ROBIS Case Study Generic Scenario
Example 1: Emergency Vehicles, Fire Engines
Data correct at April 2019

4 June 2019, Automechanika, NEC: A fleet of critical service vehicles, the Blue Fleet, would contain ambulances, fire engines and police cars. We know from our extensive ROBIS research analysis of 710 fire engines (up to April 2019) what the average battery failure and non-start rate would be within a typical fleet.

We know from the data of 3,500 tests via ROBIS, that from a typical fleet of 100 fire engines, 35% would experience battery issues and 20% would experience non-starts over a twelve-month period. This would equate to tenders being unable to leave the fire station in an emergency, with the vehicles having to be taken out of service until a technician could attend to remedy the defect. There is not only the cost of the repair, but the more pressing issue of a tender being unable to assist in an emergency.

We would expect to see roughly 8% of those 100 vehicles with a battery in a state of imminent failure. Those batteries could explode or prevent the emergency vehicle from getting to its final destination due to a non-start.

We know that 25% of these 100 vehicles will have batteries in a poor state of health and, whilst not yet at a point of failure, they could cause a non-start if they are not tested and charged in a workshop as part of routine maintenance to avoid the risk of premature failure.

This means that a fleet manager could be replacing batteries sooner than s/he should due to premature aging of the batteries. Each battery costs over £150. By not testing and charging, there is a risk of reducing a battery’s serviceable life by anything up to 50%

The Rotronics award-winning dashboard, ROBIS, gives workshops full visibility of the overall performance of workshop practices, capturing data to analyse the effectiveness of the workshop battery management programme.
• It is saving workshops money by identifying vehicles which are falling outside of correct practices,
• We know that by using the Battery Management Programme, including ROBIS, our fleet customers experience a significant reduction in non-starts.
• Our ROBIS customers are in an improved position to secure warranty claims that would previously have gone unclaimed.
• Our customers are also seeing a reduction in the number of batteries that need general attention, thus saving workshop time and increasing battery performance and battery life.

There is also a considerable human cost with battery issues relating to an emergency vehicle being unable to respond to an emergency.

Some of these vehicles will have power supplies keeping the batteries in a good state of charge, however none of these applications measure the batteries health and condition and ability to start the vehicle when disconnected from the power supply. Therefore, this is a false economy as you think that the battery is being charged, but it is not. It is an artificial life line creating a perception that the batteries are being maintained. The reality is that they are not as they are maintaining surface voltage but not the capacity to restart the engine time and time again.

**Key Features of ROBIS**

**What will ROBIS do for your business?** ROBIS will reduce non-starts, help workshops save money and reduce their battery budgets by reducing roadside defects. The battery performance across a fleet will be improved and your warranty processes can be streamlined as ROBIS provides under-the-microscope data regarding battery performance. ROBIS will deliver proven ROI supporting your workshop battery management programme and will provide uniformed testing practices across your business. ROBIS will benefit your customers when you
reduce lost miles and delivery penalties; you can make sure that vehicles are where they should be, when they should be.

Ken Clark, managing director of Rotronics, says: “ROBIS will reduce non-starts as it becomes central to helping fleet managers and owners evaluate exactly how their batteries perform across the fleet. ROBIS can gather national/regional data to one source and is a great tool to help reduce unnecessary battery-related costs in a workshop budget.

“Our customers have been extremely positive so far; they are amazed by the level of data and information that can be extracted from our battery management process. ROBIS offers under-the-microscope battery performance data and can support battery suppliers with valuable trend analysis. ROBIS will show real-time cost savings in the proactive use of the Rotronics battery management programme.”

New Key Features of ROBIS

- **Live data** reported into ROBIS, for **instant results** visibility
- No need to extract SD card from tester
- Warranty claims immediately processed and can be submitted as they happen
- Know instantly how many tests are being carried out by technicians daily aiding compliance
- Instant ability to track the number of daily vehicle inspections against the number of battery tests performed
- Accurately compare “non-start” defects against latest routine maintenance test.
- Extract and create weekly charging schedules against those vehicles tested as requiring charging
Existing Features

- Centralised dashboard showing regional and national KPI output of workshop battery test performance
- **Early** detection of vehicle and battery related performance issues
- **Instant** online access to current and historical workshop battery test results.
- User uploadable **fleet** information list to enable vehicle performance and trend analysis
- Tracking of equipment **usage** across multiple locations
- **Benchmarking** of regional and national tests result comparison and league tables.
- **Auditing** of technician input, to measure and identify any training needs required.
- Delivery of **continuity** across business, with KPI dashboard measuring key deliverables.
- **Centralised** database enabling visibility of all data, without risk of data loss.
- Active vehicle database **exception** reporting of vehicles not being maintained.
- Highlight battery **performance** issues and trends, to understand the quality of the batteries you fit to your vehicles.
- Active **Warranty** management reporting processes, enabling semi-automated warranty process.
- **Multiple** reporting software, enables numerous bespoke reports to be produced.
- **Proven ROI** capability, enabling measurement of success versus impact of non-compliance.
- Peronalised database with company **logo**

Internet access is required and users will receive a personalised, secure login which will give multiple user access to the dashboard, reports, warranty management and the regional/national statistics of their fleet. The dashboard works on any PC, tablet or mobile phone device and gives instant access to current and historical workshop testing results and analysis.

The workshop and management team can manage both workshop maintenance and vehicle reliability trends with their personalised reports. These reports will also help them identify individual training needs within the overall battery maintenance process.
With minimal input from the technical team, workshops can actively manage and process their warranty claims. ROBIS can provide a comprehensive overview of the battery health and lifecycle performance if fleet information is uploaded into the database; this will help warranty adjudication for both user and supplier.

Please contact Rotronics now to discuss ROBIS. For more information on Rotronics and the battery management programmes, go to www.rotronicsbms.com and call Ken Clark on 0121 526 8185. You can also email info@rotronicsbms.com

Rotronics is part of Rubery Owen www.ruberyowen.com, a company at the forefront of automotive component technology since the birth of the motor car and has been synonymous with quality and enterprise over the years.