ROADMENDER LIMITED



Sustainable, Efficient and Cost Effective

ROADMENDER is registered under the Business Names Act 1963

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Introduction

The Roadmender is a purpose built mobile asphalt plant which comes in two sizes. The DBP250 produces up to 200kgs per 10 minute cycle of hot-mix asphalt for permanent repairs and utility reinstatements in all-weather conditions and the DBP500 produces up to 440kgs per 15 minute cycle.

Directly at the job site

In just the quantity required

At the correct on site temperature for ideal compaction every time

Without the need to visit an asphalt plant

(Reduces Carbon Footprint by recycling break-out/plainings)

The Roadmender mixes and heats Roadmix*- a specially prepared asphalt mix, delivered in 20kg meltable bags or breakout/plainings





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Overview

Small volume repair jobs are becoming too expensive for anyone to want to deal with. For example, jobs that only require say 3-12 square meters (think car parks and drives at schools, shopping centres, air ports, stadiums, golf clubs, hospitals, health clubs, pubs, hotels, etc) are almost impossible to quote for at an affordable price.

This is because, most small contractors require a minimum call out value to allow them to, measure up the job, order the asphalt, collect it and come and do the work before the product goes cold.

As such, the only solution for customers is to leave their pot holes while they deteriorate and become more expensive to fix causing danger and looking bad. (This is like ignoring a filling that needs doing and ending up with a root canal that's significantly more expensive)

Advantages

The Roadmender system is immune to these problems: simply show up, make the repair with no waste and move on to the next job.

No site visit to spec the job, no travelling to and waiting at the asphalt plant to pick up mix, no time limit on how fast to use the product and no waste.

Commercial Benefits

Waste- <u>The Roadmender system saves ~30% wasted asphalt that is</u> <u>normally required to keep the rest of the asphalt hot and then has to be</u> <u>thrown away at the end of the day.</u>

Minimum order sizes- No minimum order sizes as required by hot mix plants.

Wasted time- Many smaller gangs have to be at the hot mix plant by 6am before the large road jobs start collecting. If the customer is not ready until 8 or 9am, the gangs are only left with a maximum of 3 hours to complete the job before the mix goes cold. They could waste further time going back to collect more asphalt, but having started at 5.30am or earlier, this is rare.

Commercial Benefits

Recycling- <u>With the Roadmender, the binder course required as a base</u> <u>layer can be produced by simply using the Roadmender to heat and mix</u> <u>the asphalt break-out or plainings</u>.

Capacity/Sustainability- In addition to being highly desirable in terms of sustainability, this also allows our gangs to cover more sq meters with fewer materials on board.

Time efficiency- Roadmender gangs save ~2.5 hours not having to travel to an asphalt plant and wait in line to collect the required type of hot-mix asphalt. They also gain up to another 2 hours at the end of the day when regular gangs' asphalt no longer has the temperature required for proper laying compaction.

Commercial Benefits

Night repairs- By making asphalt on site, repairs can easily be done at night when it's more convenient for some customers. This allows them to save revenue and pay more. (Think station and golf club car parks that are full most of the day.)

It also means that an emergency pot hole which appears at night can be fixed with a permanent first time repair, rather than having to be dug out and repaired when hot-mix asphalt is available.

Weekends- The system also delivers further cost savings on weekends when many asphalt plants are closed and charge a large premium for small quantities of asphalt out of hours. (This is especially relevant to road crossing for utility companies, bus lanes, or any other assets that are too busy to close during the week.)

Remote repairs on public roads

Repairs in remote locations can often waste as much as 4 hours collecting hot asphalt and delivering it to the job site

Gangs without a large hot box are limited to one mix type where 2 may be required

With the Roadmender, they can:

Save time going directly to the first job

Carry multiple mix designs on board

Do more repairs in less time

Reheating breakout and plainings from the pothole in the Roadmender for use as

binder course can double the asphalt at their disposal.

Thursday 22nd October 2015

Press Article

Limerick's Newspaper since 1889 **EXAMPLE 189** DESCRIPTION DESCRIPTION OF CULTURE 2020 BID MILES OF CONTRACT OF CULTURE 2020 BID MILES OF CULTURE 2

Dreaming up a new way to end potholes

Entrepreneurs in Limerick design innovative repair machine

NORMA PRENDIVILLE

AN innovative machine, conceived, designed and created here in Limerick, could revolutionise Ireland's roads and consign potholes to the realms of bad memory, according to Ballingarry businessman David Pearl.

Already, nine machines have been bought by companies in Britain, several more are on order and one has even been sent to Ontario, Canada where it is being used to repair potholes at very low temperatures.

But now, the challenge for David Pearl and his business partner, Tom Fennessy from Croom, is to get their Roadmender accepted by local authorities here in Ireland. Roadmender, David Pearl argues passionately, is unique. And he has unbounded admiration for the skill, knowledge and genius of Tom Fennessy who designed the prototype and has developed it into two working models.

"What it does is it provides topquality hot-mix on site in small quantities," David explains. This makes it ideal for fixing potholes or for re-instating roads that have been dug up for services or to repair pipes.

But the beauty of Roadmender, he says, is that it saves the time that might otherwise be used in going to a hot-mix plant. It can also re-use the "break-out" or plainings from a pothole or road-break and recycle them, on site, to be used as a base course.

"You take the break-out, chuck it into the machine, you heat it and mix it and it can be used for underlay," David explains.

The second phase in the process involves heating a special mix and applying that as a top course.

The finished result, David says, is far superior to a repair job where chips are thrown into a pothole and topped up with hot tar.

And he is convinced that Roadmender would also be hugely cost efficient for local councils.

David Pearl's own journey to Roadmender has been unusual. An Englishman whose business background is the world of finance and hedge funds, he moved to Ballingarry with his wife Ros in 1997.

But, as he told the Limerick

Leader: "I am commercially promiscuous." So, when his son Harry began making an asphalt product in England that could be heated on site, David's thought was:

"That could be good for Ireland." But then, he says: "We found nobody had a machine here."

This was where Tom Fennessy stepped in, and created the prototype that has now evolved into Roadmender.

Since then, he adds, it has taken 18 months to get it CE rated and then the product Roadmix had to be CE rated which took a further 18 months.

But, given the proliferation of potholes in the country, he is optimistic that this is one business idea that will prove to be very popular.



Tom Fennessy, left, and David Pearl with their Roadmender

Press Article

Roadmending steams ahead AW is **pioneering** repair work of the future.

ANGLIAN WATER NEWS

Anglian Water's roadworks are set to become less discuptive thanks to a new machine that also promises to reduce time, waste and cost.

The company has become the first utility in the UK to start using a Roadmender, which allows work gangs to carry out their own reinstatement work.

The machine was supplied to Integrated Maintenance and Repair teams in Lincoln by Alliance partner Clancy Docwra. It allows gangs to mix their own hot asphalt on the roadside and have it ready to fill in holes 24 hours a day instead of waiting for a separate team to do the job.

Stève Burley, Anglian Water's Compliance and Performance Manager, was instrumental in getting the Roadmender into operation, speaking to highway authorities and demonstrating the machine's transformative capabilities. He said: "It's brilliant. The Roadmender will totally change the way we carry out reinstatements. Essentially, it's similar to a cement mixer but with a heated element. It allows us to mix the asphalt we need, when we want it. Also, it's a trailer-mounted machine, so it's easily transportable."

The Roadmender will save customers' time too. Many asphalt plants are shut in the evenings and at weekends, limiting a team's ability to fix problems. Steve explained: "If a water



It's brilliant. The Roadmender will totally change the way we carry out reinstatements.

Steve Burley

main bursts at the weekend, we can repair it but we'll have to leave the barriers up until Monday, disrupting traffic for our customers. With the Roadmender, we can tarmac over it straight away."

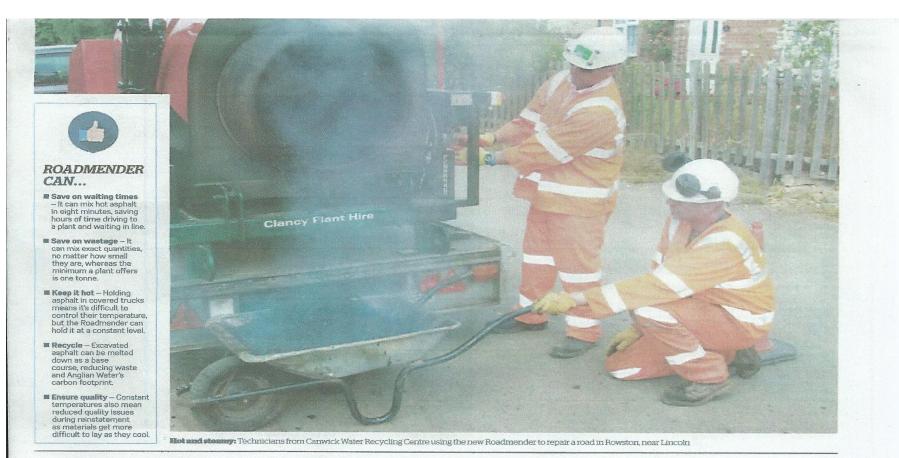
SEPTEMBER 2015

As part of the reinstatement process, two layers must be created – a base course and a wearing course. Traditionally, any excavated asphalt is sent to landfill, for which there is a fee, but using the Roadmender means the excavated materials can be melted down and recycled into the base course.

"It's so important that Anglian Water leads innovation in this way, and sets the pace," added Steve. "It reduces disruption on highways, reduces wastage, gets the job done quicker and gets traffic moving. It's much better for our staff and our employees." Steve and Clancy Docwra are now in the process of rolling out Roadmenders to teams across the region.



Press Article



ROADMENDER
DECLARATION OF CONFORMITY TO CE
We, Roadmender Limited Of, Bailyneale Farm, Baillingarry, Co. Limerick.
Declare that the product:
Roadmender DBP250
to which this declaration relates, is in conformity with the following standard(s) or other normative document(s):
following the provisions of the following Directive(s):
2006/42/EC-Machinery Directive and its amending Directives
For the intended purpose of
Mixing and heating Roadmix asphalt
Signed: <u>Howey of tweet parts</u> Ballyneale Farm, Ballingarry, Co. Limerick Phone: +353 (0) 69 68961 Fax: +353 (0) 69 68048
Email: david.pearl@roadmender.ie Website: www.roadmender.ie
Place of issue: Repubmic of Ireland

NSAI

CERTIFICATE OF CONFORMITY OF THE FACTORY **PRODUCTION CONTROL**

0050 - CPR - 0339

In compliance with the Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 90106/ECC, it has been stated that the construction product:

Bituminous Mixtures in accordance with Annex ZA of the following:

Asphalt Concrete
Asphalt Concrete for Very Thin Layers
Hot Rolled Asphalt
Stone Mastic Asphalt
Porous Asphalt

Placed on the market by: Billian (Roadmender) Ireland Ltd Ballyneale

Ballingarry Co. Limerick

And produced in the factory: Billian (Roadmender) Ireland Ltd Ballyneale Ballingarry Co. Limerick

is submitted by the manufacturer to the initial type-testing of the product and its factory production control and that the approved body – National Standards Authority of Ireland – has performed the initial inspection of the factory and of the factory production control and performs the continuous surveiliance, assessment and approval of the factory production control.

This certificate attests that all provisions concerning the attestation of factory production control described in Annex ZA of the standards listed above were applied.

This certificate was first issued on 17/04/2015 and remains valid as long as the conditions laid down in the harmonised technical specification in reference or the manufacturing conditions in the factory or the FPC listel are not modified significantly.

File no: 1.99.055

Signed: top bal

Built Environ

Seán Balfe - Director of Sustainability & the

System 2+

Date of Approval: 17/04/2015 This Certificate was last amended on: 17/04/2015 Issued By : NSAI, 1 Swift Square, Northwood Business Park, Santry, Dublin 9.

Contact

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