

ently simple matters as enlarging the diameter of the exhaust valves, thereby allowing a freer escape of the burned fuel and permitting the next charge to enter a cylinder that was cooler and cleaner. Or, changing the shape of the inlet manifold, especially on four and six-cylinder motors, has often showed a marked improvement in the ease with which a perfectly carbureted mixture could get into the cylinder without condensing a portion of the fuel. Such problems as these are of even greater importance when kerosene is the fuel used, as the lower grade fuels offer many difficulties along these lines. And the correct solution of such problems means again the saving in the quantity of fuel purchased each year during the life of the engine.

While compression, ignition and carburetion problems go a long way in determining the real worth of the engine, there are mechanical problems of importance as well. Such, for instance, is the matter of the bearings. Improved and frictionless bearings have a great deal to do with the efficient engine, and while the user may not see the difference in values between two types of engines until he begins to have bearing troubles, when he does have them, he will be powerless usually to provide any real remedy except to purchase another engine of better grade.

Of course, what applies to the engine applies equally to the accessories. No engine can be better than its accessories, and the engine that is fitted with poor lubricators, weak magneto, or useless grease cups, is condemned by the company it keeps. Also, no engine can be economical in fuel unless it is kept in proper adjustment. What has been said about the ignition getting out of time illustrates this. Leaky valves, fouled spark plugs, poor compression from leaks, scored bearings, gummed piston

rings, loosened governor bolts, broken gears, and all such matters tend to neutralize the value of the best engine and utterly ruin a poor one.

If the farmer trade, therefore, has a tendency to ignore the quality of an engine or tractor, there are opportunities for the dealer to do a lot of educational work along these lines. Particularly in the case of the tractor is such educational work timely at this period of its development, because one unsatisfactory tractor or will possibly prevent the purchase of a dozen more in the neighborhood.

The dealer may, at first thought, be inclined to feel that it is no concern of his anyway, because he does not pay the fuel bills. But if he values the most satisfied customers as an asset, he will do anything he can to get them to purchase the most satisfactory machinery. And if he wishes to avoid complaints as well as trouble, he will, for his own protection, handle only the better and more efficient engine, in order that his customers may have less need of his services in repair and adjustment work.—A. A. Andrews, in Farm Implementation News.

#### Overheating

Many motorists storing their cars in an unheated garage draw off the water at night and refill with hot water when getting ready to use the car. If this last operation is not carefully watched, an airlock may form in the cylinders or piping, especially in old cars whose water system contains considerable grease derived from the pump. The car will run for some miles on a cold day before the water gets hot enough to boil and break the airlock and the reduced quantity of water left will boil.



"You wouldn't think it to look at 'im, but when I says 'Ands up,' 'e answers back in pullick English, 'Steady on with yer blinkin' toothpick,' 'e sez, 'and I'll come quiet.'"

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150' 8" 5-Ply

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100 ft., 7 in. x 5-ply, \$40.00	120 ft., 8 in. x 4-ply, \$46.00
100 ft., 8 in. x 4-ply, \$39.50	120 ft., 8 in. x 5-ply, \$54.30
100 ft., 8 in. x 5-ply, \$46.00	150 ft., 8 in. x 5-ply, \$69.00

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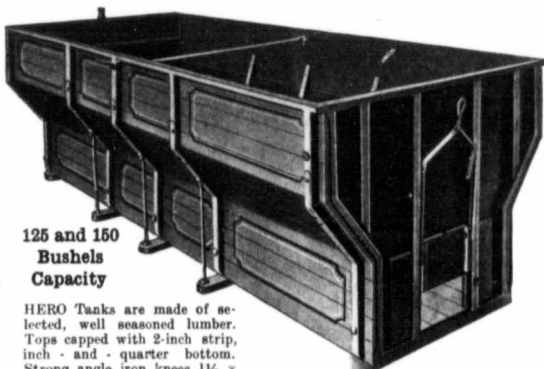


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