

Driving impression: Krone Comprima CF155 XC round baler/wrapper

Making silage in many sizes

In amongst the development of a whole new line-up of round balers, Krone last year announced a number of updates for the combi – or ‘C’ – wrapper versions of its F155 semi-variable model and stable-mate, the ‘true’ variable V150. Of the two it was the CF155 semi-variable combi that we tucked into some damp first-cut grass on a wet Warwickshire day ahead of the Grassland & Muck 2008 event.

The design of the bale chamber, with its NovoGrip belts plus slats allowing bale sizes of anywhere between 1.25-1.50m, in 5cm increments, to be produced simply by altering the position of a pair of pins that control elevator flexibility, was detailed in our last issue, as was Krone’s new cam-trackless pick-up, so refer back

Having featured the Krone Comprima round baler in our April 2008 issue, here we assess the ‘C’ wrapper version.

Back in our 04/08 issue we looked at the technology that allows Krone’s Comprima F155 XC fixed-chamber round baler to produce variable pack sizes, from a diameter of 1.25m to 1.50m. Here, Martin Rickatson finds out how the machine works when paired with Krone’s combination wrapper and what developments there have been in the latter department

to 04/08 p26 if refreshment is required. A chopper is standard on wrapper models, with either 17 knives (64mm or 128mm spacing) or 26 knives (42mm or 84mm), and the ability to remove half or all of the knives on either. Behind the chopper is a hydraulically engaged drop floor that enables blockages to be cleared without dumping a heap of crop on the ground as the baler continues to feed material into the chamber.



Pull-down knife design is claimed to give a cleaner wrap cut. Wet conditions on our test day were not ideal, as the grass clinging to the tailgate shows.



So from here we deal with the features that are exclusive to the 'with-wrapper' 'C' version of the F155. This machine sits aboard a pair of axles stretched wider to 1,100mm apart (940mm on the previous models), and is shod with 500/50-17/10 rubber; the twin axles are, incidentally, also available as an option on the stand-alone baler models. Despite the obvious addition of the wrapper, the Comprima CF appears remarkably short for a baler combi, a fact borne out by spec sheet stats that show it to be only 2.2m longer, at 6.57m, than the standard F155. Compared to its 'true' variable chamber V150 sibling, the CF is some 0.8m shorter.



There is room on the CF155 to accommodate up to ten spare rolls of wrap via this neat hinged storage.

The CF version of the Comprima sticks with Krone's fully independent on-board hydraulic system supplied by a separate reservoir, with the baler driven by a main gearbox and the hydraulic system by a slip-on gearbox with oil pump. The pto knock-out clutch kicks in at 1,950Nm on a 17-knife machine and 2,300Nm on a 26-knife unit. A lever above the CF's pick-up allows pto drive to be disengaged to the pick-up etc while key hydraulic functions remain operational.

To set the number of wraps required, the user selects 2, 4, 6, or 8 layers on Krone's in-cab terminal and then operates a lever on the chain and slat elevator's gearbox to set the correct wrap width. Once a bale has been formed, the operator is alerted, via Krone's control terminal, to halt the tractor, and netwrapping begins automatically, as detailed in last month's article.

Bale ejection is also then automatic, after which a lift arm transfers the pack to the wrapping table, the tailgate closes and baling can resume as the previous bale is wrapped.

Indeed, all baling and wrapping functions are sequence-controlled, with the round bale being tipped off the wrapping table automatically as soon as the baler stops to netwrap the next bale. The terminal's audible and visual signals guide the CF operator through the various processes happening, but any one operation can, of course, be manually overridden at any time – the delaying of netwrapping, film wrapping or wrapped bale ejection, for instance. Krone claims that the 155 will happily bale straw without wrapping with little loss of output/speed, and that it is possible to drop bales in pairs to reduce collection time.

DATA SHEET

Krone Comprima CF155 XC

Baler type:	Semi-variable, fixed-chamber with twin-arm wrapper
Bale diameter:	1.25-1.50m adjustable in 5cm increments
Bale width:	1.2m
Tyre size:	500/50-17/10 or 500/50-20/12
Pick-up working width:	2.15m
No. of tine rows:	5
Tine spacing:	55mm
No. of rotor knives:	17/26, spring-loaded
Theoretical chop length:	64/42mm
Additional film storage:	Ten rolls
Machine length/width/height:	6,900mm/3,410mm
Hyd requirements:	1 x single-acting
Power requirement:	100hp
Price:	TBA

One notable advance Krone has made here is the ability of the wrapper, through the new control terminal, to compensate for a film roll running out or breaking. A speed sensor measures pulses from the rotation of the satellite arms to detect whether there is no film present, or if a break has occurred, and should either of these scenarios have come into play, the wrapper automatically compensates using the remaining film roll to ensure that the correct number of layers is applied. In addition, wrapping speed has clearly been much improved by eliminating the stop/start nature of the previous Krone system; the satellite arms operate at a constant faster speed from start to finish, and this has a noticeable effect on the whole process, making it smoother, with, one presumes, beneficial effects on the wrap and wrapper arms, both of which are subjected to a more consistent, rather than stop-start, strain.

Krone now uses a pair of tilt rams on the wrapper table of the Comprima CF, where only one existed before, to counter the heavier weight of larger chopped grass silage bales. The firm claims that this and the above design features have together reduced the time from the opening of the bale chamber to the bale being wrapped by 27%. Film pre-stretch can be set from 50-70%, and the dispensers take 500mm or 750mm rolls.

Summary: While we detailed a number of Krone's round baler developments in our April review of the Comprima F155, there is clearly more to the company's recent developments in crop packaging than the Novogrip 'fixed but variable' formation system. The CF version of the Comprima looks a very different machine to the CombiPack it succeeds, and that longer wheelbase, new control terminal, smoother, single-speed wrapping and ability to wrap with one arm are among the most notable developments.



A 1.50m bale and one of 1.25m. Varying silage round bale sizes could be useful if working with different crops, conditions, winter feed plans etc.