

2 Environmental Conservation Activities

Recycling

Toyota Industries revised its in-house recycling design guidelines in response to the introduction of international standards for recyclability evaluation.

Toyota Industries is strongly committed to the concept of recycling design, based on the principle of “reduce, reuse and recycle”—in that order of priority. The company believes that reusing rather than recycling and reducing rather than reusing will result in the least impact on the global environment. In addition, Toyota Industries is directing its recycling design efforts toward increasing the life of its products as a means of reducing their environmental impact.

In FY 2002, Toyota Industries revised its in-house recycling design guidelines in order to continue to promote recycling design. In addition, the company carried out surveys used to monitor the disposal of its products. The survey results were used to guide product development efforts within the company.

■ Revised Recycling Design Guidelines

Toyota Industries published its original Recyclable Design Guidelines in March 2001, in order to promote recyclable design on a company-wide basis. The company revised the Guidelines in FY 2002 in response to new ISO standards, which came about as a result of the European Union’s adoption of the ELV directive. The ELV directive sets minimum standards for recyclability in vehicles sold in Europe starting from 2005.

The revisions to the company’s Recyclable Design Guidelines led to several new efforts during FY 2002. For example, the company set about reducing its reliance on PVCs that are known to release toxic gases during incineration. Toyota Industries also began to label its plastic and rubber parts to indicate the material composition for the purpose of recyclability calculations.

■ Automotive Wrecking Survey

Based on the recent introduction of Japanese regulations such as the Automobile Recycling Law and the Fluorocarbons Recovery and Destruction Law, Toyota Industries continued to conduct field surveys regarding the disposal of automobiles, which it first began surveying in FY 2001, and confirmed methods for the reclamation of hydrofluorocarbons (HFCs) from car air-conditioners and the disassembly and recycling of airbag systems from cars.

Toyota Industries also conducted a field survey regarding the scrapping and disassembly of forklift trucks. The results from this survey helped to reinforce the importance of recycling design.



Disassembly of Automobile

■ Extended Life Forklift Survey

In FY 2002, Toyota Industries conducted a field survey of its G3 automatic looms, which were originally introduced in 1961 and are still being used today. In FY 2002, the company conducted a field survey on the 5LR forklift truck, which was originally introduced in 1967.

Recycling design requires an optimal balance of cost reduction, safety and durability in a product. These characteristics are all found in the 5LR forklift truck. Toyota Industries is committed to promoting extended-life products as part of its activities to incorporate recyclable design into its products.



Toyota Industries 5LR Forklift Truck (Manufactured in 1967)

Future Activities

Toyota Industries will create an environmental data system starting from FY 2003. The system will be used for calculating the recyclability of its products, and for determining the amounts of substances of concern used in these products. The system will also assist in the conducting of life cycle assessments and recyclability evaluations in a precise and rapid manner. The creation of an environmental data system will also help Toyota Industries to continue to develop environmentally conscious products for the long term.

Subsidiary Spotlight

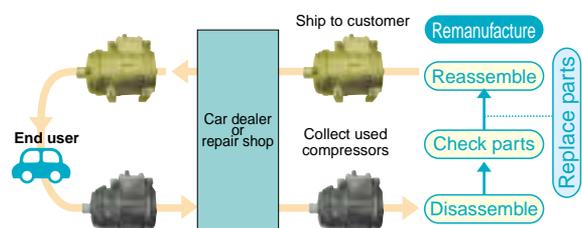
Remanufacturing Car Air-Conditioning Compressors

In the U.S. and Europe, demand is increasing for reconditioned or remanufactured automotive components, reflecting social and environmental needs for more efficient utilization of parts and resources. In response to this trend, ACTIS Manufacturing, Ltd. LLC in North America and TD Deutche Kilmakompressor GmbH in Europe have begun remanufacturing car air-conditioning compressors. The two companies disassemble used compressors, replace worn parts with new ones, then reassemble the units for sale as remanufactured compressors.

In 2002, the two subsidiaries sold approximately 50,000 compressors to the U.S. and European aftermarket.

Toyota Industries is committed to making contributions to resource conservation by increasing the number of remanufactured products it sells in the future.

Remanufacturing Process



Toyota Industries' ACTIS and TD Deutche collect used compressors from car dealers and repair shops. The compressors are remanufactured and later resold to dealers and repair shops.