

HINTS FOR THE MOTORIST

ALBERT L. CLOUGH
Editor Motor Service Bureau Review of Reviews

How Does Your Car Roll?

If It Does Not Do So Freely, You Are Wasting Gas And Wearing Out Something

IS THERE ANY SOURCE OF POWER WASTING friction about your car, which causes fuel waste and wear of moving parts? Sometime, when it is standing on a smooth garage floor, in neutral, with the brake off, see how much force it requires to push it back and forth and if it seems to move unreasonably hard, look for the causes, or instead, when driving on a hard, level road at 26 miles an hour, throw it into neutral and see if it coasts freely and as far as you think it ought. Manufacturers think so much of such tests that some of them publish figures of normal forces required to move and coasting distances of their cars. Among causes of removable friction are the following: Dragging brake-bands, too soft tires, too tightly meshed final-drive gears, front wheel or rear-axle bearings too closely adjusted, lack of lubricant in transmission or rear end, or too viscous and stringy lubricant used in these housings, non-parallelism of front wheels and misalignment of the front with the rear axle. In the case of Ford cars too-tight adjustment of low-speed and reverse transmission bands is a very common cause of constant friction. Anyone who once "gets a line" on how his car pushes about or how well it coasts when everything is right, can easily determine whether anything is binding; after brake or other adjustments have been made, by repeating these simple tests.

EFFECT OF TWO HEAD-GASKETS



C. F. asks: Would the use of two gaskets, instead of one, under the cylinder-head of my engine, increase or reduce its power? Answer: Our belief is that it would reduce its power. The only condition under which the two gaskets would increase the power would be in the case of an engine which habitually knocks from self-ignition or detonation of its charges. In such an instance, the two gaskets, by reducing the compression ratio, might stop the knock, or at least reduce the knock to a sign, and thus increase the useful power. As the useful output of an engine increases with compression, up to the point at which knocking begins to occur, no increase of power can be expected from the use of two gaskets, unless the engine knocks and thus indicates that its compression should be lessened.

CAR LACKS SPEED

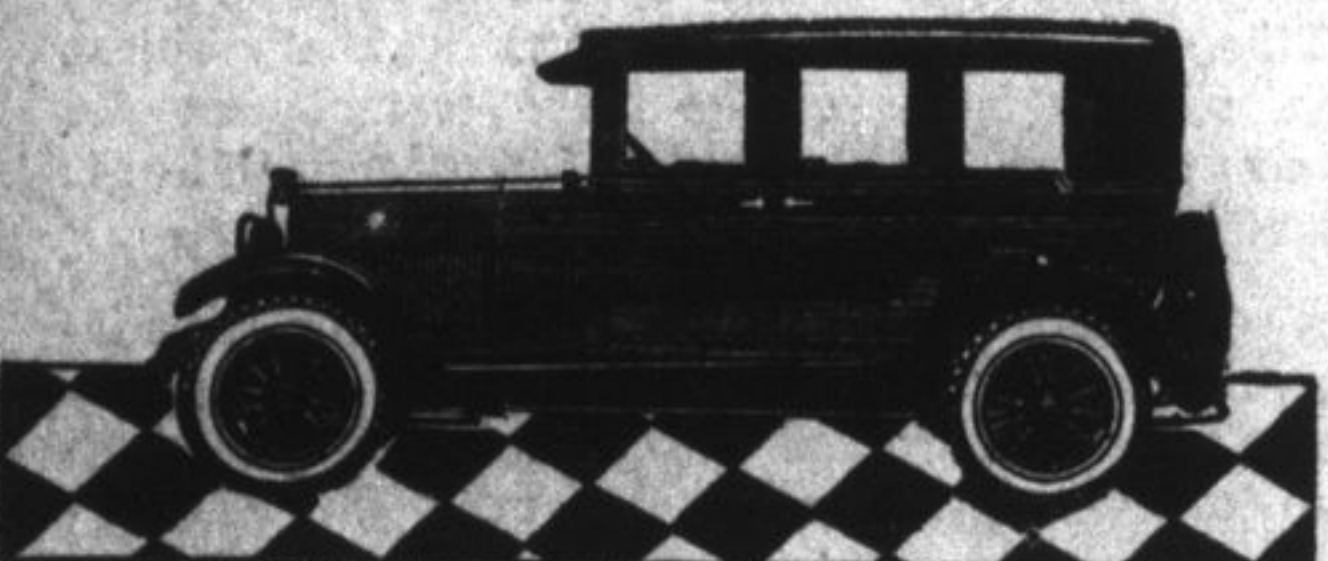


J. T. writes: My late 1924 Ford coupe will not run faster than 32 m. p. h. with the throttle wide open, while other Ford coupes go by mine as if it were standing still. Have ground valves and checked the timing, without any beneficial results. What do you advise? Answer: Most likely your engine misses some explosions when running fast. This might be the case and you not notice it, with the engine at very high speed. You

Questions of general interest to the motorist will be answered by Mr. Clough in this column, space permitting. If an immediate answer is desired, enclose self-addressed, stamped envelope.

Seek Motor Control. Business and political representatives of New Jersey, Pennsylvania and New York are urging Congress to give state utilities bodies the

power to regulate commercial motor vehicles through the interstate tunnel under the Hudson River and over the interstate bridge across the Delaware River.



Point by Point, this Car Outclasses Its Field

Good taste has endowed the Oakland Six with outstanding beauty. . . . Skilled engineering has given it performance-abilities unequalled in its class. . . . Honest workmanship and fine materials have made it enduring. . . . More than 100 improvements, including Air Cleaner, Oil Filter, Full Pressure Oiling and the Harmonic Balancer, and new low prices, have established it as value without parallel. . . . The car is winning and holding increasing good will all over Canada.

HUGHES & BURNS,
Frontenac Garage,
39 Montreal St., Kingston.

OAKLAND SIX WINNING AND HOLDING GOOD WILL

NEW LAMP THROWS RAYS AHEAD, ASIDE AND EVEN TO REAR!

BY ISRAEL KLEIN
Science Editor, NEA Service.

While automotive and highway authorities were worrying about the so-called headlight problem, William D'Arcy Ryan, noted lighting engineer, was working on a contraption that he now brings forth as the panacea for all headlighting ills.

After three years of research Ryan believes he has overcome all objections to glaring lights, or to insufficient lights. Ryan has demonstrated his headlight at Schenectady and is satisfied with it to the extent of going into production for its general use.

The new headlight, Ryan says, illuminates the road for more than 200 feet ahead, so that a person, automobile or any object in that distance could be easily seen. In addition the light shows up the sides of the road so effectively that road signs could easily be read even when the front of the machine is several feet past the sign!

This backward light is one of the features of the new headlight.

No Fear of Ditches.

The wide side beam is particularly effective in rounding curves, lighting up the road and keeping the ditch in constant view.

The beam is raised one degree above horizontal. Yet, says Ryan, there is no glare. In fact, tests showed that the nearer one gets to the headlights the dimmer the lights appear.

At the same time the tests show that persons standing three feet back of the lights and about five feet to either side could be easily seen by persons 100 feet ahead standing in the full beams of the headlights!

The Ryan light illuminates the front of the car so that even if one light is lit the car can't be mistaken for a motorcycle.

Thus only a one-flament 21 sandpower bulb is necessary. But provision is made for a dimmer bulb to comply with light dimming laws of various states.

Easy to Adjust.

The apparatus itself is much thinner than the present light but centers its action in a larger lens besides a specially designed reflector. A set screw adjusts the light to its proper height and, a safety catch makes it easy to open the lamp.

Ryan is one of the most famous illuminating engineers of America. He's known especially for his spectacular lighting displays, such as those of the Panama-Pacific exposition, the Rio de Janeiro exposition, the Hudson-Fulton celebration in New York, Niagara Falls and others.

"Two important features of this new light," Ryan explains, "is the non-focusing element and the beam adjustment element."

"But the first lamps can be changed without focusing and, in states that permit either 21 or 32 candlepower lamps, the fixed adjustment is all that is required."

"The second feature is valuable in that after the lamps are installed in the car it is only necessary to have someone take about 100 paces in advance while the depressing screw is given a few turns until the observer states that the lamps do not glare. This point is so clearly defined that there is no chance for misjudgment."

"An extra turn of the screw will compensate for unequal loading of the car without materially reducing the range."

WET RUBBER SHOWS WHY AUTOS SKID

Recent tests made by scientists have proved that the coefficient of friction on a water lubricated rubber surface is lower than on an oiled metal surface. By this we learn that wet rubber is much more slippery than oily metal—a fact which not only overthrows common belief, but which will be immediately evident if we remember that rubber heels slip more easily on a rain-swept cement sidewalk than leather heels.

To the average man such scientific research may seem needless and of little value, but as a matter of fact it is of great value not only in correcting erroneous ideas but in augmenting the safety of every motorist and opening up whole fields of activity never before appreciated. For instance, the results of these tests have caused manufacturers to use rubber as bearing liner instead of the usual babbit. Even now, on certain types of machines, rubber bearings lubricated with water are being used with greater success and economy than the old type of oil-lubricated white metal bearings.

Another thing that these tests have proved is that there is, in reality, no such thing as a "non-skid tire." Doubtless they have considerable value in minimizing slip hazard, but if water-lubricated rubber is slippery, how can a rubber tire successfully cling to a rain washed concrete or asphalt pavement? As the mad Prince Hamlet might have remarked: "There is something rotten in Denmark." The fact is: no automobile tire is skid proof or "non-skid" on a wet pavement until provided with chains. Only through the ability of the metal cross link to secure friction on wet pavements or earth can a tire be made to successfully cling to a slippery road surface.

The country of Tibet is reported to have only one motor vehicle, which is a motorcycle.

AVERAGE LIFE OF CAR IS 7.04 YEARS

According to an Estimate Made by Prof. C. E. Griffin.

Ann Arbor, Mich., May 14.—If you're an average driver, running an average automobile in an average way, you may expect your car to last an average of 7.04 years.

Which points to the fact that automobiles have been placed under the close scrutiny that equals the exact statistics insurance companies have about us humans.

Heretofore the method of estimating the life of a car was along somewhat of a hit-and-miss method. Now Prof. C. E. Griffin, of the University of Michigan, has more exact figures on automobiles than have ever before been compiled.

Griffin has applied actuarial methods to automotive statistics. He has given the automobile "population" a "specific death rate" and an "expectation of life," corresponding practically to those of our own lives. He has taken automobiles in Michigan on which to base his figures, over a number of years, and from these has estimated the number of cars that will "die" during this year and next.

Although he expects a loud uproar from proud car owners, he makes the startling announcement that the lowly Ford has quite a longer life than this average of 7.04 years. He didn't include the Ford in figuring the average because of the high production rate of Ford as against others. Figuring Fords in one class, and all the rest in the others, he came to almost similar "death curves."

From his statistics Griffin finds: That the expectation of life of cars in use today is 7.04 years.

That the average age of cars in use December 31st, 1924, was 3.07 years.

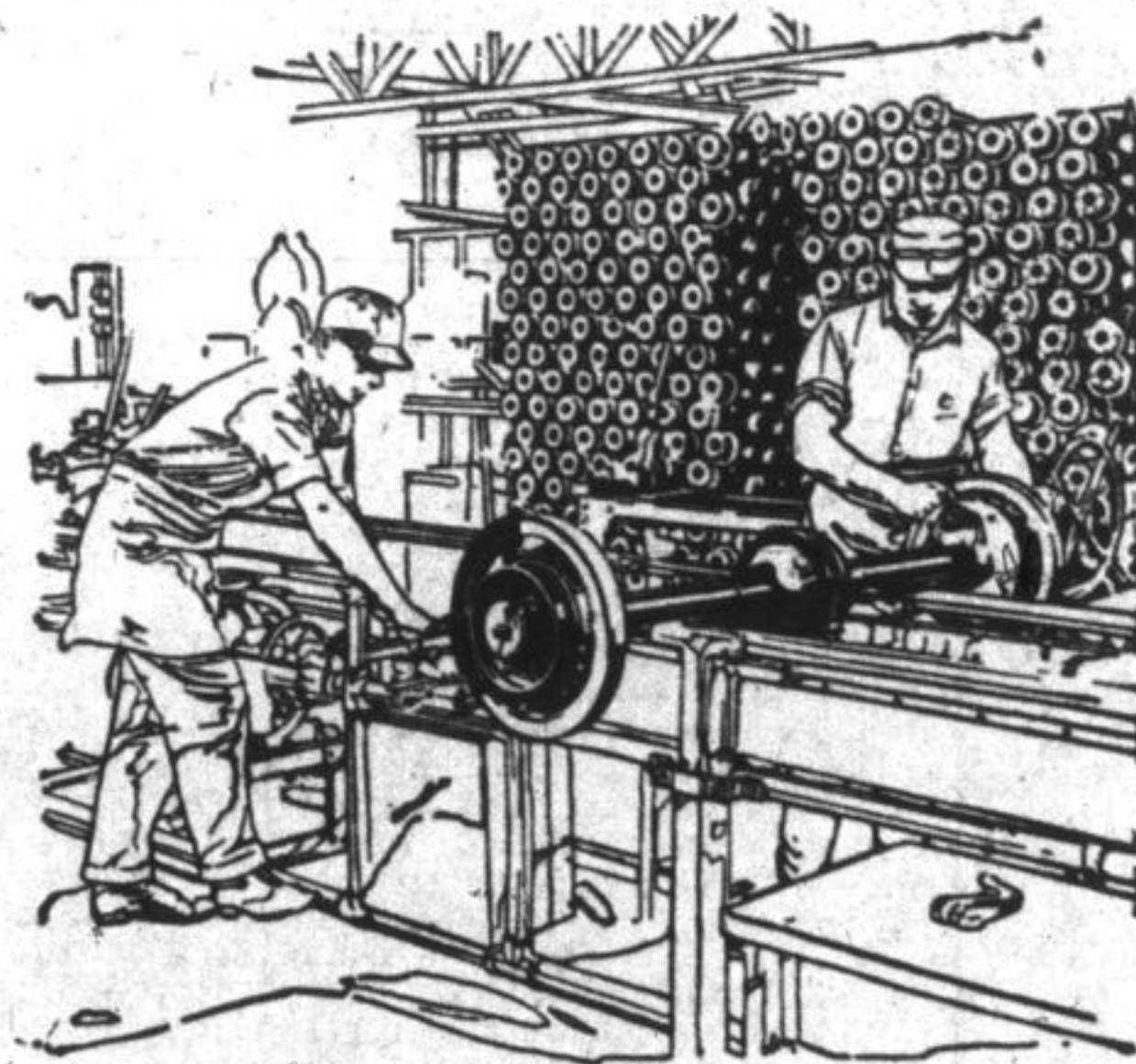
That the death rate of cars this year will be 1,710,000 plus 0.22 per cent of the 1926 additions for the entire country.

That the death rate of cars in 1927 will be 1,810,000 plus 0.22 per cent of the 1927 net additions and 2.05 per cent of the 1926 net additions.

That more than half the cars built in 1920 are still in operation.

Many Miles of Paving.

One-half of all the bituminous macadam in the United States is found in New York and New England. The combined mileage of this type on all of the state systems of this country is about 9,000 miles.



The Ford Rear Axle

One of the vital parts of a motor car is the rear axle. So much depends upon its proper operation that it must be as perfect in design, materials and workmanship as human skill can make it.

Before any Ford rear axle is permitted to pass to the assembly line, it is subjected to one of the most drastic tests that any piece of mechanism could undergo.

The axle is placed on the test-

ing frame and the drive shaft connected. The other end of the drive shaft is connected to an electric motor which drives the shaft and gears as they will be driven in actual use. Minute tests for adjustment and "noises" are then made with the axle gears perfectly dry, no oil being allowed near them till the test has been satisfactorily passed.

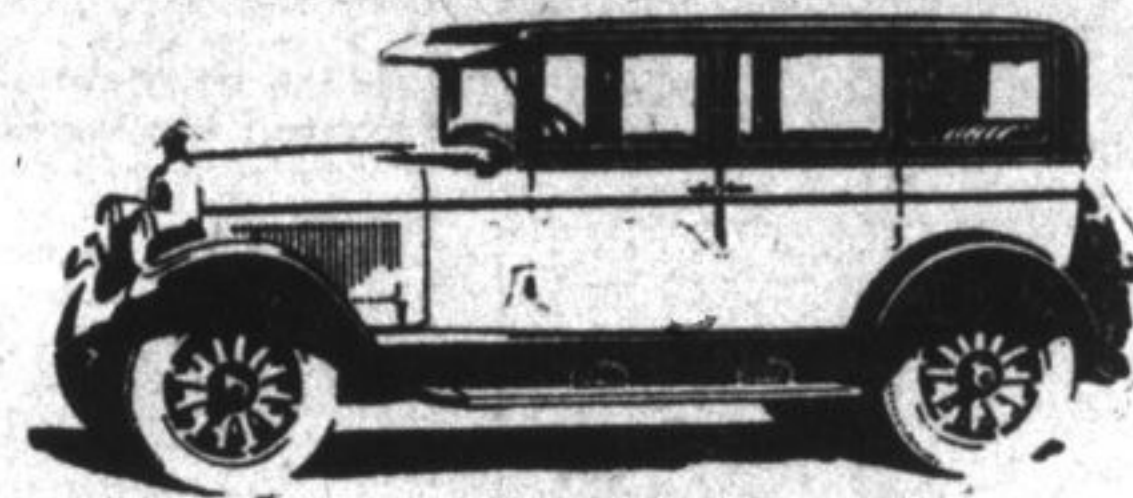
These tests are the user's guarantee of lasting satisfaction.



CARS • TRUCKS • TRACTORS

Van Luvén Bros.
34 Princess Street Kingston

PRODUCTS OF TRADITIONAL QUALITY



The New CHRYSLER '60'

Again Chrysler Quality and Performance—New Lower-Priced Six

Walter P. Chrysler, manufacturer of the famous Chrysler "70", the superfine Imperial "80" and the preferred four, Chrysler "58", now presents the new Chrysler "60"—the latest sensational product of Chrysler engineering—the first Chrysler Six at so low a price.

At last, all of the supreme value and performance you naturally expect from Chrysler, in a size and at a price that revolutionize values and quality among lower-priced sixes.

Chrysler Quality—without an equal in the whole industry—in the new "60" now completes Chrysler domination of the three great fields

in which sixes are pre-eminent.

Chrysler Performance—always sensational, always superior—measured by the Chrysler model numbers—"58", "60", "70", Imperial "80".

And in this newest Chrysler—the six-cylinder "60"—all of the Chrysler superiorities, features and new results combined in a quality six which upsets all previous standards in the lower-priced field.

Never before such a six at such a price as the Chrysler "60".

See the new Chrysler "60". Drive it. Don't be satisfied with anything less than Chrysler "60" value, quality and performance.

Chrysler "60" Quality Features

- 6-Cylinder Chrysler Motor.
- 54 brake horse-power.
- 60 miles per hour and more.
- 5 to 25 miles in 7th seconds.
- Easily 26 miles to the gallon.
- 7-bearing crankshaft.
- Aluminum alloy pistons balanced to within one-hundredths of an ounce.
- Impulse Neutralizer—Not a balancer, but a device that absorbs the natural fluctuating reactions common to all internal combustion engines.
- Purifier—filters all crankcase oil.
- Centrifugal air cleaner—protects cylinders and pistons from road dust and grit.
- Full pressure oiling system—a film of oil for all bearings, insuring long life.
- Semi-automatic plus manual spark control.
- Manifold heat control.
- Chrysler roadability—easy to steer, easy to handle at all speeds, always safe.
- Chrysler hydraulic four-wheel brakes.
- Levelness, which eliminates road shocks, at both front and rear.
- Chrysler dynamic symmetry of body design.
- Great roominess combined with Chrysler compactness for easy parking.
- Duo finish in striking color combinations.
- Full balloon 30 x 5.25 tires.

We are eager to demonstrate the above features in the new Chrysler "60". Arrange to drive this sensational car yourself.

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371 King Street. Telephone 2357f.