Studebaker

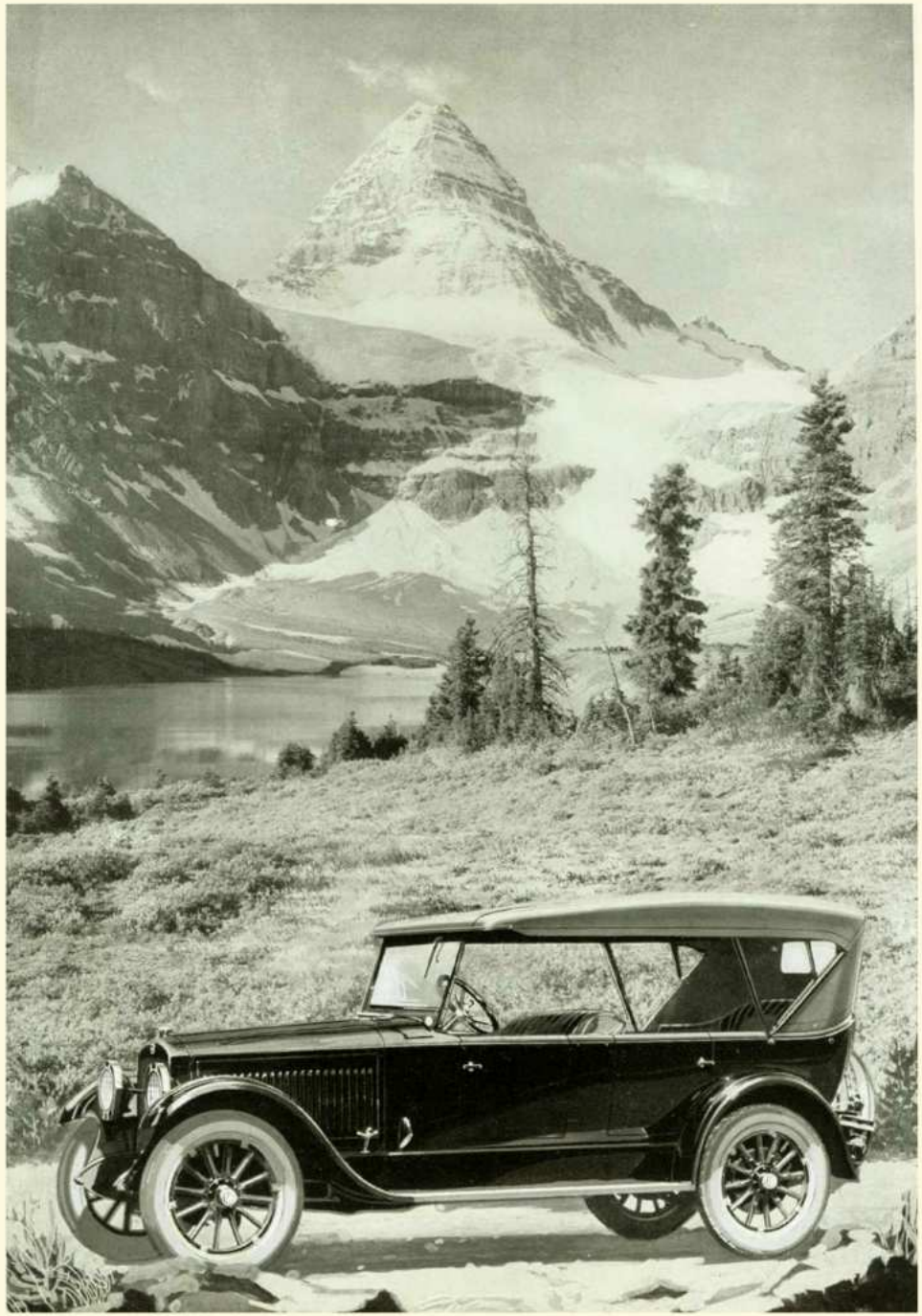
CARS

Studebaker CARS

Big-Six and Special-Six Models

THE STUDEBAKER CORPORATION of AMERICA

South Bend, Indiana ~ Detroit, Michigan
Walkerville, Canada



Introductory

STUDEBAKER cars for 1922 are offered to the public with a conviction that they will enhance the Studebaker reputation, which for seventy years has stood for a high order of quality and value. They are the creation of the Studebaker organization of competent engineering and manufacturing experts, and are produced in large, modern plants unexcelled in the industry. Fundamentally sound engineering principles are incorporated in their design, and resourceful, ripened experience guides their manufacture.

Studebaker's reputation precludes the building of cheap cars or the making of substitutions to lower costs, and, therefore, these cars contain none but the finest materials, including the best-known grades of steel, leather, upholstery, finishing paints, tires, and accessories.

The moderate prices of Studebaker cars are made possible by: first, the reduction in overhead costs, resulting from quantity manufacture in factories equipped and laid out to eliminate waste of material and time, assuring maximum efficiency; second, the elimination of middlemen's profits from parts made in Studebaker factories, such as castings, forgings, stampings, motors, axles, transmissions, bodies, tops, etc.; and, third, the comparatively light weight obtained by scientifically balanced design.

The reduction in manufacturing costs resulting from these three advantages is saved to the buyers of Studebaker cars.

THE STUDEBAKER CORPORATION
OF AMERICA

Big-Six Touring Car

THE Studebaker BIG-SIX Touring Car has won a unique place for itself among the world's finest motor cars, because of its sheer merit. On every hand the thousands of BIG-SIX owners have found in this car everything they had hoped to find in an automobile. Its popularity has grown steadily with the increasing number of owners until today it is the most talked-about car in America.

The BIG-SIX for 1922 is the same splendid automobile which has drawn the praise of 30,000 owners, but with added beauty of line and new details of refinement. Upon a chassis, unchanged in general design, Studebaker has built a body comparable only with those of the most costly cars.

There is a greater luxury in its deep cushions; new beauty in its double bevel body line.

Deep upholstery, cowl ventilator and one-piece, clear-vision windshield are popular BIG-SIX features.

Big-Six Touring Car

THE one-piece, clear-vision windshield is an important step forward. There is a courtesy light illuminating the left side of the car to insure safety in passing other cars at night.

A complete tool kit provided with a lock is installed in the left front door.

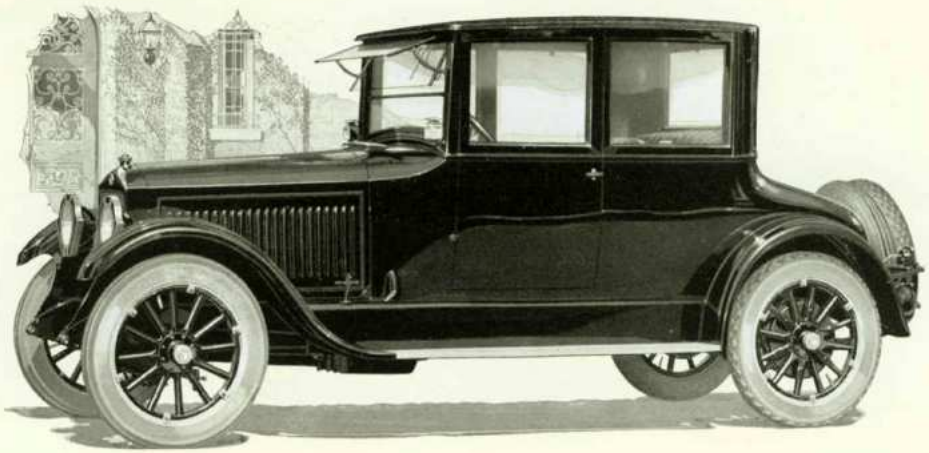
There are massive head lamps, graceful cowl lights, and tonneau lamp with extension cord.

Two passengers may be carried comfortably in the extra folding seats.

The louvres are more in number and their edges show a smart touch of gold. The fenders sweep low over the rear wheels, adding to the finished appearance of the car.

The BIG-SIX, with these refinements, stands out as a value unsurpassed in the field of fine cars.

A double bevel edge body line, many louvres touched with gold, a courtesy light, and moulded fenders contribute to BIG-SIX beauty.



Big-Six Coupe

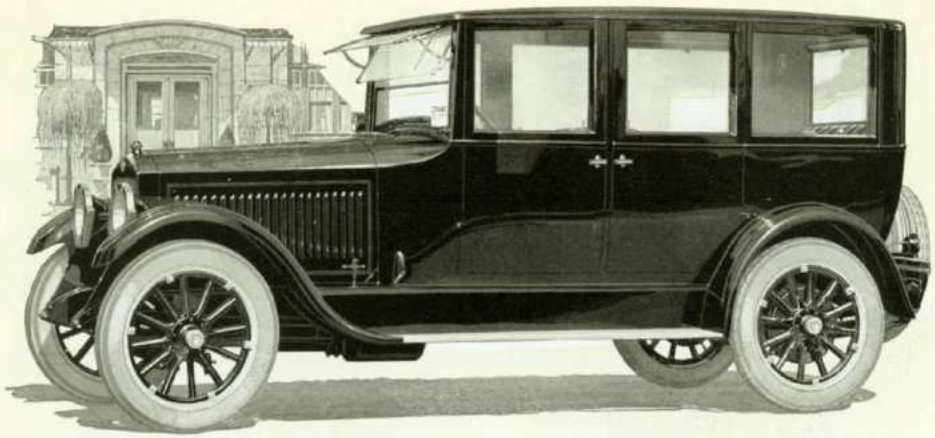
THIS Coupe is a car of striking beauty, roominess and comfort—and in these qualities, as well as in performance, it is intended for comparison only with enclosed cars of highest price.

There is about this Coupe an air of superiority and refinement that appeals to people of discrimination. The cushioning of seat, back, and arms of the auxiliary chair gives real comfort to the passenger occupying this fourth seat.

Massive headlights, coach lamps at the sides; interior opalescent corner lights; courtesy light; side of hood paneled and pierced with many louvres; automatic window regulators; ventilator in cowl; exhaust heater in floor; dignified harmony of coloring in upholstery and carpeting—these are striking features of the BIG-SIX Coupe.

Its generous wheelbase of 126 inches makes it an unusually easy riding car, and its motor's great resources of smooth-flowing, economical power account for its wonderful performance.

A richly appointed Coupe, ingeniously heated and ventilated. Ample room for four people.



Big-Six 7-Passenger Sedan

THE BIG-SIX Sedan makes an instant appeal to those who demand the utmost in closed car convenience, comfort, and beauty—it is, indeed, a rare combination of elegance and practical utility. Its body design is in the best taste. Appointments are complete and of the highest quality. There is a delightful harmony of color in the deep-cushioned upholstery and soft carpeting. Four doors opening wide; double-ventilating windshield of the three-piece type; exhaust heater in floor; ventilator in cowl; plate glass windows raised or lowered automatically; distinctively designed headlights, attractive coach lamps at sides, and opalescent dome light as well as corner lights; courtesy light beside left front door; side of hood paneled and pierced with many louvres—these are striking features of the BIG-SIX Sedan. With its two folding tonneau seats in use, it accommodates seven passengers comfortably. In year 'round service, in town and country, its 60-horsepower chassis makes it a car of exceptional performance, with power that conquers hills and roadability that makes it drive straight as an arrow.

The BIG-SIX Sedan affords Pullman-like luxury of transportation for seven passengers. The two auxiliary seats are in reality comfortable chairs with spring cushions.

Special-Six Touring Car

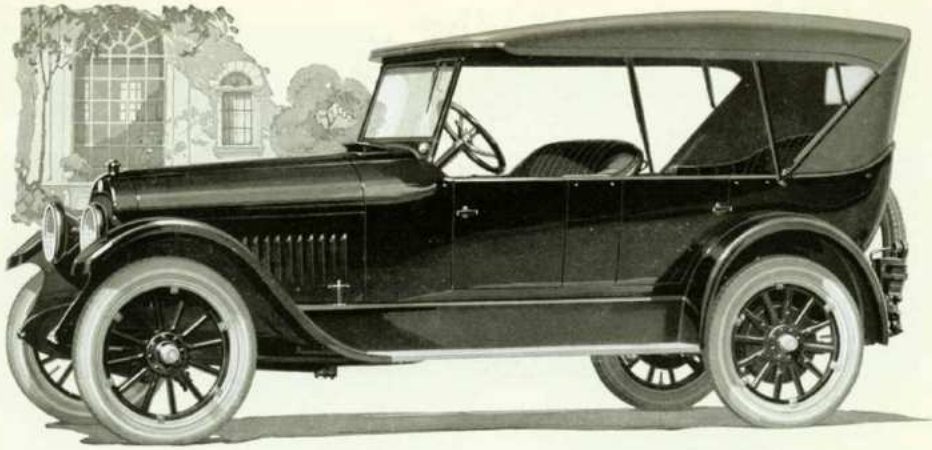
SINCE the introduction of the first SPECIAL-SIX, three years ago, Studebaker has attained a position of unchallenged leadership in the automobile industry.

While all Studebaker cars have enjoyed a tremendous popularity and have been distributed in great numbers throughout the world, it is to the SPECIAL-SIX, perhaps, that greatest credit goes for the dominating position of Studebaker in the six-cylinder field.

In the SPECIAL-SIX, engineers have produced a chassis so sturdy in construction, so accurate in design, with parts so carefully machined and assembled that the car performs in a remarkable way and shows unusually low cost of operation and maintenance.

The smooth, steady pull of its perfected 50-horsepower motor—its life and snap—gives you confidence in its ability to meet any emergency.

A single-glass, clear-vision windshield, cowl lamps, transmission lock, tool pocket, deep, comfortable seat cushions are a few of the SPECIAL-SIX refinements.



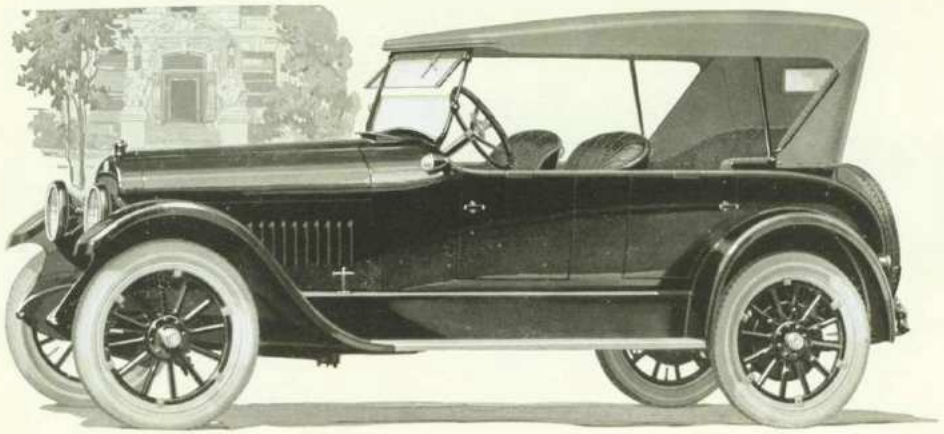
Special-Six Touring Car

THE SPECIAL-SIX Touring car for 1922 carries many important improvements and refinements. The body, which is finished in Studebaker Blue, with its new lines, is even more beautiful than before. The car is unusually roomy, seating five adults in perfect comfort. The 119-inch wheelbase gives a short turning radius which makes it remarkably easy to handle.

Only actual driving brings out the mechanical perfection of this car to its fullest degree. Beneath the harmonious lines of its exterior are mechanical features which assure economy and efficiency that are at once apparent to the experienced motorist.

Equipment includes cord tires, massive headlights, extension tonneau lamp, cowl ventilator operated from dash, windshield wiper and eight-day clock. A tool kit installed in the left front door is opened by a master key which also locks the transmission and ignition switch.

Body lines of great beauty are enhanced by graceful fenders, tailored top, and a large plate glass window in the rear curtain.



Special-Six 4-Passenger Roadster

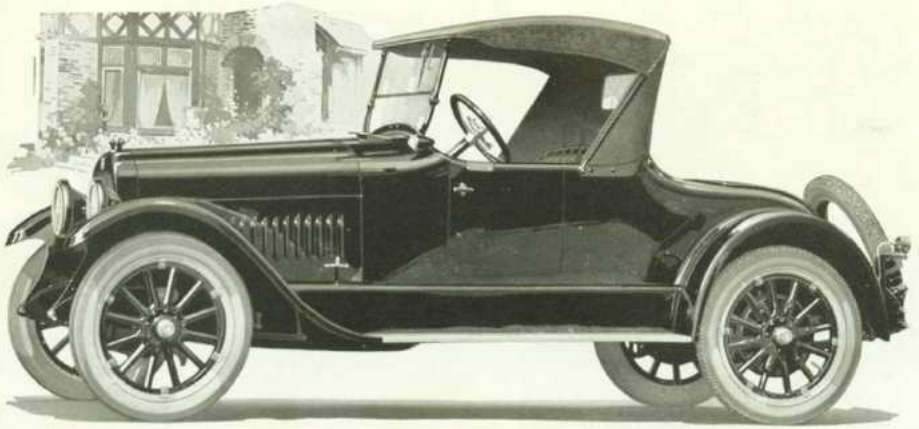
CLOSE-coupled, low-hung and with the snap and dash of the popular SPECIAL-SIX motor, this Four-Passenger Roadster has proved itself one of the most desirable roadster models ever offered by any manufacturer.

There is an air of smartness about the Four-Passenger Roadster that is rare. The softly molded curves of the body, the snug-fitting tailored top, the deep, soft upholstery of genuine leather, the attractive grouping of instruments on the dash, cowl ventilator, windshield wiper, cowl lamps, tool kit in left front door locked with key which also locks transmission and ignition switch—all emphasize Studebaker individuality.

Here is a car that splendidly answers the requirements of those who prefer the roadster type, but oftentimes have occasion for a seating capacity in excess of the single-seat roadster. The front seats are divided with an aisle. There is ample room for four passengers, without crowding, and the four doors permit easy entrance and exit.

Mounted on the same chassis as the SPECIAL-SIX Touring Car and provided with the same general equipment.

A car built expressly for the maximum riding comfort of four people. Individual front seats are separated by an aisle.



Special-Six 2-Passenger Roadster

A HANDSOME and comfortable Two-Passenger Roadster is an important model of the SPECIAL-SIX line.

The Two-Passenger Roadster is unusually attractive, following in design the lines of the touring car but with the rear deck sloping at an angle that enhances the car's appearance.

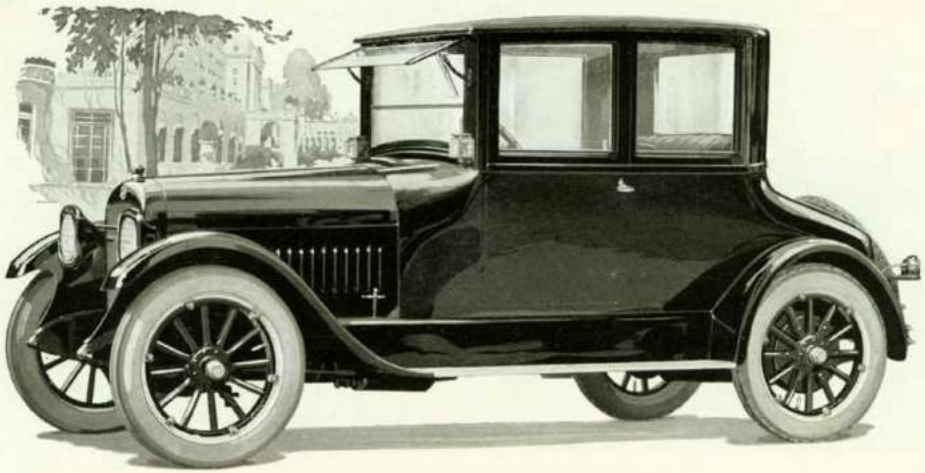
A wide, straight seat comfortably accommodates two, and storm curtains provide complete protection when the weather is inclement. A spacious compartment under the rear deck affords handy storage space for luggage, parcels or tires.

The upholstery is of genuine leather, deep and restful. Instruments, including an eight-day clock, are attractively grouped on the dash.

Cowl ventilator, cowl lamps, windshield wiper, tailored top, and tool kit in door beside driver, locked with master key which also locks transmission and ignition switch, are added features.

Cord tires are standard equipment.

A beautiful roadster offering the utmost in riding comfort. The snug tailored top has a plate glass in the rear curtain.



Special-Six Coupe

One of the most beautiful closed cars. It has gained popularity for its completeness of appointments, riding comfort, and ideal size.

AT first glance this Coupe impresses one as a distinctively designed and elegantly appointed four-passenger enclosed car. It is beautifully upholstered in deep, soft mohair velvet plush of pleasing pattern with top lining, trimming and floor carpets harmonizing in color and design. Silk roller curtains are provided at the windows, and the electric dome light and pillar coach lamps are added refinements. Its plate glass windows are raised or lowered by a simple, automatic device easily operated. A ventilator in the cowl is raised or lowered by a button on the dash.

A convenient parcel compartment is provided back of the driver's seat, while luggage of large size can be carried in the locker under the rear deck. The folding seat for the fourth passenger is in reality a comfortable chair with cushioned seat, back and arms. This handsome body is mounted upon the 50-horsepower Studebaker SPECIAL-SIX chassis, notable for its power, dependability, comfort, and economy in fuel and tires. Oversize cord tires are standard equipment.

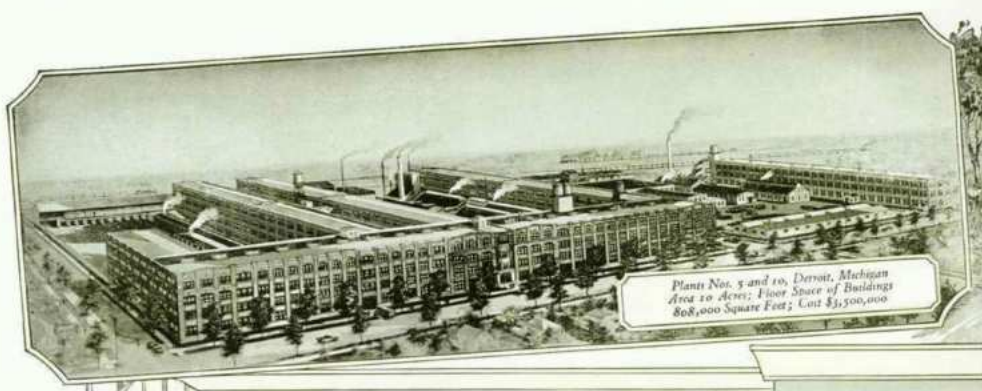
Special-Six Sedan

SOFT carpeting, subdued harmony of coloring in the upholstery, inviting depth of cushions, completeness of appointments—these are features of the SPECIAL-SIX Sedan that offer an irresistible appeal.

Massive headlights, artistic coach lamps and opalescent dome light add to its beauty. Eight rigid, upright posts from floor to roof insure strength and quietness; four broad doors make movement in or out a matter of ease and convenience; simple, automatic window lifts raise or lower the plate glass windows; a ventilator in the cowl is regulated from the dash. Oversize cord tires are standard equipment.

Solidity of construction and abundant power combine to make this Sedan a car of unusual comfort and satisfaction—and the dependable performance of the 50-horsepower Studebaker SPECIAL-SIX chassis is an added assurance of the full enjoyment of closed car comfort.

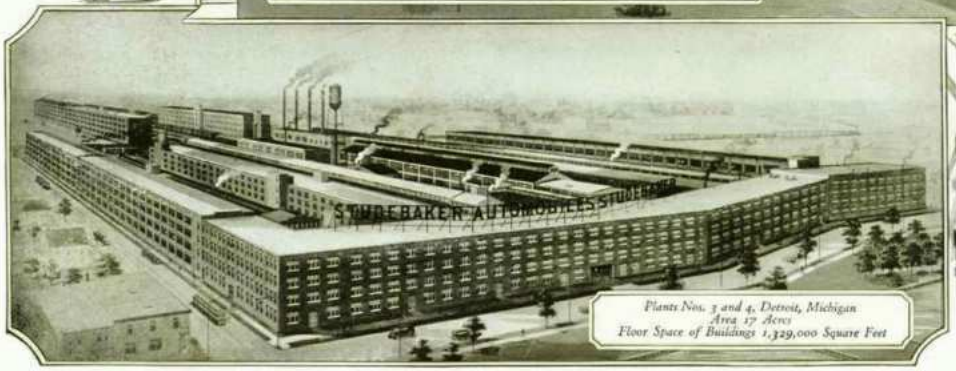
The SPECIAL-SIX Sedan is in high favor with buyers everywhere. It offers the greatest degree of closed car refinement without excessive weight or cost.



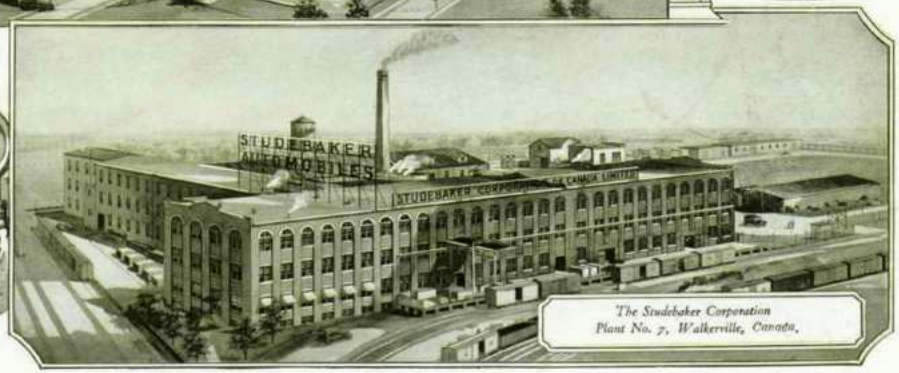
Plants Nos. 5 and 10, Detroit, Michigan
Area 10 Acres; Floor Space of Buildings
808,000 Square Feet; Cost $3,500,000

Plants Nos. 1 and 2, South Bend, Indiana
Area 150 Acres
Floor Space of Buildings 6,400,000 Square Feet

New Modern Automobile Plant No. 2, South Bend, Indiana
Area 85 Acres; Floor Space of Buildings 3,700,000 Square Feet
Manufacturing Capacity 150,000 Automobiles per Annum; Cost $20,000,000



Plants Nos. 3 and 4, Detroit, Michigan
Area 17 Acres
Floor Space of Buildings 1,329,000 Square Feet



The Studebaker Corporation
Plant No. 7, Walkerville, Canada.

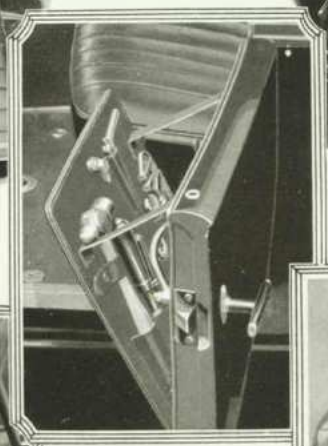
ABOUT five years ago The Studebaker Corporation determined to build a large, modern automobile plant at South Bend, with a production capacity of five hundred cars per day. Construction engineers and production experts made exhaustive investigations and studies of the construction, equipment and methods of numerous modern plants throughout the United States, and ch experiments, and numerous tests are carincorporated in the plans for the South Bend plant on daily by a large, able staff of engineers and every improvement and practical device for eco-mists.
nomical production developed by this investigation. he latest heat-treating and carbonizing equip-

Commodious space and equipment are provided it and machine shops are provided. Shops for in the new plant for the laboratories, experimentaln and closed bodies are also included, together department and engineering department, where re- a warehouse with storage capacity of 3,000 cars. There are ample railway and track facilities for shipping. A large recreation hall with theatre is provided for employees' and dealers' meetings.

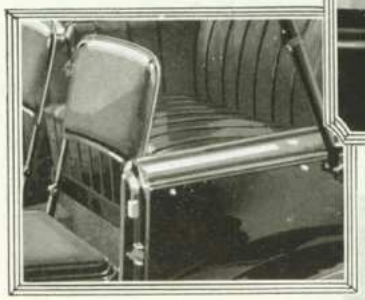
The Detroit plants of the Corporation continue as heretofore, producing Studebaker cars in large quantities. The South Bend plant is an addition to the capacity of the Corporation.

Unusually thick back cushions

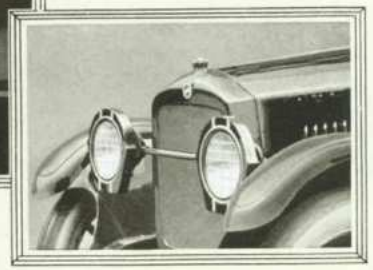
Soft, deep seat cushions



(Left) Tool pocket with lock in door



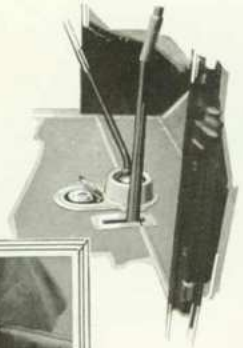
Double bevel body edge—Big-Six



Artistic massive lamps—Big-Six

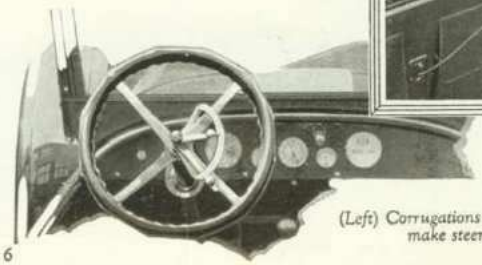
(Left) Numerous spiral springs make easy riding

(Below) Symmetrically designed instrument board with high grade instruments

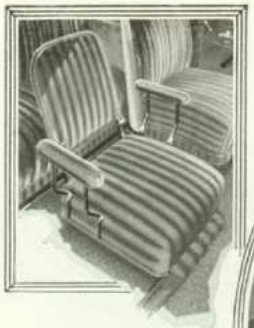


(Above) Transmission lock reduces Studebaker theft insurance rates

Tonneau light with extension cord is a great convenience

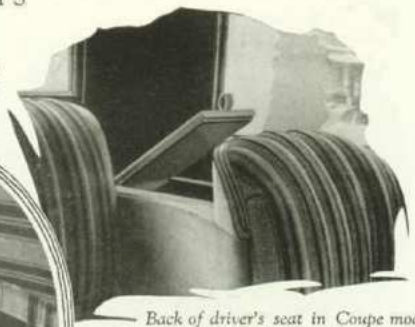


(Left) Corrugations on steering wheel make steering easy

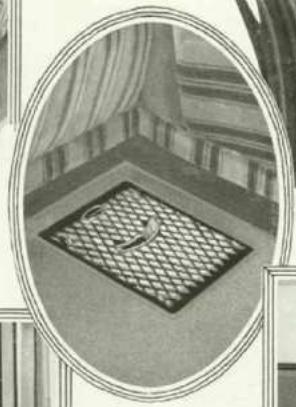


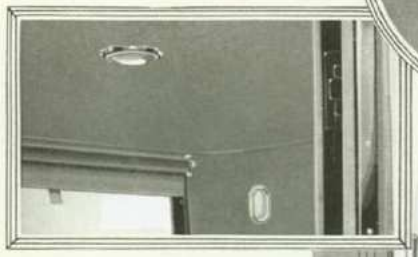
The fourth seat in the Coupe is a big roomy arm chair—Big-Six and Special-Six

(Below) Both Sedans and Coupes have exhaust heater in floor

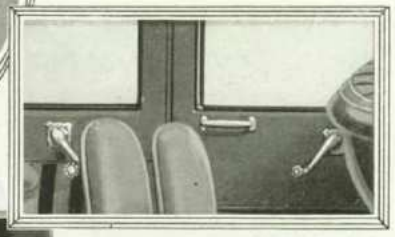


Back of driver's seat in Coupe models is a convenient parcel box



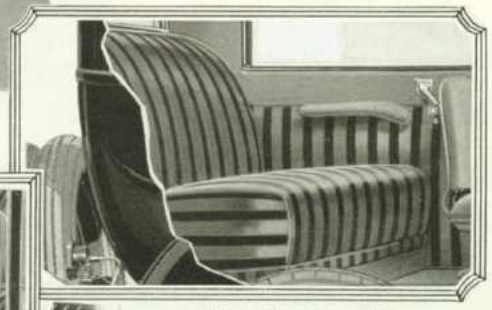


(Above) Dome and corner lamps in Big-Six Sedan provide enough light for reading



The hardware in closed models is in the best taste

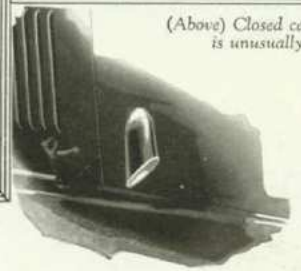
(Left) Doors on closed models can be securely locked



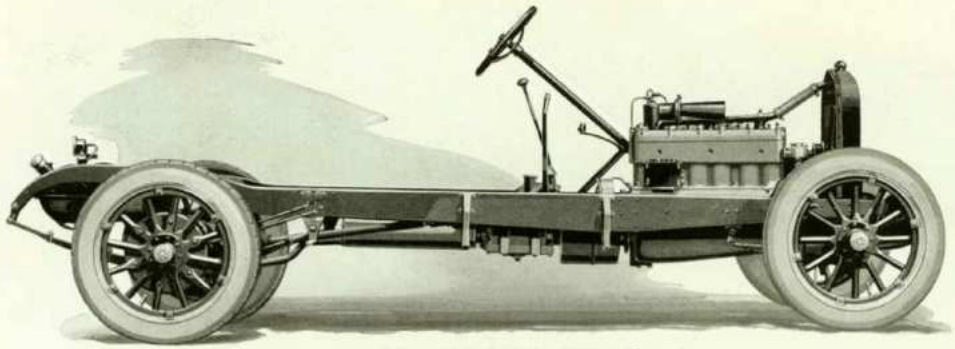
(Above) Closed car upholstery is unusually thick

Closed models have coach lamps, cowl ventilator, rain visor, windshield wiper.

Big-Six Sedan auxiliary seats are comfortable



(Left) All Big-Six models have courtesy light to illuminate running board and as protection from passing cars



The SPECIAL-SIX Chassis

Perfect distribution of weight, long flat underslung rear springs, and unusual depth of frame, together with its 119-inch wheelbase and 50-horsepower demountable-head motor, combine to make it an ideal five-passenger car.

THE CHASSIS

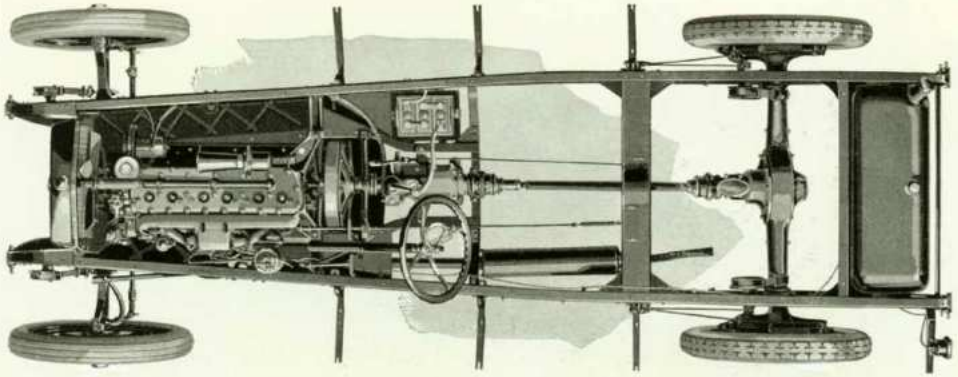
"A CAR is judged by its chassis—a car can be no better than its chassis." The truth of these two statements, having to do with the correctness of chassis design and construction, are self-evident to the motor-wise. The seasoned automobile engineer endeavors to build into his chassis, simplicity, proper distribution of weight, accessibility—all combined with strength and solidity of construction. The Studebaker chasses have been designed throughout with these fundamental characteristics in view and no thought or expense on the part of the engineer has been spared to produce the best results.

In the present Studebaker cars, the outstanding evidences of quality are apparent on even superficial examination in the use of the best material, such as chrome-nickel, vanadium, and Molybdenum steel, the use of taper roller bearings throughout, a generous use of drop forgings, and the unusual attention which is given to all the small and seemingly insignificant details that go into the construction of a car.

The method of mounting the transmission at three points on the sub-frame, permits it to be carried in an intermediate position on the chassis, insuring flexibility, better weight distribution, as well as weight reduction.

The importance of accessibility has been kept in mind in the design of the Studebaker chassis. Parts have been so placed as to be readily accessible with minimum effort and loss of time. Cleanliness and economy have been secured by designing motors, transmissions, and rear axles to eliminate all oil leakage.

This worm and worm-wheel steering gear is notable for strength and simplicity.



The BIG-SIX Chassis

Perfect satisfaction under every condition of service is assured by its 126-inch wheelbase, 60-horsepower, demountable-head motor; accessibility, simplicity and freedom from unnecessary parts. The sub-frame carries the rear of the motor and transmission, equally distributing the weight.

The fact that Studebaker manufactures most of the parts that go into the construction of Studebaker cars, has been brought up earlier in this catalog. Those parts which Studebaker must buy outside, such as electrical equipment, locks, tires, clocks, etc., are selected with the utmost care and are subjected to rigid inspection before being used.

FRAME

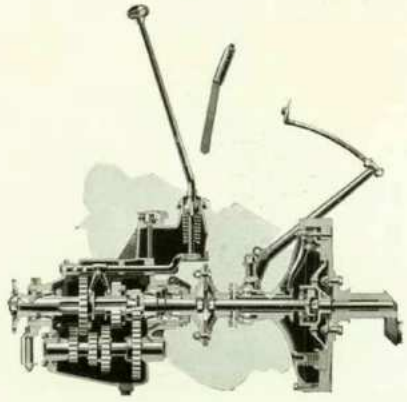
The chassis frame of each model is a deep and rigid, pressed steel channel section narrowed at the front, to allow a short turning radius.

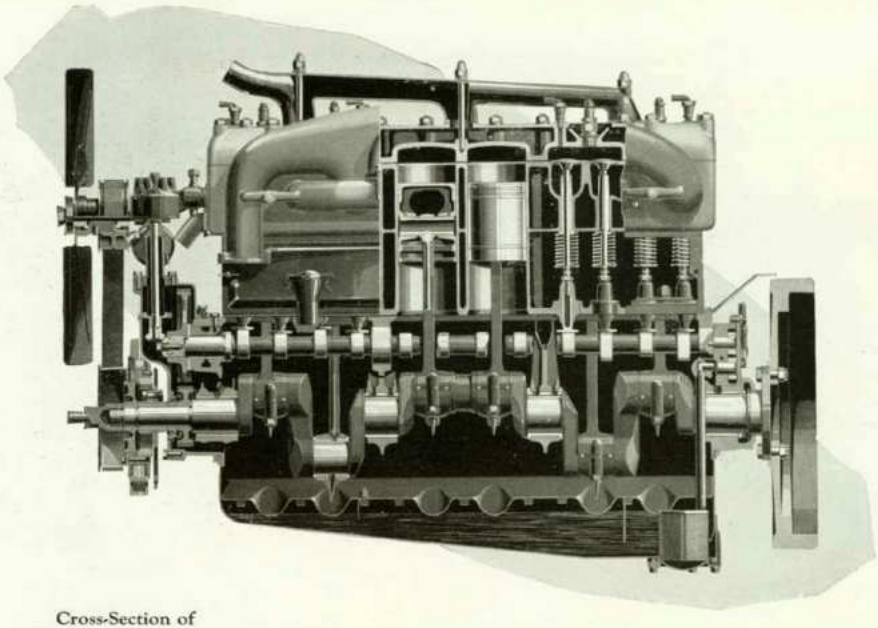
Frame side members have deep sections to resist deflection and are secured together by means of five cross-members strongly reenforced with gussets. The front cross-member supports the radiator and forward end of sub-frame; the second cross-member reenforces the sub-frame and supports the rear end of the motor; the third cross-member supports the rear end of the sub-frame; the fourth cross-member carries the brake cross-shafts. The fifth cross-member carries the rear end of the body. At extreme rear, the frame is reenforced by a bar which is in effect a cross-member. The frame side members are exceptionally well braced at all bends, resulting in a very rigid construction and a large factor of safety.

THE CLUTCH

The clutch is of the single plate, dry disc type in which the driven member is a single spider rotating between two rings of friction material. Nine separate springs maintain uniform pressure between the friction surfaces.

The dry plate disc clutch, which is positive and easy acting, is connected with the transmission by flexible disc couplings; chrome-nickel gears operated on four taper roller bearings.

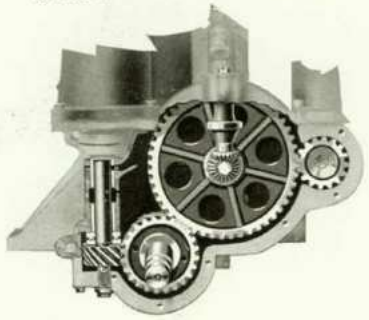




Cross-Section of SPECIAL-SIX Motor

Contributing to the smoothness, quiet running and tremendous power which have made this motor famous are: The demountable head, with its advantages of perfect combustion and high economy; the rugged, four-bearing, perfectly balanced crankshaft; the large capacity water-jackets, and the highly perfected oiling system.

The spiral bevel timing gears drive water pump and generator.

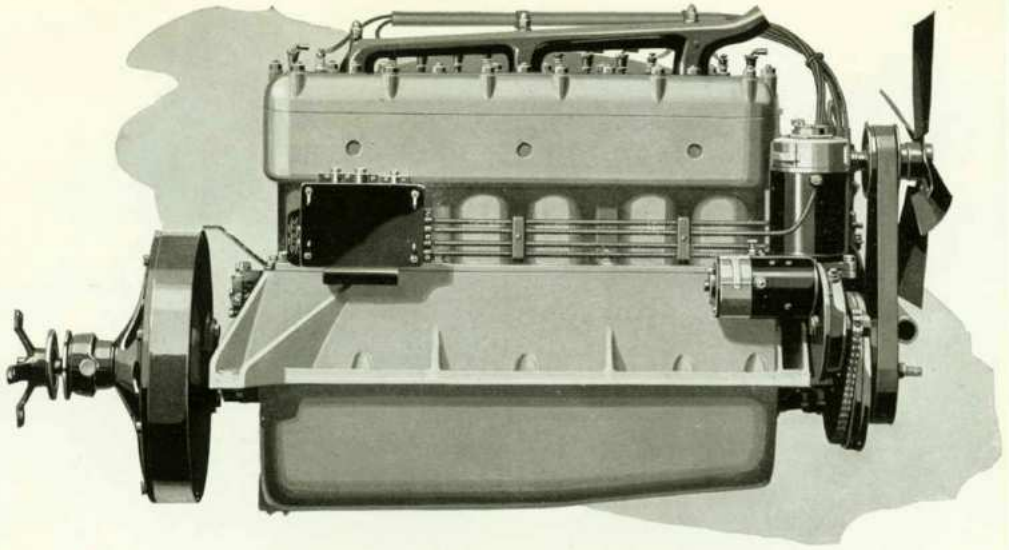


The release mechanism consists of a series of levers equalized so as to center the pressure separating the friction surfaces, when the clutch pedal is depressed. A clutch brake serves to prevent spinning of transmission gears after the clutch is disengaged, making gear shifting quiet and easy. The gear shift lever is centrally located directly on the transmission cover and is of the ball-and-socket type with an offset cane lever which makes gear shifting easy.

THE MOTOR

Studebaker motors are designed and built complete in our own plant. A study of the motor illustrations reveals them to be rugged in construction and clean-cut in appearance. Actual test shows them to be flexible in operation and accessible.

Each model has cylinders of the demountable, L-head type, cast en bloc, thus insuring rigidity and correct alignment. The SPECIAL-SIX motor is of 3½-inch bore and 5-inch stroke, developing 50-horsepower. The BIG-SIX motor is of 3⅞-inch bore and 5-inch stroke, developing 60-horsepower. The detachable cylinder head makes the interior of the engine quickly and easily accessible and likewise permits complete machining of the compact combustion chambers. Machining the combustion chambers insures uniformity of compression, reduces heat absorption, and aids materially in preventing carbon deposits on the cylinder walls.



The SPECIAL-SIX Motor

Notable among the features of this motor are its simplicity accessibility and clean-cut design. The complete wiring and electrical system centers in the junction box.

CARBURETION

The subject of carburetion has been a matter of careful study in Studebaker cars. Through exhaustive laboratory and road tests, the carburetor and the new "hot-spot" manifold have been designed to secure great economy with the present day low-grade fuel.

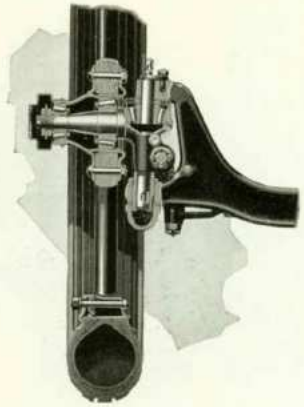
On the SPECIAL-SIX motor, an improved type of carburetor is used. The specially designed "two-range" carburetor on the BIG-SIX consumes a minimum quantity of fuel under ordinary touring conditions. When high speed and extra power are required, the second range automatically comes into action on further depressing the accelerator pedal.

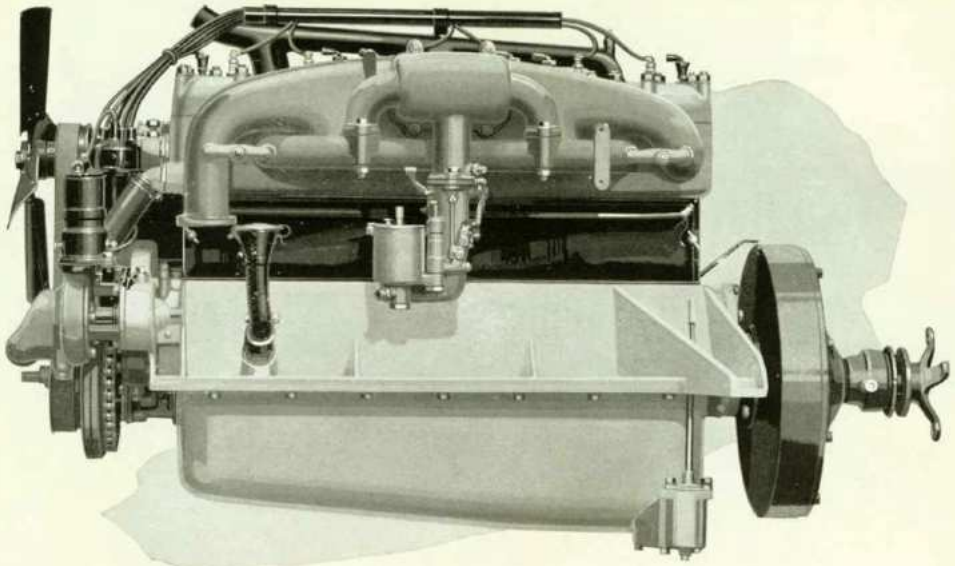
CRANKSHAFT AND VALVES

In each motor, the crankshaft has four bearings and is of proportions to withstand the stresses and pressures to which it is subjected. After being machined, the crankshafts are carefully balanced by the most approved methods. Around the crank case are wide-ribbed flanges which, together with additional ribbing around the main bearings, add greatly to the strength and rigidity of the motor and result in maximum reduction of vibration. Engine supporting arms at the rear of motor are cast integral with crank case.

On the left side of the motor are located the valve push rods of the mushroom type. They are entirely enclosed from dirt. Valve lifts are $\frac{5}{16}$ of an inch and, owing to carefully designed cams, operate with unusual quietness and smoothness. Valve stems are provided with ample lubrication preventing unusual wear.

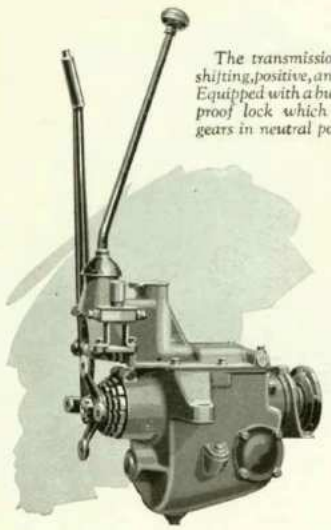
The use of taper roller bearings in the steering knuckle results in easy steering. This is a feature which is found only in the highest priced cars.





The BIG-SIX Motor

The great power and speed of the BIG-SIX are made possible by its 3⅞-inch bore, by 5-inch stroke and two-range carburetor with scientific "Hot-Spot" intake manifold.



The transmission is easy-shifting, positive, and noiseless. Equipped with a built-in thief-proof lock which holds the gears in neutral position.

LUBRICATION

Another notable feature is the duplex system of lubrication. Oil is forced through the distributor pipe in the crank case, by a gear pump, a portion of it passing through a series of holes, keeping the oil troughs for the connecting rod splash well supplied. Another series of holes in the distributor pipe admits oil to each camshaft bearing and thence, through a radial hole, it is led to troughs over main bearings. From this point it reaches the main bearings themselves by gravity, supplying all important bearings in the motor with positive lubrication.

A force feed lubricating system is used wherever possible in place of the old-fashioned grease cups, thus providing positive and efficient lubrication for springs, bolts, steering knuckles, etc.

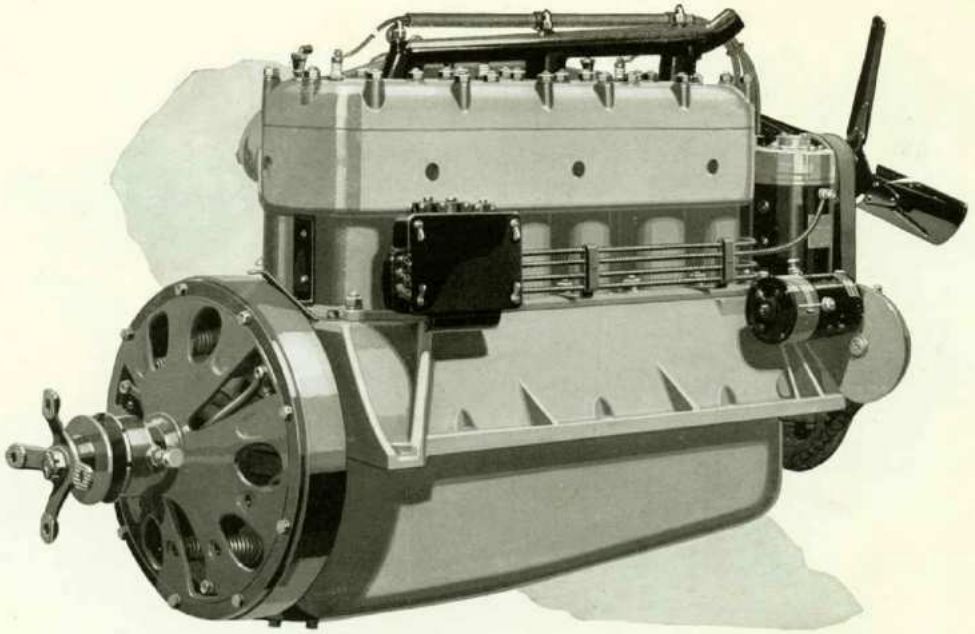
COOLING SYSTEM

The cooling system utilizes a centrifugal pump with a large tubular radiator and four-bladed fan. The belt is simply adjusted by means of turning a single adjusting screw.

TRANSMISSION

On all Studebaker chasses, the transmissions are directly behind, but separate from, the motor, thus eliminating the heavy housing required for the unit system, and providing a more flexible system of power application.

There is a flexible coupling between the motor and transmission which reduces driving shocks and smoothes out power impulses of the motor, besides taking care of any slight disalignment between motor and transmission.



The BIG-SIX Motor

Among the marked advantages of the BIG-SIX motor are economy of operation and freedom from vibration. The strong, rugged motor supports are important factors in elimination of vibration.

The amidship transmission design is a further advantage in the accessibility of the clutch unit for adjustment or removal.

The design of the transmission is simple and contains four taper roller bearings, easily adjusted from the outside of the case. Easy and quiet gear shifting is obtained by a second-speed gear with internal teeth, engaging with the main drive pinion when in high gear. All transmission gears are of chrome-nickel steel, carbonized and hardened. The aluminum transmission housing has an oil filler connection accessibly located at the side of the case.

ELECTRICAL SYSTEM

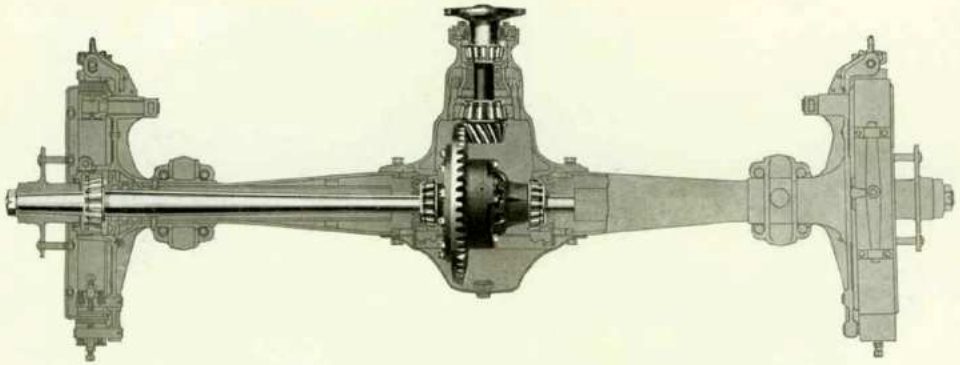
All models have a two-unit starting and generating electrical system with improvements, which has proved to be most efficient, durable and economical. These units are carried on the forward end of the motor and are unusually accessible.

A battery type ignition is used with weather-proof coil and distributor cap.

GASOLINE TANKS

The gasoline tanks are of 17 gallons capacity and are carried on springs at the rear of the frame, which eliminate all stress and strains. Filler pipes are accessibly located at the rear, to the right of the frame. Thev are protected by the spare tire carriers.

The starting motor, light, yet powerful, drives through chain and over-running clutch.



Cross-Section Semi-Floating Rear Axle

This Studebaker-designed and Studebaker-built improved type axle is equipped with taper roller bearings throughout.

DRIVE AND SPRINGS

The drive is the full Hotchkiss type, in which the front ends of the rear springs are rigidly anchored to the frame, cushioning the driving effort through the springs. This method of transmitting power to the rear wheels makes both starting and stopping smoother and saves wear and tear on driving mechanism, wheels, and tires.

The springs are semi-elliptic, underslung in the rear, and are built in our own spring plant of the best quality alloy steel. All spring eyes are bronze-bushed. Unusual engineering study was concentrated on correct car spring design, resulting in the production of remarkably easy riding cars.

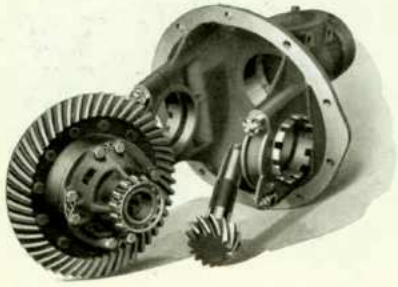
AXLES

The front axle is a unit forging from high-grade steel specially heat-treated. Easy steering and unusual road driving qualities are secured by a special design of steering knuckle which carries taper roller bearings in place of the plain bushings usually found at this point; locating the steering knuckle pin close to the center line of the wheel, and ample steering arm leverages. The steering knuckles on which the wheels revolve are large in section and each one carries two taper roller bearings.

Through the use of coarse pitch stub teeth, the differential side gears and pinions are of unusual strength. Taper roller bearings are used in the axles throughout; two on the pinion shaft, one at each side of the differential, and one outboard bearing at each of the wheels. Both pinion and ring gears are of chrome-nickel steel, forged, cut, and heat-treated in Studebaker factories.

A rigid support for the differential bearings is provided in a strong one-piece malleable iron carrier. This carrier assembly can be removed after withdrawing axle shaft without otherwise disturbing the axle. A large removable plate, with oil filler holes at rear of axle housing, permits easy inspection and cleaning.

The differential is mounted in a strong, rigid malleable housing; the spiral bevel ring and pinion gears are easily adjustable; noiseless.



Rear Axle Complete

The pressed steel housing is light but strong; adjustments are made easy because of removable plate at rear.

Spiral bevel ring and pinion gears of the latest type are furnished in the rear axle. The advantage of the spiral gears is very superior strength, due to their continuous pitch line, and unusual quietness in operation for the same reason.

An improved semi-floating type of rear axle is used. It consists of a sturdy pressed steel housing carrying two live axle shafts to which the wheels are securely keyed. These shafts are splined on their inner ends where they engage with the differential side gears and are carried at their outboard ends on large taper roller bearings located in the axle housing. Axle shafts are forged from high-grade alloy steel, specially heat-treated, and are designed to withstand all strains to which they may be subjected. This type of axle is especially desirable from an owner's point of view, in that no accident is likely to injure the expensive axle housing member.

Power is transmitted to the rear axle by means of universal joints in connection with a tubular propeller shaft with splined section on one end to allow for fore-and-aft movement, due to spring action.

BRAKES

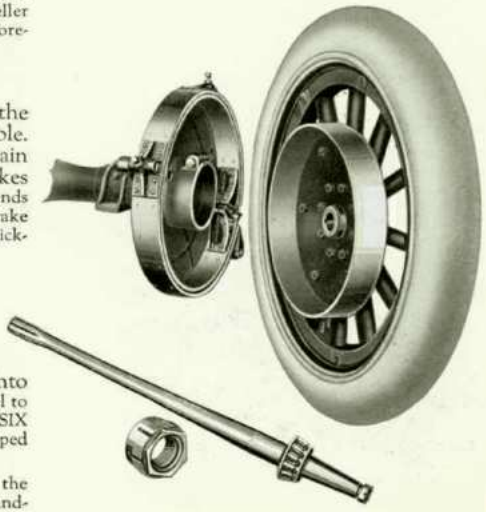
Particular attention has been given to make the brake adjustments very simple and accessible. Brake leverages are of sufficient length to obtain more powerful braking action. Internal brakes are provided with retracting springs so that both ends of the band are held away from the drum when brake is released. The internal brake band is of ample thickness to prevent any possibility of buckling.

TIRES

On each model the correct tire size has been worked out by Studebaker engineers in co-operation with experts from tire manufacturers. Tire sizes selected, taking into consideration the power and wheelbase of each model to give high mileage, are 32x4 inches on the SPECIAL-SIX and 33x4½ inches on the BIG-SIX. Each model is equipped with cord tires.

It is interesting to note that the BIG-SIX was the first car selling below $2,000 to adopt cord tires as standard equipment.

Adjustable, positive acting, equalizing brakes of large diameter. Axle shaft of chrome-vanadium steel, tough and immune from breakage.



Specifications

TOURING CAR MODELS

THE SPECIAL-SIX

SEATING CAPACITY—Five passengers.

WHEELBASE—119 inches.

MOTOR—Six cylinders cast en bloc; detachable L-head, 3½" x 5", 50-55 H. P. at 2,000 R. P. M.

LUBRICATION—Splash and positive distribution.

COOLING SYSTEM—Centrifugal pump circulating system; tubular radiator; 18-inch four-blade fan.

GASOLINE SYSTEM—17-gallon tank in rear; vacuum feed.

CARBURETOR—Improved carburetor with hot-spot intake manifold.

ELECTRIC SYSTEM—Separate unit starter and generator.

IGNITION—Generator-storage battery with coil and distributor; spark plugs have S. A. E. thread.

ELECTRIC LIGHTS—Large headlights with improved deflecting and diffusing lenses; speedometer light; cowl lights at lower corners of windshield; tonneau light with convenient extension; tail light.

CLUTCH—Single disc, dry plate clutch with anti-spin brake.

TRANSMISSION—Amidship, separate unit, three speeds forward, and reverse.

GEAR RATIO—4.33 to 1.

REAR AXLE—Studebaker improved semi-floating, spiral bevel gear drive, with full taper roller bearing equipment.

DRIVE—Hotchkiss.

SPRINGS—Front and rear semi-elliptic; front, 38" x 2", seven leaves; rear, 56" x 2", eight leaves, underslung.

TIRES—Cord, 32" x 4"; anti-skid on rear.

BRAKES—Foot brake, external contracting 14 11/16" x 2"; emergency brake, internal expanding 14 3/8" x 1 3/4".

LOCKS—Built-in thief-proof Yale transmission lock, ignition lock and lock on tool compartment in left front door, all operated with the same key.

FENDERS—Heavy pressed steel; oval crown design.

UPHOLSTERY—Genuine French plaited leather.

TOP—One-man Gypsy type with large plate glass rectangular window in rear, curtains open with doors.

EQUIPMENT—Improved rain vision slanting windshield; windshield wiper, 3½" carpet-covered foot rest in tonneau; large electric horn; electrically-lighted American walnut finished instrument board on which are mounted, jeweled eight-day clock, speedometer, driven from transmission spline shaft, oil indicator, ignition and lighting switch, carburetor control, ammeter; ventilator in cowl controlled from instrument board; combination robe and hand rail extending full width of front seat; gasoline gauge on tank in rear; complete set of tools; tire carrier at rear with extra rim, outside and inside door handles; American walnut steering wheel.

COLOR—Body, Studebaker Blue; black hood; blue wheels; gold striping on wheels and louvres.

MODELS—Five-passenger Touring Car; two-passenger Roadster; four-passenger Roadster; four-passenger Coupe; five-passenger Sedan.

Top Boot is not part of regular equipment; furnished as an extra.

THE BIG-SIX

SEATING CAPACITY—Seven passengers.

WHEELBASE—126 inches.

MOTOR—Six cylinders cast en bloc; detachable L-head, 3 3/4" x 5", 60-65 H. P. at 2,000 R. P. M.

LUBRICATION—Splash and positive distribution.

COOLING SYSTEM—Centrifugal pump circulating system; tubular radiator; 18-inch four-blade fan.

GASOLINE SYSTEM—17-gallon tank in rear; vacuum feed.

CARBURETOR—Two-range carburetor with hot-spot intake manifold.

ELECTRIC SYSTEM—Separate unit starter and generator.

IGNITION—Generator-storage battery with coil and distributor; spark plugs have S. A. E. thread.

ELECTRIC LIGHTS—Large artistic headlights with improved deflecting and diffusing lenses; cowl lights at corners of windshield; speedometer light; courtesy light on left side, back of hood; tonneau light with convenient extension.

CLUTCH—Single disc, dry plate clutch with anti-spin brake.

TRANSMISSION—Amidship, separate unit, three speeds forward, and reverse.

GEAR RATIO—3.71 to 1.

REAR AXLE—Studebaker improved semi-floating, spiral bevel gear drive, with full taper roller bearing equipment.

DRIVE—Hotchkiss.

SPRINGS—Front and rear semi-elliptic; front, 38" x 2", seven leaves; rear, 56" x 2", eight leaves, underslung.

TIRES—Cord, 33" x 4½"; anti-skid on rear.

BRAKES—Foot brake, external contracting 14 11/16" x 2"; emergency brake, internal expanding 14 3/8" x 1 3/4".

LOCKS—Built-in thief-proof Yale transmission lock, ignition lock and lock on tool compartment in left front door, all operated with the same key.

FENDERS—Long, heavy pressed steel, double crown design.

UPHOLSTERY—Genuine hand-buffed French plaited leather.

TOP—One-man Gypsy type, with single large rectangular bevel French plate glass window in rear; curtains open with doors.

EQUIPMENT—Improved rain vision, straight side, slanting windshield; windshield wiper; 3½" carpet-covered foot rest in tonneau; large electric horn; electrically-lighted American walnut finished instrument board, on which are mounted silver-faced speedometer, driven from transmission spline shaft, oil indicator, ignition and lighting switch, carburetor control, ammeter; jeweled eight-day clock of perfect accuracy; ventilator in cowl controlled from instrument board; combination robe and hand rail extending full width of front seat; American walnut finished steering wheel; gasoline gauge on tank in rear; complete set of tools, double tire carrier at rear with one extra rim; outside and inside door handles; shock absorbers.

COLOR—Body, Studebaker Blue; black hood; blue wheels; gold striping on wheels and louvres.

MODELS—Seven-passenger Touring Car; four-passenger Coupe; seven-passenger Sedan.

Top Boot is not part of regular equipment; furnished as an extra.

(The specifications shown on this page subject to change without notice)

STUDEBAKER

Detroit, Michigan — SOUTH BEND, IND. — Walkerville, Canada

Address all correspondence to South Bend

Studebaker Facts

Established in 1852. Present capital investment, $70,000,000.

Plants in South Bend, Indiana—Detroit, Michigan—Walkerville, Canada. Second largest in the world.

Plants cover 225 acres; buildings contain 5,987,000 square feet of active floor space; and investment amounts to $35,000,000.

Inventories of raw materials, work in progress, and finished goods, amount to $20,000,000.

Research and experimental laboratories, unexcelled in the industry, employing 100 skilled men.

12,500 machines used in 500 manufacturing departments.

Average number of employees, 14,000.

1,120 mechanical operations on the three models of Studebaker cars are accurate to one-thousandth (.001) of an inch; 360 to one-half-thousandth (.0005) of an inch.

680 inspectors employed in the plants. 9,500 inspections during manufacture before cars are passed for delivery. In addition, 500,000 laboratory tests are made annually.

150 tons of castings made in Studebaker foundries daily. 85,000 tons of steel used by Studebaker annually.

7,000,000 gallons of fuel oil used annually in heat treating and in drop forge furnaces. 85,000,000 cubic feet of gas used annually.

Over 450,000 Studebaker cars produced and sold—valued at $540,000,000.

Studebaker cars are sold in all civilized countries and the trade-name "Studebaker" is a household word.

Studebaker is one of the world's largest automobile manufacturers, and a consistent leader in all developments of the automobile for the benefit of the user. Among its contributions in improved quality, better performance and greater value, may be mentioned:

—first to make extensive use of pressed steel.
—first to make six-cylinder motors in a single casting, or en bloc.
—first to produce a car with crown fenders.
—first to sell a six-cylinder car for less than $2,000.
—first to use plate glass windows in top as standard equipment.
—first to use cord tires as standard equipment on a car selling for less than $2,000.
—first to produce a car, selling for less than $1,500, with crankshaft and connecting rods machined all over.
—first to cast the intake manifold in the detachable head.
—first to use, and inventor of, the internal hot spot.
—first to use 20° inclined, silent operating valves.
—first to use, and inventor of, improved mounting and lubrication of engine accessories on front drive shaft.
—first to produce a car in which Molybdenum steel was used.

SERIAL NO. 142, JAN 1922