

Roland Taylor looks at the improvements made in the modern day machinery workshop and looks at the whole issue of machinery maintenance

# MAINTENANCE FACILITY

The workshop area turned out to be a corner of the machinery store. The floor was earth, which had dried out to a dust and the only light was from one florescent tube so a great deal of the area was in shadow. A small bench was set against the wall, so obviously, a lot of the work had to be carried out on the floor. There was a heater, but judging by its size, the heat it emitted would barely take the chill off on a cold winters day. Old half-dismantled machines, that had clearly seen better days, were littered around the perimeter. What little space there was, would be almost completely taken up if a machine were brought in for repair. Containers full of black sludge and fuel were

The modern day workshop is a highly technical place

heaped in one corner. The air was rancid with the smell of burnt oil and earthiness and the overall appearance was a place where you would not want to linger in, or worse carry out any service work.

No, this is not the first chapter of a Dickensian novel, it is a slightly over the top description of the type of machinery storage cum workshop, that could be found not so many years ago. Thank goodness those days have passed and today the picture is generally completely different, although having said that, there maybe some

elements of the scenario still about.

Over the last two decades considerable changes have taken place in both the golf course and outdoor power equipment industries. In the former, we have seen considerable growth and with it a higher profile that has placed greater demands on all those involved in course management. Part of this has been in the machinery sector, where their upkeep is critical to a smooth operation. This has led to more courses now carrying out all their service work with dedicated staff and workshops.

On the manufacturers' front some of the big names have been merged, while other companies are becoming well established. The dealerships have also changed with quite a number of previously well-known names falling by the wayside. Others have grown larger.

There are now fewer firms around specialising in the professional equipment sector. This has led to some suppliers having to sell direct and find service outlets to cover warranty, plus service work.

What is even more of a concern, is that fewer people are coming into the business to be trained as service technicians.

## What are the benefits of a good service programme?

Obviously, it is necessary to keep equipment running and producing an optimum performance with minimal downtime, but there are other reasons.

Safety is a very important one, especially as television advertising encourages the public to make claims for any injury. Badly maintained machinery is dangerous. The Health & Safety Provision and Use of Work Equipment Regulations under Section 6 maintenance states:-



1. Every employer shall ensure that work equipment is maintained in an efficient state of working order and good repair.
2. Every employer shall ensure that where any machine has a maintenance log it is kept up to date.

The regulations also cover routine and planned preventive maintenance.

Another Section, which applies to a workshop, is lighting. The guidance here is that any place where work equipment is issued should be suit-

# TIES

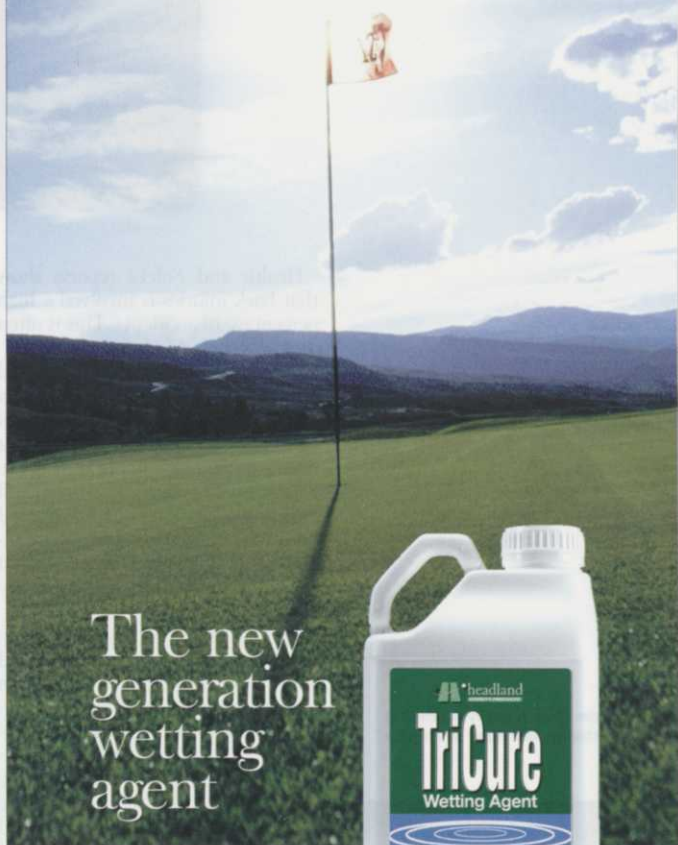


ably and sufficiently lit. Lighting should be adequate for the needs of the task.

Electrical safety also requires careful monitoring. Earth leakage circuit breakers (ELCB) or residual control devices (RCD) should be fitted to all hand-held electrical equipment. All portable electrical equipment must be PAT tested and carry a certificate. The equipment should also be marked stating the date and signature of the tester. A competent person who has been trained in this field

should test the equipment. Electricians should be members of the Electrical Contractor Association ECA and or NIC, EIC. These units require regular checks to ensure they are still operational. Charging batteries needs to be done in a well-ventilated area, away from any possible source ignition. Cleaning solvents and petrol should be stored in the correct containers and in a cool environment. Make sure any protective clothing, gloves and eye protectors are readily available.

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# MAINTENANCE FACILITIES



Health and Safety reports show that back injuries is involved a high percentage of accidents. This is often due to incorrect handling of loads.

In a workshop environment it could be due to lifting a heavy unit onto a workbench. The installation of hydraulic workbenches, suitable for lifting all the machines in the fleet to a comfortable working height, will reduce the possibilities of a strained back. This will also improve the working conditions considerably and speed up repair or servicing operations.

Another reason for regular maintenance is investment care - well looked after machinery can command a higher trade-in value. There is reputed to be a course, in the States, where

the workshop resembles an operating theatre and the equipment is looked after to the highest of level. As a result when they replace machines there is a waiting list for the old ones - the prices they command justify the care and attention the workshop and operators lavish on their fleet.

Exhaust pollution is very much under the spotlight and engine manufacturers have to comply with stringent legislation regarding the levels emitted by new power units leaving their factories. Once out in the field it is up to users to ensure that their equipment is correctly serviced if low levels are to be maintained.

Two other areas of benefit are better management of costings and greater control of day to day course management.

For those considering carrying out all their own servicing what is involved? A starting point is to carry out an analysis of the total maintenance costs the previous two years. It is also a good idea to try and identify the amount of down time and the reasons for it.

The big question is, would there be enough work to keep a dedicated service technician fully employed? This is an important factor, bearing in mind modern machines are becoming increasingly more sophisticated. The person will need an extensive knowledge and be able to work on a wide range of systems, including all types of engines, modern hydraulics and electronics. With his or her extensive knowledge and expertise they will not be happy if they are expected to carry out mundane work, outside their sphere, to fill in time.

Setting up a workshop will entail considerable investment, so every avenue needs exploring. The right

working conditions are critical for both efficiency and harmony. The building should have plenty of both natural and artificial light and enough space to comfortably work on the largest unit is a must. Restricted access makes for all kinds of problems. Cleanliness is paramount when dealing with modern engines and precision components, such as fuel injectors and hydraulic systems. To clean these items to the high standard necessary will require a special washing unit.

A hard surfaced area outside with adequate drainage is need. Here machines can be cleaned down using a pressure washer before going into the workshop. For those courses deciding to set up a full operation, there will be a large shopping list, including grinders, tools, drills welders and electrical/electronic testing equipment.

At this point the question arises, is it worth it. If the answer is no, what are the alternatives?

A regular daily and weekly maintenance programme is a must, so a special bay or area should be set aside

Below. Having easily accessible storage is a huge advantage





where this can be carried out. This will require facilities for making draining and replenishing oil fast and easy. An air compressor would be ideal for blowing dust and dirt from around cooling fins of engines and hydrostatic drives, or inflating tyres. Other items should include, a comprehensive set of tools, spanners, grease guns, fast moving replacement parts, instruction manuals and fuel storage facilities.

As far as breakdowns, major servicing, overhauling or regrinding are concerned, a local specialist can be sought, who has the qualified staff to carry out this type of work. This could work well if a service contract is drawn up between both parties, so everyone knows exactly what is expected of them. When deciding on a suitable partner, in this venture, an assessment should be made of their service facilities and staff, as to whether they are adequate for carrying out the work you are likely to require.

An important aspect in any arrangement is that both parties work well together, so that each understands the others requirements and needs. For instance, the climate has changed considerably over the last few years. As a result mowing is now carried out for virtually twelve months. This means that any time available for major overhauls is limited, so to avoid machinery being out

of commission for too long, some plan needs to be put into place. By forming an alliance an acceptable solution can be found that satisfies both parties.

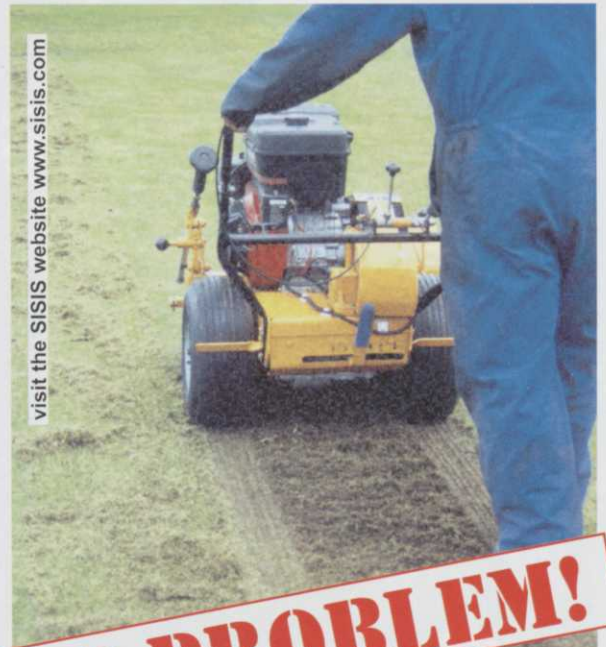
For clubs, service contracts can be a positive way forward. A major benefit is that they do not have to make a considerable investment in specialist workshop equipment and buildings. In addition, there is not the problem of having to find qualified staff from what amounts to a small pool of experts that is gradually disappearing.

Modern machinery requires less maintenance than in the past, but when things go wrong it is often far more complex to deal with. Keeping ahead of these developments is down to specialist technicians with the right testing equipment.

From the service outlet's point of view, by being tied into a contract they can ensure there are trained staff, tools and equipment to cover every eventuality.

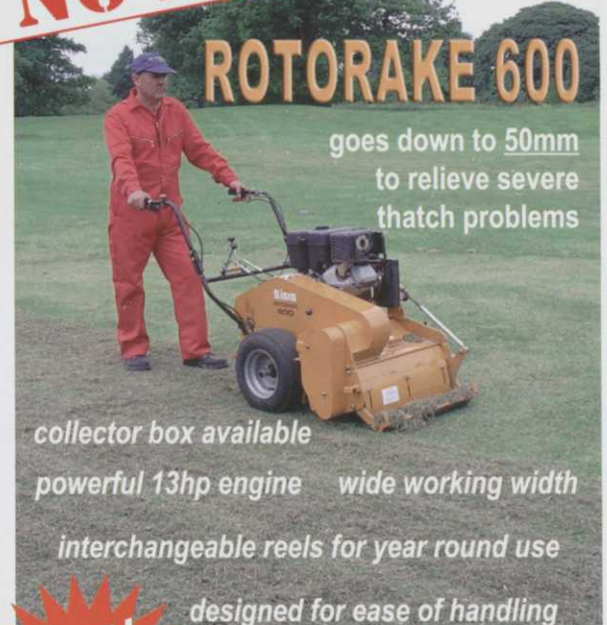
What worked a few years ago may not be ideal or adequate to meet today's demands. For those clubs large enough there are distinct benefits having their own service departments. Smaller clubs can, by forming a close liaison with a local service outlet, also enjoy certain advantages. It is to everyone's benefit to work together to keep machinery on the move.

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