

SMALL VERSUS LARGE TRACTORS

By ROBERT WHITEMAN

IN going over this western country one gets the views of many men relative to tractors. Some are all for the big, heavy type. Others again would only tolerate small machines. As a rule, when questioned, each has a perfectly right view because of such varying soil conditions. But at the same time what applies to one particular individual certainly does not to another. Each has his own particular problem to work out, and only by a careful study can we arrive at a definite conclusion regarding the type to buy.

These articles are not written by an expert, merely one who has passed over this country numbers of times, and being considerably interested in tractor problems has received the views of many men regarding things pertaining to gas engines. One thing outstanding to-day, regarding tractor sales, is that the small farmer makes up the majority of buyers and therefore a large type of engine would not be suited to his purposes. This has made the manufacturer turn his thoughts and engines to the small, compact and simple type of machine.

Plowing Demonstrations

For some years now Western Canada has held plowing demonstrations at the various big centres. The purpose of these demonstrations is to show producers what the various machines can accomplish as regards speed of plowing, consumption of fuel and ease of handling. A number of years ago Winnipeg put on the first competition held in Western Canada, and since that time they have always been very popular. The intending purchaser should attend one of these demonstrations. Then he will have a clearer idea regarding type suitable to his needs.

All tractors are made to work else they would not be on the market. Each has various attachments making them different in type, some probably being nearer the ideal one than others, so that a man has merely to choose that which suits him best. All men are inclined along certain lines. If it be live stock his preference will be some certain breed or color in the breed. Even in the matter of clothes a man inclines towards certain shades and colors, and I feel sure this also applies to tractors as well. If one could see all the different makes arrayed before him then he is able to choose his own particular type and so will always be much better suited.

It is a glorious sight to see the big array of engines at a demonstration. There one will find the great big giant pulling twelve plows as though it were nothing, also the little pigmy drawing two plows, then all types and sizes in between. Surely one can choose the kind he needs from such a huge array. These demonstrations are one of the best advertisements any company can have because it brings hundreds of possible buyers together and the machine is being sold solely on its merits. It is a comparatively easy matter to sell some men a tractor out on their own farms where the man has no opportunity of putting one make

engine of over thirty horse-power and on up to the largest size. These big machines were the first type turned out, and were originally intended to replace the big steam rigs in use at that time. Probably the lack of water in many districts caused many threshermen to hail the gas engine as a real saving of time and money. The first engines were nearly all built along one line, viz., large, massive frame, very heavy balance wheels and single cylinders. The fly wheels, of course, were made heavy to carry the engine over centre and cause sufficient momentum to make it even running.

These machines were simple



They look like "Down-South Niggahs," but they're not. These are two habitual prize winners in plowing on the Portage Plains—George and Angus McVicar, at the recent plowing contest at Portage. The "Lady in White" is their sister, and Angus is driving his "Titan."

up against another and a good salesman can make him believe that his tractor is the only real one in existence.

It is a different thing, however, at one of these demonstrations and no amount of talking will cause a man to purchase one after seeing it unable to do the work in comparison to other makes in the same field. There are numerous types on the market to-day: two-wheeled, three-wheeled and four-wheeled, caterpillar type, others using a drum for their tractive power. Each is built for certain conditions of soil and at a demonstration by trying to fit conditions on our own farms to the one before us we are able to arrive at a fairly definite conclusion regarding which type to buy for our own particular needs.

The Large Tractor

By this term is meant the en-

gine on threshing rigs gave universal satisfaction. During this time owners began to think of using them for work other than on the belt, so plows were turned out to fit the various sizes, and so we see tractor plowing begin. The steam engine is still used in many places on the open prairie where water is plentiful and fuel can be procured. That these early engines were crude and clumsy goes without saying, still they did the work and were the forerunner of the great line one sees to-day at fairs and plowing demonstrations.

When one stops to consider how short a time it is since the first tractors arrived on the market it seems marvellous to note the advancement made. The general principles are the same, but a vast change of type has taken place. Look at one of the original autos and compare it

with the models of to-day. What a difference! The old one looks so ridiculous and from a speed of ten to twenty miles per hour we have almost no speed limit to-day. So with our gas engines. Weight has been cut down fuel cost reduced and a great deal more efficient operation of work performed. Some time ago a man wrote regarding the lack of invention along agricultural lines. When we look back a few years and view the early types we feel that inventive genius has not been wanting.

The large tractor will always have a place for heavy duty work, and as a general rule we see it used more particularly for custom threshing, plowing or road grading. The large farms will always have use for these machines because this small type would require too many men to handle the area to be covered.

In these times of shortage of help for farms the problem of paramount importance is the utilization of heavy power with as little man power as possible. On large farms so arranged that one man can plow as high as twenty acres per day and over, it is apparent that efficiency is being practised to the highest degree. Think what it would mean if this area had to be covered by horse teams and men to drive them. The cost of equipment and feed alone would pay for the big engine leaving the saving of man labor for profit.

A few years ago the state of Illinois had a field survey made regarding tractors in the state. These tractors were in operation on farms and the farmers were requested to answer a number of questions regarding cost of operation, length of life of machine, etc. This report is embodied in bulletin No. 719, published by the United States Department of Agriculture. Any intending purchaser should have this bulletin, and would do well to peruse it carefully. From the large number of engine owners in the state of Illinois some two hundred farmers were selected and their views throws considerable light on the subject.

From reports received the fuel consumption per acre is practically the same whether the engine be a two or a ten plow size. But when the big rig is not running properly a greater loss occurs. In other words when two plows are idle a certain amount is knocked off that day's work and when ten plows are idle for the same per-

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