ROCRAFT LIMITED, makers of the Red Dragon Gang Mowers, have added security cabinets to their range of products. In addition to their gun cabinet range they manufacture chemical and pesticide storage and handling cabinets which meet the requirements of guidance issued by the Health & Safety Executive.

The standard cabinet of 200 litres capacity is strongly made using 2mm (14 gauge) steel and fitted with a Chubb 5 lever security lock, drain plug and louvred vents. For easy access to the storage space a large side-hinged door has been fitted and a hinged lower shelf is now a standard feature making the containment area available for larger cartons or drums.

Two other chemical cabinets for transporting 50 litres or 25 litres are made of 1.2mm (18 gauge) with safe edges. The top opening lid is fitted with a continuous butt hinge and sealed with a fixed Neoprene gasket, a lockable catch retains the lid when closed. Within both cabinets is a sump to contain spillage and a drain plug to release any spilled liquids.

Fold down lift handles make carrying easy by either one or two persons. All cabinets have bolting down holes in the base and are finished in stoved canary yellow paint, an official hazard warning logo is also fitted.

Within both cabinets is a

Fisons Turfcare

Fisons Tritox is a weedkiller tailor made for fine turf use and comprising three powerful herbicides, MCPA, Mecoprop and Dichlobenil. Tritox is a versatile product controlling a wide range of turf weeds from White Clover Plants to Daisy to more stubborn species like Yarrow, Parsley, Trefiol, Dandelion, Pearlwort and Knotgrass.

A & R Fairways Pest Control

A & R Fairways Pest Control specialise in the exclusion, eradication or management of mammals and birds which harm turf or cause a nuisance to those who care for it.

Based in North Wales they already provide a variety of services to Golf Courses, Estates, Farms and The National Trust. They currently operate in England, Scotland, Wales and the Channel Islands.

Much of their work involves the control of moles and rabbits and the provision of suitable fencing for the control of animals that are injurious but protected.

There are few turf pest control problems that cannot be dealt with through a combination of consultancy, service and staff training. For a little free advice or a complete pest management package, contact the specialists A & R Fairways Pest Control advertise in our "Classified Section".

Daconil

A broad spectrum fungicide for the prevention and control of major turf diseases. Its unique multi-site action and chemical composition means that even after years of successful use it continues to be effective - even sequential spraying programmes create no problems. Daconil turf has dependable and consistent activity at any time of year.

Tornado

Based on carbaryl, Tornado gives economical, effective and long-lasting control of casting worms. Because it works by contact and ingestion it gives quick results and good residual activity. The special liquid formulation is easy to mix and simple to apply. After application it leaves no unpleasant odour - so as soon as the grass is dry, play can continue.

Daconil turf

A broad spectrum fungicide for the prevention and control of major turf diseases. Its unique multi-site action and chemical composition means that even after years of successful use it continues to be effective - even sequential spraying programmes create no problems. Daconil turf has dependable and consistent activity at any time of year.

Bang on Target!

Products

Read the label before you buy: Use pesticides safely.
Golf course irrigation?

CHOOSE THE SOUTH's SPECIALISTS...
Yes, if your club is considering up-dating or extending its present irrigation system or you are thinking of investing in this important "Greenkeeper's Aid", have a word with ISS. Established for over a decade, ISS have years of experience of golfcourse irrigation systems design, installation and maintenance -this experience is yours for the asking. ISS will gladly visit your course for a chat -phone or write to them now!

IRRIGATION & SLURRY SERVICES
Unit 6, The Bourne Centre, Salisbury Business Park
Southampton Road, Salisbury, Wiltshire
Telephone: (0722) 412510

F.W. McConnel Ltd, Temeside Works,
Ludlow, Shropshire, SY8 1JL
Telephone: 0584 3131 Fax: 0584 6463

ARE YOU OVERDRESSED?
The single hydraulic control valve on the new McConnel Dabro Top Dresser means you can adjust the amount of dressing you spread, so you don't get those lumpy overdressed concentrations.
An agitator bar keeps your dressings on the move, prevents bridging and allows dressing to fall freely on to base roller. The brush then sweeps off the dressing to give a good even spread.
Three point linkage removes the need for wheels and also means you can dress in the tightest of corners.
A visual check on dressing levels in the hopper can be done from tractor seat and a grid top, stops unwanted items getting into the hopper.
Functional robust design with easy access to all parts will make The McConnel Dabro Top Dresser a favourite across the land.

WRITE OR PHONE FOR YOUR NEAREST DEALER.
SOME ESSAYS ON GOLF COURSE ARCHITECTURE 1920

W e can finally ease out of the rut I had got you into and leap boldly forward into the Twenties. I shall throw in the Thirties for good measure but we are unlikely to get that for this month. I therefore hasten to remind you that we had just won the First World War with the aid of Dr Mackenzie and the greenkeepers. The time is now 1920; the place, East Hendred, the characters, Colt, Alison and Mackenzie. They have reassembled after a war spent sewing up food parcels, ciphers and the wounded respectively.

After comparing their gruelling war-time experiences, the talk turned to business and how to publicise the new partnership. Colt told them of his plan. He had already written to all his old customers to tell them that if they would like to repeat the experience, A.C. & M. would be happy to deal with the order.

A postcard would do. If he selected the best replies, especially those from abroad, and added a few chapters of his own on the fundamentals of golf course architecture he had the makings of a nice little book. However, being of a generous nature, he was prepared to give the two youngsters a chapter each and suggested Alison should start (as the A’s always did) and Mackenzie should finish. A.C. & M. would be easier to index in an orderly manner.

Moreover, his old friend, Bernard Darwin, was knocking out an article for County Life every week and would be able to persuade that outfit to publish the slim volume and would doubtless give it a boost in a future review. Alison and Mackenzie looked at each other and winked. The old man had lost none of his cunning because of the rationing. It had certain been a good day’s work when they hitched their stars to his De Dion Bouton. It was only in the train going back to Leeds to see his father, that Mackenzie remembered those lectures, which he gave in 1912 to the Northern section of the Golf Greenkeepers Association. They wouldn’t make a bad little book, he mus- tered. He would call it ‘Golf Architecture’.

To give the text a little more body, he would get Colt to write a preface. He had better that in any case, otherwise the old man might get shirty over Mackenzie having a chapter in “The Essays” and then, dammit! producing another book of his own. He returned to the Lancet and lit up the seventeenth Gold Flake of the day. He was a great health fanatic.

And so it came about that these two books were published in the same year and their authors set about making some of the finest golf courses that could be imagined, always respecting the theories which they had set out in their writings.

Architects today tend to do the job first and write about them afterwards to explain why it is so good even if nobody likes it. These three wrote first and practiced what they preached. They had of course, operated earlier but never on the scale which now developed.

Alison went off to North America and produced 20 new layouts in U.S.A. and Canada, finishing off the last four holes at Pine Valley which Colt had planned previously. Mackenzie followed a year or two later, did 20 new ones in California alone, some being everlasting memorials. Indeed they still and when replying I asked if they had any notes about Alison which I might have, then dammit! producing another book of his own. He returned to the Lancet and lit up the seventeenth Gold Flake of the day. He was a great health fanatic.

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Whatever your automatic watering plans or needs might be, a word with the professionals at Turf Irrigation will help you achieve your objectives. Telephone or write now for a professional opinion...

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TEL: 0477-500255/6 FAX: 0477-500633

TORO Distributors for the South East, Midlands, North of England, Wales, Scotland & Northern Ireland.
Osmocote N Slow Release Fertiliser

Heavy play on a golf course may be seen as a sign of success but can lead to problems for the greenkeeper responsible for keeping it playable all year. Fitting in tee maintenance on a busy course can be a headache and it is this particular issue that I recently discussed with the course managers of three packed courses.

The Hatfield London Country Club at Essendon, Hertfordshire comprises an 18 hole golf course and a 9 hole pitch and putt on 156 acres. The owners are investing in major improvements including construction of sub-greens and secondary tees on all holes. There are no members. The course is open to the public on green fees.

We have seven minute teeing times. The course is packed everyday. There’s someone on the tee all the time from 7.30 a.m.” said Peter Creary, Head Greenkeeper and course manager. He estimated that two hundred rounds are played each day in summer. Winter use is heavy as numbers are swelled by players from private courses which close for winter.

The tees suffer exceptionally heavy wear, particularly at short holes. Being a public course we get a great variation in standards of play.

“To strengthen tee swards we have used dwarf ryegrass instead of trying to encourage the finer fescue. It gives a coarser finish but it’s necessary on a course that gets as much wear as this one.”

“It was incorporated into the turf last year. The results haven’t been as good as I expected, due to the drought and winter. The results haven’t been as good as I expected, due to the drought and winter. The fertiliser granules are coated in organic resin which determines daily release of nitrogen depending solely on temperature. With an average soil temperature of 21°C this application should last 5 months.

Because nitrogen release is not affected by soil type, irrigation water, soil pH, activity of soil microbes or external salt concentration, a steady, season long release results in regular turf growth. Nutrient release closely mirrors turf growth so leaching into the surrounding soil does not occur.

Mr Creary is pleased with the results. “It’s fairly expensive, but it’s economical because you only apply it once. The quality of the turf is better than normal and would be even better with more rain” he commented.

The tees and aprons are cut to ⅜ inch. The Osmocote N granules are small and are not picked up by mowers.

Mr Creary used 1 oz/sq yd of Osmocote N in 1988, out of curiosity, he used Osmocote N at ¾ oz/sq yd on medal tees. Last year he used 2 to 3 oz per sq yd of tees.

In early April using a cyclone type spreader. The tees dressed with Osmocote N stayed very green. There was no flush of spring growth, just a steady growth all summer. “When it rains the grass greens up very quickly, even the dry areas that burnt off in the drought” he said. “I’ll use it again next year, possibly on all tees.”

Golfers Like Sheep

Trevor Oxtoby, Head Greenkeeper and Malcolm Rodger, General Manager of the North Middlesex Golf Club at Barnet, estimate that 40,000 rounds are played there per year. “We have 500 members and we’ve seen an increase in green fees this year,” said Mr Oxtoby. He attributed this to the fine weather and other local courses being out of condition.

The course, leased from the council, cover 78 acres. All boundaries are urban. Dotted with specimen trees, the course sweeps down from the elegant white club house, formerly the manor house, to a small lake.

The size of the course means that player traffic is concentrated particular-ly on entries and exits to greens and tees and between nearest bunkers and the next tees. ‘Golfers are like sheep - you can put signs but none of them read them. They just follow each other!’ commented Mr Oxtoby.

Short tees are furnished with bins for divot filling. ‘We don’t get as much co-operation from players as we would like’ he said.

Average tee area is about 23½ normal size. To save wear, grass tees are not us-ed in winter. ‘We play off mats and are experimenting with different types at the moment. For example, a red flannel, pink flannel. You just get as near the yardage markers as possible, so some mats are placed on the tees. This requires some renovation work the following spring’ said Mr Oxtoby.

He used 1 oz/sq yd of Osmocote N fertiliser last spring on all tees. The outdated irrigation system and summer drought prevented achievement of the full benefits of tee greening. “It is economical because you apply it once. I’ll use it next spring to give it a fair trial. I’m after the good aesthetic effect I believe it can produce” he said.

Anne Barletta

Anne Barletta

The heaviest wear is on tees. Top dressing divots is a continuous activity. It is etiquette to fill in your own divot if there’s a soil box provided. We provide these on par 3 tees, but players just don’t do it!” remarked Mr Phillips.

Tees contain 70-80% Poa annua grass, perennial ryegrass and small amounts of bent. Fescue. Automatic watering is available on most tees but is used once every three weeks. He uses Osmocote N in early spring and regular applications of liquid organic nitrogen through the summer, depending on turf condition.

In 1986, out of curiosity, he used Osmocote N at ¾ oz/sq yd on medal tees. Last year he used 2 to 3 oz per sq yd of tees.

It was applied in early April using a cyclone type spreader. The tees dressed with Osmocote N stayed very green. There was no flush of spring growth, just a steady growth all summer. When it rains the grass greens up very quickly, even the dry areas that burnt off in the drought” he said. “I’ll use it again next year, possibly on all tees.”

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Anne Barletta
NOVEMBER 1989 will go down in history as the month when the Berlin Wall was dismantled, but a greater barrier was broken down during this month within the Greenkeeping Profession.

For many years people have travelled the length and breadth of Britain banging the same drum for better resources for Greenkeeping Training. BIGGA finally launched their first in-house Management Courses through the support of the Greenkeepers Training Committee and Kubota.

One hundred Course Managers/Head Greenkeepers attended the courses at our Headquarters, Aldwark Manor, near York.

The generous support of both our sponsors allowed us to keep the cost of the residential courses down to £100 plus VAT. Sadly, with three weeks to go before the first course, twelve places were vacant. This was disappointing especially as I know that many of our members are keen to learn but will not ask their employers for time off. Therefore a letter was sent to golf clubs within the Northern Region, addressed to the Secretaries/Chairmen of Greens explaining the course content and the use of the golfers’ 2p levy to the Home Unions which provides funding for the Greenkeepers Training Committee. The response was quite amazing. It was as if the release of the R & A Greenkeeping Panel’s document

Speaker
Roy Brighton, Time Management
Fred Robinson and Elaine Carroll, Computer Tutors
John Middleton, Askham Bryan College, Personnel Management
Dr. Andy Newell, Sports Turf Research Institute, Grasses for the Golf Course
Bruce Cox, Askham Bryan College, Budgeting/Accounting
David Stubbs and Anne Marie Brennan, Golf Course Wildlife Trust Conservation
Nick Bisset, Askham Bryan College, Communication Workshop
Sports Turf Research Institute, Problems Associated with the Management of Tees, Greens, Fairways and Bunkers
Health and Safety Inspectorate, Health and Safety at Work Act

Neil Baldwin, Sports Turf Research Institute, Management of Pesticides, Turf Diseases

DAVID GOLDING

'The Way Forward' had pricked consciences of a few people so much so that the places were booked up overnight, a reserve list started and sufficient calls received to put on another course. So perhaps employers are at last keen to support our efforts to provide competent professional Greenkeepers.

Members of the Association who attended the courses were asked to complete a questionnaire, which will be helpful to me when programming future courses at Headquarters. I have not had one questionnaire returned with anything less than the highest praise for the speakers, the accommodation, their fellow delegates and thankfully, the organisation of the courses.

Below, I list some quotes from delegates whom I know will be pleased to hear that I have already booked four weeks later in 1990 for follow-up courses in their training programme.

The real plus from the four weeks was the interest shown by the delegates in each others’ problems back at work, and I believe many delegates learned just as much outside the lecture room as inside it.

Our International members were in evidence and their hunger for knowledge was a pleasure for all to see.

One thing is for certain, that whilst several delegates will now go on to an Approved College based course, many will be looking forward to the next in-house courses.

SEMINARS

The role of organics in turf management will be one of three one-day seminars for Greenkeepers, Groundsmen and playing fields staff during January and February, 1990. Organised by Rigby Taylor, they will take place on Wednesday, 17th January, Leatherhead Golf Club, Surrey; Wednesday, 31st January, Villa Park Football Club, Birmingham; Tuesday, 13th February, Headingley Leeds.

A panel of speakers will deal comprehensively with various facets of the theme such as organic nutrients, soil management, liquid feeds and their application, and seed selection. Admission will be free and interested persons can obtain further information and invitations by contacting Rigby Taylor on Freephone 0800 424 919.

EDUCATION

November '90
STOP PRESS
COMPUTER COURSES FEBRUARY 5-9, 1990
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Lee Bornstein - Product Manager
TRIMS GROUNDS MANAGEMENT
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Further details from David Golding at
H.O.
Ring for Course details, costs, etc.
03473-581/2

Dear Sir,
HAVING recently attended the first of, I hope many, course managers courses arranged by BIGGA. I would like to express my appreciation for what turned out to be a very rewarding and enlightening week back at school. The intensive course covered all aspects of modern management including computers, personnel and budgeting, as well as health and safety, and environmental problems, associated with golf course management. Also 'state of the art' information on such things as pesticides and turf diseases from the STRI.
All this in the luxurious and comfortable surroundings of the Aldwark Manor Hotel for just £100, helped in no small way by a generous donation from Kubota.
A splendid week even if it did show up a few of my many limitations.
Yours sincerely,
CLIVE OSGOOD
Head Greenkeeper, Walton Health GC

THE DIPLOMA IN GOLF COURSE & SPORTSGROUND MANAGEMENT
providing:
- Experience and evaluation of all types of Golf and Sports provision and turf equipment
- Opportunities to work in Europe and America
- Training at a Greenkeeper (G.T.C.) approved College
- The opportunity to acquire the skills to become a Manager in this expanding industry
- Caring, qualified and experienced tutors
- Extensive new residential and recreational facilities recently completed

For further details please contact: The Course Tutor Bob Young or the Courses Adviser Tim Jackson
Sparsholt College Hampshire, Sparsholt, Winchester, Hants. SO21 2NF. Tel: 0962 72441
**ASSISTANT HEAD GREENKEEPER**
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This position is for a person of proven ability with suitable qualifications and experience in all aspects of course management and machinery maintenance.

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Applications with C.V. to:
The Secretary, Dyrham Park Country Club, Galley Lane, Barnet, Herts. EN5 4RA

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**PADBROOK PARK**

As part of our major leisure development in the Culm Valley we are presently constructing, and plan to open in Spring 1991, a 9 hole (3,084 yds) golf course

*We are seeking as from 1 April 1990 a qualified and experienced GREENKEEPER*  
To take responsibility for the course and the extensive grounds of the resort.

The salary will be in line with BIGGA scale.

Please write with full c.v. to:  
John Robins,  
Padbrook Farm Ltd,  
Cullompton, Devon, EX15 1RU

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**GOLF PROJECTION INTERNATIONAL (UK)**
A COMPANY FOR PROJECT DEVELOPMENT AND CONSULTANCY

**COURSE MANAGER**
required
for project under construction in West Germany

Golf Projection International require a fully qualified Course Manager to oversee the second phase of construction for their Golf Club Pfaffing project, 30 miles east of Munich.

On completion of construction in the Summer 1990, the suitable applicant will then take over as Course Manager.

Above average remuneration is offered to include a flat for the successful applicant.

Apply in writing with full C.V. to be received no later than 14th February, 1990 to:

K. N. Munt, Managing Director,  
G.P.I. (U.K.) Ltd.  
42, Hilltop Road, Earley, Reading, Berks. RG6 1DA

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**Broadstone Golf Club**
requires a

**1ST ASSISTANT GREENKEEPER**
Deputy to the Course Manager.

Fully experienced in all aspects of greenkeeping.

Attractive salary to successful applicant.

No accommodation

Apply with full c.v. to:
The Secretary Manager  
Broadstone (Dorset) Golf Club  
Wentworth Drive, Broadstone, Dorset, BH18 8DG
HEAD GREENKEEPER
required for newly constructed course at
BRAMPTON PARK GOLF CLUB
Near Huntington, Cambridgeshire
Excellent opportunity to be in at the beginning and to influence an exciting new venture. Private club, hotel construction planned for 1990.
Salary and terms negotiable.
Apply in writing with full CV to:
THE COMPANY SECRETARY
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HEAD-GREENKEEPER
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for a 18 holes course in Bremen-Garlstedt,
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Applicants should have wide experience in all aspects of course management and the ability to motivate staff.
Please apply in writing, with full C.V., photo and copies of educational achievements to:
The Secretary,
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Bgm.-Spitta-Allee 34,
D-2800 Bremen,
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N. London & Home Counties
Our client is based to the north of London selling a full range of products, including: chemicals, seeds, fertilisers, other consumables and machinery, to the amenity and professional turf industry.

Sales Manager
Reporting direct to the managing director, this position will entail close liaison to establish a strong product base and an effective overall sales policy. Initially the sales manager will be assisted by two field sales representatives.
The successful candidate will have extensive experience of the turfgrass industry with a detailed knowledge of chemicals, seeds, fertilisers and allied products. A proven track record selling to amenity managers, groundsman and greenkeepers is essential.
OTE £28,500 Prestige car, medical insurance

Sales Representatives
Selling to turf grass and amenity managers and other professionals the successful candidates will have a detailed knowledge of chemicals and their application, plus a good knowledge of seeds, top dressings, and other allied products. They will also be expected to have a working knowledge of grass machinery.
OTE £24,000, company car, medical insurance
All appointments to commence as soon as possible
Apply in the first instance with c.v. to:
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Business Interface Ltd.,
2 Place Farm,
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HEAD GROUNDSMAN/ GREENKEEPER
required
for busy 27 hole golf course and 9 hole golf course, both in the Greater London Area.
Job has potential for further promotion within our rapidly growing company.
All enquiries stating previous experience to:
Box 31, Greenkeeping Management, Spencer House, Market Lane, Swalwell, Tyne & Wear, NE16 3DS

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Tel: 0277 812111 0836 538538

January '90
**ALTERNATIVE ENGINES**

BY HUGH TILLEY

INTERNAL combustion engines provide a wide range of engines, of which the most obvious are mowers. Some manufacturers offer alternative power units as original equipment, usually if they are selling into different markets, such as professional and domestic. However, there are also many other situations when a change of engine is required. The most obvious is when an engine has become 'clapped out' and while it is usual to replace with an identical unit, this is not always possible. Other advantages of changing engines includes to improve economy, power output, service back-up or reliability.

Economically the most clear cut situation is changing from a petrol engine to a diesel. As a rough guide the greater cost of a diesel will be recovered within two years if it operates five hundred or more hours a year, because of greater fuel economy, lower maintenance requirement, better resale value and not least the fact that diesel fuel does not 'evaporate'. Economy is less important for smaller engines, and there is minimum difference between modern engines of similar power. Where both two and four stroke options are available the former can be expected to provide more power from a given capacity and weight, however lightness may be at the expense of longevity and economy.

Another important reason to change engines may be to increase available power, and this may be true where the club has been sold a semi-domestic model to give a lower price. The competent dealer and importer will ensure that he sells suitable machines or tells of his reservations, however there are a number of less experienced dealers, and some clubs to whom the price on the bottom line is all important.

The competence of this service back-up is yet another reason for re-engineing, and service back-up should always be very high on the list when selecting original equipment. Each engine manufacturer has a network of dealers across the country, and selecting a competent dealer is as important as selecting make, some of these dealers may be engine specialists rather than grass machinery specialists so be prepared to look outside your normal suppliers.

For most people technical data is just a load of meaningless jargon, space does not permit explanation here. Varying the fuel injection or induction systems allows one engine block to provide a range of outputs and the use of turbocharging not only gives more power but will also provide better fuel efficiency. Typically the engine for a rider mower needs high torque back-up, or slogging power, whereas industrial engines operate at more constant speed and power. These variations can also be met by fuel injection settings.

More understandable will be characteristics such as noise levels, and exhaust emission, and by public demand manufacturers are devoting considerable amounts of money to reduce both. Noise level also needs to be equated to tone, as a deep tone is less tiring for the operator than a 'sharp barking' engine. In general liquid (water) cooled engines are quieter than an air cooled engine, but liquid cooling systems provide more components to fail.

Lower noise and vibration levels from Fuji "Robin" OHV engines.

Other operator concerns relate to ease of starting, indirect injection engines tend to be more difficult to start than a direct injection engine because a glow plug is required to heat the air in the pre-combustion chamber. Cost of spares may also be an important consideration, many of the Japanese engines have relatively expensive parts and maintenance, so it may be worth costing common parts such as fan belts and filters, and even piston and crankcase parts with a petrol engine which is more likely to require these, perhaps at around 2,000 hours. Diesel engines can be expected to run to 5,000 hours before requiring the head off.

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