

AUTOMOBILE NEWS



Europe's Lead Over American Car Abolished

The so-called accuracy and worth of hand work in the building of motor cars and Europe's reputed supremacy in that direction during the early days of the automotive industry has been entirely overcome during recent years through the perfection of automatic machinery, and through this type of machinery an ability to manufacture millions of parts that will fit equally well in a machine built last week, last month, or last year.

that was "assembled." But "assembly" as it relates to Chevrolet means increased accuracy in fitting and increased quality in material and workmanship through specialization, said Avery Harrison, local dealer.

Chevrolet motors are built at the big motor plant in Flint. The cam and crankshafts are forged in Detroit. The steering gears are manufactured at Muncie, Ind. These are all assembled into the complete Chevrolet at one or another of the 13 assembly plants or branch factories of Chevrolet throughout the world.

In the United States there are plants at Tarrytown and Buffalo, New York; Norwood, near Cincinnati; Flint, Michigan; Janesville, Wisconsin; St. Louis, Missouri; and Oakland, California. Foreign plants are located at San Paulo,

Brazil; Copenhagen, Denmark; Antwerp, Belgium; London, England; Melbourne, Australia, and Toronto, Canada.

Adjoining each of these plants in the United States, and at most of those in foreign countries, are Fisher Body plants where the enclosed bodies are made for the Chevrolets turned out at those assembly plants.

A heavy thud under the floor board or in the rear of the car can often be traced to loose body bolts, especially in closed cars where the body is more rigid.

When one of the brakes overheats either loosen the hot one a half turn on the adjustment or tighten the opposite one a half turn to equalize the brakes.

SMALLER ENGINE IS COMING SOON

By ISRAEL KLEIN
(Science Editor, NEA Service)
Smaller engines of higher compression and power will come soon with the desire on the part of engineers to effect lower costs in the manufacture and use of automobiles.

With such engines will come greater mileage to each gallon of gasoline. With them also will come more universal use of special anti-knock compounds that will help much in postponing the day when our supply of oil will be depleted.

And alongside the savings and greater efficiency of the power unit on our future automobiles, there will be great reductions in tire and body costs and in their maintenance.

Even today, a beginning is being made in this great saving and efficiency program. The use of what is called a "chemical accelerator" in the rubber industry is prolonging the life of tires and rubber some \$50,000 a year for the American motoring public.

These chemicals have speeded up manufacturing processes so that some \$50,000,000 additional capital investment by the rubber manufacturers is saved.

Yet the tires produced by this accelerated process even today has increased tire mileage a total of 24,000,000,000 miles a year for all the cars in the country.

Much Gas is Saved
The greatest boon on which auto engineers depend, however, is the anti-knock compound of lead content—tetra-ethyl lead. By use of this compound, it has been declared, we could decrease the consumption of gasoline by 40 per cent.

Figuring an annual consumption in this country alone of 11,000,000,000 gallons of this fuel, at only 25c a gallon, a realization of a saving on this item of more than \$200,000,000 a year.

And the duration of our fuel supply by the use of the compound, could be almost doubled.
That isn't all, however, that this form of anti-knock compound could do for us. Its use could stand the installation of engines with higher compression ratios in our automobiles. For the tiny lead particles in the anti-knock compound serve to ignite every bit of the gas in the engine cylinder, leaving none by lack of ignition and considerably increasing the force of the explosion.

More Powerful Engines
That calls for the design of smaller engines that could stand this higher compression or power. And that is what engineers are looking forward to. They see more powerful engines, on less gasoline, with greater resultant mileage and longer life. But production of such engines must wait until their assurance that the supply of anti-knock gasoline is nationwide.

There is a tendency also toward the two-cycle engine. The modern four-cycle engine, engineers point out, is going through twice as much work to perform what could be done in two strokes.

In the engine of today the piston takes four strokes, two up and two down, to exert on push on the crankshaft, the only stroke that makes the car go. The two-cycle engine, however, to which engineers look forward to, makes each downward stroke count as power. Here is the possibility of a smaller engine, with shorter stroke and faster speed, saving much energy to operate the car.

The two-cycle engine is in use in Europe on several types of small cars, and has been giving good service at low cost. In America a large automotive manufacturer plans to introduce the Argyl two-cycle engine shortly. This is a sleeve-valve type of engine for which the designers claim higher efficiency and longer life.

MODERN METHODS CUT TIRE COSTS

Motorists are getting much more mileage for less money today, than a few years back, is the opinion of the local manager of the Western Auto Supply company, in discussing the added economies offered by that company's recently announced tire price reduction.

Not so long ago the motorist considered himself lucky if he received 5,000 miles from a set of tires, but modern methods have brought about many changes and 15,000 miles is now considered the average mileage received from good tires. This marked advance in quality is due to extensive research, perfection of machinery and methods, and economies in quantity material purchased made possible by the tremendous present day demand for tires.

Bearing out this statement the dealer points to Western Auto's latest price cut. He stated that the company is now enjoying the largest tire business in its history and the growing volume has enabled Western Auto to place huge and very favorable contracts making possible this liberal reduction. New prices, as advertised are the lowest in the company's 15 years of business and are much lower than pre-war prices yet the tires offered are superior in quality, he says.

The proper way to start a car is to shift to low, give the engine a little gas, and then, while observing the car, let the clutch in very slowly, until the car just begins to move, when the clutch must be held. The "letting-in" stopping altogether, until the car has moved a few feet. Then and while the car is in motion, the clutch can slowly be let in the rest of the way. It is this stopping or the raising the clutch pedal or "holding the clutch", which is the secret of a smooth start.

CTC tread means Wet Weather Protection.



Emphatically Refuse to use Reclaim Rubber

RECLAIMED rubber never made a tire mileage record!

CTC rubber engineers — of a quarter century's experience — flatly, emphatically refuse to injure CTC's reputation for EXTRA MILEAGE. Not a speck of reclaimed rubber ever has been used or ever will be used to make CTC tires!

Your purchase is protected when you buy full-rubbered CTC's!

"Gaining New Friends Through Extra Mileage"

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This is the motor type that engineering authorities concede to be the newest and highest expression of six-cylinder power-plant development.

Come drive one of these new Nash models. See clearly for yourself the utter power-smoothness and power-quietness that this 7-bearing motor gives—how striking its performance is as contrasted to older motor types with 3- or 4-bearing crankshaft design.

Don't buy an old-type motor if you're buying a new car.

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Chevrolet is the only low-priced car offering closed bodies by Fisher—acknowledged everywhere to represent the highest order of beauty, luxury, safety and value. On the leading cars in every price class the Fisher emblem is accepted as a hallmark of distinction.

Lustrous Duco in beautiful, modish colors assures the permanence of their external beauty. Upholstery, trim, cushioning, hardware and appointments—all contribute to their unchallenged value—a value that is making the smoothest Chevrolet in Chevrolet history the most popular ever offered.

Touring or Roadster \$510, Coupe or Coach \$645, Sedan \$735. All prices f.o.b. Flint, Mich. Small down payment and convenient terms. Ask about our 6% Purchase Certificate Plan.

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