

Company: PSS - Steering & Hydraulics Division
Location: Norfolk, UK
Type: Independent Remanufacturer
In reman: Since 1971
Contact: Andrew Brammer (Commercial Director)
Phone: +44-1692-406017
E-mail: andrew.brammer@pss.co.uk
Web: www.pss.co.uk



Product

Power steering boxes (gears) for trucks and buses

Core Sourcing

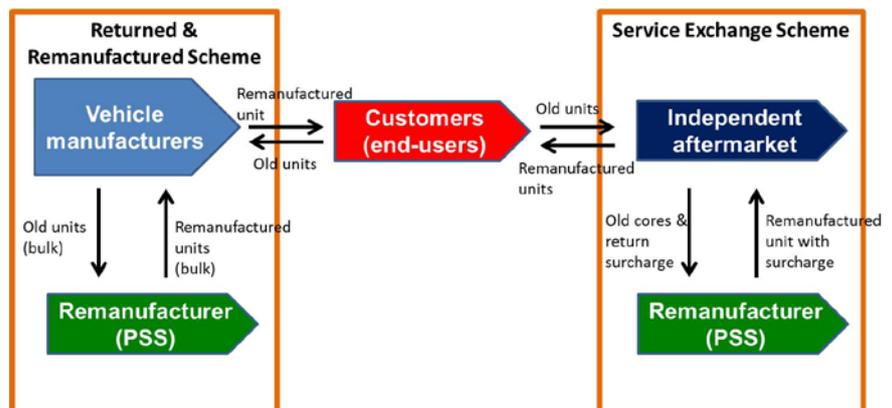
Core units are retrieved from independent aftermarket customers such as truck parts distributors and also from vehicle manufacturers.

Business Model

PSS - Steering & Hydraulics Division is a leading supplier (remanufacturer and manufacturer) of power steering and hydraulic products and is the UK's largest independent remanufacturer of truck and bus power steering products. The applications of PSS products cover trucks, buses, off-highway vehicles, military vehicles, tractors, forklifts and more.

PSS remanufactured products are supplied through service exchange and return & remanufacture schemes. The schemes used

depend on the type of customers involved. Most sales in PSS are made through service exchange schemes and the main customer group is the independent aftermarket. Under these schemes, PSS will supply a customer a remanufactured product from stock with a surcharge applied that is normally higher than the price of the product. The customer replaces the worn unit in the truck or bus with this PSS product, and returns the worn unit to PSS as an old core unit. PSS then gives the surcharge credit back, using the old unit to replenish the service exchange scheme stock. On the other hand, the return & remanufacture scheme is primarily applied to vehicle manufacturers. The manufacturers collect the old units from their end-users and send the bulk units to PSS for remanufacturing. PSS sends the bulk units back to the manufacturers once the remanufacturing is completed.



In terms of the remanufacturing process, when an old core unit arrives, it will initially go through identification as to which type of truck or bus steering box it is. Technicians then clean the unit using highly sophisticated cleaning equipment, shot-blasting it and then disassembling using dedicated tooling. At this stage, any parts that require mandatory replacement are discarded, and all other components are measured, analysed and checked to ensure they are within required specifications and tolerances. Any hard components that require re-work are re-engineered accordingly, and those that need replacing are infilled with replacement parts. The unit's recovered hard parts are then cleaned again using specialised equipment, and are kitted with the appropriate repair kits and replacement parts ready for assembly. The unit is then assembled against its assembly process plan in a clean room environment, and is fully tested to specifications and conditions that simulate vehicle operating conditions. Once the unit has passed these extensive testing criteria, it is spray painted, individually hard stamped with a unique identification code for full traceability, labelled, packed and dispatched.

The driver behind this business is that PSS spots the profitability potentials of power steering boxes and provides the remanufacturing service that significantly reduces the time length for getting back the product to the customer, minimising the out-of-service (off-the-road) time for trucks and buses. The challenges of the business are availability of the old cores, and for certain products (not power steering boxes yet) PSS has to compete with cheaper cloned new products in the market place. The key resources in the remanufacturing business are personnel and labour where PSS could provide training for remanufacturing and also the sophisticated facilities such as cleaning and assembly tools to perform remanufacturing activities. The main

challenge to improve the remanufacturing business is how to get old core units from the new model trucks in advance and store these for future service exchange schemes when the demands of the remanufactured units start to hit the market place.

Economic Benefits

The price of the remanufactured product is driven by market. Roughly, the remanufactured product is 50-65% cheaper than new product. The economic benefits are that PSS provides an option for their customers to choose a product that is cheaper with equivalent quality to newly manufactured, and to keep lead times of the product and repair times of the trucks and buses to a minimum.

Environmental Benefits

The remanufactured units only use 10% of raw materials and save 85% energy compared to newly manufactured product.

Social Benefits

As the business grows, PSS provides job opportunities in the local community and also economic efficiencies that reduces out-of-service (off-the-road) time for trucks and buses.

Advanced Materials Recovery

All the metals in the power steering box are recovered, unless there has been catastrophic damage. The only materials automatically being discarded are rubber and plastic seals for safety reasons of the product. Another advantage in the company is that PSS has a dedicated manufacturing site so that unremanufacturable power steering box components can be re-engineered and re-worked in order to be recoverable.