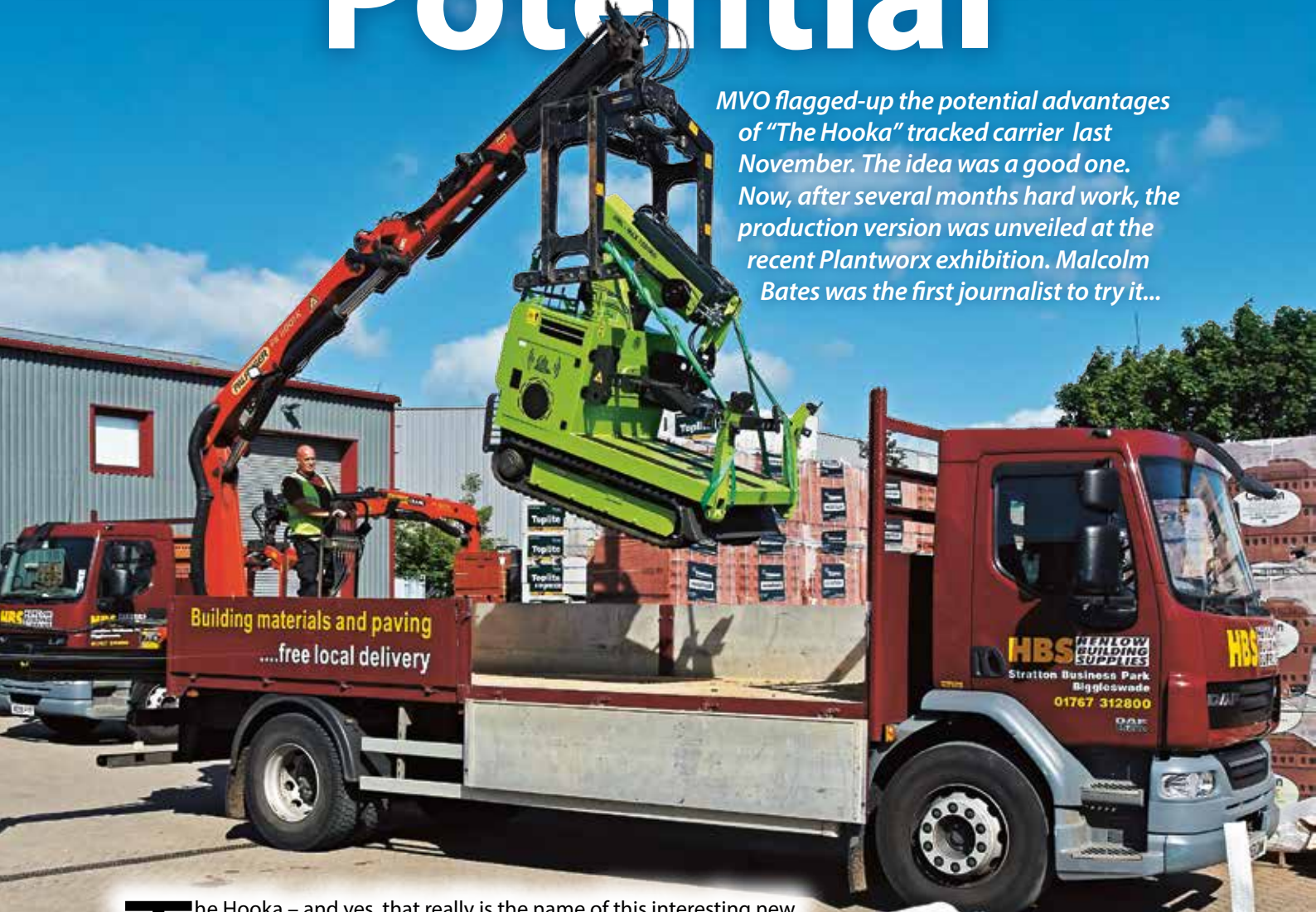




Bags Of Potential

MVO flagged-up the potential advantages of “The Hooka” tracked carrier last November. The idea was a good one. Now, after several months hard work, the production version was unveiled at the recent Plantworx exhibition. Malcolm Bates was the first journalist to try it...



The Hooka – and yes, that really is the name of this interesting new British product – is a classic case of how the best idea can also be the simplest. But while my perspective – and, I suspect, yours – is all about how this clever little self-propelled tracked crane/carrier might be utilised to get waste and recyclable materials from a site onto the nearest collection truck, the concept was actually designed for operation the other way round... to help deliver materials on-site beyond the reach of a typical loader crane-fitted builders merchants truck. For sake of argument, let’s call that beyond a limit around one tonne at four metres outreach.

In fact, The Hooka has a far wider potential than that; any site with a machine able to lift a laden builder’s bag off the loadbed of a truck parked safely out on the street or, at the very least, on hardstanding, and then transport it over a





The Hooka is short enough to be slewed across the width of the truck loadbed, thereby only using 1m of platform length.



The Hooka has been safely unloaded by the lorry loader crane and is ready to load and transport builder's bags, palletised loads or waste containers up to one tonne capacity.

rough or muddy site and down a narrow entry to the back of the site where materials would most likely be needed, had to be worth consideration.

The access to many property refurbishment projects is often far less than the overall width of a telehandler, or backhoe loader, and even when using such readily-available site stalwarts, it has to be said, a builder's bag loaded with a tonne of sand swinging from a set of forks is enough to create a potentially dangerous pendulum effect that could cause injury, or even a roll-over.

Now let's think of the same set of requirements in reverse; not delivering new materials to a site, but instead finding a safe and easy way of removing waste and recyclable materials. And guess what? Hey presto, the same basic flexible woven fabric "builder's bag" can be used for this job as well.

In fact, there's an increasing business opportunity here based on the rather negative approach exhibited by some authorities to not only where a traditional skip can be dropped-off, but just as importantly to the end-user due to the escalating cost of permits issued by local authorities for the privilege of parking a skip out in the street.

But in many urban areas, there sometimes isn't the physical space to drop-off a conventional skip, nor is it always possible to drop the skip off into a front garden either. Then there's the fact that not everyone has enough material to fill a large skip – not to mention the fact that loading everything into one skip makes recycling more difficult...

Bags Of Potential

The cheaper and more effective solution? As operators such as Hippo Waste have discovered, a basic

tipper with a loader crane can, in many cases, pick-up a laden woven bag of waste or recyclable materials from the front garden or driveway of most domestic properties. This approach also has the advantage that the customer can store as many empty bags as required on site until they're needed, avoiding the need for any permits. So far, so brilliant.

The downside is that where builder's bags are used for waste and recyclable materials removal, not every potential customer realises that a heaped woven bag full of rubble is likely to weigh several times more than the intended design weight of the loader crane that's come to pick it up!

And, as many a helpful driver has discovered, offering to "drag" the heavily-laden bag down the driveway, so as to get a lift on it is both dangerous (cranes should never be used as winches) as well as potentially very messy – a tonne of



Using a bag spreader attachment, with full rotation option – the loaded builder's bag is lifted off the truck loadbed; the bag is then teleboomed in, while the front-mounted jack leg stabilisers remain down; the loaded bag is safely located on the Hooka's loadbed platform and the telescopic crane stowed for transit mode; and the Hooka is now ready to deliver – or collect – bags from the far reaches of any site.

FIRST LOOK



From left to right: a stand-on rear platform is standard, but remote control or full driver seating options are on the cards; the power unit is a well balanced 20hp Honda V-Twin petrol engine with electric start; the controls look complex, but are soon learned.

waste deposited onto a customer's driveway does not spell "good customer relations" in any book. And, of course, filling an empty bag in the back garden is totally beyond the reach of the lorry loader crane... so how to shift it?

Well, here's The Hooka. It's a mobile, ride-on tracked carrier with a flat loadbed capable of taking a full builder's bag. Powered by a 20hp air-cooled Honda V-Twin petrol engine with two-speed hydrostatic transmission, it's fitted with a 1.4m reach and a 1,500kg lift hydraulic loader crane – enough to lift a loaded bag on to an 18-24 tonne truck loadbed, thanks to a 1.5 tonne lift to 3m (or 1.2 tonnes to 3.4m).

True, it doesn't have the outreach to lift a bag from the far side of a truck loadbed, like a JCB Teletruk or telehandler, but that's not an issue because The Hooka is only designed to pick-up a laden bag from ground level, place it on its own 530mm high loadbed and transport it – and then load it – onto the waiting truck. Even if that involves passing through a gap only one metre wide.

Improving Productivity

Let's assume your domestic or trade waste service is being hampered by traffic hold-ups, or that with a conventional skiptruck at least half the road mileage is spent loaded with nothing more than... well, nothing... just an empty skip.

To make matters worse, only one customer's skip can be collected per trip, of course.

In contrast, a tipper (although in fact, unlike the units used by Hippo Waste, there is no need to specify a tipper body, as the loader crane, or a telehandler, could be used to unload the bags at the waste transfer or recycling facility) could collect 10, 12 or more laden bags from several customers on a "round robin" route.

My point? A loader crane-equipped truck is cheaper than a skip truck. And there's no reason why a reconditioned RCV with suitable loader crane installed between the body and cab couldn't be used to load and compact builder's bags full of recyclable material, is there? Introducing "compaction" could improve productivity even more.

That's the background then. But does it work? Time to find out.

Thanks to the co-operation of Henlow Building Supplies, myself and fellow journalist, Nick Johnson, have the first production machine for a whole day. The plan is to use it to lift and load bags full of bulk materials such as sand, pallets of bricks and other materials using a simple "spreader" attachment, flexible straps and forks.

Suitably Stable

The first job is to start it. The Hooka is powered by a 20hp Honda GX630 V-Twin petrol engine and it's... well,

running already! An easy mistake to make, the engine is so quiet on tickover."

"Transport" mode is by a two-speed hydrostatic transmission. It uses 3,000kg-rated Hinowa rubber tracks and, while this first production machine is a "stand on" (and can also be configured as a "walk behind"), I'm sure a remote-controlled and/or a ride-on version will be available. While the hydraulics are, like many items of compact plant, a bit on the "sharp" side, everything works well enough.

The crane has both lift, teleboom and head rotate functions, which can be "feathered-in" and used together. The boom itself doesn't rotate, but The Hooka still requires a pair of front-stabilising jack-legs while loading. These cleverly double-up as load clamps to secure the bag on the loadbed when in "transport mode".

As I was about to discover, these clamps hold everything firm – even a bag filled with unstable bulk materials – when traversing a rough site. And although the concept comes from a team outside the plant sector, the actual production – and service back-up – will be handled by Lewis Equipment. So that's the "where does it come from?" box ticked.

Right, back to our waste and recycling scenario, and here's the bit I was keen to explore. It could be that a standard truck could be used

FIRST LOOK



At just 1m wide, The Hooka was designed to transport loaded builder's bags to the rear of restricted construction sites with limited access....

to give The Hooka a piggy-back ride to where it's needed, to enable it to collect laden bags beyond the reach of the truck-mounted loader crane? Then, when the loading operation had been completed, it could hitch a ride home again.

Using the rear-mounted lorry loader crane, we tried lifting this

chunky little 1,488kg machine onto a Henlow Building Supplies DAF 18-tonne rigid... and it worked. The Hooka was easily stowed across the truck loadbed, taking-up just 1m of loadspace, yet it could be dropped-off and in action within minutes, just like a little tracked Moffet "Mounty", in fact.

It worked so well that the team behind the design of The Hooka – Hook-up Solutions – is investigating the idea of a drop subframe on the rear of a truck chassis so The Hooka can be driven on and off, without the need for a loader crane.

In Conclusion?

Woven "builder's bags" certainly have potential in waste and recycling. The problem, up until now, has been to find a safe, effective way of getting full bags from where they were loaded to the collection truck.

A bigger loader crane clearly doesn't overcome all the issues, but The Hooka certainly does. That it is already creating interest in the building supplies sector – for which it was designed – should also help boost interest from the hire sector. And that factor – easy hire availability – could make the wider deployment of builder's bags in waste and recycling a reality. ■

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...but it can just as easily be used to collect and remove bags of waste under the same constraints. Note how the raised stabilisers also hold the bags securely.



