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COMPACT TRACTORS

hen the time comes to hen the time convergence or buy a new tractor, price is not the only consideration. Many courses buy their greenkeeping plant on a lease purchase deal, a sort of hire purchase and the real price is what it costs over a four year period.

The money side is of course important but suitability, size, weight and whether it will fit in with existing equipment are all part of the equation. Also, the dealer network is an important consideration: it's not much good having the finest tractor modern industry can offer, if it can't be mended and spares are a week

To assess the current crop of 30-40hp compact tractors we invited a few down to The Weald of Kent Golf Club at Headcorn near Maidstone. The six that took up the challenge were put through their paces by John Millen, Weald's course manager, (not an unknown character in greenkeeping circles) headed the judging team. Others

COMPARED

on the team were Peter Gee, course manager of the Ridge Golf Club at East Sutton, Weald's first assistant Martin Mewett and also from Weald, craftsman greenkeeper Colin

John concentrated on looking into each tractor's daily servicing characteristics. Whether the dip stick was easy to reach or a fight to remove or replace, if you were able to remove and replace the bodywork around the engine without removing any skin. Also position of the battery and if you slipped a disc or received a hernia taking it out for maintenance. All these things can make or break the tractor and the staff who have to operate it. The team did find that the more 'compact' a tractor

more difficult it is to service and operate.

The rest of the team were out driving the machines and seeing how they coped with the equipment and the tasks set for them.

John and his team found the engineering standards of all the tractors present at the Weald were very high that day. If we were to award marks to the tractors then all six would be between 8 and 9 out of ten. The good was excellent and the bad was still very good.

TESTERS: from left, Colin Judge, Martin Mewett, John Millen and Peter Gee

The general consensus was that in the golf greenkeeping world the compact tractor has a big part to play in the everyday upkeep of a golf course. It does not have to be a very compact tractor though, the two smaller tractors would be very welcome on a fruit farm or a vine yard. On a golf course however, lack of space is not a problem, there is very little need to buy a tractor where the operator is going to be uncomfortable.



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COMPACT TRACTORS

COMPARED

Testers give their verdicts

MASSEY FERGUSON 1260 £14,250

John Millen liked the layout of the Massey Ferguson engine for daily servicing, dip stick, battery and oil filler were all in sensible places and cause no-one any diffi-

The drivers found the tractor very easy to operate even though it was the first time any of them had driven it. All the controls were in the right place and were easy to find. They were very impressed with the PTO start up, it took up the strain of whatever it was driving in three stages, there was no snatching and no appreciable loss of engine revs. The company call this a high inertia input.

When using the three point linkage the operators found it smooth and positive and gave them a lot of confidence in the system. The team felt well in control using a Dabro top dresser, the PTO transmitted plenty of power and the fitting, gear changing, steering and smoothness

Kubota B2150HST

tion gave

them no complaints at all. This was also the case with the articulator and the two tonne trailer.

When driving along a bank the Massey is fitted with very useful handles on the rear mudguard giving the driver the comfort of being able to hold on to something solid to keep him upright. A couple of niggles were that there was no handbrake warning light. There was limited space for the driver's feet making him keep them in the same place for a long time. The operators found that they could knock the shuttle gear lever out with their knee because it was too near the steering col-

Massey Ferguson specifications and performance

ENGINE HORSEPOWER: 35 Din

MAX TOROUE: 111Nm @ 1600

PTO HORSEPOWER: 31hp @ 2500 rpm

ENGINE TYPE: Turbo Diesel, ind injection

NUMBER OF CYLINDERS: 3 BORE/STROKE/CAPACITY: 86/86mm /1498cc TRANSMISSION: 16F/16R synchro. mech shuttle Speeds (forward) 0.8-16.2 mph Speeds (reverse) 0.46-15.3 mph CLUTCH TYPE: Split torque POWER TAKE OFF: Rear Independent 540-1000 rpm 6

SAE 1 3/8 dia. shaft WEIGHTS AND DIMENSIONS Weight 2811lbs 1275kgs Overall length 121" 3075mm Minimum width turf model 57.6" 1463mm Height, over ROPS turf model 83.8" 2130mm Turning radius less brakes 110.2" 2800mm Ground clearance 12.8" 325mm Wheelbase 66.9" 1700mm CAPACITIES: Fuel tank 6.6 gallons 30 litres **OPTIONAL EXTRAS: Front** weights, safety cab, additional spool valves.

KUBOTA B2150HST £13,475

John felt the positioning of the main serving items could be a bit better, access to the dip stick, oil filler and the battery was awkward. The drivers found the clutch a little fierce and it was impossible to pull away smoothly, could be an adjustment problem. The PTO, came out of drive more than once and the engine had to be turned off to put it back again adjustment would probably put this

Very little marking was caused by the Kubota with the steering being easy to use. The gears did not have

a good range and there was no creep gear. A problem also, the three point linkage arms would not go low enough.

Pulling and stopping the trailer was no problem to the B2150st, the operators felt most confident driving along the banks with the mower and the top dresser also gave them no problems.

All in all the team of judges felt that the Kubota B2150hst was a little dated in design and the example they had to test was a little out of adjustment. But it is a good and reliable tractor and did all that was asked of it.

Kubota B2150HST specifications and performance

ENGINE HORSEPOWER: 24HP @ 2600rpm MAX TORQUE: 60Nm @ 1700rpm PTO HORSEPOWER: 18hp @ 2600rpm ENGINE TYPE: Diesel 4 cycle

water cooled NUMBER OF CYLINDERS: 4 CAPACITY: 1237cc

TRANSMISSION: Hydrostatic Speeds (forward) Low, 4.95 Med, 10.2 High, 19.6k Speeds (reverse) low, 4.05 Med, 8.39 High, 16.2k

POWER TAKE OFF: Rear @ engine speed 2408rpm 1st 540rpm, 2nd 748rpm Mid @ engine speed 2408rpm 1st 1701rpm, 2nd 2355rpm WEIGHTS AND DIMENSIONS Weight 835Kgs Overall length 2780mm Minimum width turf model 1365mm Height, over ROPS turf model 229mm Turning radius less brakes

Ground clearance 235mm Wheelbase 1600mm CAPACITIES: Fuel tank 28ltrs



2300mm

COMPACT TRACTORS COMPARED

JOHN DEERE 1070 £12.919

Most of our panel felt that the John Deere 1070 was just, and only just, pipped at the post by the Massey Ferguson as their favourite tractor in the test. John found the daily servicing layout was very good with the side panels easy to remove and replace.

Local firm, Drake and Fletcher, supplied the 1070 in a very high order and our judges found the machine just as polished in its performance as was its paintwork.

The driver/testers found a good range of gears in the 1070, 18 forward and 6 reverse including creep. The working platform is uncluttered with all the controls colour coded making for very smooth operation. Like on other machines, the handles on top of the rear mudguards give the driver something to hold onto when operating on banks.

The brakes were found to be good as were the 1070's abilities

in mowing, towing the trailer and carting about the top dresser. The operator found that the 1070 was very kind to the grass's surface and was able to drive across the greens with complete confidence.

It was a very comfortable and easy to drive machine and it should not be forgotten that it cost £1200 or so less than the Massey.

John Deere 1070 specifications and performance

@ 2600rpm

MAX TORQUE: 105Nm PTO
HORSEPOWER: 35hp
ENGINE TYPE: Diesel
NUMBER OF CYLINDERS: 3
BORE/STROKE/CAPACITY:
84mm/86mm 1906cc
TRANSMISSION: Speeds
(forward) 18; Speeds (reverse) 6
CLUTCH TYPE: Dual Stage Dry



POWER TAKE OFF: Rear Live continuous
WEIGHTS AND DIMENSIONS
Weight 1481Kg (approx)
Overall length 3128mm
Minimum width turf model
1845mm
Height, over ROPS turf model
2088mm
Turning radius less brakes
3000mm
Ground clearance 309mm
Wheelbase 1750mm
CAPACITIES: Fuel tank 40 litres

LAMBORGHINI RUNNER 350 £11,200

Out of the six tractors in the test, the 350 was the second smallest. Bearing a name that conjures up thoughts of a vastly different vehicle, the reality is a rather attractive looking machine.

John found the dip stick awkward to extract and replace and the batteries are a problem to fill, remove and reconnect. To fill with oil requires a funnel, a small



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COMPACT TRACTORS COMPARED

item until you can't find the funnel. The body work also came in for criticism, John thought the bonnet lid was too lightweight, also the side panels were troublesome to replace.

The test drivers found the Lamborghini had plenty of power but the steering was heavy and it marked the surface a little when turning, the marking was not too severe but it was noticeable. Gears were a good point with a good range and they were easy to shift. The two speed PTO had a good selection and was simple to engage. Our judges were not too impressed with the working platform, it was a little tight and as with all 'compact' compacts it was hard to get on and off.

Driving on the banks didn't instil much confidence, it was too light for the two tonne trailer and the brakes were poor under strain. The team found the top dresser difficult to fit, the three point linkage was too close to the tractor and they thought that some implements would lack

clearance.

The problem with these very compact tractors is that to get them so small the designer has no choice but to compromise on certain aspects on the design and things.

Lamborghini Runner 350 specifications and

performance

Din @ 3000rpm MAX TORQUE: 84.5Nm PTO HORSEPOWER: 31hp Din ENGINE TYPE: Diesel NUMBER OF CYLINDERS: 4 BORE/STROKE/CAPACITY: 78mm/78mm 1490cc TRANSMISSION: Speeds (forward) Min 0.42 - 14.93 mph Speeds (reverse) Min 0.42 -14.93 mph CLUTCH TYPE: Organic POWER TAKE OFF: Rear 2 speed

540/1000 Mid Optional 1000rpm

Front Optional 1000rpm WEIGHTS AND **DIMENSIONS Weight 1030Kg** Overall length 2860mm Minimum width turf model 1275mm Height, over ROPS turf model Turning radius less brakes 2800mm Ground Clearance 305mm Wheelbase 1630mm CAPACITIES: Fuel tank 29 litres

ANTONIO CARRARO 3800 £12,500

As with all small compacts John found the Carraro difficult to get to the dip stick, battery and oil filler, there is a trade off for being small and this is a fact of life.

The Antonio Carraro is unique in this line up being the only one with a cab and the only one capable of having the driving seat reversed. Cabs were found to be a double edged sword, on the one hand you are protected from the elements but you knock your elbows getting in and out. A cab on a larger tractor would proba-



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such a problem.

The Carraro's engine power was good, if a little noisy but the PTO couldn't cope with the long grass. It wasn't big enough to tow the two tonne trailer but made good work towing the course's large roller, even on wet grass the four wheel drive had excellent grip. The Carraro's unique ability to pivot around its centre allows the wheels to exert an even traction on uneven ground.

Marking was a bit of a problem but with larger turf tyres this would be minimised. The driver found he lacked confidence on the banks, this was probably due to the tractor's small size and narrowness and the driver being used to larger machines.

The team found using the top dresser awkward with the three point linkage having a poorly designed top link, they had to use the one that belonged to the Kubota. Our judges found that even with a cab the visibility was good, getting on and off poor and the platform cramped with comfort on the poor side. The reversible driving position was a benefit but maybe the Carraro would be more at home in agricultural circles.

Antonia Carraro 3800 specifications and performance

ENGINE HORSEPOWER: 36hp MAX TORQUE: 99Nm @ 2100rpm PTO HORSEPOWER: 22.5hp ENGINE TYPE: Diesel NUMBER OF CYLINDERS: 3 CAPACITY: 1551cc TRANSMISSION: Speeds (forward) Speeds (reverse) CLUTCH TYPE: Single Dry Plate POWER TAKE OFF: Two speed 540/1000rpm WEIGHTS AND DIMENSIONS

Weight 1260Kg Overall length 2955mm Minimum width turf model 1380mm Height, over ROPS turf model 1990mm Turning radius less brakes Ground clearance 180mm Wheelbase 1250mm

CAPACITIES: Fuel tank 30 Litres

FORD NEW HOLLAND 2120 £14,686

Like the Massey and John Deere, this was also a much liked tractor, probably because it was a tractor-shaped tractor and the team certainly admired its good looks. John found that the daily servicing was not so convenient as the Massey and the John Deere but still could be described as good and you didn't require a funnel to pour oil in from a jug.

The drivers found the gears crunched a bit and thought it may need adjustment. To operate the PTO you had to use the clutch and it was 'clonky' and rough to use. They liked the working plat-

Marking was well within limits but more than the Massey Ferguson. Turning and steering was light and positive. The drivers felt that the 2120 was a little unstable on the banks but thought this was because they were not used to this model. Stopping the trailer was well within the powers of the Ford's brakes. There was plenty of power in all departments and the mower was taken well in the tractor's stride. Connecting up the equipment was easier than the Massey or the John Deere.

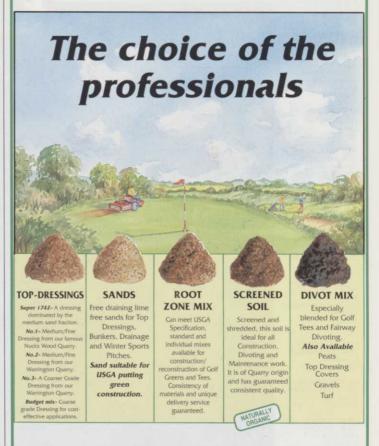
Getting on and off the 2120 was easy and without the driver banging his head or knocking his elbows. All in all the Ford was found to be a good all round performer with excellent visibility and comfortable in use.

Ford New Holland 2120 specifications and performance

ENGINE HORSEPOWER: 41.3hp MAX TORQUE: (Nm/rpm) 136.2 @ 1800 PTO HORSEPOWER: 38.5hp ENGINE TYPE: Diesel NUMBER OF CYLINDERS: 4

• Continued on Page 51

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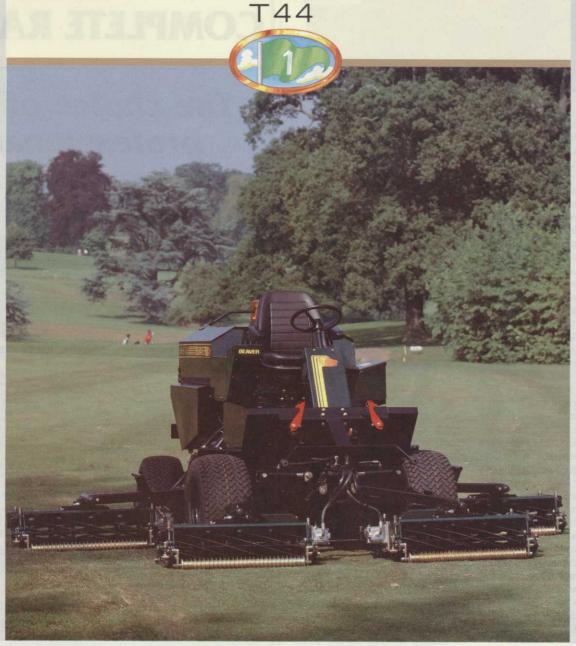
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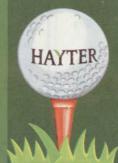
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