

220 -Produced by K. L. Hamman Illustrated by Scott-Riner Go. Engravings by Fine Ans Eng Co



THE Fageol Car was conceived and created to increase the luxury of living and to satisfy the demand of the connoisseur for a car of American make that would meet idealized requirements.

In every age and in every clime man has expressed his love of luxury in his mode of travel. He has striven for perfection that he might enjoy to the full the pleasure and happiness denied his less fortunate neighbor.

Real luxury of motion has only come with the refinement of the motor car of quality. The queen in her open landau of gold, the prince with his gorgeously bedecked elephants, milady with her coach and four all were stylish and splendid—yet all lacked the qualities now so necessary to real luxury of traveling.

For luxury today is something more than style, something more than comfort, something more than speed. It is more than a combination of these three. Luxury not only consists of the many little refined appointments, but in beauty of design—in the smart appearance of the car. Luxury means not only a motor that will propel the car, but a powerplant that will instantly respond to the driver's slightest wish, be it the pace of a snail through the crowded traffic center or the onrushing speed of an aeroplane over an unobstructed highway.

The driving of a Fageol car satisfies every sense of physical comfort, of mental ease and of love of speed, and brings to the fortunate owner the vivid realization of the luxury of motion.

In the Fageol, you will find the excellence of construction and the close attention to details that has only characterized the production of European cars—now practically impossible to obtain on account of the war.

The use of the Hall-Scott Aviation Powerplant is a new but sound departure from the usual practice. This engine—excelling in every known test for speed and endurance—today ranks at the very pinnacle of aeroplane motors, and its use places the Fageol Car above imitation.

The custom made bodies are smart, original and distinctive—beautiful to look upon. There is every opportunity for the expression of the individual taste that the car might truly express the personality of the owner.

It is not too much trouble to build precisely what the buyer wants, and therefore the production of these luxurious Fageol cars is limited in order that much time may be devoted to each individual car.

The Motor !

A ERONAUTICS has made necessary the perfection of the internal combustion engine. The demands have been so severe that performance, regardless of motor cost, has only been considered. The requirements for the automobile motor have been less severe. High speed and power were not so necessary. The weight of the motor was not so vital. The ultimate test has been salability at a profitable price. So today the highest type of internal combustion engine is the aviation motor.

With a record excelled by none, the Hall-Scott Powerplant ranks as the peer of aviation motors. Subjected to every power, endurance and speed test the ingenuity of man could devise, this motor has excelled, so that today the most exacting governments of the world come to the Pacific Coast for the best motor that money can buy.

So well known has the Hall-Scott Motor become that but one of a long list of severe tests is mentioned. This test was so exacting in its requirements and so amazingly



conclusive in its results that this motor has won the admiration and praise of engineers and laymen the world over. A Hall-Scott Six Cylinder Motor was placed on a test stand and run continuously for 64 hours at 1300 R.P.M. developing 130 brake horse power. At the end of this run every part was examined and found to be in perfect condition.

No ordinary automobile motor could withstand such a test. Even the best of racing car motors develop less than 90 horse power, are rarely run continuously for more than 12 hours, and must be overhauled thoroughly before each race. A motor that will develop 40 H. P. in excess of the fastest racing motor during a continuous run of 64 hours without the breakage of a single part necessitates the forming of new ideals of motor perfection.

When one first views a mighty Hall-Scott Six Cylinder Powerplant and realizes that this motor weighing but 565 pounds is guaranteed to produce 125 horse power at 1300 revolutions—when he realizes that a member of this family of motors has stood such a test as described when he realizes that this motor has the power to drive a fully equipped motor car over a highway at a speed of



more than 100 miles per hour-there comes with this realization a feeling akin to awe and admiration.

The use of the Hall-Scott Six Cylinder Powerplant in the Fageol Car makes possible power and speed never before experienced in a pleasure car. Hills become as gentle slopes. Fast driving is not only possible, but easy and safe. And then in the emergency—the quick getaway is dependable and sure.

But this mad onrush is not the speed that counts. It is the fever—not an excess of vitality. It is the surplus power—the unused reserve force that gives the Fageol the healthy speed that increases the luxury of motor car driving.

To both the connoisseur and the layman, the specifications of the Hall-Scott Aeroplane Powerplant, as adapted to the Fageol Car, will be most interesting.

Type and Size

The Hall-Scott Aviation Powerplant is six cylinder, bore 5 inches and stroke 7 inches. The six cylinders are cast separately from a special mixture of gray and Swedish iron. The inner walls and valve seats are hardened



and ground to a mirror finish, which adds durability to the cylinder and diminishes the excess friction. The cylinders are so machined on the side that they form a solid block when assembled, greatly assisting the rigidity of the crank case. (See Plates A, B and Three).

Crank Shaft

The crank shaft (See Plate Number One) is of the seven bearing type. It is machined from a special heat treated drop forging of the highest grade of chrome nickel steel, having a tensile strength of 275,000 pounds.

The bearing surfaces are extremely oversized. Steel oil scuppers are pinned and sweated on to the shaft, allowing proper oiling of connecting rod bearings.

The crank shaft bearings are 2 inches in diameter, running on bearings 1 15/16 inches long, excepting the rear main bearing which is 4 3/8 inches long, and front main bearing which is 2 3/16 inches long.

Timing gears and starting rachets are bolted to a flange and turned integral with the shaft.



Cam shaft

The cam shaft (See Plate Number One) is of the onepiece type. The cams and gear flange are integral. The shaft is made from a low carbon chrome nickel forging. The four cam shaft bearings are extra large, and are made from Parson's White Brass.

The cam shaft is inclosed in an aluminum housing bolted directly to the top of all cylinders, and is driven by a vertical shaft in connection with bevel gears. This shaft, in connection with other working parts, is oiled by forcing the oil into the front end of the shaft, using the same as a distributor, and allowing the surplus supply to flow back into the crank case through a hollow vertical tube located at the rear end of the housing. This supply also oils the magneto and pump gears.

Connecting Rods

The connecting rods are of the I-beam type, very light, and milled from a solid chrome nickel die forging. The piston end is fitted with a gunmetal bushing, while the crank pin end carries two bronze serrated shells tinned and babbitted hot. Between the cap and rod proper are



placed laminated shims for adjustment. (See Plate Number Three).

Crank Case and Oil Sump

The crank cases (See Plate Number Four) are cast of best aluminum alloy. The lower oil case can be removed without breaking any oil line connection, allowing an inspection of connecting rods and other parts.

Carburetor

A double Jet Carburetor, having one float chamber, is provided. It is bolted directly to the engine base from which it receives its warm air. A Hall-Scott device allows the oil to be taken direct from the crank case and run around the carburetor manifold which assists carburetion as well as reduces crank case heat.

Magnetos

Two six cylinder high-grade magnetos are provided. Both magneto interruptors are connected to a rock shaft integral with the motor, making outside connections unnecessary. With the use of this independent magneto system, one complete magneto can become indisposed and still the motor will run and continue to give good power.



Pistons

The pistons are cast from the same semi-steel mixture as the cylinders and being extremely light, materially reduce the stress on the bearings. The pistons are provided with six deep ribs under the arch head, greatly aiding the cooling of the piston as well as strengthening it. The piston pin bosses are located very low in order to keep the heat from the piston head away from the upper end of the connecting rod. (See Plate Number Three).

Oiling System

The oiling system used is known as the high pressure type. A large gear pump is located in the oil sump, and being submerged at all times with oil does away with troublesome stuffing boxes and check valves.

The oil is first drawn from the strainer in the oil sump to the long jacket around the intake manifold, then forced with a pressure from 5 to 30 pounds to the main distributor pipe in the crank case.

A dirt, water and sediment trap, located at the bottom of the oil sump, is a special feature of this system. It can be removed without disturbing or dismantling the oil pump or any oil pipes.



The Cooling System

This motor is cooled by both oil and water. The oil is circulated around a long intake manifold jacket and the crank case heat is kept at minimum regardless of weather conditions. The uniform temperature of the cylinders is maintained by the use of ingenious internal outlet pipes running through the head of each of the six cylinders. Slots are cut in these pipes so that cold water is drawn directly around the exhaust valves.

Extra large water jackets are provided upon the cylinders, two inches of water space being left above each cylinder head. The water is circulated by a large centrifugal pump, insuring ample circulation at all speeds.

Valves

Extremely large Tungsten valves of one-half the cylinder diameter are seated in the cylinder heads. Large diameter oil tempered springs held in tool steel cups locked with a key are provided. The ports are very large, being designed to allow the gases to enter and exhaust with the least possible resistance.

These valves are operated by an overhead one-piece cam shaft in connection with short chrome steel rocker arms. These arms have hardened steel rollers on the cam end with hardened tool steel adjusting screws opposite. This construction allows accurate valve timing at all speeds with least possible weight.

H. P. Capacity

The Hall-Scott Aviation Powerplant will develop not less than 125 H. P. at a speed not greater than 1300 **R**. P. M.

PLATE C



HALL-SCOTT SIX CYLINDER POWERPLANT, AS USED IN THE FAGEOL CAR (Exhaust Side)





HALL-SCOTT SIX CYLINDER POWERPLANT, AS USED IN THE FAGEOL CAR (Intake Side)



The Chassis

The main sills of the frame are directly under the main sills of the body, insuring the rigid body and hood support necessary to a high speed car of this type. The front and rear springs come directly under the main frame rail, while the strain on the rear axle is further relieved by carrying the weight practically against the rear wheels. The spring mount forgings are acetylene welded, providing great strength and rigidity.

The sub-frame is so fastened and shaped as to carry the rear motor arm and transmission, allowing great flexibility for rough road traveling.

Clutch

In the "Hele-Shaw" Clutch, the V-grooved twin plates of phosphor bronze against steel revolve in a bath of oil. This gives a smooth and easy start, final tight drive and absolute control of car with the pedal—perfection in motor drive.

This clutch is absolutely self-contained—of ample size, simple, durable and smooth—even when quickly engaged by unskilled hands. It is extensively used by manufacturers of cars abroad, and is undoubtedly the highest grade clutch manufactured.

Transmission

The transmission is of Fageol design and construction. All gears and shafts are supported by manganese bronze center pieces and protected by aluminum cover and pan. There are three speeds forward and reverse, giving a gear reduction of 5 to 1 on first, 2 1/2 to 1 on second and 1 to 1 on third. (See Plate Number Five).

This Fageol design is novel in transmission construction. The main case and supporting arms are of manganese bronze, so fixed that the main shaft and counter shaft, mounted one above the other, are in reality just half in the case. The manganese bearing caps, when placed into position, completely encircle the bearings.

Chrome nickel studs, which take up practically all the twist or torque strains, extend vertically through the aluminum case. The upper section of the case is cast integral with the brackets and housing for the shaft lever, shifting mechanism and emergency brake lever. This unique type of transmission construction permits a thorough inspection of gears and bearings by simply removing either the upper or lower section of the case.

Chrome nickel steel shafts and gears and annular bearings are used throughout.



Wheelbase

The wheelbase is 135 to 145 inches, according to model.

Radiator

The radiator of the Fageol Car is distinctive, having a slant at an angle of fifteen degrees. This accomplishes greater cooling efficiency in that air is forced through the radiator with more friction than is possible with the vertical type. (Illustrated in Plate B of Chassis).

The name plate, carved of solid ivory and located in the upper part of the radiator, is illuminated when the head lights are turned on.

Springs

The frame is supported on four practically flat, straight, semi-elliptic springs of the finest imported chrome nickel steel. The springs have a tensile strength of 320,000 pounds to the square inch and are absolutely guaranteed against breakage for one year. This nearly flat construction eliminates the possibility of twist or side sway when driving at speed over rough roads. Each leaf



is ground and polished before assembling, thus giving a really new sensation in easy riding qualities.

Axles

The front axle is of special heat-treated chrome nickel steel—I-beam section. The main drop is just off the steering knuckle, permitting low chassis suspension.

The rear axle is of the semi-full floating type, and made to our specifications. All driving shafts and gears are mounted on famous Bock taper roller bearings. The driving pinions are made of special heat-treated chrome nickel steel and have a reduction of 1 1/4, 1 1/2 to 1 or 2 to 1. (See Plate Number Six).

Brakes

To keep a car with the possible speed of the Fageol under absolute control, easy operating and dependable brakes are of prime importance. The foot or service brake is mounted in 16-inch drums, bolted direct to the rear wheels. The emergency brake—hand operated—is

located on the main transmission shaft and operated against a 12-inch ribbed air cooled drum.



Steering Gear

Manufactured for the Fageol Car, the steering gear is exceptionally strong, well made and noticeably easy of operation. It is bolted directly to the sub-frame, with the bell crank extending through the sub-frame member, thus giving an extremely rigid support. A secondary support is secured in the aluminum dash (which provides for adjustment up and down) to fit the individual driver's requirement.

Control

The Fageol Car is driven from the left side, with steering gear directly in front of the driver, and control levers so conveniently located that the driver will naturally drop his hand from the steering wheel to the emergency brake or the gear control lever. The left pedal operates the clutch and the right pedal the service brake. Ivory mounted levers operating in a quadrant are located in the center of the wheel and are connected with

the carburetor and magnetos by rattle proof ball joints and rods. The control of the Fageol Car is such that you have unfailing dominance over your car at all times.



Starting and Lighting System

The electric starting and lighting system used is designed for Fageol requirements, using high grade electric starter and electric generator.

The head lights are so mounted on the radiator that they can be quickly and easily adjusted to road conditions. The motor is illuminated by two special lights when the bonnet is raised. The tail light is located to illuminate the number plate. Suitable lights for the illumination of the steps and body are provided.

Gasoline Tank

The gasoline tank is of 12 gauge sheet copper and so mounted as to protect it against twisting road shocks. The tank is of 25 gallon capacity, and a magnetic gauge allows the driver to know the extent of his gasoline supply. The filler cap is of unusually large proportions.

Wheels

The wire wheels, manufactured to Fageol specifications, are equipped with plain clincher rims through which extend tire lugs, twelve in number. These wheels



have an unusual number of large spokes. The center hub extends further than is the usual practice, providing maximum strength.

Tires

The tires are $34 \ge 4 \frac{1}{2}$ plain clincher type Cord tires. Twelve lugs extend through the rims which makes the creeping or throwing of tires practically impossible. Two complete spare tires and wheels are provided.

Motor Bonnet Ventilating System

Of exclusive Fageol design and construction, and protected by patent application, these six triangular curved ventilators allow a ventilation impossible with the old style of hood. These projecting ventilators start with a line flush with the top of the hood and tilt upwards and backwards for a length of 6 inches. The rear opening may be closed at will with a waterproof door controlled by a hand lever on the dash, making the hood entirely waterproof.

Instrument Board

Individually distinctive to the Fageol car and protected by patent application, is the single panel instru-



ment board. The usual method of separately mounting each instrument has been eliminated, and in its place is used a single panel through which the recording hands of the different instruments extend, and over which a single piece of plate glass is placed.

Windshield

The windshield of special Fageol design is entirely rain-proof. The glass carrying mounts or tubes are at the extreme top and lower edge so that the center of the glass is entirely unobstructed. The glasses are so mounted that they lap over one another by three inches when closed.

Either upper or lower glass can be tilted straight back or straight forward (an exclusive feature necessary in driving a fully equipped car at high speed) or overlapped vice versa at will. The finished effect of this windshield is very pleasing as there is an absence of all nuts and bolts with the exception of the two ivory handles.

Spare Wheel Carrier

The spare wheel carrier, exclusively designed and protected by patent application, is so made that the wheel



is carried in a vertical position without unsightly braces or projections. It is automatically locked so that the wheel can not be removed without the use of the winding crank. When the wheel is not carried, the cover and cables can be removed, so that nothing projects above the running board to make an unsightly appearance.

Tool Kit

All tools are made of high-grade steel. Nickel plated socket wrenches are provided, fitting every bolt in the entire engine and chassis. When the tool box lid is open a table is formed with all tools in their places and exposed ready for use. The interior of the tool box is finished in mahogany and plush. Special compartments are provided for spare inner tubes, gloves, etc. The box is automatically lighted, a feature of convenience at night.

Luggage Carrier

A very substantial and handsome luggage carrier is provided at the back of the body, made of bronze and brass, hand finished and nickel plated.



Custom Coach

THE bodies for the Fageol Car are custom made produced individually for you, as abroad. Several exclusive designs—suggested by America's foremost body builders—are illustrated in the plates inclosed in the envelope inside of the back cover. All are masterpieces of body designing, and will attract favorable attention wherever motor cars congregate, compelling the appreciation of the connoisseur and layman alike.

In the Fageol Touring Speedster and other models, these bodies conform to the true interpretation of a fine definition of streamline. The backward tilted windshield —every line and every curve harmonize perfectly with the streamline beauty of these bodies.

The graceful, low-hung body affords an easy entrance step—a cordial invitation to the passenger. You enter the car and alight from it through doors of liberal dimensions.

The fenders are hand formed and blend harmoniously with the pleasing lines of the bodies. They are massive in appearance and extend well down to the rear. The running boards are clear of encumbrances which mar a clean-cut exterior; are of liberal proportions and are covered with high grade linoleum or aluminum.

Entrance to the driver's seat is facilitated by the mounting of the individual seat on a ball bearing track having a forward and lateral travel of 18 inches. The extreme comfort and advantage of this arrangement is readily appreciated. The tonneau entrance and interior are illuminated at night with electric lights. The luxury of the appointments is inviting. The seats are deep and broad and you sit in the car—not on it. Fageol upholstering is of the very finest and the most modern development in comfort-giving qualities. The color scheme is chosen to harmonize with the color scheme of the car.

In the finish you are again given the opportunity of having your motor car express your taste and personality. A few color plans are suggested in the plates inclosed.

The workmanship in both the body building and in the painting is of the very finest. No expense has been spared—no detail overlooked—to provide every comfort, every convenience, and to truly make the Fageol a car that increases the luxury of living.

Four Cylinder Models

While but one body illustration for a four cylinder chassis is shown, Fageol Cars using four cylinder Hall-

Scott Aeroplane Motor can be furnished. Special body designs will be gladly submitted upon application.

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Each new motor vehicle manufactured by us, is guaranteed to be free from defects in material and workmanship under normal use and service, and our obligation under this warranty is limited to the making good at our factory of any part or parts thereof which shall, within ninety (90) days after delivery of such vehicle to the original purchaser, be returned to us with transportation charges prepaid and which our examination shall disclose to our satisfaction to have been thus defective; this warranty being expressly in lieu of all other warranties expressed or implied and of all other obligations or liabilities on our part, and we neither assume nor authorize any other person to, assume for us any other liability in connection with the sale of our vehicles.

This warranty shall not apply to any vehicle which shall have been repaired or altered outside of our factory in any way so as, in our judgment, to affect its stability or reliability, nor which has been subject to misuse, negligence or accident.

We make no warranty whatever in respect to tires, rims ignition apparatus, horns or other signaling devices, starting devices, generators, batteries, speedometers or other trade accessories, inasmuch as they are usually warranted separately by their respective manufacturers.

OAKLAND, CALIFORNIA

PLATE NUMBER ONE

OVERHEAD CAM SHAFT AND HOUSING

CRANKSHAFT OF THE HALL-SCOTT MOTOR, AS USED IN THE FAGEOL CAR

A Section of One Cylinder of the Hall-Scott Aeroplane Motor as Used in the Fageol Car

PLATE NUMBER THREE

Connecting Rod and Piston

Top^{*}AND Front View of Cylinder

