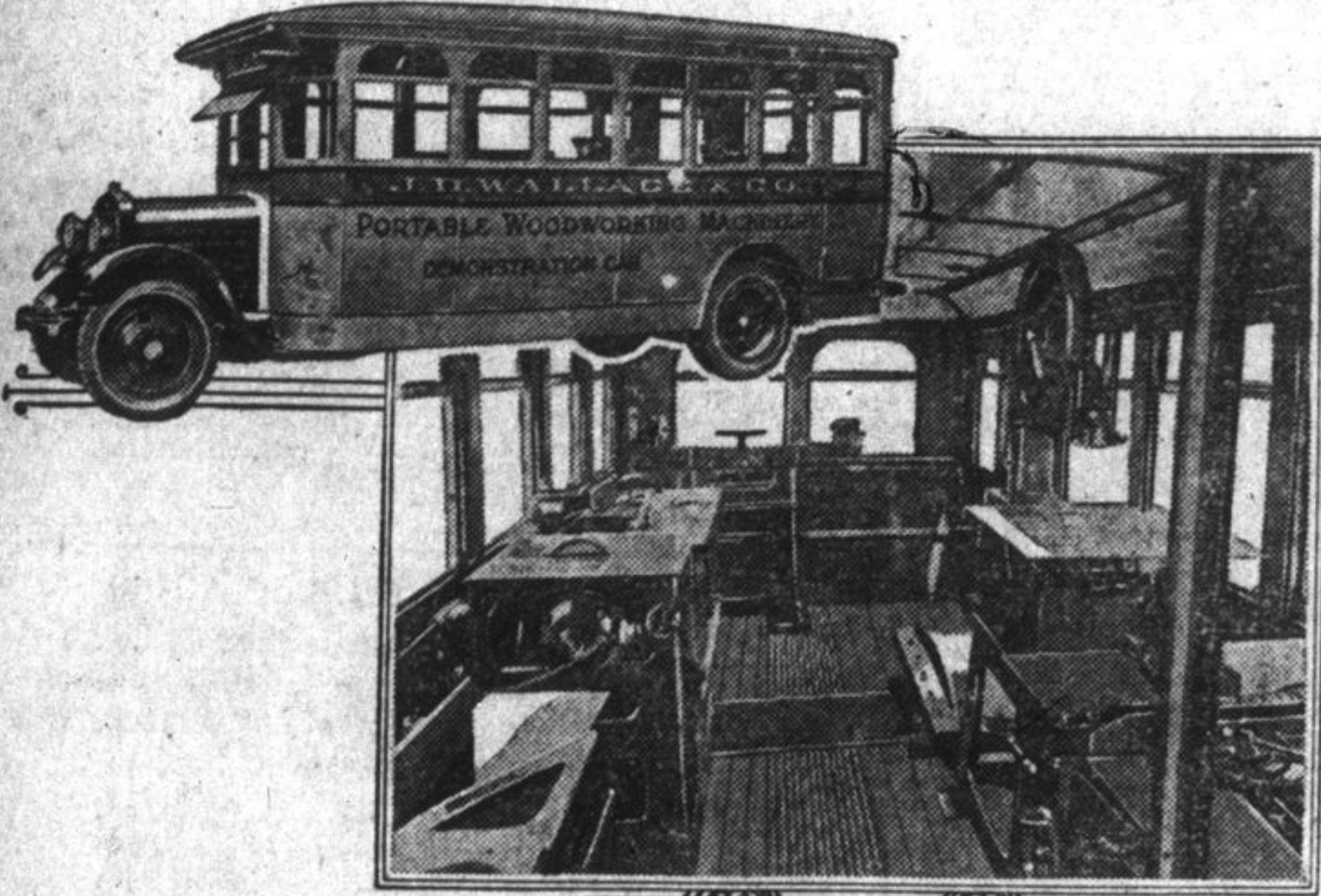


In the Automobile World

Reo Bus Used as Demonstration Car More Than Pays Its Way, Sales Manager of J. D. Wallace & Co., Says



Purchased primarily as a demonstration car, the Reo Bus, pictured above and owned by J. D. Wallace & Co., of Chicago, has more than paid its own way with direct sales, according to H. L. Ramsay, sales manager of the operating company.

Primarily the specially equipped Reo Bus was intended to provide a means of demonstrating the wood-working equipment manufactured by J. D. Wallace & Co. to prospects who were lukewarm, who in the estimation of the salesman could be sold if they were given a demonstration.

But it was soon proved that with the aid of the bus, salesmen could

secure the attention of buyers whose doors had been closed to them in the past. In addition, the unique equipment has proved of universal advertising value to the company that operates it. According to Mr. Ramsay, several additional units are soon to be purchased to make one such bus available in every section of the United States.

The motor bus is so constructed that by means of a power take-off from the drive shaft the engine is used to operate a generator that develops the electricity for motor driven machines manufactured by this company and installed in the demonstration car. Less than thirty seconds are required to stop the car and put the generator into operation.

A pile of wood is carried in one corner of the car suitable for demonstrating all the difficult tests for equipment of this kind. The bus also carries an electric cable so that if any question arises regarding the amount of current that is necessary to operate, the operator can run in the cable through to an electric light socket to run on local current.

The new bus is said to be a vast improvement in every way over the old practice of loading one of the machines onto the back of an ordinary roadster. Not only was the number of machines that could be taken in this manner limited, but the arrangement was inconvenient for demonstrating after getting the prospect's attention.

MOTORISTS PRESENT A "BILL OF RIGHTS"

Chicago, July 10.—Important measures adopted at the annual convention of the American Automobile Association held here recently, included resolutions to:

1. Urge state governors and legal officials to use their influence to do away with the "fee system of arrests" on the highways, to keep the roads free as possible from detours and to inform the public of road openings and closings.
2. Oppose compulsory automobile liability insurance as not being in the interest of safety and calculated to place an unfair burden on the mass of responsible car owners.
3. Oppose changing the automobile tail light from red to yellow.
4. Urge Congress to enact a law for the regulation of motor vehicle common carriers.
5. Demand that the remainder of the war excise taxes be repealed.
6. Oppose use of special taxes for purposes other than road work.
7. Command a fair and impartial investigation by the Federal Trade Commission of gasoline prices.
8. Condemn the practice of granting concessions to the detriment of public parks and beauty spots.

Reined Brakes.

When brakes are reined the drums should have been turned up smooth. Grooves and ridges on the brake drums destroy brake lining and many squeaks and howls come from that cause. A little castor oil applied to the inside of the brake lining will temporarily overcome the noise and make the brakes hold much more firmly.

Rah-Rah Collegiate!

Motor car license plates for Kansas cars in 1927 will be crimson and blue, the colors of the University of Kansas.

HINTS FOR THE MOTORIST

by ALBERT L. CLOUGH
Editor Motor Service Bureau Review of Reviews

More About Squealing Brakes

Some of These Remedies Should Fit Most Cases
THE RESULTS OF CAREFUL RESEARCHES recently published, while they fully confirm the theory of this ear-piercing phenomenon, as set forth in an article published in these columns in August, 1924, include many additional observations and suggestions, among which are the following:

What Causes Squeaking?

Brake squeak is the natural tone of "friction" of the brake drum, due to its sonorous vibration by particles of grit, worn off metal or by fabric wire, rubbed by the lining against the drum—the hard particles forming and moving in grooves, where they act like a phonograph needle in the grooves of a record.

Making The Lining Bear All Around

Sonorous vibration cannot take place in anything that is tightly held, for such movements are then instantly damped and the essential precaution against squeaking is that the lining shall contract evenly about practically the entire drum. That it may do so, band clearance must be uniform at all points, the band must be free at its back-anchor support (not rusted thereto), so as to follow the contracting movement and it must be shaped to fit the drum.

Care Of Bands And Drums

Band lining must be kept free from embedded grit and metal particles by frequent washing and brushing and no metal wires should protrude through the fabric surface. Grooves worn in drum surfaces should be smoothed out by means of emery cloth. Drums should run true and their surfaces should be flat and free from ridges. Rivet heads should be kept well below the rubbing surface of the linings. Drums of hard steel are desirable on account of possessing greater resistance to grooving.

More Flexibility For Linings

Anything that makes the lining hug the drum closer and conform to it better tends to dampen squeaking and therefore inserting a felt strip between the band and the lining is suggested. Making the lining in a number of sections instead of a single piece, is another expedient to secure closer and even contact with the drum.

Shims Behind The Fabric

In case of a drum that is worn down near its center and is high along the edges, sheet metal shims inserted between lining and band may be found to counteract the effect of the worn drum and tend to give the even pressure that discourages squeaking.

Lining Lubrication

Stopping squeaking by lubricating linings or by treating them with special anti-squeak compounds, involves possible danger of lessening brake effectiveness and even of causing locking of the fabric on the drum. If any lubricant is to be used, a little pulverized graphite is probably the safest, particularly as abrasive particles do not stick to it. Drums, upon which both internal and external bands are simultaneously applied, seldom squeak.

HOT WATER AS A "STARTER"



R. asks: Is the best way to help a cold Ford engine to start to pour hot water over the manifold or to fill the radiator with hot water? In using the latter method, should the water be boiling or merely hot? Is there any danger to the radiator in using very hot water?

EARLY PISTON RING REPLACEMENT



R. B. writes: My 1924 car, driven about 5,000 miles, shows somewhat weak retention of compression and I am going to install new piston-rings. Do you advise using inner-rings in connection with them?

Answer:

So far as service rendered is concerned this car may be regarded as practically a new one, and it is a sad commentary upon factory production and inspection methods that its engine should need new rings, thus early, taking for granted, of course, that it has always had proper care and never been subjected to abuse. Evidently the manufacturer believes that inner-rings are not necessary in his engines and we think you would be justified in taking the same ground. If the cylinder bores are in good condition and the ring-fitting job is a good one, you should obtain good ring action without requiring any more spring pressure than that inherent in the rings themselves.

Abbreviating "Warming Up" Time

Making The Most Of The Engine's Own Heat

THE FASTER HEAT is developed by an engine, the more closely it is localized where it will assist vaporization and the less of it that escapes, the sooner engine temperature will reach the normal running point.

Discarding Unnecessary Water

Cooling systems contain a liberal surplus of liquid to meet extreme hot weather and hard service conditions and if the radiator is kept full, in winter, an unnecessary amount of engine-developed heat is required to bring this excess of liquid to a good running temperature. During cold weather it is perfectly feasible to operate with the radiator filled only full enough to insure that the inflow pipe to the upper radiator tank is covered. Water temperature rise and the attainment of satisfactory fuel vaporization and distribution are materially hastened by reducing the amount of water that has to be heated.

Reducing Water-Flow Rate

The rapid heating of the jacket water in thermostat-equipped cars can be crudely secured by means of a home-made clamp, arranged to flatten the upper water hose and thus partly cut off circulation to the radiator, but this scheme should not be carried too far. Another method is to replace the gasket under the outflow water manifold with one having slightly smaller water passages.

Preventing Heat Losses

Retaining engine heat by covering the radiator-front, by letting down the curtain of the hood-cover, tightly closing the radiator shutters (if any) or by heavily blanketing the front of the radiator and the entire hood is very helpful and indeed any procedure which stops the fan blast and reduces convection is beneficial.

The Most Heat From The Least Running

Running an engine with late ignition increases the proportion of heat imparted to the jacket water and exhaust gases, and the use of the retarded spark, during the warming up process, heats the cooling water faster, makes hot spots and warm air areas more active and hastens warming up with the least fuel expenditure and wear and tear. Violent racing of an engine to heat it rapidly should never be practiced, as it is about the worst form of engine abuse even under ordinary circumstances, but when it is coupled with the inadequate lubrication found in most cold engines, it is especially destructive.

Heat Conserving Adjustments

To facilitate prompt attainment of normal vaporization and reliable running, all adjustments of exhaust heat supply to carburetor jackets and intake manifold hot-spots should be set for maximum results and all carburetor air should be supplied in a heated condition. Failure to adopt "winter settings" of heat sources is responsible for much delay in establishing normal carburation conditions, in cold weather.

LEAKY BATTERY



C. E. V. writes: One of the jars of my battery became cracked and I had it replaced by a new one, but since then the water level falls below the top of the plates in three or four days. Is this because the battery is charged too high?

Answer: It is not clear from the above whether the water level becomes low in all three cells or only in the one the jar of which was replaced. If the former is the case, the loss of liquid may be aggravated by the rate of charge being altogether too high, although you say nothing about the charging rate of the generator having been increased and it would require a very excessive charging current to boil away so much liquid so quickly. It may be that the cell covers are imperfectly sealed in place and that there is loss of liquid due to slopping. If it is only the one cell which is losing electrolyte, it seems most likely that the new jar is imperfect and that this cell is still leaking. You better take this battery back to the parties that made the repairs and let them test it out and remedy anything which is wrong.

MORE SUBSTANTIAL TOP COVERING



L. T. O. asks: How can the cross supports be prevented from bulging through the material of the top of a touring car? Answer: The only way at which we know is to have the top made over with more stiffening material and padding between the outer, waterproof fabric and the inner material. A carriage trimmer could probably rewrap your top so that the cross bows would not show through and injure its appearance.

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.

The Unhappy Driver.

A driver who is forever "hearing things" about his car never enjoys the ride. Worrying never tightens a loose bearing nor greases a differential. It is not always easy to differentiate between harmless noises and those other noises which warn of a breakdown. The real art is to be able to have an ear ready for evidence of serious trouble, making the annoying squeaks and rattles a closed book that nothing can be done about for the time being. So, to enjoy the ride, go over the car before leaving the garage and see that it is right. Then, if a rattle develops, ignore it until the car is driven home.

The Toe-In of Tires.

Toe-in is the difference in measurements between the front and rear edges of the front wheels. "Pitch" or "camber" is the difference between the distance across the tops of the wheels and the distance across the bottoms. Wheels on which the tires toe-in excessively have the effect of rubbing the tire tread against the road, greatly reducing its life. When the toe-in does not agree with manufacturers' recommendations it may be easily adjusted by adjusting the tie rod or distance rod. In case of rapid tread wear on tires, check the alignment promptly, as no other condition removes rubber from tires so rapidly.

CHRYSLER "70"

Supreme Performance - Sensational Values -

Chrysler 70 Reduced '65 to \$410 Unchanged except in price

Today's Chrysler "70"—changed in no way except new lower prices which save you \$65 to \$410—is more than ever the car of world-wide preference.

We knew that the Chrysler "70" would sweep its way to pre-eminence, but we did not anticipate the tide of public favor which makes possible these sensational values.

Long lived; characteristic Chrysler beauty; designed to meet today's traffic needs; roomy for comfort and luxury; easiest to handle; flashing pick-up; 70 miles plus; safe—

Little wonder that none of its more than a hundred thousand owners who have enjoyed uninterrupted satisfaction from their Chrysler "70's" for thousands upon thousands of miles, will ever willingly go back to the less modern type of cars.

We are eager to prove to you why the Chrysler "70" with its savings of \$65 to \$410—the identical car whose performance and endurance have won such universal preference—is beyond all doubt the preferred motor car investment at these lower prices in its class.

	New Price	Total Savings
Phaeton	\$2035	\$ 65
Coach	2035	160
Roadster	2195	330
Royal Coupe	2470	240
Brougham	2540	275
Sedan	2260	300
Royal Sedan	2615	405
Crown Sedan	2760	410

F. O. B. Windsor, Ontario (freight only to be added). The above prices include all taxes, license, and tank full of gasoline.

Chrysler dealers are in position to extend the convenience of lowest available time-payments. Ask about Chrysler's attractive plan.

Chrysler Model Numbers Mean Miles Per Hour



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Value of Perfect Lubrication.
The lubrication of the odd parts of the car, such as the steering gear, transmission, rear end, universal joints, spring shackles, bolts, king-pins, etc., is just as important as the lubrication of the main engine, as it is about the parts affected are to retain their life and quiet operation.

American Efficiency.

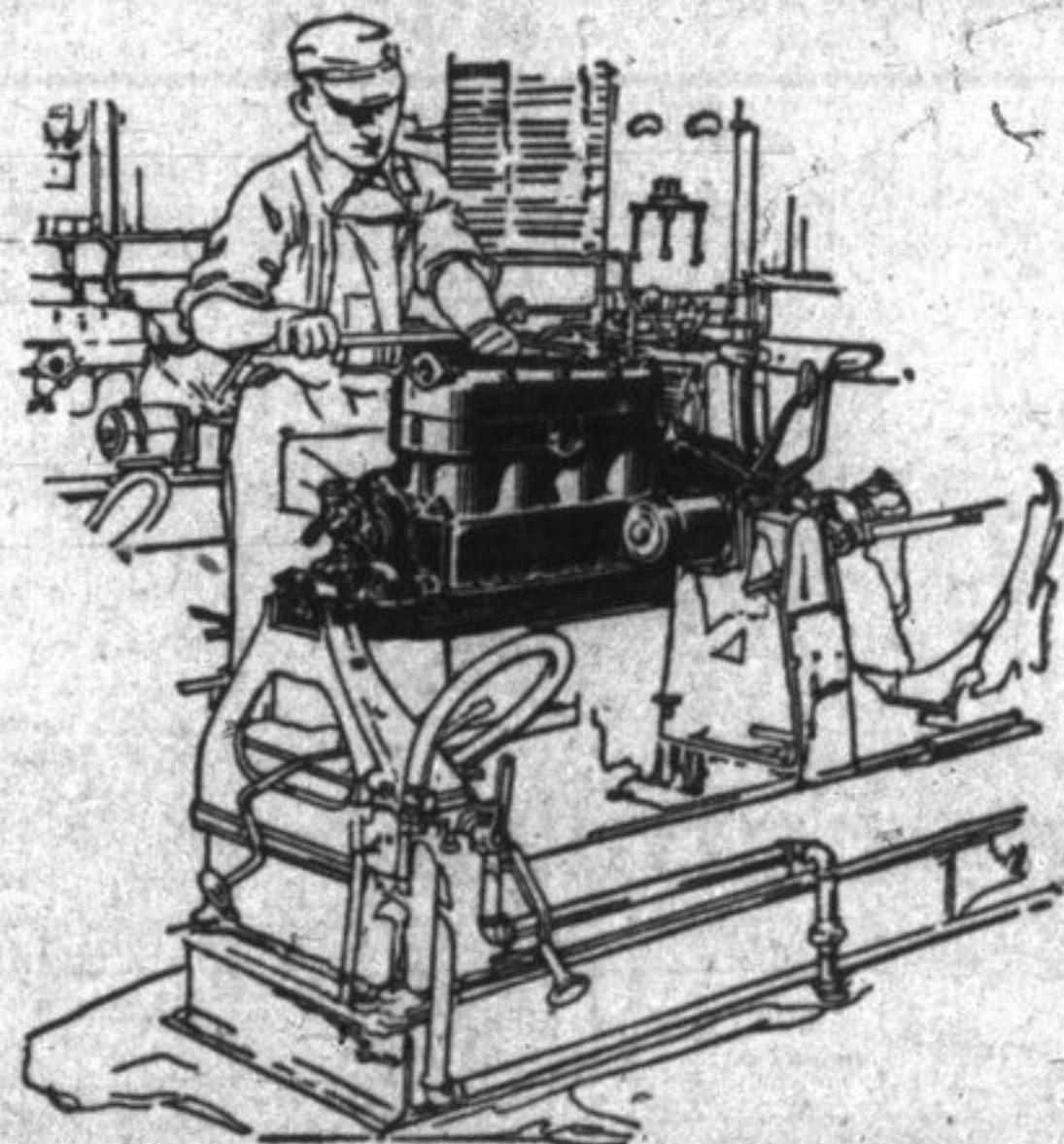
American motor factories are almost twice as efficient as the European industries, according to C. B. Nixon, British automobile manufacturer, who recently visited that country.

GET THE OLD PEP BACK!!

BY HAVING YOUR AUTO CYLINDERS RE-GROUNDED AND NEW PISTONS FITTED.

FLYWHEEL RING GEARS FITTED

THOS. G. BISHOP ENGINEERING CO.



A Rigid Test for Every Ford Motor

The Ford Model T Motor, established seventeen years ago as the standard power unit for Ford passenger cars, is universally recognized as an engineering triumph of simplicity and efficiency.

The motor is mounted on a block and connected to a powerful electric motor which operates at a speed which permits of every working part being tested and perfect synchronization assured.

In order to maintain that standard of performance which has distinguished it in use the world over, every motor undergoes a testing and "running in" process before it is permitted to pass to the assembly line.

This process continues until the motor is running with perfect smoothness, and then, and only then, is the motor approved. The freedom from mechanical trouble which Ford owners enjoy has its origin in tests such as this.



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