

## Seeders

For sowing broad acres of turf, there are machines which are of value but should still be used in conjunction with manual seeding.

## Hydraulic Pruners

Chainsaws and secateurs on extension arms are a good aid to pruning branches out of reach without having to climb the tree.

Drawback include difficulty in painting the cuts. From this point of view, avoid using on trees more susceptible to rotting (e.g. birch, poplar). Of most value in a situation where an extensive quantity of pollarding is being carried out.

## Spray Units

Small, manual, self-contained motorised wheelbarrow units (10-12 gallons), large trailer- or tractor-mounted units with self-contained pumps or running off tractor. Lance attachments or boom (for turf). Spray units, irrespective of model or make, rarely have any great problems.

## Irrigation

**Automatic and manual systems** – There are experienced people who swear by each and are avid opponents of the other. Both have good and bad points. There is a lot less that can go wrong with manual systems, but automatic systems will save a lot more time and money in the long run. The important thing with automatic systems is to not go for cheap alternatives. The cheapest sprinklers are the ones that keep getting blocked, suffer wearing parts, etc.

## POWER TOOLS

### ENGINE TROUBLESHOOTING

(A guide to working out problems with your petrol engine)

Problem	Possible Causes	What to do
Engine doesn't start	No fuel in tank  Fuel line tap turned off.  Clogged fuel line  Carburettor floods  Dirty Spark Plugs  Wide spark plug gap.	Dip a very clean stick into the tank, if empty fill up.  Check and open if need be.  Disconnect & wash clean with petrol.  Leave for 5 minutes then try  Remove and clean  Remove plug & squeeze points together.
Exhaust smoky	Wrong type of fuel  Worn engine parts  Timing wrong	Get new fuel from a reputable mower shop.  Needs workshop repairs  Needs workshop service
Engine runs roughly	Water in fuel  Dirty Spark Plugs  Carburettor badly adjusted  Ignition wire near to broken	Drain fuel, wash fuel tank and lines and refill.  Remove & clean off carbon  Needs workshop service  Check wire to spark plugs repair if necessary

## **DIRTY SPARK PLUGS**

Soot (i.e. carbon) can build up on spark plugs over time. Eventually this will make the engine difficult to start. Dirty spark plugs are perhaps the most common reason for a two-stroke engine (found on most mowers) not starting.

This problem is easily remedied by removing the plugs (with a socket spanner) and cleaning off the soot using a sharp pin and a piece of fine sandpaper.

## **TOOL MAINTENANCE**

The first thing you need to do when undertaking maintenance of your tools is to read any maintenance instructions or manuals supplied with those tools. There may be a regular servicing or maintenance procedure required. When instructions are not supplied, then a number of simple maintenance tasks will generally help prolong the life of many power tools. These include:

1. Make sure all parts of the tool are free of foreign matter or obstructions that may impede the efficient, safe use of that tool.
2. Make sure that worn or damaged parts are replaced promptly.
3. Make sure that all moving parts are well lubricated.
4. Protect (e.g. paint or wipe with an oily rag) any parts that are likely to rust or become corroded.
5. Keep battery terminals free of corrosion, and battery levels topped up. All connections should be kept tight.
6. Make sure any oils are kept topped up, and drained and replaced at regular intervals.
7. Keep air cleaners clean and unblocked.
8. Keep any cutting edges properly sharpened.
9. Periodically check for and tighten any loose nuts, bolts, screws etc.

## BRUSHCUTTERS

Brushcutters can cut in two different ways:

### a. Nylon cord cutters (e.g. Strimmers)

- A spinning nylon cord (up to 30cm long)
- These are generally smaller, more lightweight and used for trimming around the edge of lawns, the base of buildings or trees, or cutting grass on slopes or other inaccessible places.
- These are relatively cheap machines. The nylon cord is cheap and easy to replace when damaged.
- May be powered by an electric motor or petrol engine.

### b. Blade cutters

- A spinning disc with blades made from plastic or metal.
- These are more heavy-duty machines able to cut long grass, blackberries, or (in the case of the more powerful machines) more substantial brush.
- The machines and blades are more expensive than the nylon cord brushcutters. The blades need to be kept sharp.
- Powered by petrol motors.

## MOWERS

There are two main types of mowers:

- a. **Cylinder** – These cut the grass by a shearing or scissor action. The blade hits the grass at an sharp angle (e.g. 45 degrees). This causes a clean cut, with minimal bruising or tearing. Blades are damaged by rough surfaces and by stones, sticks etc. Cylinder mowers are generally safer to use than rotary mowers.

- b. **Rotary** – These cut by an impact action, hitting the grass at a 90-degree angle. This causes bruising, tearing and a less even cut than a cylinder mower. Rotary mowers will handle rough surfaces better than cylinder types. Rotary mowers are less expensive and easier to maintain than cylinder mowers.

Mowers can be powered either by hand, 2 stroke motor, 4 stroke motor or electric engine.

Manual (Push) Mowers – **Push type cylinder mowers are inexpensive (less than £100), give a good cut, but are no good in long grass or on rough surfaces.**

**2-Stroke Petrol Mowers** – Normally rotary, engines are easier to maintain than 4-stroke engines, and cheaper to buy than 4-stroke engines.

**4-Stroke Petrol Mowers** – **These can be rotary or cylinder mowers. These are normally more expensive than 2-strokes but generally longer-lasting mowers.**

**Electric Mowers** – These are less expensive than petrol mowers, because an electric motor is cheaper, but they don't last as long. Power cord trailing behind can be dangerous if you are not careful.

**Hover Mowers** – **These are wheel-less mowers that float like a hovercraft on a cushion of air created by movement of the rotary cutting blade. They can be powered by either a petrol or electric motor. Hover mowers won't cut long grass or slightly damp grass very well at all, but are very good on steep slopes and on rough ground (if grass isn't too long).**

Hover mowers generally cut faster than cylinder or rotary mowers, as long as the grass is not too long.

**Ride-On Mowers** – **There are many different types of ride on mowers on the market. Some are notorious for breaking down. Generally you get what you pay for. The cheaper machines may not last a lot of years. You are strongly advised to shop around and talk to people who have used ride-ons before. Talk to several different mower repair shops. You might also get some useful advice from your local parks department. Ride-ons are not very manoeuvrable in tight corners (e.g.: around trees) and can cause compaction on heavy wet soils. You will almost certainly need a hand mower or brushcutter to cut inaccessible places. The ride-ons, however, are fast and will save a great deal of time and effort on larger properties.**