

White Paper

白皮书:

The core concept of promoting remanufacturing industry in China:

在中国推广再制造产业的核心理念:

To seek common understanding points while reserving difference.

To gradually reach an international common understanding of how to develop remanufacturing industry in a market environment full of differences.

To accelerate Caterpillar Remanufacturing boosting in China.

求同存异，在充满差异性的市场环境中逐步达到对再制造产业发展的国际共识，快速推进卡特彼勒再制造在中国的发展。

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Remanufacturing industry is a future industry that connecting link to once again upgrading industry civilization. It is essentially different while it is as tied in with traditional industry. If saying that evolution、innovation and consumption may be the core contents of the traditional industry philosophy in the history of past hundreds years' development of industry civilization, then remanufacturing industry will carry the revolution of traditional industry civilization. Its key philosophy touches economy、green and sustainable development. The remanufacturing industry takes consciousness of future survival of human being、environment protection and evolution in cooperate with industry development together closely. Thus the remanufacturing industry is an international industry without borderline. It is finally spelled the rise of essential of human industry civilization as well as reverse-fed to global due to excessive plunder by traditional industry. Therefore aiming at China's situation, Caterpillar has made great efforts in the recent years with levels of Chinese government authorities trying to gradually influence the awareness of core concepts of remanufacturing and its key philosophy, with the intent to facilitate Chinese government to recognize the benefits and far-reaching significances to Chinese economy and society that can be brought over by the booming of remanufacturing industry. With such great efforts, the support to remanufacturing industry in China has been lifted to its tune never attained. Remanufacturing enterprises have been teemed since then. However, the progress of the China remanufacturing industry has not been accelerated to government's expectation. Among which cores and remanufactured finish goods are not free of flow cross the border are the main issues. The Chinese government is more and more aware of the importance of the free import and export of cores and remanufactured finish goods and its meaning to healthy growth of remanufacturing industry.

Caterpillar's standpoints:

1. Since remanufactured products are meant to serve machines from various generations during their entire life cycle, it involves extremely extensive categories of components. It is impossible to realize scale of production so as to achieve reasonable profit, if it is not aggregated the global demand;
2. Along with products made in China sold to everywhere in the world, Chinese enterprise especially those large scale state owned enterprises are gradually turned into global enterprises as well. Remanufacturing capability and their remanufactured products availability will enhance their competitiveness in the global market place;
3. Along with China's increasing importation year by year, the Chinese consumers should enjoy the right same as the consumers in other countries that enjoy the favor of remanufactured products with higher quality but lower cost. This is thereby lifting the consciousness of environment protection and sense of responsibility to the society of Chinese consumers.

再制造产业是乘携人类工业文明二次提升的未来产业。它同传统产业既有联系同时又有本质的不同，如果说人类过去工业文明几百年的历史以发展，创新，消费为传统工业哲学核心内容，那么再制造产业将意味人类工业文明的转型，其工业哲学理念为，节约，绿色，可持续发展，再制造产业将人类未来的生存意识，环保意识，如何发展的意识协同再制造产业的发展紧密地结合在一起，因此再制造产业是无边界的国际性产业，最终意味着人类工业文明的本质提升和回哺传统工业对地球的过度掠夺。针对中国的现状，卡特彼勒已经通过这几年的努力逐步影响各级政府对再制造工业概念和内涵的认知，帮助他们充分了解再制造能够给中国的经济和社会所带来的深远意义。在卡特彼勒的不断影响下，中国对再制造产业的支持已经达到了前所未有的程度，并且再制造企业不断涌现，但是发展速度并不如政府所期望的那么快速。其中，旧件和再制造产品尚无法自由流动是主要原因之一，因此，政府逐渐意识到旧件及再制造产品的自由进出口对于再制造产业的健康发展的重要意义，主要体现在以下几个方面：

- 1、 由于再制造的产品要服务于各种年代不同型号的机器的全寿命周期，因此涉及的零部件种类异常广泛，如果不能整合国际的需求，是无法实现规模化生产的，从而无法获得合理的经济效益；
- 2、 随着产品远销于全球各地，中国的企业（尤其是大型国有企业）也逐渐转型成跨国企业，再制造产品将为他们增强在国际上的竞争力。所以旧件及再制造产品的自由流动是他们发展再制造业务的必然要求；
- 3、 随着中国的进口逐年增加，中国的消费者应该享有同其他国家消费者同样的权利来享受高质量低价格的再制造产品并藉此提高中国消费者的环保意识和社会责任感。

Analysis of modality of China development of remanufacturing industry

关于中国发展再制造产业的形态分析

一、 Industry environment:

产业环境:

The atmosphere of China remanufacturing industry is gradually turned into positive. Chinese central government experienced several years to recognize remanufacturing, distinguish and understanding the phases of detail regulation and policy set up, choose to trial through pilot enterprises so as to categorize in detail of remanufacturing enterprises and establish detail regulations and policies (extract from conversation with officer at Pudong Entry & Exit Inspection & Quarantine Bureau dated 2 Dec. 2010)

中国再制造的产业环境逐步好转，中央政府历经几年从对再制造的认识，判别和理解现在开始进入具体政策制定阶段，并从选择的试点企业中总结针对再制造产业的具体法规措施的制定要求（选自上海浦东 CIQ 官员访谈，2010 年 12 月 2 日）

二、National Environment

国家环境:

China is confronted with the opportunity of growing, at the same time yet faces the tremendous challenges of growing bottleneck. Chinese government fully understands that the only choice is to step up and rectify the existing industry structures. China's economy would not be second time leap by lying on traditional industries only. In the past two years, the Chinese government has made significant adjustment on regional economy and industry development structures in order to maintain and bring along the sustainable growth as well as to drive the national policy of turning the society into economy and green model. In 2008, Mr. Hu Jintao, the Chairman of The People's Republic of China has signed and put into effective <<The Law of Circular Economy Boosting of The People's Republic of China>> was a clear signal to escalated the economy and green industry to the height of a Nation's legislation and industry strategy.

中国面临发展的机会，同时也面临巨大的发展瓶颈，中国政府充分认知必须进行产业的提升和调整才是唯一的出路，依靠传统产业无法带动中国经济的二次腾飞，因此，过去两年来中国政府在区域经济发展结构和区域产业发展结构方面进行重大调整，目的借此维持、带动中国的经济持续发展，推动社会向节约型和绿色社会转变的国策，中国国家主席于 2008 年签署《循环经济法》以此推动中国循环经济的发展。

1, The Industry Structure

产业结构,

Through years' exploration and study, the Ministry of National Development & Reform Committee in conjunction with MOFCOM and other 11 ministries have released the documentation for promoting circular economy development in May 2010. Caterpillar Remanufacturing Shanghai was awarded as one of the pilot remanufacturing enterprises by end of 2009. Caterpillar Remanufacturing Shanghai has since developed fairly constructive and positive relationship with ministries of China central government as well as those related government authorities at the municipal level. Caterpillar Remanufacturing Shanghai is actively seeking for suitable business model in China. The effort has been recognized by the local related authorities, just as said by a senior Shanghai

officer “Caterpillar remanufacturing is a Shanghai government recognized brandname and is doing true remanufacturing.”

中国政府经过几年的探索，研究，国家发改委，商务部，等十一部委联合下发的推动循环经济发展的文件，并选择卡特彼勒再制造为试点企业，几年的发展卡特彼勒再制造与中国的中央政府相关部委和地方政府的相关机构形成良好的互动关系，同时卡特彼勒再制造本身正在积极努力地寻求新的商业模式，并得到中国地方相关政府的认知，正如上海 CIQ 的重要领导所讲：“卡特彼勒再制造是地方政府信得过的品牌，是真正的再制造”。

2. The Harmonious Society

和谐社会，

The national policy of China is to develop harmonious society. With a rapid growth in the past 30 years, Chinese economy development model is not well fit to keep with the natural environment protection any more. As a result, the Chinese central government has recognized that to develop circular economy is a national policy to support future growth. The remanufacturing industry must become one of the pillar industries for future which will help developing the harmonious society along with the economic growth.

中国的国策是发展和谐型社会，由于三十年的快速发展，中国经济发展的模式和自然环境的保护相悖而行，事实是中国中央政府认识，发展循环经济是国策，再制造产业必是未来政府向心的支柱产业之一，是创建和谐社会的必然之举。

3, Green Industry

绿色工业，

Although China's economy has maintained 30 years significant development, but Chinese average GDP is yet very low. The huge population has swallowed the gross GDP. The energy consumption of the total Chinese production capacity is extremely high. It resulted negative impact to China's environment, aggravated the burden of economy sustainable development and negative impact China's national image in the international society. To grow remanufacturing industry is one of the ways to maintain China economy continuous increase on going.

虽然中国的经济保持三十年的快速发展，但中国的人均 GDP 却非常低，庞大的人口吞掉了 GDP 的总量，同时中国的产能消耗却非常巨大，影响中国环境，加重中国可持续发展的负担，影响中国在国际社会的国家形象，因此发展再制造产业是未来中国保持持续增长的必由之路。

4, The System Structure

体制结构

As a result of the orientation of Chinese economy development model and regulation determined by existing Chinese political system, therefore once it is resolved to boost circular economy by the central government, there will emerge a rapidly shaping significant market of remanufactured products and opening out great growing opportunity. Caterpillar remanufacturing China has undergone self-imposed hardships and be ready to strengthen its

determination to grow reman business in China since 2005, It can be foreseen that the opportunity is coming for Caterpillar Reman to show its talent from the competition and eventually catch the huge opportunity lying behind. 由于中国现有政治体制决定其经济发展模式和政策的倾向性，因此其一旦下定决心推行循环经济，那么其呈现的支持力度和呈现的重视形态将快速形成重大的再制造市场，展现重大的发展机会，兑现重大的商业机会，由于卡特彼勒再制造已经卧心尝胆，勒马等待几年，所以未来几年卡特有在竞争中脱颖而出的机会，迎来重大的发展机遇。

三、The Policy Bottleneck

政策瓶颈

Due to Chinese government's lack of experience with the remanufacturing industry, the weakness of the existing capability of local remanufacturing industry plus a painful experience in recycle industry in the past that messed up and caused supervision difficulties, such as passing the sham as the genuine. In the passed years, the related Chinese government bodies have no clear and detail rules to support remanufacturing industry, consequently the remanufacturing enterprises including Caterpillar remanufacturing Shanghai encountered various issues such as core import & export, remanufactured products import & export difficulties, etc. This has been causing negative impact to strategy of those who has investment in remanufacturing project in China. However, with gradually increased awareness, it is foreseen in near future Chinese government will in succession to establish relative detail regulations covering import & export of cores, remanufactured component and finish goods. It is foreseen that the local government will step in advance to provide examples of successful business model so as to create a foundation for cultivating new policies as well as decisions.

Just like CIQ Shanghai officer said, through the past several years observation on Caterpillar's activities, comprehension, awareness as well as sum-up, it is formed a set of process regarding sanitation and immunity examination of various remanufactured products. It will place significant influence and impact for future regulation and policies establishment regarding remanufacturing by Administration of Quality Supervision Inspection and Quarantine, Ministry of Commerce, General Customs Administration, National Tax Bureau General and Ministry of Finance.

由于中国中央政府对再制造的产业的认知程度，同时考虑到中国在再造产业能力还很薄弱，再加之再制造产业鱼目混珠，监管及其困难。过去几年中国与再制造相关的政府没有颁发明确的支持再制造产业细则，从而造成在中国投资的再制造企业（包括卡特彼勒再制造）遭遇包括旧件进出口，再制造产成品进出口等众多问题，致使这些公司的发展战略受到重大影响。但随着时间的推移，中国政府相关部门的认知提升，未来的几年中国政府会陆续推出与再制造产业相关的实施细则，包括与再制造旧件，再制造产品相关的进出口政策条文，而地方政府会先行一步，为中央政府提供成功商务范例，并提供新政策的决策依

据。正如上海 CIQ 某领导所讲，经过几年对卡特彼勒再制造的跟踪，理解，认知，总结最终形成上海 CIQ 一套成型的针对在再制造各类产品的卫生检查和免疫检查的具体方案，未来将之报送国家 CIQ, 会对商务部，海关总署及国家税务总局，财政部制定未来颁布的再制造法律，法规产生重大的支持和影响。

四、Human and civil environment

人文环境

Along with 30 years celerity development of Chinese economy, people started to think reversely about the negative impact to us of this 30 years booming. More and more people among which most are young people starting to join this reverse think with the government. The concept of low carbon, economy and green is more and more prevalent in China. It is significant change comparing with 30 years ago that people simply pursue booming economy. The human and civil ground for remanufacturing growing in China is ready.

随着中国经济三十年的快速增长，人民开始反思快速发展所带来的负面影响，越来越多的人，其中绝大多数为年轻人开始随同政府一起加入反思的行列，中国社会现在流行的经济理念为低碳，节约，绿色，与过去三十年单纯追求发展的思维理念有重大变化，这就为再制造产业在中国发展布局提供了人文土壤。

五、The Strategy of Caterpillar Remanufacturing in China

卡特彼勒再制造产业中国发展策略

1, In virtue of Caterpillar remanufacturing global business concept, industry concept and business model, continuously to influence Chinese government, popularize the Chinese central and local government's recognition on remanufacturing industry, especially emphasize the importance of free flow for cores and remanufactured finish goods to the healthy growth of remanufacturing industry.

借助卡特彼勒再制造的全球商业理念，产业理念和各种商业模式，持续有序地影响中国政府，提高中国中央政府和地方政府的认知性，尤其是旧件及再制造产品的自由进出口对再制造健康发展的重要性。

2, Actively push and steer cross communication of government bodies such as Customs, Commodity Inspection and Quarantine, General Tax Bureau, MOFCOM and Industry and Commerce Administration, etc., not only vertical communication. To convert existing supporting policies illustrated by the central government into practical detail rules.

积极推进、引导各政府部门的横向沟通，比如海关、商检、税务总局、商务部、工商管理等部门等，而非只是纵向沟通，把已有的中央支持政策变成可操作的细则。

3, Actively communicate with local government in most honest and transparent way, pursue the innovation of business model to satisfy Chinese market.

积极同地方政府进行真诚，持之以恒的沟通，探索，创新符合中国市场的新的商业模式。

4, To thoroughly recognize the development stage of Chinese market. To realize the inconsistencies and challenges that remanufacturing industry confronted at the initial stage (lack of industry entry standards, short of power of supervision, mistiness of related regulation or policy details). To create the long term model of remanufacturing industry growing in China suitable for Caterpillar or the industry where we are together with relative government bodies, for example, under the situation that not opening for entire cores and finish goods free import and export, offer Caterpillar or the industry where we are the permit to import and export cores as well as selling remanufactured finish goods in China.

充分认识中国市场的发展阶段，了解再制造产业在发展初期面对的矛盾和挑战（行业准入标准的欠缺，监管力度的不足，相关法规细则的模糊），和相关政府部门共同创造适合卡特彼勒或我们所在的行业在中国发展再制造产业的长远模式，比如在非开放整个旧件及再制造产品进出口的情况下特许卡特彼勒或所在行业可以进出口旧件并销售再制造成品进入中国。