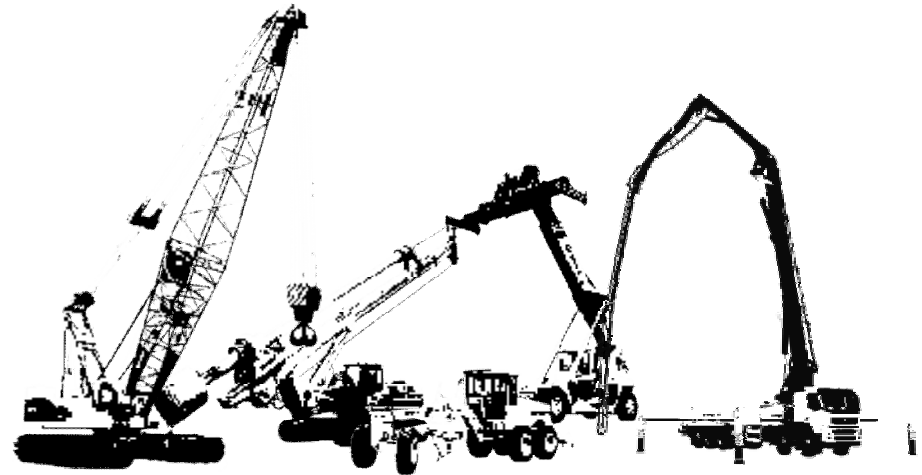




SANY



Advantages of the PCT System as a Tool for Cross-border Legal Protection and Commercialization of Inventions in a Global Market

Wei Shao

SANY HEAVY INDUSTRY CO., LTD

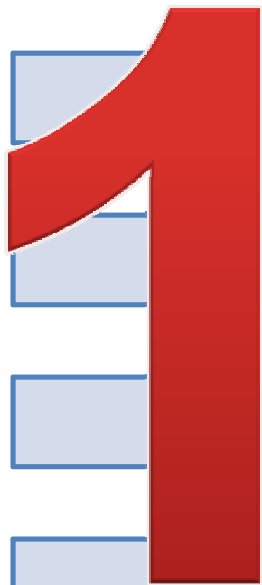
OUTLINE

Introduction to SANY

SANY and PCT

Advantages of PCT System

Introduction to SANY



1.1 Briefing to SANY

1.2 SANY in China

1.3 SANY Overseas

1.4 SANY R&D

1.5 SANY Products

1.1 Briefing to SANY

U Founded in 1989

U More than 60,000 employees

U Sales revenue of ¥ 30 billion in 2009, ¥ 50 billion in 2010

U One of Top 50 company in global engineering machinery industry , and
Top 500 company in China



1.2 SANY in China

Beijing Industrial Park



Shenyang Industrial Park



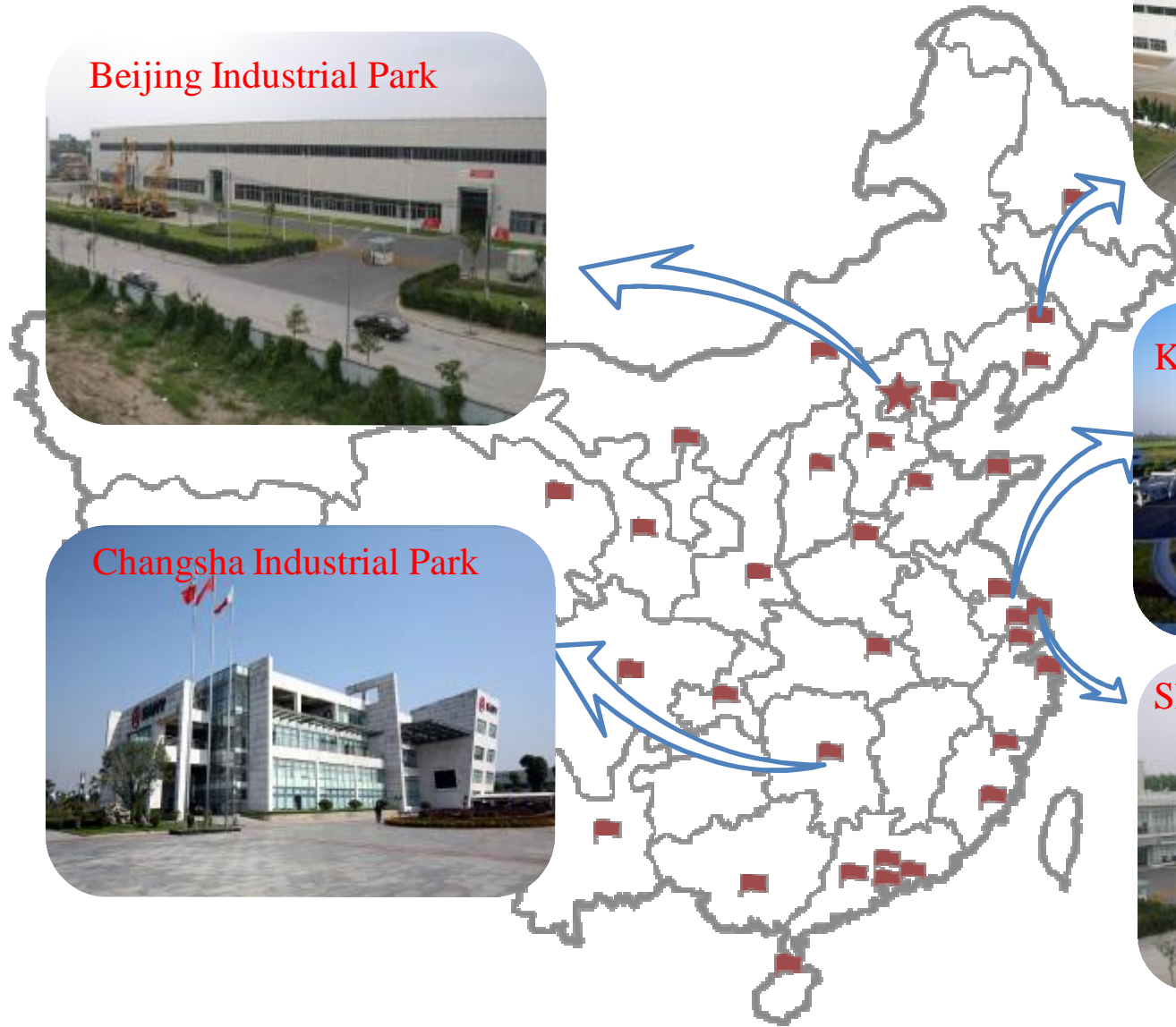
Kunshan Industrial Park



Changsha Industrial Park



Shanghai Industrial Park



1.3 SANY Overseas

5 R&D and manufacturing bases in America, Germany, India, Brazil and Indonesia;
30 overseas branch companies;
products exported to 150 countries and regions.



1.4 SANY R&D

- U 5-7% of the sales revenue are devoted into R&D every year
- U 32 R&D institutes worldwide
- U over 10,000 R&D engineers
- U one academician work station
- U one national enterprise technical center
- U two national postdoctoral research centers



1.5 SANY Products

In May, 2011, SANY produced a 3,600 ton crawler crane with the biggest capacity of lifting weight in the world.



1.5 SANY Products

In Sept., 2011, SANY produced a **86-meter** long boom concrete pump truck, which has broken the world record of the longest boom (72 meter) concrete pump truck made by SANY in 2009.



1.5 SANY Products

U SANY is devoted to offer high quality engineering machinery to the world.

U In Oct. 2010, 400-T crawler crane of SANY took part in the rescue of mine disaster in Chile.

U In Mar, 2011, SANY donated a 62-meter concrete pump truck of the value of one million dollars to Japan in the rescue work of Fukushima nuclear power station.



SANY and PCT

2

2.1 SANY's patent application in China

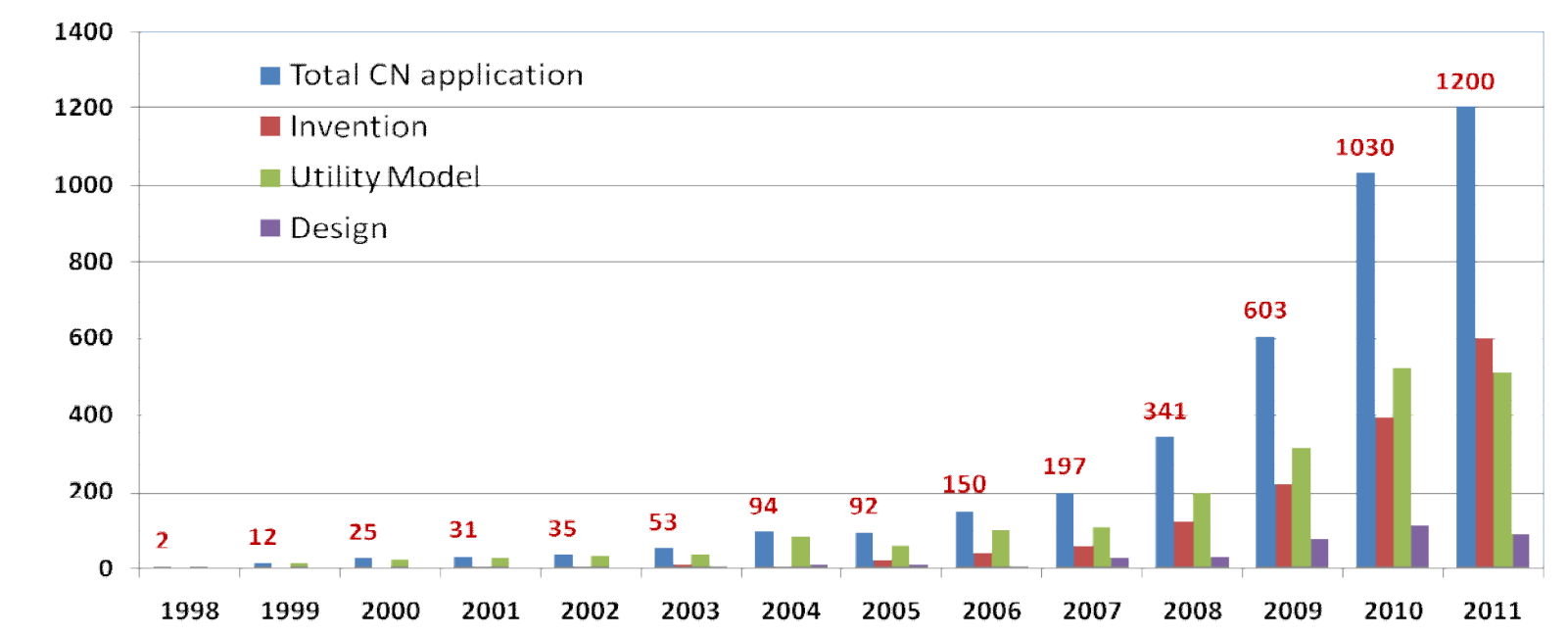
2.2 SANY's overseas patent application

2.3 SANY Choose PCT

2.1 SANY patent application in China

U SANY owns many core technologies in engineering machinery field, which is the key for SANY to keep its leading position in the China market.

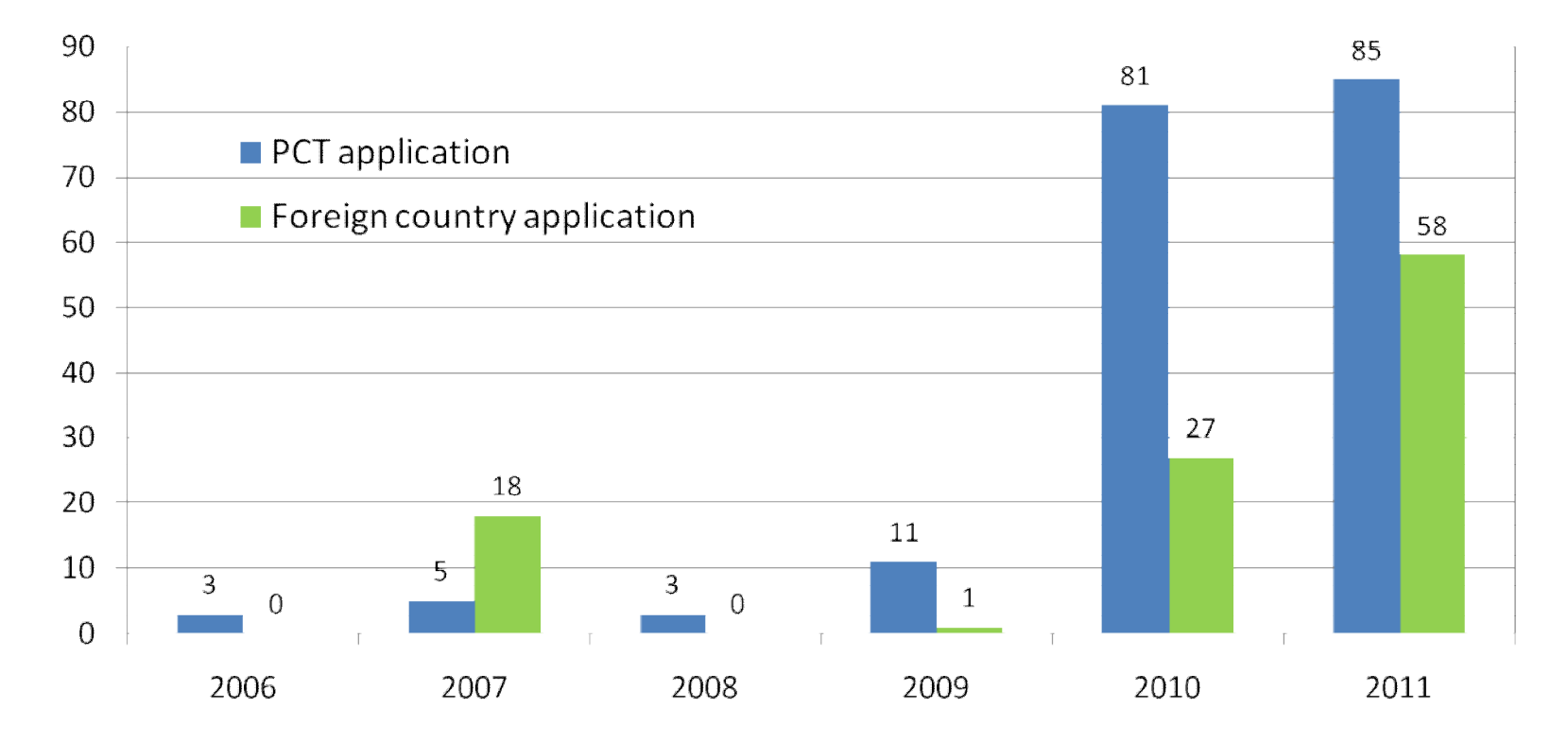
U For protecting innovations, especially the core technologies, SANY filed **3305 patent applications** in China and **1978 patents** have already been approved. SANY keeps the first place of owning patents in Chinese engineering machinery industry.



SANY's patent application in China

2.2 SANY overseas patent application

SANY overseas market is developing very fast in recent years. In order to establish competitiveness of SANY products in global markets, SANY started to file patent applications abroad from 2006. Especially in the recent 2 years, SANY 's international patent applications increased significantly



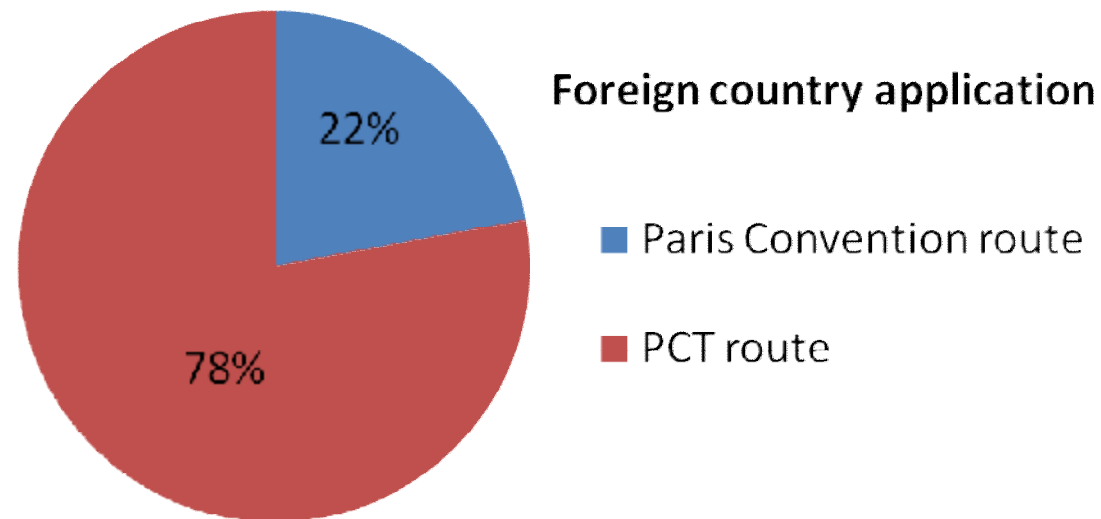
SANY's international patent application

2.3 SANY Choose PCT

U Among foreign country patent applications of SANY, **78% was through PCT route**, and 22% was through Paris Convention route .

U At the beginning of filing abroad patent applications, SANY did research on Paris Convention route and PCT route.

U Through comparison, SANY normally prefer to choose PCT route for its international patent applications.



Advantages of PCT system



3.1 Time

3.2 Valuable decision-making reference

3.3 Effective cost

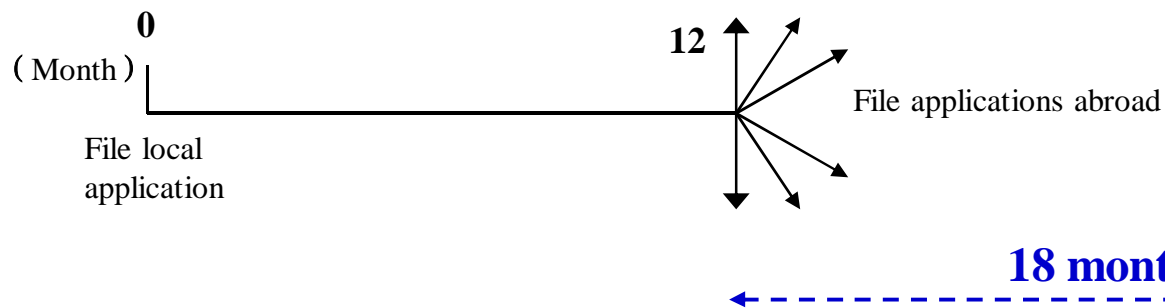
3.4 Convenient procedures

3.5 Comprehensive procedure support

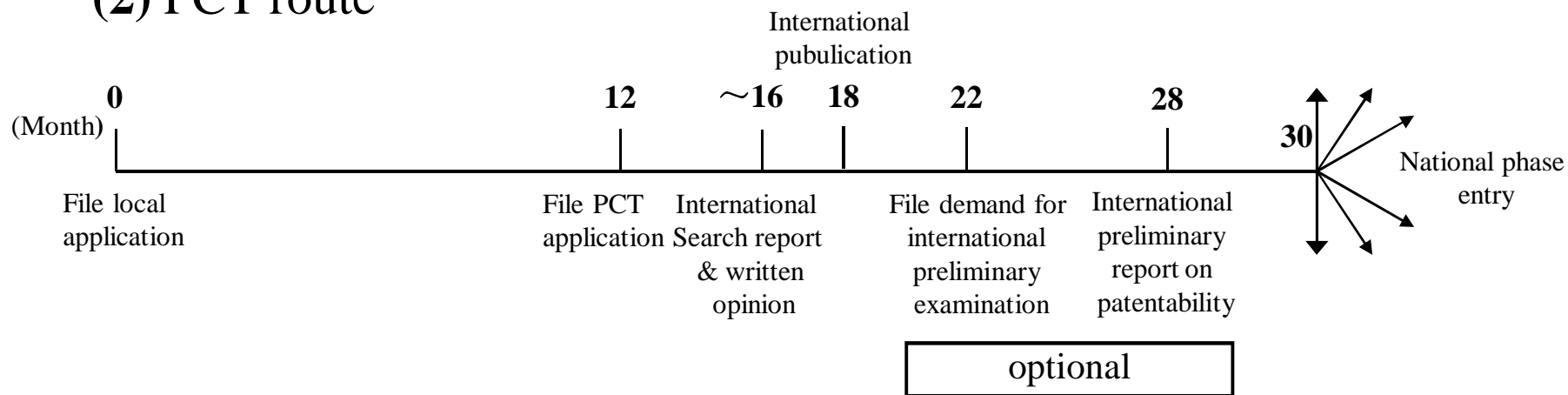
3.6 Protection

3.1 Time

(1) Paris Convention route



(2) PCT route



3.1 Time

- ⌌ Buy 18 months of grace period with the cost for the international phase (about \$2,500 in China, including filing fees and attorney fee)
- ⌌ More time for preparing translation for national phase entry
- ⌌ Better assessment of technical and commercial value of inventions
- ⌌ More time for newly established enterprises to looking for cooperation partners and financial supports
- ⌌ Postpone the cost of national applications, and acquire capital interests

3.2 Valuable decision-making reference

To get the professional patentability assessment by experienced examiners to reduce the workload of internal assessment

- U International Search Report (ISR)
- U Written Opinion of the International Searching Authority
- U International Preliminary Report on Patentability (IPRP)

It's very important for small and middle-sized enterprises without strong patent team.

3.2 Valuable decision-making reference

International Search Report

Provide documents relevant to the patentability of the invention

relevance

relevant documents

INTERNATIONAL SEARCH REPORT		International application No. PCT/CN2010/074275
A. CLASSIFICATION OF SUBJECT MATTER		
See extra sheet		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
IPC: B66C, B66D, F15B		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
WPI, EPODOC, CPRS, CNKI: cylinder, oil, valve, piston, plug, tunnel, shuttle, tube, reversing		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US6929559 A (GROVE US LLC) 29 Feb.2000 (29.02.2000) see description, column 1, lines 13-16, 36-40; column 2, line 55 to column 5, line 14 and fig.1	1-2,7-8
Y		3-6
Y	JP2009-150462 A (SHIN CATERPILLAR MITSUBISHI LT) 09 Jul.2009 (09.07.2009) see description, paragraph 0017 and fig.2	3-6
Y	CN1086789 A (LANZHOU LOCOMOTIVE FACTORY MIN RAILWA) 18 May 1994 (18.05.1994) see description, page 2, lines 16-19 and figure 1	6
A	DE3324270 A1 (MONTAN HYDRAULIK GMBH & CO K) 24 Jan.1985 (24.01.1985) See the whole document	1-8
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		

3.2 Valuable decision-making reference

Written Opinion of the International Searching Authority

Patentability assessment of the claims

Reasoning supporting the assessment

国际检索单位书面意见		国际申请号
		PCT/CN2010/074275
第V栏 按细则 43 之二.1 (a) (i) 关于新颖性、创造性或工业实用性的推测性声明：支持这种声明的引证和解释		
1. 声明		
新颖性(N)	权利要求 1-8	是
	权利要求 无	否
创造性(IS)	权利要求 无	是
	权利要求 1-8	否
工业实用性(IA)	权利要求 1-8	是
	权利要求 无	否
2. 引证和解释		
引用文件：		
D1: US6029559A		
D2: JP2009-150462A		
D3: CN1086789A		
1. 关于新颖性		
1.1 由于在任何一项现有技术中均未单独地公开独立权利要求 1 所限定的起重臂油缸切换控制装置，因此，权利要求 1 具有新颖性，满足 PCT33 (2) 的规定。		
1.2 由于权利要求 2-8 直接或间接地引用了独立权利要求 1，因此，权利要求 2-8 也具备新颖性，符合 PCT 条约第 33 条(2)的规定。		
2. 关于创造性		
2.1 权利要求 1 请求保护一种起重臂油缸切换控制装置，D1 被认为是最接近的对比文件。D1 公开了一种具有多个单级伸缩油缸的伸缩系统，该系统可用于油缸切换控制，该系统包括第一油缸(101)、第二油缸(102)和主换向阀(60)，其中，第一油缸(101)的小腔与第二油缸(102)的小腔互相连通，主换向阀(60)的一个口与第一油缸(101)的小腔连接，主换向阀(60)的另一口与第一油缸(101)的大腔连接，主换向阀(60)的另一口与第二油缸(102)的大腔连接(参见说明书第 2 栏第 55 行至第 5 栏第 14 行和附图 1)，权利要求 1 与 D1 相比其区别在于：权利要求 1 中的油缸切换控制装置用于起重臂，但是对于本领域技术人员来说，这样的应用是显而易见的，因此，权利要求 1 不具备创造性，不符合 PCT 条约第 33 条(3) 的规定。		
2.2 从属权利要求 2 的附加技术特征已经被 D1 公开(参见说明书第 2 栏第 55 行至第 5 栏第 14 行和附图 1)，因此，权利要求 2 的技术方案也是显而易见的，不符合 PCT 条约第 33 条(3) 的规定。		

3.3 Effective cost

U With more time for consideration and more decision-making references, the PCT applicants can make more reasonable decisions for patent application and reduce unnecessary costs.

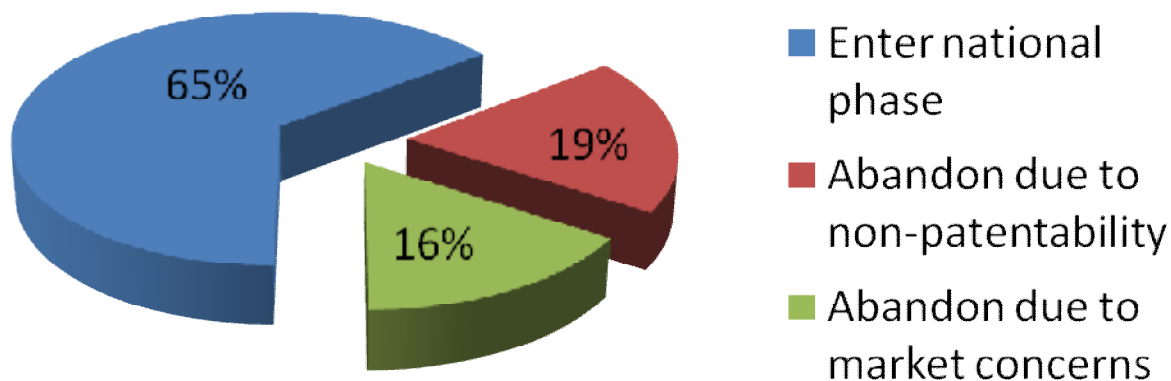
U The cost of the international phase in PCT is a very small portion of the cost of overall patent application, about 5% or so in general.

3.3 Effective cost

U SANY filed 81 PCT applications in 2010, among which 65% entered into the national phase finally, 19% was abandoned because of non-patentability, and 16% was abandoned because of market concerns;

U Compared with Paris Convention route, PCT route saved over 30% cost.

SANY PCT application in 2010



3.4 Convenient procedure

☒ Filing one PCT application, with the effect of national (regional) application in all PCT contracting states.

☒ Geographic locations and working languages of the Receiving Offices are usually convenient for applicants . Taking China as an example, Chinese applicants only need to submit the application documents in Chinese version to the State Intellectual Property Office (SIPO).

☒ Amendments and corrections in the international phase have effects to all designated countries, so it's unnecessary to amend and correct the application documents every countries for saving costs and workloads.

3.5 Comprehensive procedure support

U More opportunities for amendment

ü Amendment at the time of receiving International Search Report

Claim amendment is available within 16 months from the priority date, or within 2 months from transmittal of International Search Report

ü Amendment at the stage of International Preliminary Examination

Amendments of description, claims and drawings are available at filing a request for International Preliminary Examination or before writing the International Preliminary Report on Patentability

3.5 Comprehensive procedure support

U Opportunities of correcting errors

Ü Restoration of the priority right

The applicant is permitted to restore the priority right under certain circumstances when overpassing the priority period.

Ü Incorporation by reference of missing parts

Missing parts, not contained in the international application but completely contained in the earlier application of which priority is claimed, are possible to be incorporated by reference into the international application under certain circumstance.

Ü Recovery of rights when overpassing the term of national phase entry

3.6 Protection

U More extensive temporary protection

After the international publication, PCT applications can attain temporary protection in all PCT contracting states, i.e., the applicant can send the warning letters to foreign enterprises of PCT contracting states for their duplication activities after the international publication. When the patent application is issued by a designated state, the applicant can ask enterprises in the designated state for paying appropriate cost for their duplication activities between the publication date and the issue date. If filing the application separately in certain foreign countries, the applicant can only send warning letters to the enterprises of these countries with much more small scope of temporary protection.

U To confuse competitors

All contracting states are automatically designated when filing an PCT application, so even after the international publication, thus the competitors cannot know which state the PCT application will enter until the publication at the national phase, which can confuse the competitors.

Summary of the main advantages

Special Features Advantages	Term for National Phase Entry	International Search and Preliminary Examination	Amendment in International Phase
Ascertaining Patentability of Invention		√	
Ascertaining Value of Invention	√		
Saving Cost and Workload		√	√

THANK YOU