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## OREGON GASOLINE LAW BLAMED FOR RAISE IN PRICE

Government Experts Say Gravity  
Test Is Not the Right Way to  
Determine Efficiency of Fuel.

By Frank A. Clarke  
The Standard Oil company has raised the price of gasoline 1 1/2 cents and hints a further raise of 2 1/2 per gallon or a price of 23 1/2 cents per gallon as the probable price in Oregon, inside the next few months.

The Oregon statute requiring 56 gravity test, Baume, is assigned as a reason. Oregon people can have 56 degree gasoline or any other degree they want, says the Standard Oil, if they will pay the price.

Other companies have not raised their prices and up to the present have refused to comment on the subject.

Twenty-eight cent gasoline is equivalent on a mileage basis to approximately a 25 per cent increase in price. If it comes to that it will cut out the enjoyment of thousands of people who cannot afford to pay the increased expense.

Every user of gasoline is familiar with the words "gravity," "grade" and "quality," but they convey as much meaning to most of us as jargon. "Boiling test" is more meaningless. At the same time these cute little words stand to cost Oregon motor users \$600,000 in hard money more in 1920 than in 1919. To interpret these words and to otherwise explain the subject caused The Journal to investigate the subject and this is the result:

**WHAT IS QUICKER SHOWS**

1.—Government experts composed of a member representing the shipping board, one representing the war department, another the navy department, a fourth the bureau of standards and the fifth the bureau of mines, assert that the boiling point of a gasoline and not the degree test, according to Baume's theory, is the right way to ascertain the power of the gasoline.

2.—"Low Grade" is an erroneous term when used as a synonym for "low quality."

3.—"Quality" in gasoline means efficiency of performance, i. e. greatest power when perfectly carburized.

4.—Gasoline of today is of lower gravity (greater density) but when properly fired is more powerful than that of 10 years ago.

5.—Motors constructed in the past three years and equipped with the water-carburetors will carburize 54 gravity gasoline with the same efficiency that they do 56 gravity. They start a little harder, but also they yield more power.

6.—Motors over three years old will require some adjustment. Authorities are not in accord as to just what.

The announcement made by the Standard Oil company of California, reopening the discussion started at the meeting of the last legislature regarding the specifications for gasoline that is to be sold in Oregon.

The legislature passed a law requiring that all gasoline sold within the state should pass a test of 56 degrees Baume, commonly known as the specific gravity test. This law puts Oregon in

a class by itself as far as gasoline specifications are concerned, it being the only state in the Union to enforce the restrictions of such a law.

The gasoline of today is a less explosive fuel than the fuel of eight or 15 years ago, but owing to great strides in improving carburization present day gasoline is giving far greater power and mileage. Government experts declare that the boiling test is the proper efficiency test. Boiling point, it is explained, is the temperature at which vaporized gasoline can be completely "exploded."

**BOILING AND GRAVITY**

Gasolines now on the market have the uniform chains of boiling points demanded by present day engines, respectively for easy starting, for smooth acceleration and for power and mileage. Low boiling points with the same carburization system mean easier starting but less power and mileage; high boiling points mean greater power and mileage but more difficult starting. Easy starting means easy gasification and firing qualities.

High specific gravity, broadly speaking, is equivalent to low boiling point, and low specific gravity to high boiling point. The fact that an engine starts less easily on low gravity gasoline means that the fuel is not as easily gasified, but it also means that when the engine becomes warm, gasification is brought about with perfect ease and more efficiently. This is because low gravity gas has more power producing heat.

While there is a lack of unanimity on the subject of low gravity gas performance, best local gas engine experts all agree that automobiles manufactured during the last three years are equipped so as to efficiently fire low gravity (or high boiling test) gasoline. Some of them say that cars built prior to 1918 would require only readjustment of the carburetor, but most are of the opinion that it would be necessary to install late model carburetors and perhaps hot-spot firing devices or other special heating devices.

It is a fact that motorists in the state of Maine, with its very cold winters, have not experienced difficulty in firing a gas of lower volatility than 56 degrees.

Another point that should be kept in mind is that "grade" does not mean "quality." That is, a low gravity, erroneously called low grade, gasoline does not mean that it is of poor quality. Oil men and engine men agree that "quality" means efficiency performance and the efficiency of a motor depends on the quality of the gasoline. It also means that "quality" means proper carburization regardless of the degree of gravity, or boiling point.

Other oil companies declare that there is a material difference in expense in manufacturing 56 gravity gasoline for use in Oregon and that for use in the northern states, notably California and Washington. The reasons advanced are that the fuel for this state has to undergo more careful refining, has to be handled in special containers in order to keep it separate en route from gas going to other fields of consumption and has to be stored separately upon reaching the point of distribution.

Other oil companies have as yet not signified their intention of following the lead of the Standard Oil company.

The specific gravity test has long been the basis of contention in fuel and refinery circles. A number of states and municipalities have had under consideration laws and ordinances that would require gasoline of a certain specific gravity.

Last year the Oregon legislature passed such a law on the theory that it would insure better gasoline for the state, would prevent the dealer in gasoline other than the oil company filling stations from adulterating the fuel, and

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## Automobile Ever Is Seasonable

WINTER sports in other climes may be a matter of course, and there are sections of the country where such cold snaps and snow storms as Portland has just had occur regularly during the winter season. However a heavy snowfall and prolonged cold weather are a sensation for Portland.

So much of a habit is it for the Portland motorist to take the car out in the morning and use it whenever occasion offers during the day, that the sudden snow scarcely interrupted the smooth run of things in the motor world, until the man who owns a car found it nearly impossible to get about. Portland people were astounded. Not able to run the car out? Why, Oregonians motor all the year.

And it is nearly true. Long before the streets were in a healthy condition for driving automobiles, many men and women had their cars out and were bucking the drifts in every direction. Pedestrians following the narrow lanes beaten along the car tracks were forced to give way to motor cars rattling along attired with rope and chains, the drivers having the time of their lives proving that their cars were the only machines that did not have to be put in storage until the streets were cleared.

### "WHIP BEHIND"

Other motor cars there were that came along in much the same manner, but with strings of sleds tied on behind, whereon sundry small boys and girls found that the pleasures of motoring were not confined to sitting inside the car and watching the world through the windshield.

Drivers, who had ventured too far into the deep snow and who were making great efforts to get back on solid earth again were watched with broad smiles by those who gathered near. When a car would finally find its footing, as it were, and come out of the trouble, the motorist could scarcely refrain from waving a hand to the skeptical spectators, and by a cheery grin or so tell them that he who laughs last, of course, laughs best.

To the man with a birdseye view of the city, if there were any, the streets probably looked mysteriously decorated by piles of snow under which some car had parked in the thick of the storm, the driver unable to stay and finish the battle with the elements. The cold was too intense, and no matter how good a car is, it is not a caterpillar tank, and the snow, as everybody was aware, was possessed of the drifting habit.

Many are the tales told by automobile drivers of the gripping quality of the cold on that Tuesday night when the storm was at its height. A Journal pathfinder party had ventured out the highway with the intention of ascertaining in what condition that scenic road was to be found. The snow was thick, and drifts difficult of navigation. Four miles beyond the Automobile club a drift prevented further progress, and the Moon car was forced to make a retreat. Other drivers tell similar tales of having started somewhere, and finding drifts impassable. As a rule, however, motor cars managed to continue to operate to a certain extent without interruption, but mainly as a sporting proposition.

### WINTER SPORTS AROUND

Few there were who failed to take advantage of the hills about the town, and sleds were found in cellars and hauled forth to the light. Skates were sharpened, and the automobile came in as a means for getting the parties to the ponds and hills. Laurhurst Park was the Mecca of throngs of skaters, and automobiles were parked in numbers.

Alameda Hill was another point sought by those with sleds, and who can deny that it is much easier going to the hilly streets dragged behind the obliging bulk of some automobile than it is to drag the sled?

The automobile found that it could carry on a successful battle with the elements and come out in fairly good condition. There were hundreds who had radiators frozen and scores whose pump parts were cracked by too eager starting, but that was the fault of the owners and not of the automobile. For the most part, the faithful car stayed on the job and continued to be a means of pleasure, and even a source thereof.

The Moon car shown here was the first to make the ascent of Terwilliger hill after the storm. Driven by Bruce Bailey of the C. H. S. company, the car broke trail for some miles out on the southern boulevard and returned without trouble.



## See How the Essex Proved Endurance

Essex did it, 3037 miles in 50 hours—greatest endurance record made by a stock chassis on Cincinnati Speedway under A. A. A. official observation, ending December 12.

Now time has proved how Essex retains those wanted qualities of silence, smoothness and power even after hardest service.

Such endurance was never expected of a light weight car.

But Essex' legion of friends know that aside from size the Essex has nothing in common with other light weight cars.

True, it has economy, which is the chief light car appeal. But only among large, high-priced cars are found comparisons for its performance qualities.

### Big Car Performance Light Car Economy

Think how many who formerly owned big, costly cars, now drive the Essex.

It proves mere size was not what they sought. They wanted qualities that heretofore only large, fine cars offered. But they prized such light car advantages as economy and nimbleness. When the Essex met their demands for fine car comfort, quality and performance, with the added advantage of light weight types, they chose it without hesitation.

The Essex was designed to embody the wanted qualities of the finest cars, in a size it would be possible to build at moderate cost.

What thousands say of it proves how well it meets those exactions.

### Costs Less to Operate Easier to Handle

With the Essex you sacrifice no pleasure, comfort or performance ability that the big, costly car can give.

What car can show more speed? In any community you will find the Essex is rated with the fastest. In less than a year it has established its position as a performance car that all respect for ability.

And Essex owners are learning another quality that improves their esteem and affection for it. That is its endurance, which accounts for thousands of miles of transportation, free of repair or annoyance. They have discovered the Essex requires little attention.

Its solid, compact assembly, that has been proved in every trying test, will satisfy you, too, of its endurance powers.

Then take a ride in the Essex. It will reveal qualities that will charm you as they have nearly a million others.

And you will make sure of having your Essex when you want it by placing your order well ahead of the desired delivery date.

## C. L. Boss Automobile Co.

615-617 Washington Street

Portland