

TAXATION OF MOTOR TRUCKS  
COMMON CARRIERS IN THE  
STATE OF MICHIGAN

Thesis for the Degree of B. S.

H. A. Lake

1928

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**SUPPLEMENTARY  
MATERIAL  
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**Taxation of Motor Trucks  
Common Carriers in the State of Michigan**

**a thesis**

**Submitted to the Faculty of Michigan State College**

**by**

**H.A. Lake**

**Candidate for the Degree of Bachelor of Science**

**June - 1928**

THESIS

C.1

To

Warren Wayland Hitchcock

whose deep interest and cooperation

have been a great help

in the preparation of this work.

## Preface

The writer wishes to take this opportunity to express his appreciation to Mr. Calkins of the Public Utilities Commission for the aid rendered in securing the data for this report, and to the department of Civil Engineering for their cooperation.

Contents

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	Page
Introduction-----	1
History-----	1
Outline of Laws of Taxation of Common Carrier Motor Trucks in the State of Michigan-----	2
A Comparison of Michigan Laws with those of Other States-----	3
Problem-----	6
General Conclusions-----	8
Data	

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## Introduction

There is, perhaps, no subject that is of more importance right now than development of transportation. There are our modern cities with mass production and the world markets. This would not be possible if we did not have a means of transportation. Railways, up to a few years ago, had been our only means of accomplishing this, but with the rapid development of the gas engine we found a new means of transportation. We have a vast amount of literature on regulation of railways, but to date very little has been done in the study of motor trucks as common carriers.

In the following discussion, it is the intention of this report to make a study of taxation of motor trucks as common carriers.

## History

It can be said that it has been within the period of the last five years that the motor trucks have been used as a means of transportation. The reason is due to the fact that our highways have not been sufficiently improved to enable the trucks to use the roads; then, it is difficult to change from one manner of transportation to another. Out of this amount only about six to eight percent of the tonnage handled is done by common carrier trucks.

So we can see that we do not have a very large field to work on.

A common carrier truck is any truck that hires out its services, operating between fixed terminals on fixed routes and on a fixed schedule.

In this report we shall deal only with common carrier trucks.

\*\*\*\*\*

Outline of Laws of Taxation of Common  
Carrier Motor Trucks in the State of  
Michigan

All commercial carrier vehicles will be taxed by the following schedule when they are registered:

Up to 2500 lbs.	\$0.65
2500 to 4000 "	0.80
4000 to 6000 "	1.00
Above 6000 "	1.25
For a trailer weighing:	
Up to 1000 lbs.	0.50
Above 1000 "	1.00
For each motorcycle:	4.00
" " motorbicycle:	2.00

A tax in addition to this will be levied on all common carriers in the form of a registration per hundred weight of vehicle (this includes buses and common carrier trucks).

There is also a specific gas tax of three cents per gallon.

A Comparison of Michigan Laws with Those of Other States

In making a comparison of Michigan laws of taxation of common carriers with those of other states we find very many interesting things. There are no two states that have the same schedule, and some of them vary a great deal.

In most states, as in Michigan, an added fee is put on over the fee that a private carrier has to pay.

In a study in 1925 of common carrier truck fees and taxes, in 25 states, Professor Henry R. Trumbower, then with the U.S. Bureau of Public Roads, found that on a comparable basis a three-ton truck owned by a common carrier would pay an average of \$212.31 more than a similar vehicle operated by a private carrier.

It was found at that time that a common carrier in Texas paid a heavier tax than in any other state. At that time not all of the states had laws to cover common carriers, but now, as far as can be learned, there is not a state that does not have a law that includes them.

Many states up to a recent period felt that the state had no right to put an extra tax on a common carrier. Examining the different schedules of various states, we find many different kinds. Some of them work on the basis of horse power alone; others on horse power plus an amount on the weight; others on the weight alone; while still others have a flat rate on horse power, or on weight, or maybe both.

Some states have no extra tax on trucks that are common carriers but still have an extra tax for buses. Some work as in Michigan; they class both buses and trucks for hire under the same schedule.

There are many different ways that schedules can be worked out. To get a complete outline of this, the "Motor Vehicle Conference Committee", 366 Madison Avenue at 46th Street, New York, N.Y., issues a bulletin called "Special Taxation of Motor Vehicles".

Several Different State Schedules

Alabama:

Commercial Car Private

Under 1 ton	\$15.00
1 to less than 2 tons	22.50
2 " " " 3 "	50.00
3 " " " 4 "	100.00
4 " " " 5 "	200.00
5 " " " 6 "	400.00
6 " " " 7 "	750.00
7 tons or over	1000.00

Commercial truck for hire same as commercial car privately owned and operated. This schedule is quite high.

Arizona:

Commercial Car Private

1½ tons or less	\$10.00
one 1½ tons to 3	15.00

one 3 ton

\$25.00

Commercial cars for hire, twenty cents for each ton capacity miles. This schedule is low on private carriers but this added tax will bring up the fee on the truck quite high.

California has a flat rate of \$3.00 plus an extra tax on various weights for a commercial carrier private. They have an extra tax for five percent of the gross receipts on commercial carriers for hire.

Colorado has a very low tax. Their schedule is based on the different weights. Trucks for hire are the same.

Delaware has a flat rate of \$2.00 per 500 lbs. and the truck for hire is the same.

Florida has the same kind of schedule except their rate is \$0.50 per 100 lbs. and the same for truck for hire.

Louisiana has a schedule of \$0.68 per horse power plus a tax on different weights, increasing with the weight for truck for hire. And an extra fee is added of \$150.00 for any carrier over 10,000 lbs. per 100 lbs.

North Dakota has a schedule on different weight added to the horse power secured by private passenger cars, and an additional fee is added for truck for hire on a schedule of weight.

Rhode Island has the same schedule for commercial car private as for passenger car private.

The rest of the states have still different ways, but the general idea is shown in the ones we have given here. The other states may vary in the amount they pay.

#### Problem

The problem "Taxation of motor vehicle as a common carrier" is one that we know very little about. The tax is paid, but how do we know why we pay that amount, and if perhaps it is not more than other cars pay in the amount they use the highways.

There are many different ways in which we can base the tax. At present it could not be said that the present laws are based on any one idea. Maybe they should not be, but that is not the point of this report, to say that the present methods of taxation are wrong. It is no more than a study of how much the truck owners pay at present.

We shall have to assume a few things. First, an attempt will be made to determine how much each truck owner pays for each ton-mile of operation. It is known how much each truck owner pays in the form of a fee and a license. We know how many miles each truck travels per day and the amount of gas it uses. We can find the weight of the truck by multiplying the permit fee by one hundred and adding to this the daily tonnage and the weight of the driver. With this total weight we then multiply by the number of miles they

travel per year. This will give the total ton-miles of operation during the year. We then find the amount of gas tax they pay by multiplying the number of gallons of gas they use per year by three cents, add this to the permit fee and license tax, then this is divided by the ton-mile and we have the tax paid per ton-mile for a given weight truck.

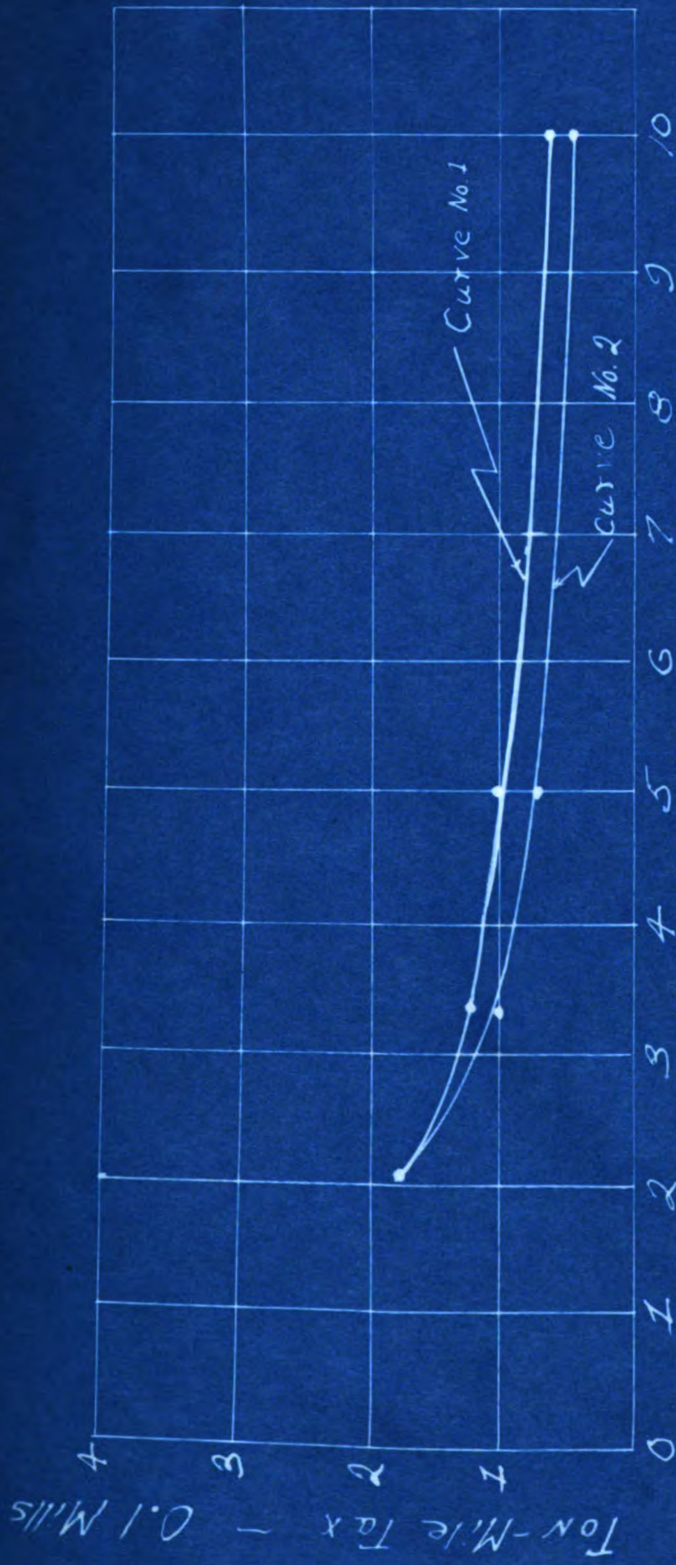
The data was secured from the Public Utilities Commission. The following curves are graphs of the ton-mile tax for gasoline, and the total ton-mile tax. Also there are curves taken from "Maintenance of Way Charges Against Public Carrier Buses" (Bulletin 85) by W.W. Hitchcock of the experiment station of Iowa State College, or ton-mile tax paid by buses of the same weight.

Relative Ton-Mile Tax for Buses and  
Common Carrier Trucks

Type	Wt.lbs.	Gas Tax per ton- mile cents	Registration tax per ton- mile cents	License tax per ton-mile cents	Total tax per ton- mile cents
Private	2,085	0.1798	-----	0.1375	0.3173
Bus	3,250	0.1275	0.0542	0.0433	0.2250
Truck		0.925	0.07077	0.0643	0.2236
Bus	5,000	0.1081	0.03731	0.03731	0.1827
Truck		0.07216	0.05584	0.02615	0.183
Bus	10,000	0.06039	0.04293	0.05366	0.1569
Truck		0.0468	0.0378	0.0485	0.1329

The total tax curve for trucks was less for the heavy-weight trucks than it was for buses of the same weight.

Gas Tax for Vehicles of Various Weight per Ton-Mile



Weight of Vehicle - Thousands of Pounds

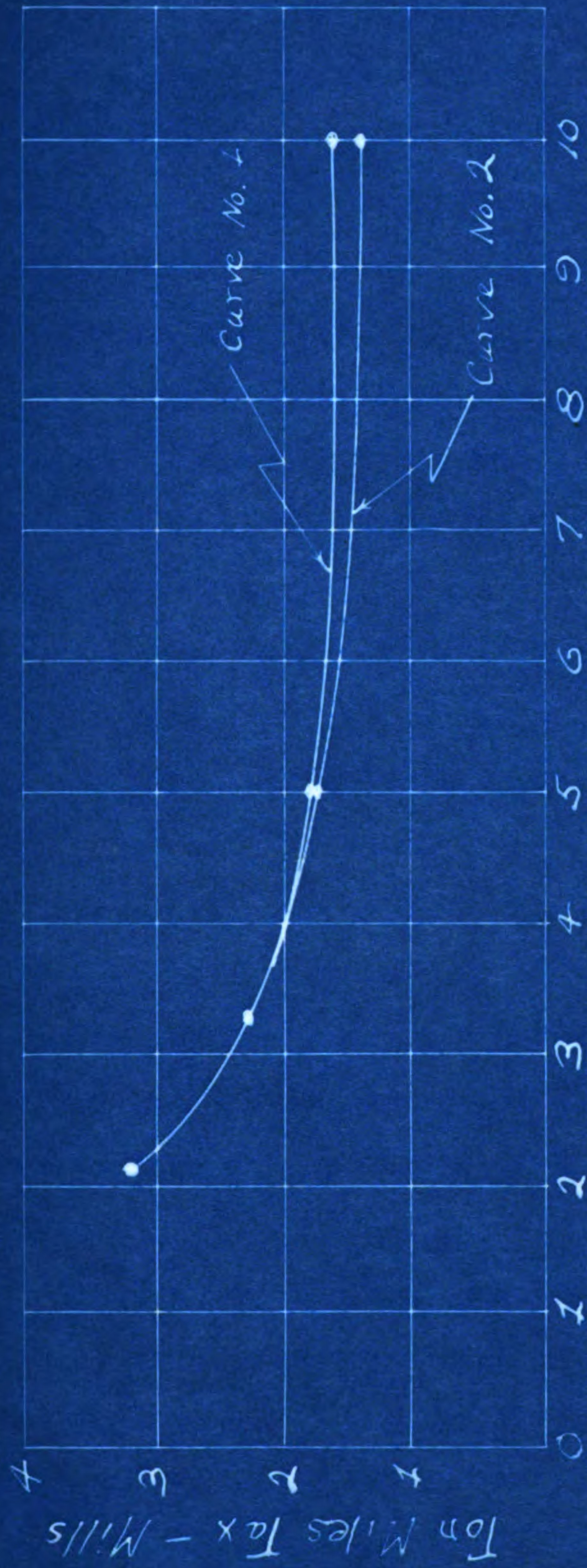
Curve No. 1 - Gas Tax for Bus

Curve No. 2 - Gas Tax for Truck

Fig. 1



# Ton-Mile Tax for Vehicles of Various Weight



Weight of Vehicle - Thousands of Pounds

Curve No. 1 - Ton-Mile Tax for Bus

Curve No. 2 - Ton-Mile Tax for Truck

Fig. 4

This is shown in the curve for the tax per ton-mile paid by the gas tax to that of the bus.

### General Conclusions

The first tax that we had for trucks was a law passed in 1923. That was a tax of twenty-five cents on each horse-power, plus a tax of thirty-five cents for each one hundred pounds of weight. In 1925 this was changed to the present system.

The rapid development of the use of motor trucks as a means of transportation has led to new laws. It was felt that these would spread the tax more evenly for the various weights of trucks.

The assessment of taxes against the common carrier in proportion to the use of, and benefits received from, the highways over which they operate, is a long step away from the more common idea of taxation in proportion to ability to pay. Since this benefit method seems to meet with rather general approval, a definite means of distributing the taxation should be determined so that the various classes of motor trucks will be taxed in proportion to the benefits accruing from the development of highways.

This report has attempted to show the amount of tax each truck pays per ton-mile. The study shows that for different weight of trucks the amount of tax paid per ton-mile for the heavy trucks is less than that of the lighter.

It is thought the best way to try to even the tax is to try to equalize the weight tax and the gas tax. To know when this is balanced is a hard job and can only be acquired through experience.

When the gas tax is added it tends to cut down the total tax per ton-mile on heavy trucks, and when the weight tax is raised it tends to increase the tax on the heavy truck per ton-mile of operation.

No more can be said than just what the two curves show. It is apparent that the tax is less for a heavy truck per ton-mile of operation.

The curve shows a very marked likeness to those that Mr. Hitchcock secured on his work on buses, and it seems to prove the same thing that he did in his report.



This is a record of Charles Peet; Permit No. B-439.  
 Miles of route, 40; miles traveled per day, 40; per  
 year, 1000.

tonnage per day,  $1\frac{1}{2}$

No. of trucks, 1

Gas consumption per year - 750 gallons

Cost of Permits, \$22.00

Cost of License, \$14.30

Weight of truck - 2200 lbs. or 1.1 tons

Weight of one man @ 150 lbs.- .075 "

Tonnage, 1.5

Total weight of truck loaded 2.675 "

Ton-mile of operation per year, 2,675

Gas tax - \$22.50

Tax paid per ton-mile of operation by gas tax, .084 cents

" " " " " " " fees, .082 "

" " " " " " " licenses, .0535 "

Total tax per ton-mile of operation, .2195 "

This record shows how the tax per ton-mile was ob-  
 tained. The rest of them were secured the same way. The  
 tax was found and then the companies were divided into  
 different groups of various weights, up to 2 tons, 2 to 3  
 tons, and all over three tons. The record shown falls in  
 the group of those less than 2 tons. The weight was 1.1  
 tons. A list of the company in the groups is given in the  
 following data.

Up to Two Tons (2 tons)

Private No.	Gas Tax per ton- mile	Fee Tax per ton- mile	License Tax	Total Tax per ton- mile
B- 55	.0604	.0435	.0348	.1387
B- 85	.0542	.0386	.0568	.1501
B-123	.19	.095	.079	.3640
B-128	.274	.131	.065	.47
B-140	.0466	.0246	.0246	.0958
B-160	.0955	.047	.03	.17
Newkick	.129	.091	.099	.319
B-163	.084	.0347	.0261	.1448
B-201	.103	.098	.12	.321
B-203	.065	.0356	.0318	.1324
B-206	.031	.019	.031	.091
B-222	.0545	.0395	.0395	.1335
B-225	.0646	.118	.22	.4026
B-228	.0485	.0132	.017	.0787
B-263	.136	.051	.0275	.2145
B-264	.034	.0224	.0315	.0869
B-292	.024	.025	.021	.08
B-325	.1245	.193	.1375	.3550
B-439	.084	.082	.0535	.2195
B-576	.145	.145	.117	.407
B-341	.032	.0325	.0085	.0630
B-632	.1	.12	.09	.31
B-673	.055	.062	.045	.162
B-769	.165	.137	.137	.459

Average 24	<u>2.2198</u> .0925	<u>1.6966</u> .07077	<u>1.5431</u> .0643	24) <u>5.3685</u> .2236
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.0925  
.07077  
.0643  
.22757

2 to 3 Tons

B- 45	.0695	.0302	.0408	.1405
B- 60	.036	.0376	.1055	.1791
B- 73	.0135	.0292	.021	.0637
B-114	.1117	.07	.07	.2517
B-195	.072	.0615	.0615	.195
B-217	.0386	.0423	.0423	.1232
B-306	.0985	.078	.078	.2545
B-327	.56	.074	.074	.204
B-364	.064	.0195	.0375	.121
B-380	.103	.123	.123	.349
B-527	.113	.062	.062	.237
B-539	.0615	.03	.03	.1215
B-655	.063	.0415	.0415	.146
B-680	.11	.083	.083	.276

14

1.0103  
.07215

.7818  
.03384

.8701  
.08215

14) 2.5622  
.183

.07216  
.05584  
.06215  
.19015

3 Tons - Up

	<u>Gas</u>	<u>Fees</u>	<u>Tags</u>	<u>Total</u>
B- 25	.0134	.0494	.0686	.1322
B- 55	.0475	.0453	.05	.1438
B- 66	.0366	.0288	.0288	.0944
B-139	.0312	.0183	.036	.0855
B-148	.0235	.0177	.0302	.0714
B-245	.04	.034	.04	.114
B-262	.1	.033	.051	.184
B-405	.0105	.0055	.08	.096
B-408	.0605	.0665	.033	.1600
B-441	.0272	.0242	.0242	.07
B-447	.069	.092	.117	.276
B-471	.0854	.0293	.037	.1017
B-479	.052	.04	.054	.146
B-545	.0565	.0325	.0365	.1235
B-617	.031	.0215	.025	.0775
B-625	.064	.0525	.025	.149
B-678	.07	.0398	.05	.1598
<u>B-753</u>	<u>.074</u>	<u>.0495</u>	<u>.062</u>	<u>.1855</u>
18	<u>.8425</u>	<u>.6608</u>	<u>.8732</u>	<u>2.3723</u>
	<u>.0468</u>	<u>.0378</u>	<u>.0485</u>	<u>.1329</u>



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