Atlas
Tyre & Fleet Journey Health Live!

Tough Tech

PUSHING THE TPMS BOUNDARY

The first windmill in Holland was built in 1221 and the country still boasts the highest windmill ever built in the world- a massive 245 metres (803 ft) high. To visualise the scale of the windmill, we should compare some of its parts. Each of the blades is 100 meters (328 ft) long, which is about as long as a football field. The tower is higher than Big Ben, the Tower of Pisa, and the Arc de Triomphe stacked on top of each other.

Like all machinery of giant scale, the parts to make up the wind turbines located around the globe still have to be transported safely by road and often to remote places to be erected.

OUR LATEST CHALLENGE

A demanding 55 meters wheelbase, trailer & prime mover with 40 tyres on the trailer alone. Providing connected real time 24/7 TPMS as well as tracking, security and lots more functions even when the trailer is uncoupled and unpowered.

The solution had to interact with all the relevant safety personnel connected to the health of the vehicle and its load by providing visibility of the data and current tyre status by Web App and Mobile App. Early intervention for tyre and vehicle issues are key to ensuring the success for the stakeholders responsible for the safety and efficiency of the operation; that of transporting heavy loads across country borders.

The customers priority was to be able to monitor the health of the vehicle and trailer, including the tyres before the start, during and end of the journey to successfully manage efficiencies, safety and compliance. Digitalisation of the vehicles provides real-time tyre insight and removes the uncertainty around the effects of having a ‘ghost fleet’ operation.

RICH HERITAGE

For nearly five years we have consistently demonstrated, with the first generation classic product, that the ATLAS solution is easy to fit, easy to use and at a very affordable price. All this whilst ensuring accurate & clean data is readily available to the user. After all the data does belong to the customer and they need it to efficiently manage their resources. Our recently released second generation ATLAS solution offers much more than TPMS and enables monitoring of many tyres whether the trailer is powered or unpowered.

PUSHING THE TPMS BOUNDARY

Our Dutch haulier had been unable to find a connected TPMS solution for many years that would deliver the functionality previously mentioned alongside the scale of the technical challenges for each of their prime movers and trailers, including:

- Total wheelbase length 55.30 meters
- Total trailer axles 10
- Total trailer tyres 40

As well as the scale of size, other more pragmatic challenges had to be considered, including access to the tyres. How were tyres being checked, before, during and after the load was delivered? Let's be honest it's very difficult to safely do this task even though tyres contribute to the success of the operation. Tyres are designed to carry load at a designated speed. In order to optimise tyre life, minimise fuel use and allow load to be carried safely the tyre pressure must be at the recommended pressure set by the manufacturer.

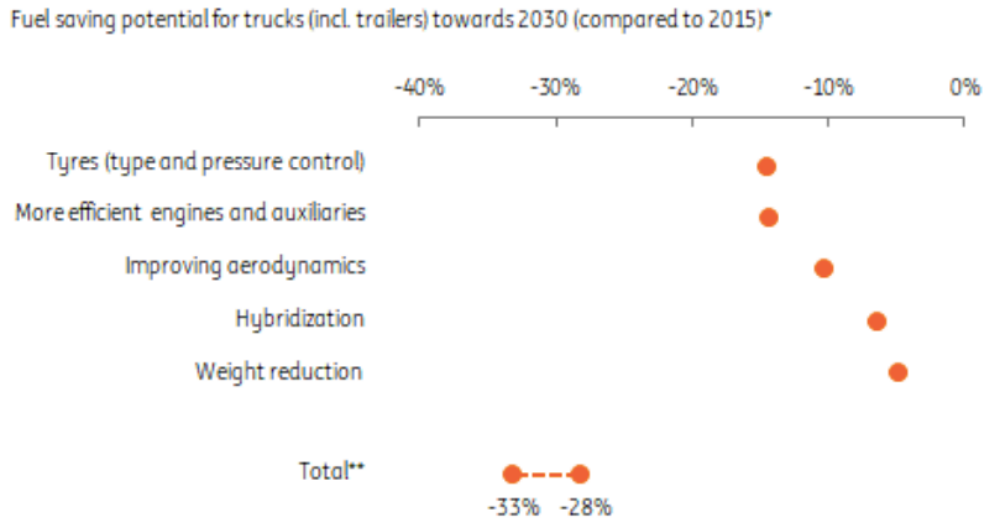
If you have ever worked with a muti-axle, twin wheeled, articulated heavy load trailer or a self-propelled modular trailer (SPMT) you know that inner wheels are very difficult to access, and this is certainly a major safety challenge when the trailer is loaded and in motion. This customer was also no different to all of the customers I speak with on a daily basis. All are concerned with the increasing cost of assets such as fuel and tyres.

TPMS RESEARCH

A recent report by ING research: highlighted the importance of tyre pressures by listing it as the number one solution of how hauliers can save fuel. It's also the easiest to address.

The report also highlighted the other leading solutions which included aero dynamics & engine management both of which require significant investment.

More efficient engine technology and tyres offer most savings potential



Source: TNO, ING Research

Regular consumers of tyres for their fleet, particularly the technical sizes, will have also noticed the extended delivery times for them. This is also leading to an increase in circumstances were fleet operators have to increasingly look outside of their preferred brand, even for common sizes. This introduces a degree of uncertainty around load and tyre performance for the haulier, especially when undertaking heavy haulage operations. For example, some of today's specialist haulage and load operators are demanding higher increases in tyre pressure for load carrying, (whilst trading off speed). Certain tyre manufacturers are able to meet this demand and provide tyres capable of meeting the needs of the load. What is not provided is the technology demanded by the operator to monitor these extreme pressures and tyre temperatures. If the tyres are not available and substitutes put on the fleet, then the ability to interact and have an insight into the health of the vehicle, (including tyre temperature and pressures) becomes of greater importance to the operator.

TPMS SUCCESS

Current data seen, shows fluctuations can change tyre pressures by 20-30psi over a single journey as speed increases. The need for greater insight into tyre performance **whilst undertaking its journey** is more crucial than ever. We appreciate that the cost of a tyre related breakdown for these heavy haulage companies is not just measured financially, but in the reputation of their ability to deliver the load to the client's expectations. Above all delivered safely.

All the challenges I have referenced were of particular relevance to this fleet. The proposal to the customer was the ATLAS solution. It's easy to set up via an app which enables them to quickly connect

and monitor their fleet health on every journey, no matter the distance. It will provide a 24/7 insight & interactive solution that is able to monitor tyre health and the security/location of any of the 40 wheeled trailers or prime movers in the fleet even when uncoupled & unpowered.

At the same time the customer required the ATLAS solution to be integrated into their back- office system. No problem, as the ATLAS system is a fully customisable system which can also be translated into different languages for ease of use by the operator.

A CHALLENGE!

ATLAS technology is constantly pushing the TPMS boundary. I'm often asked, 'well how many tyres will one ATLAS unit cover'? It's usually met with a smile and the answer- 'I don't know we have yet to find the limitations on wheel positions for the unit'. Needless to say, that we are always up for the challenge of finding out how many.

One thing I really enjoy about working with Dutch customers is their pragmatic outlook to any challenge which is usually accompanied by quoting some 'well-known Dutch phrase'. In this case the following quote told to me springs to mind:

"Zonder wind kan een molen niet draaien" (a windmill does not work without wind).

Put succinctly it means; something ["e.g. operational efficiency"] always needs "something" to work. Humans need food, water, and oxygen to function and without money, a bank is just a very fancy waiting room.

That "something" for me is ATLAS and an operator willing to embrace new technology to improve operational efficiency!

The Customer is equipping the ATLAS solution to their entire fleet, all in a matter of days.

We have successfully covered the challenge of scale, number of wheel positions, ease of fitment, ease of use (which included a full training and after sales service from our Dutch distributor) and all at a very affordable price.

CONTACT US

ATLAS has been a well-kept secret in the industry, we've been busy building an ATLAS heritage to be proud of. A powerful & reliable connected IOT telematics system, with connected real time TPMS at its foundation. All designed, developed and manufactured in the UK, with a global client base which includes some of the largest and smallest fleets in the world.

We are experts in our fields of connected technology, data and vehicle & machine application, including tyres, and are constantly pushing the boundaries of TPMS IOT vehicle and machine technology in the most demanding of environments. We are probably some of the friendliest experts too!

Come visit us to see how we can now improve the performance of your fleet with our ground-breaking ATLAS technology at https://atlas-tpms.com/

From vans to earthmover machinery and beyond, we're ready for the challenge if you are….

Tough Tech

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