

Dump truck tire pressure and temperature monitoring system

Challenge

The customer is engaged in mining and processing. The company's fleet includes dozens of mining dump trucks that transport heavy loads daily. When the maximum load capacity is reached, it is especially important to monitor tire pressure and temperature, as the tires can explode while driving and create a dangerous situation on the road.

To prevent such incidents, the company installed ITALON tire pressure and temperature sensors on the wheels of the dump trucks. The dispatcher received information from the sensors about the condition of each wheel and informed the driver if the values fell out of acceptable range. However, there were situations where the dispatcher could not react in time, and the tires overheated and burst. After that, the customer suggested the drivers monitor tire pressure and temperature themselves. To implement this idea, the company required a new convenient tire pressure monitoring system. Geoservice, a provider of telematics services and a Wialon partner, proposed just that.

Solution

The customer had special requirements for the project:

- The solution should not be in the form of a mobile application, as not all drivers have smartphones where the app can be installed;
- The driver should be able to see information about all wheels and wheel pairs on one screen;
- The solution should be integrated with the already connected ITALON tire pressure monitoring system;
- Tire condition data should be transmitted to Wialon, a [GPS fleet tracking software](#), which means that the vehicle's tire pressure and temperature monitoring system should be compatible with the navigation terminal.

Together with Farvater and ITALON hardware manufacturers, Geoservice developed a special **display for drivers** that transmits data from sensors about the condition of all dump truck wheels. This data is transmitted to the Navtelecom SMART navigation terminal and then to Wialon.

Wialon accumulates data from wheel sensors of all dump trucks, giving the dispatcher the ability to analyze the condition of each wheel, vehicle, or the entire fleet for a selected period of time.



The display shows data on the condition of each wheel of the dump truck

Results

Wialon's partner considered all of the customer's requirements and efficiently developed and implemented a solution in a short period. The displays which are the key part of the comprehensive solution, became groundbreaking hardware, as the devices available on the market did not have the functionality to simultaneously transmit and visualize data from sensors on all dump truck wheels.

Real-time monitoring

Now, the drivers themselves do the tire pressure and temperature monitoring using the installed displays. In the case of critical values, they take measures immediately.

Safety

Due to drivers, and not dispatchers, now overseeing sensor readings, the accidents with tire blowouts stopped happening.

Extended tire lifespan

Regular checks of tire condition and prevention of critical values have extended their lifespan.

Company profile

Industry: Mining and processing

Solutions

 Wialon

Hardware

 Navtelecom SMART S-24xx

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