hat is independent financial advice and does anyone need it? If they do, how do they go about finding it and ensuring its quality?

The concept of independent financial advice was established by the 1986 Financial Services Act (FSA), the cornerstone on which investment regulation and investor protection in the UK is now based. The FSA was enacted following a series of financial scandals which highlighted the fact that regulation in the investment markets was not all that it should have been.

One of its main provisions was to 'polarise' the financial services market between 'tied' and 'independent' advisers. Tied agents can only recommend the products provided by the company they are connected with; whereas independent advisers are able – indeed they have an obligation under the law – to provide objective advice upon the whole range of products available.

This distinction is very important. Anyone buying an insurance policy for example, will have well over 100 companies to choose from, each offering a wide range of contracts.There may not seem to be very much to choose between the various offices policies, but insurance policies are normally long term contracts, and, as countless surveys have shown, the difference which results from choosing a contract from a poorly performing life company compared with one from a top performing office can amount to tens of thousands of pounds.

Expert help is essential, both in assessing the precise needs of the individual and then having sufficient in-depth knowledge of the marketplace to be able to select the most suitable product available. This is where the independent financial adviser (IFA) comes in. He is not employed by a company selling financial products so he has no conflict of interest. The IFA's role is to survey the whole market, selecting the best product and company for each client's particular needs.

It is now illegal to advise on investments without being properly authorised. Scrupulous checks are made to ensure that every IFA is a 'fit and proper person' to carry out this role. IFA's such as accountants and solicitors can obtain authorisation through their own professional bodies, but the majority of IFA's will be members of FIMBRA (the Financial Intermediaries and Brokers Regulatory Association).

Financial advice for greenkeepers

There are different categories of authorisation and not all IFA's are able to advise in all areas, so it is essential to ensure that your particular IFA is fully authorised to conduct the type of business that you are interested in. Extra safeguards have been built into the system to protect the public. All clients of IFA's are now covered by compensation schemes run by the regulatory bodies. Additionally, IFA's are required by law to carry Professional Indemnity Insurance giving extra protection to both the company and to the client.

To do their job properly an IFA will want full details of a client's individual situation. They are required to conduct a complete 'fact find' asking questions about age, family circumstances, health, tax status and existing savings, investments and pension arrangements.

The IFA will need to know about your particular requirements. Are you happy for your money to be tied up for a number of years earning higher interest, or will you need ready access? What is your attitude to risk? Do you plan to retire early? If your adviser does not request this sort of information, then you should be concerned. If there is something you do not understand, ask questions. If you still do not understand, back away. Take as much time as you want to think things over. You should never be pressurised into taking on a commitment that you are not 100% happy with or fully understand.

The relationship with an IFA is potentially a long term one. The individual must therefore, be totally happy with the adviser ultimately selected. Trust is an essential ingredient. We suggest five questions you should ask yourself before choosing an IFA.

• First, is the adviser technically competent and able to demonstrate experience in his field. If he is a specialist in a particular area, make sure his specialisation fits your requirements?

• Second, do you think your adviser is enthusiastic and you feel you are able to get on with?

• Third, are you sure you feel comfortable with him, as it is in your interests to build a rapport with your adviser?

• Fourth, will you have continuity of contact with the same person and ask what back-up services he provides?

• Finally, the adviser will take his remuneration by either commission or by a fee. This should be disclosed at the outset. Do you understand the basis of your adviser's remuneration as this will avoid any misunderstandings arising later on?

Much has been made of the commission versus fees argument, but as long as the question is discussed openly, the client should be able to find an IFA operating a remuneration system that is suitable for you. The real issues for the client are an understanding of the product purchased, the status of the adviser and having the confidence to deal with that adviser.

Today's advisers are regulated, and their clients protected, to a greater degree than at any time in the past. While better trained and more qualified than ever before, new training and competence procedures being brought in will ensure that tomorrow's advisers will be raised to an even higher professional level.

The field of personal finance is complex. Decisions made today could well determine the future financial prosperity and security of both yourself and that of your dependants. Remember, it pays to take an independent view!

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AD REF





member

Consider for a minute how much we have all come to rely on the internal combustion engine in our work and personal lives. Not until something goes wrong do we realise just how difficult it would be without it.

Over the last three decades virtually every operation carried out in golf course maintenance has been mechanised. An engine's function is often taken for granted – turn a key or pull a rope and it starts. That is until the day when nothing happens and the odds are this will occur when that particular piece of equipment is most needed. The petrol or diesel engine has become of paramount importance in enabling course managers and greenkeepers to fulfil their duties to the satisfaction of the golfing fraternities.

In this article we are looking at a number of aspects relating to the engine. These include engine emissions and the environment, replacing the power unit as an alternative to buying a complete new machine, plus tips on how to care for this important part of your equipment.

A cleaner environment

Engine technology has increased in leaps and bounds over the last decade, largely due to outside influences. Governments throughout the world have been pressurised into doing something about the way they protect the planet. As a result the pollution created from burning fossil fuels is very much under the

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FOR PATHS AND DRIVEWAR

POWERFUL or POWERLESS? PETER OAKFORD looks at engines

spotlight. Proposed legislation on this issue is being continually introduced. Engine manufacturers recognising this and their responsibilities have assigned vast amounts of money to research and development to produce cleaner and more economical power units.

Here in the United Kingdom every car owner knows unleaded petrol is cheaper. This is because of a government initiative to encourage us to use it instead of leaded fuel. As part of the policy for cleaner air the MOT now entails stricter tests on exhaust emissions. these are only the tip of the iceberg. Research carried out by the California Air Resources Board (CARB) in America has given engine manufacturers their biggest challenge to date. Stringent controls on the emissions from industrial engines fitted to all types of amenity equipment are on the way. To understand what is involved it is necessary to look at the cause. Tests in the States revealed that pollutants from these units were pumping into the atmosphere at far higher levels than originally thought and action was needed to reduce it.

There are three main culprits produced by the combustion process that are harmful to health, carbon monoxide, hydrocarbons and nitric oxide.

Carbon Monoxide

This is generally considered to be the greatest health hazard. It is produced as a result of incomplete fuel combustion due to a lack of oxygen. The critical factor in avoiding production of carbon monoxide is the fuel and air mixture. A rich mixture produces this gas whilst a lean one keeps the level down. Badly adjusted or worn carburettors are the main cause.

Hydrocarbons

These are also formed by incomplete fuel combustion. In this case if the fuel mixture is too lean the engine runs erratically and emissions of hydrocarbons increases. Another source of hydrocarbon pollution that is often not taken into account is fuel evaporation from containers or spillage.

Nitric Oxide

This is produced as a result of oxygen and nitrogen combining at high temperatures. It is very dependent on the fuel and air ratio. The temperature of an engine can be lowered by retarding the ignition timing and re-circulating the exhaust gases. This will then reduce the formation of nitric oxide. Unfortunately this action also tends to reduce the power output.

Catalytic converters

These are increasingly being included in car exhaust systems, but they are still expensive to produce. The breakdown process entails oxidising the hydrocarbons and carbon monoxide at high temperatures. On small engines there is no oxygen in the exhaust system for the action to take place, this has to be introduced into the converter. Another problem at present is the amount of heat created. It is far greater than that produced from a standard exhaust

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'Fitting a diesel engine will, in the long term, represent a considerable reduction in fuel bills'

system and represents a potential safety hazard. However the experts are working on it and the signs are that a breakthrough is not too far away.

The above indicates the importance of maintaining an engine correctly, especially in relation to the fuel and carburettor adjustments. Vast amounts of money have been used throughout the world to find solutions to these problems. The result of all this research is the introduction of engines that conserve fuel and oil, run quieter and issue less pollution. In addition, a better power to weight ratio is commonplace and modern electronics ensure they start easier. Present manufacturing processes, plus use of the latest materials have contributed to a reduction in maintenance requirements. In a nut shell, today's engine is a vast improvement on its predecessor of ten years ago

All this would be fine except that the workload placed on equipment has also changed. Workforces have been reduced to a minimum, tight budgets restrict the purchase of new machinery, so the life of existing equipment has to be extended. In addition, it is now working for longer periods. In some instances it is not until it finally gives up the ghost that any decision is made on what to do with it. In these situations economical ways of keeping equipment going have to be sought.

Replacement engines

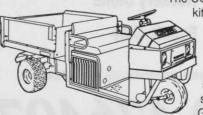
There comes a time when even the most cared for engine shows signs of wear and a decision has to be made whether to repair, replace or trade-in the complete machine for a new one. If repairing the old power unit looks like being extensive and expensive then replacing the engine may be a solution. Another possible reason for this course of action is the savings in fuel. The modern petrol power unit is less thirsty and more economical to run than its predecessor. Alternatively, fitting a diesel engine will, in the long term, represent a considerable reduction in the fuel bills.

Before deciding to replace the existing power source there are several points that require consideration. Carry out a full assessment of the condition of the whole machine. Has it been maintained on a regular basis? Have any major parts or components been replaced in the last year?

In the case of mowers, what is the present state of the cylinders and

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J.H. Hancox Limited, Alcester Road, Portway, BIRMINGHAM, B48 7JA, West Midlands. Tel: 0564 824343, Fax: 0564 824073 bedknives? Have they been ground regularly, if so, how much life is left in them? Will all the components such as transmissions and drives withstand the increase in power a new engine produces? Components could have been under pressure and stress if the engine has not be operating effectively. These too may need replacing. Is the mounting frame sound, not rust eaten? This point is also particularly important if a heavier power unit is being considered as the replacement.

It is strongly recommended that this full assessment is carried out thoroughly either by your own workshops or a recognised service specialist, otherwise you may find within a short period of time other parts of the machine start breaking down.

Once all these aspects have been taken into account and fitting a new power unit is a viable proposition, a choice of which one has to be decided. Now is the time to seek help from the spare parts manager at your local specialist dealer. He will be able to supply prices and specifications and tell you whether an engine replacement kit is required.

Competition between engine manufacturers is keen, so it could be an advantage to consult more than one supplier. It is also worth having a chat with the service manager, especially when a different power unit to the original one is being considered. It is common for the manufacturers of the original equipment to approve replacement engines that can be fitted satisfactorily to their machines. If there is any doubt a telephone call to their service department can put ones mind at rest.

Where the existing engine is being replaced with the latest model it is generally just a case of removing the old unit and dropping the new one in place. Sometimes the dimensions may be slightly different to the older version so minor adjustments are necessary. If a complete change of engine is being carried out modification to mountings and change of pulleys could be required. These are supplied in a kit with the new replacement unit. In a majority of cases the changeover can be carried out by your own workshops. For those without this facility an authorised engine supplier will be only too happy to carry out the work.

Engine care

An engine requires three things to run efficiently; lubrication, air and fuel.

Oil

This forms the protective film between all internal metal surfaces and dissipates the heat that is built up from friction created by the moving parts. Over a relatively short period of time oil will become contaminated and its lubricating properties diminished. As a result the engine begins to overheat. If oil levels are allowed to drop, the temperature rises. If nothing is done about this the engine eventually seizes-up which can be an expensive lesson to learn. Dipsticks require inspecting at least once a day. The manufacturer's recommendation regarding oil changes should be followed and a top quality lubricant used.

Air

Air is critical to the efficient running of the engine and it must be clean. This is achieved through an air filtration system. These are generally found in the form of a foam pad, impregnated with oil. Periodic cleaning, especially in dry dusty conditions, is a requirement. If they become blocked through neglect then the engine runs erratically and starting becomes difficult. Dirt is drawn into the engine causing damage to internal components.

Air has another function, that of maintaining the correct engine temperature. This is achieved by a flow of air over cooling fins. If these become blocked with dirt and dried grass the flow is obstructed and the engine gets hot. In extreme cases it will catch fire. By keeping cooling fins clean and free of grass clippings, especially under cowlings, this will eliminate the problem.

Fuel

Clean fuel is important. How many readers actually use a filter funnel when filling a tank? Fuel should be stored in the correct type of labelled container and in a cool place with good ventilation. Any spillage's must be dealt with immediately not just from the safety aspect, but to avoid hydrocarbon pollution of the environment.

A weekly programme of maintenance requirements based on the manufacturers' recommendations is essential for equipment that is being worked for long periods of time.

Engine design has come a long way since they were first fitted to grass cutting machinery at the turn of the century. By the beginning of the next millennium they will be even quieter, lighter and more fuel efficient. It is very likely a computer will ensure optimum performance and diagnose any faults that occur. Technology does not stand still, so tomorrow's equipment will be better and more efficient than today's. It may not be possible for you to buy new machinery, but by fitting an upto-date replacement engine you are going a long way to keeping your equipment operating at its peak performance.

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YOU SAY

We deserve a fair wage

As a qualified greenkeeper and a BIGGA member I feel I must express my concern over the wage scales that a lot of golf clubs are applying in Scotland.

The fact that many clubs won't even look at the BIGGA recommendations, let alone consider them, sums up the situation perfectly.

Throughout my nine years as a greenkeeper I have yet to be given a straight answer to the question, why?

Surely in this day and age when the role of the greenkeeper has come a long way from the 'old farm worker' or the 'glorified grass cutter', golf clubs could listen and appreciate how much more complicated the job has become.

I feel that communications between the club house and the greenkeepers' shed could be greatly improved by not only involving the 'committees' but also the ordinary members. This can easily be achieved by holding regular open nights where the members would be invited to put any questions to the greenstaff regarding the course. This would not only improve relationships, the image of the greenkeeper, but also supply the answers that golfers frequently require after many a good or bad round.

Only when more people are aware of the job of the greenkeeper will they realise that we do deserve a fair wage and that we could possibly catch up with other skilled tradesmen.

Name witheld

It's all about teamwork

To the Executive Director

Further to the topic of your welcome article on communication, I'd like to contribute a viewpoint, extend the debate a little further, and possibly assist those seeking improved communication channels. The ability to project a professional image, in our industry as in any other, relies heavily upon effective communication.

As you rightly observe "communication, to a greater or lesser degree is a problem in all large organisations" (and, sadly in a great many small ones). But the criticism "poor communication" is in itself a negative critique, and all too easily aimed.

So, how effective are we all at our respective methods of communication? This is addressed not only to fellow Head Greenkeepers/Course Managers, but also to Golf Club Managers, Secretaries and committees.

The stress occasioned by "poor communication" is largely brought about by ambiguity – direction is unclear, the message or information to be conveyed is unclear, and often the messenger is even more unclear.

I doubt I'm alone in believing that the most effective communication method is still the spoken word followed by a written factual account of discussion and events. Yes, the perennial, much maligned and misunderstood

A FROSTY DAY AT ST ANDREWS

When winter comes and frosts appear the grass turns white and the air is clear, Greenkeepers arrive at their work each day, Then decide – early – if golfers can play.

Damage to greens is caused by walking and not by playing (if you hear them talking) The leaves are broken all over the place and the roots can't cope in keeping pace.

So, when spring comes and the greens should be good, the ball starts bouncing – and golfers are rude. "Why are the greens not smooth?" their song, Just keep off the greens when the frost comes along!

Little Jack Frost can go and get lost and give the greenkeeper some peace, The golfers moan, jump up and groan and invariably act The Beast.

No matter how you try – or effort apply to protect the course for the season, They will go and play – kick Hell and make hay and ruin the course for no reason.

At first break of dawn, bedcovers are drawn and out of the windows they peep, They arrive at the tee – all cheerful and free and stand in a crowd – just like sheep!

"Why does he do it?", they'll holler and shout Especially loud when the greenkeeper's about. He's doing it for you, to save the course They would argue all day – even use physical force.

So think of one thing at the onset of spring with the courses all pretty and nice, If we'd played on the frost, all would have been lost And the greenkeeper taking mental advice!

• Walter Woods BEM, is course manager at St Andrews

communication medium – the staff meeting. Be it weekly, bi-weekly or monthly it is a system I have long adhered to.

For the formulation and acceptance of course maintenance and development programmes; the introduction of quality initiatives, and determining clear collective goals and objectives, this "getting the team together" format is paramount in achieving success.

We begin with an agenda, all staff attend and the meeting is controlled and managed within two hours, each item or job is given a completion date and we all assign ourselves to the appropriate tasks. Next month we follow up, monitor progress, celebrate success (?!) and set further milestones to reach, and new objectives to accomplish together!

This instrument of communication, involving all, builds team spirit, motivates, measures progress, shows tangible results and finds solutions ahead of problems. This also demonstrates a level of professionalism both in attitude to ones role as a manager – to colleagues and superiors – but also as an effective communicator.

The format will vary according to the priority of the agenda, i.e. short, medium and long term objectives. The ultimate aim being that of involving all, in following a clear direction – by the same route. Thus avoiding our old enemy, ambiguity.

However, this process has not always been met with approval. One prospective employer listened to my rationale and agreed the principal but suggested that any such meeting including greenstaff should take place when it rained – because (obviously...) we'd have nothing better to do!

This of course was only one misguided opinion, and as we all know, opinions are like *poa annua* – we've all got some! **Anthony Black**.

Golf Course Manager (Formerly Golf Euro-Disney)

Not all and sundry

During the Christmas break I have had time to catch up with my workload, reading nominated publicatons advised by my tutors at Myerscough College where I am studying for a National Diploma in turf science. I have been a member of BIGGA since leaving school and starting in the industry in 1989.

One of the books I have read is 'The Way Forward'. Considerable space has been given to greenkeepers and the BIGGA organisation has been awarded both bouquets and barbed wire. One of the points that I would like to raise and feel quite strongly about is the morale of trainee greenkeepers.

Throughout my time at work and latterly at college it has always been instilled to us the importance of our professional nature, how we must strive to become the best. To quote the editorial: how 'There is now great opportunity for greenkeepers to make a concerted effort to project themselves as technically competent, qualified individuals in a skilled profession.' To feel part of this profession we are encouraged to join BIGGA and feel part of the team.

Now I find all sorts applying to join. Get in favour with a greenkeeper and he will give you an application form, once you are a member you can play most courses in the country for free.

Please can we stop this practice before it takes too tight a hold. By all means encourage membership but be sure we have members who have the profession at heart, those who are willing to help us establish our professional status and are willing to work for that end. Not golf club members who are in the right place at the right time wanting to take advantage of one of the only 'perks' of our trade.

You are doing a grand job. BIGGA is killing off the peak cap and string belt greenkeeper and the new image is gradually coming to the fore. Our profession knows BIGGA is there, we must now get the message across to clubs and golfers that we know what we are doing. **Tom Smith**,

Myerscough College, Preston

• Editor's note: "All sorts" can't join. Each application is vetted at national and local level. And at least two applications have been turned down since November because the applicants didn't work where they said they did.

Thumbs-up for the BTME

To the Chairman

Many congratulations on a most successful event and my good wish for the continued prosperity of your Association, which means so much not only to greenkeepers but to all golfers.

Hugh Griffiths, captain of the Royal and Ancient Golf Club of St Andrews

To the Executive Director

Having just spent a most enjoyable week at the BTME, I would like to thank you most sincerely for the time and effort you put into this event to make certain that everything went smoothly and that it was a success.

I appreciate this was a team effort and I would ask you to convey my thanks to everyone at HQ for playing their part, but a team is judged by its leader and the success of the events at Harrogate prove that the Association has the right person in that position to take it forward to further successes and recognition within the golfing world. John Crawford, BIGGA chairman

To the Executive Director

I thought I should write to thank you, your staff and the Board of Managment for running such a successful exhibition in Harrogate. As always, the atmosphere was very good amongst the trade and members. The fact that the show has grown in stature through difficult times is a credit to yourself and your hard-working staff. We now have a show that can compete with all others. I personally believe that our show is now the premier show in this country, and one which all members should be proud to attend.

A lot has happened in the association since it was set up. I can remember you presenting your first ever talk to the Surrey section at Cranleigh on "The new Association" which at that time was only a number of weeks old. Many of our objectives and aspirations for the association discussed then have borne fruit since that time. Although there is still a great deal to be achieved we should be pleased with our progress to date. I am keen that the review about to be undertaken will set the way forward to greater achievements in the future. This will, I am sure, further the respect and recognition for greenkeepers.

One other matter. I would like you to consider in the review not bringing together the National Conference with the BTME. I and others believe that both have their place in our calendar of events. We must remember that education is one of our main objectives.

Ian McMillan, Hankley Common Golf Course, Tilford, Farnham, Surrey

• Editor's note: The future of the National Education Conference is an important matter for the Association. In many ways it is in the hands of the members who can show their support by booking places for this year's conference at the University of Warwick, April 8-10. I welcome the views of other members as it is essential that a wide consensus of opinion is sought before the Board of Management reaches a decision after this April's conference.

To the Executive Director

I felt I must write formally and congratulate you and all your staff on the success of the BTME. The whole exhibition was run with smooth efficiency and calm authority.

The atmosphere within the exhibition halls throughout the three days was one of professional purpose coupled with an enthusiastic expectancy, an exhibition atmosphere rarely experienced throughout the last few years.

Quality of the visitors was the highlight of the exhibition with delegates coming to the stand to seek out information which may assist them in their work rather than just browsing around collecting leaflets. For our part we had a constant stream of decision-makers to our stand eager to learn how Blazon could improve the uniformity and quality of their spraying operation.

You now have the best exhibition, the best magazine and the best training videos – what next? **Richard Fry, Marketing Link**

Associates, Basildon, Essex

To the Executive Director

Thank you for all your help and support during last week's exhibition in Harrogate. From our viewpoint, it was another success and I appreciate the effort put in by you and your staff in making it so. They are all a great credit to the Association.

Kim Macfie, sales and marketing director, Hayters PLC, Bishops Stortford

To the Executive Director

Just a brief note to thank you and your team for all your efforts in making the BTME a tremendous success.

I have been at HIREX in Wembley and the word is certainly buzzing between those exhibitors who were at Harrogate and those who weren't that BTME and Harrogate was the place to be.

The vibes are definitely that we have a very successful show aimed at the right market, at the right time and at the right location. Whilst we should cooperate with any plans within the industry, at the present time we should concentrate on maintaining the steady growth of BTME.

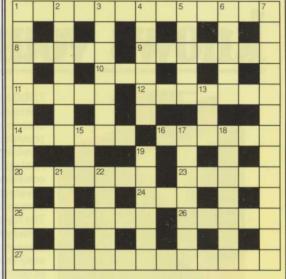
Michael Coleman, Fuchsia Exhibition Services, Great Dunmow, Essex

I write to congratulate the Association on holding an excellent exhibition at Harrogate. I don't think I have ever seen the hall so full and we were very impressed that so many delegates came from so far afield.

Jonathan Franks, Amenity Grass Seed Manager, British Seed Houses, Warrington

GREENKEEPER'S CROSSWORD

Compiled by Mark G Smith, first assistant at Frilford Heath GC



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4

1964 US Open (13)

2 Hard surfaced area at the rear

of the 17th green, The Old

Course, St Andrews (4-3)

3 A golf handicap of zero (7)

5 Manufacturer of aerators

7 What shares the putting

hover mower (5)

professional (3)

Repens) (3)

golf course (7)

vith a putter (5)

Glutinosa) (5)

22 The Common Alder (L.

(8,5)

13 Ernie

15

19

To which church do former US

Open Champions Billy Casper and Johnny Miller voluntarily

donate a third of their earnings

mowers and scarifiers, etc. (5)

6 The rotating part of a motor or

surface with the 7th hole on

The Old Course, St Andrews

The white clover (L. folium

does to his greens every day

Tony, winner of the 1936

US Open Championship (6)

21 An evil spirit, particularly good

18 Overlook or survey the whole

17 What the Course Manager

South African tour

CLUES ACROSS

-(L Picea Abies) (9,4)
 8 Why a tyre might be flat (2,3)
- 9 Cluster of leaves such as rose
- petals (7) 10 Yearly get together of
- Yearly get together of members to discuss golf club business (1,1,1)
- 11 Apply another dose of Fison's "Turfex" (2-3)
- 12 Systematically watch as part of staff training (9)
- 14 Mowing implement with a large curved blade (6)
 15 Fail to hole a putt (4.2)
- Fail to hole a putt (4,2)
 State in which the 1991 USPGA Championship, Crooked Stick CC, Carmel, was held (7)
- 23 Small shoot or twig (5) 24 The grain on a putting green
- (3)5 One named: the Course
- Manager's chosen successor perhaps (7)
- 26 Outer membrane of a pollen or spoor (5)
- 27 An outsider holing a full two iron for the Championship maybe (4,4,2,3)

CLUES DOWN

1 The Country Club, Washington DC, venue of the

Solve the crossword puzzle and you could win either a BIGGA blazer (worth £87.95) or £50 in cash! Send completed entries to: Crossword Competition, Greenkeeper International, Aldwark Manor, Aldwark, Alne, York YO6 2NF.

Closing date March 4, 1994. First correct entry drawn after the closing date will win the prize. Photocopy your entry if you don't want to cut up your magazine.

Despite the absence of clue 11, there was a huge response to our first crossword (solution, right). And the winner is: James Johnstone, first assistant at Turnberry Hotel and Golf Club. He will receive his BIGGA blazer in the post soon. In case you wondered, the clue for 11 across was: Spanish nickname of Jose Maria Olazabal and the answer was "Chema".



	Name:
	Address:
1	
	If I'm the winner, please send me \Box £50 cash or \Box BIGGA blazer, size

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Reel speeds are automaticaly adjusted to mowing requirements regardless of turf conditions. It's all so easy, but practical and typical of TORO's continuous development to design and manufacture machinery that has no equals in the highly demanding world of turf management equipment.

The reels of the **RM 5100-D** are designed to be more responsive to the specifics of fairway cutting in providing a superior quality of cut. Quiet and easy to operate, you can see at-a-glance all instrumentation and with easy-to-reach finger tip controls you are assured of contented operatives week in week out.

Reelmaster 5100-D with AUTOMATED CONTROL ELECTRONICS

> For enhanced traction the RM 5100-D offers the exclusive TORO 4-Matic. An automated on-demand 4 wheel drive system. The features just go on and on so why not send for our fully illustrated brochure containing all the facts and figures. With our Nationwide Network of dealers you are assured of TORO's exceptional back up service... there's one near you to discuss all the values of this incredible Lightweight Fairway Mower.

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C 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





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 inven-

The Nikkon knapsack mower/ brushcutter by Dixon & Holliday

tions, 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 tungsten tipped blades. For 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 face

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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