

As the UK braces itself for adverse weather, John Challen finds how transport operators can prepare vehicle fleets to have the best chance of ensuring business as usual

ook at most meteorological forecasts for winter 2011/2012 and they conclude that the season is going to be every bit as bad as the previous two. If they're right, we can expect a third consecutive year of disruption and, in some cases, gridlock on the UK's roads. During the months ahead, snowploughs, gritters and recovery trucks will become an all too common sight on the road, clearing the way not only for motorists, but also for the country's commercial vehicles to keep the wheels of business turning.

In anticipation of the bad weather, West Sussex County Council and its highways contractor Balfour Beatty have already announced a fleet of 26 new gritters (18 MAN chassis/Schmidt body combos and eight Econ units), complete with Coldsnap – GPS-based technology that enables monitoring of truck gritting throughout the county on a minute-by-minute basis. The new vehicles – purchased to overcome problems experienced with the old fleets' reliability –

have already been put through their paces on dry runs, and Pieter Montyn, county cabinet member for highways and transport, is happy with the results.

"A real benefit of the new vehicles will be that, because they are more efficient, they will use 20% less salt, meaning our supplies will last for longer and there will be less of an effect on the environment," he states. Incidentally, a source at Balfour Beatty confirms that 18 of the new gritters will run at a load capacity of 9m³, the remainder at 6m³.

Hotting up demand

The above is just one example of how vehicle fleets are being prepared for the worst. UK gritter rental firm Econ has also been getting ready for the cold season, adding extra vehicles to its fleet, which now stands at 375 units. Given the demand and prolonged periods of bad weather in recent years, managing director Andrew Lupton says it is not just the number of vehicles that has changed.



"Earlier this year, the Transport Committee revealed that £280 million a day was lost in transportation distribution during the winter chaos last year," he says. "When faced with a statistic like that, the images that first come to mind are the pockets of severe congestion that sprung up on motorways, such as the M42 around Birmingham – which was mainly due to heavy snowfall and icy conditions."

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However, the main problems experienced by Pye and his colleagues had little to do with snow on the ground. "The main challenges that HGV drivers faced were the cold temperatures and wet weather. So, in the winter months, it becomes increasingly important to have regular services, alongside conducting independent periodical checks to both your trucks and your trailers," he advises.

"The most common faults are in the braking system, as HGV brakes are affected by changing temperatures," he continues. "When water in the air drops below zero degrees, it is possible for this to cause the braking system to freeze up. Whereas many drivers will resort to putting antifreeze down the braking lines to prevent this, there really is no need, as long as your recent service has declared that the vehicle's air drying system is defect free."

Better brakes

There may not be any special requirements for a CV's braking system to operate in winter weather, but Knorr-Bremse advises on draining the air tanks to help prevent valve freezing. The braking systems specialist also recommends changing the air dryer cartridges especially if water is found in the air tanks – following appropriate procedures.

Carl Dibble, from Knorr-Bremse, highlights an EAC (electronic air control) unit in the company's range, which is currently used by Volvo, Renault and Mercedes-Benz. This EAC uses an air dryer cartridge, and is programmed with an intelligent service interval, which advises when it needs to be changed. Hence, when replacing the cartridge on an EAC, the service interval also needs to be reset, which can be done via the Knorr-Bremse PC-based diagnostics tool, NEO.

"ABS/EBS warning lights should never be ignored," adds Dibble. "In the winter, wet and icy conditions mean a particularly busy time for ABS and ASR technologies, due to the reduced friction of the road surfaces. Occasionally, ABS faults can occur due to plausibility failures. This is where the speed difference between wheels across an axle is too great and the system creates a fault indication."

But what about tyres? The process of fitting winter tyres, although commendable, does increase the risk of maintenance error, in terms of inaccurate levels of torque – something that has previously been identified as one reason for wheels becoming detached. As well as the serious health and safety

"Customers were getting concerned that, if the gritters have to operate around the clock, they may not have enough drivers to cope and have to bring in agency or unfamiliar operators," he comments. "So we are putting more automated control systems into the spreaders. Then, all these relief drivers have to do is complete the route; we get a TomTom to help out and the spreader controls are pre-loaded on a memory stick, with all the actual work being controlled via the vehicle's position."

As well as new control software, there are redesigned snowploughs on the Econ fleet. Lupton observes that most snowploughs currently in use date back to the 1980s, with performance to match. "Last September, we introduced a high-speed snowplough, which clears faster and is therefore more efficient," he explains. "We have sold 300 so far and expect to see many more on the roads next year."

Meanwhile, following the chaos on the roads in the winter months last year, Steve Pye, company engineer at Bullwell Trailer Solutions, believes there is much that can be done to reduce the problem and ensure that the same doesn't happen this winter. issue, accurate torque control improves performance and reduces operator costs.

Recently, commercial vehicle workshops have seen an increasing use of torque multipliers, in preference to traditional impact wrenches, as there is then no risk of over-tightening. Unlike impact wrenches, pneumatic torque multipliers are also very quiet. Under Noise at Work Regulations, it is compulsory to wear hearing protection when decibel exposure levels exceed 85dBA. Typically, an impact wrench reaches 90–98dBA when idling and exceeds this level when impacting.

Torque sense

However, Norbar Torque Tools has a new pneumatic torque multiplier that gets over this problem and, as such, could be of interest to operators, whatever the weather, but even more so over the next few months, if tyres are being changed more frequently. The TrukTorque, which features a specially designed reaction arm to handle bolt tightening on both front and rear wheels of trucks and buses, reaches only 83dBA when operating.

As for the tyres themselves, in the LCV market winter versions have become more popular in recent years. Interestingly, research from Holland now suggests that UK fleets would be safer running

throughout the year on winter, rather than summer, tyres. Meanwhile, winter statistics show that, in 25,000 insurance claims, cars fitted with summer tyres experienced a 32% increase in claims over winter, compared with just 12% for vehicles with cold weather tyres. And operators shouldn't wait until the really poor weather to change, warns Chris Hufflett, group operations director of ATS Euromaster.

"There is still a misconception in the UK that cold weather tyres are only designed for driving on snow and ice, but the benefits are noticeable as soon as the temperature drops to 7°C or below," he reveals.

Earlier this year, ATS Euromaster became the first national tyre supplier to offer a dedicated winter tyres programme. The firm explains that winter tyres use a higher concentration of silica, which prevents the rubber from hardening. Hence the improved grip, handling, cornering and reduced stopping distances in the cold – and hence also their recommendation.

The company has ordered $\mathfrak{L}6$ million worth of cold weather tyres for winter 2011/2012 – more than double the volume of seasonal fitments that it secured last year. These factors, as well as paying more attention to other obvious areas of the commercial vehicles in your fleet, could make all the difference to breakdown and break-even in the coming months. \mathfrak{g}

