

## Reuse and Recycling Activities

### Promoting the Reman Business

In its “Reman” business, the Komatsu Group remakes used engines, transmissions, and other key components of construction and mining equipment into “remanned” components (parts) having the same quality as newly manufactured ones and provides them back to the market. The Group is promoting the “Reman” business at five Reman Centers around the world, with those in Indonesia and Chile serving as global centers.

“Reman,” an abbreviation of “remanufacturing,” offers customers the following benefits.

- Quality and performance guaranteed to be the same as those of new components
- Lower cost for “remanned” components than new ones
- Reduced construction equipment idle time through proper inventory levels of “remanned” components
- Resource conservation and waste reduction through the reuse and recycling of components

PT Komatsu Reman Indonesia Tbk (KRI), established in 2007 in Jakarta, Indonesia, has begun to provide “remanned” components globally, further bolstering the Group’s reuse and recycling activities.



PT Komatsu Reman Indonesia, established in Jakarta, Indonesia

### Providing Reman-related Information

The Komatsu Group has set up “Reman-Net,” networking Komatsu Reman Centers around the world. The Group is actively using this network to develop “Reman” operations for reusing and recycling components at the global level. IC tags and two-dimensional codes are employed to manage items’ remanufacturing history and track their quality and durability information. This important information is provided as feedback to the Group for developing components with appropriate life spans.

### Acquiring ISO14001 Certification for Reman Centers

The five Komatsu Reman Centers around the world have been pursuing ISO14001 certification to further environmental conservation. Three of the centers have been certified and the remaining two centers in South Africa and Indonesia are working to attain it. These centers advance environmental conservation through daily operations and inspections for maintaining and renewing certification.

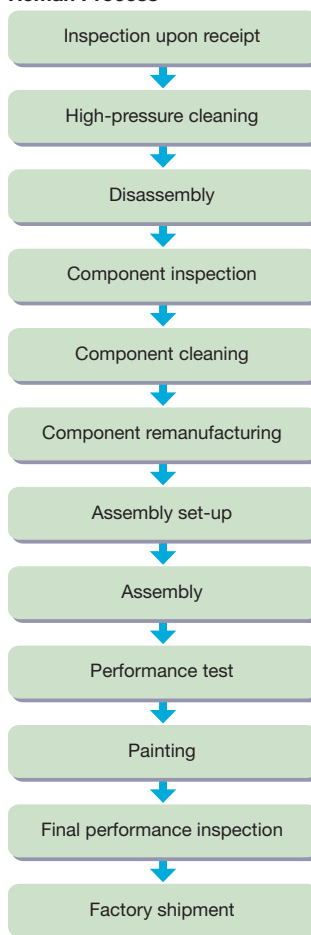
### Future Steps

To further increase the reuse rate of used components (parts), the Komatsu Group is reducing the amount of disposed parts through

- expanding the range of items covered under its “Reman” operations to include wheel motors, hydraulic cylinders, etc. for electric dump trucks
- further improving the usage rate of remanufactured parts through the development of parts made to suitable sizes or those designed exclusively for future remanufacturing use, and
- developing recycling-related technologies such as spraying technologies.

The Group is carefully considering the future of the “Reman” business in China, Russia, India, and other regions not currently covered by its existing Reman Centers to further advance recycling and reuse.

### Reman Process



Component remanufacturing



Assembly



Final performance inspection