

1-1918 BUSINES

ANEW AND GREATER CHEVROLET

Valve-in-head EIGHT

1 9 1 8

ATASK

The marketing of a new Chevrolet model is no small task, for there are several important things to be taken into consideration.

The first and foremost one is guarding the Chevrolet reputation.

A new car to bear the Chevrolet name means a car worthy of that name, a model that will be able to take its position with the Chevrolet automobiles now in use.

Mechanically, it means the utmost care in design and construction. It means the utmost care in the selection of material, and in the manner of assembling and finishing.

Artistically, it means that painstaking care must be exercised in the selection of the body design, in the style and method of upholstering, and in the painting and finishing touches.

Indeed, it is a task, a great task, but it is the Chevrolet policy to use this utmost care.

Honesty in manufacturing breeds commercial good will.

And commercial good will is a priceless possession. It is the most valuable business asset imaginable.

The Chevrolet enjoys good will in a great broad way; proving that the performances of its earlier tasks have met with the unqualified approval of the world—a pleasing prospect which greets the birth of this new Chevrolet model.





The CHEVROLET Eight

The mere statement that the Chevrolet Motor Company would begin the making of a new model is interesting news in itself; but the announcement of a Chevrolet valve-in-head eight will prove of extraordinary interest to motor car enthusiasts everywhere, who have been watching the growth of the eight-cylinder movement in this country.

The Chevrolet valve-in-head eight is not merely another eight-cylinder model. There is just as much distinction and intensified efficiency in this new car as possessed by the Chevrolet four-cylinder types.

The new eight is as outstanding in comparison with other eights on the market as are the four-cylinder Chevrolet models.

The Chevrolet eight has not only the best features to be found in other eights, but in addition has many exclusive points of distinction. And hence, from the very beginning, the Chevrolet eight will be able to take an important position among leaders of eight-cylinder cars.

The Chevrolet eight will appeal to a class wishing to enjoy the charms of driving an automobile in which the motor does not lapse in its power impulses, but furnishes a driving force as constant as the flow of Niagara.

You may rest assured that we satisfied ourselves as to the merits of the eight before announcing it.

In strenuous tests over every conceivable road, the car proved that it has the necessary stamina for any road condition.

Never did the machine hesitate.

Never for a minute did the power wane.

On all trips the mechanism responded readily. For thousands of miles in sand and clay, rain and mud, on hills and



paths, the Chevrolet eight pushed on with an eagerness and readiness that proved the wisdom of Chevrolet engineers. They have built well, with a thoroughness that establishes a manufacturing conscience of a high order.

And you profit by this thoroughness.

You profit by the work of the Chevrolet engineering corps—consisting of men who have had years of experience and have studied and watched designs and methods the world over. The result of their study, the best of their long experience, has been embodied in the Chevrolet Eight.

And the material used! How carefully it has been selected! It would take almost a volume, in itself, to describe the exacting inspections and tests to which each unit was subjected before being specified for the new car.

Four cardinal principles enter into the construction of the Chevrolet. The first is mechanical dependability. This is all-important, for without it an automobile would not be of any use. You want an automobile you can depend upon.

The second is accessibility. In automobile construction, we are dealing with metals—and metals require attention and lubrication.

The third is exterior appearance. It

is necessary to provide a beautiful housing for the mechanism.

The fourth is riding quality, which includes comfortable surroundings for the passenger.

In building the eight-cylinder model we have been true to these ideals, and even a casual inspection of the car will convince you that we have faithfully followed these important basic rules.

This is the only way to build an ideal automobile.

A car must be well balanced.

There must be true relationship between its dependability and good looks, between comfort and convenience.

In other words, a car must be so good as to withstand the slightest criticism from a master builder or artist or engineer in any line of conscientious endeavor. Each must see in this car the reflection of his own ideals.

True to the Chevrolet tradition and practice, the chassis presents a standard of construction both safe and dependable.

Beginning with the important valvein-head motor, there has been a constant effort to produce a chassis that would be in keeping with the guarded Chevrolet policy. And that is to incorporate the best, regardless of price. You will find in your examination that great care has been taken.



In the building of the motor, clutch, transmission, axles and steering gear, the best judgment has been exercised.

The Chevrolet Eight is an unusual car at the price. And the Chevrolet Motor Company is able to produce such a car because it has the financial resources and equipment. The Company is rich in both material and men. Its vast factories stretch across the continent from New York City to Oakland, California, and form a chain that enables the Company to manufacture quality cars at minimum prices. We are in a position to purchase vast quantities of material. Economical factors have been put in operation that greatly lower the manufacturing cost, and, if anything, raise the standard of efficiency.

It is for these reasons that the Chevrolet Eight is placed on the market at a price that seems to be all out of proportion to the car itself. The Chevrolet Eight today could take its place in higher priced classes, and be able to stand minute inspection.

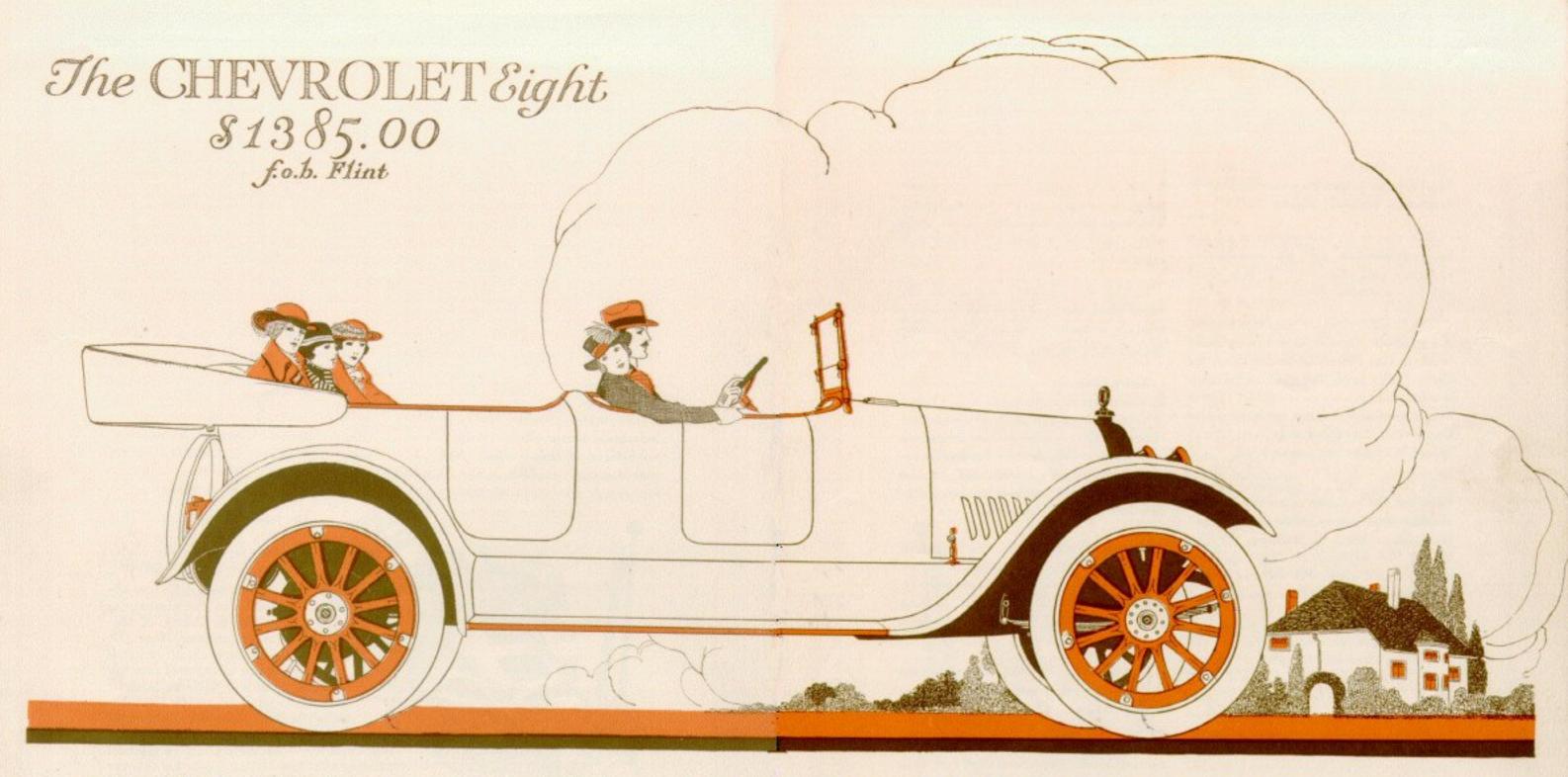
THE EIGHT MECHANICALLY

The eight-cylinder motor renders maximum motor efficiency, for there is no hesitation between impulses. The motor gives you four power impulses for every revolution of the fly-wheel, an impulse for every quarter turn. The over-lapping is so complete that the turning effort is practically constant. The flow of power for this reason is steady.

> An eight cylinder is never failing in power, and that power is constantly under the control of the driver.

In crowded traffic one appreciates to the utmost degree the flexibility of this type of motor. Here the power plant meets every requirement for sudden changes of control. You pick your way without labor or gear shifting. And on the straightaway, with a clear road ahead of you, an eight picks up power with startling rapidity—no hesitation whatever, proving that the claims made for this car are actually so in its performance.

This view illustrates the accessibility of the Chevrolet eight-cylinder motor. The caser of one of the cylinder blocks has been removed, showing the overhead salve mechanism.



If you saw a Chevrolet eight-cylinder, fivepassenger touring car for the first time and did not know the price of it, you would be apt to estimate it at a figure far above the actual purchasing amount. In detail, in distinguished appearance, this model has every mark of the thoroughbred car. The body is a delight to the eye. Not an angle anywhere—only a series of curves that blend harmoniously. There is grace in its poise—a richness in its finish—which is highly distinctive. And the body has more than looks—it has comfort, easy-riding qualities, and unusual spring suspension.

Quality materials of guaranteed excellence are used in its construction throughout.

All visible woodwork is of genuine mahogany; and all metal parts from door-locks to steering post and windshield are of bright nickel. The invisible foundation of the body is built of pressed steel. Elegant upholstering of French-pleated leather surrounds the extra-deep seats, wide backs, and spacious door-pockets. You ride here in ease, in extreme comfort, with a feeling of complete relaxation. And you feel proud of the finish—a rich, lustrous Chevrolet green, artfully applied by hand.

The Chevrolet Eight is unusual, for it does not only possess the regular eight-cylinder features of construction, but, in addition, possesses a valve-inhead type of motor, guaranteeing maximum and constant power.

The motor in this model is of the type celebrated for its remarkable economy and efficiency. It is a short cut to maximum power.

The ordinary motor does not receive the gasoline directly into the cylinder head, as this Chevrolet motor does. In the ordinary type, the gasoline mixture is admitted into a side chamber. There it is exploded by spark ignition. And the force of the explosion is partly spent before it strikes the piston head.

In this famous valve-in-head motor, however, the gasoline vapor is admitted directly into the cylinder head, where the piston head is waiting for the impact of explosion. The ignition of the spark plug sets off the explosion directly against the flush top of the piston.

In this particular type of motor, the propelling force hits the piston "on the head." We know, of course, the driving power of a hammer hitting a nail squarely on the head—in comparison to that of a hammer striking a weak, sidelong blow.

In the ordinary method of motor

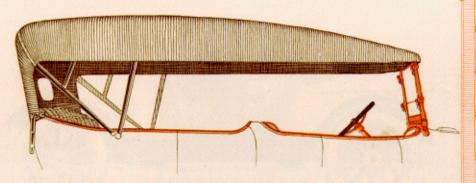
construction, it is practically impossible for the piston to expell all the exploded gas from the cylinder head. This useless vapor remains behind and mixes with the incoming fresh vapor, deadening its vitality at the next explosion. This saps the gasoline fuel in the ordinary motor of a part of its life and vigor.

In the valve-in-head motor, on the other hand, the quality of the explosive mixture is unharmed and the incoming gas is fresh and powerful.

The Chevrolet valve-in-head motor, furthermore, is superior to other types of overhead motors in its extreme ease of accessibility. The cylinder heads are detachable. These can be easily removed from the lower half of the casting; and the interior of the cylinders left open for inspection.

The front springs are the standard semi-elliptic type, of special carbon steel, and the rear are cantilever in construction, with the main driving plates made of Chrome Vanadium steel.

In the rear axle, the driving shafts and the third member shaft are of this sturdy material, as are also the transmission gears, and shafts. In the motor the crankshaft, camshaft and connecting rods are composed of this alloy, too.



This illustration conveys an adequate idea of the beauty of the one-man top and its application to the touring car body. Side curtains give additional protection. All of the equipment provided is in keeping with the car.

On the front axle, the knuckles and steering gear are Chrome Vanadium washed steel.

The unit power plant type of construction, as employed in building the eight-cylinder Chevrolet, is a marked stride toward greater efficiency, simplicity, and a reduction of friction and wear.

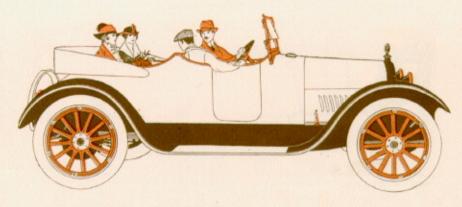
It insures perfect alignment and is a safeguard against loss of power from the motor to the driving wheels.

This method of building, first of all, reduces friction. And when you do that, you reduce wear, which in turn means an increase in power. Undue friction is the cause of power losses from the motor to the driving wheels.

When the motor, clutch and trans-

mission are separately mounted, it is necessary to connect them by numerous shafts. This means more parts for wear and loss of power. For these reasons, it is plain enough to see the advantages of unit-power construction which provides placing the motor, clutch and transmission on a straight line. This method tends to greater accessibility, lighter weight, more power, increased efficiency, and greater durability.

The durability of each detail of construction—several of them exclusively designed—insure reliability of control. Perfect control is possible by means of the equipment on the dashboard, consisting of speedometer, lighting and ignition switch, oil pressure gauge, dashboard electric light, and standard ammeter.



FOUR-PASSENGER ROADSTER

\$1385 f. o.b. Flint

In addition to the five-passenger touring car, there is mounted on the eight-cylinder chassis a fourpassenger roadster of unusual grace and beauty.

This type of car is meeting with much favor; and a Chevrolet car of this design is heralded with much delight, for we have built a car that not only seats four passengers in a "round the hearth" fashion, but enables them to ride in this position comfortably for an indefinite period of time.

The greatest trouble with the fourpassenger type of construction heretofore has been the uncomfortable position of the passengers. There was not sufficient room. We have eliminated this undesirable feature in this roadster. Passengers occupying the rear seat are not cramped in the least. There is plenty of "leg room."

In detail of construction, the roadster body corresponds with the touring car. The same full streamline idea has been carried out.

There is refinement in each line of the well-shaped body. The doors are generous in size, allowing easy entrance and exit.

We are sure that this particular car will appeal strongly to those who are interested in four-passenger cars.



Mechanical Details

Smooth-flowing power is guaranteed from this eight-cylinder, V-shaped motor, 33 x 4 inch bore and stroke. The four-point support in-

MOTOR sures a stable equilibrium and absence of vibration. Overhead valves are 1½ inch in lift. Connecting rods are drop-forged, with babbitt-lined, brass-backed, big-end bearings. Cooling is by pump system, with cellular radiator of extra-large capacity.

The clutch is cone type, leatherfaced, with ten springs under the leather to engage easily with motor and compensate for friction. The

CLUTCH new Chevrolet clutch collar is self-lubricating—a feature protected by eleven patents. It consists of a cored bronze collar holding a cupful of oil, which passes through the hub and cools the entire mechanism with utmost ease and efficiency.

The transmission is noiseless on all gears, which is of the three speeds forward and reverse type. These are of Vanadium steel,

TRANSMISSION heat-treated.

Open unit power
plant insures correct alignment of transmission gears and shafts and ease of
accessibility that is invaluable in case
of inspection.

The front axle is drop-forged I-beam type, with integral yokes, tie rod, and steering spindles. The wheels are fitted with large cup and cone bear-

AXLES ings. The rear axle is threequarter floating type. The shafts are of Vanadium steel, heattreated, and run on Hyatt roller bearings.

The chassis is built on a sturdy, pressed steel frame of 120-inch wheelbase, semi-elliptic type springs are used in front and semi-cantilever in rear. The rear mainplates are made of Chrome Vanadium steel.

The steering gear is of the worm and worm wheal type, with 17-inch steering wheel. The mechanism is responsive to the slightest touch under every condition.

The service brakes are of external contracting type, emergency brakes of internal expanding type. BRAKES Brake drums are 12 inches in diameter. Brake rods are of maximum strength.

The oiling system is of the splash type, with pump. An oil pocket is on each connecting rod dipper. An oil pressure gauge, electrically lighted, is mounted on dash.

The interior of this body is unusually spacious and comfortable. The seating capacity is for five passengers in touring car and four in roadster body.

The accelerator pedal and starter switch are on the toe-board, within easy reach of driver's feet. The switch, ammeter, and oil pressure gauge are on the instrument board.

The equipment consists of a one-man weather-proof top and side curtains, with Bair brackets; speedometer; motometer; starting system; six-volt storage EQUIPMENT battery; single wiring system; sixteen candle power head-lamps, 4 candle power dimmers; tire carrier, license holder superior services.

carrier; license holder; superior service kit, containing tool kit, tire pump, tire repair kit, spark plug wrench, hub cap wrench, jack, and inspection lamp.

Specifications The CHEVROLET Eight

Motor: Eight-cylinder, valve-in-head type, 33/8" bore, 4" stroke. Cylinders: V-arrangement, four en-bloc (one set with upper half of crank case). Heads detachable.

Values: 1½" enclosed. Cam Shaft Bearings: Front, 2¾" x 1 9-16"; center, 1½" x 1½"; rear, 2" x 1 15-32"

Connecting Rod Bearings: 11/2" x 1 7-16", bronze back.

Crank Shaft Bearings: Front, 27/8" x 13/4"; center, 2" x 1 31-32"; rear, 3" x 2".

Center Main Bearings: Bronze backed, babbitt lined.

Oiling System: Splash, with pump; individual oil pocket for each connecting rod dipper. Sight feed on dash.

Carburetor: Zenith, improved double jet.

Electric System: Auto-lite generator and starting motor. Six-volt storage battery.

Ignition: New improved Remy system.

Clutch: Cone, leather-faced; 10 springs under leather.

Transmission: Selective type, three speeds forward and reverse.

Cooling: Pump system, cellular radiator.

Front Azle: Drop forged I-beam, with integral vokes; tie rod and steering spindles of Vanadium steel; wheels fitted with large cup and cone bearings.

Rear Axle: Three-quarter floating type; heat-treated Vanadium shafts running on Hyatt roller bearings. Gear ratio: 41/4 to 1.

Brakes: Service, external, contracting, 12" drum; emergency, internal, expanding, 12" drum.

Springs: Semi-elliptic in front; semi-cantilever in rear. Tires: 34" x 4", Goodyear, demountable, non-skid on rear. Drive: Rear spring, double universal joints and torque rod.

Steering Gear: Worm gear and worm pinion wheel, 17" steering wheel.

Gasoline Supply: 20 gallon tank on rear, with quantity gauge.

Wheelbase: 120 inches.

Equipment: One-man weather-proof top and side curtains with Bair brackets, windshield, sixteen candle power headlamps, two lights each; speedometer, motometer, demountable rim with extra rim, tire carrier, license holder and complete tool equipment.

CHEVROLET MOTOR COMPANY

FACTORIES New York City; Tarrytown-on-Hudson; Flint, Mich.; St. Louis, Mo. Oakland, California; Oshawa, Canada; Fort Worth, Texas; Buy City, Mich. DISTRIBUTING BRANCHES Atlanta, Ga.; Kansas City, Mo.; Minneapolis, Minn.

