



Case Study: Oshkosh Truck



Customer Name:	Oshkosh Truck
Location:	Oshkosh, Wisconsin
Industry:	Military
Issue:	UID Compliance
Implementation Team:	Freedom UID Team
Freedom Technologies' Solution:	Marking, Verification, UID Validation and UID Registry

Background:

Oshkosh Truck Corporation, originally founded in 1917 as Wisconsin Duplex Auto Company and known as Oshkosh Truck since 1930, has manufacturing operations in 10 U.S. states, Canada, The Netherlands, Sweden, Italy, the U.K. and Mexico. The company currently employs 8,000+ people worldwide. When they were founded in 1917 they immediately began building trucks and successfully built one of the first four-wheel drive vehicles on the road at the time. In 1953 they had the first Aircraft Rescue and Firefighting (ARFF) vehicle. This first model went to the U.S. Coast Guard. They also built the first truck specific to concrete hauling in 1955.



1917 FWD 4x4 Truck

They are now the leading manufacturer and marketer of specialty trucks and truck bodies for four primary markets; defense, concrete placement, refuse hauling, and fire and emergency. In fiscal 2005, Oshkosh Truck reached \$2.96 billion in sales and delivered a ninth consecutive year of improving financial results.

Situation:

As a major defense contractor, Oshkosh was required to comply with MIL-STD -130. This meant they needed to apply permanent UID markings on their vehicles and certain sub-components of those vehicles. Oshkosh needed a UID mark that would withstand the harsh military demands and extreme weather conditions these vehicles endure everyday. The mandate required not only that the parts be marked, but also validated, verified and the appropriate data had to be registered. Oshkosh wanted to find a company that would implement marking, verification, validation and registry on their floor as a comprehensive turn-key system so they didn't have to contract with multiple companies to fulfill all four requirements.

Solution:

Oshkosh chose Freedom Technologies as their turn-key integrated UID solution provider. Freedom evaluated their specific application and chose the best hardware and software combination to meet their unique needs. In their case, Oshkosh needed to be able to read UID marks in difficult locations on the trucks from a distance. They also needed the ability to mark, verify and validate UID codes at multiple facilities and track vehicles across their enterprise.

Freedom and Oshkosh jointly decided that to be compliant with the MIL-STD-130 there was not a need for a direct part mark. Alternatively it was decided to use a permanent adhesive on the back of a laser etched, black anodized aluminum tag etched by a Universal 30 watt, Co2 laser. This gave them the robust mark and the proven permanency they needed for compliance.

Another part of Freedom's solution is the Motorola (Symbol) MC9090DPM mobile handheld reader. This reader using Freedom's software performs multiple functions such as UID validation, parent/child relationship management, 802.11 wireless mobility as well as batch operation when the unit is out of range of the wireless network. When the unit returns to the covered network area it immediately switches from batch to wireless mode and transfers the data. The Freedom software on the MC9090 also validates the data format in the UID code every time it is scanned in the field.



A Siemens verifier, thus providing a grade for the mark, performs UID mark verification. Freedom archives every passing verification report with the image so the customer is protected in case a code becomes unreadable in the field.

Then Freedom's system automatically populates the Wide Area Work Flow (WAWF) and sends the data to the UID Registry. The Freedom software arranges the data in the correct format required by the UID Registry. Oshkosh chose Construct 2 as their UID format. The data used in this format includes the cage code, the part number and the serial number. All of this data is embedded within the UID Data Matrix code.

The final turn-key integrated UID solution included three Universal Co2 lasers, 25 Motorola 9090DPM handheld readers as well as a Siemens DPM verifier. This gave Oshkosh functionality in multiple locations and facilities.

Benefits:

- Guaranteed UID Compliance with the DoD MIL-STD-130 mandate
- Vehicle tracking became a cost savings and process improvement
- Turn-Key integrated UID solution provided a single vendor responsible for UID operational performance
- Easy expandability to comply with DoD RFID mandate
- Optional expansion into a total Error Proofing system with Freedom Technologies, creating tremendous ROI opportunities.

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