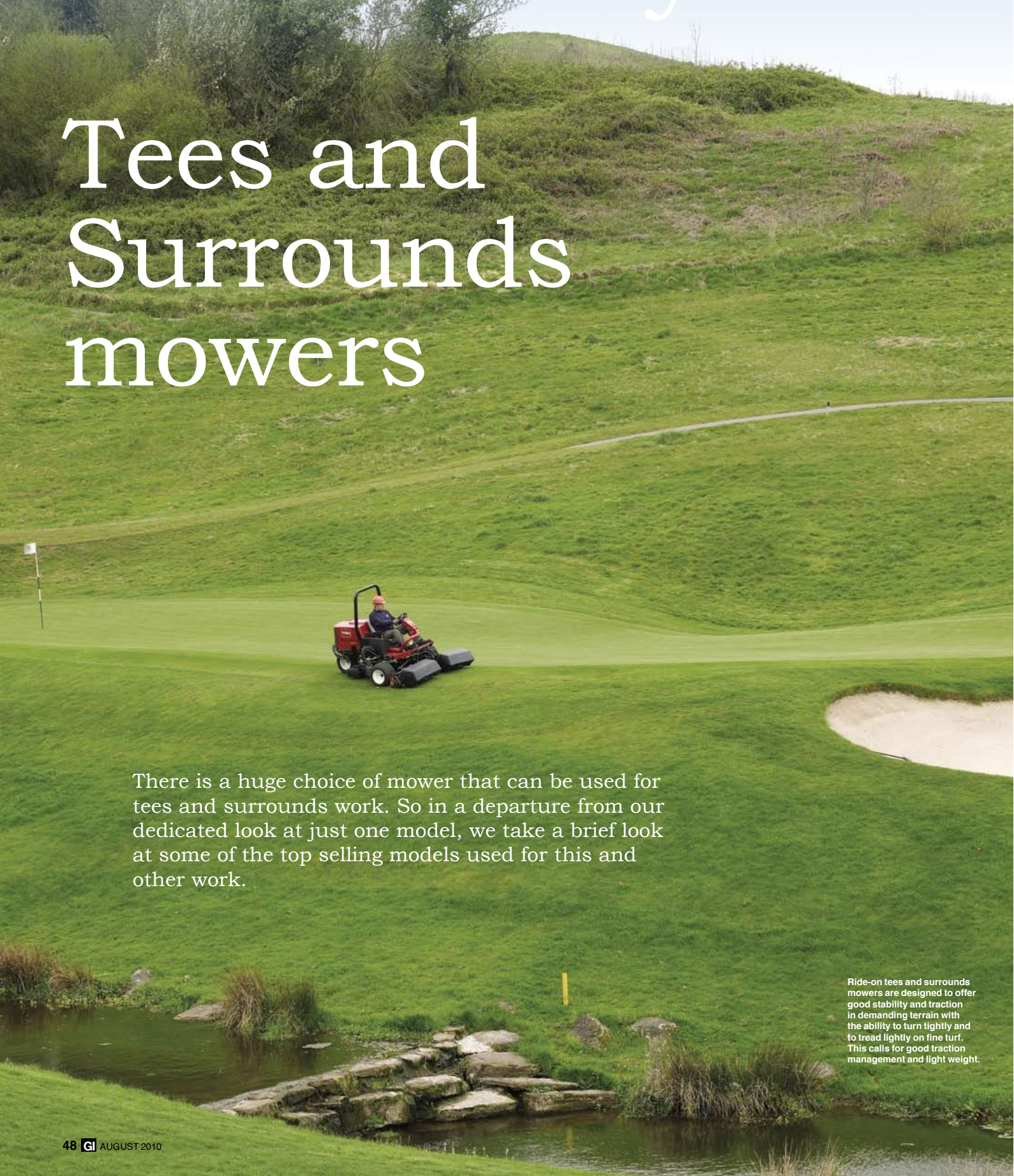


James de Havilland turns his attention to the tees and surrounds mower...

# The anatomy of...

## Tees and Surrounds mowers



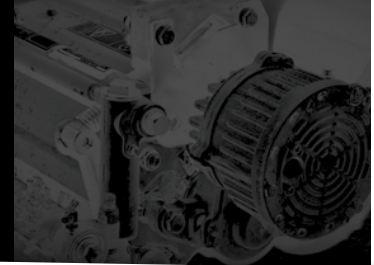
There is a huge choice of mower that can be used for tees and surrounds work. So in a departure from our dedicated look at just one model, we take a brief look at some of the top selling models used for this and other work.

Ride-on tees and surrounds mowers are designed to offer good stability and traction in demanding terrain with the ability to turn tightly and to tread lightly on fine turf. This calls for good traction management and light weight.



# Step-by-step Analysis...

## Tees and Surrounds Mowers



The Jacobsen rotary deck AR3 and cylinder TR3 utilise the same three-wheel hydrostatic three-wheel tractor unit.



**An interesting point is that the cylinder cutting units of these mowers are increasingly designed to not just offer an improved finish but to also be easier to set up and maintain. Where the clippings are not being boxed off, the ability to reduce clumping has also been improved as the cutting units evolve.**

To suggest these models are the only ride-on models to consider for tees and surrounds work is of course not the point. There are a whole host of mowers that can, and do, offer the required combination of abilities to do a great job. These models, however, are among the most popular when it comes to new sales. The biggest surprise is that despite their similarities they all have their own points of difference.

### Jacobsen AR3 / TR3 – choice of rotary or cylinder units

The Jacobsen AR3 and TR3 family of tees and surrounds mowers provide greenkeepers with a choice of either rotary decks or cutting cylinders for maintaining tees, approaches and bunker surrounds.

The 1.83m working width AR3 has three articulated rotary decks with Jacobsen's TrimTek system which is claimed to keep the clippings suspended for longer to help provide a finer mulched finish, particularly when using a high lift blade. The latter blade type suits heavier swards. The rotary decks can convert to rear discharge for longer grass mowing, increasing the versatility of the mower.

The front units of the AR3 are offset to the left by 175 mm. This is to make it easier to work close to an edge such as presented by a bunker. Power comes from a 32 hp turbo-charged Kubota diesel engine, the

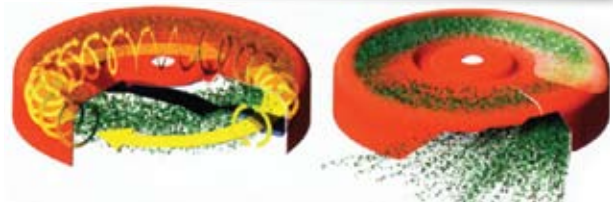
hydrostatic transmission delivering power to all three wheels. A design feature is electro-hydraulic weight transfer that is aimed at improving traction is difficult terrain.

The Jacobsen TR3 utilises the same tractor unit as the AR3 and is offered with a choice of with a choice of 5, 7 or 11 blade cutting cylinders. Offering the same 1.83 cut width as the AR3, the TR3 also features the same offset to provide an overhang for trimming bunker edges. The units can be switched between front or rear discharge by adjusting the concaves that direct the flow of the clippings. A popular feature is the unit's rear roller brushes. These help improve the finish, particularly in damp conditions.

"Our approaches and semi-rough need to be presented in pristine condition", says Avon Bridges, head greenkeeper at Luton Hoo Golf & Spa. "We use an AR3. Although a rotary mower, the fully floating decks have a rear roller so they can add a striped definition to the finely shaped contours of these areas. The seating position on the AR3 is excellent as it allows good visibility of the front decks and the traction control is very good. For the tees and surrounds we wanted a cylinder mower that was capable of tight turns without marking. The TR3 is superb and we have purchased two. The added bonus is that they use the same tractor unit as the AR3, so that helps keep spares to a minimum."

### John Deere 2653B – durable performer with quality cut

The John Deere 2653B three-wheel drive triplex mower is designed to cope with more difficult areas of grass on golf courses and other amenity turf areas, including slopes and rough terrain. It can be used equally well on golf courses for tees,



The Jacobsen TrimTek decks suspend the clippings to produce a finer mulch which is claimed to give an improved finish. The decks can also be opened up, the opening allowing a three-tiered discharge that is designed to promote an even dispersal of clippings.



Although John Deere offer a wide range of alternatives to its 2653B, it is this model that is its biggest seller for tees and surrounds work



surrounds and fairways leading up to the greens, or for cricket outfields and other sports turf areas.

The hydraulically driven QA7 quick adjust 7 inch cutting units can operate in fixed or float settings as necessary, the front rollers coming with a choice of a smooth or grooved finish. Optional equipment includes a smooth or grooved roller scraper and grass boxes.

A choice of five- or eight-blade cylinders, each with a choice of 66 or 76cm (26 or 30in) wide cut are available with micro-lap backlapping is standard. Mowing height can be adjusted in 3mm steps, from 9.5 to 76mm, and overall cutting width is 1.8m (72in).

Power comes from a 20hp, three-cylinder diesel with a traction system that is designed to offer good stability on wet or hilly terrain provided by a hydrostatic system that sends oil flow away from any tyre that slips and directs it to the tyres with more grip. This allows the

mower to maintain good traction in demanding conditions.

Fairway tender conditioner, or 'recycler', and rear brushes can now also be fitted to 26 in width cutting units. The key advantage is that this offers a much reduced need to box of grass when mowing tees. This can save time and costs.

**Toro Reelmaster 3100-D SERIES – now with DPA units**

Toro Reelmaster 3100-D trim and surround mowers are designed to be versatile and manoeuvrable, the 3100-D Sidewinder version offering the ability to offset the triple cutting units 610mm to the left or right. The Sidewinder option is well worth looking into for mowing close to vulnerable bunker edges or when mowing under overhanging shrubbery.

More recently, Toro has fitted Dual Precision Adjustment , DPA, cutting units to the 3100 series.

This makes setting the cylinder to bottom blade clearance easier, with the claim it makes it more straightforward maintain a consistent quality of cut. DPA units are designed to hold a sharp edge for longer too.

Part of the DPA system is the use of a honeycomb die-cast aluminium frame. According to Toro the cast frame is less liable to distort in service, with strength up by 30% with much improved



Where the Sidewinder option is specified, all three cutting units can be offset to work 610mm to the left or right. This allows mowing close to vulnerable bunker edges or to be used to alter wheelings around surrounds.

rigidity when compared to fabricated designs. The bottom blade can be quickly removed, replaced and reset with the claim that this speeds.

Apart from its more obvious advantages, the Sidewinder gives operators the ability to shift all three units left or right on-the-move. This can be used to vary the position of the tyre tracks, a useful feature when working in a fixed mowing pattern across a tee. Toro suggest its Sidewinder system should not be compared to competitive designs that only shift the two outer units, the central unit remaining.

Power comes from a three-cylinder 21.5hp Kubota diesel with operating width choices of 1.8m to 2.16m. Height of cut can be set from 63mm to 510mm in the standard float position or 380mm to 640mm in the fixed position. Verti-cut units and rear roller brushes are further options that are now available since the introduction of DPA units.



The Toro 3100 operator platform is simple and clutter free. Note the simple inclinometer.



The cast alloy Toro DPA units are now well established, their fitting to the 3100 series extending the range of cutting units options available.



The operator platform is simple and service access straightforward.



Although the engine sits ahead of the operator, the view to the front units is good, a feature that is often mentioned by operators. On slopes, the layout of the mower is claimed to aid both stability and traction, reduced wheelslip helping to reduce marking when mowing damp turf.