

REAL WORLD TEST
Loaders, Diggers, Excavators
GREENKEEPER INTERNATIONAL

Hugh Tilley explores a very necessary market for greenkeepers

Muscle is required for a whole range of tasks on the golf course, from simply filling a top-dresser to constructing greens, handling fertilisers and digging ditches, and nowadays for reasons of time efficiency and/or health and safety this muscle is inevitably provided by tractor loader, excavator or loader/back-hoe.

Many clubs used to keep an elderly (ex-agricultural) tractor with loader, often of dubious reliability, while others had second-hand loader/diggers, however elderly machines can be more liability than asset (and often offend the eye and pride) thus most clubs have replaced them with new purpose designed machines more suited to their tasks. Nevertheless there are still ex-agricultural or ex-construction tractor front loaders and JCBs still in use, but while these may be effective at scooping up sand and loading a trailer or top dresser most greenkeepers see them as cumbersome and too heavy to use for work on the course. Older machines may also be deficient when asked to work hard or lift greater weights, nor are many of them equipped with the 'shuttle gears' or 'quick attach' which makes for faster and easier working, and makes them more versatile.

A quick poll round several local south-west clubs failed to find anyone admitting to having anything except modern and reliable loaders – until further pressed when several greenkeepers admitted to such machines, "retired but useful as a standby", to quote one. One local authority course which previously used industrial loader tractors – passed on by its highways department – has, since winning their contract (under CTT), justified a new loader while for serious digging or excavating such as for drainage or piping in irrigation they now hire.

Perhaps because greenkeepers now see the need for reliable equipment which is cost efficient and justified by the work of the course, most have settled for a compact tractor fitted with a

loader. Where they have a need to excavate or trench, and most do, there are several makes of back-hoe specifically designed for compact tractors. However not all compact tractors are ideal as the base for loader or backhoe so it is worth considering the loader when initially specifying the tractor. Retro-fitting "when the club has the money" may not be a good idea for loaders and back-hoes when their fit to the tractor is so crucial to functionality allow the dealer or manufacturer to sort out any compatibility or fit problems in his yard, in his time and at his expense.

Clubs which are contemplating serious work for a loader or excavator may be best advised to con-

sider purpose made machines. Hire may also be an economic option. It is important to consider the implications before embarking on self-drive hire, implications of health and safety as well as of work rate and job quality. The best and most cost effective choice particularly for drainage or trenching is often to hire digger complete with an experienced operator, even if does not allow "the boys to play with a new toy". It is also important to remember that some operators are more equal than others – ask locally. All greenkeepers in this feature found operating their loaders easy, and some have become very skilled diggers.

Cheapest of all loaders are the

skid steer loaders, but the whole 'skid' concept is alien to greenkeepers. Small wheeled loaders are more expensive but may be justified for their ease of use and high work rate. All wheel steer and all wheel drive offers minimum damage to surfaces, be they grass, gravel or tarmac. Lift height and capacity may be limiting factors with some smaller machines if trying to fill a lorry. Mini excavators are more specialist but may be justified if there is the work for them. Ability to remove loader and/or back-hoe quickly and easily is an ideal more in theory than in practice, few clubs with them ever take them off.

The JCB 2CX at The Belfry

With 200 hectares and three 18 hole courses plus surrounding woods and boundaries The Belfry has a need for a purpose made loader. Selecting the JCB 2CX gave the complex a compact relatively light machine with four wheel drive and four wheel steering. Derek Ganning, course manager, said that this meant low compaction and no 'turf scrub' in turning, and no tracks across fairways- an important factor when



Derek Ganning with his JCB 2CX at The Belfry

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you run championship courses.

The machine replaced a compact tractor with back-hoe which proved to be inadequate. Derek commented that the loader is used for a wide range of duties on the estate, in particular it has made The Belfry much more efficient on jobs such as path construction, ditching and forming bases for greens and tees. There are also some six miles of ditches to maintain.

As well as the four in one bucket the front loader is equipped with pallet forks which have enabled the machine to unload materials, such as fertiliser bags and 50 gallon tanks of liquid feed. In fact it is the only machine in The Belfry's £2.4 million fleet of machines which can handle this size of unit load. Four wheel steering is particularly effective when working with the forks and in confined spaces. A complete range of bucket was provided for the backhoe, and in addition The Belfry has a grader blade for the machine. Other duties foreseen for the JCB 2CX are snow clearance and sweeping, thus a snow plough blade and brush attachment have been ordered. Derek stated that dealer support, particularly from Dan Conway at Gunn JCB, has been very good and as part of the purchase package he (Dan Conway) arranged for specific members of the greenkeeping staff to trained at the JCB training and demonstration grounds at Ashbourne. This training is seen as having been invaluable. In fact Derek said it is essential that all operators have a certificate of competency under current health and safety law, and no one at The Belfry is allowed to operate the machine without one.

Since having the machine Derek said he is finding more and more work for it, already there is seldom a day when it does not work and it has become such an indispensable part of the estate that, often required to be in two places and do two jobs in the same time that he is considering buying a second.

JCB 801.4 at St Margaret's Golf & Country Club - Dublin

With heavy clay underlying the course St Margaret's has a considerable need for drainage - as a result they elected to buy a 1.4



Lewis Landlord on a Ford New Holland 2120

tonne JCB mini excavator. The course, an 18 hole par 72, is relatively new, and as well as some remedial work there is still some construction to be carried out. In addition the machine has helped to put in the considerable number of trees which have been planted around the course.

The JCB 801.4 is a light and compact excavator which runs on rubber tracks so making a minimum of surface damage. Head greenkeeper at St Margaret's is James Fisher and he reports that he is absolutely delighted with the unit. He has found it easy to use and all eight staff can use it although two have most experience and as a result are the most capable. The machine is now two years old and has 575 hours on its clock, which is not an insignificant number for a machine of this type in this use. Greenkeeper International was told that the machine is a popular machine which is eminently 'borrowable'.

The club has several buckets for the machine, however James said that much of the work is done with the narrow 6" bucket as this makes so little damage. Typical of current usage is an irrigation pipe burst which had been discovered just before Greenkeeper Interna-

tional phoned. Digging down to it took little time and the whole repair was effected in under half an hour. A dozer blade is built into the machine and this simplifies refilling trenches. Another important use for the excavator has been forming bunkers. Maintenance is extremely simple and no reliability or repair problems are reported.

The club also has a larger wheeled loader which is used for materials handling and loading.

Lewis Landlord and Landlugger on a Ford New Holland 2120 at Woodspring Golf & Country Club

This is one of the most common combinations of loader and backhoe to be found on golf courses - Woodspring's unit is mounted on a Ford New Holland 2120 tractor, which says Steve Chappell, course manager, provides ample power without being too heavy. It has been on the course for six months and during that time it has proved totally reliable and its maintenance straightforward.

In giving the reasons for the purchase Steve put 'need' as number one - the course is on heavy blue clay, and there are a lot of materials such as aggregate, top

dressing, earth etc., which have to be handled. Several alternative makes were considered, however Steve has previous good experience with Ford (now called 'New Holland') and this together with the price asked (the machine was part of a 'package') and the support available from the dealer, T H White, clinched the deal.

The tractor has manual transmission and four wheel drive, this latter Steve considers is essential to make most efficient use of available power. In fact, he said, the tractor has never been found lacking in power either when used with the front bucket or when operating the backhoe. Both loader and backhoe are quick to attach and detach although to date this has only been done by the maker when demonstrating at handing over. The club was given a comprehensive induction by dealer T H White and Lewis's representative. Steve said that all his staff except the trainees use the machine, and he rated it as "very user friendly." He considered it important that all his staff could use all machinery on the course as this maximised labour flexibility - and their interest in the job. Ten or 15 minutes was about all the time needed for operators to get used to the digging controls - and several operators have become extremely proficient.

The club has three buckets for the backhoe, nominally 200, 300 and 600 mm wide which covers all their main requirements from trenching to ditch cleaning, while the front loader has a simple 4ft wide bucket. The club expects to purchase a set of pallet forks in the future. Loading is usually into top dresser or tractor trailer and for this lift height has proved to be ample.

The tractor is equipped with turf tyres which gives it the versatility to be used for a range of other duties should this ever be required.

MF 875 loader on MF362 tractor at Peterstone Golf Club in South Wales

Peterstone purchased its tractor and loader as a "good low-hours second-hand" unit from MF dealer Ted Hopkins who is just a few hundred yards down the road. It was available at the right

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price, in the right condition and at the right time, and while, by Philip Bowes's, joint head greenkeeper, own admission, it is a larger, heavier and more powerful unit than is necessary for loading, the tractor is essentially required for operating a hydraulic gang mower which is the club's means of cutting their fairways. This means that 'quick attach' for the loader has to be just that – and it is, normally taking about five minutes to fit or remove. However there is the proviso that there is something solid, such as a steel building stanchion or the wall of the top-dressing bunker into which the loader can be pushed to get it fully bedded onto its attachment points. Philip also said that it was important that hydraulic pressure was released from the lines before attaching or detaching the unit – or all sorts of difficulties can ensue.

The loader requires one single and one double acting hydraulic

service for operation. The arms being operated by single acting rams means that the loader can't be pushed down into the ground, however Philip did not see this as a disadvantage. More important is having a double acting system for crowding and tipping the bucket as this gives complete control of filling and emptying the bucket and this is particularly important when loading Peterstone's Toro Workman topdresser.

Most of the loader work is shifting top dressing, firstly from where it is tipped (lorries can't get in or turn in) into the greenkeeper's compound, and secondly from this bunker to the topdresser. The bucket matches the top dresser well both in terms of its width and capacity, as a result the Bowes have found the most ideal operation is to use the tractor to transport each load in the bucket out to the topdresser. In this way all 18 greens can be dressed in under five hours.

The tractor does not have four wheel drive and Philip does not consider it is required, his feeling is that if 4WD is required then the tractor should not be on the ground. His view is that four wheel drive is an added cost and complication. It has to be added that Peterstone is a very flat and level course.

In the two years the loader has been at Peterstone it has required no repair or maintenance and there have been no oil leaks in either rams or hoses.

Kubota ST30 with LA350ST front loader and KL180 backhoe at Bradford Golf Club

Derek Thackeray at Bradford opted for a 29hp Kubota ST30 with Kubota front loader and backhoe (pictured below), this was bought in January 1994. The ST30 has hydrostatic transmission, has now clocked up about 400 hours, and neither loader nor backhoe are ever removed.

The hydrostatic transmission, Derek says, makes the tractor ideal for front loader work giving it a very fast work cycle, and he quoted the feat of moving 250 tonnes of root zone mix in under two days.

Having both loader and backhoe designed specifically for Kubota is seen as an important guarantee of compatibility as well as providing an assurance of back-up – there is a good local dealer. Bradford use the machine for a variety of purposes but one which occupies it for a considerable amount of its time throughout the year is picking up the grass clippings. The mowers leave these in piles just off tees or greens from whence they are later picked up by the tractor bucket and loaded onto a 3 tonne trailer. The Kubota is (naturally) equipped with grassland tyres and Derek stated that these provide ample grip for most normal use.

The club has a greenkeeping staff of five plus a trainee and all use the Kubota, Derek said the trainee took about half an hour to become proficient.

Asked about its service history, the answer was simply "no problems." In an overall appraisal Derek said he is happy to recommend it to anyone, it was one of the best machines that he has ever bought.

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