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MARKET ACCESS FOR NON-AGRICULTURAL PRODUCTS

Negotiating NTBs Related to Remanufacturing and refurbishing

Communication from the United States

Addendum

The following communication, dated 1 December 2005 is being circulated at the request of the Delegation of the United States.

The United States considers addressing non-tariff barriers (NTBs) an integral part of the Doha mandate on non-agricultural market access, and equally as important as addressing tariff barriers. The United States first indicated its interest in negotiating NTBs affecting remanufactured and refurbished goods in its revised indicative list, tabled in November 2004 (TN/MA/W46/Add.8/Rev.1). In June and October 2005 at the World Trade Organization (WTO), the United States hosted informal discussions on remanufacturing that were attended by many WTO Members and various industry representatives. The United States now is pleased to contribute this proposal on a horizontal approach on NTBs affecting remanufactured goods, and looks forward to continuing discussions in the near future.

I. INTRODUCTION

1.1 Remanufacturing is the generic term that describes the process in which a recovered good, or core, is transformed through cleaning, testing, and other operations into a product that is tested and certified to meet technical and/or safety specifications and has a warranty similar to that of a new product. Different industries sometimes apply other terms, such as refurbishing, reconditioning, or rebuilding, to describe essentially the same process[1].

1.2 Remanufacturing is an industrial operation that uses existing products, recovered from commercial use, as inputs. This presents opportunities for material and energy savings in the production process. Many parts of the recovered goods are still perfectly functional and technologically current, requiring only worn or outdated components to be repaired, replaced or updated. By utilizing existing products, or "cores", as raw materials, remanufacturing can also help reduce generation of solid waste.

1.3 A broad range of industries and companies remanufacture products, including companies from the earthmoving, automotive parts, electronics, medical devices and information technology industries. There are over $100 billion in annual global sales of remanufactured goods, and production facilities currently exist in Europe, Latin America, Asia, and Africa, in addition to the

[1] For drafting purposes, this document refers to remanufacturing throughout the remainder of the paper, unless otherwise noted.

United States. Trade in these goods contributes significantly to the economies of both developed and developing country Members.

1.4 Unfortunately, some countries limit trade in remanufactured products. Such barriers include outright import bans, higher tariffs and fees, or overly stringent regulation, certification, and inspection requirements. Many of these barriers likely occur because countries mistakenly associate remanufactured goods with used goods and waste. Remanufactured products are generally of a high quality with a similar life expectancy as new goods. Remanufacturers typically stand behind such products with a warranty that is similar to the warranty for new products. Consequently, remanufactured merchandise should not be regarded as used goods or waste, but instead receive trade treatment similar to new products.

1.5 In raising this issue, the United States does not call into question countries' fundamental right to regulate in product areas that include remanufactured goods. Some Members impose specific requirements on remanufacturers of certain goods, for example requiring that a particular product undergo specified processing or certification in order to be sold as a remanufactured product. WTO Members should remain free to enact legitimate, non-discriminatory laws, regulations, or voluntary, market-driven programs to protect human health, the environment, and safety, or prevent deceptive or fraudulent practices.

1.6 Both developed and developing countries may enjoy real economic and environmental benefits from addressing NTBs related to remanufacturing. As WTO Members examine this issue more closely, we believe they will agree that remanufactured goods are neither waste, nor are they hazardous, and can present significant benefits to society.

II. REMANUFACTURED GOODS ARE NOT USED GOODS SOLD "AS IS"

2.1 Remanufacturing is a legitimate commercial practice that recovers products or "cores" from commercial usage and transforms these cores into like-new products to be reintroduced into the stream of commerce. The level of transformation varies by industry and product, but the result is a product that is tested and certified to meet the original or current technical and/or safety specifications and has warranties similar to those of new products. This is clearly different from a used, "as is" product that conveys no warranty or product performance or customer satisfaction guarantee.

2.2 Remanufacturing turns a product at the end of its life or lease cycle, called a "core," into a like-new good. To ensure the quality of a remanufactured engine for construction equipment or of an auto part, for example, the recovered core (old engine or component) is disassembled, cleaned, and inspected. Worn parts are reconditioned or replaced before the core is reassembled. Similarly, in the information technology and medical device industries, the products to be refurbished are often equipment recovered from customers at the end of a lease period. These items are completely inspected, functionally tested, and sometimes disassembled to subassembly level. Defective parts are repaired or replaced. Software may be updated. Remanufactured and refurbished products, either as entire units, components, or parts of assemblies, are generally sold with warranties, customer satisfaction guarantees and/or maintenance contracts similar to those of new products.

2.3 In contrast, there are also commercial markets for used products that do not necessarily undergo any significant processing before being sold and are generally marketed "as is" without a warranty. This initiative does not cover trade in such used products. Remanufacturing retains the value inherent in the core and often adds further value to it. Most importantly, the remanufactured good meets the same technical and functional specifications of the original or current product, ensuring compliance with essential quality and safety requirements. For these reasons, remanufactured goods should not be treated in the same way as second-hand or used products when it comes to conditions of market access.

III. WHY ADDRESS REMANUFACTURING IN WTO NEGOTIATIONS?

3.1 The United States believes both developing and developed countries will profit from liberalizing barriers to trade in these products because of the economic and environmental benefits associated with them. Remanufacturing prevents cores from entering the waste stream, avoiding the environmental impact of an inert core lying in a landfill. Remanufacturing typically takes less energy than what is required to create a brand new product. Because the process uses existing products as inputs, remanufacturing typically consumes fewer raw materials, such as iron, copper, steel, or petroleum, than required in the production of similar products from virgin materials. In the end, the consumer often pays a lower price for a remanufactured product, as opposed to a new product. Remanufacturing, whether by original equipment manufacturers (OEMs) or by independent remanufacturers, results in substantial benefits for both types of producers. Producers of new goods can benefit by shifting resources to new, more value-added product lines, while remanufacturers meet after sales services demand on other product lines. Traditional manufacturers can improve on existing products when remanufacturers identify design or engineering flaws in the cores. Remanufacturing may lessen the need to maintain large inventories of outdated replacement parts. When a product line is discontinued, remanufacturing can fill the void. In many industries, remanufacturing is an essential part of the overall business model that enables provision of a range of warranted products at competitive prices.

A. ECONOMIC IMPACT OF REMANUFACTURING

3.2 For consumers, remanufacturing represents an opportunity to purchase high quality goods at lower prices. Since the raw material in remanufacturing is an already existing core, a remanufacturer often has significantly lower input costs than the original manufacturer and often is able to offer more competitive prices to consumers. Remanufactured products are typically priced at between 45 to 80 percent of the price of equivalent new products.

3.3 Sectors engaging in remanufacturing cut across 43 distinct chapters in the Harmonized System code. Despite their economic significance, remanufacturing operations have escaped public notice, due to the fact that they exist in diverse sectors and product areas, and are comprised of a large number of mostly small firms. Growth rates in remanufacturing operations are between 20 to 30 percent per year, as more companies realize the economic potential and enter the market.

3.4 Many aspects of remanufacturing operations offer opportunities for employment growth. Remanufacturing is often labour intensive due to the disassembly, reconditioning, and reassembly processes. Academics focusing on the subject assert that, on the whole, remanufacturers employ more skilled employees per good produced than traditional manufacturing. Regions with large work forces and a consumer base able to generate sufficient supplies of cores (such as auto parts) are optimal areas for remanufacturing centres. Remanufacturing requires a broad range of employees from entry-level to more highly skilled workers.

3.5 To take the United States as an example, approximately 73,000 remanufacturing firms are in operation, most of which are small businesses, but which also include major multinational firms. For example, a major U.S. independent auto parts remanufacturer started out as (and remains) a family-owned business, but has grown into the largest private sector employer in Philadelphia, a major U.S. city, and is now expanding production into overseas markets. U.S. remanufacturing operations directly employ an estimated 480,000 people. The automotive parts sector accounts for the largest part of this figure. To compare, this is on par with employment by U.S. manufacturers of household consumer durables, and twice as large as the employment in the U.S. steel or the U.S. pharmaceutical industries. The total direct employment estimate does not include employees in other firms contributing to remanufacturing: suppliers of cores, replacement parts, operating supplies, tools, and machinery; the distributors and retailers of the products; and the people who install and service

these products. It is estimated that employment in such related areas is two to three times the direct employment in remanufacturing.

B. ENVIRONMENTAL BENEFITS

3.6 While impacts may vary by industry and by product, remanufacturing can produce important environmental benefits through energy and material savings, and the minimization of solid waste. A typical remanufacturer uses 85 to 95 percent less energy and materials per product than a new equipment manufacturer. Remanufacturing can avoid environmental problems before they occur by reducing potentially harmful waste. Extending the lives of cores and removing them from the waste stream allows manufacturers to allocate resources toward the development of advanced, new products. Consumers and businesses can choose between purchasing a normally less expensive, remanufactured product on the one hand, or a similar, typically more expensive product manufactured from virgin materials on the other. The remanufactured product may be technologically identical to the competing product made from virgin materials (e.g., a water pump whose design has not fundamentally changed). Alternatively, the remanufactured product may fill a market niche for high-quality, fully functional and more affordable product applications. For example, a current generation office machine may serve a segment of the market, even as market trends may be driving more technologically advanced office machines, perhaps designed to save energy or achieve other environmental benefits in their operation. The two processes - remanufacturing and new product development - can complement each other and lead to less impact on the environment on the whole. Energy savings in the former case arise during the production stage, whereas energy savings in the latter may arise during the operation of the product.

1. Remanufacturing consumes less energy than traditional manufacturing during production.

3.7 The energy needed to manufacture one new automobile starter is eleven times greater than that needed to remanufacture an old starter. For a new alternator, the amount is seven times greater than that for its remanufactured counterpart. In percentage terms, a remanufactured starter is produced at 9 percent of the energy it takes to manufacture a new starter, while for alternators it is 14 percent. Similarly, according to a major U.S. earthmoving equipment company, if it took 100 units of energy on average to produce a new component of an earthmoving machine made of virgin materials, only 15 units of energy would be needed to create a remanufactured component of identical quality.

3.8 On a global scale, the estimated amount of energy saved during production processes through remanufacturing is impressive, at 120 trillion BTUs (British Thermal Units) a year. This equals:

- 16 million barrels of crude oil or 350 oil tankers;
- the lifetime fuel consumption of 75,000 car owners; or
- the electricity generated annually by eight average sized nuclear power plants.

2. Remanufacturing consumes fewer materials during production.

3.9 A new automobile starter is produced using nine times the amount of raw materials by weight compared to those necessary to produce a remanufactured starter. A new alternator requires eight times the material needed to produce a remanufactured alternator. Remanufacturing across industries (earthmoving, auto parts, medical device, electronics, IT, etc.) saves a million tons of raw materials per year, which is equivalent to a railway train with 230,000 cars, occupying a 2650 kilometres (1650 mile) long track.

3. Remanufacturing has potential for growth.

3.10 Experts assess that there is considerable scope for growth in remanufacturing. In the United States, the value of shipments of manufacturers of new products in areas in which remanufacturers operated was 26 times greater in 2003 than the value of shipments of remanufactured goods. More remanufacturing would logically lead to other benefits. For example, the Original Equipment Manufacturer Product-Services Institute (OPI) estimates that if capital goods OEMs and automakers delivered 20 and 10 percent of their product output, respectively, in a remanufactured rather than new condition, remanufacturing activity in the United States would increase by 200 percent. That would equate to an estimated 5 to 10 percent drop in waste production and energy consumption throughout the entire U.S. manufacturing supply chain.

4. Remanufacturing produces less pollution in production and reduces waste over the product life-cycle.

3.11 Remanufacturing typically consumes less energy than traditional manufacturing, and also produces less pollution in production. Remanufacturing avoids the emission of 28 million tons of carbon dioxide every year. Remanufacturing aims to add several life-cycles to a product beyond its first life, and as it obtains greater market share and expands into new sectors and product areas, fewer end-of-life products enter the waste stream at the end of their first life-cycle. Those that do can be recovered, remanufactured and can continue providing value to consumers across the globe.

3.12 In addition to conservation and efficient use of energy, water and other natural resources, remanufacturing also contributes to minimization of solid waste. By allowing the longer productive use of materials that might otherwise become waste, remanufacturing reduces the volume of material entering the waste stream and landfills. Remanufacturing helps manage wastes by creating economic demand for portions of an end-of-life or redundant manufactured product that can be remanufactured in an environmentally sound manner. The impact is significant. For example, a leading construction equipment manufacturing firm recovers two million core parts per year in its remanufacturing operations, representing 100 million pounds (45 million kilograms) of materials saved from scrap heaps and landfills globally.

C. THE 3RS AND INDUSTRY INVOLVEMENT

3.13 At their annual summit meeting held in June 2004 on Sea Island, Georgia, the leaders of the Group of Eight (G8) industrial countries (the United States, Germany, France, Japan, Italy, Canada, United Kingdom, and Russia) committed to launching in 2005 a plan that will encourage the more efficient use of resources and materials. The "Reduce, Reuse, and Recycle Initiative" (3Rs Initiative) was formally launched at a Ministerial Conference in April 2005 in Tokyo, which considered the recommendations of an industry conference held the day before. The Initiative intends to reduce waste, encourage recycling, reduce barriers to trade in goods and materials for recycled and remanufactured products, and to promote science and technology for these efforts. The Initiative is expected to have a positive environmental and economic impact, resulting in savings of natural resources and energy and in lower costs to consumers. The trade objective of the 3Rs Initiative includes the intention of jointly agreeing on a plan under the Doha Development Agenda to eliminate non-tariff barriers to trade in remanufactured products and cores.

3.14 Separately from the 3Rs Initiative, remanufacturing firms have already shown a strong interest in having their barriers to trade reduced or eliminated as part of the Doha Round. On the margins of the NAMA meeting in June 2005, representatives from the earthmoving, medical equipment and automotive parts sectors held an informal discussion to raise awareness among government officials of remanufacturing and of the associated trade barriers. Nineteen WTO Member governments and accession countries, including twelve developing countries, attended this discussion.

3.15 Additional sessions were held during the October NAMA meetings involving government officials from 26 WTO Members and acceding countries, along with industry representatives.

D. BENEFITS TO DEVELOPING COUNTRIES

3.16 Liberalization of trade in remanufactured products can offer many additional benefits to developing countries that may not be readily apparent. Such benefits include opportunities to use capital goods that incorporate advanced technology at reduced prices and the potential for local firms to engage in remanufacturing.

3.17 The elimination of barriers to trade in remanufactured goods can expand customer choice and increase access to products at lower costs. Purchasing like-new, remanufactured goods at reduced prices allows end-users to accomplish the same objective and reallocate resources more productively with the savings. Examples of remanufactured goods in the healthcare sector that may provide significant benefits for society in developing countries include X-ray machines, ultrasound devices, and MRI scanners.

3.18 Greater trade in remanufactured products can also create opportunities for investment. One major auto parts remanufacturer describes its business model as first creating a market for remanufactured products through export. Once a market has been established, the company looks to invest locally, in order to be closer to its production inputs – the recovered cores. Establishing a domestic remanufacturing industry would pave the way for technology and knowledge transfer, increased employment, and export opportunities. Remanufacturing through disassembly and reassembly helps employees acquire a high level of knowledge about specific products and production skills. In turn, employees can then apply that knowledge and those skills in other areas of the economy, as well as advance into higher skilled positions. For example, in the case of a major U.S. auto parts remanufacturer, thirty years of remanufacturing experience allowed it to establish a new specialty auto parts manufacturing unit alongside its core remanufacturing business. Remanufacturing in this regard has a multiplying effect that could attract foreign direct investment to remanufacturing centres. Operations supporting remanufacturing, such as servicing and transportation, may develop over time as remanufacturing operations are established and grow.

IV. WHAT SOLUTIONS ARE WE SEEKING?

4.1 The United States seeks non-discriminatory treatment and open market access as between remanufactured goods and cores on the one hand, and new goods on the other. We believe the best way to pursue this is through a horizontal approach, given the diversity of remanufacturing operations and the spread of product areas across tariff codes. This would not limit the ability of countries to maintain appropriate regulatory oversight to protect human health and the environment.

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