

LARGEST ENGINEERING STAFF IN WORLD CONSTRUCTS PACKARD

Packard Now Dominates Field of High Class Motor Cars—
New Twelve Cylinder Cars Embody the Best Principles of
Mechanism—Chassis in New Car Lower—Motor Simpler
in Design—Best Tires Are Used in the New Models

The Packard Motor Car Company has announced its second series of twelve-cylinder motor cars following the delivery in the last year of nearly 3000 twin sixes and their successful operation in the hands of owners. The company also announces that, although the last season's output was nearly three times as great as that of the previous year, a further substantial increase in production will be made in the next 12 months.

When the first Packard was built in 1899 it had back of it the principle of building only the highest quality of car. Persisting in this wise policy, the Packard company has made each year a consistent advance in design, accompanied by a corresponding increase in volume of business. By investing a large part of the earnings in buildings and equipment, the company has acquired the most complete facilities ever assembled for the manufacture of motor vehicles.

While price has continued to be a secondary consideration, possession of these facilities, coupled with the most advanced methods has enabled the Packard company to establish new standards of value as applied to motor vehicles of the highest type. The brilliant work of the engineering staff has been an important factor in arriving at this result. Always a leader in the industry, the Packard now dominates the field of high-class motor carriages.

In carrying out the more recent developments, President Alvan Macauley made the following statement:

"To constantly improve our car and to devise new and valuable features, we have maintained by twice the largest engineering staff in America. What has been found to be new and proved to be the best has been embodied in our design. Coupled with the attractive features of advanced engineering has been always the safeguard of simplicity and sturdiness so that the owner might feel absolutely safe in travel over any road.

"Up until last year the vital consideration made the Packard one of the most expensive cars on the American market and the sale was limited to those who could pay the price. Our problem was to devise facilities that would enable us, without the slightest sacrifice of quality in material or workmanship, to produce a Packard of superior design at a price in line with the times.

"Packard cars today are more expensive than most other cars. That must always be true so long as Packard quality is maintained. But it has come to pass that large savings in cost were possible if we could maintain a large volume of production.

"Quantity production, while still retaining Packard quality, was something that has never been accomplished before the advent of the twin six. But we saw that it could be done. So our organization was increased to 12,000 men; our buildings were doubled; improved machinery was designed and installed. We spent over seven million dollars getting ready to make the twin six. In both design and price the new car proved a surprise and a delight to the public.

"While the twelve-cylinder engine was regarded by many as a radical change, it was in reality a logical step in Packard development. It was based on the idea of splitting larger stresses into smaller ones, the basic principle on which rests the most important advance in the motor art from its crude beginning in the one-cylinder car. The advantages for the twin six are not only greater smoothness and less noise but also greater power combined with reduced cost of operation and maintenance.

"The first car of this design was brought out only after a long period of testing which involved continuous running under racing conditions on the speedway. The car has proved so satisfactory that the changes embodied in the new model are mostly of a minor character.

"The new model cars are built considerably lower than any previous Packard cars, the chassis alone being approximately two inches lower. This has been made possible by using 35 by 5 inch tires on all four wheels, by flattening the rear springs and by the lowering of the spring pad on the front axle, thus bringing the running boards to 18 inches from the ground. This lower construction greatly improves the appearance of the cars and

makes them more compact. The bodies are roomy and comfortable. As has always been the case with the Packard company, special care, special attention has been given to the bodies. There is an entirely new body, a very neat four-passenger runabout. In this newest Packard body there are individual front seats, with a passageway between, so that two persons may be seated comfortably in the cozy rear compartment.

A new type of upholstery springs is used, making it possible to lower all seats. The upholstery in the open bodies is straight-grain, hand-buffed leather, plaited instead of tufted, while for the enclosed bodies a wide range of exclusive upholstery is offered the purchaser. In the touring bodies, excepting the "2-25" salon touring, and in all of the six-passenger enclosed bodies, the folding seats are of the forward disappearing type. Probably the most noteworthy change from the mechanical point of view is the unique water circulating system. In place of the water being expelled from the forward ends of the cylinder blocks, as is customary with V-type motors, the gas intake manifold has been cored out to permit all water from the cylinder jackets to be circulated through this manifold and thence to the radiator through a single tube at the center. This arrangement not only eliminates considerable tubing, but causes the water to surround the gas intake header while at the highest temperature and greatly assists in the vaporization of the gasoline.

The motor is simple in design, yet unchanged in general construction. The bore is three inches and the stroke is five inches as in the previous model. The 12 cylinders are cast in two blocks of six placed at an angle of 90 degrees and slightly offset so that the connecting rods from opposite cylinders are attached side by side on the same crank pin of a six-cylinder crank shaft. There are a number of minor changes, contributing to the mechanical excellence of the engine. The cylinder heads have been made detachable to insure a more perfect machining of the combustion chamber, with a consequent greater uniformity of compression. This also makes it a simple matter to keep the cylinders free from carbon and at the same time does away with the necessity of valve chamber plugs.

The generator has been improved internally and runs faster than in the past season's model.

The tension of the foot brake pedal retracting springs has been decreased. The change-speed lever has been redesigned to give more clearance and is now equipped with a ball end.

The chassis frame is 7 1/2 inches deep instead of 6 inches and is reinforced over the rear axle, which will thus tend to eliminate the possibility of any body distortion.

The standard tire equipment on all Packard cars will be Goodyear cord, 35 by 5 on all four wheels. On the front wheels, there will be the rib tread tires and on the rear wheels the all-weather tread. Purchasers, however, will have the option of obtaining either Kelly-Springfield tires or Goodyear fabric.

ONE TON TRUCK FOUNDS FACTORY

Moreland Plant in Los Angeles
Shining Example of Western
Achievement

Proving conclusively that the West can become a great manufacturing center, and that the resources of California are boundless, the Moreland Motor Truck Company of Los Angeles stands as a great example of the achievement in the Western motor world.

When Moreland built his first truck and demonstrated it seven years ago not one of the motor men who saw in that achievement a standard truck had even the remotest idea of what this great industry would amount to.

As the little 15 by 20 foot shack was replaced with larger buildings, and these, in turn, gave way for larger and more substantial structures, the public began to form an idea of the expansion made possible by that one-ton truck.

The two-cylinder commercial car, which proved its worth under the most trying conditions, was the forerunner of the mighty motor vehicle, the final triumph of the Moreland plant, which was recently turned out.

The original one was sold to the Gorham Rubber Company and did such sterling work that Moreland was forced to manufacture more and larger commercial cars.

Then came the demand for space. Instead of a few men, several hundred were necessary to build and keep abreast of the increasing demand for the Moreland truck. From an output of a few dollars for labor, \$500,000 is being spent yearly for skilled mechanics.

WATCH FAN BELT AND PREVENT OVERHEATING

Try the fan belt occasionally to see if it is loose. If you can turn the fan freely or even spin it the belt needs tightening. This is a cause of overheating that is frequently overlooked.

Announcing New Series

Packard

Twin-Six

And here now is a new fulfillment of a great idea—

Changes?

A slightly lower body--- with lines more flowing---refinements of the mechanism---removable cylinder heads and disappearing seats!

But---you must see the new car itself and ride in it---if you are to appreciate what these developments mean for you.

Up---up to still higher levels the Twin six now advances---time tested by nearly eight thousand exultant owners.

And the new series 2-25 and 2-35 are here announced.

A transcendent Packard--- unchanged in essentials and enriched in details--- fixes new standards of usefulness and luxury.

To better the best Packard--- has been the aim---and inspiration---of the day's work.

How well we have succeeded is told in the fact that our *three-fold* output has not kept pace with the mounting demand.

Ask the Man Who Owns One



The von Hamm-Young Co., Ltd.

DEALERS

Honolulu

Hilo

Eliminate
Your Spark
Plus
Troubles
by using the
Jubilee
Spark
Intensifier

Agent
CURTIS W. HUSTACE
Phone 4693 21 Campbell Block
Honolulu, T. H.
Von Hamm-Young Co., Ltd.
Killogg's Auto Shop
Genoves & Nelson