

The 9th green at St Annes Old Links. Below: the 12th green

CAUGHT IN THE SAND

Hugh Tilley explores bunker maintenance

Perhaps to the golfer bunkers or sand traps are the holes you love to hate, but for the greenkeeper they are expanses of sand which require attention and maintenance – exactly how much attention depends upon the standard set for the course. Perversely if standards are high then members will use the rake provided, but where the surroundings are scruffy there is little incentive other than to get out.

Some of this maintenance work can be mechanised or at least be aided by power tools such as a brushcutter, nevertheless there is inevitably some handwork which is often easier and quicker, and almost certainly cheaper than with machinery. Maintenance of bunkers arguably starts with (daily?) raking and extends through (weekly?) edge trimming to more radical occasional tasks such as adding or redistributing sand, decompacting or draining.

There is no real substitute for the hand bunker rake and although all the main manu-



facturers sell motor rakes these, manoeuvrable as they are, still leave handwork to be done in the places that the machine cannot reach. Of course on many courses it will be possible, perhaps even desirable, to remodel bunkers so that they allow the motor rake to

be used to maximum effect – and some courses have such large expanses of sand that the job has to be mechanised. If switching is the morning priority rather than raking sand then perhaps a run around with a motor rake as second priority makes best use of time –

BUNKERS

rather than taking a TMV (i.e. Cushman, Huxtrik or Workman) around as it does allow a quick rake around of much of the sand, unfortunately some motor rakes are slow in comparison to a TMV or ATV. Of course the motorised machine has the advantage when the sand needs moving around or greater penetration is called for.

Trimming round the edge of bunker is probably more of a problem for most greenkeepers and if there is an ideal machine which works for every situation it has yet to be publicised. Most courses seem to prefer to use a brushcutter, well 'prefer' might be the wrong word as it may be truer to say that they have found nothing better or more cost effective and accept its shortcomings. There are a number of powered edgers but most are designed for the grass edges in parks and around flower and shrub borders. Most are made to run around the level top edge of the turf or even on a kerb, and not all bunkers have flat level edges (and none have kerbs!), nor are these edges smooth which can be a problem. Many of these edgers use a flat vertically rotating blade, which on some models can be turned to cut non vertical edges and perhaps this is essential for the less geometrical designs of golf courses. Both two and four stroke engines are to be found powering these implements and if there is any preference perhaps it should be to the four stroke because of the very real danger of inadvertently running two stroke engines on pure petrol. Sand is a classic abrasive thus not only will blades wear rapidly, but if the engine air intake filter is not extremely effective, sand dust generated by working will get in and considerably reduce its life. If the operator feels that he needs a mask then he should ask



Terry Holmes,
head greenkeeper
at Lee Park Golf
Club, Merseyside,
with a Dixon &
Holliday Hover Hood

in this way may raise questions about safety. These constraints do not apply to knapsack brushcutters as the flexible shaft allows the head to cut high or low without effecting the balance of the machine or operator, thus provide him with greater flexibility to cut where he wants. The same head and blade options are available as for conventional brushcutters, however there are less dealers or distributors supporting these machines, possibly because of their greater cost and they are seen as being a more specialist tool.

Maybe not part of bunker itself but equally pertinent to it are any surrounding grass banks and if these are more than a 10% slope they should be outside the ability of the normal mower. Some areas may be accessible by some of the wider fairway mowers reaching out with a wing, or if there is a lot of steep work it may be possible to justify one of the pedestrian mowers with wide track and individual wheel drives – and of course a suitable cylinder, flail or rotary head. Perhaps the most common solution on most courses where the banks are not too extensive is to use a hover mower, and if the slope is steep and more than a few yards long to attach it to a rope, this is another practice which gives rise to concern over safety, but why no manufacturer has made a remote stop option baffles me – it should be easy. Another option is to use a brushcutter or knapsack brushcutter and although many greenkeepers may find the difficulty of getting a neat even finish excludes this as an option it may be worth experimenting with differing heads and skids. Alternatively one importer of knapsack brushcutters manufacturers his own hover hood to fit his machines and although this does not have the same working width as a normal hover mower it does keep the operator in full control – and it gives an equally fine finish.

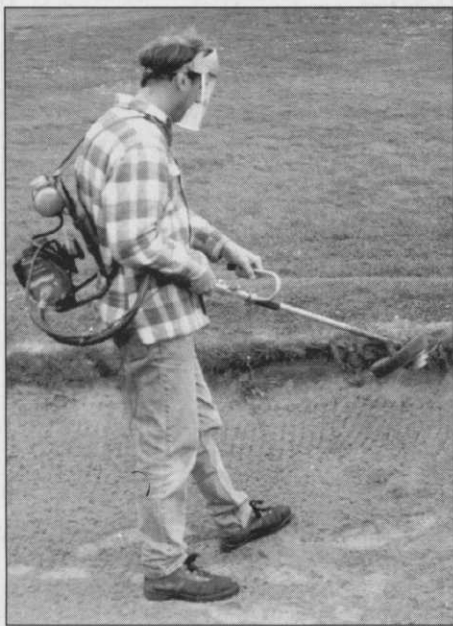
Tees and greens get drained, bunkers seldom do, perhaps because it is anticipated that sand will always drain naturally, however as every greenkeeper on heavy land knows any depression in the ground will collect and retain water unless there is a permeable layer or drains underneath the sand. Bunkers may not be heavily trafficked however breaking up the subsoil may be required to allow water to soak away. Several small deep aerators are available which allow the greenkeeper to shatter the ground from about two foot up, equally it is possible to use earth augers or drills – although this will not be as effective as a shattering blast of compressed air. Other more radical and more permanent possibilities include putting in drains, either with pipes or gravel bands, however the problem is often one of level – water won't run up hill – it has to be pumped, and I have yet to hear of anyone installing a wind pump to drain a bunker, although no doubt such would be a very 'interesting' feature – and a hazard in its own right.

questions about the engine. For this reason a number of clubs use knapsack brushcutters which puts the air intake up and away from most of the flying dirt. Sharpening a flat blade should be simple, just put it in a vice and take a good sharp file to it.

Last year saw an edger introduced with a monofilament line head, and this looks as if it may be a safer and better option. As it is very light, manoeuvring it around the edges should be simple although the wheels are small. Several other edge trimmers use slow rotating or semi-rotating blades arranged to provide a shearing action, and while this provides a machine which does not stir up the dust, the first question must be on the life of blades when used in highly abrasive situations.

The conventional brushcutter has the option to fit a range of heads and blades such as monofilament line or nylon, flat or multi tooth blades, and while certain operators seem to have specific preferences, the main differences seem to be their perception of safety. All need to be used with some protective clothing, to feet and eyes in particular, but ears and shins shouldn't be forgotten. If your normal supplier cannot offer suitable protective clothing and a full range of head/blade options perhaps you should look for one who does offer a complete service for the machine, – some dealers see small power tools as a diversion from their main task of selling mowers or tractors. There are also a few brushcutters which use a scissors action head.

The biggest practical problem with a brushcutter is that it is not designed for cutting in the places and at the angles where greens meet sand. It may not be possible to cut these edges with the machine slung on its harness with the operator's hands on the handles in the normal way, although most machines allow the positions of handles and hook to be adjusted. Using these implements



Chris King, first assistant at Shirehampton Golf Club, with a Nikken knapsack brushcutter