

DATA

PACKARD

FIVE

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Joy Bros Motor Co

DAVID M. SCHMIT
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MINNEAPOLIS
55419

1937

PACKARD 120
PACKARD SIX



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PACKARD MOTOR CAR COMPANY
Detroit, Michigan

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THE PACKARD ONE TWENTY AND PACKARD SIX DATA BOOK

This Data Book covers the new 1937 Packard One Twenty and Packard Six cars, and has been prepared to help Packard salesmen in their selling work.

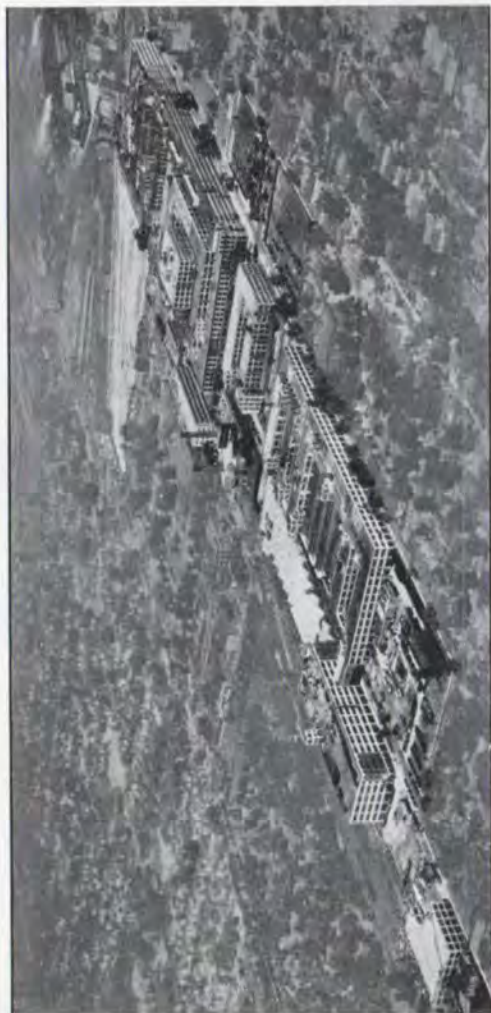
It contains the complete Packard story with engineering data, manufacturing information and sales facts about the two new cars and is written from the salesman's point of view instead of being a technical presentation so that it can be readily understood by either a salesman or his prospect.

Both of these new Packard cars offer many important and exclusive features that make them the "top values" in each of their price groups. You, like every other Packard salesman, should be thoroughly informed concerning them and be ready to present them enthusiastically so that when a prospect is trying to find out how to "Get the Plus of a Packard," you can discuss the subject intelligently and prove its many plus values when compared with other cars of conventional design.

You will find this book useful as a handy reference on all questions relative to design, specifications, and construction. It will also be a very helpful part of your selling education in knowing the complete Packard story and the basic engineering back of the Packard One Twenty and the new Packard Six.

After you have studied this Data Book, carry it in your sales portfolio, and always have it available as a reference book when needed.

**PACKARD INSTITUTIONAL
HISTORY SECTION**



In this plant we build the Packard Twelve, Packard Super Eight, Packard One Twenty and Packard Six. All cars are built with painstaking care and are protected by the long established Packard quality standards of close precision workmanship, and manufacturing accuracy.

PACKARD INSTITUTIONAL HISTORY

The Packard Motor Car Company was born as the result of a challenge. In 1898, Mr. J. W. Packard, a wealthy young electrical equipment manufacturer of Warren, Ohio, bought one of the horseless carriages manufactured by Alexander Winton of Cleveland. It was by far one of the best machines of the day. Mr. Packard after many weeks with this machine believed he had learned ways in which it could be greatly improved. He offered his suggestions to Mr. Winton. "Well, young man," said Mr. Winton, "perhaps you could even build a better machine yourself." Somewhat taken by surprise Mr. Packard said he thought perhaps he could and at least he would try.

The first Packard car, model A-1, was completed on November 6, 1899, and is now fittingly enshrined as a permanent monument to its builder in the great rotunda of the huge engineering laboratory at Lehigh University. The car was the gift of Mr. Packard to his Alma Mater. It was a masterpiece of engineering with many important mechanical features used on all motor cars today.

Friends of J. W. Packard and his brother, W. D. Packard, who had labored with him in the creation of the machine, insisted that the brothers build "carriages" for them, so completely did they believe the challenge had been met. Six machines were built for these friends at Warren and nearby towns during the year 1900. They, too, proved so successful that the Packard brothers were practically forced into the manufacture of automobiles.

Many cross-country endurance records held in New York and other eastern cities were carried away by the Packard cars with flying colors in 1901 and 1902.

A number of young business men of Detroit, who envisioned the then much derided horseless carriages as something all the world would want some day, became interested in the Packard machine. They invested their money with the Packards and the Packard Motor Car Company with its great factories in Detroit was the

result. Among the first decisions of the new company was to dedicate it always to the making of fine motor cars.

The Packard plant was moved to Detroit in 1903. Now in the geographical center of the city, its home was far out in the country and the site itself was actually a cow pasture.

The year 1904 saw a Packard car, famous "Old Pacific," cross the continent for the first time. It stands as the year when man first travelled in a motor car at a speed even greater than 60 miles an hour. It was the year when the Packard "Gray Wolf" hurtled through space over a measured mile at Daytona Beach in the world-record time of 46 seconds. But in many ways even more important than these exploits, the year 1904 brought into being the imperishable character lines which from that year have identified every Packard as a Packard.

The Packard "life lines" refined and constantly beautified were created with model L, a sensation among automobiles of its day, and have remained individually Packard ever since.

Packard's early years were marked by the vicissitudes and struggles of an industry growing to giant size by leaps and bounds. But they were eased always by the fact that Packard never felt the pinch of want and has always been provided with ample funds. The world of those days acclaimed the Packard a leader among all fine cars as it does today. Modest successes in business followed year after year.

Public recognition of the Packard Company and the Packard car leaped in appreciation in 1915 with the introduction of the famed Packard Twin-Six. It rose more prominently before the whole world as the United States entered the great war when Packard engineering made possible the Liberty Aircraft motor and gave this powerful war-time engine to America in mounting thousands.

Following the war another cycle in Packard engineering was born in 1921 with the Packard One Twenty-six,

forerunner of fine cars that became the choice of particular motorists. They were made in growing numbers to supply the rapidly increasing demand and Packard produced more than 50,000 fine cars in a single year.

Throughout Packard's history its biggest and most luxurious cars usually have been accompanied by fine cars of smaller size and somewhat lesser cost. Packard was preparing for such a companion car in 1929 but business conditions then made it seem wise to delay.

The Packard One Twenty—Packard worked intensively for several years, applying all the engineering and manufacturing skill accumulated in more than three decades of fine car building with the addition of the best equipment and personnel available in the industry to produce the Packard One Twenty in 1935. Packard had brought into being a new and better small fine motor car, a car upon which it was proud to confer the honor of an old and distinguished name—the Packard One Twenty.

Public acceptance of this remarkable new car with a production of over 75,000 cars in 18 months confirmed Packard's new policy of building quality cars in smaller sizes for the popular price car market.

The New Packard Six—In the new Packard program for broadened expansion and penetration of this market it was also planned to introduce a companion car to the Packard One Twenty, built to the same standards of high quality value, but available in a shorter wheel-base and powered with a six cylinder motor which could be sold to additional thousands of buyers at an even lower price.

The new Packard Six for 1937 now takes its place in the Packard family, and rounds out a selling program for the most complete market coverage by Packard in its entire history. It shares the full benefits of the Packard prestige and reputation which for years have made Packard cars the preferred choice of more fine car owners than all other makes of fine cars combined.

The Packard factory is the largest, most compact and self-contained plant of any in the group of fine car builders. In its vast factories Packard builds more of its component parts such as engines, transmissions, axles, steering and bodies, than do other fine car manufacturers. In its mile-long factory are included the forge, foundry, heat treating, stamping mills and body making shops which make possible a completeness of manufacture from raw materials to finished cars. It is therefore in a position to act independently of other intercorporate alliances and supervise the enforcement of its policies and decide for itself what kind of cars it will build, and the markets it will cover, without price or policy restrictions of any kind from outside sources.

The Packard manufacturing program has utilized the latest advances in efficient production machinery and is now in a position to pass on the full benefits of more modern and economical production costs with higher quality precision manufacture than is offered by other companies, as already proven since its expansion program commenced in 1935 with the Packard One Twenty.

In the Packard factory there is a familiar slogan "Quality First." It is no mere catch-phrase but an ideal and a definite manufacturing policy, that has during its 38 years of existence brought Packard a reputation such as is shared by no other fine car manufacturer.

In the knowledge that reputation is never completely earned but is rather only a reward and an obligation of continuing responsibility, Packard, true to its policies and ideals, goes on building finer cars and leaves the final appraisal of its accomplishments to the people who are in best position to judge—its customers.

Packard has, since its early beginning in the industry, used the advertising slogan, "*Ask The Man Who Owns One.*"

It is the strongest proof of sincerity in advertising the merits of the product it manufactures.

THE 1937 PACKARD PROGRAM SECTION

PACKARD ONE TWENTY PACKARD SIX

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THE 1937 PACKARD PROGRAM

Introduction

The Packard program for 1937 completely covers the entire price range of the automobile market with four new lines of cars. For the upper price brackets there are two lines of cars in the Senior group—the Packard Twelve and the Packard Super Eight. In the lower price brackets there are two other lines in the Junior car group—the new improved Packard One Twenty and the new Packard Six making its initial introduction as a new member of the Packard family.

In this Data Book are covered only the new Packard One Twenty and the new Packard Six. Both are precision built Packard cars in the shorter wheelbase sizes, priced to penetrate the volume car market with finer quality cars than heretofore available at such low prices.

No other cars at or near their price offer comparable value, because none are backed by Packard's many years of engineering leadership in building fine cars for the most discriminating clientele in the world.

Packard's reputation of engineering leadership and dominance of fine car owner registrations, is a background of experience it has placed solidly back of these two new popular priced Packard products. Each car has its own distinctive selling appeal and represents the *top quality* car in its price class. Both cars will broaden the Packard clientele to thousands of new buyers who have always wanted to be Packard owners, and to whom "*Get the plus of a Packard*" will be a friendly challenge to compare all cars and buy Packard as the best value for their investment.

THE NEW PACKARD ONE TWENTY

The Packard One Twenty, originally introduced less than two years ago, established a sales record of public acceptance never before approached in the entire automobile industry by any other first-year new car.

In less than 18 months Packard One Twenty production has totaled more than 75,000 cars. The proven dependability and economy of these cars, which have been driven millions of miles, has established a record of enthusiastic owner good-will and endorsement that has made Packard One Twenty the fastest selling car in its competitive market.

The new series 1937 Packard One Twenty continues without major changes in its important units, but many detail refinements and improvements have been made throughout the car to give an even greater measure of owner satisfaction in more luxurious riding comfort and finer performance with greater oil and fuel economy.

In addition, the exclusive Packard policy of enduring identity and style insurance against rapid obsolescence is again emphasized in the new Packard One Twenty. In contrast with other car owners who will be faced with drastic style depreciation of their 1936 cars, before they are fully paid for, Packard owners who bought Packard One Twenty cars in 1935 and 1936 are again protected by Packard's established long style life policy.

The new Packard One Twenty will continue to attract to it increased thousands of medium priced car owners who have always wanted a popular priced, Packard built, eight cylinder car of unusual quality and brilliant performance, unmatched in any other car at or near its price.

1937 PACKARD ONE TWENTY IMPROVEMENTS

The Packard One Twenty is one of the most desirable cars ever developed in the automobile industry. Its tremendous sales success is backed by an owner enthusiasm that has grown with the increasing miles of dependable

service it has given thousands of owners in all parts of the world.

The Packard One Twenty without any change, could continue its challenge to "Match Packard Against the Field" and compare it with contemporary offerings, but Packard engineers have not been content to rest on their achievements. For 1937 the new series Packard One Twenty is presented with numerous improvements and refinements to provide owners with greater satisfaction in finer riding comfort, easier car control and more economical performance.

A review of these advancements is presented here in summary form only and a detailed explanation will be found in the individual sections to which they apply.

Mechanical

- Improved cylinder block materials to retard wear and prolong engine life.
- Improved piston rings to give greater oil economy and better oil mileage.
- Improved gas tank to facilitate quicker filling and better drainage of water.
- Improved generator with greater capacity to handle electric accessories.
- Improved distributor with vacuum spark control.
- Improved horns with more agreeable warning signals.
- Improved operation of foot dimmer switch for headlights.
- Improved clutch release bearing.
- Improved transmission gear clutch.
- Improved rear axle pinion bearings.
- New higher oil level in rear axle.

Chassis

- New I-beam section X-members with 32% increase in torsional stiffness.
- Improved shock absorber linkage for quieter action.
- Improved rear spring mounting.
- New design hand brake lever with easier release and quieter operation and improved type of equalizer.
- New improved bumper-guards.
- New type steel wheels with 10" hub caps.
- New exhaust system with tandem type mufflers.
- New jack pads have been added to rear springs.

Bodies

- New reduced sloping design of radiator—increases length of hood.
- New design tire pan now integral with body—better sealing.
- Better door insulation with sponge rubber door seals—easier closing.
- New combination striker plate and dovetail—more silent bodies.
- Improved door lock bolts—easier engagement.
- Improved windshield wiper mechanism.
- New design instrument panel with die cast trim.
- New edge lighting of instruments.
- New design of panel for windshield defroster installation without damage.
- New double action control front seat adjustment.
- New type straight across front seats.
- New patterns upholstery material.
- New style of interior trim on seat cushions.
- New finish of grained window mouldings.
- New arm rests standard on front doors.
- New style robe cord.
- New style dome light.
- New arrangement for radio installation.
- Longer hood bonnet— $2\frac{5}{8}$ " longer.
- New design of louvers—Super Eight type.
- New enlarged windshield opening— $1\frac{3}{4}$ " larger. Improved visibility.
- New location of fuel filler on fender.
- Better sealing of rear compartment—more protection for luggage.
- New type single lid trunk cover.
- New type emblems for rear trunk (accessory).
- New rubber mat for trunk floors.
- New type trunk lid latch—automatic prop with one-hand operation.
- New colored steering wheel column.
- New gear shift lever with nickel-plated finish.
- Colored shift lever ball to match steering wheel.

THE NEW PACKARD SIX

Out of the record breaking sales success of the Packard One Twenty has come the development of the new Packard Six. It is a companion car built to the same high standards of Packard precision quality, and offered in a slightly shorter wheelbase.

It is powered with a 100 H.P. six cylinder motor, making it one of the highest powered cars of its price in America. It is designed for unusually smooth performance coupled with maximum operating economy and is priced relatively lower than the One Twenty to penetrate a much bigger and broader market for the development of Packard ownership.

The new Packard Six is a thoroughly tried and proven car because it shares the years of Packard One Twenty experimental research. It also benefits from the proven experience in production, and service ownership of the thousands of Packard One Twenty cars which have been sold.

On account of the better design, better materials and extra capacity which have been put into the Packard Six in relation to its size and weight requirements, it will most certainly be reflected in the unusual economy and durability it will give in service.

The important major units of the Packard Six including the clutch, transmission, Safe-T-flex front wheel suspension, Packard hypoid rear axle and Packard harmonized steering system are all designed and manufactured with a large factor of extra strength comparable with those in cars of much greater weight and power. While the 100 H.P. motor has six cylinders, many of its parts are interchangeable with those used

in the larger and more powerful Packard One Twenty motor. The same bodies used on Packard One Twenty, but finished with different details of exterior and interior appointments are mounted on a frame five inches shorter in wheelbase.

* This is the first time that such a policy of PLUS VALUE in size and quality has been made available to buyers of popular priced cars. It is contrary to the general procedure of some manufacturers who use car units engineered for their smaller cars, in their larger and more expensive cars for reasons of economy. This new departure in the production of a smaller, quality built car definitely shows that Packard is committed to the principles of plus values in comfort, safety and durability rather than one of economy of manufacture only.

It is also the first time that the exclusive Packard policy of enduring identity and long style life protection has been made available to buyers of cars in the popular price field, and it will mean much to them in the protection of their motor car investment.

The Packard One Twenty and the Packard Six are companion cars. Both cars have the traditional and exclusive Packard lines of appearance that keep them looking like Packards year after year, something entirely new in this lower price market.

Both cars share the full benefits of Packard's unified engineering program and are made with the quality production control standards that are back of all Packard manufacturing activities. Both cars are built in the Packard factory by the same craftsmen and are held to the same rigid standards of quality and close

precision that have safeguarded the Packard reputation for years.

In the following pages you will find a detailed description with complete mechanical data on both the Packard One Twenty and Packard Six. In presenting this information to your prospects remember you are talking about two cars with entirely different price appeal but with one standard of Packard built quality which is not only unusual but unavailable in other cars at their price.

This new Packard program now gives you two cars to sell in a much larger market for popular priced cars. The new series Packard One Twenty will continue to increase in volume and maintain its position of leadership in its market and the introduction of the new popular priced Packard Six is destined to completely reshape present conceptions of America's lower priced car market.

PACKARD'S UNIFIED ENGINEERING POLICY

With respect to both styling and engineering the 1937 Packard program is decidedly consistent. The degree of luxury to be found in each of the four lines of Packard cars will quite naturally vary with the selling price. From a design standpoint however the major mechanical elements are practically identical in concept and design showing the effect of consistency in Packard's unified engineering policy.

The detail variations that exist in the various cars result from their differences in size and weight. Following is a list of some of the more important items of design which are common to all four lines of cars in the Senior and Junior groups. Contrast Packard's consistent engineering policy with that of other companies building fine cars who use entirely different designs of the same units in their products showing the effects of inter-manufacturing relationships with the other cheaper car units in their corporate groups.

PACKARD ITEMS COMMON TO ALL FOUR LINES OF CARS

Bodies

Packard builds all of its standard bodies. All Packard bodies have—

- Composite steel and hardwood roofs.
- Roof type radio antenna.
- Front doors hinged at front pillar.
- Concealed front door upper hinge.
- Doors with rubber sealed insulation.

Motors

All Packard motors are L-head design. All Packard motors have—

- Down-draft carburetion.
- Automatic choke.

Motors—Cont.

- 100% balanced crankshafts.
- Rifle drilled connecting rods.
- Full floating piston pins.
- Full pressure lubrication.
- Same type aluminum pistons—steel-strut.
- Damper type oil control piston rings.
- Austenitic steel exhaust valves.
- Chrome nickel steel inlet valves.
- Two sprocket short chain camshaft drive.
- Packard rubber and friction vibration damper.
- Triangular belt drive for generator and fan.
- Same type of belt adjustment.
- Vibrator type voltage regulation.

Chassis

All Packard chassis have—

- New designed I-beam X-member that increases torsional stiffness as much as 400% in Senior cars.
- Packard Safe-T-flex independent front suspension.
- Packard Servo-Sealed hydraulic brakes.
- Same type steel wheels with 10-inch hub caps.
- Batteries located under front seat.
- Asymmetric form of headlighting.
- Combination fuel and vacuum pumps.
- Same method chassis lubrication.
- Single plate clutch.
- Clutch with sealed-in lubrication in clutch throwout bearing.
- All-silent synchronized transmission.
- Roller bearing universal joints.
- Angleset hypoid gear rear axles.
- Rear spring geometry.
- Fuel tanks with improved air vent and water drain.
- Steering gears with ball bearing roller tooth.
- Ball bearing center control steering arm.
- Standardized driving control system.
- Horizontal mounting of spare tire in rear compartment.
- Independent system mechanical hand brakes.

MOTOR SECTION

PACKARD ONE TWENTY

PACKARD SIX

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PACKARD ONE TWENTY AND PACKARD SIX MOTOR DATA

Packard's long years of experience and recognized achievements in building motors of all kinds, types and sizes for aircraft, marine, tanks, trucks and passenger cars has earned for it the reputation "Master Motor Builders."

In the development of the Packard One Twenty and Packard Six motors, no expense was spared to obtain the most advanced designs that would give the utmost in fine performance with dependability, long life and unusual operating economy.

Both of these motors are 100% Packard design and are manufactured to the established high standards of quality and fine precision workmanship which are built into all Packard motors. This covers precision operations for careful balancing of pistons, rings and connecting rods, 100% balancing of the heavy crankshafts both statically and dynamically, and the fitting to fractional thousandths of an inch clearance of bearings and other reciprocating parts, to combine them into mechanisms which give unbelievably smooth performance typical of the most expensive cars.

Both motors are built with an excess of surplus power and ability in relation to car size and weight which guarantees the necessary reserve power and stamina for long periods of sustained high speed driving or in the emergencies when extra power and acceleration are a matter of vital importance to safety.

Both motors have the same basic principles of design and while they differ in number of cylinders, and developed horsepower they both incorporate the same important features of advantage which make them superior to motors in other cars of about the same size.

In economical performance both the Packard One Twenty and Packard Six give unusual fuel and oil economy that compares favorably with cars of much less weight and smaller horsepower motors. Coupled with this is the proven low cost record for service expense for main-

tenance and repairs already established in the thousands of Packard One Twenty cars that have been driven millions of miles in all parts of the world.

THE PACKARD ONE TWENTY—8 CYLINDER MOTOR

Proven with millions of miles of performance and actual service, by thousands of satisfied customers, the new Packard One Twenty motor is the result of constant refinement and improvement, which gives it more dependability, greater smoothness, finer performance and improved fuel and oil economy.

Bore— $3\frac{1}{4}$ "

Stroke— $4\frac{1}{4}$ "

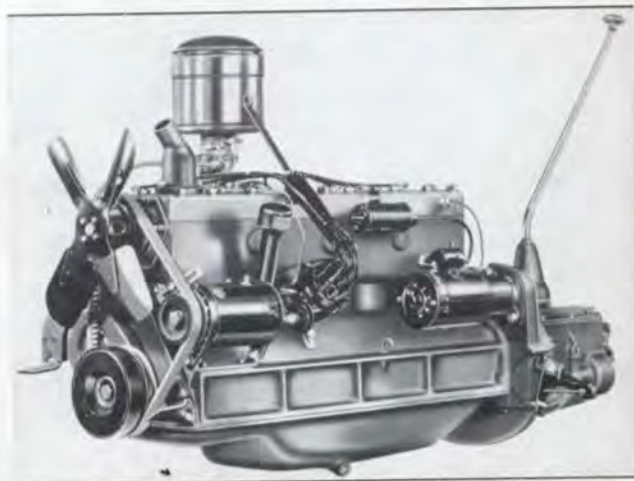
Displacement—282.04 cubic inches

Type—L-head—8 cylinders in line

Rated Horsepower—33.8 H.P.

Developed Brake Horsepower—120 H.P. @ 3800 R.P.M.

Compression Ratio—6.5 to 1 standard
7.00 to 1 optional



Packard 120 Motor

Performance Ability

Acceleration—Mean average at speeds from 5 to 30-40-50 miles per hour, 13.2 seconds

Top Speed—85-90 miles per hour

Fuel Economy—Mean average at speeds from 20-60 M.P.H. 16.0 miles per gal. (These figures were obtained at Packard Proving Grounds with non-stop performance and ideal operating conditions.)

IMPORTANT FEATURES

Among the many new refinements in the Packard One Twenty are improvements in the motor that contribute to more dependability, greater smoothness, finer performance and improved oil and fuel economy:

Heat treated aluminum cylinder heads.

New harder alloy cylinder blocks.

New damper type oil control rings for better oil economy.

Vacuum spark control of distributor.

Vibrator type compensated voltage control generator.

These improvements supplement the many other important features which have already made the Packard One Twenty motor a recognized superior to others of even higher priced cars.

Important among them are:

100% balanced crankshaft weighing 95 pounds.

Rifle drilled connecting rods for pressure lubrication. Angle-set valves.

Metered flow pressure oil control.

Neutro-poised three-point rubber engine mountings.

Austenitic exhaust valves.

Thermostatic cooling and recirculation.

Automatic manifold heat control.

PACKARD SIX—6 CYLINDER MOTOR

Bore— $3\frac{7}{16}$ "

Stroke— $4\frac{1}{4}$ "

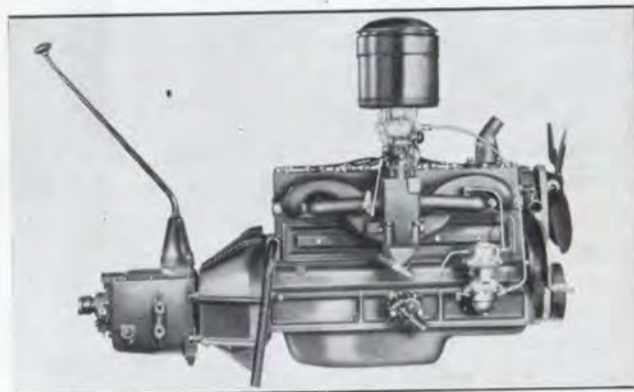
Displacement—237 cubic inches

Type—L-head 6 cylinders in line

Rated Horsepower—28.36 H.P.

Developed Brake Horsepower—100 H.P. @ 3600 R.P.M.

Compression Ratio—6.3 to 1



Packard Six Motor

Performance Ability

Acceleration—Mean average at speeds from 5 to 30-40-50 miles per hour—15 seconds.

Top Speed—85 miles per hour.

Fuel Economy—Mean average at speeds from 20 to 60 miles per hour, 19.4 miles per gallon.

At 20 M.P.H.—22 miles per gal.

30 M.P.H.—20.7 miles per gal.

40 M.P.H.—19.5 miles per gal.

50 M.P.H.—18.4 miles per gal.

60 M.P.H.—16.2 miles per gal.

These figures were obtained at Packard Proving Grounds with non-stop performance and ideal operating conditions and with gear ratio 4.36 to 1.

IMPORTANT FEATURES

Among the many important features of the new Packard Six motor are:

Packard precision manufacture plus quality inspection of all parts.

High compression cylinder head with balanced combustion chamber design.

New damper type oil control rings for better oil economy.

Neutro-poised three-point rubber engine mountings.

100% balanced crankshaft weighing 81½ pounds.

Rifle drilled connecting rods for pressure lubrication.

Overlapping crankshaft journal and crank pin.

Angle-set valves.

Metered flow pressure oil control.

Steel-strut aluminum alloy pistons.

Vacuum spark control of distributor.

Fuel compensator.

Thermostatic cooling and recirculation.

Packard vibration damper.

Austenitic exhaust valves.

Valve cooling tube for balanced cooling temperature in cylinder block.

Large water areas surrounding all cylinders.

PACKARD ONE TWENTY AND PACKARD SIX MOTOR INFORMATION

Both the Packard One Twenty and Packard Six motors have great power ability and operate with the smoothness of much higher priced cars. In all-around performance, whether for sustained high speed driving, or in quick acceleration and constant maneuvering in dense traffic they give the owner everything he desires

with a sense of motoring satisfaction usually thought of as only available in much higher priced cars.

Reserve Power—Both the Packard One Twenty and Packard Six motors are capable of great reserve power to provide the extra performance in the emergencies and prolong the life of the motor working parts under normal operating conditions.

Here is a comparison of the percentage of available power in each motor, used at various driving speeds.

Car Driving Speed	Percentage of Available Power being used	
	Packard 120	Packard Six
at 50 miles per hour	23%	28%
at 60 miles per hour	32%	39%
at 70 miles per hour	44%	53%
at 80 miles per hour	62%	80%

The fact that at 50 miles per hour, Packard One Twenty uses only 23% and Packard Six 28% of its available power shows their great reserve power and performance. This contributes to longer life of the working parts in both motors.

Neutro-Poised Motor Mountings

Both the Packard One Twenty and Packard Six motors are balanced to accurate precision standards in manufacture, making them free from unnecessary vibration. To cushion the motors in the frame and minimize any power

tremors from reaching the body each motor is mounted on neutro-poised three-point live rubber mountings, one



Front Engine Mounting



Rear Engine Mounting

large single mounting at the front center of the engine and two inclined mountings at the rear with one on each side of the transmission case. These rubberinsulated mountings also protect the motor from road shocks and help to make the driving sensation one of smoothness and velvety power.

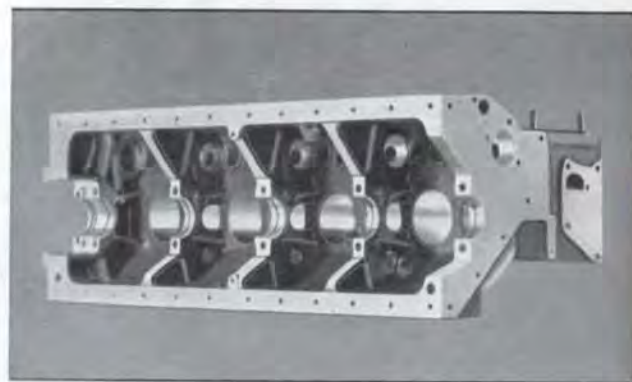
Cylinder Block and Crankcase—Satisfactory motor design and operation depends greatly on the design of the cylinder block and crankcase. It must have maximum strength with minimum weight, sufficient cooling space for uniform temperatures and equal expansion, and the material must be hard enough to retard wear of the cylinders.

The motors in Packard One Twenty and Packard Six have a cylinder block and crankcase which is a one piece casting made of cast iron and nickel alloy. A new feature and improvement in the new Packard One Twenty (also used in the Packard Six motor block) is the addition of a higher ratio of nickel alloy to the cylinder block casting which will increase the hardness of the cylinder block and retard normal wear of the cylinder bores.

The crankcase extends well below the bottom of the crankshaft bearing supports, to maintain bearing alignment and eliminate consequent wear from uneven bearing pressures.

Main bearing and cam bearing supports are well reinforced and trussed with cross webs and the entire block is supported by a heavy ribbing running lengthwise.

The block is cast with separate cylinder barrels



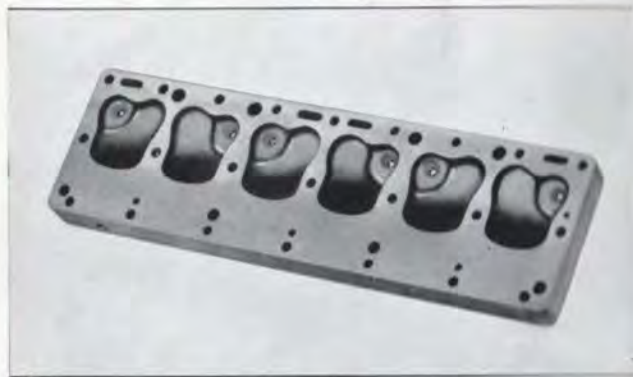
Crankcase Reinforced Webbing

which are surrounded by a water space that extends below the head of the piston at the bottom of its stroke. This together with a gallery between valves and cylinders in which is inserted a water distributing tube for cooling the areas around the valve seats provides efficient water distribution and uniform cooling throughout the entire cylinder block.

In the block, is a drilled oil manifold on the right side which delivers oil from the pump under pressure through drilled passages in the webbing to the main bearings and thence to the connecting rod bearings through drilled holes in the crankshaft.

Great expense and care is devoted to the finish of the cylinder bores and precision inspection insures the fitting of the carefully balanced piston and connecting rod assemblies to the close limits of one and one-half thousandths of an inch clearance.

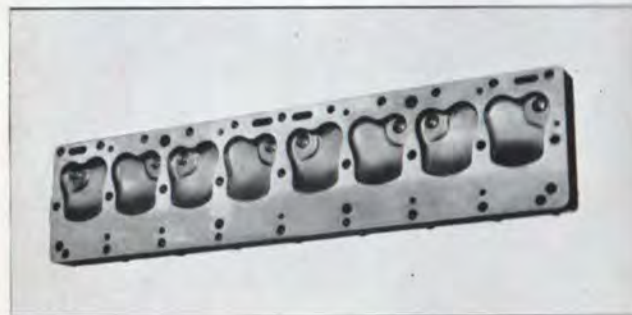
Cylinder Head—Packard Six and One Twenty motors both have high compression cylinder heads, which have the twofold advantage of (a) increased power output, (b) greater economy of fuel consumption without the use of premium fuel.



Packard Six High Compression Cast Iron Cylinder Head

The Packard Six motor uses a cast iron cylinder head with a compression ratio 6.3 to 1. The new Packard One Twenty motor uses an aluminum head with a high compression ratio 6.5 to 1 that gives increased performance with greater fuel economy. The One Twenty aluminum heads are now being heat treated to raise the physical properties of the aluminum.

In the Packard cylinder heads the design of the combustion chamber has been given special attention as it



Packard 120 High Compression Aluminum Cylinder Head

affects the burning rate of the fuel mixture which in turn controls the softness of combustion and smoothness of operation. The spark plugs are located over the exhaust valves in order to place them as close as possible to the hottest portion of the combustion chamber which gives better combustion with leaner fuel mixtures.

Crankshaft and Bearings—Both the Packard One Twenty and Packard Six motors have strong, heavy, rigid crankshafts of forged high carbon steel with counterweights forged integrally. They are balanced 100%



Packard 120 Crankshaft Assembly

both statically (at rest) and dynamically (in motion). This balancing operation is one of the finest and most painstaking in Packard manufacture. Even as small an out of balance force as a one-cent piece would at a motor speed of 3800 R.P.M. increase to 8.89 lbs. of unbalanced weight pressure on the bearings and soon destroy them. Packard inspection safeguards the quality of Packard motors at every step. After the crankshaft has been balanced, the flywheel and clutch are attached to it and the complete assembly is again balanced 100% before it is passed by the inspectors.

Crankshafts are drilled from each main bearing through the cheeks to provide a pressure lubrication passage to each connecting rod.

The Packard One Twenty motor crankshaft weighs 95 lbs., has eight counterweights and is carried on 5 bear-

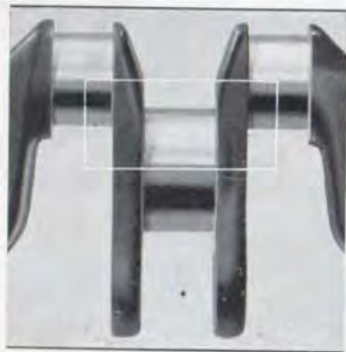


Packard Six Crankshaft Assembly

ings ($2\frac{3}{4}$ " in dia.), having a total bearing surface of 56.6 square inches.

The Packard Six crankshaft weighs $81\frac{1}{2}$ lbs. has six counterweights and is carried on four bearings ($2\frac{3}{4}$ " dia.) having a total bearing surface 36.16 sq. inches.

The main bearings are of generous size and are placed where they give the greatest support for the heaviest loads. There is a bearing next to each connecting rod which



Overlap of Main Bearings and Connecting Rod Journals

insures maximum rigidity and alignment at all speeds.

(For bearing dimensions—see Detailed Mechanical Specifications.)

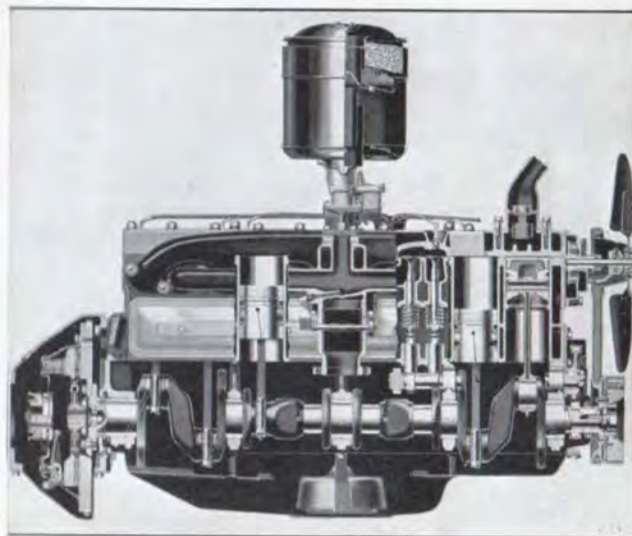
Overlapped Bearings—Another important point about the size and rigidity of the Packard Six and Packard One Twenty crankshafts is the generous overlap of the main

bearings and connecting rod journals ($\frac{17}{64}$ in.) which is unusual in popular priced cars.

Vibration Damper—In addition to using a well balanced heavy crankshaft and supporting it with large bearings, Packard also uses an exclusive design of vibration damper to counteract what is known as torsional vibration, due to the rapid twisting or natural frequency of the rotating motions of the crankshaft.

Most manufacturers in an effort to control or dampen this vibration have employed balancers of rubber or spring tensioned friction members alone.

Packard uses an exclusive development not employed on other cars and combines these two methods of control into a single unit. It seals the damper unit in rubber, which insures its permanency of adjustment by eliminating any possibility of entry of water or dirt



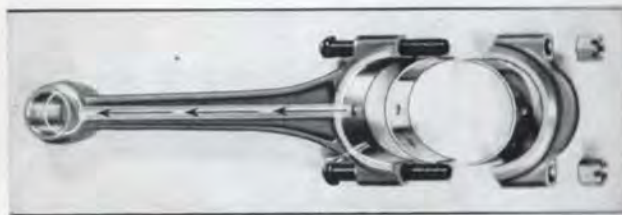
Packard 120 Motor—Sectional View

or rusting. It operates at all speeds with maximum effectiveness, insuring engine smoothness and quietness.

Connecting Rods and Bearings—The connecting rods used in both the Packard Six and One Twenty motors are the same type I-beam sturdy steel forgings carefully machined to very close precision limits, both ends being diamond bored simultaneously to insure true centers $7\frac{1}{16}$ inches in length.

The rods are rifle drilled to provide pressure lubrication to the piston pin bearing which is a bronze bushing.

Crankpin bearings are of the thin wall, steel back, babbitt-lined split type, $2\frac{3}{32}$ " diameter by $1\frac{3}{4}$ " wide which insures rigidity and long bearing life. They are



Rifle Drilled Connecting Rod with Removable Bearings

fitted into the connecting rod similar to main bearings in the crankcase. If replacement ever becomes necessary it is an economical service operation and can be done without removal of connecting rod or piston.

Connecting rods are held to very close precision limits and each rod after being balanced for total weight and center of gravity is assorted into group sizes for assembly so there is never a variation of more than $\frac{1}{4}$ ounce weight between any two rods in the same motor.

Pistons—Pins and Rings—The pistons

used in both the Packard One Twenty and Packard Six motors are the proven light weight but hard alloy aluminum with steel-strut to control expansion changes. Other important advantages gained in the use of the light weight aluminum piston are—(1) reduced loads on bearings and reciprocating parts, (2) better acceleration, (3) greater smoothness and (4) the use of higher compression cylinder heads with increased power and fuel economy.

One of the major improvements in the Packard One Twenty motor (which is also used in the Packard Six motor) is the new damper type oil control ring. In repeated tests it has shown up to 200% improvement in oil economy even at sustained high speed driving tests of 75 miles per hour, which indicates even greater improvement at normal driving speeds. Two other major advantages are the reduced cylinder wear and longer engine life to be expected. After repeated tests covering thousands of miles each with this new type of oil ring, cylinder wear measurements were taken show-



New Damper Type Oil Control Ring



Packard Steel Strut Aluminum Piston

ing less than one half to one thousandth inch wear, which will mean minimum maintenance costs to owners.

The Packard Six piston weighs 19 ounces (without rings and pin) and the Packard One Twenty piston, 17.6 ounces. They are held to very close weight limits and assembled in sets with never more than 14/100ths ounce limit variation. Each piston has three rings located above piston pin (2 compression and 1 damper type oil ring).



*Packard Six Aluminum Piston
Assembly*

oil passage in the connecting rod.

To facilitate service operation the piston and rod assembly may be installed or removed from the top of the cylinder block.

The piston walls and cylinders are lubricated by oil spray forced under pressure through a small bleed hole in the lower end of the connecting rod as it revolves and registers with the oil passage in the crankshaft.

The steel-strut in the piston maintains piston skirt clearance over a wide variation of engine operating temperatures and the web stiffening inside the piston head assists in quicker heat dissipation and prevents distortion in sustained high speed driving.

Packard has used aluminum alloy pistons since 1926. It is interesting to note how competition after refusing to recognize the superior advantages in performance and economy of the aluminum piston over cast-iron, are now following in Packard's leadership. The competitive pistons, however, do not have steel struts to control expansion.

Various competitive sales claims are made regarding anodizing, electro-treatment and other means of hardening the piston surface of aluminum pistons to prevent wear and give longer piston life. While these claims may be partially true it is also well to point out why this hardening is necessary.

The competitive type of aluminum pistons have no steel-strut to control heat expansion. They are therefore, manufactured out-of-round to allow for expansion. When cold, they have high spot contact and uneven bearing pressure in the cylinders which induces scuffing in a cold motor until it is warmed up. The hardening process is necessary to reduce this tendency as much as possible.

Packard feels that much better results are obtained with the steel-strut type of aluminum piston it has used for more than 10 years, which does not require special kinds of hardening treatment to prevent the scuffing and wear common in the competitive type of piston.

Camshaft—The camshafts in the Packard Six and Packard One Twenty motors have cams and bearing journals case hardened and ground to retard wear and give continued quiet cam action.

The camshaft in the Packard Six motor is carried on 4 bearings and in the Packard One Twenty motor on 5 bearings, which are the steel back babbitt-lined type, lubricated by pressure oiling through webs in the crankcase from the oil distributing tube.

Cams are of the quick-opening and closing type and are designed for maximum quietness and creeping of all tappets in the same direction.

Chain Drive—The camshaft is driven by a short $1\frac{1}{4}$ " wide silent chain from the crankshaft. It requires no adjustment and is pressure lubricated.

This is a much more satisfactory method of driving the camshaft than the usual gear drive used in many cars, which in time becomes noisy and worn and has to be replaced.

Angle-Set Valves—Both the Packard One Twenty and Packard Six motors are L-head type with valves mounted along the side instead of in the head. Comparative tests with engines of same cubic inch displacement show this design gives greater efficiency in



Angle-Set Valves

developed horsepower and torque than the overhead valve type engine with its greater number of working parts.

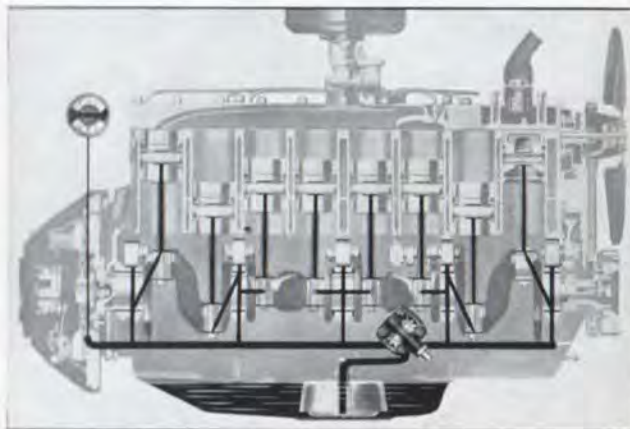
The valves are angle-set, which gives better combustion efficiency in power development and quicker dissipation of burned vapors. Inlet valves are made of chrome nickel and exhaust valves of a special austenitic steel to prevent warping and distortion. Single valve springs are oil tempered and heat treated and are interchangeable

between inlet and exhaust. Valve tension pressure when closed 40 pounds, when open 110 pounds. Valve stem guides of cast iron are pressed into the cylinder block and are finished with a slightly larger upper end to avoid valve sticking. Valve lifters of the barrel type with open centers are made from special

alloy iron. The lower ends are hardened and polished to insure perfect contact with the cam and the top is fitted with provision for valve lash adjustment.

HIGH-PRESSURE LUBRICATION SYSTEM

Pressure lubrication is supplied to all vital operating parts of both the Packard Six and Packard One Twenty motors, which is one of the many reasons for their dura-

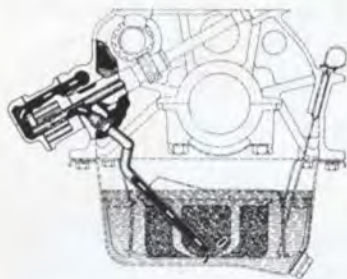


Full Pressure Lubrication—Packard 120 Motor

bility and long life even under the most strenuous use. Many other popular priced cars claim to have pressure lubrication but they do not provide it to all parts of the motor such as piston pins, cylinder walls and tappets.

A gear driven oil pump, accessibly located on the right outside of the motor and driven by the camshaft supplies oil under pressure, through a drilled oil manifold in the crankcase to all main, connecting rod and camshaft bearings and through rifle-drilled connecting rods to each piston pin bearing.

Pistons, cylinder walls, distributor drive gear and tappets are pressure lubricated by sprayed oil from a



*Short Intake Pipe to
Oil Pump*

Simplicity of Design—An important sales feature of the lubrication system is the extreme simplicity of its design. By the use of drilled oil passages in the crankcase it eliminates the possibility of lubrication failure through broken pipes and loose joints. Only one short oil pipe is used directly connecting the pump to the screened intake in the crankcase.

In the Packard Six motor and the Packard One Twenty motor the oil pump has a capacity of 1600 quarts per hour at a car speed of 35 miles per hour with increased oil distribution in proportion to increased driving speeds. This assures an adequate lubrication supply of cooled oil when it is most needed. The pump is easily serviced and adjustment of the pressure relief valve located in the pump cover is accessible without removing the pump from the motor. The new type of oil control ring introduced this year by Packard, will greatly increase oil economy and be a very strong sales factor in longer engine life.

Metered Oil Flow Control—The proper amount of oil flow to the various parts of the motor is scientifically worked out by metering the amount of oil at given

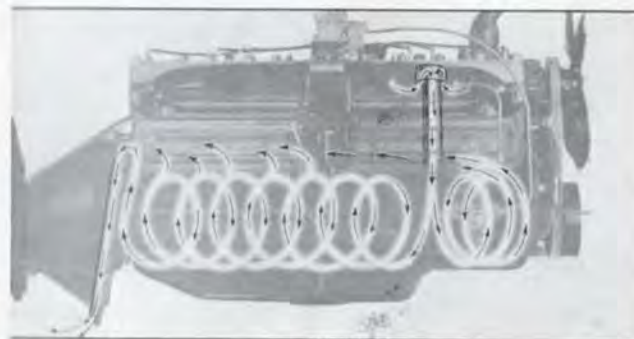
engine speeds through varying sizes of oil passages which supply the lubrication to each part. This insures each part getting a proportionate amount of lubrication from the available oil supply in the crankcase and contributes to longer engine life.

Oil Pan—A non-splash arrangement in the crankcase oil pan by the use of baffle plates keeps an adequate supply of oil around the intake pipe, when taking turns at high speed, driving on hills, or in quick deceleration. The pan is depressed in the center under the intake pipe which insures oil lubrication as long as any oil remains in the crankcase.

The oil drain plug is also located at this point to insure complete drainage.

Crankcase Ventilation—Crankcase ventilation as used by Packard is one more point of the careful engineering attention paid to those things which produce satisfactory operation of the car and protect the fine precision fitted parts of the motor.

It is a system of air ventilation to remove unburned fuel vapors and moisture through condensation in the crankcase which dilute the lubricating oil and form harmful acids that attack the finely finished parts of the engine.



Crankcase Ventilation

Air intake is through a filtered screen on the oil filler pipe, which removes any dust or harmful particles. The forced air circulation through the crankcase caused by the revolving action of the crankshaft, picks up the vapors and they are drawn out through the ventilator outlet at the rear of the engine by positive suction created by the forward movement of the car.

FUEL SYSTEM

Fuel Tank—A new improved gas tank with the vent terminating in the filler facilitates rapid filling without backing up of gasoline. It also has a sump at the bottom to accumulate water or sediment before it reaches the fuel pump or carburetor. The tank is reinforced with cross ribs to prevent flexing noise and lies inside the frame which helps to protect it from damage.

The capacity of the fuel tank is 17 gallons on the Packard Six and 20 gallons on the Packard One Twenty. The filler neck has been removed from the body and located in the fender which gives increased trunk space and better sealing of the bodies. A flexible coupling on the filler neck between the fender and the tank helps prevent tank damage and loss of fuel in case of accidental damage to rear fender.

Fuel Pump and Feed Lines—The fuel line is copper tubing, located on the outside of the frame and opposite the exhaust where it is protected from flying stones, and also kept cool to reduce the possibility of vaporizing from the heat of the motor and exhaust.



Fuel and Vacuum Pump

A mechanically operated combination fuel and vacuum pump located at the side of the motor is driven by an arm actuated by the

camshaft to force gasoline to the carburetor with more than sufficient capacity to meet every operating condition. Combined with the fuel pump is a fuel filter having a fine mesh screen to trap all water and sediment before it reaches the carburetor, which may be removed for cleaning.

Vacuum Pump—The vacuum pump which is integral with the fuel pump, is operated by the same mechanism to provide a uniform operating pressure for windshield cleaners regardless of speed or load on the engine. This is an important safety factor in night driving or on hills in bad weather when continued operation of the windshield cleaners is most necessary.

Carburetor—Down draft carburetion is used on both the Packard One Twenty and Packard Six. It gives easier starting, faster acceleration and more power for every driving condition without excessive fuel consumption.

On the Packard Six is used a Chandler-Groves $1\frac{1}{4}$ -inch single barrel carburetor. The Packard One Twenty has a Stromberg 1" duplex carburetor with 2 barrels to give equalized fuel distribution to the eight cylinders. Both carburetors are of the plain tube type and give the best results in air and fuel mixture for all speeds without the necessity of complicated adjustments. On both types of carburetor, only one manual adjustment is provided for regulation of idling speed.

Turning the screw "out" enriches the fuel mixture and "in" reduces the size of the passage and provides a weaker mixture.

One of the more important features of the carburetor is an economizer valve for part throttle operation which effects an economy in operation at all times when maximum power is not required. It is effective up to road speeds of about 70 miles per hour.

Condensation Drain—When an engine is shut off there is always some condensation of fuel mixture between the carburetor and engine. If this were

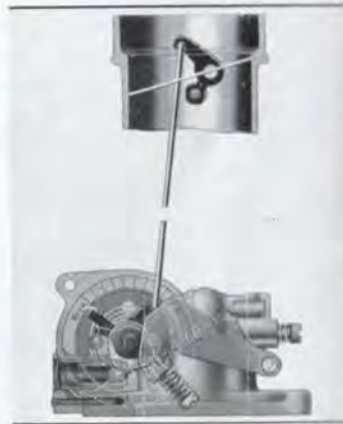


Condensation Drain Pipe

of the drain pipe prevents air being drawn up into the carburetor.

Automatic Choke—The automatic choke simplifies starting, eliminates excessive and continued manual choking with dilution of oil in the cylinders which causes premature wear of pistons and cylinders. It also gives a faster and more accurate control of the warm-up period of engine operation with maximum economy.

The choke valve is located in the air intake of the carburetor and is connected by an arm with a (bi-metal) coil spring thermostat located in the exhaust manifold. When the engine is shut off and cools, the thermostat automatically closes the



Automatic Choke—Valve Closed

choke valve. When the engine is again started and a richer mixture is necessary, the valve chokes the air flow through the carburetor to meet the requirements of the engine until it approaches normal operation.

As the engine warms up, the exhaust heat gradually affects the thermostat which automatically opens the choke valve again and maintains the air and fuel supply at its most efficient and economical mixture.

Automatic Fast Idle—The automatic choke is combined with a low temperature idle mechanism interlinked with the throttle which prevents stalling. When the engine is completely warmed up the choke is wide open, the throttle is closed to normal, and the engine runs at normal idling speed.

Fuel Compensator—To suit the various grades of gasoline being marketed and obtain the maximum power with the greatest efficiency, a manually adjusted fuel compensator is incorporated with the distributor which permits an advanced or retarded spark setting to suit the particular kind of fuel being used.

Intake Manifold—The intake manifolds on the Packard Six and Packard One Twenty motors are designed to give maximum efficiency in operating smoothness and economy due to equalized fuel distribution from the carburetor into the combustion chamber.

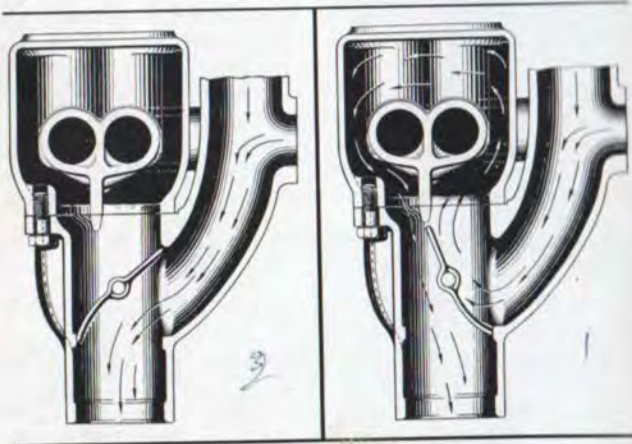
The Packard Six intake manifold is of the 3-port type with 3 passages, each serving 2 cylinders.

The Packard One Twenty manifold is of different design with 4 passages each serving 2 cylinders in order to give balanced performance and equal fuel distribution.

Automatic Heat Control—To maintain most efficient engine performance and have fuel mixture at the proper operating temperature when it enters the cylinders, Packard uses Automatic Heat Control on both the Packard One Twenty and Packard Six motors.



Air Intake to Inlet Manifold—Packard 120



*Automatic Heat Control
Left—Valve Open—Heat to Exhaust
Right—Valve Closed—Heat to Hot Spot*

It is a system of using the heat from the exhaust to warm the fuel mixture in the intake manifold and is regulated by a valve operated in combination by a thermostatic heat control coil plus the pressure of the exhaust gases.

Around the center of the intake manifold is a heat jacket or hot spot connected to the exhaust manifold. A valve in the exhaust line regulates the amount of heat directed to the heat jacket depending on the temperature of the motor. When starting a cold motor all the exhaust heat is utilized. As the motor warms up the thermostat coil is gradually warmed and releases its tension and the pressure or high velocity of the exhaust gases pushes the valve open and automatically shuts off the heat to the intake manifold.

Oil Bath Air Cleaner and Silencer

The carburetor is fitted with a combination oil bath type air cleaner and silencer. It neutralizes the sounds of air rush into the carburetor and serves as a flame arrester for protection, in case of back-fire.

Heavy dust storms in recent years have been prevalent in many sections of the country, and the new special type of oil bath air cleaner is now furnished to provide additional protection to the precision fitted working parts of the motor.

In this special type air cleaner the air is drawn over an oil bath through an oil soaked cleaning mesh which cleanses the air and purifies it with almost 100% efficiency. It has no moving parts and requires no adjustment.



Oil Bath Air Cleaner and Silencer

Exhaust Manifold and Muffler—Exhaust manifolds are designed to rapidly conduct the burned gases and heat from the combustion chamber of the engine.

On the Packard Six the manifold is connected to a resonance type muffler, which is of the single unit construction.

On the Packard One Twenty, the manifold is finished in baked porcelain enamel to present the same attractive appearance as the larger Packard motors. The muffler, formerly of the single unit type has been changed to the improved tandem type for greater quietness of exhaust noises.



Tandem Type Muffler—Packard 120

Both mufflers are designed to allow free passage of the exhaust gases through a series of perforated tubes which quickly reduce the velocity of vibrations and absorb the sound by mixing, as is done with the sounds of the air roar going into the carburetor through the air intake silencer. The insulation of the exhaust system from the frame by means of flexible brackets also prevents any muffler noise from being absorbed into the body through the frame.

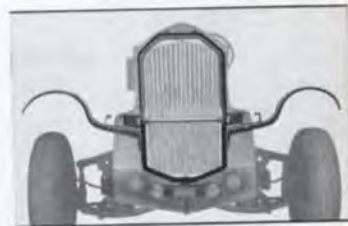
COOLING SYSTEM

Packard's cooling system is one of the simplest and most efficient. It gives ample and uniform cooling for low as well as sustained high speed driving without loss of power. It dissipates engine heat and prevents rapid break down of the lubricating oil thereby lengthening the life of the wearing parts of the engine. In cold weather driving the thermostatic controlled recirculation feature quickly brings the engine to normal operating temperature for quick starting and most efficient performance.

Radiator—The cellular radiator core is more efficient in construction because it has more copper surface exposed to the air for quicker heat dissipation.

The Packard Six radiator has a frontal area of 415.2 square inches and is $2\frac{3}{4}$ inches thick with a water capacity of $4\frac{1}{4}$ gallons. The Packard One Twenty radiator has a frontal area of 422.8 square inches and is $3\frac{1}{4}$ inches thick with a water capacity of 5 gallons.

The radiator core is surrounded by a metal harness to which are tied the front fender brackets and the entire unit is mounted on a cushioned support on the front frame cross-member. This eliminates twisting strains which cause leaks in the radiator core, common to rigid mountings. The outside radiator shell is characteristic Packard design with a modernized grille of heavy gauge stamped steel. In case of partial damage to the grille it is unnecessary to buy an entire new unit as is compulsory with the cheaper light metal die-cast grilles being generally used, which cannot be repaired.



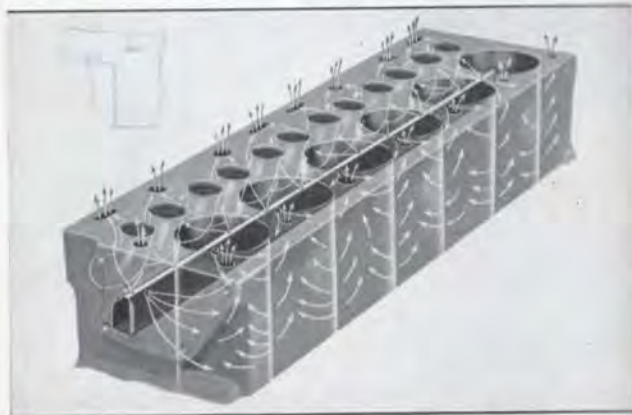
Radiator Mounting with Fender Brackets

Fan—A large 16-inch fan mounted on the water pump shaft, with four blades spaced in pairs, assures maximum air volume intake through the radiator core without air disturbance noise. Free air circulation around the engine is assisted by the ventilated motor pans and practical design of hood louvers which permit rapid discharge of hot air and lowering of temperatures in the engine compartment.

The fan is driven by a large V-belt from a pulley on the crankshaft and belt tension is regulated by moving the generator on its adjustable bracket.

Water Pump—The water pump is the 8-blade impeller type driven by the fan belt. It has a circulation capacity of 2000 gallons per hour at a car speed of 35 M.P.H., with corresponding higher capacities at faster engine speeds. The pump shaft operates on two oilite bronze bearings which are lubricated by 2 oilers, one back of the fan pulley, the other being reached through a hole in the pulley.

Large Water Areas and Uniform Temperatures—The cylinder blocks are designed so that each cylinder is



Valve Cooling Tube and Large Water Areas

surrounded by water below the top of the piston on its down stroke. This insures rapid dissipation of the engine heat, uniform cooling of all cylinders and longer life to the engine lubricating oil. This design gives longer engine life than is possible where cylinders are cast in pairs without adequate water areas between the cylinders.

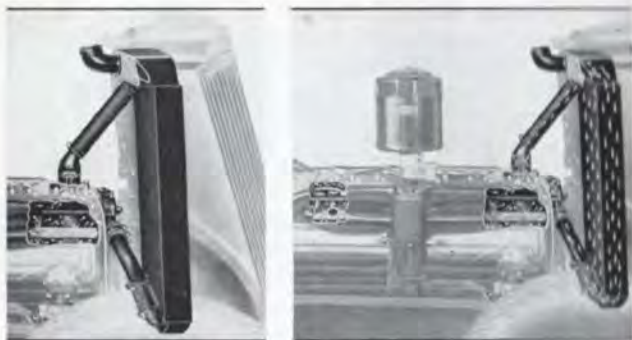
Valve Cooling Tube—Packard uses a most practical and efficient method of maintaining uniform temperatures throughout the cylinder block and particularly around valve seats. It is a valve cooling tube located between the valves and cylinders and extends from the front to the rear of the motor.

As the cooled water from the radiator is drawn through the pump it is directed under pressure into this tube which has perforated holes (Packard Six, 17 holes—Packard One Twenty, 22 holes) through which it is discharged directly against the valve seats, keeping them uniformly cool.

A method common in other cars, to try and overcome the effect of overheated areas around valves, is the use of valve insert rings. Instead of trying to correct the defect, Packard eliminates the cause and maintains uniform temperatures within 3 degrees between front and rear of the cylinder blocks.

Thermostatic Temperature Control and Recirculation—Water temperature in both the Packard Six and One Twenty motors is thermostatically controlled to maintain balanced operating conditions regardless of weather temperatures and to assist in a quick warm-up period in cold weather driving.

A thermostat valve is located in the cylinder head water outlet to the radiator. When the engine is cold the valve automatically closes the outlet and prevents the water circulating to the radiator. Through a by-pass it is returned to the water pump for recirculation within the block until the heat of the engine quickly



Cooling System

Thermostatic Control and Recirculation

Left—Thermostat Closed for Recirculation

Right—Thermostat Open for Normal Circulation

raises it to normal operating temperature. When the water temperature reaches 145° the thermostatic valve gradually begins to open and allows the water to circulate through the radiator for normal distribution by the water pump.

ELECTRICAL SYSTEM

The electrical system of the Packard One Twenty and Packard Six has been designed to (1) give dependability of operation at all times, (2) increase driving safety at night, (3) provide quick starting in the coldest weather and (4) have capacity to meet the heavy demands of modern motoring with its increasing use of accessories such as heaters, radios, fans and other modern electrical conveniences.

Battery—The large battery in the Packard One Twenty has 17 plates and 114-ampere hour capacity. The Packard Six battery has 15 plates and 95-ampere hour capacity. The battery is located under the front seat where it is quickly accessible for service inspection.

Generator—The generator is air-cooled and will last longer because it does not overheat when required to handle additional current demands of various electrical accessories. On the front of the armature shaft behind the drive pulley is an inbuilt fan which draws air through the generator from the rear and discharges it at the front. The generator (cold) charging rate varies from 24 to 26 amperes. Vibrator type of voltage control auto-



Air Cooled Generator—(Voltage Controlled)

matically changes the generator output to compensate for both battery condition and electrical current requirements. In contrast with the conventional step control charging rate which varies from high to low in one step, the vibrator type gradually changes charging rate from zero to peak capacity and protects the battery from reaching an overcharged condition which would shorten its life.

Starter Motor—Quick starting in cold weather is when a starting motor is required to do its hardest and most efficient work, and Packard engineers have given this part of the car operation special attention by using starter motors capable of heavy loads. The Packard Six has a Delco Remy starter and on the Packard One Twenty, Auto-Lite is used. Both have the Bendix shift type of drive between starter and engine, with a ratio of 15.5 to 1 (pinion 9 teeth and flywheel 140 teeth).

Operation of the starter has been made easy by simply pressing a starter button on the instrument panel. This closes an electrical circuit and energizes the coils of a solenoid (electro magnet) switch on top of the starter causing it to engage the Bendix pinion with the flywheel. This easy method of starting the motor does away with the stretching and complicated pedal type starters and makes starting on grades much simpler.

Distributor—A new feature of importance on both the Packard One Twenty and Packard Six is the new type of distributor with vacuum spark control which together with high compression greatly improves engine efficiency and fuel economy.



Vacuum Spark Controlled Distributor

With the use of vacuum spark control it regulates the degree of spark advance over a wider range of engine speeds than was possible with only the centrifugal weight control, which depends entirely on engine speed.

The operation of vacuum spark control is entirely automatic. The vacuum unit or diaphragm is connected to the distributor advance arm on one side and to a spring on the other. With the engine stopped the vacuum diaphragm is in normal position and the spark retarded. After engine is started and as vacuum in the manifold increases it automatically moves the diaphragm which advances the spark. On quick acceleration or wide open throttle there is insufficient vacuum to advance the spark so it is held in retard position and this eliminates the objectionable "ping" or spark knock. As the engine picks up speed and there is no "pull" on it the vacuum automatically increases and advances the spark to where it produces the greatest power from the fuel being used.

By eliminating the spark knock when motor is under heavy load it makes possible the use of much higher compression engines and together with the continuous

production of greater power from the fuel used, it gives greatly increased fuel economy at all speeds.

Fuel Compensator—To suit the various kinds of fuels being marketed in all sections of the country a manually adjusted fuel compensator is incorporated with the distributor which permits an advanced or retarded spark setting to suit the particular kind of fuel being used.

Headlighting—With the increased interest in "safety" now being developed in all parts of the country, Packard's safe headlighting system is of special importance because of its effectiveness and greater protection for faster driving speeds now generally used.

Three different lighting beams are provided (a) clear road beam for long distance clear lighting of country highways when not approaching other cars, (b) meeting beam for country driving when approaching within 500 feet of other cars, (c) lower or city driving beam.

The two country beams (a and b) are controlled by a foot switch to the left of the clutch pedal which is particularly appreciated when driving at high speeds. It permits the driver to instantly change headlight beams without removing hands from the steering wheel and eliminates the old periodic blind spots when changing from one beam to another. When the meeting beam is used the left headlamp beam only is lowered and drops below the eye level of the approaching driver with diffused light on the left side of the road and adequate light immediately ahead of the car for safe passing.

A telltale red light signal located in the face of the speedometer dial, tells the driver instantly whether the clear beam or passing beam is being used. The signal is lighted only when the light switch is in all-the-way-out position.

The other beam (right headlamp) is not changed in any way. It lights up the right side of the road brilliantly which increases the driver's safety and visibility, particularly on narrow roads with ditches on each side.

The lighting switch button is located on the instrument panel.

It has four positions:

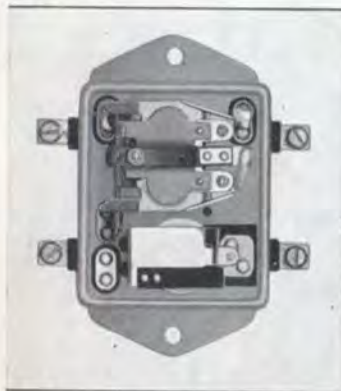
- (a) All the way in—lights off
- (b) Out one notch—parking and tail lights
- (c) Out two notches—lower or city beam
- (d) All the way out—clear road beam or meeting beam depending on position of foot dimmer switch.

Light Bulbs—Headlight bulbs are of the prefocused type with 32-32 c.p. filaments.

Tail light bulbs are 3 c.p.—stop light bulbs 15 c.p.—instrument panel bulbs are 1 c.p.—parking light bulbs 1.5 c.p.—dome lights in closed cars are 6 c.p.

Horns—While one horn is standard equipment, all cars are produced with dual horns which are part of standard accessory group. The One Twenty horns are the trumpet style while the Packard Six are the shorter type. In both cars the horn mounting is atop the motor and their contrasting tone pitch makes them a pleasant but effective warning signal.

Circuit Breaker—The headlamp lighting system is protected against shorts by a circuit breaker or auto-



Circuit Breaker

matic switch. When there is a current overload it generates heat which opens the circuit. As soon as the temperature returns to normal the circuit breaker automatically closes again. This is an important safety feature because in a lighting system, controlled by fuses that develop a short, it blows out the fuses and the car lights will be inoperative until the fuse is replaced. In

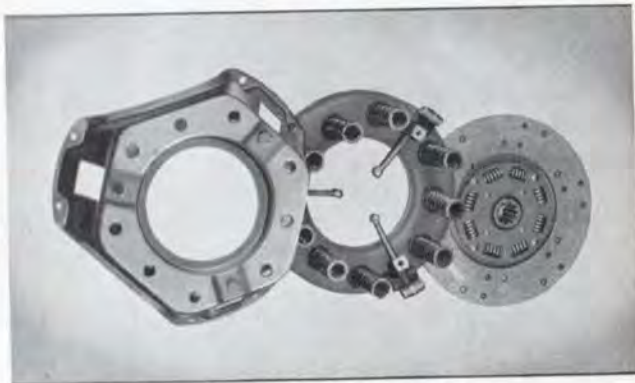
night driving this is a hazardous condition to be in, if no "extra" fuses are carried by the driver.

Fuses—Body wiring circuits are independently protected from shorts by fuses. They are 20-ampere cartridge in a connector located in the light switch on the back of the instrument panel. This protects the dome light, cigar lighter and instrument panel lights.

CLUTCH

The design of the clutch is important. It is one of the car units most frequently used by the driver and must be soft in pedal action as well as strong and sturdy to withstand the stopping and starting strains between the engine and chassis.

The clutch used in the new Packard One Twenty and Packard Six is similar in design but slightly different in size due to the difference in torque of the two engines. Both cars have a single plate clutch of the semi-centrifugal type which has three clutch release levers with weights that operate centrifugally. They increase the



Clutch Assembly—Packard 120

pressure of the springs in keeping the friction discs of the clutch plate tight and prevent slippage as power output increases with the speed of the engine. By this method much lighter springs can be used in the clutch



Clutch Side View

and this decreases pedal pressure and physical effort by the driver as much as 50 per cent when waiting at a stop light or stopping the car. With the increasing amount of stop and go driving this is an important selling point of greater handling ease for all drivers, especially women.

The Packard One Twenty clutch is 10" in diameter and has nine pressure springs to cushion the engagement of the plates. The Packard Six clutch is 9½" in diameter and has six pressure springs. Clutch facings of woven asbestos are long lived in operation and made to withstand hard use.

The clutch release bearing is a large capacity ball-bearing packed with lubricant to eliminate the need for periodic attention and lubrication service.

To insure smooth vibrationless operation, all clutches are carefully balanced before assembly into the engine to maintain the precision balance of the crankshaft and other reciprocating parts.

To dampen out torque variations in the drive line and cushion the clutch engagement a mechanical damper consisting of eight coil springs is built into the hub.

Provision for air ventilation of the clutch is incorporated in the design of the cover plate which keeps the clutch cooler and contributes to longer life of the entire mechanism.

TRANSMISSION

The durability, long life and quietness of the Packard all-silent helical gear transmission has been thoroughly proved in the thousands of Packard One Twenty cars and is continued without change. It is also used in the new Packard Six.

Some cars use transmissions with helical cut gears in high and second only. Packard transmission gears are all helical cut including the reverse gear, which gives



Packard All-Silent Helical Gear Transmission

maximum operating quietness and smoothness in all speeds. Another advantage of helical cut gears is the greater tooth area in contact at all times, than is usual with the less expensive ordinary spur type gears.

All gears are machined and finished by the latest and finest precision machinery. In order to build into them longer life and greater durability Packard uses the more expensive process of carburizing when heat treating them instead of following the ordinary practice of oil hardening. This gives the gear teeth a harder wearing surface without making the entire gear too hard. All gears are ground and lapped to precision limits and are individually selected and matched in sets before passing the final quiet room inspection test for final car assembly.

Packard transmissions are built to stay quiet after years of service. In contrast with other cars that use plain bushings and only three or four ball or roller bearings, Packard quality standards require the use of four ball bearings and three roller bearings. The forward and rear ends of the main shaft are each supported by large ball bearings. The second speed gear is mounted in two heavy duty ball bearings. Roller bearings are used at both ends of the countershaft and also between the clutch driving and main driven shaft.

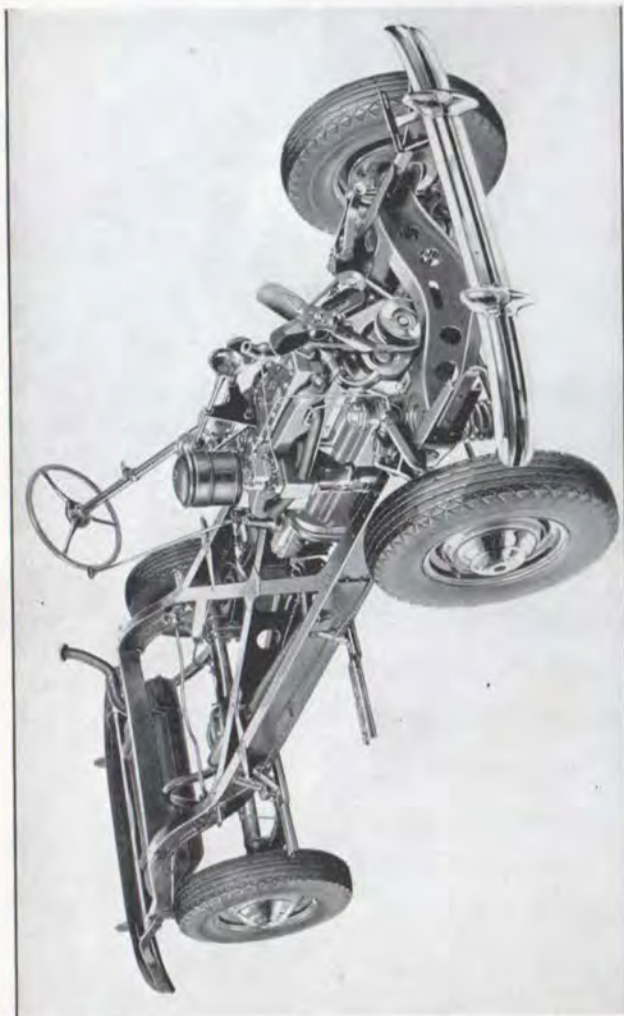
✓ Gear changing is smooth, quiet and effortless with the aid of synchronizing cone clutch inside the transmission which brings the rotating gears to be engaged to the same speed just before the shift is completed. The shift from second to high or high to second may be made at any speed without gear clashing. This provides the driver with added safety of control when driving on hills, ice and snow and makes possible the instantaneous use of the engine in emergencies for greater acceleration and deceleration.

CHASSIS SECTION

PACKARD ONE TWENTY

PACKARD SIX

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Packard 120 Chassis

CHASSIS

The proven satisfaction of the Packard One Twenty chassis is due to its advanced engineering as a composite unit of well balanced design and not to any one or two strongly advertised features as is the case with many other cars. In the chassis of the new Packard One Twenty and the new Packard Six the important units of double-trussed frame, Safe-T-fleX front suspension, harmonized steering, servo-sealed hydraulic brakes and angleset hypoid rear axle, all contribute individually to the balanced results of car strength and durability, riding comfort and quietness, safety and ease of handling.

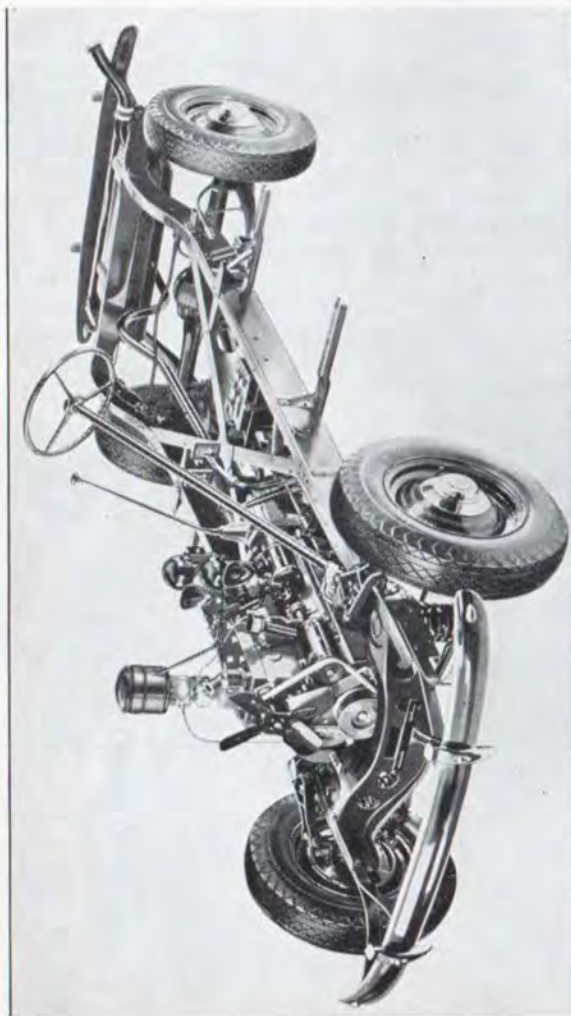
In the new Packard One Twenty and Packard Six chassis there is a new and important development in frame design. An entirely new type of double-trussed



Double-Trussed I-Beam X-Type Frame

frame having tapered I-beam X-members greatly increases rigidity and safety and contributes much to longer car life and improved riding comfort. With this new frame it makes them the strongest and finest riding cars in their size and weight class.

The new Packard One Twenty and Packard Six chassis both feature units of the same general design and construction. The new Packard Six wheelbase is 115



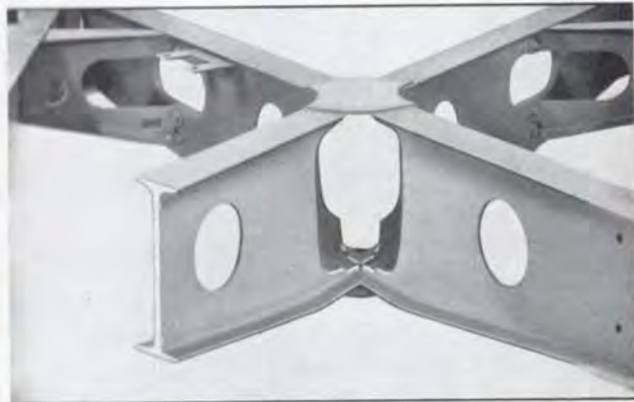
4—Chassis

Printed in U. S. A.

inches with 16 x 6.50 tires. The new Packard One Twenty wheelbase is continued at 120 inches with 16 x 7.00 tires. Both chassis have the wide tread (59" front—60" rear) and both have the same limited number of points requiring simplified service lubrication at intervals of 2000 and 10,000 mile periods.

Frame—The new Packard Double-Trussed frame is a distinct departure from previous designs of X-type frames and represents another advance development in chassis design in which Packard engineering research has played a most important part.

In comparison with conventional X-type frames having box-section side members and channel type center girders, engineering tests with the new Packard Double-

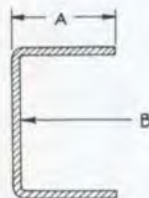
**Tapered I-Beam Girder—Cross Section**

Trussed frame show as much as 400 per cent increased stiffness or rigidity. The Packard One Twenty frame rigidity has been increased 32 per cent over last year.

Packard research engineers have recognized for many years the superior advantages of greater stiffness and rigidity in the tapered I-beam type frame girder when

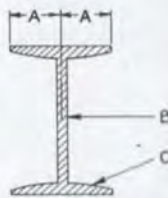
compared with the uniform depth channel type (See Figure 1), but it has been impossible up to now to build such frames commercially in quantities. Revolutionary changes in steel fabrication have brought with them

Conventional Old-style Channel-Type Section



A—Unbalanced load distribution
B—Heavy section where not wanted

Packard New Design I-beam Girder



A—Balanced load distribution
B—Light section where wanted
C—Heavy section where wanted

Both of these girders are the same weight but Packard's new design I-beam is several times stronger than the conventional channel type

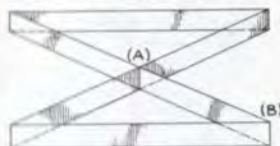
Figure 1

Comparison Channel and I-Beam Girder

improved methods in electric welding, making this new type of tapered I-beam frame construction now possible and Packard will be one of the first to take advantage of it, and use it on its entire line of cars.

In the new Packard Double-Trussed frame the center girders in the X-members are now tapered I-beams and vary in depth from 9 inches at the deepest part (A) in the center to 6 inches at the junction point (B) with the side members (See Figure 2). With this new type of rigid construction it distributes the twisting strains more evenly and prevents the concentration of deflection at one point as is usual in the channel type girders of

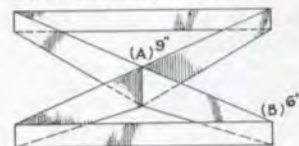
Conventional Channel Girder Uniform Depth



Girder is uniform in depth at (A) and (B) with greatest deflection at (A)



Packard Double Truss Tapered Depth I-beam



I-beam girder is tapered in depth (A)—9" (B)—6" deflection and stress is not localized but is evenly distributed between (A) and (B)



Figure 2

(Left)—Conventional Channel Girder
(Right)—Packard Tapered Depth I-Beam

uniform or tapered depth from center to side members. The need for special center steel plates at the X junction used by some cars of much higher price, to help prevent frame distortion on open or sport model body types is unnecessary in Packard cars.

Packard frames are properly designed for great rigidity. The X-members in addition to being stronger due to the tapered I-beam girder construction are designed so that the arms extend front and rear from the center junction in a straight line, and intersect the point of force application where road shocks are centralized. This greatly reduces twisting strains in the X-member and makes the entire frame much stronger.

Some competitive frame designs are less rigid than Packard frames for two reasons:

1. They do not have the tapered I-beam type of girder in the X-member.
2. The arms of the X-member are not in straight line front to rear which increases the twisting strains and concentrates them at point A (See Figure 2).

The Packard Double-Trussed frame is also unusually rigid at the front end. The front cross member is a massive steel plate $11\frac{3}{4}$ inches wide and $6\frac{3}{8}$ inches



Sturdy and Rigid Front Cross Member

deep, which is welded and riveted to the side members and provides the necessary rigid foundation for the motor and Safe-T-fleX front wheel suspension assembly. Extending backward from the front cross member along each side rail to the junction point where the front arm of the X-member joins it, is a welded and riveted box-section side rail reinforcement. It provides a much wider and more effective frame section at the point of greatest stress (A) where the front of the body is attached to the frame and counteracts any crosswise twisting strains in the frame being transferred into the body (See Figure 3). Most cars do not provide this extra strength at all, while others use the cheaper method of welding the body to a less rigid frame which increases the amount of body strain and in time causes body squeaks and rattles.

Additional frame strength is provided on each side by the four reinforcing members that connect the X-mem-

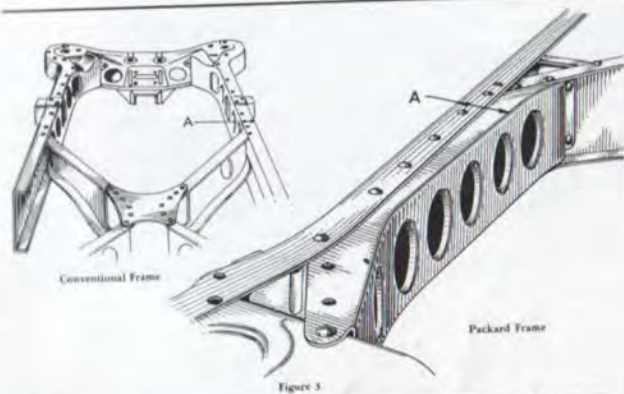


Figure 3

Box Section Side Rail Reinforcement

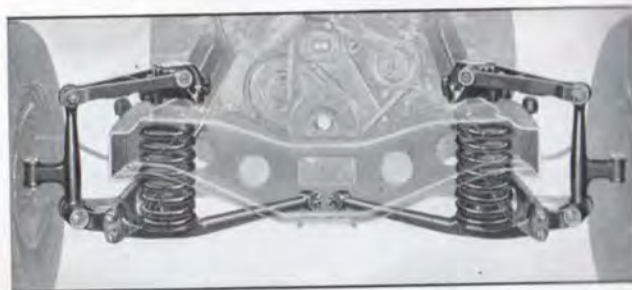
ber arms with the side rails and at the rear by the two cross members which tie the ends of the frame together and provide support for the fuel tank.

Safe-T-fleX Front Wheel Suspension

Safe-T-fleX is an exclusive development of independent front wheel suspension by Packard engineers. It is the perfected result of years of experimental research and testing with ten different Packard designs and represents the latest and most advanced thinking in both American and European suspensions.

Safe-T-fleX was introduced by Packard on the first series Packard One Twenty since which time it has been thoroughly proved on thousands of Packard cars driven millions of miles in all parts of the world.

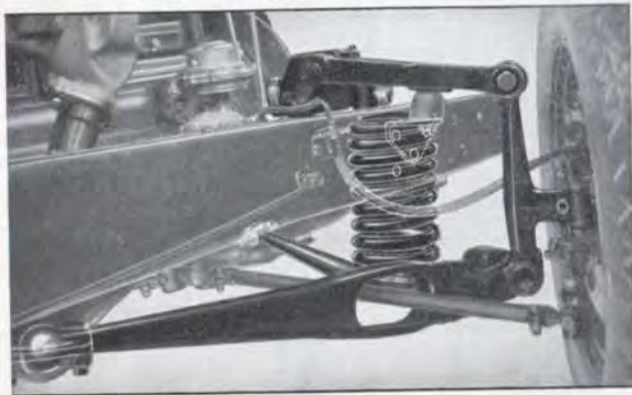
Packard Safe-T-fleX may appear to be similar to other coil type spring suspensions but when analyzed it is actually very different. A close study of its features of superior design will show many advantages that readily account for its exceptional riding qualities which

*Safe-T-fleX—Front View*

have been proved in comparative tests with other coil type suspension cars.

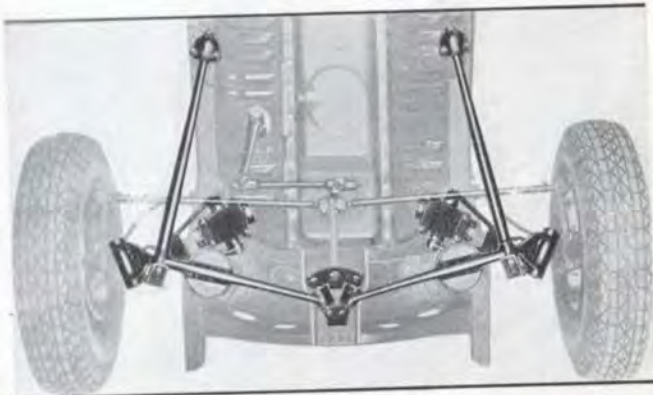
Every Packard salesman should be thoroughly familiar with Safe-T-fleX so that he can intelligently discuss it when a prospect wishes to compare it with other designs of independent front wheel suspensions.

The Lower Lever and Torque Arm—The lower lever (called the support and torque arm assembly) is made up of two arms, the forward or support arm and

*Safe-T-fleX—Torque Arm*

the rear or torque arm. The support arm is a heavy steel forging with an integral pad on which the coil suspension spring rests. It is attached at its inner end to the heavily reinforced front cross member with a rubber bushing. The tubular steel torque arm is rigidly bolted to the frame side rail—at a point near the dash—in a rubber bearing of spherical shape. These two rubber bearings form the axis about which the lower lever oscillates and the great spread or distance between them is very important in providing and maintaining proper wheel alignment. With such wide centers of support only very slight variations in alignment can occur.

Also of great importance is the fact that really adequate provision has been made for braking loads and for proper caster angle. The husky torque arm takes all braking loads—in fact, the high capacity of this member has permitted a higher percentage of braking effort on the front wheels than would otherwise be feasible. In addition, the torque arm permanently fixes the king-pin caster angle. Owing to its great length only extremely small variations are possible and therefore no adjustment means is necessary. This lower

*Safe-T-fleX—Bottom View*

lever assembly then, takes the spring load, the driving load, the braking load and a major part of all other reaction.

The Upper Lever and Shock Absorbers—The upper lever is made up of double steel arms welded together in a single rigid unit. The main functions of this lever are to position the wheel for proper camber angle, absorb lateral thrust loads, actuate the shock absorber and limit rebound. The design of the upper lever gives it more than ample capacity for any thrust loads that can be imposed in normal use. At its inner end each of the two arms that make up the upper lever is attached to one end of the main shock absorber shaft, thus accomplishing actuation of the shock absorber. Near the center of the lever a right angle steel spacer and platform is welded which adds stiffness and rigidity to the lever and which also engages a rubber bumper attached to the frame side rail to limit rebound.

The shock absorbers are of the latest double-acting type with the main shaft supported in two long bearings which are lubricated from the main reservoir. Four widely spaced bolts attach it to the main frame at a point where it is heavily reinforced.

The Vertical Wheel Support—The vertical wheel support is a large forging that connects the road wheel with the suspension levers. Since the major portion of the load is carried by the lower hinge point, the attachment of the wheel support to the lower lever is made by means of a horizontal king-pin which employs two roller bearings to support the load and a ball thrust bearing to take driving and braking loads. Connection to the upper lever is made by means of a rubber bushing designed to prevent the transmission of braking or driving loads to the upper lever.

Coil Springs and Rubber Bumpers—The large coiled springs are made of high-grade tempered steel. The upper end of each spring is centered and seated in the frame front cross member while the lower end is

centered and seated on the integral pad of the lower lever support arm.

Inside the springs are large rubber bumpers which supplement the springs under extreme road conditions. The springs are designed for low stress and long life.

Rubber Bushings—In connection with the rubber bushings used in the upper and lower levers, it should be pointed out that these oil-less bearings function in a very unique manner that adds considerably to the fine results obtained with the Safe-T-flex suspension.

For small wheel movement these bearings offer practically no resistance, but their resistance builds up very rapidly for larger wheel movement. This characteristic permits the use of a more resilient suspension spring than would otherwise be possible. In addition—being of live rubber—these bushings have a pronounced effect in insulating or damping out road shocks that would otherwise be imparted to the frame. The combination of the soft suspension springs and the low resistance and insulation of the rubber bushings is largely responsible for the remarkably soft boulevard ride, while the high resistance of these same bushings to large wheel movement plus shock absorber restraint provides the necessary control for a comfortable and safe high speed ride over rough roads.

ADVANTAGES OF SAFE-T-FLEX

Riding Comfort—Through the combination of re-balanced chassis design and elimination of rigid front axles and stiff front springs, formerly used in conventional cars, it is now possible to use softer front coil springs with independent front wheel suspension.

The front springs are now nearly as soft as the rear and this provides a flat ride and gives rear seat passengers the same riding comfort as the driver. It eliminates the sudden pitching and tossing motions and the neck cracking jolts which have always presented a problem in rear seat riding comfort in cars having rigid front axles and stiff front springs.

The design of Safe-T-fleX permits a slight recession of the wheel in passing over an obstruction. This point is important in contrast with other designs and accounts for Packard's superior freedom from ride harshness.

Greater Safety—Safe-T-fleX increases driving safety at all speeds through better steering and car control and better roadability. In event of blowouts at high speeds there is better protection against accidents.

Due to the rugged design of the torque arms, the resistance to front end damage in case of accident, is very much higher than in any type of independent suspension without it. Only Packard has the torque arm type of construction.

Longer Tire Life and Better Roadability—Safe-T-fleX makes possible the use of low pressure tires and because of correct steering geometry and the rigidity of the design the tires give normal life. Application of the brakes does not cause the front wheels to toe out and scrub the tires.

Better Steering—The torque arm maintains wheel alignment and holds the caster angle in a fixed position. In cars with conventional axles and springs, the caster angle changes appreciably with spring movements and brake application. This tends to change the steering, causing car wander. With Safe-T-fleX the torque arm takes the heavy braking torque and bending stresses applied to conventional springs and because the wheels are fixed in position, steering efficiency is unaffected.

Better Braking—Safe-T-fleX provides for quicker and safer stopping. There is 26% more braking on the front wheels than on the rear. As a car stops its weight is suddenly shifted forward and Packard utilizes this additional weight in combination with greater braking ratio for faster deceleration.

Another noticeable advantage of Safe-T-fleX is the reduction of dipping and squatting of the front end so common in other types of suspensions, when brakes

are applied. The torque arm of Safe-T-fleX counteracts this action.

Longer Life with Less Wear and Service—Safe-T-fleX suspension will have longer life as a unit because of less wear and fewer parts to lubricate and it will also lengthen car life. It has no metal-to-metal bearings through which fatiguing road shocks and wheel vibrations may be transferred to the chassis. There are no screw thread bearings to get dry, squeak and wear.

LIVE RUBBER BUSHINGS—completely insulate the frame and body from road shocks. They contribute to greater quietness and assist in materially lengthening car life. They also promote greater steering ease and riding comfort. These rubber bearings offer practically no resistance in small wheel movements but their resistance builds up very rapidly with larger wheel movements. This permits the use of a more resilient suspension coil spring than would otherwise be possible.

GENEROUS RUBBER BUMPERS—mounted inside the coil springs and rebound bumpers mounted under the shock absorber arms prevent excessive movement of the front end.

FEWER PARTS TO SERVICE—The Packard suspension design which includes the liberal use of live rubber bushings has only two roller bearings (knuckle pins) subject to lubrication once or twice a year. This compares with eight and ten on other independent suspension designs with more frequent need of lubrication.

Safe-T-fleX does more than all of the things claimed by other types of independent front wheel suspensions, and it does them better, safer and more economically. It is the latest in design, more modern, simpler in arrangement and stronger and more rugged in construction than other types. In action it gives a better ride at all speeds on all kinds of roads whether smooth or rough and on curves it is easier and safer to handle.

No other company can claim all of these superior features and in Safe-T-fleX Packard salesmen have the latest and most efficient type of independent front wheel suspension that has been offered to the public.

Harmonized Steering—Packard cars have a reputation for easy steering especially with women. It is possible to drive all day long for hundreds of miles without fatigue because every part of Packard's harmonized steering mechanism functions with such coordination that all physical effort has been minimized.



**Worm and Double Tooth
Roller Steering Gear**

The steering gear is the worm and double tooth roller type. The worm is mounted on two tapered roller bearings and the roller is carried on two large ball bearings. This mounting assures effortless steering in either direction. It is mounted on the frame well forward, which permits the use of a simple single connecting rod from the steering gear to the center steering lever also mounted on ball bearings at the center of the front cross member.

Connected to the center steering lever are two steering cross tubes mounted in spring loaded ball joints and at each end they are attached to steering knuckle levers.

With this type of steering gear each wheel can follow the irregularities of the road without transmitting the



Steering System Assembly Bottom View

road shocks directly to the other wheel. It also gives much better straight line steering, and a short turning radius which makes the car easy to handle and park in congested areas. After turning corners the front wheels return to straight ahead position without the necessity of the driver's physical effort. The right amount of friction is used in the steering connections to prevent road shock in the steering wheel. This also greatly reduces driver fatigue in car control.

The steering gear ratio is 18.4 to 1 with a short turning radius of 19½ feet on Packard One Twenty and 19' 2" on Packard Six. This also permits easy and quick cutting of the front wheels when parking in crowded places. The 18-inch steering wheel is the three-spoke clear vision type of molded hard rubber over a strong but flexible steel frame. It is tested for great strength and in event of an accident will bend but not break. The Packard One Twenty wheel is finished in a special color treatment of gypsy brown to match the instrument panel (Packard Six wheel is finished in black). With its thin easy-grip rim it provides a strong, easily handled steering wheel for the most delicate hands of any woman driver.

Roll Control Bar—When a car turns a corner or rounds a curve at high speed there is a sudden change of direction in car weight. This tends to create body



Roll Control Bar—(Rear)

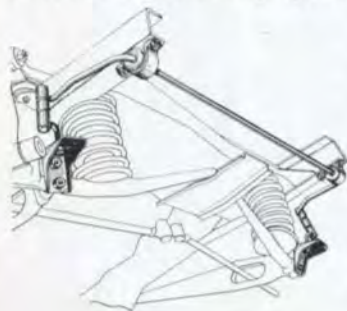
roll or sway due to the desire of the upper part of the car to travel in the same direction while the wheels have changed their course.

To overcome this lurching, and any body sway that might be caused when driving over uneven or rutted roads, and to eliminate consequent discomfort to the passengers Packard provides a rear roll control bar.

It is a bar of spring steel fastened rigidly to each rear shock absorber. When one side of the car rises more than the other it increases the stiffness of the suspension through the twisting or opposing motion of one end of the bar to the other. It is like trying to twist the ends of a bar with the hands in opposite directions.

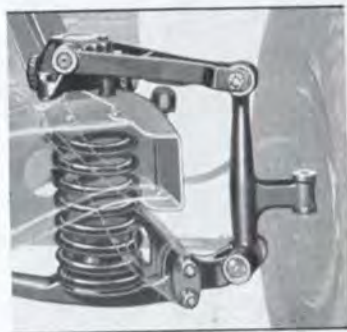
Front Roll Control Bar—Optional Equipment—

There is a demand by special customers who do a lot of long distance high speed driving who desire maximum car stability on curves and turns at higher driving speeds than normally used. To satisfy this demand Packard provides an extra roll control bar for the front end which may be specified as optional car equipment at small extra cost.



*Roll Control Bar
(Front Installation)*

Shock Absorbers—Improvements have been made in Packard One Twenty shock absorber connections and bushings. New type valves which are quieter and an anti-rattle device to prevent rotation of piston will give maximum quietness in operation. Packard provides double-action or two-way shock absorbers to control both spring action and frame movements on the compression as well as on the rebound after encountering the bump or road disturbance. Some cars provide only single action shock absorbers which control rebound motions but do not control the discomforting drop motions that precede them.



*Double Action Shock Absorber
(Front)*

The Packard Safe-T-fleX front wheel suspension is so designed that the upper arms connected with the front shock absorbers do not take any part of the spring load, the driving load or the braking load. This leaves the shock absorbers free to function entirely on ride control and in combination with Safe-T-fleX and rubber bushings they provide the finest riding comfort of any car in the weight class of either the Packard Six or One Twenty.

Rear Springs and Shackles—The extreme importance of the rear springs to the improved riding comfort in Packard cars has been recognized with the introduction of Safe-T-fleX independent suspension.

The front end of the Packard One Twenty rear spring suspension has been changed to a new type of spring eye. It is also used on the new Packard Six. With this

new type of rear spring the center of the eye is in the same plane as the center of the main spring leaf, and the rear axle moves over irregularities in a vertical line which improves car control. It also improves the general stability of the rear end due to elimination of



Rear Spring—Jack Pad

any side to side wander and is especially helpful in reducing what is known as wind steering.

Another improvement in rear spring construction is the addition of a jack-pad to the Packard One Twenty. (Used also in Packard Six.) It is located on the rear spring cover and provides a more convenient place for use of the jack when an emergency tire change is necessary.

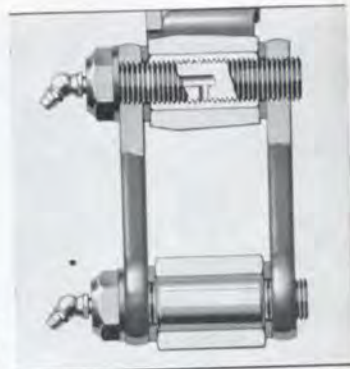
The jack-pad at the front of the car is located at the front end of the torque arm in the Safe-T-fleX front wheel suspension unit.

This is a small but important detail of design in the many things which Packard builds for the greater convenience of the Packard owner.

Rear springs of high grade silico-manganese steel are covered with felt to retain the lubricant with which they are packed and are then enclosed in metal spring covers to keep them dry and free from mud splash and water.

The rear spring shackles or mountings are of unusual interest. At the front end the springs are firmly mounted with bushings of live rubber which give a softer cushioned mounting of the springs and insulates the frame from the customary squeaks due to lack of lubrication. The rear of each spring is shack-

led with threaded bolts which permit the free movement required and eliminate any sidesway or wear. No adjustment is required for wear as the threaded bushings and screw-thread spring bolt retain their permanent seat adjustment and distribute the wear evenly. A greater supply of lubricant is retained better in this type of mounting, which helps to give quieter action and freer spring movement.



Threaded Type Rear Spring Shackle

Packard Angleset Hypoid Rear Axle—The rear axles of the Packard One Twenty and Packard Six are unusually rugged and strong and are built with a large extra safety factor against overload.

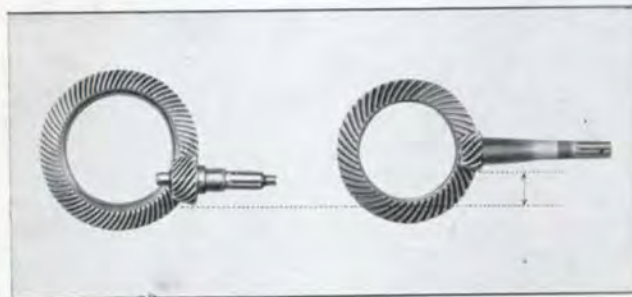
Both axles are of the same design, the Packard One Twenty axle housing being slightly heavier due to the increased weight of the car. In the new Packard One Twenty the differential pinion bearings have been increased in size to provide increased capacity. The height of the oil level has also been increased to provide additional lubrication for sustained high speed driving, to offset natural oil level drop, adjacent to pinion due to ring gear rotation.

The Packard angleset hypoid axle was pioneered and developed by Packard, and is offered exclusively on Packard cars. It has definite advantages of greater quietness and longer life over the conventional type of spiral bevel axles.

Hypoid Gears—Hypoid gears permit a lowering of the propeller shaft which makes it possible to obtain low over-all car height without resorting to tunnels in



Packard Angleset Hypoid Gear Rear Axle



Comparison Hypoid vs. Spiral Gears

Left—Hypoid Gear. Right—Spiral Bevel (note height)

the front and rear compartments. Hypoid gears are much quieter in operation, and they are also longer lived because the driving pinion is larger, has stronger teeth and with more of the teeth in contact at all times, it reduces individual tooth pressure. Under average circumstances the hypoid gear has one more tooth in contact than the conventional spiral bevel.

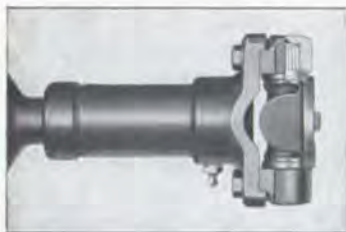
Angleset Axle—Angleset rear axle permits the reduction of the height of the rear seat in relation to the ground and adds to better roadability. When springs are fully compressed, no allowance has to be made for seat clearance of the axle; whereas with the conventional axle, the seat must be placed higher, which in turn requires a higher body roof line.

The Packard axle is the semi-floating type with axle shafts of chrome molybdenum steel. The driving pinion is mounted on two large ball bearings with special lubrication separate from the axle gear lubricant. The axle housing is made from rolled steel with reinforcements for additional strength. The differential gear is of the two-pinion type with unusual capacity to prevent backlash. Differential and ring gears are supported on tapered roller bearings, and the outer ends of the axle shafts to which the wheels are attached are carried on double sealed single row ball bearings, which require no lubrication and prevent oil leakage into rear wheel brake drums.

All rear axle gears are finished with extreme care and are held to precision limits of three to five thousandths (.003—.005) of an inch clearance between pinion and ring gear to insure absolute silence in operation.

Rear axle ratio in Packard Six is 4.36 to 1 and in Packard One Twenty 4.09 to 1, which provides best average performance under all operating conditions.

Hotchkiss Drive, Propeller Shaft and Universal Joint—The time, expense and effort spent in the precision balancing of the motor, clutch and transmission



Universal Joint Roller Bearings

parts would be lost if friction or out-of-balance were permitted in the drive line between the engine and rear axle.

Packard uses a tubular type propeller shaft balanced both statically and dynamically and fitted at each end with universal joints having roller bearings packed with

lubricant when assembled, that need no lubrication or attention for a normal year's driving or more.

The propeller shaft and universals used on Packard One Twenty are larger than those used on Packard Six due to the greater horsepower requirements of its larger engine.

Packard uses the Hotchkiss drive rather than the torque tube because of its many superior advantages. With the Hotchkiss type drive, the unsprung weight is reduced, which greatly improves the ride and the starting and stopping strains are cushioned by the springs before they reach the frame. It also allows smoother action of the axle on rough roads because the wheels follow road irregularities more freely.

Two interesting features of the universal joints are the provisions made to effectively seal them against dirt and water and the loss of lubricant, also the design of the joints, which take the driving strains through a tongue and groove in the flanges instead of through the bolts which hold the flanges together.

THE PACKARD BRAKING SYSTEM

Packard engineers have provided a braking system for the Packard One Twenty and Packard Six built to meet the modern requirements of more crowded traffic

and higher speed driving, which demands greater safety, quicker and more positive stopping ability for emergencies and the minimum of physical effort in operation. They are, without doubt, the finest and best engineered brakes available on any car when considered from the standpoint of effectiveness in relation to car weight.

Servo-Sealed Hydraulic Brakes—The braking system consists of two separate and independent operating units—hydraulic service brakes and mechanical hand brakes for parking or emergency use.

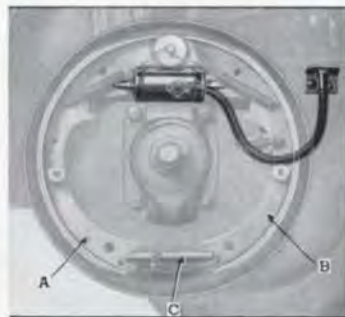
In comparison with other cars, Packard hydraulic brakes operate with better results due to the greater stability of the Packard Safe-T-fleX front suspension and the greater ratio of braking effort between front and rear wheels.

The hydraulic brake system operates from the brake pedal which is connected to a master fluid cylinder. Pressure on the brake pedal exerts pressure on the fluid and forces it through tubing to each wheel in which are smaller cylinders with pistons connected to the brake shoes, which are forced apart into contact with the brake drums.

When pressure is applied to an enclosed mass of fluid, it is transmitted equally in all directions. Consequently, when foot pressure is applied to the hydraulic brake pedal, braking action and pressure are equalized when all four brake shoes are in contact with the brake drums. As additional foot pressure is applied, it is transmitted equally to all four wheels, giving a positive and self-equalized braking energy.

Servo or Self-Energizing Action—In contrast with hydraulic brakes that do not have the Servo or self-energizing feature, Packard hydraulic brakes utilize the forward momentum of the car to assist in applying braking force to stop the car.

In the Packard hydraulic brake system the two brake shoes in each drum are movably mounted and are



*Hydraulic Brake—
Front Wheel*

tion is transferred to the secondary shoe (B) through the flexible coupling (C) which forces both shoes into closer contact with the drum. The forward motion of the car automatically builds up the braking pressure, and it is used to increase the stopping power and reduce the amount of physical effort required by the driver.

In many cars having other types of hydraulic brakes, this Servo or self-energizing action is not available due to the rigid mounting of the two shoes at their lower ends. They require higher pedal pressure and more frequent adjustment to maintain full shoe contact.

Mechanical Hand Brakes—A mechanical parking or emergency brake in each rear wheel operates entirely



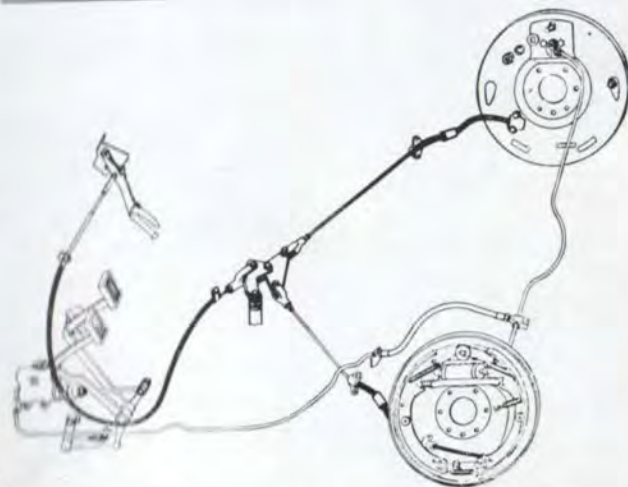
*Hydraulic Brake—
Rear Wheel*

separate and independent of the hydraulic foot brake. It is connected by a flexible cable hook-up through a pendulum lever or brake equalizer bar mounted on the frame X-member, to a hand lever conveniently located on the left side of the driver underneath the instrument panel.

In addition to the extra braking for emergency use, it also enables the driver to park the car on a hill or jack up a rear wheel for tire changing without blocking the wheels. This type of hand brake is considered far safer and more dependable than the propeller shaft type, which has a smaller area of effective braking surface.

The Packard One Twenty has 12 inch diameter brake drums with an effective braking area of 182 square inches. The hand brake area on rear wheels is 91 square inches.

The Packard Six has 11 inch diameter brake drums with effective braking area of 168 square inches and hand brake area of 84 square inches.



Mechanical Hand Brakes with Equalizer

Centrifuse Brake Drums—The continued efficiency of any braking system depends on the kind of material used in the brake drums. Higher speed driving with more frequent and faster stopping and the increased use of brakes due to the stop and go driving of congested traffic has introduced new requirements in brake drum design to prevent warping and rapid wear and insure greater brake dependability.



Centrifuse Brake Drum
(Cross Section)

is fused with the steel through heat and centrifugal force.

The centrifuse drums resist expansion due to intense heat caused by continued use of the brakes. The harder braking surface also eliminates scoring and permits the use of brake linings that last longer and reduce service expense in replacement. To protect the brakes from water, sand and dirt and other foreign matter getting into the brake mechanism, which causes friction and wear, an effective brake seal is used on both front and rear brake drums.

An example of the long life of Packard brakes is the record of a Packard One Twenty test car at the Packard Proving Grounds, which covered 107,000 miles in a period of eight months driving in all kinds of road test work with the original brake linings. This contrasts with competitive cars in which replacements were necessary at 10,000 mile periods.

Wheels—The newly designed steel wheels on the Packard One Twenty (used also on the new Packard Six) combine beauty, utility, and safety with massive appearance and light weight.

The wheels are the demountable disc type of pressed steel 16" dia. with drop center rims. Each wheel and tire is balanced to prevent road vibration or wheel tramp.

The steel disc wheels combine greater strength with lighter weight and utility. They are easier to keep clean, and add much to the general appearance of the car. The large

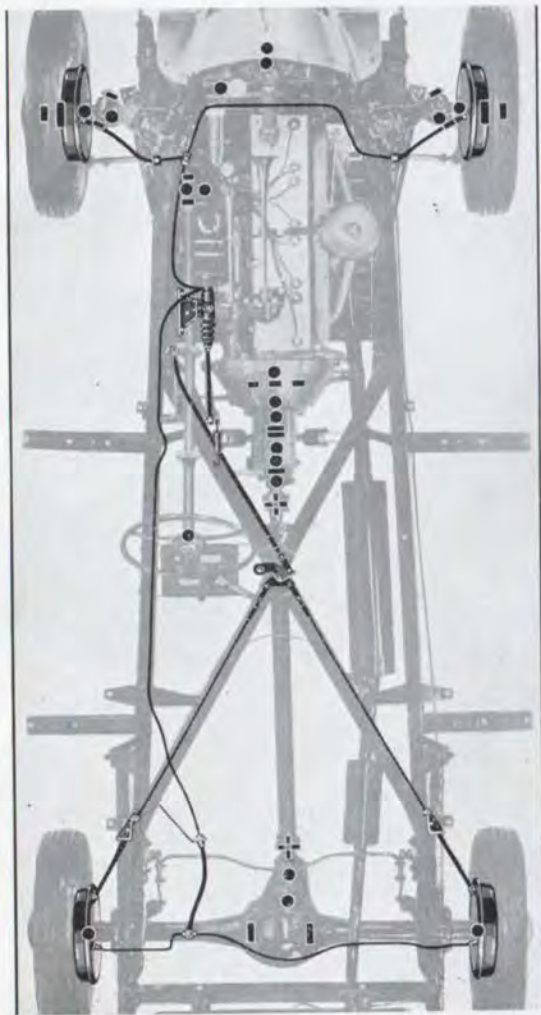
10" dia. chrome plated hub caps have the familiar and well known Packard hexagon trademark.

On five-wheel equipment cars, the spare wheel is carried at the rear. Packard One Twenty cars with six wheels and fender wells are available on special order for purchasers who desire the full trunk space for baggage. **The Packard Six will not be available with six wheels and fender well equipment.**

Tires—Low pressure balloon tires with the silent ribbed type tread give maximum riding comfort and quietness, and cushion road shocks from reaching the



Steel Disc Wheel



Packard One Twenty Chassis—46 Anti-friction Bearings
 Denote Roller Bearings ● Denotes Ball Bearings

frame and body. The Packard Six is equipped with 16 x 6.50 four-ply tires with recommended pressures 22 lbs. front and 24 lbs. rear. The Packard One Twenty is equipped with 16 x 7.00 four-ply tires with recommended pressures 23 lbs. front and 25 lbs. rear.

Packard uses tire sizes that are larger for the car weight they carry than is customary in competitive cars. This gives the purchaser greater safety, longer tire life, and a better ride. Braking efficiency and deceleration are also increased due to the greater road surface contact of the larger tires.

Anti-friction Bearings—Packard engineering which for years has been devoted to the design of America's finest cars, has developed in the Packard One Twenty and Packard Six chassis quality features that are unusual in other cars at their price. An important feature which contributes to long life and reduced service attention in the Packard One Twenty and Packard Six is the liberal use of anti-friction bearings which eliminate unnecessary wear and friction in the moving parts at all important points. There are a total of 46 ball and roller bearings. This does not include the liberal use of eight other rubber bearings and bushings used in the important parts of the Safe-T-fleX front suspension and rear spring front hanger mountings.

Bumpers—Bumpers have been restyled on the Packard One Twenty. Both cars have built-in bumper guards. The bumpers are made of heavy spring steel for adequate protection in parking, and are plated with copper and nickel and finished in chromium to maintain their decorative appearance.

Chassis Lubrication—Packard engineering has simplified chassis design and construction so that it requires the minimum of lubrication and service maintenance.

As an item of simplicity in chassis design there are only twelve (12) points requiring pressure lubrication at 2000 mile periods.

Chassis lubrication may be divided into four major parts—motor parts, steering gear, transmission, and rear axle, and classified into two mileage periods when lubrication is necessary.

2000 Mile Periods

Knuckle pins
Steering connecting rod
Steering tie rods
Rear spring shackle
Water pump shaft
Generator
Starter motor
Distributor
Clutch and brake pedals
Crankcase
Universal joint spline

10,000 Mile Periods

Safe-T-fleX support arm pin
Front wheel bearings
Transmission
Steering gear
Rear axle

BODY FEATURES AND CONSTRUCTION SECTION

PACKARD ONE TWENTY

PACKARD SIX

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Packard One Twenty 5-Passenger Sedan—Side View

BODY

EXTERIOR APPEARANCE FEATURES

Both the Packard One Twenty and the new Packard Six, despite their low price, are thoroughbred Packards in tradition, in design, in manufacture, and in style identity.

From its earliest history, Packard has given its cars this enduring style identity. In contrast with other manufacturers who have recently made yearly style changes by sacrificing riding comfort, satisfactory vision



Packard One Twenty—Front View

and proper driving safety, Packard has never made unnecessary and meaningless style changes in its yearly models, and in these two new cars it continues this definite Packard policy.

In the lower price class, one in which radical style changes are predominant and constant, the lines of the new Packards are the greatest insurance against needless obsolescence. It makes a Packard recognizable

years after its purchase and among the monotonous similarity of cars in the lower price group, Packard stands out as the one car exclusively that needs no name plate or freakish lines to identify it.

The body styling and appearance of the Packard One Twenty and Packard Six is similar in general treatment, but with detail differences in appointments and trim. The Packard One Twenty is a larger and longer car than the Packard Six. The changes which have been made in the slope of the Packard One Twenty radiator lengthen the hood to give it a longer sweep from radiator to windshield and the impression of a much larger and more expensive car.

Front View—Both the Packard One Twenty and Packard Six have the same conservative design of **radiator grille**, now made with longer vertical steel strips finished in polished bright chrome plate. This makes it more massive and a distinctive contrast to the cheaper type of die cast light metal grilles commonly used in most cars. There is a factor of utility in the Packard grille, which is easily repaired in case of damage, whereas the die cast grille must be replaced. The famous Packard bale radiator ornament comes as standard equipment without the extra customary charge for radiator ornaments on other cars.

Bumpers have newly designed built-in bumper guards. The Packard hexagon trademark adds distinction to the front end treatment of Packard One Twenty. The large bullet-shaped **headlamps** harmonize with the



Packard One Twenty Front Bumper

air stream treatment of fenders and body. Packard One Twenty headlamps have a top chrome decorative wind-split, which is omitted on the Packard Six headlamps. **Headlamp lens** is convex and can be seen from the side by approaching cars at night.

Side View—The **hood** treatment of both Packard One Twenty and Packard Six is distinctively Packard with the tapered shoulder line that merges with the life-long Packard styled radiator shell. The direct action single hood catch on each side is easy to operate, and the inside catch at the rear prevents it from dropping, when it is raised.

The new Packard One Twenty hood is $2\frac{5}{16}$ " longer due to a decrease in the slope of the radiator shell. The louvers have been changed to the horizontal style of sectional louver openings and are chrome plated to resemble the larger Packard Super Eight. This change



Hood Louvers—Packard One Twenty



Hood Louvers—Packard Six

in hood styling adds greatly to the lengthened appearance of the Packard One Twenty.

The Packard Six hood is five inches shorter than the Packard One Twenty and has the vertical style of sectional louvers finished in body color.

The sloped **windshield** prevents headlight glare from the rear in night driving. It is the fixed type straight across glass in one piece without the annoying center vertical strip used in many cars that interferes with driving vision. The glass opening has been increased $1\frac{3}{4}$ " at the top, which provides improved and unusual visibility particularly important at traffic intersections with overhead signals.

One **windshield wiper** is standard, but two wipers are furnished in regular production (the extra wiper being included in standard accessory group). They are operated by a concealed mechanism under the cowl and are pivoted from the bottom, which is a feature of important safety compared to top-pivoted wipers which pack snow in the corners and gradually restrict driving vision to a much smaller opening. A control button regulates the speed of the wipers as desired.

A large **cowl ventilator** furnishes generous ventilation to the driving compartment. It is screened to keep out bees and insects, and when closed, is tightly sealed by a rubber insulated strip making it weathertight.

The **fenders** completely conceal the chassis and have the modern air stream contours with skirts to protect the body from mud and water splash. There is a decorative chrome finish strip between the headlamps and radiator.

The heavy steel **running boards** are covered with molded deep ribbed rubber mats, and are finished with a polished chrome plated binding trim strip that adds to the impression of greater car length. Running boards are attached to the fenders, which increases their strength and rigidity. Radio aerials are not attached underneath the running boards, but are integral with the roof of the body where they are protected and give

much better reception results. This is a very important sales feature of advantage in Packard cars and should be always emphasized. (Refer also to Built-in Roof Radio Antenna page 30 in this section).

Rear View — The smooth flowing lines of the sedan bodies merge into the rear fenders and rear compartment. Additional **luggage space** has been provided in the trunks by changing the door opening from the top to the single type full opening lid, which encloses both the tire and luggage compartment.

The trunk door is light in construction and can be lifted by the single handle, which is fitted with a lock to protect against theft. The door has a new type of **automatic lid prop** to prevent the lid from dropping, and can be released by one-hand operation by raising the lid slightly before lowering it.

The sport and convertible coupes have rear decks with separate compartments and door openings for the rumble seat and the spare tire. The business



Trunk with Single Type Door



New Type Automatic Lid Prop

coupe has the single opening rear deck lid with the spare tire horizontally mounted on the deck floor and generous baggage space above and in front of the tire. Additional space for brief cases and personal articles is provided



Business Coupe—Single Type Door

inside the body in a compartment back of the new straight across type front seat. The seat back is now divided and tilts forward for greater accessibility.

Trunk emblems of an attractive design with individual symbols for the Packard Six and Packard One Twenty will be available as optional accessory group equipment.

INTERIOR COMFORT FEATURES

The interiors of both the new Packard Six and the Packard One Twenty are designed for fine appearance and luxurious riding comfort. In size, both cars are similar, but in detailed appointments the Packard One Twenty is more luxurious both in appearance and finish. The Packard Six has a most attractive interior, and when compared with other cars in its price field will



Packard Six Interior

immediately impress a prospect with its finer quality and detailed finish throughout the entire car.

Upholstery—In the Packard One Twenty there will be an optional choice of three upholstery fabrics consisting of a plain neutral tone broadcloth and two patterned pinstripe broadcloths, all of rich appearance.

In the Packard Six, there will be an optional choice



Packard One Twenty Interior

of two upholstery cloths, a pin-stripe broadcloth and a bark weave patterned material.

These cloths are all broadcloth to meet the current popular demands, and have been selected for their long-wearing quality and dignified appearance.

Convertible cars will be upholstered standard in leather throughout. A choice of five leathers including blue, gray, green, tan, and black is available with certain paint schemes. Red leather is available at an extra charge in any paint scheme. The rumble seat only in the Sport Coupe will be trimmed in leather.

Trim-Style—The Packard One Twenty upholstery will be trimmed in pleated button type with stitched vertical panels in doors and on the back of the front seat. The Packard Six will be trimmed with narrow pleats with wide two-line horizontally stitched panels on the doors. The back of the front seat is panelled like the Packard One Twenty. All cushions are fashioned to maintain their well-tailored appearance indefinitely. Headlining is neatly finished, and braided windlace is used around all door openings.

Hardware and Fittings—Hardware is well designed and finished in polished chrome for harmonious interior appearance. It is shaped without sharp corners to avoid catching the clothing or chafing the hands, and door and window controls are placed for convenience and easy operation.

Door Locks—Door locks are furnished with two kinds of keys. One key operates the trunk and package compartment locks, and the other key locks the right front door and operates the ignition switch. This allows for public parking without access to trunk and package compartment.

Door locks prevent accidental locking out of the car. Both rear doors and the left front door are locked from the inside. The right front door must be locked with the key from the outside. When the car is occu-

ped, all doors can be locked inside for protection against intruders by tripping the lock handles upward.

Dome Light in all five-passenger body types is operated by a tumbler switch on the center pillar.

Arm Rests—Side arm rests with soft padded tops are on each side of the rear seat. In the Packard One Twenty and Packard Six each front door has individual arm rests as standard equipment to improve relaxation for front seat passenger and driver.



Front Door Arm Rest

Ash Receivers—On Packard Six and the Packard One Twenty Sedans, there is an ash tray on each rear quarter side wall. In the front compartment, an ash tray is included in the instrument panel of all body types, on both the Packard Six and Packard One Twenty.



Rear Seat Arm Rest

Assist Strap and Robe Cord—Assist straps of durable cloth are located on each rear door pillar of regular sedans. A robe cord covered with upholstery material is on the back of straight across front seats. In

the five-passenger coupe body with divided front seats, there is no cord.

Rear Compartment Comfort—The rear seat cushion has a high seat back for ample shoulder support and is unusually wide with comfortable seating accommodation for three average people. Shoulder width and head-room are generous and uncramped. In many cars with extreme sweep-tail rear end styling, the comfort of the rear seat passengers has been sacrificed to style due to the lowered head-room which restricts normal erect head posture of passengers on each side of the seat.

Generous leg-room is apparent the moment one sits in the rear seat of the Packard bodies. Here is another point where most other companies have sacrificed comfort for style. In both the front and rear compartment of Packard bodies, there is no tunnel or raised floor obstruction in the center due to required extra clearance for the transmission case or drive shaft. In Packard chassis, the Angleset rear axle is much lower and permits a smooth floor in the body.



Clear Floors Front and Rear (No Tunnel)

Foot Rest—A comfortable foot-rest with ample clearance for the normal position of the feet is built into the rear of the front seat in all five-passenger sedan bodies.

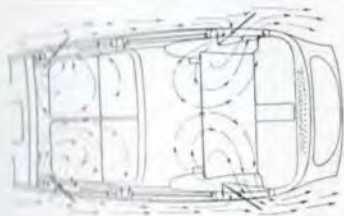
A well-tailored thick *carpet* backed with a thick felt pad completes the rear interior trim detail and protects passengers against cold and heat from the car floor.



Full Width Foot Rest

Ventilation—Enjoyable driving comfort in all kinds of weather is provided by the Packard ventilation system. It allows for individual control of ventilation without drafts, by passengers in both the front and rear compartments.

In the front compartment, the cowl ventilator in combination with the pivoted ventilators in each front door window provide front compartment driving comfort in winter or summer. The window ventilator crank handle adjusts the ventilator outward, which acts as a baffle and forces air into the car across the windshield. The forward movement of the



Individual Control Ventilation

the rear side of the window ventilators, which draws air out of the car. This system of positive air circulation keeps the car well ventilated without annoying drafts to driver or rear seat passengers.

In the rear compartment, the rear quarter windows are of the swivel type. The entire window moves outward at the rear and creates a suction that withdraws air from

the car. Many competitive cars have rear quarter windows with only half opening ventilators while in others the windows do not open at all.

In fine weather if additional air and ventilation are desired, the rear glass of the front door and the full glass of the rear door may be lowered without interfering with the regular ventilator windows. The cowl ventilator is screened to keep out insects and is regulated by a lever underneath the cowl.

The advantages of the Packard ventilation system are:

1. Eliminates direct drafts on passengers.
2. Allows each passenger to regulate ventilation to suit their individual requirements.
3. Removes smoke and maintains circulation of fresh air.
4. Increases driving comfort in hot and cold weather.
5. Keeps windshield from fogging in cold and rainy weather when ordinary windows would have to be closed.
6. Protects health by better air circulation and elimination of drafts.
7. Larger rear window openings increase the amount of air withdrawal over the half window pivot type.

FRONT COMPARTMENT COMFORT

Full Width Front Seats—Wide cushions with high shoulder backs are shaped to give the driver and passenger the most relaxed riding comfort possible at all times. The seat angles are correct for natural body posture and help to prevent fatigue on long trips. There is room enough for three people in the front seat, if desired, and the gear shift lever is placed forward so it does not obstruct foot room comfort.

The five-passenger coupe and business coupe in both the Packard One Twenty and Packard Six now have straight across seats with divided backs that tilt forward and permit easy access to the rear compartment.



Wide Front Seat

Wide Front Doors—Packard body front doors are wider than many higher priced cars. They are hinged at the front pillar, which provides greater safety when door is opened into the wind. There is plenty of room to get in and out of the front seat without discomfort.



*Wide Front Door
(Front Hinged)*



Double Action Front Seat Adjustment

ly need extra back cushions to give them proper support.

With this new automatic seat adjustment, there is a maximum travel fore and aft of $4\frac{3}{4}$ inches of the entire seat. When it is moved from the back to the forward position, there is an automatic adjustment of both seat cushion and also the seat back. The seat cushion rises in height $\frac{7}{8}$ inch at the rear and $\frac{1}{4}$ inch at the front. The seat back moves forward $6\frac{1}{2}$ inches at the top and $4\frac{3}{4}$ inches at the bottom. A choice of 9 seat adjustments is provided, which, together with the combination adjustment of the seat cushion and seat back, gives complete flexibility and a maximum range of seating comfort to suit the most discriminating prospect.

This new feature will appeal particularly to car owners who do a lot of long distance driving and have to spend more than the usual amount of time behind the wheel.

Adjustment of the seat forward and backward is controlled by the convenient lever at the left side of the seat cushion.

Double Action Front Seat Adjustment

—A new Packard body engineering feature of unusual interest in both Packard One Twenty and the new Packard Six bodies is the novel arrangement for complete front seat adjustment. It adds greatly to the comfort and relaxation of varying sizes of drivers, especially people of small stature who usual-

Convenient Driving Controls—Packard engineers have scientifically studied the movements of drivers, and have designed the Packard One Twenty and Packard Six with the objective of minimum lost motion and maximum effectiveness in car control.

The steering wheel angle allows the driver to sit in a natural position without stretching. The thinness of the notched rim facilitates an easy grip without hand strain. On the new Packard One Twenty, the steering wheel and column are both finished in color.



Front Compartment—Driving Controls

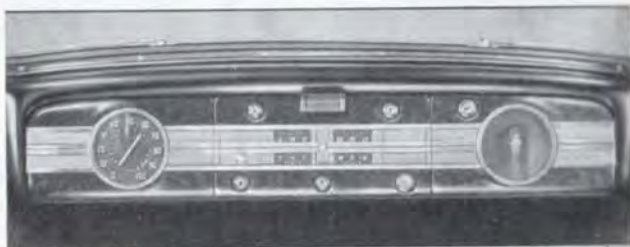
The gear shift lever is out of the way on the floor but long enough to be within easy reach of the driver's hand without moving the body when changing gears, and the travel of the lever is short and active. The gear shift lever of the Packard One Twenty is now nickel plated and has a shifter ball in color to match the steering wheel.

The hand brake lever is conveniently located on the left side of the instrument panel and is easy to operate and release.

Brake and clutch pedals are rubber covered with large foot pads to make their operation easy and comfortable.

Accelerator pedal and the foot control light switch button are well located and within easy reach without stretching or cramping the feet and legs. This is a small but important comfort feature frequently overlooked in many cars. It adds much to the pleasure of long distance driving.

Instrument Panel—The general design and location of controls and dials on the instrument panel is the same on Packard One Twenty and the Packard Six.



Instrument Panel—Packard One Twenty

The appearance and finish of the panels, however, is different. The Packard One Twenty has a satin finish die cast decorative panel that runs horizontally across it, adding greatly to its quality, finish, and appearance.

The Packard Six panel is beautiful and artistic in design and is finished in a burled walnut color tone. It



Instrument Panel—Packard Six

has the same instrument location treatment as Packard One Twenty without the decorative die-cast panel. Instrument dial faces are well located for clear driving vision. On the left side, the speedometer dial is directly in front of the driver. In the center panel group are the oil, gas, ammeter, and heat temperature gauges in the middle with the headlight switch and throttle pull type levers above it and the ignition lock, starter switch button, and cigar lighter below it.

At the right is a package compartment fitted with a lock to protect against theft of personal articles when car is parked. A decorative panel in the door is used for electrical clock installation when ordered.

The instrument dial faces are different on the Packard One Twenty and the Packard Six. The Packard One Twenty dials are edge-lighted, while the Packard Six dials are face-lighted with etched dials.

On each side of the center dials in the middle panel is a smaller panel, one for the ash receiver and the other for radio control dials. Radio installation with standard Packard approved radio equipment can be quickly made and will provide most satisfactory operation and reception.



Radio Installation Control Panel

Defroster and Hot Water Heater Installation—A new and exclusive built-in feature in instrument panel design is the provision made for installation of the defroster and hot water heater to provide greater warmth for the driver and quick removal of ice and



Windshield Defroster

sleet from the windshield. The defroster panel is cut in the top of instrument board of all bodies. By merely taking out the panel, it makes installation quick and easy without the possibility of marring the finish.

The new motor-driven DEFROSTER takes the hot air direct from the top of the car heater and distributes it evenly across the windshield glass.

It consists of a separate, motor-driven fan, mounted on top of the new Packard hot water heater, a separate rheostat switch, a special patented deflector which projects through the crown of the instrument board at the base of the windshield and a flexible hose to carry the hot air from the fan to the deflector on the dash.

All hose and fittings are mounted behind the instrument board and cannot be seen by the occupants of the car. The defroster may be operated at any time, as it is independent of the regular car heater.

Sun Visors and Rear View Mirror—Two fully adjustable sun visors are standard equipment as is the adjustable rear view mirror.

Floor Mat—A well-fitted floor mat of good quality ribbed rubber covers the front compartment floor. It is reinforced under the pedals where the wear is greatest. The mat is easily cleaned with the ribs on the toe board running lengthwise, while those on the floor run crosswise.

Driving Vision — The radical styling changes adopted by many other companies has restricted driving vision and increased the hazards of accidents. Packard engineers have cooperated in every way possible with the nation-wide effort now being made to reduce driving hazards and increase highway safety.



Full Vision Windshield

In line with this, the wide full vision windshield with its narrow pillars has been increased in the height of the top opening $1\frac{3}{4}$ inches, giving unusual visibility which will be appreciated when touring. It will also be appreciated by tall drivers in cities having overhead traffic signals.

Thermostatic Cigar Lighter—The new automatic cigar lighter with a thermostat heat control is included in the accessory group at extra cost. It heats faster, will not burn out, and does not require the driver's attention.

BODY CONSTRUCTION

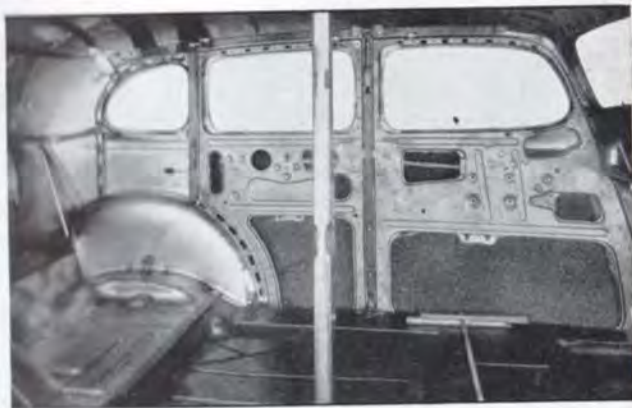
Body Construction Changes—Important improvements have been made in the detailed construction of the Packard One Twenty body (used also on the Packard Six chassis) that cover refinements in design to give greater quietness and better insulation as well as more convenience for the owner.

The **new door sealing** is a feature that involves considerable additional cost in production, and should be stressed as an important sales feature of advantage. All door openings are now completely sealed with a soft moulded sponge rubber weather seal which is applied in a grooved steel channel on each door frame, instead of being cemented on. This provides a quieter and cushioned door closing and effectively seals all openings against drafts, water leakage and outside noise. Door lock bolts and combination striker and dovetails also



Fuel Filler on Fender

make door closing easier and quieter and eliminate the top wedge plates used in previous model bodies. On trunk body models the luggage compartment door opening has been changed from the top lid opening to the single type full opening door, which encloses both the tire and luggage compartment. The door opening is reinforced with heavy gauge steel around all edges which forms a drain gutter designed to prevent any leakage into the luggage space. A **new type automatic lid prop** on the trunk door prevents the lid from dropping and can be released by one hand operation. The **tire pan** is now integral with the body structure which adds strength and gives better sealing against dust, moisture and exhaust gas odors.



Packard Safety-Plus Body—Note Steel Construction

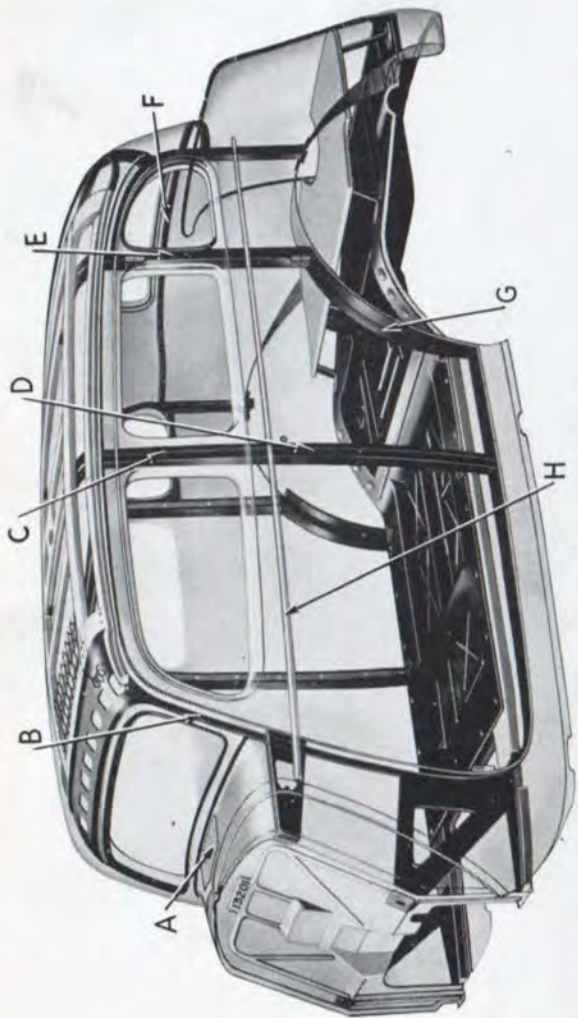
The filler neck to the fuel tank has been removed from the body and located in the fender to give increased trunk space and better sealing of the bodies.

These improvements are important to every owner and should be mentioned when discussing new features of body construction.

Front Section—The illustration graphically shows the great strength and rigidity of the front section which combines the cowl, windshield pillars, toe-board brackets and top header support into a single all-welded solid unit of steel construction.



Front Section—All Welded Solid Unit Steel Construction



Packard Safety-Plus Body

PACKARD SAFETY-PLUS BODY



D—Center Pillar and Doors



C—Center Pillar and Doors



B—Windshield Pillar and Front Door



A—Top of Cowl



H—Front Door at Belt Line



G—Wheel Housing and Door

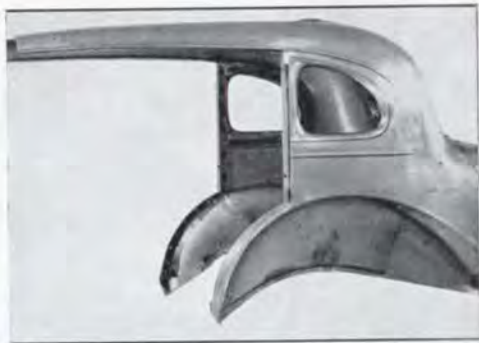


F—Rear Window Section



E—Rear Hinge Pillar and Door

SECTIONAL VIEWS OF BOX TYPE STEEL CONSTRUCTION



Rear Section—All Welded Solid Unit Steel Construction

Pillars—The front, center rear hinge and rear quarter pillars are all box-type construction to give them unusual strength and much greater rigidity. In the forming of the box section units the steel panels or outer shells are wrapped around the heavy gauge steel of the structural members and welded to them, thereby



Packard Body—Steel Welding Operation

utilizing the strength of the outer panels which in some types of bodies are used only for the outer covering.

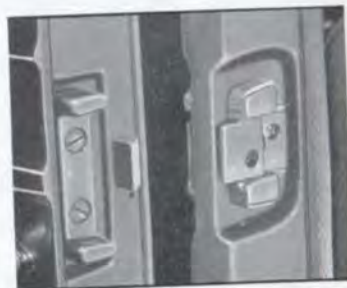
This box-type construction used by Packard is illustrated by detail cross-sectional drawings located at the various points where they are used and this picture should be shown to prospects to give them a convincing and conclusive understanding about the greater strength of box-section construction. A simple explanation of box construction is the additional strength of a shoe box with a cover. Without the cover it may be easily twisted, but when the cover is applied it immediately increases in rigidity and stiffness.

Rear Section—The rear section is composed of a number of separate steel units all welded together into one solid section. Packard uses the heavier 20 gauge steel for body panels and 16 gauge steel for the front and rear structural members excepting the center pillar which is the extra heavy 14 gauge steel. This is in contrast with some companies who use the lighter 22 gauge body steel panels. The front and rear section are welded together and with the doors form a complete steel enclosure on all sides.

Doors—Doors are of all steel construction and are attached with large strong hinges having oil pockets to insure ample lubrication and prevent squeaks.

New style door lock bolts give easier engagement. The new combination door striker and dovetail plates provide better support in keeping doors tight and preventing rattles and eliminate the top wedge plates formerly used.

Front doors are hinged in the front pillar. The upper



Door Striker and Dovetail Plates

hinge is a concealed type hinge which gives the exterior body line a clean cut appearance and reduces wind noise.

Mounting—The body is mounted on the chassis at 24 points—12 on each side of the body. Body shims of combination fabric and rubber are used to insulate the body from the frame and prevent noises being telegraphed into the body interior. Double mounting on both sides of the frame is used at the front and center pillars which points are usually subject to the greatest stress. Five of the twelve points of the body mounting on each side, are on outrigger brackets, five are directly to the frame side rails and the balance of two are on the two rear cross-members.



Packard Body Test for Quietness

Every part of the car has been given careful attention. The dash is covered with an insulation pad to prevent the heat from the engine compartment entering the body. The front compartment floor boards are floated in heavy felt which keeps out drafts and a felt pad underneath the front and rear floor mats gives protection

against heat and cold. Body side panels are insulated with a noise deadening material to dampen any body rumble.

All door openings are provided with a moulded sponge rubber weather seal which is applied in a grooved steel channel on each door frame to protect against cold, dust and water.

All bodies are given a high powered water-test before the body is passed to the final assembly for chassis mounting.



*Sponge Rubber Weather Seal
—Door Openings*



*Packard Body Test—
Water Testing*

Roof—The composite roof construction of steel, hardwood and wire is unusually strong and rigid. Under-

neath the steel roof rails is an inner frame of seasoned hardwood carefully selected for proper moisture content which is rigidly cross braced and secured by heavy steel brackets. A special cable type wire screen with heavy bonded strands at each point where they intersect, provides lateral bracing and great strength to the entire top, because of the equally distributed tension and cross pull from every angle. This composite roof construction has steel for the necessary strength with the required resiliency and flexibility of hardwood plus the cross-sectional and lateral bracing of the wire. It gives greater strength and is quieter, than bodies which have the so-called steel roofs of thin steel sheets less than 4/100 of an inch in thickness which are welded to the side panels and supported by three or four narrow cross bars.

Packard Built-in Roof Radio Antenna—Radio engineers claim that the Packard built-in roof type antenna is more efficient than the under-car type.

Radios in cars with all-steel tops must be made more sensitive to step up signal strength. Due to this increased sensitivity, distant stations and when changing between stations the reception is noisy. On the average the under car antenna costs the customer about \$5.00 more, while on Packard cars it is included in the roof at no extra cost to the customer.

Safety Glass—Packard uses safety glass in all doors, windows and windshields of Packard Six and Packard One Twenty bodies. It is made of two sheets of clear plate glass pressed together with a transparent cement between them, which does not change the crystal clearness of the glass nor discolor after being subjected to the intense heat rays of the sun. The edges are sealed to prevent moisture or air getting between the sheets of glass and affecting the cement in any way which might discolor it.

Safety glass is now recognized as a definite protection to motorists and its compulsory use in all new cars on the highway has been given legal approval and enforcement by many states.



Packard Body Painting and Finishing

Painting and Finishing—Packard controls every phase of its body production from the forming of the steel body panels to the final painting and finishing operations. Unlike some companies building higher priced cars, it does not have to depend on outside sources for its bodies which are made on a quantity production basis in plants making bodies for much lower priced cars.

Packard body production is therefore a highly specialized activity and by using the latest and most modern plant equipment it obtains a uniformity of Packard quality production which is unusual and impossible in many other companies.

Each body receives fourteen coats of finish made up of five coats of surfacer, one black inspection coat and eight coats of lacquer color. On cars of light colors additional coats of lacquer are used to provide the necessary permanency against color failure.

Rustproofing—In the treatment to protect against rust before painting operations are applied, Packard uses a deoxidine cleaning process. The parts are washed with a phosphoric acid alcohol solution and they are then scraped with steel wool to remove any rust or foreign matter. Following this the parts are thoroughly

rinsed and dried and then dipped in two coats of high baked primer without ever having been touched by hand.

Comparative tests and careful examinations have been made of competitive cars using other widely advertised methods of rustproofing that are applied by spraying methods which take only a few seconds to deposit the thin film that offers little protection against rust. It was found that Packard's process gave much better and more lasting results. This is another example of Packard quality finish that every salesman should be familiar with.

GENERAL BODY DISCUSSION

Exaggerated Claims Confusing to Prospects—

New car buyers are considering body construction much more carefully than ever before due to certain innovations in body design that have been widely advertised as features of greatly increased body strength and safety protection.

To create public interest and quick acceptance of these changes and innovations, advertising claims and illustrations have been made which have greatly exaggerated their importance and have been misleading in their comparisons.

Greater safety of all-steel bodies has been pictured by comparing the modern all-steel pullman car with the old style wooden railroad coach.

Greater protection against accidental body injury is claimed for the all-steel and turret top roof by showing pictures of the gun turrets on battleships. It is obviously misleading to compare the strength of the thin sheet of steel in the roof with the heavy thick steel armor-plate used to protect the guns of a warship.

Such exaggerations in advertising and extravagant sales claims are bound to create doubt and confusion in the minds of practical thinkers. As a natural result prospects today desire to know the truth about body construction and it provides a real opportunity for

Packard salesmen to capitalize on the greater strength and added safety of the composite steel and hardwood body construction in the Packard Safety-Plus bodies.

Quantity Production Has Changed Body Manufacturing Methods—The introduction of competitive body designs with so-called all-steel bodies and solid steel roofs has resulted from the intensive competition for price leadership among volume producers. These changes in construction are primarily due to the new processes and developments with the use of large scale electric welding operations which make possible faster steel fabrication. This has contributed to large volume body production with cheaper manufacturing costs.

Packard Has Built Its Bodies Since 1907—Packard has been building its own bodies for years during which time it has accumulated a longer and more diversified experience in body construction than any other company in the business. Packard does not have to depend on outside sources of supply for its bodies and is therefore not compelled to accept standardized construction methods used in producing bodies for the cheapest cars at the lowest possible costs.

Packard is the largest independent builder of fine cars and is free to build the kind of bodies that will provide the best satisfaction in comfort, quality and quietness with the greatest safety and protection for its customers.

Packard Safety-Plus Bodies Are Unequaled for Strength, Quietness and Safety—The Safety-Plus bodies used on the Packard One Twenty and the new Packard Six are built by Packard in its own shops. Both steel and hardwood are used to provide the necessary strength, quietness and flexibility.

Where strength alone is required heavy gauge steel is used for pillars, doors, seat frames and panels which are welded together and reinforced with strong and rigid steel bracing. Box-type steel construction is more generously used by Packard in the parts like pillars, center

posts, rear-quarter pillars and roof sections than in ordinary all-steel bodies.

At those points where resilience and quietness are necessary such as in body sills and other parts where torsional strains are greatest, carefully selected moisture tested hardwood is used with steel. This composite construction is much more expensive to build and provides Packard bodies with exceptional supporting strength and rigidity many times that which is required.

Composite Roof Construction Stronger—Structural strength and safety in automobile body roofs does not depend only on one kind of material (as is generally claimed in competitive advertising) any more than is the case in the construction of bridges, airplanes, railroad trains, street cars or skyscrapers.

In the building of bridges it is obvious they do not lack strength and safety because they are not built of all-steel. They may be constructed of steel, concrete, iron, wood or wire cable and frequently all or the majority of these materials are used in making a composite bridge structure.

Likewise in railroad building no satisfactory substitute has ever been found for the strength, quietness and resiliency of composite construction of wood and steel. Wooden railroad ties are used to support the heaviest of steel rails that carry the thundering trains at lightning speeds month after month, in all kinds of weather.

In the roof construction of Packard bodies there are equally important advantages in the composite type of construction. Competitive cars use a very thin sheet of steel for the roof which is actually less than four one-hundredths of an inch thickness. Some cars have panels supported only by four narrow cross supports, while on others the steel panel is bolted to the side rail without any center cross supports. By comparison the Packard Safety-Plus body roof is a much stronger, heavier and more rigidly braced construction of steel and hardwood. It is made extra strong with a lateral bracing of interlaced cable type wire which is especially designed and

woven for the purpose. At each point where the strands meet it is heavily bonded to provide greatly increased support and lateral strength in every direction.

Owners Endorse Safety of Packard Bodies—The safety of Packard bodies has been endorsed by numerous testimonial letters from Packard owners, who have given the Packard body construction full credit for saving their lives in the most unusual kinds of highway accidents. For example, a few days prior to the writing of this paragraph, a communication containing the following extract was received.

"Thanks to Packard body sturdiness and ruggedness I am alive stop rear tire blew out rounding gravel curve approaching narrow bridge and was catapulted to rocks 17 feet below hitting head on and turning over twice landing in river stop everyone wonders how the car stayed together stop the Packard One Twenty body saved my life."

Advantages of Packard Safety-Plus Bodies—In comparative tests with competitive bodies for quietness, comfort and safety it is our firm conviction that the Packard bodies are superior in every respect.

In noise tests Packard bodies have been proven quieter in decibel rating when compared with all-steel and turret top bodies.

In temperature tests Packard bodies do not have the chilly dampness of winter nor the suffocating summer heat temperatures of the non-ventilated, thin all-steel roof bodies.

In high speed driving Packard bodies are quieter without the rumble of the all-steel tops because the composite construction gives greater resiliency and quietness.

In case of accident or collision Packard bodies are easier, quicker and less expensive to repair than the welded all-steel bodies with steel roofs.

Better Radio Reception—Packard bodies are far superior in radio reception over cars with all-steel roofs

that are compelled to use under car radio antenna. The fact that 75 per cent of all new cars being sold today are radio equipped emphasizes the importance of good radio reception as a strong selling asset.

The Packard aerial roof permits longer distance with much clearer reception without the disagreeable static interference common to cars with steel roofs using under car antenna. The increasing use of outside buggy whip type and other styles of roof type aerials on steel roof bodies indicates their need for better radio reception.

Sell the Advantages of the Packard Safety-Plus Bodies—To condense the several points of this discussion regarding bodies with steel tops into a few words the real strength of any body is in the framework of its structure and not in the top covering alone. It is not the skin or outside covering, but the inside framework structure and how it is braced and put together that determines its real strength. Another example of this is the strength and safety of the modern airplane which is not due to the metal covering on its wings and fuselage, but in the structural framework and cross bracing which is underneath its skin. If the question of safety was entirely dependent on steel covering, people would doubtless insist on steel top hats and umbrellas.

A thorough understanding and intelligent discussion of the many advantages of the Packard Safety-Plus body over other types of all-steel and steel top cars will make it easier for you to explain them to your prospects when selling on competitive deals.

Careful analysis of these facts with any prospect will quickly convince him of the greatly exaggerated claims competitors are making, and impress him with the importance of considering the construction of the body as a complete unit rather than the selling features of any one part of it. On the important point of radio reception alone Packard also offers a sufficiently important advantage to make it a strong competitive issue on all deals.

DETAILED MECHANICAL SPECIFICATIONS SECTION

PACKARD ONE TWENTY

PACKARD SIX

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DETAILED MECHANICAL SPECIFICATIONS—1937

ENGINE	Packard One Twenty	Packard Six
Make	Packard	Packard
Type	L-head—Vertical— En bloc	L-head—Vertical— En bloc
A. M. A. Horsepower	33.3	28.36
Maximum brake horsepower	120 @ 3800 R.P.M.	100 @ 3600 R.P.M.
Revolutions per minute	3800	3600
Suspension	3—Rubber mounted	3—Rubber mounted
Firing order	1-6-2-5-3-3-7-4	1-5-3-6-2-4
Bore and stroke	3 $\frac{1}{4}$ x 4 $\frac{1}{4}$	3 $\frac{7}{8}$ x 4 $\frac{1}{4}$
Stroke	4 $\frac{1}{4}$	4 $\frac{1}{4}$
Piston displacement	282.04 cu. in.	237 cu. in.
Cylinders	8 in line	6 in line
Compression ratio—Standard	6.5 to 1	6.3 to 1
Compression ratio—Optional	.7 to 1	None
Compression at 125 R.P.M. with standard head	110 lbs.	110 lbs.
Weight with clutch and transmission	754 lbs.	695 lbs.
Cylinder head material	Aluminum	Cast iron
Motor R. P. M. per mile	2870	3165
CRANKCASE:		
Type	Integral with cylinders	Integral with cylinders
Upper half material	Cast iron	Cast iron
Lower half material	Steel stamping	Steel stamping
Oil capacity	7 qts.	7 qts.
Main bearing diameter	2 $\frac{3}{4}$ "	2 $\frac{5}{8}$ "
Main bearing length—No. 1	1 $\frac{1}{2}$ " I.D.	1.588"
Main bearing length—No. 2	1 $\frac{7}{8}$ "	1 $\frac{3}{2}$ "
Main bearing length—No. 3	1 $\frac{19}{32}$ "	1 $\frac{7}{8}$ "
Main bearing length—No. 4	1 $\frac{7}{32}$ "	2 $\frac{1}{16}$ "
Main bearing length—No. 5	2 $\frac{5}{16}$ "	None
Main bearing length—No. 6	None	None
Main bearing length—No. 7	None	None
Main bearing length—No. 8	None	None
Main bearing length—No. 9	None	None
Crankcase oil gauge	Dip stick, left side	Dip stick, left side
Total main bearing area	56.6 sq. in.	36.16 sq. in.
Crankcase drain plug	$\frac{5}{8}$ "—18	$\frac{5}{8}$ "—18
VALVES:		
Valve lift	.300	.300
Valve arrangement	L-head	L-head
Valve head diameter—Inlet	1 $\frac{1}{2}$ "	1.575"
Valve head diameter—Exhaust	1 $\frac{1}{2}$ "	1.406"
Valve stem diameter—Inlet	1 $\frac{1}{8}$ "	.340"
Valve stem diameter—Exhaust	1 $\frac{1}{8}$ "	.340"
Valve stem length	5 $\frac{5}{8}$ "	5 $\frac{5}{8}$ "
Valve material—Inlet	Chrome nickel	Chrome nickel
Valve material—Exhaust	Austenitic steel	Austenitic steel
Valve end (Type)	Slot and key	Slot and key
Valve stem clearance—Inlet	.0005-.00175	.0005-.00175

	Packard One Twenty	Packard Six
Valve stem clearance—Exhaust	.0005-.00175	.0005-.00175
Valve tappet clearance— Inlet—Warm	.007	.007
Valve tappet clearance— Exhaust—Warm	.010	.010
Inlet valve opens	5° BTDC	5° BTDC
Inlet valve closes	39° ALDC	39° ALDC
Exhaust valve closes	5° ATDC	5° ATDC
Exhaust valve opens	45° BLDC	45° BLDC
Valve seat angle—Inlet	30°	30°
Valve seat angle—Exhaust	45° BLDC	45° BLDC
Valve spring	Single	Single
Valvespring load—Valve closed	40 lbs. (1 $\frac{5}{8}$ ")	40 lbs. (1 $\frac{5}{8}$ ")
Valve spring load—Valve open	110 lbs.	110 lbs.
Exhaust pipe diameter	2-1/4"	2"
Muffler size—Front	6" x 28"	6" x 24"
Muffler size—Rear	5" x 12"	None
FRONT END:		
Gear cover	Steel stamping	Steel stamping
Camshaft drive	Silent chain	Silent chain
Make of chain	Morse 1866 RX	Morse 1866 RX
Length, width and pitch of chain	58 links; 1 $\frac{1}{4}$ " ; .375	58 links; 1 $\frac{1}{4}$ " ; .375
Number of camshaft bearings	5	4
Clearance of camshaft bearings	.001-.003	.001-.003
Camshaft end play	.002-.004	.002-.004
Camshaft sprocket—Material and size	Cast iron—42 teeth	Cast iron—42 teeth
Camshaft chain adjustment	None	None
PISTON:		
Weight	17.6 oz.	19 oz.
Weight with rings and pin	23 oz.	25.4 oz.
Overall height	3 $\frac{7}{8}$ "	3 $\frac{7}{8}$ "
Height centerline of pin to top	2 $\frac{1}{8}$ "	2 $\frac{1}{8}$ "
Material	Aluminum alloy with strut	Auto thermic aluminum alloy with strut
Skirt clearance	.0015	.0015
Piston pin—Size	2 $\frac{51}{64}$ x $\frac{7}{8}$	2 $\frac{63}{64}$ x $\frac{7}{8}$
Type	Floating	Floating
Lubrication of pin	Pressure	Pressure
Piston pin hole—Renm.	.87515-.87485	.87515-.87485
Piston pin fit in piston	Palm push at 160°	Palm push at 160°
Piston pin fit in rod	Min. .00025	Min. .00025
Piston pin oversizes	.003-.006	.003-.006
Number of rings per piston	Three	Three
Number of oil rings per piston	One	One
Type of compression rings	2—Perfect Circle No. 70	2—Perfect Circle No. 70
Type of oil rings	1—Perfect Circle "X-90"—85	1—Perfect Circle "X-90"—85
Width of compression rings	$\frac{1}{8}$ "	$\frac{1}{8}$ "
Width of oil rings	$\frac{3}{16}$ "	$\frac{3}{16}$ "
Piston ring gap—Compression	.007-.012	.007-.012
Piston ring gap—Oil	.007-.015	.007-.015
Location of rings	Above pin	Above pin
Piston oil drain holes	12 $\frac{5}{32}$ "	12 $\frac{5}{32}$ "
Piston oversizes	.005-.010-.020- .030-.040	.005-.010-.020- .030-.040

	Packard One Twenty	Packard Six
CONNECTING ROD:		
Weight	2 lbs. 1/2 oz.	2 lbs. 1/2 oz.
Material	Steel forging	Steel forging
Bearing type	Detachable shell	Detachable shell
Center to center length	7 1/4"	7 1/4"
Diameter of crankpin bearing	2 3/4"	2 3/4"
Length of crankpin bearing	1 1/4"	1 1/4"
Clearance bearing to crankpin	.0015	.0015
End play on crankshaft	.004—.010	.003—.006
Oil lead to piston pin	Rifle drilled	Rifle drilled
Bearing material	Babbitt	Babbitt
Assembled in motor	Oil hole toward camshaft	Oil hole toward camshaft
Cap attached	Bolts and nuts	Bolts and nuts
Shims	Not used	Not used

CRANKSHAFT:

Type	Counter-balanced	Counter-balanced
Material	Steel forging	Steel forging
Number of counterweights	Eight forged integral	Six forged integral
Number of main bearings	5	5
Main bearing diameter	2 3/4"	2 3/4"
Thrust taken on	Center	No. 1
Vibration damper	Rubber friction disc, waterproof	Rubber friction disc, waterproof
Weight	95 lbs.	81 1/2 lbs.
End play	.003—.008	.003—.008
Main bearing material	Babbitt lined steel shell	Babbitt lined steel shell
Clearance—All main bearings	.001—.003	.001—.003
Crankshaft sprocket—Material and size	Steel—21 teeth	Steel—21 teeth
Shims	Not used	Not used

MOTOR LUBRICATION:

Type	Full pressure	Full pressure
Oil pump type	Gear	Gear
Crankcase capacity	7 qts.	7 qts.
Oil filler location	Left side	Left side
Oil filter location	Special equipment	Special equipment
Oil temperature regulator	None	None
Oil measuring stick	Left crankcase	Left crankcase
Crankcase ventilator	R.H. at rear of block	R.H. at rear of block
Oil pressure—Normal driving	35 lbs.	35 lbs.
Oil drain	Hex head plug 5/8—13	Hex head plug 5/8—13

**CHASSIS LUBRICATION—
EVERY 2000 MILES**

Knuckle pins—Pressure gun grease	2 lub. connectors	2 lub. connectors
Steering connecting rod—Pressure gun grease	2 lub. connectors	2 lub. connectors
Steering tie rods—Pressure gun grease	4 lub. connectors	4 lub. connectors
Rear spring shackles—Pressure gun grease	4 lub. connectors	4 lub. connectors
Water pump shaft—S.A.E. 30	2 oilers	2 oilers
Generator—S.A.E. 30	2 oilers	2 oilers
Starter motor—S.A.E. 30	2 oilers	1 oiler

	Packard One Twenty	Packard Six
Distributor—No. 3 cup grease S.A.E. 30	1 cup	1 cup
Clutch and brake pedal—S.A.E. 30	Fill two wicks	Fill two wicks
Crankcase—S.A.E. 30*	Drain and refill	Drain and refill
*—90°F and over—S.A.E. 40		
—40°F and over—S.A.E. 30		
—25°F to 85°F—S.A.E. 20		
or 20-W		
—10°F to 85°F—S.A.E. 20W		
—10°F +45°F—S.A.E. 10W		
Below—10°F S.A.E. 10W + 10% kerosene.		

**CHASSIS LUBRICATION—
EVERY 10,000 MILES**

Support arm pin, outer—gun grease	2 lub. connectors	2 lub. connectors
Front wheel bearing—No. 3 fibre grease	(4) Repack	(4) Repack
Transmission		
Summer—S.A.E. 160	Drain and refill	Drain and refill
Winter—S.A.E. 90	Drain and refill	Drain and refill
Steering gear		
Summer—S.A.E. 160	Drain and refill	Drain and refill
Winter—S.A.E. 90	Drain and refill	Drain and refill
Rear axle—see Packard dealer	Drain and refill	Drain and refill
Universal joint spline—Gun grease	1 lub. connector	1 lub. connector
Universal joint journal		

CLUTCH:

Type	Single dry plate	Single dry plate
Free pedal	1 1/2—2"	1 1/2—2"
Facing material	U. S. Asbestos No. 733, woven	U. S. Asbestos No. 733, woven
Size facing	6 x 10 x .137	5 3/4 x 9 1/2 x .137
Throwout bearing lubrication	Packed	Packed
Clutch spring pressure	115 lbs. at 1 9/16"	147 1/2 lbs. at 1 9/16"
Number of springs	9	6
Clutch booster—Vacuum	None	None
Vibration neutralizer	Springs	Springs

TRANSMISSION:

Type	Selective-Silent-Synchronized	Selective-Silent-Synchronized
Number of forward speeds	3	3
Standard ratio overall—		
High	4.09	4.36
Second	6.25	6.67
First	9.92	10.60
Reverse	12.98	13.87
Oil capacity	1 quart	1 quart
Helical gears oil lever plugs	1/2"—14 pipe	1/2"—14 pipe
Gear teeth	Helical	Helical

FRAME:

Type	Taper pressed steel double drop, box section side rail in front	Taper pressed steel double drop, box section side rail in front
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	Packard One Twenty	Packard Six
Depth.....	6"	6"
Thickness.....	$\frac{1}{8}$ "	$\frac{1}{8}$ "
Number of cross members.....	5—1-beam X type member in center	5—1-beam X type member in center
Wheelbase.....	120"	115"

FRONT SUSPENSION:

Make.....	Packard Safe-T-flex	Packard Safe-T-flex
Type.....	Independent parallelogram	Independent parallelogram
Axle end.....	Reverse Elliot	Reverse Elliot
Steering knuckle pin bearing—		
Upper and lower.....	"Oilite" .3665 x 1.058 x $1\frac{3}{16}$ long	"Oilite" .3665 x 1.058 x $1\frac{3}{16}$ long
*Caster.....	2° plus or minus $\frac{1}{2}$ °	2° plus or minus $\frac{1}{2}$ °
Front wheel toe-in.....	$\frac{1}{16}$ plus or minus $\frac{1}{16}$	$\frac{1}{16}$ plus or minus $\frac{1}{16}$
Knuckle pin angle.....	1° 30'	1° 30'
Tread.....	59"	59"
Camber.....	1° plus or minus $\frac{1}{4}$ °	1° plus or minus $\frac{1}{4}$ °
Wheel bearing—Inner.....	Timken 2585 cone—2523 cup	Timken 2585 cone—2523 cup
Wheel bearing—Outer.....	Timken 1380 cone—1329 cup	Timken 1380 cone—1329 cup
Wheel bearing adjustment.....	Tighten nut and back off $\frac{1}{2}$ turn and lock	Tighten nut and back off $\frac{1}{2}$ turn and lock

STEERING GEAR:

Make.....	Packard	Packard
Type.....	Worm and double tooth roller	Worm and double tooth roller
Diameter of steering wheel.....	18"	18"
Ratio.....	18.4 to 1	18.4 to 1
Type of steering wheel.....	Vulcanized rubber over steel frame	Vulcanized rubber over steel frame
Minimum turning radius.....	19' 6"	19' 2"

ELECTRICAL:

Battery—Make.....	Prest-O-Lite and Delco 17 hi-level plate	Willard
Battery—Capacity.....	94 ampere hours	94 ampere hours
Battery—Size.....	$10\frac{5}{16}$ x 7 x $8\frac{1}{16}$	$8\frac{1}{8}$ x 7 x $7\frac{3}{4}$
Ignition timing.....	7° BTDC	4° BTDC
Breaker point gap.....	.0125—.0175	.0125—.0175
Spark control.....	Full automatic	Full automatic
Spark advance begins at.....	600 R.P.M.	600 R.P.M.
Distributor.....	Autolite IGT. 4004	Delco-Remy 647-E
Spark plug—Size.....	10 mm	10 mm
Spark plug—Make and type.....	Champ Y-4	Champ Y-4
(2).....	A-C-Y4	A-C-Y4
Spark plug gap.....	.028—.030	.028—.030
Generator—Make and type.....	Autolite	Delco-Remy 948-U
Generator drive.....	Belt	Belt
Generator cut-in speed—Cold.....	710 r.p.m.	710 r.p.m.
Generator maximum charging rate—Cold—(8 volt).....	25 ampere	25 ampere
Generator maximum charging rate—Hot—(8 volt).....	20 ampere	20 ampere

6—Detailed Mechanical Specifications

Printed in U. S. A.

	Packard One Twenty	Packard Six
Generator voltage regulator.....	Autolite VRD 4001 on dash	Delco-Remy 5812 on dash
Generator voltage to close cut-out.....	$6\frac{3}{4}$ to $7\frac{1}{4}$ volts	$6\frac{3}{4}$ to $7\frac{1}{4}$ volts
Generator ventilated.....	Yes	Yes
Starter motor—Make and type.....	Autolite Max. 4006	Delco-Remy 739-F
Starter drive.....	Bendix shift	Bendix shift
Number and width of flywheel teeth.....	140	140
Number of teeth in Bendix pinion.....	9	9
Pinion meshes.....	From front	From front
Light control.....	On instrument board and foot switch	On instrument board and foot switch
Headlamp current protection.....	Thermostat relay	Thermostat relay
Body and auxiliary fuse.....	25 volt 20 ampere	25 volt 20 ampere
Tail lamp fuse.....	25 volt 20 ampere	25 volt 20 ampere
Head lamp lens.....	$7\frac{1}{2}$ "	$7\frac{1}{2}$ "
Head lamp bulb—C. P. and Mazda.....	32-32 Mazda No. 2330-L	32-32 Mazda No. 2330-L
Mazda number.....	C. M. Hall	C. M. Hall
Horn—Make and type.....	Sparton or Klaxon	Sparton or Klaxon
Horn—Location.....	Mounted on engine	Mounted on engine
Battery terminal grounded.....	Positive	Positive
Ampere draw of horns (2).....	22-25 ampere	22-25 ampere
Ampere draw of car heater motor.....	5 ampere	5 ampere
Ampere draw of lights.....	10 ampere	10 ampere
Ampere draw of coil—Idling.....	$\frac{1}{2}$ ampere	$\frac{1}{2}$ ampere
Ampere draw of coil—Stopped.....	$2\frac{1}{2}$ ampere	$2\frac{1}{2}$ ampere
Chock—Make and type.....	Electric—Western	Electric—Western
Cigar lighter—Type.....	Automatic	Automatic
Ball torque.....	16 ft. lbs., 3 volt, 600 ampere	13 ft. lbs., 4 volts, 675 ampere
Ignition coil.....	Autolite CE4623 on cylinder head	Delco-Remy 539-N on cylinder head
Spring tension on contacts—Distributor.....	13-20 ounces	19-23 ounce

COOLING SYSTEM:

Water pump.....	Centrifugal	Centrifugal
Water pump drive.....	Fan belt	Fan belt
Radiator core.....	Cellular	Cellular
Radiator shell.....	One-piece stamping	One-piece stamping
Capacity of system.....	5 gal.	$4\frac{1}{4}$ gal.
Fan.....	4 blade 16"	4 blade 16"
Driving pulley.....	On crankshaft	On crankshaft
Ratio.....	1.3 to 1	1.3 to 1
Thermostat starts to open.....	145°	145°
Radiator shutter.....	None	None
Fan belt.....	$43" \times \frac{3}{4} \times 42"$	$43" \times \frac{3}{4} \times 42"$
Radiator hose—Upper.....	$10 \times 1\frac{1}{2}$ I.D.	$10 \times 1\frac{1}{2}$ I.D.
Radiator hose—Lower.....	$3 \times 1\frac{1}{2}$ I.D.	$3 \times 1\frac{1}{2}$ I.D.
Heat indicator.....	On instrument board	On instrument board
Fan belt adjustment.....	At generator	At generator
Gravity flow of radiator.....	25 gallons	23 gallons

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Detailed Mechanical Specifications—7

	Packard One Twenty	Packard Six
GASOLINE SYSTEM:		
Carburetor—Make and size.....	Stromberg 1" Duplex down-draft	Chandler-Groves 1 1/4" down-draft, single barrel
Gasoline feed.....	Mechanical pump A.C. in combina- tion with vacuum pump	Mechanical pump A.C. in combina- tion with vacuum pump
Pump drive.....	Off camshaft— front end	Off camshaft
Gasoline filter.....	Incorporated in fuel pump	Incorporated in fuel pump
Gasoline gauge.....	Electric	Electric
Gasoline tank capacity.....	20 gal.	17 gal.
Air cleaner and silencer.....	A.C.	A.C.
Carburetor heat control.....	Thermostat	Thermostat
Automatic choke.....	Thermostatically controlled	Thermostatically con- trolled—Unit con- struction
Carburetor float level.....	1 5/32" below top of bowl	1/2" below top of bowl

REAR AXLE:

Type.....	Angleset—semi- floating	Angleset—semi- floating
Make.....	Packard	Packard
Final drive.....	Hypoid gears	Hypoid gears
Propulsion.....	Through springs	Through springs
Axle housing.....	Pressed steel— banjo type	Pressed steel— banjo type
Universal joints.....	"Mechanics" roller bearing type	"Mechanics" roller bearing type
Number required.....	2	2
Oil capacity.....	4 1/4 pints	4 1/4 pints
Wheel bearings.....	Single row ball bear- ing, oil sealed	Single row ball bear- ing, oil sealed
Minimum road clearance.....		
Tread.....	60"	60"
Standard gear ratio.....	4.09 to 1	4.36 to 1
Gear to pinion backlash.....	.003—.005	.003—.005
Number teeth—Gear and pinion.....	45—11	48—11
Oil drain plugs.....	1/2"—14 pipe	1/2"—14 pipe

SPRINGS:

Front—5-passenger sedan.....	1450 x 75 rate	1395 x 70 rate—coil
Rear—5-passenger sedan.....	1100 x 125 rate	950 x 120 rate—Lea
Front—Size.....	5 3/4" O.D. 4" I.D.	5.17" O.D. 4" I.D.
Number of coils.....	7 3/4 effective	8 5/16 effective
Rear—Length and width.....	54 x 1 3/4	54 x 1 3/4
Shackles.....	Steel—threaded type	Steel—threaded type
Spring covers.....	Metal on rear springs	Metal on rear springs
Shock absorbers.....	Hydraulic—two-way	Hydraulic—two-way
Shock absorbers stabilizer.....	Rear only	Rear only
Material—Front }.....	Silico manganese	Silico manganese
Material—Rear }		

8—Detailed Mechanical Specifications

Printed in U. S. A.

	Packard One Twenty	Packard Six
BRAKES:		
Type.....	Internal expanding 4 wheels	Internal expanding 4 wheels
Operation.....	Hydraulic—2 shoe	Hydraulic—2 shoe
Effective area.....	182 sq. in.	168 sq. in.
Effective area hand brake.....	91 sq. in.	84 sq. in.
Size of lining.....	1 3/4" x 3/16" x 13"	1 3/4" x 3/16" x 13"
Material—Primary.....	No. 714 U.S. asbestos	No. 714 U.S. asbestos
Material—Secondary.....	No. 589 U.S. asbestos	No. 589 U.S. asbestos
Drum—Diameter.....	12" centrifuge	11" centrifuge
Vacuum booster.....	None	None
WHEELS:		
Make.....	Motor wheel	Motor wheel
Type.....	Demountable disc	Demountable disc
Size of tire.....	16 x 7.00—4-ply	16 x 6.50—4-ply
Recommended tire pressure:		
Front.....	23 lbs.	22 lbs.
Rear.....	25 lbs. except con- vertible (23 lbs.) and Business Coupe	24 lbs. except con- vertible (22 lbs.) and Business Coupe

BODY:

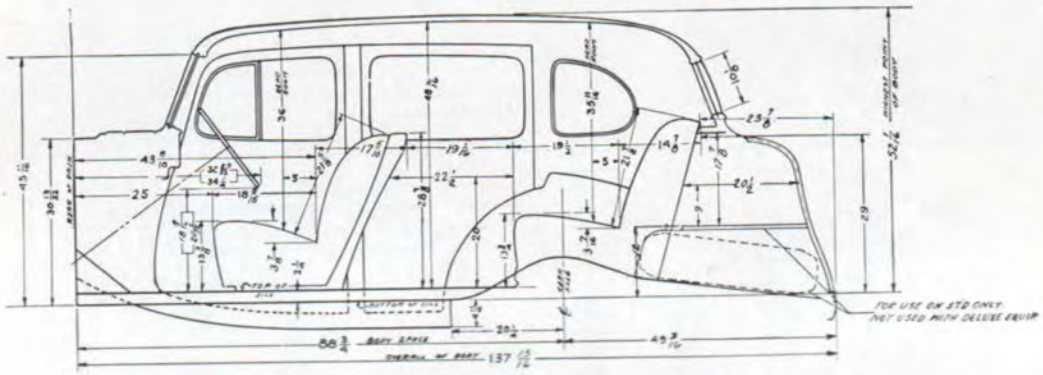
Make.....	Packard	Packard
Panel material.....	Steel	Steel
Upholstery material:		
Closed cars.....	Broadcloth	Broadcloth
Convertible cars.....	Machine-buffed leather	Machine-buffed leather
Glass.....	Shatterproof	Shatterproof
Windshield wiper (vacuum 1930).....	Tandem with vacuum booster	Tandem with vacuum booster
Radio antenna.....	Built in roof	Built in roof
Built-in trunk.....	Yes	Yes
Radio lead in location.....	Left front pillar	Left front pillar
Spare wheel location.....	Rear compartment	Rear compartment
Top type.....	Fabric	Fabric
Trunk rack.....	Special equipment	Special equipment
Wheelbase.....	120	115
Overall length over bumpers.....	194 5/16	192 3/2
Overall height.....	67 1/2	67 1/4
Overall width.....	72	72

COMPLETE CAR SHIPPING WEIGHTS

Type Body	Complete Car Shipping Weights		
	Passenger	Packard One Twenty	Packard Six
Touring Sedan	5	3520	3385
Sedan	5	3465	3340
Touring Sedan	7	.....	.....
Touring Sedan Limousine	7	.....	.....
Club Sedan	5	3455	3350
Coupe	5	3435	3310
Coupe	2-4	3415	3290
Convertible Coupe	2-4	3485	3360
Convertible Sedan	5	3630	3505
Coupe	2	3340	3215

Sept., 1936

Detailed Mechanical Specifications—9



CHASSIS AND BODY DIMENSIONS PACKARD TWELVE (Models 1506, 1507, 1508)

(All measurements are in inches)

	1507	1508	1508	1508
	Victoria 5-Pass.	Conv. Sedan 5-Pass.	Touring Sedan 7-Pass.	Touring Sedan Limo. 7-Pass.
CHASSIS:				
Wheelbase.....	139 $\frac{1}{4}$	144 $\frac{1}{4}$	144 $\frac{1}{4}$	144 $\frac{1}{4}$
Length overall—bumper to bumper.....	222 $\frac{1}{4}$	233 $\frac{1}{8}$	233 $\frac{1}{8}$	233 $\frac{1}{8}$
Width overall at front fenders.....	74	74	74	74
Height overall (loaded).....	67 $\frac{1}{2}$	69 $\frac{1}{8}$	71	71
BODY:				
Length overall.....	37 $\frac{1}{8}$	149 $\frac{1}{8}$	149 $\frac{1}{8}$	149 $\frac{1}{8}$
Length dash to front of front seat.....	25	25	25	24 $\frac{3}{4}$
Length back front seat to front rear seat at 20" from floor.....	13 $\frac{1}{2}$	17 $\frac{3}{8}$	31 $\frac{1}{8}$	34
Distance from partition to front of folding seat at 15 $\frac{1}{2}$ " from top of sill.....	.....	.....	10	9 $\frac{7}{8}$
*Distance from front of rear seat to folding seat.....	.....	.....	8 $\frac{1}{2}$	7 $\frac{1}{4}$
Width overall.....	63 $\frac{1}{4}$	64 $\frac{1}{2}$	65 $\frac{1}{8}$	65 $\frac{1}{8}$
Width of floor in tonneau.....	51 $\frac{1}{2}$	52 $\frac{1}{2}$	52 $\frac{1}{2}$	52 $\frac{1}{2}$
Height inside.....	45 $\frac{3}{4}$	48	48 $\frac{1}{4}$	48 $\frac{1}{4}$
Front door width.....	42	38 $\frac{1}{2}$	38 $\frac{1}{2}$	38 $\frac{1}{2}$
Rear door width.....	.....	33 $\frac{1}{2}$	33 $\frac{1}{2}$	33 $\frac{1}{2}$
SEATS:				
Front: Depth.....	18	18	19 $\frac{1}{8}$	18 $\frac{1}{2}$
Width.....	46	46	47	47
Height (floor to top of cushion).....	11 $\frac{3}{4}$	12 $\frac{1}{4}$	13 $\frac{3}{4}$	13 $\frac{3}{4}$
Height of seat back.....	24	24	21 $\frac{1}{8}$	21 $\frac{1}{8}$
Shoulder room.....	61	61	57	57
Folding: Depth.....	.....	.....	17	17
Width.....	.....	.....	18 $\frac{7}{8}$	18 $\frac{7}{8}$
Height (floor to top of cushion).....	.....	.....	14	15 $\frac{1}{4}$
Height of seat back.....	.....	.....	16 $\frac{1}{2}$	16 $\frac{1}{2}$
†Head Room: Distance from top of seat cushion— to headlining of top—front.....	35	36	36	36 $\frac{1}{8}$
to headlining of top—rear.....	36 $\frac{1}{2}$	37	35 $\frac{1}{8}$	35 $\frac{1}{8}$

*Measured 20" from floor.

†Measured from point 5" ahead of seat back cushion.

Roof on 7-Pass. Sedan or Limousine can be raised 2 $\frac{1}{2}$ ".

See trade letter for price and details.

CHASSIS AND BODY DIMENSIONS PACKARD TWELVE (Models 1506, 1507, 1508)

(All measurements are in inches)

	1506 Touring Sedan 5-Pass. (Short)	1507 Touring Sedan 5-Pass. (Long)	1507 Formal Sedan 5-Pass.	1507 Club Sedan 5-Pass.	1507 Coupe 5-Pass.	1507 Coupe 2-4-Pass.	1507 Coupe Roadster 2-4-Pass.
CHASSIS:							
Wheelbase.....	132	139 $\frac{1}{4}$	139 $\frac{1}{4}$	139 $\frac{1}{4}$	139 $\frac{1}{4}$	139 $\frac{1}{4}$	139 $\frac{1}{4}$
Length overall—bumper to bumper.....	221 $\frac{1}{8}$	228 $\frac{1}{8}$	228 $\frac{1}{8}$	222 $\frac{1}{4}$	222 $\frac{1}{4}$	222 $\frac{1}{4}$	222 $\frac{1}{4}$
Width overall at front fenders.....	74	74	74	74	74	74	74
Height overall (loaded).....	.....	71	71	70 $\frac{3}{8}$	70 $\frac{3}{8}$	69 $\frac{1}{2}$	67 $\frac{1}{2}$
BODY:							
Length overall.....	137 $\frac{1}{8}$	144 $\frac{1}{8}$	144 $\frac{1}{8}$	137 $\frac{1}{8}$	137 $\frac{1}{8}$	137 $\frac{1}{8}$	137 $\frac{1}{8}$
Length dash to front of front seat.....	25	25	24 $\frac{3}{4}$	25	24	26 $\frac{3}{4}$	27
Length back front seat to front rear seat at 20° from floor.....	22 $\frac{1}{2}$	29 $\frac{1}{2}$	26 $\frac{1}{2}$	15 $\frac{5}{8}$	10 $\frac{3}{4}$	.....	.....
Distance from partition to front of folding seat at 15 $\frac{1}{2}$ ° from top of sill.....	.....	.....	10 $\frac{3}{8}$	.....	.....	.....	.....
*Distance from front of rear seat to folding seat.....	64 $\frac{7}{8}$	65	65	64 $\frac{7}{8}$	63 $\frac{1}{4}$	63 $\frac{3}{8}$	63 $\frac{1}{4}$
Width overall.....	52 $\frac{1}{2}$	52 $\frac{1}{2}$	52 $\frac{1}{2}$	52 $\frac{1}{2}$	51 $\frac{1}{2}$	51 $\frac{1}{2}$	45 $\frac{1}{2}$
Width of floor in tonneau.....	48 $\frac{3}{8}$	48 $\frac{1}{8}$	48 $\frac{1}{8}$	48 $\frac{3}{8}$	49 $\frac{1}{8}$	47 $\frac{3}{8}$	42
Height inside.....	33 $\frac{3}{8}$	38 $\frac{3}{8}$	38 $\frac{1}{2}$	33 $\frac{3}{8}$	38 $\frac{3}{8}$	.....	.....
Front door width.....	33 $\frac{1}{2}$	35 $\frac{1}{2}$	35 $\frac{1}{2}$	33 $\frac{1}{2}$	.....	.....	.....
Rear door width.....	.....	.....	.....	.....	.....	.....	.....
SEATS:							
Front: Depth.....	18 $\frac{1}{2}$	18 $\frac{1}{2}$	18 $\frac{1}{2}$	18 $\frac{1}{2}$	18	18 $\frac{1}{2}$	18
Width.....	46	46	46	46	46 $\frac{1}{2}$	46	46
Height (floor to top of cushion).....	13 $\frac{3}{4}$	13 $\frac{3}{4}$	13 $\frac{3}{4}$	13 $\frac{3}{4}$	13 $\frac{3}{4}$	13 $\frac{3}{4}$	13 $\frac{3}{4}$
Height of seat back.....	21 $\frac{1}{8}$	21 $\frac{1}{8}$	21 $\frac{1}{8}$	21 $\frac{1}{8}$	21	21 $\frac{1}{8}$	21 $\frac{1}{8}$
Shoulder room.....	57	57	57	57	57	57	57

	1506 Touring Sedan 5-Pass. (Short)	1507 Touring Sedan 5-Pass. (Long)	1507 Formal Sedan 5-Pass.	1507 Club Sedan 5-Pass.	1507 Coupe 5-Pass.	1507 Coupe 2-4-Pass.	1507 Coupe Roadster 2-4-Pass.
SEATS—Continued							
Rear: Depth.....	19 $\frac{1}{2}$	19 $\frac{1}{2}$	19 $\frac{1}{2}$	19 $\frac{1}{2}$	19 $\frac{1}{2}$	18 $\frac{5}{8}$	18 $\frac{3}{8}$
Width.....	47	47	47	51 $\frac{1}{4}$	53 $\frac{3}{4}$	41 $\frac{1}{2}$	41 $\frac{1}{2}$
Height (floor to top of cushion).....	13 $\frac{3}{4}$	13 $\frac{3}{4}$	13 $\frac{3}{4}$	13 $\frac{3}{4}$	13 $\frac{3}{4}$	13 $\frac{3}{8}$	13 $\frac{3}{8}$
Height of seat back.....	21 $\frac{1}{8}$	21 $\frac{1}{8}$	21 $\frac{1}{8}$	21 $\frac{1}{8}$	22 $\frac{3}{8}$	22	22
Shoulder room.....	57	57	57	58 $\frac{1}{4}$	54 $\frac{3}{4}$	.....	.....
Folding: Depth.....	.....	.....	15	.....	.....	.....	.....
Width.....	.....	.....	15 $\frac{1}{8}$	.....	.....	.....	.....
Height (floor to top of cushion).....	.....	.....	11 $\frac{3}{8}$	.....	.....	.....	.....
Height of seat back.....	.....	.....	12	.....	.....	.....	.....
†Head Room: Distance from top of seat cushion— to headlining of top—front.....	36	36	36 $\frac{3}{8}$	36	35 $\frac{7}{8}$	36 $\frac{3}{8}$	35 $\frac{1}{4}$
to headlining of top—rear.....	35 $\frac{1}{8}$	35 $\frac{1}{8}$	35 $\frac{1}{8}$	36 $\frac{3}{8}$	37	.....	.....

*Measured 20° from floor.

†Measured from point 5° ahead of seat back cushion.

Roof on 7-Pass. Sedan or Limousine can be raised 2 $\frac{1}{2}$ °.

See trade letter for price and details.

CHASSIS AND BODY DIMENSIONS
PACKARD SUPER EIGHT (Models 1500, 1501, 1502)
 (All measurements are in inches)

PACKARD DATA BOOK

15th Series

	1501 Coupe Roadster 2-4-Pass.	1501 Victoria 5-Pass.	1502 Conv. Sedan 5-Pass.	1502 Touring Sedan 7-Pass.	1502 Touring Sedan Limo. 7-Pass.
CHASSIS:					
Wheelbase.....	134 $\frac{1}{2}$	134 $\frac{1}{2}$	139 $\frac{1}{2}$	139 $\frac{1}{2}$	139 $\frac{1}{2}$
Length overall—bumper to bumper.....	217 $\frac{3}{8}$	217 $\frac{3}{8}$	228 $\frac{1}{4}$	228 $\frac{1}{4}$	228 $\frac{1}{4}$
Width overall at front fenders.....	74	74	74	74	74
Height overall, loaded.....	67 $\frac{1}{4}$	67 $\frac{1}{4}$	68 $\frac{1}{2}$	70 $\frac{1}{4}$	70 $\frac{1}{4}$
BODY:					
Length overall.....	137 $\frac{11}{16}$	137 $\frac{11}{16}$	149 $\frac{15}{16}$	149 $\frac{15}{16}$	149 $\frac{15}{16}$
Length—dash to front of front seat.....	27	25	25	25	25
Length—back front seat to front of rear seat at 20" from floor.....	.....	13 $\frac{3}{8}$	17 $\frac{3}{8}$	31 $\frac{1}{8}$	34
Distance from partition to front of folding seat at 15 $\frac{1}{2}$ " from top of sill.....	.....	.....	.....	8 $\frac{1}{2}$	9 $\frac{1}{2}$
*Distance from front of rear seat to folding seat.....	63 $\frac{1}{4}$	63 $\frac{1}{4}$	64 $\frac{1}{8}$	65 $\frac{1}{2}$	65 $\frac{1}{2}$
Width over all (at belt) panel to panel.....	63 $\frac{1}{4}$	63 $\frac{1}{4}$	64 $\frac{1}{8}$	65 $\frac{1}{2}$	65 $\frac{1}{2}$
Width of floor in tonneau.....	45 $\frac{1}{4}$	45 $\frac{3}{8}$	48	48 $\frac{1}{4}$	48 $\frac{1}{4}$
Height inside.....	42	42	38 $\frac{3}{8}$	38 $\frac{3}{8}$	38 $\frac{3}{8}$
Front door width.....	42	42	33 $\frac{1}{2}$	33 $\frac{1}{2}$	33 $\frac{1}{2}$
Rear door width.....	.....	.....	.....	.....	.....
SEATS:					
Front: Depth.....	18	18	18	18 $\frac{1}{2}$	18 $\frac{1}{2}$
Width.....	46	20	46 $\frac{1}{2}$	46	46
Height (floor to top of cushion).....	11 $\frac{1}{4}$	11 $\frac{1}{4}$	11 $\frac{1}{4}$	13 $\frac{1}{4}$	13 $\frac{1}{4}$
Height of seat back.....	22 $\frac{1}{4}$	21	24 $\frac{1}{2}$	21 $\frac{1}{8}$	23 $\frac{1}{8}$
Shoulder room.....	53	53	53	53	53

12—Body Models and Complete Dimensions

Printed in U. S. A.

15th Series

PACKARD DATA BOOK

	1501 Coupe Roadster 2-4-Pass.	1501 Victoria 5-Pass.	1502 Conv. Sedan 5-Pass.	1502 Touring Sedan 7-Pass.	1502 Touring Sedan Limo. 7-Pass.
SEATS—Continued					
Rear: Depth.....	18 $\frac{1}{2}$	19 $\frac{1}{2}$	20	19 $\frac{1}{2}$	19 $\frac{1}{2}$
Width.....	41 $\frac{1}{2}$	46	48	47	47
Height (floor to top of cushion).....	13 $\frac{3}{8}$	11 $\frac{1}{4}$	12 $\frac{1}{4}$	13 $\frac{3}{4}$	13 $\frac{3}{4}$
Height of seat back.....	22	24	24	21 $\frac{1}{8}$	21 $\frac{1}{8}$
Shoulder room.....	.....	61	61	57	57
Folding: Depth.....	.....	.....	.....	17	17
Width.....	.....	.....	.....	18 $\frac{1}{2}$	18 $\frac{1}{2}$
Height (floor to top of cushion).....	.....	.....	.....	14	15 $\frac{1}{4}$
Height of seat back.....	.....	.....	.....	16 $\frac{1}{2}$	16 $\frac{1}{2}$
†Head Room: Distance from top of seat cushion— to headlining of top—front.....	35 $\frac{1}{4}$	35	36	36	36 $\frac{1}{2}$
to headlining of top—rear.....	.....	36 $\frac{1}{2}$	37	35 $\frac{11}{16}$	35 $\frac{11}{16}$

*Measured 20" from floor.
 †Measured from point 5" ahead of seat back cushion.
 Roof on 7-Pass. Sedan or Limousine can be raised 2 $\frac{1}{2}$ ".
 See trade letter for price and details.

April, 1937

Body Models and Complete Dimensions—13

CHASSIS AND BODY DIMENSIONS PACKARD SUPER EIGHT (Models 1500, 1501, 1502)

(All measurements are in inches)

	1500 Touring Sedan 5-Pass. (Short)	1501 Touring Sedan 5-Pass. (Long)	1501 Formal Sedan 5-Pass.	1501 Club Sedan 5-Pass.	1501 Coupe 5-Pass.	1501 Coupe 2-4-Pass.
CHASSIS:						
Wheelbase.....	127 ³ / ₈	134 ³ / ₈	134 ³ / ₈	134 ³ / ₈	134 ³ / ₈	134 ³ / ₈
Length overall—bumper to bumper.....	216 ¹ / ₈	223 ¹ / ₈	223 ¹ / ₈	217 ³ / ₈	217 ³ / ₈	217 ³ / ₈
Width overall at front fenders.....	74	74	74	74	74	74
Height overall, loaded.....	70 ¹ / ₂	70 ³ / ₄	70 ³ / ₄	70 ¹ / ₂	70 ¹ / ₂	69 ⁵ / ₈
BODY:						
Length overall.....	137 ¹⁵ / ₁₆	144 ¹⁵ / ₁₆	144 ¹⁵ / ₁₆	137 ¹⁵ / ₁₆	137 ¹⁵ / ₁₆	137 ¹⁵ / ₁₆
Length—dash to front of front seat.....	25	25	24 ³ / ₄	25	24	26
Length—back front seat to front of rear seat at 20" from floor.....	22 ¹ / ₂	29 ¹ / ₂	26 ¹ / ₂	15 ¹ / ₂	10 ³ / ₄	.....
Distance from partition to front of folding seat at 15 ¹ / ₈ " from top of sill.....	.....	.....	10 ³ / ₈	.....	.....	.....
*Distance from front of rear seat to folding seat.....	.....	.....	10 ³ / ₈	.....	.....	.....
Width overall (at belt) panel to panel.....	64 ³ / ₄	65	65	64 ³ / ₄	63 ¹ / ₄	63 ³ / ₄
Width of floor in tonneau.....	52 ³ / ₈	52 ³ / ₈	52 ³ / ₈	52 ³ / ₈	51 ¹ / ₂	51 ¹ / ₂
Height inside.....	48 ⁵ / ₈	48 ⁵ / ₈	48 ¹ / ₂	48 ⁵ / ₈	49 ¹ / ₂	47 ⁵ / ₈
Front door width.....	33 ¹ / ₂	38 ¹ / ₂	38 ¹ / ₂	33 ¹ / ₂	38 ¹ / ₂	38 ¹ / ₂
Rear door width.....	33 ¹ / ₂	35 ¹ / ₂	35 ¹ / ₂	33 ¹ / ₂	.....	.....
SEATS:						
Front: Depth.....	18 ¹ / ₂	18 ¹ / ₂	18 ¹ / ₂	18 ¹ / ₂	18	18 ¹ / ₂
Width.....	46	46	46	46	46 ¹ / ₄	46
Height (floor to top of cushion).....	13 ³ / ₄	13 ³ / ₄	13 ³ / ₄	13 ³ / ₄	13 ³ / ₄	13 ³ / ₄
Height of seat back.....	21 ¹ / ₂	21 ¹ / ₂	21 ¹ / ₂	21 ¹ / ₂	21	21 ¹ / ₂
Shoulder room.....	55	55	55	55	55	55

	1500 Touring Sedan 5-Pass. (Short)	1501 Touring Sedan 5-Pass. (Long)	1501 Formal Sedan 5-Pass.	1501 Club Sedan 5-Pass.	1501 Coupe 5-Pass.	1501 Coupe 2-4-Pass.
SEATS—Continued						
Rear: Depth.....	19 ¹ / ₂	19 ¹ / ₂	19 ¹ / ₂	19 ¹ / ₂	19 ¹ / ₂	18 ⁵ / ₈
Width.....	47	47	47	51 ¹ / ₄	53 ¹ / ₄	41 ¹ / ₂
Height (floor to top of cushion).....	13 ³ / ₄	13 ³ / ₄	13 ³ / ₄	13 ³ / ₄	13 ³ / ₄	13 ³ / ₈
Height of seat back.....	21 ³ / ₈	21 ³ / ₈	21 ³ / ₈	21 ³ / ₈	22 ³ / ₈	22
Shoulder room.....	57	57	57	58 ¹ / ₄	54 ³ / ₄	.....
Folding: Depth.....	.....	.....	15	.....	.....	.....
Width.....	.....	.....	15 ¹ / ₈	.....	.....	.....
Height (floor to top of cushion).....	.....	.....	11 ³ / ₈	.....	.....	.....
Height of seat back.....	.....	.....	12	.....	.....	.....
†Head Room: Distance from top of seat cushion— to headlining of top—front.....	36	36	36 ⁵ / ₈	36	35 ³ / ₈	36 ⁵ / ₈
to headlining of top—rear.....	35 ¹ / ₈	35 ¹ / ₈	35 ¹ / ₈	36 ⁵ / ₈	37	.....

*Measured 20" from floor.

†Measured from point 5" ahead of seat back cushion.

Roof on 7-Pass. Sedan or Limousine can be raised 2 ¹/₄".

See trade letter for price and details.

**BODY DIMENSIONS—TYPES
AND EQUIPMENT SECTION**

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PACKARD ONE TWENTY AND PACKARD SIX BODY DIMENSIONS

ALL MEASUREMENTS ARE IN INCHES

Body Models	1093	1092	1096	1094	1098	1095	1099	1097	1091	1090
	5-Pass. Sedan	5-Pass. Touring Sedan	5-Pass. Club Sedan	5-Pass. Coupe	2-Pass. Business Coupe	2-4 Pass. Sport Coupe	2-4 Pass. Convertible Coupe	5-Pass. Convertible Sedan ★	7-Pass. Sedan ★	7-Pass. Sed.-Lim. ★
Seat Width										
Front—Shoulders	52	52	52	52	52	52	52	52	52	52
Hips	46 ⁷ / ₈	46 ⁷ / ₈	46 ⁷ / ₈	45 ⁷ / ₈	46 ⁷ / ₈	46 ⁷ / ₈	46 ⁷ / ₈	45 ¹ / ₂	46 ⁷ / ₈	46 ⁷ / ₈
Knees	46	46	46	45	46	46	46	44 ³ / ₄	46	46
Rear—Shoulders	53	53	54 ¹ / ₂	53	—	—	—	51	53	53
Hips	48 ¹ / ₄	48 ¹ / ₄	48 ¹ / ₄	46 ¹ / ₄	—	39 ¹⁵ / ₁₆	39 ¹⁵ / ₁₆	46 ¹ / ₄	48 ¹ / ₄	48 ¹ / ₄
Knees	49 ³ / ₄	49 ³ / ₄	52 ¹ / ₄	50 ³ / ₄	—	40 ⁷ / ₈	40 ⁷ / ₈	49 ³ / ₄	49 ³ / ₄	49 ³ / ₄
Folding Seat	—	—	—	—	—	—	—	—	2 seats 23" wide	2 seats 23" wide
Seat Height (Floor to top of cushion)										
Front seat	13 ¹ / ₄	13 ¹ / ₄	13 ¹ / ₄	13 ¹ / ₄	13 ¹ / ₄	13 ¹ / ₄	13 ¹ / ₄	11 ⁹ / ₁₆	13 ¹ / ₄	13 ⁵ / ₈
Rear seat	14 ³ / ₄	14 ³ / ₄	14 ³ / ₄	14 ³ / ₄	—	14 ¹ / ₂	14 ¹ / ₂	14	14 ³ / ₄	14 ³ / ₄
Folding seat	—	—	—	—	—	—	—	—	13 ¹ / ₈	13 ¹ / ₈
Seat Depth (Front to back of seat cushion)										
Front seat	18	18	18	18	18	18	18 ³ / ₁₆	18	18	18
Rear seat	18 ¹ / ₂	18 ¹ / ₂	18 ¹ / ₂	18 ¹ / ₂	—	15 ⁷ / ₈	15 ⁷ / ₈	19 ¹ / ₂	18 ¹ / ₂	18 ¹ / ₂
Folding seat	—	—	—	—	—	—	—	—	17	17
Seat Back Height										
Front seat	21	21	21	21	21	21	21 ³ / ₈	23 ⁵ / ₈	21	22

★Available only on Packard 120.

PACKARD ONE TWENTY AND PACKARD SIX BODY DIMENSIONS—Continued

ALL MEASUREMENTS ARE IN INCHES

Body Models	1093	1092	1096	1094	1098	1095	1099	1097	1091	1090
	5-Pass. Sedan	5-Pass. Touring Sedan	5-Pass. Club Sedan	5-Pass. Coupe	2-Pass. Business Coupe	2-4 Pass. Sport Coupe	2-4 Pass. Convertible Coupe	5-Pass. Convertible Sedan ★	7-Pass. Sedan ★	7-Pass. Sed.-Lim. ★
Seat Back Height (Cont.)										
Rear seat	22 ⁷ / ₈	22 ⁷ / ₈	22 ⁷ / ₈	22 ⁷ / ₈	—	22 ⁷ / ₈	22 ⁷ / ₈	26 ⁷ / ₈	22 ⁷ / ₈	22 ⁷ / ₈
Folding seat	—	—	—	—	—	—	—	—	15	15
Head Room										
Front seat to roof	34 ¹¹ / ₁₆	34 ¹¹ / ₁₆	34 ¹¹ / ₁₆	34 ¹¹ / ₁₆	34 ⁵ / ₈	34 ⁵ / ₈	33	35 ¹ / ₈	34 ¹¹ / ₁₆	34 ¹¹ / ₁₆
Rear seat to roof	35 ¹ / ₈	35 ¹ / ₈	35 ¹ / ₈	35 ¹ / ₈	—	—	—	35 ¹ / ₈	35 ¹ / ₈	35 ¹ / ₈
Folding seat to roof	—	—	—	—	—	—	—	—	36 ¹ / ₁₆	36 ¹ / ₁₆
Floor to roof (center)	48 ³ / ₈	48 ³ / ₈	48 ¹ / ₈	48 ¹ / ₈	46 ³ / ₄	46 ³ / ₄	—	—	48 ¹¹ / ₁₆	48 ¹¹ / ₁₆
Leg Room—Rear Seat										
Back of rear cushion to back of front seat	40 ¹ / ₂	40 ¹ / ₂	35 ¹ / ₂	35 ¹ / ₂	—	46 ¹ / ₂	46 ⁵ / ₁₆	40 ¹ / ₂	58 ¹ / ₂	58 ¹ / ₂
Front of folding seat to back of front seat	—	—	—	—	—	—	—	—	10 ⁷ / ₁₆	7 ¹ / ₂
Front of rear seat back to folding seat	—	—	—	—	—	—	—	—	26 ³ / ₈	25 ¹¹ / ₁₆
Leg Room—Front Seat										
Front of seat cushion to dash	24	24	24	24	24	24	24	24	24	25 ³ / ₁₆
Back of seat cushion to dash	42	42	42	42	42	42	42 ³ / ₁₆	42	42	43 ³ / ₁₆
Steering wheel to top of cushion, in neutral position	5 ¹¹ / ₁₆	5 ¹¹ / ₁₆	5 ¹¹ / ₁₆	5 ¹¹ / ₁₆	5 ¹¹ / ₁₆	5 ¹¹ / ₁₆	5 ¹¹ / ₁₆	7 ¹ / ₂	5 ¹¹ / ₁₆	5 ¹ / ₂

★Available only on Packard 120.

2—Body Dimensions, Types and Equipment

Printed in U. S. A.

PACKARD 120

Data Book

PACKARD SIX

1931, 1930

Body Dimensions, Types and Equipment—3

PACKARD 120

Data Book

PACKARD SIX

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PACKARD ONE TWENTY AND PACKARD SIX BODY DIMENSIONS—Continued
ALL MEASUREMENTS ARE IN INCHES

Body Models	1093	1092	1096	1094	1098	1095	1099	1097	1079	1090
	5-Pass. Sedan	5-Pass. Touring Sedan	5-Pass. Club Sedan	5-Pass. Coupe	2-Pass. Business Coupe	2-4 Pass. Sport Coupe	2-4 Pass. Con-vertible Coupe	5-Pass. Con-vertible Sedan ★	7-Pass. Sedan ★	7-Pass. Sed.-Lim. ★
Over-all Dimensions										
Fender to fender, front	72	72	72	72	72	72	72	72	72	72
Fender to fender, rear	72	72	72	72	72	72	72	72	72	72
Body width (to panels)	60 ⁵ / ₈	60 ⁵ / ₈	60 ⁵ / ₈	60 ⁵ / ₈	60 ¹ / ₄	60 ¹ / ₄	60 ¹ / ₄	60 ³ / ₄	60 ³ / ₄	60 ³ / ₄
Car length (bumper to bumper)	197 ¹⁵ / ₁₆ with trunk rack	203 ⁵ / ₈ with trunk rack	197 ¹⁵ / ₁₆ with trunk rack	197 ¹⁵ / ₁₆ with trunk rack	197 ¹⁵ / ₁₆ with trunk rack	197 ¹⁵ / ₁₆ with trunk rack	197 ¹⁵ / ₁₆ with trunk rack	197 ¹⁵ / ₁₆ with trunk rack	215 ¹⁵ / ₁₆ with trunk rack	215 ¹⁵ / ₁₆ with trunk rack
	194 ⁵ / ₁₆ without	197 ¹⁵ / ₁₆ without	194 ⁵ / ₁₆ without	194 ⁵ / ₁₆ without	194 ⁵ / ₁₆ without	194 ⁵ / ₁₆ without	194 ⁵ / ₁₆ without	194 ⁵ / ₁₆ without	212 ⁵ / ₁₆ without	212 ⁵ / ₁₆ without
Body length over all	126 ⁵ / ₈	131 ⁷ / ₈	126 ⁵ / ₈	126 ⁵ / ₈	126 ⁵ / ₈	126 ⁵ / ₈	126 ⁵ / ₈	131 ⁷ / ₈	149 ⁷ / ₈	149 ⁷ / ₈
Trunk Dimensions										
Inside height, 5 wheel car	17 ³ / ₄	15 ³ / ₄	15 ³ / ₄	15 ³ / ₄	15 ³ / ₈	—	—	11 ¹ / ₂	15 ³ / ₄	15 ³ / ₄
Inside width, " "	46	46	46	46	46	48 ¹ / ₂	48 ¹ / ₂	46	46	46
Inside height, 6 wheel car	26	24	24	24	24	—	—	19 ³ / ₄	24	24
Inside width, " "	46	46	46	46	46	48 ¹ / ₂	48 ¹ / ₂	46	46	46
Cu. ft. capacity, 5 wheels	6.08	9.55	8.10	8.10	31.83	1.74	1.74	8.59	9.55	9.55
Cu. ft. capacity, 6 wheels	11.72	16.5	13.74	13.74	37.47	5.64 in wheel compar't	5.64 in wheel compar't	15.54	16.5	16.5
Size of door opening										
Width	35	36 ¹ / ₈	36 ¹ / ₈	36 ¹ / ₈	39 ¹⁵ / ₁₆	39 ¹ / ₈	39 ¹ / ₂	36 ¹ / ₈	36 ¹ / ₈	36 ¹ / ₈

★ Available only on Packard 120.

4—Body Dimensions, Types and Equipment

Printed in U. S. A.

PACKARD 120

Data Book

PACKARD SIX

PACKARD ONE TWENTY AND PACKARD SIX BODY DIMENSIONS—Continued
ALL MEASUREMENTS ARE IN INCHES

Body Models	1093	1092	1096	1094	1098	1095	1099	1097	1079	1090
	5-Pass. Sedan	5-Pass. Touring Sedan	5-Pass. Club Sedan	5-Pass. Coupe	2-Pass. Business Coupe	2-4 Pass. Sport Coupe	2-4 Pass. Con-vertible Coupe	5-Pass. Con-vertible Sedan ★	7-Pass. Sedan	7-Pass. Sed.-Lim.
Size of door opening										
Height	30	27	27	27	41 ⁵ / ₁₆	25 ³ / ₄	25 ³ / ₄	—	27	27
General										
Front door width	34 ¹³ / ₁₆	34 ¹³ / ₁₆	34 ¹³ / ₁₆	38 ¹³ / ₁₆	38 ¹³ / ₁₆	38 ¹³ / ₁₆	38 ¹³ / ₁₆	34 ³¹ / ₃₂	38 ¹³ / ₁₆	38 ¹³ / ₁₆
Rear door width	28 ¹³ / ₁₆	28 ¹³ / ₁₆	28 ¹³ / ₁₆	—	—	—	—	28 ²¹ / ₃₂	34 ¹⁵ / ₁₆	34 ¹³ / ₁₆
Windshield—width	45	45	45	45	45	45	46 ¹ / ₂	46 ¹ / ₂	45	45
" —height	9 ¹ / ₂	9 ¹ / ₂	9 ¹ / ₂	9 ¹ / ₂	9 ¹ / ₂	9 ¹ / ₂	8 ¹ / ₄	8 ³ / ₄	9 ¹ / ₂	9 ¹ / ₂
Rear window—width	31	31	31	31	31	31	23 ¹ / ₂	23 ¹ / ₂	31	31
" —height	8 ¹ / ₂	8 ¹ / ₂	8 ¹ / ₂	8 ¹ / ₂	8 ¹ / ₂	8 ¹ / ₂	3 ¹ / ₂	5 ¹ / ₂	8 ¹ / ₂	8 ¹ / ₂
Hood length—120	47 ³ / ₄	47 ³ / ₄	47 ³ / ₄	47 ³ / ₄	47 ³ / ₄	47 ³ / ₄	47 ³ / ₄	47 ³ / ₄	47 ³ / ₄	47 ³ / ₄
" —Six	42 ⁴ / ₆₄	42 ⁴ / ₆₄	42 ⁴ / ₆₄	42 ⁴ / ₆₄	42 ⁴ / ₆₄	42 ⁴ / ₆₄	42 ⁴ / ₆₄	42 ⁴ / ₆₄	42 ⁴ / ₆₄	42 ⁴ / ₆₄

★ Available only on Packard 120.

Model, 1936

Body Dimensions, Types and Equipment—5

PACKARD 120

Data Book

PACKARD SIX

STANDARD EQUIPMENT

	Packard One Twenty	Packard Six
Horn.....*	*	*
Windshield wiper.....*	*(Tandem— vacuum)	*(Tandem— vacuum)
Air cleaner and silencer.....*	*	*
Cowl ventilator with screen.....*	*	*
Adjustable driver's seat.....*	*	*
Tail lamp.....*	*	*
Stop lamp.....*	*	*
Shock absorbers—Hydraulic two-way.....*	*	*
Sun visor.....*2	2	2
Rear view mirror.....*	*	*
Wheel compartment lock.....*	*	*
Shock absorber roll control bar.....*	*(Rear)	*(Rear)
Dome light.....*	*	*
Ventilating windows.....*	*	*
Ash tray.....*3	*3	*3
Instrument board compartment lock.....*	*	*
Toggle grips.....*	*	*
Crankcase oil gauge.....*	*(Dip stick)	*(Dip stick)
Ignition lock.....*	*	*
Heat indicator.....*	*	*
Oil pressure gauge.....*	*	*
Speedometer.....*	*(With trip register)	*(No trip register)
Gasoline gauge—Electric.....*	*	*
Ammeter.....*	*	*
Clock.....*	*(Special equipment)	*(Special equipment)
Starting switch—Remote control.....*	*	*
Spare wheel.....*	*	*
Foot control light switch.....*	*	*
Foot rest.....*	*	*
Robe cord.....*	*	*
Front compartment mat— Rubber.....*	*	*
Rear compartment mat—Carpet.....*	*	*
Jack and tools.....*	*	*
Jack pads—F. and R.....*	*	*

Note—(*) indicates standard equipment.



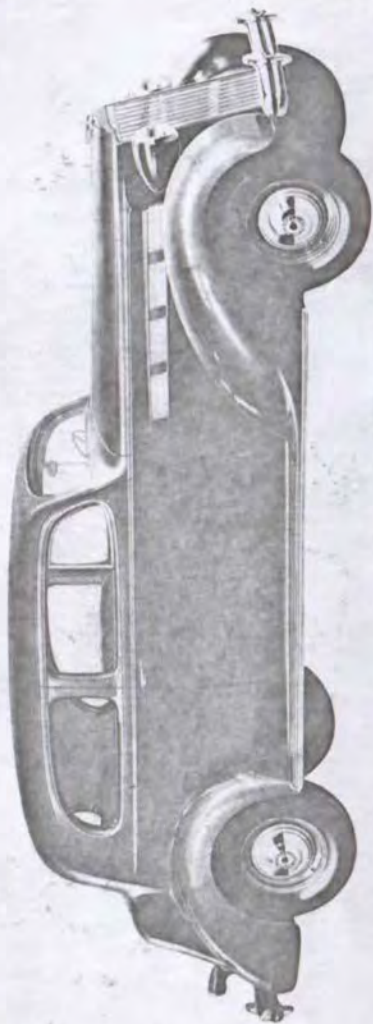
Packard 120—Five-Passenger Touring Sedan.



Packard 120—Five-Passenger Sedan.



Packard 120—Five-Passenger Club Sedan.



Packard 120—Five-Passenger Touring Coupe.



Packard 120—Two-Passenger Business Coupe.



Packard 120—Two-Four-Passenger Sport Coupe.



Packard 120—Two-Four-Passenger Convertible Coupe.



*Packard 120 (138-inch Wheelbase) Seven-Passenger Sedan
and Seven-Passenger Sedan Limousine.*



Packard Six—Five-Passenger Touring Sedan.



Packard Six—Five-Passenger Sedan.



Packard Six—Five-Passenger Club Sedan.



Packard Six—Five-Passenger Touring Coupe.



Packard Six—Two-Passenger Business Coupe.



Packard Six—Two-Four-Passenger Sport Coupe.



Packard Six—Two-Four-Passenger Convertible Coupe.

THE PACKARD HEARSE CHASSIS (120-CA)

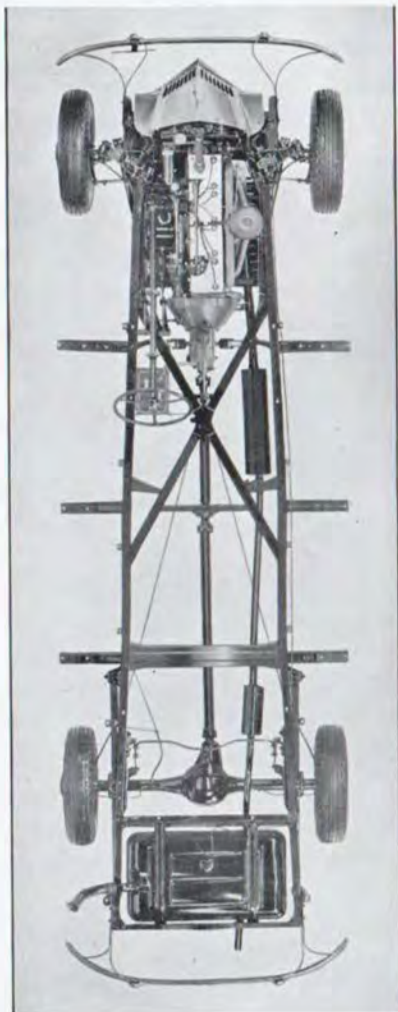
Sales of Packard hearse and ambulance equipment in the funeral field are constantly increasing. This important outlet has created hundreds of new owners who are real Packard passenger car prospects.

The new 120 CA hearse chassis is being built especially for the funeral director and liveryman. It possesses all of the mechanical excellence of the One Twenty "C" chassis and in addition includes certain features of special design which have a distinct appeal to the prospective purchaser of funeral or ambulance equipment.

The Packard Hearse chassis is engineered and built in Packard factories to meet the special requirements of the funeral director or liveryman for hearse and ambulance use. All units such as frame, propeller shaft, running boards, and gasoline, exhaust and brake lines are fabricated to the proper lengths. Because of the greater loads imposed on this chassis, the rear axle, the frame, springs, brakes and tires have been carefully engineered and increased in size permitting a maximum load of 2000 pounds to be carried on the chassis.

Even though you do not participate directly, bear in mind that a Packard passenger car prospect has been created each time a funeral coach body builder sells a hearse, ambulance or service car body mounted on the Packard Hearse chassis. It is to your advantage to cooperate with the body builder's representative in the sale of these specialized vehicles.

• Packard prestige and adherence to one basic design are largely responsible for Packard popularity among



The Packard One Twenty C.A. Hearse Chassis.

the funeral directors. This fact and the desire for uniformity of motor equipment on the part of fleet owners should be borne in mind when soliciting the funeral directors' passenger car business.

Following are the outstanding features which distinguish the Packard Hearse chassis:

Heavier rear axle assembly of greater capacity.

Larger brakes (12" x 2 $\frac{1}{4}$ ").

Heavier frame ($\frac{3}{16}$ " thick, 6 $\frac{1}{2}$ " deep) with one piece side rails.

Extra frame cross member.

Safe-Flex front springs designed for greater loads.

Heavier rear springs (54 $\frac{1}{2}$ " x 2").

Intermediate self-aligning propeller shaft bearing.

Rear axle gear ratio 4.54—1.

7.00" x 16" six-ply tires.

Spare wheel mounted in the right front fender.

Full length running boards and mats.

Extra heavy running board moldings.

Rear fenders.

Chassis in black or any one of the standard colors.

Chassis capacity, 2900 pounds.

Wheelbase 158 inches.

Over-all length, 232 inches.

Body space, 125 inches.

Road clearance, 8 $\frac{3}{4}$ inches.

With the exception of the above, the detailed specifications of the Packard Hearse chassis are the same as those of the Packard One Twenty "C" chassis as listed elsewhere in this book.

PACKARD SERVICE AND ACCESSORIES SECTION

PACKARD ONE TWENTY

PACKARD SIX

•

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PACKARD SERVICE POLICY

Much has been said about service.

It is generally true that all car manufacturers today believe in the principle of efficient service and satisfied owners. How much is being done to accomplish this is another question.

Packard believes in going the limit. Our Service Policy at the factory, with respect to standing back of our product, is based on the determination to have our cars operating satisfactorily in the hands of our buyers and to take care of any defect within a reasonable time.

The factory shares the labor cost of the dealer in replacing any so-called defective material during the warranty period of 90 days or 4,000 miles, and continues to furnish parts or materials to replace any which have been found defective long after the printed warranty has expired.

A "campaign," or in other words wholesale replacement of parts or units which have been found defective or unsatisfactory is practically unheard of with Packard. There is a reason for this.

The Packard Service Department at the factory has its ear to the ground and is in constant touch through our regional sales managers, our service field representatives and the distributors and dealers' service managers to learn of anything, however small, which may indicate an unsatisfactory condition in the current or even the older cars.

These reports are reviewed in daily conferences between the service, engineering and manufacturing

departments and once a month the "Quality" committee, composed of the vice presidents of engineering and manufacturing, the chief engineer, chief inspector, service manager and their assistants review the entire list and determine upon definite and immediate remedies.

Thus it is impossible for any mechanical trouble to become widespread and, furthermore, the remedy for any difficulty is made immediately available to the field and the cars already in service are corrected without delay.

At the time of delivery of a new car the owner is presented with a service card which identifies him and entitles him to the liberal terms of our warranty service without charge for the work done, provided he takes his car to an authorized Packard service station.

On the reverse side of this owner's card is a short statement of the things the owner can do to assist in keeping his car operating at its best and in a manner to satisfy himself.

Packard does not skimp on its owner's information book. It is the most complete of any at present published. In plain and simple language the owner is advised how to get the best results from his car, and if he wishes to go farther it tells him how to repair and adjust it.

One very important reason for the efficiency of Packard service in the field is the fact that instead of widely separated parts warehouses on which dealers are dependent for parts service, Packard has approximately, in the United States alone, one hundred distributors, each one

of whom is, in reality, a parts warehouse for the dealers in his immediate territory, and carries a correspondingly complete inventory of parts and accessories.

Packard service men in the field organizations are contacted at regular intervals, of approximately a month, by a service expert from the factory. They receive twice each month a very effective service letter; at frequent intervals they are called in to service meetings and are supplied with all the necessary mechanical information through shop manuals, charts, slide films, etc.

Thus every Packard service man in the field is literally a factory trained man.

Factory service charges are determined after the most careful time studies in the field, and at the factory, of practically every operation. But Packard goes farther than this.

From the time the car is laid out on the drawing board in the engineering department constant attention is given to the question of service costs to the owner, and as a result every unit and part is made as accessible as the engineers can possibly design it.

Packard parts are comparable in cost with those of any cars of similar size and price, except where, in Packard, definitely finer quality for the purpose of longer life may make for higher costs.

Wherever the Packard service sign hangs out, Packard owners will find courteous, honest and efficient service. Our service slogan is, "EVERY PACKARD OWNER A SALESMAN."

SERVICE TO PACKARD OWNERS

BY DISTRIBUTERS AND DEALERS

The original purchaser of a new Packard car will be entitled to the following services:

1. Parts and Labor: For 90 days after the original delivery of such motor car to the owner, provided the car has not been driven to exceed 4,000 miles, any parts, including all standard equipment, except tires, that may be adjudged by Packard Motor Car Company to be defective under its warranty will be replaced or repaired by any Packard dealer or distributor in the United States and Canada without charge to the owner for material or labor.

2. Adjustment: The owner is entitled during this period to receive three inspections and three necessary adjustments of his new car, at the Service Station of the Dealer selling the car, provided such adjustments are not made necessary by accident, neglect or misuse.

3. Inspections: Throughout the life of the car the owner is entitled to have it tested and inspected without charge every 30 days or 1,000 miles by an authorized Packard Service Station, provided such inspection requires no removal or dismantling of parts or units.

4. Owner's Service Card: At the time of delivery the owner is provided with an Owner's Service Card which will introduce him to any authorized Packard Service Station and entitle him to receive service in accordance with this policy. The owner should carry the card with him at all times so he can present it when necessary.

5. Tourist Privileges: When touring, the owner is entitled, upon presentation of the Owner's Service Card, to all of the benefits of this policy during the warranty period at any authorized Packard Service Station in the United States and Canada, provided the date of delivery and name of the dealer from whom the car was purchased are stamped on the plate provided for that purpose on the front face of the dash.

6. Change of Residence: In case the owner changes his residence from one location to another before the warranty period has expired, the Packard Service Station serving the locality into which the owner moves will, upon presentation of the Owner's Service Card, render any no-charge service to which the owner may be entitled.

7. Service Charges: Every authorized Packard Service Station is provided with a Manual containing the correct charges for service work. In order that maintenance costs may be kept as low as possible, these rates are based on careful studies of the shortest times for doing the service operations consistent with proper workmanship. Guaranteed Packard Parts are sold through authorized Packard Service Stations in the United States at the published list.

Owner's Responsibility

and satisfaction to be obtained from your car depends entirely on lubrication and adjustments. To insure safety in this work must be done at a Packard authorized station.

 **Packard Owner's Service Card**

Name _____

Address _____

City _____

Country _____ Motor No. _____ Vehicle No. _____

Dealer's Name _____

Owner's Signature _____

Owner's Service Card

PACKARD APPROVED ACCESSORIES

PRICE LIST

	<i>Price Installed</i>
1 Battery Charger.....	\$ 8.25
2 Automatic Cigar Lighter.....	2.50
3 Electric Clock.....	11.50
4 Clock in Mirror.....	4.25
5 Curtains (Each).....	3.00
6 Windshield Defroster.....	6.75
7 De Luxe Emblem.....	6.00
8 Exhaust Deflector.....	1.00
9 Fender Guides (Each).....	1.25
10 Fog Light (Each).....	6.95
11 Fender Lights (Pair).....	13.50
12 Foot Hassoeks (Pair).....	5.50
13 Gas Tank Locking Cap.....	1.50
14 Hot Air Heater.....	37.50
15 De Luxe Hot Water Heater.....	18.75
16 Standard Hot Water Heater.....	14.95
17 Lamp Bulb Case.....	1.40
18 License Plate Frames (Pair).....	2.50
19 Clamp-on Mirror.....	3.50
20 Convertible Mirror.....	5.00
21 Tire Mirror (Pair).....	10.00
22 Purolator.....	6.50
23 Radio, Single Unit.....	49.50
24 Radio, Custom Model.....	59.50
25 Tonneau Rubber Mat.....	4.00
26 Sateen Seat Covers (Set).....	14.50
27 Sea Breeze Seat Covers (Set).....	11.95
28 Kool-Kooshion.....	2.95
29 Seat Pad, Springhold.....	2.00
30 Flexible Steering Wheel.....	11.95
31 Spot Light.....	18.50 and 21.00
32 Vanity Mirror.....	.95
33 Luggage Equipment.....	
34 Chrome Wheel Discs (Set of Four).....	20.00
35 Wheel Trim Rings (Set of Five).....	8.50

PACKARD ACCESSORIES

Our merchandising experience shows that these six accessories are the most popular items with Packard Owners. Emblem, license plate frames and wheel trim rings add a finished touch to the exterior of the car. The electric clock, flexible wheel and safety cigar lighter are conveniences; attractive and useful items the driver and passengers appreciate.

Each item has been designed to match the car in style, beauty and excellence. Each has been approved by the Packard engineers, is easy to install and will give lasting, trouble-free service.

Profit by our experience, sell these items as a group when the new car deal is closed. You can have them included in the small monthly payments as part of the new car deal.

The Packard Custom Radio was specially designed for the Packard Six and One Twenty. Many new developments and the latest features are incorporated to give wider tuning range, more faithful reproduction and clearer reception.

Wherever your owners go with their radio-equipped Packard car, important news events, delightful music and clever entertainment will be at their finger tips.

Packard Custom Built Radio — The Packard radios, built exclusively to Packard specifications, represent a material advancement in modern radio engineering. Features have been incorporated in the circuit which heretofore have been found only in custom made home radios.

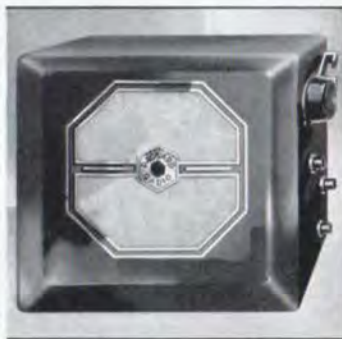


This custom built radio is available with either the dash type or overhead speaker. Installed price \$59.50.



Overhead Speaker—This new Overhead Speaker is optional at no extra cost with the Packard Custom Radio only.

It provides better sound distribution, with equal reception in the front and rear seats. Many stations may be tuned in that are ordinarily indistinct when driving at high car speeds.



No. 5 Single Unit Radio—This new moderate priced single-unit radio provides clear reception and true reproduction. The instrument panel control matches the other instruments and affords easy selection of favorite stations and perfect volume control. Installed price \$49.50.

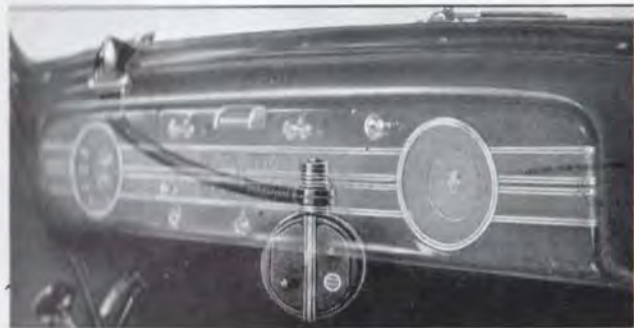


De Luxe Hot Water Heater—The new Packard De Luxe hot water heater is efficient, compact and economical. It provides a powerful, constant flow of hot air to keep the car warm and comfortable. We recommend the heater be mounted in the center of the dash, providing even distribution of heat

in the front compartment and better circulation throughout the car.

A new feature, an air outlet at the bottom together with the two deflector doors opening in opposite directions, permits perfect control of heat distribution. An illuminated rheostat switch controls the volume of heat supplied. Provision is made on this heater to receive the new windshield defroster. Price installed \$18.75.

Packard Windshield Defroster—Whether parking or driving, this new Packard Windshield Defroster will blow the warm air from the car heater and distribute it across the glass in front of the driver. The circulating



air absorbs the moisture, keeping the glass dry and free of mist and frost.

The unit consists of a special motor-driven blower, hose and built-in deflector on the instrument board. A special rheostat switch controls the speed of the blower. Installed price \$6.75.



Standard Hot Water Heater — A smaller and more moderately priced heater. About 70% as efficient as the De Luxe Model, this heater supplies ample heat for milder climates or where the maximum heat is not desired. It is equipped with a special air passage in the bottom which permits indirect heating. The new Packard

defroster may be mounted on top of this heater. Installed price \$14.95.



Packard Hot Air Heater—Quick heat throughout the car. A steady flow of warm, fresh air is constantly maintained by the power-driven fan. Circulated through two registers, the amount of heat may be regulated by the rheostat control switch. Installed price \$37.50.



Cigar Lighter—A new, automatic cigar lighter. Just push the button in until it "clicks" into place and removes your hand. When the unit is heated it will snap out and is ready to use. This lighter is available to all passengers as it is designed to pass around. Installed price \$2.50.



Packard Electric Clock—Beautiful and serviceable this electric clock is a day and night convenience. The dial and hands are indirectly lighted to prevent glare and provide clear visibility at all hours. The clock is easily installed in the glove compartment door. Electrically wound, it is accurate and requires no attention. Designed to match the other dials in the dash, it adds much to the rich appearance of the car. Installed price \$11.50.



De Luxe Emblem—With proud dignity this emblem, sculptured in polished metal, symbolizes strength, grace and beauty. Silently, yet unmistakably it has blazed a trail around the world, proclaiming with fitting dignity the name "Packard." Installed price \$6.00.



Chrome Trim Rings—A chrome ring between the inner edge of the tire and the beautifully painted wheel adds a lustrous touch—that finished appearance which means satisfaction and reflects pride of ownership. Of highly polished stainless steel, these rings will not rust or tarnish. Set of 5 installed price \$8.50.

Spotlight—This inner control spotlight has become more and more popular each year. The light beam may be focused in any direction from the interior of the car. The light remains fixed in any position selected by the driver.

Installed price—
sedan \$18.50; convertible models \$21.00.



Fog Light—A powerful driving light which mounts on the front bumper bracket and casts a long, low beam of fog penetrating light is now available. It will be appreciated

by the motorist who does considerable driving at night; especially in sections of the country where fog, snow and rain occur frequently. Installed price \$6.95 each. Pair \$13.00.

License Plate Frames—Chrome license plate frames add beauty and a finished appearance to any car. The chrome band around the plates is in keeping with the appearance of other accessories. They strengthen and protect the plates from vibration and bending, are adjustable and can be easily installed. Installed price \$2.50.





Flexible Steering Wheel—An added touch of smartness in the front compartment is obtained by the use of this attractive steering wheel. The spokes are made of a series of small-diameter, chrome plated steel rods. Installed price \$11.95.

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Printed in U. S. A.

Packard

SIX

ONE TWENTY

SUPER-EIGHT

AND TWELVE

Standard Paint Schemes,

Prices, Terms and

Accessories for

1937

Copyright 1936
Packard Motor Car Company
Detroit, Michigan

PACKARD Fifteenth Series, Prices, Terms and Accessories

BODY TYPE	Factory List Price	Local Delivered Cash Price	1/3 Down Payment	12 Months	18 Months
SUPER-EIGHT—135 H. P.					
MODEL 1500—127-inch Wheelbase:					
5-Passenger Touring Sedan	\$2335	\$	\$	\$	\$
MODEL 1501—134-inch Wheelbase:					
5-Passenger Formal Sedan	\$3235	\$	\$	\$	\$
5-Passenger Touring Sedan	\$2535	\$	\$	\$	\$
5-Passenger Club Sedan	\$2530	\$	\$	\$	\$
5-Passenger Coupe	\$2510	\$	\$	\$	\$
2-4-Passenger Coupe	\$2420	\$	\$	\$	\$
2-4-Passenger Convertible Coupe	\$2680	\$	\$	\$	\$
5-Passenger Victoria	\$3150	\$	\$	\$	\$
5-7-Pass. A. W. Cabriolet (Le Baron)	\$4850	\$	\$	\$	\$
MODEL 1502—139-inch Wheelbase:					
7-Passenger Touring Sedan	\$2705	\$	\$	\$	\$
7-Passenger Touring Limousine	\$2840	\$	\$	\$	\$
5-Passenger Convertible Sedan	\$3350	\$	\$	\$	\$
5-7-Pass. A. W. Town Car (Le Baron)	\$4990	\$	\$	\$	\$
SUPER-EIGHT BUSINESS CAR					
135 H. P.—(139-inch Wheelbase)					
8-Passenger Business Sedan	\$2580	\$	\$	\$	\$
8-Passenger Business Limousine	\$2715	\$	\$	\$	\$
TWELVE—175 H. P.					
MODEL 1506—132-inch Wheelbase:					
5-Passenger Touring Sedan	\$3490	\$	\$	\$	\$
MODEL 1507—139-inch Wheelbase:					
5-Passenger Formal Sedan	\$4260	\$	\$	\$	\$
5-Passenger Touring Sedan	\$3560	\$	\$	\$	\$
5-Passenger Club Sedan	\$3660	\$	\$	\$	\$
5-Passenger Coupe	\$3590	\$	\$	\$	\$
2-4-Passenger Coupe	\$3420	\$	\$	\$	\$
2-4-Passenger Convertible Coupe	\$3450	\$	\$	\$	\$
5-Passenger Victoria	\$4490	\$	\$	\$	\$
5-7-Pass. A. W. Cabriolet (Le Baron)	\$5700	\$	\$	\$	\$
MODEL 1508—144-inch Wheelbase:					
7-Passenger Touring Sedan	\$3885	\$	\$	\$	\$
7-Passenger Touring Limousine	\$4085	\$	\$	\$	\$
5-Passenger Convertible Sedan	\$4650	\$	\$	\$	\$
5-7-Pass. A. W. Town Car (Le Baron)	\$5900	\$	\$	\$	\$

SPECIAL EQUIPMENT—Fifteenth Series

Fender Well Equipment	Super 8—\$40.00	Chrome-plated Shutters, Standard Both Models
	Twelve—\$40.00	Chrome-plated Radiator Shell
Five wheel equipment is not available on Packard Twelve Convertible cars.		Super 8—\$10.00
Trunk Rack Assembly	Super 8—\$35.00	Twelve—\$10.00
	Twelve—\$35.00	Full Chrome Headlights and Tail Lights
5 Artillery Type Steel Wheels		Super 8—\$20.00
	Super 8 only—\$20.00	Twelve—\$20.00
6 Artillery Type Steel Wheels		White Sidewalls (set of four) Super 8—\$18.00
	Super 8 only—\$24.00	Twelve—\$18.00

List prices of Packard Super-Eight and Twelve include front and rear bumpers, twin tail lamps, twin horns, safety glass throughout and extra wheel. Spare tire is extra. Fender Well equipment consisting of sixth wheel and wells in front fenders, is available on Twelve and Super-Eight models for \$40.00. Spare tires are extra.

PACKARD SIX—120 Prices, Terms and Accessories

BODY TYPE	Factory List Price	Local Delivered Cash Price	5% Down Payment	12 Months	18 Months
PACKARD SIX—100 H. P. (115-inch Wheelbase)					
5-Passenger Touring Sedan	\$910	\$	\$	\$	\$
5-Passenger Sedan	\$895	\$	\$	\$	\$
5-Passenger Club Sedan	\$900	\$	\$	\$	\$
5-Passenger Touring Coupe	\$860	\$	\$	\$	\$
2-4-Passenger Sport Coupe	\$840	\$	\$	\$	\$
2-4-Passenger Convertible Coupe	\$910	\$	\$	\$	\$
2-Passenger Business Coupe	\$795	\$	\$	\$	\$

PACKARD ONE TWENTY 120 H. P. (120-inch Wheelbase)					
5-Passenger Touring Sedan	\$1060	\$	\$	\$	\$
5-Passenger Sedan	\$1045	\$	\$	\$	\$
5-Passenger Club Sedan	\$1050	\$	\$	\$	\$
5-Passenger Touring Coupe	\$1010	\$	\$	\$	\$
2-4-Passenger Sport Coupe	\$ 990	\$	\$	\$	\$
2-4-Passenger Convertible Coupe	\$1060	\$	\$	\$	\$
5-Passenger Convertible Sedan	\$1355	\$	\$	\$	\$
2-Passenger Business Coupe	\$ 945	\$	\$	\$	\$

PACKARD ONE TWENTY 120 H. P. (138-inch Wheelbase)					
7-Passenger Touring Sedan	\$1690	\$	\$	\$	\$
7-Passenger Touring Limousine	\$1840	\$	\$	\$	\$

PACKARD ONE TWENTY DE LUXE 120 H. P. (120-inch Wheelbase)					
5-Passenger Touring Sedan	\$1270	\$	\$	\$	\$
5-Passenger Club Sedan	\$1260	\$	\$	\$	\$
5-Passenger Touring Coupe	\$1220	\$	\$	\$	\$

STANDARD ACCESSORY GROUPS

Group "AS"	Group "AS"	Group "DS"
PACKARD SIX	120C and 120CD	120C and 120CD
Spare Tire and Tube	*Spare Tire and Tube	*2 Spare Tires and Tubes
Second Horn	Second Horn	2 Metal Tire Covers
Right Tail Light	Right Tail Light	Second Horn
Vacuum Booster Pump	Vacuum Booster Pump	Right Tail Light
Bumpers	Bumpers	Vacuum Booster Pump
Bumper Guards	Bumper Guards	Bumpers
Oil Bath Air Cleaner	Oil Bath Air Cleaner	Bumper Guards
SUGGESTED LIST PRICE	SUGGESTED LIST PRICE	SUGGESTED LIST PRICE
\$51	\$58	\$117
<small>Fender Well equipment is not available on Packard Six cars.</small>	<small>*Group "AS" Packard One Twenty, 138" Wheelbase Models, all tires six-ply—the only change—price \$64.00.</small>	<small>*Group "DS"—Packard One Twenty, 138" Wheelbase Models, all tires six-ply—the only change—price \$127.00</small>
<small>Trunk Rack, all models (120 and Six) . . . \$25.00.</small>	<small>White Sidewall, 120 and Six—Standard Size (Set of Five) . . . 17.00.</small>	
	<small>White Sidewall on 120 only (Set of Six) 20.00.</small>	

STANDARD COLOR SPECIFICATIONS

Packard Six—One Twenty C—Super-Eight and Twelve

Paint Scheme	ENTIRE CAR	STRIPE
A	Gunmetal Light Metallic	Flake White
B	Packard Blue	Royal Blue
G	Packard Maroon	Gold Bronze
H	Hickory Leaf Green	Gold Bronze
J	Almond Green Metallic	Silver
L	Centennial Blue	Flake White
P	Rich Loam Metallic	Gold Bronze
T	Packard Cream	Casino Red
X	Black	Old Ivory
Y	Buckingham Gray	Silver

The following special introductory display car color schemes will be brought through at the beginning of the Six, 120-C and 15th Series and will be later discontinued.

Paint Scheme	ENTIRE CAR	STRIPE
E	Coachman Green	Cigarette Cream
F	Regetta Blue Metallic	Silver
K	Dawn Gray	Royal Chariot Red
S	Iridium Gray Metallic	Flake White
Z	Indian Maroon	Gold Bronze

ASK THE MAN WHO OWNS ONE

Packard

SIX
ONE TWENTY
SUPER-EIGHT
AND TWELVE

•
Standard Paint Schemes,
Prices, Terms and
Accessories for
1937

•
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Packard Motor Car Company
Detroit, Michigan

