

# FALL IS THE TIME TO REVIEW OR BEGIN PREVENTATIVE MAINTENANCE PROGRAM

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As the end of the season approaches we begin to plan for winter equipment storage. It is also an excellent time to review your maintenance program and implement a preventative system of equipment and personnel management.

Preventative maintenance becomes more important every year. In today's economy, the only thing that remains within reason, at least from your boss' viewpoint, is your budget after he cuts it. And since funds are tighter, labor more scarce, regulations stiffer, and back-up units a thing of the past, keeping your equipment in excellent working order can only add up to full season productivity, safety and economy when you start up next spring.

Preventive maintenance is simply a program for making routine inspections of equipment to discover and correct minor faults before they develop into major problems. Read that line over again. It really is that simple.

One of the keys to the definition is the word routine, which implies a methodical going-over of the functional areas of the equipment.

If you don't already have one on stream probably the best time to start a preventive maintenance

program is right now, at the close of the season. And one of the steps is putting your equipment in prime condition before storage.

Here is our schedule of routine start-up maintenance:

**Visual Inspection** — The first step to take in readying equipment for storage is to give it a visual inspection before cleaning it. Steam cleaning it, for instance, will remove telltale oil leaks and other signs you'll want to note for attention.

**Steam Cleaning** — Next comes a complete cleaning of all parts. There is nothing quite as fast and thorough as the steam method, though portable high-pressure washers can do an excellent job, too. But you'll want to take care not to focus the pressurized stream toward the air cleaner, oil dip stick opening or any area that may allow moisture to enter the engine or other enclosed systems.

**General Inspection** — With any leaks noted and the machine clean, you're ready for a more detailed inspection. Now you'll be looking for indication of condition, proper assembly, security of connections and excessive wear. By good condition we

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mean components should not be bent or twisted, chafed or burned, broken or cracked, bare or frayed, dented or collapsed, torn or cut, improperly aligned and so forth. Correct assembly means just that: parts in the normal position, properly aligned, and secured. The multitude of fasteners should be examined: cotter pins and locking wires, lock nuts and washers, nuts and bolts, screws, etc. should be well secured and in good condition. Excessive wear is the kind that is likely to result in failure if the item in question is not replaced. Action should be taken as warranted in all these areas.

**Tires** — You'll want to check the pressure for each tire and adjust it to the recommended level for steering and driving wheels. Each tire should be inspected for uneven wear and damage.

**Battery** — This should be removed from the vehicle to a cool (not freezing) area, and kept on a wooden bench or wooden blocks; not a concrete floor. Every 30 days, it should be brought up to par using a trickle charger. When a gravity reading appropriate for your battery is reached, disconnect it till next month. Back at the machine, be sure the cable connectors are clean. Inspect the ground for sufficient metal-to-metal contact for a good current flow. Apply a light coating of petroleum jelly or chassis lubricant to both terminals to prevent corrosion later on. Clean up the hold-down bracket and its rods while you're at it. This is an excellent time to take care of little details like this that might be overlooked in the haste to get moving come spring.

**Sparkplugs** — Remove and inspect the electrodes for carbon or burnt condition. If they are reusable, clean them with a wire brush and regap each plug according to specifications for your engine. If they can't be used, buy an identical set, gapping them as specified. While the plugs are out, add a small quantity of oil to the upper cylinders. A tablespoon of 10 to 20 weight per cylinder is right. Reinstall plugs and tighten to correct torque.

**Air Cleaner** — An engine starved for air uses more fuel and will not deliver the performance expected. Inspecting the filter takes only a moment and even less time to time to replace — with the type approved by the manufacturer.

**Oil** — If the season's service schedule indicates a change is about due, drain the crank case and refill with fresh oil of the weight and performance recommended by the machine's manufacturer. Change the filter too, if so equipped. Follow the same procedure for your transmission and hydraulic system tank, if your machine is equipped with the latter. Pay special attention to the hydraulic oil you use as the improper kind can damage seals and cause other operational problems when you don't need them.

If your machine utilizes hydraulic cylinders, be sure that you protect the portion of the rod that is exposed. Some units can be stored with the rods retracted; others must be stored with the rods exposed. If you must store yours with the rods exposed be sure to coat the rods with a protective coat of grease. Failure to do this can result in rusted and pitted rods with subsequent seal failure.

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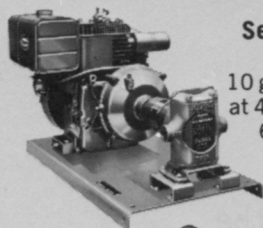
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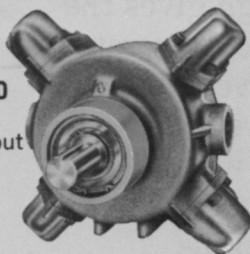
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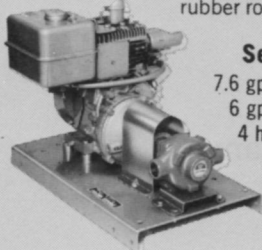
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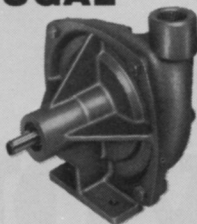
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**Fuel** — If the fuel tank is partially full, add a gas stabilizer during storage. When it comes time to start the season, you may want to add a solvent that will help dissolve gum that might have formed in the gas lines and carburetor. If your fuel line has a filter, give it an inspection too, removing any sediment that may be in the bowl.

**Belts & Chains** — Examine belts for wear and replace them as necessary. Adjust the new or the acceptable old to the proper tension. Chains should be removed and cleaned in kerosene, then dried and coated with the recommended lubricant before replacement. Adjust these to the proper tension level, too.

**Lubrication** — Following our assumption that your machine was not serviced prior to storage, now would be an ideal time to turn to the lubrication chart in your owner's manual and lubricate the entire unit. If different lubricants are specified, by all means use them. Each has been carefully predetermined for a very specific performance. Not following the charts could lead to premature failure of important components.

**Cutter Maintenance** — Now we come to the working end of the machine, the rotary blades or reel blades and bedknives that cut those many acres of turf or fine grass. Inspect the mowing blades (and bedknives) for nicks, gouges, or signs of damage or uneven wear. Grind and lap the reel type mower, following instructions given its maintenance manual, and sharpen the rotary blades. Adjust reel units to zero contact and zero clearance without drag or resistance to rotation. The bedknife should be set close enough to the reel blades so that a strip of newspaper placed along the mowing surface can be cleanly cut without metal-to-metal contact. Give surfaces a thin coat of a light-weight lubricant to avoid rust.

**Brakes** — The attention you give the brakes depends upon the age of the machine. But we would recommend removing the drums, dressing them down as needed, and inspecting the shoes. It's better to replace those shoes now if you don't think they'll make it through the coming season. Time is a whole lot less expensive now than later on.

**Touch Up** — Now that the machine has been completely cleaned and serviced, attention can be turned to touching-up painted areas and applying a preservative to bare surfaces. For the painted areas, you'll want to remove as much as possible the rust that may have formed before brushing on a coat of rust-inhibiting paint. For the unpainted surfaces a coat of rust preventive oil (except pulley groves) can be applied.

**Preventive Maintenance** — As we said, the whole idea of preventive maintenance is to save money, minimize downtime, add safety and extend the operational life of a piece of equipment.

Fortunately preventive maintenance doesn't cost money. Your present facilities are probably adequate, no matter how modest. Preventive maintenance is basically free because most of all, it takes only you to put into practice the knowledge you already have — and a little help from a maintenance schedule such as the one we have provided.

**WTT**