

Oakland Announces New Models That Have Harmonic Balancer

Exclusive Device Said to Eliminate Engine Vibration; Smart New Bodies and Over 100 Refinements Featured

Smart new bodies by Fisher, with low, racy body lines and double body beading; more than 100 improvements and refinements, featured by the Harmonic Balancer, an exclusive engineering achievement for eliminating engine vibration; and new lower prices, constitute the most distinguishing features in the announcement of new cars by the Oakland Motor Car company this last week.

The Harmonic Balancer was developed to eliminate what is known as "torsional vibration." This vibration is due to the fact that the crankshaft, while apparently a very rigid member, has the same quality of elasticity as a tuning fork, which makes it when twisted, recoil and vibrate at a definite rate. The Harmonic Balancer eliminates these periods of vibration.

It consists of a light steel bar, pivoted to the shaft at its center and tensioned by stiff springs at both ends. It is so constructed that it has a natural frequency of vibration practically the same as that of the crankshaft. At the

lightest movement of the shaft, the Harmonic Balancer picks it up and vibrates in the opposite direction, thus neutralizing all vibrations to provide smooth running at even the highest speeds. It is a simple, rugged, non-wearing device that requires no adjustment whatsoever.

The low, racy body lines are achieved through use of hood and body beading, lower running boards and deeper fenders. A new, larger radiator, new hood and special head and cowl lamps give an impressive front appearance. The new bodies by Fisher are extremely low-hung and possess a harmony of design in radiator, lamps, instrument board and body proportions that makes for an appearance of compactness, symmetry and power.

The new bodies come in five models, Touring, Coach, Landau Sedan, Landau Coupe and Sedan.

An air cleaner of the centrifugal type is provided as standard equipment on all models—another step in increasing the life of the motor. It takes out of the air

Thames and Seine Linked by Amphibian Passenger Planes



Amphibian planes, equipped to land on either earth or water, are now maintaining regular service on a 150-minute schedule between the Seine, Paris, and the Thames, London. One of the craft is seen arriving on the English side.

drawn into the motor dust particles and fine grit that would otherwise cause wear on the cylinder walls, pistons, piston rings and valve mechanism.

There are no moving parts in the cleaner, thereby eliminating any chance for wear or noise; it imposes a minimum of restriction on the air flow to the carburetor, even after extensive use; and requires no attention save the emptying of the cleaner once a year.

When it is pointed out that an engine of Oakland's displacement, operating at 25 miles per hour draws in 72 cubic feet of air in a minute, it will be appreciated that a considerable amount of abrasive material gets into the cylinder bores, without such a device.

Paralleling the installation of the air cleaner is an oil filter that keeps the lubricant free from grit, carbon particles and foreign matter. The sediment is removed by a filtration process. As the oil passes through this filter several times each hour at ordinary driving speeds, it eliminates the wear and tear of foreign particles on the connecting rods and main bearings at all times. The filter is of especial value in cold weather, as foreign matter has an even more damaging effect in winter.

All bodies are finished in new color combinations in permanent Duco and have heavily enameled fenders. Twenty-inch artillery wheels and full balloon tires, 30

by 5.25 are used. Steel wheels are optional at slight extra cost.

All models except the touring car have the double beading around the body, the lower beading extending along cowl and hood. The Landau Sedan and Coach are finished in Buckingham gray, with black upper structure. The touring car is finished in duo tone Buckingham gray below the beading and light gray above. The Landau Coupe is finished in Bowling green, while the Sedan is finished in Cobalt blue, with black upper structure. Distinctive color striping on body, hood and wheels of all models completes the attractive color scheme.

The Landau Sedan and Landau Coupe have natural wood wheels, while the other three models have wood wheels finished in the respective body colors.

Increased leg room is a feature on all models, while the instrument board is new, with symmetrically designed, indirectly lighted glass enclosed instrument panel. The special new head lights are larger and of new design, and supported by a tie rod. There is a one-piece windshield on each model.

The new radiator gives 12 1/2 per cent greater cooling capacity.

All models are equipped with a windshield cleaner, those on the closed cars being automatic. The closed models have the Fisher VV one-piece windshield, while the touring car likewise has a one-piece windshield, of new design.

The cars have full perfected automatic spark. In the center of the steering wheel are located the throttle and headlight dimmer control. The lighting, ignition switch and choker are arranged on the instrument panel within easy reach of the driver. The design of panel and instrument board controls harmonizes with design of new radiator and lamps.

A stiffer, heavier crankshaft, weighing 66 pounds to the former 53 pounds, helps the Harmonic Balancer in eliminating vibration.

Oakland's efficient mechanical four-wheel brakes have been still further improved. The brake pedal action has been made softer, and all brake bands are now interchangeable.

Many vital advancements have been made in oiling system; in valve mechanism and in engine design.

GARDNER EIGHT TO BE DISPLAYED HERE
(Continued from page 1.)

leg room in both front and rear compartments. Another is the fact that the use of four wide doors makes possible an undivided front seat, which unusually wide and set at a restful angle.

Standard equipment includes transmission lock, snubbers front and rear, genuine full-size balloon tires, five disc wheels, Gardner enclosed four-wheel brakes, one-piece ventilating windshield operated by rotary lifts, automatic windshield wiper, nickel trimmed lamps with non-glare lenses, cowl lamps, plate glass windows throughout, cowl ventilator, rear vision mirror, rotary door locks, rotary lifts on all windows, dome light, satin window curtains, bumpers front and rear, trunk rack and trunk, extra tire, tube and cover.

FUEL ECONOMY IS OBTAINED BY CARE
(Continued from page 1.)

uses up gas unnecessarily but is anything but beneficial to the engine.

"It isn't much wonder that drivers complain about the mileage they get from their fuel when you consider the manner in which they keep a record. A common method is to stick an old ruler into the tank and note the inches. Sometimes the ruler goes in at a different slant from what it did other times. This, of course, would make a variation of from one to two inches; but that doesn't seem to matter to some drivers. Again, they do not bother to see that the car is level, and this, of course, is important if anything like accuracy is expected.

There is only one simple, yet efficient, method for keeping track of gasoline mileage consistently. And in using it or any other method, the driver should

PUBLIC IS WARNED AGAINST LIGHT MEN

Headlight Device Salesmen Declared Spreading False Propaganda

Information has come to the secretary of state that certain headlamp device salesmen are attempting to advise applicants for designation as headlight adjusting stations as to the required equipment of such stations. These same individuals are also alleged to be attempting to instruct mechanics in the adjusting of headlights of motor vehicles with respect to tools and appliances to be used in such adjustment.

The secretary of state, acting under the authority vested in him under recent motor vehicle lighting law, has issued official instructions for authorized light adjusting stations and adjusters, which must be followed strictly in the equipping of any such adjusting stations before they will be approved. Likewise, any mechanic before being authorized to make headlight adjustments under the law, will be required through an examination by the state traffic officers to show his qualifications and fitness for making such adjustments.

Secretary of State Koser has given this notice so that any persons proposing to establish adjusting stations may not be imposed upon by unauthorized persons, or mechanics desiring to fit themselves for light adjusting may not be misguided with regard to the requirements. Every light adjusting station in the state must be approved by the secretary of state and all approved stations will display certificates of appointment. Light adjusters will have appointments from the secretary of state, and the motoring public should demand the exhibition of such appointments when requiring service at any authorized station.

Albany — Work begun on Third street bridge across Calapooia river.

Marshfield — Logging camps reopened at Powers, with 450 men.

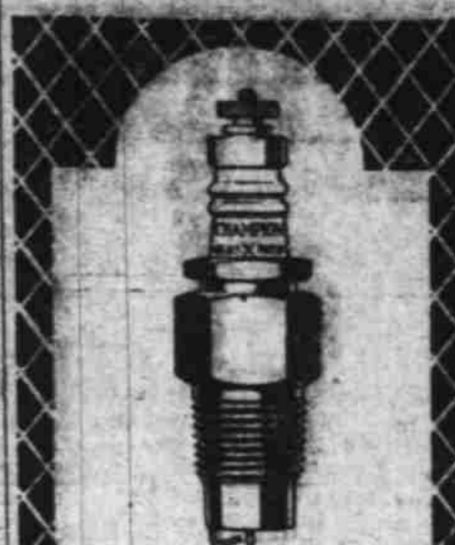
CHAMPIONS WIN AGAIN ON NEW LAUREL TRACK

The 250-mile race at Laurel, Md., July 11, in which Champion spark plugs won their twenty-second victory in major speed contests within two years, was a fitting opening for that new racing oval. Peter De Paolo, Indianapolis winner, driving was apparently the fastest racing automobile in the world, set a world record for a 1-1/8 mile track by cutting up the 250 miles at an average of 123.33 miles an hour.

De Paolo's Champion equipped Daemmerling never had a smoother race, according to witnesses, forgetting the entire distance without a stop. Close on his heels

were the youthful Bob McDonough, Tommy Milton's protégé, in a Miller Special, and Harry Hart in a second Miller. None of the leaders, all of whom used Champion plugs as usual, changed a single one during the entire grueling grind.

Roseburg — U. S. land office sells 2040 acres federal timber for \$117,232.



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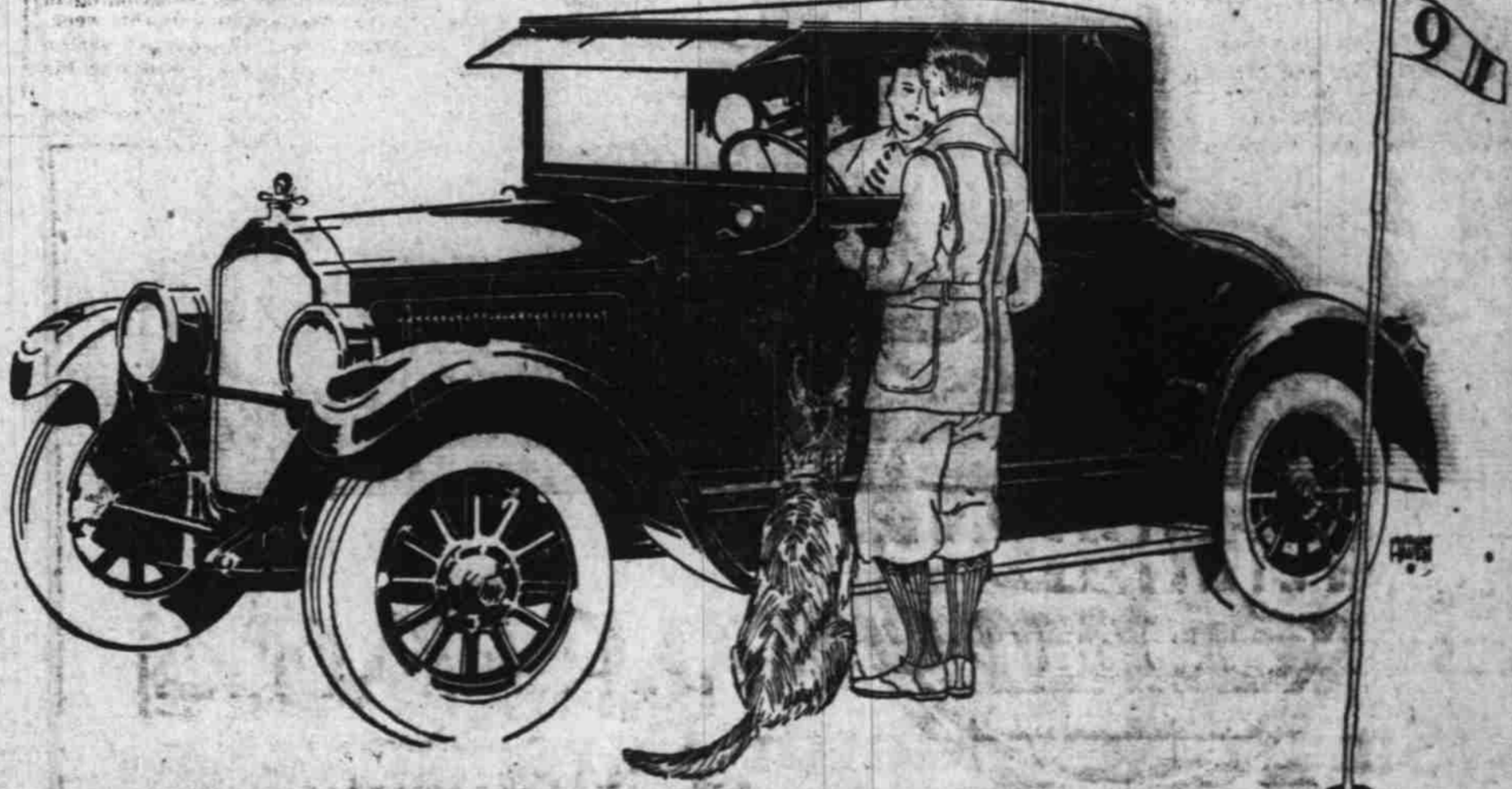
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