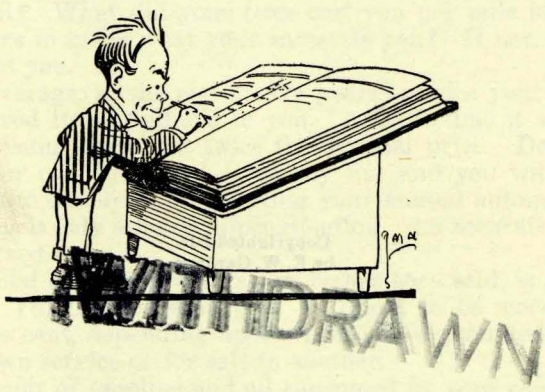


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WHAT DOES IT COST YOU?

A Cost Keeping System for the Automobile

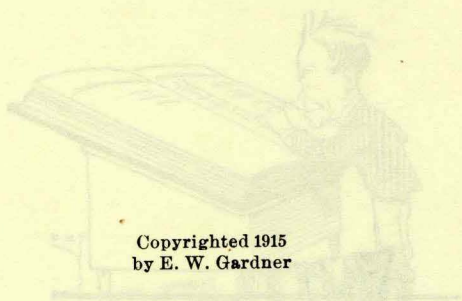


BULLETIN NO. 7
AUTOMOBILE INSTITUTE

Engineering Extension Department
Iowa State College
Ames, Iowa

WHAT DOES IT COST YOU?

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HOW MUCH DOES IT COST?

What does your car cost you? Have you an approximate estimate? *Any* estimate, in fact, except that it will make, you think, so many miles per gallon of gasoline and per quart of lubricating oil? What did your tires cost you per mile last year? Do you *care* to know what your car costs you? If not, this will not interest you.

As an average, at the end of five years' service your car will have outlived its usefulness to you. At that time it will have cost you a sum just about twice the original price. Double the cost of your car, then, and divide by five and you will have a number quite closely approximating your annual automobile expense. This is only a rough approximation. An accurate account can be worked out.

The annual depreciation of a car, as has been said, is about 20 per cent. This depreciation may be found to be more or less than 20 per cent, depending upon whether the estimated value is for your own service or for sale to another.

The amount of gasoline and oil consumed by your car will depend upon the type of car, upon the type and adjustment of the carburetor and of the oiling system; upon the accuracy of machining the reciprocating parts such as pistons and rings, valves, main bearings, etc., and upon your individual temperament—whether or not you comprehend mechanical details and are able to detect and adjust those minor troubles which, neglected, cause excessive consumption of supplies and grave wear or breakage of parts.

Master the mechanical details of your car. It will not be necessary to take the thing apart to do this. Study the book of instructions; then the book of parts, which, generally, is illustrated by photographic cuts of your car's internals. Beware of meddling with the intricate adjustments. When trouble comes, for your own sake, look at least *one* other place before you conclude to "fix the carburetor." The matter is tragic—sometimes. Many and many a time the poor old carburetor is the goat for unwarranted blame—and it costs you money.

An expert never meddles. He never changes mechanical adjustments except for a definite purpose; he knows that "seeing the wheels go 'round" is an expensive pastime.

But, on the other hand, don't be afraid of your car and thereby pile up expense for trifling adjustments or replacements which you should immediately and readily make for yourself. Your car is no mysterious bag o' tricks; no irrational product of a conjurer's wand which you must approach with fear and homage. It is, indeed, a wonderful mechanism; made just so; which always acts just so when conditions are just so. Contrariness never affects it; defective operation always means a definite interference. Hunt that interference; don't merely cuss the ancestry in general and your car in particular. If you can't locate the trouble employ a competent mechanic and—here's a tip worth money; much money, though it doesn't cost you a cent—watch the mechanic as he works. Ask intelligent questions, but avoid proffering incompetent suggestions. Intelligent observation of the work done on your car will educate you, will secure greater speed and care in the performance of your work—and then you will *know* it is done.

Know that your tires are properly inflated—if you would reduce expenses; *know* that your radiator, gas tank, oilers, gear cases, prestos, batteries are full; that you are not; that garage measures are not *extremely* inaccurate; when leaving your car in a strange garage, trust the employees fully—after you have taken every precaution you can think of to prevent theft from your car. Some of these precautions are: initialing tools, batteries, pumps, jacks, etc., even to tires; have your gasoline tank filled so that you will have a comeback if it is not full in the morning, etc. Know that the new tires you buy are *new* tires. Frequently oil *every* moving metal-to-metal part. Immediately discover and remove the source of every unusual noise. At least 75 per cent of repair bills are caused by negligence. But they have to be paid.

What does your car cost you? It costs you in direct proportion to what you do not know about a car, plus the amount you use it, multiplied by the purposes to which you put it. Well (you say), that's too complex; just *how much* does that amount to? How much gasoline did I burn last year? Lubricating oil; presto tanks; batteries or dry cells? What mileage did my tires give? How many unnecessary trips did I make; and unnecessary miles? In cold hard dollars, how much more did these trips cost me than the same length of time spent at home? And what was the cost to me in business, present and future lost by my absence?

Utilize the following system one year. If you desire, you can know what your car costs you to the fraction of a cent.

EXPLANATORY

A few points in connection with the use of the following accounting system may be noted.

Speedometer readings should be carefully taken at the beginning and at the end of the accounting year. If speedometer is out of repair estimate should be made of the mileage covered while it is out of repair at the time. Look over the summary on page 13 before starting the record.

Be sure to enter serial numbers on all casings, both new ones purchased and those which come as part of the car. Keep a record in a separate book of the motor number and the chassis number. These precautions will enable you to supply accurate information to police officials in case the car is stolen. Accurate information on the service of each tire will enable you to present a complete case to the tire manufacturer in case an adjustment is desired. In properly apportioning the expense of tire casing for the year, allowance should be made for the mileage which can reasonably be expected of the casing at the end of the fiscal year.

It is strongly to be recommended that motorists supply themselves with a 60-gallon tank and purchase the gasoline in quantities from the tank wagon.

Lubricating oil should be purchased in barrel quantities. A satisfactory grade should be determined by the motorist by purchasing five gallons of different varieties until a satisfactory brand is discovered.

The cost of repair parts should be the price paid the factory plus the transportation charges. Labor charge should be entered under repair jobs.

The item "income from car" is intended primarily as a record of the income derived from livery service, hire or any service bringing a direct return.

Some motorists desire to keep a record of separate trips or tours, also to include as a part of the expense, fines and damages and losses directly due to absence from business for which the car is to blame. This may be done in a separate notebook or on the two extra pages, 14 and 15.

SUMMARY---TOTAL COST FOR THE YEAR .

FIXED CHARGE--

Annual Totals

Original Cost of Car

Annual depreciation at 20 per cent.

Annual interest on original investment at 6 per cent.

Annual license or tax

Annual insurance

Original cost of garage

Annual depreciation at 10 per cent.

Annual taxes, upkeep, interest at 6 per cent, insurance

Annual rental

RUNNING EXPENSES--

Gasoline

Lubricating oil

Tire casings

Tire tubes and repairs

Supplies

Motoring apparel

Repair parts

Repair jobs

Miscellaneous

Total expense for the year

Total income for the year from car

Balance

Average cost per month

Average cost per day

Average cost per mile

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