trimmer, brushcutter and clearing saws are amongst the most useful power tools available to the greenkeeper for keeping things tidy. Fitted with a suitable head they can trim grass from the edges of bunkers, tees or greens, mow banks, clear around trees and shrubs or cut scrub and small trees. Call them what you will, and there are subtle differences between these names which depend on their designed use, there cannot be a golf course without at least one. The cutting head or blade, which mainly defines use and name, are in large measure interchangeable, thus the most important difference between grasstrimmer, brushcutter or clearing saw will be in power unit output or capacity, the larger more powerful motors generally being found on machines for clearing or thinning. Apart from price the main drawback from buying a larger machine than is necessary is weight - if you work for any length of time this will become apparent as the day wears on - a well balanced machine and good properly adjusted harness will alleviate a lot of fatigue.

The normal brushcutter consists of a two stroke engine driving the cutter through a long shaft and bevel gear but there are alternatives which may be worth looking at for specific situations, especially if you have a large volume of such work. There is a remarkable degree of interchangeability in brushcutters with many UK distributors using similar or even identical power units, drives or heads, nor should there be any reason other than cost and availability for not selecting whatever harness you prefer.

Knapsack brushcutters, while more expensive, offer greater versatility with an ability to cut high and a wider range of attachments available, such as hedgetrimmer, cultivator and hover mower. Several designs of edge trimmers are on the market and these may (but only may) be easier to use around bunkers. Large wheeled self-propelled rotary mowers should tackle larger clearing tasks faster and perhaps more easily. Chainsaws are often used at greater danger for scrub clearance. Little less dangerous is the use of hover mowers on ropes to cut steep banks. Hydraulic or electric trimmers are options which are severely limited by their leads.

Engine sizes on brushcutters range from about 20cc to 50cc, however cubic capacity only tells part of the story, as power output is also determined by other factors such as combustion efficiency and speed. Engines in the



The Nikkon knapsack mower/ brushcutter by Dixon & Holliday

Strimmers and brushcutters, by HUGH TILLEY

25cc to 35cc range will probably be the most suitable for most trimming on most golf courses.

The use of knapsack machines on golf courses has been growing rapidly in recent years – and there are now several suppliers of these. One of the reasons attributed to this is the fact that the engine air intake on a knapsack machine is up and well shielded from the blade, thus significantly protecting it from flying sand when trimming bunkers – sand being a very effective abrasive when ingested by an

engine. Another important reason is that by carrying most of the weight of the machine on the back the user has better balance and can operate the cutter head more freely and effectively, nor is he as restricted over cutting angles or positions. This allows safer and less restricted use on banks and around bunkers.

Selection of trimmer heads or blades is one of the most critical factors in effective operation in any situation. Monofilament line has been hailed as akin to sliced bread – the greatest of inventions, and it has the outstanding advantage of intrinsic safety of operation, nevertheless it will skin bark from trees or shrubs, nor is it pleasant to feet if they are not protected by substantial boots. Professional trimmer heads have two or four lines usually of 2.4mm diameter, but there is dissension over the best method of extending this line. The most usual semi-automatic method is 'tap and go' - the operator bangs the head down on the ground to release more string, however this does not work well if the line is worn or used too short - and many people like to use a short string for working around shrubs and in intricate areas. Screw or push button release mechanisms offer simplicity with reliability. Where grass cutting is the main requirement and there are a few solid obstructions a nylon bladed head will give great cutting power, while for long and heavy grass a single flat or three tooth steel blade will prove to be most effective. Obviously with these blades there is minimal protection against cutting trees, shrubs or fences etc., however stone, metal and other materials will damage the blade, even to the extent of breaking it.

Where the main target is scrub the ideal blades have three, four or up to about twenty teeth, the thicker or heavier the growth the more teeth needed. These slasher blades, often with back curving teeth can also be used for hedge trimming and most can be resharpened by hand with a file. Minimum maintenance is available - at greater cost - from tungtipped blades. exceptionally overgrown hedges, for pruning, thinning and similar operations when thick woody growth has to be cut saw tooth blades are available which will cut timber up to 6" thick. Hardwoods require blades with greater numbers of teeth than softwood. Circular chainsaw blades are a fast and effective option for thinning and pruning in plantations, as they are sharpened on-site with a chainsaw file.

Control of the tool is a vital factor in use, and while precise control may not be critical for grass trimming, it is for hedge trimming or pruning. At the 'home owner end of the market handle arrangements are fairly rudimentary, a grip on or around the motor with throttle and an adjustable stirrup or 'C' handle on the shaft. For the professional the more usual arrangements are handlebars or a 'bullhorn' with the cable con-



trolled throttle on one or other end Most will have a 'harness' designed to carry the weight of the machine and provide a pivot point around which it is swung, the design of this is critical to prolonged effective use especially when trimming heavy grass. All elements in this harness, handle and operator relationship must be adjustable to cater for all individuals. Because adjustment is so important especially when trimming/mowing grass it may be advisable to have separate harnesses for every operator who regularly uses the machine. Most machines are intended for the right handed, however they should be adjustable for the left

hander, but beware of the exhaust which may not be.

Various options may be available to make operations easier or safer. A cup or dish under a grass blade to keep the head at a constant height off the ground can be useful, if may be an integral part of the design while various guards are available to protect the operator or plants and define the cutting circle. Not directly connected to the trimmer but nevertheless extremely useful is a non-spill fuel can. These are normally sold for chainsaw use with a second compartment for the chain oil, nevertheless they are invaluable to the greenkeeper and make filling a doddle.

Protective clothing should be thought of as integral to brushcutter or trimmer operation, and while it is not such a head to toe concept as with chainsaws both heads and toes do need protection. Steel capped boots are strongly recommended especially with slasher or saw type blades, shoes leave ankles vulnerable, but waxed cloth leggings should be sufficient protection for legs and keep mulched rubbish and water off clothing and out of your boots. Head protection must include eye and ear protection, and it is convenient to mount these on the hard hat which is essential if you are pruning or thinning trees. Goggles are often advised, however a mesh visor, if a few pounds more expensive, won't steam up, furthermore it protects the entire

The other vital dimension in brushcutters is dealer support, and while the reliability of most machines is good, most greenkeepers require spares from time to time as well as someone who can clean or readjust the power unit as necessary. Buying cheap may not buy you this essential support, and a machine which is not working or not working properly is a pain which far outweighs savings made by going for a purchase of least cost.

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