Then the question is, can I get an engine to fit my machine? The answer is most probably yes, as engines are now available in a very wide range of configurations from single and twin cylinder air cooled units which can be obtained in horizontal or vertical crankshaft form through multi-cylinder water cooled units. Engines are available with drive from either or both ends of the crankshaft and with additional PTO's for hydraulic pumps. Starting can be by rope, recoil, hand crank or battery. Power ratings can be from about 5hp onwards with very good torque characteristics.

As much machinery used on golf courses is imported from America (where fuel is cheap) the use of high horsepower petrol engines goes by unnoticed. In the UK, however, petrol is very expensive, particularly in relation to gas oil or 'red' diesel, so much so that a diesel engine can more than pay for itself in fuel saving in less than a year. If these savings can be made on a long life engine for one piece of equipment, imagine the scale of economy when a whole fleet of golf course equipment is considered; and as every course manager and greenkeeper will know, cost is of paramount importance. All courses have tractors and therefore diesel fuel will be readily obtainable. Its extended use will reduce the quantity of highly inflammable petrol that needs to be stored at any one time.

Now that diesel engines are made to be more readily started, many of the small units can be as easy to start on the recoil as a petrol engine. The multicylinder indirect injection engines have heater plugs and many or all of the features found on modern automotive diesel engines to ensure that they are trouble-free cold starters.

The diesel no longer need be regarded with suspicion, for it can be easily started, is reliable, economical and has a very long service life. There is a type and configuration for nearly every job on a golf course. As we have already seen, engines can be bought from small air cooled single cylinder versions to multicylinder liquid cooled units with their own radiators. Now is the time of year to consider re-engining that expensive equipment with a long life, low fuel consumption diesel engine.

Greenkeeper International acknowledges the assistance given in compiling this comparison feature from Briggs & Stratton (petrol) and Tecnamotor (diesel).
Correct approach to chemical usage: sensitive and sensible

Careful chemical selection and weed control programme planning will do much to answer the growing public and legislative pressures related to herbicide use in sensitive areas, according to Mark DeAth of weed control specialists Nomix-Chipman.

Speaking on the options for environmentally-friendly weed control at a specialist water quality seminar in London, Mr DeAth advised local authorities and amenity managers to examine their options in detail. With the choice being between residual and non-residual herbicides, there are four primary strategies available to specifiers today, he said.

The ultimate in environmental acceptability is to use non-residuals only. This obviously has a higher cost in that at least two applications will be needed each season to give an acceptable level of weed control. However it also poses the least risk of water contamination.

“Another option is to alternate between residuals and non-residuals, using a residual in a single application one season followed by a non-residual which may require several applications next year,” he continued.

“This will reduce the chemical burden on the environment while maintaining good weed control.”

“The third possibility is to combine atrazine and simazine residuals with knockdown herbicides. This eliminates the use of atrazine and simazine but maintains a high level of weed control from a single application at a comparable cost to a triazine-only programme. Finally, the most economic option is to use triazine mixtures. Although this will control weeds over an entire season from just one application, it carries the greatest risk to local water supplies. No official restrictions have yet been placed on the use of triazine mixtures, but it is widely accepted that curbs will soon apply.”

DeAth went on to outline factors which govern the choice of weed control strategy, including the availability of labour, the need for operator safety and the application equipment to be used.

With herbicide application becoming as important as chemical choice in achieving the best balance, he defined the key application needs. Systems should maximise labour productivity, minimise spray drift and operator contamination, maximise chemical use and minimise chemical disposal problems.

“Whatever strategy is chosen, there are a number of operating guidelines which should be followed to minimise the risk of water contamination,” he concluded. “If there is any doubt, seek professional advice from suppliers and ensure that all advisers are BASIS qualified.”