

# Greater Mileage - and Skid Proof

IT'S a mighty strong recommendation to a far sighted tire buyer that a C-T-C will travel farther and skid less than any tire he can buy, isn't it?

That is why you are seeing C-T-C tires on more and more cars every day—and are hearing their song of safety, as they swish by on the wet pavement.

You can't afford to take the risk of driving those old skiddy tires. Put them by until dry weather comes and equip with C-T-C's.

If you are in doubt of C-T-C superiority, go to any authorized dealer before January 15th and take him up on the following guaranty:

Simultaneously place a new C-T-C and any other new tire of same size on opposite wheels.

If, or when, the C-T-C fails to outwear the other tire, you will get a new tire FREE.

And remember, C-T-C'S DON'T COST MORE than ordinary tires.

Columbia Tire Corporation  
Portland, Oregon



**C-T-C TIRES AND TUBES**

Authorized C-T-C Dealers in Salem  
Columbia Tire Corporation Factory Branch  
447 Court Street, Salem  
Vick Brothers, Federal Tire Service  
Ira Jorgensen. Other Dealers Throughout the Country.

## More Miles Per Car in WINTER by Ray McNameara

### CHECKING MOTORS FOR EXCESSIVE OIL CONSUMPTION

In the last two articles, the matter of excessive oil consumption was discussed in detail: first, what was considered a fair average per gallon of oil and second, the matter of leakage which would cause oil consumption to appear excessive. The present writing will deal with loss past piston and rings and how to detect same. However, matters covered in recent articles should be carefully considered before pistons and rings are diagnosed as at fault.

Thousands of dollars and many good pistons and rings are being condemned daily because of oil loss at other points, while many other cars are running about the country shooting a lot of unnecessary smoke out of the muffler that need new pistons and rings. The

point is, let us consider carefully the symptoms that would indicate oil passing pistons before spending the time and money necessary to correct such a condition, because if it happens to be some other cause, somebody has to foot the bill for the mistaken diagnosis.

It will benefit every car owner to follow these articles carefully and remember the points that suggest when pistons and rings are or are not passing oil, as follows:

An oil leak on the surface of cylinder block or at head gasket joint does not indicate oil pumping, nor does an accumulation of oil in the pocket around spark plug, which results from leaky plug gaskets, mean that anything is wrong with pistons or rings. I know of several cases in which pistons or rings were changed because a head gasket was leaking a

little oil, and I once had a request from a sales representative in Dallas, Texas, to send a man down to investigate a customer's motor that was pumping oil. Upon questioning the man as to how he reached this conclusion, he stated that plug was wet on the outside and a pool of oil kept forming around the pocket in which plug sets. This condition will always develop when a gasket leaks no matter how good the pistons and rings may be. The correction is tighten plug or cylinder head or replace gaskets. In some cases, the cylinder head or block may be warped and a new gasket will not help until the warped condition is corrected, either by lapping the head to bloc with emery or by machining, but this is a job for the repair man.

The writer would never recommend a change of rings on the first examination of an owner's car on a complaint of this nature. First of all, he would want to know that the loss of oil did not result from leaks at other points covered in last two articles. Second, would make sure that valves are in good condition and set with proper clearances between tappets and stems, that carburetor and dash control are properly adjusted, that

intake manifold is free from leaks, that ignition is timed properly, and that plug gaps are set with proper clearance and that a suitable grade of oil is being used. Many of these points, if not in proper adjustment will promote exhaust smoking and the wetting of plugs and walls of combustion chamber. Therefore, after all of these items have been considered and adjusted the motor should be driven far enough to burn up the accumulation inside of cylinders that develops through improper adjustment. If, after all of these items have been considered and corrected, the exhaust from muffler continues to smoke badly, it is a pretty good sign that pistons are passing oil and that the ring or piston itself may be at fault.

This condition prevails sometimes in new motors before the rings have time to wear into a seat. It is always best to run the car several hundred miles to give the rings a chance to wear in. The condition also develops through excessive ring wear caused by rich mixtures diluting the oil. As the ring wears, it becomes loose in its groove and develops a wide gap. If the ring is loose in the groove, it will cock or rock in the up and down motions of the piston, thus preventing the sharp edges from scraping the oil down properly. This in my experience has been found more harmful than a gap that is slightly wide.

Rings that are tight or stick in their groove will not function properly. Frequently rings that are not concentric get past the inspection. These require a great deal of mileage to wear in and if very eccentric will never wear in.

The original set of rings that are fitted to motors in the initial building always wear quicker than the second set that is installed after car is in service, because, no matter whether the manufacturer grinds, reams or hones the cylinder bores, there is a certain amount of roughness that promotes ring wear until the bores become polished from use. Now the second set of rings installed have only to wear their own face in against a polished and seasoned cylinder wall. Thus, with good rings and reasonable care of car the second set should last almost indefinitely.

Another condition affecting rings seriously is frequent overheating, or occasionally running out of water. This runs the expansion and temperature of rings up to a point where their tension becomes deadened. That is why your instruction book warns you about keeping radiator well filled at all times. In the course of an hour rings and valves can be seriously damaged by overheating.

When having new rings fitted to worn grooves, an oversize ring should be used. It is more important that rings fit grooves properly than a little too much clearance at the ring gap.

If proper size rings are not available, labor will be lost in fitting new loose rings. Work of this nature should be trusted only to good mechanics. It is always best to consult the service manager representing your car first. However, the most important matter is to determine that rings are at fault, because if the trouble lies elsewhere, you will not want to pay your bill and the service manager or mechanic will be embarrassed and find it hard to explain matters.

For Owner's Scrapbook  
Last week—Checking Motor for Oil Leaks.  
Next week—A Precaution Pertinent to Safety.  
(Copyright 1923, by The Christy Walsh syndicate)

## HORSE IS NOT DOOMED TO GO

California Professor Denies He Said Animal Would Follow Dodo

Professor E. L. Furlong, of the museum of paleontology of the University of California was quoted in a San Francisco paper as having said that the horse was to follow the dodo, and would be practically extinct upon the American continent within another century.

This story went on to say that the professor was busy gathering specimens of the modern equine family; and the professor was further quoted as saying:

"You may find horses in the zoos in another hundred years. I am sure you will not find them anywhere else."

Interesting, if true. Fortunately a California horseman, Fred H. Bixby, of Long Beach, who has five of the largest ranches in the state, read the news story and wrote Professor Furlong. Whereupon the noted authority on paleontology promptly replied, flatly denying any such statement. We quote from his letter as follows:

"I am quite well aware that horses are replacing the tractor in many places, and I believe that as long as man is on this earth the horses will be his companion and helpmate. I did show the report or some of our fossil horse material and told him that horse specimens were in the museum. As a matter of fact we have representative remains of several ind-

vidual horses of the recent period and I only wish we had more for comparative studies. I read the same article to which you refer and take great pleasure in advising you that the author of the article did not quote me verbatim in anything that he said; he was following out his own line of thought and statements and not quoting me, although writing his articles in that form. I did not make the statements quoted."

### SUNDAY AUTOS

#### CAR FOR EVERY SEVEN

The prediction that there will be 16,000,000 motor cars in the United States in 1925 seems likely of fulfillment.

In 1913 there were in this country 1,200,000; 1914, 1,700,000; 1915, 2,400,000; 1916, 3,500,000; 1917, 5,100,000; 1918, 6,100,000; 1919, 7,300,000; 1920, 9,100,000; 1921, 10,400,000; 1922, 12,300,000.

The per capita increase in automobiles has gone up by leaps and bounds since 1900, when only one person out of every 5500 owned a car. In 1923 the proportion was one car to every 1060 persons; in 1910 it was one to every 195; in 1915 it was one to every 40 persons; in 1920 one out of every 12 persons you met owned a car; in 1922 one in every eight persons owned a car.

A good salesman is a person who can tell a prospect from a suspect.

# 366 days, this Year!

An extra day on which your car will be used. An extra day of pleasure for you, and wear and tear on your machine. The degree of comfort, pleasure and service you receive from your car depends largely upon the time, care and attention you give it.

Towards this end, "Western Auto" stands ready to serve you. Every Accessory or Part added to our complete line is considered from that point of view—your comfort, your pleasure, your safety.

It is for this reason that the Western Auto Supply Co. is termed "Auto Supply Headquarters." There is a "Western Auto" store conveniently located in your city.



### Monogram Radiator Caps

Will individualize your car—can be furnished with any letter desired. Screws on like an ordinary cap, but positively cannot be removed. Each, \$3.85 to \$5.75, depending upon make of car. Other caps—locking and plain—50c to \$3.85.



### INTERIOR MIRRORS

Watch the road in back of you without inconvenience—these mirrors can be adjusted to any desired angle. For open or closed cars, \$1.65. Other Interior Mirrors, \$2.15 to \$2.95. Exterior Mirrors, 85c to \$2.65.

### STEP PLATES

The very popular "Klasy" step plates, made of rubber with aluminum frames and guard, will enhance the beauty of your car. The price, each, is \$1.50. Other models as low as 85c.

### Safety Stop Signal

Why not protect your car and give the fellow behind a chance? This signal works automatically from the brake pedal and is a really effective traffic signal. A rare buy at these low prices: Black Enamel \$1.45 Nickel Trim \$1.75

### Top Material

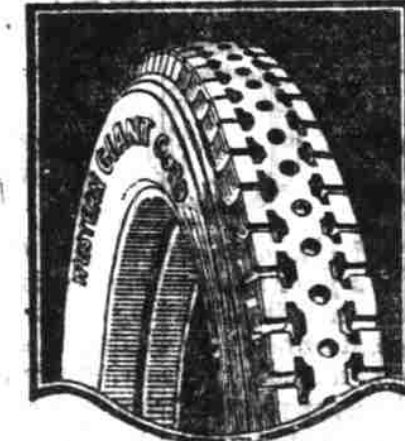
In bulk, first quality heavy 32-oz. rubber cloth. Also suitable for making waterproof covers for tool boxes, batteries, etc. Per foot (54 inches wide) 60c. Per yard (54 inches wide) \$1.70. Quarter Pads for tops, per pair \$1.60 and \$1.95. Dow covering, in black and khaki. Per yard 15c.

### Felt Bow Pads

—In strips about 4 feet long—1 1/4 inches wide, each 25c.

## They Grip

Wet pavements do not, in any way, interfere with the non-skid qualities of Western Giant Cars. The sharp edges and the row of deep suction cups cause a suction which grips the road and prevents side slipping, as well as reducing skidding to a minimum. There are many other reasons why you will be satisfied with these tires—try one.



WESTERN GIANT Extra Heavy 12,000-Mile Guar.

SIZE	WESTERN GIANT
30x3 1/2	\$12.65
32x3 1/2	15.80
31x4	18.85
32x4	20.65
33x4	21.30
34x4	21.90
32x4 1/2	26.55
34x4 1/2	28.15
35x4 1/2	29.20
35x5	34.30

(Ask for Prices on Other Sizes)

### Western Special CORD

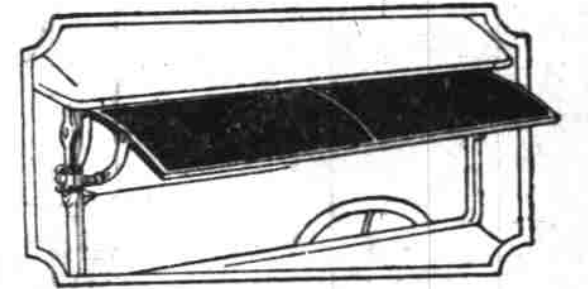
(Guaranteed 10,000 Miles)

30x3 1/2 \$8.80

### WESTERN STANDARD

(10,000-Mile Guarantee)

30x3 1/2 \$10.75



### Green Pyralin Visors Only \$5.95

One of the neatest and most desirable visors on the market. The genuine Pyralin breaks the glare of the sun—the highly polished nickel-plated brackets and fittings make the visor ornamental as well as practical. Other models in Pyralin, all metal, Green Glass and Durable Cloth—\$2.95 to \$10.90.

### Spring Steel Bumpers



A very strong and neat appearing bumper—made of fine spring steel tempered in oil and triple nickel-plated—first nickel, then copper and finally re-nickelled and polished. Fits the car perfectly. Priced \$13.50 to \$17.50, according to size. Round Bar Bumpers, \$8. Double Duty Bumpers, \$14.50 and \$18.75.

### PEDAL PADS

Prevent the driver's feet from slipping off the pedals. We have various patterns for all cars, from 25c to \$1.00 per set.

### MACBETH LENS

Complies with the Law

Combines scientific construction and beauty. Note the visor in illustration; its color is green. Per pair \$3.25. Liberty Lens also complies with the law, \$3.05. Ford Refracting Lens, type 11, per pair 50c.



## Top Repairs

A few cents spent now may save several dollars later. Minor tears or rips can be repaired easily and quickly. Save money by doing it yourself.

### Curtain Fasteners

—Including eyelet with ring, black enamel finish—7c to 9c each, according to type.

### Top Webbing

—1 1/4 inches wide, will prevent top sagging between bows, either black or khaki, per yard 15c.

### Stick-Tite Top Patch Strips

Rubber Cloth, 5x9 inches—45c. Rubber Cloth, 2x36 inches—65c. Long Grain Cloth, 3x26 inches, 50c. Mohair Top Cloth, 3x12 inches, 50c. Top Prop Nuts Black Rubber finish, 5c.

90 Stores in the West

Order by Mail  
Our Guarantee  
Protects You

## Western Auto Supply Co.

Corner Court and High Streets!

For Your Convenience  
Open Till 9 p. m.  
Saturdays

## Vick Brothers' Used Car Bulletin

1922 Ford Touring	\$290.00
1918 Maxwell Touring with good tires	\$125.00
Ford Truck with body and cab	\$275.00
1918 Ford Touring	\$100.00
490 Chevrolet Touring	\$75.00
Oldsmobile Truck like new, has body and cab	\$850.00
Overland 90 Touring	\$50.00
Dodge Coupe repainted	\$575.00
Buick Touring—what have you to trade.	
Studebaker 6	\$100.00
1922 Overland Sedan	\$640.00

## Vick Brothers

QUALITY CARS  
High St. at Trade

## USE WINDSHIELD FOR MOTORBIKES

Harley-Davidsons Have Latest in All-Weather Riding Comfort for 1924

Motorcycling in the winter, once regarded as rather a cold proposition for the rider and for the passenger in the side car, too, is now becoming a pleasant, exhilarating sport, thanks to the improvement made in all-weather equipment. The latest in riding comfort comes to the market in the Harley-Davidson Motor company, which has introduced the windshield and leg protector on motorcycles.

Made of Mica The shield is made of a mica composition and is of sufficient height to keep the wind or rain from the rider's face and body. On the new 1924 Harley-Davidson is equipped the metal leg protectors, which keep the driver warm and dry in all weather. The heat from the engine is not lost when these metal guards are attached and they greatly add to the rider's comfort.

Another innovation is the Harley-Davidson sidecar windshield, which affords complete protection from the elements for the passen-

ger. It is made of mica composition and fastens to a leather covering, which can be drawn completely over the sidecar when not in use. The windshield can be raised or lowered to suit the passenger's convenience. The Harley-Davidson company also makes a unique sidecar hood, which, when erected, encloses the passenger as in an automobile. This can be detached at will and speedily set up when the occasion arises.

### Most Popular Machine

The Harley-Davidson is by far the most popular and economical motorcycle, its dealers claim. For this reason, it is pointed out, police and sheriff departments choose this make for traffic and speed work. According to factory reports 1100 police departments were using Harley-Davidsons at the end of 1922. At the close of 1923 more than 1500 police departments were using these machines.

The cost of running a motorcycle is a big factor to consider when city or county money is involved. Government statistics show that a fair average, operating cost for a motorcycle is 3 cents a mile, while an automobile costs 7 cents a mile. This includes depreciation, etc.

### End Good Year

Reviewing conditions during 1923, Harry Scott, local Harley-Davidson dealer, said yesterday: "The year has been a good one for us, and we have sold many machines."



\$2.50

### Down Buys a New Harley - Davidson

on our New Easy Club Plan. Come in and let us explain it to you.

We also extend the same terms on used motorcycles.

\$50 and up

HARRY W. SCOTT  
"The Cycle Man"  
147 South Commercial Street  
Send for catalogue. It's free.