Business Model Case Study Description

**Carwood – Diesel Fuel Injection Pumps and Injectors**

**Company:** Carwood Motor Units Ltd  
**Location:** Coventry, UK  
**Type:** OEM/OER Remanufacturer  
**In reman:** Since 1968  
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**Product**  
Diesel Fuel Injection Pumps and Injectors

**Core Sourcing**  
Cores are retrieved from a wide range of customers/suppliers through service exchange and credit-based schemes.

**Business Model**  
Carwood Motor Units Ltd was established as a local automotive parts business based in Coventry in August 1966, since then it has grown steadily both organically and by strategic acquisition into one of the European leaders in its specialised fields. The company’s expertise areas are remanufacturing, technical services and logistics. The company focuses on diesel fuel injection, electrical, electronic, HVAC (heating, ventilation, air conditioning) and turbocharger systems for all types of vehicles, ranging from passenger cars to cable cars, from trucks to trains, from earth movers to people carriers and from battle tanks to buses.

The Company sells the remanufactured products with surcharge. When customers return the old units, the customers are credited or refunded with the surcharge. Through this service exchange scheme, Carwood receive more than 90% old units compared to the remanufactured products sold. The Company’s customer base is diverse, including end-users, vehicle engine manufacturers and independent aftermarket, such as motor factors who sell their remanufactured products.

In the remanufacturing process, the cores are firstly stripped down to components. The components are then inspected. The company has its diagnosis system to classify the components into green, amber and red. Green means 100% replacement. Amber means the component has the possibility to be remanufactured, the parts will be checked via various testing processes before a decision is made. Red means the components are beyond economical repair. After the inspection, the unit will be remanufactured with reclaimed and new parts from the OEM with 100% bench testing, using the latest equipment and test data, before being packed to store or sold directly.

The driver of the business is to provide continued supply of units to vehicle and engine remanufacturers, users and resellers, while generating profit to sustain the Company’s business growth. The main challenges of the business are: sustaining availability of cores in stock, training and acquisition of skilled personnel to expand business, keeping the business profitable enough for the continued need of capital investment for new facilities and technologies. Carwood has different selling channels for remanufactured products and has partnerships with OEMs such as Denso, Delphi, Bosch, VDO etc., to facilitate remanufacturing.

**Economic Benefits**  
The price of the remanufactured product is market driven. Roughly, the price is 40% cheaper than new product. Customers can choose a product that has equivalent functionality and warranty equivalent to new product, but with cheaper purchasing price.

**Environmental and Social Benefits**  
The company has ISO9001-2008, ISO14001-2004 and clean room technology ISO 14644-1 class 7 accreditations. The remanufacturing process involves reuse of raw materials and uses up to 85% less energy than production of new products. With the business growth, the company creates more employment in the local community.

**Advanced Materials Recovery**  
No advance materials are recovered.