RFID Solutions Brief

Omni-ID™
Identify with innovation

Omni-ID Max™ Pro Tags Drive Supply Chain Transparency In European Automobile Engine Tracking Pilot

Challenge

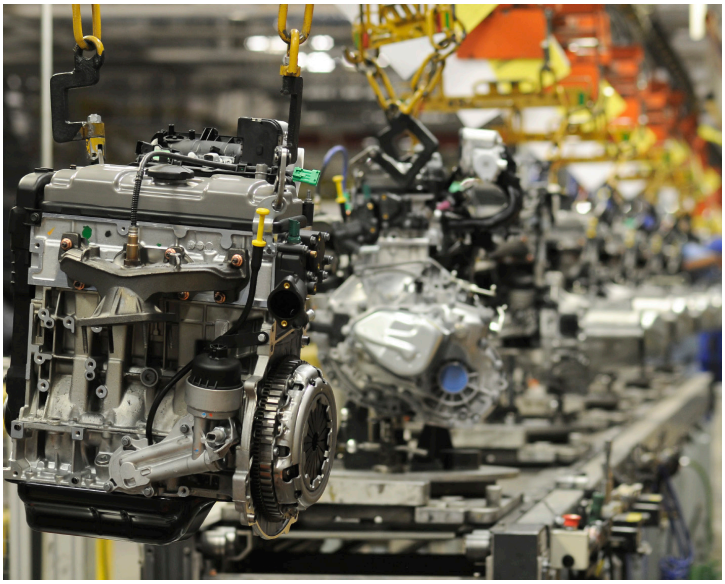
One of the Europe's largest automobile companies operates major manufacturing plants throughout the Continent. In 2007, the company began an initiative to implement a new logistics solution that would improve tracking of containers for its assembled engines—some valued at €50,000 or more—between multiple plants. The goal was greater transparency in the supply chain. Achieving that goal would require improved efficiency over the company's barcode-based tracking system in order to reduce both the time required to track the containers and the cost of those tracking efforts.

Solution: RFID Asset Tracking

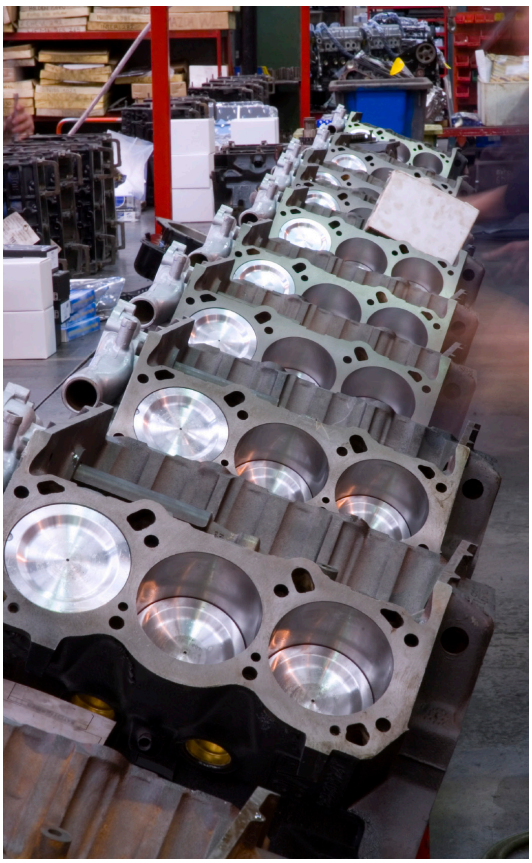
The company worked with a global information technology provider to identify possible solutions for the initiative. Pre-tests demonstrated the potential of RFID asset tracking as a superior alternative to the barcode system. A business case was developed suggesting that, by implementing an RFID tag-based system, the company could decrease the amount of containers required and the length of the supply cycle. Due to the presence of metal in the engine blocks and the containers, on-metal RFID tags were necessary to ensure signal reliability. The size and durability of the tags was also an issue; the company had experienced significant problems with the loss of metal barcodes, requiring costly, time-consuming repairs of the containers during the process chain.

Evaluation

Following the recommendation of RFID, an evaluation was undertaken in the auto company's RFID Test and Innovation Center. Passive RFID tags from 10 different suppliers were tested to determine the most effective tag for the application. The mounting position of the tags posed a unique challenge, as the placement of the engine within each container required the tags to be mounted horizontally on the bottom of the containers. Virtually all of the tested tags were unreadable in that position. However, the special UHF functionality of the Omni-ID Max Pro tag—enabling it to deliver maximum readability from 180 degrees roundabout—produced the correct RF energy regardless of it's position on the container.



In addition to the superior performance of the Omni-ID Max Pro, it also provided the best level of cost-effectiveness and usability of all the tested tags. Following the initial evaluation, the auto company moved forward with a six-month pilot at one of its major engine manufacturing facilities, utilizing 3,000 Omni-ID Max Pro tags.



Pilot Investment

- Omni-ID Max Pro RFID tags for engine containers
- Deister Electronic passive long-range RFID reader
- noFilis CrossTalk software platform
- Industrial PCs, handheld PDAs, SAP connection

Results/Benefits

Although the pilot has yet to reach its completion, the auto company has already realized greater transparency in its supply chain tracking efforts. The circulation time of the company's container assets can now be calculated precisely and potential problems (including the loss of containers) can be allocated to a responsible cause or party within the system and reported upon in real-time. More importantly, a reduction of the whole circulation process of the containers has been achieved.

Due to the success of this pilot, the auto company is planning to implement RFID asset tracking on containers for another engine type. Additionally, the tracking of the entire supply chain of the current pilot project and the expansion RFID on smaller containers for other automotive components is now a real possibility—thanks to the ongoing efforts of the global IT provider and the performance of the Omni-ID Max Pro.

"The Omni-ID tags are new and different. Beyond the product performance, however, was the excellent technical support we received from Omni-ID. The sense of partnership between our project staff and the team from Omni-ID made a real difference to the success of the venture."

–Senior Managing Consultant, Global IT Provider

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