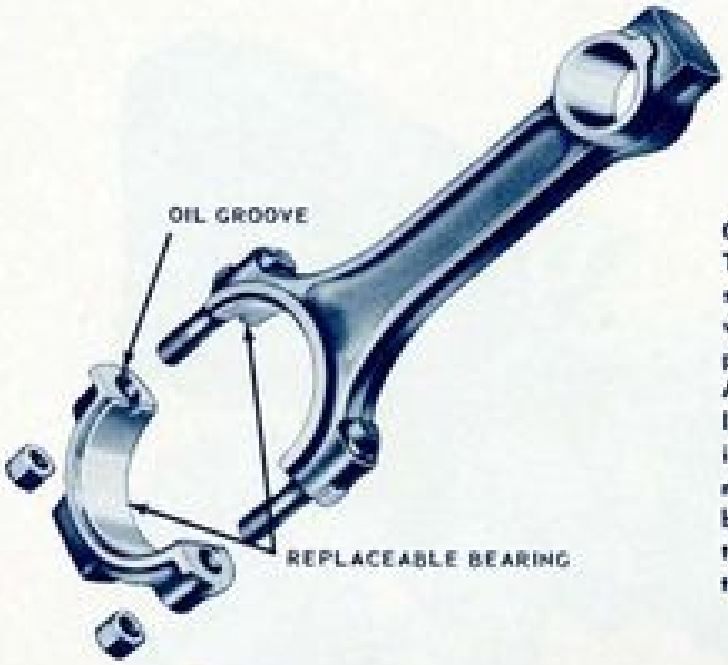
Large inlet ports permit efficient, low velocity fuel mixture flow at high engine speeds. The exhaust passages point upwards and out, and because of their short length a minimum exhaust port wall area is exposed to the water jacket. This is a major factor in the low heat rejection characteristics of the engine.

An exhaust cross-over passage is included in the center of the head and is tied to only one exhaust passage instead of the conventional method of using two passages. Coolant outlets are located at each end on the intake manifold face, eliminating any machine operation or core prints on the front and rear faces of the head. When installed, however, the rear coolant outlet is blanked off by the intake manifold, and the coolant flow is directed to the open outlet at the front of the head.

The top surface of the head is not parallel to the bottom face in order to locate the rocker cover as far inboard toward the centerline of the engine as possible and thus provide a narrow overall engine width. Eight reamed stud holes in each head retain the individual rocker arm supports of the new valve mechanism.

Each cylinder head is secured to the block with seventeen bolts, with each cylinder bore surrounded with a five bolt pattern, thus assuring trouble-free gasket seal.

Full length, shallow water passages, cored into the casting, provide arch-shape reinforcements with walls of relatively thin section for high structural strength with low weight. The stiffness of the head, coupled with the five bolt pattern attachment, assures freedom from distortion and tight sealing on the embossed steel head gasket. Water passage holes in the face of the head align with similar holes on the top surface of the cylinder banks for full circuit cooling between the head and the block. Integral bosses surrounding each valve stem form valve guides with excellent heat transfer to the cooling solution for freedom from valve burning.



CONNECTING RODS . . .

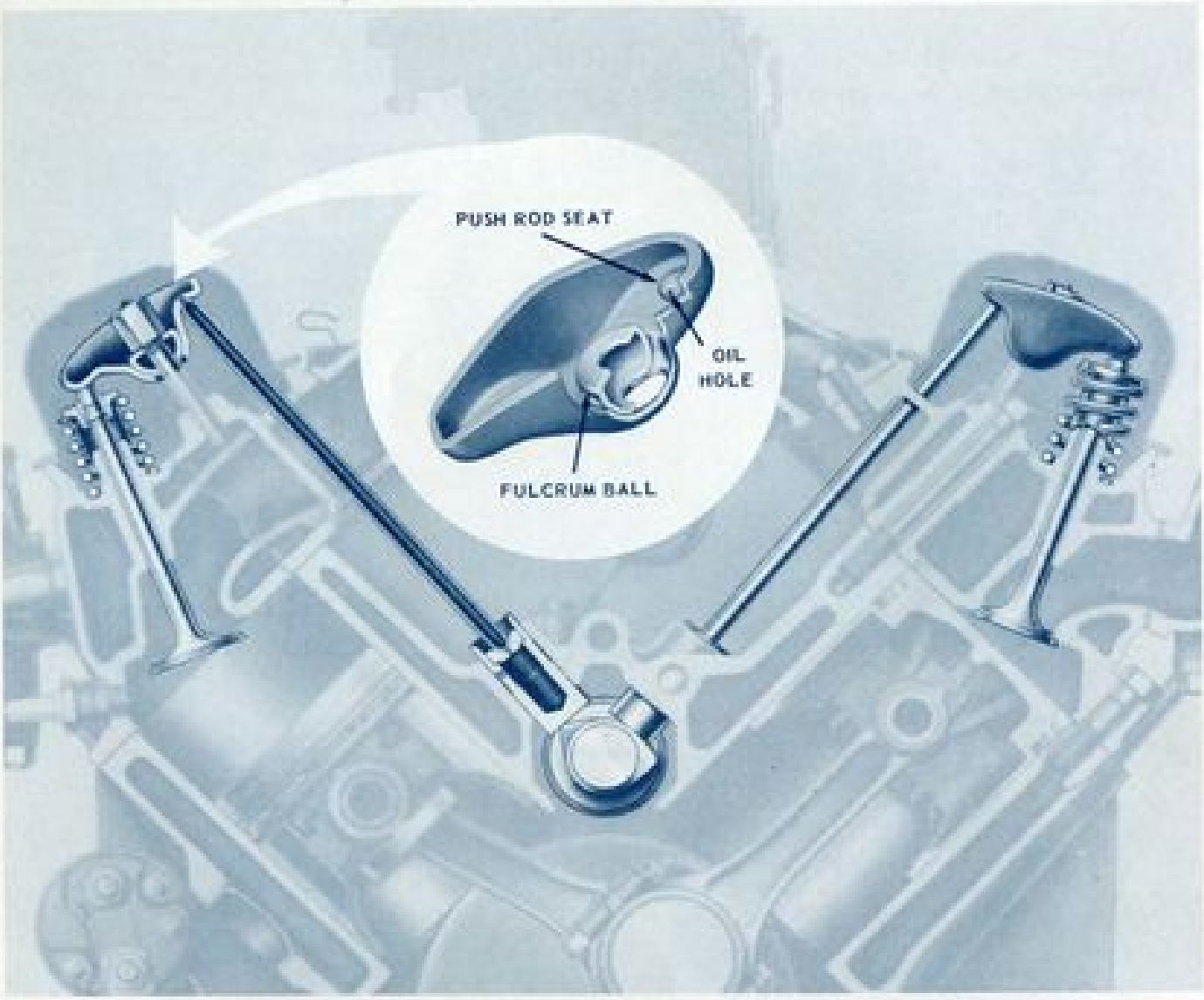
The connecting rod is extremely short requiring only a small area column section and is therefore very light in weight. The cap is forged separately and is retained by plain nuts, special locking devices being unnecessary. A small slot is milled in the cap at the split line for lubrication of the opposite cylinder bore. The piston pin is retained by pressing, which not only eliminates the need for slitting the upper section and the use of a pinch bolt, but provides a stronger and more durable upper end to the rod. Precision replaceable bearings are used at the crankshaft end.

PISTONS . . .

The aluminum piston is a steel insert slipper skirt type with three rings above the piston pin. The pin is offset .078 inch to insure quiet operation. The slipper skirt design provides clearance for the crankshaft counterweights.

Compression rings are thick wall alloy iron, 5/64 inch wide, taper faced and with an inside bevel. The top ring has a flash plating of chrome to facilitate break-in. The oil ring is the chrome plated steel rail type which provides maximum oil control and durability.

Through the use of the oscillating piston pin, which is pressed in the connecting rod, the distance between the piston pin bosses is held at a minimum for more efficient use of material by shortening the span or beam length between the front and rear of the 3-rib piston structure. Lubrication of the piston pin is supplied through a single hole in the top of each pin boss, drilled upward at an angle. Oil from inside the piston is thus wiped between the pin and boss during the most heavily loaded portion of the cycle.



VALVE MECHANISM . . .

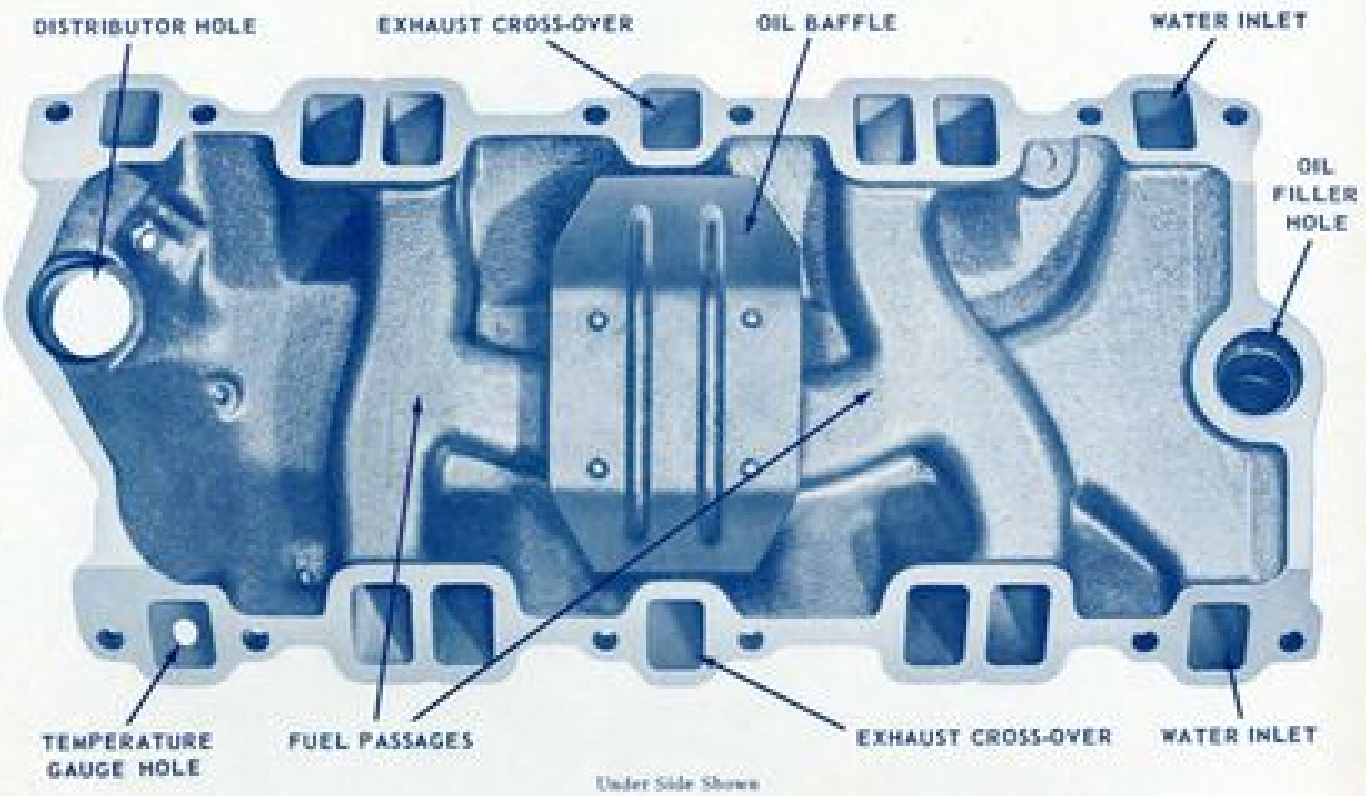
The valve operating mechanism is of completely new design, featuring low inertia for high speed efficiency. Engines used with three speed transmissions have mechanical valve lifters and remarkably low valve lash change throughout the engine operating range. Hydraulic type valve lifters are furnished in engines used with the automatic transmission.

A cast alloy iron camshaft with excellent wear characteristics and rigidly supported by five bearings is driven by a silent chain from the crankshaft. No thrust bearing is used since the thrust is rearward and carried against the face of the crankcase at the front bearing.

Light in weight for reduced inertia, the push rods are of hollow steel tubing; gathered ends have small openings for the passage of oil from the tappet assemblies to the valve rocker arms for lubrication of the overhead valve mechanism.

The individually mounted valve rocker arms are of pressed steel, and have a spherical surface fulcrum with an oval shaped hole punched into the bottom. Studs, threaded at the upper end, are pressed into the cylinder heads in a straight line. Each rocker arm is assembled over the valve stem and push rod, with the slot over the pressed-in stud, and retained by a hollow half ball, nut, and lock screw. Valve lash adjustment for engines with mechanical lifters is made simply by turning the nut on the stationary stud while holding the required thickness feeler gauge between the valve tip and the rocker arm. A feeler gauge is not required with engines equipped with hydraulic tappets.

All valves have oil shields under the valve spring caps to keep excess oil away from the valve stems. The exhaust valves are aluminum dipped on the seats to eliminate valve burning. The valve stem guides are integral with the cylinder head for efficient temperature control of the valves.

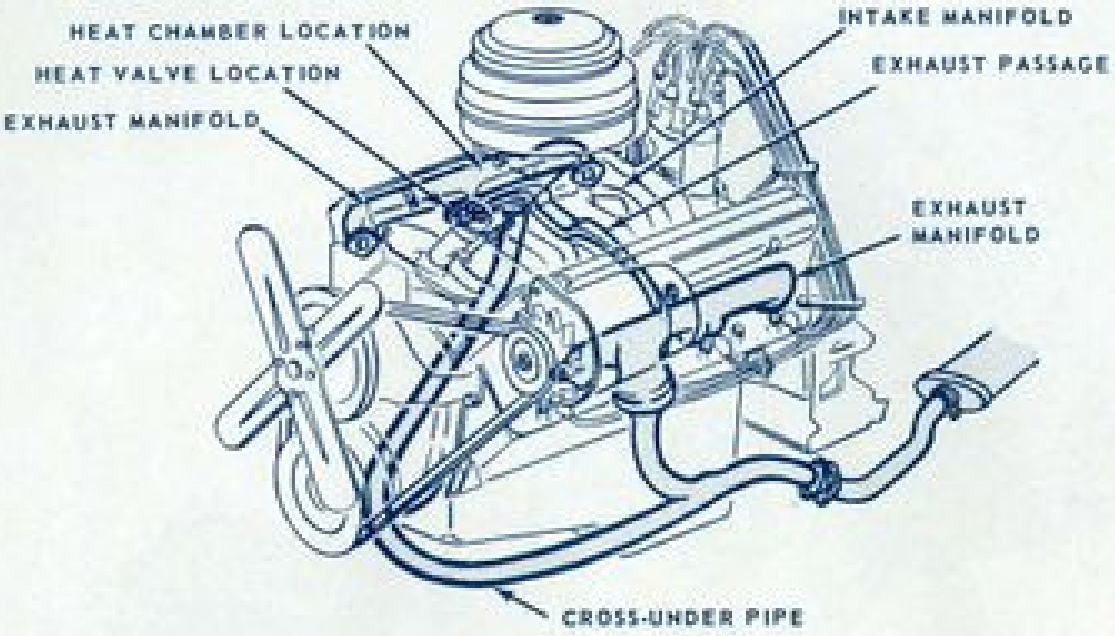


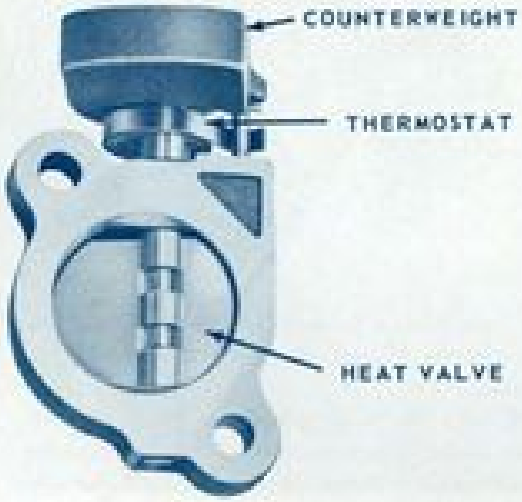
Under Side Shown

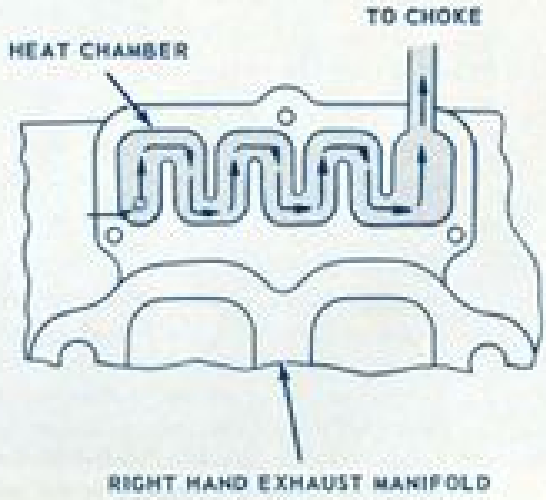
INTAKE MANIFOLD . . .

The intake manifold passages from the carburetor to the cylinder heads are designed to insure good distribution of fuel mixture to each cylinder. All passages are of nearly equal length. Also, the lateral branches turn abruptly from the longitudinal passages to maintain high mixture velocity at the turns and thereby minimize favoring or starving certain cylinders.

The intake manifold is designed to serve more than the usual primary function of carrying the fuel-air mixture to the cylinders. It also contains the cross-over for exhaust heat to the carburetor, includes the thermostat housing and coolant outlet to the radiator, and forms a closure for the "V" between the cylinder banks. It thereby eliminates passage of air under the manifold and the undesirable cooling of the mixture from such an air flow. The manifold structure adds to the rigidity of the engine assembly, and at the same time, eliminates the need for a separate valve tappet chamber cover.







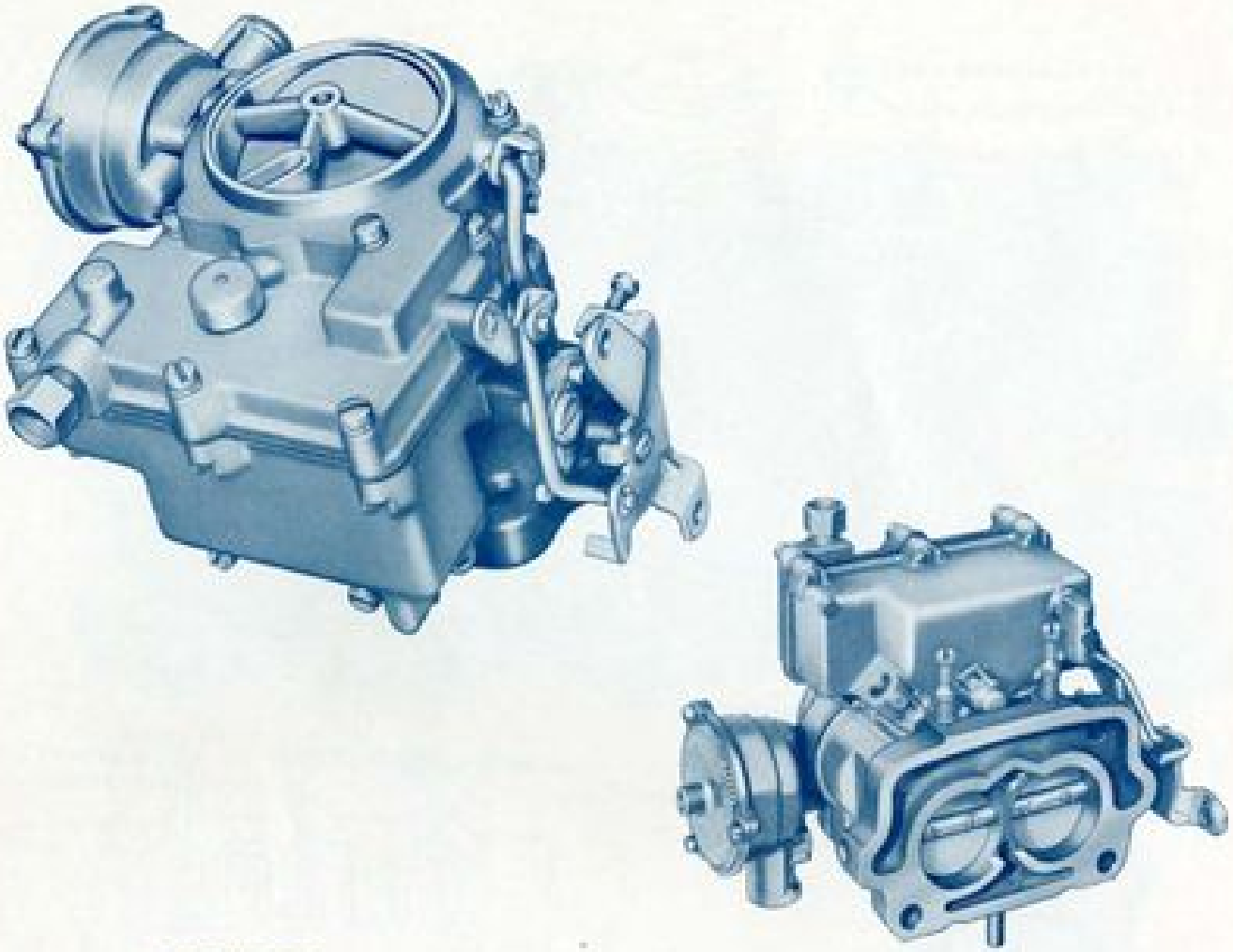
EXHAUST SYSTEM. . .

The engine exhaust system consists of an exhaust manifold for each bank of cylinders and an external cross-under pipe joining the manifolds for exhaust through a single exhaust pipe, muffler and tail pipe. The manifolds are also connected by an exhaust passage through the center of the intake manifold. This passage provides heat under the carburetor riser for fast warm-up, maximum power output, and optimum economy.

The external exhaust pipe crosses below the front of the engine. In this location it is exposed to the air stream from the fan and air movement under the vehicle to prevent excessive underhood temperatures.

A heat chamber or stove is cast into the right hand exhaust manifold for the purpose of supplying heat to the carburetor automatic choke housing quickly after engine starting. The heat stove cover consists of an outer and inner cover to provide a dead air space between them for insulation. A tube leads from the heat chamber to the choke housing.

An exhaust manifold heat valve, thermostatically controlled, routes exhaust gases through the intake manifold cross-over passage to supply heat to the manifold risers on cold starts. The valve counterweight also acts as a shield for the thermostat.



CARBURETOR . . .

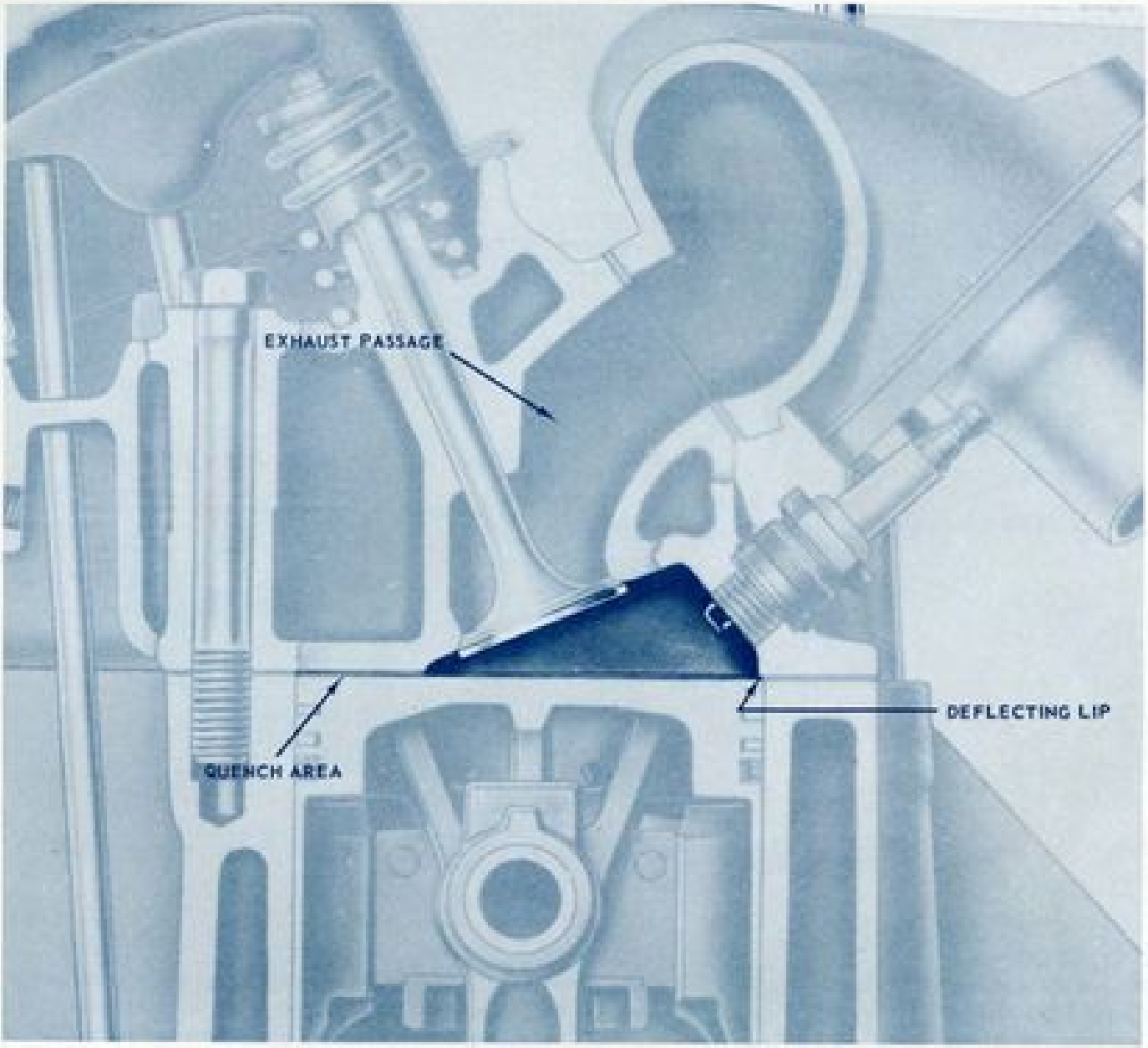
A two barrel downdraft carburetor with an automatic choke is furnished on the eight cylinder engine. While not interchangeable, the carburetors used on conventional and automatic transmission models are basically the same.

The carburetor design is the offset bowl type, with the bowl toward the front, and with the fuel supply jets and passages submerged enough below the liquid level to provide proper engine operation under all driving conditions. A major portion of the calibrated metering parts is contained in the venturi clusters located in the float bowl and readily accessible for servicing. The idle tubes, idle metering jets, main discharge nozzles, and pump discharge jets are all contained in the cluster, while the fixed-type main metering jets are screwed into the bowl casting. The power metering jets are pressed into the bowl.

A vacuum operated power system is used. This power system makes a proper power mixture readily available upon a lowering in manifold vacuum, regardless of the degree of throttle opening. It is not necessary, therefore, to open the throttle completely to enrich the mixture sufficiently for power operation.

A vented-type accelerating pump plunger is used for the additional fuel required on acceleration. By means of a vent valve ball within the plunger head itself, fuel vapors are allowed to pass from the pump well to the float bowl under constant throttle conditions. This insures that the pump well will be primed with fuel at all times and readily available for rapid acceleration.

The throttle body of the carburetor is provided with a "U" shaped cored channel which extends the length of the mounting face. Two drilled holes into the intake manifold exhaust cross-over register with the ends of the cored channel, and provide heat to prevent carburetor icing during warm-up.

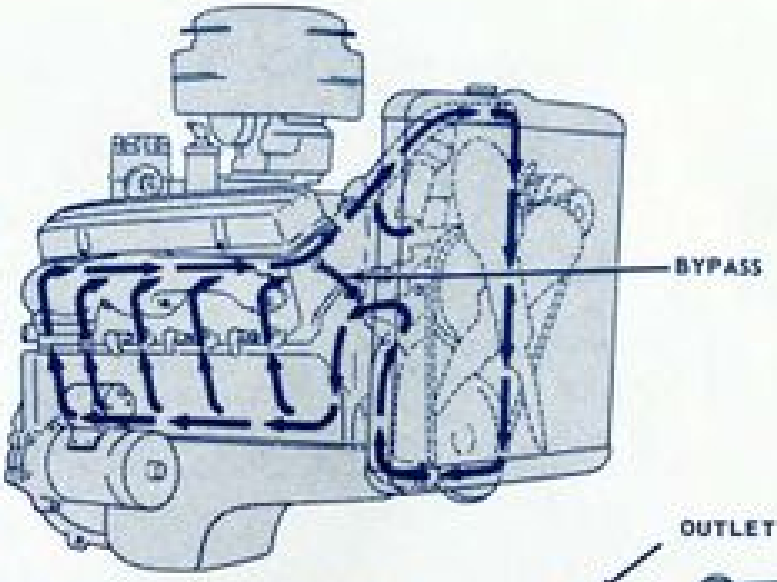


COMBUSTION CHAMBER . . .

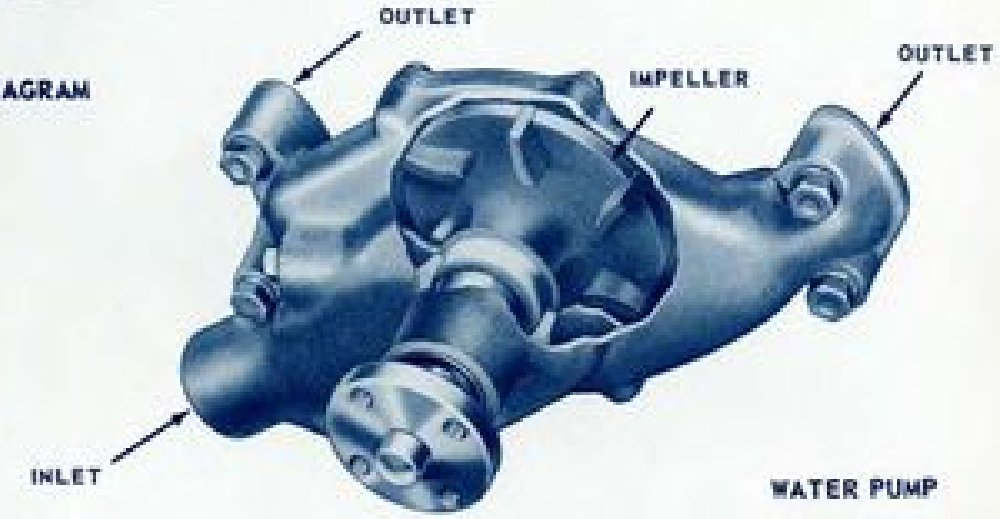
The wedge-type combustion chamber has a large quench area for control of detonation. This flat quench area also acts as a squish surface when the intake mixture is compressed by the piston. As the piston rises, the mixture is forced away from the squish area, imparting turbulence to the fuel-air mixture and assuring fast and complete combustion.

The cylinder head design places the spark plug in the hottest area of the combustion pocket. When ignition occurs, the flame spreads evenly and rapidly throughout the combustion chamber for a smooth pressure rise and freedom from detonation.

A portion of the cylinder head forms a lip which overhangs the cylinder bore and protects the spark plugs from oil which may be scraped off the cylinder walls by the piston rings, thus insuring reliable ignition.



COOLANT FLOW SCHEMATIC DIAGRAM



WATER PUMP

COOLING SYSTEM . . .

The engine features high thermal efficiency and the resulting low heat rejection requires a cooling system of relatively small volume for an eight cylinder engine.

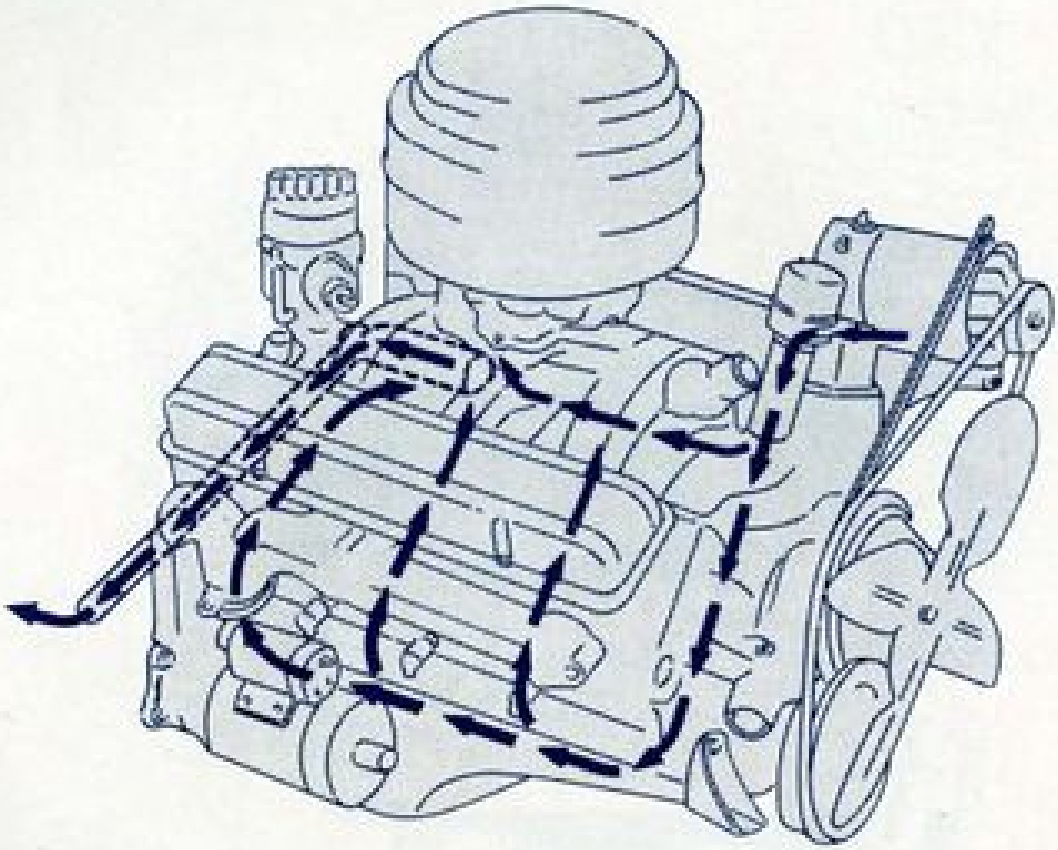
Complete jacketing is provided for the short cylinder barrels. The cooling solution not only extends for the full length of the cylinders, but also completely surrounds each barrel. Also featured is the full length cooling of the short exhaust passages, although only a comparatively small area of the exhaust passages is exposed to the cooling system. In this way, a minimum of heat is rejected to the coolant with the result that thermal efficiency of the engine is high.

Coolant is drawn from the radiator into the low speed, high capacity water pump. It is then discharged from the pump into a plenum chamber and distributed to each bank of the cylinder block. The coolant is circulated through the cylinder block, up into the cylinder heads, and from a passage at the front of each cylinder head it then flows into passages in the intake manifold, from where it is discharged back into the radiator. The thermostat is housed in the intake manifold at the point of discharge.

The water pump is bolted to the front of the cylinder block. The pump housing casting includes a plenum or equalizing chamber. Water drawn into the pump is discharged into the plenum chamber, which has two water outlets, one into each bank of the cylinder block. The water flow is equally divided between the two banks.

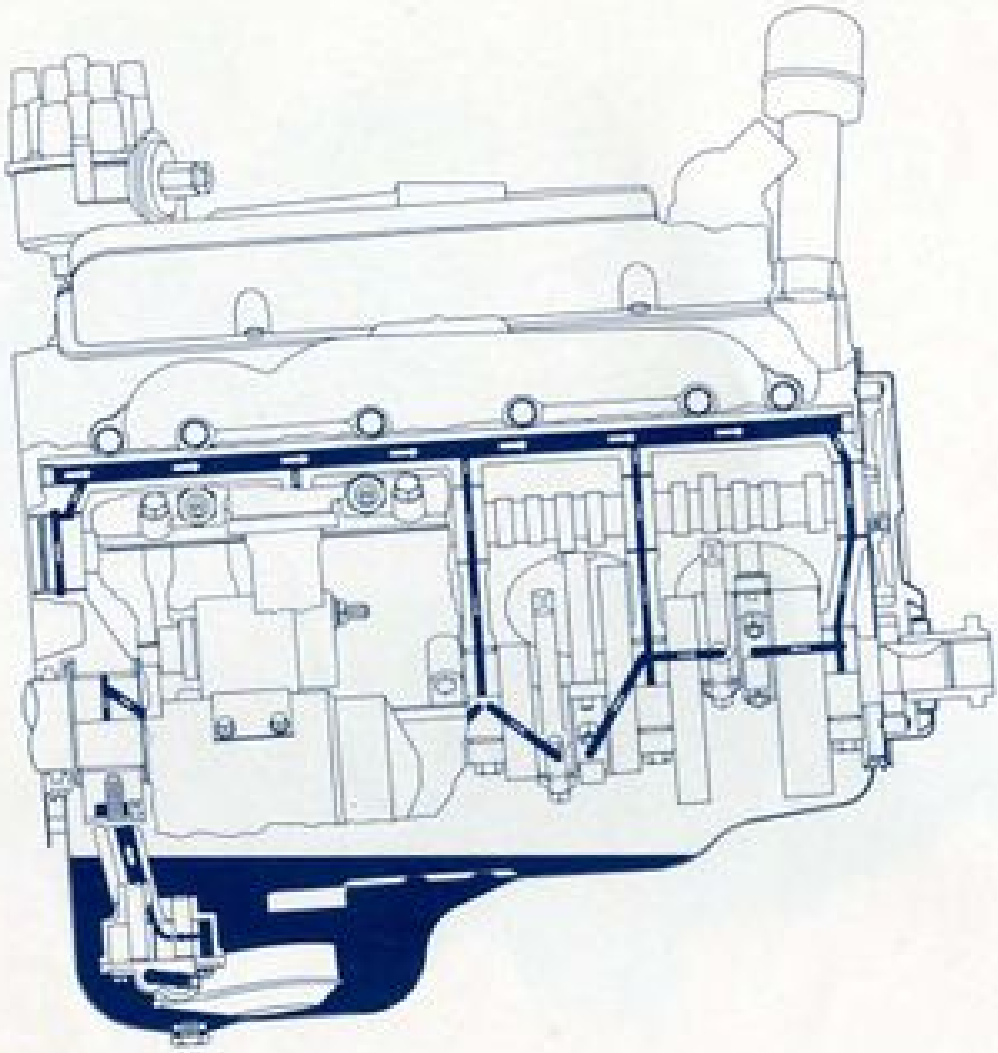
The pump rotor is 3-1/2 inches in diameter, with blades which are curved at the entrance and then straighten to a 90 degree exit angle. There are no back blades to the rotor. The pump pulley is large in diameter, and is driven at 95 per cent of crankshaft speed to insure durability of the pump bearing and quiet operation of the fan.

For coolant circulation on cold starts before the thermostat opens, a passage is provided in the front of the cylinder block, and connects to the right hand cylinder head coolant chamber. Water from the left hand cylinder head also circulates through the passage via the coolant cross-over in the intake manifold. The cylinder block passage outlet is at the intake of the water pump.



VENTILATION SYSTEM . . .

The crankcase ventilation system is of road draft tube type. Air enters the engine through an opening in the oil filler cap and then travels directly down into the crankcase through the oil filler tube and the timing gear chamber. From the crankcase the air stream picks up vapor and passes up onto the tappet deck, through the oil drain back holes. An inner ventilator tube and oil separator is installed at the rear of the tappet deck. It leads to an outer ventilator tube which is vented to atmosphere under the engine. The air from the tappet deck is discharged through this ventilator tube. The air stream under the moving vehicle creates a low pressure area under the outer ventilator tube, with the result that the air is drawn out of the engine, carrying with it engine vapors and fumes.



LUBRICATION SYSTEM . . .

The full-pressure lubrication system is wholly contained within the cylinder block and head castings, there being no external pipes in the entire system.

The gear-type oil pump, which is attached to the rear main bearing cap, is driven through a shaft from the distributor. A recirculating by-pass type pressure regulator is integral with the oil pump cover. Oil pick-up in the sump is through a floating strainer hinging on the side of the oil pump.

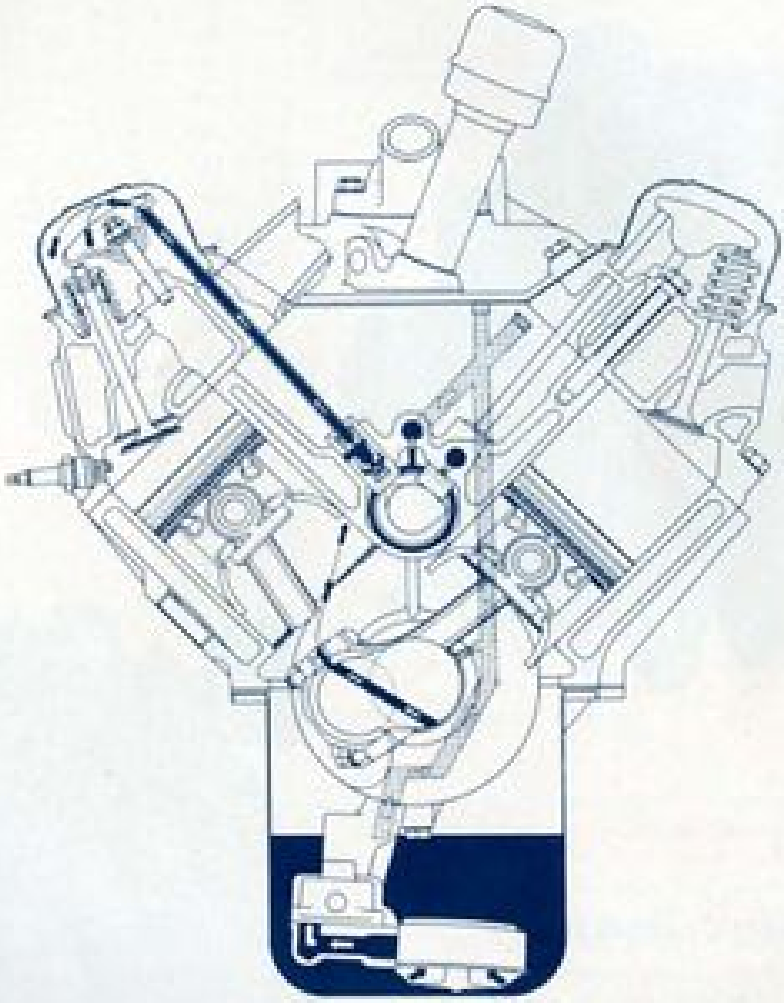
Oil from the pump is fed directly to the main oil gallery which is located above the camshaft and drilled the full length of the cylinder block.

Each of the bosses provided in the cylinder block for camshaft bearing seats has a machined annulus, or groove, which is covered when the bearing is installed. Except for the rear bulkhead, a drilled hole runs vertically from the main oil gallery down into and through the annulus of each camshaft bearing, and continues through the bulkheads into the crankshaft bearings.

Oil under pressure in the main gallery moves downward and into the passage or annulus machined in the block under the camshaft bearing shells, except the one at the rear. Some of the oil is forced from the annulus into the camshaft bearings through a small hole near the bottom of the bearings. The remainder of the oil continues downward through a hole in the upper half of each crankshaft main bearing, fills the groove in the top half of the bearing, and lubricates the crankshaft main journals. The full-pressure oil delivered to the main bearings feeds through drilled passages in the crankshaft to the connecting rod journals. Each connecting rod has a small slot milled in the split line where the cap attaches. Oil is forced out of the slot once each revolution of the crankshaft, and is directed to the wall of the adjacent cylinder of the opposite bank.

The rear main bearing obtains its lubricating oil by means of a hole drilled from the bearing into the main oil delivery riser which connects the oil pump to the main oil gallery.

The annulus or slot under the camshaft rear bearing in the cylinder block distributes oil at low pressure to the two tappet galleries. These galleries are drilled

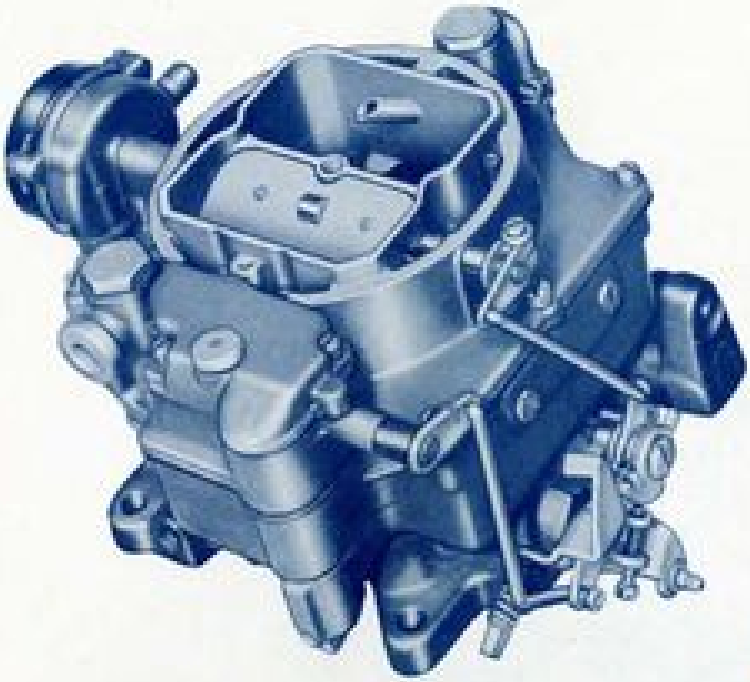


directly through the centerline of each tappet bank for the length of the engine to supply lubrication to the tappet and valve operating mechanism.

Oil pressure in the tappet galleries is lower than it is in the main gallery. A drilled hole from the camshaft rear bearing into the main oil gallery keeps high pressure oil in contact with the bearing at all times. The bearing shell has another similar hole in line with, and to the rear of, the hole just described. This hole is directly over the annulus in the camshaft rear bearing boss and a hole is drilled from this annulus at an angle to each of the tappet galleries. A metering slot is milled in part of the outside diameter of the camshaft rear journal, just wide enough to cover the distance between the two holes in the bearing shell, to provide flow of oil from one hole to the other. Since the front hole is always exposed to high pressure oil, it keeps the camshaft rear bearing lubricated, and at every revolution of the camshaft, the front hole fills the metering slot with oil under pressure. The oil crosses to the bearing shell rear hole and into the annulus in the cylinder block camshaft rear bearing boss. The oil then is carried through the two drilled holes leading to the tappet galleries. The pressure of the oil in the tappet galleries is controlled by the length of the metering slot.

Each tappet, whether the mechanical or hydraulic type, has an annulus in its body which permits oil distribution throughout the length of the gallery, regardless of the position of the tappet, up or down. Each tappet has a drilled hole in its annulus, which allows entrance of the gallery oil, under pressure. Oil flows out the top of the tappets, through the hollow push rods, into the cavity of the rocker arm through a hole in the rocker arm push rod seat. The oil keeps the rocker arm fulcrum ball and valve stem lubricated. Oil return to the block is through drilled holes in the cylinder head.

The camshaft front bearing is slotted to deliver oil to the mating surface on the hub of the camshaft drive gear. The face of this gear has a cross-slotting which throws oil by centrifugal force onto the timing chain. The distributor bearing is lubricated by oil from the right hand tappet gallery.



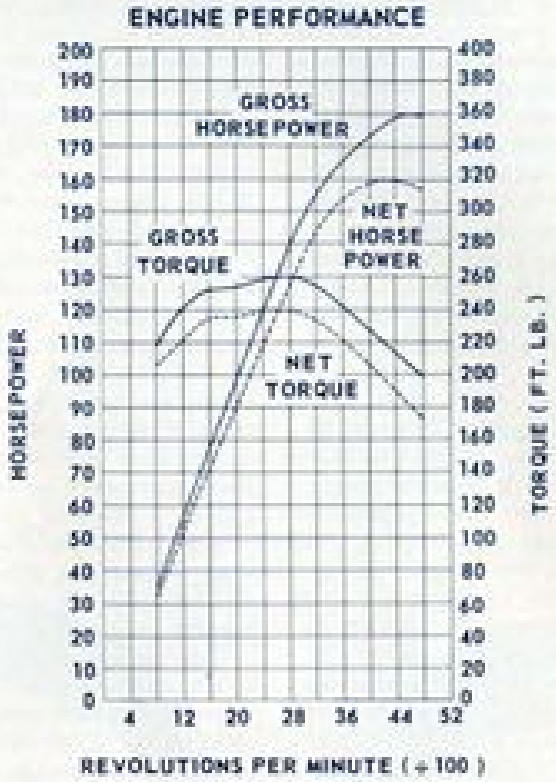
FOUR-BARREL CARBURETOR

HIGH PERFORMANCE PACKAGE

For the customer who desires exceptional acceleration, speed, and performance, a high performance package which increases the breathing or volumetric efficiency of the engine is offered as optional equipment on vehicles equipped with the new V-8 engine. This equipment package includes a four barrel carburetor, special intake manifold, dual exhaust system and high capacity oil bath air cleaner.

The advertised gross horsepower of the V-8 engine with the power package is 180 at 4600 rpm, with a gross torque of 260 foot pounds at 2800 rpm. Net horsepower is 160 at 4200 rpm, and net torque 240 foot pounds at 2600 rpm.

The four barrel, downdraft carburetor is basically two dual carburetors contained in one assembly. The section containing the metering rods, accelerating pump and choke is termed the primary side. The secondary side of the carburetor, which also contains two barrels, has only the nozzles and main metering jets, these being brought into supplementary operation when the accelerator pedal is heavily depressed for high speed and acceleration. The primary and secondary bowls are separated by a partition. Each of the two bowl sections has its own dual float assembly and needle valve, which maintains the fuel levels in the bowls. A balance passage in the side of the carburetor body equalizes the fuel levels in the separate bowls under all tilt and surge conditions. The secondary throttle plate is so linked to the accelerator control lever that the secondary barrels cannot come into operation until the accelerator pedal is depressed to approximately half throttle position. The secondary nozzles then operate in parallel with the primary nozzles for maximum engine performance on demand. The automatic choke operates only on the primary side



of the carburetor. The linkage is so designed that the secondary throttle plate will not operate, regardless of the accelerator pedal position, until the engine has reached a temperature high enough to open the choke. This prevents loss of choking on high acceleration demands following a cold start. Linkage is also provided to open the choke plate when the accelerator is completely depressed before the automatic choke has come into release position, permitting dispersion of liquid fuel if the engine is flooded.

The intake manifold used in this high performance package is a special casting. Not only is the mounting pad different from that on the regular engine to accommodate the four barrel carburetor in place of the two barrel carburetor, but the basic area of the fuel intake passages is approximately 15 per cent larger. Since the cylinder heads are the same, the manifold intake passages taper down at the outlet ends. The larger basic area of the intake passages permits the denser intake mixture to pass through at a velocity equal to that of the intake charge in the regular intake manifold, notwithstanding the higher engine speed. This is possible because the larger openings offer less resistance to the passage of the mixture. While the relative height of the carburetor mounting pad remains the same, the outside surfaces of the cored passages in the manifold are higher.

Generally similar to the 24 inch long muffler used on the convertible model, except that the inner tubes are 1/4 inch smaller, the dual mufflers are of the reverse flow type and effectively subdue engine noise.

OPTIONAL 6-CYLINDER ENGINE

The revisions incorporated in the regular production engine are also included in the optional six cylinder engine used with the Powerglide transmission. Special features of the engine are the same as in 1954. These include hydraulic valve lifters, high lift camshaft and aldipped extra alloy steel exhaust valves. Among the improvements are the relocated and redesigned water pump with the larger impeller for increased pumping capacity, the larger cooling fan, the diameter of which is increased to 17 inches from 15-3/4 inches, the new floating-type oil pump inlet, and the oil pan baffle. The new side-mounted air cleaner and silencer, new fuel pump and grooveless lower main bearings are also used in this engine.

Under the new procedure of liberalized test conditions for establishing the advertised power rating, in line with the methods used by competition, the new rating for this engine is 136 horsepower at 4200 rpm, instead of 125 at 4000 rpm. Likewise, gross torque has been raised to 209 foot-pounds at 2200 rpm, compared with 200 foot-pounds at 2000 rpm as advertised in 1954.

The revised contour oil pan sump for steering linkage clearance, and the balanced four point engine mounting system are used with this engine. The 12-volt electrical system, likewise, is incorporated.

POWERGLIDE TRANSMISSION

Smoother operation, increased durability and simplified servicing are the results of an extensive redesign of the Powerglide transmission. The principal change is a greatly simplified hydraulic system which is made possible, in large measure, by a new double-wrap low band. Due to the greater holding power of this new band, line pressure is reduced and the vacuum modulator eliminated. This and other changes in valving provide smoother shifts in either manual or automatic operation. Other changes adapt the Powerglide to the Hotchkiss drive and to the optional V-8 engine.

A new double-wrap low brake band of three circular segments is the key to improved Powerglide operation. The extra wrap provided by this unique design is the basis of the greater holding power and the quicker and more positive disengagement of the band. Since the band has potentially four times more holding power than the former single strap band, it can be operated with lower main line pressure and its servo piston diameter reduced by 1/2 inch for smoother closed throttle shifts.

In the previous design, high hydraulic pressure was needed to apply both the low and reverse bands and was supplied by the modulator unit. Now that main line pressure is sufficient for effective operation of the low band, the complex vacuum and hydraulic modulator is no longer required. Elevated pressure is still needed for applying the reverse band. This demand is satisfied by a reverse booster valve located at the end of the pressure regulator valve. The booster valve provides direct hydraulic modulation when a shift is made into reverse.

With the new low pressures, the high clutch-low servo valve is no longer necessary nor are the primary and secondary clutch valves. Governor modulation of the main line pressure is also discontinued. Because the valves are fewer and simpler, malfunction can be pin-pointed more accurately.

Two new timing valves, the closed throttle downshift cushioning valve and the forced downshift cushioning valve, are added to the main valve body. These valves, together with the reduced main line pressures and the new low brake band, improve high speed upshifts, free the transmission from abrupt downshifts while braking or coasting, and assure smooth manual shifts from Drive to Low.

The high clutch assembly is essentially the same as the late 1954 type but is changed to permit locating the ball vent in the clutch drum rather than in the clutch piston. This change in venting is made to prevent partial clutch engagement during a fast shift to reverse or while coasting in neutral at high speeds, thereby increasing the durability of the clutch. Another durability feature which now permits prolonged idling in Park is a change in the manual valve to allow oil to lubricate and cool the moving parts with the selector lever in this position.

Full pressure on the accelerator holds Powerglide in low gear up to a new maximum of about 52 MPH. This new upshift point and the corresponding downshift point of 47 MPH at full detent are the result of new inner weights in the governor. Early 1954 production approached these points but difficulty with abrupt shifts caused a reversion to the 1953 shift points for the rest of the year's production. Thus, the shift points at full detent are increased 8 MPH over the majority of 1954 production.

Similarly, the closed throttle and part throttle shift points are raised. The upshift at closed throttle occurs between 12 and 14 MPH and the downshift at 10 to 13 MPH. Both points are about 4 MPH higher than late 1954.

A new transmission extension and the lengthening

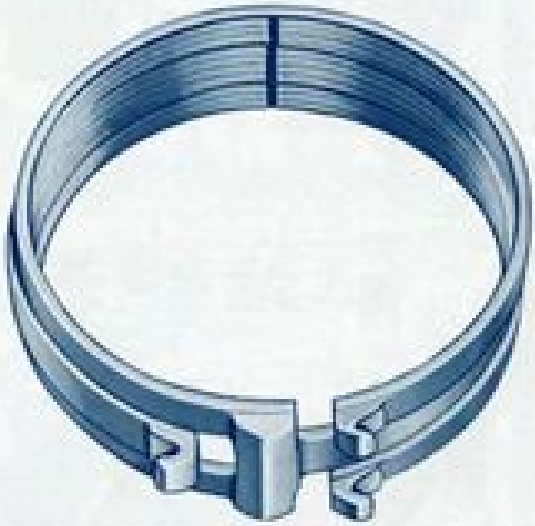
INDICATOR QUADRANT . . .
The illuminated indicator quadrant mounted at the base of the instrument cluster is part of the concentric selector control mechanism. Like its counterpart, the regular production gearshift control, the selector mechanism employs an articulated linkage to the transmission to minimize movement of the selector lever.

of the output shaft meet the requirements of Hotchkiss drive. Another dimensional change in the output shaft is an increase in its minimum diameter from which follows a reduction in the size of the governor driven gear and the speedometer driven gear. The new speedometer drive assembly is the same as that used with the regular production three-speed transmission.

The new transmission housing is provided for use with the optional V-8 engine. This housing differs from that used with the six cylinder engine in bolt hole spacing and in the elimination of the ear-like projection used to house the end of the starter. When Powerglide is used with either engine, there is more free space in the engine compartment due to elimination of the separate hydraulic oil cooler. Cooling is now provided by a heat exchanger which is built into the bottom tank of the radiator.

Oil flow to the heat exchanger is effectively controlled by the tubes connecting it to the transmission since oil will not flow through them until after it reaches operating temperature. Therefore, the thermostatic by-pass valve formerly used is eliminated. In its place is a pressure sensitive valve which protects the heat exchanger against excessive oil pressure which might result from an obstruction.

1954

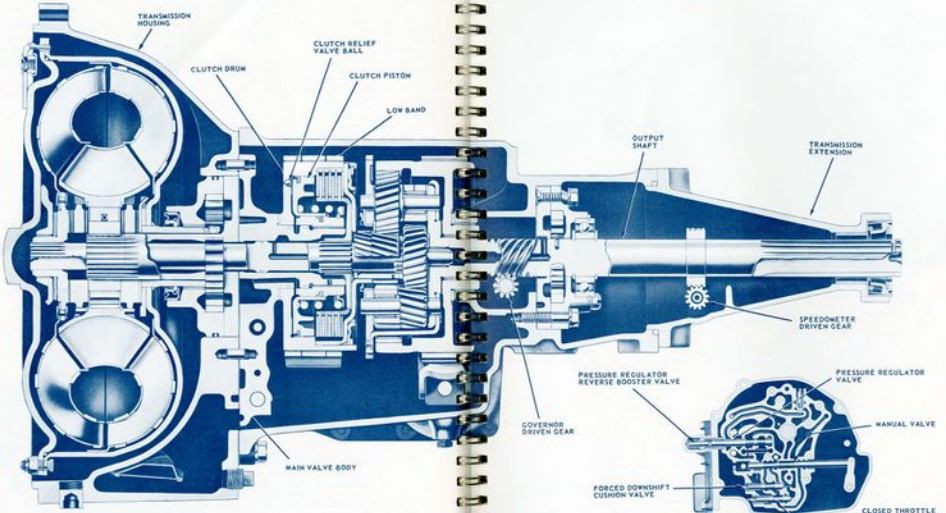


1955

DOUBLE-WRAP BAND . . .

A key to improved Powerglide operation is a new double-wrap low band of unique design. This band, though it has little more braking area than the single wrap band it replaces, has potentially four times more holding power. The new band consists of two segments which are joined for parallel operation and a middle segment which completes the second wrap. Its increase in holding power over the single wrap is comparable to the advantage gained by wrapping a rope twice around a post to snub a force greater than could be held by a single turn. The new band design is more compact than the commonly used type which provides a double wrap in the form of a helix. As well, since its application point and anchor point are directly opposed, rather than offset by two widths of the band, the Chevrolet design eliminates the high thrust loads which would have been imposed on the clutch drum bushings by a helical design.

POWERGLIDE TRANSMISSION



OVERDRIVE TRANSMISSION

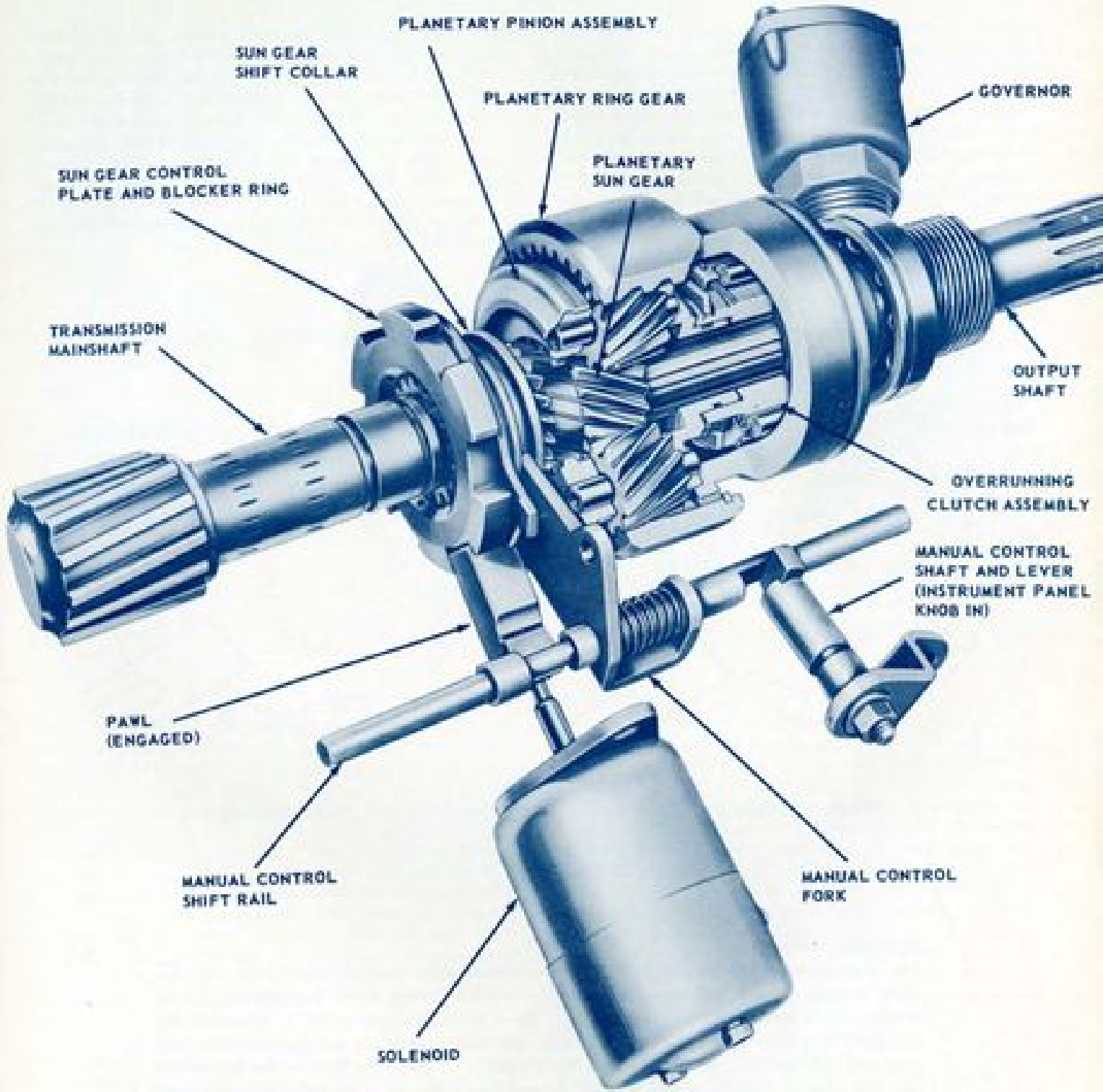
The Chevrolet overdrive option, offered for the first time in 1955, is a combination of the redesigned 3-speed transmission, a 0.7-to-1 ratio overdrive unit, and a high performance 4.11-to-1 ratio rear axle. Together, this combination reduces engine speed by 22 per cent while maintaining the same road speed as a conventional car with the standard 3.7-to-1 rear axle. The reduction in engine speed, amounting to 615 fewer revolutions each mile, represents a considerable reduction in gasoline and oil consumption. Driving is more comfortable, particularly at highway cruising speeds, since engine noise and vibration are reduced. Besides the bonus in cruising economy, the car with overdrive has exceptional flexibility and wide range performance with either the regular production or the optional V-8 engine.

The mechanism of the overdrive unit consists of a planetary gear set, an overrunning clutch and the electrical and mechanical means for controlling the overdrive ratio. Besides a solenoid operated pawl, there is a governor operated solenoid switch, and a kick-down switch operated by the accelerator linkage. A manual lock out pull-handle is mounted below the instrument panel.

OVERDRIVE OPERATION, since it is controlled by the accelerator pedal, has the ease and convenience of a semi-automatic transmission. With the manual control in overdrive position, the driver has only to release the accelerator pedal after reaching the cut-in speed of 31 MPH to shift up into the overdrive ratio. When extra power for acceleration or hill climbing is needed, the driver merely presses the accelerator pedal to the floor to shift the transmission back into direct drive and thus bring the high performance rear axle into operation. The overdrive automatically disengages when vehicle speed drops below 27 MPH.

The flexibility of overdrive is especially useful in mountainous country where frequent use of second gear is necessary with the conventional transmission. Because overdrive second is comparable in performance to third direct, the driver may use overdrive second to attain as high a speed as the terrain permits and, at the same time, have reserve performance immediately available by downshifting with the accelerator pedal into second direct. When descending steep grades, the overdrive may be locked out and engine braking engaged. Once the unit is in direct drive, the driver simply pulls out the overdrive knob on the instrument panel or, if the vehicle is traveling below cut-in speed, he presses the accelerator pedal to bring the transmission up to drive line speed before pulling the knob.

An added convenience is reduced use of the clutch in city driving. The overdrive unit has an overrunning clutch which permits the vehicle to freewheel below the overdrive cut-in speed. Thus,



except when stopping or starting, shifts are made through the gears by simply releasing the accelerator pedal and moving the shift lever. Shifts between third and second gear may be made in similar fashion as long as the vehicle is traveling below the cut-in speed.

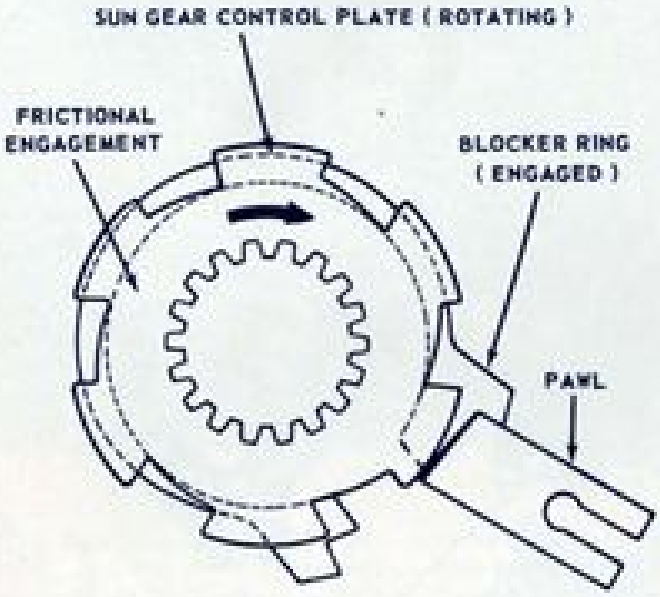
OVERDRIVE MECHANISM. Below the cut-in speed, drive is through the overrunning clutch. The mainshaft, which extends through the planetary sun gear, is splined to the clutch cam. While the engine is driving, power is delivered through the clutch rollers to the outer race which is integral with the output shaft. When engine speed falls below output shaft speed, the clutch unlocks and freewheeling results.

The planetary gear set consists of a sun gear which rotates at the speed of the mainshaft but has no driving connection with the shaft, the planet cage

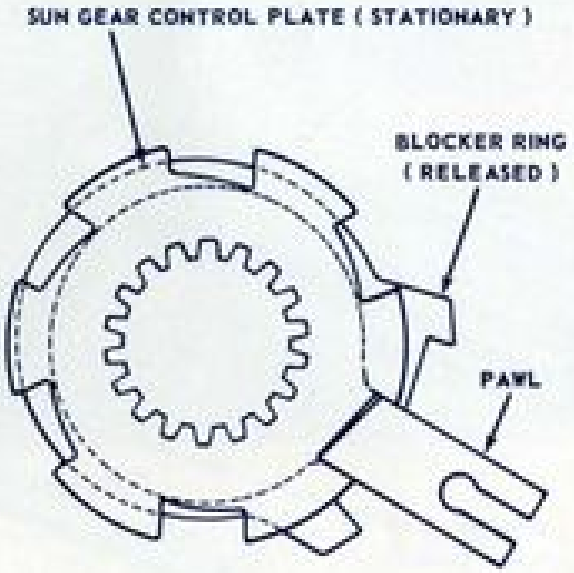
which is splined to the mainshaft, and the ring gear which is splined to the clutch outer race. Engagement of the planetary ratio is controlled by a sun gear control plate.

At 31 MPH the governor switch closes and energizes the solenoid which in turn urges the pawl towards engagement with the sun gear control plate. When engagement occurs, the sun gear, which is splined to the control plate, is prevented from turning. The planetary pinions, which are driven by the mainshaft, then walk around the fixed sun gear and cause the output shaft to travel one revolution for every 0.7 of a revolution of the planetary cage.

Overdrive may be locked out by pulling out the instrument panel knob. Moving the knob causes the shifter rail to move to the rear, locking the pawl in the retracted position and moving the sun gear to the rear to engage the splines in the planetary cage. With the sun gear and the planetary cage locked together, the entire mechanism rotates as a unit so that both freewheeling and overdrive are eliminated.



PAWL RELEASED

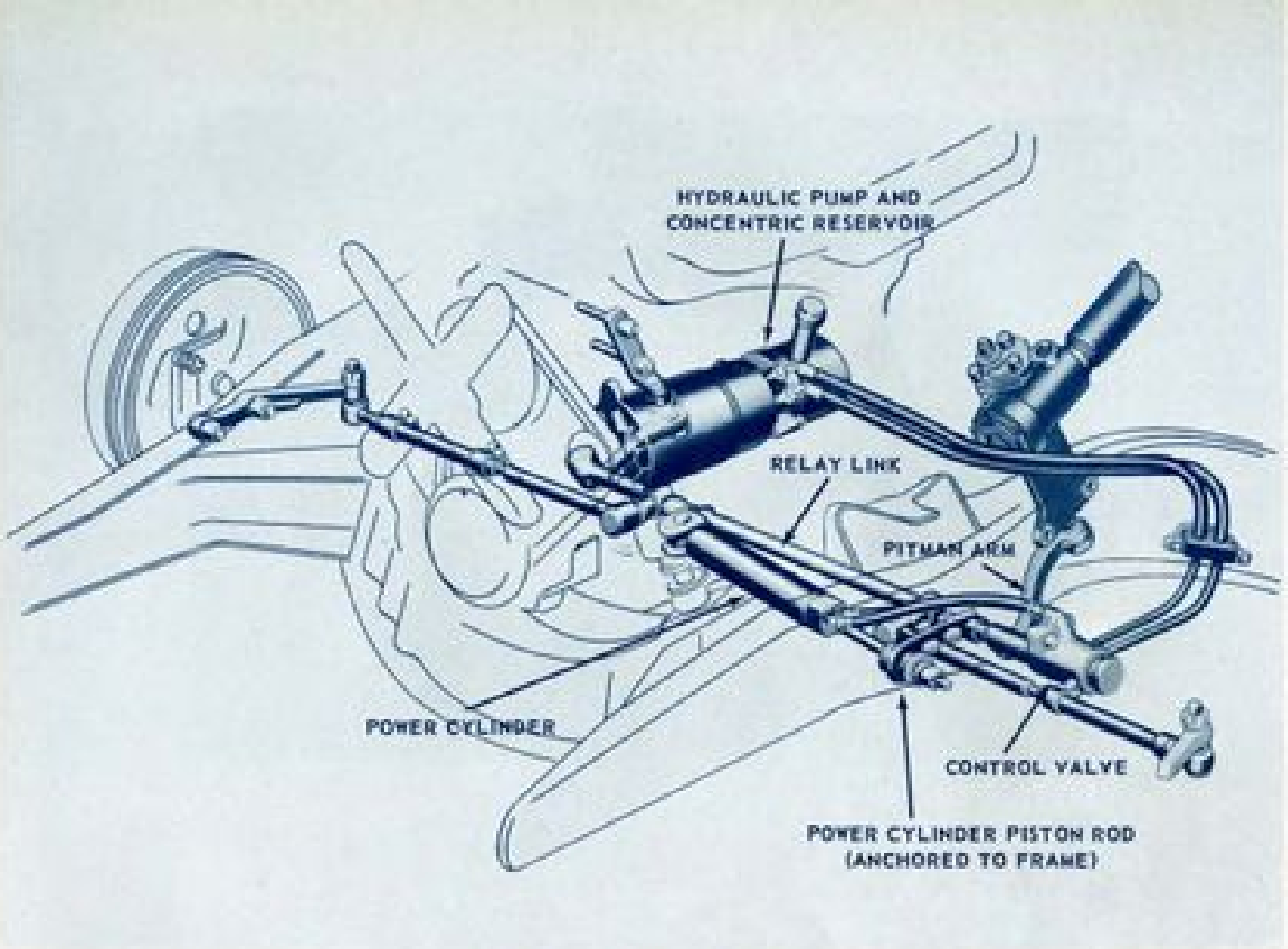


PAWL ENGAGED

BLOCKER RING . . .

The blocker ring prevents overdrive operation except when desired by the driver. At the cut-in speed, the solenoid urges the pawl forward but further travel is prevented, while the engine is driving, by the blocker ring. When the accelerator pedal is released, the planetary ring gear overruns the planet cage and thus causes the sun gear to slow to a stop and then reverse. At this moment, the blocker ring, which is held on the hub of the sun gear control plate by spring tension, reverses with the sun gear and allows the pawl to snap into the first notch in the slowly turning control plate. Once engaged, the overdrive remains in operation until vehicle speed falls to 27 MPH or until the kick-down switch is used.

The kick-down switch permits a shift down from overdrive to direct drive without reducing vehicle speed below the cut-out point. Pressing the accelerator to the floor causes the switch to cut the current to the solenoid whereupon the pawl tends to disengage. However, due to driving torque reaction, the pawl is held by the control plate and cannot retract until torque is reduced. Therefore, the switch also interrupts the engine ignition momentarily to reduce torque enough to let the pawl disengage itself.



POWER STEERING

Power steering is redesigned for more efficient operation and greater driving comfort. Important advantages are realized through relocation of components to that part of the steering system where effectiveness is greatest. Although the basic operating principle remains that of applying a controlled steering assistance through a hydraulic power cylinder, the cylinder now is attached directly to the steering relay link and is anchored to the frame left side member. This eliminates the need for a special steering gear with the power cylinder and control valve integrated with it. A longer pitman arm is used in the power steering linkage to reduce the overall steering ratio to 23.1-to-1 from the 25.7-to-1 ratio in the conventional steering system.

A new hydraulic control valve location combines with a new hydraulic power cylinder of longer stroke and smaller bore to provide improved sensitivity in proportioning power assistance. Through this design change, a higher degree of road feel is achieved especially in cornering. Also, lash in assistance transition from the straight ahead position is eliminated because control valve travel is no longer multiplied by the steering gear. The power cylinder in the new system acts upon the steering relay link requiring a longer stroke at lower force than before to provide steering assistance.

This location of the power cylinder places it in a position to dampen road shock and vibration before they reach the steering gear and thus better shield shock from the driver's hands. Forming one end of the relay link and connecting the pitman arm ball stud to the valve spool, the hydraulic control valve operates in basically the same way as in the previous design. Its function is to determine and direct the correct measure of assistance required to keep driver steering effort within set limits. These limits remain unchanged with assistance starting at approximately 3 pounds steering wheel rim pull and reaching a maximum of 81 per cent assistance with about 8 pounds steering wheel rim pull. To do this, the control valve is positioned in the steering system as a functioning part, but with sufficient spring loaded travel to actuate the valve when steering effort requires more than the predetermined minimum force. Thus, when steering effort overcomes the spring holding the valve spool in a neutral position, assistance in the form of hydraulic pressure is channelled to the correct end of the power cylinder.

A vane-type hydraulic pressure supply pump similar to the 1954 design is used. However, the new pump mounts on the rear of a special generator replacing the production generator, and is driven by a splined extension of the armature shaft. A hydraulic fluid reservoir concentrically surrounds the pump to complete the hydraulic pressure supply system.

POWER STEERING HYDRAULIC PUMP . . .

More efficient placement of power steering components eliminates a source of engine compartment space restriction to provide greater accessibility under the hood. The hydraulic pressure supply system consisting of the hydraulic pump and fluid reservoir is the only component of the power steering option remaining in the engine compartment.

The new hydraulic pressure supply system is integrated with a special generator into one assembly which utilizes the production generator mounting and drive provisions. This is in contrast to the 1954 design which required a separate mounting and drive for the hydraulic pump in addition to the standard engine accessories. Thus, the new generator-hydraulic supply system integration permits easy installation with either the 6 or V-8 engines and other options.

The generator supplied with this option is rated at 30 amperes as compared to 25 amperes for the standard generator. This insures adequate electrical capacity at traffic speeds, even though the drive ratio is 13 per cent slower with the integral generator-hydraulic pressure supply unit than with the standard generator.

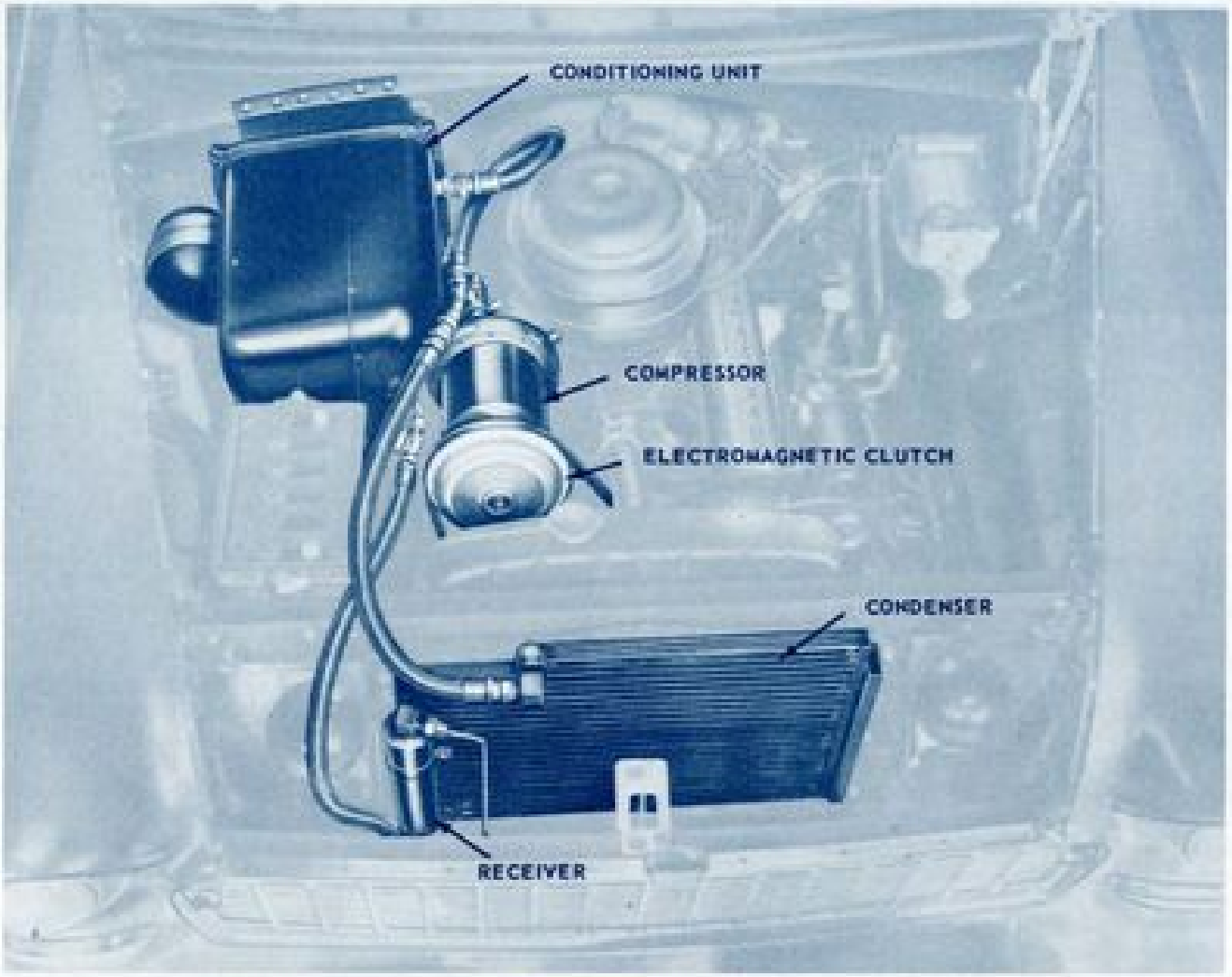
POWER BRAKES

Power brakes retain the basic features of operation and design introduced in 1954, and have important changes to improve safety. The option is available on all models, whereas formerly it was furnished on Powerglide models only.

To minimize the contrast between power-on and power-off braking effort, the pedal mechanical ratio is increased to 1.55-to-1 from 1-to-1. This decreases pedal effort under power-off conditions by one-third, or only twice the effort required with conventional brakes as compared to three times in the previous design.

Power assisted braking retains the same low effort as in 1954. Reaction springs within the control valve are revised to proportion less vacuum assistance per unit of pedal linkage input force to offset the increased pedal mechanical ratio.

Available pedal travel is increased although the low brake pedal position, in which the driver has merely to pivot his foot on the heel between the brake and accelerator pedals, is retained. The greater pedal travel is gained through the design of the body which provides more space for the pedal in the fully depressed position.



AIR CONDITIONING

A complete, all-weather air conditioning system, the product of extensive engineering research, is introduced as a production option for 1955. Availability includes all passenger cars equipped with the V-8 engine, except the convertible.

Taking a new approach to the problems peculiar to automobile air conditioning, Chevrolet engineers have evolved a new design concept which embodies in one compact unit pleasant relief from summer heat, winter cold, and oppressive humidity in all seasons. No other car air conditioning system presently available to the motoring public parallels the Chevrolet system in ease and accuracy of humidity control, a factor long recognized as essential to all-weather comfort.

The system operates on outside air with an automatically varied partial recirculation feature, or entirely on recirculated inside air. At any season of the year, the driver and passengers are able to shut out traffic noise and air roar, select their weather, and enjoy a refreshing atmosphere. When driving with all windows closed, the "living room" comforts of easy conversation or radio listening increase driving pleasure and reduce fatigue.

Space saving single unit design eliminates unwarranted duplication of components and permits the mounting of all major assemblies beneath the hood and instrument panel. No valuable luggage space is lost and there are no exposed ducts to mar the appearance of the car interior.

Outside air is introduced into the system through the cowl intake and immediately passed through the conditioning unit, an insulated housing containing both the heater core and the cooling coils. A two-speed sirocco blower directs the air to a distributor mounted high on the cowl panel inside the passenger compartment. Conditioned air then enters the passenger compartment through any of three main distribution channels in proportions determined by control settings.

The desired heating capacity is obtained simply by metering the flow of engine coolant through the heater core. Basic components of the refrigeration system include in addition to the cooling coils, a refrigerant, compressor, electromagnetic clutch, condenser, liquid receiver and expansion valve.

DISTRIBUTION. When cooling is desired, a door within the distributor housing may be positioned to direct cooled air through flexible ducts to two neat, adjustable outlet nozzles mounted in spherical sockets at each end of the instrument panel. These outlets may be positioned to direct air in accordance with individual preferences, along the inside roof line, downward, or directly at the passengers.

One edge of the cool air by-pass door in the main distributor is unsealed. A slight gap is designed to permit passage of sufficient air through the heater distributor to relieve the front compartment floor area of the heating effect of the engine compartment.

In setting the controls for heating, the by-pass door is normally positioned to block air flow to the cool air outlets on the instrument panel. Heated air then takes a straight path to the defroster door where flow is divided, according to the position of the door, between the floor distributor and the defroster manifold. The manifold is contoured to promote even distribution to four defroster nozzles widely spaced along the windshield.

CONTROLS. Since the factors which determine the condition of outside air vary independently, they require independent controls. Six control knobs adapt the system to a wide range of such variations.

Five knobs move through slots in a bright metal control plate mounted on the instrument panel to the right of the driver. Operation indicators on an illuminated dial are simple and clear. A separate pull-out knob mounted on the instrument panel lower flange positions the by-pass door.

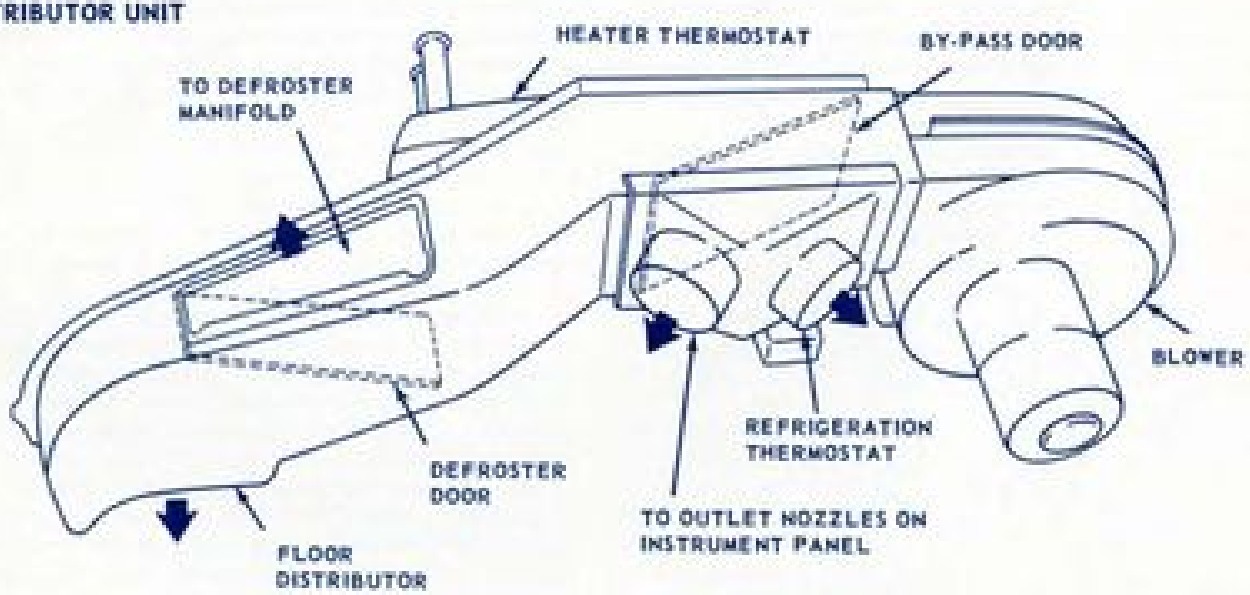
The two-speed blower control moves across the top of the control panel indexing at OFF, FAN, and HI. To prevent the refrigeration system from operating with insufficient air supply, the wiring is so arranged that current becomes available to engage the compressor clutch only when the blower switch is in the intermediate or HI position.

Below the blower control, another knob moves horizontally, stopping either at OUTSIDE AIR on the left or INSIDE AIR on the right to determine the source of air supply.

Over three vertical slots are the indicators HEAT, REFR and DEFR. The DEFR knob positions the defroster door. As the knob is moved down, the amount of air directed to the defroster manifold is increased.

The HEAT control knob adjusts a thermostat valve within the distributor. Moving the knob down increases the temperature setting. The heat output required to maintain the desired temperature within

AIR DISTRIBUTOR UNIT



the car is obtained by continuous thermostatic regulation of the flow rate of hot water through the core.

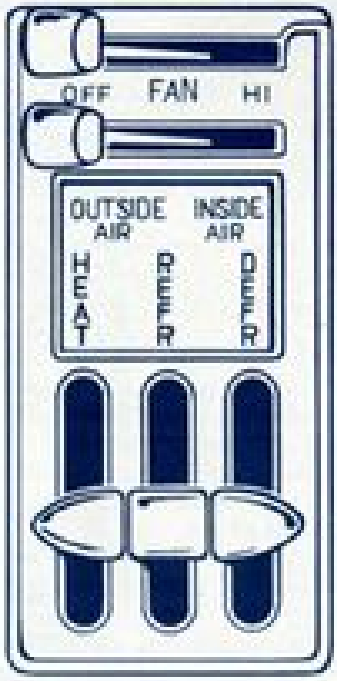
Moving the REFR knob down approximately a quarter of an inch closes the refrigeration switch, which is part of the cool air temperature control unit located in the distributor at the cool air outlet. Pressing the knob down farther lowers the temperature setting of the adjustable thermostat.

The conditioning unit receives outside air directly from the cowl intake through the upper chamber of an adapter housing mounted on the dash panel. The lower chamber of the adapter is open to inside car air through a grille in the dash panel near the toe board. A flexible rubber valve, in the panel which separates the two chambers, is designed to pass inside car air to the upper chamber in accordance with predetermined air pressure relationships. The automatically regulated recirculation of cooled air serves to maintain cooling efficiency when the compressor speed is relatively low and, at the same time, minimizes the entry of contaminated air in heavy concentrations of slow moving traffic.

The recirculation selector knob is cable connected to a door hinged over the cowl intake passage to the upper chamber. When outside air becomes excessively contaminated, the knob may be moved to INSIDE AIR to cut off the outside supply. The blower then draws inside air past the flexible valve and recirculates this air through the conditioning unit.

The combinations of temperature and relative humidity which satisfy personal comfort fall within considerably narrower limits than nature usually supplies.

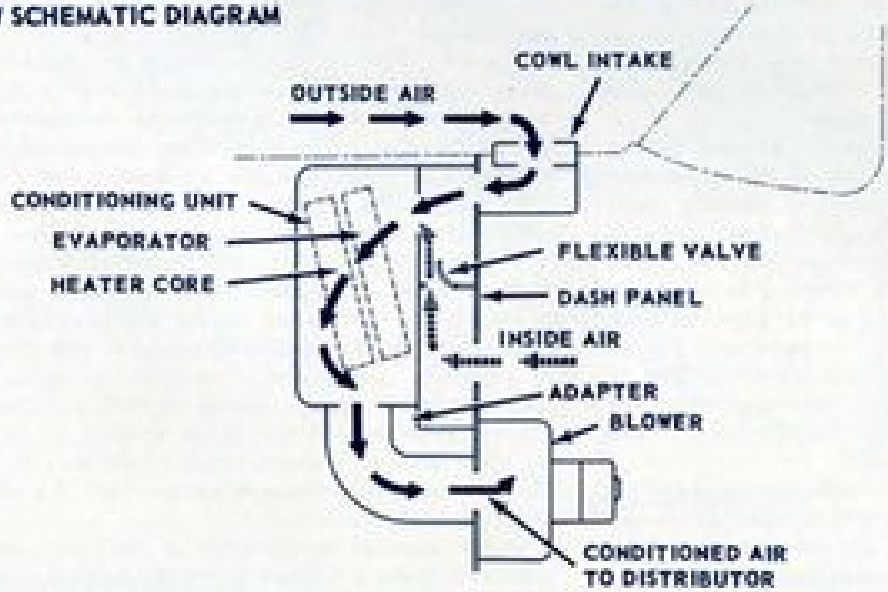
In off seasons and in temperate climates when outside air temperature stays at a desirable level, the atmosphere often seems heavy and unpleasant, excessive relative humidity being the most frequent cause. Since the moisture content of the air is too close to saturation, bodily moisture is not absorbed at a satisfactory rate.



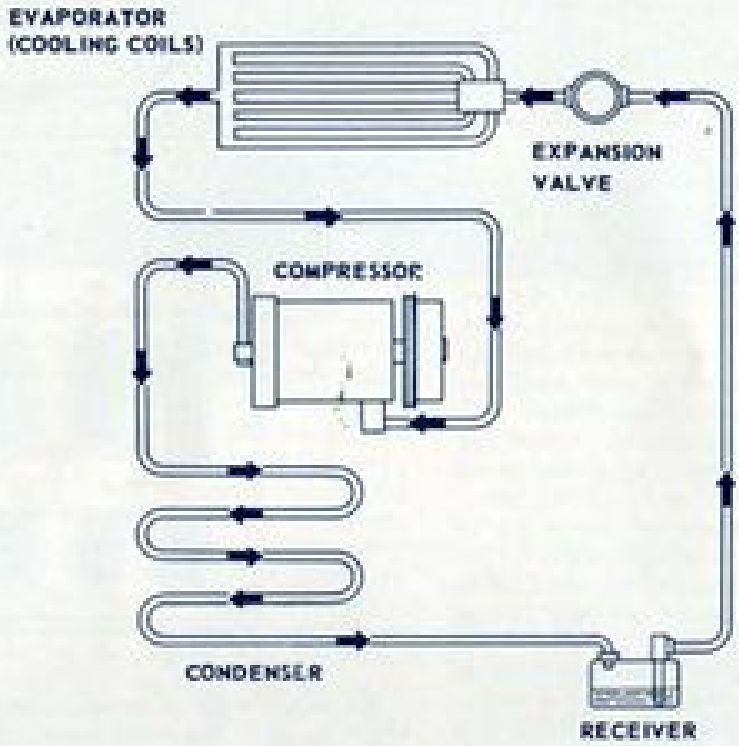
With the unique Chevrolet system, the right combination of temperature and humidity is easily obtained regardless of weather conditions. By setting the REFR knob for cooling and the HEAT knob for heating, excess moisture may be removed from the air without changing the temperature in the car. If a warmer or cooler atmosphere is desired, the HEAT knob is positioned accordingly.

The de-humidifying feature is achieved by passing incoming air through the cooling coils where the excess moisture condenses and is drained from the system. The temperature of incoming air is then raised to the desired level as the air passes through the heater core.

AIR FLOW SCHEMATIC DIAGRAM



REFRIGERATION CYCLE SCHEMATIC DIAGRAM



REFRIGERATION CYCLE. Freon-12, the refrigerant, is a non-toxic, non-flammable, practically odorless gas with a very low boiling point, commonly used in household systems. The refrigerant is circulated through a closed system, entering the compressor under low pressure. The compressor delivers the gas under high pressure and temperature to the condenser, a fin and tube core mounted in front of the radiator core. The cooling effect of the air passing through the radiator grille reduces the gas temperature until it becomes liquid under high pressure. This liquid then passes into the receiver which acts as a reservoir, and from there flows to the expansion valve.

Because of the reduced pressure caused by the compressor as the refrigerant leaves the expansion valve, it enters the evaporator, or cooling coils as a liquid under low pressure. Passage of warm incoming air over the evaporator causes the liquid Freon to boil and again become a gas. In changing from a liquid to a gas, the Freon-12 absorbs heat from the air passing through the evaporator, thereby cooling the air. Then the low pressure gas is again drawn into the compressor and the cycle repeats itself. A dehydrator in the receiver tank keeps the lines free of moisture.

The five cylinder, barrel-type compressor is pivot mounted through an adjustable bracket to the water pump housing and the right exhaust manifold. Drive is taken through a belt from a double pulley on the crankshaft.

A thermostatic switch located in the cool air outlet chamber maintains a nearly constant output temperature by activating an electromagnetic clutch on the compressor. When the thermostat disengages the compressor, liquid in the evaporator continues to absorb heat, changes to a gas, and collects at the top of the evaporator. The gradual decrease in cooling capacity of the evaporator is accompanied by a corresponding increase in the temperature of cooled air. A slight rise in temperature actuates the thermostatic switch to re-engage the compressor clutch.

Dirt and dust in the incoming air adheres to the damp surface of the cooling coils and is discharged through the drain along with the condensate. This washing action, coupled with the unique recirculating provisions, precludes the necessity for a separate air filter. The attendant maintenance requirement and restriction to air flow are therefore avoided.

To assure adequate refrigeration capacity when the car is at a standstill for extended periods and to satisfy the increased engine cooling requirement, a high idle device is incorporated in the carburetor. A solenoid controlled, vacuum actuated plunger raises engine idling speed to 900 revolutions per minute when the refrigeration system is in use and the conventional transmission is shifted to Neutral. The Powerglide transmission may be shifted to Neutral or Park.

Other special provisions of the air conditioning option include a higher capacity engine cooling fan and, for the hot season, a convenient manual shut-off valve in the heater water line.

OTHER EXTRA-COST EQUIPMENT

POWER WINDOW LIFTS AND SEAT ADJUSTER. The power window lift option now offers the added convenience of four window control in all passenger car models, except those of the 1500 Series. All windows are operated separately, either from a master four-button control panel on the driver's left or from an individual control button beneath each window.

The operation itself is unchanged. Pressing the button down lowers the window; pushing it up raises the window. Each window is powered by a durable, compact electric motor.

Effortless positioning of the front seat is again available at the touch of a button. An electric motor supplies instant power to move the seat forward or back on the inclined track to any desired position. The control is located for the driver's convenience on the left side of the front seat on the lower end panel.

Power window lifts and the power seat adjuster are available as production options, either individually or in combination.

ELECTRIC WINDSHIELD WIPERS. A two-speed electric windshield wiper motor is available as a production option on all passenger cars. In addition to its quieter operation, the new unit has the advantage of assuring uninterrupted wiper action under the most adverse operating conditions.

The dual speed control operates at 160 to 180 wipes per minute on high speed and 100 to 120 wipes per minute on low. The blades park in a horizontal position at the end of an inboard stroke regardless of when, during the cycle, the control is turned off.

An automatic reset circuit breaker protects the unit from overload.

HEATERS. The new outside air heater and defroster design takes advantage of the cowl intake system for a cleaner air supply, retaining the convenient recirculating provision. Effectiveness is further increased by four defroster nozzles widely spaced along the base of the windshield and feeding into a full-width defroster slot. A new simplified control panel makes accurate settings for all driving conditions easier.

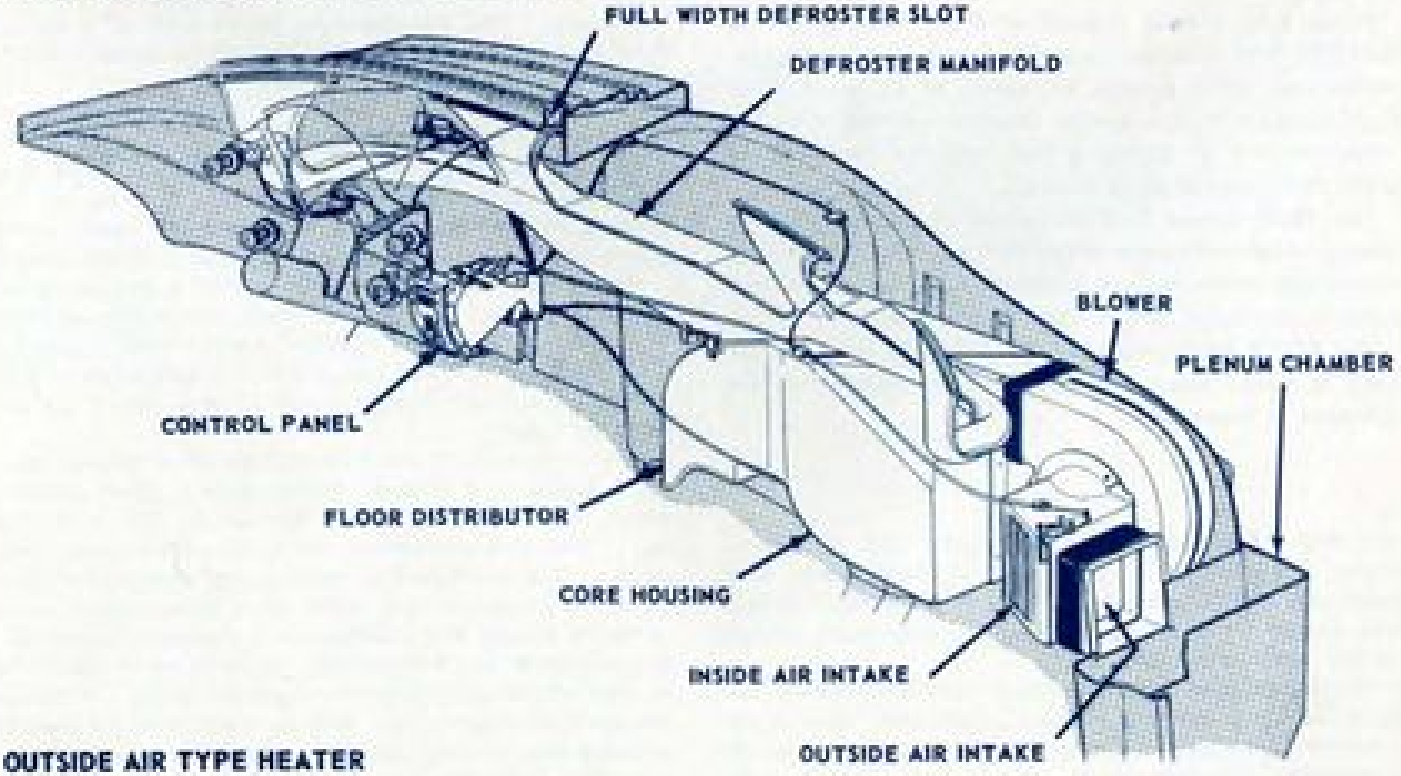
The core, two-speed blower, distributor and thermostat are housed as a compact unit mounted high on the dash panel within the passenger compartment where it does not interfere with front passenger leg room. A defroster manifold, replacing the individual hoses, is contoured to promote an even distribution to the four defroster nozzles.

Outside air is taken into the system direct from the plenum chamber through a separate opening in the right cowl side panel.

A lighted control panel installs on the instrument panel to the right of the steering wheel within easy reach of the driver or front seat passengers.

The new heater is available either as a dealer installation or as a factory optional accessory.

A new high capacity recirculating heater and defroster unit features the four outlet defroster manifold for uniform distribution across the full-width of the wrap-around windshield. The two-speed blower control on the instrument panel and the defroster lever on the distributor housing are again included in the package.



OUTSIDE AIR TYPE HEATER

HEATER CONTROL PANEL . . .

The control panel for the outside air heater is clearly marked to make adjustment of the controls simple, and is now illuminated for new night driving convenience.

The two-speed sirocco blower is controlled by the upper knob which indexes over the words OFF, FAN, and HI. The intermediate position starts the fan in low speed operation.

Below this, a knob indexes at either INSIDE AIR or OUTSIDE AIR. The knob controls a two-position toggle-action door which selects the source of air supply. The door closes over the plenum chamber opening when re-circulated air is preferred and over the recirculation grille when outside air is desired.

The TEMP control knob adjusts a valve within the distributor. The heat output required to maintain the desired temperature within the car is obtained by continuous thermostatic regulation of hot water through the core.

The DEFR knob positions the defroster door. As the knob is moved down, the amount of air directed to the defroster is increased.

RADIOS. Both the manually tuned and the push-button operated radio receiver are redesigned. New controls and a speaker separate from the chassis are styled to complement the contemporary design of the instrument panel.

A combination signal seeking, manually-tuned and push-button receiver, formerly available only on the Corvette, is now offered as an accessory on all passenger car models.

Particularly convenient while traveling, the signal seeking tuner automatically and accurately tunes in stations, in frequency sequence, each time a starting bar is depressed. A ring behind the manual station selector knob may be rotated to any one of four indexed positions to adjust the sensitivity of the receiver. In the extreme counter-clockwise position the sensitivity control, or "more stations" selector, permits tuning bar selection of only the strongest available stations. As the control is rotated clockwise to the other positions, the automatic tuning will select more stations, and in the extreme position it will tune in any listenable station.

Between trips, five push-buttons provide quick selection of favorite local stations with signal seeking accuracy. With this combination, the simplest, least distracting method of tuning automatically provides the best performance and tone quality of which the receiver is capable.

OTHER ACCESSORIES. To satisfy a wide range of individual preferences, a full line of functional and decorative accessories is again made available for dealer installation. Many, like the new radio receivers and heater units, are improved and completely restyled in line with the overall advanced design of the new car.

Important additions for 1955 include a moisture-sensitive automatic top lift for the convertible and a continental styled spare wheel carrier for all sedans and coupes including the convertible.

The automatic top lift protects the car interior from rain when the convertible is parked with the top down. The unit consists essentially of a moisture sensitive grid, a safety switch, a micro switch, and two relays.

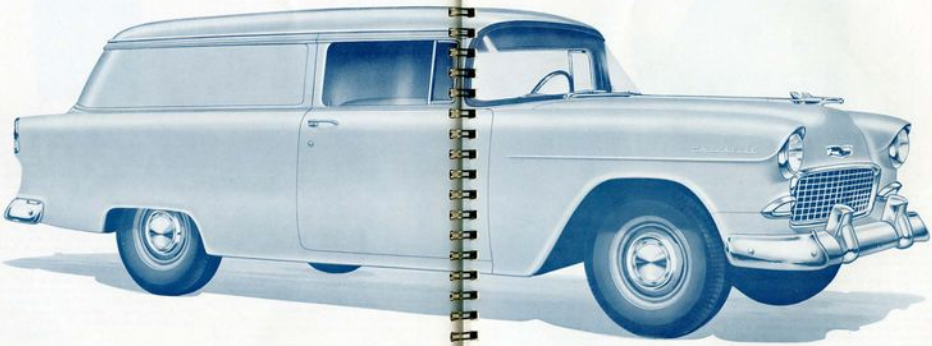
The grid, which is mounted on the under side of the right roof rail, is exposed when the top is down. The grid has high electrical resistance when dry, but when moist, conducts sufficient current to actuate a sensitive relay. This relay, in turn, energizes the top lift mechanism through a power relay.

To prevent unintentional operation, a safety switch mounted on the instrument panel lower flange must be left "on" and the ignition switch "off" to allow the grid to operate the top lift mechanism. The micro switch de-energizes the circuit when the top is fully raised.

The spare wheel carrier mounts on a sturdy support inside a U-shaped double bar bumper section which replaces the center section of the rear face bar. The tire is encased by a cover ring and face plate. The assembly is held in an upright position by a bracket on the deck lid. Releasing a latch permits tilting the carrier to a position thirty degrees above the horizontal. A lock case over one of the wheel nuts protects against theft. Although designed primarily to lend a customized overall appearance, the unit has the added advantage of increasing luggage space.

SEDAN DELIVERY

SERIES 1500 SEDAN DELIVERY



SEDAN DELIVERY

The 1955 Sedan Delivery displays all the mechanical features as well as the advanced contemporary styling of the new passenger car.

THE EXTERIOR STYLING for the most part duplicates the Series 1500 Station Wagon. The rear quarter window areas, however, are replaced by solid metal depressed panels outlined by raised embossments which encircle the body at the belt and roof lines.

Design changes to the rear end of the vehicle enhance its low, wide appearance. The rear door, now hinged at the top instead of at the left side, opens upward, leaving the loading area free of obstruction. Assisted by two torsion rods, the door is easily lifted up and out of the way, with the hold-open position maintained by telescoping brackets on each side of the door.

Access to the load compartment is further facilitated by the larger rear door opening which is approximately ten inches wider than before while its height is decreased by seven inches.

Eight solid exterior colors are available: Onyx Black, Sea-Mist Green, Neptune Green, Skyline Blue, Glacier Blue, India Ivory, Shadow Gray and Gypsy Red.

INTERIOR STYLING. The attractive brown and beige interior of the Sedan Delivery is distinguished by most of the new features found on the other models in the 1500 Series. The all-vinyl seat and sidewall trim features a linked cord pattern on the cushion and backrest of the bucket-type driver's seat, and on the center section of the door trim panel. The facings and back of the seat as well as the upper panel and scuff pad of the sidewalls are of leather grain vinyl. Headlining is beige vinyl.

The front compartment floor is covered by black textured rubber, while the load space floor is painted black. Beige paint is used for the load compartment sides and inside of the rear door.

VISIBILITY. With the new wrap-around windshield and new rear door, the 1955 Sedan Delivery features a large increase in visibility area, totaling 622.1 square inches or 35.9 per cent. Of the total, the windshield shows an increase of 165.4 square inches, amounting to 19.4 per cent, the side door windows 184.4 square inches or 29.4 per cent and the rear window is more than doubled in area over the previous model. This visibility area is increased 272.3 square inches.

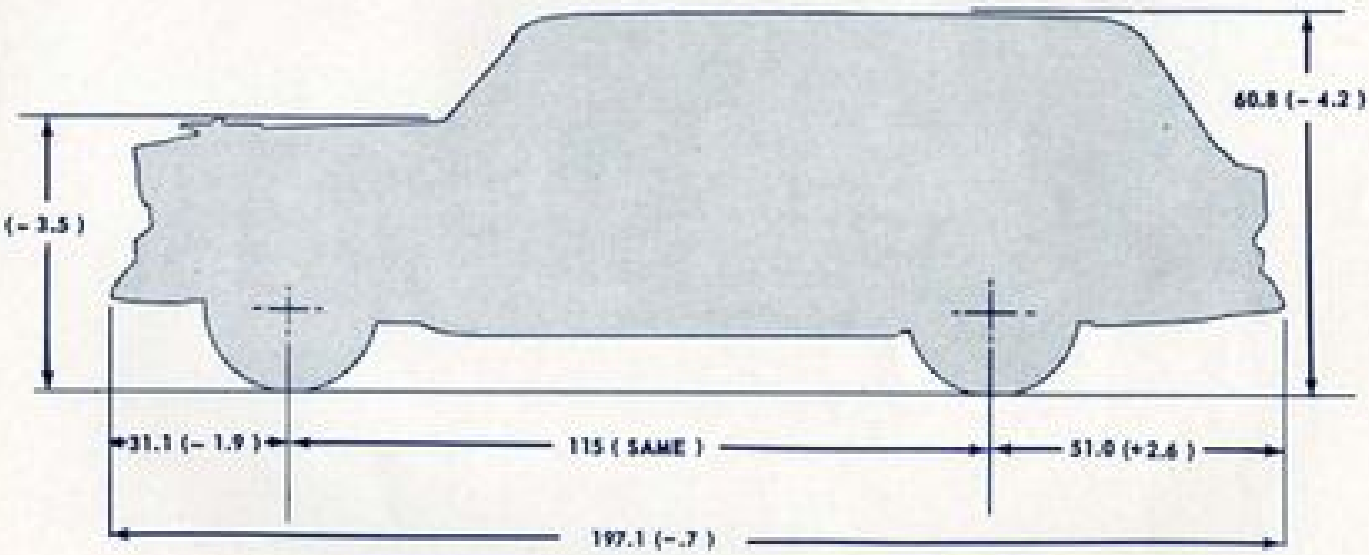
OVERALL SIZE AND ROOMINESS. An outstanding feature in the 1955 Sedan Delivery is the large reduction in overall height which, as is the case with the passenger car, contributes largely to its smart, fleet appearance. The overall height is reduced 4.2 inches with a resultant reduction of 4 inches in maximum load space height. Even with these

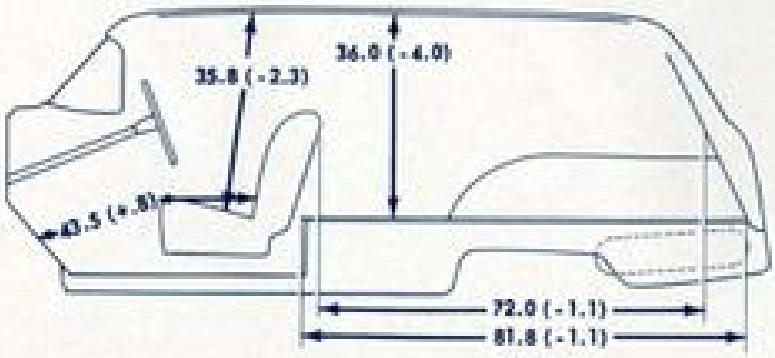
dimensional revisions, however, the load space capacity is 91 cubic feet, a reduction of only 1.5 cubic feet or 1.6 per cent.

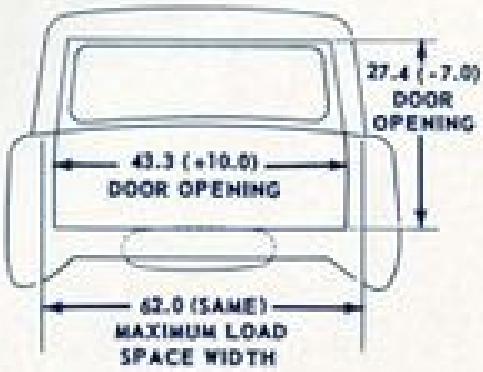
SEDAN DELIVERY CHASSIS. All of the chassis features incorporated in the 1955 passenger car are included in the new Sedan Delivery with modifications to the rear suspension and a few variations in optional equipment. By adding a fifth leaf to each of the rear spring assemblies, their capacity is increased from 1000 to 1140 pounds each at the ground, and the deflection rate is increased 14 pounds per inch. This insures proper protection for the greater loads normally encountered in Sedan Delivery operation.

The Powerglide automatic transmission option is continued and the new overdrive in combination with a conventional 3-speed transmission is available.

The V-8 engine and air conditioning, which are optional equipment in all passenger cars, are not available in the Sedan Delivery.







APPENDIX

EXTERIOR-INTERIOR COLOR COMBINATIONS ONE-COLOR EXTERIORS

EXTERIOR-INTERIOR COLOR COMBINATIONS ONE-COLOR EXTERIORS

Upper Body	Lower Body, Sheet Metal, Wheels	Wheel Stripe (No Stripe on Series 2400)	Trim Combinations	Instrument Panel Center, Radio Cover Plate	Upper and Lower Instrument Panel, Steering Wheel, Steering Column, Steering Wheel Hub, Garnish Moldings, Dir. Signal Housing, Ash Tray Cover Panel, Door Locking Knob, Heater Cover Panel	Series 1500			Series 2100			Series 2400					
						1502 1503 1512	1529	1508	2102 2103	2124	2109 2129	2402 2403	2434	2454	2409	2434 Top Color	Rear Fender Molding Insert Series 2400
Onyx Black	Onyx Black	Argent	Gray & Black	Indio Ivory	Shadow Gray 4	●											
			Beige & Brown	Shoreline Beige	Autumn Bronze 5			●									
			Blue	Skyline Blue 5	Glacier Blue				●			●					Winter White
			Beige & Red	Bright Metal	Gypsy Red								●			White	Winter White
			Red	Bright Metal	Gypsy Red									●			Winter White
			Black & Ivory	Indio Ivory	Onyx Black					●							
Sea-Mist Green	Sea-Mist Green	Black	Gray & Black	Indio Ivory	Shadow Gray 4	●											
			Green	Sea-Mist Green 5	Neptune Green 6		●		●			●					Winter White
			Beige & Brown	Shoreline Beige	Autumn Bronze 6			●									
			Green & Beige	Shoreline Beige	Neptune Green					●							
Neptune Green *	Neptune Green	Argent	Gray & Black	Indio Ivory	Shadow Gray 4	●											
			Green	Sea-Mist Green 5	Neptune Green 6		●		●		●	●		●			Winter White
			Beige & Brown	Shoreline Beige	Autumn Bronze 8			●									
			Green & Beige	Shoreline Beige	Neptune Green					●							
			Beige	Bright Metal	Neptune Green										●		Winter White
Skyline Blue *	Skyline Blue	Black	Gray & Black	Indio Ivory	Shadow Gray 4	●											
			Beige & Brown	Shoreline Beige	Autumn Bronze 8			●									
			Blue	Skyline Blue 5	Glacier Blue				●			●					Winter White
			Blue & Beige	Shoreline Beige	Glacier Blue					●							
Glacier Blue	Glacier Blue	Argent	Gray & Black	Indio Ivory	Shadow Gray 4	●											
			Beige & Brown	Shoreline Beige	Autumn Bronze 8			●									
			Blue	Skyline Blue 5	Glacier Blue				●			●		●			Winter White
			Blue & Beige	Shoreline Beige 5	Glacier Blue					●					●		Winter White
			Blue	Shoreline Beige	Glacier Blue						●						
Copper Maroon *	Copper Maroon	Argent	Gray & Black	Indio Ivory	Shadow Gray 4	●											
			Brown	Shoreline Beige	Copper Maroon				●								
			Beige & Brown	Bright Metal	Copper Maroon							●					Winter White
Shoreline Beige	Shoreline Beige	Black	Gray & Black	Indio Ivory	Shadow Gray 4	●											
			Brown	Shoreline Beige	Autumn Bronze				●		●						
			Beige & Brown	Bright Metal	Autumn Bronze							●					Winter White
			Red	Bright Metal	Gypsy Red									●			Winter White
			Blue & Beige	Bright Metal	Glacier Blue										●		Winter White
Autumn Bronze	Autumn Bronze	Argent	Gray & Black	Indio Ivory	Shadow Gray 4	●											
			Brown	Shoreline Beige	Autumn Bronze 8		●		●		●						
Indio Ivory	Indio Ivory	Black	Gray & Black	Indio Ivory	Shadow Gray 4	●											
			Beige & Brown	Shoreline Beige	Autumn Bronze 8			●									
			Blue	Skyline Blue 5	Glacier Blue				●			●					Winter White
			Black & Ivory	Indio Ivory	Onyx Black					●							
Shadow Gray *	Shadow Gray	Argent	Gray & Black	Indio Ivory	Shadow Gray 4	●											
			Beige & Brown	Shoreline Beige	Autumn Bronze 8			●									
			Blue	Skyline Blue 5	Glacier Blue				●			●					Winter White
Gypsy Red *	Gypsy Red	Argent	Beige & Red	Bright Metal	Gypsy Red								●			Beige	Winter White
			Beige & Brown	Shoreline Beige	Autumn Bronze 8			●									
Regal Turquoise	Regal Turquoise		Beige	Bright Metal	Regal Turquoise										●		Winter White
Coral			Coral & Gray	Bright Metal	Coral								●			White	Winter White
Harvest Gold	Harvest Gold		Green	Bright Metal	Neptune Green									●			Winter White

* - Available on special order on 1508. 6 - Black steering wheel and hub. 5 - Bright metal on 2400.
8 - Shoreline Beige steering wheel rim and spokes. 6 - Sea-Mist Green steering wheel rim and spokes.

EXTERIOR-INTERIOR COLOR COMBINATIONS
TWO-COLOR EXTERIORS

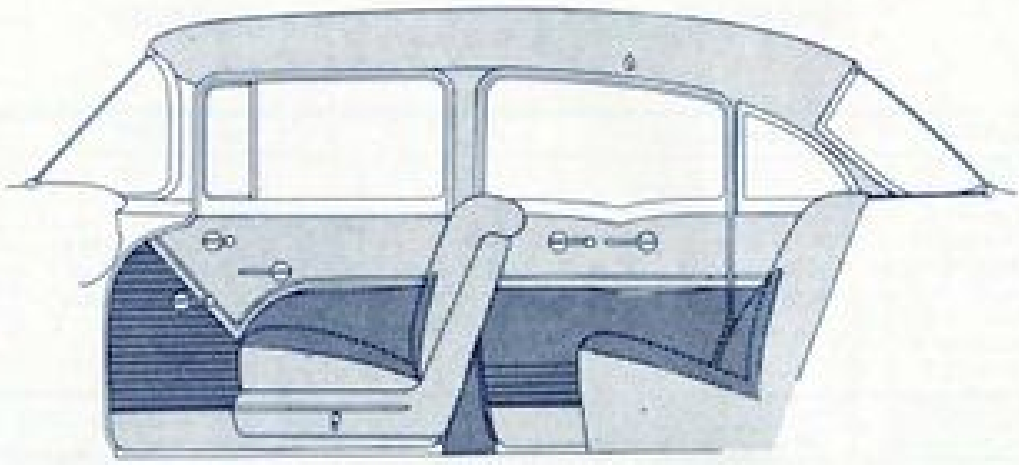
Upper Body	Lower Body, Sheet Metal, Wheels	Wheel Stripe (No Stripe on Series 2400)	Trim Combinations	Instrument Panel Center, Radio Cover Plate	Upper and Lower Instrument Panel, Steering Wheel, Steering Column, Steering Wheel Hub, Garnish Moldings, Dir. Signal Housing, Ash Tray Cover Panel, Door Locking Knob, Heater Cover Panel
Sea-Mist Green	Neptune Green	Argent	Grey & Black	Indio Ivory	Shadow Grey d
			Green	Sea-Mist Green $	Neptune Green 6
Skyline Blue	Glacier Blue	Argent	Grey & Black	Indio Ivory	Shadow Grey d
			Blue	Skyline Blue $	Glacier Blue
Neptune Green	Shoreline Beige		Green	Bright Metal	Neptune Green
Indio Ivory	Skyline Blue	Black	Grey & Black	Indio Ivory	Shadow Grey d
			Blue	Skyline Blue $	Glacier Blue
			Beige & Blue	Shoreline Beige	Glacier Blue
Indio Ivory	Shadow Grey	Argent	Grey & Black	Indio Ivory	Shadow Grey d
			Blue	Skyline Blue $	Glacier Blue
Autumn Bronze	Shoreline Beige	Black	Brown	Shoreline Beige	Autumn Bronze
Indio Ivory	Sea-Mist Green	Black	Green	Sea-Mist Green	Neptune Green
			Beige & Green	Shoreline Beige	Neptune Green
Shoreline Beige	Autumn Bronze	Argent	Green	Shoreline Beige	Autumn Bronze
			Beige & Brown	Bright Metal	Autumn Bronze 8
			Beige	Bright Metal	Autumn Bronze
Glacier Blue	Shoreline Beige	Black	Blue	Skyline Blue	Glacier Blue
			Beige & Blue	Shoreline Beige	Glacier Blue
Indio Ivory	Onyx Black	Argent	Ivory & Black	Indio Ivory	Onyx Black
Indio Ivory	Gypsy Red	Argent	Ivory & Black	Indio Ivory	Onyx Black
Glacier Blue	Skyline Blue	Black	Blue	Shoreline Beige $	Glacier Blue
Indio Ivory	Regal Turquoise		Ivory & Turquoise	Bright Metal	Regal Turquoise
			Turquoise	Bright Metal	Regal Turquoise
Shoreline Beige	Neptune Green	Argent	Grey & Black	Indio Ivory	Shadow Grey d
			Green	Sea-Mist Green $	Neptune Green
Shoreline Beige	Glacier Blue	Argent	Blue	Shoreline Beige $	Glacier Blue
			Blue & Beige	Bright Metal	Glacier Blue
Shoreline Beige	Gypsy Red		Red	Bright Metal	Gypsy Red
			Beige & Red	Bright Metal	Gypsy Red
			Beige	Bright Metal	Gypsy Red
Onyx Black	Indio Ivory	Black	Ivory & Black	Indio Ivory	Onyx Black
Shadow Grey	Coral		Coral & Grey	Bright Metal	Coral
Neptune Green	Sea-Mist Green		Green	Bright Metal	Neptune Green
			Beige	Bright Metal	Neptune Green
Indio Ivory	Coral		Coral & Grey	Bright Metal	Coral
Indio Ivory	Harvest Gold	Black	Beige & Green	Shoreline Beige	Neptune Green
			Green	Bright Metal	Neptune Green

d - Black steering wheel hub.
$ - Bright metal on 2400.
• - Both styles of two-tone exteriors are available in the same colors and interior trim.

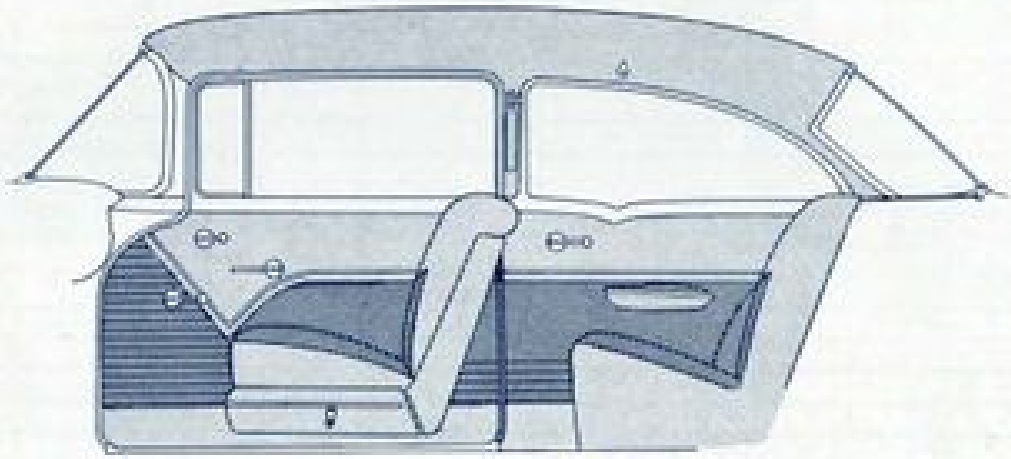
8-Shoreline Beige steering wheel rim and spokes.

EXTERIOR-INTERIOR COLOR COMBINATIONS
TWO-COLOR EXTERIORS

Series 1500			Series 2100						Series 2400			
1502 1503 1512	1508	1529	2102 2103	2124	2109 2129	2402 2403	2454 •	2434	2409	2434 Top Color	Rear Fender Molding Insert Series 2400
•											
		•	•		•	•					Winter White
•											
			•			•					Winter White
							•				Winter White
•											
			•			•					Winter White
				•							
•											
			•			•					Winter White
					•						
			•			•					
				•							
			•					•			
						•				Beige	Winter White
									•		Winter White
			•								
				•							
				•							
				•							
					•						
						•			•	Blue	Winter White
						•			•	White	Winter White
							•				Winter White
•											
			•			•		•			Winter White
					•			•			Winter White
									•		Winter White
							•				Winter White
								•		Beige	Winter White
									•		Winter White
				•							
						•			•	Green	Winter White
									•		Winter White
								•		White	Winter White
				•							
						•	•	•		White	Winter White



SERIES 2400 4-DOOR SEDAN
MODEL 2403



SERIES 2400 2-DOOR SEDAN
MODEL 2402

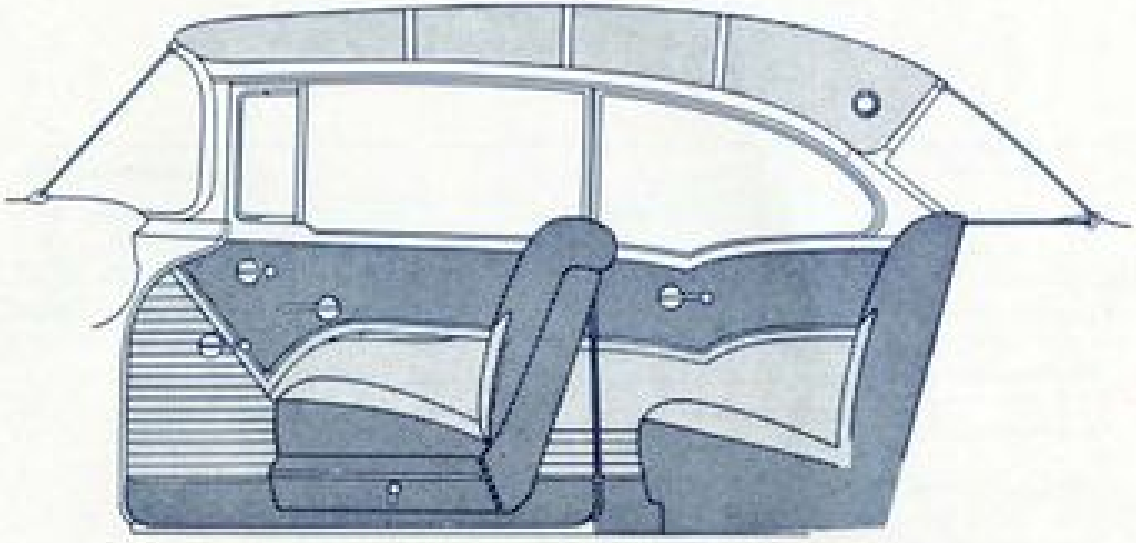
4-DOOR SEDAN

2-DOOR SEDAN

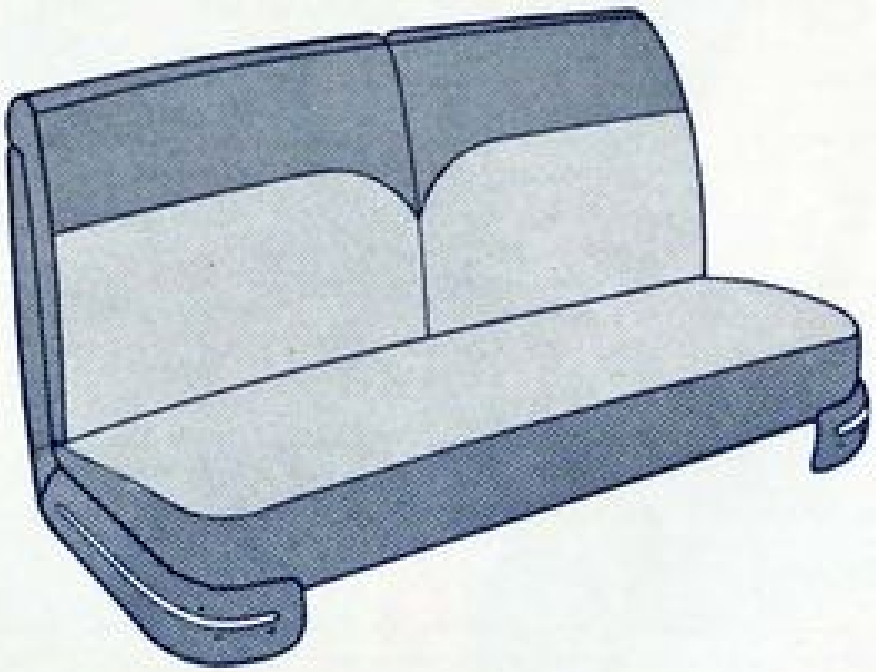
INTERIOR COLORS AND FABRICS
2400 SERIES SEDANS

AREA			MATERIAL	TRIM COMBINATIONS				
				Green	Blue	Coral and Gray	Beige and Brown	Ivory and Turquoise
Seats	Cushion and Backrest		Pattern Cloth	Dk. Green	Dk. Blue	Gray	Brown	Turquoise
	Cushion Facings		Leather Grain Elascofab	Lt. Green	Lt. Blue	Coral	Beige	Ivory
	Backrest Bolsters							
	Backrest Facings							
	Front Seat Back	Insert	Gabardine Flat Cloth	Dk. Green	Dk. Blue	Gray	Brown	Turquoise
		Lower Cross Bar	Leather Grain Vinyl					
	Front Seat End Panels	Upper	Leather Grain Vinyl	Lt. Green	Lt. Blue	Coral	Beige	Ivory
		Lower						
		Molding	Bright Metal					
Sidewalls	Upper Panel		Leather Grain Vinyl	Lt. Green	Lt. Blue	Coral	Beige	Ivory
	Scuff Pad							
	Center Panel		Ribbed Gabardine Flat Cloth	Dk. Green	Dk. Blue	Gray	Brown	Turquoise
Cowl Side Kick Panels			Composition Board					
Headlining			Plain Napped Cloth	Lt. Green	Lt. Blue	Coral	Beige	Turquoise
Sunshades	Covering							
	Binding		Leather Grain Vinyl					
Arm Rests	Front and Rear*	Upper	Leather Grain Elascofab	Dk. Green	Dk. Blue	Gray	Brown	Turquoise
		Lower	Gabardine Flat Cloth					
Floor Covering	Front		Carpet					
	Rear							

* Rear arm rest on 2402 is applied type with leather grain vinyl top and plastic base in some colors as the built-in front arm rest.

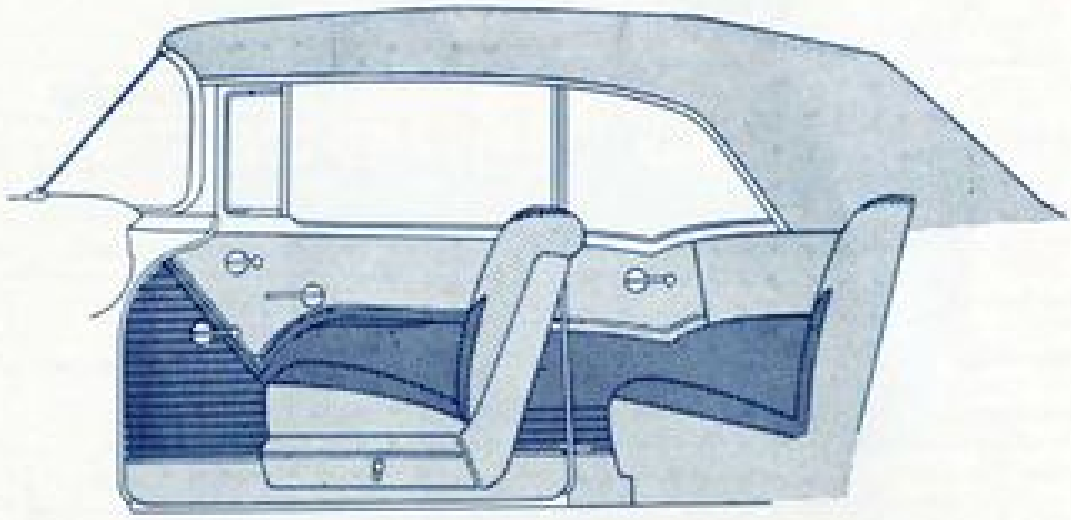


SERIES 2400 SPORT COUPE
MODEL 2454

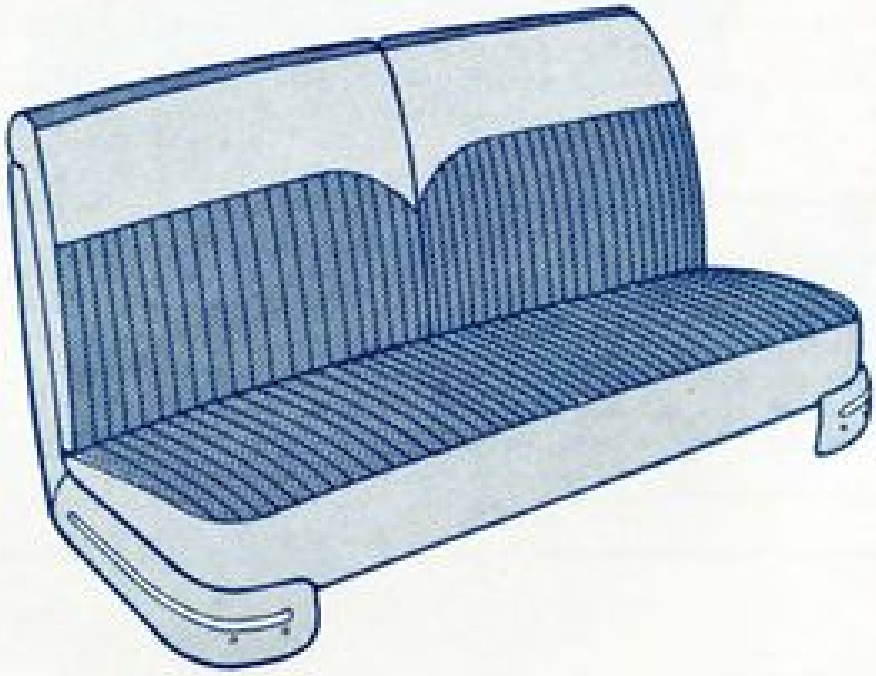


INTERIOR COLORS AND FABRICS
2400 SERIES SPORT COUPE

AREA			MATERIAL	TRIM COMBINATIONS				
				Green	Blue	Red	Turquoise	Coral and Grey
Seats	Cushion and Backrest		Straw Pattern Cloth	Beige	Beige	Beige	Beige	Grey
	Cushion Facings		Leather Grain Elascofab	Green	Blue	Red	Turquoise	Coral
	Backrest Bolster							
	Backrest Facings							
	Front Seat Back	Insert	Leather Grain Vinyl	Beige	Beige	Beige	Beige	Grey
		Lower Cross Bar	Leather Grain Vinyl	Green	Blue	Red	Turquoise	
	Front Seat End Panels	Upper						
		Lower						
		Molding	Bright Metal					
Sidewalls	Upper Panel		Leather Grain Vinyl	Green	Blue	Red	Turquoise	Coral
	Scuff Pad							
	Center Panel		Ribbed Vinyl	Beige	Beige	Beige	Beige	Grey
Cowl Side Kick Panels			Composition Board	Green	Blue	Red	Turquoise	
Headlining			Leather Grain Vinyl	Beige	Beige	Beige	Beige	Coral
Sunshades								
Roof Bows			Bright Metal					
Arm Rests	Front and Rear	Upper	Leather Grain Elascofab	Beige	Beige	Beige	Beige	Coral
		Lower	Leather Grain Vinyl					
Floor Coverings	Front		Carpet	Green	Blue	Red	Turquoise	Grey
	Rear							

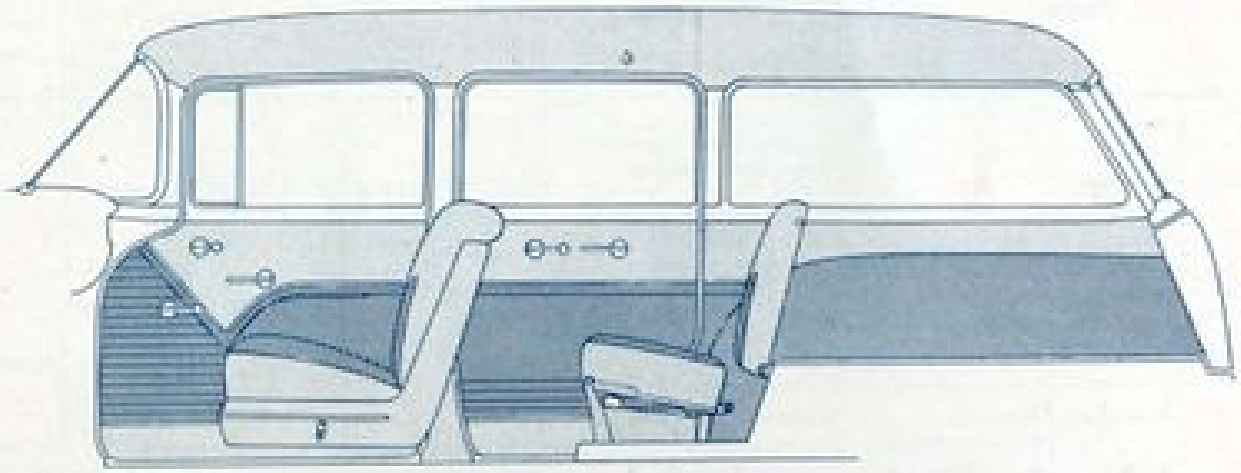


SERIES 2400 CONVERTIBLE
MODEL 2434

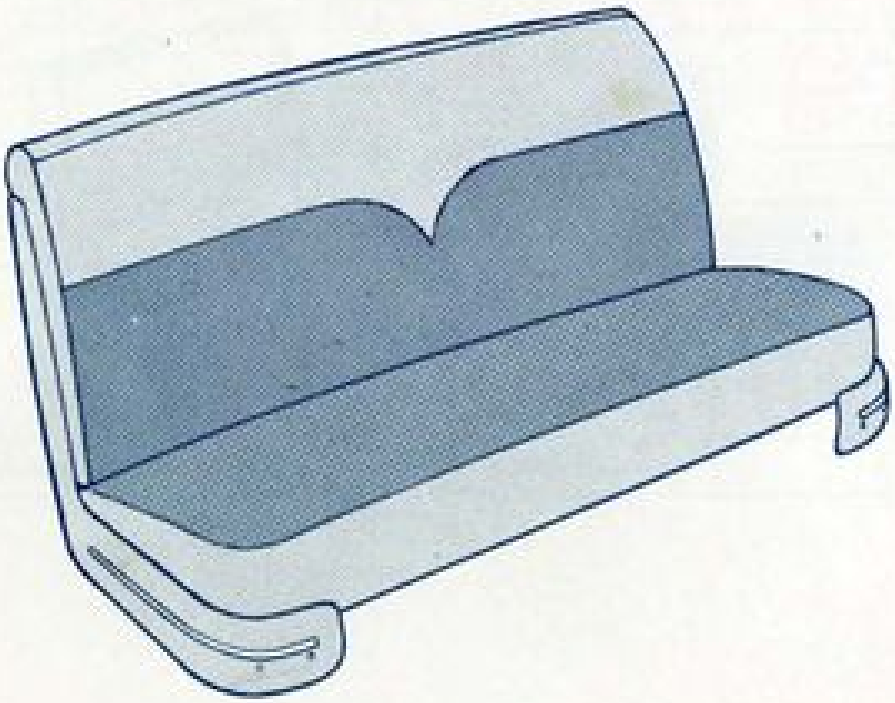


INTERIOR COLORS AND FABRICS
2400 SERIES CONVERTIBLE

AREA			MATERIAL	TRIM COMBINATIONS					
				Coral and Gray	Green	Blue	Beige and Brown	Beige and Red	Ivory and Turquoise
Seats	Cushion		Leather Grain Elascofab With Saddle Stitching	Gray	Dk. Green	Dk. Blue	Brown	Red	Turquoise
	Backrest								
	Backrest Facing (upper)		Leather Grain Elascofab						
	Cushion Facings		Leather Grain Elascofab	Coral	Lt. Green	Lt. Blue	Beige	Beige	Ivory
	Backrest Facing (lower)								
	Front Seat Back	Insert	Leather Grain Vinyl						
		Lower Cross Bar	Leather Grain Vinyl	Gray	Dk. Green	Dk. Blue	Brown	Red	Turquoise
	Front Seat End Panels	Upper	Leather Grain Vinyl	Coral	Lt. Green	Lt. Blue	Beige	Beige	Ivory
		Lower							
		Molding	Bright Metal						
Sidewalls	Upper Panel		Leather Grain Vinyl	Coral	Lt. Green	Lt. Blue	Beige	Beige	Ivory
	Scuff Pad								
	Center Panel		Ribbed Vinyl	Gray	Dk. Green	Dk. Blue	Brown	Red	Turquoise
Cowl Side Kick Panels			Composition Board	Coral					
Sunshades			Leather Grain Vinyl						
Arm Rests	Front And Rear	Upper	Leather Grain Elascofab	Gray					
		Lower	Leather Grain Vinyl						
Floor Coverings	Front		Carpet						
	Rear								
Folding Top Boot			Leather Grain Elascofab	Gray	Dk. Green	Dk. Blue	Beige	Beige	Ivory



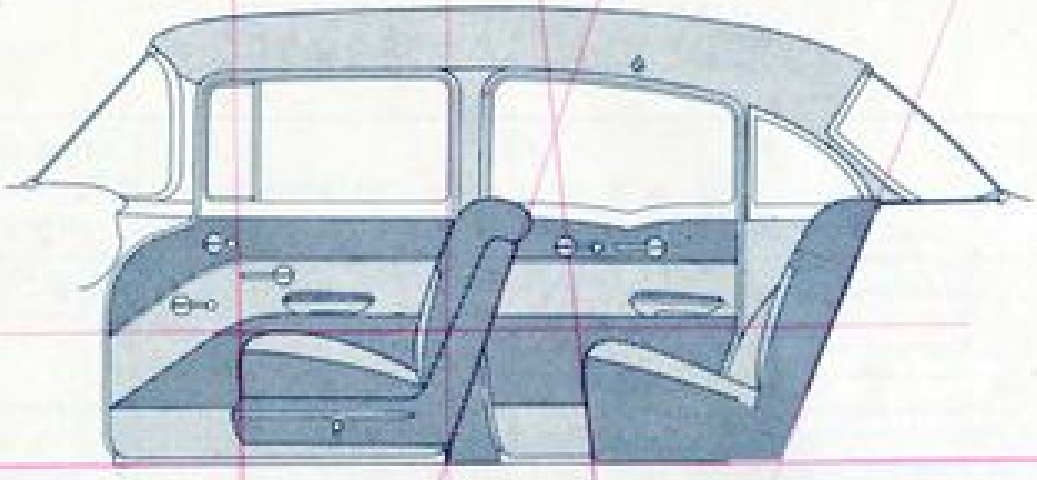
SERIES 2400 STATION WAGON
MODEL 2409



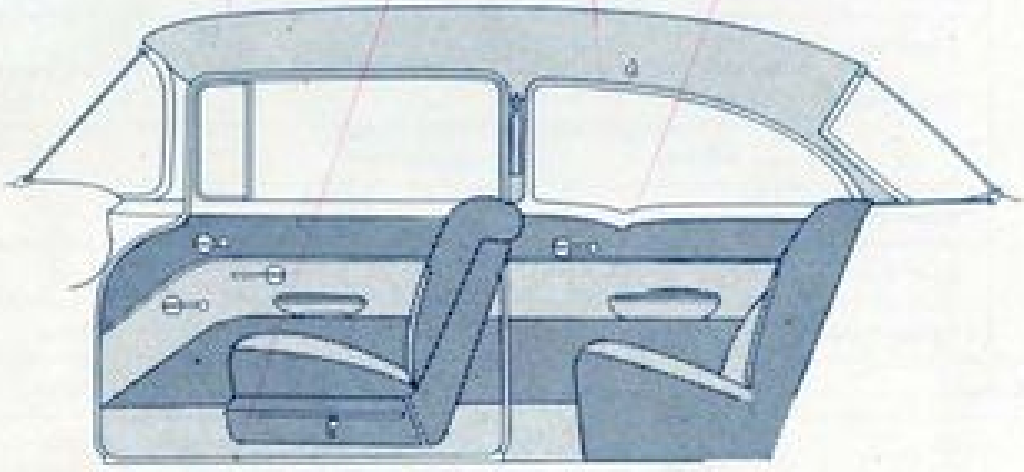
INTERIOR COLORS AND FABRICS
2400 SERIES STATION WAGON

AREA			MATERIAL	TRIM COMBINATIONS	
				Beige	Blue and Beige
Seats	Cushion and Backrest		Straw Pattern Cloth	Beige	Beige
	Cushion Facings		Leather Grain Elascofab	Lt. Beige	Blue
	Backrest Bolster				
	Backrest Facings				
	Front Seat Back	Insert	Leather Grain Vinyl	Beige	Beige
		Lower Cross Bar			
	Front Seat End Panels	Upper	Leather Grain Vinyl	Lt. Beige	Blue
		Lower			
		Molding	Bright Metal		
Sidewalls	Upper Panel		Leather Grain Vinyl	Lt. Beige	Blue
	Scuff Pad				
	Center Panel		Ribbed Vinyl	Beige	Beige
Cowl Side Kick Panels			Composition Board	Beige	Blue
Headlining			Textured Vinyl	Lt. Beige	Lt. Beige
Sunshades					
Arm Rests	Upper		Leather Grain Elascofab	Beige	Beige
	Lower		Leather Grain Vinyl		
Floor Coverings	Front		Rubber	Beige	Blue
	Rear				
	Load Space *		Ribbed Linoleum	Dk. Beige	Dk. Beige
Wheelhouse Cover Panels			Leather Grain Vinyl		

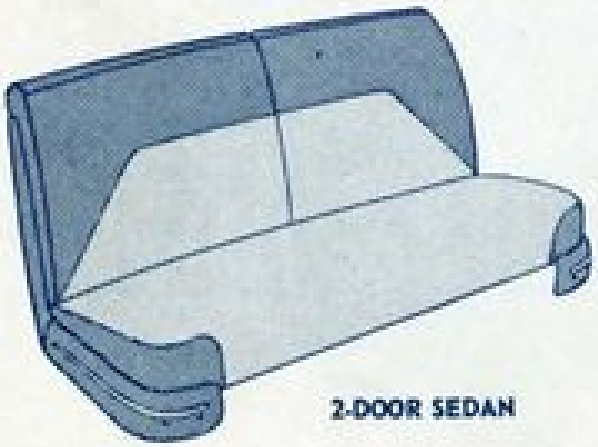
* Back of rear seat backrest, bottom of cushion and tail gate



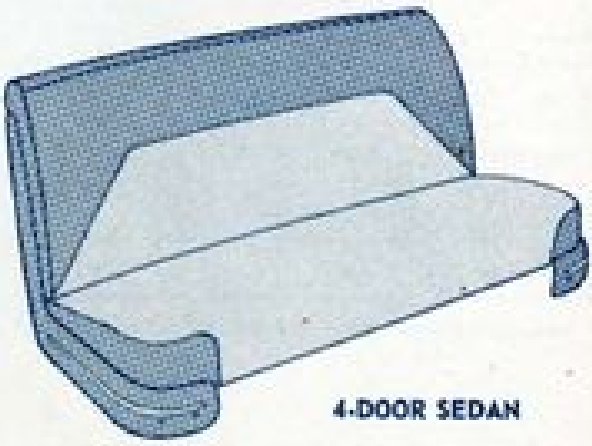
SERIES 2100 4-DOOR SEDAN
MODEL 2103



SERIES 2100 2-DOOR SEDAN
MODEL 2102



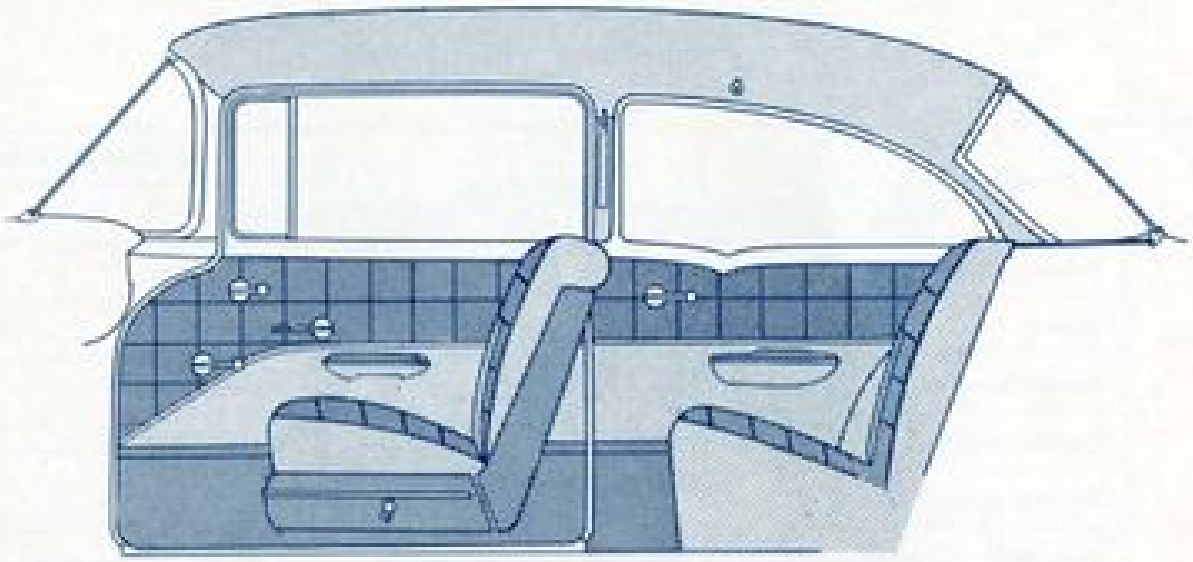
2-DOOR SEDAN



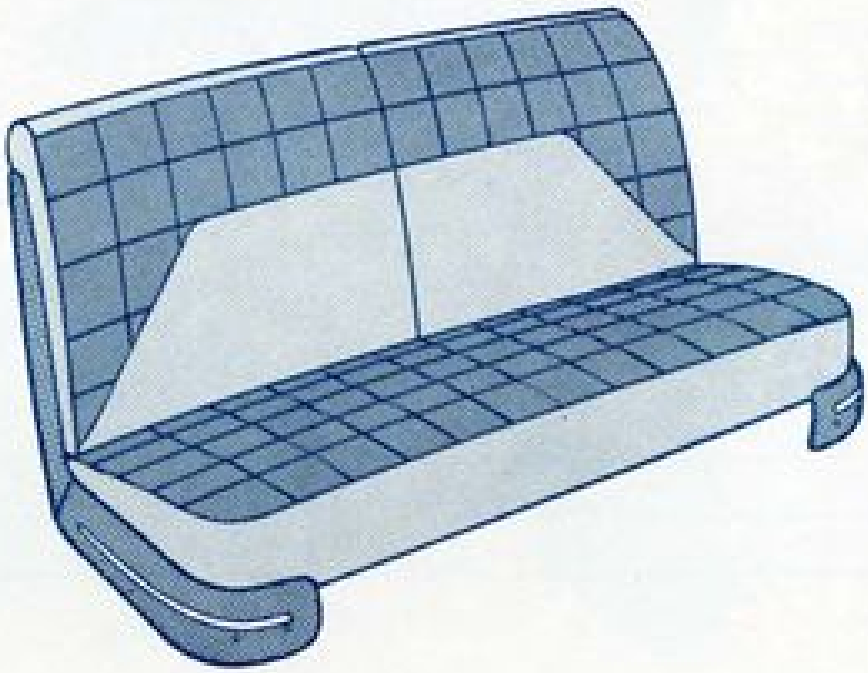
4-DOOR SEDAN

INTERIOR COLORS AND FABRICS
2100 SERIES SEDANS

AREA			MATERIAL	TRIM COMBINATIONS		
				Green	Blue	Brown
Seats	Cushion and Backrest		Pattern Cloth	Lt. Green	Lt. Blue	Tan
	Cushion Front Facing					
	Cushion Side Facing		Gabardine Ripple Weave Cloth	Dk. Green	Dk. Blue	Brown
	Backrest Bolster					
	Backrest Facing					
	Front Seat Back	Insert	Gabardine Ripple Weave Cloth	Lt. Green	Lt. Blue	Tan
		Lower Cross Bar	Leather Grain Vinyl	Dk. Green	Dk. Blue	Brown
	Front Seat End Panels	Upper	Textured Paint			
		Lower				
		Molding	Bright Metal			
Sidewalls	Upper Panel		Leather Grain Vinyl	Dk. Green	Dk. Blue	Brown
	Lower Panel					
	Center Panel		Ribbed Vinyl	Lt. Green	Lt. Blue	Tan
	Scuff Pad					
Cowl Side Kick Panels			Composition Board	Dk. Green	Dk. Blue	Brown
Headlining			Plain Napped Cloth	Lt. Green	Lt. Blue	Tan
Sunshades	Covering					
	Binding and Grip		Leather Grain Vinyl			
Arm Rests	Front and Rear	Upper				
		Lower	Plastic			
Floor Coverings	Front		Rubber	Dk. Green	Dk. Blue	Brown
	Rear					

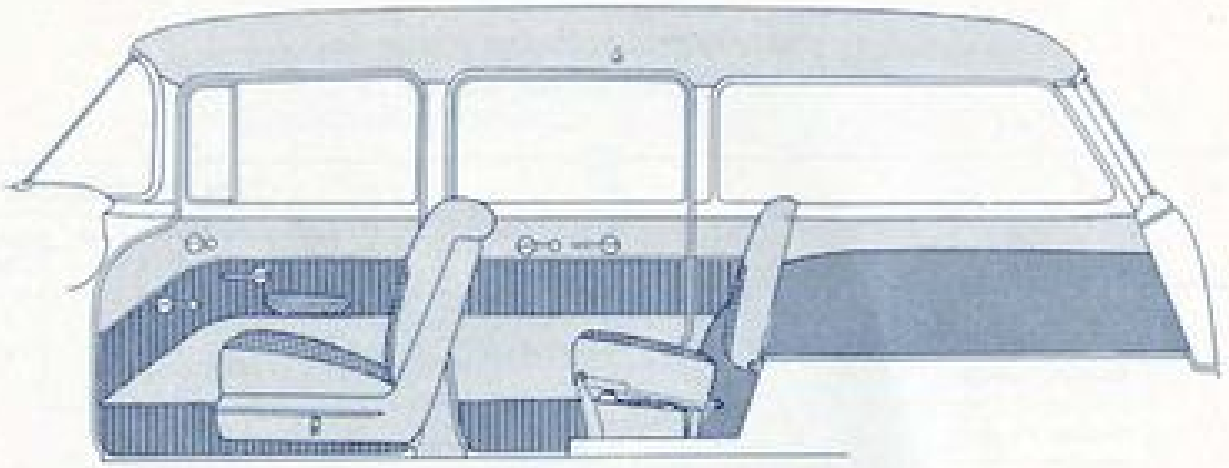


SERIES 2100 CLUB COUPE
MODEL 2124

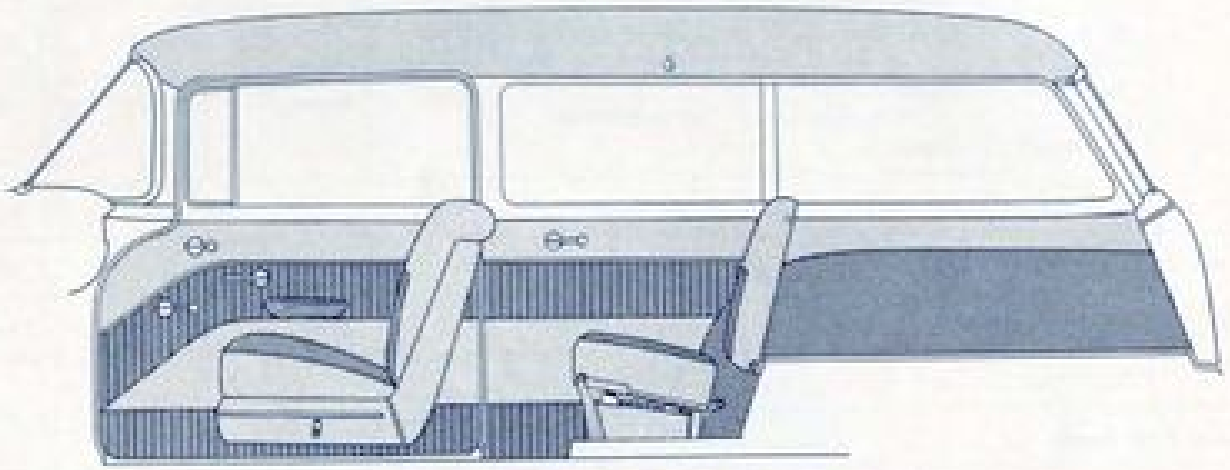


INTERIOR COLORS AND FABRICS
2100 SERIES CLUB COUPE

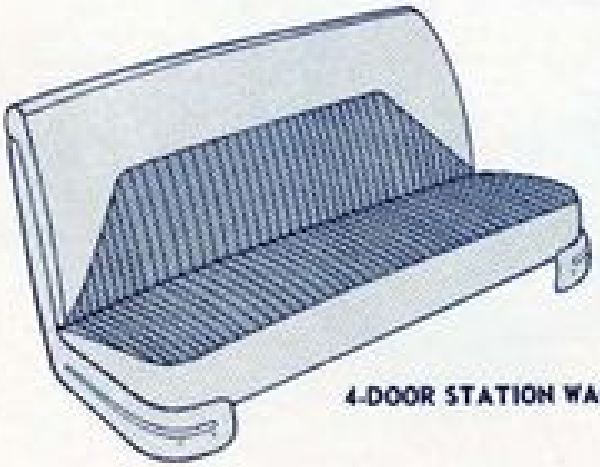
AREA			MATERIAL	TRIM COMBINATIONS		
				Beige and Green	Beige and Blue	Ivory and Black
Seats	Cushion		Leather Grain Elascofab With Saddle Stitching	Green	Blue	Black
	Backrest Bolster					
	Cushion Facings		Leather Grain Elascofab	Beige	Beige	Ivory
	Backrest					
	Backrest Facings					
	Front Seat Back	Insert	Leather Grain Vinyl			
		Lower Cross Bar	Leather Grain Vinyl	Green	Blue	Black
	Front Seat End Panels	Upper	Textured Paint			
		Lower				
		Molding	Bright Metal			
Sidewalls	Upper Panel		Vinyl With Saddle Stitching	Green	Blue	Black
	Center Panel		Embossed Vinyl	Beige	Beige	Ivory
	Scuff Pad		Leather Grain Vinyl	Green	Blue	Black
Cowl Side Kick Panels			Composition Board			
Headlining			Leather Grain Vinyl	Beige	Beige	Ivory
Sunshades						
Arm Rests	Front and Rear	Lower	Plastic			
		Upper	Leather Grain Vinyl	Green	Blue	Black
Floor Covering	Front		Carpet			
	Rear					



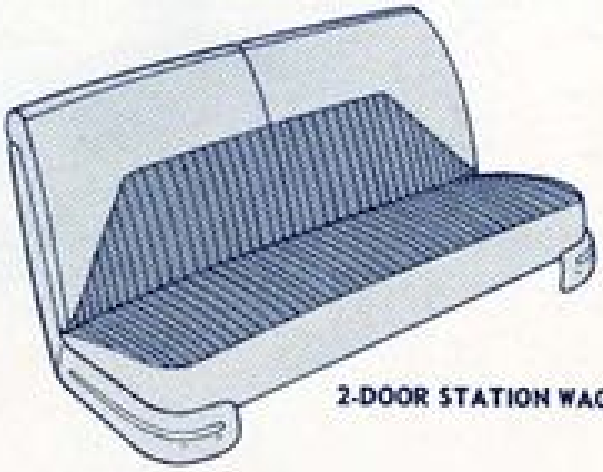
SERIES 2100 4-DOOR STATION WAGON
MODEL 2109



SERIES 2100 2-DOOR STATION WAGON
MODEL 2129



4-DOOR STATION WAGON

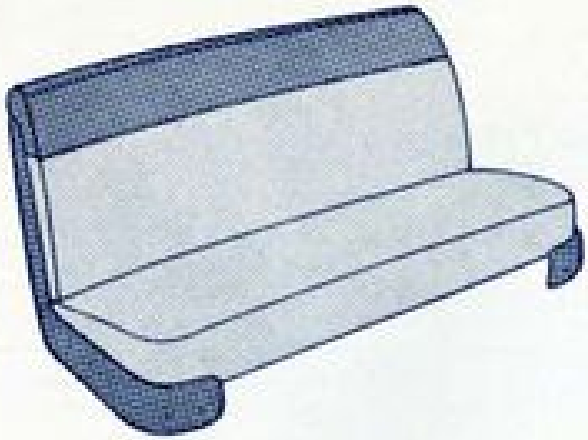


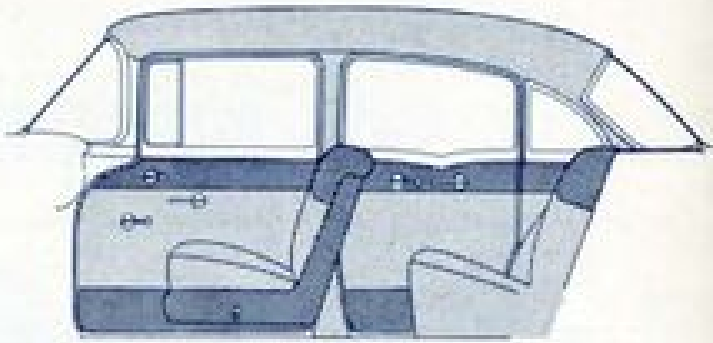
2-DOOR STATION WAGON

INTERIOR COLORS AND FABRICS
2100 SERIES STATION WAGONS

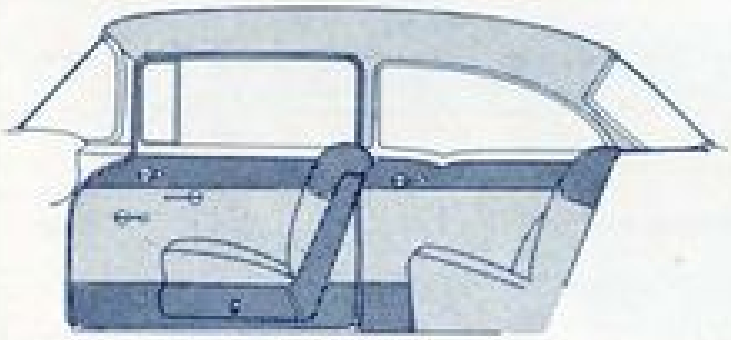
AREA			MATERIAL	TRIM COMBINATIONS		
				Green	Blue	Brown
Seats	Cushion and Backrest		Ribbed Vinyl	Dk. Green	Blue	Brown
	Cushion Facings		Leather Grain Elascofab	Lt. Green	Beige	Beige
	Backrest Bolsters					
	Backrest Facings					
	Front Seat Back	Insert	Leather Grain Vinyl	Dk. Green	Blue	Brown
		Lower Cross Bar				
	Front Seat End Panels	Upper	Textured Paint	Lt. Green	Beige	Beige
		Lower				
		Molding	Bright Metal			
Sidewalls	Upper Panel		Leather Grain Vinyl	Lt. Green	Beige	Beige
	Lower Panel					
	Center Panel		Ribbed Vinyl	Dk. Green	Blue	Brown
	Scuff Pad					
Cowl Side Kick Panels			Composition Board			
Headlining			Textured Vinyl	Lt. Green	Beige	Beige
Sunshades						
Arm Rests	Upper		Leather Grain Vinyl	Dk. Green	Blue	Brown
	Lower		Plastic			
Floor Covering	Front		Rubber			
	Rear					
	Load Space *		Ribbed Linoleum	Beige		
Wheelhouse Cover Panels			Textured Paint			

* Back of rear seat backrest, bottom of cushion and tail gate.

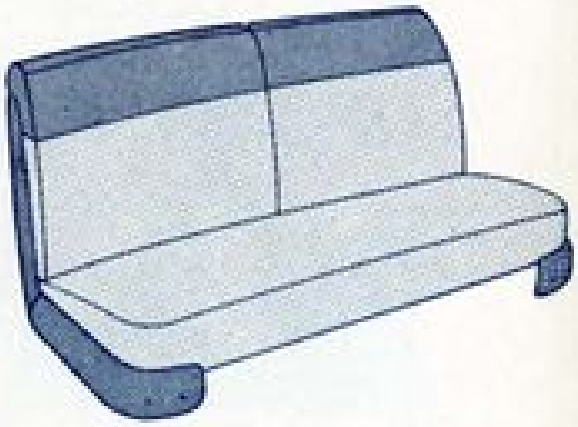


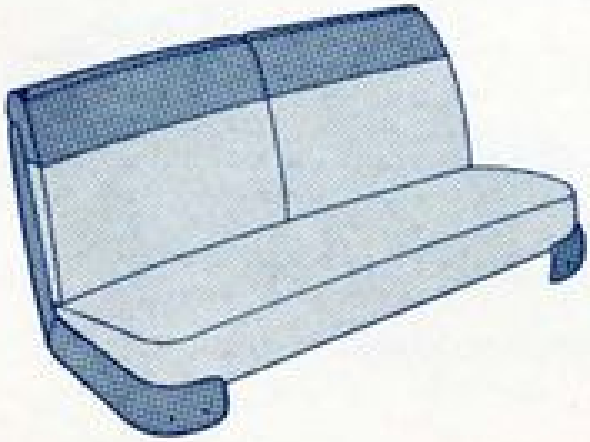


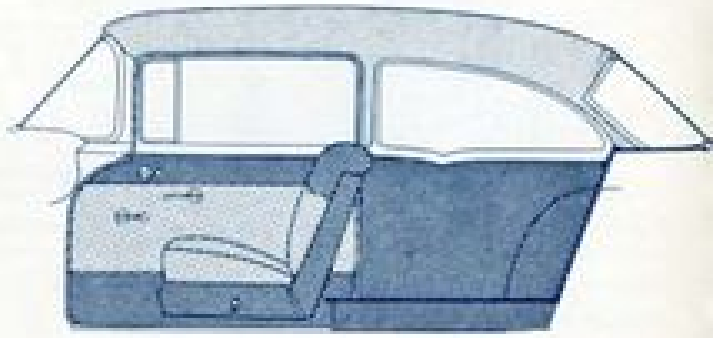
SERIES 1500 4-DOOR SEDAN
MODEL 1503



SERIES 1500 2-DOOR SEDAN
MODEL 1502





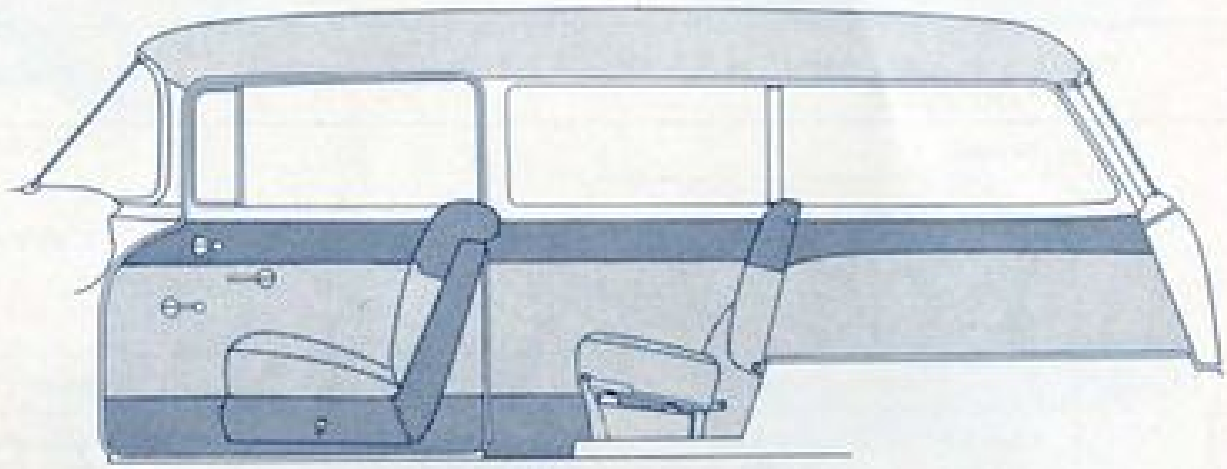


SERIES 1500 UTILITY SEDAN
MODEL 1512

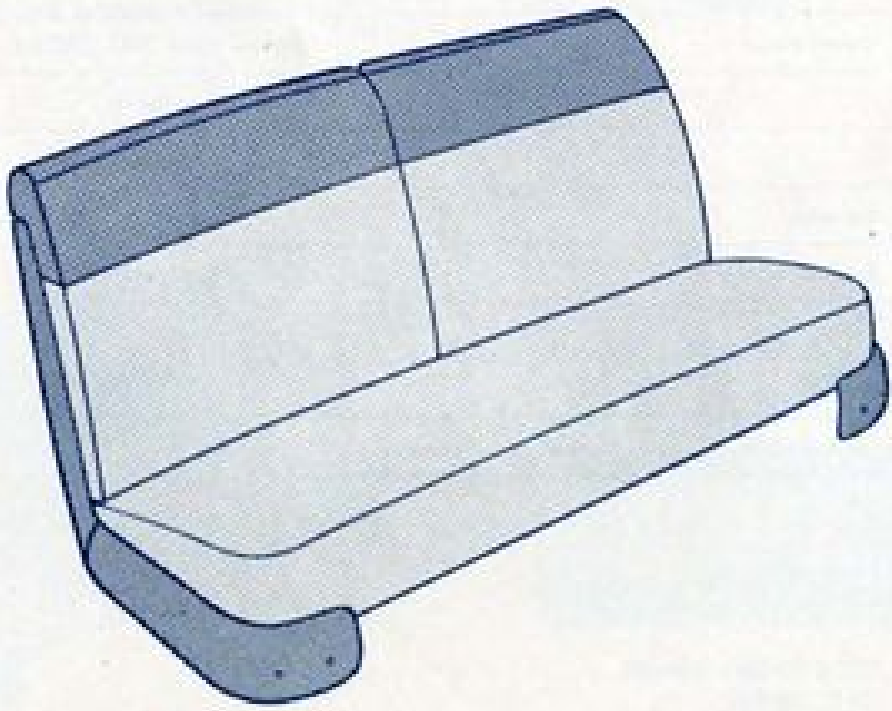
INTERIOR COLORS AND FABRICS
1500 SERIES SEDANS

AREA			MATERIAL	COLOR
Seats	Cushion		Pattern Cloth	Light Gray
	Cushion Facings			
	Backrest			
	Backrest Facing (lower)			
	Bolster and Upper Facing		Elasco-fab	Black
	Front Seat Back	Insert	Pattern Vinyl	Light Gray
		Lower Cross Bar	Leather Grain Vinyl	Black
	Front Seat End Panels	Upper	Textured Paint	
		Lower		
Sidewalls *	Upper Panel		Leather Grain Vinyl	
	Scuff Pad			
	Center Panel		Pattern Vinyl	Light Gray
Cowl Side Kick Panels			Composition Board	Black
Headlining			Plain Napped Cloth	Light Gray
Sunshade	Covering			
	Binding		Leather Grain Vinyl	
Floor Covering	Front		Rubber	Black
	Rear			

* - Utility Sedan load space, sidewalls, and back partition are of black textured composition board; black textured paint is used on the wheelhouses.



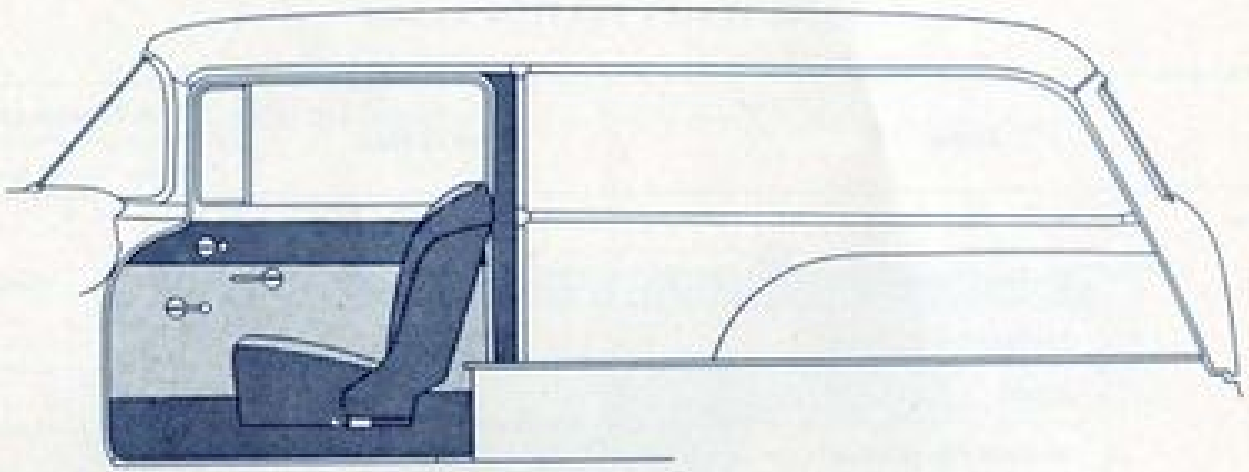
SERIES 1500 STATION WAGON
MODEL 1529



INTERIOR COLORS AND FABRICS
1500 SERIES STATION WAGON

AREA			MATERIAL	TRIM COMBINATIONS	
				Brown	Green
Seats	Cushion and Backrest		Linked Cord Pattern Vinyl	Beige	Dark Green
	Cushion Facings				
	Backrest Facing (lower)				
	Bolster		Elascofab	Brown	Light Green
	Backrest Facing (upper)				
	Front Seat Back	Insert	Linked Cord Pattern Vinyl	Beige	Dark Green
		Lower Cross Bar	Leather Grain Vinyl	Brown	Light Green
	Front Seat End Panels	Upper	Textured Paint		
		Lower			
Sidewalls	Upper Panel		Leather Grain Vinyl	Brown	Light Green
	Scuff Pad				
	Center Panel		Linked Cord Pattern Vinyl	Beige	Dark Green
Cowl Side Kick Panels			Composition Board	Brown	
Headlining and Sunshade			Leather Grain Vinyl	Beige	Light Green
Floor Covering	Front		Rubber	Black	
	Rear				
	Load Space *		Ribbed Linoleum	Beige	
Wheelhouse Cover Panels			Textured Paint		

* Back of rear seat backrest, bottom of cushion and tail gate.



SERIES 1500 SEDAN DELIVERY
MODEL 1508

INTERIOR COLORS AND FABRICS
SEDAN DELIVERY

AREA		MATERIAL	COLOR
Seats	Cushion and Seat Back	Textured Vinyl	Beige
	Seat Back Panel	Leather Grain Vinyl	Brown
	Seat Back Facing		
	Cushion Facing		
Sidewalls	Upper Panel		
	Scuff Pad		
	Center Panel	Textured Vinyl	Beige
Cowl Side Kick Panels		Composition Board	Brown
Headlining and Sunshade		Leather Grain Vinyl	Beige
Floor Covering	Front	Rubber	Black
	Rear	Paint	
Load Compartment	Upper Panel	Fiber Board	Dark Beige
	Lower Panel		
	Wheelhouse	Paint	
	Rear Door		

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