

The measure of a lawn mower grinding machine has always been how closely it resembles an Atterton. Few come even close and none match us for strength or quality.

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"It's these simple facts which give our lawn mower grinding machines something which no others possess. PROVEN LONG TERM RELIABILITY."

THE MASTER

another unbeatable lawn mower grinding machine from



Water Saving Scheme can cut the cost of irrigation in the Desert.

Engineers have come up with a novel idea for saving water on the desert golf course destined to become one of the most spectacular in the world.

While millions of gallons must be used to keep fairways and greens in prime condition, more than a third of the water will probably be recycled. And it's all thanks to an

And it's all thanks to an unlikely method, devised in the Middle East for keeping a private swimming pool topped up.

After the water has drained through the soil into the water table below, it will be pumped back up into two man-made lakes which form the central link in the irrigation system at the Emirates Golf Club.

Water is liquid gold in the United Arab Emirates. But it is there, on the outskirts of Dubai, that the first grass championship course in the region is growing out of the desert.

A team of experts, led by project engineer Stephen Trutch, have overcome a series of tricky obstacles on the course, which is scheduled to open in November this year.

In doing so they have come up with an effective way of reducing irrigation costs.

Water pumped into the two lakes from Dubai's desalination plant is fed to the course through a network of more than 500 Toro sprinklers. It drains into the saline water table just a few feet below the ground. "It is common knowledge that

"It is common knowledge that fresh water sits on top of salt water", said Larry Trenary, the representative in Dubai of Karl Litten, the American who designed the course.

"The irrigation we are carrying out will create a freshwater lake on top of the salt water. We will be pumping up water for testing, and we feel that in two to three years time it will be feasible to collect that water on a controlled basis, put it back in the lakes, and save as much as 25 to 40 per cent. John Lelean reports on developments in Dubai.

"We have 25 well points going down into the sub-surface and we will have to install many more, with a large suction pump, to get the water out", added Trenary.

"But we know it can be done successfully because we have already carried out a similar operation in an area nearby where there is a lens of freshwater on top of the water table".

The water saving scheme was pioneered by Eric Tulloch, chief engineer at Dubai Water Department for the past 25 years. He came up with the idea of filling his private pool by pumping water out of the ground in his garden. The Emirates Golf Club has

The Emirates Golf Člub has been hailed locally as "Mohammed's magnificent gift to Dubai" a reference to H. H. Sheikh Mohammed bin Rashid Al Maktoum, the UAE's Minister of Defence who has inspired the project.

The course has also been attracting international attention, and former British Ryder Cup star Tommy Horton is one man who believes it has all the makings of a professional tournament venue.

Horton, chairman of the European Tour Committee, said after a visit to Dubai that the course could easily find a place on the European circuit.

Kerry Son, from Florida appointed as Course Superintendent flew into Dubai from Florida, inspected the course within hours, and came up with a glowing verdict.

"It's magnificent, both in terms of the design and character", he said. "It is going to be a very challenging course for any golfer. It may take a whole year to get it into optimum condition, but it will be a very popular course throughout the world when it is finished. It is going to be spectacular".

Designer Litten, involved in more than 100 golf course projects around the world over the past 20 years, believes his offering to Dubai could turn out to be the masterpiece of his career.



One of four lakes stocked with Japanese Carp in front of the club-house.

"I'm thinking that more and more every time I see it", he said, after jetting to the UAE to carry out a progress check, and go over the details with course engineer Stephen Trutch, who has been deeply involved in the project since it was first launched just 12 months ago.

On the outskirts of Dubai where camels roam the desert plains, the grass is now visible from the main highway, and motorists slow down to check out the growing splash of green.

The Emirates Golf Club is not easy to miss. When it opens in November it will become the first championship course in the Gulf, the latest in a growing line of sporting assets for the go-ahead city in the United Arab Emirates.

One man who played his part in the projects is a welder from Oklahoma. His hydraulic invention, a machine that can plant a fairway in a couple of hours, has been one of the most important pieces of equipment used in the construction of the course.

The machine, which cost \$20,000, was built to specifications laid down in Dubai, and has not been sold commercially.

It is towed behind a tractor, and drops grass sprigs in any frequency you want to broadcast the grass. Behind is a large roller with knives which dig into the ground down to about six to eight inches. Then there is a large roller which closes it all up and tucks it in. It can take four or five days to plant an average size fairway by hand. This machine can do the same work in a couple of hours, covering an area of about three acres.

In recent weeks a new shape has begun to emerge from the sandhills - the beginnings of a structure that looks like a spaceage version of a Bedouin tent. This is the multi-million dollar club house where members will dine in a five-star restaurant and relax in saunas, and jacuzzis. Close at hand will be squash and tennis courts, along with a floodlit crown green bowling arena and practice range.

The 6,618 yard par 72 course itself displays a classic links style within a few dog-legs of the sea, its fairways sunk beneath smooth banks and flowing around four man-made lakes.

All the attention to detail in early days, before giant earthmovers began shifting millions of tons of sand last July, is now paying dividends. The two types of chosen hybrid Bermuda grass, are now growing towards maturity on fairways and greens.

On arrival in the UAE the grass sealed in packets to prevent contamination was immediately planted at nurseries near the course. "After we established a goody heavy turf we then used a machine (a Ryan verticut turf mower) that pulls pieces of root and stem out of the ground", said Larry Trenary.

Continued on Pages 10 & 11





Continued from Pages 8 & 9

"This machine has hundreds of little blades that are curled at the end and spin very quickly, go about half an inch into the ground, and pull up the grass.

"We broadcast the grass over the greens by hand and kept it wet for 10 to 12 days. You lose about 50 per cent on the greens, but they are completely covered in about five to six weeks".

Tift 419 Hybrid B, developed in Tifton, Georgia, one of the foremost grass-growing regions of the USA, was chosen for the

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Supel

fairways because it is salt tolerant, and replaces itself quickly.

For the greens the Emirates Golf Club picked Tift 328, a thinner-leafed type of Bermuda grass which allows a better run of the ball. "You can cut it to three sixteenths of an inch, and by cross-cutting you can develop a speed of nine to nine-and-a-half on the Stimpmeter", said Trenary.

Fast and true putting surfaces are just part of the general attraction of the course that has already impressed a number of top golfers who recognise the potential in Dubai.

Long drivers like Sevvy Ballesteros, Nick Faldo and Sandy Lyle would appreciate the sting in the tail of the Emirates Golf Club - a 550 yard par five 18th hole. It requires a finishing shot across one of the lakes to a giant double green shared by the ninth.

Any player forced to go paddling after selecting the wrong club might have more success with a fishing rod. The lake is stocked with several thousand Japanese Koi carp, all part of the beautification work which has seen thousands of trees and plants springing up out of the desert, making the 700,000 square metre site as verdant as any natural oasis.

TECHNICAL 1



THE DRIVI

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TURF CARE PRODUCTS

255

ICI Professional Products, Woolmead House East, Woolmead Walk, Daconil *turf* contains chlorothalonil: Tornado contains carbaryl: Super Verdone contains dicamba, 2, 4-D and joxynil: Gamma-Col *turf* contains gamma HCH.



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Company Chairman Tony Turner, is a high flyer in more ways than one.

ways than one. Evidence of one of his aeronautical achievements is parked on the lawn outside his rambling country house at King's Coughton near Alcester in the shape of a four seater light aircraft.

At the other side of the house is the results of more than 25 years of innovative design and sheer dedication in the shape of a modern designed factory employing 110 people, manufacturing a wide range of quality machinery for the farming and turfgrass industry. Turner International (Engineering) Ltd have come a long way since Tony Turner first gave thought to the production of his first flail mower and the company is now among the leading group of British engineering firms producing grass cutting equipment.

Now a division of Elswick plc a Group with a Stock Market share quotation, Turner Engineering are moving increasingly into the amenity turf market, but still developing the flail mowers that gave them their reputation as the 'Rough Cut Boys'.

Changing from a fixed to a swivel flail blade made the company breakthrough in the African bush where the Turner flail cut through the tough sisal grass which previously wrapped tiself around the machinery and brought grass cutting to a stop.

The need to provide quality grass cutting machinery for increasing areas of motorway embankments, roadside verges, parks, sportsgrounds and the many varieties of amenity turf, has led the company towards developing machinery that can cut grass quickly, economically and by a finely adjusted rotary system, neatly as well.

> The new Turner Grass Master

Flainure creates success for West Midland Grass Machinery Company

urner

The four seater aircraft, more than capable of trips to the Continent has a grass runway kept in playing field condition with the latest ride-on machines in the range - the Turner Hustler.

For sheer versatility it will take a great deal of beating.

The Kubota tour cylinder diesel engine provides hydrostatic drive to the drive wheels. The rotary blades are belt driven.

The steering is unique; no normal steering wheel, just two aircraft type control sticks which gives the operator unbelievable control. It will turn completely within its own length by counter rotating the independently powered drive wheels.

As a rotary machine for cutting golf course rough it is the answer to a greenkeeper's prayer. There is a ground speed of 10 mph and a cutting speed of 4-5 mph, with simple adjustments to vary the height of cut from four inches down to fairway length. The control levers are so sensitive that it can be driven up to a sapling and the grass cut to within inches of the tree without fear of damage.

The padded driver's seat is designed for operator comfort and fatigue reduction an essential requirement in harness with the 11 gallons fuel tank which will operate the Turner Hustler all day without refuelling.

The grass cutting attachments for the Hustler can be supplied as a 60" 3-way rotary mower, the 72" 3-way rotary mower or the heavy duty 72" dual trim rotary, incorporating a rear discharge of cut grass and off-set facilities on either side.

Other attachments include a grass collection box a 60" rotary broom for sweeping leaves and other debris and a 54" blower with a hydraulically controlled directional spout, ideal for clearing the car park around the clubhouse during winter snowfalls.



"We left home at unbelievable hours in the morning and drove hundreds of miles to demonstrate the machinery but it was all worthwhile once the customer had been convinced it was the equipment he needed".

equipment he needed". The latest Turner campaign "Save a Sapling" is aimed at sparing hedgerow trees. Mechanical cutting has achieved the retention of Britain's hedges. Without a cost effective machine farmers would have ripped them out and moved over to prairie style farming.

Now with cutting machinery so responsive to the operator's control, there is no need to cut at the same height all along a hedge.

The "Save a Sapling" campaign launched at The Royal Show is linked with yellow weatherproof tree tags to mark the sapling destined to grown into a roadside tree.

"All part of our preservation, health and safety and country conservation policy", said Graham.

He know's what he is talking about. Why kill off the tree that in ten years time will require the services of a Turner's Wood Chipper! **TECHNICAL 2**

The versatile Turner Tiger

A smaller rough cut mower the Turner Tiger is also new to the company range. Petrol driven with either a Kawasaki or Kohler engine the rotary cutters come in a side or rear discharge. Although not as manoeuvrable as the Hustler the Tiger is ideal for cutting fairway rough and at a price starting at £3,500 + VAT it is good value for money.

Turner's are also deeply into future development. They are well aware that to keep ahead of the opposition a company of their size needs to invest time and money in research and development. Currently they are investing around a quarter of a million pounds a year with the emphasis on producing machinery for the finer cutting of leisure turf.

Greater emphasis on conservation and recycling waste products has led to an increase in the demand for wood chippers. Brush hedge trimmings and even small trees can be turned into beneficial organic mulch or used as an inexpensive and attractive base material for paths and walkways.

Turner's 70TR Chipper mounted on a 40 hp tractor by a three point linkage can turn out between two and three tons of chippings an hour and cope quite easily with wood up to 9 inches in diameter.

Sales Director Graham Satchwell, an energetic 40 year old has been with the company for 20 years.



Satchwell

He started life with Turner's in the factory and has moved along the path of demonstrator, fitter, sales representative and sales manager and is currently the director responsible for both the marketing and sales.

In addition to dealers in various European countries they now have wholly owned subsidiary companies in Atlanta, USA and Melbourne, Australia, with around 40% of the production exported.

In this country Turner's machinery is distributed through a 27 outlet dealer network, backed by company demonstrators, fitters and a spare parts facility.

Enthusiasm, dedication and company involvement by all employees has had considerable influence on the success of the firm, Graham Satchwell, with a wistful look in the eye, still believes his days as a demonstrator were the happiest days of his life.

Brokenhurst Manor Golf Club (Situated in the heart of the New Forest)

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