

Jetpatcher

Jetpatcher cuts costs, reduces claims

Road user insurance claims are rapidly increasing throughout the UK except where the Jetpatcher road repair system is being used.

In the UK, road user insurance claims – ie claims against local authorities for damage in which poor roads have played a part – have risen 88% in the last decade. The average number of cases across a spread of authorities was 800 plus two years ago, and virtually the same figure last year. But one authority using the Jetpatcher road repair system reduced its exposure to claims by two thirds of the average in 2001-2002; and by a further substantial amount in 2002-2003.

Virtually the same story can be told about the rest of the UK, with dramatic reductions in claims where maintenance procedures based on Jetpatcher have been introduced. Epping Forest is one of a number of authorities to go firmly on the record about third party accident claims

being cut back significantly on certain roads “as a direct result of using the Jetpatcher process”. So what is Jetpatcher, and why is it so effective?

Jetpatcher UK managing director Richard

The system lends itself to planned, rather than reactive, maintenance, he says. “Whole lengths of carriageway can be refurbished using Jetpatcher in the same time it may take to make good a small

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Richard Jackson

Jackson explains. “Expressed simply, the Jetpatcher road repair system is a way of repairing potholes, wheel ruts, utility cuts and other road defects in a manner that is efficient, highly effective in durability terms and at comparatively low cost.”

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The Jetpatcher process is environmentally of low impact. It uses cold bitumen emulsion and practical techniques which do not call for the cutting out of carriageway damage before repair, therefore no waste goes to landfill. “It is not an empirical system but a highly engineered one,” Jackson claims. “Engineering design standards apply to all parts of the process to ensure maximum benefits in terms of long term road repairs.”

The Jetpatcher process, like Jackson himself, comes from New Zealand. There, a gentleman called Jim Turnbull took the germ of an American idea and turned it into a practical reality.

It is based on a self-contained truck fitted with a large hose and a hand operated nozzle. This delivers a jet of air, used to blast debris out of the area to be repaired, leaving it clean. Then a lever is opened and bitumen emulsion – polymer modified for heavily trafficked roads, unmodified for roads of lower category – is

The Jetpatcher process is a fully self contained truck which can be used to carry out repairs to road defects.



sprayed from the hose into the void and its immediate surrounding area.

This seals the damage and waterproofs it. Finally, a relatively fine aggregate, up to a nominal 6mm diameter, is added to the jet airstream where it is thoroughly coated by bitumen a split second before being propelled out of the nozzle. The resulting hightech asphaltic mix is sprayed into the defect which is made good in thin layers, effectively compacting the remedial asphalt from the bottom up.

“It’s fast and it’s efficient,” Jackson says. “The average daily output of a two man Jetpatcher crew is 200m² during the winter and up to 400m² in summer – maybe five days work for a traditional repair team of five men.”

Jackson points out that potholes are conventionally held to be voids at least 40mm deep, this depth suiting conventional materials. This means that a traditional crew will make good potholes of that depth and more during a maintenance sweep, but ignore anything less shallow than this, often to the fury of locals who see their roads only partially repaired.

It is often the case, he says, that potholes not deep enough to merit attention when the conventional repair crew passes by soon become so, but do not then receive attention until after they have added to an authority’s claims statistics.

In contrast, the minimum depth of void that can be repaired using the Jetpatcher system is three millimetres. “You don’t tend to do a single pothole with Jetpatcher but concentrate on repairing everything along the length of a road. Very rapidly, this brings down the complaints and the



Use of Jetpatcher to repair potholes has helped several local authorities cut accident claims.

number of holes which have to be dealt with on a time consuming, reactive basis,” he says.

“The reactive cycle gets broken. Planned maintenance is possible and the local authority is seen to be in control. Best value applies, there are far fewer complaints and the political situation improves along with the purely practical one of better maintained roads.”

Aggregate selection is important to the Jetpatcher process: the company’s quality assurance plan includes 29 approved quarries. Bitumen is supplied by Ayton Products and fine tuned by the supplier to

suit clients’ individual needs and requirements.

Local authorities or other clients can get Jetpatcher to organise everything and do the work, rent just the machines, or buy the machines for their own use. So far – Jetpatcher UK having been in business in Britain for six years – 24 Jetpatchers have been sold, the company itself having a fleet of 11. “We’re expecting a hike in sales in the very near future,” Jackson says. “It makes sense to spend money with us rather than in the courts, settling claims.”

email hotline: info@modernasphalts.com