



Form 1: Proposal for a new field of technical activity

Circulation date: 2016-07-12 Closing date for voting: 2016-10-12	Reference number (to be given by Central Secretariat)
Proposer: SAC	ISO/TS/P 261

A proposal for a new field of technical activity shall be submitted to the Central Secretariat, which will assign it a reference number and process the proposal in accordance with the ISO/IEC Directives (part 1, subclause 1.5). The proposer may be a member body of ISO, a technical committee, subcommittee or project committee, the Technical Management Board or a General Assembly committee, the Secretary-General, a body responsible for managing a certification system operating under the auspices of ISO, or another international organization with national body membership. Guidelines for proposing and justifying a new field of technical activity are given in the ISO/IEC Directives (part 1, Annex C).

The proposal (to be completed by the proposer)

<p>Title of the proposed new committee (The title shall indicate clearly yet concisely the new field of technical activity which the proposal is intended to cover.)</p> <p>Remanufacturing Technology</p>
<p>Scope statement of the proposed new committee (The scope shall precisely define the limits of the field of activity. Scopes shall not repeat general aims and principles governing the work of the organization but shall indicate the specific area concerned.)</p> <p>Standardization and coordination of remanufacturing technology, including remanufacturing terminology standards and generic technology standards for remanufacturing processes, such as dismantling, cleaning, inspection, coating preparation, forming processing and assembly. The scope of the new TC does not include the relevant areas of TC 127 and TC 67/SC4.</p>

Proposed initial programme of work (The proposed programme of work shall correspond to and clearly reflect the aims of the standardization activities and shall, therefore, show the relationship between the subject proposed. Each item on the programme of work shall be defined by both the subject aspect(s) to be standardized (for products, for example, the items would be the types of products, characteristics, other requirements, data to be supplied, test methods, etc.). Supplementary justification may be combined with particular items in the programme of work. The proposed programme of work shall also suggest priorities and target dates.

Formulation and revision of international standards in the fields of remanufacturing technology will be launched covering two levels. At Level A, the new TC will focus on basic standards covering terminology, guides of technology, labeling for remanufacturing products, general technical requirements and general technical specification for remanufacturing products. Level B will cover technical standards, including dismantling, cleaning, inspection, coating preparation, machining and assembly for remanufacturing technology. Level A and B form the basis for developing remanufacturing technology standards.

A. Basic standards of remanufacturing technology

- terminology on remanufacturing technology
- guides on remanufacturing technology
- labeling of remanufacturing products
- general technical requirements of remanufacturing technology
- general technical specification of remanufacturing technology

B. Standards on remanufacturing technology

- dismantling technology of remanufacturing
- cleaning technology of remanufacturing
- inspection technology of remanufacturing
- coating preparation of technology of remanufacturing
- machining technology of remanufacturing
- assembly technology of remanufacturing

Lack of globally recognized remanufacturing standards has constrained the global trade in remanufacturing. Development of standards to ensure the quality of remanufactured products to simulate the growth in remanufacturing is paramount for remanufacturing to reach its full potential, creating a massive untapped remanufacturing market. It is most urgent to formulate standards on remanufacturing technology. The new TC plans to propose five international standards in three years, including

Remanufacturing-Terminology

Remanufacturing-General technical requirements for mechanical products

The methods of quality evaluation of cores for remanufacturing

Technological guidelines of surface treatment for remanufacturing of mechanical products

Technical specifications of machining for remanufacturing of mechanical products

Indication(s) of the preferred type or types of deliverable(s) to be produced under the proposal (This may be combined with the "Proposed initial programme of work" if more convenient.)

1) basic standards of remanufacturing(such as terminology, directives, general technical requirements, general technical criterions)

2) standards of remanufacturing technology (such as dismantling, cleaning, inspection, coating preparing, processing, assembling technology for remanufacturing)

All types of ISO deliverables are potential options depending on the specific proposal. Requirements, guidance documents, technical specifications, and technical reports would all be potential deliverables

A listing of relevant existing documents at the international, regional and national levels. (Any known relevant document (such as standards and regulations) shall be listed, regardless of their source and should be accompanied by an indication of their significance.)

ISO

1. ISO13534:2000 Petroleum and natural gas industries -- Drilling and production equipment -- Inspection, maintenance, repair and remanufacture of hoisting equipment
2. ISO10423:2009 Petroleum and natural gas industries -- Drilling and production equipment -- Wellhead and christmas tree equipment
- ISO 16714:2008 Earth-moving machinery -- Recyclability and recoverability -- Terminology and calculation method

China:

1. GB/T 28619-2012 Remanufacturing - Terminology
2. GB/T 28618-2012 Remanufacturing - General technical requirements for mechanical products
3. GB/T 28620-2012 The calculating methods of remanufacturing rate
4. GB/T 28615-2012 Green manufacturing - The technology specification for metal-cutting machine tool remanufacturing
5. GB/T 27611-2011 General requirements and labeling for recycled and remanufactured products
6. GB/T 31208-2014 The methods of quality evaluation for remanufacturing core
7. GB/T 30462-2013 Remanufactured non-road internal combustion engines—General specifications
8. GB/T 28675-2012 Remanufacturing of automotive components - Disassembly
9. GB/T 28676-2012 Remanufacturing of automotive components - Classification
10. GB/T 28678-2012 Remanufacturing of automotive components - Pre-delivery inspection
11. GB/T 28618-2012 Remanufacturing - General technical requirements for mechanical products
12. T 28677-2012 Remanufacturing of automotive components - Cleaning
- GB/T 28679-2012 Remanufacturing of automotive components - Assembly

UK:

1. PAS 3100:2014, Process control system for remanufacturing of automotive parts.
2. BS 8887-220: 2010 Design for manufacture, assembly, disassembly, and end-of life processing (MADE). The process of remanufacture. Specification.
3. AU 257:1995, Code of practice for remanufacture of spark and compression ignition engines”
4. EN ISO 13534:2001

Japan: Home Appliance recycling Law

Canada:

1. CGSB 53.148-2011 Remanufactured toner cartridges
2. CGSB 43.126-2008 (R2014) Reconditioning, Remanufacturing and Repair of Drums for the Transportation of Dangerous Goods

US:

1. SAE J 1153_201202 Hydraulic Master Cylinders for Motor Vehicle Brakes Test Procedure
2. SAE J 1693-2012 Remanufactured Hydraulic Master Cylinder for Motor Vehicle Brakes - General Characteristics and Test Procedure
3. SAE J 1694-2012 Remanufactured Hydraulic Master Cylinder for Motor Vehicle Brakes - Performance Requirements
4. SAE J 1890-2007 Performance Assurance of Remanufactured, Hydraulically-operated Rack and Pinion Steering Gears
5. SAE J1915-2000 Recommended Remanufacturing Procedures for Manual Transmission Clutch Assemblies
6. SAE J1101-2013 Hydraulic Wheel Cylinders for Automotive Drum Brakes
7. ASTM D6361/D6361M-98(2015) Standard Guide for Selecting Cleaning Agents and Processes

A statement from the proposer as to how the proposed work may relate to or impact on existing work, especially existing ISO and IEC deliverables. (The proposer should explain how the work differs from apparently similar work, or explain how duplication and conflict will be minimized. If seemingly similar or related work is already in the scope of other committees of the organization or in other organizations, the proposed scope shall distinguish between the proposed work and the other work. The proposer shall indicate whether his or her proposal could be dealt with by widening the scope of an existing committee or by establishing a new committee.)

Development of remanufacturing industry has been highly valued in developed countries such as the United States, Britain and Canada. Standards of remanufacturing product and process have been formulated there. However, the standard numbers are not enough, and the category coverage is not comprehensive. At present there is no formal remanufacturing standards organization in ISO, including standardization organizations or association in some countries (such as ANSI, CEN, DIN, BSI, AFNOR, SCC, SABS, etc.).

The remanufacturing TC to be established won't conflict with other existing ISO and IEC TCs. Formulating remanufacturing standards of base and technology will fill gaps in the standard system, promote global remanufacturing integration development, resource saving and environment protection.

Development of remanufacturing industry has been highly valued in developed countries such as the United States, Britain and Canada. Limited standards for remanufacturing product and process have been formulated there. However, the standards formulated are related to specific products as part of design for X or for production of virgin products. However, there is no standard developed specifically for remanufacturing specific processes which are very different from that for virgin products.

At present there is no formal remanufacturing standards organization within ISO, including standardization organizations or association in some countries (such as MIL, SAE, ANSI, CEN, DIN, BSI, NF, SCC, SABS, etc.).

The remanufacturing TC to be established won't conflict with other existing ISO and IEC TCs. Instead, the development standards for remanufacturing technology covering general technical standards and procedural standards will fill gaps in the standard system, promoting global remanufacturing , resource saving and environment protection.

A listing of relevant countries where the subject of the proposal is important to their national commercial interests.

The US, The UK, Germany, Canada, China, Egypt, France, Germany, Ghana, Netherlands, India, Japan, Malaysia, Morocco, Russia, Republic of Korea, Singapore, Swede, Spain, South Africa, Senegal, Thailand, Tunisa.

A listing of relevant external international organizations or internal parties (other ISO and/or IEC committees) to be engaged as liaisons in the development of the deliverable(s). (In order to avoid conflict with, or duplication of efforts of, other bodies, it is important to indicate all points of possible conflict or overlap. The result of any communication with other interested bodies shall also be included.)

Society of Automotive Engineers (SAE)
Automotive Parts Remanufacturers Association (APRA)
RIT'S Center for Remanufacturing and Resource Recovery
State Key Laboratory of Chinese Remanufacturing
British Standard Institution (BSI)
European Remanufacturing Center
International Federation of Engine Remanufactures and Rebuilders
United Nations Environment Programme (UNEP)
ISO/TC245 Cross-border trade of second-hand goods
ISO/TC127 Earth-moving machinery,
ISO/TC 22 Road vehicles

A simple and concise statement identifying and describing relevant affected stakeholder categories (including small and medium sized enterprises) and how they will each benefit from or be impacted by the proposed deliverable(s).

Stakeholders of remanufacturing technology include consumers, remanufacturers, dealers, governments and independent third parties. Remanufacturing international standards have many benefits for stakeholders as follows:

Consumers get reliable quality of products and gain benefits. Remanufacturing international standards have contributed to expanding technology management capacity for remanufacturers, improving production technology, providing technical support for remanufacturing. These standards can promote trade facilitation and expand bilateral trade volume, promote fair trade in the world. These standards provides a scientific and effective method to evaluate the remanufacturing activities for governments and independent third parties.

An expression of commitment from the proposer to provide the committee secretariat if the proposal succeeds.

China is willing to undertake the work of secretariat of new TC.

Purpose and justification for the proposal. (The purpose and justification for the creation of a new technical committee shall be made clear and the need for standardization in this field shall be justified. Clause C.4.13.3 of Annex C of the ISO/IEC Directives, Part 1 contains a menu of suggestions or ideas for possible documentation to support and purpose and justification of proposals. Proposers should consider these suggestions, but they are not limited to them, nor are they required to comply strictly with them. What is most important is that proposers develop and provide purpose and justification information that is most relevant to their proposals and that makes a substantial business case for the market relevance and the need for their proposals. Thorough, well-developed and robust purpose and justification documentation will lead to more informed consideration of proposals and ultimately their possible success in the ISO IEC system.)

During one hundred years of the 20th century, material wealth that mankind created has exceeded the total of the past five thousand years. Excessive natural resources have been consumed. Mechanical products play an important role in modern production and people's daily lives, and have brought great convenience to human. However, with the dramatic increase in the number of the waste products, ecocide, environmental pollution and resource waste are more serious.

Remanufacturing is an industrial process of returning the non-functional or retired products back to like-new conditions through disassembly, cleaning, testing, and other operations. The remanufactured products are tested and certified to meet technical and/or safety specifications and has a warranty similar to that of a new product. Recent decades have seen considerable growth in remanufacturing industry all around the world, yet the industry is still at its infancy. A comprehensive remanufacturing standard system can foster the healthy development of remanufacturing, promoting the uptake of remanufactured products and enhance customers' confidences in remanufactured products. Several technical specifications and standards have been developed in Europe, China, Japan and other countries. Yet, these are scattered over different places and there is lack of systematic planning and top design of remanufacturing standards which have hindered the further development of remanufacturing industry.

The basic technical standards and procedural standards of remanufacturing do not fall in the remit of existing TCs of ISO, and it is not possible to do so by expanding the current TCs. With the formulation of a new TC for remanufacturing, a systematic international standard system of remanufacturing would be established and improved gradually. The standards of remanufacturing will play an important role in quality assurance of remanufactured products, reducing the cost, improving efficiency for enterprises and in boosting consumer confidence, regulating the market and promoting the healthy development of remanufacturing industry all over the world.

The development of remanufacturing international standardization, the establishment of remanufacturing international standard system, and the implementation of the remanufacturing international standards will achieve the following goals:

- (1) Resources conservation, greenhouse gas emissions reduction, and global sustainable development.
- (2) Standardization of remanufacturing market and promotion of international trade.
- (3) Sharing the information of remanufacturing technologies and improving the quality of remanufacturing products.
- (4) Safe and reliable remanufactured products provided for consumers.

Signature of the proposer

Li Yubing

Director General, SAC

Further information to assist with understanding the requirements for the items above can be found in [the Directives, Part 1, Annex C](#).

附件5 :

Relevant feedback

1、 There is a lack of clarity on the scope. The work should focus on the remanufacturing process rather than on remanufactured products. The future Technical Specification should address remanufacturing in general and not be limited to mechanical products.

Response: The title of the proposed new committee is remanufacturing technology, scope statement of the proposed new committee focuses on standardization of remanufacturing technology after revision, including terminology and definitions relating thereto, dismantling, cleaning, inspection, processing technology for remanufacturing technology, not for specific products. This proposal focuses on process specification control of remanufacturing, including many technology for remanufacturing. Standards will revise in time for future technology development.

2、 The document to be developed shall also not address safety aspects, as these are either covered by legislation or by the work of existing TCs.

Response: This proposal mainly focuses on process specification control in the field of remanufacturing technology and would not address safety aspects.

“it's difficult to control the quality of remanufactured products, which would bring potential security danger to consumers” stated in the proposal, we want to express the idea that remanufactured products should perform the same as new products.

3 、 In certain industry or sector, performance or quality of products remanufactured should conform to standards which have been/will be developed by existing ISO TCs and it is not necessary to establish a new technical activity. Otherwise there will be two different standards for one product, one for new products and other for remanufactured products, and this will lead to confusion and misinterpretation among society and industry and cause poor-quality products which is yet conform to standards to be distributed to market in the worst case scenario.

Response: This proposal focuses on remanufacturing process, not for specific products. The new manufacturing processes are different from remanufacturing process, including disassembly, cleaning, inspection and machining of old products and parts in remanufacturing process which hasn't be involved in new products manufacturing. It is necessary to formulate appropriate remanufacturing standards.

4、 Remanufacturing is already handled by existing TCs, especially safety related topics e.g. in ISO TC 199 for machinery or ISO TC 210 for medical devices. No additional standardisation is necessary.

Response: As far as we know, ISO/TC 199 and TC210 are not working on standardization of technology specification in remanufacturing process, their working scope will not to be covering. This proposal mainly focuses on process specification control in the field of remanufacturing technology , including terminology and definitions relating thereto, dismantling, cleaning, inspection, processing technology for remanufacturing technology, the scope would not address safety aspects.

5、 It is also important to note that ISO/PC 245 (Cross Border Trade in Second Hand Goods) has been in existence since 2008 and has yet to produce a standard. This may demonstrate that there is no need for standardization on remanufacturing.

Response: PC245 focuses on cross-border trade in second-hand goods, which refer to the goods traded for one or multiple times. Most of them are used goods or parts, the quality performance is difficult to meet the standards and requirements of new products; Remanufacturing products are not second-hand goods, their quality performance is not lower than new products, and the characteristics and attributes are completely different. International World Trade Organization (WTO) has pointed out that: remanufactured products are new products, not second-hand products.

Remanufacturing industry has gained rapid development in the world, many transnational enterprises, such as Caterpillar, developing the remanufacturing business in many countries, have urgent need for remanufacturing standards. Remanufacturing standard will improve the development of remanufacturing industry in the world.

6、 The proposal states the goal "Information sharing in remanufacturing technology, management, service and other aspects". This goal is very broadly written and raises concerns regarding the protection of the intellectual property of remanufacturing firms. While we understand that ISO Standards strive to help companies access new markets, support growth in developing countries and facilitate

free and fair global trade, we believe that it remains important to protect the intellectual property of the remanufacturers and their customers. we recommend that this goal be eliminated, or revised to focus on information sharing related to the essential attributes of remanufacturing that result in consistently high quality products.

Response: The standards this proposal focus on are common technical standards, not for a particular product. So, standard information sharing does not impact intellectual property protection of remanufacturers. We have noticed the concerns from the remanufacturers and their customers, this goal is revised to focus on information sharing related to the essential attributes of remanufacturing that result in consistently high quality products.

7、Regarding the section under which the proposer is asked to identify “affected stakeholder categories”, the proposal is very general when describing which industries the formulation of international standards will benefit and how it will benefit them.

Response: Stakeholders of remanufacturing technology include consumer, remanufacturer, dealer, government and independent third party. Remanufacturing international standards have many benefits for stakeholders as follows:

Consumers get reliable quality of products and gain benefits. Remanufacturing international standards have contributed to expanding echnology management capacity for remanufacturers, improving production technology, providing technical support for remanufacturing. These standards can promote trade facilitation and expand bilateral trade volume, promote fair trade in the world. These standards provides a scientific and effective method to evaluate the remanufacturing activities for government and independent third party.

8、Where is the market need for ISO standards if the core industries have not undertaken standardization activity in this area already?

Response: According to investigation, many remanufacturing standards have been developed in many countries and different industries, we summarized as follows:

Chinese National Standards:

1. GB/T 28619-2012 Remanufacturing Terminology
2. GB/T 28618-2012 Remanufacturing General technical requirements for mechanical products
3. GB/T 28620-2012 the calculating methods of remanufacturing rate

4. GB/T 28615-2012 Green manufacturing the technology specification for metal-cutting machine tool remanufacturing
5. GB/T 27611-2011 General requirements and labeling for recycled and remanufactured products
6. GB/T 31207-2014 Quality management requirements for machinery products remanufacturing
7. GB/T 31208-2014 the methods of quality evaluation for remanufacturing core

Relevant standards of SAE:

1. SAE J1153_201202 Hydraulic Master Cylinders for Motor Vehicle Brakes Test Procedure
2. SAE J1693-2012 Remanufactured Hydraulic Master Cylinder for Motor Vehicle Brakes - General Characteristics and Test Procedure
3. SAE J1694-2012 Remanufactured Hydraulic Master Cylinder for Motor Vehicle Brakes - Performance Requirements
4. SAE J1915-2000 Recommended Remanufacturing Procedures for Manual Transmission Clutch Assemblies
5. SAE J 101-2013 Hydraulic Wheel Cylinders for Automotive Drum Brakes
6. ASTM D6361/D6361M-98(2015) Standard Guide for Selecting Cleaning Agents and Processes

British Standards:

1. PAS 3100:2014, Process control system for remanufacturing of automotive parts.
2. BS 8887-220: 2010 Design for manufacture, assembly, disassembly, disassembly and end-of life processing (MADE) the process of remanufacture. Specification
3. BS EN 257:2010 Mechanical thermostats for gas-burning appliances
4. BS EN ISO 13534:2001 Petroleum and natural gas industries -- Drilling and production equipment -- Inspection, maintenance, repair and remanufacture of hoisting equipment

Japan: Home Appliance Recycling law

Canadian Standards:

- CGSB 53.148-2011 Remanufactured Toner Cartridges
- CGSB 43.126-2008 Reconditioning, Remanufacturing and Repair of Drums for the Transportation of Dangerous Goods

South African Bureau of Standards (SABS):

1. SANS 10278:2005 The remanufacture of petrol engines

DIN:

DIN33870 Information technology – Office machines – Requirements and test for the preparation of refilled toner modules for photographic printers, copiers and facsimile machines.

The scope of new proposal is for standardization of remanufacturing technology, including terminology and definitions relating thereto, dismantling, cleaning, inspection, processing technology for remanufacturing technology. According to investigation, existing standards are for remanufacturing products. Standards in many countries mainly focus on product, a lot of developing countries need advanced remanufacturing technology and standards to develop their remanufacturing industry. So, international remanufacturing standards, especially related generic technology can help to improve technical specification for many remanufactures, promote international trade of remanufacturing products in many countries and provide reliable remanufacturing products for consumers.