

GASOLINE TRACTION ENGINES

A DEPARTMENT FOR THE USER

WE want every owner of a gas tractor in Western Canada to give us his experience. The owners of gas tractors to-day are in a sense pioneers. They are working out the data and compiling a record of work done that both manufacturer and farmer alike the world over are watching with intense interest. Don't keep what you know under your hat, but let us have a story of your gas tractor work. We will reward every such story with a copy of "Plain Gas Engine Sense," one of the best handbooks we know of on the gasoline engine. Don't neglect this matter but let us have your experience at once.—(Editor.)

WHEN we pause to think that it has been thirty years or more since the steam traction established itself as a successful machine for agricultural purposes, we are led to wonder why it was not successive enough to the inventive geni of America and other progressive countries to quickly bring about the development of a motor wagon for general farm use. The gas engine was used for a number of years as a stationary and even a portable farm power before it was seriously considered for automobile purposes. But it seems that it was necessary to run the gas engine through several stages of development before it was seriously considered as a traction proposition, and especially its ready adaptability as a convenient power for the purpose of propelling a general utility agricultural motor wagon.

It is no longer a question of the fitness of the gas engine for this purpose but only what is the best method of its application? The farmer is ready for the motor wagon that can be regarded as a success. He has been ready for a number of years. In fact, he is not only ready but he wants it, and will buy it eagerly as soon as he is shown that it will do to rely on. He never was as anxious for something to help him out as now. He was able, formerly, to get three hired men to help out where it is impossible to get one now.

Much of the farmer's time is taken up in caring for, harnessing, hitching up and unhitching his teams, especially if he has to care for six or eight horses. A motor wagon can be so constructed as to be able to do the work of three or four teams, and will require no more attention than one team of horses ought to have, and the beauty of such an outfit is that the farmer can accomplish as much with it as he and two or three hired men could with a team each at certain kinds of work. We have just reached a period when this proposition is agitating many minds, but there seems to be no settled opinion concerning it. A Frenchman proposes to localize, or rather, make a semi-portable arrangement of his power plant and, by placing it at one end of the field—draw plows, harrows and other agricultural implements to and fro by means of a drum and cable, thereby obviating the necessity of moving the machinery, or rather the power tractor, over the soil, which might, in some instances, at least be detrimental to the land. This method, however, has the disadvantage of requiring two persons at least, one with the implement in use and one with the power plant. Since it

would be necessary to make a tractor of the power machine for the purpose of propelling itself along the end, we are of the opinion that the expense of cables and apparatus at each end for anchoring it along, with possibly the expense of an extra man, could be entirely avoided.

Some Englishmen, and several Americans, have thought of and developed gasoline tractors for a special purpose, such as plowing, that could not well be adapted to other uses. Then there are others who have busied themselves with the gasoline traction engine, built somewhat along the lines of the steam traction. These engines are meeting certain requirements but, like the steam traction, are confined to farms or ranches of large proportions. They are entirely too clumsy for ordinary light agricultural work. There are still others who have directed their attention to fitting mowing machines, binders, etc., with small gas motors for the purpose of driving the machinery only, thereby helping out the team which would be required to draw the load or weight of the implement only. By this means a different truck construction than that commonly used for mowers and binders is possible, which makes it much easier on the team. Such an arrangement is certainly a great improvement over present methods, but will help out only at certain kinds of work that may not be of more than from a few days to a couple of weeks' duration each year.

The kind of machine that is now in demand and required is a general purpose tractor, or motor farm wagon, which will be sought by the great army of agriculturists who operate farms of from forty to one hundred acres. Such a motor wagon will enable a farmer to intensify cultivate forty acres alone, and if he has two or three boys, one hundred acres is within his family capacity. Such a motor wagon need not exceed from two to three thousand pounds in weight. It could be built somewhat after the type of the present farm trucks with front wheels of practically the same diameter as rear wheels and large enough to climb readily over farm lands as well as road obstacles. We would regard it advisable to have the wagon equipped with two sets of wheels that would be interchangeable, but of different width.

Plowing uses same amount of fuel as threshing.

We bought a 20 h.p. International gasoline traction engine last summer. We averaged about 1,000 bushels of grain per

day for 28 days with a Buffalo-Pitts separator, using from 15 to 25 gallons of gasoline per day. The quantity of oil consumed depended upon the condition of the grain and the way the engine was working.

A gasoline engine is like any other implement. It seems to work better some days than it does others. This is usually the fault of the operator. Poor gasoline, faulty ignition, slow explosions and many other causes, make quite a difference in the quantity of oil used.

Gasoline cost us 22 to 24 cents per gallon laid down at Sperling. We should have contracted for oil in the early summer, as it would have saved us at least 2c. per gallon.

We stopped threshing about the first of October and went to plowing. We turned off one job of a section of grain because I thought the plows ought to be going. The farmer cannot afford to own an outfit of this kind and work away from home all the time. He had better be at home getting his land ready for another crop.

Plowing requires about the same amount of gasoline that threshing does. We drew five fourteen-inch plows and did excellent work with an ordinary two gang plow and a three gang plow. From eight to twelve acres is a day's work, or about an acre to the hour.

Any farmer with a half section or more of land will find a gasoline engine a profitable investment, besides quite a satisfaction in the saving of horse flesh when the ground plows as hard as it did in our locality last fall.

Yours truly,

J. H. Grover, Sperling, Man.

Keep Cool.

I will tell you my experience with a gasoline threshing rig last fall, in the hope that it will be of use to some one.

As we had a fairly large crop and a large part of it was badly damaged by hail, so that the threshers did not like to tackle it, we decided to buy a gasoline rig of our own, to insure getting our job finished before the winter set in.

After making a careful study of the different machines on the market we finally decided in favor of the Geiser. Accordingly we opened up a correspondence with Burrig and Cooper Co. and placed an order with them for a rig, which arrived in due time.

The machine started off with-

out a hitch. The expert stayed with us for not more than half an hour after the machine was running. I regret that any data which I could give regarding the number of bushels threshed would be misleading because our crop was badly damaged. We were short handed a good deal of the time, but in fifteen days we threshed what stuff it took twelve hundred pounds of twine to tie up, and I think if the straw had been straight it would have gone through in two thirds of the time. Our separator had a twenty six inch cylinder and a forty six inch rear.

The machine ran very smoothly during the entire run and we didn't spend five cents in repairs. The longest stops we ever had was to lace belts and once I got some dirt into a check valve on the engine, which was my own fault for letting dirt get into the gasoline. But what pleased us most was the quality of work we did. We have had a great deal of threshing done for us and we have estimated and feel safe in stating that on an average every year, we have had enough grain thrown into the straw stack (which the separator would have saved) to have made a payment on this machine.

In a portable engine that is well constructed, there is practically nothing to go wrong for a good long time if everything is kept tight and clean, and good oil is used in proper quantities on all moving parts, except valves, which do not need oil. If you oil your cylinder properly with the best gas engine cylinder oil that you can buy, you will save yourself lots of trouble. It is a bad thing to use too much oil, but be dead sure you have enough. I find that the engine will start at once in zero weather absolutely without fail if a red hot iron is held in the intake pipe to warm the air as it goes in. You can never gain anything by getting in a hurry with a gasoline engine. Keep cool. Put it in perfect shape for the next day's run before you leave it at night.

In conclusion I would say to those who are contemplating the purchase of an engine. First, don't always take in just all that an agent tell you. He might be the soul of honor, but then he might not be. Remember, it takes a slick talker, coupled with loud advertising, to sell a low grade engine. Make some use of your own judgment.

Yours truly,

B. S. English, Caron, Sask.