Going green on the greens

KEN POOLE studies the economics of replacement engines for greens machines and concludes that for reliability and peace of mind, investment could be well worthwhile

For the second year running greenkeepers have had more than their share of problems, be they on modest nine-hole courses or those that stage international events. The second year of drought has put immeasurable pressure on the greenkeeper, who is still expected by the committee to maintain good quality playing areas.

Droughts, of course, present major problems and these past years have almost equalled those experienced in 1976. What the greenkeeper certainly does not need is problems with machinery, though economic pressures may be upon him to curtail costs. Expenditure on, say, a new greens machine will probably cost somewhere in excess of £1,200 and he may experience difficulty in getting authority for such a purchase.

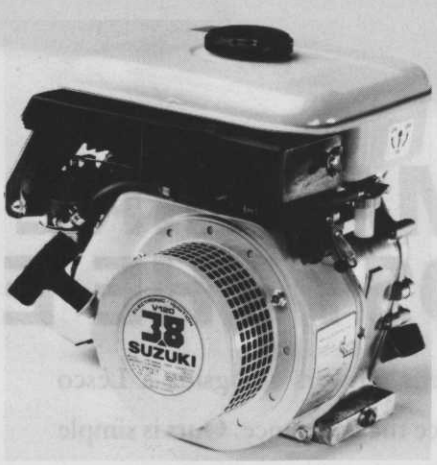
Thus he is faced with the need to ensure his existing machinery is in tip-top order so that greens can be up to the standards expected by every player.

His problems do not end there, for the cost of maintaining professional equipment, which demand specialised skills, is heavy. Current rates are in the region of £25 an hour which, adding the cost of spares, may see a cost in excess of £200 for a complete overhaul or rebuild of an existing engine.

It is worthwhile studying the economics of such a move at this stage for two reasons:

1) In such a rebuild the existing ignition and fuel systems are unlikely to be replaced and in the case of the ignition system it could probably be the old style of contact breaker point magneto assembly, with its need for regular maintenance.

2) It is also likely the engine was designed to run on four star petrol and would be of a side-valve design, both of which contribute to higher running costs.



The Suzuki V120 3.8pm OHV unit, RRP £229+VAT, is typical of the breed of modern engines

The greenkeeper should therefore seriously consider the advantages of fitting a modern O.H.V. engine which can offer a number of immediate benefits, not least one of a full manufacturers warranty covering the complete unit for probably a full 12 months or even longer. Let us therefore study the benefits of modern technology which the greenkeeper can find in any of the modern breed of general engines now offered at a price often less than the cost of a rebuild.

In a survey carried out some years ago over 80% of users demanded, as the most important feature, ease of starting. Modern design can provide this in several ways:

a) Automatic decompression – which means the most gentle pull on a recoil starter will bring the engine to life.

b) Transistorised ignition systems which produce a much fatter spark at the plug. Even if a plug is fouled through dubious fuel having been inadvertently put in, the engine will start without hesitation.

c) The electronic ignition is maintenance free, with no contact breaker points to check, adjust or replace.

The high reliability factor of these new systems enables many manufacturers to offer extended guarantees against failure.

All leading engines manufacturers now produce O.H.V. design engines for greenkeeping machines. The O.H.V. engine generally uses anything up to 30% less fuel than a side valve unit, by virtue of a more efficient design. A simple calculation will show how much fuel is used in a year and the savings thus generated. The second saving is that modern O.H.V. engines are designed specifically to run on unleaded fuel and immediately one has a substantial saving per gallon used. In a year some courses could easily save the cost of an engine installation.

An important environmental factor is the lower noise level of modern machines. These have had to be produced by the makers in order to meet EEC power noise regulations, a factor now also covered by health and safety regulations whereby the operator must not be subjected to excessive noise levels.

With few exceptions most professional machines in use will have similar mounting details, making engines interchangeable. The new breed of engines were originally inspired by the Japanese but now all leading companies making engines for greenkeeping machines produce them to the specifications outlined. These include aluminium engines with sleeved bores, hard chromed piston rings, full journal bearings, inlet and exhaust valves of very high quality steel and on the whole a very compact design, but with a much improved power to weight ratio. It is a fact that machines fitted with modern replacement units invoke a reaction from the user that the machine 'performs better than new'.

To summarise, the greenkeeper can expect to achieve advantages in performance by saving fuel, together with a machine that starts easier and runs quieter. He will experience lower exhaust emissions because he is using less (unleaded) fuel. He can expect better performance for less effort and above all will have greater reliability, for these units are essentially long-life.

Most leading manufacturers offering engines also offer advice regarding interchangeability, either direct or through their dealer networks.

Finally, the greenkeeper, who is so much a down-to-earth person with an awareness of mother earth, will know he is using a product that is environmentally friendly by design.