

Jack of all trades or master of none?

James de Havilland meets up with Head Greenkeeper Ian Upton, to look at how attachments can turn his brushcutter into a multi-use piece of equipment.

Systems that use a brushcutter power unit to drive attachments, including a power pruner, hedge trimmer or sweeper brush are not new. Take up among professional operators, however, is not as strong as it could be, there are those who suggest 'systems' based tools are compromised. Here we see if that has any foundation in practice.



Ian Upton, Head Greenkeeper at Rye Hill Golf Club in Oxfordshire. An existing STIHL CombiSystem user, he suggests the available CombiTools work well and make full use of a single power unit. "Why buy a dedicated brushcutter when a CombiSystem is so much more versatile?"

Ian Upton, Head Greenkeeper at Rye Hill Golf Club in Oxfordshire, is an established STIHL CombiSystem user. Currently operating a 27cc two-stroke STIHL power unit with the company's CombiTool grass trimmer line/polycut blade head, power pruner and hedge trimmer attachments, he already appreciates the system's versatility. So, when it came to trying the latest CombiEngine power units and CombiTool attachments for Greenkeeper International, he was a natural choice.

STIHL submitted two power units for his appraisal, the established 2-stroke 0.95kW 25.4cc KM 85 R and the all-new 1.4kW 36.6cc 4-MIX KM 130 R.

For those not familiar with STIHL power units, the 'R' element in the name indicates that a loop, as opposed to 'cow horn'/bike handle, is fitted. A loop handle is more versatile on a CombiSystem as it enables the power head to be operated with the full range of CombiTool attachments, such as a hedge trimmer or pruner, but 'cow horns' can be specified for use with a grass trimmer, metal blade or scrubcutter.

Of the two power units submitted for this appraisal, it is the new 4-MIX head that will arguably be of most interest. In simple terms, the engine is a four-stroke, that uses a standard 50:1 petrol/oil mix for lubrication. This does away with the need for an oil sump, allows the power unit to run at any angle, just like a 2-stroke and cuts out the need for sump oil level checks and changes.

As existing 4-stroke power unit operators know, a key advantage of a 4- over a 2-stroke is improved fuel economy. The main impact of this is not so much reduced

operating costs but the ability to make one tank of fuel last longer. Although those who welcome refuelling as a chance to have a break will no doubt see, this extended period between, fills as a two edged sword, the 4-MIX system is also said to offer other advantages, not least being noise levels.

Ian Upton picked out the supplied 4-MIX engine to put this to the test. In work, the 4-MIX KM 130 R certainly sounds very different to the 2-stroke KM 85 R - the high pitched buzz of the 2-stroke versus lower beating thrum of the 4-MIX. No, that is not an over helpful description, but Ian suggested the 4-MIX sound does not travel as aggressively as its 2-stroke sibling and it proved far less penetrating through his ear defenders too.

So point one on sound goes to the 4-MIX. But what about pick up and power? "I have to say that power-wise I would not really be able to notice much difference between the 4-MIX and the 2-stroke power units I am used to", says Ian. "The KM 130 R was certainly not wanting for power with any of the attachments tried, it did a good job with the line trimmer head, where a high line speed is important and it did not pass high levels of vibration back in use either."

In fact what impressed Ian most about the 4-MIX was its ability to behave pretty much like a 2-stroke, with the added bonus of less noxious fumes. But it does have one disadvantage. Compare the weights of the 2-stroke KM 85 R and 4-MIX KM 130 R and the latter does feel heavier, this is borne out by the specifications. A 4-MIX tends to be around 0.5kg heavier than its nearest equivalent 2-stroke alternative. But in this case, the KM 130 R is a more powerful power unit, so the extra weight is easy to excuse.

"I have to say it is difficult to separate the two power units in terms of actual operational advantage", added Ian.



A selection of the CombiTools, and two CombiEngines, were put through their paces at Rye Hill. The build quality of each item was first class, each item snapping into place quickly and easily

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"Price wise, the 4-MIX motor is about £40 more expensive, but it has a higher displacement and develops more power. It is the power unit I would choose in a straight head to head comparison."

The CombiTool attachments are identical for every power unit, so the only other decision is which of the eleven to choose.

As an aside, STIHL has developed its range of 2-stroke oil formulations to include those that closely match the demands of 4-MIX units. In outline, the company continues to offer a standard 50:1 mix. Carrying a red marker dye, this formulation is recommended for all 2-stroke power units and will be OK to use with a 4-MIX. A new HP Super 50:1 alternative, however, has just been introduced with enhanced properties to suit the 4-MIX system.

Equally suitable for all 2-stroke engines, HP Super offers improved lubricity and is claimed to burn with even less combustion residue than the existing oil. It carries a green marker dye to distinguish it from the standard 50:1 oil. A further alternative is BioPlus, a bio-degradable version of the standard 2-stroke oil.

In the picture captions, Ian Upton gives his opinion of the latest CombiTools. He was unfamiliar with the scrub cutter and the adjustable long-reach hedge trimmer is a new design. The line mowing head tested also featured the latest easy feed system.

STIHL CombiSystem Technical Specification:

STIHL CombiEngine	KM 85 R	KM 130 R
Engine type:	STIHL two-stroke	STIHL 4-MIX
Displacement:	25.4cc	36.6 cc
Power Output:	0.95 kW / 1.3 HP	1.4kW / 1.9 HP
Weight:	4.0 kg *	4.6 kg *
Handle design:	Loop **	Loop **
Standard equipment:	Carrying harness Protective glasses	Carrying harness Protective glasses
Length to coupling sleeve:	89cm	92cm
Price £ ex VAT (RRP):	331.91	370.21

*Weight without fuel

**Bike/'cow horn' handle model also available

STIHL CombiTools	Price £ (Ex VAT)
AC-KM AutoCut line head	109.79
MB-KM Metal Blade	97.87
BF-KM Pick tine cultivator	127.66
FCS-KM Edge trimmer (straight shaft)	177.88
KW-KM Power sweeper	262.98
KB-KM Bristle brush	161.70
HL-KM 135o adjustable hedge cutter	203.40
FH-KM Scrubcutter	191.49
HT-KM Pole pruner	148.94
HT-KM Pole pruner extension	67.23

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STIHL CombiSystem - a product of evolution

STIHL introduced the concept of an outdoor multi-tool almost fifty years ago, adding a choice of attachments to fit one of its forestry chainsaws. This enabled one power unit to drive a range of outdoor tools. The concept evolved further in the late nineties with the introduction of a clearing saw series where the head could be replaced with a hedge trimmer, pruner or light cultivator. The idea was further developed to produce the 'splitting shaft' concept of the CombiSystem in 2000. The various attachments connect without the need for tools and the system now includes a choice of eleven CombiTools.

The CombiSystem is available with four different CombiEngines and the eleven CombiTools. These include a choice of hedge trimmers, a pruner, cultivator and lawn edger, a grass trimmer, brushcutter, scrubcutter, powered sweeper and bristle brush.

Top Tip:

Extend the life of nylon cutting line and thermoplastic blades

Soak nylon line and 'plastic' blades in water for 48 hours before use. This will help restore them to factory fresh suppleness, which in turn will reduce sudden breakage in service.



Fitting new line into the AC-KM Mowing head is an absolute doddle. Cut off a length of new line, and feed each end into the line outlets on the head. Wind in the line via the knurled base winder, cutting it either with a knife or letting the guard mounted line shear do the job for you



The 4-MIX KM130 R CombiEngine produces a different noise to its 2-stroke alternatives, the sound tending not to travel as far. Fumes appear to be less noxious too. The only penalty is the unit is a bit heavier, but there is nothing wrong with power and torque



FH-KM Scrub cutter is both shorter and stronger than the hedge trimmer, but boasts the same adjustment system. A metal base-plate makes it suitable for trimming growth at ground-level without the 'scatter' of a grass trimmer and the wide blade spacing allows coarse material to be trimmed. "I think this tool would be useful for clearing material, such as reeds, from around ponds and lakes. This also could be used to edge bunkers. It looks pretty tough too"



The rubber paddles of the KW-KM Power sweep have the advantage of not getting blocked when working with wet material. "The sweeping power of this unit, and the brush, is good and the tools are easy to operate"



A green marker dye distinguishes the HP Super 50:1 ratio 4-MIX optimised oil from the standard red marked alternative. BioPlus variant is bio-degradable

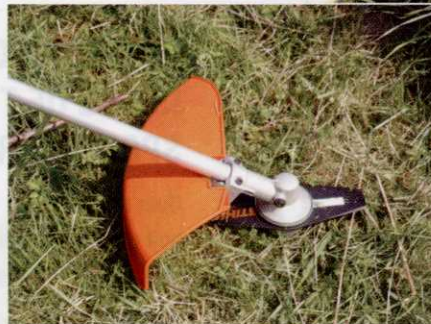


The latest HL-KM adjustable twin-blade Hedge trimmer has several advantages over the earlier design. Adjustable through an expanded 135°, it can be adjusted to trim the top of a hedge, and can be operated in a range of positions. It also stores 'folded'. "A really useful tool. It makes trimming the top of hedges and bushes quick and easy. The range of adjustment is a real plus"

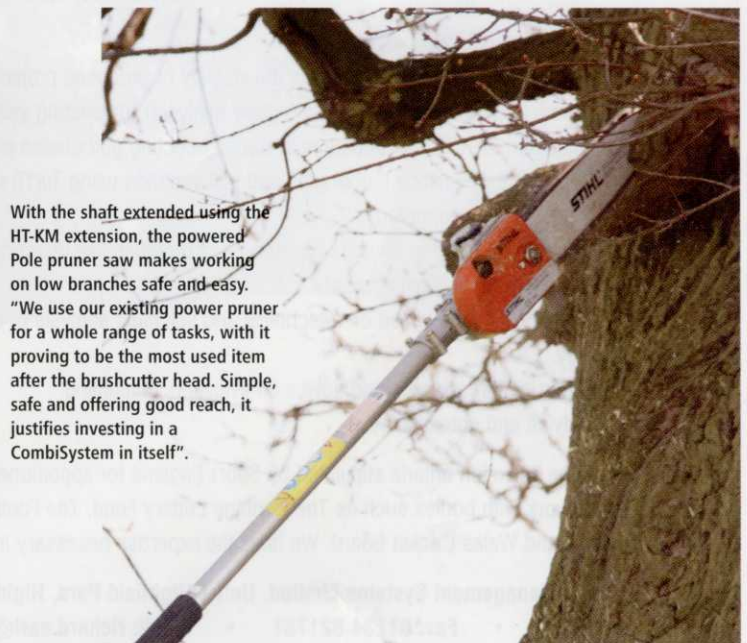
Fitted with easy to refill AutoCut C line head, the AC-KM Mowing unit boasts a small guard. This makes it easy to see the area that is being cut and the head could be fitted with 3 pivoting thermoplastic 'polycut' blades if preferred. It's every bit as good as a dedicated unit. "What I really liked was the easy system to feed in new line. Winding line into a conventional head now seems a real chore!"



Designed predominantly as a Lawn edger, the FCB-KM unit was put to the task of trimming a bunker edge. It did a good job where the sand and grass were nearly level, but the Scrub cutter, or indeed manual edging shears, would be better for deep edges. "The jury is out on the value of this tool for bunker edging. I think it needs a bit of experience to get the best from too"



Grass cutting head, MB-KM, is the tool to select when using a brushcutter blade. STIHL offers a range of blade designs, including the twin blade pictured. In work, this left a clean cut, the cleared material appearing fair less mulched. "Normally we would use a star pattern blade, but the twin blade worked really well in long grass, leaving material that would be easier to rake up. Good guard"



With the shaft extended using the HT-KM extension, the powered Pole pruner saw makes working on low branches safe and easy. "We use our existing power pruner for a whole range of tasks, with it proving to be the most used item after the brushcutter head. Simple, safe and offering good reach, it justifies investing in a CombiSystem in itself".