

# Laying Up Your Machinery

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**I**N THE fall after the season is over and all equipment brought in and all dirt, dead grass, etc., thoroughly removed, it is a good plan to disassemble each and every unit that needs any repairing and paint all the parts separately, thereby making it easier to get at the inaccessible places. Replace all worn parts, being careful not to place a new part against a badly worn part, such as bearings.

## Grind The Reel Lightly

On the cutting units, grind the reel, but grind lightly and don't make the mistake of cutting too much, being careful to have the reel set properly in the grinding machine. If any unit has seen a season's service it will invariably need a new bed knife steel. Assemble it in the bed knife and face it on the grinding machine which will bring the face perfectly straight. Now, granting that the reel has been ground properly and reel bearings adjusted, the units should cut with very little friction.

## Overhaul- ing The Motors

Your power machines, such as fairway tractor, probably work nine hours a day, five days a week, which means that your motor has run the same as an automobile that has been driven ten thousand miles. Needless to say your motor will need the carbon cleaned and the valves ground. A good policy is to replace the spark plugs, have the bearings taken up and don't make the mistake of tightening the bearings too tight. The connecting rod bearing should be snug enough to hold the connecting rod out at a forty-five degree angle but touching it, it will fall by its own weight.

## Checking Up The Crankshaft

After two seasons you should check up on your crankshaft for being out of round. If it is more than .005 I believe it is a good policy to replace with a new one. Having it reground gives a lot of grief for invariably you will have to replace all bearings, which is quite a task. You also lose the case hardening that it had when new. Care should be taken in setting the crank shaft bearings. If the wear is the same on all bearings they can be taken up without any trouble but if one bearing shows excessive wear, say .020 and the others, say .050 when you tighten the one with .020 wear, you will pull the crankshaft out of line making it warp with every revolution either wearing the other bearings and itself or crystalizing the shaft, causing it to break.

The remedy for that condition would be to remove the shaft, clean all oil from it, blue the shaft and put back in the block. The block being upside down, of course where the bearings show blue, scrape with a bearing scraper until all bearings show the same amount of blue. If you are available to a service station that has an aligning reamer that would be the best way out, but sometimes we don't have those facilities, so we have to rely on the old hand method of scraping.

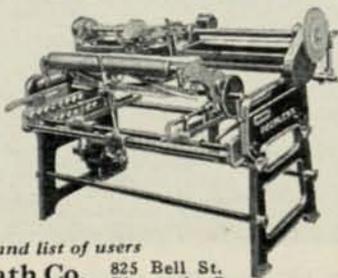
## Replacing The Piston Rings

Piston rings should be checked. Should there be side play in the ring grove to the amount of .003 or over, the ring should be replaced. It is not good policy to replace rings over-size as your cylinder walls do not wear as much as the pistons, for the reason that the pistons in their travel are never free from friction while the cylinder walls are free half of the time. Also the pistons are the conductors of heat, while the walls are water jacketed making their working conditions under less degrees of heat.

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