Smooth crop flow helps to boost output

TRADE Comment

By Jim Breen
Machinery

FEW men in the trade have their ears as close to the ground when it comes to combine harvesting as Ken Graham. With an engineering firm in Stradbally, Co Laois, his practical working knowledge of combines of all shapes and sizes stands him in good stead to lend some advice to those looking to extract the best from their machines during this year's harvest.

Of course, it should be noted that Ken has a vested interest in this side of the business; not only does he repair combines but he manufactures replacement concaves, grain pans and other parts too. He says that many of these have been developed specifically for the Irish and UK markets and in some cases, he claims, these parts perform better than the original components fitted by the manufacturer from new.

I started by asking Ken how combines are faring this harvest — and what sort of feedback is he getting from his customers. Remember, he deals with farmers and contractors not just in the midlands but all over the country and beyond.

He replied: "Yields in winter barley have been disappointing. Thankfully, harvesting conditions have not been unduly difficult, though some farmers started cutting a week or two early. That obviously makes the crop harder to thresh.

"What doesn't help is the fact that some farmers don't get their combines ready in time. Pulling the machine out at the last minute, only to discover that it needs an overhaul just when the crop is ready to cut, leads to unnecessary stress."

According to Ken, the concave is one of the most critical components in any combine. He explained: "Persisting with a worn or damaged unit will end up costing you money. Losses will increase, throughput will fall and you'll struggle to get a clean sample."

He continued: "Concaves are under more pressure now than ever before. Years ago, combines didn't have the same tonnage of grain going them, nor did they have the same volume of straw to deal with.

"If you look back at combine developments over the years and compare a 15-foot, five walker machine with a 20-foot, six-walker machine you won't see much difference between the concaves on each. Yet the one on the bigger machine is being asked to do a lot more.

"Add to that the fact that new crop husbandry practices have placed even greater demands on concaves. Nowadays, farmers aim for stronger, greener straw when choosing varieties and sprays to offset the risk of lodging. The downside is that the increased volume of green straw tends to clog up the concave more quickly."

According to Ken, proof of this is the fact that concaves coming out of machines for refurbishment have been blocked up with material — which obviously makes it much harder to force grain through them.

"That's why we opted to design a concave of our own," he explained. "We made the first of those about six or seven years ago. The biggest selling point is that our concaves have bigger spacings between the wires, though the angle of wrap is the same as a conventional one. As a result, ours don't get choked up with a mat of material as easily."

Feedback from users suggests that the new concave does pay dividends. Ken explained: "One man with a John Deere 1188 told me that the new concave has enabled him to get through anywhere between five and seven acres per day more than before.

"Another grower with a Deutz-Fahr 36.10 told me that that his biggest problem now is that he hasn't enough trailers to keep him going — a problem he never had before!

"Last year, we sold more than 50 of these 'high-ouput' concaves. They really only took off in 2004; up until then sales had been growing slowly but steadily year-on-year.

"Sales have not been quite as strong this year," he conceded, "but that's probably because demand has been exhausted to a certain extent."

Ken continued: "I'm confident that our concave is better suited to typical, modern-day Irish conditions than anything else on the market. Some people have been talking about the Australian-designed Nichols concave, which wraps further around the drum than ours does. However, I'm sure that ours absorbs less power and works better in greener straw."

According to Ken, his firm has sold 'high-output' concaves to a wide variety of users. He said: "We've got customers all over the country and in the UK too. We've even sent one to Germany, where it's being evaluated right now. It's fitted to a New Holland TX32 and, if all goes well, we'll be sending more out.

"In fact, we've fitted these concaves to combines of all shapes and sizes. From machines as old as New Holland / Clayson 1530's right up to Claas Lexions (straw walker models), our concaves are proving their worth. Obviously, we don't fit them to brand new machines as it simply wouldn't pay to replace a new, unworn concave with a replacement unit — even it does perform better."

In the course of repairing and reconditioning combine parts, Ken has come across machines of all shapes and sizes. He doesn't rate any machines as being particularly bad but he did say that some older-generation Claas combines were expensive to keep going. "Parts were often costly and some older models weren't really built to last," he explained. "I don't think it's a criticism you can level at the later versions, however."

"I've always thought that certain John Deere machines, like the 1188 for instance, were reasonably reliable and a good ownership prospect. Whatever the make or the colour of the paint, the reality is that most breakdowns are caused by general wear and tear or — in some cases — abuse. It's not fair to blame the design of a machine for every problem that arises!

"And when you're in the middle of a busy harvest it's all too easy to hit an unloading auger off the side of a high trailer, especially in a rutted field.

"And when cutting a lodged crop the chances of breaking sections or damaging an intake auger are much greater. Those are common enough occurrences; but I've seen stranger things too. On one occasion, for example, a knife was so badly seized in a cutterbar that it had to be pulled out with a tractor! Luckily, that doesn't happen every day."

• Ken Graham pictured with a 'high-ouput' concave. These cost between €800 and €1,100, depending on specification. He charges €280-€320 to recondition a 'standard' concave.

Business Facts — Ken Graham Engineering

Based at: Stradbally, Co Laois

Products include: Combine harvester concaves, grain pans, augers, elevators and other components

• Ken and his small team manufacture a selection of parts. An overhaul of a ten-year old combine might cost anywhere between €700 and €3,000, depending on what needs doing.