

Harvester bars

Simon Bowes puts GB harvester bars through their paces

IT'S not an easy life being a harvesting contractor these days. I find myself growing ever more cynical and more easily enraged than I ever did when I worked out my frustrations swinging a chainsaw all day. Maybe I was too tired to worry about more than just getting on with preparing to face a new day of fresh horrors.

Cold calling and unsolicited mailing isn't something I ever enjoyed; in fact it is one of my few pet hates that generally has nothing to do with forestry. Double glazing has almost disappeared as a regular evening call, perhaps everyone now has double-glazed windows? PPI is still a regular, but the new one that seems impossible to avoid is the government boiler replacement scheme. It's a recorded message that you can shout at all you want, but they don't stop coming. I occasionally spend time at home when the family is variously at work and school. For the avoidance of doubt, I don't sit in the forwarder and write this rubbish – I do need some quiet time to perfect my art. That said, it's not easy when the phone keeps ringing and it's the same recorded voice telling me I might qualify for financial help to renew my old boiler! I was waiting in for some deliveries a few weeks ago and doing some writing – magazine articles and novels don't write themselves – and the phone kept going. I was sitting around ready to give directions to the delivery drivers whose sat navs can't find our very rural abode, so I couldn't very well ignore the phone. By the end of the day I'd proven just how hard it is to wreck a portable phone by throwing it about. It didn't help that on three occasions I'd put it down and got to the top of the stairs when it rang again – with offers of help with my old boiler.

I might be interested if they were offering to help finance a new log splitter, but I now know all these calls are just foreign scammers, which is why BT's call barring doesn't stop them.

It's against the background of all this that I went through the post on the following Saturday to find a letter from GB Product Development Ltd, announcing some new harvester bars, which are painted a bright orange, along with Stihl harvester chain and a range of maintenance accessories. My initial reaction was predictable. I'd used some orange bars a year or so previously. They'd been cheap, but they had also been unadulterated rubbish, so I vented my



GB bar in action.

displeasure using the email address that was foolishly included with the mail shot.

I had a reply within a couple of hours, much to my surprise, that was good-natured but pointed out quite forcefully that GB had never supplied bars to the dealers I claimed I'd bought the orange, rubbish bars from. I eventually had to apologise and admit the bars I'd had were Windsor bars, not GB, and I'd been a bit trigger happy in my original email.

Several emails later I'd agreed to take a couple of bars and a few Stihl harvester chains to test. The deal was that I'd not have

to pay for any of the items if I didn't like them. I think Tom Behrens of GB might just have provided me with a perfect definition of the term 'cocksure': "I'll send an invoice, but if the bars don't live up to my promise you needn't pay it." A large box containing five new Stihl harvester chains and a couple of GB Titanium XV bars in the correct configuration and length turned up a couple of days later.

I'll start with the Stihl harvester chain, and here's another confession – I've never used Stihl harvester chain. I knew they made harvester chain, but I'd never actually

seen any. I've used plenty of Stihl chainsaw chain and found it to be extremely durable, and, coupled with the bars from the German company, it's been a selling point for their saws. Many years ago, when I was a full-time cutter, I ran 254 Husqvarnas as my main saws fitted with Stihl bars and chains. This was a deliberate choice borne out by experience because, despite the Oregon attachments being a cheaper option, they needed more maintenance and the bars in particular didn't last nearly long enough. In fact, for a short time in the late '80s, Oregon Pro-Lite bars were awful. The Oregon chain was always easier than the Stihl equivalent to get really sharp, though. I run 64 cm bars most of the time on my Viking 625 head, going on to 75 cm when necessary, but I prefer to use the shorter bars whenever possible. One comment I saw about these chains is that they aren't easy to fit onto new bars and this is especially true with the GB bar with its large-radius nose. They do fit, but you have to make sure the bar adjuster is backed right off and you have to walk the chain onto the nose with a gloved hand. It gets easier with a bar that's got a few hours wear on it, though.

At first glance the Stihl chain looks unremarkable. It just looks like big saw chain. I was quite surprised at how 'ordinary' it looks, but then I remembered that it's possibly what the chain's made of that matters. We levered a new Stihl chain onto a new 64 cm GB bar and, after giving the saw button a few good long prods to get it settled in, it was time to give it a try.

The first cut with a new chain always gives a good idea of just how aggressive the chain is, and the Stihl chain really loads the harvester's engine. Cutting half-metre and bigger larch proved no problem for the new combination, even though the particular compartment we were cutting is old, dry and particularly swept at the butt. The chain cuts well, that much is obvious, but the three main problems I've had with chains over the last ten years or so are that we can't keep them on the bar in the regen that we have to work through in much of the estate woodlands, the constant retensioning required, and the random snapping we get with even relatively new chains. I've never had a problem keeping them sharp, mainly because I don't sharpen them. It's not something we would normally do but, for the sake of research, we deliberately ran the new chain hard by cutting big trees off without the assistance of a chainsaw and cutting right down to ground level. The first chain needed sharpening at the end of the first shift. It had lost its edge from being in the grass and leaf litter, but with a gentle rub over



Size difference.



Stihl chain

it was good and sharp again. We ran that chain, with the original bar, most of the week and all it needed was sharpening a few times, when it was also retensioned. Richard, who drives the harvester, doesn't like using the chain grinder so he takes the chains off and hand sharpens them in an old bar mounted in a bench vice. He was very impressed with the Stihl chain in that first week. He has run them in tandem with the usual chain we use and he reports that he hasn't had one Stihl chain snap in a month, and that they don't flick off; but he also said much of that might be down to the new GB bar because the old chain doesn't flick off half as much as it did on the previous bars. The conclusion is that although the Stihl chain in loops (I usually buy my chain in reels and make my own loops) is a couple of quid more, the extra cost is easily justified by the clear benefits in performance and durability.

Now for the bars. The man from GB said his new Titanium bars last around three times longer than what we had been using before, which I found to be a bit of the old 'sweeping statement' syndrome. They would only have to last a couple of hours to qualify against some individual bars we've used and they'd have to go a long, long time against others. I don't really think the old bars do too bad in some cases. We do have ones that simply wear out but then others fly apart at the tip in very short order. It's

this inconsistency I find particularly annoying, especially given the cost compared to the rates we work on. Just how many tonnes of wood

do you need to cut for each bar? It doesn't bear thinking about when a bar gives up the ghost a couple of hours after being fitted, especially if it takes a chain with it.

I like the way the new GB bars resemble the traditional RSN (replaceable sprocket nose) bars, which is probably because that's exactly what they are. The riveted-in nose section means that if the bearings fail, or the sprocket in the nose breaks up, it is an option to fit a new nose without sacrificing the entire bar. It's worth pointing out that, as with chainsaw bars, this is only an option if the bar rails aren't too worn. The nose of the GB bar is much more substantial than the competition. It contains a bigger bearing pack, has a bigger sprocket and is held together with more rivets. The bigger bearing means the load generated by the rapidly rotating chain is spread over more area, allowing each individual bearing to carry a smaller loading, which is conducive to a lower failure rate and smoother running. The bigger sprocket not only allows for a bigger bearing to fit inside it, but the increased number of teeth means that the sprocket – and consequently the bearing – spin at a slower rate for any given chain speed. The increased number of sprocket teeth make contact with more of the chain, again spreading the loading on both the sprocket and the chain. Finally, because the components are all bigger, the nose of the bar is bigger to accommodate all this extra kit between the sides of the bar, which means there is more room for extra rivets that spread the load and help keep the bar nose more rigid. Slower speed generates less friction, which generates less heat, which causes less distortion and makes for an easier time for the available lubrication.

The perceived benefits of the new design are numerous, but what are the drawbacks? The GB Titanium bars are heavy, and it's a well-established



GB harvester bar and Stihl chain.

PRODUCT REVIEW

fact that large-radius bar noses are instrumental in causing kickback. Neither of these are a real issue in a harvester application; an extra half-kilo or so on the weight of a harvester head makes little difference and kickback isn't a threat to a harvester driver, unless he's using a very odd technique. None of this helps the one remaining wear issue, which is the gradual degradation of the bar rails over time. While the rails do wear on all bars – and the GB bar isn't an exception to this – we did notice that the wear rate wasn't likely to make the bar prematurely unserviceable. In fact (without my knowledge), Richard didn't turn the first GB bar for three weeks. It did show serious wear on the rails but, after a brief discussion on the benefits of looking after components I have to pay for, he turned it and we started again. Any harvester drivers, or contractors who pay for the bars and chains used by said harvester drivers, will know that one of the most instant methods of wrecking harvester bars is getting them trapped in the felling cut. This can result in anything from a gentle bend, through a bend and twist, to having the bar mount still connected to the head and the rest of the bar lying on the wood floor. The first is easily repaired with a hammer, the second is hard to repair,

even with a bar press and a hammer, and the third goes straight in the scrap bin. One bar manufacturer famously makes bars that bend easily so they can then be straightened easily by any blacksmith. It's always struck me that maybe it would be better if they didn't bend at all, but that wouldn't work either.

The answer is bars that bend a little, then spring back into shape. The soft bars that bend and straighten easily have one major fault in my experience; they become curved over time. The curve forms from the constant pressure put on the bar while trees are being sawn off at the stump. Turning the bar regularly rectifies this by bending the curve back the other way; for a while it comes straight, then an opposite curve starts.

The GB bars we tested are made of a spring steel that makes them return to shape after a slight bend. They won't stay straight if you make a proper rickett of sawing a tree off but they don't bend easy and they do spring back from quite large deflections. I've watched them bend quite a way and flick back, but I'd guess if you really twist one it won't be an easy job getting it back straight. We've had a month in varied timber, from late final thinning larch where double cutting was often required, to small regen with lots of

self-sown silver birch and multi-stemmed lodgepole. So far, the one bar has survived without bending.

As I said at the beginning, I'm more cynical than ever about claims from manufacturers, but I've given the GB Titanium bars a thorough test and all I can say is they perform better than what we've been using for years, and I've only stuck with those because there wasn't anything else easily available. I'll be using GB bars in future; they are a clear improvement and they aren't overly expensive compared to the competition.

The real hope is that some of the other manufacturers take note and up their game. Stihl harvester chain provides a different challenge. On the Viking I run it's a no-brainer. It knocks the competition into a cocked hat – it's far superior on durability and the performance is similar. The price might put some people off but it's worth buying some to try and see how it suits your head. It can be a bit fiddly to fit on a new bar but the sheer quality shines through, at least for me.

Now, where's that invoice? I guess I'd better get it paid. The joke's on Tom, though. We only use about fifteen bars and a reel of chain per year at the moment... and that's likely to be even less when we're using his kit!