

## International Motor Car Company's Testing Methods.

TOLEDO, Ohio, January 15.

*Editor* HORSELESS AGE:

We notice your reference to the Toledo steam carriage in your issue of January 8, and would say that there are quite a number of features about our standard vehicle that must appeal to you, because they represent sound manufacturing practice, which it has always been the mission of THE HORSELESS AGE to further.

In the series of articles by J. W. Jones, published in your columns at the time of the automobile show, attention is called to the very substantial engine employed in the Toledo steam vehicle. A feature that was not mentioned by Mr. Jones is that the main bearings of the engine are plain and are provided with ring oilers, and that ball bearings are not employed. Further, the crank chambers are oil tight, thus permitting of the bearings being oiled by splash lubrication, at the same time preventing dust from injuring the bearings.

After each engine is finished, it is laid horizontally on a bench when the cylinder heads are removed and the cylinders lined with a mixture of graphite and vaseline. The engine is then sprocket driven from a shaft for eighteen hours, and as the graphite mixture works out the cylinders are again lubricated with this mixture. This, of course, works itself into the steel and makes an excellent surface on the cylinder walls and surface of the piston. The engine is then set up and the cylinder heads are attached, and it is driven for four hours under its own steam.

It is then mounted in the carriage of which it is to be a component part and driven for at least 50 miles on the road, during which time it is in the hands of an experienced mechanic who tests it thoroughly. At this time bearings are gone over, all adjustments carefully made, etc. While undergoing this test a temporary body is fitted to the machine, but the engine and boiler and other working parts are components of the final vehicle.

When the carriage is in thorough adjustment, it is turned over to an inspector, who gives it a final trial and then it is put into the finishing room, where its own body is

attached and the finishing done, after which it is sent into the shipping room.

The above work is positively done to every machine that leaves this shop, and after undergoing such rigid treatment we have every assurance that nothing further could be done to make the vehicle perfect in every particular. It is our object to make these vehicles the best that can be built and we feel sure that you will be interested to know the method that we employ to attain this end.

INTERNATIONAL MOTOR CAR CO.

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### **Gasoline Engine Queries.**

POMPTON LAKES, N. J., January 12.

*Editor HORSELESS AGE:*