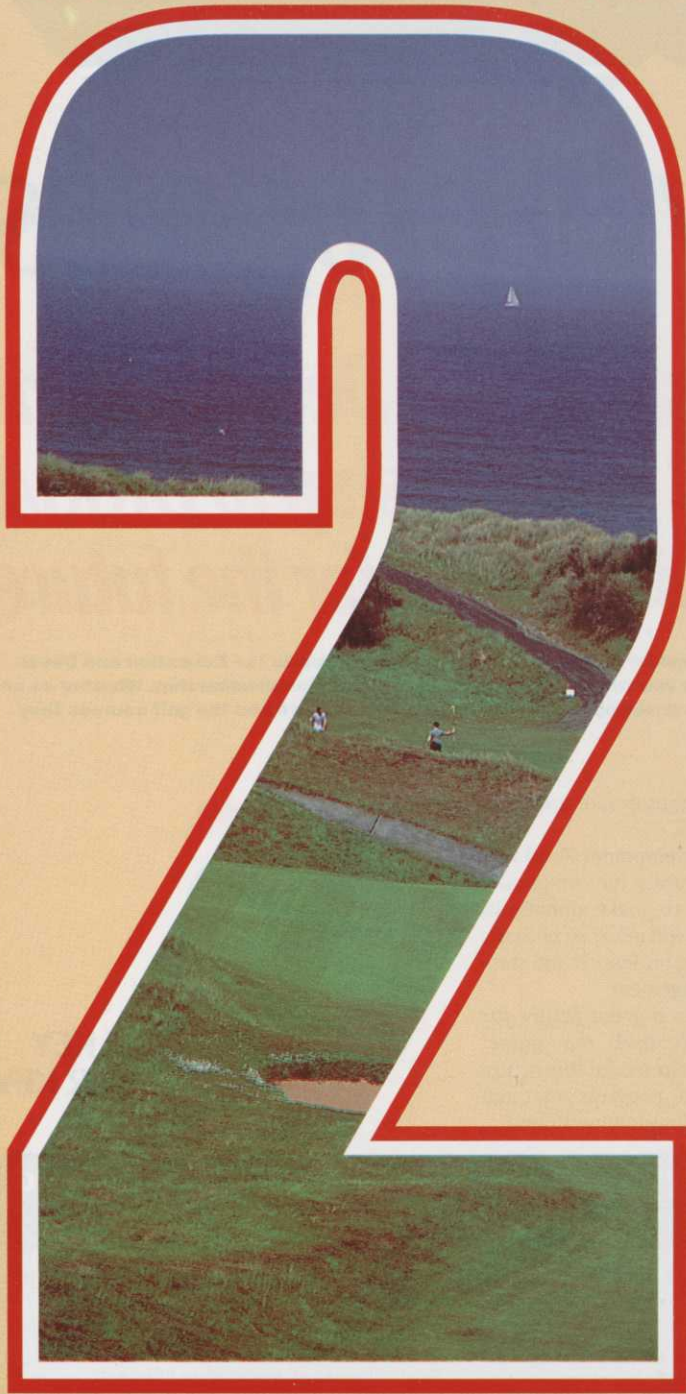


There are now



You can now join **BIGGA** either through the usual subscription route or via the Education and Development Fund, as a member of the Golden or Silver Key Circle. Full details are outlined overleaf.

Membership benefits for either route include:

- ◆ Monthly copies of 'Greenkeeper International' - the Association's own high quality colour magazine and essential reading.
- ◆ Full Legal Advisory Service - including legal helpline card.
- ◆ Full employment cover, full personal injury cover, pursuit of civil claims by the insured for damages, specific performance or injunction arising from or out of: a) a contract of employment; b) death or personal injury of the insured from any claim.
- ◆ Personal accident cover - will provide the following capital sums: Death - £5,000. Permanent total disablement - £5,000. Permanent total loss of sight of one or both eyes - £5,000. Permanent total loss of hearing of both ears - £2,500. Permanent total loss of hearing of one ear - £500. Permanent loss of one or more limbs - £5,000. There is also cover for permanent loss by physical separation of thumb, finger or toe.
- ◆ Members suffering temporary total disablement in excess of seven days will receive a weekly income of £35 for a maximum of 104 weeks - options to increase benefits are available.
- ◆ Use the Association's Placement Referral Scheme, to keep up to date with the employment scene.
- ◆ Utilise **BIGGA**'s services for expert advice on financial management - our consultants will advise on mortgages, investments, life, household, private medical and motor insurance. Don't forget the **BIGGA** Personal Pension plan.
- ◆ Take advantage of reduced delegate fees at the **BIGGA** Turf Management Exhibition and National Education Conference as well as regional seminars.
- ◆ **BIGGA** is international - all items in the membership package are available to members both in the Republic of Ireland and internationally. (International users of the legal helpline card should note that advice will relate to either English or Scottish law. The card can be used when the member is visiting Great Britain, both for advice and in respect of any claims arising during or from such visits.)
- ◆ For all members - A **BIGGA** pen, car sticker and tax disc holder.
- ◆ All new Greenkeeper members joining in 1993 will receive an Association tie.
- ◆ **BIGGA** welcomes the ladies - lady members joining in the Associate category will receive a headscarf, a **BIGGA** pen, car sticker and tax disc holder to signify their membership in addition to the Associate membership card.
- ◆ The legal and insurance benefits are only effective following payment of subscriptions. Any delay in payment after 1 January could cause a problem - don't take the risk!

ways to join the **British & International Golf Greenkeepers Association**, or
to renew your membership*



*EXISTING MEMBERS: Do nothing yet - stand by your letterboxes for renewal information sent directly to you

The key to progress

is through the Education and Development Fund — and now YOUR membership to BIGGA can be linked to this vital resource for the future

Before renewing your membership for 1993 or joining the Association, consider the option of linking membership to the Education and Development Fund. Remember, contributing to the Fund automatically provides you with the full benefits of Association membership. Whether as an individual or as a company, by becoming a Key Circle member you will be ensuring a great future for greenkeepers and the golf courses they manage and maintain.

Since its formation in 1987 the British & International Golf Greenkeepers Association has demonstrated its commitment to enhancing the recognition of the greenkeeper as a professional and to advancing golf course management and maintenance techniques to ever higher standards.

The key to the progress which has been made lies in education and training where the establishing of new college-based courses and improvements in existing courses has had a significant impact. Allied to this has been the introduction of "in-house" training courses at BIGGA's headquarters at Aldwark Manor. The development of Aldwark Manor as a training base will prove a major educational resource for the profession in the future.

Many within the game of golf and those working within the fine turf industries now recognise the value of these educational programmes and the need to ensure first class training for those entering the greenkeeping profession if the desired standards of golf course management and maintenance are to be achieved, maintained and improved upon in the future. To sustain those educational programmes and improve training opportunities will necessitate on-going financial commitment and the new Education and Development Fund has been established to enable the promotion and financing of educational programmes, scholarship awards and training aids for the benefit of the greenkeeping profession. The enhancement of knowledge and technical expertise which will result will surely in turn lead to higher standards of course management and better playing conditions for golf club members.

Financial contributions will channel the resources of the game and the industry into one central Fund from which specific spending programmes can be determined. Those supporting the fund will be welcome to make sug-

gestions in relation to appropriate spending programmes.

The Education and Development Fund represents the ideal opportunity for companies, groups and individuals to make donations, gifts and bequests which will advance both the status of the greenkeeping profession and standards of golf course management.

◆ **Education — the key to a great future for greenkeeper, golf club and the game. Your contribution will help secure this future — unlock the doors to progress through BIGGA's Education and Development Fund.**



Greenkeeper Education and Development Fund The needs are many

Provision of Scholarship Awards

National Education Conference

BIGGA Turf Management Exhibition
— Workshop and Seminar Programme

Development of Management Courses

Provision of Training Resources at
BIGGA Headquarters

Master Greenkeeper Certificate

Training Videos

Translation and Linguistic Facilities

Career Information

Training Aids

Courses and Training Programmes
— Headquarters and Regions

Educational Text-books

Establishment of Association Library

Regional and Section Seminar
Programmes

Greenkeeper Training Manual

Research Projects

Educational Leaflets/Advice Notes

Tape Transcript Service

Computer Programmes

Career Video

In contributing, your suggestions for spending programmes will be welcomed. Education indeed holds the key to professionalism and the further advance of golf course management.

◆ **New Members — if you wish to become a Key Circle member, complete the Membership Request Card in this magazine facing Page 50.**

◆ **Current Members — will have the opportunity to become Key Circle members when they receive their normal renewal subscription invoices prior to 1 January 1993. If you have not received your renewal notice by the end of December, please contact Headquarters.**

◆ **Current Key Circle Members — both individuals and companies will be contacted by Headquarters prior to 1 January 1993 with a view to renewing their memberships for 1993.**

BIGGA greatly values and appreciates contributions to the Education and Development Fund and accordingly wishes to give recognition to those contributing. Those supporting the Fund will become members of a 'circle' which will bring certain ongoing benefits:

Membership benefits of Golden Key Circle

Companies/Groups

- Listing in 'Greenkeeper International' magazine
- Key supporter – magazine profile
- Plaque
- Annual luncheon – BIGGA Turf Management Exhibition
- Special Tie – BIGGA/Golden Key Circle design
- Association Membership – to include monthly copies of 'Greenkeeper International' magazine
- Priority stand space – BIGGA marquee, Open Championship.

Contribution: Donations of over £3,000 annually

Individuals

- Special Tie – BIGGA/Golden Key Circle design
- Association Membership – to include monthly copies of 'Greenkeeper International' magazine
- 15% discount on all BIGGA Educational Programmes

Contribution: Donations of over £150 annually



Membership benefits of Silver Key Circle

Companies/Groups

- Listing in 'Greenkeeper International' magazine
- Plaque
- Special Tie – BIGGA/Silver Key Circle design
- Association Membership – to include monthly copies of 'Greenkeeper International' magazine

Contribution: Donations of £1,000 – £3,000 annually

Individuals

- Special Tie – BIGGA/Silver Key Circle design
- Association Membership – to include monthly copies of 'Greenkeeper International' magazine
- 7.5% discount on all BIGGA Educational Programmes

Contribution: Donations of £75 – £150 annually

Join the inner Circle and ensure a great future for greenkeepers and the golf courses they manage and maintain.

The Next Step

is to complete and post the pre-paid Membership Request Card in this issue.

Existing Members: Do nothing yet – we'll contact you direct.

♦ Important – all greenkeeper members will be required to obtain a passport size photograph to validate their 1993 membership cards. The design of the card allows for the photograph to be sealed, thereby giving proof of identity and preventing any possible misuse of membership cards, particularly in relation to seeking courtesy of the golf course. Photographs are to be affixed by members personally on receipt of their card and should not be sent to Headquarters.

The BIGGA recommended minimum salary/wage scale

The Association has updated its recommended minimum salary/wages scale, although actual figures remain the subject of negotiation between the Golf Club and Greenkeeping staff. Quoted rates apply from 1 January, 1993.

	18 Holes	27 Holes	36 Holes
Course Manager/Head Greenkeeper	£18,230	£19,880	£22,250
Deputy Course Manager/Deputy Head Greenkeeper	£13,160	£14,340	£16,040
First Assistant	£219.00 pw	£219.00 pw	£219.00 pw
Assistant Greenkeeper	£206.00 pw	£206.00 pw	£206.00 pw
Apprentice Greenkeeper (all courses) Age 16/17: £103.00 pw; Age 18: £128.75 pw; Age 19: £154.50 pw; Age 20: £180.25 pw; Age 21+: £206.00 pw.			

NB: Where appropriate these rates should be increased to reflect Regional variations up to a maximum of 24% in the South East Region.

The First Assistant is a post designed to recognise a third-in-charge where appropriate to the size of the Club. In cases where the First Assistant is the recognised Deputy, the appropriate Deputy Course Manager/Deputy Head Greenkeeper salary scale should apply.

Staff in possession of recognised qualifications should have this reflected in an addition to basic salary.

Basic conditions of employment should include:

1. Where accommodation is provided by the Club, it should be rent free with heating/lighting costs borne by the Club. The Club should compensate for Poll Tax/Council Tax Liability.
2. Where accommodation is not provided by the Club, a suitable remuneration in addition to the above salary should be paid.
3. 40 hour week.
4. Retirement Pension Scheme.
5. Telephone costs on Club business.
6. Mileage allowance.
7. Time off to attend lectures, demonstrations, BIGGA functions and tournaments.
8. If not salaried, basic overtime to be paid at time and a half, with double time on Sundays and Statutory Holidays.



New subs rate for '93

The Board of Management has approved the subscriptions for 1993 as indicated below:

	New Members In 1993	Current Members if paying before 31 Jan.93
Course Manager/Head Greenkeeper	£55.00	£50.00
Deputy Course Manager/Deputy Head Greenkeeper	£48.00	£43.00
First Assistant/Assistant Greenkeeper	£42.00	£39.00
20 years of age or under	£28.00	£25.00
International – all greenkeeping staff	£50.00	
Associate/Company (including one year's subscription to 'Greenkeeper International')	£48.00	
Associate/Company without magazine	£23.00	
Corporate	£550.00	

NB: The First Assistant is a post designed to recognise a third-in-charge where appropriate to the size of the club. In cases where the First Assistant is the recognised Deputy, the Deputy Course Manager/Deputy Head Greenkeeper subscription rate should apply.

1992 members will be invoiced for subscriptions due prior to 1st January 1993. If you have not received your renewal notice by the end of December, please contact Headquarters.

Those enrolling in the Associate/Company membership category will be encouraged to play a full part in the Association's affairs. Associate members will be those having a close interest in greenkeeping without being specifically employed as greenkeepers. As such this category of membership will be of interest to Chairmen of Green Committees, Club Secretaries, Golf Course Architects and Constructors and many others with a close affinity to greenkeeping. Company membership is available on an individual or corporate basis and will be of interest to those employed within the fine turf industries.

Individual membership cards will be issued and will entitle the member to participate in all national, regional and section events authorised by the Association.

Holders of Associate and Company membership cards are not entitled to use their cards to seek courtesy of the golf course.

Delegate fees at both the BIGGA Turf Management Exhibition and National Education Conference, as well as at Regional seminars, will be offered to Associate and Company members at a discounted rate. Whilst many members may wish to identify with a particular local section or region, members are able to participate nationally if they so wish. They will be allocated to the section covering the geographical area in which they reside.

All Associate/Company members (with the exception of those Associate members in the £23 category) will receive each month a copy of 'Greenkeeper International', the Association's official publication and essential reading for those involved with or interested in greenkeeping.

A special Corporate rate is available for those companies wishing to enrol an unlimited number of their staff as members of the Association and individual membership cards will be issued.



Christmas Gift ideas



Be on the ball this Christmas – settle all your present-buying problems with exclusive, top quality BIGGA merchandise! Fill Santa's sack with a whole range of goodies shown on this page. Choose a smart BIGGA blazer or perhaps a stylish rainsuit. You can buy with confidence because each item has the BIGGA seal of approval – and a BIGGA logo too!



£87⁹⁵ Inc. P+P

Be proud of your profession with a BIGGA Blazer. This high quality garment is recommended by the association and can be worn on any occasion when the image of a professional greenkeeper is all-important. Supplied complete with embroidered BIGGA logo, this is an investment which will provide many years of service.Order No. B16.

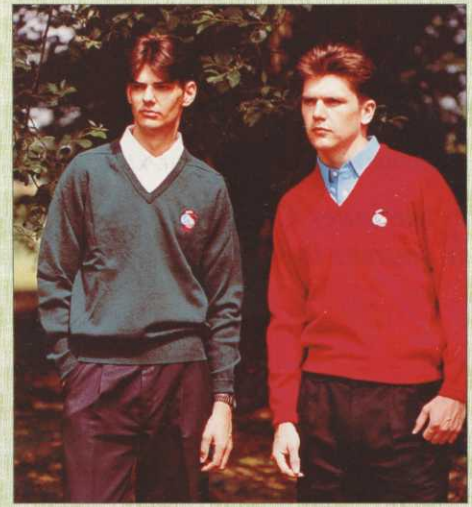
BIGGA TIES – £4.50
Available in Navy (as picture), Light Blue or Green

GLENMUIR SWEATERS

Here's a favourite garment that makes an ideal Christmas gift – for a man or a woman! These quality sweaters come in a variety of sizes and colours:
Sizes: 36" – 50"
Colours: Navy, Pansy, Black, Claret, Oxford Grey, Royal, Crimson, Light Grey, Peacock, White, Blue Mist, Natural, Bottle, Emerald, Azure, Blue, Carmine, Helio.

Order No. BO1£27.95

YOUR CHEQUE WILL NOT BE CASHED UNTIL YOUR ORDER IS DESPATCHED



How about this for a great deal – a BIGGA Cap at the special festive season offer price of just £5.95 – that's a huge 35% off the normal price! But you'll need to hurry – only limited stocks available at this price! Colours: Navy, Beige, Black, Maroon.

BADGES

Blazer badges (Order No. B09) ..£11.95
Lapel badge (Order No. B14)£2.45

BOOKS – catch up on vital reading

Manual on Golf Course Construction, Turf Establishment and Cultural Practices (James Beard)£22.00
Code of Practice for the use of Approved Pesticides in Amenity and Industrial Areas£12.00
Specifications for a Method of Putting Green Construction, written by members of the USGA Green Section and edited by William H Bengeyfield£2.50

RAINSUITS **£65** Limited Stock Order NOW

BEST EVER PRICE: ORDER NOW FOR PRE-CHRISTMAS DELIVERY

The ideal Christmas gift for greenkeepers! At a knockdown price of just £65, we have limited supplies of Men's style Large (44/46") and Extra Large (46/48") Rainsuits made by top manufacturers ProQuip. For women, size 16 and 18 rainsuits are available. Both styles of rainsuits come in snazzy silver and navy and they're guaranteed to keep you dry when it's wet! A revolutionary new fabric keeps you snug and comfortable in all weathers. Complete with BIGGA logo, the rainsuits are soft to handle and lightweight. Order by December 4 and we'll rush through your order to ensure delivery before Christmas.



ORDER FORM Place your completed order and cheque made payable to BIGGA in an envelope and post to: BIGGA, Aldwark Manor, Aldwark, Alne, York YO6 2NF.

Ref No.	Product Description	Colour	Size	Quantity	Price

Name:
Address:

Prices are inclusive of postage, packing and VAT. Photocopy this form, or use a plain sheet of paper, if you don't want to cut up your magazine.

Valuable

Ransomes

DAVID WHITE pays homage to the 'Greenkeeper's Mecca' – BIGGA supporter and an Education and Development Fund Golden Key Circle member, Ransomes Sims and Jefferies

When I first entered what was, for me, the new and uncharted field of greenkeeping, a field about which I thought I could write dispassionately and about which I fancied I knew something, there came a time, soon after the honeymoon was over, when the penny finally dropped: this editor was dead without the help, support and understanding of 'the trade'!

Fortunately, help was not far away and came – almost by telepathy – by way of an invitation for me to spend a day at the Ransomes Sims and Jefferies plant at Ipswich, a place which I now think of as 'The Greenkeeper's Mecca'. My invitation, the very first I ever received in my new editorial capacity, was to witness at first hand the design, planning and construction of modern grass machinery – a slab of raw steel entering one end of the factory, a beautifully crafted machine rolling off the line some half mile distant.

Following my detailed tour I came away in awe, liking what I had seen so much that, like Victor Kiam of Remington fame, I would have loved to buy the company. Pipe dreams apart, I did buy into the company as a preferential shareholder – the first and only time I've ever dabbled in the stock market.

If all this seems just a little OTT, my opinion hasn't altered and I still think Ransomes are somewhat special – their staff training is second to none, their sales force the most technically expert I've ever come across (and the most cheerful), whilst the support I've received from the delightful Karen Smith, Ransomes PR specialist, has been unparalleled. Last but not least, Ransomes machinery is quality epitomised and they are and always have been innovators par excellence. From top to bottom the company reeks of class!

Greenkeepers will identify with Ransomes through their own favourite salesman (and, I'll be bound, with at least one piece of Ransomes, Cushman or Ryan machinery in just about every inventory), whilst for the purpose of this Gold Key tribute, I shall identify with two stalwarts of the company, John Wilson, the general sales and marketing manager for Ransomes grass machinery, and Richard Bishop, the company's sales manager.

Though Ransomes employ some 3000 people world-wide (including Kimber and Supreme Mowing in the UK, Ransomes SA in France, Ransomes GMBH in Germany and Steiner, Cushman, Ryan, Ransomes Inc. and Brouwer in the USA) the force at Ipswich has become somewhat stream-

lined compared with earlier times. This may be accounted for in part by massive infusions of high-tech equipment and certainly by high-tech management and high-tech thinking. Such modernistic planning serves to explain why Ransomes people are never stumped for an answer – they're all so well versed, so clued-up. That stated, the road to the top is almost always via the factory floor, a route followed with great success by John Wilson.

John joined Ransomes direct from school in 1949 and followed the time honoured route of apprentice training in every works department, whilst nurturing from the very beginning a desire to move into sales and marketing. "How did you get the break", I queried, "simple enough", he replied, "I asked for it"! By asking, John was given his first taste of sales, a spell of some three years in north London as a demonstrator and service engineer. "In those days, we used to undertake quite major repair jobs on site", he told me, "and business was slanted more on the farm machinery side, it was valuable experience and has stood me in good stead ever since".

Moving on, John became a 'salesman' proper in 1958, working in both home and export sales and concentrating on mainland Europe and Scandinavia – an example of the workload undertaken may be seen in a typical overseas tour: eight countries visited in three months, calling on prospects, visits prearranged through distributors, demonstrating the capabilities of Ransomes unique machinery. Again indicative of thorough training, it impresses me that any Ransomes man is capable of leaping on any Ransomes machine and making it perform miracles!

Pioneering is part of a salesman's make-up, and following his success in Europe John was away on the pioneering trail in Canada. Upon arrival he bought a truck, loaded it with Ransomes grasscutting machinery and began a countrywide tour, right across that great country. Those heady days in the fifties were certainly trail blazing, and John likes to think that his early invasions were in some way instrumental in forging the basis for what now is a flourishing N. American business for the company.

A further step up came in the early sixties when Guy Catchpole, Ransomes then sales manager (now retired) invited John to become his second in command, a very important upward move. For some twenty or more years, John worked alongside Guy, promoting world-wide sales

16

Valuable Ransomes



John Wilson, left and Richard Bishop

15 → and formulating marketing strategy in the grasscutting machinery sector, the high flyer in the company's range and successor to farm machinery as the anchorstone. When Guy was promoted to sales and marketing director, John was promoted to general sales and marketing manager. This was followed in due course by yet further promotion and the rest, as they say, is history.

Listening to John I soon realised that this man had wrapped his life around Ransomes, that it had become his life. To the stock question "what about your personal life, your hobbies?", he was quick to reply, "a little golf, an interest in photography, but if you *really* want to know what makes me tick, it's my work. Because our business is so fascinating, so absorbing, work doesn't seem arduous at all – Ransomes becomes your life" This sentiment was endorsed by Richard Bishop, and though I am jumping ahead in writing this, Richard's comments fit neatly into the story: "I know it sounds terribly corny", he said, "but corny or not, like John, I have Ransomes as my hobby..."

Richard Bishop, the man whose hobby is his work, is an Ipswich man born and bred. Unlike John, he didn't enter Ransomes via the apprentice route, rather as a twenty year old who had made a few false starts in other fields. Keen to grasp the opportunity that Ransomes offered, originally in production control, Richard likes to recall those heady days on the line, of first meeting up with Colin Gregory all those years ago in the late sixties, of all the good times that were enjoyed. Training by doing is Ransomes way, and when an opportunity to enter the buying department came about, Richard leapt at the chance. Following a highly successful year in buying, Richard moved into sales of electric trucks, sales being a sector he had been anxious to enter and this being the first rung. A further enlightening year came in PR, spent working alongside the great character that was Perry Crewdson, followed by the opportunity he'd really been waiting for – grass machinery sales.

Beginning as a demonstrator at a time when things were changing – grass machinery on the up, farm machinery demand in freefall – Richard soon gained promotion and was 'on the road', first as an area demonstrator in Sussex, then as area representative. In 1983, with business expanding, he was promoted yet again to field sales manager, travelling the country, looking after the business side of selling, nurturing salesmen, demonstrating, making things happen, if you like.

Now UK sales manager and controlling the grass machin-

ery team, Richard still spends time on territory, though increasingly his work brings him back to Ipswich and the deskbound life.

As a twosome, John and Richard tossed lovely quotable snippets at me – "we may be the oldest established company in grasscutting, but we are up to the minute with our ideas", said Richard. "Consider the following", said John, "we were the first company, in 1832, to introduce the lawnmower, the first with a motor lawnmower around 1900, the first with a mains/electric mower in the thirties, the first with a power driven gang mower – the Powerquint – in the sixties, the first hydraulically driven gang mower – the Hydraulic 57 – in 1967, the first all hydraulic ride-on in the late sixties, and the first with powered electronics – the GT – in the mid eighties".

A babble of cross talk now – "we are into evolution rather than revolution", ventures John, "we give the customer what he wants", chips in Richard, "and what the customer needs" adds John. I almost take these things for granted, seeing Ransomes as leaders in the business of making machinery that is both cost effective and commercially viable. I need no further convincing.

Of the BIGGA connection there is massive empathy, both with the cause and with the greenkeeper. Ransomes have been loyal supporters since the early days and indeed they like to think they were amongst the pioneers in our education revolution – "we were always close, our reps were giving lectures back in the fifties", John told me, "we welcome a strong Association and want to get even closer".

On the question of closeness, Richard urged me to tell readers of Greenkeeper International that his company positively encourages group visits – "we are one of the few companies with the ability to show everything we make in all stages of production – the slab of steel at one end, the finished product at the other". Having witnessed this show-piece of modern technology, I can endorse Richard's sentiments.

Let John Wilson have the final say: "We have long since brushed aside the 'grandfather image' and are a force to be recognised, we can with pride look to our slogan 'Ransomes for total turfcare', for with the acquisition of Cushmans and Ryan in 1989 we doubled our size and our design capabilities. Our design centres at Ipswich and in the USA are manned by a powerful group of development engineers, clever men who know that new products are our lifeblood". I'll endorse those sentiments too.



Water ways

MICHAEL BIRD investigates irrigation shutdown procedures

Preparation for the shutting down of a golf course irrigation system should start from the moment the system is turned on in the spring.

As with any piece of equipment that is required to work day in, day out without failure on a seasonal basis, one should be watching out for problems, wear and tear during the complete period that the irrigation system is in full operation. Indeed, faults which do not affect significantly the day to day running of the system, but which may be detrimental in the long term, are usually more easily rectified when the system has been drained down for the winter.

"The majority of problems can be picked up by good forward observation," comments Trevor Neale, technical manager with irrigation consultants, Philip York and Partners, Fordingbridge, Hants. "Our advice is to think and plan ahead so that remedial action can be taken as soon as the system is closed down for the winter months." Mr Neale says that this can be assisted by the establishment of a routine reporting procedure to enable green staff to note faults, problems and changes in system performance as and when they occur during the summer months. Then, when the pumpset is shut down and the system drained at the end of the season, the appropriate work can be carried out to ensure that the system is ready for the following year's start-up. However, ensuring that a sprinkler irrigation system is kept in good working order is more fundamental than simply rectifying problems ready for the new season.

The system must be correctly shut-down and left in a condition which will minimise risk of damage or deterioration over winter. The first action after closing the mains stopcock is to take a reading from the water meter. This reading should match that on the bill from the water authority and one should also ensure that the club is not being charged for sewage disposal based on the volume of water supplied. After all, none of the water applied to a golf course should find its way back into the main drains for treatment.

Any pipework between the main water stopcock and the holding reservoir or tank should be drained. This is particularly important on exposed riser pipes to ball valves, which are highly prone to frost damage. If the pipe is above ground and cannot be fully drained, always ensure that it is properly insulated and protected against the elements.

Insulation has a habit of attracting rodents and other pests, so don't assume that because a pipe was well insulated last year it is still fully protected one year on. A check now can save a great deal of time, money and inconvenience in a few months' time.

The majority of irrigation systems have some form of holding tank located close to the pump house. Unlined steel tanks should be drained and repainted if necessary. Those with a butyl lining should be drained sufficiently to leave the float valve fully open but still contain enough water to

provide tank stability and prevent the majority of the tank drying out. To minimise the risk of frost damage, place a piece of polystyrene, a large floating ball or a plastic container in the tank to absorb expansion caused by freezing.

Where the tank is left with water in, turn off the gate valve between the tank and the pump. If the tank is drained and the mains stopcock closed, this should be left open, as should all other valves in the system to assist drain-down. Maintenance work on the storage tank can usually wait until the rest of the system has been dealt with. However, it is important not to forget to keep the tank clear of leaves and other debris that can enter and on start up.

All too often, the storage reservoir for the system is hidden away out of sight and out of mind. One important item that should be checked regularly during the winter months is the level of the water in the tank. If it rises significantly, water is probably getting in past the mains stop valve and this should be dealt with promptly. Alternatively, if the level falls significantly, check for a leaking valve, or worse still, a perished or holed liner.

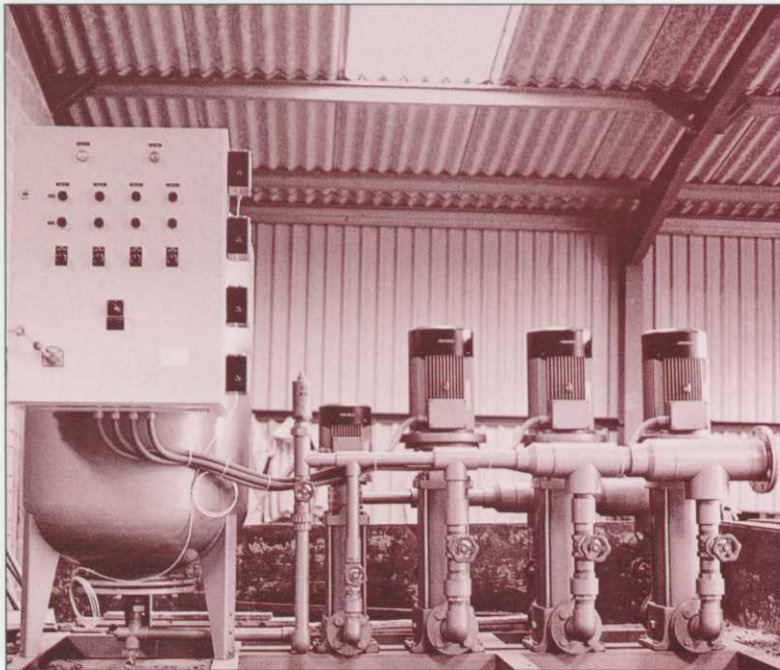
Pumps should be housed in a purpose-designed building complete with suitable insulation and thermostatically-controlled heaters to protect against freezing. In addition to checking that the over-winter protection is in place and functioning correctly, Mr Neale advises greenkeepers to keep the pump house securely locked against pilfering or vandalism – regrettably becoming increasingly

Clear the debris and grease

17 → common in places which are not under 24 hour observation. "Preventing human entry is one thing, but it is also advisable to protect the building against animals and the cold," he points out. "In summer, ventilation is needed to help keep the pumps cool. In winter, I recommend sealing air bricks and fan housings, not forgetting to remove the seals in the spring." The condition of the pump house also needs to be checked for deterioration to walls, floor, roof and windows which can let in cold, damp or rain, cancelling out the effect of any heaters or insulation.

Preparation for winter storage of the pump or pumps should start with the removal of the drain plugs at the base of each pump and the breather or pressure gauge on the top. This action will encourage the free movement of water out of the casing. If possible, position a container to collect the water or connect a hose to the drain point to prevent the pump house floor becoming flooded. All other drain valves should be opened to ensure that no water remains in the pipework between the gate valve and the pump, or on the delivery side of the pump. The majority of pump systems will incorporate one or more non-return valves. Maintenance staff must ensure that the pipework is drained on both sides of these valves and not trapped upstream.

Winter maintenance for pumps commences with the clearing away of any dirt or debris and lightly greasing of all exposed metal parts. Worn or flaking paint should be sanded down and retouched. Grease should be applied through any nipples fitted until the old grease is pushed from the gland seal. If gate valves are fitted on manifolds or between pump sets, they should not be



Closing down the pump system should be based on individual manufacturers' instructions. Basic drill includes draining inlet and outlet isolation valves, turn power-off but provide some form of 'protective' heating for the pump house.

Pictured: Grundfos pumps for the Toro 650 independent head control system used for the Berkshire club's 36 holes

left fully opened. A half-turn back will normally prevent sticking.

Filters also require attention. Removal, stripping and cleaning or renewal are advised in line with the pump maker's recommendations. Finally, once the pump or pumps have been prepared for over-winter storage, do not lock the door and forget them. A once-a-month check of

the pumphouse is an essential part of the maintenance programme as is the turning of the pumps by hand or by a momentary spin of their electric motors to prevent partial seizure in one position.

Submersible pumps installed in a reservoir should be removed from the water where practicable, drained and lubricated prior to winter storage. Because these are expected to work

If you haven't discovered what we can do, you deserve a ticking off

- | | | | |
|------------------------------------|-------------------------------------|-------------------------------|-------------------------------------|
| Sprinklers..... | <input checked="" type="checkbox"/> | Fully Automatic Controls..... | <input checked="" type="checkbox"/> |
| Rainguns..... | <input checked="" type="checkbox"/> | Scheme Design..... | <input checked="" type="checkbox"/> |
| Self Travelling Rotary Machines... | <input checked="" type="checkbox"/> | Equipment supplied.. | <input checked="" type="checkbox"/> |
| Underground mains..... | <input checked="" type="checkbox"/> | Installation Work..... | <input checked="" type="checkbox"/> |
| Overland pipeline..... | <input checked="" type="checkbox"/> | Service back up..... | <input checked="" type="checkbox"/> |
| Diesel/Electric pump units..... | <input checked="" type="checkbox"/> | | |
| Boreholes..... | <input checked="" type="checkbox"/> | | |
| Reservoirs..... | <input checked="" type="checkbox"/> | | |
| Storage Tanks..... | <input checked="" type="checkbox"/> | | |



Automatic Watering Systems for SPORTS & LEISURE GROUNDS

SUITABLE FOR GOLF COURSES BOWLING GREENS FOOTBALL & CRICKET GROUNDS TENNIS COURTS HORSE RACING COURSES INDOOR & OUTDOOR EQUESTRIAN CENTRES ATHLETIC TRACKS Also MUNICIPAL PARKS AND GARDENS

GLEN HEAT & IRRIGATION LTD
SPALDING ROAD, PINCHBECK, SPALDING, LINCOLNSHIRE PE11 3UE
Tel: (0775) 722327. Fax: (0775) 725444

AD REF 280

GOLF COURSE, SPORTS PITCH OR LANDSCAPE IRRIGATION, NORTH-WEST COUNTIES

Thinking about the many benefits to be gained from having an automatic watering system? A word with Irri-Serve will help you reach the right decision, economically.

A new system? Up-date? Extension or modification? We will be pleased to give you objective advice – backed by practical experience gained in the field – and all for just the price of a telephone call! Speak to Irri-Serve today or write...

Unit 9, Twin Lakes Industrial Park, Bretherton Road, Croston, Preston PR5 7RF
Telephone & Fax: (0772) 601534

ISIS

TORO

IRRI-SERVE IRRIGATION SYSTEMS

AD REF 355

metal parts

Ensure that water has drained from within the head and clear any dirt or debris which may prevent the pop-up from closing properly

continuously during the summer in a hostile environment, it will be worthwhile having them checked over and serviced while they are away from their normal location. The result will provide greater peace of mind following year.

Because many modern motors and control panels contain anti-condensation heaters, it is often necessary to leave the mains electric power switched on over winter. Mr Neale recommends that pumps are isolated by removal of their fuses if they cannot be immobilised without turning off the mains switch. The fuse can then be replaced if the pump needs to be turned over during the winter months.

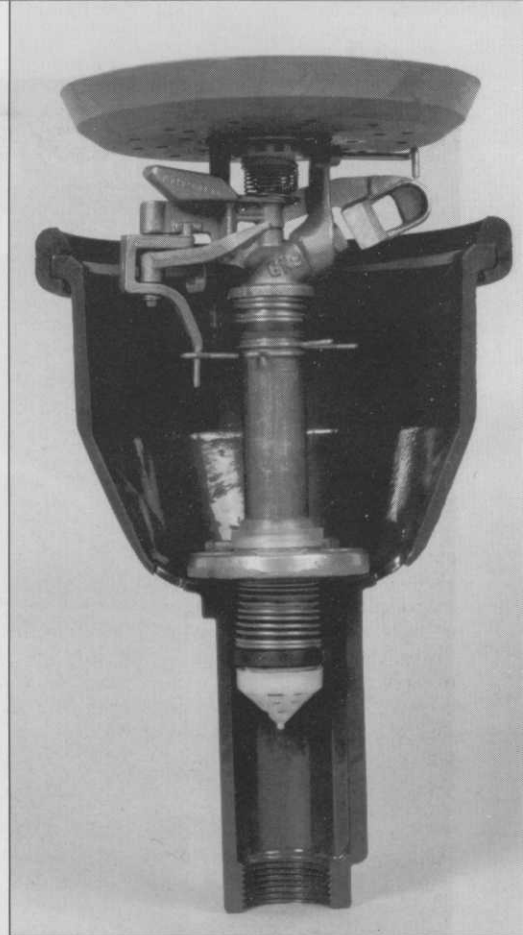
A pressure vessel is often located in the pump to provide a 'buffer' in the system and prevent the switching on when just a small quantity of water is drawn from the pipework, for example, when hand watering a green. The vessel should have its drain opened and this should remain open over winter. Similarly, any pressure relief valve or pressure regulating valve should be drained. Mr Neale points out that staff should be especially careful of pressure regulator valves which usually contain a diaphragm and control pipework in which water can become trapped. "Most regulators have a drain plug to let water out but it may also be necessary to disconnect the pipework to allow water and air to escape," he comments. "At this time, the diaphragm can be checked for cracks, perishing or dirt. After dismantling, it is most important that the assembly is reset to the correct pressure before start-up in the spring.

The majority of underground pressure mains feeding sprinkler irrigation systems are installed below 600mm depth, which will normally be ade-

quate to prevent freezing in all but the most Arctic of winters. Nevertheless, pipes do rise to the surface throughout the system so draining is vital if frost damage is to be avoided. Drain cocks should be positioned at the lowest points of the underground pipe system and these should be located (using the architect's installation plan if necessary) and opened to allow the water to escape. This can take quite a time and will produce a great deal of water when one considers that a typical irrigation system covering the greens, tees and approaches on an 18 hole course can consist of 7,000 metres of 80mm or 100mm diameter pipe. The total outflow could be more than 20,000 litres. As a result, Trevor Neale says it is important to check that the water can get away freely without causing a flood.

To clear the underground mains completely of water, compressed air can be blown through the pipework, although this will need to be done with care at various points around the system. Hand watering point valves - normally located in the control boxes - must also be opened to drain local water. Lever valves should not be left fully open to prevent water lodging in the valve mechanism and freezing. Similarly, solenoid valve boxes are extremely vulnerable to frost but can normally be drained completely, because they are installed at a shallower depth than the underground pipework.

One area which concerns Mr Neale is the construction and condition of the valve box chamber. "It is vital that the area be kept clean and free from water," he comments. "All too often we find installations with inadequate drainage below the solenoid valve. As a result, the solenoid and cable



joints may be sitting in water for much of the year." He says that the winter months are a good time to dismantle the chamber and install a drainage pipe and suitable drainage medium, such as gravel, beneath valve assemblies susceptible to flooding. Unless suspect or showing signs of wear and tear, the wiring to the → 22



BELL TURF & IRRIGATION SERVICES



EVERTON
DONCASTER
DN10 5DR

Unit 3i
Plumtree Industrial Est.
Bircotes DN11 8EW

TELEPHONE RETFORD (0777) 817410



FOR SALES SERVICE AND INSTALLATION OF IRRIGATION SYSTEMS ON ALL SPORTS PLAYING SURFACES IN . . . NOTTINGHAMSHIRE, HUMBERSIDE, LINCOLNSHIRE AND LEICESTERSHIRE

AD
REF
279

Prime Watermen Ltd

WANGFORD · BECCLES · SUFFOLK NR34 8AX. TEL: (050 278) 481. FAX: (050 278) 729

QUALITY EQUIPMENT - RELIABILITY

PRACTICAL ENGINEERING - VALUE FOR MONEY

These are what you can expect when you choose a Weather-matic irrigation system designed and installed by PRIME WATERMEN LTD.

To benefit from these and our wealth of installations experience - contact us now on
050 278 481

IRRIGATION BY PRIME - COMMITMENT TO RELIABILITY AND SERVICE



AD
REF
283

Reliable Irrigation A Pipe Dream?



If your irrigation system is working well, that's fine. If it isn't or if you are considering a system for the first time, perhaps you should be talking to Ocmis. We have a decade of experience in designing and installing automatic sprinkler systems that might just be the answer to your dreams.

Ocmis Irrigation (UK) Ltd., Martock, Somerset TA12 6BU. tel: (0460) 41939
Midlands Office tel: (0789) 414604 Northern Office tel: (0924) 453102

- Initial Consultation Free
- Professional Planning & Design
- High Specification Products
- Programmed Installation & Project Management
- Technical Support & Maintenance

Putting The Greenkeeper First



IS YOUR BUSINESS GOLF?



OURS IS



Watermation
IRRIGATION SYSTEMS

Tongham Road, Aldershot,
Hants, GU12 4AA, England
Tel: 0252 336838

Since 1970
Watermation irrigation
systems have helped to
create and maintain the top
championship golf courses
around Britain, Ireland,
Europe and worldwide.