1955

Chevrolet

FEATURES

TRUCK ENGINEERING ACHIEVEMENTS

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FOREWORD

Presented here are the engineering features of the new 1955 truck. Completely redesigned, with an outstandingly modern appearance and major mechanical improvements, these models are an especially significant achievement in Chevrolet's continuous program of engineering development.

E. N. Cole
Chief Engineer

THE 1955 CHEVROLET TRUCK

Redesign of the entire Chevrolet truck line for 1955 is the result of a comprehensive development program which included extensive surveys to determine the needs and preferences of all types of users.

Completely new cab, single-unit bodies and sheet metal structures combine an ultra-modern appearance with many advantages in driver convenience and comfort. All series are affected by extensive dimensional changes which are reflected in reduced overall height, greater utility and increased stability. Conventional models have shorter wheelbases for greater maneuverability and better weight distribution.

New and advanced exterior styling with forward-slanting body and sheet metal lines gives all models a capable, "load-pulling" look. A feature of the 1955 exteriors is the entirely separate front end styling treatment given Series 3000 and the heavier-duty 1-1/2 and 2-ton models.

Seventy-five models on fifteen wheelbases comprise the line. New individual models include a 1/2-ton long wheelbase pickup and a special addition to the 3100 series, the Cameo Carrier, a half-ton pickup model with custom styling and luxurious appointments. There are three forward control chassis in place of the former two, the canopy express models being discontinued. Maximum GVW is increased for 2-ton models from 16000 to 18000 pounds.

The more efficiently proportioned chassis introduces many new features for 1955. All frames are of parallel side member construction and standard 34-inch width. Greater front end stability results from the improved front suspension with longer front axle I-beams, increased tread dimension, and more widely spaced springs. Longer, and in several cases, wider front springs have softer rate and are more durable. The steering geometry is improved on all models and the recirculating ball steering gears feature greater durability. A new band-type propeller shaft parking brake is standard equipment on Series 3800 and is included with optional transmissions on 3/4-ton models.

The 235 and 261 cubic inch six cylinder engines are improved with quieter operation and more efficient cooling and lubrication systems, and a completely new V-8 engine is introduced as regular equipment in the 5000 series. All engines feature a 12-volt electrical system for 1955.

The four basic transmissions of 1954 are continued in the same model applications. Extensive redesigning of the conventional 3-speed transmission provides greater load carrying capacity, increased durability and improved operation. Overdrive, in combination with the 3-speed transmission, is available in 1955 on Series 3100 and 3200 trucks, and the Hydra-Matic option is retained in the 3000 series.

A new higher capacity rear axle for Series 5000 and axle modifications for other heavy-duty models improve load carrying characteristics. Rear springs are, for the most part, longer to provide better ride quality.

New optional equipment for 1955 includes a planetary reduction type two-speed heavy-duty rear axle designed and built by Chevrolet. Power steering is available as optional equipment on all except forward control models. Power brakes may be had on all models at extra cost. A wrap-around rear window replaces the optional cab corner windows for improved visibility. An optional cab seat with an air inflated cushion is introduced for even greater comfort.

Tubeless tires are introduced as standard equipment on all 1/2-ton models.

	1/2 TON			3/4-TON			1-TON			1-1/2 TON		
		WB	GVW		WB	GVW		WB	GVW		WB	GVW
TYPE	1508	115	4100	3400	104	10,000	3800	135	* 8800	4100	130	14,000
	3100	114	5000	3500	125					4400	154	14,000
				3700	137							
	3200	123-1/4		3600	123-1/4	6900				4500	154	12,000
SEDAN DELIVERY 	1508											
FLAT FACE COWL 	3102			3602			3802			4102 4402 4502		
WINDSHIELD COWL 	3112			3612			3812			4112 4412		
CAB CHASSIS 	3103			3603			3803			4103 4403		
PICKUP 	3104 3124 3204			3604			3804					
PANEL 	3105						3805					
SUBURBAN CARRYALL 	3106 3116											
PLATFORM 				3608			3808			4108 4408		
STAKE 				3609			3809			4109 4409		
FORWARD CONTROL 				3442 3542 3742								

1-1/2 TON SPECIAL			2-TON		
	WB	GVW		WB	GVW
5100	112-5/8	15,000	5100	112-5/8	16,000 or 18,000
5400	136-5/8		5400	136-5/8	
5700	160-5/8		5700	160-5/8	
6100	130		6100	130	
6400	154		6400	154	
6500	172		6500	172	
			6700	194	
			6800	220	
6102S 6402S 6502S			6102 6402 6502 6702 6802		
6112S 6412S 6512S			6112 6412 6512		
5103S 5403S 5703S 6103S 6403S 6503S			5103 5403 5703 6103 6403 6503		
5408S 6108S 6408S			5408 6108 6408		
5409S 6109S 6409S			5409 6109 6409		

SERIES AND MODELS

Completely new for 1955, Chevrolet trucks are available in seventy five models on fifteen wheelbases in place of the seventy four models with eleven wheelbases of the previous year. The revised and expanded line-up includes three new series and four new models, as well as new wheelbases for the entire line-up.

Changes in series and model availability are concentrated in the 3000 series. The forward control model line-up is expanded to three models on three different wheelbases. New for 1955 are models 3442 and 3542, the former on a 104-inch wheelbase and the latter with a wheelbase of 125 inches. Model 3942 is discontinued and replaced by model 3742 which is increased in capacity and wheelbase to that of the discontinued vehicle. All of the forward control chassis for 1955 are of three-quarter ton nominal rating with 10,000 pounds maximum gross vehicle weight.

The choice of pickup models is considerably enlarged in the new line-up. Two new models are added, affording a choice of five models in four series on three different wheelbases. Additions to the line include model 3124 which is a half-ton pickup on a 114-inch wheelbase. This vehicle combines outstanding utility with a custom appearance, featuring reinforced plastic components and the integrated styling of a single-unit body. Also new for 1955 is model 3204, another half-ton pickup which satisfies the need for a light but bulky load carrier, being equipped with the same pick-up box and being on the same wheelbase as the 3600 models.

Discontinued because of insufficient demand are the 3107 and 3807, both canopy express models.

The maximum gross vehicle weight of Chevrolet trucks for 1955 is increased to 18000 pounds which is available for both the 5000 and 6000 series. However, models of the 5000 and 6000 series carry the 16000 pound rating identification plate as standard equipment, while the 18000 pound rating plate may be obtained when optional heavy-duty equipment is added. Half ton models are increased in maximum GVW to 5000 pounds from the previous 4800 pound rating.

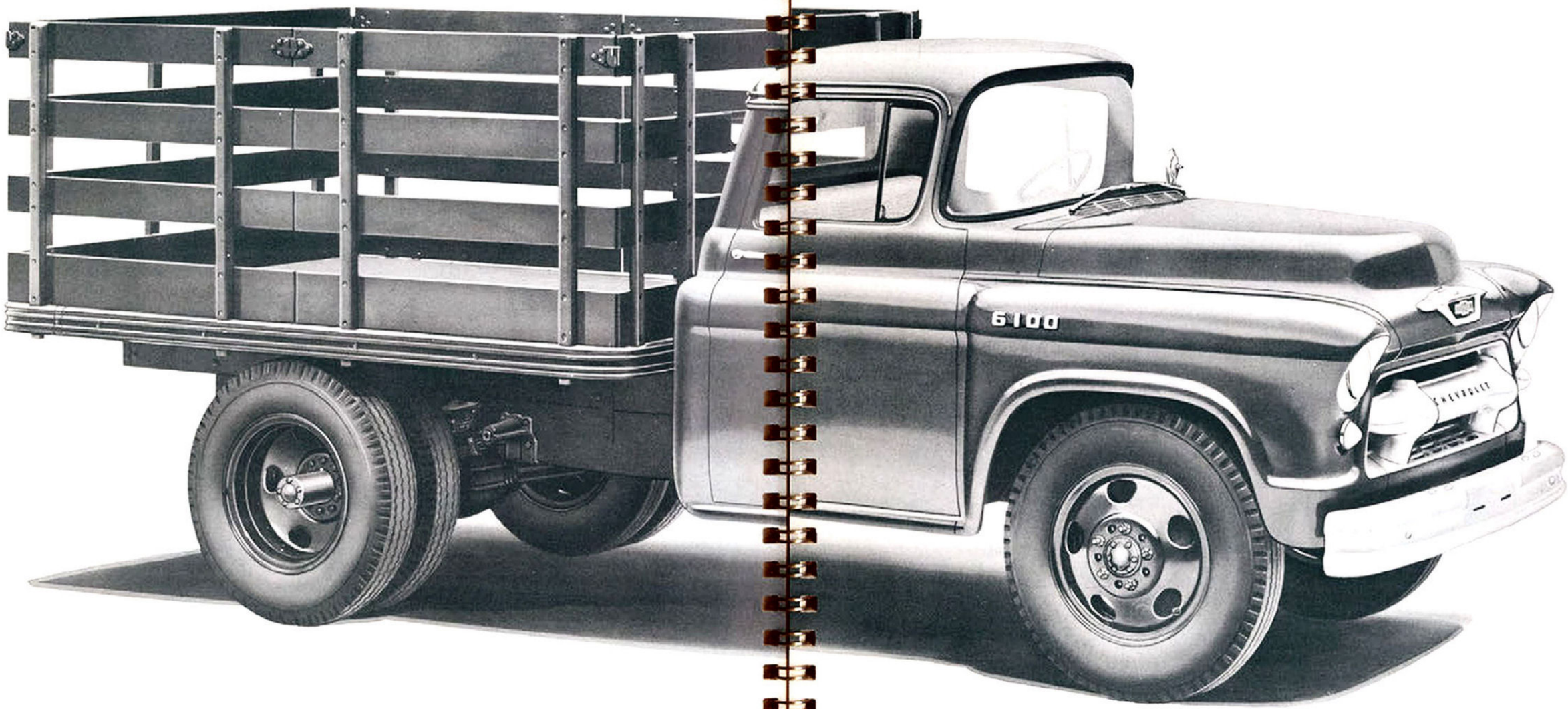
With the elimination of the school bus option for model 3802, the school bus line-up for 1955 consists of models 4502, 6702 and 6802.

* - Maximum GVW of models 3804 and 3805 is 7000 pounds.

1/2-TON PICKUP
MODEL 3104

The half-ton pickup is typical of the advanced styling of all the half, three-quarter and one-ton Chevrolet models for 1955. Clean-cut and functional in appearance, these vehicles are styled and proportioned to suit their load carrying capacity, with no suggestion of unnecessary bulk.

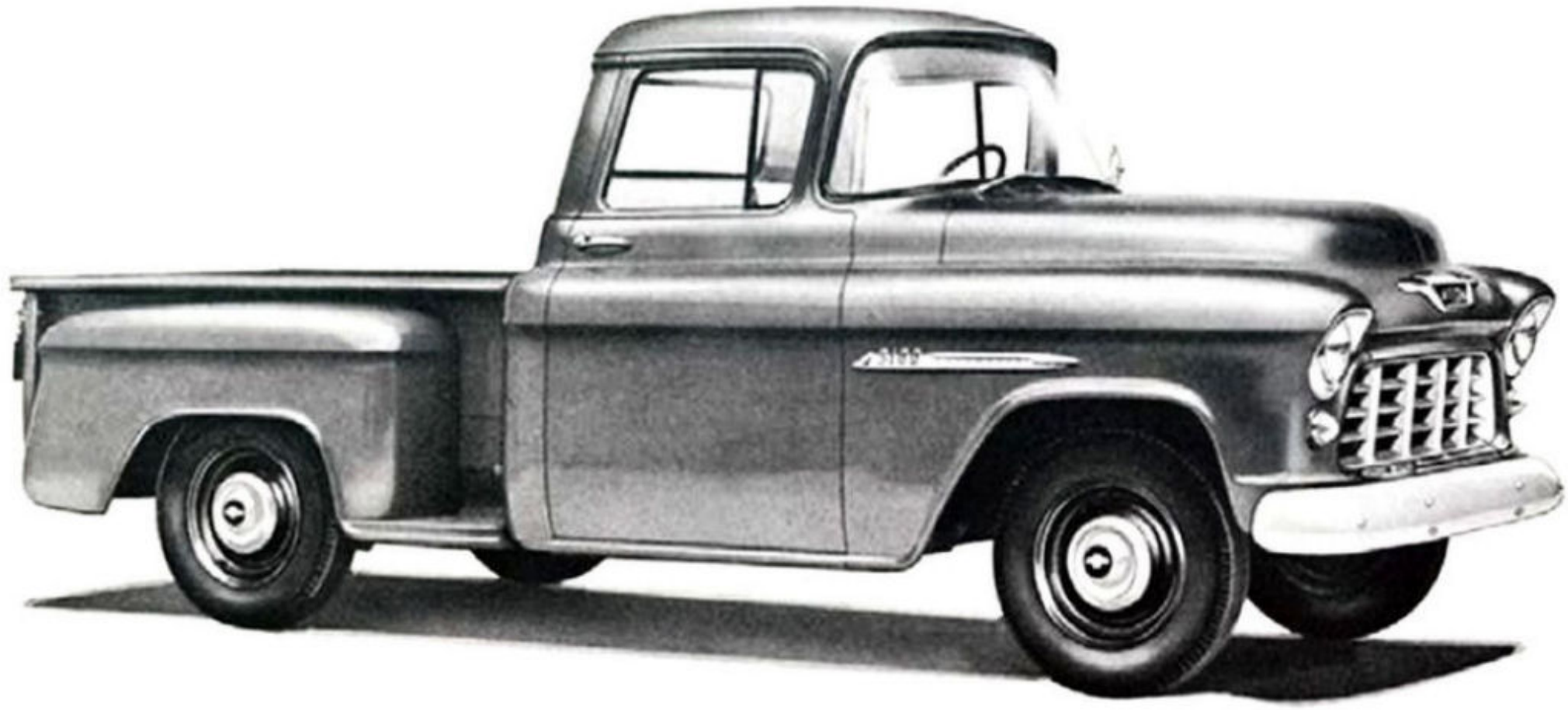
2-TON STAKE
MODEL 6109



The two-ton stake rack model illustrates the capable appearance of the 1-1/2 and 2-ton models. The massive new grille and the forward thrust of all basic lines creates an impression of power and rugged strength.

EXTERIOR STYLING

1/2 -TON PICKUP



EXTERIOR STYLING

SERIES 3000

The 1955 Chevrolet has a brand new identity. Many trend-setting features contribute to the ultra-modern appearance of the various exteriors throughout the line but prominent in all models is the essential character of the advanced 1955 styling, best described as a "load-pulling" look.

To achieve this effect, the basic lines of the cab and sheet metal all slant forward. The windshield pillar, the upper structure of the cab, the hooded headlights and wheel opening together form a forward slanting profile completely different from the previous design. A cadet-type peak over the windshield, the hooded headlights, and straight-through lines from the fenders to the rear of the cab create the impression of fleetness and length. The functional is combined with a high style note in such features as wrap-around windshields and concealed running boards. Throughout the line, numerous other innovations contribute to greater driver comfort and safety.

One of the most interesting features of the 1955 truck line is the separate styling treatment which gives the twenty-five models of the 3000 series an appearance completely different from that of the heavier duty 1-1/2 and 2-ton models. These two categories now have a particular identity expressed in terms of their functional characteristics or, to express it more simply, the 3000 and heavy-duty models are differently styled to have the most capable appearance for the type of job they perform.

Introduced for 1955 is the Cameo Carrier, model 3124, which features deluxe exterior, appointments and trim, and combines the utility of the half-ton pickup with an individual styling treatment. A unique feature of this model is the use of reinforced plastic for a number of the body components.

Except for mounting provisions, pickup, platform and stake rack bodies are continued unchanged for 1955. Pickup models display new rear fenders which extend the lines of the front fenders flowing through the doors to the cab rear corners. A short exposed running board is located between the cab and the rear fender.

Thirteen exterior colors are available for 1955. Five of these are new, with the others continued from 1954. The new colors include Crystal Blue, Sand Beige, Russet Brown, Empire Blue and Granite Gray. Bombay Ivory is used exclusively for two-toning and exterior ornamentation.

Two-tone exteriors are available at customer option on all standard cab and panel models in 1955. Deluxe cab models may also be obtained with a two-tone exterior, which differs in color area from the standard. The two-tone effect, provided as optional equipment on deluxe cab models, consists of any of the thirteen colors except Russet Brown and Pure White. Contrast is provided by the Bombay Ivory window area which extends from the bright metal molding encircling the cab beneath the drip molding, down to the bright metal belt molding. The same

color availability is provided for the standard cab models, however the method of two-toning differs, with the entire roof panel, down to and including the drip molding, providing the contrast area.

Bombay Ivory is used for two-toning with all exterior colors, on both the deluxe and standard cabs, except with the Russet Brown or Pure White exteriors. In the case of the former, Sand Beige provides the contrast, there being no two-toning available with Pure White.

Panel models also are available with two-tone exteriors. However, the contrast color area is composed of the sign area which begins immediately behind the side door window and extends rearward around the rear doors, covering the portion between the embossment below the drip molding and the belt line.

A more detailed pictorial and graphic explanation of colors and color areas available on specific models will be found in the color charts in the Appendix.

FRONT END . . .

The individual and distinctive front end styling of Series 3000 models features a lattice pattern grille set in an air-scoop type frame which is flush with the sheet metal at the forward edge and extends inward toward the radiator. Contributing materially to the overall "load pulling" impression of the vehicle, the forward slanting grille spans the front end width to the headlights and is composed of four vertical and three horizontal bars. All components of the grille are painted Bombay Ivory, as are the bumper and headlight bezels.

The new bumper, massive yet stylish in appearance, replaces the spring type used on previous models. Wrapping around the fender corners, the new bumper provides considerable protection for these components, while its wide vertical contour guards the grille.

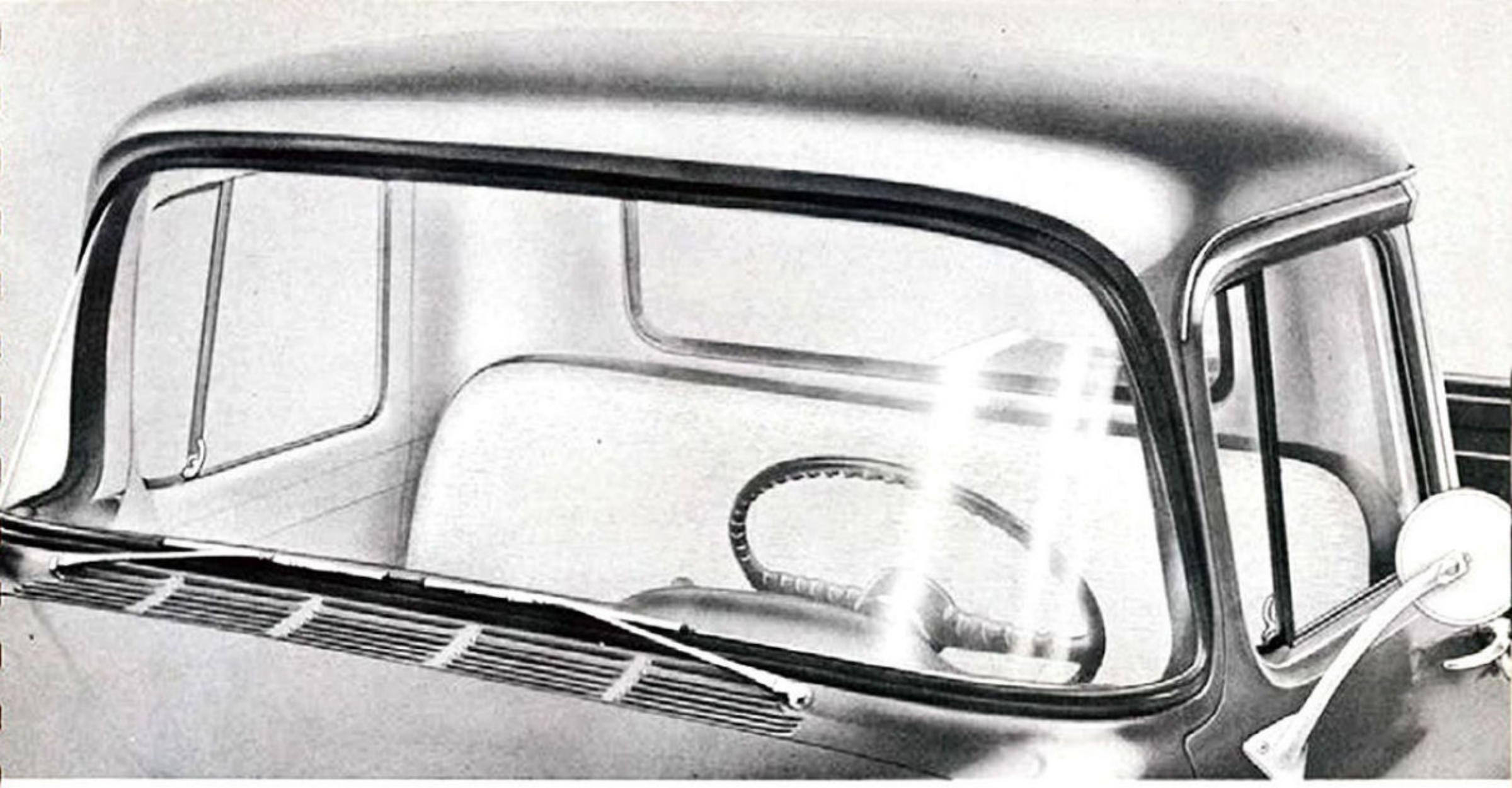
HOOD EMBLEM . . .

The hood emblem, for all models, displays bright metal wings extending outward from the frame which encircles the dull black background for the Chevrolet emblem, in red and chrome.

The simulated air scoop, achieved through the black background of the emblem when viewed at a distance, augments the advanced front end styling of the new models. The three dimensional effect is further amplified by the broad upper surface of the emblem, which extends inward to meet the hood.

HEADLIGHTS AND PARKING LIGHTS . . .

An outstanding styling feature of the new models is the cadet-type visors over the headlights, which effect greater length and contribute to the overall styling theme of the 1955 Chevrolet trucks. Wide Bombay Ivory bezels frame the headlights, curving upward to meet the peaks. Located directly beneath the headlights, on the fenders, the hemispherical parking lights blend with the modern, forceful front end styling.



WINDSHIELD . . .

All windshields are of a one-piece wrap-around design. Greatly improved visibility, coupled with the thoroughly modern appearance of this windshield highlight the advanced design of the new models.

Located directly in front of the windshield, on the cowl, new air intakes consisting of five banks of six louvers each provide a source of air for the heating or ventilating system.

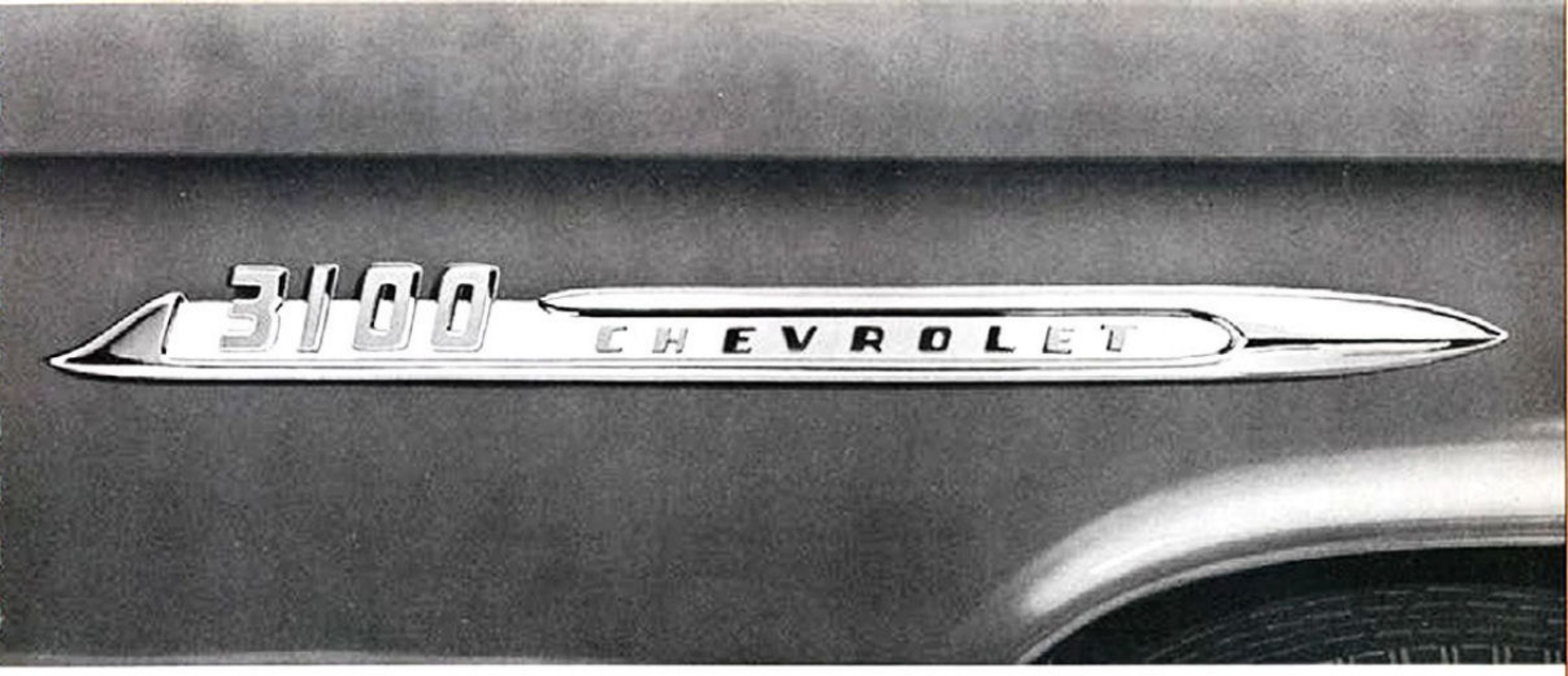
VENTIPANES . . .

The new ventipanes slope forward, as do the windshield pillars, contributing to the advanced styling of the 1955 models which is further accented by the distinctive visor over the windshield.

The friction-type ventipane lock is also redesigned, for more convenient operation. The lock handle is mounted on the ventipane frame with the striker plate on the vertical divider bar. Thus, the handle is upright when closed, and can be opened by being pushed forward and downward to a horizontal position.

CONCEALED STEP . . .

New beauty and added convenience are dual benefits of concealed steps in 1955. Front fenders blend into the doors to form a smooth unbroken contour from the fender front to the body extreme rear corners. The doors are lengthened to cover the running boards entirely yet when the doors are opened these become as accessible as on previous models. This new feature not only enhances the styling of the vehicles but also contributes to safety by keeping snow and rain off the surface of the step.

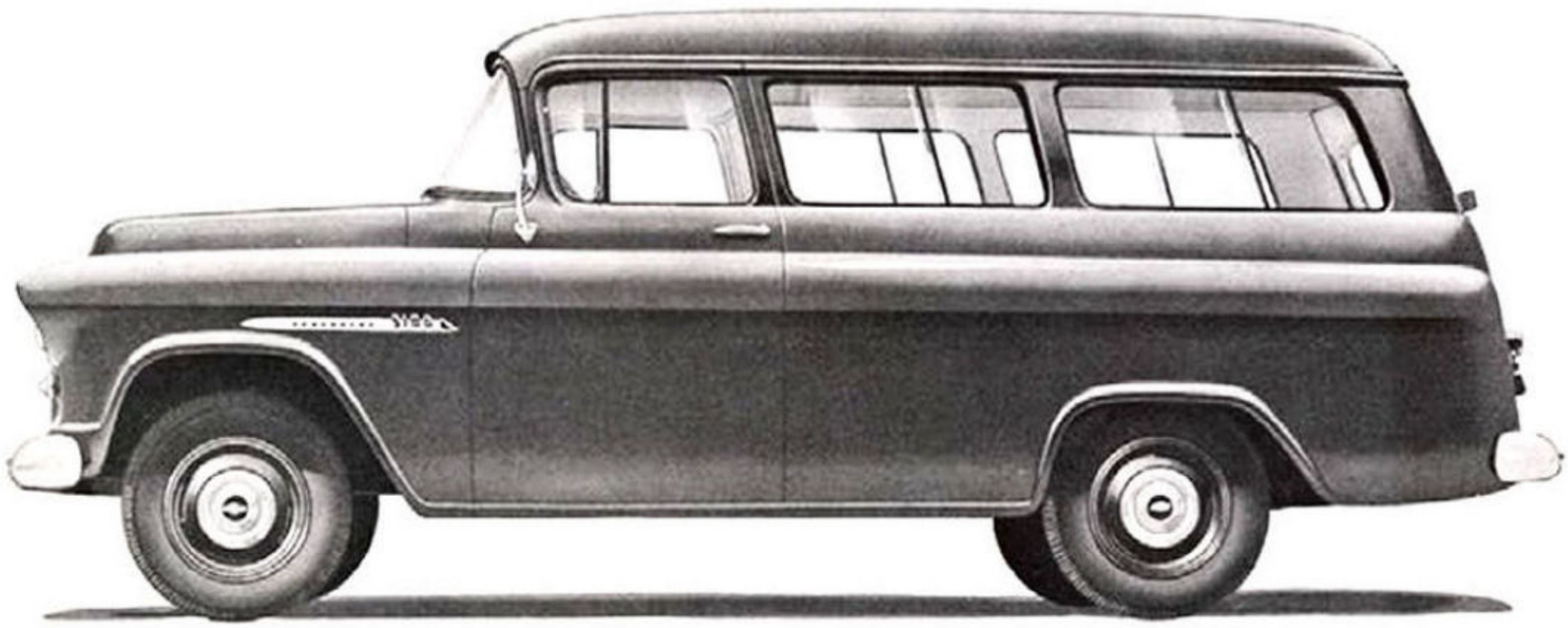


SERIES DESIGNATION PLATES . . .

Following the basic lines of the vehicle, the spear-type Series 3000 designation plate is designed for a forward-sloping effect. Located on each front fender, forward of the door, the spear is bright metal with a white indentation forming the background for the word "Chevrolet" and the series numerals. Letters and numbers are also of bright metal.

HUB CAPS . . .

Models of the 3000 series are equipped with new hub caps, clean and modern in design. A large spinner in the center is surrounded by a wide embossment which also forms the outer circumference of the hub cap. The peak of the spinner is a flat surface which comprises the ivory trademark on a background painted blue. The remaining portion of the hub cap is painted Bombay Ivory, while the wheels on standard models are black.



SUBURBAN CARRYALL MODELS . . .

The suburban carryall, again available with panel doors or the lift and tailgate, reveals numerous styling changes. In common with the other models in the 3000 series, this vehicle has new sheet metal, grille, windshield and hub caps.

Smooth uninterrupted body contours result from the front fender lines which continue through the doors and body to the vehicle rear corners. The bead around the front fender wheel opening continues down and along the bottom of the sill, then up and around the rear wheel opening.

The overall impression of these vehicles is again one of mobility emphasized by the forward slanting lines which include the windshield pillar and front end sheet metal as well as the door and rear quarter windows. The rear quarter windows may be opened by sliding the forward portion rearward.

Suburban carryall models are available in standard quality only with trim and equipment similar to that of the standard cab.

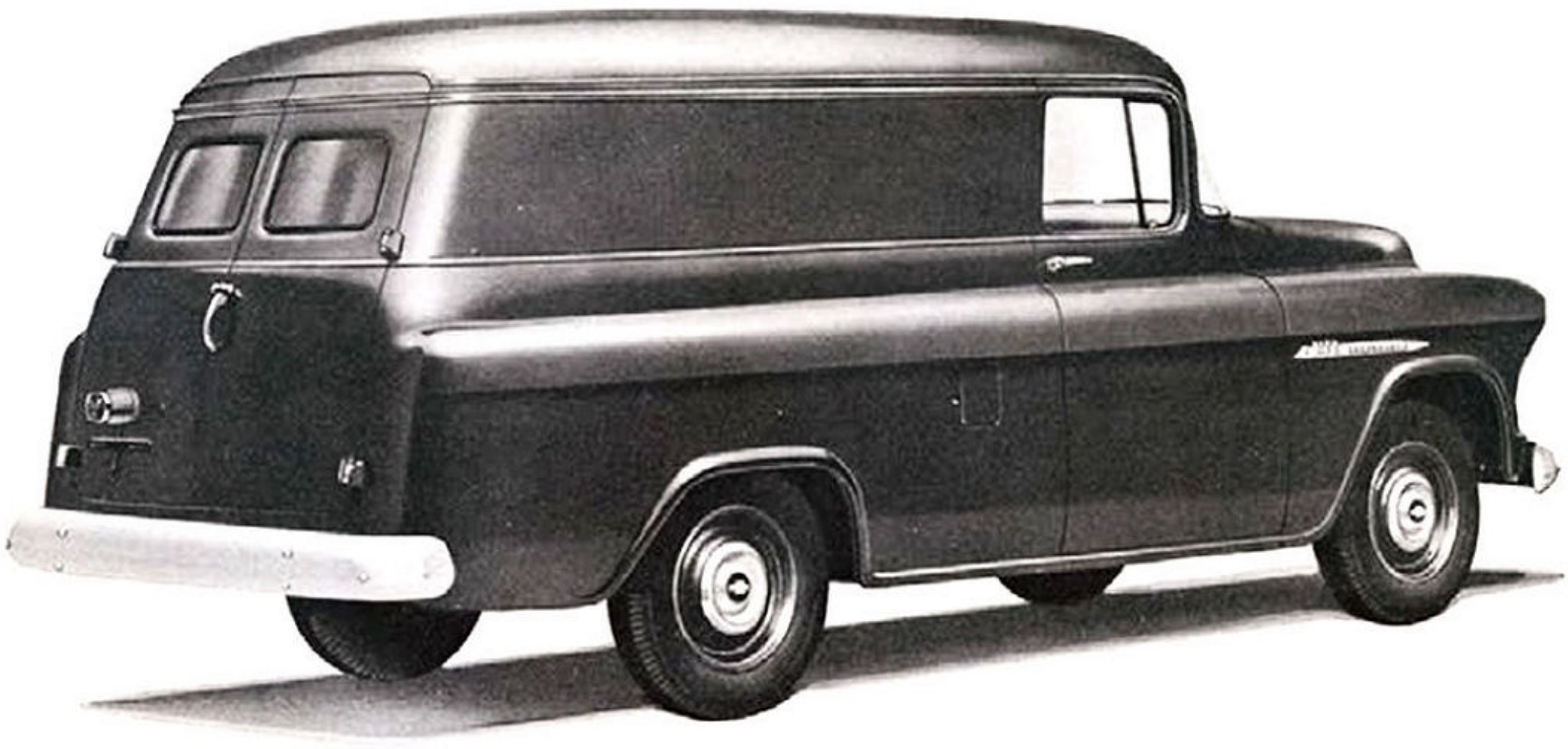
PANEL MODELS . . .

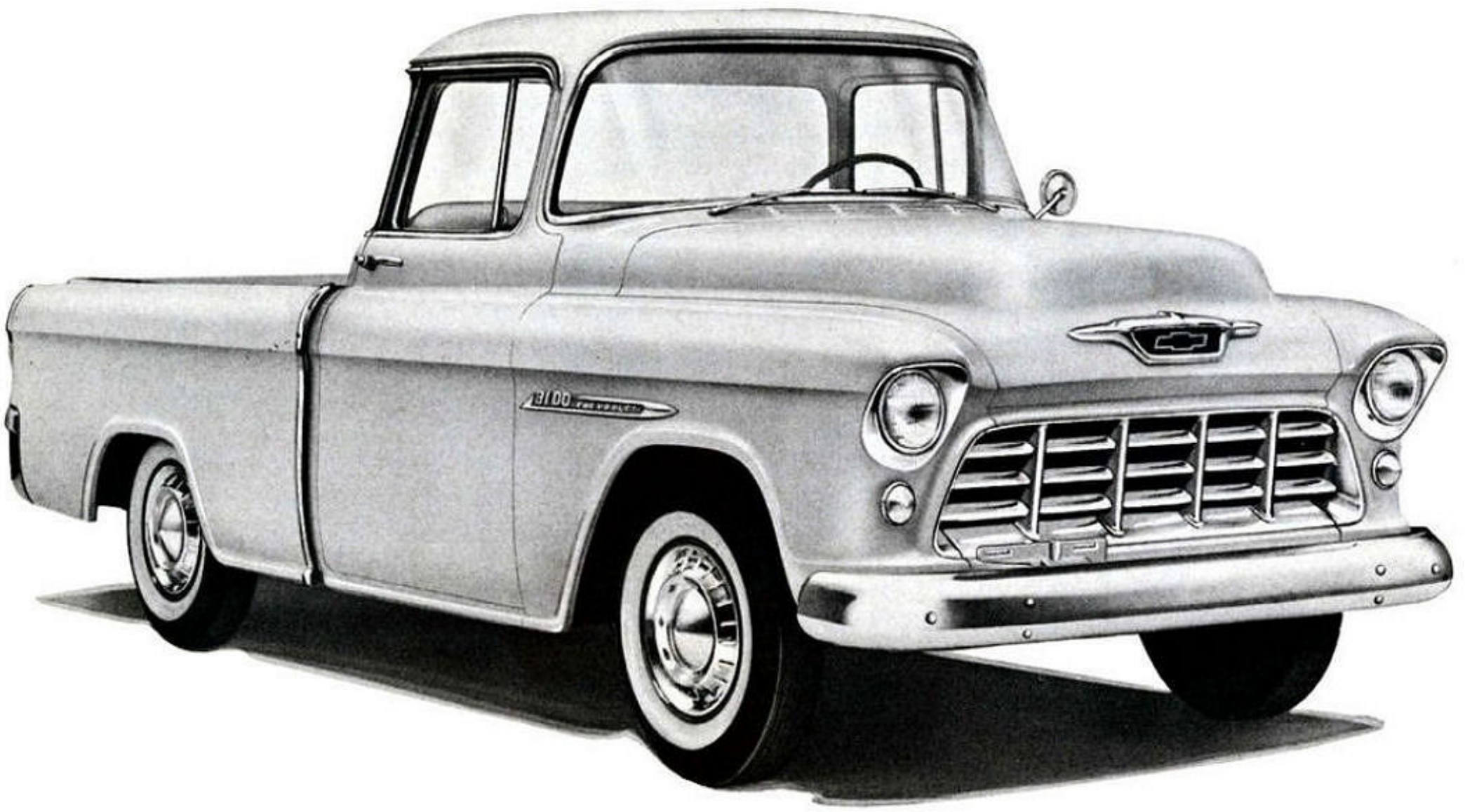
Panel models, like the suburban carryall, feature smooth, uninterrupted body contours, with the fender top line extended as an embossment along the entire body side and ending in a raised surface at the extreme rear corner.

The new rear bumper, standard equipment on the panel and suburban carryall models, matches the front bumper in design and is also painted Bombay Ivory. As in the front, the rear bumper wraps around and protects the fender corners.

For ease of operation, the rear door handle of panel models and the suburban carryall with panel doors is identical with those of the side doors, but is mounted vertically, with the push-button at the top.

A new feature of the 1955 single unit bodies is the concealed gasoline filler cap. The door, hinged vertically, opens from the rear forward and is located on the right hand side of the vehicle.





MODEL 3124 . . .

Chevrolet adds a brand new vehicle to the 3100 series for 1955, model 3124. With a deluxe exterior, distinctive appointments and trim, this vehicle combines the outstanding utility of the half-ton pickup with individual styling. A unique feature of this model is the use of reinforced plastic for the body outer panels.

As standard equipment, model 3124 is outfitted with the deluxe cab, wrap-around rear window and chrome equipment options. This includes a bright metal grille, wheel disks, front bumper and headlight bezels, as well as a special two-tone exterior of Bombay Ivory with Commercial Red. Further accenting the two-tone effect of the cab, the inside of the pick-up box is painted red to match the cab window area.

Wheel disks displayed by this model feature a conical spinner in the center, surrounded by eight Chevrolet trademarks. Radial flutes at the outer periphery complete the design of the bright metal, full-width disk.

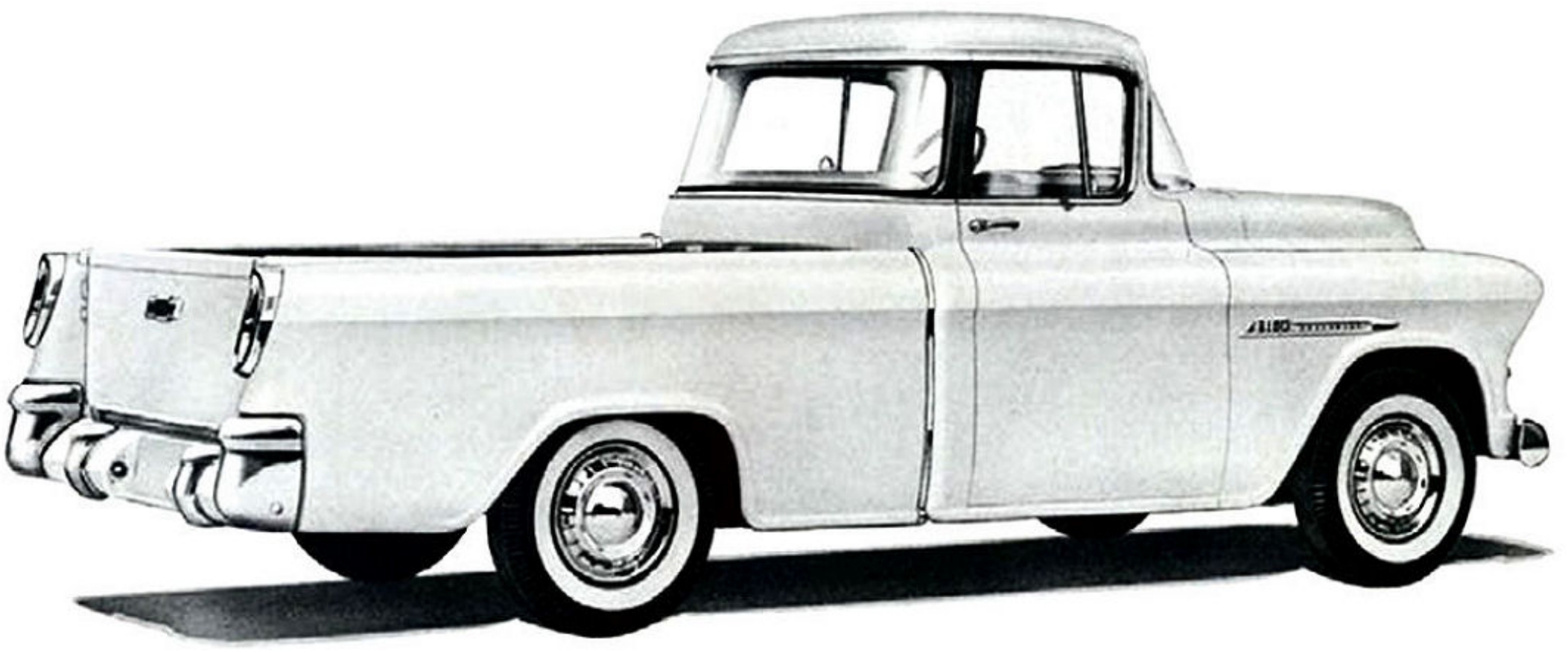
MODEL 3124 REAR VIEW . . .

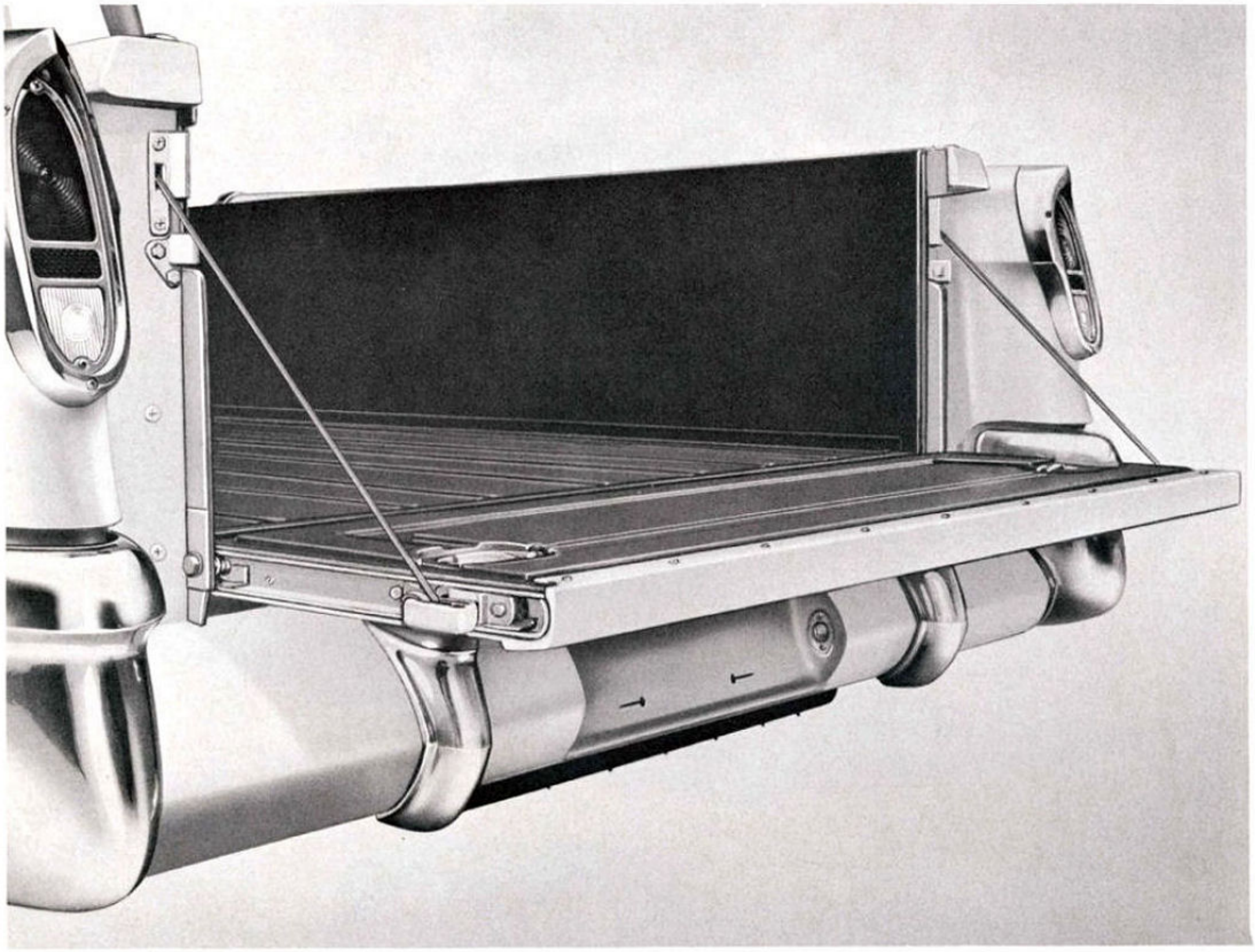
The integrated appearance of a single unit body is provided by the styling of the special reinforced plastic outer panels which cover the sides of the pick-up box. These panels form a smooth continuation of cab lines, being separated from the cab only by a bright metal vertical molding.

The panels end at the rear of the body with the built-in dual tail and stop lights framed by a bright metal hooded bezel. These units also contain provisions for the accessory backup lights.

The tailgate has a smooth reinforced plastic outer panel enhanced by a red, reflecting emblem in the shape of a Chevrolet trademark framed in bright metal.

The customized exterior is further emphasized by four bright metal guards mounted on a convex panel below the tailgate. The outer two, massive in appearance, wrap around and form part of the contour of the rear fender corners.





MODEL 3124 TAILGATE . . .

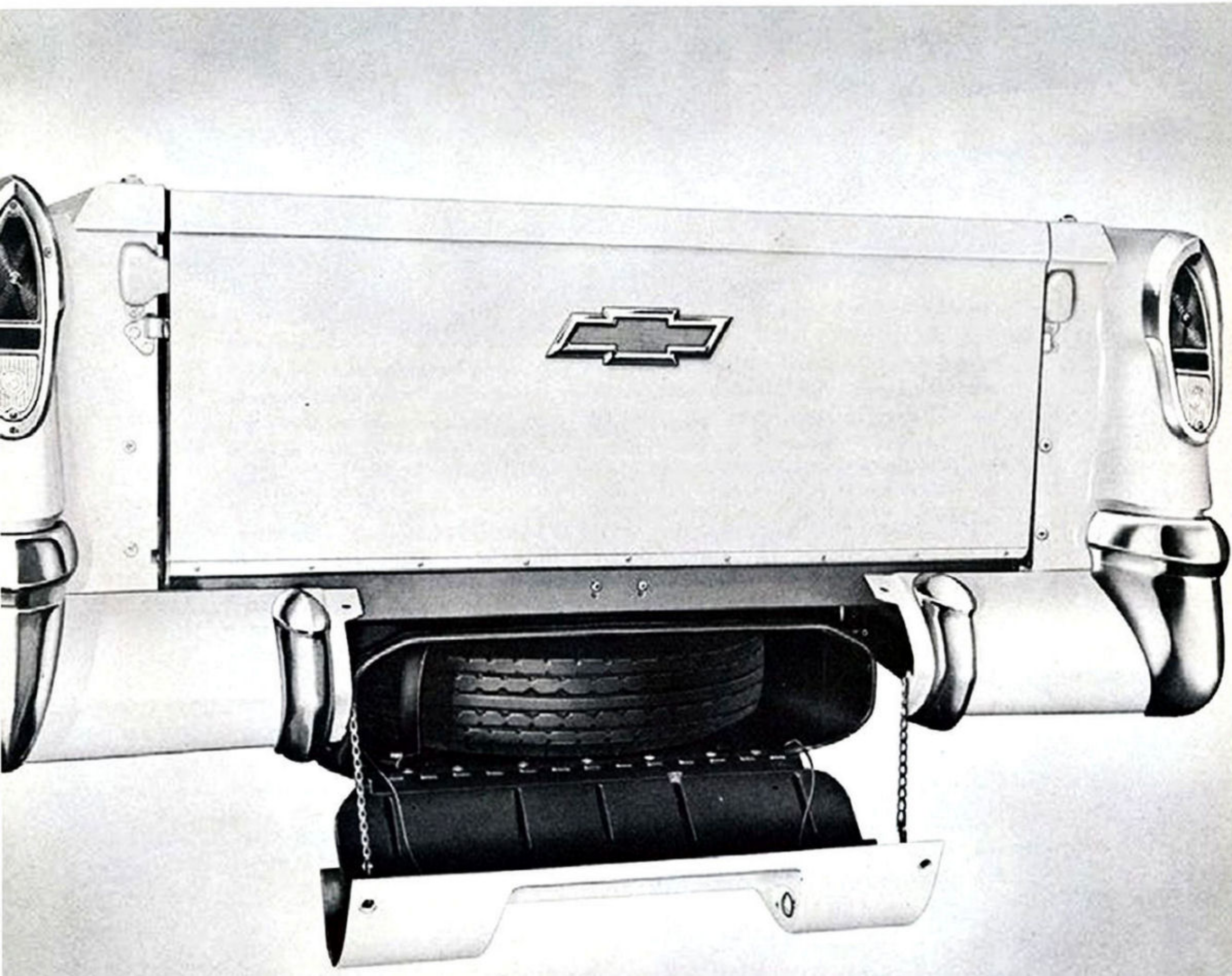
The tailgate hardware typifies the custom appointments which are standard equipment on model 3124. The usual chains necessary to hold the tailgate in a horizontal position are replaced by cables recovered by spring-loaded reels when the tailgate is closed.

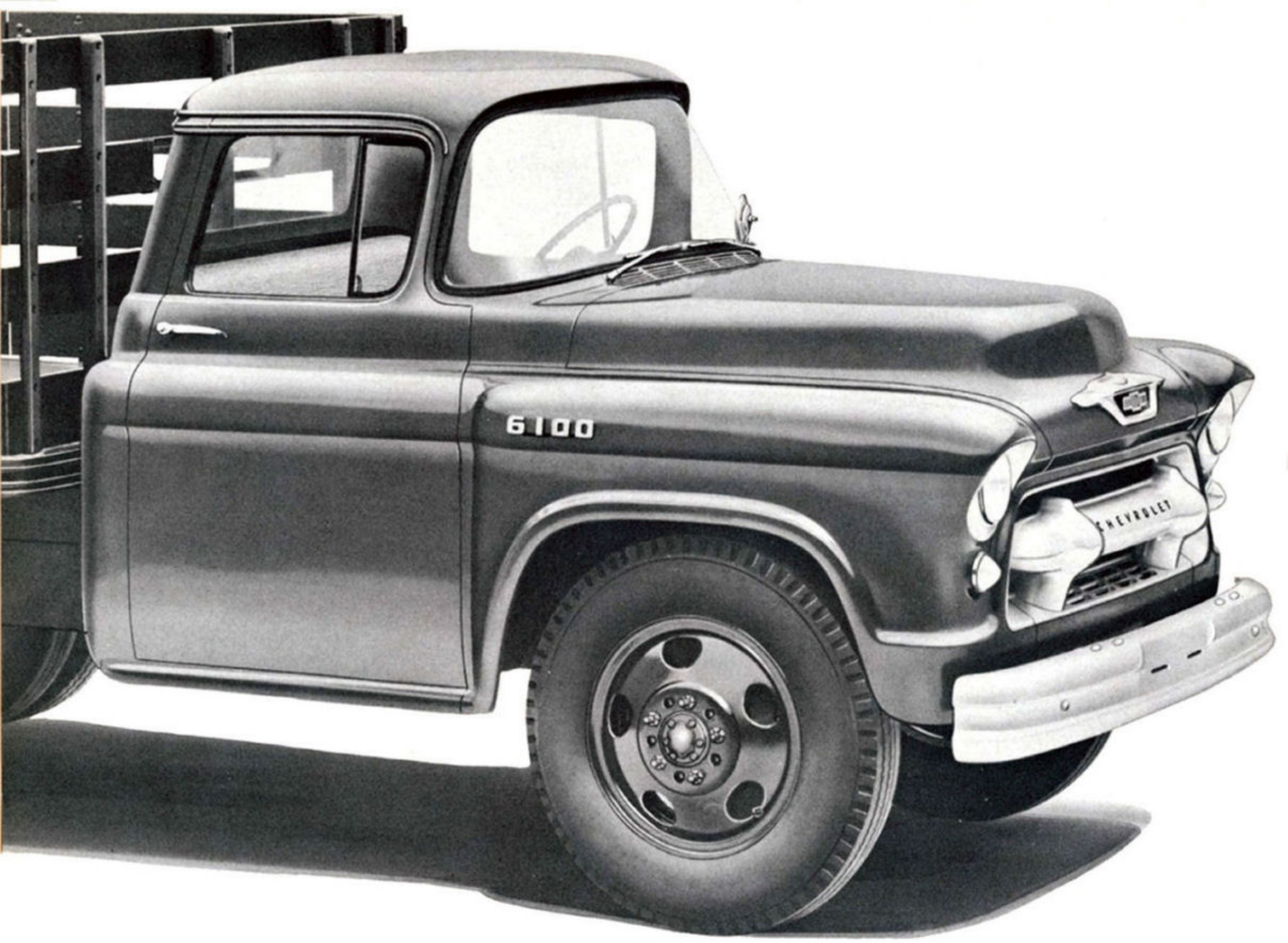
Self-locking, the tailgate is opened by release handles recessed into the inner surface of the tailgate at the upper corners. The release handles operate conventional bolt-type locks which provide the convenient slam-type closing.

MODEL 3124 TIRE COMPARTMENT . . .

Model 3124 displays a unique provision for carrying the spare tire. A convex door, located between the two inner guards and forming a part of the panel on which these are mounted, opens downward to reveal the completely enclosed spare tire compartment. The door is opened by removing two bolts located at the upper corners.

The license plate is mounted on a flat depression in the tire compartment door and illuminated by two lights located at either end.





SERIES 4000 AND 6000

A well-balanced appearance is provided throughout the truck line with the proportionately larger front end sheet metal and the more massive grille design used on the heavy-duty models. Styled to present an appearance of rugged capability, these vehicles, in common with all models of the 1955 line-up, feature the "load pulling" look.

Heavy-duty models are equipped with the same basic cab as the light and medium-duty vehicles. So that the larger sheet metal may blend with the cab, the fenders narrow down slightly at the doors. The vertical contour and crown of the fenders then continues through the doors to the cab rear corners where, as on other cab models, they end in simulated fins which add an appearance of length to the cab silhouette.

With the larger wheels and tires, larger wheel openings in the fenders are required. These are framed by a raised bead which not only adds to the massive appearance of the vehicle but also gives the fender greater rigidity.

Series 4000 and 6000 models also feature cadet-type visors over the windshield and headlights, the wrap-around windshield and a new, massive bumper.

HEAVY-DUTY FRONT END . . .

Heavy-duty models are distinguished by a new grille design, entirely different from that used on the 3000 series.

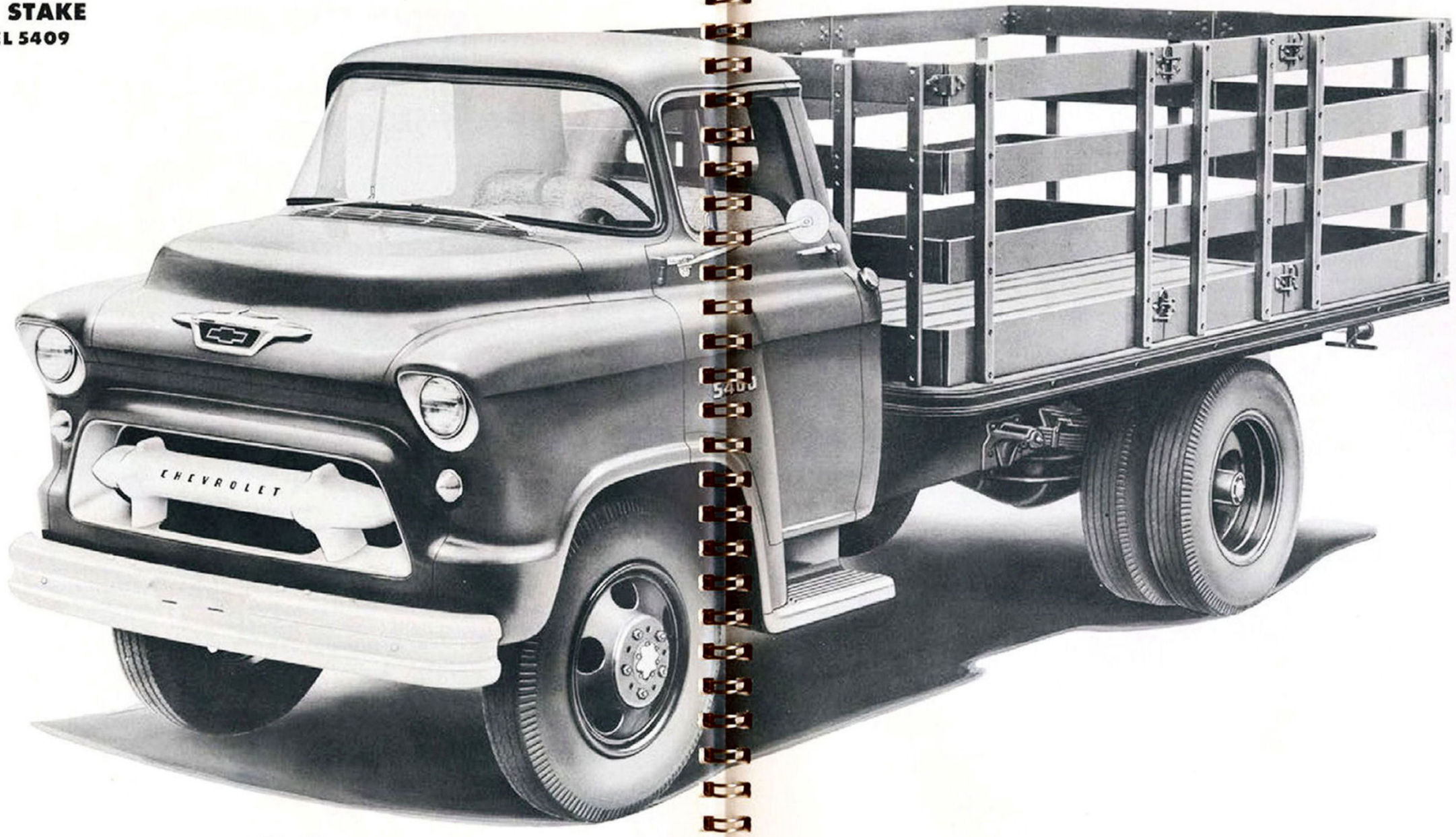
The grille is composed of a single massive horizontal element, set on inboard-slanting short pillars which end in spinners at the intersections. These elements are set in an air scoop which forms the frame. All components of the grille are Bombay Ivory as are the bumper and headlight bezels. The word "Chevrolet", in modern block letters, is impressed in the main element of the grille and filled in with black paint.

The 1955 1-1/2 ton and 2-ton models are also equipped with new bumpers which conform to the front end styling theme of massiveness. The bumpers are round at the upper and lower edges, with a deep concave depression along the full length reversing the contour.

SERIES DESIGNATION PLATES . . .

Located on the fender, above the windsplit line, the series designation plate adds to the massive appearance of the heavy-duty models. The designation plate consists of heavy block numerals mounted against the background of the fender.

2-TON STAKE
MODEL 5409



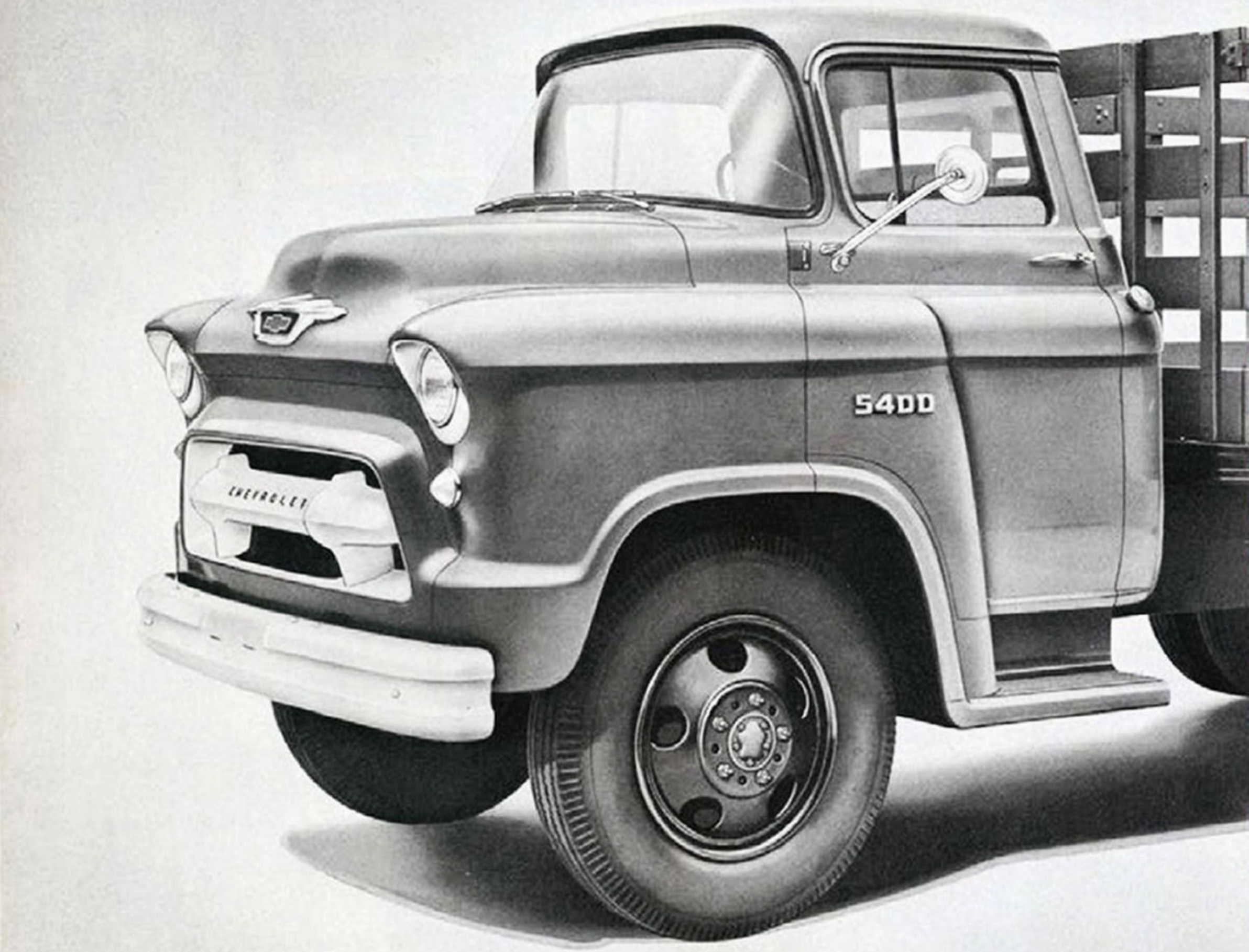
SERIES 5000

In overall appearance, models of the 5000 series display the greatest departure from previous design of any Chevrolet truck for 1955. Sharing the advanced styling common to all new models, the Series 5000 vehicles are styled, in addition, to have an appearance of massiveness and strength suited to their heavy-duty capacity.

Designed for maneuverability and compactness, the vehicles of Series 5000 were always considerably higher than the conventional heavy-duty models, since the cab was mounted over the engine. In 1955, with the introduction of the V-8 engine for exclusive use in vehicles of this series, the subframe is eliminated, thus lowering the overall height of these models to within seven inches of the conventional two-ton vehicles. The shorter V-8 engine is mounted in front of the cab as in conventional cab and chassis models. The hood for 1955 is, therefore, shorter and higher than on other Chevrolet units, although longer and lower than that of its predecessor.

Like their companion vehicles in the heavy-duty class, Series 5000 models feature front end styling which exemplifies the kind of work they are designed to perform. The heavy elements of the Bombay Ivory grille typify the massive front end styling, which is further accented by the new bumper.

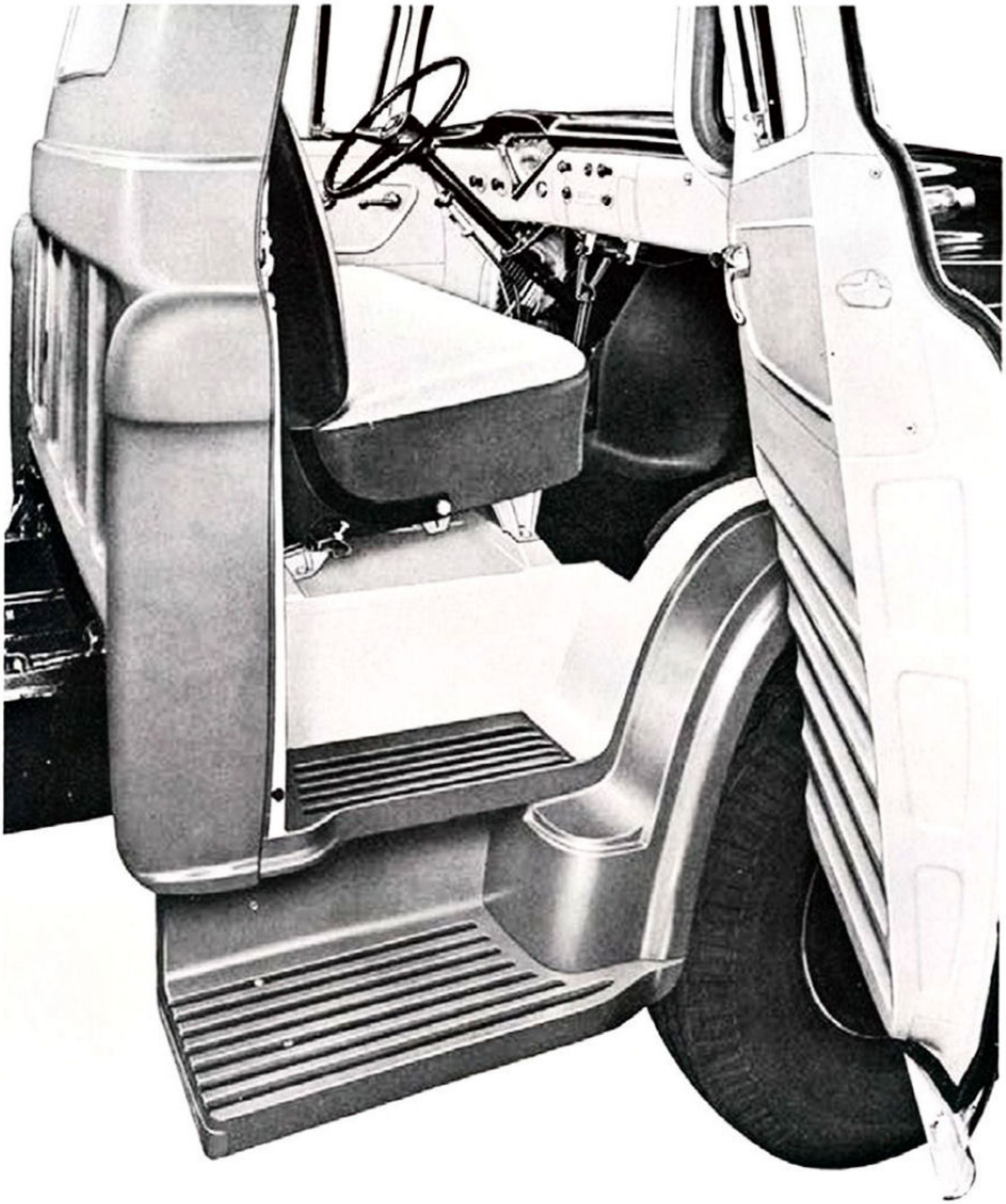
Models of the 5000 series are equipped with the same basic cab as are other models in the Chevrolet line-up. Thus, the forward lines of the cab, including the peak over the wrap-around windshield, blend with the contours of the sheet metal to enhance the "load pulling" look which is an outstanding feature of every model in the 1955 line-up.



SERIES 5000 FENDER LINES . . .

Models of the 5000 series present a far more trim profile than in the previous design. Front fender lines of these vehicles flow onto the modified doors, then curve sharply downward, past the lower extremities of the cab to the exposed running board. The somewhat greater height of these models requires a step located closer to the ground than that provided by the concealed step of the cab.

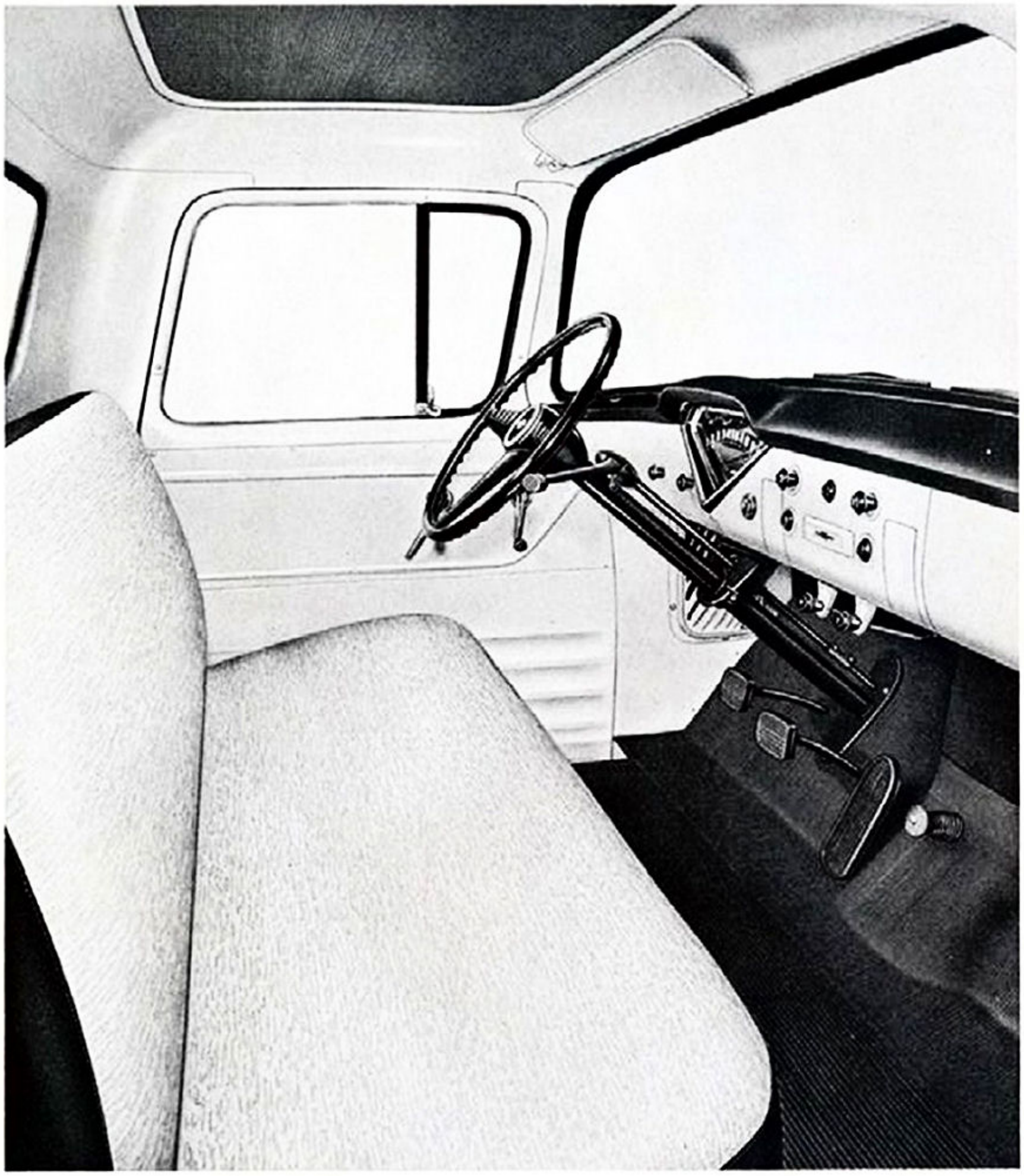
With the differences in the fender lines, the series designation plate of modern block numerals is located on the door of Series 5000 models.



SERIES 5000 RUNNING BOARD . . .

Entry into the cabs of Series 5000 models is greatly facilitated with the 1955 design. Convenience and safety have been increased to a point where the exterior grab handle is discontinued. Firmer, more natural footing is obtained with the longer length of the exposed running board. This, coupled with the concealed step which becomes accessible when the door is opened, provides a more natural, stairway-like entrance, greatly improving ease of entry over previous models.

INTERIOR STYLING



INTERIOR STYLING

The new interiors of all Chevrolet trucks for 1955 not only smartly complement the advanced exterior styling but contribute impressively to the new high standards of comfort, convenience and safety which characterize the overall design of the new models.

Prominent among the new features of the interior are a completely redesigned instrument panel, new seat and door panel trim and large increases in visibility areas.

The attractive two-tone interiors of standard cab and panel models display increased roominess for greater driver comfort, which is further augmented by new seat construction. Cushions and backrests of the seats are upholstered in a new fabric, with foam rubber padding available on the cushions of all cab models as an option.

An important addition to safety and appearance is the wrap-around windshield which greatly assists visibility and adds to the advanced appearance of the vehicle, both from the interior and the exterior. The new instrument panel follows the contour of the windshield, and features relocated instruments and controls for greater convenience.

Cabs and panels are available in standard quality or with the optional deluxe equipment as described in the Extra-Cost Equipment Section.

STANDARD INTERIORS . . .

The crisp, durable interiors of standard cab and single unit body models feature black and beige trim. Cushions and backrests are upholstered in an attractive oak bark pattern woven fabric of plastic and rayon. The slick-surfaced material permits breathing thus promoting comfort, as well as facilitating entry and exit. Black vinyl facings of the seats and backrests contrast pleasantly with the beige seat trim.

Side doors have no applied trim panels, but a simulated panel is formed on each door by a raised embossment. Like the rest of the interior, the entire door is painted beige for a neat and serviceable appearance. Black waffle pattern vinyl is used for the headlining which, due to the new cab construction, is framed by a beige painted "halo". Black rubber floor mats complete the interiors.

SERIES 5000 INTERIOR . . .

Models of the 5000 series are equipped with the same basic cab as the conventional vehicles. The smart interiors of beige and black displaying the new woven material of plastic and rayon on the seats and backrests, as well as the other new features of conventional trucks, are repeated.

Interior differences exist at the floor level with the new V-8 engine and the cab mounting used in these models. Series 5000 trucks have a hump in the center section of the toe panel as well as wheel shrouds at either side to allow for wheel travel.

INSTRUMENT PANEL . . .

The advanced exterior styling of the 1955 Chevrolet truck is fully complemented by the modern appearance of the driving compartment. The new instrument panel follows the contour of the wrap-around windshield and curves rearward at the ends to blend with the doors in all models except the flat face cowl. The upper portion of the panel, finished in a textured black paint to minimize light reflections, forms the overhanging crown which spans the entire width, rising upward to form a deep canopy over the instrument cluster. The lower portion of the panel is painted beige as is the rest of the interior, and contains all of the instruments and control knobs.

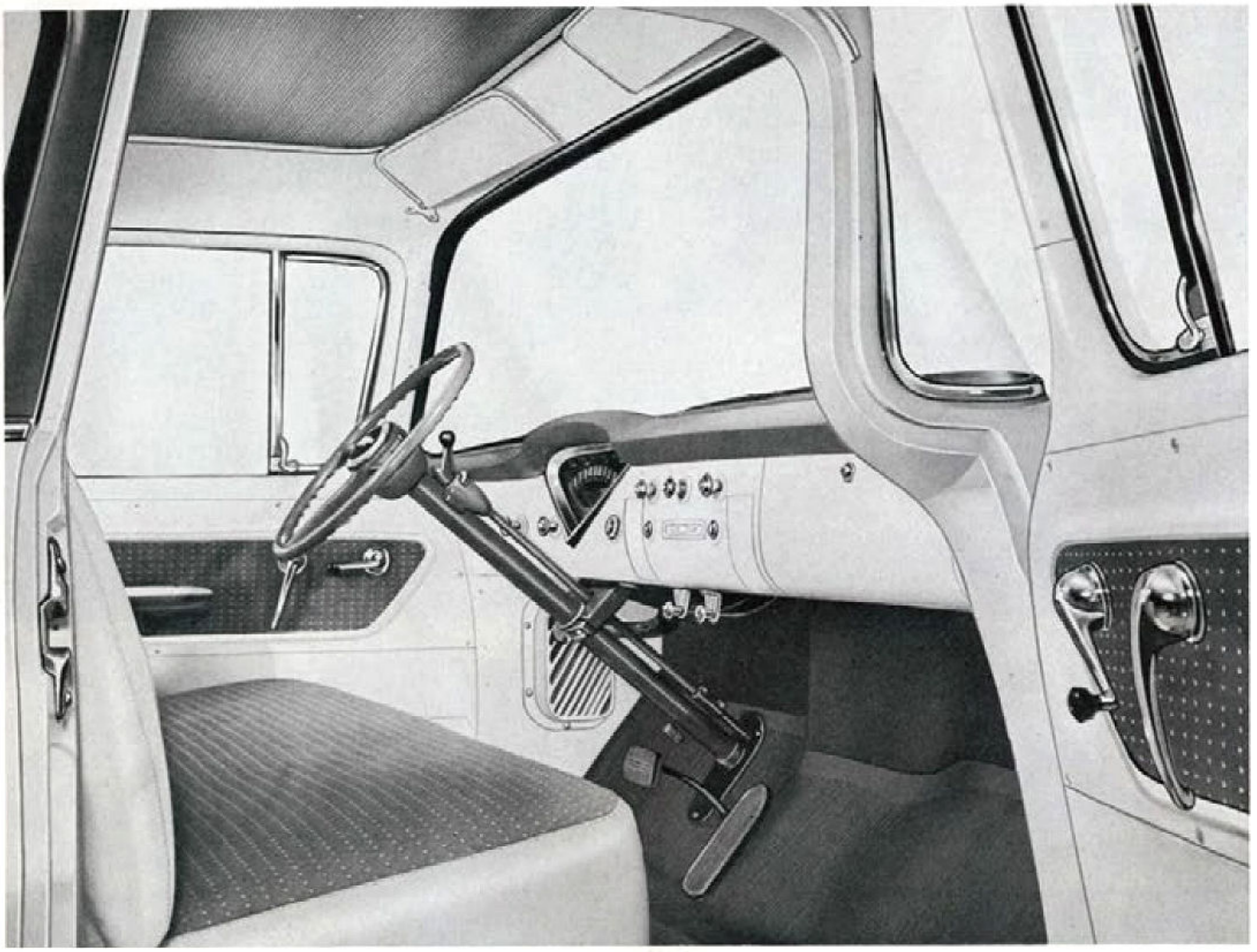
Instruments are grouped in a single triangular cluster directly in front of the steering wheel. The shape and location of the new unit greatly facilitates reading of the dials. The cluster is illuminated, with brightness controlled by the headlamp switch, which also operates the dome lamp.

Black plastic control knobs are new in shape with embossed white letters denoting the function of the choke and throttle. All knobs are conveniently spaced along the lower portion of the panel. To the left of the steering column are the headlamp and choke controls; to the right is the ignition lock. At the center of the panel are the control knobs for the throttle and windshield wiper, as well as the cover plate for the accessory cigar lighter. Below these is the cover plate for the accessory radio controls. Flanking this group of controls on the left is the ash tray, balanced by the cover plate for the accessory heater on the right.

The dispatch box is located on the right hand side of the instrument panel and is opened by the push-button key lock as on previous models. Noticeably absent from the instrument panel in 1955 are provisions for the radio speaker. This is mounted on the header bar, above the windshield when the accessory radio is installed.

INSTRUMENT CLUSTER . . .

The dull black of the instrument cluster face provides a practical background for the light green of all pointers, numerals and graduations. Located across the top of the of the cluster are the temperature, ammeter, oil and fuel gauges. The easy-to-read speedometer numerals arch across the cluster face. The high beam indicator, red when lighted, is located in the center of the cluster below the speedometer numerals. Directional signal arrows, functional when this accessory is installed, flash green when a turn is being signalled. The arrows are located near the upper corners of the cluster.



MODEL 3124 INTERIOR . . .

Basic interior components are identical in design for all models including the 3124. However, the individual exterior styling of this model is continued on the interior with special color and trim, as well as the inclusion of features which are gained on other models only as optional equipment.

Beige and red trim set a smart note in this unique interior. Cushions and backrests are upholstered in a red, nylon-faced pattern cloth, with contrasting beige vinyl on the simulated backrest bolster and cushion facings. A foam rubber pad in the cushion increases driver and passenger comfort. An applied door trim panel is covered with the same red nylon-faced pattern cloth as are the cushion and backrest.

The crown of the instrument panel and windshield garnish molding are finished in a red textured paint. The lower portion of the panel, below the overhanging crown, is painted beige as is the body interior, including the door panels, garnish moldings, the roof and cab rear panels. Bright metal control knobs, a cigarette lighter, dual sunshades, and an armrest on the left hand door are standard equipment on this model.

The red of the seat fabric also appears on the steering column and bracket, steering wheel and hub, the waffle pattern vinyl headlining and the rubber floor mat.

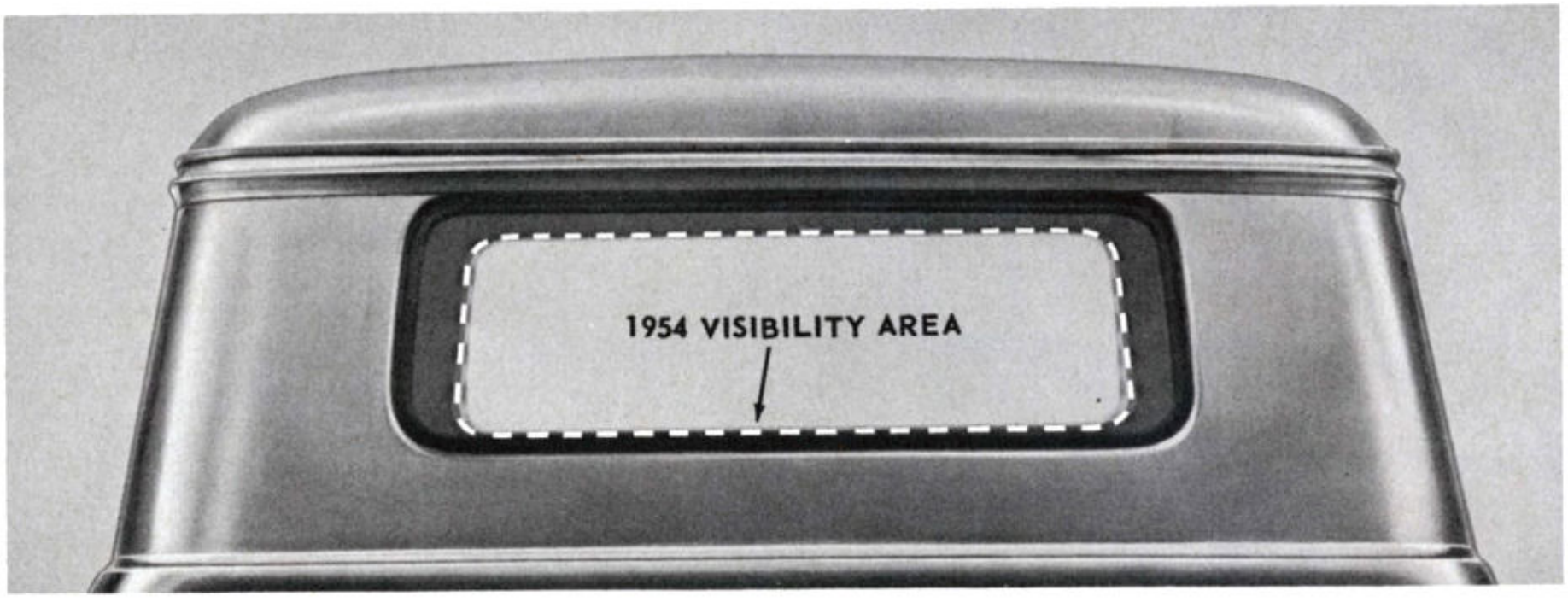
PANEL MODEL INTERIOR . . .

Panel models, again available in both the 3100 and 3800 series, feature interiors in beige and black. The cushion and backrest of the driver's and the optional passenger seat are upholstered in the new beige, oak bark pattern cloth woven of plastic and rayon. Black vinyl facings complete the seat trim. Black waffle pattern vinyl is used for the headlining in the driver's compartment.

SUBURBAN CARRYALL INTERIOR . . .

The suburban carryall interiors include all of the new styling features found on the cab and panel models. The neat and serviceable seat trim of black vinyl and beige woven fabric of plastic and rayon carries through the color scheme of the 1955 interiors. Aside from the differences in trim, seat design is continued unchanged for the new models.

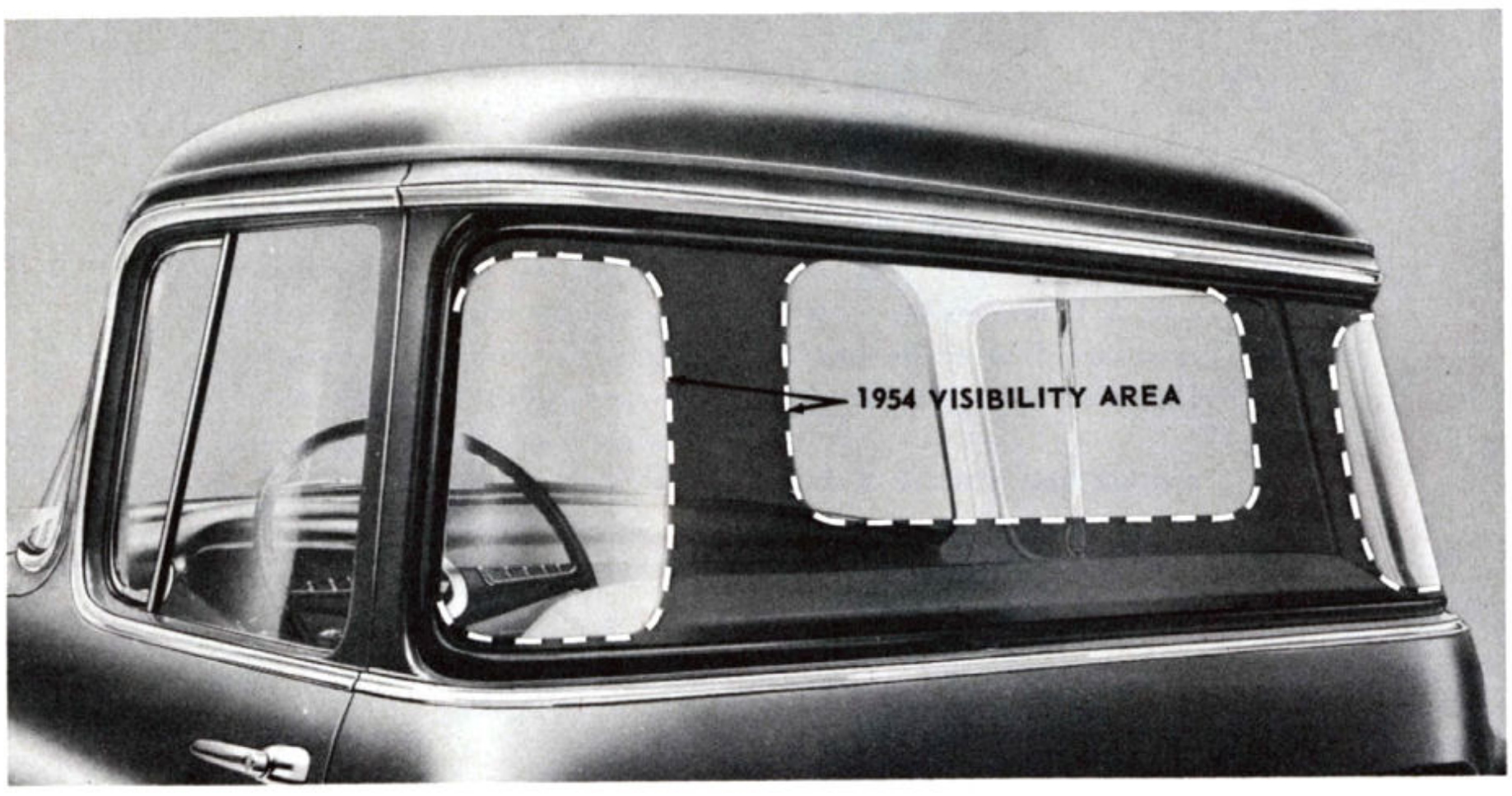
Ribbed linoleum on the floor provides a durable load surface when the seats are removed.

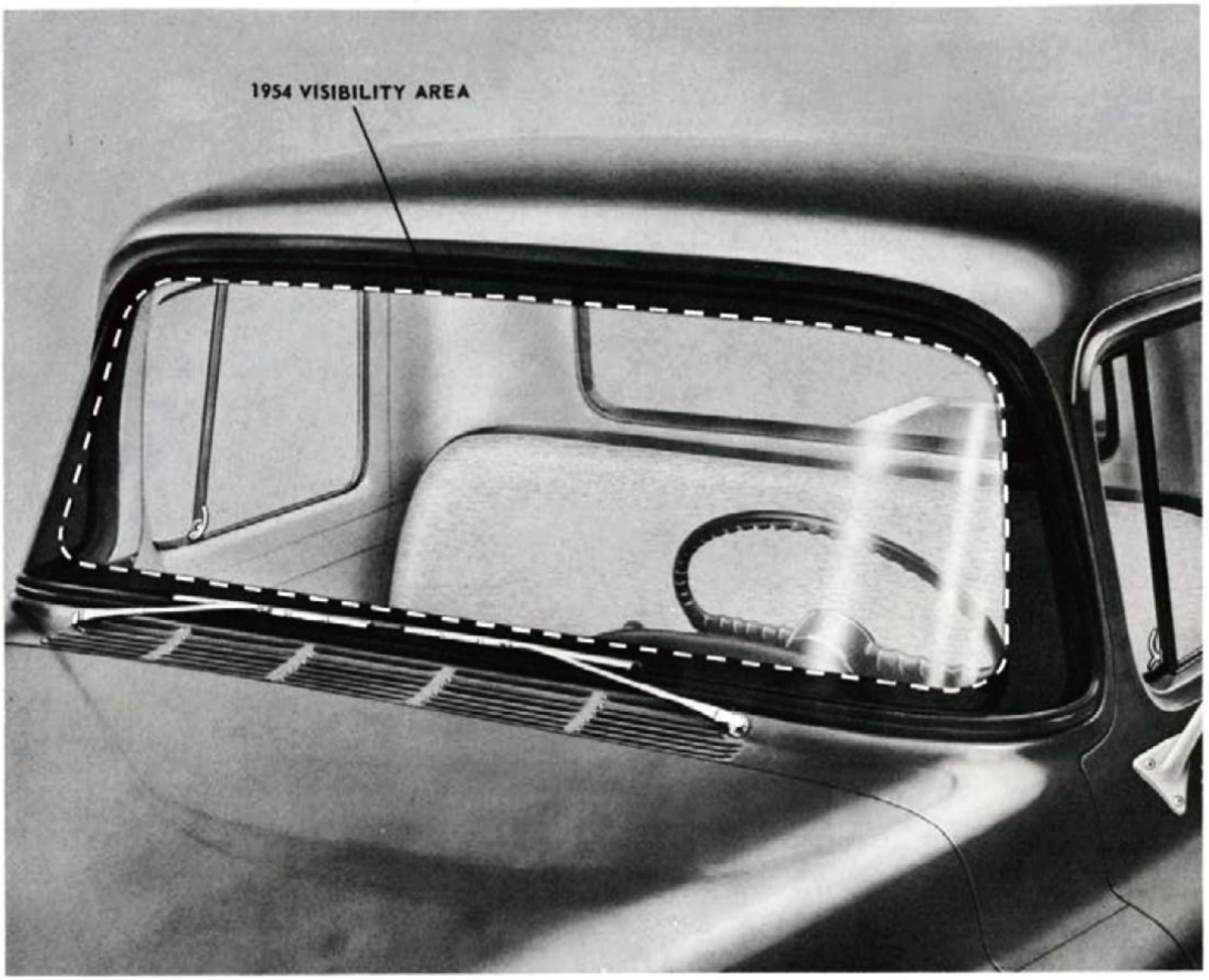


CAB VISIBILITY

AREA	1954	1955	INCREASE IN SQ. IN.	PER CENT INCREASE
Windshield	735	1000	265	36.1
Door Windows	665	766	101	15.2
Rear Window	318	386	68	21.4
Optional Rear Window *	554	902	348	62.8
Total - Standard	1718	2152	434	25.3
Total - Optional	1954	2668	714	36.5

* - 1955 Optional wrap-around rear window vs 1954 standard rear window with optional corner windows.



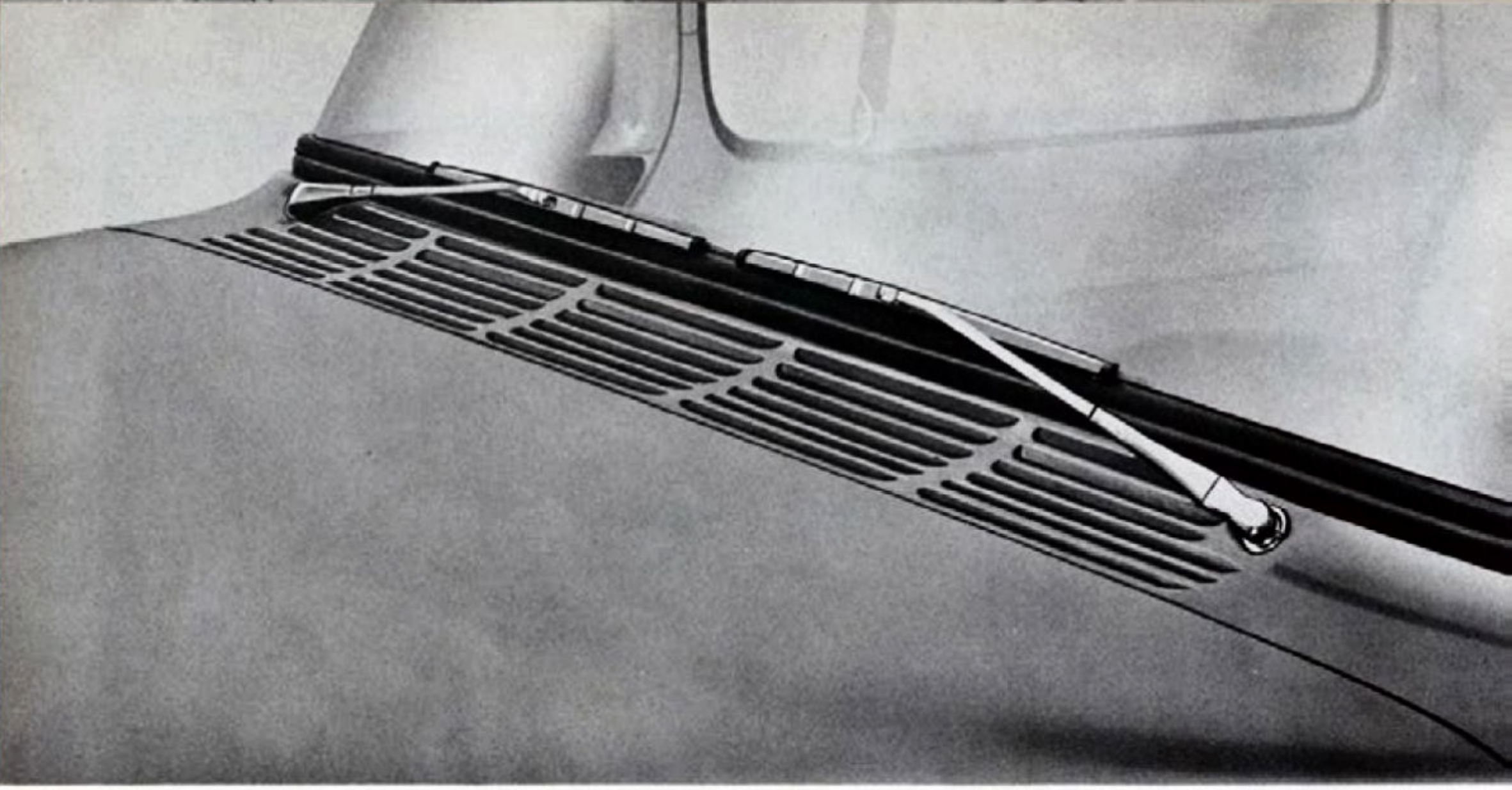


VISIBILITY

Visibility is of vital importance to trucks, which are on the road day and night, in good weather and bad, maneuvering in traffic and into shipping yards, and backing, often with trailers, into loading docks.

One of the outstanding features of all cab, panel and suburban carryall models is the large increase in visibility area. The new, one-piece, wrap-around windshield affords the driver a much greater area of vision. Side door windows, along with the new ventipanes, also display a considerable increase in visibility area, as does the standard rear window of cab models. When the optional one-piece wrap-around rear window is specified on the cab models, almost unlimited visibility in all directions is obtained. This new window curves around almost to the lock pillars, the large span of glass affording greater convenience in maneuvering or backing the vehicle.

The actual increase in visibility area on cab models with the standard rear window amounts to 434 square inches or more than 25 per cent. Cabs with the optional wrap-around rear window feature an increase of 714 square inches or 36.5 per cent. Of the total, the windshield shows 265 extra square inches of area, the side door windows 101 square inches, and the standard rear window 68 square inches more than the previous year. The new wrap-around rear window, with 902 square inches of visibility area, shows an increase of 348 square inches or 62.9 per cent, compared to the standard window which was used together with optional corner windows in 1954.



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 volume air intake capacity.

VENTILATION OUTLET . . .
Large outlet louvers on each cowl side panel permit the incoming air to be more evenly distributed through the two outlets. Knobs located beneath the radio cover plate provide convenient control of air flow to suit the individual preferences of the driver and passenger.

VENTILATION

An outstanding feature of the completely new cab for 1955, is a new "built-in" all-weather ventilation system, which replaces the conventional cowl ventilator previously used. This system is available on all except flat face cowl and forward control models.

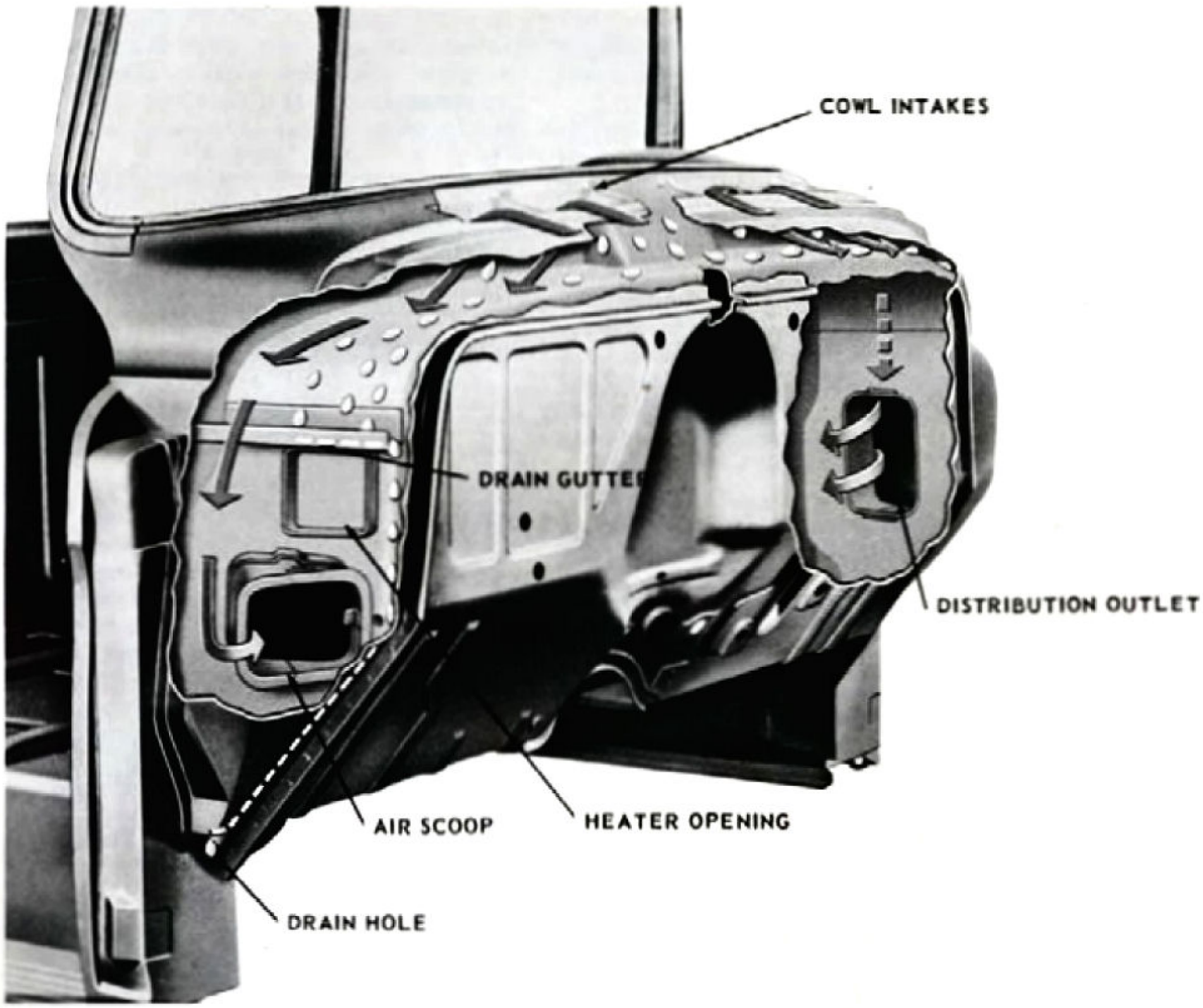
Outside air enters the system through the cowl intake opening, flows through a large enclosure, called the plenum chamber, and into the passenger compartment through outlets in each cowl side panel. The plenum chamber is formed by double-walled construction of the cowl top and sides.

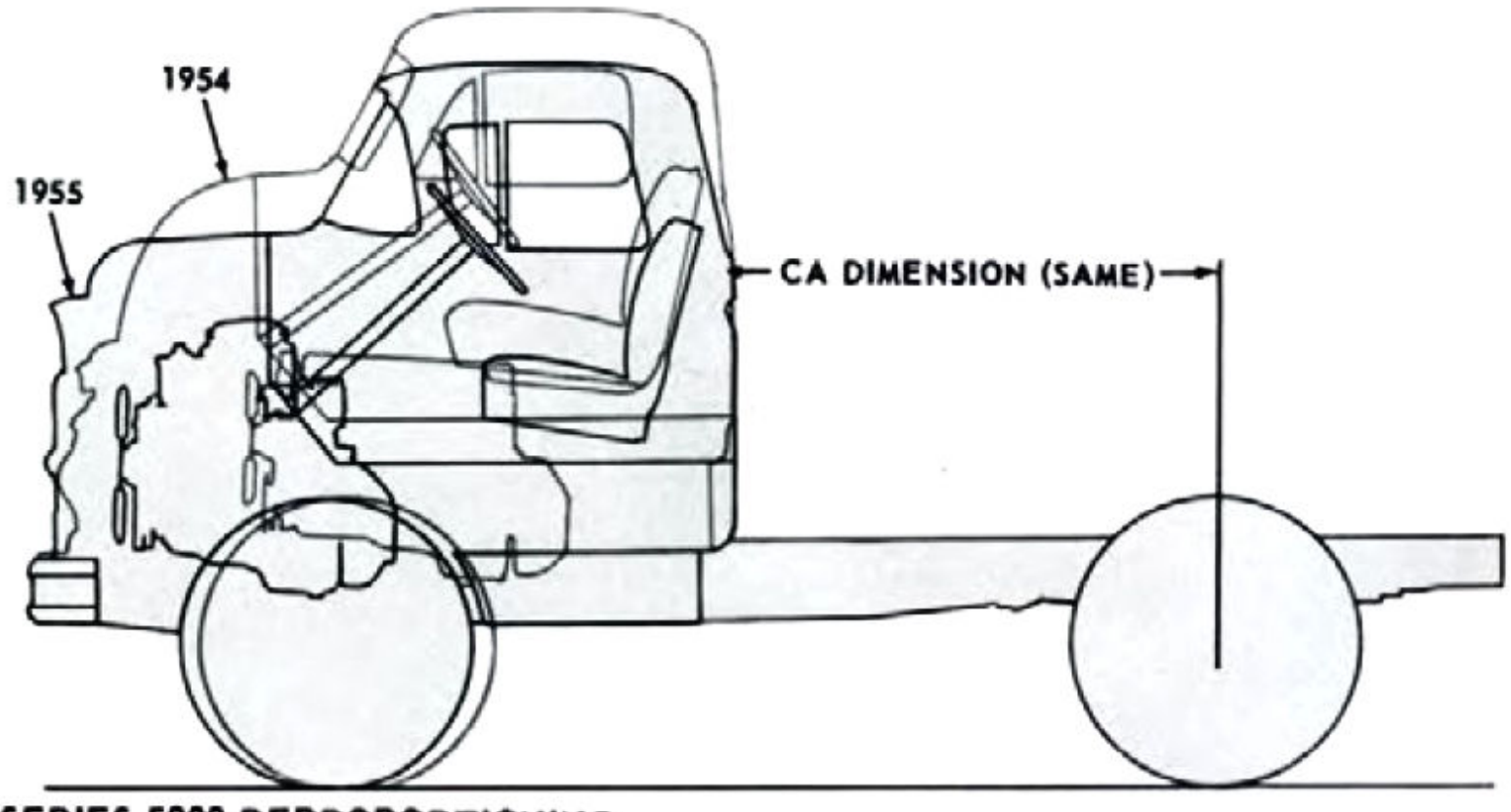
With air now permitted to enter through two outlets, a more effective distribution of outside air is assured. The incoming air is directed in a broad spread toward the front seat, and when used in combination with the ventipanes and lowering windows, a thorough ventilation of all levels results.

The vent control knobs are the pull-out type and are cable-connected to butterfly valves housed in the air scoops around 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 channeled 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 accessory outside air heater. With this arrangement, both the regular outlet and the summer ventilation feature of the heater are always available, either independently or in combination.

Along with the advantages provided by the new ventilation system is double-walled strength for the cowl upper panel, side panel, and hinge pillar.





SERIES 5000 REPROPORTIONING

SIZE AND ROOMINESS

Extensive reproportioning throughout the entire 1955 truck line results in more favorable weight distribution together with increased maneuverability and greater stability.

Overall heights are lower; wheelbases are, in general, reduced as are front overhang and overall lengths; all models have industry standard 34-inch frame width to simplify installation of special bodies and all front tread dimensions are increased. Cab-to-rear axle dimensions remain the same since changes affecting length are confined to the forward section of the vehicle and to the rear overhang.

Through the truck line, the reproportioning falls into three main categories: the Series 3000 conventional models with a 2-inch reduction in wheelbases, Series 4000 and 6000 trucks with wheelbases 7 inches shorter, and Series 5000 models with a 2-5/8 inch increase in wheelbases. Forward control and school bus models fall outside these groups, since dimensional changes in these vehicles were made to meet individual specialized requirements.

SERIES 5000 MODELS have undergone the most extensive reproportioning changes of the new truck models. The most outstanding change in these models is the lowering of the cab by 7 inches, which is made possible by the elimination of the sub-frame. Also, with up to 2-1/2 inches lower height from the running board to ground, ease of entry approaches that of conventional models and the need for grab handles is eliminated.

To accommodate the new engine without extending it deeply into the cab, and without reducing the cab-to-axle dimension, all Series 5000 wheelbases are increased 2-5/8 inches. However, the traditionally compact overall length is not affected adversely by this change since the front overhang is reduced. The frame rear overhang remains unchanged on Series 5100 but it is increased on Series 5400 and 5700 for more adequate body support. Front tread is increased slightly more than 2 inches, while the rear tread remains unchanged.

A NEW LINE OF FORWARD CONTROL CHASSIS is offered with new wheelbases and lower loading heights. Two new models, the 3442 and 3542, will accommodate body lengths of 8 and 10 feet respectively while model 3742, with a new longer wheel-

	3400	3500	3700
Front Overhang	28.4 (New)	28.4 (New)	28.4 (+0.3)
Wheelbase	104.0 (New)	125.0 (New)	137.0 (+11.8)
Rear Overhang	37.9 (New)	38.0 (New)	39.1 (-2.9)
Overall Length	169.8 (New)	190.8 (New)	202.5 (+5.4)
Frame-to-ground	24.3 (New)	24.5 (New)	24.6 (-3.6)

THE SCHOOL BUS LINE is modified dimensionally to comply with newly established National Minimum School Bus Standards and to provide more compact, better handling units. Front overhang, the distance from cowl to centerline of front axle, and overall length have all been reduced although the distance from the cowl to the centerline of rear axle is increased on models 6702 and 6802 for improved weight distribution.

The following chart reflects these changes:

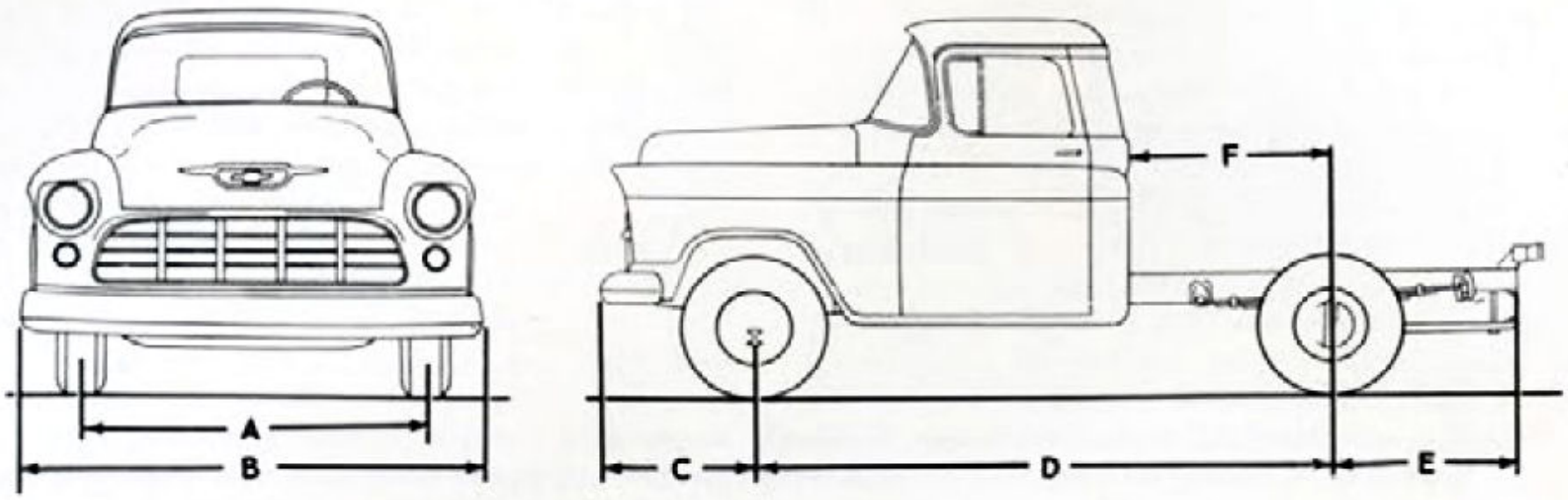
	4502	6702	6802
Front Overhang	36.4 (-2.0)	36.4 (-2.0)	36.4 (-2.0)
Dash to C/L Front Wheels	10.8 (-5.0)	10.8 (-7.0)	10.8 (-7.0)
Wheelbase	154.0 (-7.0)	194.0 (-5.0)	220.0 (+8.0)
Rear Overhang	78.3 (+6.9)	93.3 (-1.0)	94.8 (-14.0)
Overall Length	268.7 (-2.1)	323.7 (-8.0)	351.2 (-8.0)
Cowl-to-axle	128.3 (Same)	168.3 (+2.0)	194.3 (+15.0)

CAB DESIGN is completely new; however, overall dimensions do not change appreciably. The cab overall height with respect to the top of frame is reduced approximately 3/4 inch and overall width is increased to cover the enclosed entrance steps. Also, all window openings are larger to provide increased glass area.

The cab interior height, width and length remain relatively unchanged with slight increases in head, shoulder and leg room.

THE RESTYLED PANEL MODELS have numerous exterior and interior dimensional changes which provide increased load space and lower loading heights. Model 3105 is increased in cubic capacity from 150 to 160 cubic feet while model 3805 is increased from 202 to 213 cubic feet. Lower floor-to-ground heights are the result of a new floor panel and body mounting design on both models.

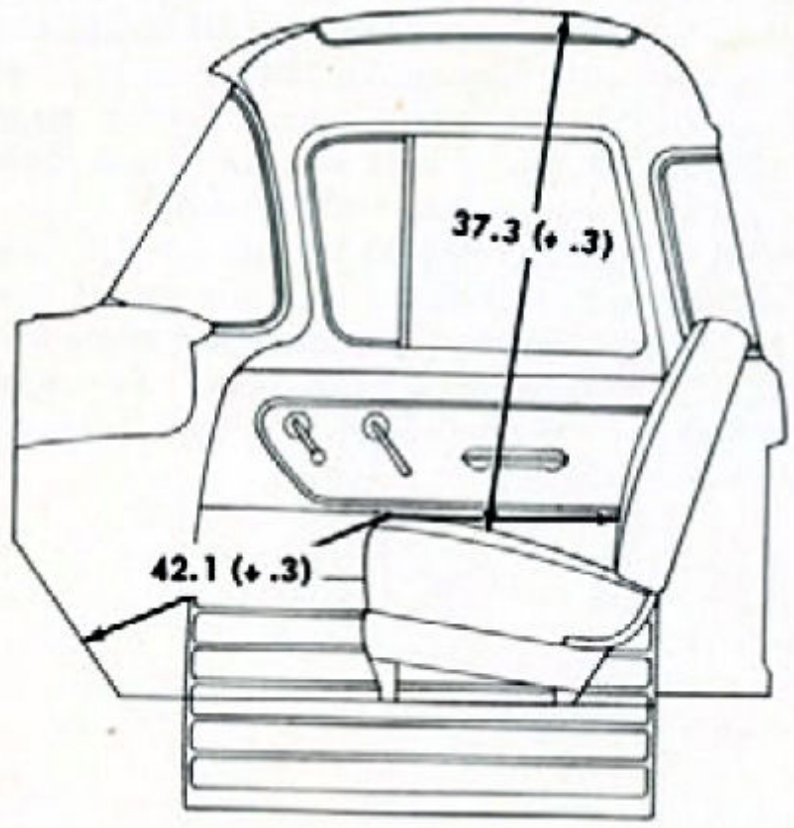
SUBURBAN CARRYALL MODELS follow the same trend in body dimensional change as the panel models. Seat spacing is relatively unchanged while head room is slightly increased in each seat. Front end and sheet metal follow the same reproportioning as other 1/2-ton models.

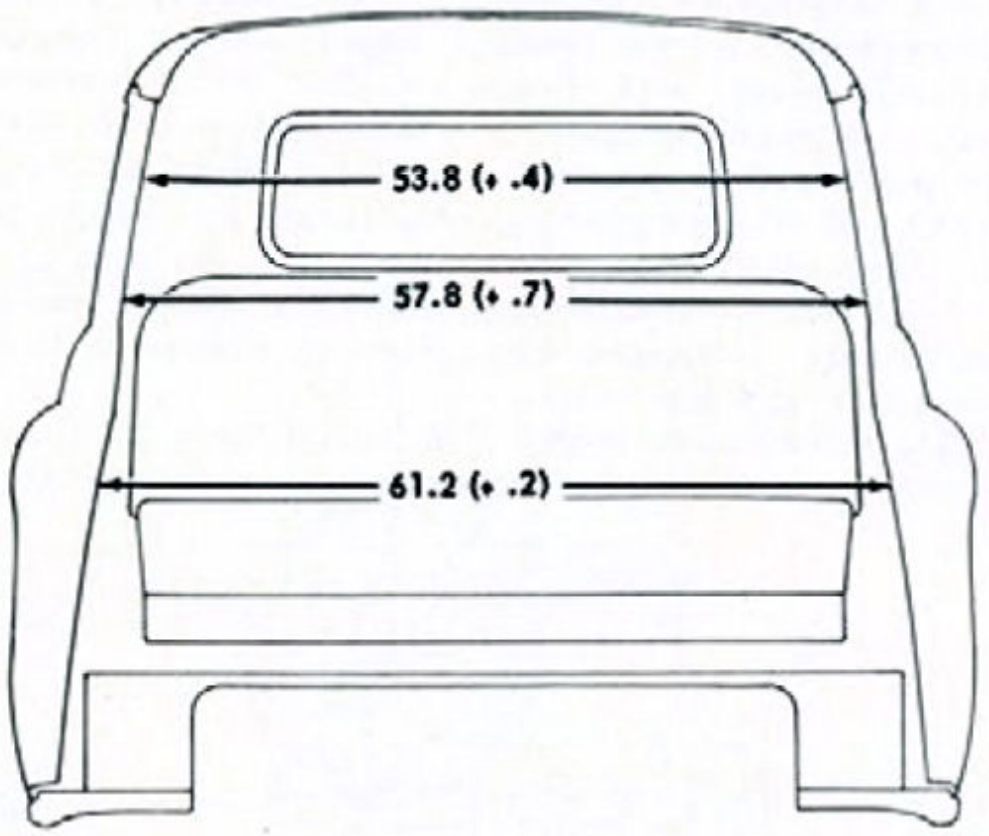


MODEL	A FRONT TREAD	B OVERALL WIDTH	C FRONT OVERHANG	D WHEELBASE	E REAR OVERHANG	F CAB TO REAR AXLE
3100	60.6 (+4.6)	75.3 (+2.4)	30.7 (-2.7)	114.0 (-2)	36.6 (Same)	39.1 (Same)
3200	60.6 (New)	75.3 (New)	30.7 (New)	123.3 (New)	39.2 (New)	48.4 (New)
3600	61.6 (+4.4)	75.3 (+2.4)	30.7 (-2.7)	123.3 (-2)	39.2 (-.3)	48.4 (Same)
3800	60.9 (+4.4)	75.3 (+2.4)	30.7 (-2.7)	135.0 (-2)	45.7 (-1.2)	60.1 (Same)

MODEL	A FRONT TREAD	B OVERALL WIDTH	C FRONT OVERHANG	D WHEELBASE	E REAR OVERHANG	F CAB TO REAR AXLE
4100	63.1 (+7.2)	79.2 (+4.3)	36.5 (-2.0)	130.0 (-7.0)	34.9 (-12.0)	60.1 (Same)
4400	63.1 (+7.2)	79.2 (+4.3)	36.5 (-2.0)	154.0 (-7.0)	48.0 (+13.0)	84.1 (Same)
6100	63.7 (+3.8)	79.2 (+4.3)	36.5 (-2.0)	130.0 (-7.0)	34.9 (Same)	60.1 (Same)
6400	63.7 (+3.8)	79.2 (+4.3)	36.5 (-2.0)	154.0 (-7.0)	48.0 (+13.0)	84.1 (Same)

MODEL	A FRONT TREAD	B OVERALL WIDTH	C FRONT OVERHANG	D WHEELBASE	E REAR OVERHANG	F CAB TO REAR AXLE
5100	63.7 (+2.4)	82.6 (+5.1)	36.7 (-1.8)	112.6 (+2.6)	34.9 (Same)	65.2 (Same)
5400	63.7 (+2.4)	82.6 (+5.1)	36.7 (-1.8)	136.6 (+2.6)	48.0 (+13.1)	84.2 (Same)
5700	63.7 (+2.4)	82.6 (+5.1)	36.7 (-1.8)	160.6 (+2.6)	60.0 (+25.1)	108.2 (Same)

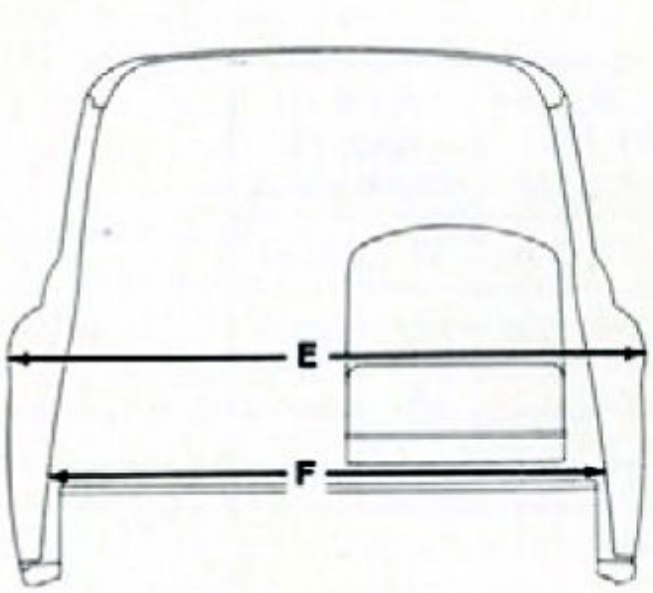


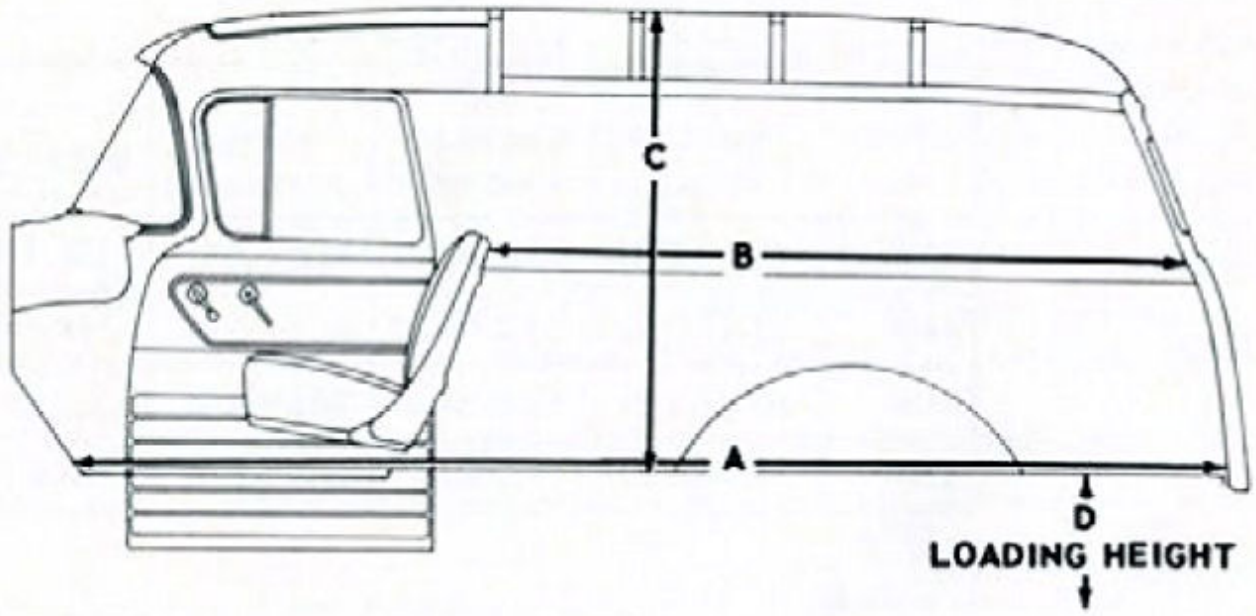


CAB ROOM . . .

The cab interior, with dimensions relatively unchanged, retains former roominess. The head room is increased from 37.0 to 37.3 inches by the new lower method of seat mounting, while the leg room also is slightly increased from 41.8 to 42.1. Lowering of the seat increases the distance between the top of the seat and bottom of steering wheel from 6.8 to 7.9 inches, permitting the driver increased leg room while sliding under the steering wheel to either side of the seat. The floor-to-top of seat cushion height is lowered from 14.2 to 13.4 inches.

The seat cushion width is slightly reduced from 56.0 to 55.8 inches, while the seat back remains unchanged at 56.0 inches, following minor interior changes. Hip room is increased from 61.0 to 61.2 inches, shoulder room from 57.1 to 57.9 inches and hat room from 53.4 to 53.8.





PANEL MODELS

MODEL	A DASH PANEL TO REAR DOOR	B BACK OF SEAT TO DOOR	C FLOOR TO TOP (INSIDE)	D FLOOR TO GROUND	E WIDTH OVER REAR FENDERS	F MAX. INSIDE WIDTH
3105	132.2 (+12.2)	81.4 (+3.8)	51.4 (+.3)	26.6 (-1.4)	76.4 (+6.6)	66.4 (+4.6)
3805	163.2 (+12.2)	112.4 (+3.8)	52.2 (+.5)	31.8 (-1.9)	76.6 (+6.3)	66.4 (+4.0)

BODY AND SHEET METAL

BODY STRUCTURE

The new body structure reveals numerous design features which provide greater comfort, convenience and safety in 1955.

Larger visibility areas with a one-piece wrap-around windshield, a new ventilation system which assures a more constant supply of outside air under all weather conditions, concealed steps which obviate the danger of accumulated snow and ice, and new seat construction for a more comfortable ride are among the major structural improvements which accompany the complete restyling of the cab and single unit bodies. Integral-type rear fenders and redesigned rear door and end gates are other features of the single unit bodies.

THE CAB consists of four basic components: the cowl, floor, rear panel, and the top, reinforced and welded into a strong and rigid structure.

The cowl assembly, on all except flat face cowl models, is of durable double-wall construction, and incorporates the plenum chamber for the new ventilation system. This structure is supported at the sides by box section hinge pillars and, below the instrument panel, by a reinforcing plate which ties the pillars to the cowl sides. Completing the support at the upper sides are the four-piece windshield pillars which provide attachment to the instrument panel.

The one-piece instrument panel, welded to the cowl is further supported by a double channel-type brace attached to the dash panel.

The one-piece floor panel, with the opening for the battery eliminated, is formed with heavy ribs and embossments which provide a sturdy foundation for the cowl assembly and rear panel. Providing lateral rigidity and support to the floor underside at the front is a reinforcing plate welded to the bottom of a large embossed rib, actually forming a "box section" crossmember.

The large rib serves also as a foundation for the seat front mounting brackets. The raised embossments in the floor at the rear form a mounting for the fuel tank, thus eliminating the need for a separate tank cradle. A large added C-channel type cross sill, welded to the floor and to the door lock pillars, transverses the floor at the rear.

Strengthening the cab side is the concealed step, which replaces the exposed running board with no sacrifice of interior room. Because the Series 5000 cabs are higher from the ground, a running board is attached below the step to facilitate entrance to the cab.

The new body rear outer panel, formed from a single sheet of heavy gauge steel, extends from the floor to the roof and around the sides to the lock pillars. Formed in the upper outer edge is the cab drip molding, which extends around the top above the rear window to the door opening where it is joined to the side drip molding. The lower part of the body panel is formed with deeply drawn vertical ribs that strengthen this part while eliminating the need for back strainers.

Providing a secondary support to the body rear panel is an inner panel which is welded to the upper portion surrounding the periphery of the window opening and extending to the lock pillars. The lock pillars are welded to the forward edge of the body rear panel and to the roof inner panel and step. The rear filler panel, welded in the corners of the body rear panels behind the door opening to the lock pillar facing, step and cross sill, provides a firm support for the floor and lock pillar.

The roof panel, flatter in design, is reinforced inside by an inner panel which provides double-wall strength to the overhead structure. The inner panel is welded to the windshield pillars and body rear panel to form a rigid structure. The roof outer panel also is welded to the body rear panel and windshield pillars, forming the double-wall roof structure and eliminating the need for roof cross bows.

A new and improved type of mounting provides resilient but firm support, of the cab. At the front, just ahead of the door hinge pillars, the cab is firmly bolted through rubberized insulators to sturdy brackets mounted outboard the frame, similar to those previously used. Outboard-mounted brackets also are used at the rear, replacing the shackle type previously used. A soft rubber biscuit is used at both the top and bottom sides of each rear bracket to effectively cushion both downward and rebound forces.

The new cab mounting brackets on Series 5000 are similar to conventional models, but extend above the frame to replace the previously used sub-frame.

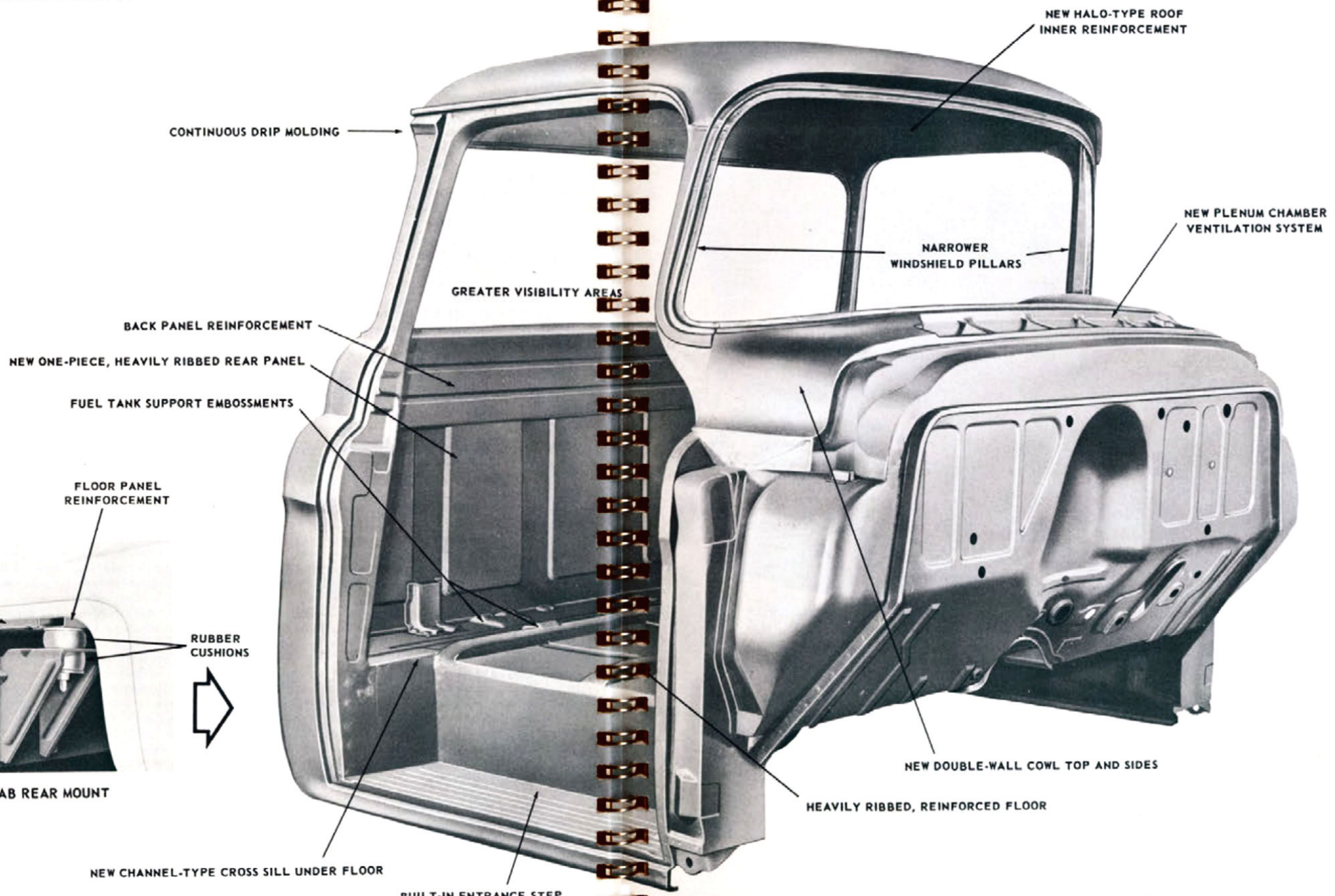
The double-wall steel side doors are relatively unchanged except in that they are new in shape to fit the cab. Refinements in the design of window regulators insure level window glass raising to prevent binding, and give added protection to the exposed edges of the glass.

The seat back and seat cushion are framed independently and bolted together at each side to permit tilting the seat back forward. In the seat cushion frame at the rear, a bolt with a locking nut permits adjustment for positioning the seat back. All cab seat cushions contain two air relief valves that limit the rebound of the seat when road shock is experienced. The seat cushion construction is identical to the previous design except for increased padding, softer action coil springs and jack strainers.

Two new ball bearing type seat regulator assemblies supported by pairs of individual legs replace the large seat riser assembly and regulators that formerly extended the full width of the floor.

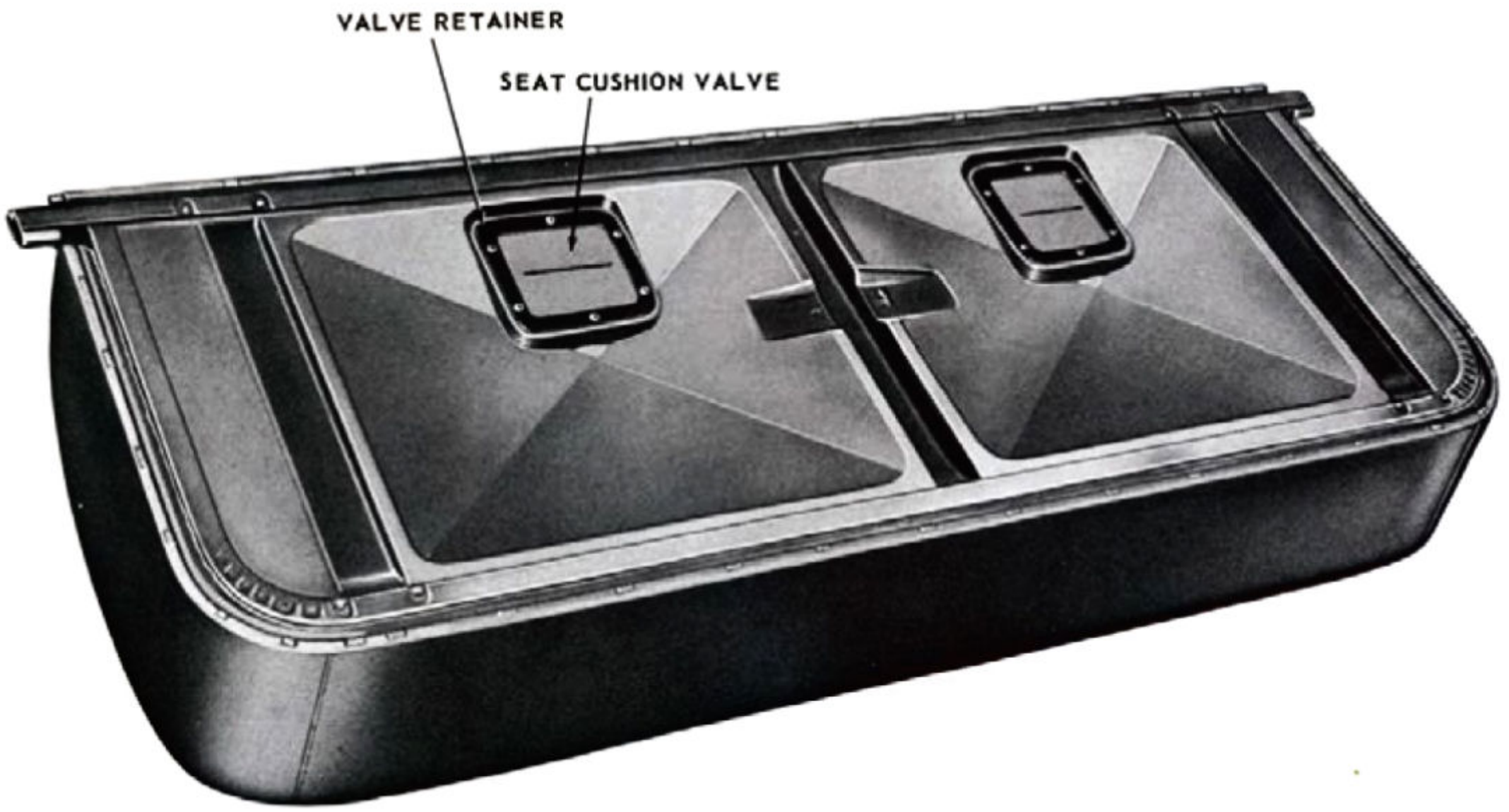
PANEL AND SUBURBAN CARRYALL BODIES remain relatively unchanged, being modified only as necessary with the new styling. Integral-type rear fenders in the body side panels replace the individual

1955 BODY STRUCTURE



fenders previously used. End gates on the 3116 suburban carryall model are completely new, providing larger opening and improved operation. The driver's seat for these models has the same simplified mounting and improved ball bearing regulator as the cab models. The middle and rear seat mounting remains unchanged on suburban models. ON FLAT FACE COWL MODELS the cowl is basically the same as that previously used except for slight modification for adaptation to the new sheet metal.

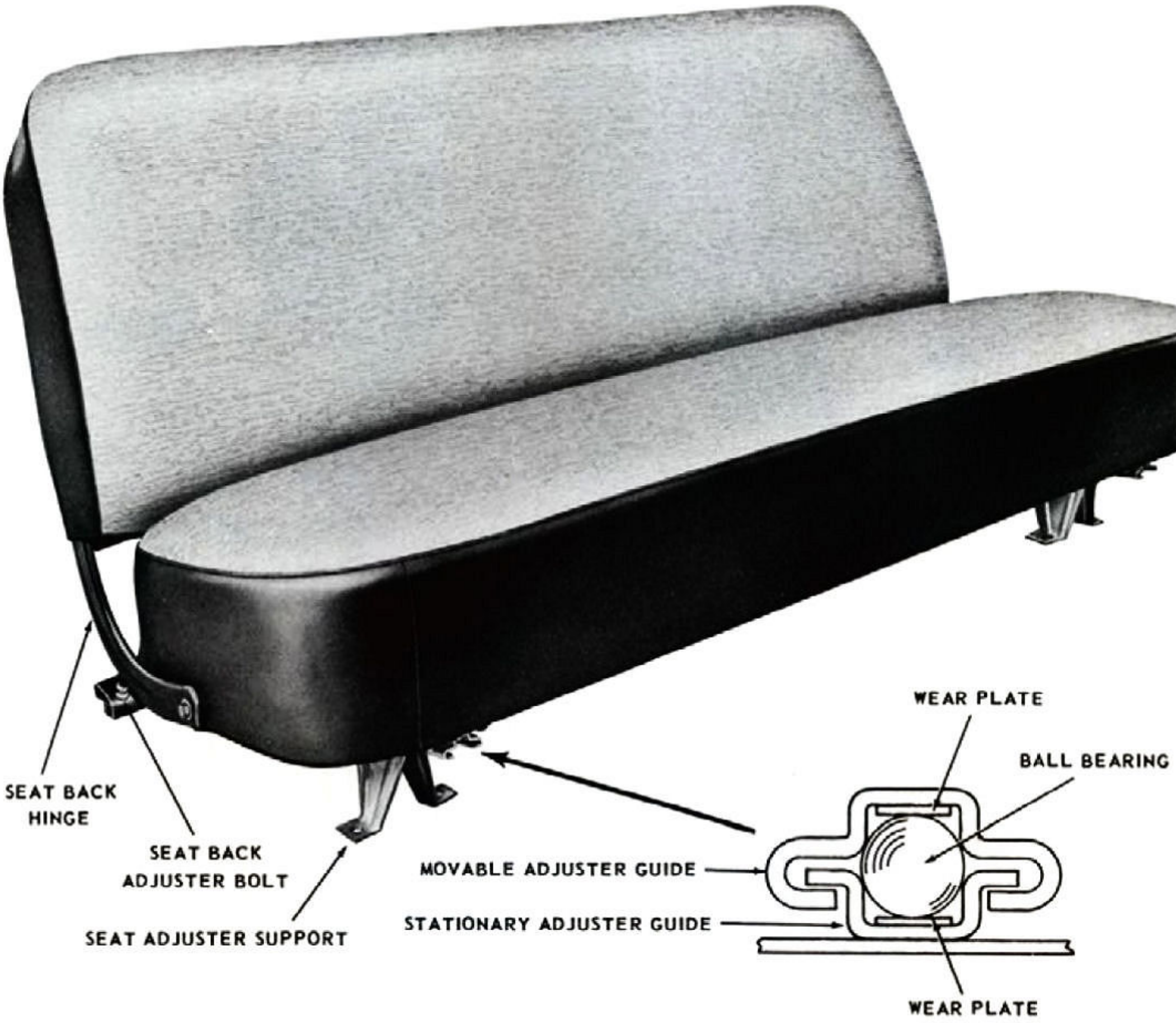
The cab tool stowage area is relocated behind the driver's side of the seat making it easily accessible. The jack is positioned in a bracket and, together with a lug wrench and tire iron, is held by a tensioned coil spring. On the suburban models all tools are located under the removable driver's seat in a stationary bracket and held by a tensioned coil spring. On the panel models, the tools are similarly located except that the jack handle and tire iron are placed under a tensioned coil spring attached to the body side near the rear door.



SEAT AIR VALVES . . .

The new cab seat cushion air relief valves slow down rebound of the seat cushion, providing a more comfortable ride while driving over rough terrain.

The air relief valve consists of a sheet of rubber, slit at the center, and fastened by a retainer surrounding an opening in the steel seat bottom panel on both the driver and passenger sides. When the seat is depressed, air is forced through the relief valves, and the rate of air return is limited by the restricting slits.



SEAT . . .

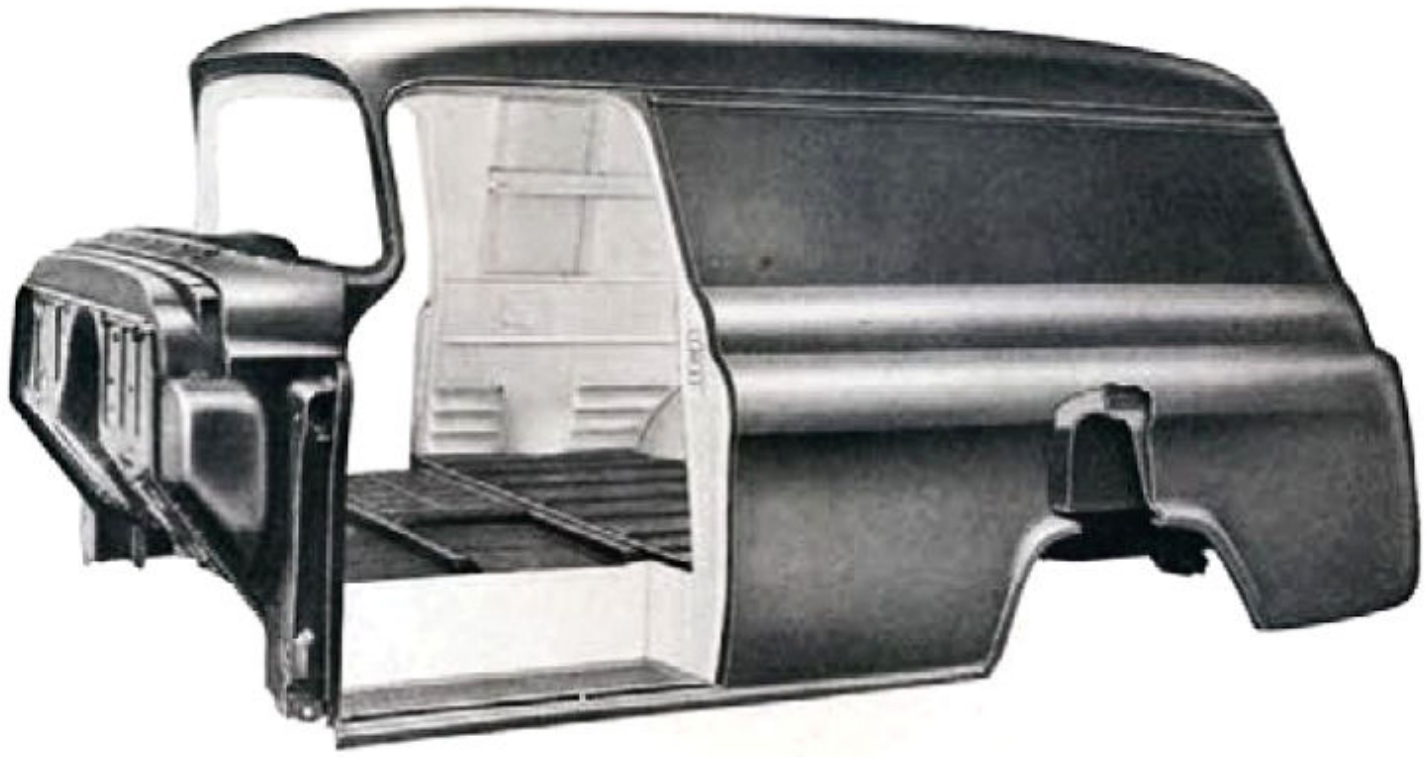
A new seat with increased travel, provides a more comfortable ride for all models. The seat cushion and backrest are more heavily padded. The seat cushion bottom panel is metal on all cabs and plywood for the panel and suburban models. New jack strainer springs together with coil springs of a softer compression rate afford greater seat comfort. The previous seat riser, a large rectangular box-like structure, is replaced by four seat mounting brackets. Two front legs are mounted on a lateral rib in the floor, the shorter legs being mounted directly to the floor, which is reinforced at this area.

The seat regulator is redesigned and contains new hardened wear plates and ball bearings. Easier adjustment results from the design of the seat track, which rests directly upon the ball bearings to absorb the load. With the new seat adjuster design, approximately 1/8 inch greater fore and aft movement is provided for the cab models and 1/2 inch for the panels and suburbans, equalizing the seat travel on all models to 3.6 inches.

On all cab models, the seat back and cushion are framed independently, the springs being an integral part of the construction. With this design, the seat back frame is now attached to the seat cushion frame, permitting individual adjustment of the seat back. Adjusting bolts which also serve as stops are located at the rear bottom end of the seat and can be turned inward or outward, tilting the seat back to suit the requirements of driver and passenger.

WINDOW REGULATOR . . .

Re-engineering of the side door window assembly results in less binding of the glass and smoother operation. The new regulator assembly uses a double arm and a six-tooth pinion where previously a single arm with a five-tooth pinion was employed. The "scissors" action of the double arm permits the glass to maintain a horizontal position without tilting in the glass run, thereby eliminating binding. The use of a six-tooth pinion with smaller teeth means that more teeth are engaged in raising or lowering the window with resultant smoother operation and the elimination of ratchet noise. Because of the new shape of the glass, the door window glass, when rolled down, is away from the glass-run channel at the upper rear corner. To protect this exposed edge of the window glass from accidental breakage, a molding with a soft rubber insert is installed around the edges.



PANEL BODY . . .

Panel body structure is modified to conform to the extensive styling changes. The flatter top has new roof bows shaped more closely to the contour of the roof panel providing improved full-width support. The body side outer panel now incorporates the body side upper rail as an integral part, eliminating the need for a separate part. A feature of this same panel is the incorporation of an integral rear fender, providing stronger construction, as well as more streamlined appearance. The body side inner panel which affords double-wall protection to the load sides, is formed with the lower edge offset for attachment to the floor panel. This results in increased rigidity to the body side and eliminates the need for a separate welded-on flange for floor attachment.

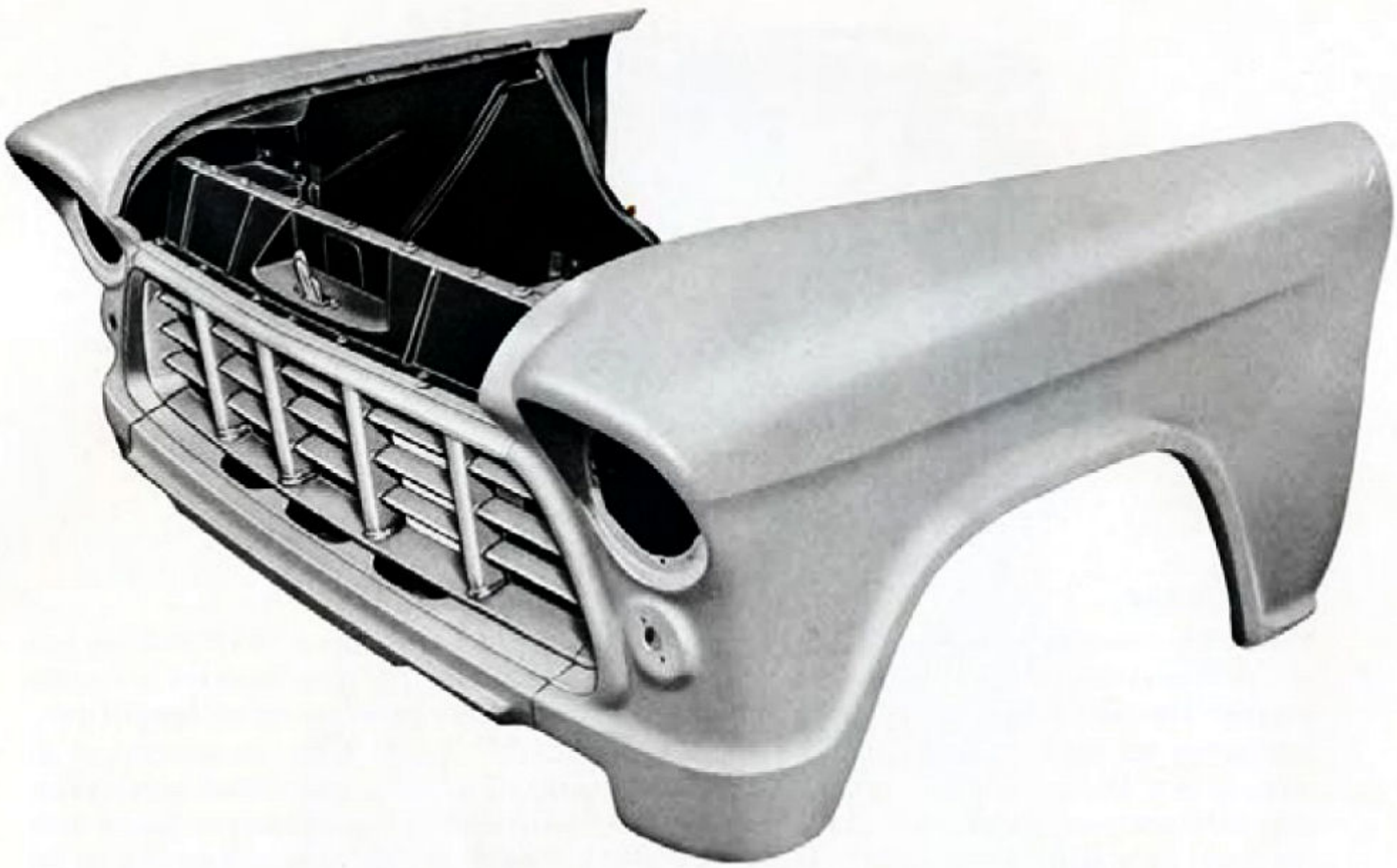
The panel rear doors are redesigned to meet the requirements of the increased slope at the rear of the body. A new push-button door lock and handle provide more convenient operation.

SUBURBAN END GATE . . .

The new wide design of the model 3116 suburban end gate permits more convenient opening, with easier loading or unloading of the interior. The tailgate inner panel with embossed skid strips on the surface is designed to meet the level of the interior floor.

Loading facility is improved by a new end gate design. The tailgate now laps over the liftgate when closed, allowing the tailgate to be lowered independently of the liftgate. This gate is lowered in one easy operation by a single centrally located lock connected by linkage to two remote control locks at each end, and held in a horizontal position by cable-operated reels.

The side windows of the suburban model are now assembled as a unit before installation in the window openings, thus insuring better sealing against the elements.



SHEET METAL

Completely new sheet metal structure, supporting the modern styling of both conventional and Series 5000 models, has additional flanging and reinforcement for rigidity and safety, with a 25 per cent increase in sheet metal durability. The hood features one-piece construction with new hinging and locks.

An entirely new method of sheet metal mounting which provides greatly improved lateral stability is used on conventional models. At the front, a rigid rectangular structure, consisting of two widely spaced side baffles connected at the top and bottom by heavy angle crossmembers and reinforced by cross brace rods, forms the base for support of the integrated sheet metal. This structure also frames and supports the radiator core, and is attached laterally across the frame to the top flange of the frame side members, ensuring rigid, wide-spaced support for the sheet metal. A tire carcass type cushion is used at each mounting point to reduce transfer of road shock and, in addition, on Series 4-6000, a compressed coil spring at each mounting provides resilient resistance to twisting forces. The new method replaces the previous mounting in which the sheet metal was supported by a U-type radiator support centrally attached to the frame front crossmember.

The rigid fenders, which now contain the parking light openings, are backed by heavily-ribbed skirts attaching them to the grille and radiator support at the front, and to the dash and toe panel and fender extension at the rear.

The fenders are formed with an offset flange at the front and flanging of the wheelhouse opening to add rigidity from the front side to the rear.

The new one-piece hood now rises to a higher opening position and is strengthened by flanging of the front and rear edges, the hood support and lock plate, and by two horizontal reinforcements. Extra rigidity is added at the hood front by a reinforcement welded to the front edge. Stiffening the center section of the hood are two diagonal brace rods attached to the front and rear hood reinforcements, forming an "X" and welded together at the center. New gear-type hood hinges with interlocking gear teeth cut concentric with the lever pivots of each hinge, together with double-acting hood springs, provide more uniform operation and more accurate counterbalancing.

Improved operation results from the new hood locks with their wedging-action principle. The lock is relocated to the radiator upper baffle and the lock plate to a support attached to the hood. With the hood in a closed position, the hood lock is held firmly in the lock plate by the spring-tensioned, wedge-shaped finger and safety catch.

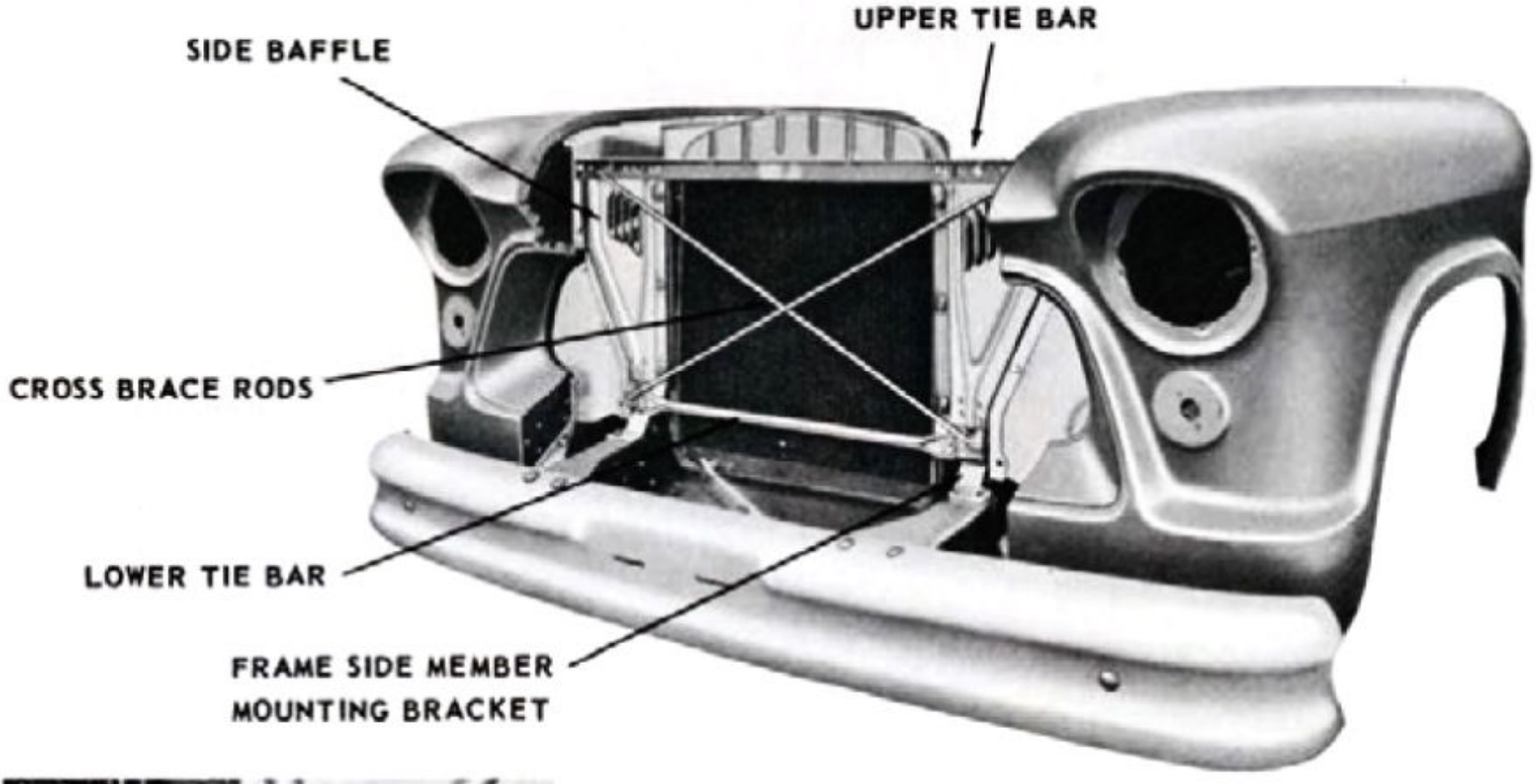
The Series 5000 sheet metal follows the general construction of the conventional models, although mounting remains basically unchanged from that previously used. A box-section, U-shaped support replaces the former hat-section for sturdier radiator and sheet metal support. The counterbalanced hood springs provide more convenient hold-open by eliminating the former telescopic hood support.

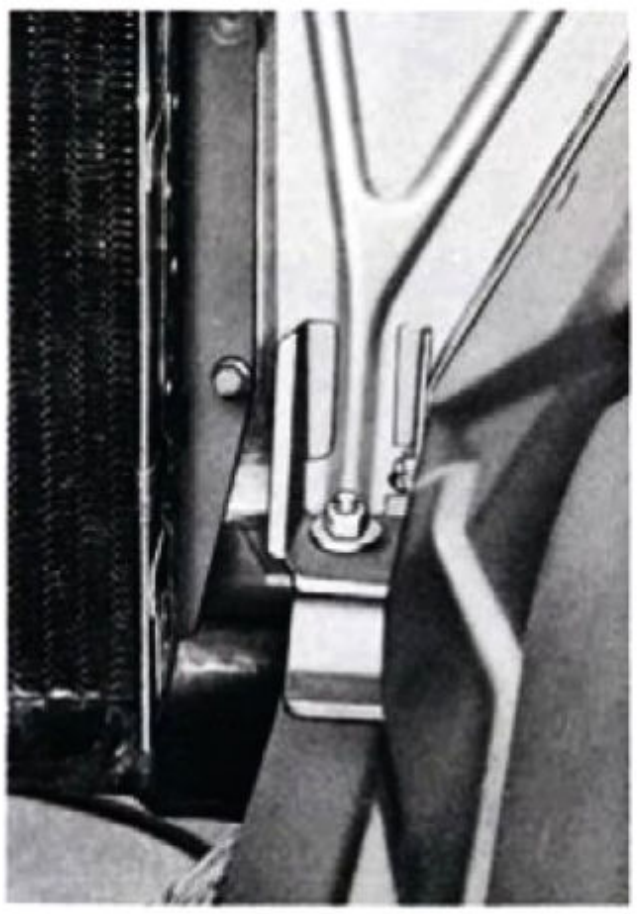
Flat face cowl models require special fenders because, unlike other models, there is no body into which the fender lines are extended. A section at the rear completes the fender at the cowl side.

CONVENTIONAL SERIES RADIATOR SUPPORT . . .

All conventional models have a new type of radiator support and mounting. Instead of the U-type, the radiator support now consists of two side baffles joined at top and bottom by angular braces forming a rigid rectangular structure reinforced at the center with diagonal brace rods. The radiator support is rubber-cushioned on mounting brackets on each frame side rail.

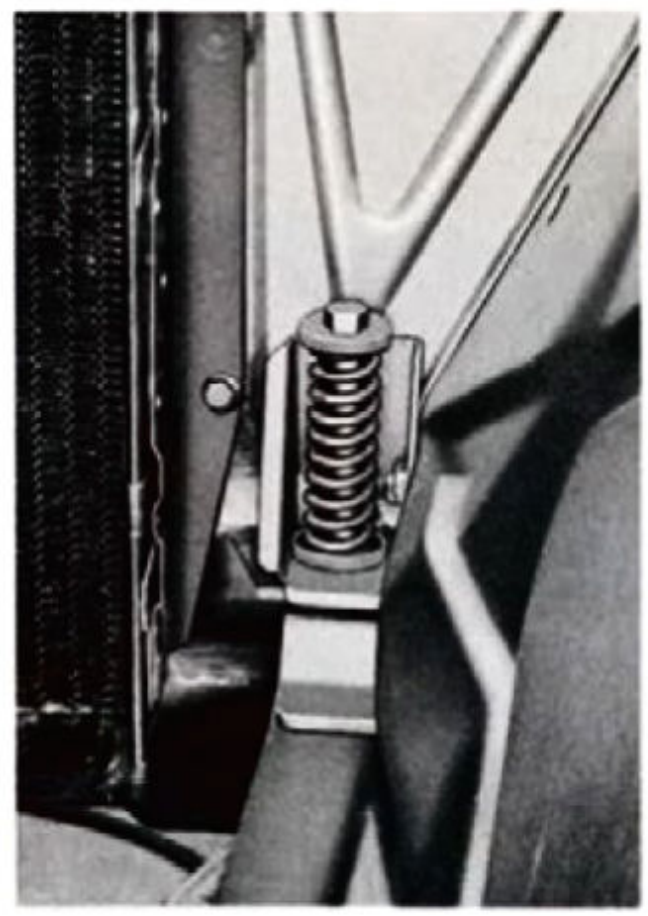
On the heavy-duty 4000 and 6000 series, a coil spring which cushions the rebound movement of road shock is used with each attachment of the support to the frame. For cooling purposes, a fan shroud is attached to the rear of the support in these models.



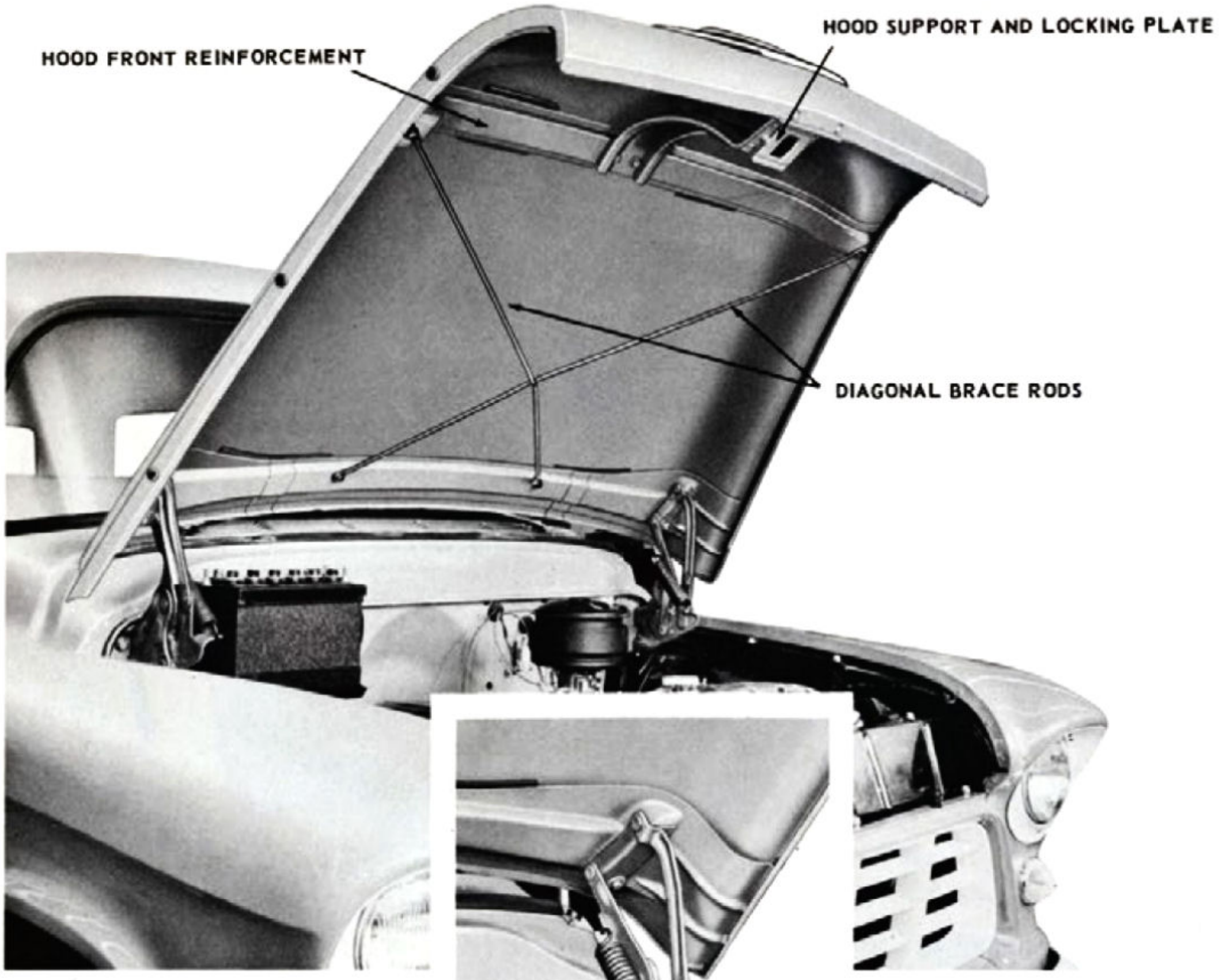


SERIES 3000 MOUNT

Viewed From Inside The Engine Compartment



SERIES 4-6000 MOUNT



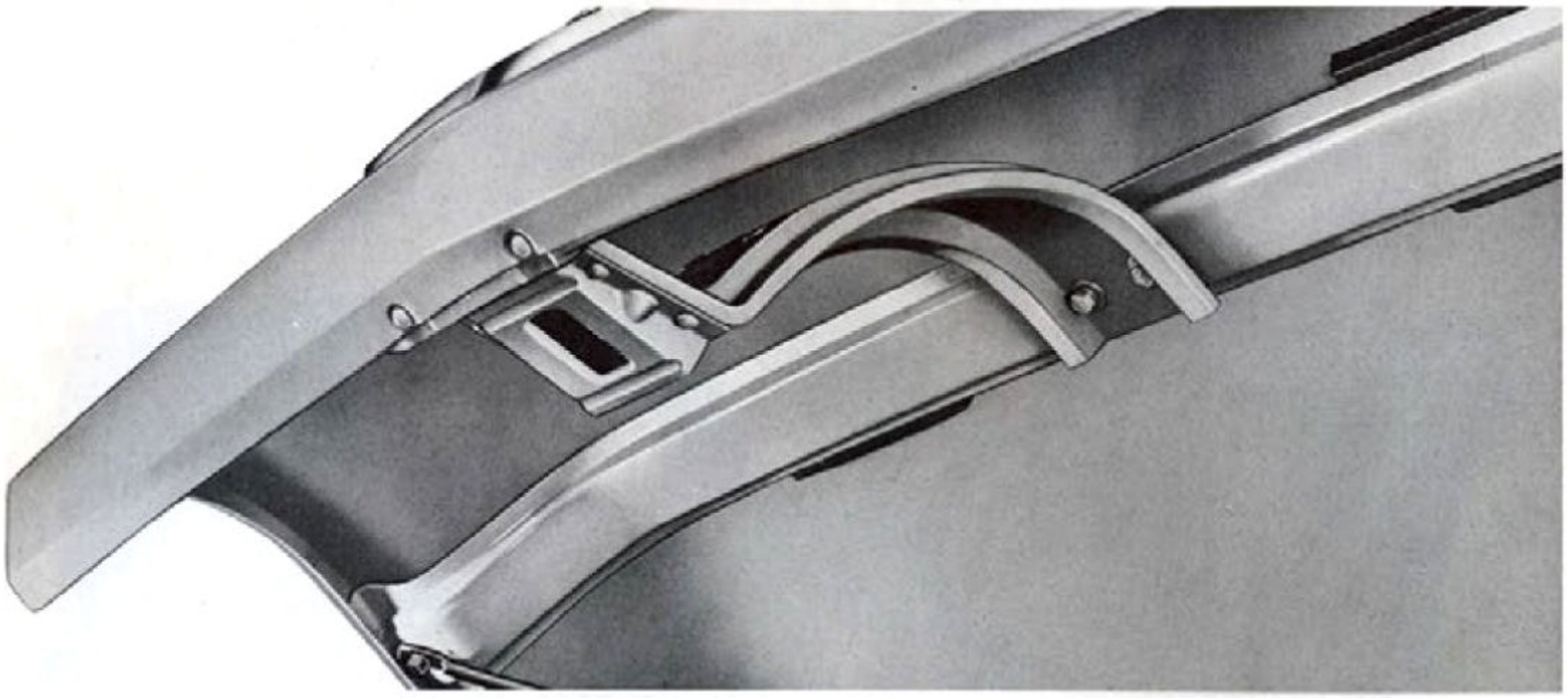
GEAR-TYPE HOOD HINGE

CONVENTIONAL SERIES HOOD . . .

The new hood is flatter in design and of one-piece construction. Rugged bracing is provided by wide, channel-type horizontal reinforcements at the front and rear, an added reinforcing member at the front edge, and a vertical support which also contains the hood locking plate. Cross brace rods reinforce the center to stiffen this section.

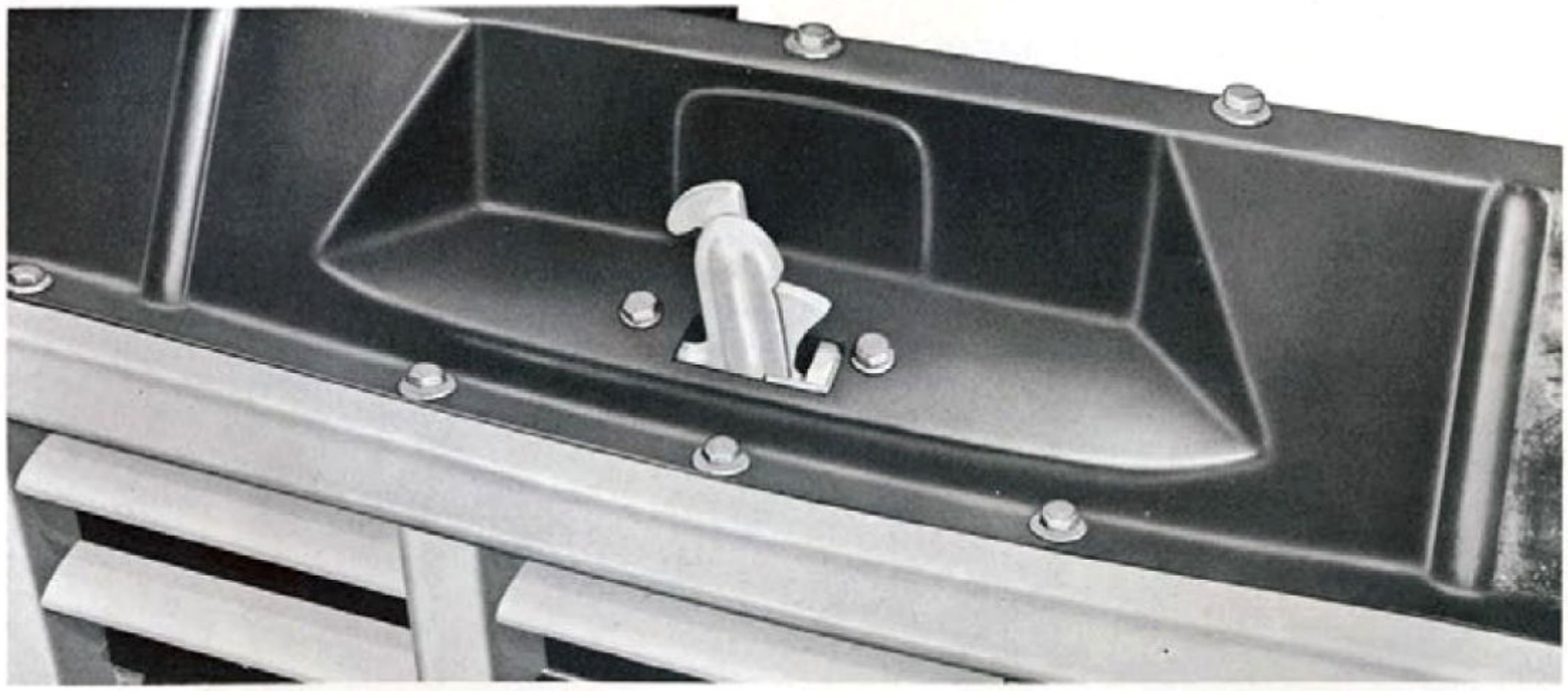
New gear-type hood hinges are engineered for better operating characteristics. Uniform hinge operation is assured by interlocking gear teeth cut concentric with the lever pivots of each hinge.

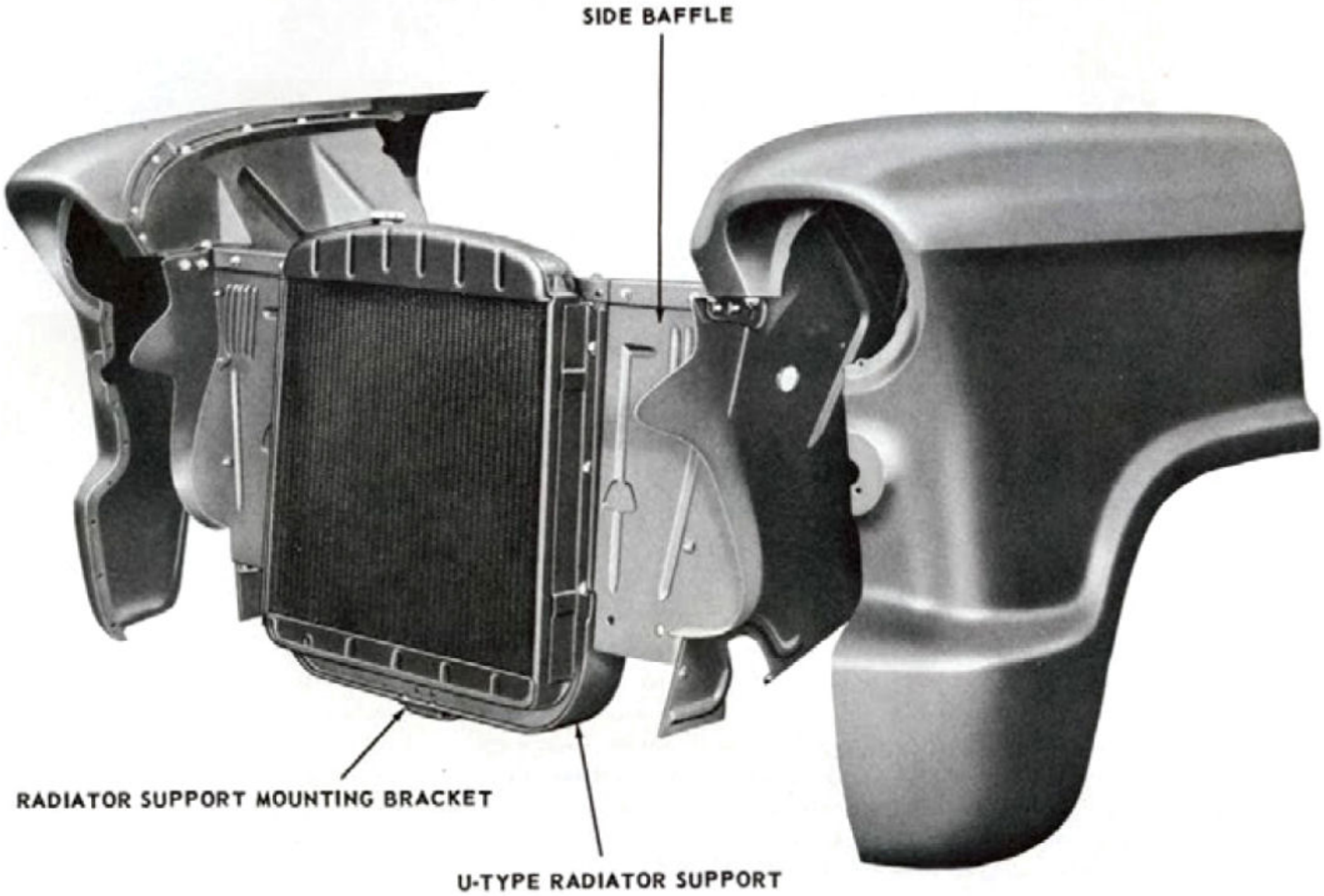
In any open position, the weight of the hood is supported by springs which attach at both ends to the gear-linked levers of the operating mechanism to provide full counterbalancing through the entire hinge travel. The shift of the hood weight to the rear and greater mechanical advantage of the double-acting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



HOOD LOCK . . .

The new hood lock design has an improved safety catch and self-locking mechanism which prevents upward hood movement while the vehicle is in motion. The hood lock is now situated in the radiator upper baffle, with the safety catch and lock catch piloted through a hole in the upper lock plate. This restriction limits movement on all four sides so that the safety catch lacks freedom to slip off the lock plate. The lock operates on an expanding wedge principle, permitting only downward movement of the hood while the vehicle is in motion. Positive locking is provided down to the completely closed position.





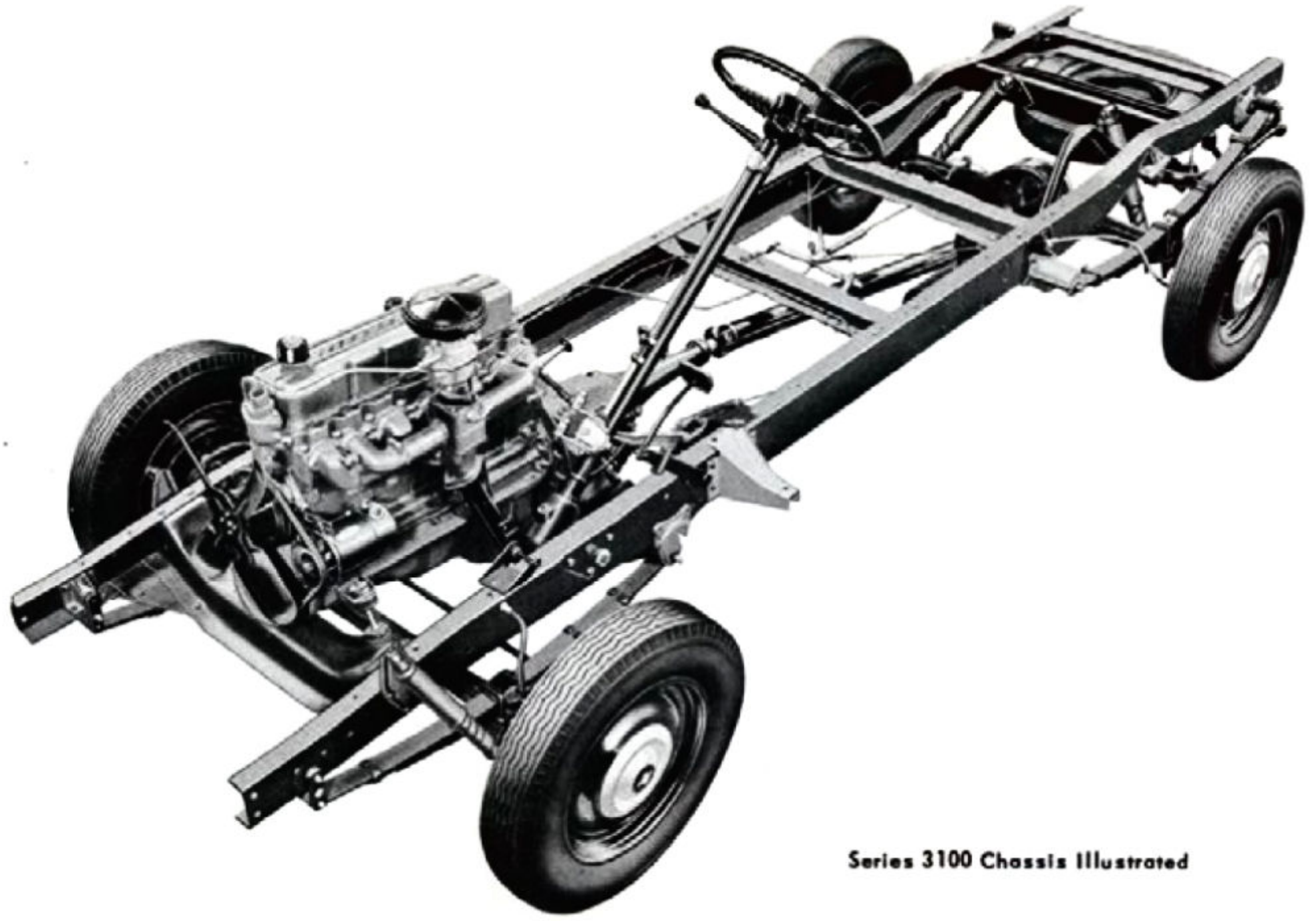
SERIES 5000 SHEET METAL . . .

The 5000 series front end sheet metal presents a new lower, and more rugged appearance similar to that of the conventional series.

The radiator support is a new U-shaped box channel, mounted at the bottom center to a bracket on the frame front crossmember. At the sides it is joined with the side baffles and upper and lower baffles to the fender and skirts, forming a very rigid front end mounting. Two brace rods are extended from the radiator support to the dash to stiffen the single mounting.

Hood construction, hinging and locks are the same as used on conventional models except for slight modification due to the distinctive Series 5000 styling. Two hood locks are used, one located near each front corner of the hood, a safety catch being included only in the right hand lock.

CHASSIS



Series 3100 Chassis Illustrated

THE 1955 CHASSIS

Durability, roadability, and ride are all improved in the many developments incorporated in the extensively redesigned truck chassis.

With side members completely straight and parallel in plan view, and with increases in channel section dimensions, rigorous operational tests prove Chevrolet truck frames to have as much as twenty times the durability of previous frames. New diagonal bracing at the front crossmember maintains both frame and front end alignment. The new 34-inch frame width permits increased front spring spacing, wider front tread, and more clearance-over-frame for rear wheels.

Use of the more compact V-8 engine in all Series 5000 models permits elimination of the special subframe which formerly supported the cab over the engine. With the V-8 engine set well forward, the cab is now actually positioned behind the engine.

In the front suspension, I-beams are longer in most models to provide increased front tread width, and are heavier between steering knuckles and spring pads in Series 4-5-6000. All front springs are longer to provide a softer ride and additional comfort for the driver. Reinforced eyes at the fixed end and new alloy-steel spring center bolts assure increased durability and safety. In Series 5000 models the front springs are 12 inches longer than previously, and front shock absorbers become standard equipment for the first time.

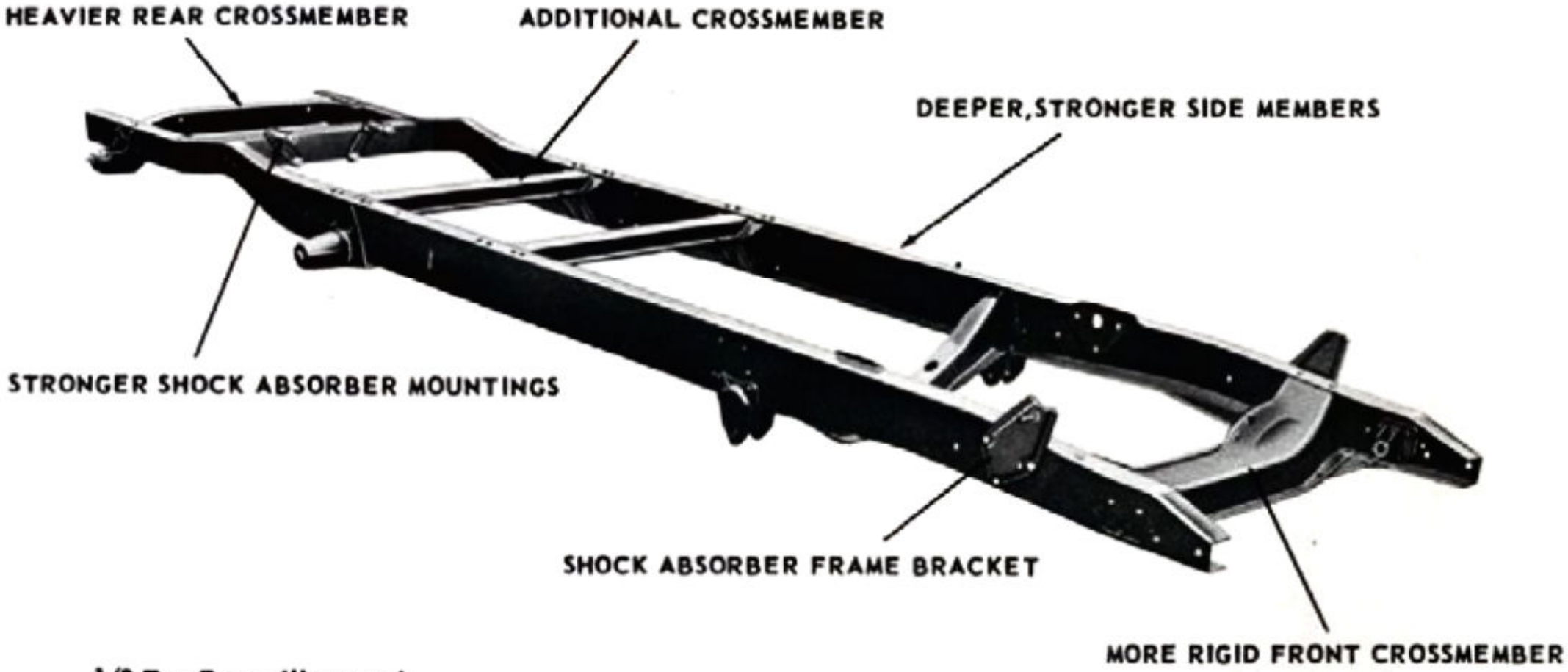
In the rear suspension, all springs are 52 inches long. This represents a length increase in all except 1/2-ton rear springs, which were formerly 54 inches in length, but improved ride is obtained through use of a two-stage design with a reduced rate first stage. Alloy-steel center bolts are standard on all rear springs. More rigid shock absorber mounts and extensive use of eye-type shock absorber ends provide more immediate damping and improved durability for the rubber grommet cushions. Rear shock absorbers on 1/2 and 3/4-ton conventional models are now positioned to improve roll stability and prevent side sway.

Steering gear ratios in all conventional models are revised with larger and more durable worm gears. Improved steering geometry provides easier, more responsive steering control. Turning diameters are reduced by the shorter wheelbases of nearly all conventional models and by new adjustable knuckle stops which are provided on all series.

Tubeless tires are adopted as standard on 1/2-ton trucks, and hotchkiss drive, adopted on 1955 First Series trucks, is continued. A new parking brake control is standard on 1/2 ton and 3/4 ton trucks, replacing the former foot pedal parking brake with dash-mounted release. A new band-type parking brake is standard on Series 3800 and is included with optional transmissions on Series 3600, 3800 and forward control chassis models.

Series 5000 rear axle housings are increased to a 4-1/2 inch diameter for a new nominal capacity rating of 15,000 pounds. Larger drive and differential gears are employed. Axle shaft lengths in Series 4000 and 6000 rear axles are equalized to improve durability. Wheel bearings in 2-ton rear axles are relocated for a reduction in load on the outer bearings and a commensurate increase in durability.

On the following pages of this chapter these and other features of the new and improved truck chassis are described in detail. All of the optional equipment is covered in a separate chapter on extra-cost items.



1/2-Ton Frame Illustrated

FRAME

With new parallel construction, a uniform 34-inch width, straighter and stronger side members, and heavy reinforcement at the front crossmember, the durability of all frames is greatly increased.

In rigorous tests with heavily loaded trucks on a specially built "twist and roll" course at the GM Proving Grounds, the fatigue life of new frames proved more than 20 times that of former frames.

With deeper channel sections in all side members, and increased flange widths in Series 4-5-6000 and forward control models, the beam strength of every frame is materially improved. With the single exception of the Series 3600 frame, rear overhang is strengthened by side member section depth increases back of the rear axle.

Longer front crossmembers in all frames are now undergirded and reinforced by large triangular gusset plates which also improve the attachment to side member lower flanges. Provision is made for the new double-strut front engine mounting. The Series 5000 front crossmember is specially designed and repositioned to support the V-8 engine.

In frames for 1/2-ton models, another crossmember with alligator jaw attachment is added back of the engine rear support for a new total of five crossmembers, as compared to the previous four. The rear crossmember is larger in section and stronger. Despite the elimination of the shear plates and Z-sections at the second crossmember, the rectangular alignment rigidity of the Series 3100

frame is increased nine per cent. The overall beam strength of Series 3100 side members is increased 24 per cent by 1/4-inch additional section depth not only between the axles, but in the rear overhang as well.

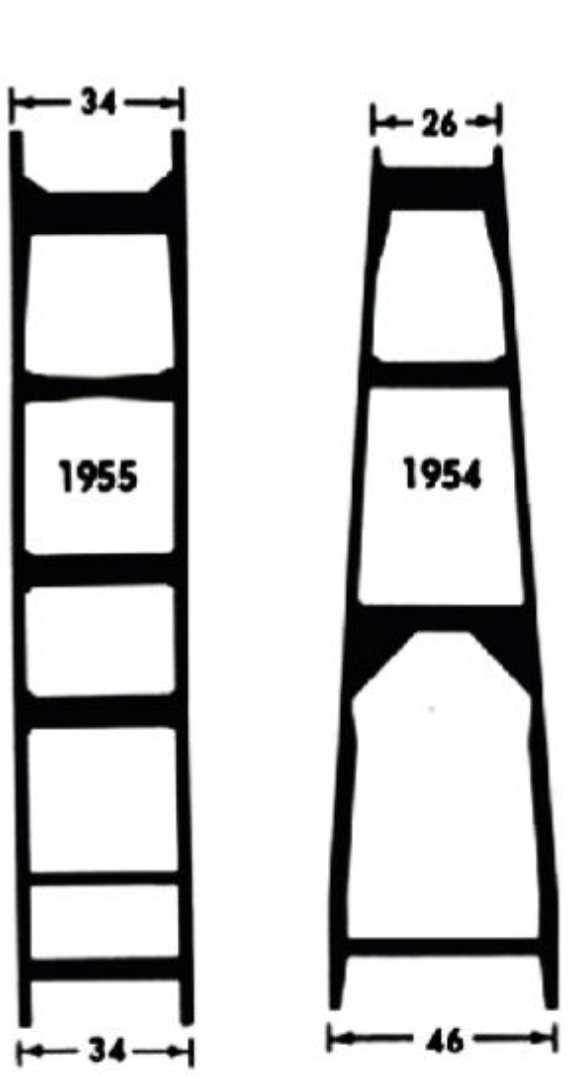
Side members in the new Series 3200 1/2-ton frame are 33 per cent heavier in gauge than Series 3100 side members, and identical in cross-section to Series 3600 side members.

In 3/4 and 1-ton frames, the attachment of the rear crossmember is improved through use of small gusset plates at each end, as previously employed only in heavy-duty frames. The former shear plates at the second crossmember are eliminated, as in the 1/2-ton frame.

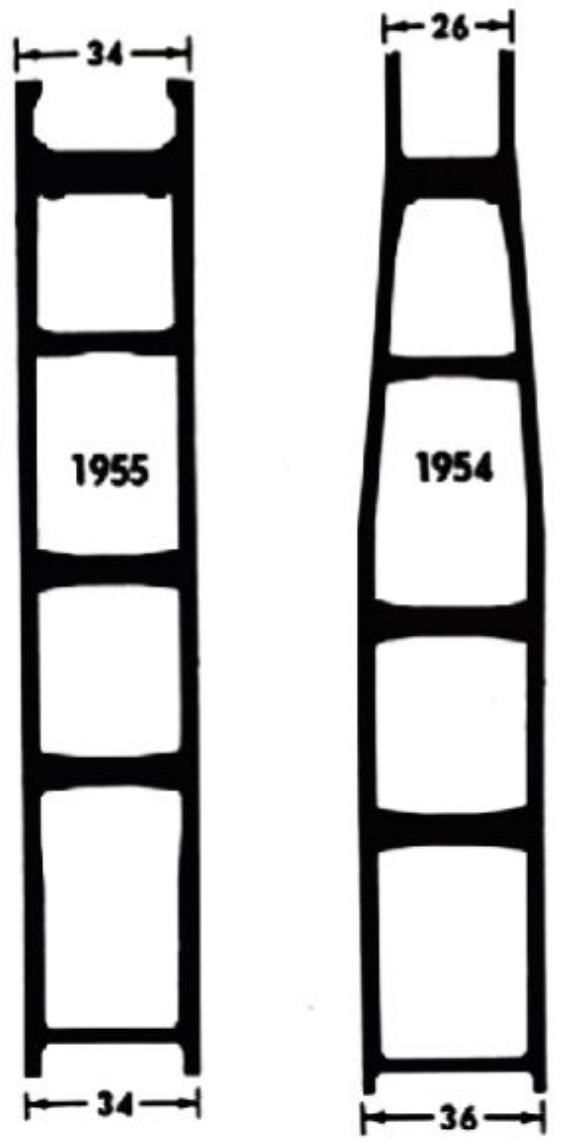
A completely new and much stronger frame for Series 4100 models replaces the previous adaptation and use of the Series 3800 frame, and therefore eliminates need for the heavy-duty frame previously available.

In Series 5000 trucks, the former sub-frame which supported the cab is eliminated. And in the Series 5400 frame, one more crossmember is added back of the engine rear support to make a total of six, as compared to the previous five crossmembers.

The frame-to-front bumper mounting is improved in all series. The former spring-type mounting of Series 3100, 3600 and 3800 bumpers is replaced by shorter or more rigid brackets. In heavier trucks, a sturdier attachment is provided by triangular plates which are riveted under each side member end and bolted to the front bumper lower flange.



1/2-TON FRAME



2-TON FRAME

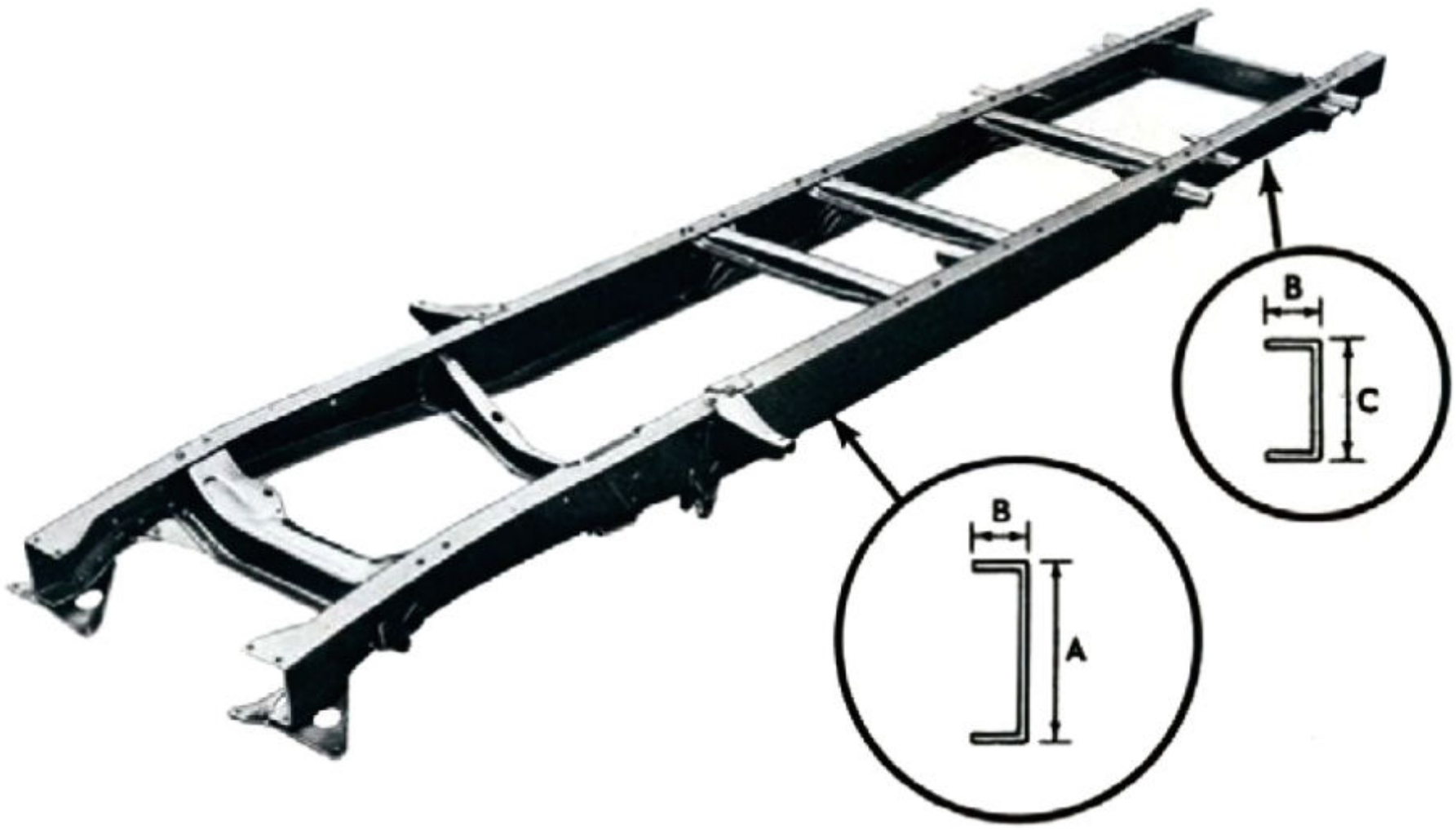
FRAMES . . .

Intermediate and rear crossmember lengths in 1955 truck frames are reduced at least 2 inches, while front crossmembers are approximately 8 inches longer in all series.

Frames were formerly tapered, with a 26-inch width at the front crossmember widening past the engine to a 36-inch width under the load, or in the case of the previous 1/2-ton frame, to a 46-inch width at the rear crossmember.

The new wider front frame dimension provides more room in the engine compartment for better accessibility, and adequate front wheel clearance over the frame is obtained by use of longer front axles and wider front treads.

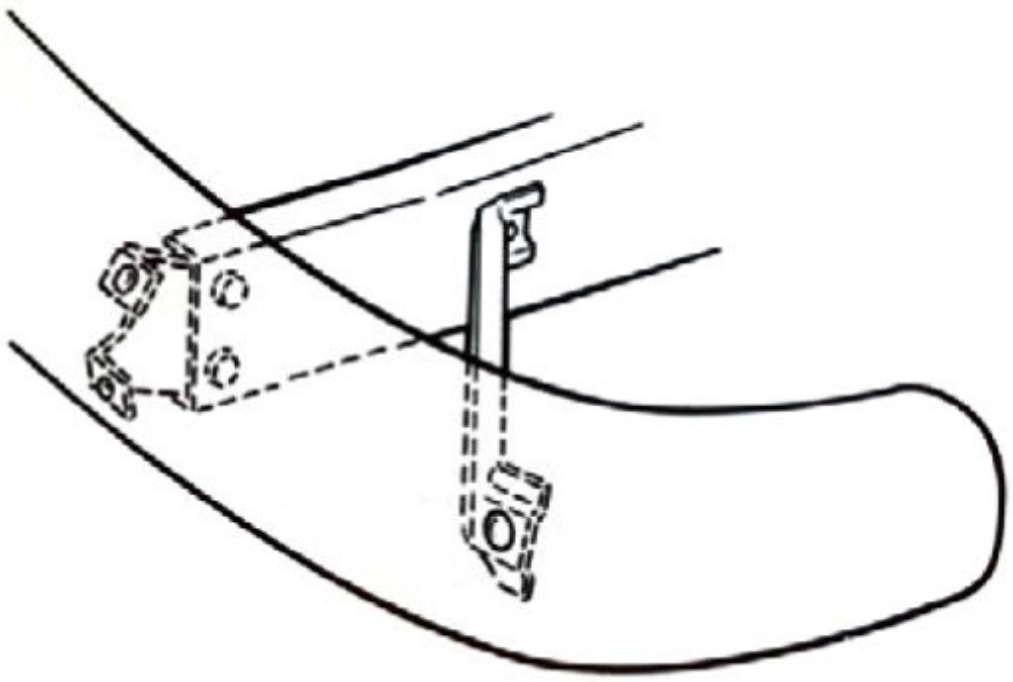
The 2-inch decrease in rear frame width on the Series 5000 and 6000 models increases rear tire clearance over frame components providing adequate clearance for use of chains with all optional tires.



FRAME SIDE MEMBER SECTIONS

SERIES	A	B	C
3100	6.00 (+ .3)	2.26 (Same)	3.78 (+ .3)
32-3600	6.09 (+ .3)	2.25 (Same)	4.32 (Same)
34-35-3700 *	7.25 (+ 1.4)	2.75 (+ .5)	4.63 (+ .3)
3800	7.25 (+ .3)	2.75 (Same)	4.63 (+ .3)
4100	9.06 (+ 2.1)	2.97 (+ .2)	6.06 (+ 1.7)
44-45-5000, 61-64-6500	9.12 (+ .3)	3.00 (+ .1)	6.12 (+ 1.3)
67-6800	9.18 (+ .3)	3.03 (+ .1)	6.18 (+ 1.3)

* - Gauge increased from .19 to .22 inches.



FRONT BUMPER ATTACHMENT . . .

In the sturdier front bumper-to-frame mounting for Series 3100 and 3600 trucks, the former spring-type bumper brackets are replaced by "crush-type" angle brackets attached to the frame and bumper, and by left and right hand bumper braces similar to those used on heavier trucks.

In the Series 4-5-6000 front bumper-to-frame mounting, the method of attachment is altered to suit the restyled bumper and to provide increased strength. Any impact stresses will be better distributed by new triangular gusset plates attached to the frame and one flange of the bumper. Diagonal frame-to-bumper braces are continued.

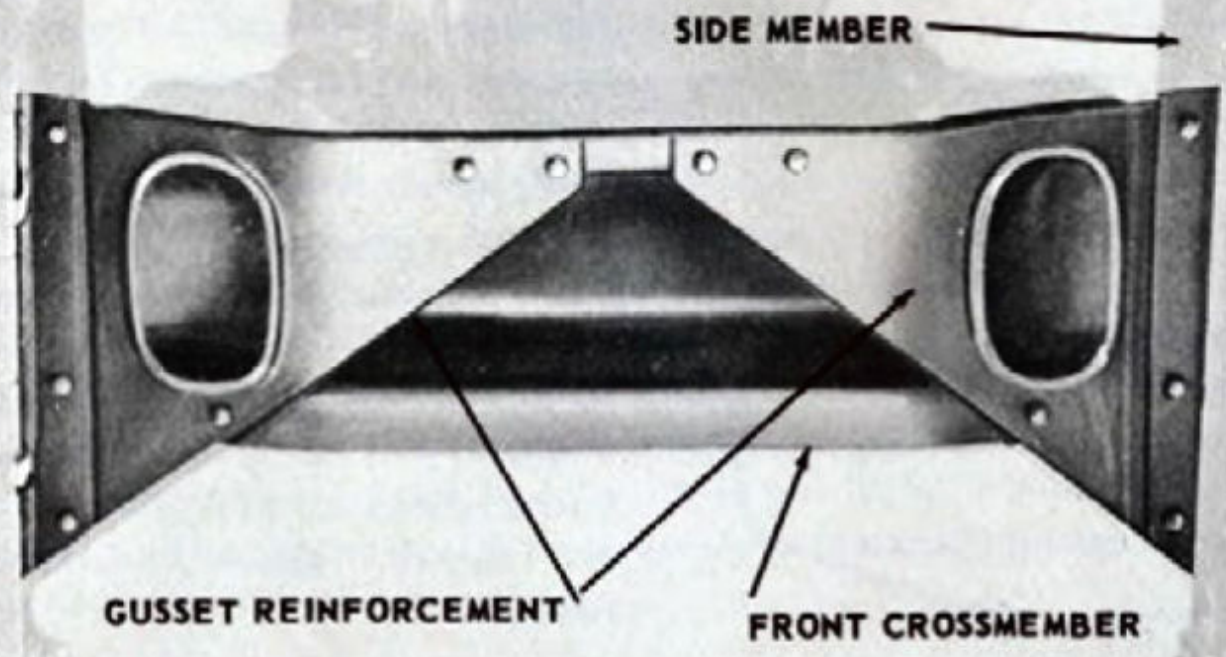
FRONT CROSSMEMBER . . .

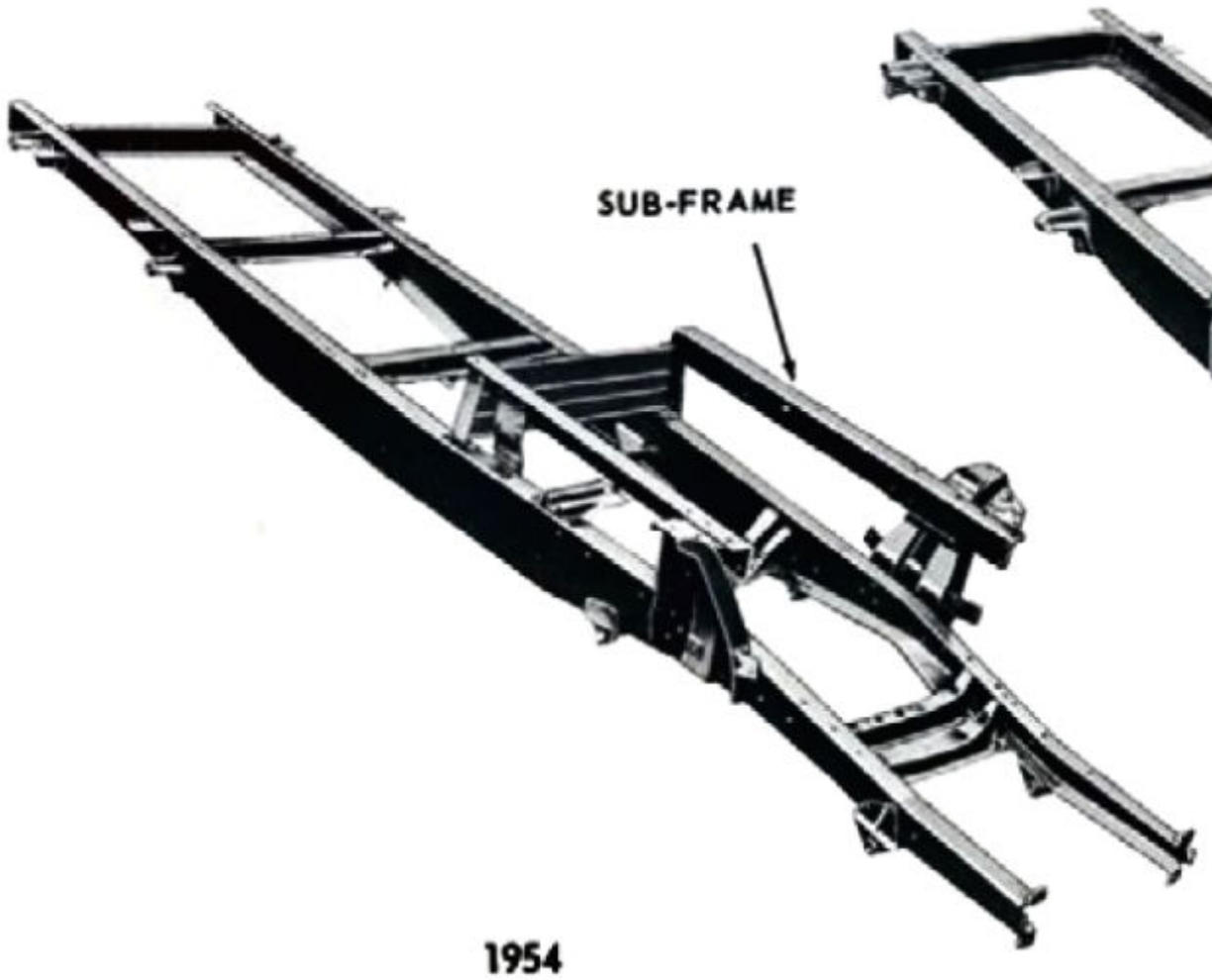
Conforming to the width of the new parallel frames, approximately 8 inches wider forward of the engine, new front crossmembers are longer and are redesigned to support the engine through new strut-type front engine mounts.

The former double hat-shape section is replaced by a 3-piece member in which a single large hat-shape section is reinforced by two triangular gusset plates riveted to the bottom flanges.

FRONT CROSSMEMBER ATTACHMENT . . .

The front crossmember attachment to the side members is augmented by gusset plates which are riveted to the lower flange of each side member. In 1-1/2 and 2-ton chassis, several of the same rivets also attach the front spring hangar, so that the gusset serves to reinforce the flange and prevent flexing. Two additional rivets are used in each side member-to-front crossmember attachment, making a total of eight rivets in each side member as compared to the previous six rivets used at each juncture.





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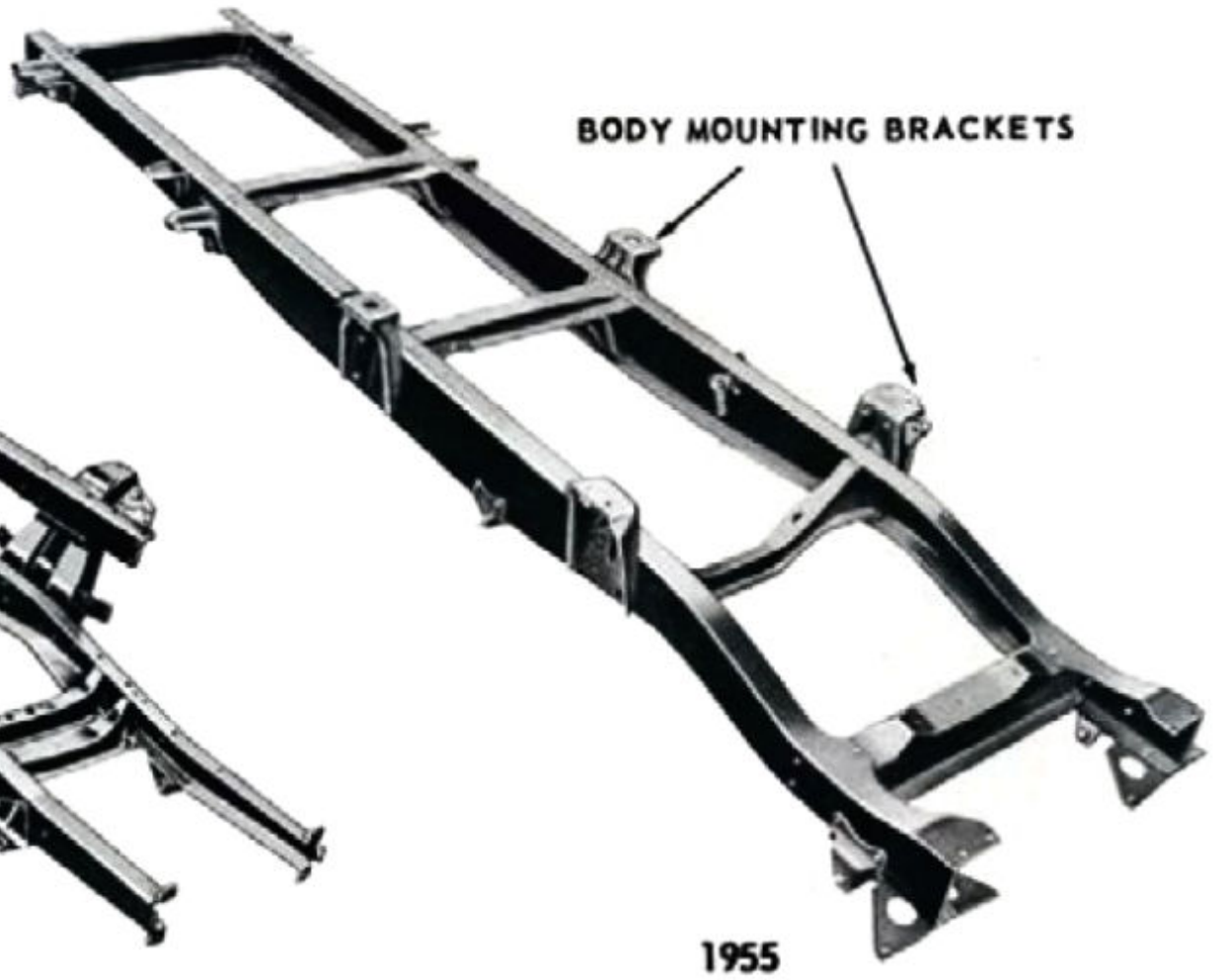


1955

SERIES 5000 FRAMES . . .

Series 5000 frames, redesigned to conform to the new parallel plan with straight side members and standard 34-inch width, are stronger with increases in side member section depth and flange width. The special sub-frame which formerly supported the cab over the rear end of the engine is removed to provide a considerably reduced cab height, a weight reduction, and a lower center of gravity.

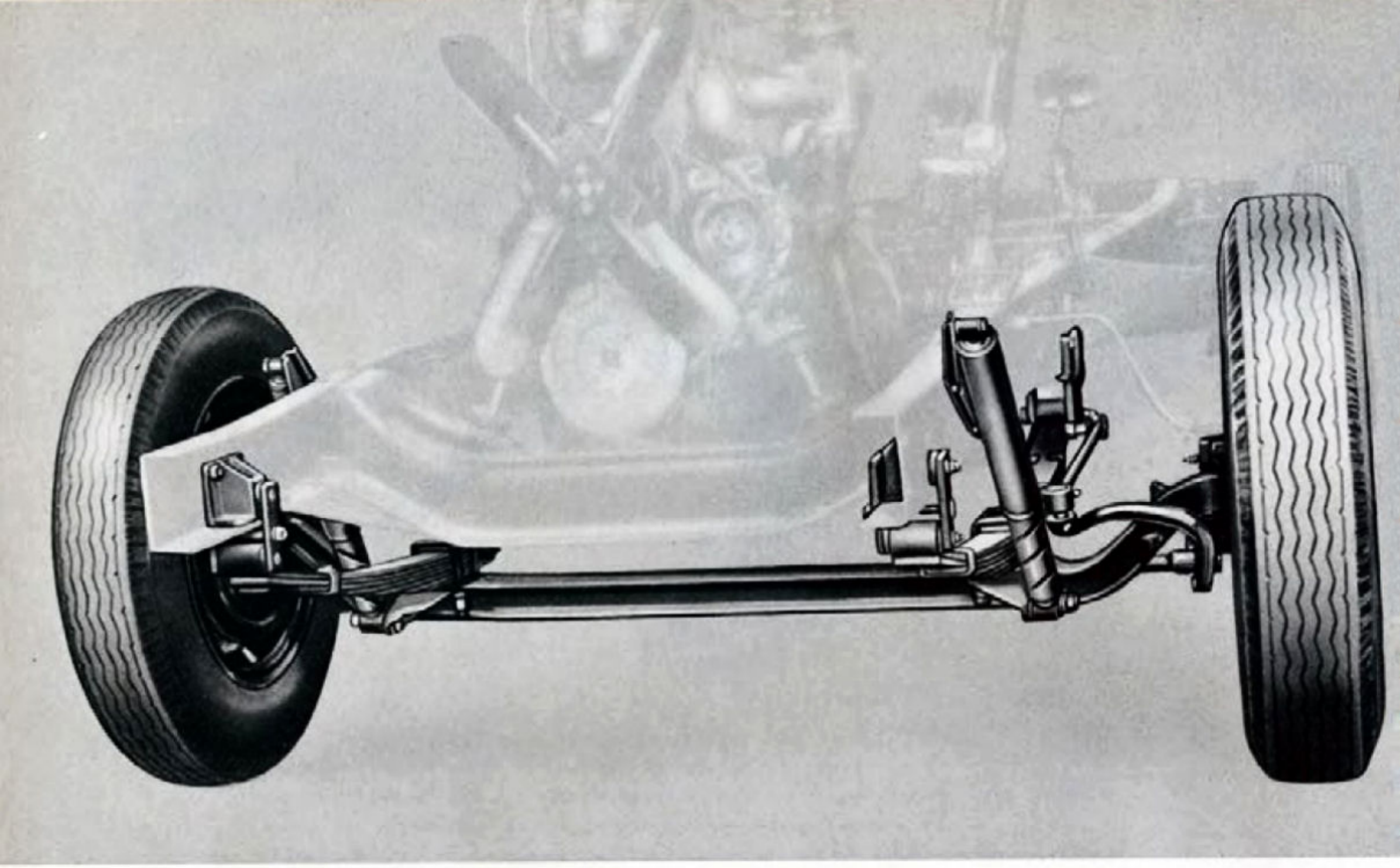
The elimination of the sub-frame is made possible by use of the new V-8 engine which is shorter and more compact than the standard 6-cylinder engine. By placing the V-8 engine well forward, and by adding 2-5/8 inches to each wheelbase, sufficient space is obtained to allow the cab to rest on the frame directly behind the engine.

A new deeply-channeled front crossmember is narrower and set farther forward to allow engine placement almost wholly ahead of the front axle instead of over it, as before. This front crossmember is specifically designed for use in low, cab forward trucks only, but the attachment to side members is improved by use of triangular gusset plates as in conventional series. Except for bosses which receive and support the strut-type engine mounts, it is straight for high strength, instead of being formed to "cradle" the front end of the engine as in the previous design.

To the weight saving achieved in the elimination of the sub-frame is added a further weight saving of approximately 30 pounds obtained through the use of the shorter but more powerful V-8 engine. Steering and handling characteristics are improved by the reduced cab height and lower center of gravity.

A new and better cushioned cab-to-frame attachment, utilizing rubber biscuits instead of the former shackle arrangement, prevents the rear of the cab from lurching upward when severe bumps are encountered.

New body brackets to which the cab is bolted are smaller yet stronger. The front brackets serve also as shock absorber brackets, and brake and clutch pedal supports.



FRONT SUSPENSION

New front axle I-beams in all truck series are lengthened to obtain additional front tread width and to provide greater front end stability. The dimension between integral spring pads is increased because the new 34-inch front frame width allows wider spacing of front springs. The web thickness of the I-beam section near the steering knuckle is increased in all Series 4-5-6000 front axles and section moduli are correspondingly greater in that area. In Series 4000 and 6000 front axles the increase in I-beam web thickness is carried inboard as far as the spring pads to provide increased resistance to torsional and bending stresses.

Bosses forged on both sides of all truck front axles serve as steering knuckle stops in an improved method of setting front wheel angular travel by means of an adjustable bolt located on each knuckle arm. Adjustment of the wheel travel limit formerly required removal and replacement of specially formed stops which bolted to the I-beam.

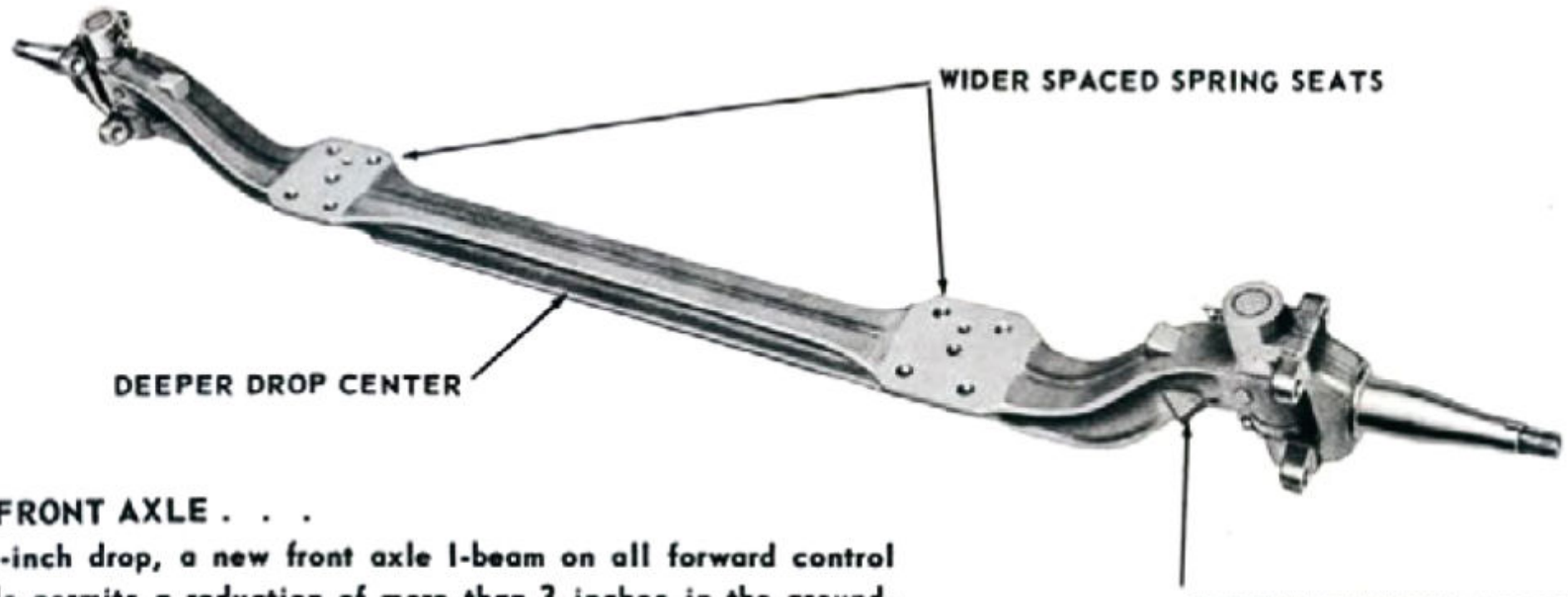
Greater spring durability and improved riding qualities are obtained in all series through use of longer front springs. At the same time, in Series 3100, forward control models, Series 41-4400, and in Series 67-6800 school bus models, front spring capacities are increased 14 to 18 per cent.

Front springs of 3000, 4000 and 6000 series trucks are now 44 inches long and 2 inches wide. This represents a length increase of 6 inches for 3100 and 3600 trucks, and 4 inches for other series. A leaf width increase from 1-3/4 to 2 inches is incorporated in 31-3600 front springs, and internal friction is reduced by using six leaves in place of the former eight.

On 5000 series trucks, leaf width is increased from 2 to 2-1/4 inches while length is increased to 52 inches from the former 40 inches. Pounds per inch front spring deflection is at the same time reduced approximately thirty per cent in Series 5100 and 15 per cent on Series 5400 and 5700 for a softer, much improved ride. Heavy-duty front springs containing extra leaves are available as optional equipment on Series 5000 and 6000 trucks.

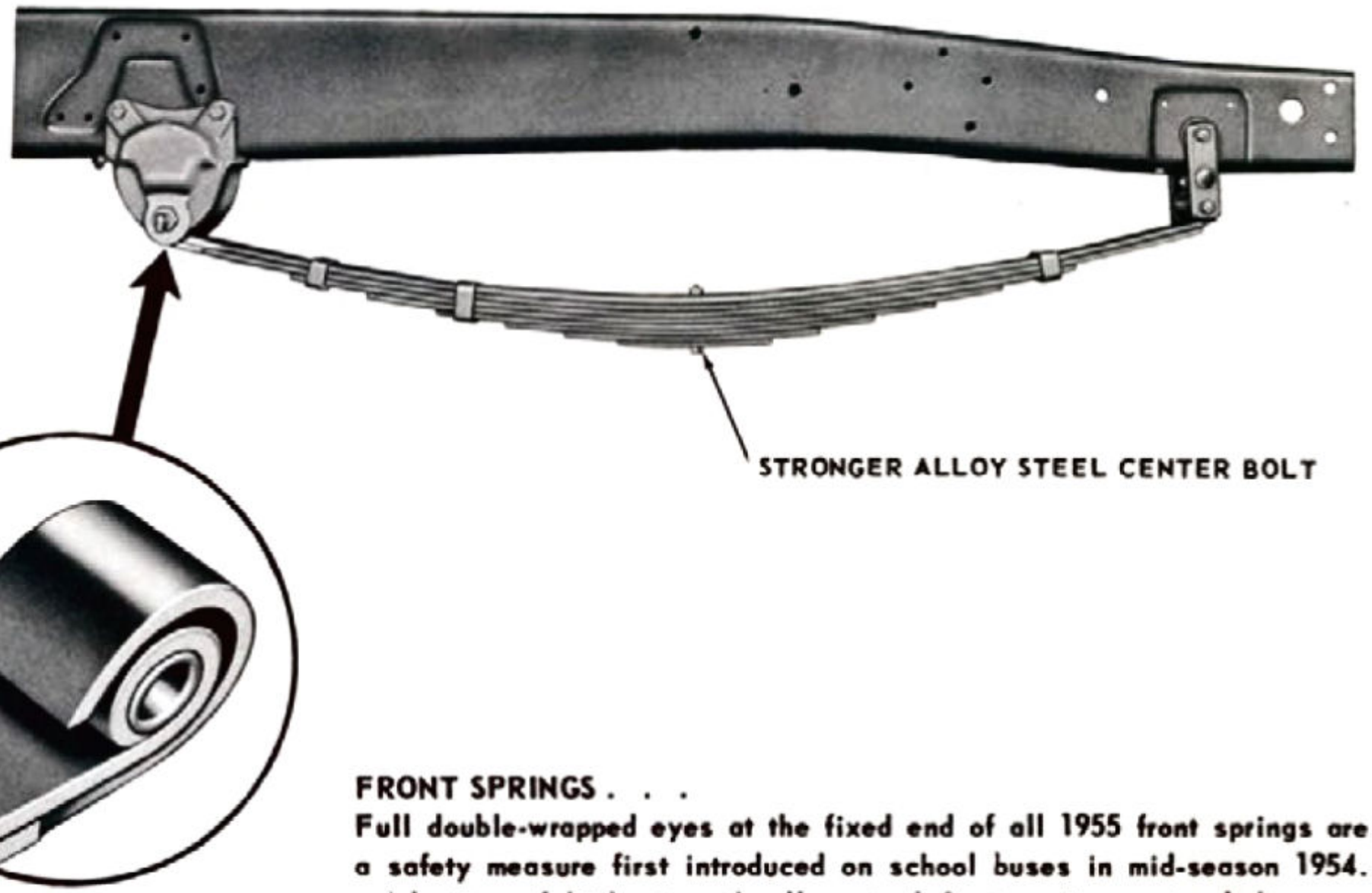
New front shock absorbers, with increased travel due to the longer front springs on all trucks, are recalibrated and positioned farther outboard as permitted by wider frame and front tread dimensions. Mounting brackets or plates attached to the frame and front axle are stronger and more rigid, particularly on conventional models in Series 3000, for improved shock control. A closer coupling between shock absorbers and mounting brackets is obtained in all cases where front shock absorbers are standard equipment by the adoption of eye-type ends bushed with durable rubber inserts.

Front shock absorbers on Series 5000 with eye-type upper and lower ends for maximum durability and effectiveness, are standard equipment for the first time. Front shock absorbers for Series 4000 and 6000 are available as optional equipment. Upper and lower ends of the optional units continue with stud-type attachment.



DEEP DROP FRONT AXLE . . .

With a deep 6-inch drop, a new front axle I-beam on all forward control chassis models permits a reduction of more than 3 inches in the ground-to-frame height. A corresponding reduction in frame height at the rear of the chassis is obtained through use of a 2-1/4 inch frame "kick-up" over the rear axle. A lower center of gravity is thereby obtained and steering and handling characteristics are improved. Lower steps in commercial bodies may now be provided to make driver entry easier.



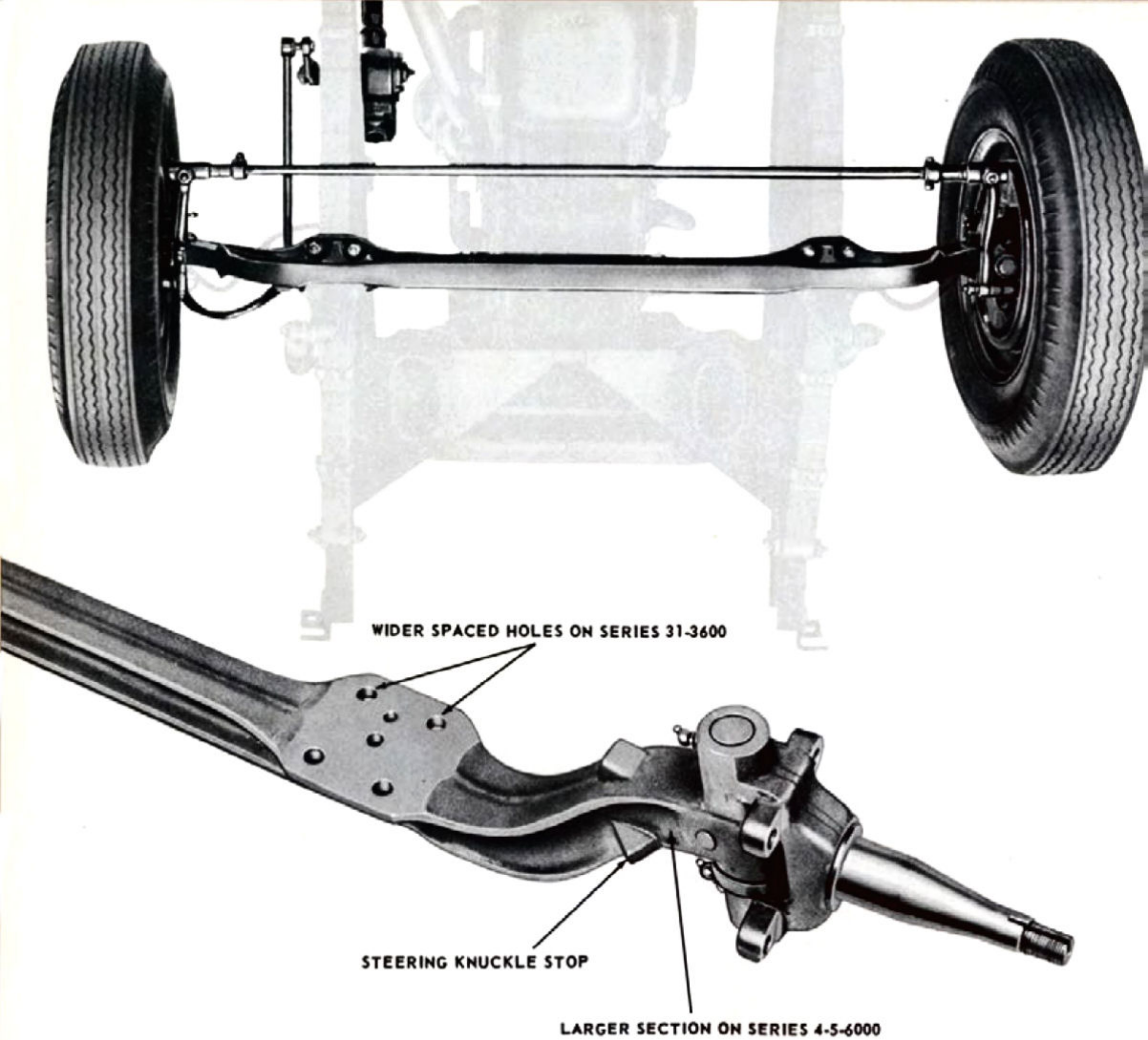
FULL DOUBLE-WRAPPED EYE

FRONT SPRINGS . . .

Full double-wrapped eyes at the fixed end of all 1955 front springs are a safety measure first introduced on school buses in mid-season 1954.

Adoption of high strength alloy steel front spring center bolts contributes to operational safety in severe service. The tensile strength of the new bolts is almost twice that of the former low carbon steel bolts, and resistance to shear is also greater.

In all front spring shackles, synthetic rubber washers replace the former impregnated cork washers to provide longer-lived spacers between the spring eye and shackle sides.



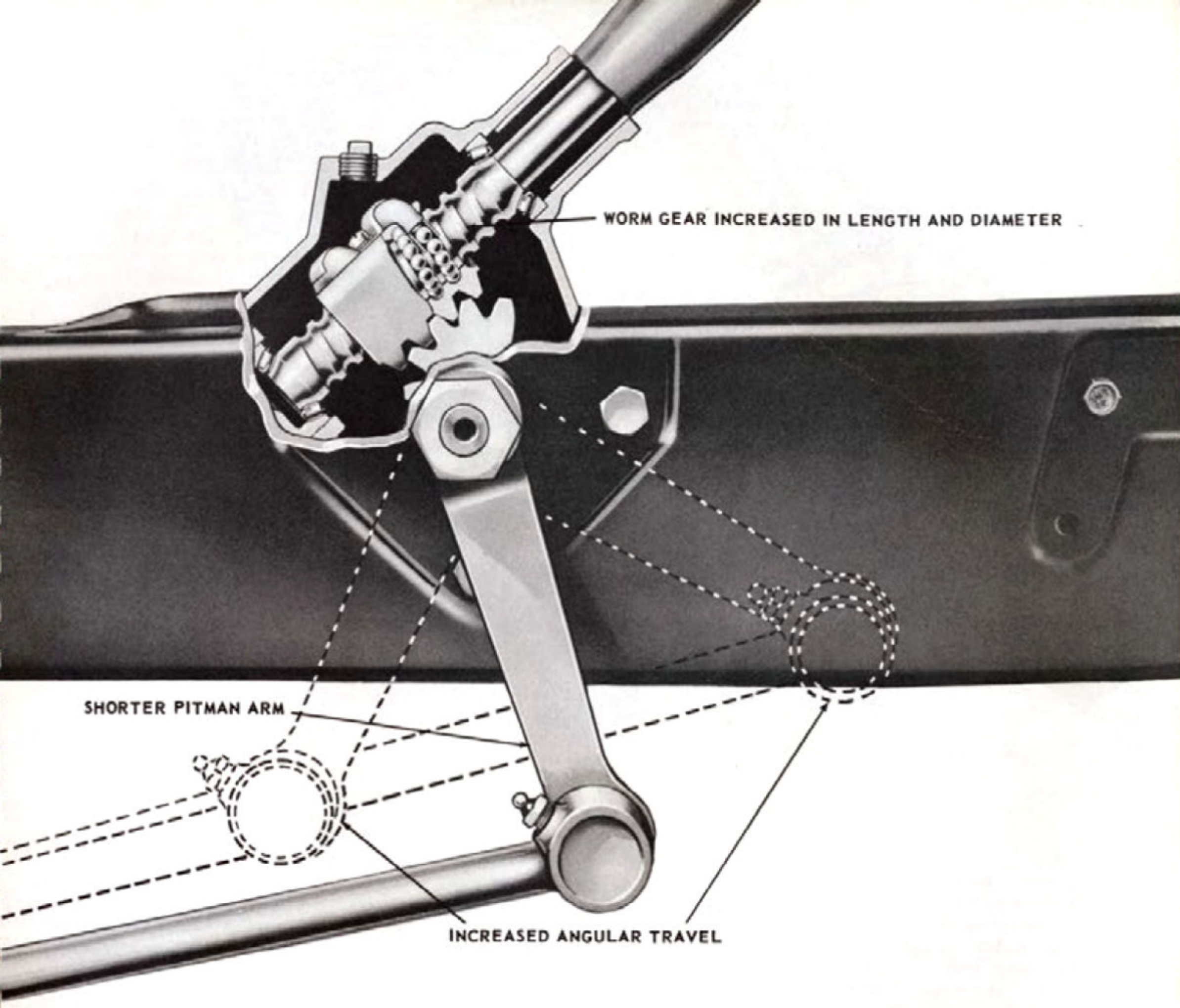
STEERING

Smaller curb-to-curb turning diameters for all conventional models, except the 220-inch wheelbase Series 6800, result from shorter wheelbases and from new adjustable knuckle stops which permit setting for minimum tire clearance over frame and maximum angular travel of front wheels.

Improved steering geometry is obtained in conventional models by the shorter Pitman arms and by new steering and third arms which are of optimum length to minimize wheel fight and to preserve correct overall steering ratio over a wide range of wheel angles. Drag links and tie rods are modified in length because of relative front axle relocation and the increase in front tread dimension. The improved steering linkage in combination with changes in steering gear ratios results in an increase of up to six per cent in the overall steering numerical ratio.

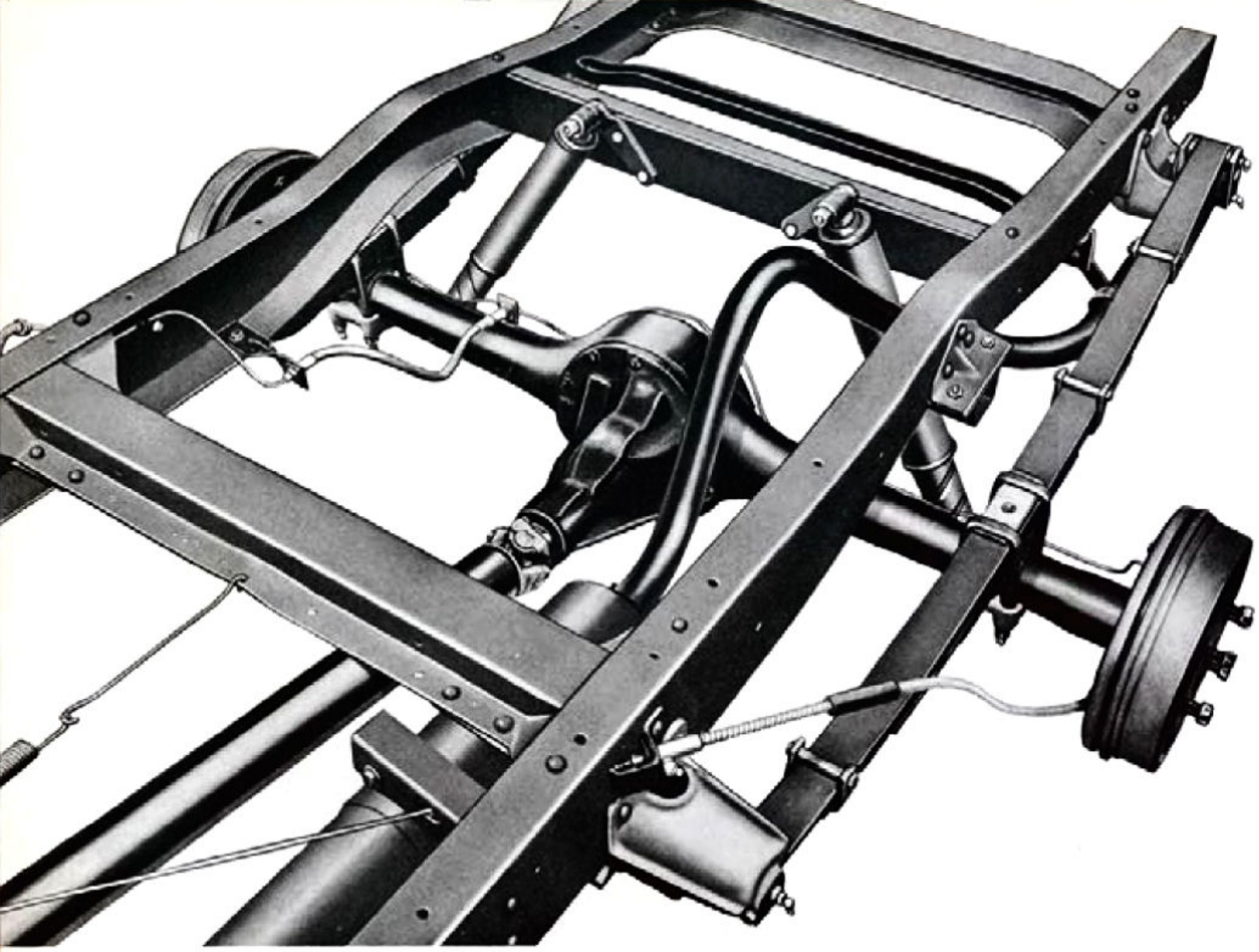
The new gear ratios are 21.3-to-1 for Series 3000, Series 4100 and 4400 (previously 26.24-to-1) and Series 4500 and 6000 (previously 27.76-to-1) are changed to 23.6-to-1. The 27.76-to-1 ratio of Series 5000 steering gears remains unchanged, while forward control steering ratios change to 27.76-to-1 from 19.8-to-1.

New linkage-type power steering, described in the chapter on Extra-Cost Equipment, is optional for all series and all except forward control models.



STEERING GEAR . . .

Steering gear ratios are numerically lower in all conventional models, while Pitman arms are shortened to maintain or improve overall mechanical advantage with new linkage to the front wheels. Steering worms are longer to allow greater angular travel and to provide comparable linear travel for the shorter Pitman arms. Durability is improved by increased worm diameter in combination with greater worm length. The recirculating ball and nut feature is retained for high mechanical efficiency and smooth steering action.



REAR SUSPENSION

Increased durability, together with better ride and roadability, result from important changes in the rear suspension of all Chevrolet trucks for 1955. These include a number of axle improvements for heavy-duty models, new 52-inch springs throughout the line, and more effective shock absorber mounting in all Series 3000 models. Hotchkiss drive, extended to the 1955 First Series 1/2-ton models, is continued so that all Chevrolet trucks now have this feature.

A heavier axle housing in Series 4000, a heavy-duty housing with heavy-duty drive and differential gears in Series 5000, equalized axle shaft lengths in Series 4000 and 6000, the drive pinion shaft and bearings in the 1/2-ton Hotchkiss drive axle, and relocation of inner and outer rear wheel bearings on 2-ton trucks are all changes which improve durability. For high performance and versatility, a new 2-speed planetary rear axle is offered as extra-cost equipment on 1-1/2 and 2-ton models.

Rear wheel hubs on all 2-ton trucks are redesigned for better distribution of load between inner and outer bearings. Bearing locations in the hub are altered with respect to the wheel load line so that average load on the outer bearing is reduced by approximately 23 per cent contributing to longer bearing life.

Spring seats are moved inboard on all except 3600 series rear axle housings as required by the new standard 34-inch frame width. This was unnecessary in the case of 3600 series housings because new spring hanger brackets carry the rear springs farther out from the frame.

On 1/2 and 1-ton model housings, the rear spring seats are widened to accommodate the wider leaf rear springs on those trucks.

Hotchkiss drive, which replaces torque tube drive in the 1955 First Series 1/2-ton models, is continued in the 1955 Second Series models for increased smoothness in the application of power to the rear wheels. Torque reactions, such as those generated by sudden clutch engagement and driving and braking forces, are cushioned in the Hotchkiss arrangement by the rear springs. In the superseded torque tube drive system, such reactions were conveyed via the torque tube and engine rear support directly to the frame.

With the propeller shaft enclosure eliminated, the differential carrier in the 1/2-ton rear axle is modified and shortened for a weight reduction. The drive pinion shaft is at the same time redesigned and simplified to improve fatigue life by removal of stress concentration areas.

New taper roller pinion bearings with thrust surfaces opposed to minimize axial and vertical movement of the drive pinion are widely spaced for

increased pinion rigidity and longer service life in 1/2-ton rear axles. The thrust capacity and the durability of these bearings is increased as much as 80 per cent over that of the previous double-row angular contact "W" type ball bearing which was used in combination with a straight roller bearing.

REAR SPRINGS. A new length of 52 inches is universal for rear springs in all trucks. Former Series 3100 rear springs were 54 inches long, while 46 inches was the standard length for rear springs in all other series. High strength alloy steel center bolts are used in all rear springs, with metallurgy the same as in new front spring center bolts.

The leaf width of Series 3100 rear springs is increased from 1-3/4 to 2 inches and a two-stage design is introduced as standard equipment. The deflection rate of the 52-inch first stage is 175 pounds per inch compared to 190 for the former single stage spring, providing a smoother ride when the vehicle is empty or lightly loaded. With the second stage, the new spring is rated at 231 pounds per inch deflection for improved stiffness under load and better roadability for the loaded vehicle.

New rear spring front and rear hangers for Series 31-3200 trucks now are outrigger type to obtain wide spring spacing with the much narrower 1/2-ton frames. For adequate ride clearance between the suspension and frame with this hanger change, 1/2-ton rear springs are attached over the rear axle as in all heavier trucks, instead of being slung underneath the axle as in the previous model. Rear spring shackles are inverted to work in tension so that a low loading height may be maintained.

Outrigger rear spring hangers for Series 3600 are 1-inch longer than previously to provide the same spring spacing with frame width reduced from 36 inches to 34 inches. Both front and rear hangers are the same as used in the 1/2-ton rear suspension. To permit this standardization, and to maintain a low loading height with the longer 2-stage rear springs, the H-type rear shackle is inverted to carry load in tension as in 1/2-ton models.

In Series 3800 rear springs, width is increased from 2 to 2-1/2 inches and a heavier spring center bolt of larger diameter is used. Stress is reduced approximately 20 per cent and durability is improved by the increase in leaf width.

Spring capacities in 1-ton and heavier trucks are more closely tailored to GVW rating for a marked improvement in riding comfort at no sacrifice in spring durability. Close attention has been given to spring deflection rates to minimize "bottoming" with capacity loads, and durability is further assured through the increase in spring length which provides more resistance to spring wind-up in sudden starts and stops. Leaf width remains 2-1/2 inches in Series 4-5-6000 rear springs. The auxiliary springs standard on Series 61-64-6500 are 40 inches long

EQUAL LENGTH AXLE SHAFTS . . .

Axle housing diameter on the 4000 series production axle is increased from 3-1/2 to 4 inches for a considerable gain in actual strength reserve. Nominal capacity remains at 11,000 pounds.

Another improvement incorporated in the standard production rear axles for both 4000 and 6000 series, as well as the optional 2-speed rear axle, is the equalization of axle shaft lengths. Besides the advantage of shaft interchangeability, which means that only one type of shaft need be stocked for a given type axle, there is also less likelihood of shaft breakage. Formerly, if breakage occurred, it was usually the shorter shaft which fractured because it had less "wind-up" capacity. With about two inches of length added to what was the shorter shaft, there is improved ability to handle sudden torque loads without shaft failure.

EQUAL LENGTH AXLE SHAFTS

Series 4000 Rear Axle Illustrated

compared to a previous length of only 31 inches.

New rear spring hangers on all 1-1/2 and 2-ton trucks are 25 per cent heavier. Attachment to the frame is improved by using 6 rivets at each hanger, instead of 4.

REAR SHOCK ABSORBERS. Stronger, more rigid mounting brackets for standard rear shock absorbers on Series 3100, 3200 and 3600 trucks improve shock control by providing closer coupling and more immediate damping. Travel of recalibrated Series 3600 rear shock absorbers is increased from 8 to 9-1/2 inches because of the longer rear springs. On 1/2 and 3/4-ton conventional models, the rear shock absorbers are now located behind the rear axle with the upper ends inclining inward to provide roll stability on turns. Former 3100 and 3600 series shock absorbers slanted forward to the frame from mounts projecting ahead from a fastening under the rear axle.

Eye-type ends with durable rubber grommets provide maximum effectiveness for the rear shock absorbers standard on Series 31-3200 and 3600. Eye-type ends are also employed with the optional rear shock absorbers available for Series 4000, 5000 and 6000 School Bus models. On Series 3800, the optional rear shock absorbers are retained by a stud-type upper end attachment. The lower end attachment is of the eye-type.

SERIES 5000 REAR AXLE . . .

A new heavy-duty rear axle housing, increased from 4-1/4 to 4-1/2 inches in diameter and carrying a 15,000 instead of 13,000 pound capacity rating, is used with heavy-duty 6.17-to-1 ratio gears as the standard production axle for all 5000 series trucks. The heavy ring gear is 13-3/4 inches in diameter, and the drive pinion and differential gears are also heavier than those in the previous axle.

BRAKES, WHEELS AND TIRES

BRAKES. The former parking brake pedal control with its hand-operated release mechanism is obsoleted and replaced on all Series 3000 trucks by dash or transmission-mounted hand levers which offer greater convenience and ease of both application and release.

A new hand control lever pivoting horizontally from a mount on the left side of the steering column support becomes standard on all 1/2-ton models irrespective of transmission option. This type of hand control is also standard on 3/4-ton conventional and forward control chassis models except when a 4-speed manual transmission is ordered as extra-cost equipment. On 1-ton models the horizontal hand lever is furnished only with the optional 3-speed heavy-duty and automatic transmissions.

A transmission-mounted parking brake lever is furnished with the 4-speed transmission used as standard equipment on 1-ton models and optional equipment on 3/4-ton models. Since this transmission is similar to the one standard on 1-1/2 and 2-ton trucks, the same brake lever is also used and merely linked to a band-type propeller shaft brake on the rear of the housing, instead of to a dual-grip, shoe-type brake.

The position of the parking brake control lever is changed and a shorter linkage to the propeller shaft brake is obtained in Series 5000 models. The lever is now mounted directly on the transmission, where formerly it was based on the floor of the cab somewhat to the left of the clutch pedal.

In all trucks except forward control series the front of the hydraulic master cylinder housing is redesigned to form a yoke in which the brake pedal is independently fulcrumed. This permits better alignment of the short linkage between the pedal and the hydraulic cylinder. A heavy support bracket attaching the master cylinder to the frame provides high strength to resist forces applied to the pedal. A manufacturing advantage of the separate clutch and brake pedal mounting is the simple deletion of the clutch pedal when an automatic transmission is installed.

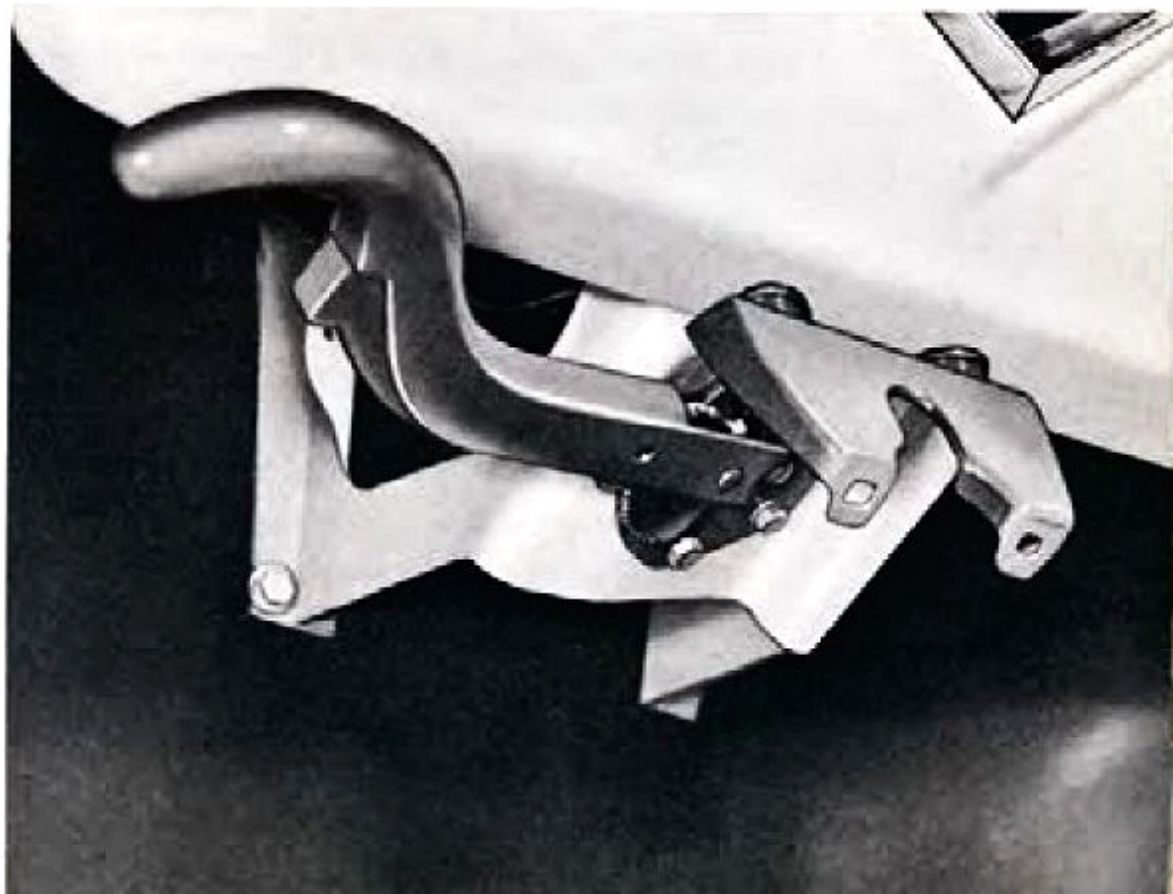
WHEELS AND TIRES. The "pilot" diameter in Series 4000 wheels is increased to 5-1/4 inches from a former 4-3/4 inches so that the 20 x 6 wheels standard on 2-ton trucks may now be used to replace the standard 20 x 5 wheels on 1-1/2 ton trucks when heavy-duty tire equipment is required.

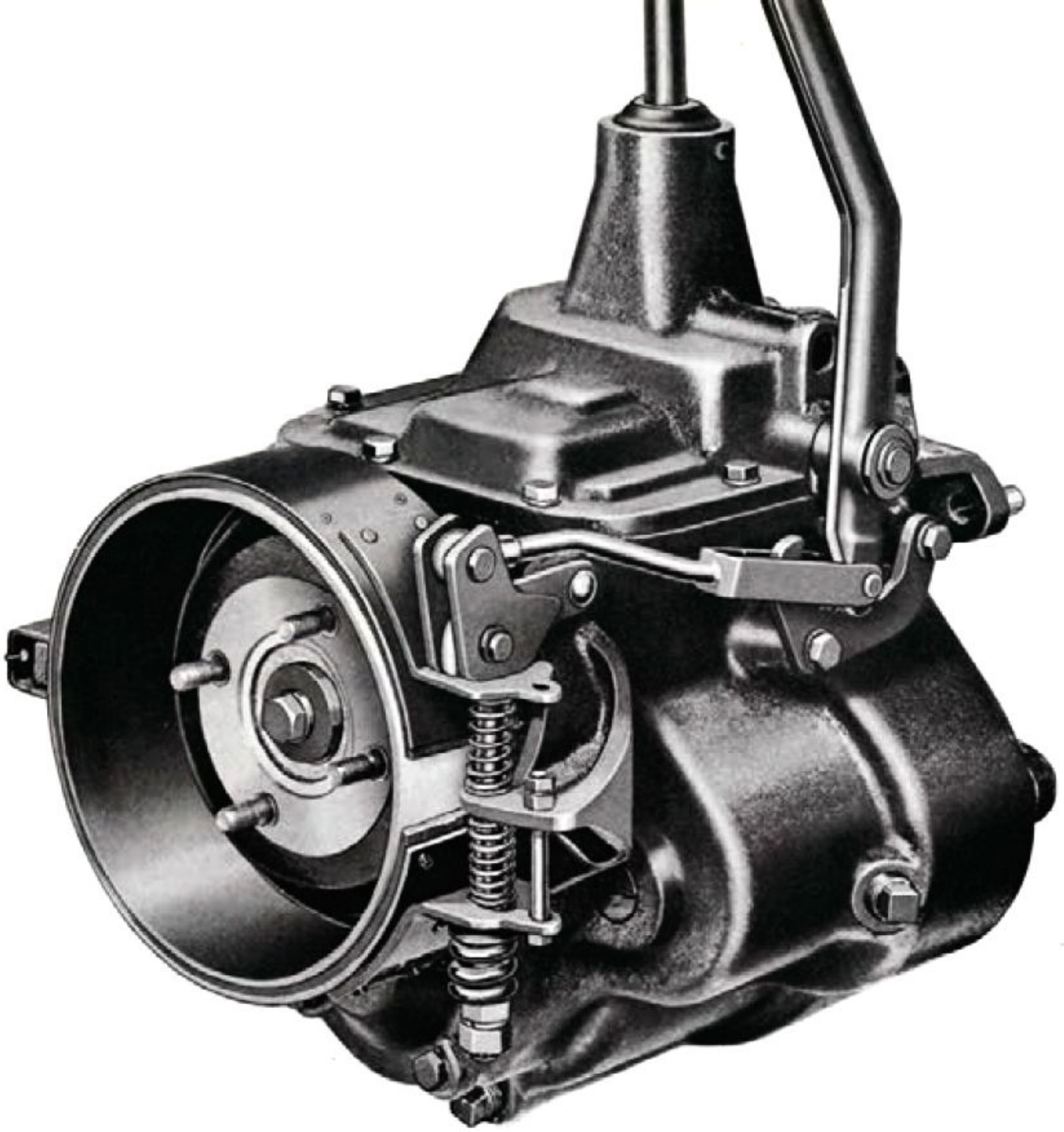
Tubeless tires, size 6.70-15-4 pr., with greater resistance to blow-out, replace the former 6.00-16-6 pr. conventional tire and tube combination on 1/2-ton models. The new tubeless tires are larger in cross-section, require less inflation pressure, and weight per tire assembly is lowered approximately 4 pounds by elimination of the tube and reduction in ply rating. Increased tire sidewall stability results from the use of wide base 5K rims which are 1/2-inch broader than the 4-1/2K rims standard on early 1954 models.

The tubeless-type tire is also available in 6.70-15-6 pr. and 6.50-16-6 pr. sizes as optional equipment for 1/2-ton models. The 15-6 pr. conventional tire and 15-5.50F wheel option is continued from 1954. Strength and durability of the 16 x 5K wheel assembly is improved by the use of 8 per cent heavier gauge metal in the rim section.

On all forward control models, the standard tires are 7.00-17-6 pr.; previously, 15-6 pr. tires were standard on the 3742 chassis. Rolling radius of the 17-inch tires is 1.3 inches greater, necessitating use of a deeper drop in front axle I-beams on 3400, 3500 and 3700 chassis to obtain a low frame height. Previously available only on model 3942, use of the 7.00-18-8 pr. tires in a dual rear, single front combination is optional for all new forward control models as minimum equipment for 10,000 pound maximum GVW.

PARKING BRAKE CONTROL . . .
The new laterally-pivoting parking brake hand lever is more convenient to operate than the previous pedal type. The pistol grip handle with trigger-type release is always positioned where it may be easily reached. A further advantage is more positive application and release, particularly when linked to the new band-type propeller shaft brake.





BAND-TYPE PARKING BRAKE . . .

A propeller shaft parking brake utilizing an 8 by 2-1/2 inch drum and a circumferential friction band is introduced as standard equipment on all Series 3800 trucks, replacing the cabled connections to the rear wheel service brakes in that series. On 3/4-ton conventional and forward control models the new brake will supplant the cable type whenever a 3-speed heavy-duty, a manual 4-speed or an automatic transmission is installed as optional equipment.

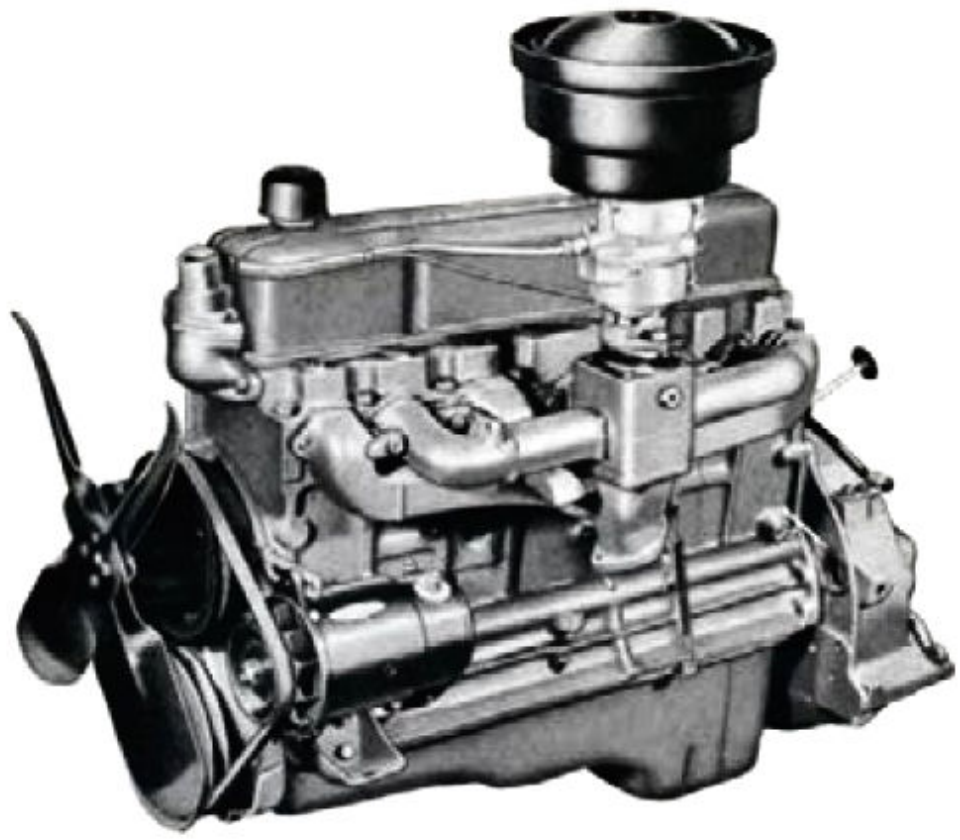
With mechanical advantage obtained through the rear axle ratio, the band brake is fully as effective for parking or for emergency use as the cable-to-rear wheel brake arrangement. The shorter and more protected linkage to the band brake is not susceptible to snagging in off-the-road operation, or apt to bind or freeze in the presence of rust and dirt.

Where the hand control lever is mounted on the transmission, as with all manual 4-speed transmissions except the one optional for Series 31-3200, a single short rod links the lower end of the control lever with the propeller shaft brake, affording positive braking action and immediate release.

The new band brake consists of a steel drum, 8 inches in outside diameter, which is mounted on the transmission output shaft. The steel-backed friction band, as well as the J-bolt and return spring mechanism are mounted on the rear of the transmission housing. The durable, woven-composition lining is 5/32 inch thick, 2-1/2 inches wide, and 24-5/8 inches long. The 3-point adjustment for clearance over the drum is simple and accessible and may be made without special tools.

POWER TRAINS

NEW THRIFTMASTER ENGINE



NEW LOADMASTER ENGINE

ENGINES

Four powerful six cylinder engines, in addition to the new V-8, are provided in 1955. The 235 and 261 cubic inch displacement six cylinder engines are the subject of numerous improvements and have higher advertised power ratings.

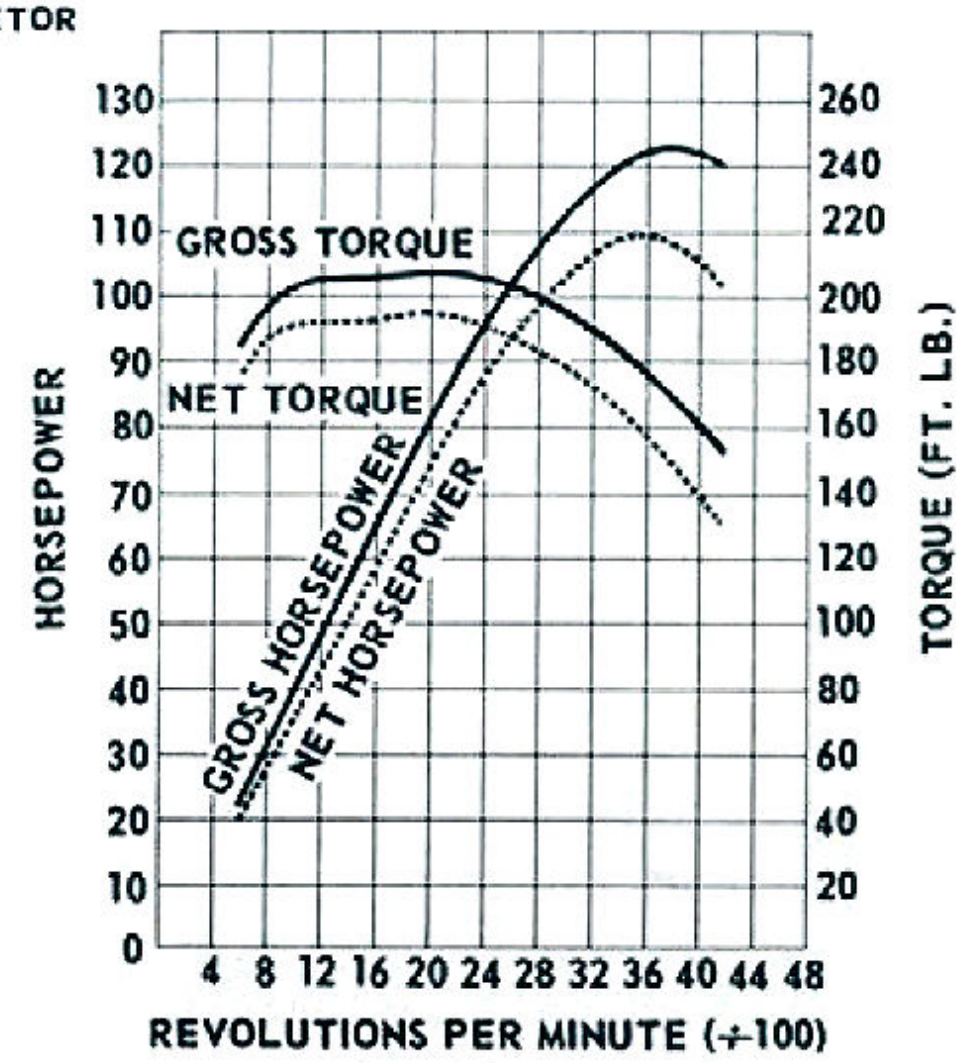
The standard 235 six cylinder engine is again furnished in the conventional 3000 and 4000 series trucks, being identified as NEW THRIFTMASTER on the rocker cover decal and finished in gray. The heavy-duty 235 six cylinder engine is painted green and carries the name NEW LOADMASTER on the decal. Again featuring valve rotators, XCR exhaust valves, and chrome-plated top compression rings for increased durability, it is continued as regular equipment in the 6000 series and is available as optional equipment in Series 4000 as in 1954. This heavy-duty 235 engine, painted gray, and with an updraft carburetor, powers the forward control models as before. The 261 cubic inch six cylinder engine, distinguished by yellow paint and the name NEW JOBMASTER on the decal, is continued as optional equipment in the 6000 series. The new 265 cubic inch V-8 engine, painted yellow and named TASKMASTER V-8, is supplied only in the 5000 series, where it is regular equipment.

The following table contains gross and net horsepower and torque ratings for each of the truck engines for 1955:

ENGINE OUTPUT RATING

SERIES	GROSS		NET	
	HP at RPM	TORQUE at RPM	HP at RPM	TORQUE at RPM
3000 and 4000 Conventional	123 at 3800	207 at 2000	109 at 3600	195 at 2000
34-35-3700 Forward Control	119 at 3600	205 at 2000	105 at 3600	188 at 2000
6000 (4000 RPO)	123 at 3800	207 at 2000	109 at 3600	195 at 2000
6000 RPO	140 at 4000	230 at 2000	123 at 3800	215 at 2000
5000	145 at 4000	238 at 2000	126 at 4000	220 at 2000

NEW THRIFTMASTER 235 ENGINE AND NEW LOADMASTER 235 ENGINE WITH DOWNDRAFT CARBURETOR



REGULAR PRODUCTION SIX CYLINDER ENGINES

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 engines show an increase. Under the new procedure, which liberalizes test conditions for higher gross engine performance rating, the production exhaust pipe is no longer 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.

Design changes in 1955 are manifested in quieter, more smoothly operating six cylinder engines with even greater durability.

Cooling system efficiency is improved through the use of a water pump with increased capacity, larger cooling fan, and radiators with larger frontal areas and increased core constants. A 160 degree thermostat replaces both the production 151 degree unit previously used and the 180 degree thermostat. This is made possible by the use of permanent-type antifreeze in the assembly plants during the cold season and an increase to 7 pounds from 4 pounds in the radiator pressure cap valve, which provides improved engine operating temperatures for all seasons as well as improved heater output in cold weather. The 7 pound pressure cap allows the temperature of cooling water to reach 230°F. before boiling, compared to the boiling point of 222°F. with the 4 pound cap. To facilitate service replacement, a standard SAE 1/2-inch fan belt replaces the 3/8-inch and 11/16-inch belts formerly used.

An oil control ring consisting of two segments and one expander is used on all six cylinder truck engines, replacing the 4-piece unit. This new ring is of the same type as that for the V-8 engine.

The redesigned oil pump has a new floating-type pick-up which, because it floats just below the surface of the oil, insures only the cleanest portion of the oil being circulated. The addition of an oil pan baffle prevents oil surging on quick stops.

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.

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 for the standard 235 cubic inch engine are aldipped, which minimizes build-up of combustion deposits and provides for excellent long life seating conditions and cooler valves, with greatly reduced wear on both valve face and seat.

The turning speed of valve rotators on models using this equipment was reduced during 1954 to lessen wear at the valve seats. This revision is included in the new models.

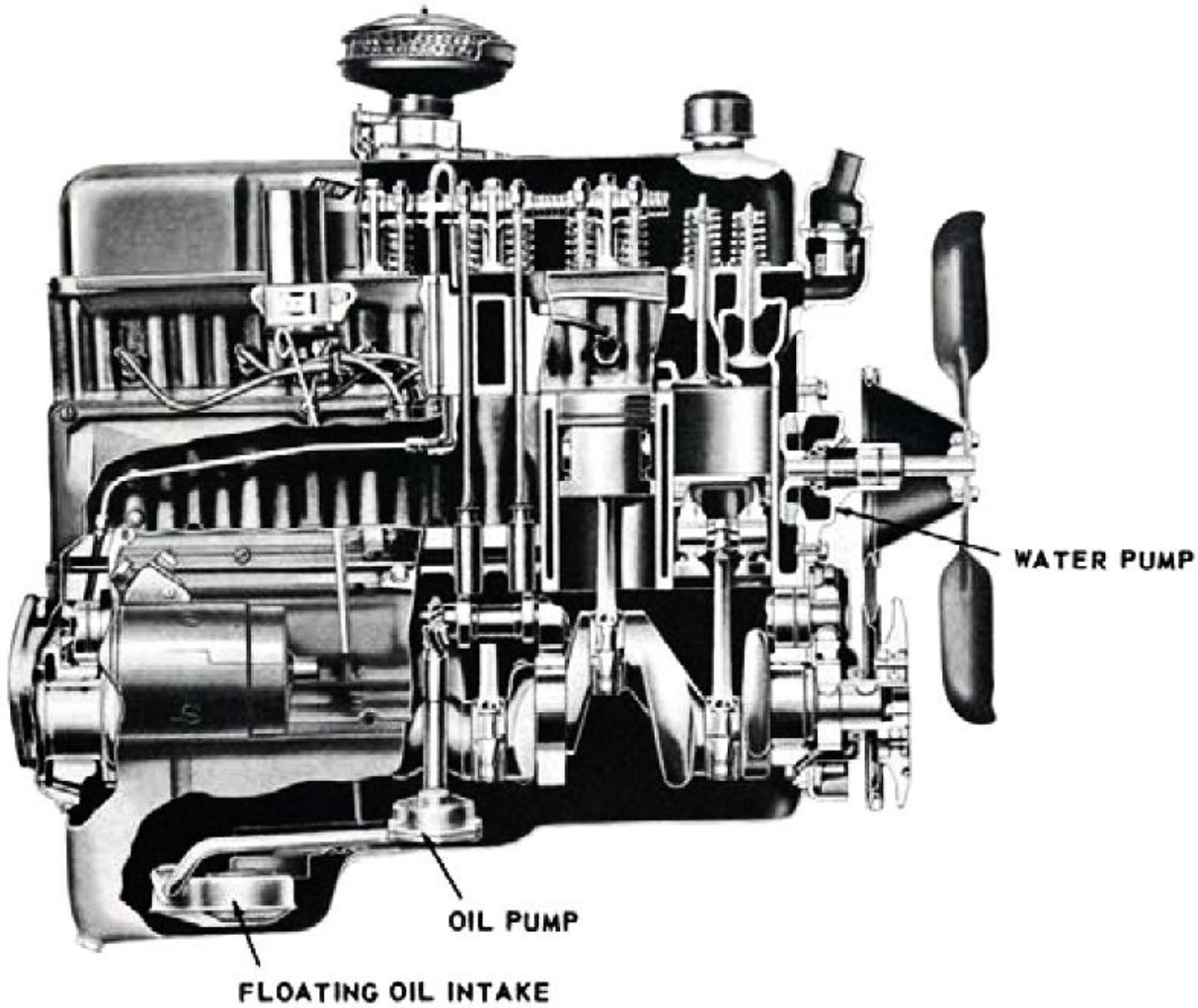
Main bearings are continued as changed during 1954, when the groove was eliminated from the lower halves. Similar to the bearing design used in diesel engines for many years, the new bearings have ample provision for lubrication and increased capacity for extended operating durability.

Timing of the six cylinder engines is changed to 0 degrees at idle, instead of 2 degrees after top center, to take advantage of fuel improvement and to improve torque. Clutch diameters are unchanged.

A completely new fuel pump provides improved operation and simplified maintenance. As electric windshield wipers are available as an option in 1955, the fuel pump with vacuum booster, formerly an option, is discontinued.

The fuel tanks for light and medium duty panel, suburban carryall, chassis, and forward control models have been revised to accommodate frame changes. The fuel filter, previously mounted on the fuel pump, is now located in the fuel tanks where condensation and other contaminants are filtered out before entrance to fuel lines. For ease of assembly in manufacture and service, the fuel lines are now attached to the frame with new push-on clips, instead of by the bolting method which was previously used.

For improved suppression of engine vibration, a four-point system replaces the previously used three-point engine mounting. High frequency engine noise is more effectively isolated from the chassis through the use of rubber fabric for flexible mounting of the muffler and tail pipe.



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.

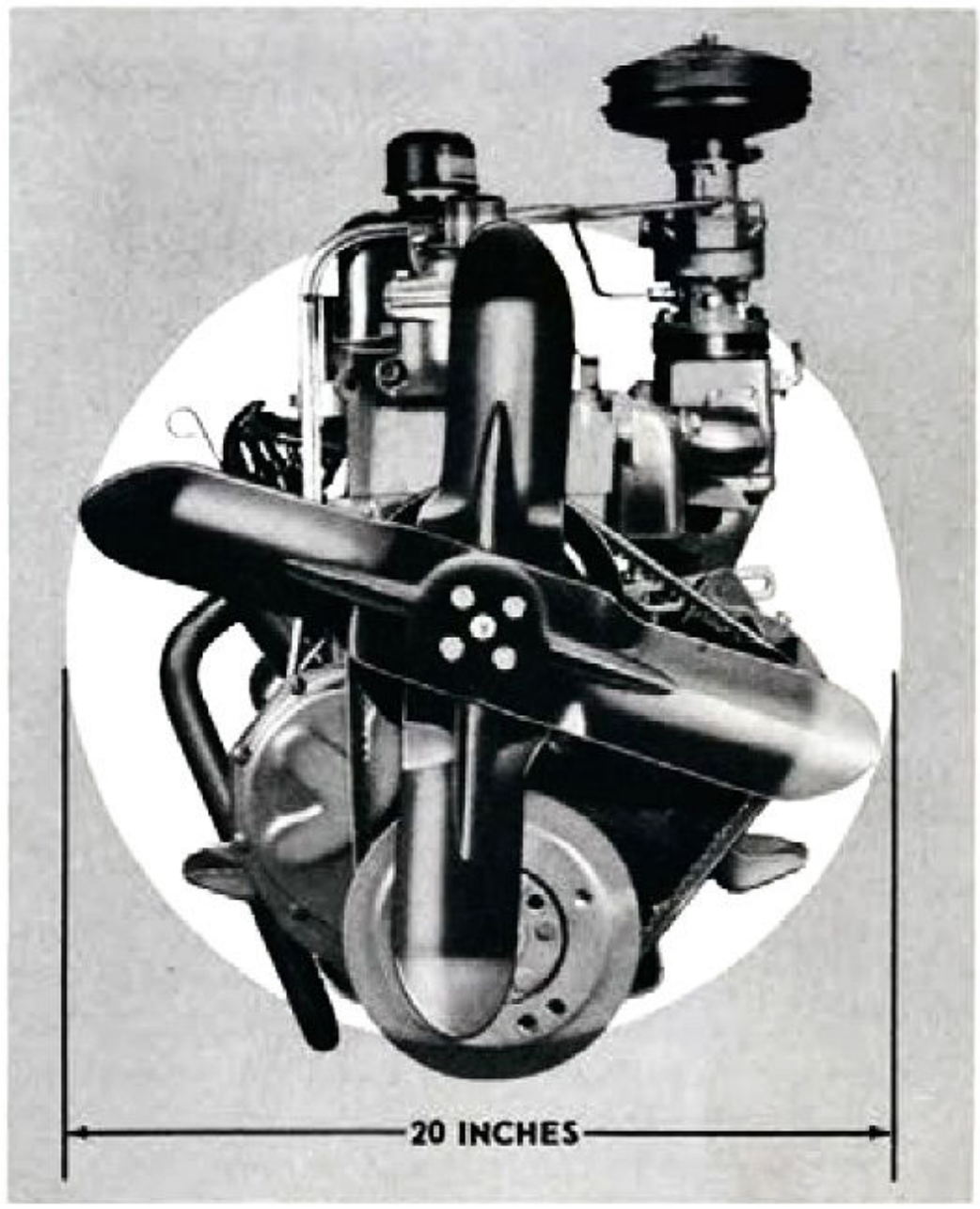
Water connections to the radiator and engine have larger internal diameters to improve the coolant flow and assure adequate cooling and better temperature regulation at low engine speed.

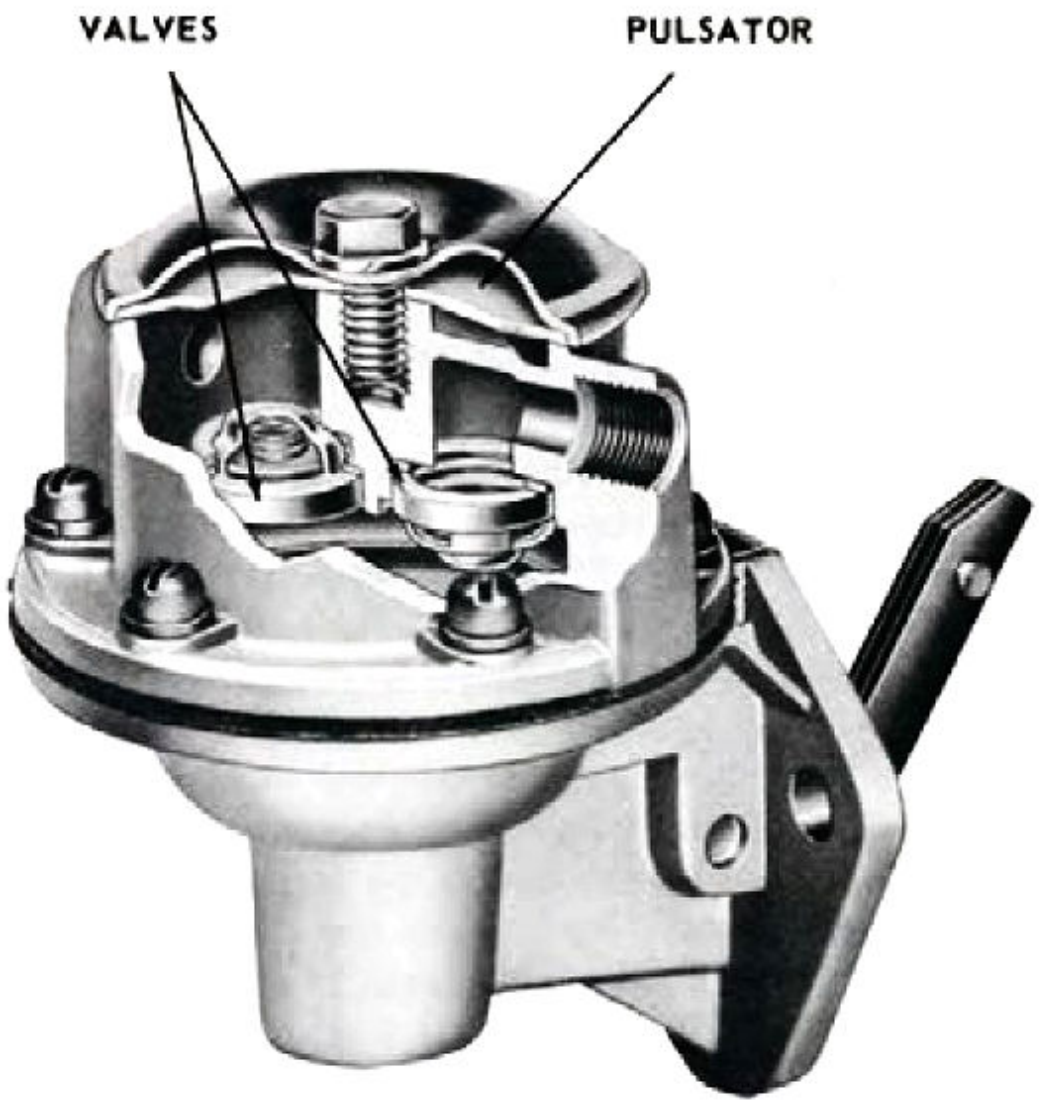
A new inlet is provided for the lubricating oil pump. This new floating-type pick-up floats just below the surface of the oil in the sump, minimizing the possibility of drawing floating or submerged precipitants into the oil distribution system. A new baffle, welded into the oil pan, reduces the surging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

RADIATOR AND FAN . . .

A 20-inch diameter fan replaces the 18-inch fan formerly used. 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 and the blades sweep more of the radiator core than previously. A number of other changes which increase the effectiveness of the cooling system include larger diameter inlet and outlet openings as well as larger hoses between the engine and radiator for low restriction to the coolant flow. The radiator core constant has been increased, providing larger and fewer air cells per unit area of radiator surface. This results in a lighter weight core for manufacturing economy. An increased radiator frontal area maintains cooling capacity through the larger area swept by the cooling air. Less air flow restriction is offered by fewer cells in the new radiator. Increased air flow is obtained on Series 3800 and the 4000 series because the core is reduced from 2-1/2 to 2 inches in thickness, and on the 5000 and 6000 series, by core reduction from 3 to 2 inches. Air flow is controlled on the 4000 series through the addition of a fan shroud, which has been made standard equipment.

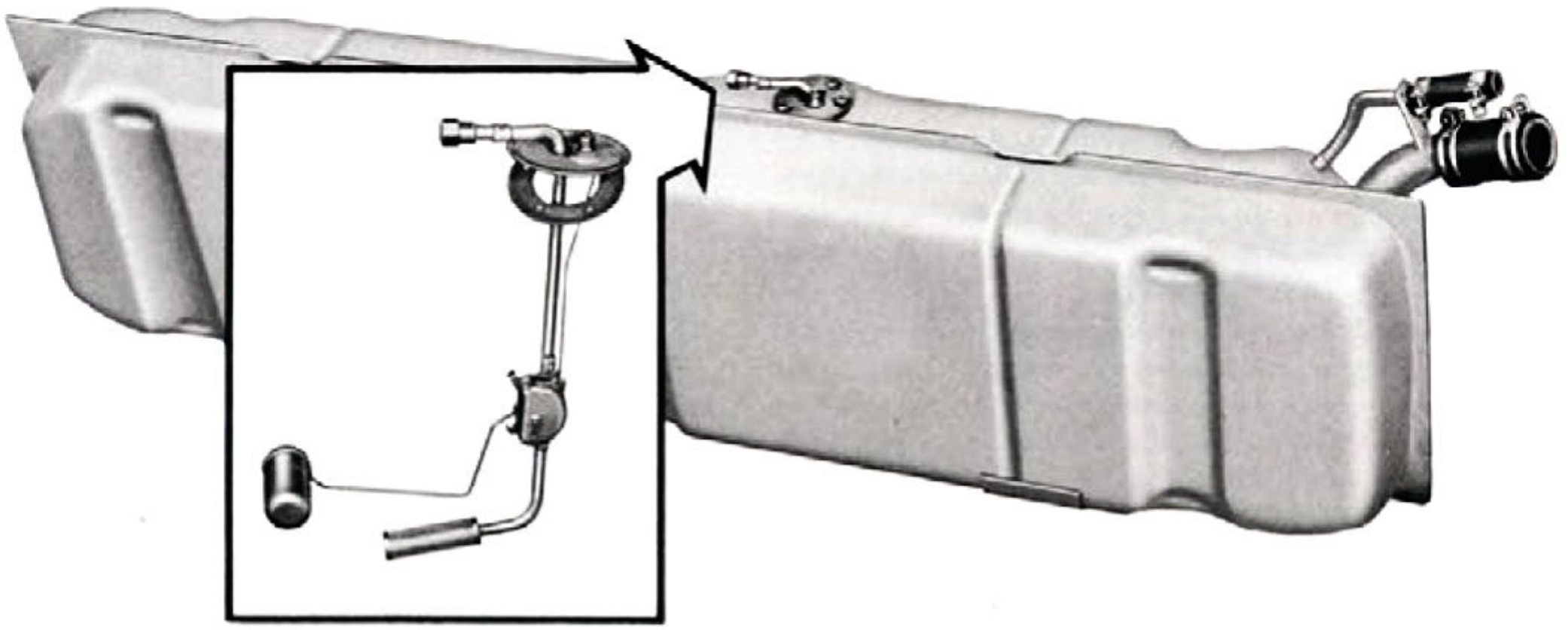
Frontal area for the Series 3000 radiator is 426 square inches, and that of Series 4-5-6000 is 470. A radiator also having a 470 square inch frontal area but with a 2-1/2 inch thick core is offered as optional equipment for all truck models.





FUEL PUMP . . .

Improved operation and simplified maintenance are among the advantages of the new fuel pump. The glass bowl and the filter screen are removed, eliminating the necessity for periodic disassembly and cleaning. An all metal air dome, located above the diaphragm and called a pulsator to describe its action, 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 also assures a more constant supply of fuel under adverse temperature conditions.

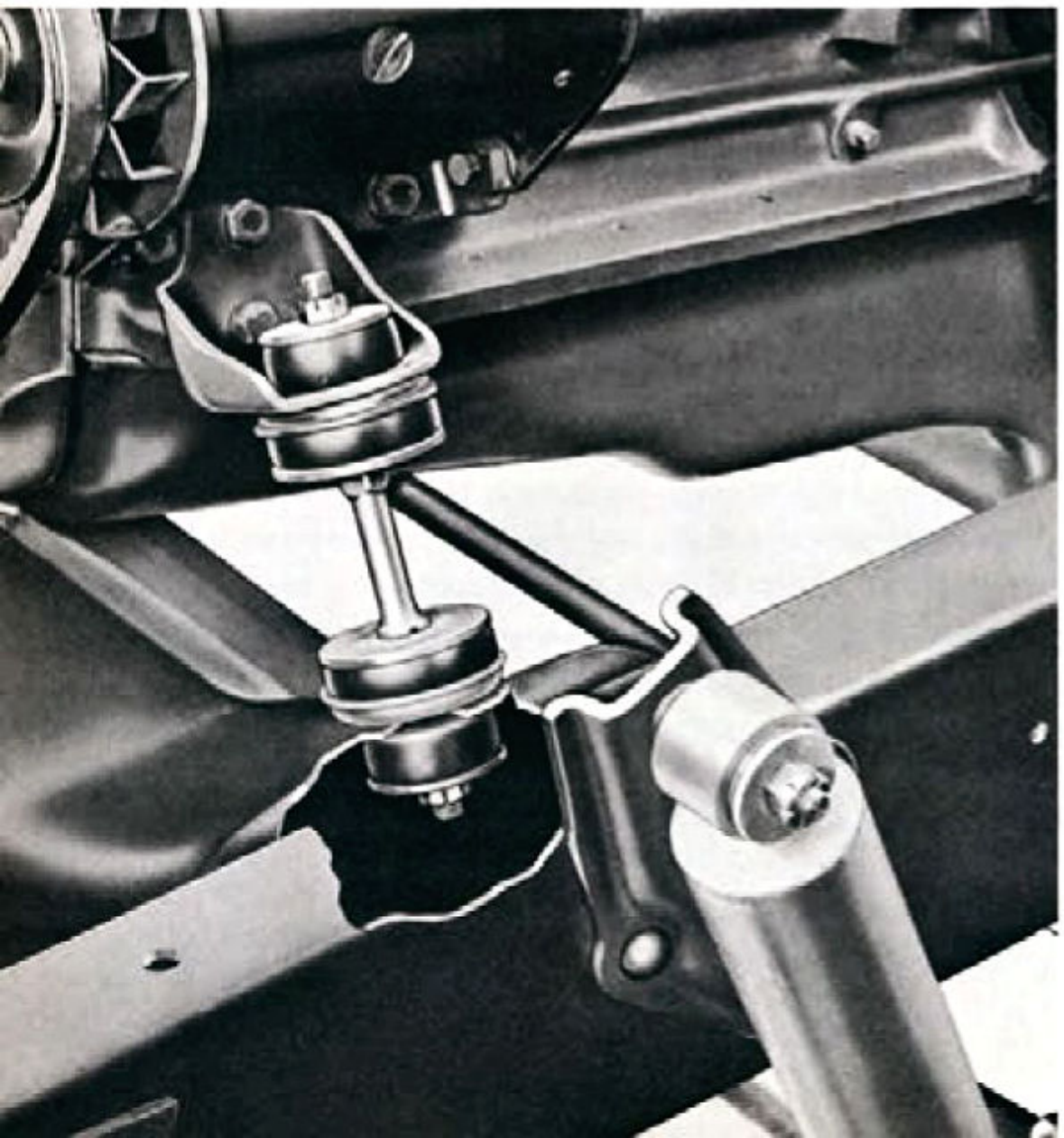


FUEL TANK . . .

Fuel tanks of cab models are unchanged except for being turned end for end, placing the fuel filler neck on the left instead of the right side of the vehicle.

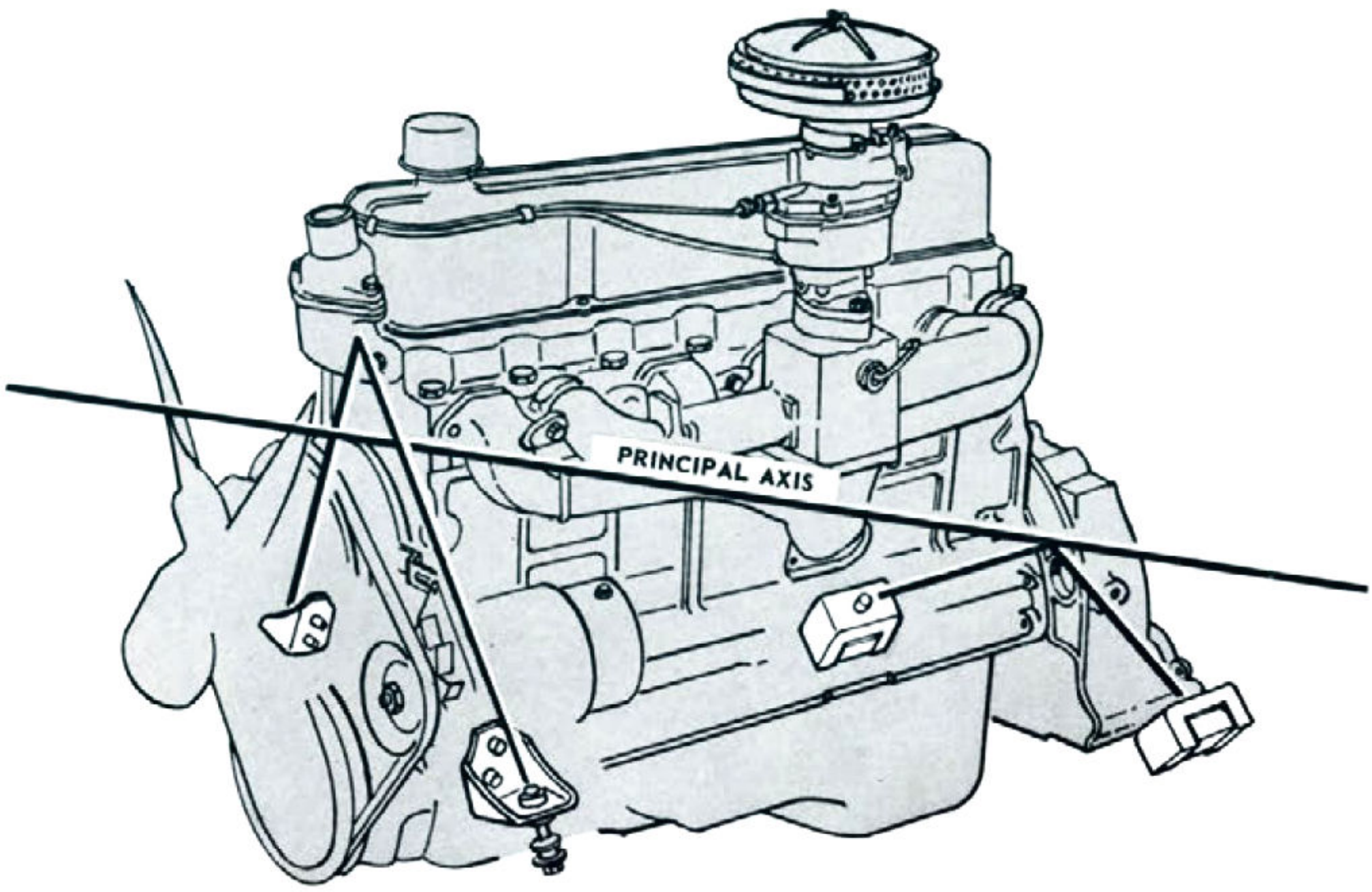
The fuel filter screen, formerly in the fuel pump, is now situated on the riser pipe in the fuel tank where space permits the installation of a new type of filter cloth with larger capacity. The new filter is less sensitive to clogging and does not require frequent cleaning to remove water or solid contaminants deposited by the fuel. The fine mesh not only prevents the passage of water, but insures that any particle passing 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 may be readily removed for cleaning.

The fuel tank for 1/2, 3/4 and 1-ton panel, suburban carryall, and chassis models is standardized so that each model takes the same 17 gallon tank. The new tank is longer and narrower than the previous tanks and is shaped to fit the new contour of the frames. A new fuel tank, the same as that used in 6000 series truck chassis models, is introduced in the forward control models. This tank, with a capacity of 18 gallons, is longer and narrower, with the fuel filler mounted on the end of the tank instead of at the middle.



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 crossmember. One of the rubber biscuits is mounted over the engine bracket and another under it; similarly, one rubber biscuit is mounted on top of the crossmember and the other under the crossmember. Downward loads compress the biscuits under the bracket and over the crossmember, and upward loads compress the biscuits under the crossmember and over the bracket. This arrangement provides resilient but firm control of engine compression and rebound vertical movements, and allows relatively free torsional movement.

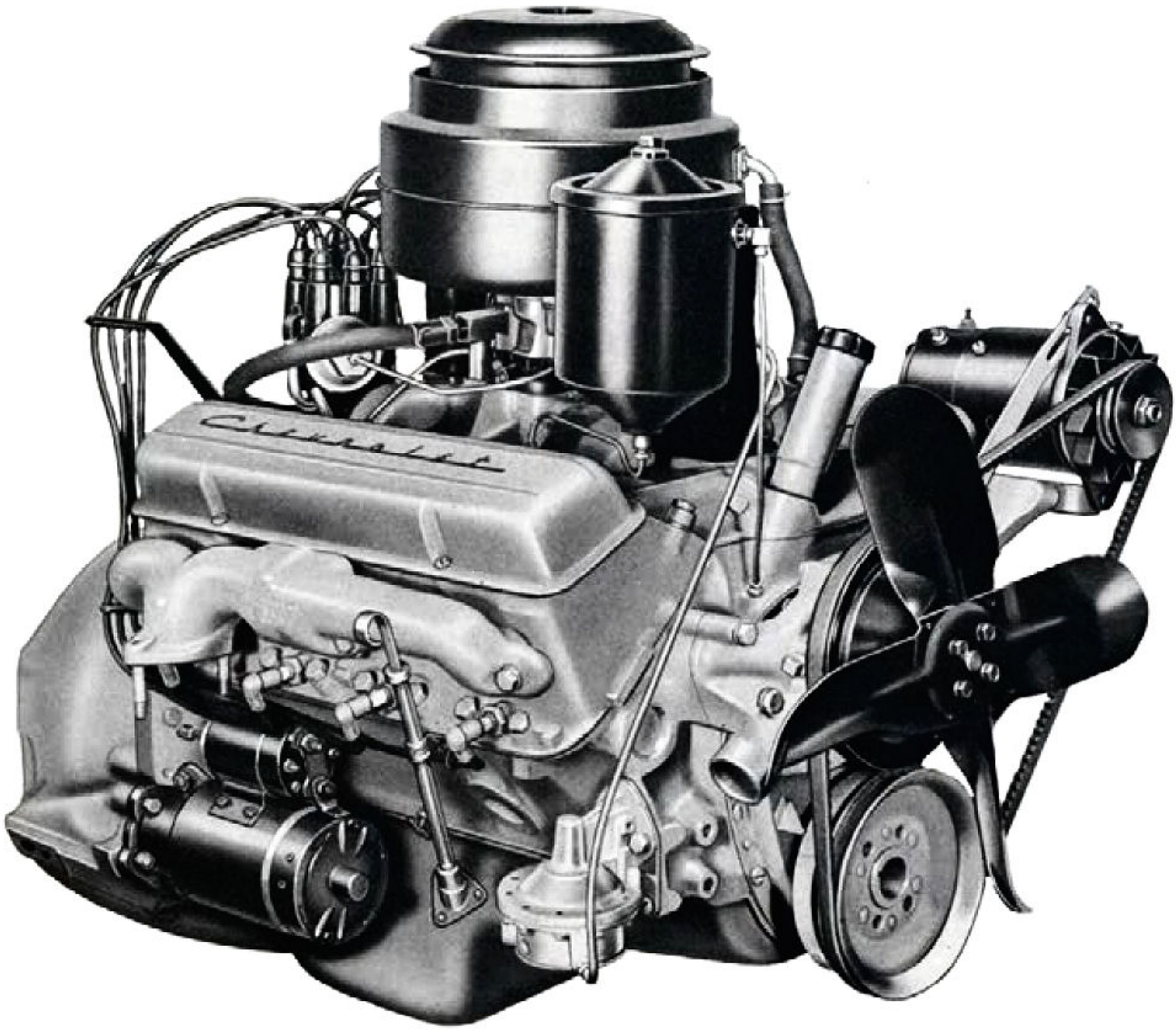


ENGINE MOUNTING SYSTEM . . .

A dynamically balanced four-point engine suspension system which better isolates power plant movements from the chassis replaces the three-point system. The 30 degree rear mounts which proved so successful in the 1954 truck are retained and two strut-type front mounts are new for 1955.

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 new front mounts are strut-type, attaching to brackets on each side of the cylinder block at the front lower corners and to seats on the frame front crossmember. The intersection of straight lines projected through the inclined front mounts is in the upper part of the engine. The new front mounting locations, in combination with the rear mounts, permit the proper freedom of engine movement about its principal axis.



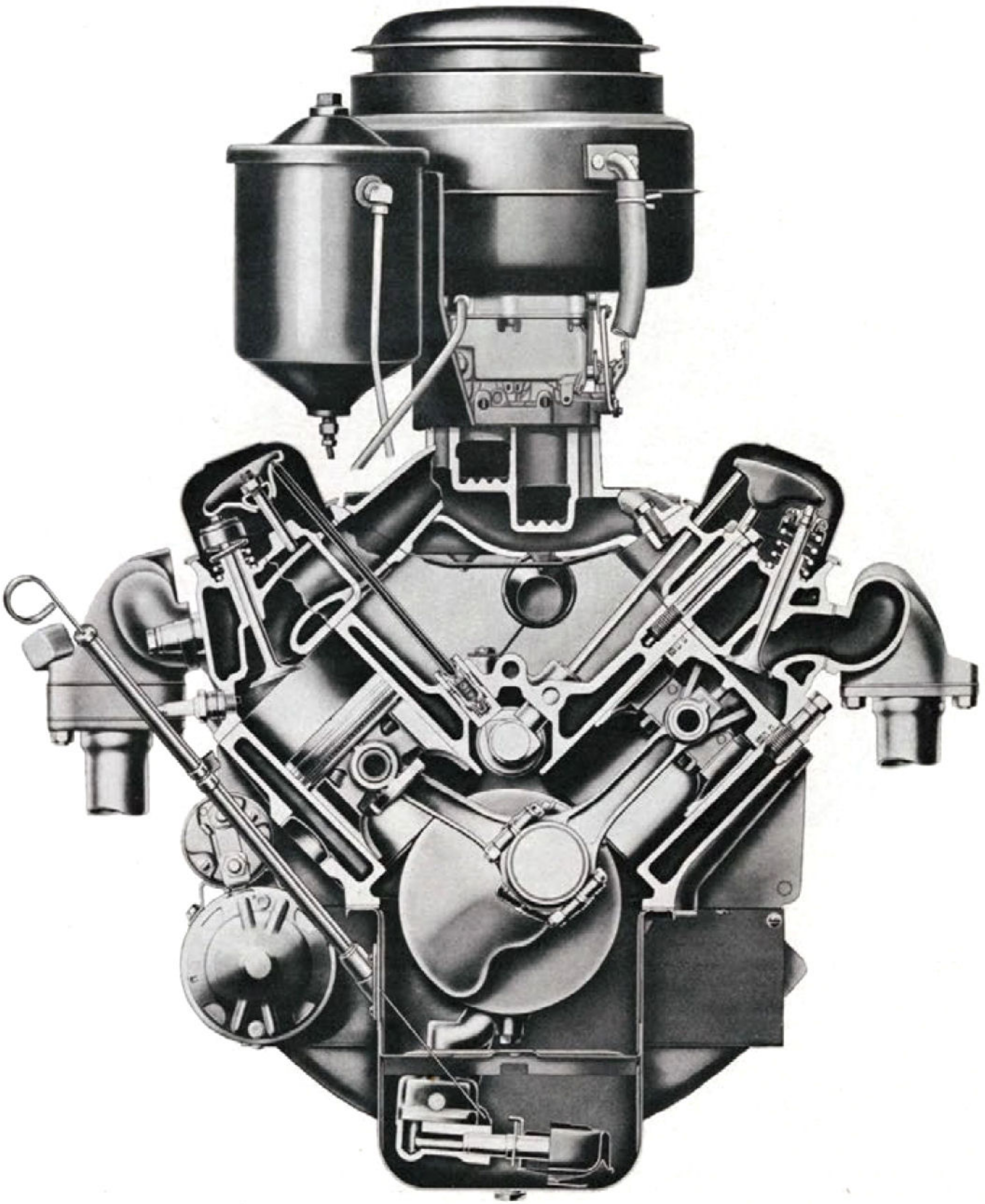
V-8 ENGINE

General specifications of the compact, low weight V-8 engine, standard equipment on the 5000 series, include: bore 3.75, stroke 3.0, 265 cubic inch displacement, compression ratio 7.5-to-1, gross horsepower 145 at 4000 rpm, and gross torque 238 foot pounds at 2000 rpm. The stroke-to-bore ratio of 0.8-to-1 is among the best attainments in the oversquare design of 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. The engine is painted yellow with the word "Chevrolet" in black on either rocker cover.

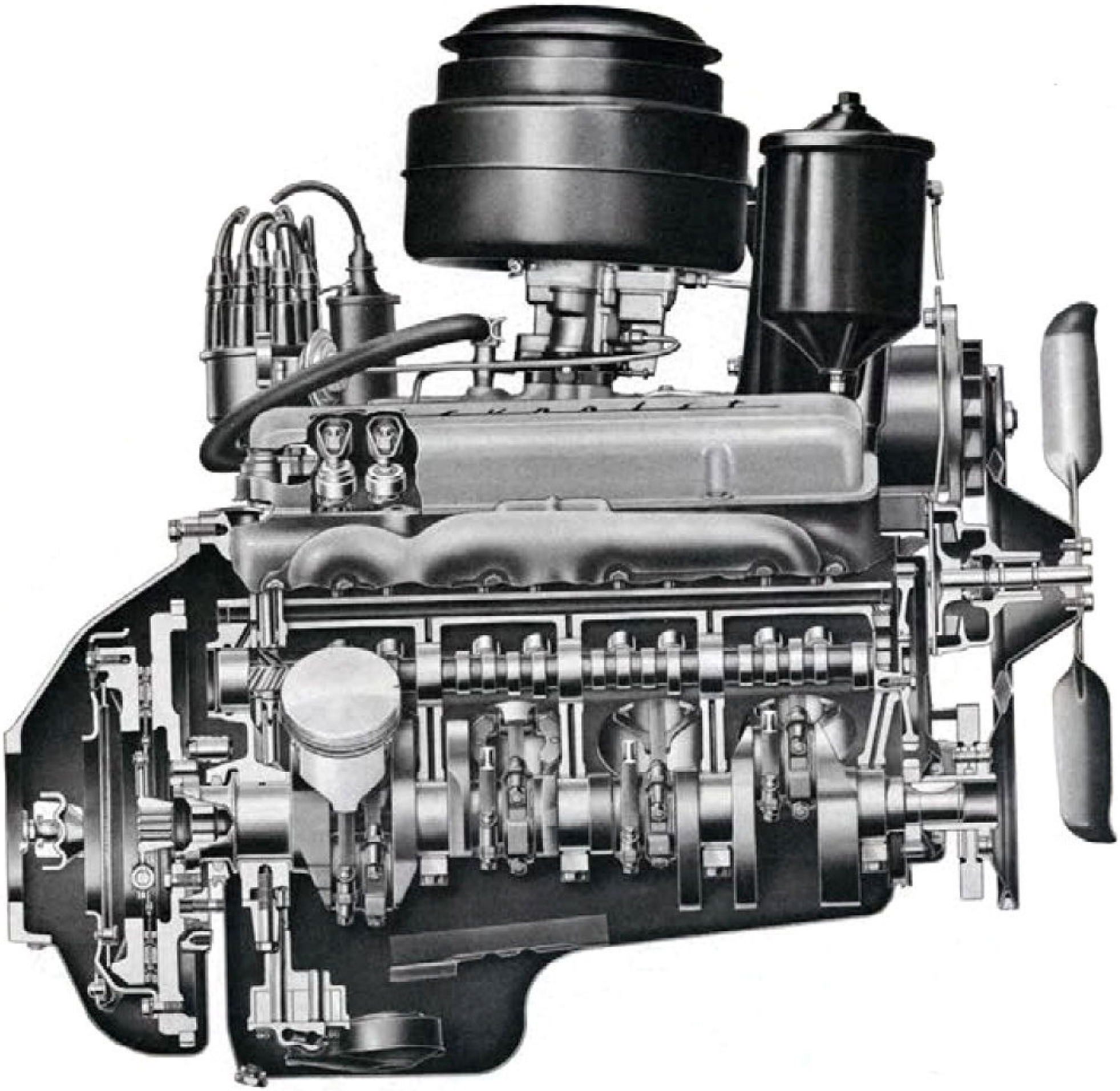
The compactness of the new engine means that less installation space is required, permits a simplified frame construction for this series, and the lowering of the cab floor for more convenient entrance and exit. The low weight of the assembly contributes to steering ease and front tire life. The engine mounting system is of the same basic 4-point, dynamically balanced type as used with the six cylinder engine.

New technological and processing developments have been adopted to balance the engine. Not only are all of the engine rotating and reciprocating parts precision balanced as individual pieces for use in either production or in service, but the complete engine assembly is balanced. Before the oil pan and cylinder heads are installed, the engine is placed on a newly developed machine which motors the engine, indicates any out of balance of the complete engine, stops the engine rotation at the indicated out of balance, and drills the front and rear crankshaft counterweights the required amount. Through this new equipment, not only the crankshaft, but all of the moving parts of the engine and clutch thus are balanced.

V-8 ENGINE FRONT VIEW



V-8 ENGINE SIDE VIEW

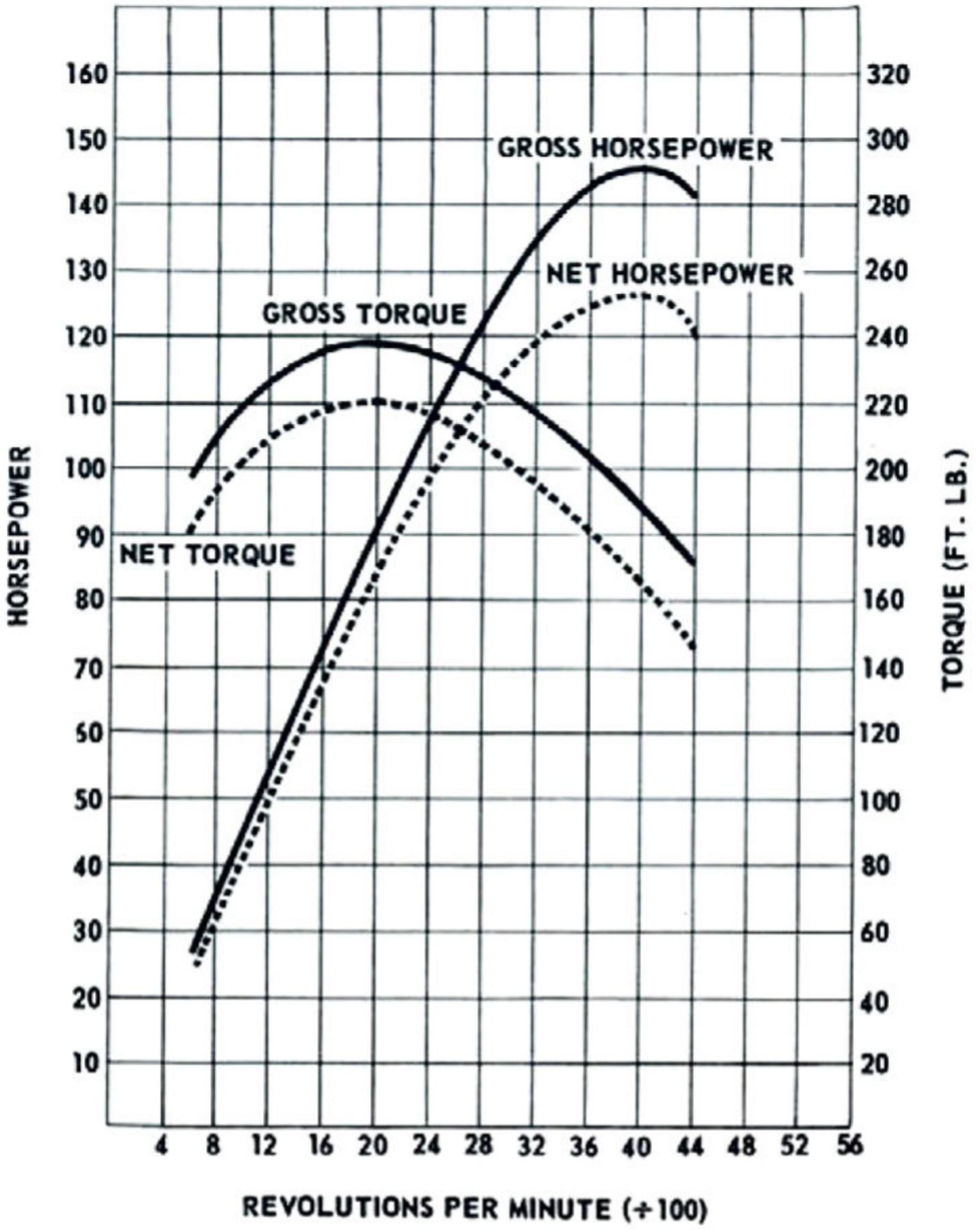


Optimum fuel economy and high power per cubic inch displacement are assured by the high compression ratio of 7.5-to-1 and by the highly efficient wedge-type combustion chamber that provides high turbulence for efficient combustion of the fuel mixture and smooth pressure rise for shock-free operation. A dual-throat carburetor equipped with a manual choke is used. The fuel pump is of the pulsator type with an all-metal air dome, similar to that used on the six cylinder engines. It is located on the lower front right hand side of the engine where it is not subjected to engine heat, which minimizes the possibility of the vaporizing of the fuel causing 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 efficient breathing. The intake manifold casting forms the cover for the tappet chamber, and not only contains the intake passages for the fuel mixture and an exhaust crossover 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 mounted. Low inertia of the system assures high speed efficiency. For durability, the exhaust valves are

TASKMASTER V-8 ENGINE



made from extra alloy steel, and are equipped with rotators. Exhaust valve springs used with these rotators are slightly shorter than those used with the passenger car V-8 engine. Oil shields are mounted over the valve spring caps to keep excess oil away from valve stems. The valve lifters are of the hydraulic type.

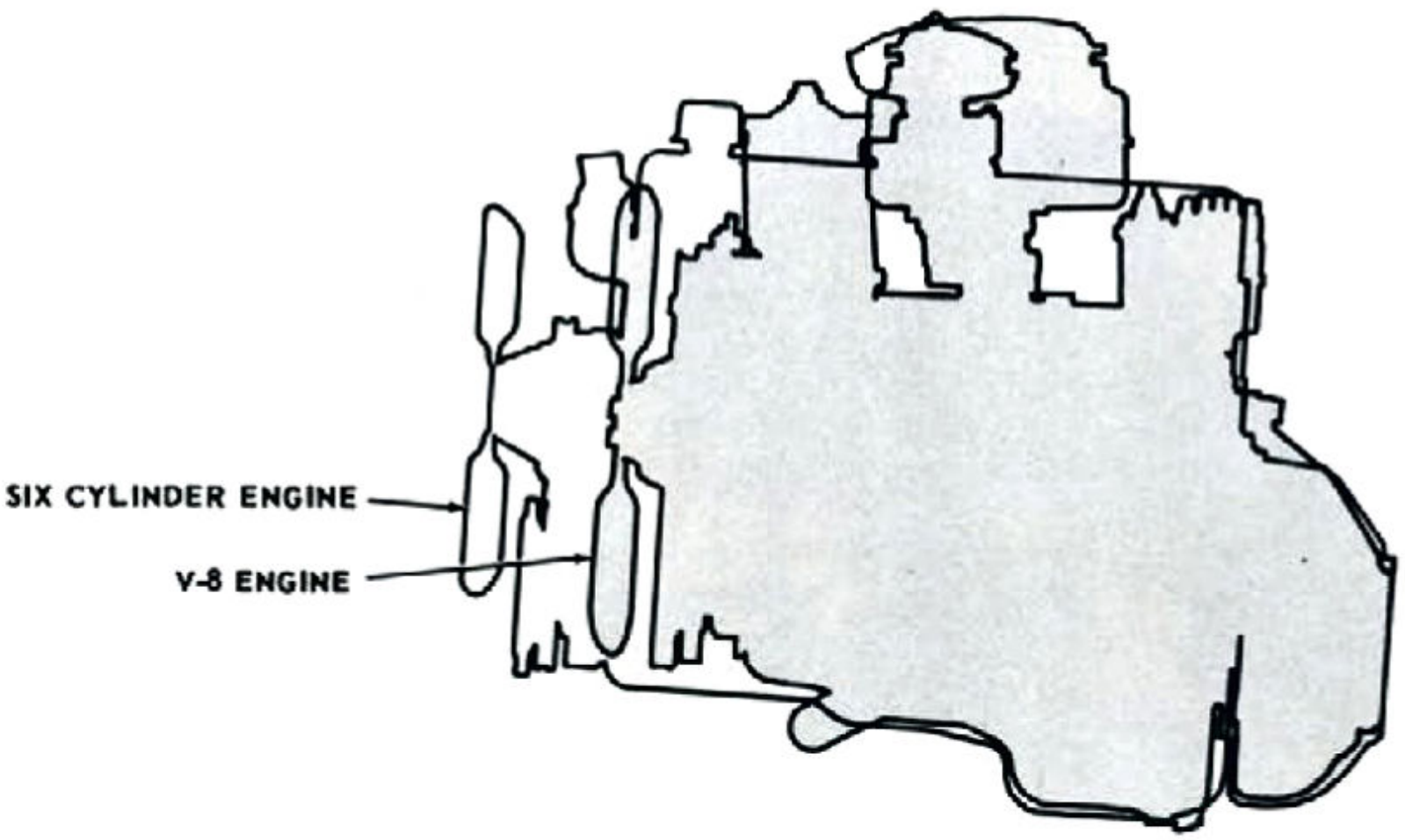
The aluminum autothermic-type pistons are of a slipper skirt design for clearance with the crankshaft counterweights. Offset piston pins, pressed into the short, rigid connecting rods, assure quiet engine operation. Precision replaceable bearings are used for the connecting rods as well as for the five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

The low heat rejection characteristics of the engine design permit a relatively small volume cooling system for low weight and low 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 reserve for 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 left exhaust manifold for easy access.

The new 5-quart capacity lubrication system has a silenced-type heavy-duty oil bath air cleaner and a bypass-type oil filter as regular equipment.

A closed crankcase ventilation system is used, and the clutch is 11 inches in diameter.

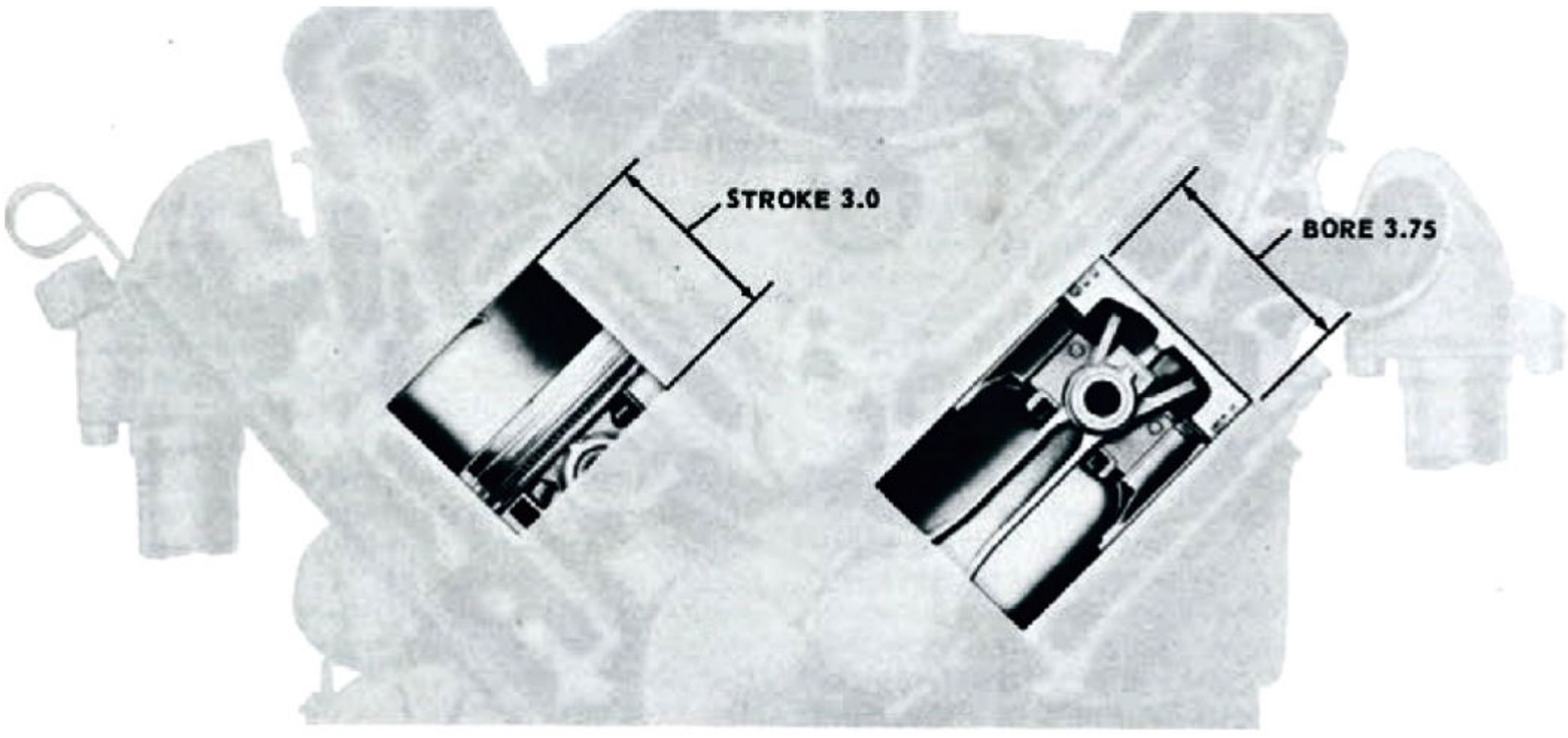


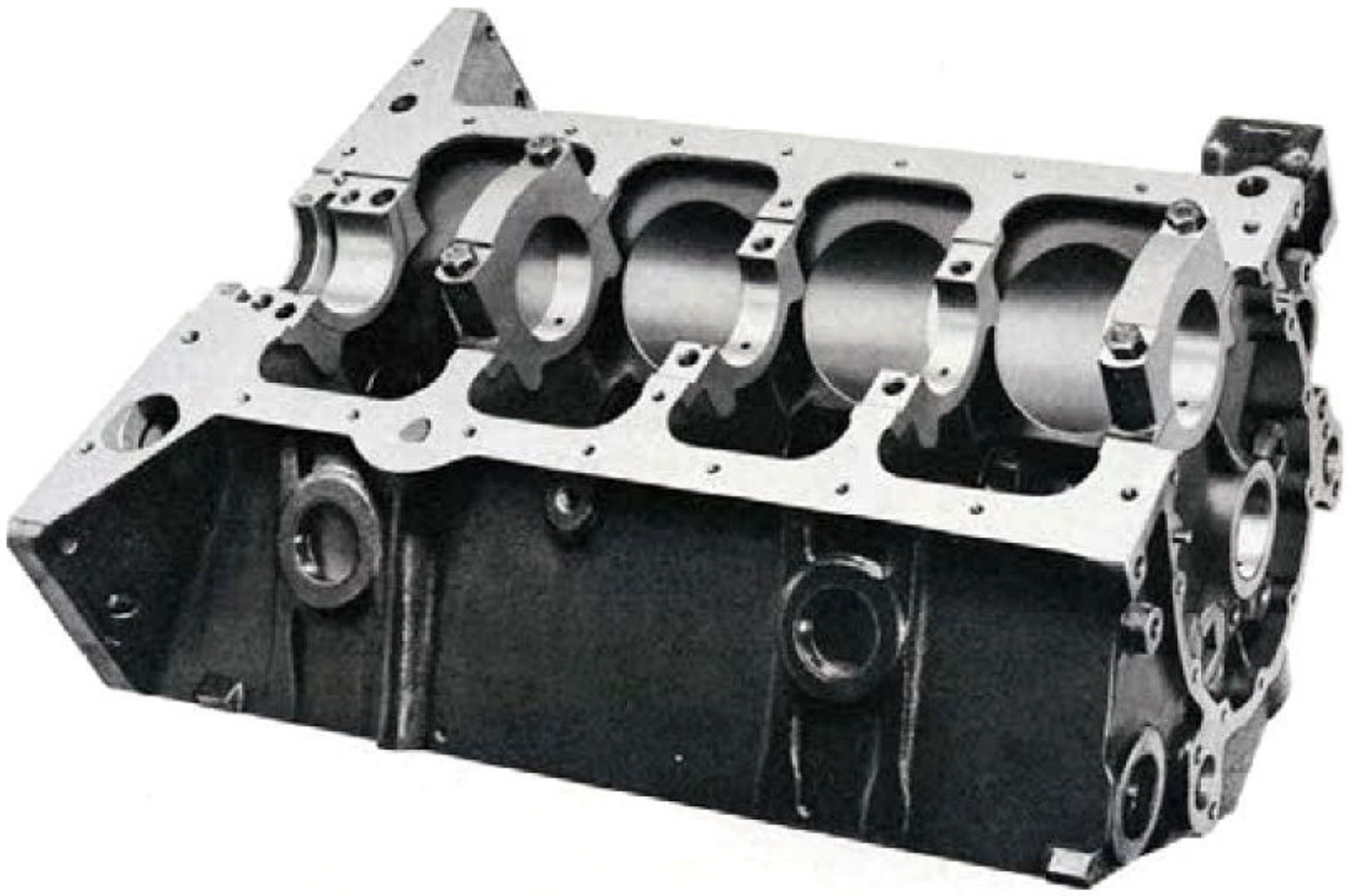
COMPACT ENGINE SIZE . . .

The new Chevrolet engine reflects the skillful basic design in which compactness and economy of weight were major objectives. It is the smallest and lightest commercial V-8 power package for its displacement in the industry today.

The 265 cubic inch displacement is achieved with a cylinder block length of less than 22 inches. 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. The engine is low in height since it is designed around the short 3.0 inch stroke and has a unitized intake manifold and tappet chamber cover. The compart 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.





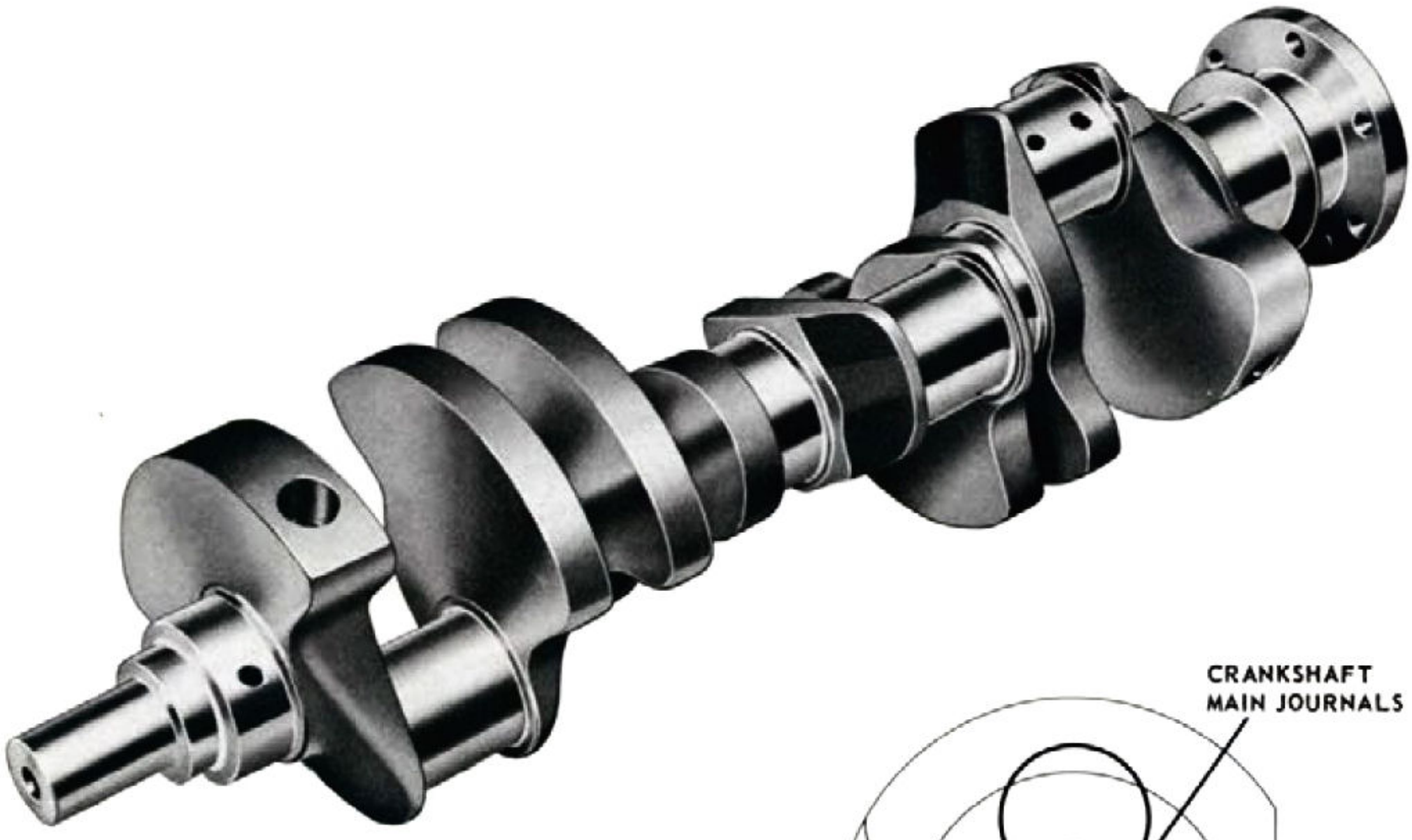
CYLINDER BLOCK . . .

The two cylinder banks are joined 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 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 the rigidity typical of modern engine design. 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 a 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. By reducing the maximum oil film loads through the omitting of the oil groove in the lower half, the capacity of the main bearings is increased approximately 100 per cent, with the additional benefits of increased durability and greatly reduced wear. Ample lubrication is supplied to the connecting rods through crankshaft oil holes fed by oil under pressure in the grooves of the upper halves of the main bearings. Crankshaft thrust is taken by the flanged rear bearing.



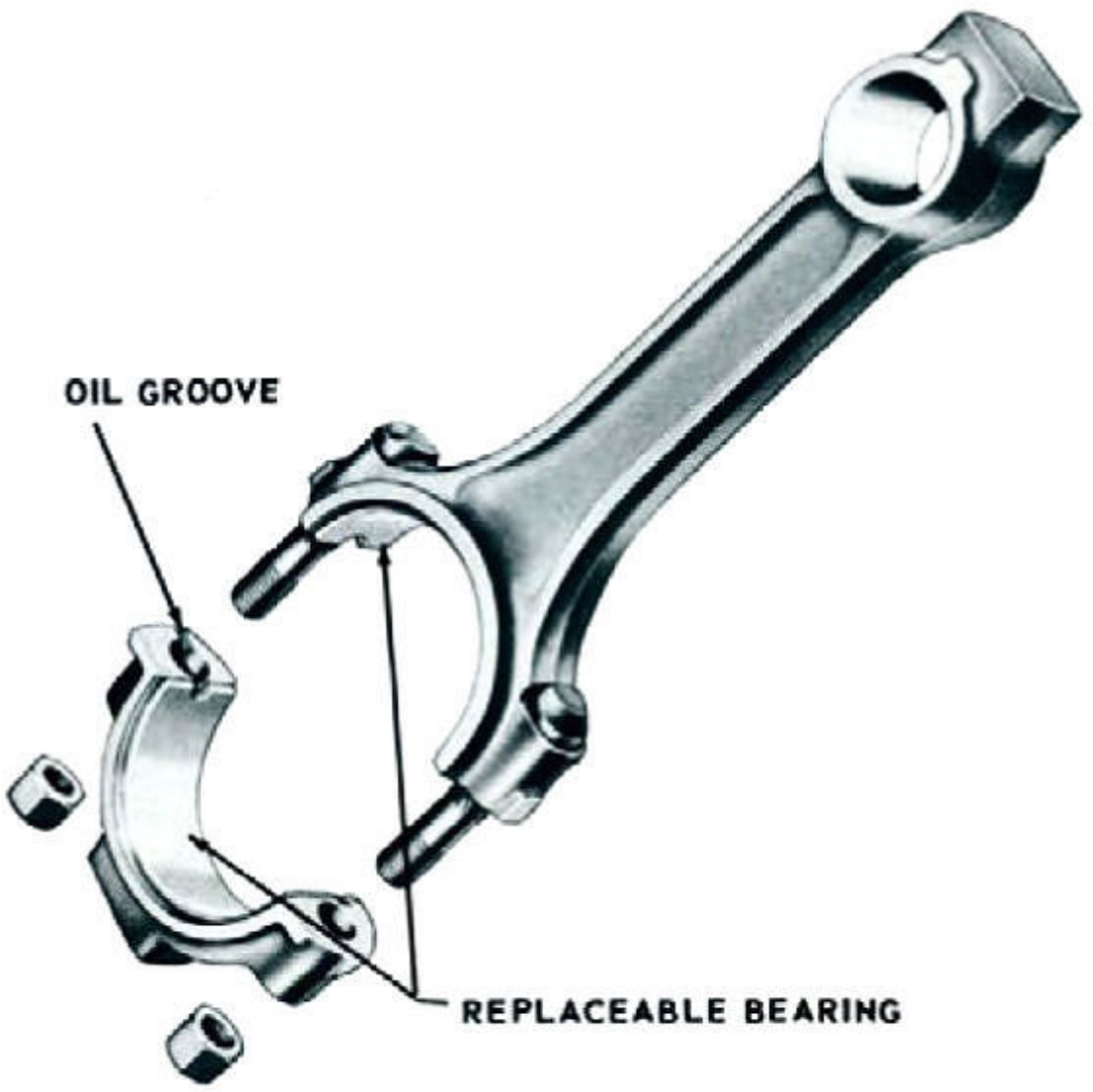
CRANKSHAFT . . .

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. 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 assures 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.

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 slotting 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.

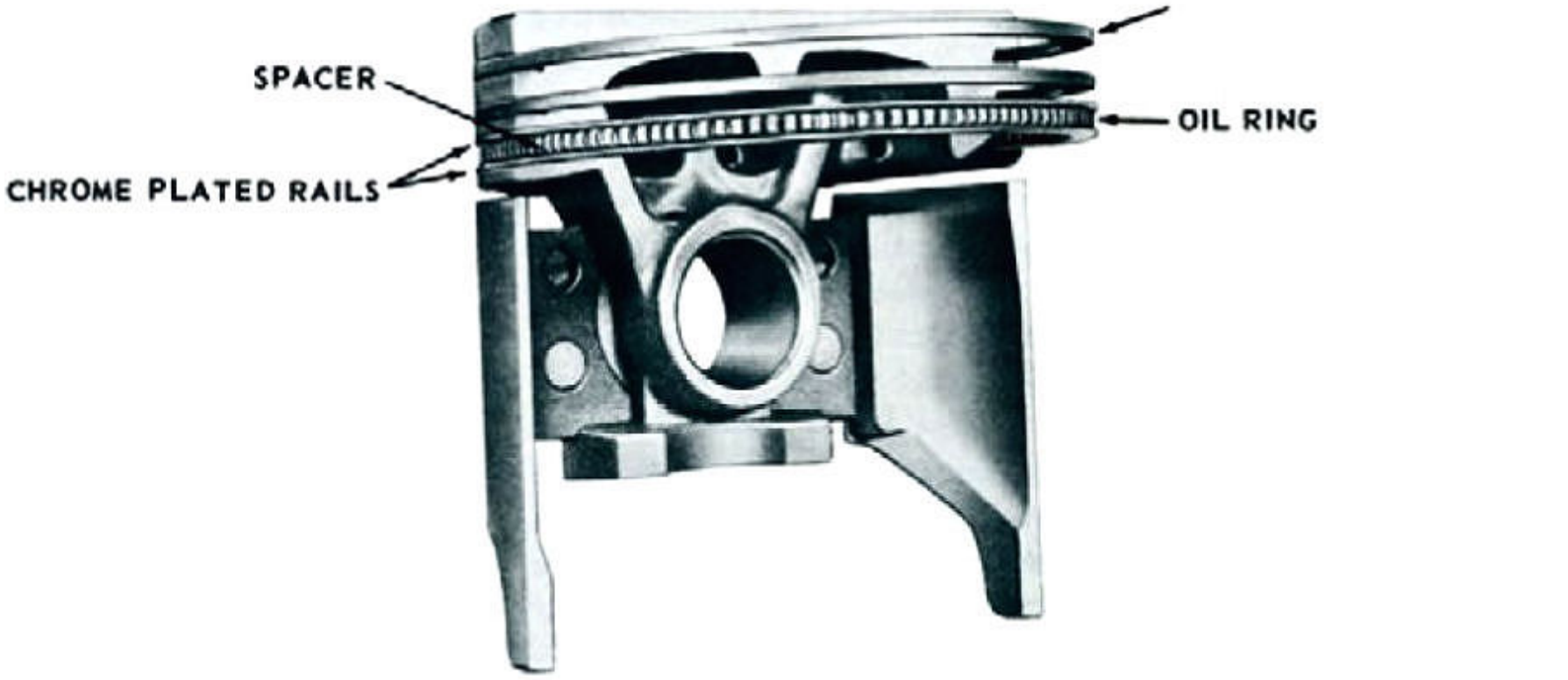


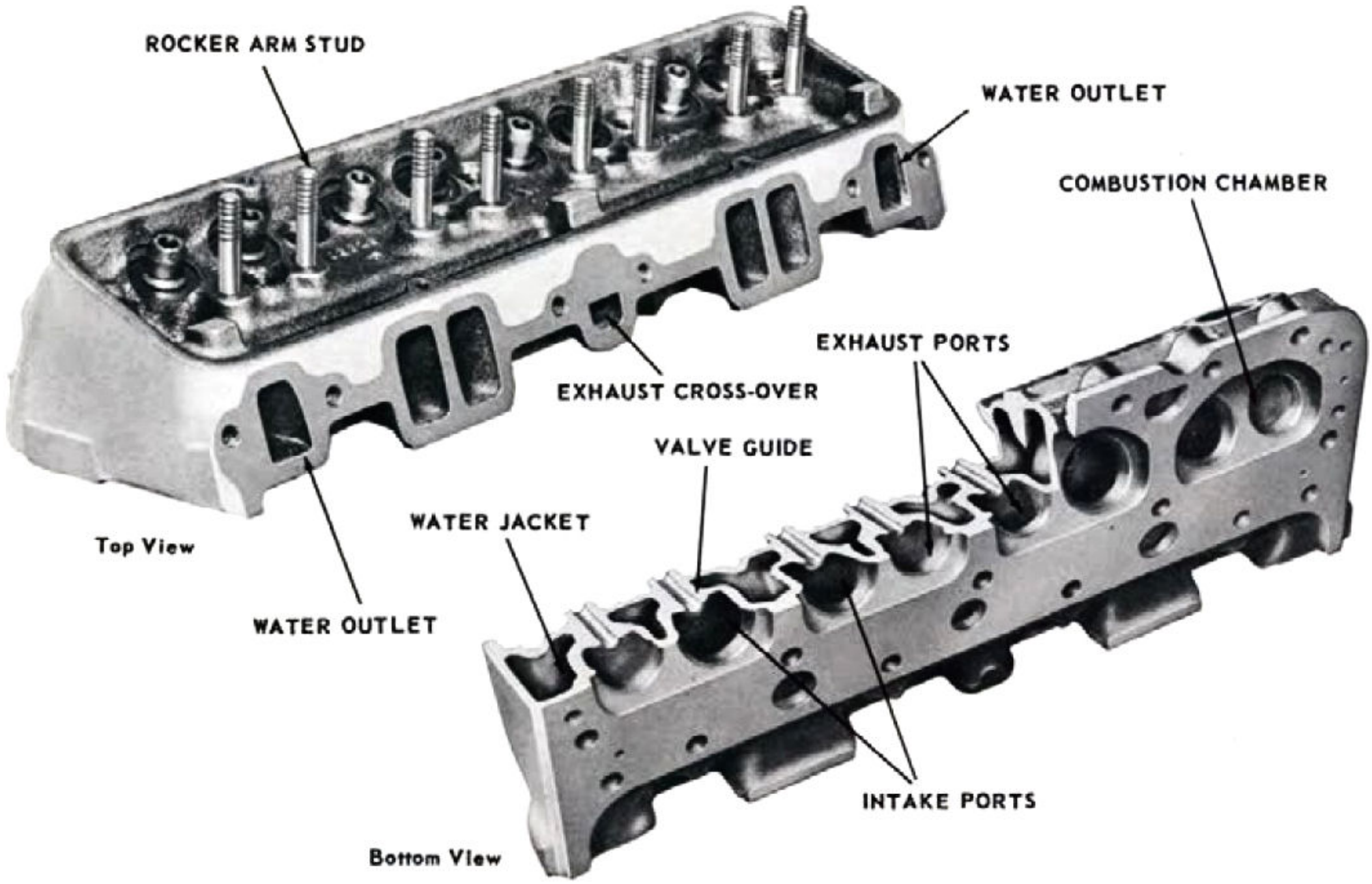
PISTONS . . .

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 crankshaft counterweights.

Compression rings are thick wall alloy iron 5/64 inch wide, taper faced and with an inside bevel. The top ring is chrome plated and is lapped to facilitate break-in. The oil ring consists of three components: two chrome plated steel rails, and a spacer. The spacer is designed to support the rails axially toward the cylinder wall end, and to provide side loading of the rails for good oil control. Uniform radial loading is obtained through this new design.

Through the use of the pressed-in pin 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.





CYLINDER HEADS . . .

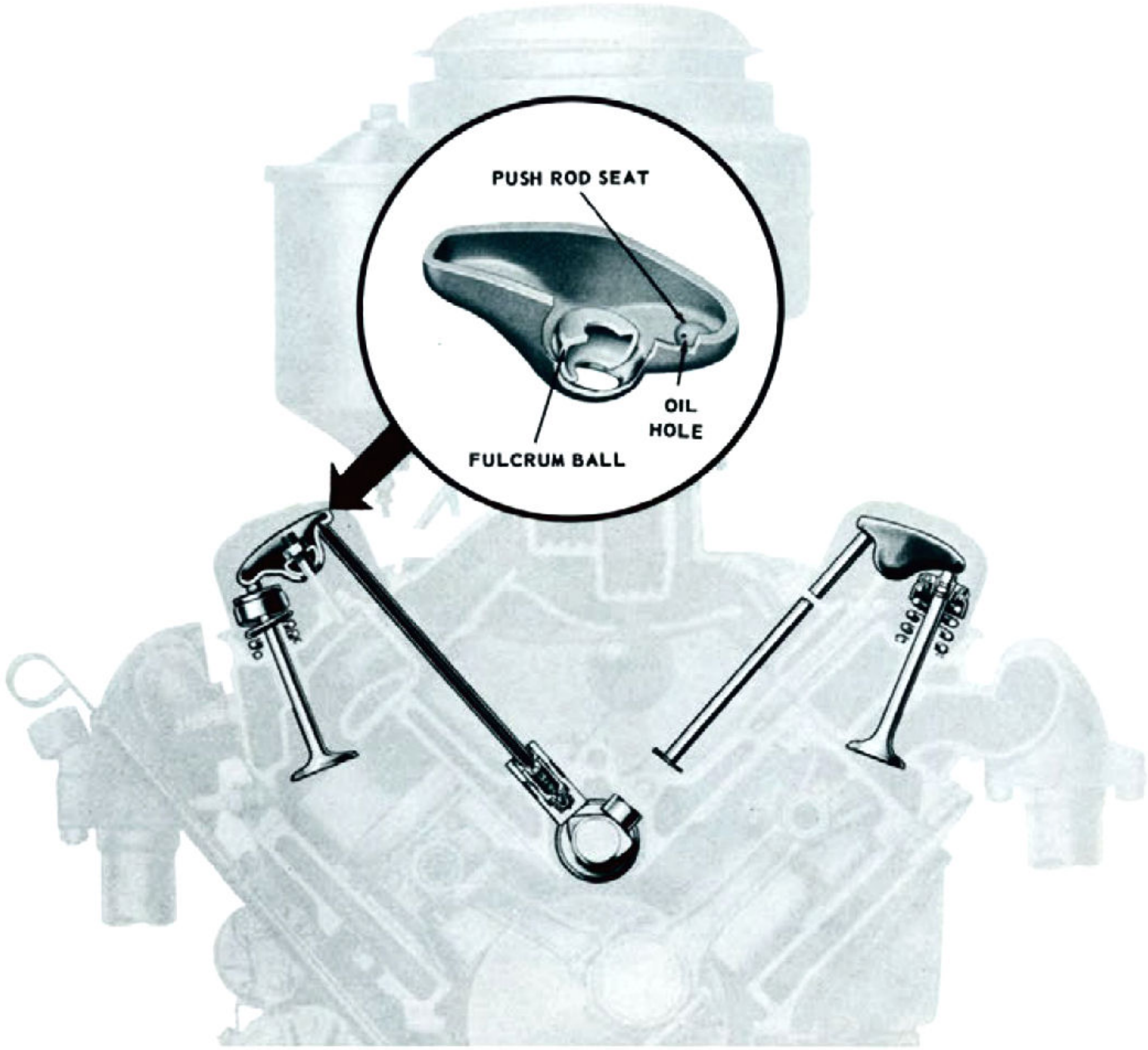
The cylinder heads for right and left banks are interchangeable and incorporate a cast-in, wedge-type combustion chamber. The valves are in line at a 23 degree angle to the bore axis, and integral bosses surrounding each valve stem form valve guides with excellent heat transfer to the coolant. The large diameter intake and exhaust valves seat in the sloping roof of the combustion chamber, with the valve seats fully surrounded by water passages for valve seat cooling.

The exhaust passages point upwards and out, and the entire length of the ports, both the top side and the under side, are water jacketed. This complete water jacketing of the exhaust ports minimizes the transfer of heat distortion loads back to the valve seats. Because the exhaust passages are short, the exhaust port wall area in contact with the water jacket is very small, which accounts for one of the major gains in the feature of low heat rejection to the coolant.

An exhaust cross-over passage is included in the center of the head and is tied to only one exhaust port. Using one port, instead of the conventional two, minimizes valve seat distortion because of the reduced flame-heated surface in the cylinder head as compared to a siamesed heat take-off. Also, it gives a more pulsating flow of hot exhaust gas in the cross-over. Coolant outlets of the head are located on the intake manifold face at each end, eliminating the necessity for machine operations or core prints on the front and rear ends 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 forward end of the head.

The top surface of the head is not parallel to the bottom face, and because the smaller dimension is toward the center of the engine, the rocker cover is tilted inboard, thus providing a narrow overall engine width. Eight reamed holes in each head retain the rocker arm studs of the new valve mechanism.

Each cylinder head is secured to the block with seventeen bolts, with each cylinder bore surrounded by five bolts arranged in a pentagon pattern. Full length arch-shaped water passages with walls of relatively thin section are cored into the head casting for high structural strength with low weight. The stiffness of the head, coupled with the five bolt attachment, assures tight sealing on the embossed steel head gasket and freedom from distortion. Water passage holes in the mounting face of the head align with similar holes on the top surface of the cylinder block for full circuit cooling.



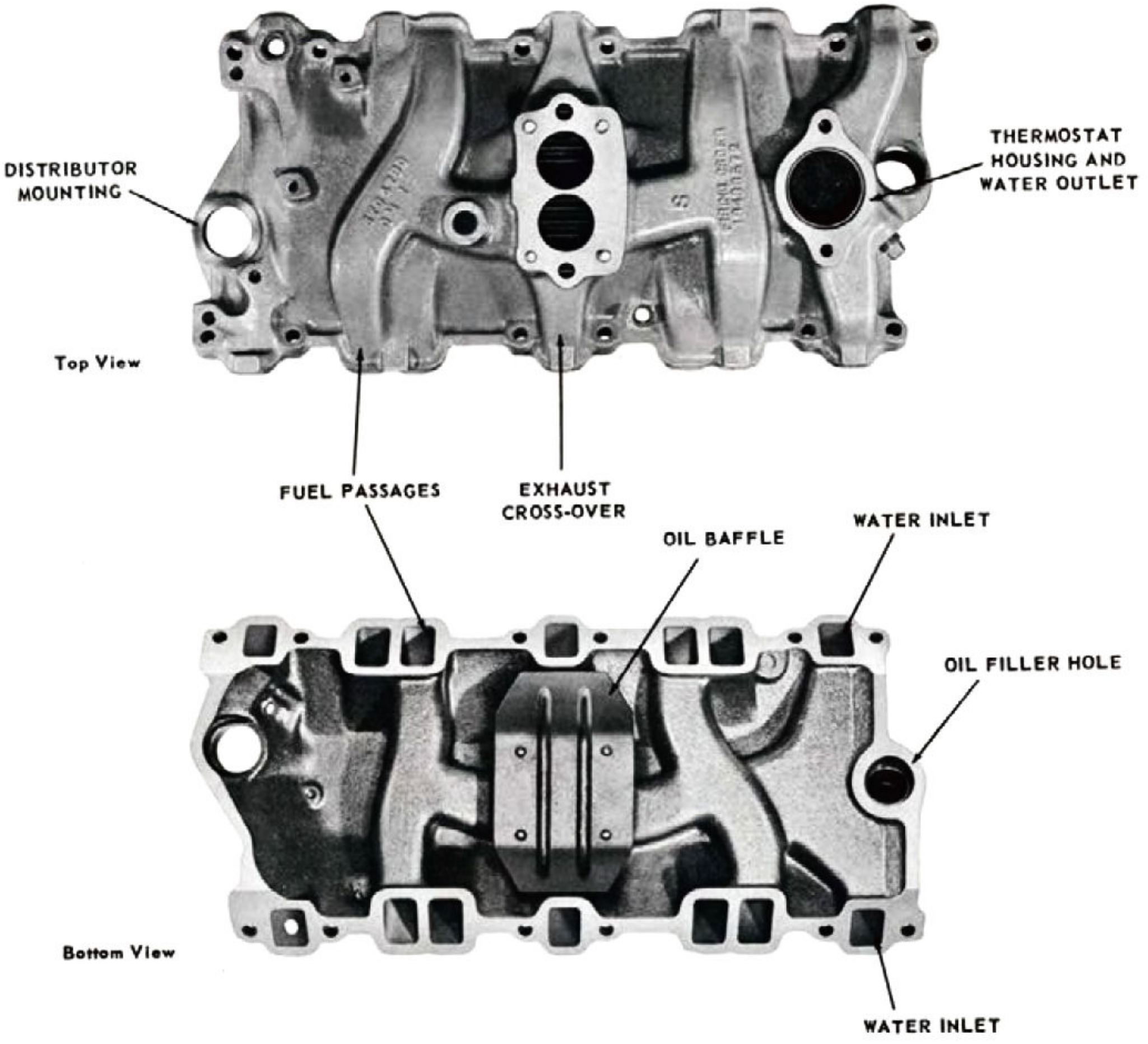
VALVE MECHANISM . . .

The valve operating mechanism is of completely new design, and features low inertia for high speed efficiency. Each rocker arm is individually mounted and no common rocker shaft is used, eliminating the effect one rocker arm may have on another through rocker shaft deflection. Hydraulic valve lifters and valve rotators are used. Valve lash change through the operating range is relatively low for both inlet and exhaust, and exceptional uniformity is obtained because oil of the same temperature flows through all of the push rods. The push rods are of welded steel tubing, forged and coined on the ends to produce a hemispherical surface. A small opening on each end is provided for the passage of oil from the tappets to the rocker arms for distribution in the overhead valve mechanism.

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.

The case hardened, surface treated, individually mounted valve rocker arms are precision made of pressed steel of high physical characteristics, and have a spherical surface fulcrum with an oval shaped hole pierced into the bottom. Studs, threaded at the upper end, are pressed into reamed holes in bosses provided on the cylinder head. Each rocker arm is assembled over a valve stem and push rod, with the pierced hole over the pressed-in stud, and retained by a hollow half ball and lock nut.

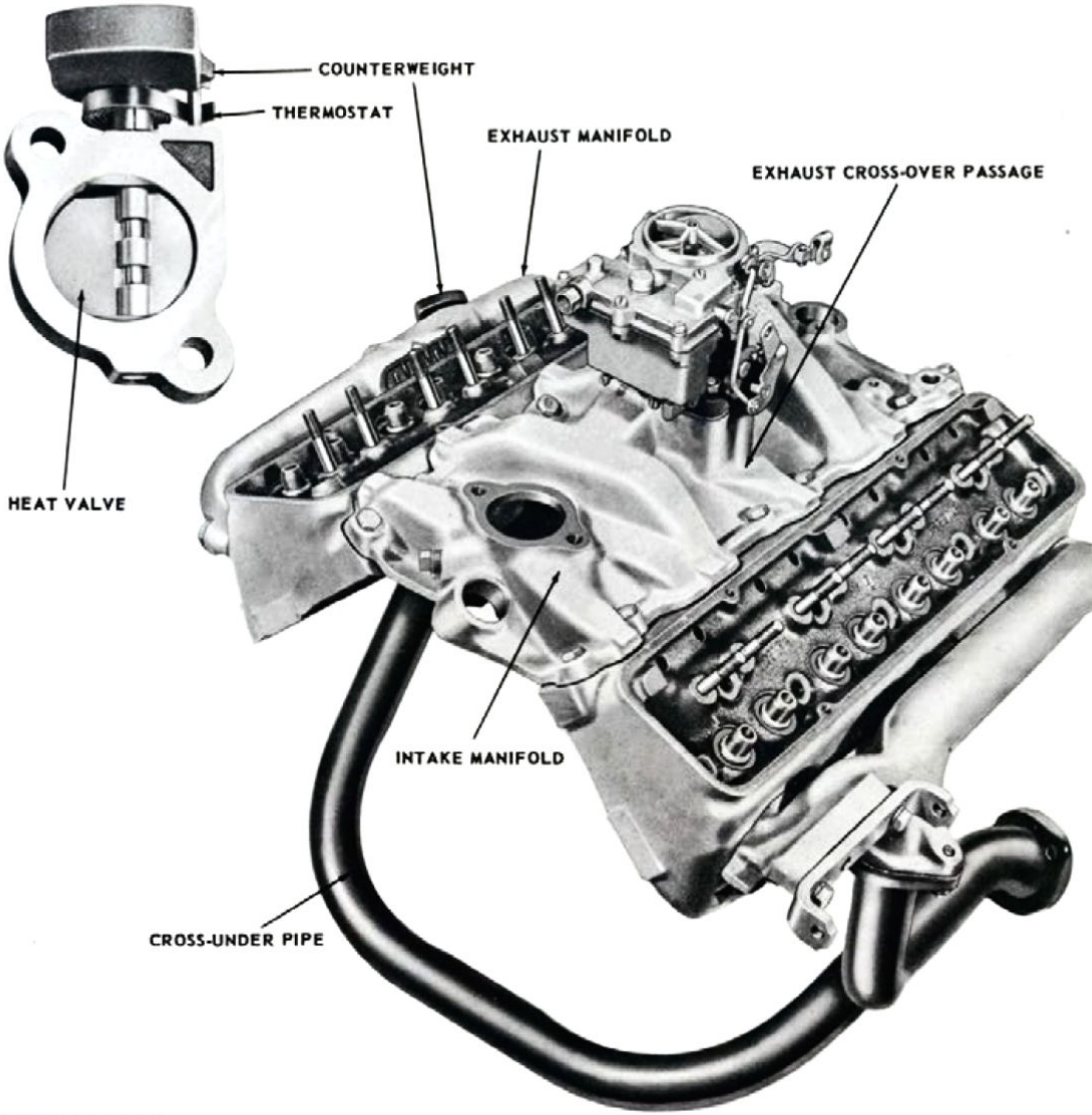
All valves have oil shields under the valve spring caps to keep excess oil from entering the combustion chamber at the valve stems. The valve stem guides are integral with the cylinder head for efficient temperature control of the valves.



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 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 has provision for water connection to the accessory heater, distributor mounting, water temperature gauge hole, and the oil filler. In addition, the casting forms the top enclosure of the engine and eliminates the need for a separate tappet chamber cover. Due to its construction, it is very effective in the suppression of noise, and it adds considerable rigidity to the entire engine assembly. Also, it forms a closure for the "V" between the cylinder banks, and thereby prevents the passage of cold air under the manifold which would otherwise reduce operating temperatures during winter operation. The manifold gives the engine a clean and finished appearance.

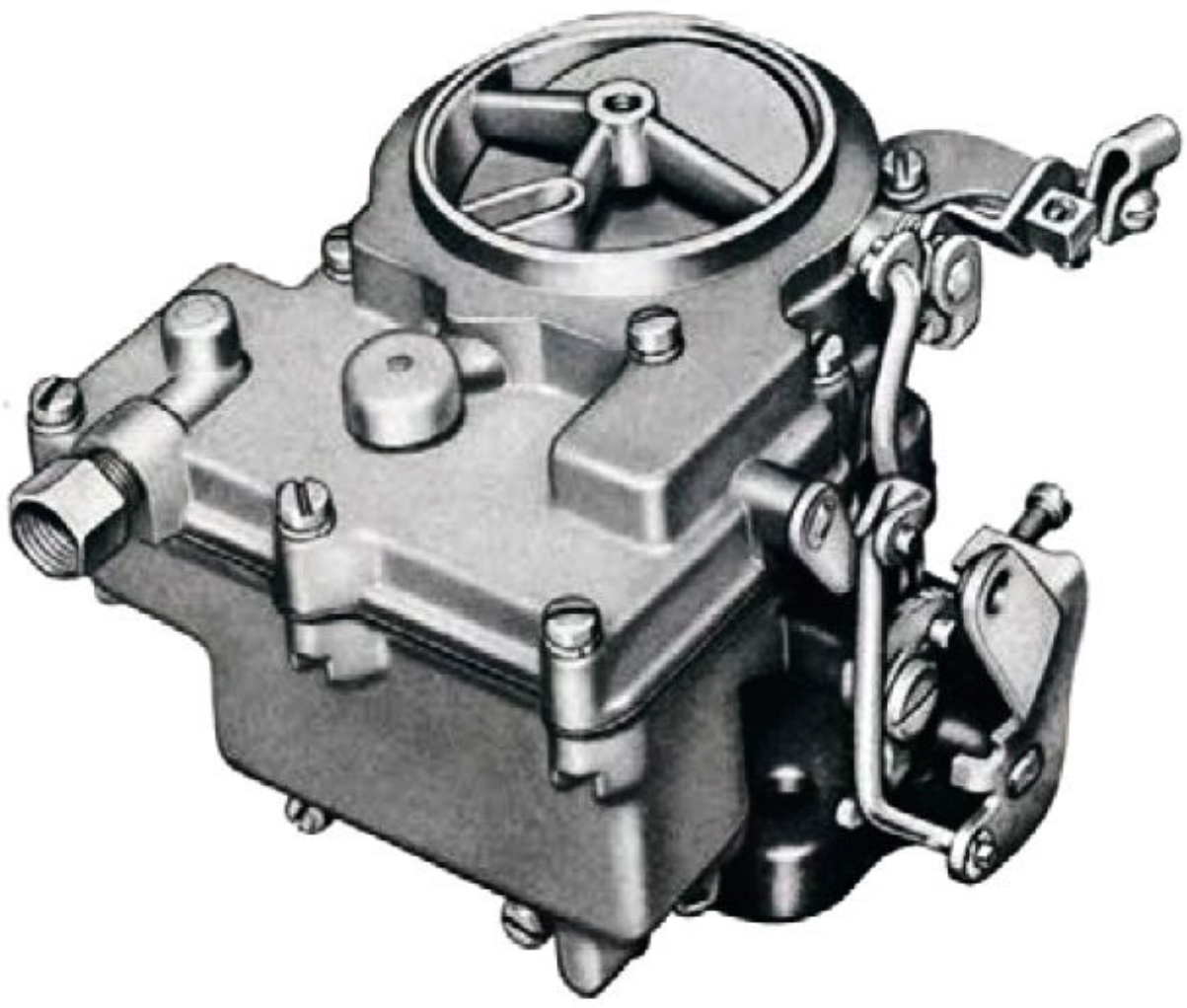


EXHAUST SYSTEM . . .

The engine exhaust system consists of a right and left hand exhaust manifold 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 which passes through the center of each cylinder head and the intake manifold. Two holes in the carburetor riser are drilled down into the exhaust cross-over, and index at the top with a cored passage in the carburetor mounting flange. The exhaust gases which travel through this circuit furnish heat to the carburetor. This insures fast warm-up, reduces carburetor icing during this period and assures optimum fuel economy at all times.

A thermostatically controlled exhaust manifold heat valve routes exhaust gases through the cross-over passage on cold starts and during warm up. The counterweight of the heat valve assembly also acts as a temperature shield for the thermostat.

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.



CARBURETOR . . .

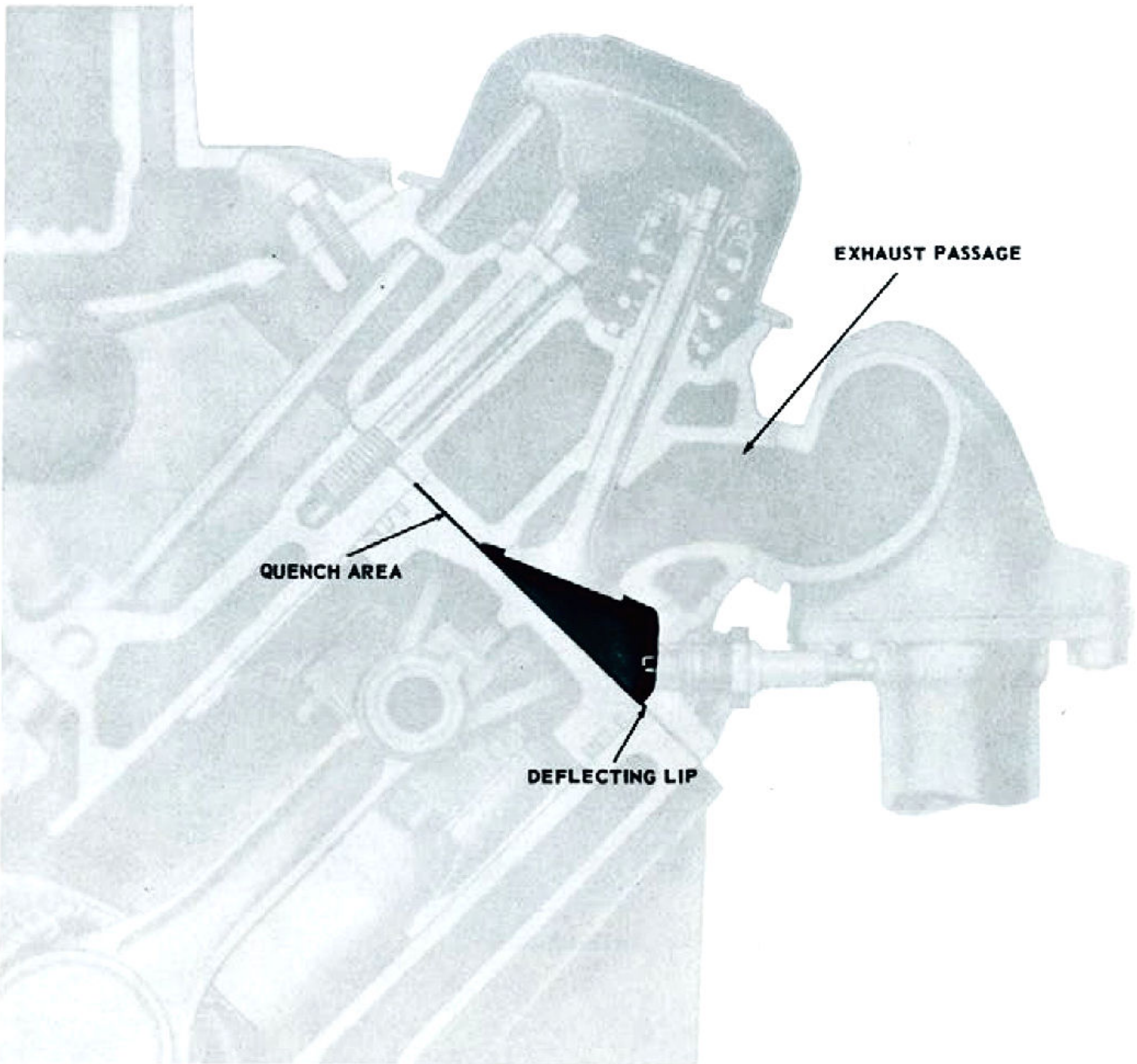
A two barrel downdraft carburetor with a manual choke is furnished on the eight cylinder truck engine.

The carburetor design is the offset bowl type, with the bowl toward the front, and with the fuel supply jets and passages submerged sufficiently below the liquid level to provide correct 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 for easy access in 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 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 extending the length of the mounting face. Two holes drilled into the intake manifold exhaust cross-over register with the ends of the cored channel and provide heat to reduce carburetor icing during warm-up.

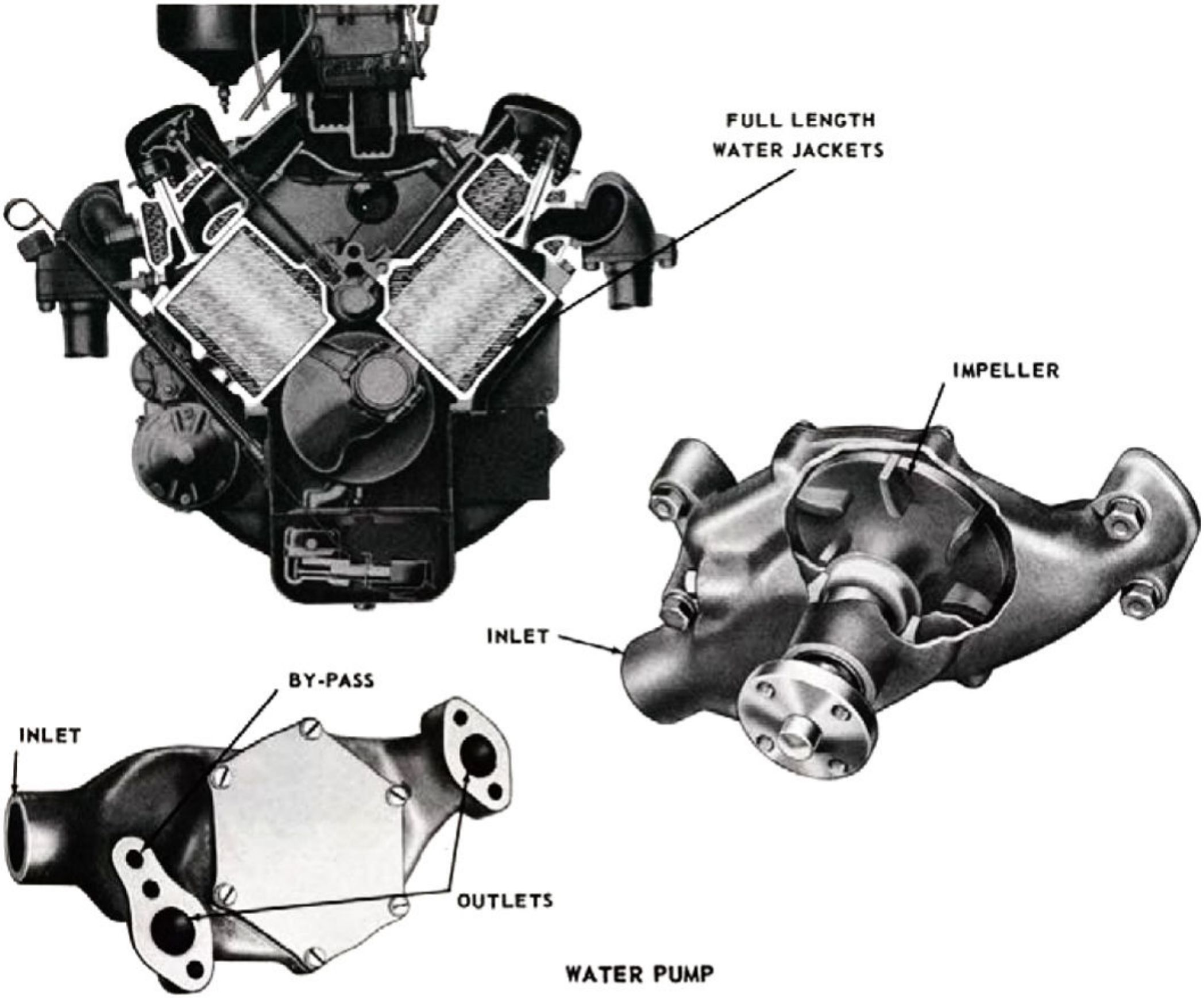


COMBUSTION CHAMBER . . .

The combustion chamber is of the high turbulence wedge-type design for combustion control and combustion smoothness. This chamber design exposes a high volume of the fuel charge early in the burn cycle, the flame spreading evenly and rapidly throughout the combustion chamber for a smooth pressure rise and freedom from detonation. A flat quench area which represents 23 per cent piston coverage also acts as a squish surface. As the piston rises and compresses the intake mixture, the mixture is forced away from the squish area, imparting turbulence to the fuel-air mixture and assuring fast and complete combustion. The chamber is compact with a relatively short flame travel from the spark plug electrode to the extremity of the chamber.

The combustion chamber was developed to operate on regular fuels available in most areas, but in those areas where the octane of the fuel is below requirements of this engine, premium fuel may be used or the spark retarded to permit satisfactory operation.

A portion of the cylinder head forms a deflecting 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.



WATER PUMP

COOLING SYSTEM . . .

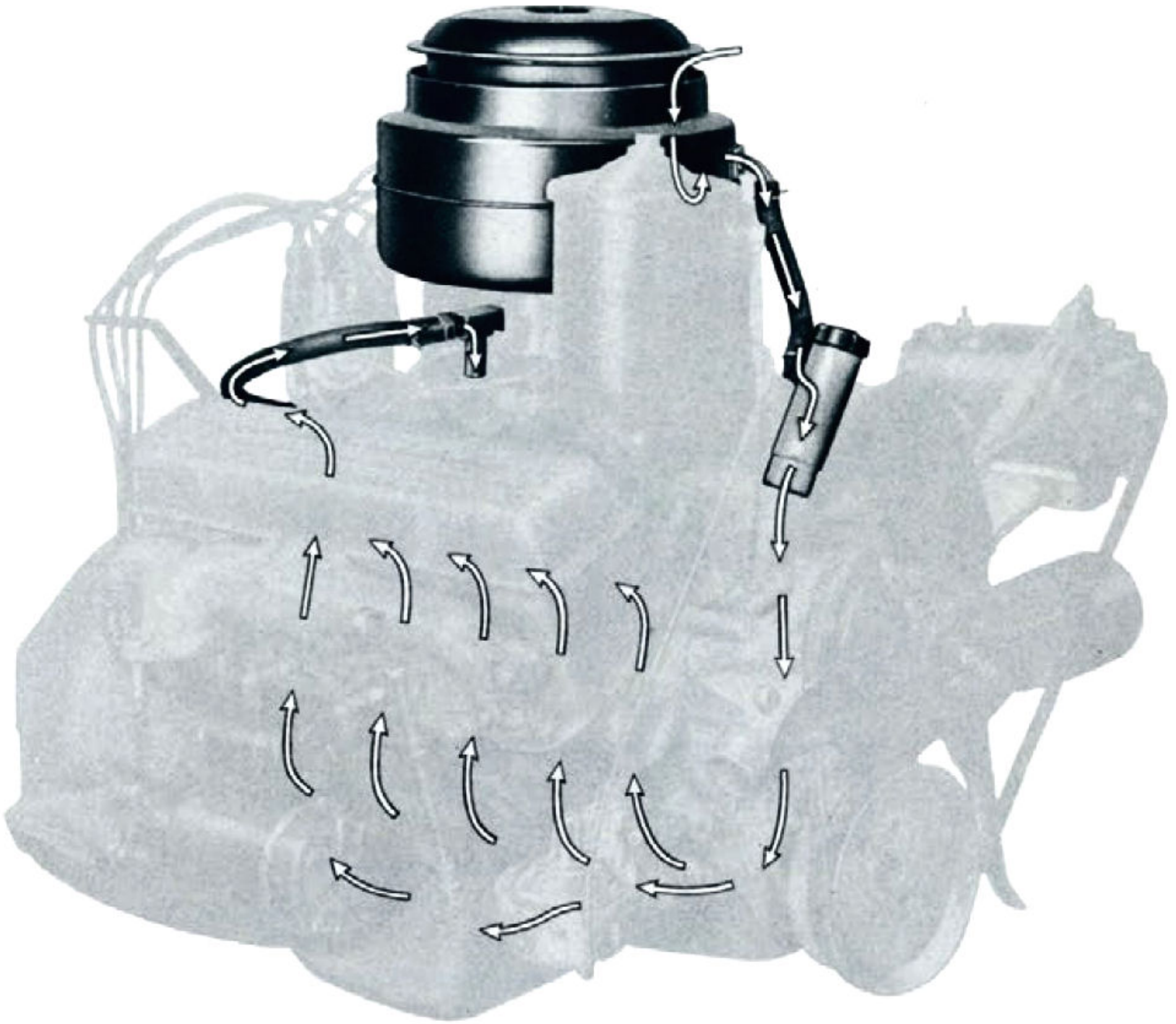
The engine features high thermal efficiency and the resulting low heat rejection requires a cooling system of relatively small volume for an eight cylinder engine.

Water jacketing completely surrounds the full length of each cylinder barrel and the short exhaust passages in the cylinder head, which minimizes the conduction of heat and distortion back to the valve seats. Because the exhaust ports are short, a minimum of exhaust heat is rejected to the coolant with the result that thermal efficiency of the engine is high. Full circle cooling of valve seats and valve stems provides long valve life.

The low speed, high capacity water pump is bolted to the front of the cylinder block. The pump housing casting includes a plenum or equalizing chamber. Coolant drawn into the pump from the radiator is discharged into the plenum chamber, which has two outlets, one into each bank of the cylinder block. The coolant flow is equally divided between the two banks, circulates 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.

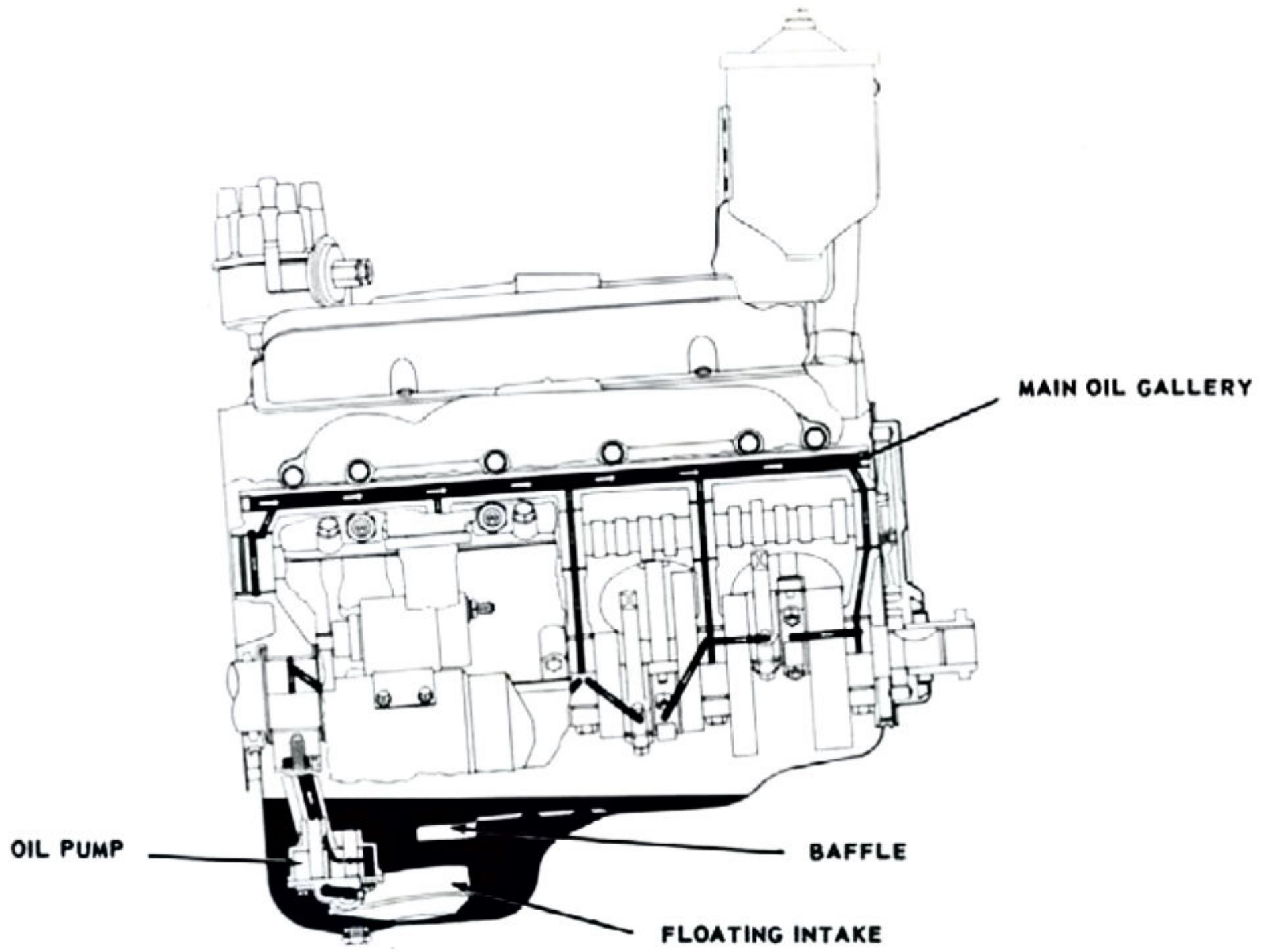
The pump rotor is 3-1/2 inches in diameter, with blades which are curved at the entrance and then straighten to a 90 degree exit angle. The pump pulley is large in diameter, and is driven at 95 per cent of crankshaft speed to insure durability of the pump bearing and quiet operation of the 20 inch fan.

A large drilled-in by-pass is provided in the front of the right hand cylinder head, cylinder block, and in the water pump inlet for coolant circulation on cold starts before the thermostat opens. Coolant from the left hand cylinder head also circulates through the by-pass via the coolant cross-over in the intake manifold. The drilled-in by-pass eliminates the use of outside piping or hoses.



VENTILATION SYSTEM . . .

The crankcase ventilation system is of the positive closed type. All of the air which enters the engine is admitted through the air cleaner, where it is filtered. It is then piped to the oil filler tube and travels directly down into the crankcase through the timing chain case. 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. A short tube, fitted with a check valve, then pipes the ventilating air stream from the inner ventilator tube to the intake manifold through a fitting tapped into the fuel mixture passage behind the carburetor. The ventilating air mixes with the fuel mixture and is burned in the cylinders and expelled through the exhaust system. A plain oil filler cap is used.



LUBRICATION SYSTEM . . .

All of the oil passages for the full-pressure lubrication system are drilled in the cylinder block. The drilled holes are short, with no sharp angular intersections. This minimizes the breaking off of particles of metal at the intersections during manufacture and is a factor in maintaining an internally clean engine. No oil pressure galleries are used in the cylinder head, and no external lubrication pipes are used other than the tubing to and from the oil filter. Three oil passages are drilled horizontally the length of the block: one is the main oil gallery, and the other two are tappet oil galleries.

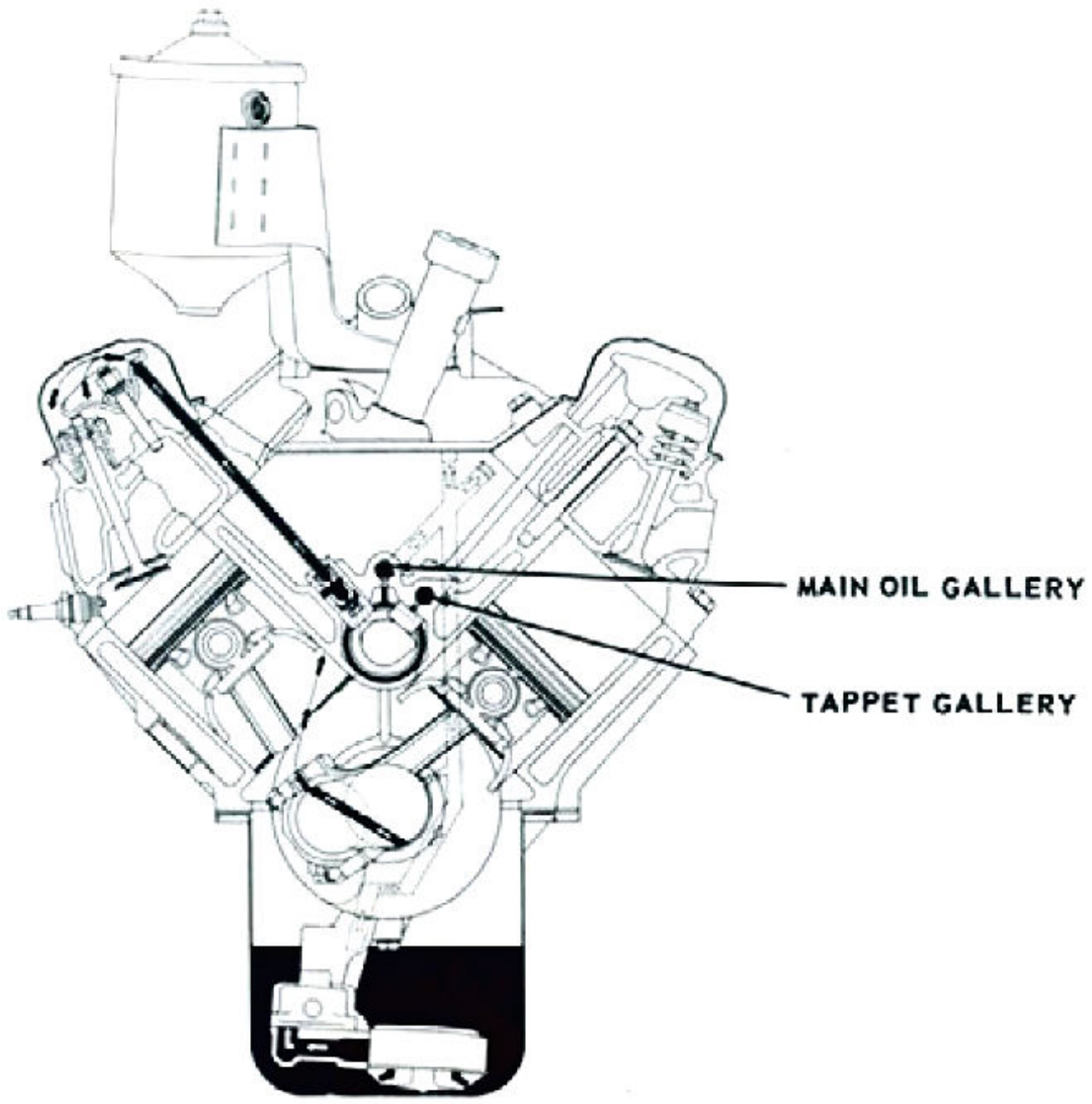
The gear-type oil pump, which is attached to the rear main bearing cap, is driven through a shaft from the distributor. A recirculating by-pass type pressure regulator is integral with the oil pump cover. Oil pick-up in the sump is through a floating strainer which is hinged to the side of the pump.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

Each of the five bosses provided in the cylinder block for camshaft bearing seats has a machined annulus, or groove, under the bearing shell. Except for the rear bulkhead, vertical drilled holes from the main oil gallery pass down through the bulkheads, through the centerline of the camshaft opening, intersecting the annulus, and continue through the bottom section of the bulkheads to register with a hole in the upper half of the crankshaft bearings.

Oil under pressure in the main gallery moves downward through the four vertical drilled holes in the bulkheads into the annulus under the camshaft bearing shells. Some of the oil from the annulus lubricates the camshaft journals through a small hole near the bottom portion of the bearings. The remainder of the oil continues downward through the bottom section of the bulkhead and into the hole in the upper half of each crankshaft bearing, filling the groove in the upper half of the bearing and lubricating 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 its 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 through a hole drilled from the bearing into the oil passage between the oil pump and the main oil gallery.

The annulus or slot under the camshaft rear bearing



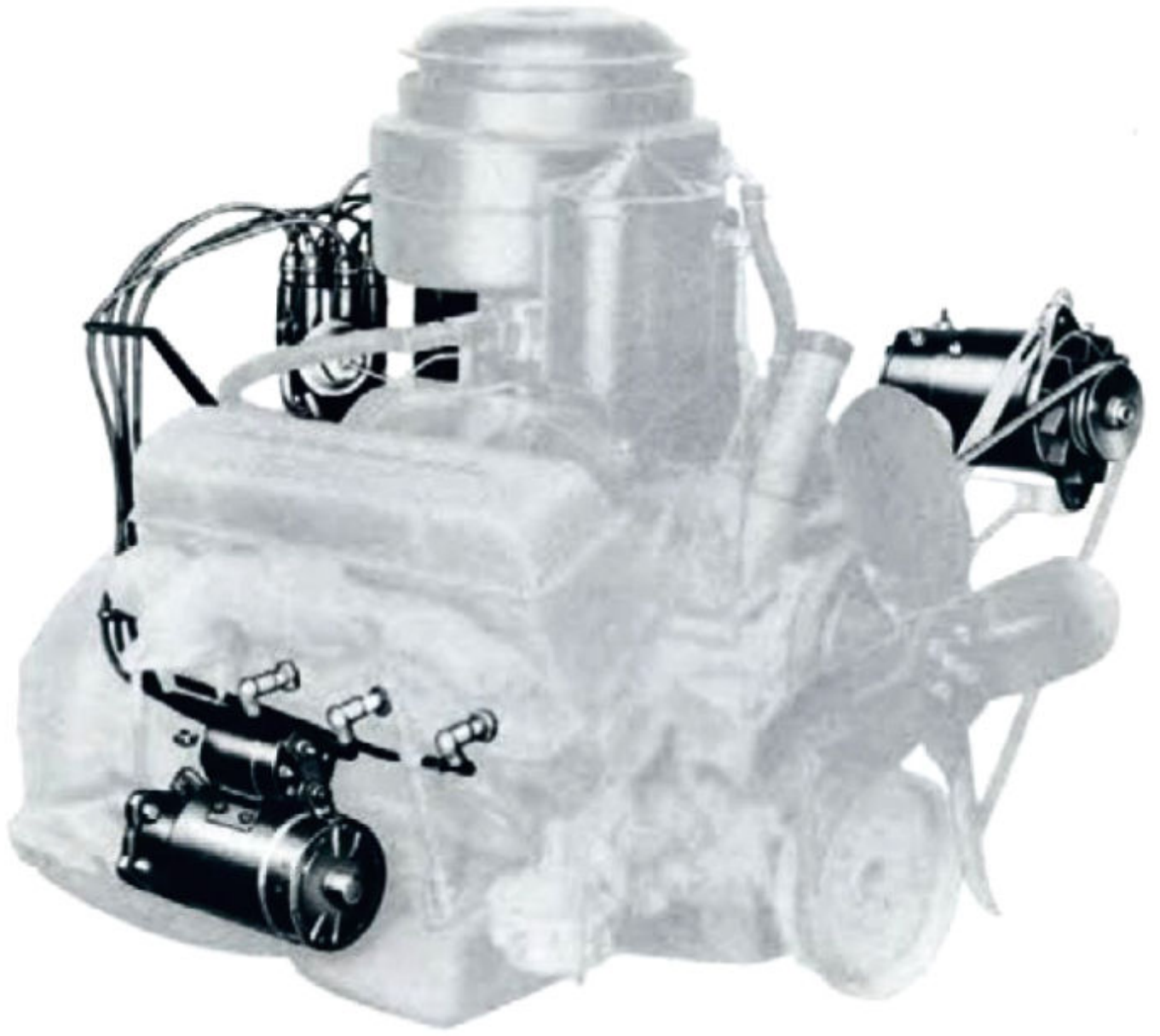
in the cylinder block distributes oil at low pressure to the two tappet galleries which supply lubrication to the tappets and valve operating mechanism.

A drilled hole from the high pressure main oil gallery lines up with a small hole in the camshaft rear bearing shell, keeping high pressure oil on this bearing at all times. This bearing shell has another hole, immediately to the rear of the first hole, which is located over the annulus under the bearing. A hole from this annulus is drilled to each of the tappet oil 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 of the bearing shell. Since the front hole is always exposed to high pressure oil, it keeps the bearing lubricated, and at every revolution of the camshaft, oil from the front hole fills the metering slot with oil under pressure. The oil crosses rearward to the second hole and into the annulus, and then at reduced and equal pressure through the two drilled holes leading to the tappet oil galleries. The balanced pressure of the oil in the tappet oil galleries is controlled by the the length of the metering slot.

Each of the tappets, which are of the hydraulic type, has an annulus in its body which permits oil distribution through the length of the tappet oil gallery, regardless of the position of the tappet, up or down. Each tappet has a drilled hole in its annulus for entrance of the gallery oil under pressure. This oil flows out the top of the tappets, through the hollow push rods, and 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 the valve stem lubricated. Oil return to the block is through drilled holes in the cylinder head.

The camshaft front bearing has a groove which leads to the forward edge of the bearing and delivers oil to a cross-channel on the inside face of the timing gear hub. By this means, oil from the camshaft front bearing provides positive lubrication of the timing chain by centrifugal action. The distributor bearing is lubricated by oil from the right hand tappet oil gallery.

An oil filter of the by-pass type, mounted on the intake manifold, is standard equipment. The oil refill specification for the V-8 engine when used in truck operations is 5 quarts, as compared to the 4 quarts used in passenger car installations. An additional quart is specified because trucks are often equipped with saddle-type fuel tanks holding 100 or more gallons of fuel, thus requiring fewer stops for refueling and checking the oil level.



ELECTRICAL SYSTEM

More efficient ignition and longer service life of components are provided by a 12-volt electrical system which replaces the 6-volt system on the six cylinder engines and is regular equipment on the V-8. The high ignition voltage required for spark plug firing in high compression combustion chambers, particularly at higher engine speeds, is provided with adequate reserve to allow for normal spark plug point erosion as mileage accumulates. The spark plug electrodes for six cylinder engines are increased in size for improved durability, and match those of the V-8.

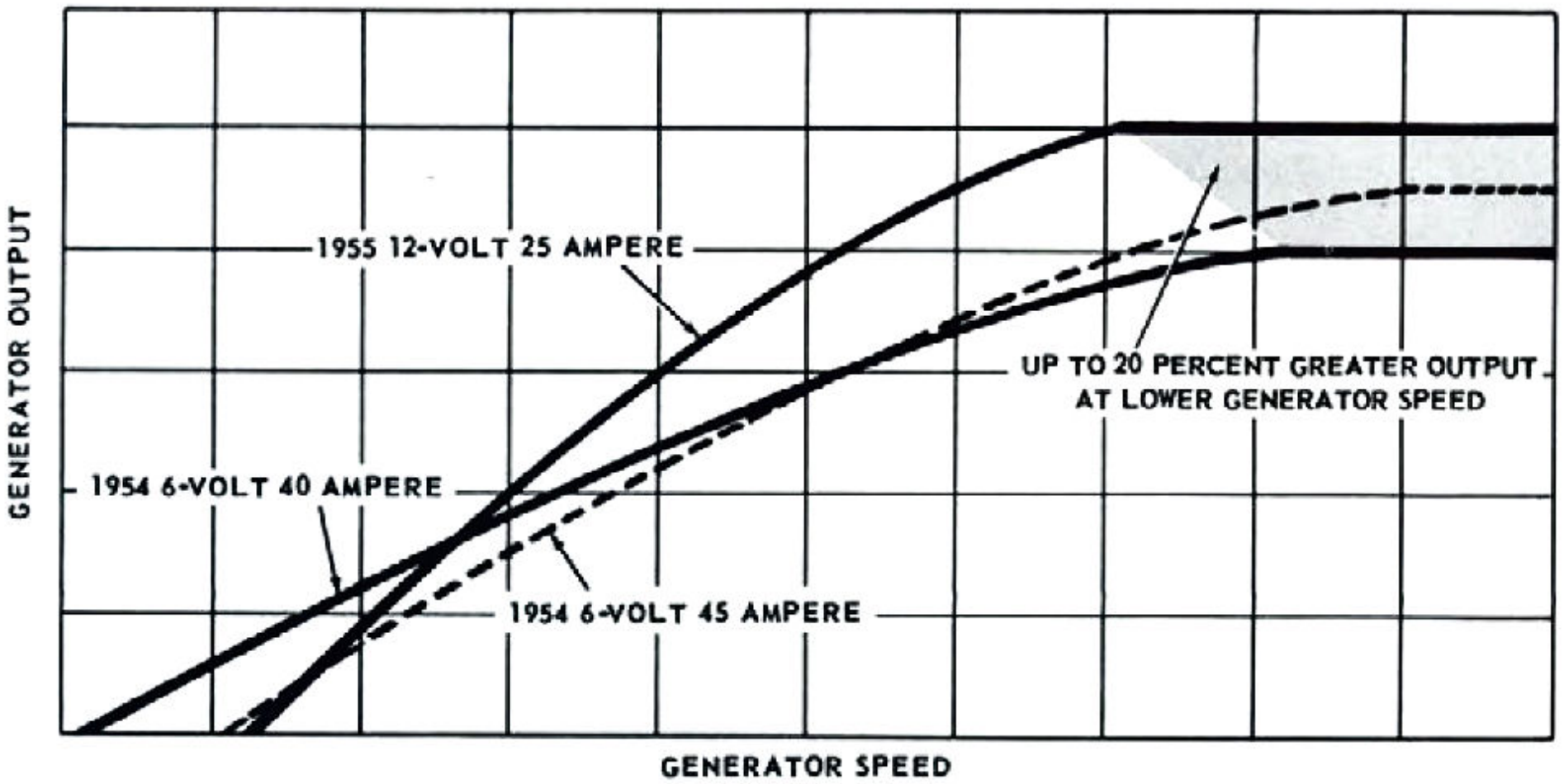
Greater generator efficiency is provided by the 12-volt system, the maximum generator output being not only greater, but produced at lower generator speed. Because the voltage is doubled over the previous 6-volt system, a generator with the same amperage rating would provide twice the total power. Therefore, the new 25-ampere generator output is equivalent to that of a 50-ampere generator with the 6-volt system. Previously, 40 and 45-ampere generators were used as regular equipment.

Starting ease is improved throughout the entire range of operating temperatures. Not only does the 12-volt starter turn the engine faster in cold weather when a high current draw is required to crank the engine, and in hot weather after a brief shutdown with its attendant slower re-starting, but the system is designed to supply adequate voltage to the spark plugs to insure spark plug firing at the same time. This greater ignition reliability during starting is provided by the use of an outside resistor which supplies part of the primary resistance usually contained entirely in the coil. The external resistor is bypassed when the starter is operated. Therefore, primary ignition current remains nearly normal and loss of voltage at the spark plugs is minimized, even though battery voltage is greatly reduced by the drain of current to the starter.

Other electrical system improvements include key-turn starting for greater convenience on models with automatic transmission and all forward control chassis. The key-turn starting feature also is regular equipment for Series 5000 trucks.

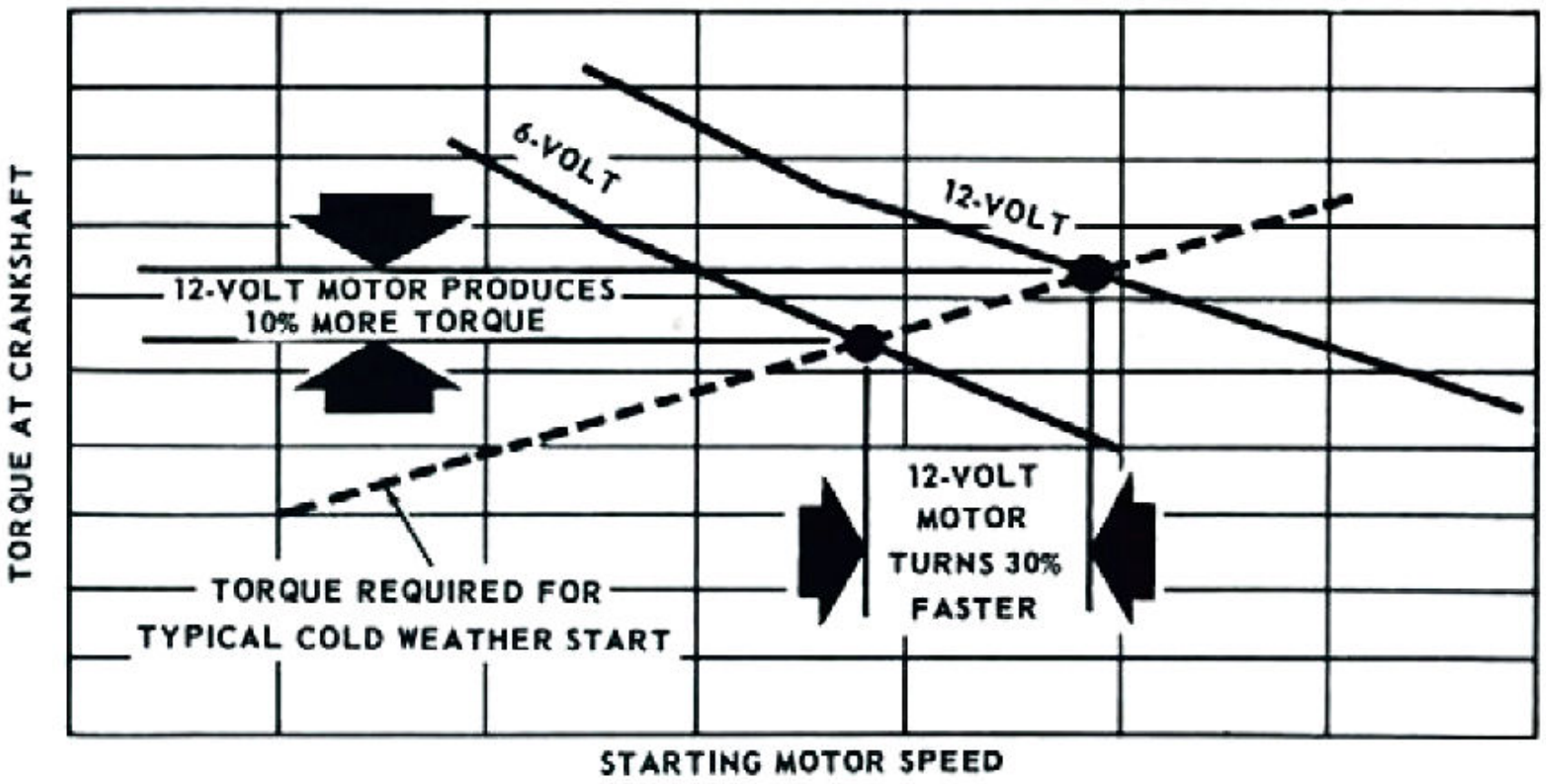
A dual circuit breaker which replaces the fuse block is incorporated in the main light switch to isolate the headlamp circuit for greater safety. A short in either the headlamp circuit or in the wiring to other lights would trip the affected circuit breaker and equipment on the unaffected circuit would continue to function. The dome light switch is added to the main light switch for greater driver convenience. Illumination for all cab and single unit bodies is controlled by rotating the control knob to the extreme left, making it unnecessary to reach for a switch on the dome light frame. Control of instrument panel lights by the main light switch is continued.

Chassis wiring is of lighter gauge for correct 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 to attach wiring to the switches, fuel gauge and headlamp junction blocks.



GENERATOR PERFORMANCE . . .

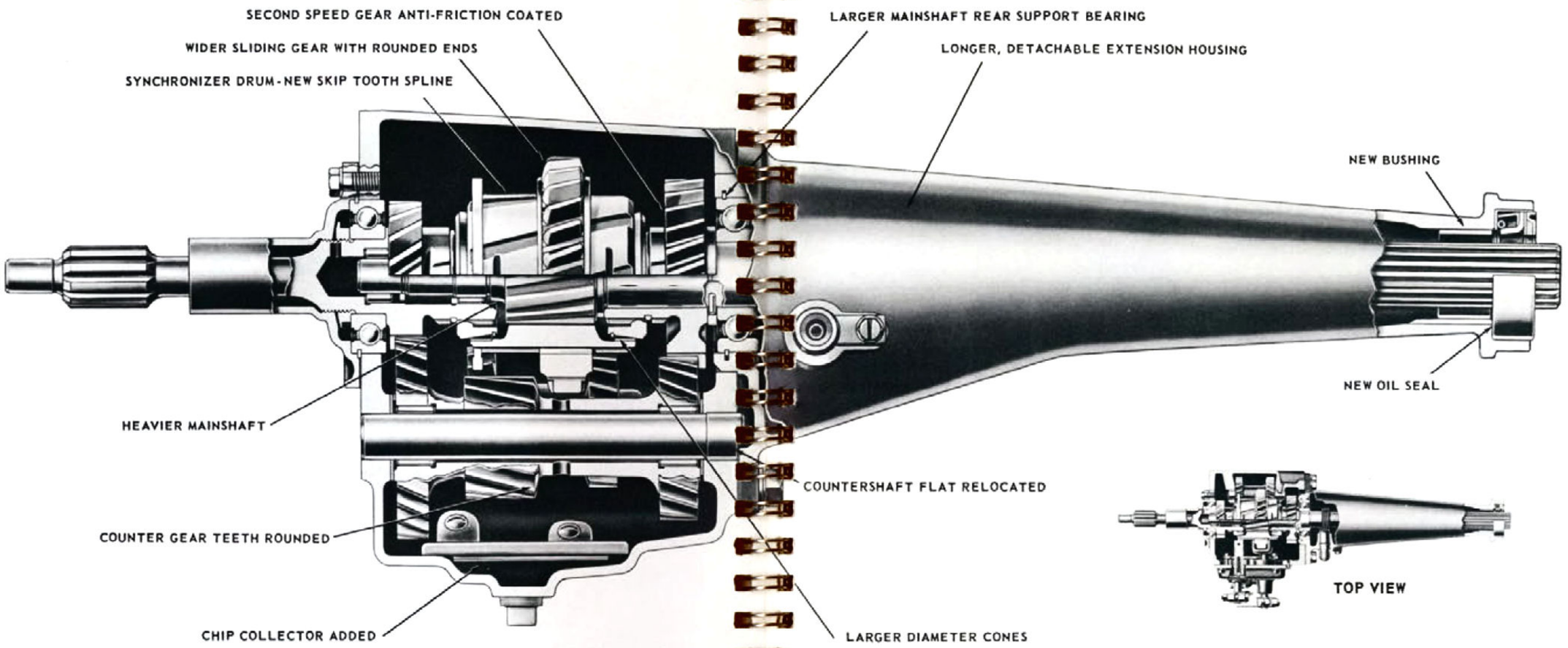
A marked improvement in generator performance is realized with the adoption of the 12-volt system. A generator of 25 ampere rating replaces both the 40 ampere and the 45 ampere 6-volt units formerly used on the 3000 series and the 4-5-6000 series respectively. Generator-to-engine speed is decreased to 1.83-to-1 from 2.05-to-1 for the 3000 series, and to 1.33-to-1 from 1.83-to-1 for the 4-5-6000 series. The new generator not only has a higher output at lower speed, but the maximum output is greater than the standard generators for 1954. Longer brush and bearing life is assured through the lower generator speeds and the use of a larger extension oiler with a capacity approximately three times greater for lubricating oil.



STARTING MOTOR PERFORMANCE . . .

Faster cranking with higher torque is provided in the change from a 6-volt to a 12-volt starting motor for quicker starts in a complete range of temperatures from extreme cold to hot weather conditions. 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



TOP VIEW

TRANSMISSIONS AND DRIVE LINES

The standard 3-speed transmission for 1955 features a thoroughly re-engineered gearset encased in a two-piece housing designed expressly for the Hotchkiss drive system. Contributing to its greater capacity and shifting ease are a larger diameter mainshaft and rear bearing, improved sliding fit of the first and reverse gear, and a new transmission-to-propeller shaft coupling arrangement. Introduced at the start of 1955 production, the new design is standard equipment on all models of the 3000 series, with the exception of Series 3800. The four-speed transmission is again standard equipment for Series 3800 and all models of the 4, 5 and 6000 series.

The standard 3-speed transmission housing is relieved of certain structural requirements with the addition of a rear universal joint. Because the housing is no longer a component of the drive line, it is never subjected to the shock loads formerly transmitted through the torque tube on severe rear axle torque reactions. The elimination of the greatest force which tends to deflect the transmission makes possible two distinct design advantages - lengthening of the housing to shorten the propeller shaft, and the use of the mainshaft itself as a component of the slip joint.

The increased length is incorporated entirely within the transmission extension, a separate housing bolted to the transmission case. At the rear of the extension, a universal sleeve yoke slips onto the splined mainshaft through a bushing and oil seal. Sixteen mainshaft splines with an effective length in excess of four inches give the sliding freedom necessary with the Hotchkiss drive system. Due to the large contact area, the spline teeth exert a low unit pressure on the mating teeth of the sleeve yoke. With this design, the spline clearance is close and, since the outside diameter of the sleeve yoke is machined to fit the extension bushing, the bushing becomes an effective outboard bearing for the mainshaft. Thus, mainshaft alignment is accurately maintained without the former need for the separate rear bearing support and slip joint.

The detachable extension housing design simplifies many service operations, provides convenient installation of the overdrive option, and permits elimination of the shaft locking hole in the clutch housing. Countershaft rotation is prevented by a flat which contacts a rib on the front of the extension housing. Because the clutch housing no longer contains a cutout for this purpose, its structural strength is increased.

The basic change underlying the gearset redesign is the heavier mainshaft. Its greater torsional rigidity, or inherent "twist-resistance" to the torque it transmits, minimizes misalignment of all gears in the train. Accurate gear alignment assures uniform load distribution over the face of the teeth.

The diameter increase also effects an increase in the internal and external dimensions of the synchronizer drum which, in turn, increases the internal diameter of the first and reverse sliding gear. Since both the outside diameter and profile of the sliding gear are unchanged, the thickness of the gear blank is reduced. Section modulus is maintained, however, by simply widening the blank.

The resulting increase in sliding contact area minimizes rocking of the sliding gear on the synchronizer drum and thus assures easier engagement and more accurate alignment with the countergear and reverse idler. Adding further to the sliding

ease of the first and reverse gear is its new "skip tooth" spline attachment to the drum. The design is not only more easily finished within close limits but, since it requires less spline depth, also compensates for the reduced wall thickness of the drum.

The increased diameters of the synchronizer cones and rings account for larger friction areas and reduced wear. Moreover, since the friction surfaces are farther removed from the centerline of mainshaft rotation, the cone clutch gains greater mechanical advantage in effecting rapid synchronization of the engaging teeth.

The ends of the sliding gear teeth and the mating ends of the countergear and reverse idler are now round rather than chamfered. The additional machining operation reduces the possibility of surface chipping without compromising meshing ease. All gears are again machined from drop forged steel gear blanks, carburized and shot peened to maintain high resistance to wear and fatigue. A new anti-friction coating is applied to the second speed gear to prevent seizure on the mainshaft. As a further precaution against damage to bearings and friction surfaces, a sheet metal baffle is bolted to the bottom of the transmission housing to prevent circulation of metallic chips with the lubricant. The trapped fragments are removed when the case is drained.

1954

1955

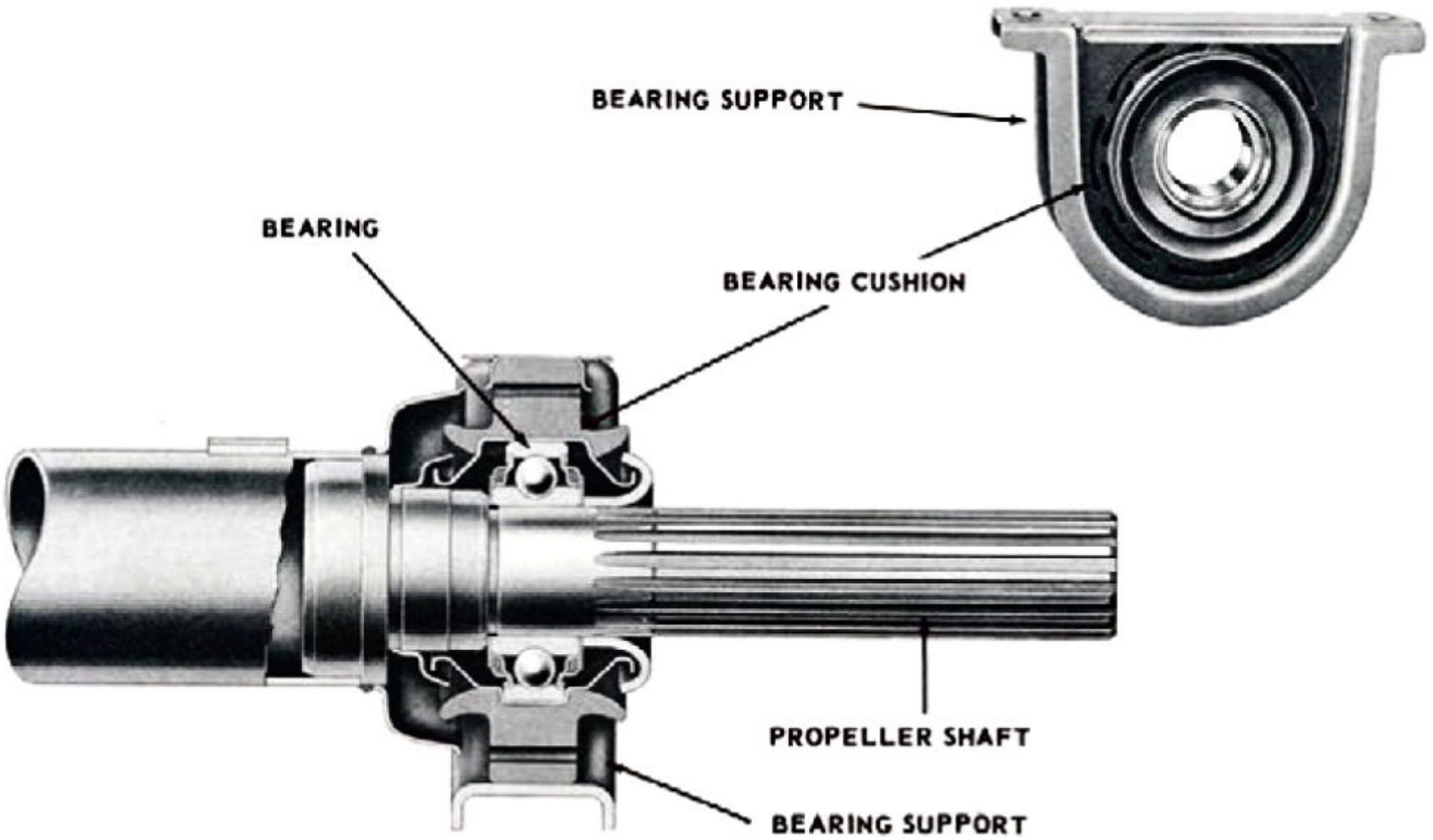
SKIP TOOTH SPLINE . . .

Due to the reduced wall thickness of the synchronizer drum, structural requirements dictate a need for shallower spline valleys. The new "skip tooth" spline coupling, of the sliding gear to the drum not only satisfies this need but also makes possible smoother, more accurate fit.

Formerly, the twenty-four spline teeth of the sliding gear piloted on the roots of the drum splines. The new design has the tooth circle divided into sixteen equal segments; every other spline valley eliminated from the drum; and the mating tooth of the sliding gear machined to bear against the drum. Because the bearing surfaces are more easily finished to exacting tolerances, the selective fitting is more accurate and the sliding action improved.

The eight bearing surfaces have large contact areas for high wear resistance and the eight remaining spline teeth are short, wide, and thick to provide rugged shoulders for the driving torque.

PROPELLER SHAFT
CENTER BEARING SUPPORT



The destructive and annoying propeller shaft vibration ordinarily transmitted through intermediate bearing supports is reduced by as much as eighty per cent on all 1955 Chevrolet trucks requiring these supports.

Isolation of vibrational disturbances in a revolving shaft requires a certain degree of resilience and geometric freedom of mounting. These properties are accurately incorporated into the new design by molding the rubber cushion surrounding the sealed ball bearing with two concentric rows of deep longitudinal slots. When installed, the cushion is slightly pre-loaded in compression by its U-shaped support. The cushion is flat across the top to prevent rotation within its support and larger in cross-section to maintain durability.

In converting the 1/2-ton models of the First Series 3100 to Hotchkiss drive, the enclosed propeller shaft was replaced by a three-inch tubular shaft and a rear universal joint. The new 1/2-ton Series 3200 takes a 3-1/2 inch tubular shaft. A reduction in the transmission-to-rear axle dimension, resulting from the redesign of the transmission, also permitted the use of a single 3-1/2 inch shaft as standard equipment on Series 3600. Two 2-1/2 inch shafts, formerly standard equipment, are now required with optional transmissions only. The new short wheelbase forward control model 3442 uses one 3-1/2 inch shaft and the 3542 forward control chassis use two 2-1/2 inch shafts both as standard equipment and in combination with optional transmissions. The diameter of the front shaft on Series 4400 and 4500 is increased from 2-1/2 to 3 inches.

An increase in the transmission-to-rear axle dimension in the models of the 5000 series necessitates the use of two 3-inch shafts in place of one on Series 5100 and three 3-inch shafts in place of two on Series 5700 models. The 134-inch wheelbase Series 5400 requires only an increase in length of its two 3-inch diameter shafts.

Shorter wheelbases on all models of the 6000 series, except the 6802, permit the use of 2-1/2 inch shafts in place of 3-inch shafts in many applications. Series 6100 and 6500 now use 2-1/2 inch shafts as standard equipment. Series 6400 uses a 2-1/2 inch rear shaft and Series 6700 uses 2-1/2 inch intermediate and rear shafts. Series 6800 again uses 3-inch shafts as standard equipment. Three-inch shafts with larger U-joints formerly standard equipment on all models of the 6000 series, are now required with optional heavy-duty axles only.

EXTRA-COST EQUIPMENT

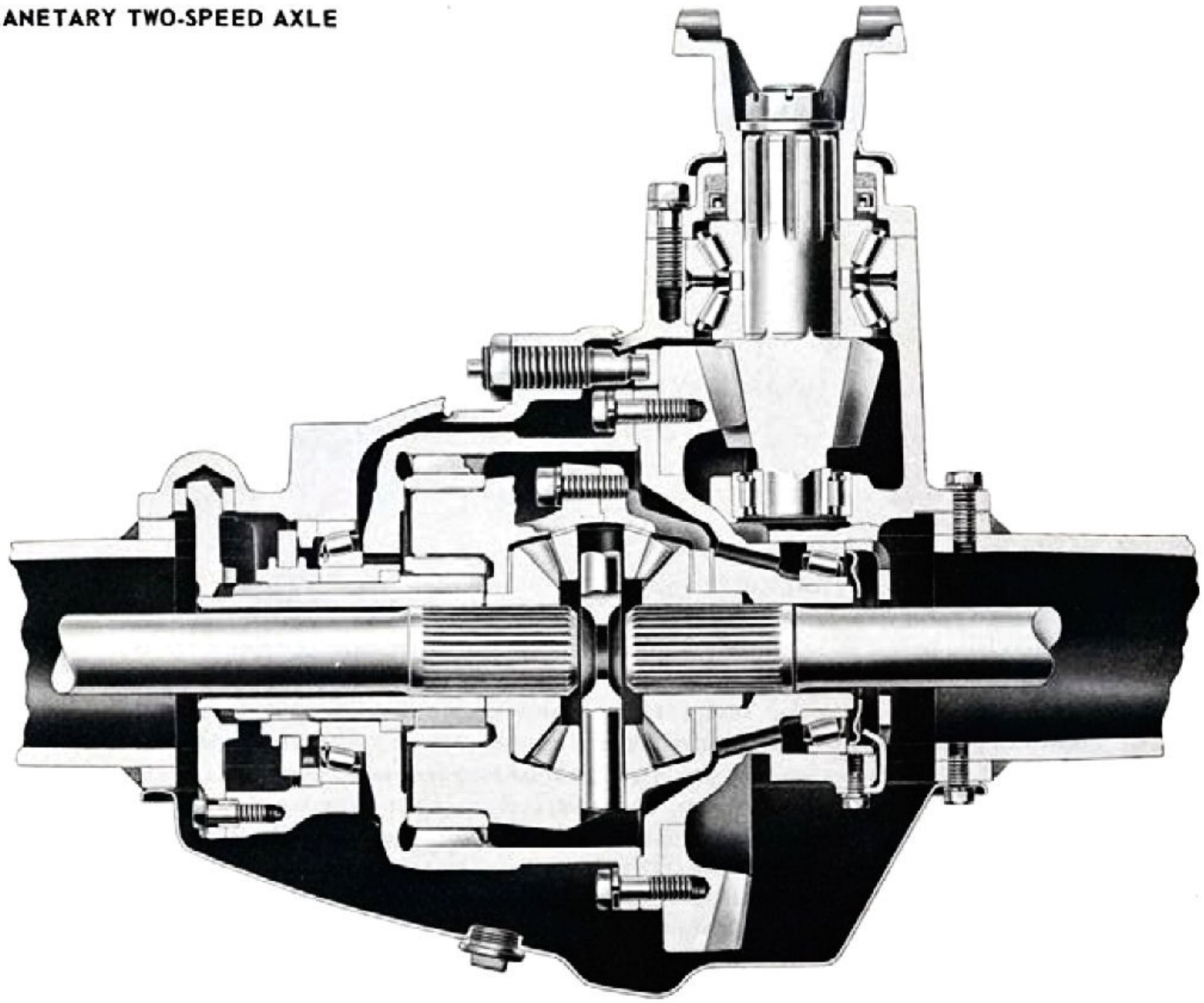
current engines. For 2-ton truck applications, a choice of 5.83/7.95 or 6.40/8.72 ratio axles is offered. For 1-1/2 ton trucks, only the lower 5.83/7.95 ratio axle is available.

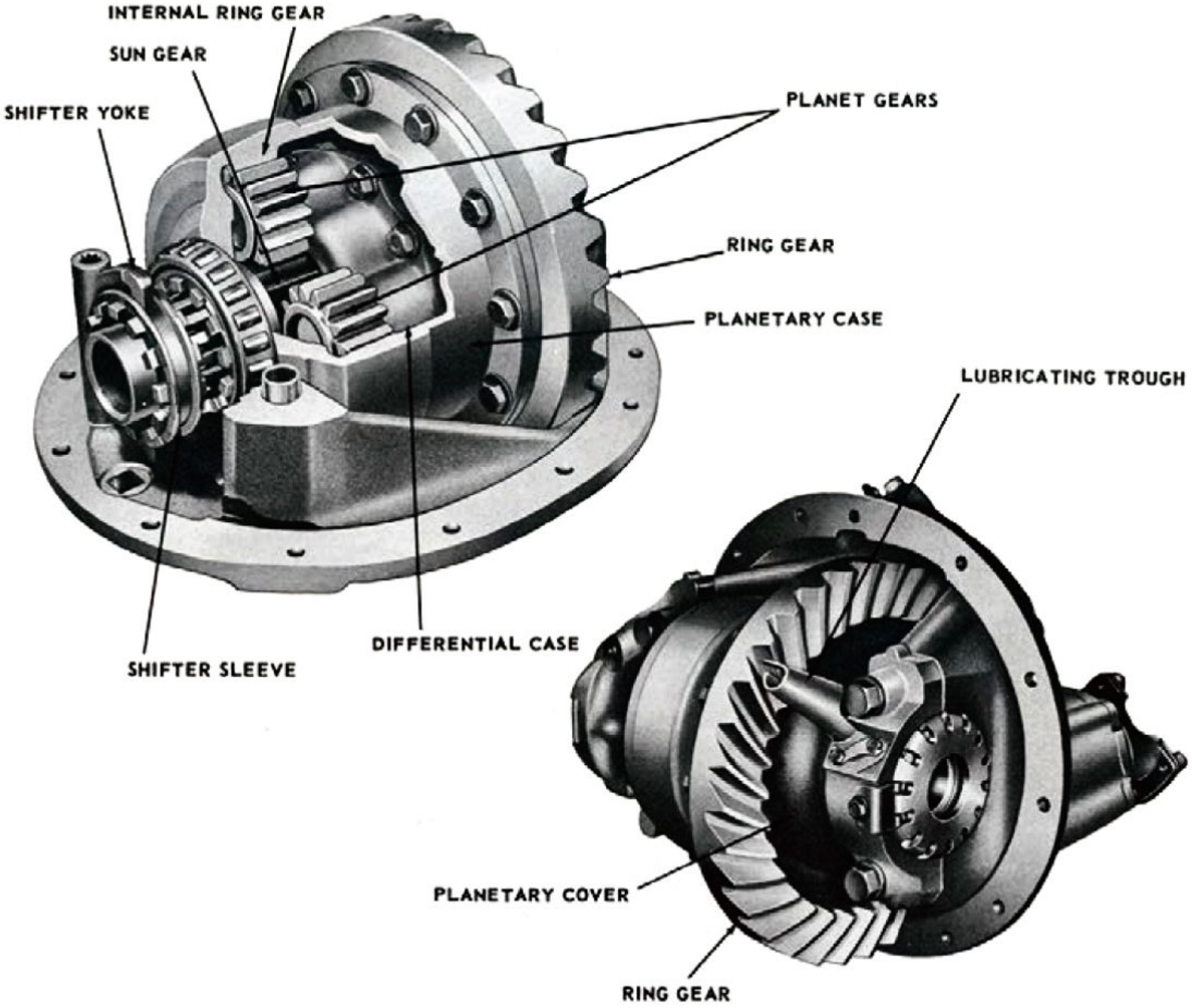
Hypoid primary gearing in the new 2-speed axle permits use of a drive pinion which is 20 per cent larger in diameter and thus stronger than one for use with comparable spiral bevel type gears. Tooth contact area and the related surface capacities are greater, too, in the hypoid gear set because greater working depth and a more pronounced spiral angle in drive pinion teeth are inherent characteristics of the hypoid design.

A better distribution of radial loads on shaft bearings and improved pinion rigidity is achieved in the Chevrolet 2-speed axle by straddle-mounting the drive pinion. A large roller bearing supports the inner end of the pinion shaft so the pinion is supported between bearings instead of being cantilevered. With the strength of the large pinion shaft contributing, the pinion is stabilized so that deflections such as sag and lift are almost completely eliminated. This permits the pinion teeth to be cut to conform closely with the gear teeth, rather than with curvatures compromised to allow a considerable shift in point of contact under light and heavy loads as necessary with an overhung mounting.

SINGLE-SPEED, HEAVY-DUTY AXLE. The heavy-duty 6.17-to-1 ratio rear axle, now standard on Series 5000 trucks, is available as an RPO for Series 6000. The 4-1/2 inch axle housing is rated at 15,000 pounds capacity. The large drive pinion, 13-3/4 inch ring gear, and the differential case, pinions, and side gears are all heavier than corresponding parts in the axle of same ratio which is standard for Series 6000 trucks. An optional heavy-duty 7.2-to-1 ratio gear set is available for use in the larger housing.

PLANETARY TWO-SPEED AXLE



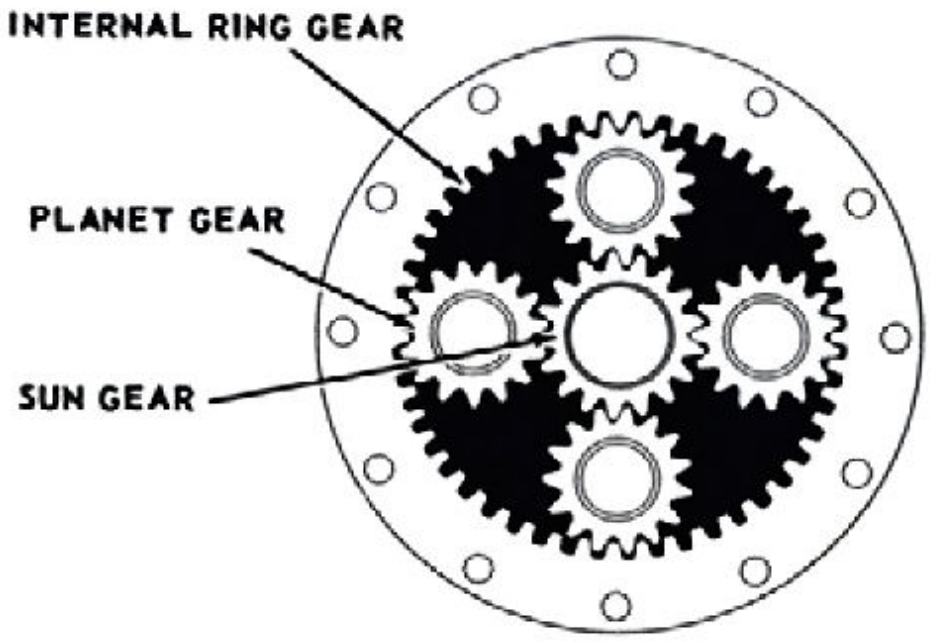


TWO-SPEED DIFFERENTIAL . . .

The heavy hypoid ring gear employed in the primary reduction has a 12-3/4 inch pitch diameter. It is bolted to and therefore separable from the planet case containing the internal planetary ring gear so that either gear may be replaced, if necessary, at minimum cost. Mobile within the planet case and ring gear assembly, but formed to support and space four planet gears on short integral shafts, a forged differential case turns at planet orbit speed as the driven member. As in any conventional rear axle, this case contains the differential pinions and side gears, and rotates at the exact mean speed of the rear wheels, at the same time allowing differential action when necessary. The differential gears, themselves, are heavy-duty to withstand torque forces.

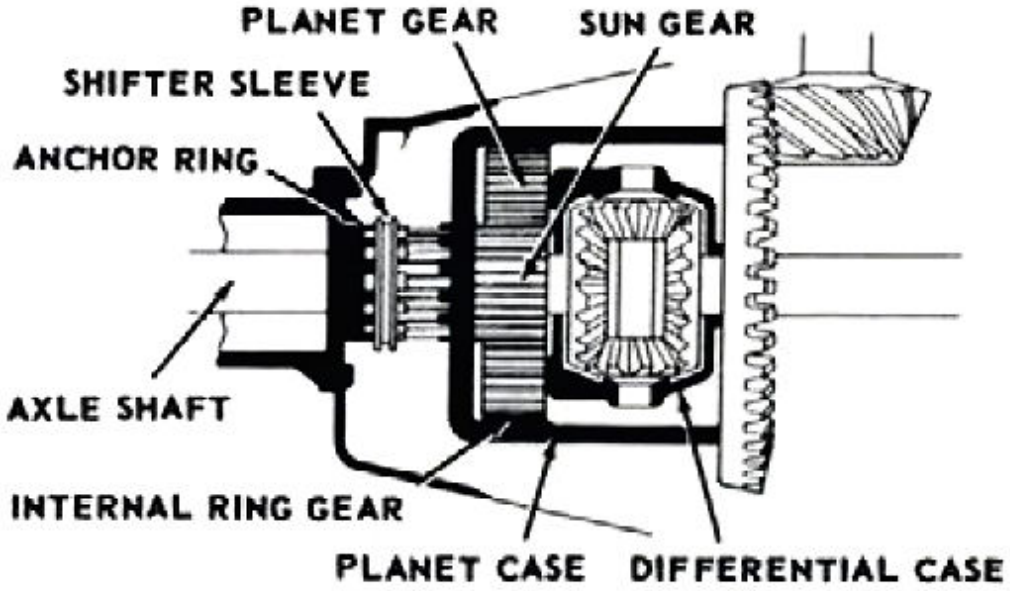
Supplementing the continuous oil bath given the ring gear by virtue of its rotation in the sump, a simple oil pick-up and distribution trough supplies lubrication to the differential side bearings and planet case. Lubricant is picked up from the revolving ring gear by the trough which is bolted to the planet cover retainer and directed down into the area between the right side bearing and planet cover. Four holes in the end of the planet cover allow the lubricant to enter the planet case and lubricate the differential pinions, sun gear and planet gears. Holes in the end of the planet case return the lubricant to the sump.

TWO-SPEED PLANETARY GEAR SYSTEM

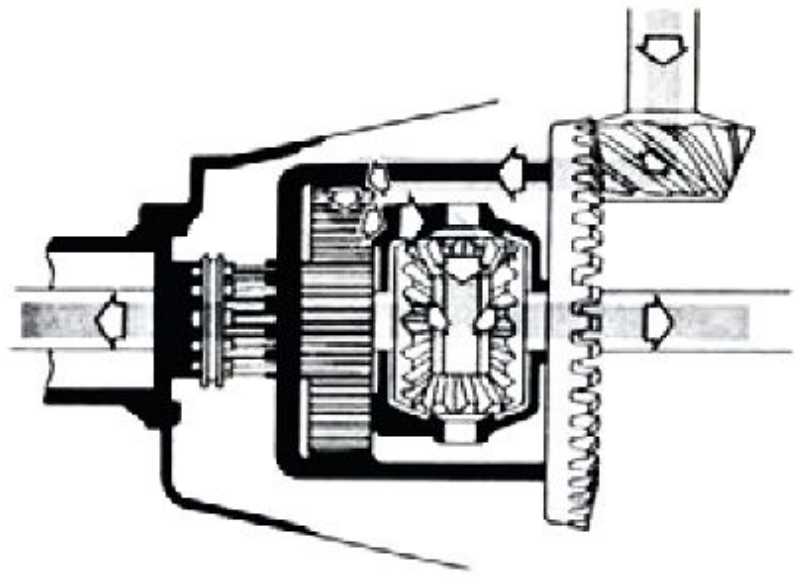


SIMPLE PLANETARY GEAR SET. Three main elements are included in any planetary gear system: a sun gear, two or more planet gears supported and spaced by a carrier, and a large internal ring gear.

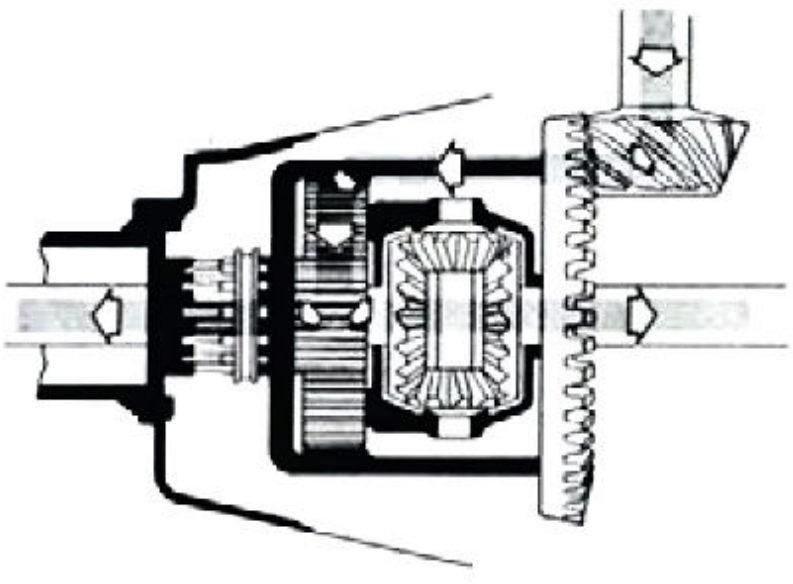
In an axle of planetary type, drive is supplied to rear wheels from the planet carrier after being transferred through the planet gears from the internal ring gear. Torque multiplication or speed reduction occurs when the sun gear is locked stationary, independently of the internal ring gear, forcing the planets to walk around the sun gear. Direct drive of the planetary system occurs when the sun gear is locked with the internal ring gear, forcing the planets to revolve at the same velocity as the internal ring gear.



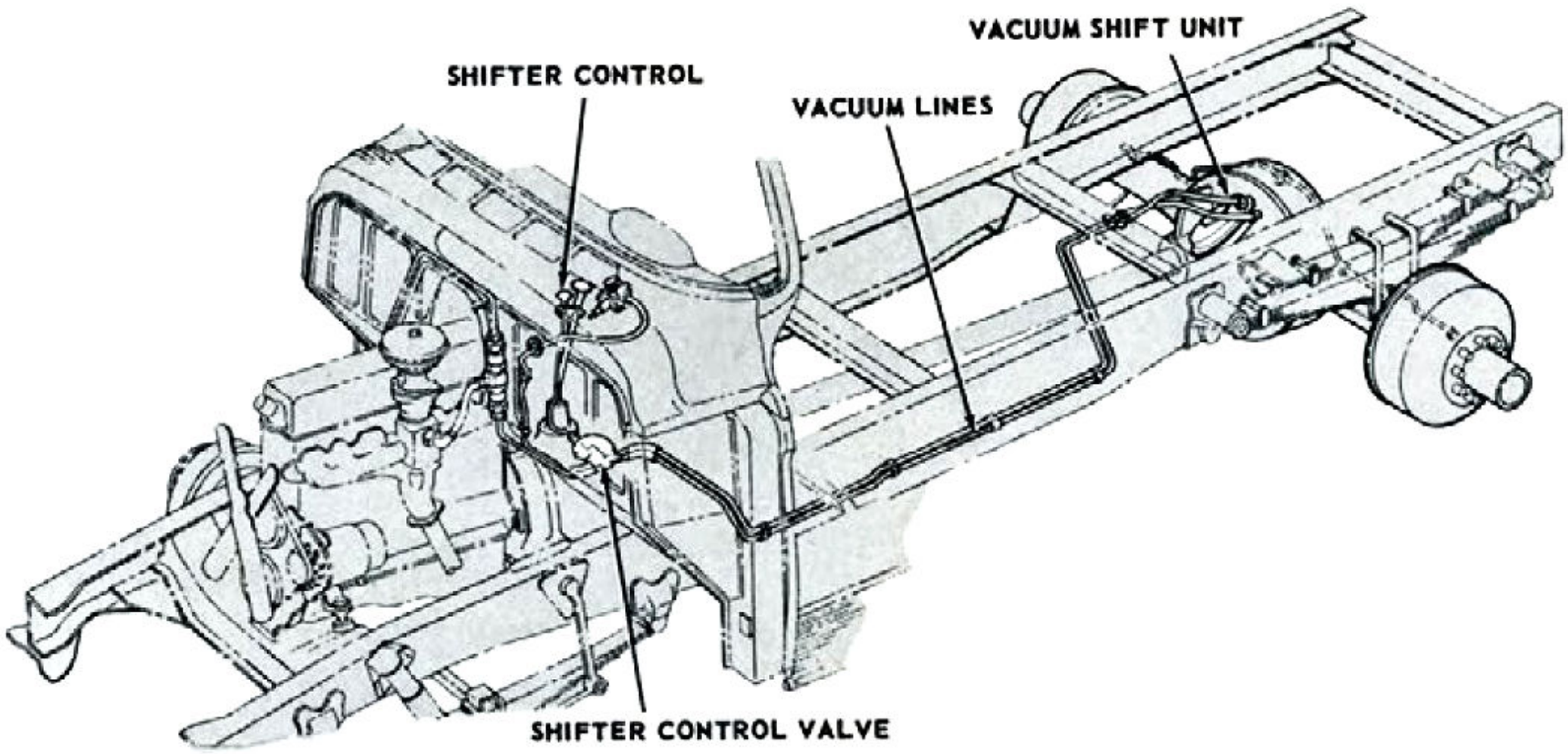
IN THE CHEVROLET DESIGN, the sun gear is formed on one end of an external splined sleeve, six inches in length within which the left hand axle shaft may turn freely. Sliding in the external splines, a shifter sleeve carrying rows of clutch teeth on both faces is circumferentially grooved so that its position may be controlled by a vacuum powered lever arm.



IN LOW RANGE OPERATION, the clutch teeth on one face of the shifter sleeve mate with similarly formed teeth which project from an anchor ring attached to the differential carrier. This engagement locks the sun gear, forcing the planets and differential case to revolve at very nearly 73 per cent of driving internal ring gear velocity, torque being multiplied in an inverse ratio of 1.36-to-1.



FOR HIGH RANGE DRIVING, the shifter sleeve is moved out of engagement with the anchor ring and into engagement with teeth formed in a circular lip which is part of the planet case. Since the shifter sleeve is splined over the sun gear sleeve, the sun gear must then turn with the planet case and ring gear. Here, in effect, the planetary system is locked out of operation, except that the planets continue to transmit torque to the differential case as though frozen in place within a rotating cage.



SHIFT CONTROL SYSTEM . . .

The positive double line vacuum shift mechanism is retained with more convenient and flexible operation provided by relocation of the control valving and valve operating linkage.

As in the previous axle, a circular diaphragm in an air and vacuum chamber attached to the front of the differential housing provides a source of motive power for axle range changes. Air and vacuum hoses, connecting to the chamber on either side of the diaphragm, lead forward through selection control valving to the intake manifold and air cleaner.

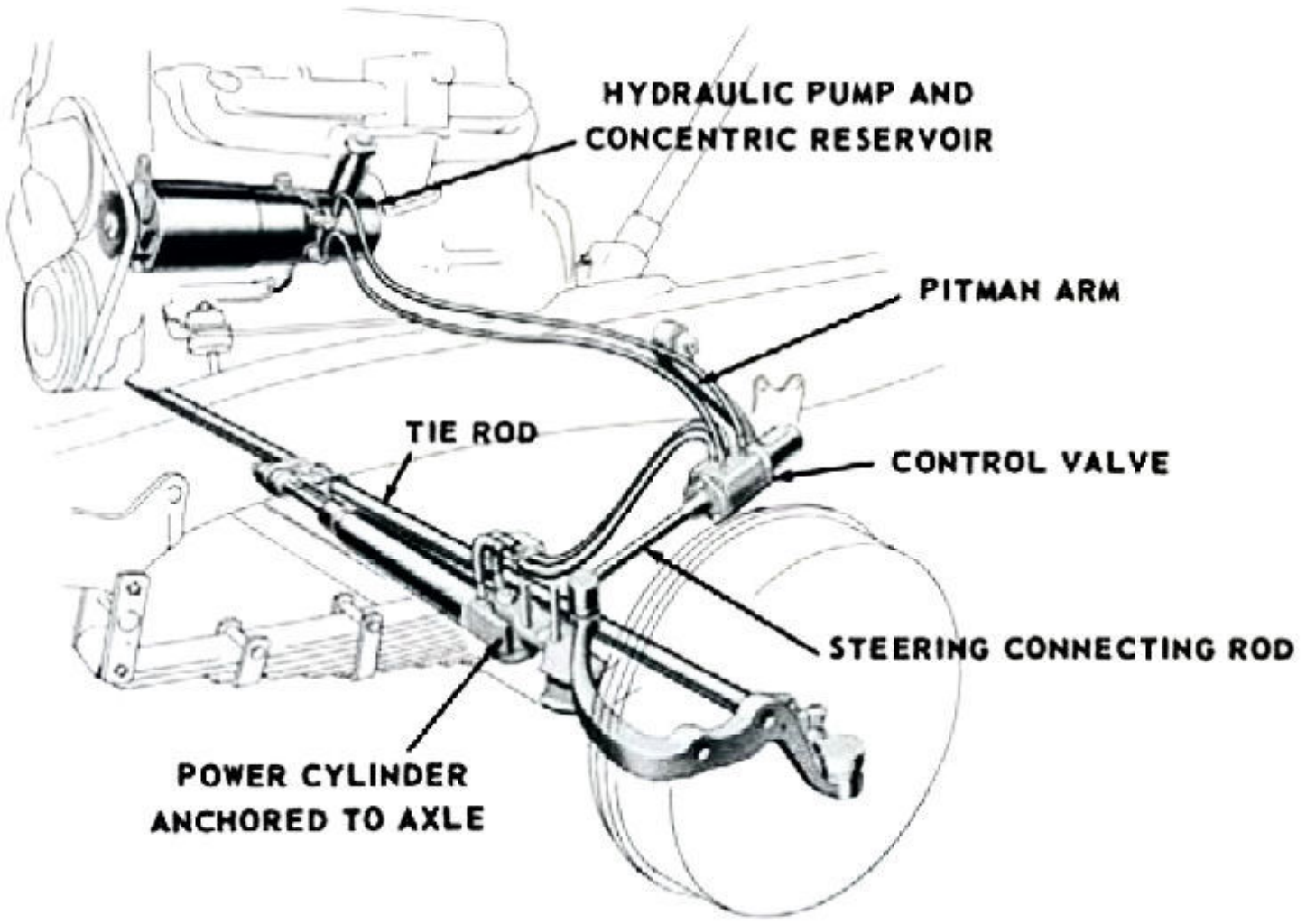
The operating control, now of button rather than lever type, is relocated to the gearshift lever from a former position on the instrument panel. The selector control valve assembly is moved to the top of the transmission from a position on the left side member just forward of the dash. With two double-acting poppet valves in place of the former rotary type, the control valve assembly is entirely new and redesigned to be operated by a cable, instead of by rod linkage.

Functioning together, the poppet valves channel vacuum and air at atmospheric pressure to opposite sides of the axle shifting diaphragm and provide complete reversal of this connection when the position of the operating button is changed. A check valve in the vacuum line to the intake manifold assures adequate vacuum for axle shifts under all operating conditions, regardless of engine load and speed variations.

Since the high or low range positive clutches controlling the movement of the sun gear must engage quickly when torque is interrupted, the rod assembly linking the diaphragm with the yoked shifter lever within the axle contains a coil spring which stores energy upon diaphragm movement and subsequently releases this energy to effect the shift. It is this coil spring, also, which permits pre-selection of axle range by the driver. A much smoother, quicker, and better-timed shift is obtained than would be possible if the shift collar followed the movement of the diaphragm directly.

In the working surfaces of each clutch, a 2-degree back-draft angle provides a dove-tailing tooth action which prevents shift collar disengagement while torque is being delivered. When a range has been selected the actual shift is delayed until torque flow is interrupted, at which instant the coil spring in the linkage to the vacuum diaphragm overcomes remaining friction and effects rapid shift collar movement.

An auxiliary port in the valve body connects through a small hose to a diaphragm in the speedometer adapter, and gearing in the speedometer adapter is actually shifted according to the position of the operating button and poppet valves. Similar speedometer compensation was employed with the previous 2-speed axle, but with direct rod linkage to the operating lever.



POWER STEERING

Power steering for Chevrolet trucks is now available for all except forward control models. All control valving is located in a special steering connecting rod, with hydraulic power for steering assistance applied to the standard tie rod. Because the new option is of the linkage type, it permits use of the standard steering gear and provides up to 80 per cent steering assistance as well as effective damping of road shock and vibration.

A constant displacement vane-type hydraulic pump, and a reservoir from which the pump draws fluid, are compactly mounted on the rear of the generator. The pump is driven by a splined extension of the generator shaft, a larger generator pulley driving both the generator and pump. A 30-ampere generator, standard with the power steering option, replaces the standard 25-ampere generator. An optional 40-ampere generator is also available with power steering equipment.

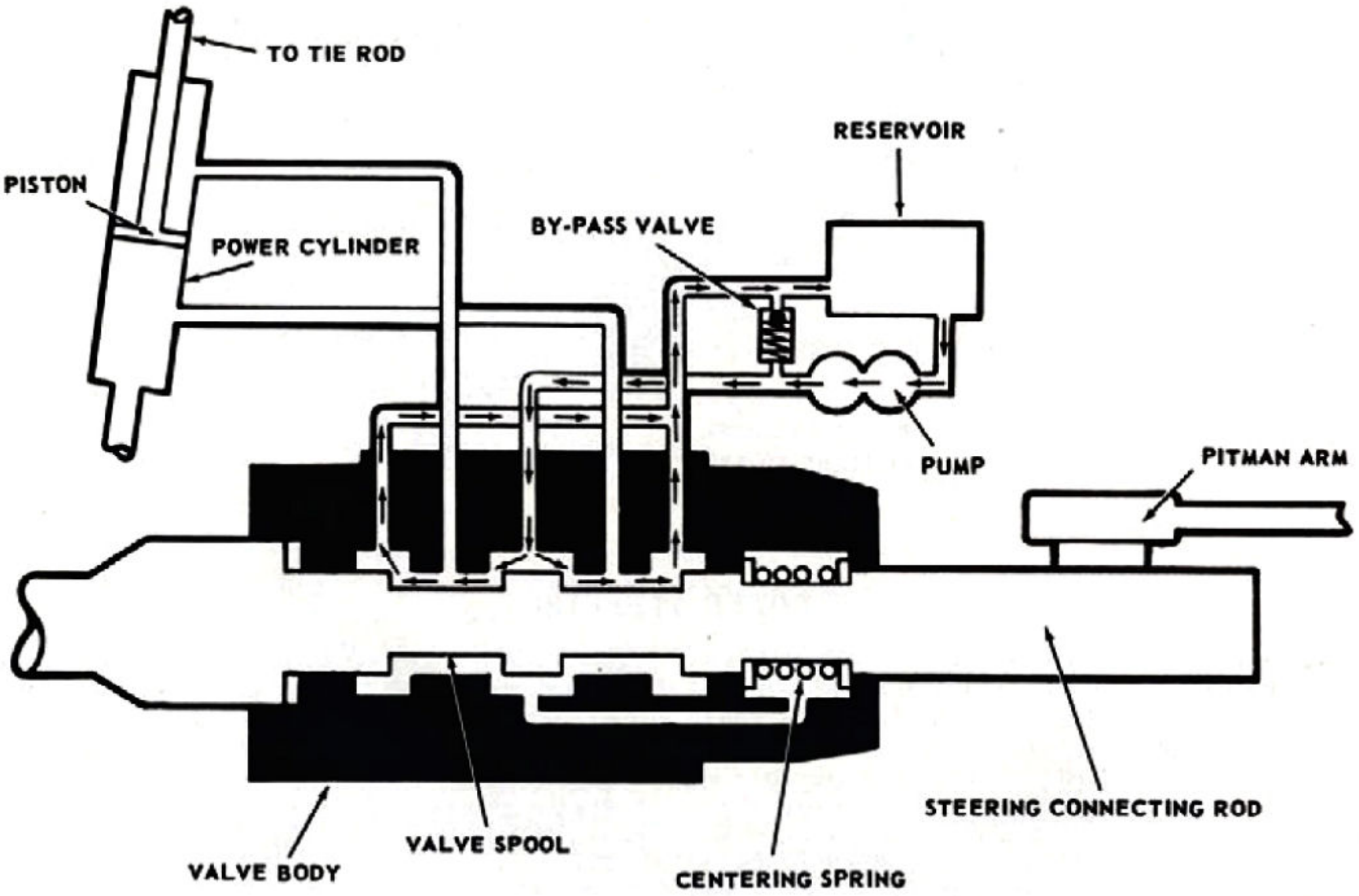
The power cylinder is positioned laterally between the tie rod and front axle. With the fixed end anchored to the left spring pad, a sliding piston rod projects through a seal in the opposite end of the cylinder and clamps to the tie rod near the right hand steering arm. Two high pressure hoses connect passages in the power cylinder wall to ports in the control valve body on the steering connecting rod.

The control valve body, with hoses to the pump and reservoir as well as to the power cylinder, links and supports two sections of the steering connecting rod. One section is joined to the valve body, while the other rod section is spooled and closely machined for a sliding fit in an annularly grooved valve chamber, with valve travel limited to a very slight amount. A centering spring tends to keep the valve spool in a neutral position, where no hydraulic pressure is applied to the power cylinder. When the connecting rod moves forward or backward, for left or right hand turns, the compression strength of the centering spring is overcome and regulated hydraulic pressure is directed to either side of the piston in the power cylinder.

For adequate road feel and desirable smoothness in the development and application of hydraulic power for steering assistance, a duct is provided between the central groove in the valve body and the centering spring chamber so that increments of hydraulic pressure, referred to as hydraulic reaction, serve to reinforce the centering spring. At the steering wheel this provides road feel and more precise metering of hydraulic steering assistance where otherwise the small centering spring would tend to allow too frequent and intermittent application of full hydraulic power.

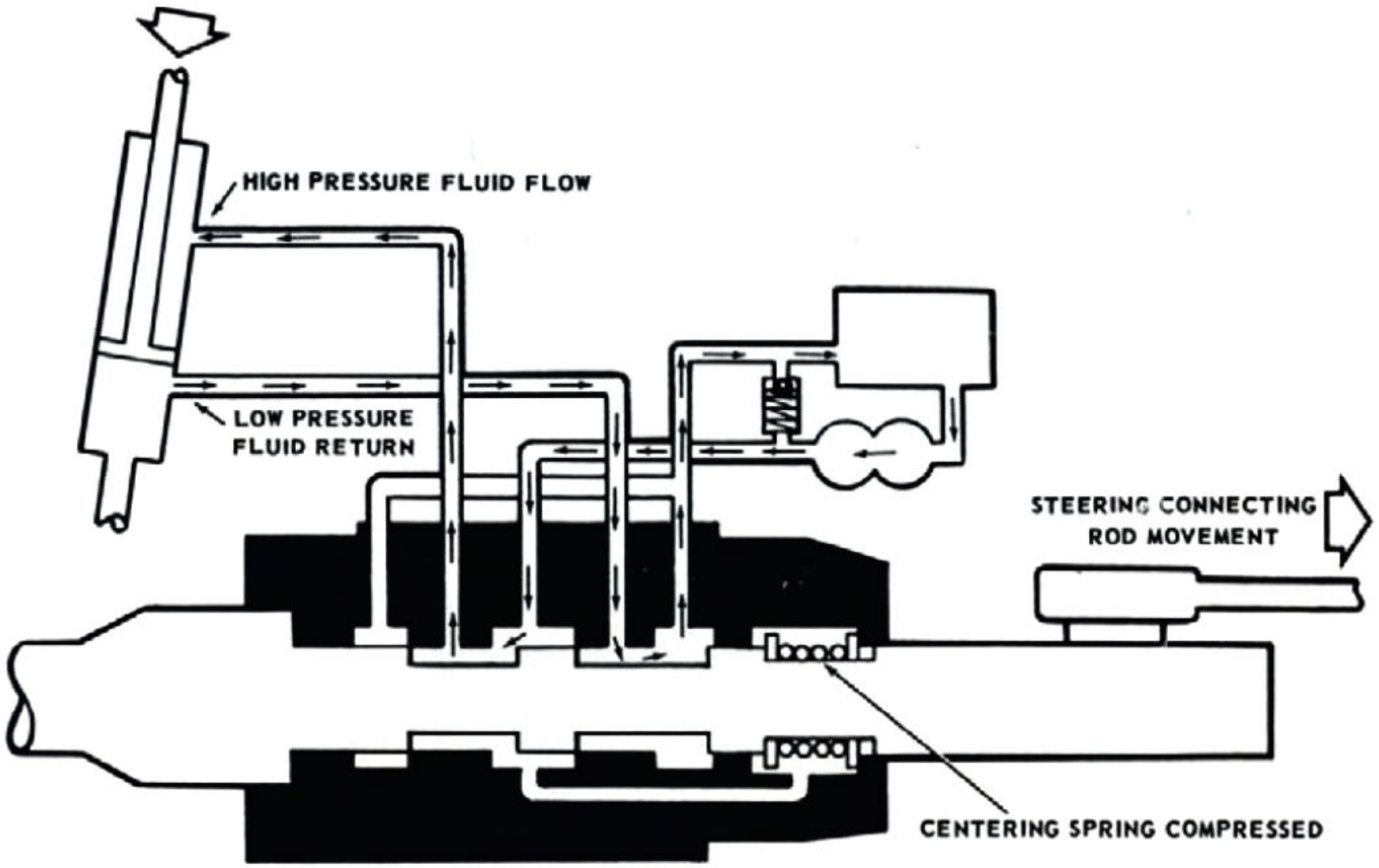
A bypass safety valve between the pump and reservoir limits hydraulic pressure development to a maximum of 750 pounds per square inch. The power steering pump for Series 3000 trucks is rated at 1 to 1.3 gallons per minute maximum flow. With slightly wider vaning in the pump for heavier trucks, a maximum flow rate of 1.7 to approximately 2 gallons per minute is required because of larger power cylinder displacement.

Up to 80 per cent steering assistance in static situations such as parking and maneuvering is provided for all Chevrolet trucks equipped with the Power Steering option. Manual steering, in case the system is inoperative, is always available since the pump is an "open" type which allows easy recirculation when not powered and when fluid flow is forced by tie rod and piston movement.



CONTROL VALVE IN NEUTRAL POSITION . . .

While the spool valve is centered, the fluid constantly supplied by the pump is idly returned to the reservoir with no appreciable pressure developing because little flow resistance is encountered. A coil spring tends to maintain the valve spool in a neutral centered position until overridden by linkage forces. The compression strength of this spring therefore provides a sensitivity threshold and sets the minimum amount of steering effort or road reaction required for actuation of the control valve and generation of hydraulic power for steering assistance.



VALVE ACTUATION FOR STEERING ASSISTANCE . . .

When the steering connecting rod is either compressed or extended by incipient wheel fight, or by forces opposing applied steering effort, shoulders on the double spool valve close with shoulders in the grooved valve body to partially restrict or completely shut off the short-return path. At the same time this valve spool movement opens a passage for flow of hydraulic fluid under pressure to one side of the power piston to effect tie rod movement or stabilization. A low-resistance, low-pressure return route is also provided from the other side of the piston back to the hydraulic fluid reservoir.

OPTIONAL TRANSMISSIONS

OVERDRIVE TRANSMISSION. A new overdrive option, now available on half-ton models, offers wide-range performance and economy, plus the operating convenience of a semi-automatic transmission.

The overdrive package consists essentially of a planetary gear set which becomes a continuation of the standard gear train, a high performance rear axle, and the control mechanism to employ or by-pass the engine speed reduction of the planetary gears. This combination functions, in effect, like a two-speed axle in that it offers two engine-to-rear axle ratios, one for performance, the other for economy. It differs significantly, however, in convenience of operation.

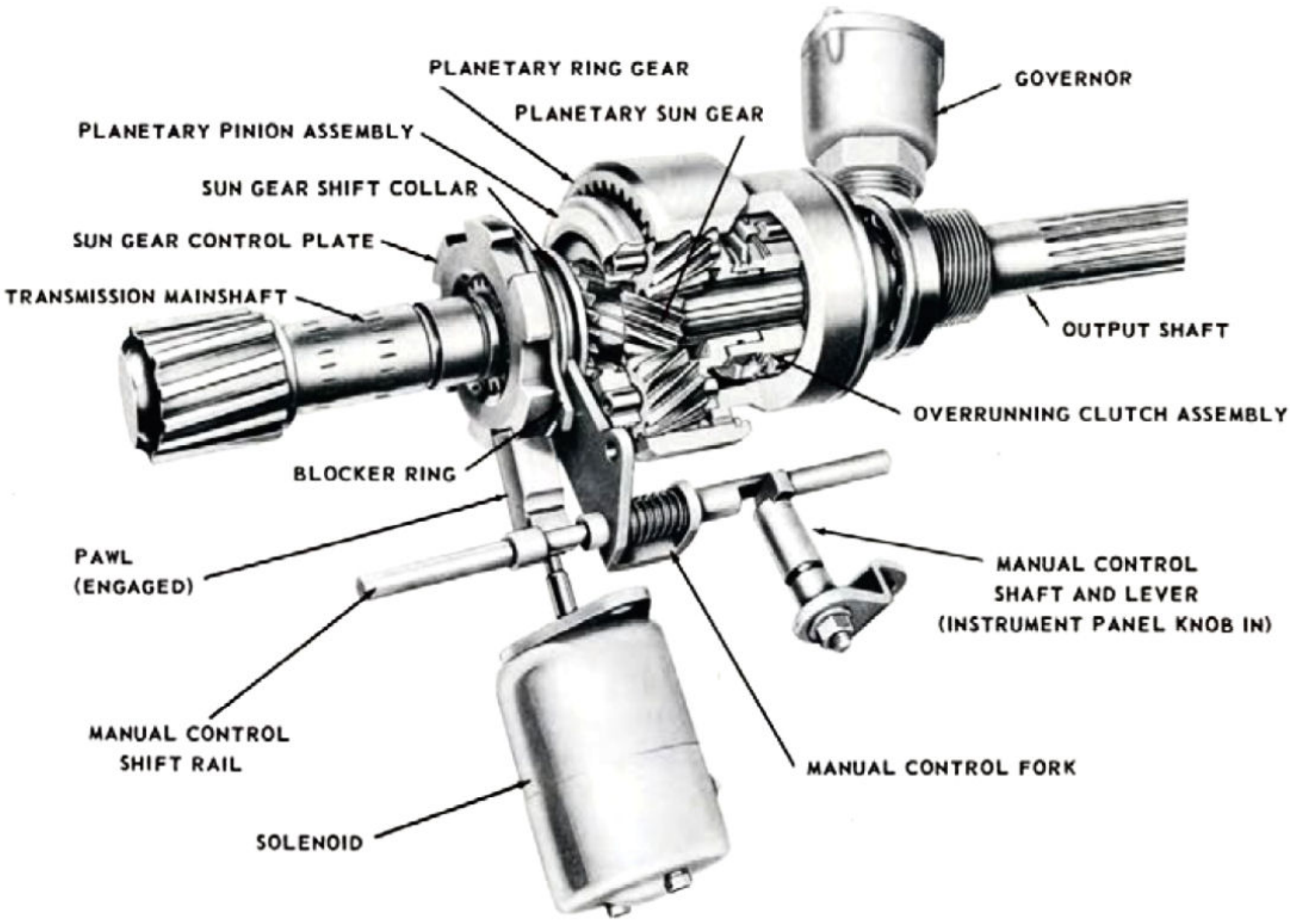
The satisfying response to power demands in starting from standstill, climbing hills, or passing on the highway is the result of the high torque multiplication of a 4.11-to-1 ratio rear axle which replaces the standard 3.9-to-1 ratio. The planetary set remains in direct drive until a minimum cut-in speed of 31 miles per hour is reached. Then, after the driver indicates no further need for acceleration by releasing the accelerator pedal momentarily, engine speed is reduced thirty per cent. A synchronized shift of the 7-to-10 ratio overdrive gears takes place with no loss in vehicle speed.

The full potential of the high performance rear axle remains immediately available. Should the need for sudden acceleration arise while cruising in overdrive, the driver need only press the accelerator to the floor and the overdrive unit instantly downshifts to direct drive. This downshift is automatic when vehicle speed drops below 27 miles per hour.

With the addition of the overdrive ratio, the capacity of the transmission for matching engine output to power demands is substantially increased. Greater fuel economy is but one of the many advantages of lower engine speeds in cruising. Oil consumption and engine wear are reduced as a result of the lower piston speed and piston travel per vehicle mile. The quiet, smooth engine operation, resulting from the lower reciprocating loads and consequent reduction in noise and vibration, contributes materially to driving comfort.

The usefulness of the automatic mechanism is not confined to highway driving. While traveling empty or with a light load in city traffic or in mountainous country, a second gear start is frequently convenient. In this application, the unit is particularly well adapted to relieve the driver of a great deal of effort and attention. The tedious shift pattern required for the continual slowing down and speeding up to meet traffic and road conditions may be reduced to comparatively effortless operation by placing the shift lever in second gear position and allowing it to remain there until more favorable driving conditions are encountered. The driver then starts in second direct, accelerates up to the cut-in speed and, by lifting his foot from the accelerator pedal, engages the second-overdrive gear combination which is comparable in performance to the conventional direct drive. When extra acceleration or pulling power is needed, a forced downshift brings the immediate response of second direct. The downshift is automatic when truck speed falls below the cut-out speed. The gearshift lever is never touched. Conventional clutch operation is necessary only when stopping or starting.

Conventional shifting may also be carried out with less manipulation once the vehicle is in motion. Below cut-in speed, the over-running clutch causes the transmission to freewheel whenever the accelerator pedal is released. By disconnecting the engine from the drive line in this manner, shifts may be completed without the use of the conventional clutch by simply moving the shift lever. Downshifting from second to first gear is not recommended, however,



because first gear is not synchronized.

When driving on slippery roads or when descending long, steep grades, overdrive may be locked out. With the transmission in direct drive, the driver pulls out an overdrive knob mounted on the instrument panel. If the transmission is freewheeling, it is necessary to bring engine speed up to driveline speed before pulling the lock-out knob.

OVERDRIVE MECHANISM. The standard extension housing, mainshaft and rear bearing are replaced by an overdrive housing, rear bearing, mainshaft, a controlled planetary set and a separate output shaft. The overdrive output shaft is coupled to the mainshaft either through the planetary set or its integral clutch. The planetary pinion carrier and the inner race of the roller clutch are splined to the mainshaft. The planetary ring gear, which surrounds and meshes with the pinions, and the outer race of the roller clutch are splined to the output shaft. The sun gear which also meshes with the pinions is a slip fit on the mainshaft.

As long as the sun gear remains free to rotate, the planetary set has no reaction member, nothing to push against and, therefore, cannot transmit torque. Direct drive is then taken through the clutch rollers which immediately lock up.

The overdrive ratio is engaged by holding the sun gear stationary. The pinions of the engine-driven pinion carrier are then forced to walk around the sun gear. In doing this, they drive the ring gear and output shaft one complete revolution for every 0.7 revolutions of their carrier. Since the outer race of the roller clutch is traveling faster than the inner race, the clutch overruns.

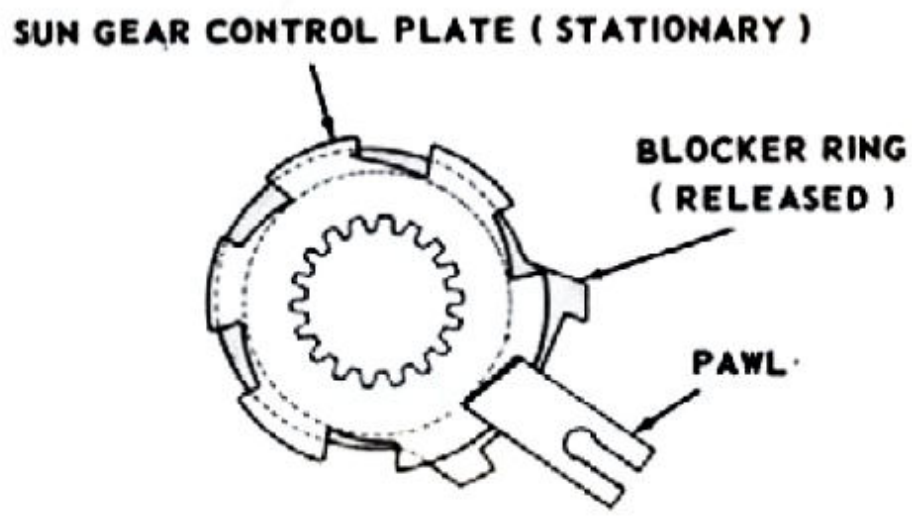
Complete control of the planetary is through the sun gear. Major components of the control system are a centrifugal governor, a relay, a kickdown switch and a solenoid actuated pawl which engages a notched control plate splined to the sun gear.

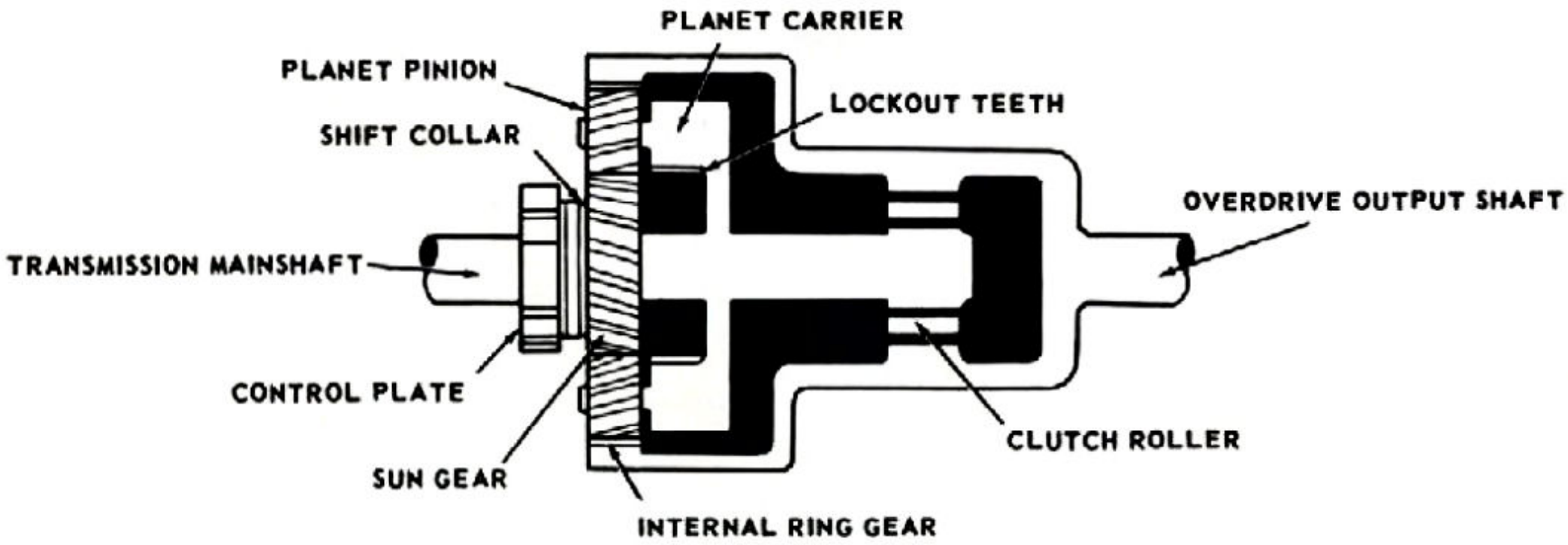
At low vehicle speeds, the electrical control system is completely inactive. When the minimum cut-in speed of 31 miles per hour is reached, the governor switch closes a relay. This, in turn, actuates the solenoid which pushes the pawl toward engagement with the sun gear control plate. But since the driver does not necessarily want the overdrive ratio at the minimum cut-in speed, and, since the rotating speed of the sun gear would cause

clashing with the pawl, a blocking device, in the form of a collar, is mounted loosely on the hub of the control plate. The blocker ring is positioned by frictional drag to present a shoulder against which the pawl presses.

When the driver indicates the need for the overdrive ratio by releasing the accelerator pedal, the engine and planet carrier slow down and the roller clutch overruns. The pinions begin to walk around the sun gear. The sun gear immediately slows down and begins to reverse its rotation. At the instant this reversal takes place, the blocker ring is dragged out of position and the pawl slips into a notch in the control plate to complete the upshift. In this way the shift is not only accurately synchronized but also subject to the conscious control of the driver.

The forced downshift from overdrive to direct drive is initiated at the kick-down switch mounted beneath the accelerator pedal. The solenoid is immediately de-energized but, since the pawl is serving as a reaction member to the driving torque, the solenoid return spring is unable to effect its immediate release. However, the circuit is wired so





OVERDRIVE PLANETARY OPERATION . . .

Complete control of the overdrive planetary gears is accomplished through the sun gear. The sun gear may be left free to rotate, held stationary, or shifted into spline engagement with the planet carrier.

Direct drive results when the sun gear is left free to rotate. No drive is possible through the gears since there is no reaction member. When the engine is driving the vehicle, the inner race forces the rollers against the outer race to deliver a straight through drive. When engine torque is reduced as in deceleration, the clutch overruns.

Holding the sun gear stationary engages the overdrive ratio. The carrier, which is splined to the mainshaft, forces the pinions to walk around the sun gear. The pinions, in turn, drive the ring gear and output shaft. Since the ring gear speed must match the speed of the pinion teeth at their pitch diameter, the ring gear travels faster than the carrier. The ratio of the number of ring gear teeth to sun gear teeth establishes the overdrive ratio.

Though the clutch overruns, freewheeling does not occur. Since the sun gear acts as a reaction member regardless of the direction of the applied torque, drive is taken through the planetary gears both on acceleration and deceleration..

To lock out overdrive, the sun gear is splined to the planet carrier. Since no member of the planetary set can rotate with respect to another, drive is delivered directly through the mainshaft, carrier and pinions to the ring gear and output shaft.

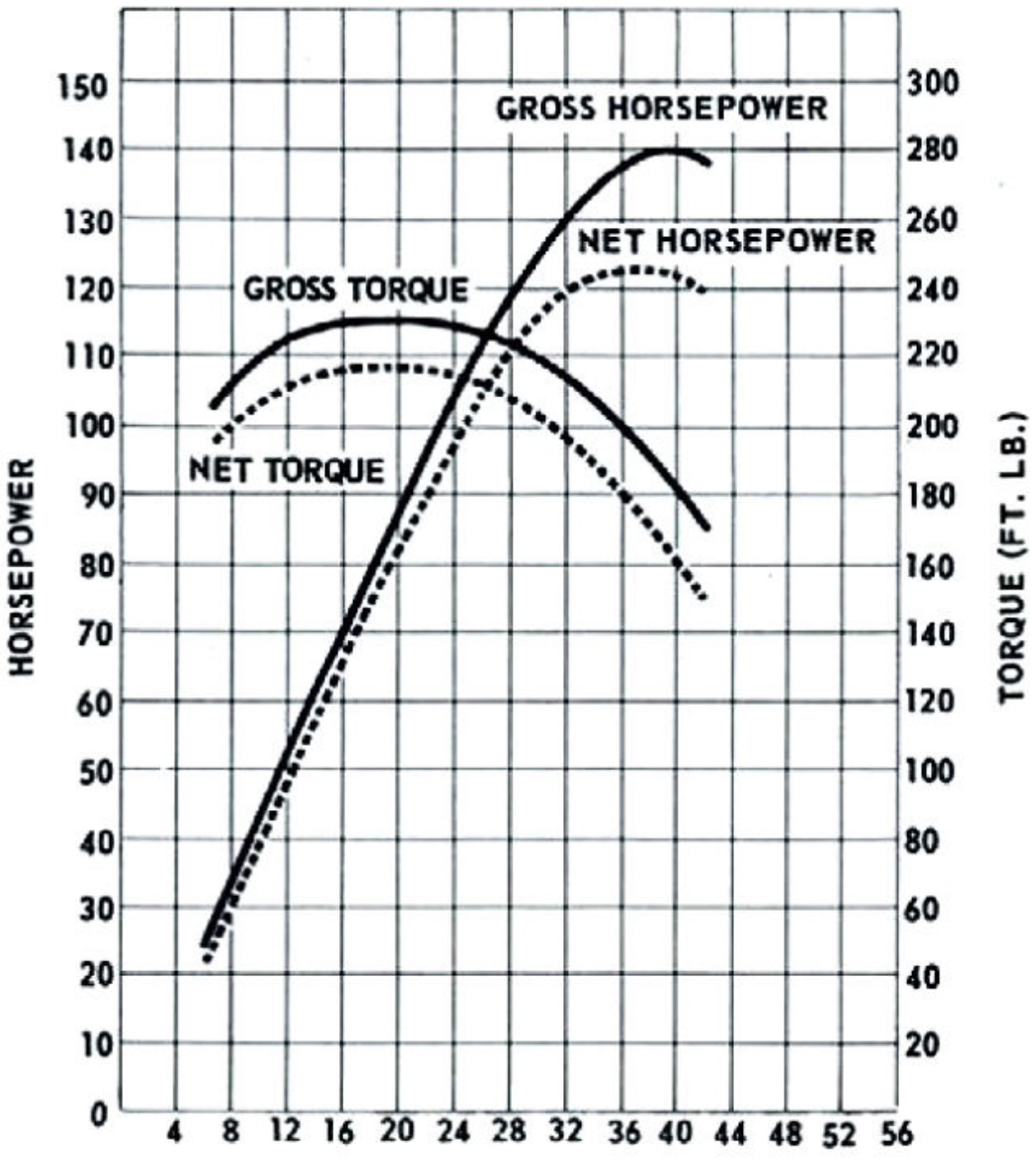
The lock-up shift is accomplished by pulling out the dash control knob or shifting into reverse.

that the kick-down switch also interrupts the primary breaker of the ignition distributor. The momentary load release allows the pawl to disengage.

When overdrive is locked out, either by pulling out the manual control knob or by shifting into reverse, the movement of the shift rail to the rear opens a lock-out switch which prevents energizing the solenoid. The lock-out provision for the reverse shift is necessary since the roller clutch will not transmit reverse torque.

OTHER OPTIONAL TRANSMISSIONS. The Hydra-matic transmission is again offered in Series 3000 with no change. On Series 3800, an oil cooler is included, the option being available with or without an oil cooler on forward control models. The heavy-duty three-speed transmission is again optional equipment for all Series 3000 models, and the four-speed transmission is optional for all models of the 3000 series except Series 3800 on which it is regular equipment.

NEW JOBMASTER 261 ENGINE



OPTIONAL ENGINES

The heavy-duty New Loadmaster six cylinder 235 engine, painted green, is furnished as regular equipment in the 6000 series and continued as optional equipment for the 4000 series. The 261 cubic inch New Jobmaster six cylinder engine, painted yellow, is again available for the 6000 series.

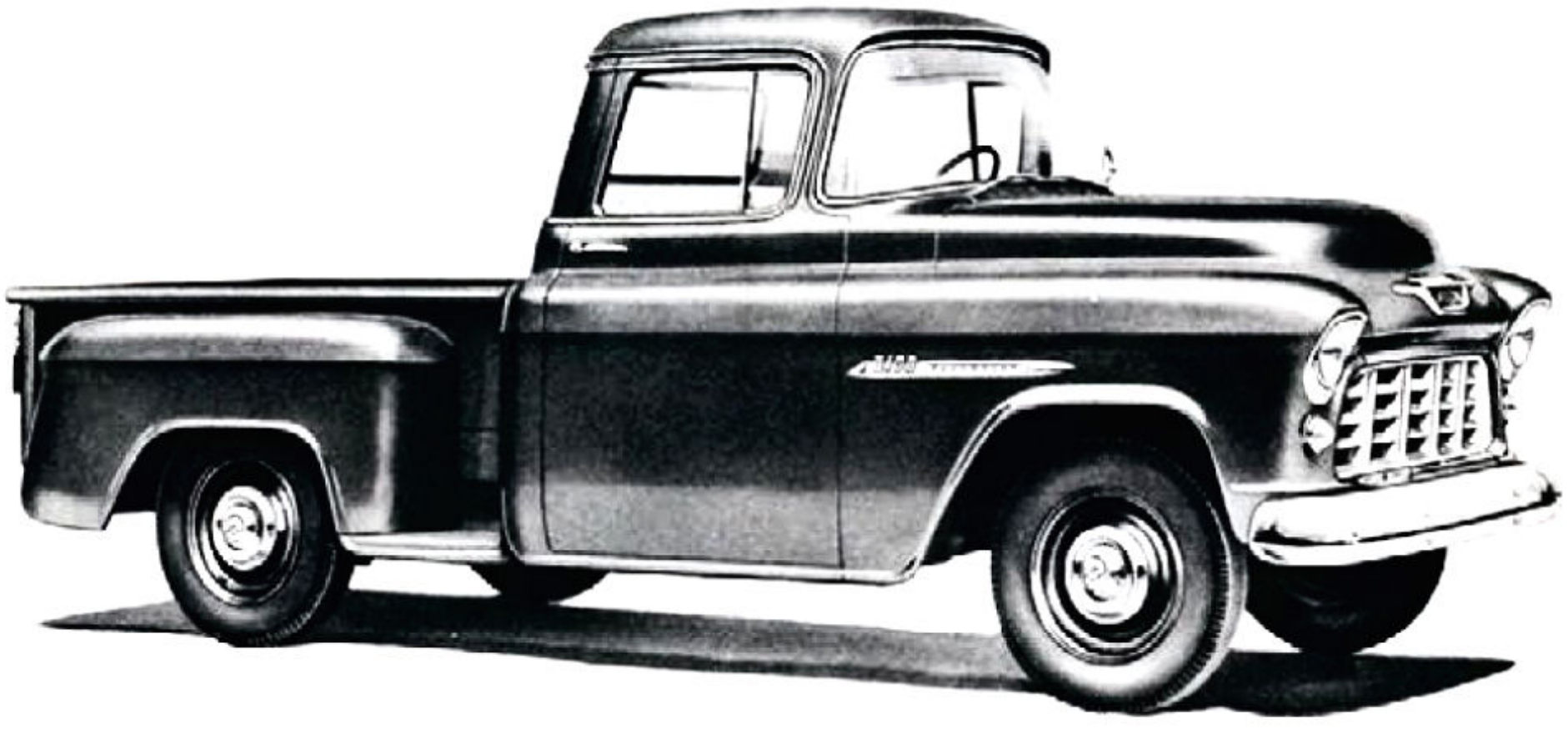
Under the new test procedure, the gross horsepower of the Jobmaster 261 engine is rated 140 at 4000 rpm, and the gross torque 230 foot pounds at 2000 rpm. Net horsepower is 123 at 3800 rpm, and net torque 215 foot pounds at 2000 rpm.

This engine features valve rotators, XCR exhaust valves, and chrome plated top compression rings. Revisions for 1955 in the production truck engines are also contained in the 261 cubic inch unit, and include: grooveless lower main bearings; three-piece oil control rings; floating oil pump inlet; revised contour and baffled oil pan; improved water pump; larger diameter fan and lower fan speed; new and repositioned radiator; four-point engine mounting system; 12-volt electrical system; and fuel filter removed from pump and installed in the fuel tank.

DELUXE CAB INTERIOR . . .

The interiors of deluxe cab models feature many styling refinements and convenience items not found on standard cabs. Interiors, in beige and brown, display seat cushions and backrests trimmed in a durable, brown nylon-faced pattern cloth, complemented by beige vinyl facings. Foam rubber seat cushion padding contributes to additional driver and passenger comfort. The same foam rubber seat cushion padding is available on standard cab models as optional equipment.

The instrument panel, of the same design as in the standard cab, has its upper portion finished in a brown textured paint to minimize light reflections. The lower portion of the instrument panel is painted beige, as are other interior components including the door panels, garnish moldings, cab rear panel and the roof "halo". The steering wheel, steering column and windshield garnish molding are finished in brown. The door trim panel is finished in brown textured paint. The waffle pattern vinyl headlining is also brown as is the rubber floor mat. Additional items of equipment on the deluxe cabs include chrome-plated control knobs, dual sunshades, an armrest on the left hand door, and a cigar lighter.



DELUXE CAB . . .

The optional deluxe cab provides exterior decoration consisting of a bright metal windshield reveal molding, bright metal ventipane and side door window frames as well as a molding which encircles the window area along the roof and the belt line.

In addition, the exteriors of models in the 3000 series may be further enhanced by the optional chrome equipment package. Of the same design as the standard painted components, the bright grille intensifies the forward lines of the 1955 models, with additional distinction provided by the bright metal bumper, hub caps and headlamp bezels which are included in the option.

DELUXE EQUIPMENT OPTIONS

Overall smartness of all 1955 Chevrolet truck models may be further enhanced by the additional items of styling, comfort or convenience which are available as Regular Production Options.

As in previous years, a deluxe equipment option is available on all cab and panel models. The option provides additional items of exterior decoration, while the interiors are distinguished by such comfort features as an armrest, sunshades, and a cigar lighter. Dual horns are also included, and on cab models the option provides a special interior color combination and seat trim and foam rubber seat cushion padding.

Replacing the optional rear corner windows of previous cab models which were used in combination with the standard backlite, the one-piece, wrap-around rear window encircles the cab rear corners to the lock pillars. Coupled with the new windshield and larger side door windows, this feature virtually surrounds the cab occupants with a wall of glass, increasing visibility area by almost 24 per cent over models with the standard rear window.

Another item available for the current models is a chrome equipment option which adds further refinement to all conventional models of the 3000 series. The option includes a bright metal grille, headlight bezels, bumpers and hub caps. These components are of the same design as the standard equipment, being, however, of bright metal.

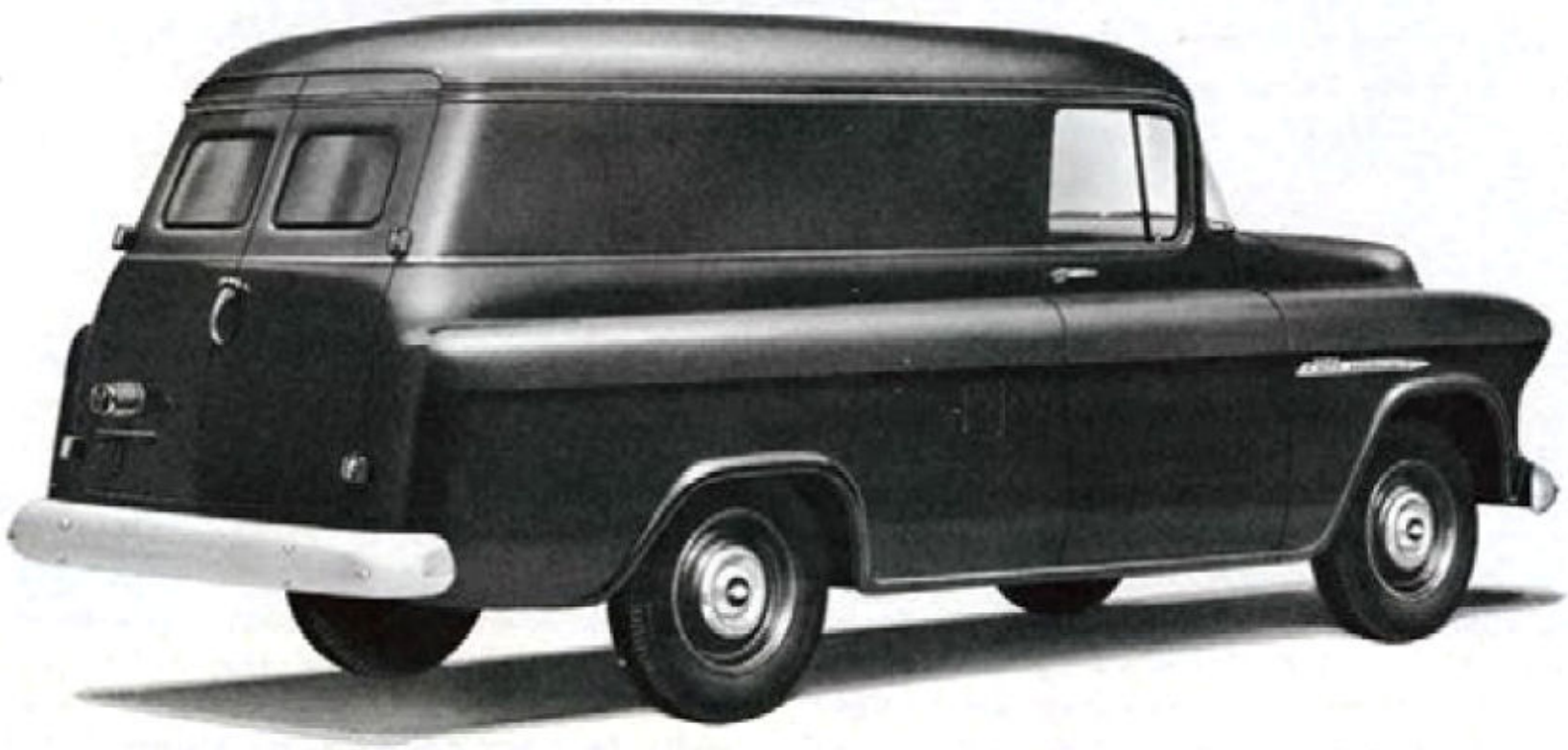
New for 1955, two-tone exterior color options are available with both standard and deluxe cab and panel models, varying in the location of the color contrast areas. Two-tone options include colored wheels on vehicles of the 3000 series. Thus, a deluxe cab, in solid color, would have black wheels while two-toning, even on standard cab models, incorporates colored wheels. On 1/2-ton models with either 6.70-15 or 6.50-16 size tires, stripes are furnished with the two-tone color option.

Bombay Ivory, used on the roof panel of standard cab models and on the window area of deluxe cabs, provides the contrast with any of eleven exterior colors. In the case of a Russet Brown exterior, Sand Beige provides the two-toning. No two-toning is available with Pure White, and no two-toning is available on the suburban carryall. Panel model two-tone color combinations are the same as for cab units, however, the contrasting color is applied on the sign panel area.

A new air cushion type seat is available on all cab models, replacing the unison seat previously available as optional equipment.

WRAP-AROUND REAR WINDOW . . .

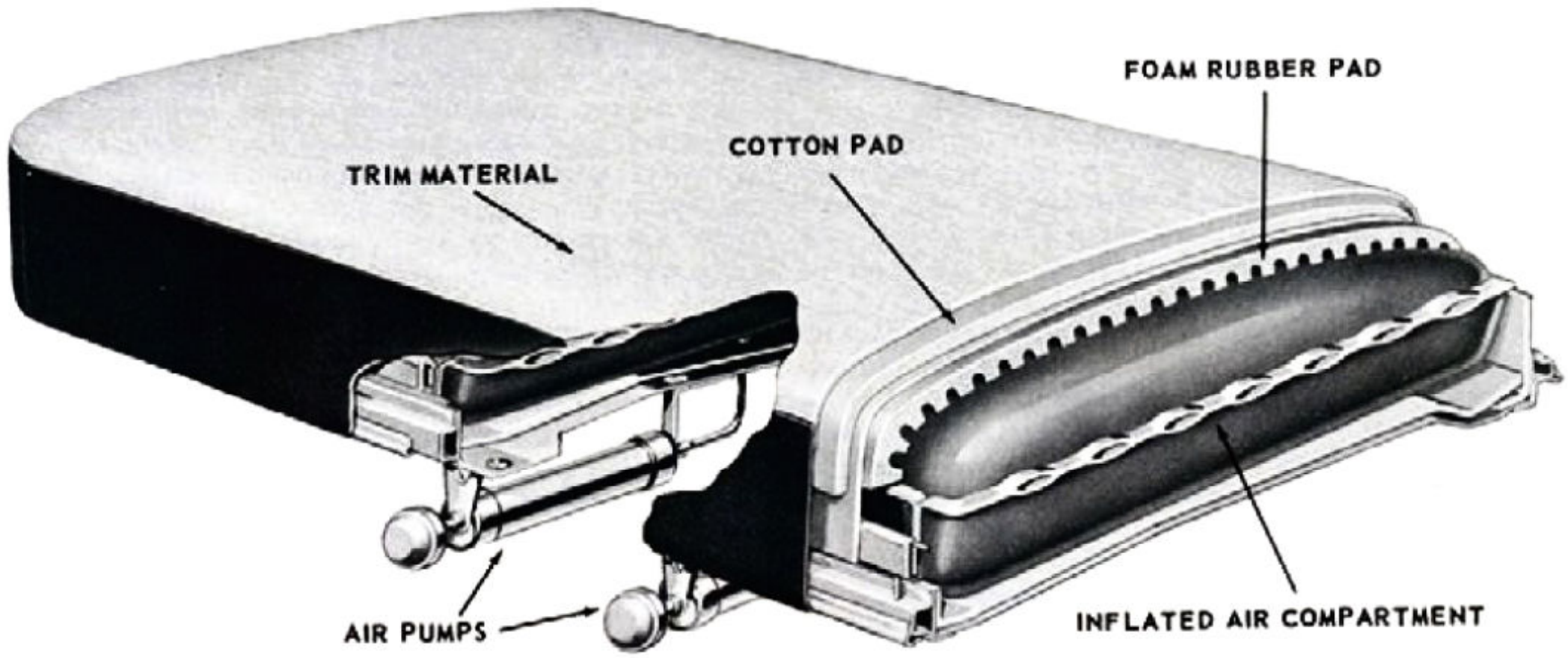
With an area of 902 square inches, the optional one-piece wrap-around rear window considerably enhances the advanced styling of the 1955 cab models, as well as contributes materially to the large increases in visibility area. The option is available on all standard and deluxe models.



DELUXE PANEL . . .

The chrome equipment option, included on the 1/2-ton panel illustrated, consists of a bright metal grille, hub caps, headlight bezels, as well as front and rear bumpers. Panel models 3105 and 3805 are also available with a deluxe equipment option which varies somewhat from that for cab models. On the exterior, this option provides a windshield reveal molding as well as ventipane and side door window frames in bright metal. Interior paint and seat trim are in standard quality; however, other items of deluxe equipment such as dual sunshades, left hand armrest, and cigarette lighter are provided. .

Also offered on panel models is a two-tone exterior, the same for both the standard and deluxe models. The contrast area consists of the sign area which is defined vertically from the embossment beneath the drip molding to the belt line and extends horizontally from the side door windows rearward. Bombay Ivory provides the two-toning with all colors except Russet Brown and Pure White. Sand Beige is used with the brown exterior, and Pure White is available only as a solid color.



AIR CUSHION SEAT . . .

A new air cushion seat which provides a more comfortable ride is available for all cab models.

This seat resembles the conventional seat in appearance but uses a two-compartment rubber bag inflated with air for cushioning instead of conventional springs. Inflation of the air compartments is provided by two manually operated air pumps which are conveniently located at the front edge of the seat and permit the driver or passenger to inflate or deflate each compartment individually. The cushion is upholstered with a layer each of cotton padding, foam rubber and conventional seat trim.

The design of the air cushion seat permits the air-inflated compartments to compress individually in accordance with weight distribution. Each compartment is divided into five inter-connected sections to insure uniform support over each half of the cushion. A softer ride results from the ability of the air cushion to decrease rebound action when bump is experienced.

Each compartment can be deflated by simply turning the pump handle counterclockwise, allowing the air to escape.

OTHER EXTRA-COST EQUIPMENT

POWER BRAKES. New vacuum-power brake booster equipment is offered as an option on all Series 3000 trucks, making power brakes available or standard for the entire line.

Still standard on Series 5-6000 trucks is the long-stroke, 6-3/4 inch diameter booster unit, while the same unit is continued as optional equipment for Series 4000 trucks.

Not mandatory, but recommended for use with the new 18,000 pound GVW on Series 5-6000, a 9-1/2 inch diameter booster with a 4-3/4 inch stroke is available. Pedal pressure requirements for average stops are reduced as much as 30 per cent in comparison to the standard unit.

A 3/4-inch air intake line replaces the standard 1/2-inch line, and a 1-1/2 inch diameter brake main cylinder replaces the standard 1-1/4 inch diameter main cylinder when the larger booster unit is installed. Though obtainable on special order, a vacuum reserve tank is not included in the option because the power cylinder, as in the 6-3/4 inch booster, is normally vacuum suspended and therefore provides adequate braking assistance for at least two full stops without additional engine manifold vacuum being supplied.

In the optional short-stroke booster for all Series 3000 models, the vacuum cylinder diameter is 6-3/4 inches. Both the air cleaner and the vacuum line check valve are integral with the unit to simplify installation in the engine compartment.

HEATERS. The new outside air heater design takes advantage of the cowl intake system for a clean air supply, retains the convenient recirculation provision, and features a new, simplified control panel.

Outside air is taken from the plenum chamber through an opening in the right cowl side panel. A variable speed sirocco blower directs the air through a high capacity core to the defroster door, where the flow of warm air may be divided between the floor distributor and two defroster nozzles. Should outside air become excessively contaminated, the supply is cut off simply by moving a knob on the control panel. A two-position, toggle-action door swings from its closed position against the inside air grille to close off the plenum chamber opening. Air inside the vehicle then enters through this grille and recirculates through the heater.

The core, blower, distributor and thermostatic valve are housed as a compact unit mounted high on the dash panel within the passenger compartment. The heat output required to maintain the desired temperature within the vehicle is controlled by continuous thermostatic regulation of the flow rate of hot water through the core.

Since the heater opening in the plenum chamber is independent of the right ventilation outlet, the full capacity of the summer ventilation system is always available. Moreover, with the temperature control set for zero output, the blower may be used to supplement the ventilation system. Thus, the windshield may be defogged during summer rain without increasing the temperature within the vehicle. This flexibility of operation during summer and winter contributes to the safety as well as the comfort of driving.

A new high capacity recirculating heater and defroster also is offered for all truck models. A rotary-type variable speed blower switch now permits more accurate control of heat output than was possible with the former two-speed switch. Division of air flow between the defroster nozzles and the floor distributor is again determined by the setting of a defroster lever which is located on the distributor housing.

HYDRAULIC JACK. A high capacity hydraulic jack is introduced as optional equipment for all heavy-duty truck models. The jack is raised by the more convenient up and down rather than horizontal movement of the handle. Since the moving parts are virtually friction-free, the unit is operated with considerably less effort than is required with the mechanical jack.

A notch in the end of the jack handle fits a separate release valve on the jack base. Lowering at a controlled rate is accomplished by turning the handle as required.

ACCESSORIES. To meet individual needs and preferences, a full line of functional and decorative accessories is again made available for dealer installation. Many, like the grille guards, and hood ornament, are improved and restyled in line with the overall design advances of the new models.

Door edge guards, door handle and front fender shields, and a gas tank filler door guard are offered for the first time to satisfy the increasing emphasis truck users place on the appearance of their equipment. Designed to protect the painted areas most apt to be scratched or chipped, the units are styled to accentuate the new body lines. The stainless steel guards and fender shields, and bright metal door handle shields match the other bright metal of the truck.

New safety and convenience items include a parking brake alarm and an accessory junction block for all models, back-up lamps for panel, carryall and pickup models, and a brush-type grille guard for 3000 series models.

The back-up lamps install in the rear fenders and throw a wide beam of light back of the truck whenever the transmission is shifted into reverse. The lights assist the driver to back safely in dark areas and, at the same time, signal his intention to back up.

Insurance against driving the truck with the brakes on is offered in the form of a tell-tale flasher light which mounts flush with the instrument panel. The light begins to flash on and off the instant the ignition is turned on and continues to flash until the parking brake is released. The word BRAKE appears on the upper half of a chrome bezel surrounding the lens.

Rear direction signals for panel and carryall models are restyled and redesigned to incorporate the stop lamps. The housing is framed by an oval-shaped, bright metal bezel and is integrated with the rear fenders. Though the production center-mounted lamp is disconnected from the stop lamp circuit, it continues to serve as a tail and license lamp.

The safety light is completely restyled and now has a large rear view mirror recessed in the back of the lamp housing. The powerful sealed beam and mirror are adjustable in any direction by turning the grip handle to the desired position. A hood over the lamp, which repeats the headlamp treatment, and the recessed feature of the mirror help keep their surfaces clean and clear in all kinds of weather.

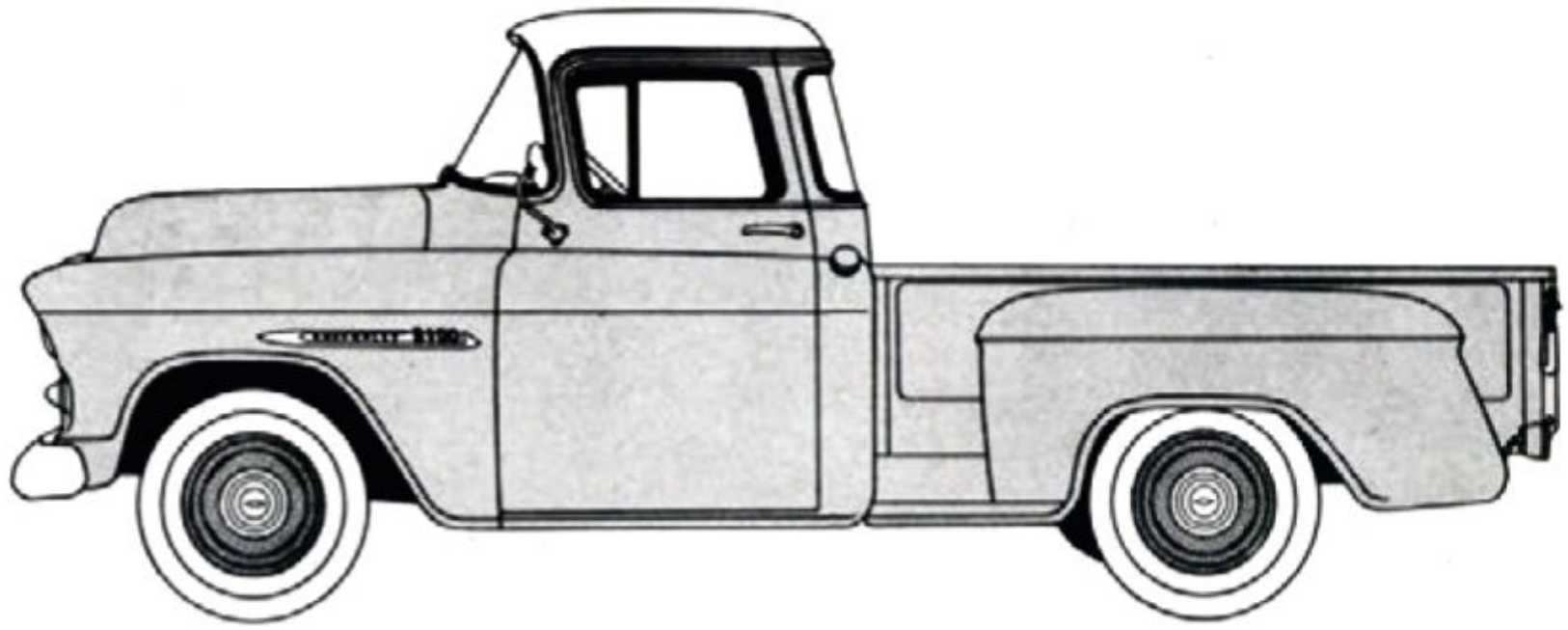
The new grille guard now available to protect the front end sheet metal of the 3000 series models is a welded network of heavy gauge spring steel strips finished in Bombay Ivory. The guard is bolted at its base to the bumper face bar and backed by two heavy braces attached to the chassis frame.

To enable truck owners to take advantage of the many electrically operated accessories now available, a new fuse and wiring junction block is introduced for 1955. Situated on the left cowl side panel, the block eliminates undue splicing of wires and over-crowding of the ignition and light switches.

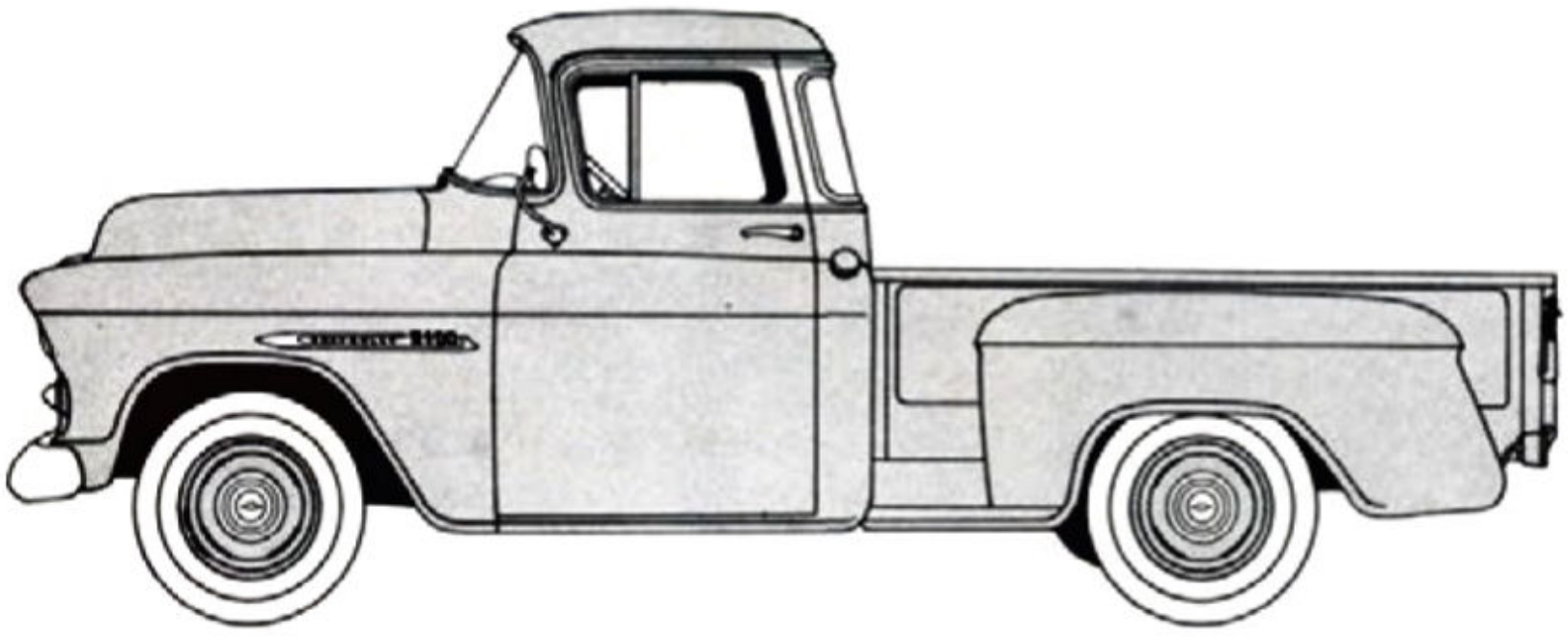
Many new provisions are included in the design of the new models to facilitate installation of accessories by Chevrolet dealers. Punched holes and locating dimples in the panels, perforated outlines in the dash mat, as well as knock-out plugs and fasteners not only simplify installation of the accessories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

APPENDIX

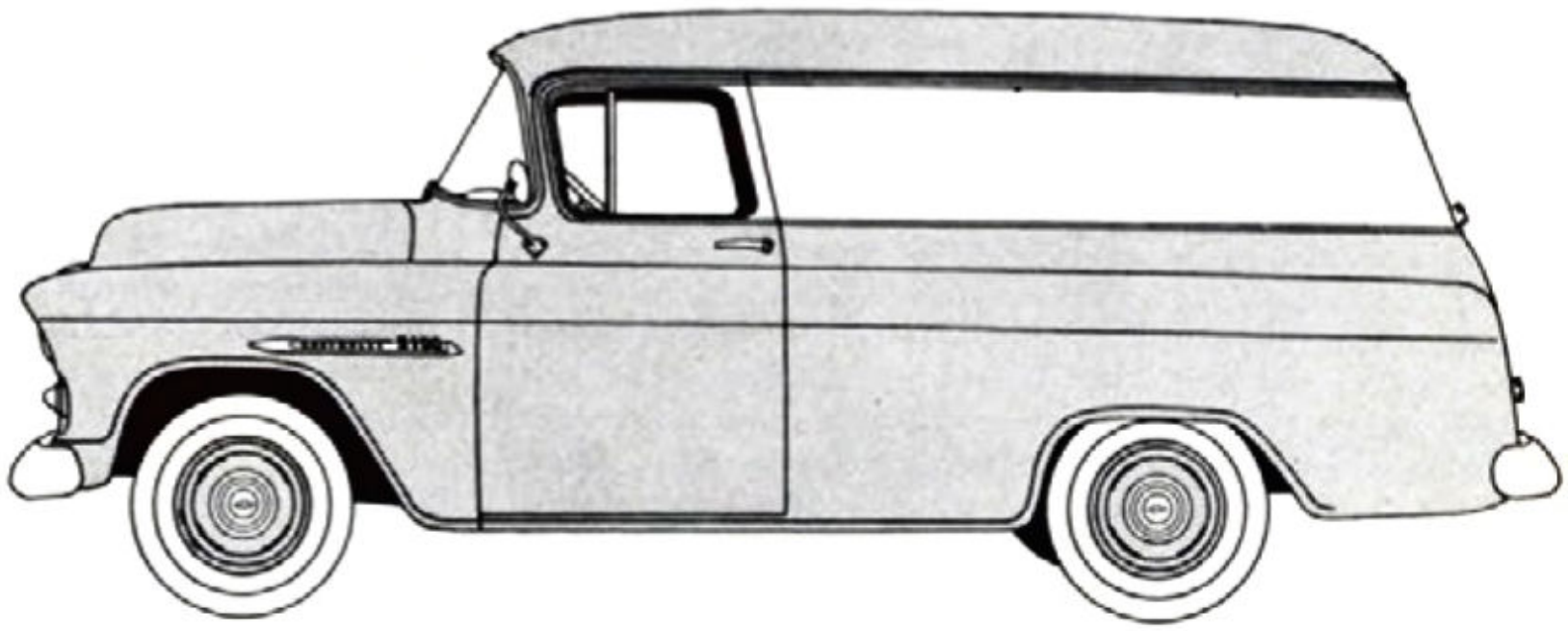
TWO-TONE COLOR ARRANGEMENT



STANDARD CAB

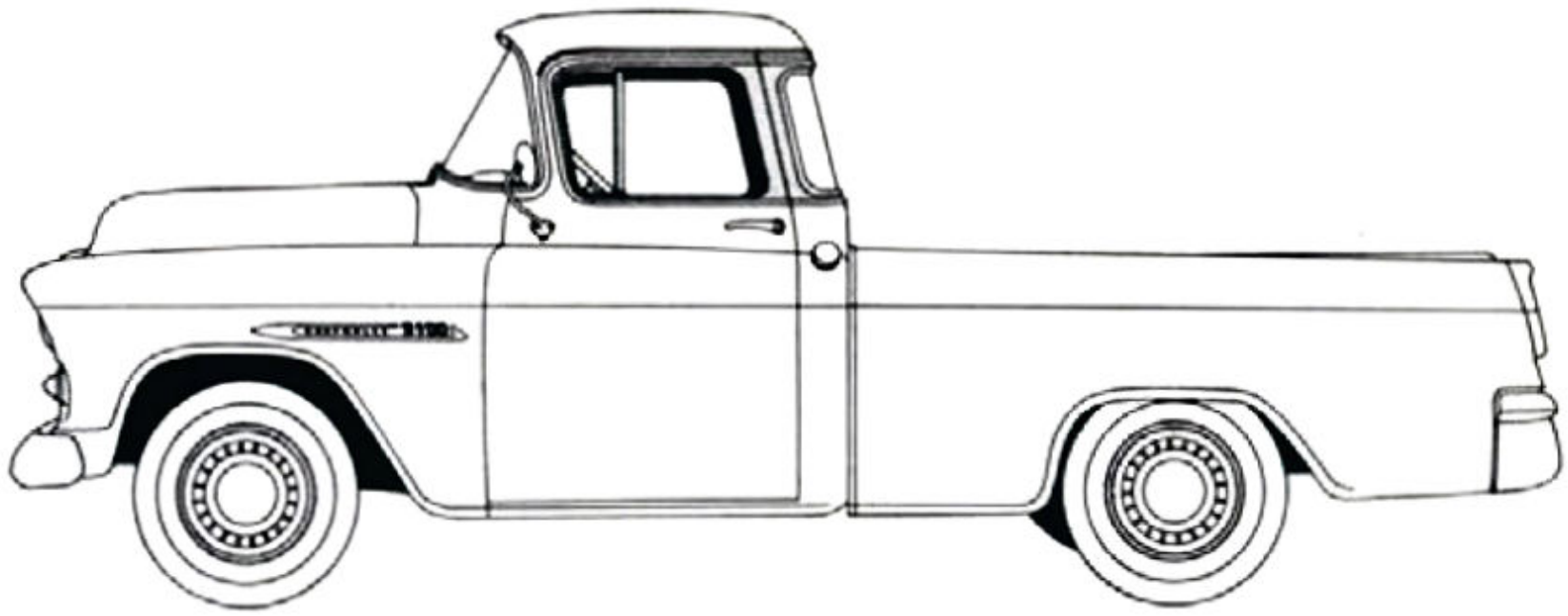


DELUXE CAB



PANEL MODEL

APPENDIX



MODEL 3124

EXTERIOR COLORS

Solid Color - All Models Main Color - Two-Tone combination	Color Used for Two-Toning ó	Wheel Colors *	Wheel Stripes ¢
Juniper Green	Bombay Ivory	Juniper Green	Ivory
Ocean Green	Bombay Ivory	Juniper Green	Ivory
Crystal Blue	Bombay Ivory	Empire Blue	Ivory
Empire Blue	Bombay Ivory	Empire Blue	Ivory
Commercial Red	Bombay Ivory	Commercial Red	Argent
Cream Medium	Bombay Ivory	Cream Medium	Ivory
Jet Black	Bombay Ivory	Jet Black	Ivory
Sand Beige	Bombay Ivory	Sand Beige	Ivory
Russet Brown	Sand Beige	Russet Brown	Ivory
Yukon Yellow	Bombay Ivory	Yukon Yellow	Ivory
Omaha Orange	Bombay Ivory	Omaha Orange	Ivory
Granite Gray	Bombay Ivory	Granite Gray	Ivory
Pure White $	———	———	—

$ - Available only as a solid color.

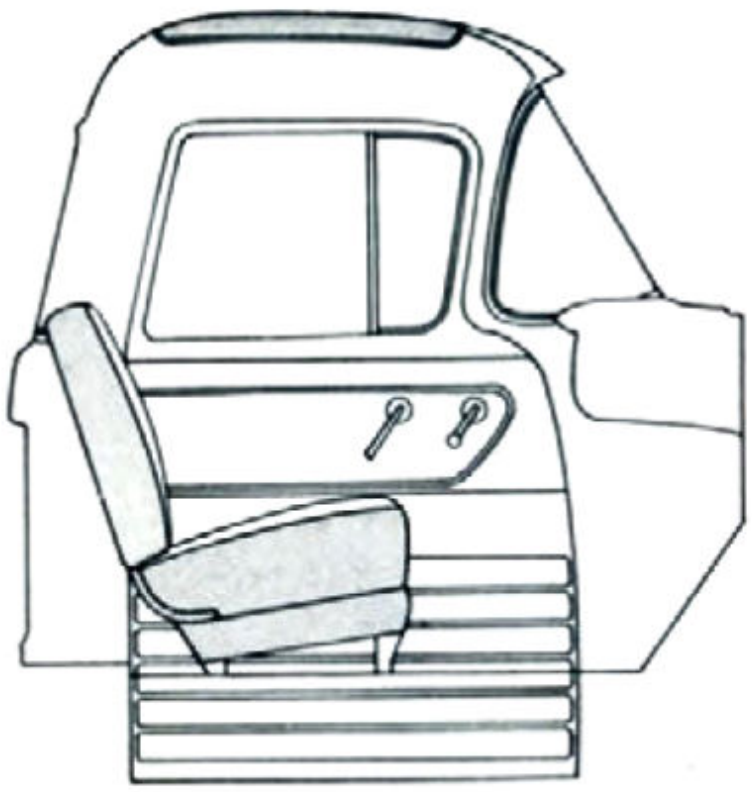
* - Colored wheels for Series 3000 models with two-tone paint only. Black wheels for all other units.

ó - Model 3124 available only in Bombay Ivory with Commercial Red window area.

¢ - Wheel stripes on all half-ton models with two-tone paint.

APPENDIX

INTERIOR TRIM

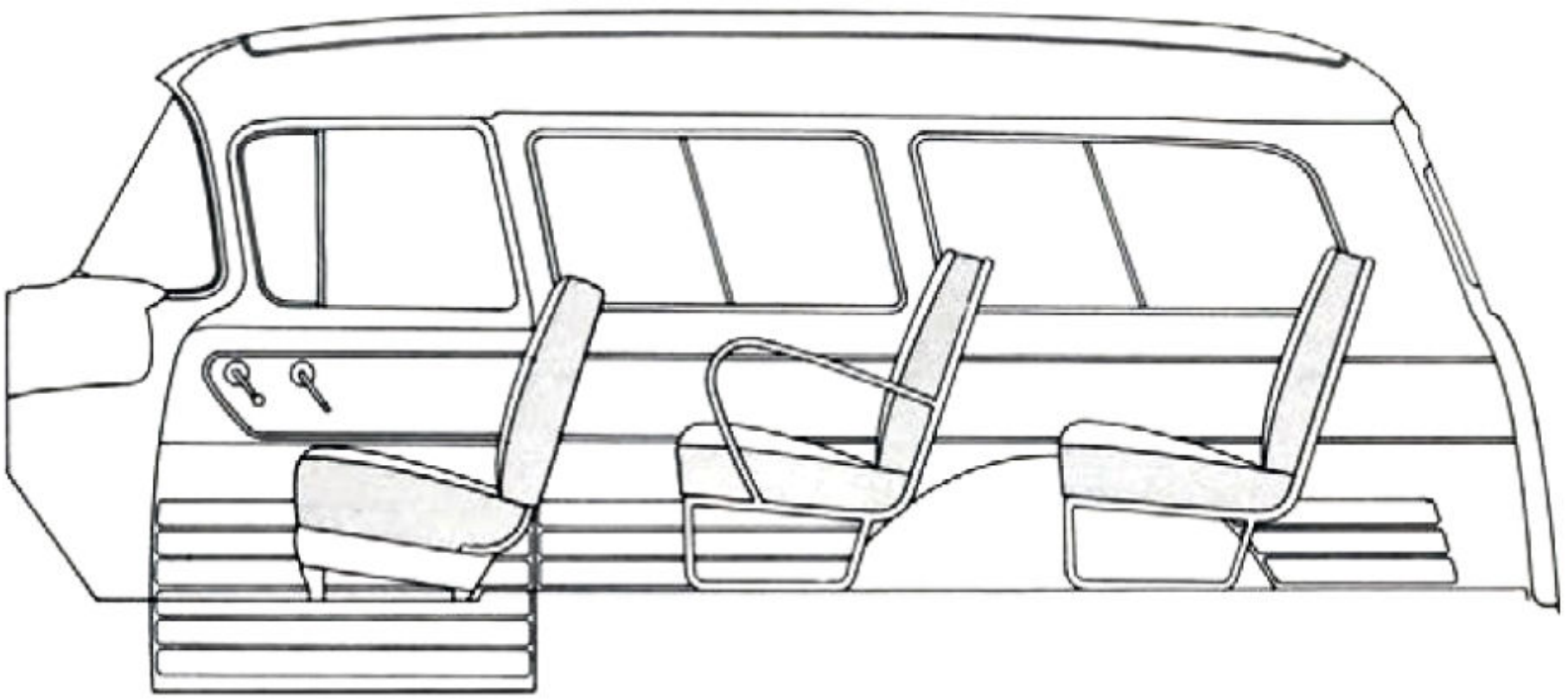


STANDARD CAB

DELUXE CAB

PANEL MODEL

APPENDIX



SUBURBAN CARRYALL

INTERIOR COLORS

AREA		MATERIAL		COLOR		
		Regular	Deluxe or Model 3124	Regular	Deluxe	Model 3124
Seats	Cushion and Backrest	Plastic & Rayon Pattern Cloth	Nylon-Faced Pattern Cloth	Beige	Brown	Red
	Facing	Vinyl	Elascofab	Black	Beige	
Side Doors	Door Panel	Metal		Beige		
	Trim Panel	None	Textured Paint $		Brown	Red
Cowl Side Kick Panel		Paint		Beige		
Headlining *		Vinyl		Black	Brown	Red
Sunshade		Composition Board		Beige		
Armrest	Upper	None	Elascofab		Beige	Beige
	Lower	None	Plastic		Brown	Red
Floor Covering		Rubber		Black	Brown	Red
Instrument Panel	Upper	Textured Paint				
	Lower	Paint		Beige		
Garnish Moldings	Side Window					
	Windshield	Textured Paint		Black	Brown	Red
Steering Wheel & Column		Paint				
Gearshift Shaft & Lever Series 3000						
Control Knobs		Plastic	Metal	Black	Bright	
Gearshift & Directional Signal Lever Knobs		Plastic		Black		

* - Headlining - beige vinyl on 3105, 3106-16, 3805.

$ - Applied trim panel on 3124 of some material as cushion and backrest trim.

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