

REAL WORLD TEST GREENS MOWERS GREENKEEPER INTERNATIONAL

Hugh Tilley investigates the pros and cons of the two styles of greens mower - ride-ons and 'triples'.

The ride-on triple greens mower is possibly the most used piece of equipment on the golf course. While most greenkeepers and Course Managers may prefer to use pedestrian or hand mowers, practical constraints of time and money, (lack of either or both), usually mean that most inevitably use a ride-on for the bulk of their greens mowing. July's feature suggested that it is also the ride-on which is often equipped with verti-cutters, but often older machines, thus saving the need to change units, although modern triples have quick detach cutting units although some are more "quick" than others.

Although there are about seven makes of greens triple only about five are currently readily available or supported in this country.

Most of these triple mowers can also be fitted with alternative reels, cylinders and/or bottom knives allowing them to be used for rougher areas including tees, collars and approaches. Roller brushes, groomers or combs and verti-cutters are other options usually available which may or may not be specified. In fact many clubs will have several triples and down grade older machines for these uses.

Each manufacturer is likely to offer several options, not just of cutting unit but also of engine and drive. However, while the diesel has become king in UK, there is still often a choice between two or all wheel drive. For power transmission hydrostatic units are virtually universal for both for traction and reel drive, and no one reported any lack of

power from these and the only comment was the worry of oil leaks and seals wearing.

Jacobsen Greens King V at High Post Golf Club - Salisbury
Now into its second season, High Post's Greens King V has converted Head Greenkeeper, Lauchlan Millar, to this make, mainly because the groomers are so good. The club expects to buy new about every five years and to down grade the previous main greens machine to aprons and other less critical areas.

Lauchlan stated that the new machine, which has now done 371 hours, is a very significant improvement on previous machines, and that the groomers are "brilliant". In particular, he singled out the self steering cutters and the way the units stay on cut. He believed that the maker had listened to greenkeepers and produced what they want. All greens staff at High Post use the Greens King and all like it.

The Mark V has no clutter on the driver's platform and a walk through design, so that he can easily get on or off either side, furthermore operation is simple. Also cited was the fact that lift/lower is now a single switch →



Lauchlan Millar and the Greens King V

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operation and that fuses have been replaced by relays which are instantly re-settable, (not that they have ever come out).

The new design also has quick release attachment cutting units, and although the club does not interchange with verti-cutters – these still fit and are used on an older triple, it does remove the units for back-lapping.

Re-grinding and bottom blade replacement is carried out (off site) once a year, with back-lapping undertaken as necessary. This operation is undertaken on the bench using an independent electric back-lapper, but it was admitted that the units are heavy to hoist onto the bench. Lauchlan uses a blade of grass to check blade set, rather than the traditional piece of paper, believing that it gives a more accurate indication. The 11 blade reels give a cut which Lauchlan believes is actually superior to hand cutting.



Alresford Golf Club's Huxley Greenstar

A standard bottom blade is used and cutting is down to about 1/8 inch (3mm). However, because of the excellent effect of the groomers cut appears to be shorter and the greens faster. Groomers are kept just 1/16 in. higher than the reel and are used for every cut. The self-steering design of the cutting unit has eliminated scuffing even on the perimeter cut.

Another important point was made about the box, these are easy to lift off and replace, particularly the middle unit as this has an extended location pin – Lauchlan suggested this was typical of the thought which had gone into the design. Boxes fill completely

and cleanly. There was some damage to the boxes, which had occurred when the tether (lift check) wires broke – Jacobsen has now provided new, stronger and improved wires.

The machine has a short wheelbase and is very manoeuvrable, the rear wheel turning inside the track of the front wheels – ensuring it does not go over edge when turning close to bunkers or banks. The machine is front wheel drive only. The handbrake is effective, but must be set before the driver leaves the seat or the engine cuts out.

Another standard modification, made by BS Mowers of Bristol who supplied and support the machine, was to put a small bleed hole on the bearing housing of the reel spindle, this has ensured that any over greasing will leak away outside the frame and not onto the reel where it is spun out onto the grass.

The club has been extremely pleased with the service provided by BS who Lauchlan has found quicker to react and respond than most other would-be dealers.

On price, Lauchlan admitted that this was higher than some others, but he added, "you only get what you pay for," and he is happy that High Post have excellent value for money.

Huxley's Greenstar at Alresford Golf Club

New as Head Greenkeeper at the club, Darren Thatcher prefaced his remarks by saying that he was not responsible for purchasing the Greenstar, and admitted that he was not yet committed to all aspects of the machine. However, with Huxley's within walking distance from the club and enjoying an excellent relationship with it, the club would have difficulty making any other decision although they did look at other machines.

Darren admitted that Huxleys respond well and were an exceptional fount of knowledge. The club also have other Huxley

mowers including a 358 greens triple which is now used for less critical areas.

Darren said that the new Greenstar shows the many improvements made as a result of experience and dialogue with greenkeepers. The machine at Alresford is now just over a year old and was the development model so the club played an important part in its design. Since then it has been brought up to current specification.

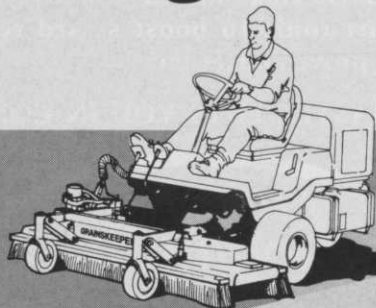
Darren was critical about the look of the machine with its pipework exposed to view, however, there have been no major problems, and only one leak, a coupling not being tightened up. Biodegradable oil is now used. Some greenkeepers like this exposed pipework as it allows leaks to be seen almost instantly. Darren said an advantage was that Huxley's did know the machine intimately which meant that even the smallest problem was sorted quickly and effectively. For instance, when a problem of grass build up on rear rollers in damp conditions was reported, wire scrapers were fitted to effect an instant cure.

The machine has all wheel drive and this does mean that it will go anywhere, no matter how steep. It is also very manoeuvrable which is ideal for a tight course, and in fact perhaps too manoeuvrable because this can induce wear at the edges of the green – noticeable in winter. Alresford's greenkeepers, knowing this, have learnt to drive with consideration. This is probably no different from other similar machines, nevertheless Darren is planning to hand mow the greens next winter.

Power is provided by a Perkins 3 cylinder engine, which operates at about two thirds of its peak output, ie in the range of maximum torque, and this makes it not just economical, but also very quiet. Darren commented that neither ear defenders nor plugs are needed and that this quietness was a bonus which would be useful for courses close to built-up areas or around hotels.

Cutting units are quickly detachable without any need for spanners, they are also self steering and eleven bladed. The

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Nick Tyley on the Ransomes Greensplex 160D at Bristol's Stockwood Vale

groomer is used at all times. Cut quality and setting is examined regularly with back lapping only carried out as required.

It is easy to remove and empty the boxes, however, Darren did not consider that the cylinders threw the grass in far enough if wet, thus boxes have to be emptied regularly.

Criticism was made about the hand brake and although there was a light to show when it is set, it was still possible to drive away with it on. Nevertheless the machine has not run away without a driver.

The expectation is that the machine will be replaced in about three years time when it will be down graded. Vert-cutting is not carried out however greens are scarified to clear thatch.

Ransomes Greensplex 160D at Stockwood Vale - Bristol

Stockwood Vale is an 18 hole membership plus public pay and play course with a driving range just outside Bristol. Nine of the holes are recent additions and the GP160D was bought in May to add to the course's other mowers of which a Ransomes GT remains the main greens machine. In making the decision Head Greenkeeper Nick Tyley explained that the swinging factor was the fact that Ransomes' local dealer, TH White, is not far away, is a known factor and has been extremely effective and supportive in the past. Nick added that the facility had another Ransomes mower - a rotary - which had proved less than reliable and in supporting this both Whites and Ransomes had been "first rate". Nick said that "of course the proof of their ability to support the Ransomes machines will be in three or four years time - when the machine gets into the wear stage". But it obvious he has no qualms over this.

Nick said that the GP160D had proved itself totally reliable and while it has a few failings, these

were few, and perhaps the most serious, from a user's point of view is that the seat could be improved, and like most other ride-ons - not just Ransomes - there was very little storage space and a very small toolbox. Certainly there was no place to store waterproofs, or the sundry other items which the greenkeeper needs and likes to carry. Nor was there storage for rake or switch.

The Stockwood Vale machine was supplied without groomers or verti-cut units, verti-cutting being carried out with pedestrian machines - usually monthly. Nick said that the original budget did not allow for more than bare essentials.

Adjustment of cut height is quick and easy, this is a bonus because two cut heights are used on the two different halves of the course. Setting the cylinder is more difficult, and compares badly against the GT as it is set on four studs. Fortunately adjustment is an infrequent requirement. Back-lapping is carried out as required, normally less than weekly unless greens have been topdressed. Back-lapping is carried out by reversing the units' drive motors. Cylinder sharpening and bottom blade replacement is not expected to be needed more than annually.

The foot controls were exemplary. Nick said he couldn't knock the cut quality the machine produces either. Boxes were easy to attach and filled completely without any problem, and they were equally easy to remove to empty, with a single hand hole so he gave this aspect "top marks".

Another plus for the machine was its ability to steer straight, a fact which was mentioned more than once - it was suggested this was because the steering had a lower gearing ratio.

Yet another plus factor was the built-in lights which Nick considers will prove invaluable for going out in early mornings in autumn, certainly he feels that

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Phil James and colleague on the John Deere 2243 at Whitehill GC



Steve Putt on the Toro Greensmaster 3200D at Witney Lakes GC



this gives him more flexibility.

In terms of maintenance this has proved to be easy, and the ability to see and get to parts is a bonus. Nick cited the fact that the belts to the roller brushes are visible so that it is obvious when they need retightening or replacing. Grease points are easy to reach.

Since supply, Whites had fitted, free, a modification to the centre unit to make it quickly detachable so that it can be removed out under the side, without undoing the lift arms.

The machine is heavier than some others, including the GT, however as a disadvantage this is negated by the larger tyres and the fact that it is a well built machine designed to withstand heavy use.

The machine is only driven by the two front wheels, however Nick said with its weight distribution there is no tendency for slip and it goes up anywhere, and as the course has some quite steep slopes this is an excellent recommendation.

Overall Nick said he is extremely pleased with the machine, and next year it will become the No. 1 machine on the course.

John Deere 2243 at Whitehill Golf Club - Lydford, Somerset

This four year old private 18 hole course just off the Fosse Way in Somerset had a very limited budget and so when the decision was made to replace the elderly greens triple the original intention was to look for another good second hand machine. However Phil James, Head Greenkeeper, said they were unable to locate a machine which matched their requirements for price and condition. As a result they bought a new JD 2243 from Rochford Garden Machinery who were new JD dealers and had the machine, which is petrol engined, at the

right price (JD had just released the diesel model). Since new two years ago it has cut all the greens and not given any trouble. A recent oil leak due to a worn oil seal was sorted within a day by Rochfords and Phil said, "you can't get better than this".

Reel resharpening and bottom blade replacement are standard winter service items while during the season back lapping is practised as often as necessary to keep the edge, usually weekly.

One of the manufacturer's claims for the machine is that the offset cutting units allow the perimeter cuts to be made in alternate directions to avoid getting tracking. Phil commented that this noticeably works, and he has seen the difference between the JD and another machine of his experience where a perimeter track was noticeable.

Operation is simple with the boxes easy to put on and take off. Driving has proved easy and maintenance is simple. No groomers or verti-cutting units were bought, the latter operation being carried out by the club's pedestrian mowers.

Although the 2243 is only front wheel driven and petrol driven, Whitehill has found it has plenty of traction and power for this course which is mainly flat.

Phil said that he would certainly consider replacing the JD with another, but next time would prefer a diesel engined model while he would consider having groomers as a bonus.

Toro Greensmaster 3200D at Witney Lakes Golf Centre in Oxfordshire

Bought in November 1996 to replace a very elderly GM3 which was beginning to become demanding on replacement parts, the Witney 3200D is an ex-demo machine which was priced right by Handy Garden

Machinery of Swindon. Steve Putt, Head Greenkeeper, of this five year old 18 hole and range facility, said that Handy had proved their and Toro's ability to support the previous machine and this weighed heavily in favour of Toro for the replacement. Steve had considered another machine but although the franchised dealer was a known quantity, the machine itself was not. The ex-demo price made the Toro equal in price, and probably better in value.

The machine was bought without verti-cutters or groomers, but Toro's thatching reels, which Steve said, have the effect of verti-cutters have been ordered. These will also fit the older GM3 and Steve expected to use them mostly on that machine in future. The units are quick and easy to change. The centre pull design is seen as better and has reduced damage around the perimeter, however there is still some wear evident.

He too believes that the cut quality is better than hand mowing.

In the early stages of the course the greens were hand cut, however, this proved to expensive on time, so the GM3 was bought second hand to allow all greens to be cut within three hours by just one man. A leaking hydraulic line, which could not be seen by the operator, dropped a fine trail of oil on nine greens and this pressured the centre into investing in the new machine.

The ability for the operator to see most of the "plumbing" was cited by Steve as a plus for the Toro design - the GM3 leak was under a footboard. To date there have been no leaks or other major problem, although at the time of writing a failed exhaust bracket means that the exhaust is discharging onto the ground, and raising dust when on the tracks or around the compound perhaps more cosmetic than real as a problem.

While the GM3 was petrol engined the 3200 is Diesel, and very significantly less thirsty, a tank full of fuel allowing the machine to cut all the greens at least twice. Greens have been double cut for matches. The

engine is considered "quiet" nevertheless ear defenders are worn, but the one way in which the 3200D far outshone the GM3 was that it has hydrostatic steering which made manoeuvring very much easier. Steve added that there were other ways in which the new machine had taken some getting used to, mostly adapting to instincts such as having a foot speed control and hand lift/lower lever. These comments were not intended as criticism, just comment on adapting from older technologies.

Green speed was good, while the ability to control forward speed on the green was brilliant, but just reflects the advantage of hydrostatic transmission.

Maintenance is simple, although Steve commented that the engine filters are not quite as easy to change as he would have liked. Overall he thought it was a sturdy machine which was not likely to give trouble, although when questioned he admitted that there had been a few minor niggles, such as the throttle adjuster which worked loose - perhaps just a worn nylon nut, which could easily be righted.

Safety on the machine is excellent, and Steve liked the safety features although this did mean that the greenkeepers trick of grabbing the flag before cutting over the hole without getting off the seat did not work.

Damp grass could build up in the box and require more frequent emptying, but overall there was no complaint over this.

Back lapping is carried out manually using a hand brace, possibly with the advantage that no more metal is cut than is necessary.

Greens are topdressed monthly and cutting units are normally back lapped a few days later.

Height of cut adjustment is easy and effective, and is normally between 4.5 and 6mm. Most of the maintenance is carried out in-house, and because the owner has another business with resident mechanic only the more complex and technical repairs will go back to Handy's.