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## **BMW | The World's Most Advanced Engine Plant Uses Printronix Printers with Online Data Validation (ODV™) to Improve Quality Control in the Supply Chain**

### **Profile**

Known as the “world’s most advanced car engine productions plant,” the £400 million, 85-acre BMW plant at Hams Hall in the United Kingdom employs 700 people, and produces approximately 600 four-cylinder petrol engines, from 1.6 to 2.0 liter capacity, per day.

### **Situation**

Each engine produced at Hams Hall is labeled with a Code 39 bar code that holds the engine’s serial number. The labels have a touch face coating and are applied using strong adhesive, so that they will remain affixed for the life of the engine. Code 39, or Code 3 of 9, is one of the most popular alphanumeric bar codes used for identification, inventory and tracking in the automotive industry. If the bar code cannot be read properly, when the engine arrives at a BMW automotive assembly plant in Germany, North America or South Africa, production and the plant’s automated processes can be significantly impacted.

### **Goals**

- § To place readable, durable bar codes on each engine in order to:
- Streamline production
  - Improve quality control in the supply-chain
  - Enable the tracking of an engine over its entire lifetime

### **Results**

Since initiating production, Hams Hall has been using Printronix thermal printers — six T5306s and four T5308s — with Online Data Validation to print and validate the Code 39 bar codes. The labels, which have a tough face coating and are applied using a strong adhesive, are affixed for the life of the engine.

Online Data Validation (ODV™) performs 100 percent inspection for linear bar codes and conducts a complete print quality check on PDF417 bar codes to allow for dependable quality control in automotive supply-chain environments. This eliminates failures, which often translate into rejected items, the need for manual correction, productivity delays or heavy fines. If a label does not pass the validation check, it is fed back into the printer, voided and then reprinted and revalidated.

### **Reaction**

“We have quality targets as part of our key performance indicators (KPIs), which could be adversely impacted by barcodes that don’t read properly. This is why Printronix’s Online Data Validation is so important to us — it has brought significant improvements.”

Steven Davis  
*Project Engineer*