

Farm Motor Competition

Winnipeg has a unique record for starting big projects that move to a remarkable and rapid accomplishment. If that is a truism, then the motor competition feature of the annual exhibition of Winnipeg can be safely put down as one of the genuine monuments to Winnipeg's genius for discovering the right thing and then doing it.

All faces are alike, but there is only one motor competition, and that is out on the prairie west of the Winnipeg exhibition grounds, where the huge engines of the 19th Century farmer do the kind and quality of work in tilling the soil, which would make old Cincinnatus, if he were able to see it, rise in awe from his tomb of two thousand years. It is indeed proper that this competition, which attracts world wide interest among two classes of people, firstly, the progressive farmers, and secondly, the progressive manufacturers of agricultural machinery, should be held here on the bosom of that Western prairie whose undulating miles and broad expanse gives the promise of the future to the bread hungry mouths of earth's next generation.

Four Years Old

The farm motor competition of the Winnipeg Exhibition is now in its fourth year. While the competitions of the first and second year were highly successful, yet the unknown quantities of task, and of the machines which were set to do that task, made these two contests largely experimental. The fact that the rules and regulations for the contest this year show only one important deviation from those of last year, namely, the method of measuring cylinders, is an evidence that the competition has now reached that perfected form which will make it of the highest educational value to makers and users alike.

Each year has seen from twenty to thirty tractors out on the prairie section provided by the exhibition, each machine turning up its portion of the virgin soil in a steady and deliberate effort to tear it up faster and better than any of its competitors and to quite overshadow the humble transfer with his old wood beam of chilled Oliver, which has been placed on the side of the field of an object lesson in Twentieth century progress.

The entries for the exhibition of 1911 show that an increased interest is being taken each year in this unique event and the field this year promises to be fully as large as was the field at Epworth a month ago, when My Lord Dorley's classic was run. The engines will be divided into four classes. There will be three classifications of gasoline engines gauged up on piston displacement of 300 cubic feet or less per minute, 300 to 500 cubic feet per minute, and 500 and over cubic feet per minute. The fourth class is for that rapidly growing class in internal combustion engines that utilize kerosene for their fuel. There will be three classes for steam engines which are also divided upon a classification obtained by securing a relative factor upon piston displacement and boiler pressure.

Cost is Great

The owner of every engine entered in this contest faces an expenditure of thousands of dollars before his machine gets through with its allotment of acres and yet the only tangible token that success carries with it is a gold, silver or bronze medal. The traction engine race at the exhibition is probably the keenest example of amateur sport in its class that can be found anywhere in the world and yet, after all, commercialism is behind the entire venture.

The value which is gained by the winner of this trophy was exemplified in a striking

way a few weeks ago at a large dinner given by the members of the Winnipeg Advertising club and at which the sales manager of a prominent traction firm was the guest of honor. The sales manager made a speech and gave very interesting details of how the business of his firm had been built up by advertising. He displayed the literature which had been used and the one noticeable thing which was blazoned with every aid of type, illustration and color, wherever it could be placed, was the announcement that their firm had won the gold medal of Winnipeg in the exhibition's motor competition. That announcement had sold more machines for them than any other thing and, in the hope of gaining the privilege

of making that announcement and the equally valuable privilege of proving their metal before the inquiring eyes of the thousand keen-witted prairie farmers, makes the manufacturers of farm tractors willing to go to any reasonable expense in this competition.

Good Judges Needed

But it is not only the gold medal that is worth while in this competition. The results of the former tests have proven another thing, and that is that it takes a careful and keen judge to distinguish between the relative merits of nearly all the machines placed in the competition. They will always do the work and do it so well that each exhibition at Winnipeg

Classification

The entries are to be classified as follows:

Class (a). Gasoline Engines, whose piston displacement is 300 cubic feet per minute and under.

Class (b). Gasoline Engines, whose piston displacement is over 300 and under 500 cubic feet per minute.

Class (c). Gasoline Engines, whose piston displacement is 500 cubic feet per minute and over.

Class (d). Kerosene Engines, all sizes. (The piston displacement to be calculated on a basis of a piston speed of



Steam Tractors at Winnipeg Exhibition

70 feet per minute and to be equal to the total piston area in square feet multiplied by 700.)

For Steam Engines

Where A = Piston area in sq. ft. P = Boiler pressure and 450 is taken as a standard speed.

Class (e) $A \times 450 \times P$ 60 or under.

500

Class (f) $A \times 450 \times P$ over 60 and under 100

500

Class (g) $A \times 450 \times P$ 100 or over.

500



The Motor Competition—Gasoline Tractor Pulling Eight Bottom Gang

is the direct agency of putting thousands of tractors into the sections of the last virgin prairie.

The motor competition of Winnipeg has been, since its inception, under the supervision of Professor A. R. Greig of the Saskatchewan University, and to his mechanical genius and painstaking attention to the details of accuracy is due the world-wide respect that is held for his decision. Every year has seen at least one competitor in this competition who has shipped his engine from a foreign factory and representatives of foreign governments have been sent under official instructions to watch and report upon the test.

Some excerpts from the rules and regu-

lations, which follow, give the detailed information as to just how this great motor competition, the only event of its kind in the world, is carried on:

Prizes shall consist of: First prize, gold medal; second prize, silver medal; third prize, bronze medal. All entries must be accompanied by an affidavit that the information therein is true and that the engine in question is from their regular stock, not being built specially for competition. A blue print, or photograph of blue print, of the boiler, with the approval stamp of the Alberta inspector thereon, must also accompany the entry.

Any firm or individual shall not enter more than one engine in each class unless the engines be radically different in construction. In all classes where there is no competition a diploma of award only may be given, upon which will be

set forth, together with the number of points scored, that it was the only entry in the class. Should the judges find the entry data inaccurate in any particular; they may, at their discretion, rule the engine out of the contest.

Conditions

The fuel shall be that furnished by the Exhibition Association at current prices at Winnipeg, approximately:

Gasoline, 29 cents per gallon of 477 cubic inches; kerosene, 14 cents per gallon of 477 cubic inches; soft coal, \$8.50 per ton of 2,000 lbs.; wood, \$1.50 per cord.

Each competitor must have sufficient staff for the care and running of his own entry. Two men only, except observers, will be allowed on the steam engines during a test; one an engineer, and one a fireman. Two men will be allowed to start the internal combustion engines; after starting, one man only, except observers, will be permitted on the engine. If more men are needed the engine will be penalized 10 points for each man. No other person to be allowed on or close to the engine, and the same operator must handle the engines during all tests. One man only will be allowed on the plows.

Each motor shall be allotted a certain space on the grounds, where the motor shall be exhibited at all times except when being tested.

Tests

The tests will comprise brake-test, plowing test and such other tests as the judges deem essential. The plows, belts, chains, water-tanks, a 4-hour recording dynamometer of capacity sufficient for their engines, with sufficient charts and such other things as may be required during the tests are to be supplied by the contestants.

The rules of the Province of Alberta with regard to boilers and engines shall govern the pressures, etc., allowed. All instruments, including dynamometers, shall be deposited with the judges on the arrival of the engines on the exhibition grounds, for testing, and shall remain in their possession until all tests are completed. Provision shall be made so that a standard steam gauge can be applied to all boilers during the test. Any engine failing to complete any test shall be disqualified.

Contestants are to be prepared to assist the judges and their observers in taking dimensions, removing parts for inspection, and any other work that may be necessary for a complete inspection and test, and each competitor is asked to appoint one observer, whose duty shall be to check the fuel, water and other data taken by the official observers. No observer will be appointed to check the data taken on the engine entered by the firm he represents, but will be chosen by lot to check the data on other engines. His duties will be merely to ascertain that a data is correct and to certify to that effect by his signature on the official observer's card.

Brake Test

The brake test shall consist of a two-hour economy test. During this test the engines are to run at their greatest load consistent with economy. Competitors will be allowed fifteen minutes after they have lined up to the brake to try out their engines, and to state the amount of load they wish to carry. After the competitor has stated the load he wishes to carry the operators will keep the brake as near that load as possible for two hours, and no change will be made. Careful measurements of the fuel and water used will be taken, and the condi-

tion of effectively will at the two the m will de measur fuel an Plow of five by the any kn of plow by the will be plow, pull of the plowed acre; replen judges two-h plowing engine. Desig head s of the dust-pr parts, fuel and out the case of and sto handling of work propri of the s-structio of lubri

It is agreed engines of the s as those Only s allowed may lin engine a fair their dy to such to assure competit the testi arrange that as l