



+Preventative +Predictive +Productive

Castrol and Intangles. A new partnership.

Castrol® has partnered with Intangles™, a predictive maintenance and telematics company, to offer real-time analytics and predictive vehicle health data with service recommendations. Combined with Castrol's premium products and the predictive ability of Labcheck®, an industry-leading fluid analysis service, we can help fleets to improve reliability and lower costs.

Unexpected breakdowns cost fleets both time and money. To combat these breakdowns, Intangles' proprietary solution leverages the power of AI to optimize equipment performance and reduce operating costs.

At the core of the platform is Intangles' industry-leading Digital Twin technology, which recreates your fleet vehicles in a virtual environment and can uncover issues in vehicles days in advance of costly breakdowns.

Intangles' technology enables your maintenance team to see how your assets are performing in real-time from any internet-connected device (desktop, laptop, tablet, or mobile phone) from anywhere in the world.

This solution works with all major OEMs and can operate alongside your current telematics provider. Installation is not complicated; a small-profile device plugs into a vehicle's OBD port. Intangles experts are available to provide installation support at your sites.

Let Castrol® Fleet Health™ (powered by Intangles and Castrol Labcheck) help you to reduce unscheduled downtime and lower your fleet maintenance costs.

Please contact your local Castrol representative for more information.



+ Case Study: Long-Haul Fleet



Intangles' AI-powered predictive analytics fleet intelligence system reduced costs and increased fuel efficiency for the owner of 100 long-haul freight trucks.

+ Situation

- The fleet manager operates a North American fleet of **100 long-haul vehicles with diesel engines manufactured by six different OEMs**.
- The fleet manager wanted to **predict potential issues with his trucks well in advance of a breakdown**, so his team can initiate preventative measures. Having a **single, easy-to-read dashboard where he could review all of his vehicles at a glance** was key.
- The fleet manager's objectives include **reducing turnaround time on repairs, decreasing comebacks and completing repairs in one day**. His assets need to be on the road – not in the shop.
- In addition, the fleet manager was seeking to **increase the fuel efficiency** of the vehicles in his fleet given the high cost of diesel fuel.

+ Solution

The fleet manager agreed to **install the Intangles fleet maintenance system** in his fleet as part of a pilot program.

+ Success

- Over the course of one month, **Intangles detected engine faults in 37% of the trucks** in the pilot and **alerted the fleet manager in real time**. This gave the fleet manager time to inspect and repair the vehicles and keep the trucks in good working order.
- Preventative repair strategies identified by Intangles during the pilot **saved the fleet an additional \$380* a month** – or more than \$4,500 a year – in diesel fuel costs in just one vehicle alone and helped to **increase the truck's fuel efficiency by 8%**.
- **Intangles identified faults before the vehicles' DTC codes were triggered**, which helped the fleet manager prevent expensive repairs and damage to his trucks.
- On one vehicle, **if the faults detected by Intangles were not found early, repairs would have required approximately \$9,000 in replacement parts**, including pistons, rings, high-pressure turbo assembly, and camshaft.

+ Result

After a successful pilot, the fleet manager installed Intangles in his entire fleet of 100+ diesel long-haul vehicles manufactured by six different OEMs.

*Average diesel fuel price was \$4.54/gal on September 11, 2023.

Confidentiality statement: Data obtained in any pilot will be kept confidential unless sharing of information is approved by fleet owner/manager.



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