

Global and China Automotive Aluminum Wheel Industry Report, 2008-2009



China has become a manufacturing center of aluminum automotive wheels in the world now. The export of wheels mainly focuses on the retail market. In the recent years, many foreign OEMs have begun to purchase aluminum automotive wheels directly from China because:

In the cost structure of Chinese aluminum automotive wheels, raw materials account for 55%-60% of the total cost, and labor cost takes 4%-5%. For developed countries, raw materials account for 50%, and labor cost takes 15%-20%. Therefore, China has competitive advantages in labor cost. At present, the average profit margin of foreign automotive aluminum alloy industry has fallen to 2%, so there is no possibility for the decline of selling price. In order to control the cost, international automobile giants have begun to purchase from China aluminum automotive wheels with price advantage or set up joint ventures in China. Japanese manufacturers have already established joint ventures in China.

China also has advantage in upstream resources, but the advantage is reflected in the quantity of alumina manufacturers instead of rich bauxite resources. The competition in the prices of alumina is fierce. After breaking the monopoly of Chinalco, private alumina factories emerged everywhere. To the aluminum wheel industry, raw material cost is the most important factor, in which Chinese manufacturers have advantage. Roaring alumina prices in 2008 made many manufacturers suffer losses. Although alumina price decreased in the second half of 2008, it was kept stable with a slight increase after major manufacturers made efforts to reduce output.

China's output of aluminum automotive wheels rises rapidly. In 2001, China exported 3.5 million aluminum automotive wheels; in 2003, nearly 10 million; in 2008, 35 million, 10 times that in 2001. China produced 35 million aluminum automotive wheels in 2008, of which 30 million ones were for OEM sale, 1.5 million for inventory, and 1.5 million for after-market. Aluminum-alloy motorcycle wheel industry is an important branch of China's aluminum wheel industry, with the annual output of 15-20 million.

Prosperous automobile industry stimulates a number of cities and enterprises to start aluminum wheel projects. In Baotou, Chongqing, Xining, Luoyang, Fushun, Zunhua, Guangyuan, Yuncheng, Kangping, Tongliao, Baise, Shenyang, Jiamusi, Peixian, Baiyin, Xuzhou and Wenchuan, aluminum wheel projects with the investment of RMB in millions have been under preparation or construction. In fact, aluminum wheels are applied to 68% of passenger cars in the world, so the development space for aluminum wheel hubs is limited. Majority of small Chinese enterprises rely on the after-markets of Europe and America, which get inflicted seriously by the economic crisis. As for the field of OEM, it is hard to enter, and requires efforts and funds for continuous years.

Although China has nearly 100 aluminum wheel manufacturers, but few of them have real strength. In China, large aluminum wheel manufacturers are generally supported by foreign investors. Manufacturers funded by Taiwan investors are mostly export-oriented, with the export mainly to Japan, and usually Japanese investors have their shares, for example, Toyota holds shares of Lioho Machinery.

Manufacturers funded by Hong Kong investors often cooperate with larger enterprises, aiming at OEM market. Large-scale local enterprises also target OEM market, while small enterprises are engaged in after-market. Citic Dicastal is backed up by the super-large enterprise --- CITIC Group, so it has no difficulty in gathering capital and it has the courage to invest in large scale, which is the key to its success. Besides, Citic Dicastal started to work in aluminum wheel industry earlier than others. Wanfeng Auto is also a pioneer in the industry and was first listed in 2006, and its development depends on financing. Jinfei Machinery is an enterprise restructured from a state-owned enterprise with adequate fund, and motorcycle wheel business takes a large proportion of its business. Jinfei Machinery has set up joint ventures with Indian manufacturers. In the initial phase of 2001, Huatai was supported by foreign investors, who held 60% shares of the first Huatai factory in Shenzhen. At present, Huatai has branches all over China, even merges and acquires foreign production lines directly. Lizhong Wheel is listed in Singapore, depending on Lizhong Group that has aluminum mines, and it has great development potential. Zhongnan Aluminum Wheel enjoys technology strength and cooperates with Japanese investors to produce products with good quality. Fucheng aims at export. Mingqi mainly cooperates with BYD. Jingyuan Heavy Duty Machinery is backed up by the largest tire enterprise --- GITI Tire Group. Shanghai Youfa is a member of Youfa Group and listed in Singapore, aiming at after-sale market. Wuxi Zhenfa is an Indonesian enterprise listed in Indonesia.

Currently, European and American manufacturers of aluminum wheels are at the verge of bankruptcy, for example, Hayes Lemmerz filed for bankruptcy on May 11, 2009. In German, the annual sales of the best-known enterprise --- BBS was less than 8 million euros in 2008, declining 40% with huge losses. However, the situation will benefit Chinese enterprises, especially large enterprise like Citic Dicastal.

In Japan, the giants --- CMW, ENKEI and TOPY cooperate with Toyota, Honda and Nissan respectively. Asahi Aluminum, Hitachi Metals and UBE that have smaller scale cooperate with Honda, Nissan and Mazda respectively. UBE has less than JPY10 billion. In German, the giants --- BORBET, RONAL and UNIWHEEL are unlisted semi-private family enterprises with a history of one hundred years and they acquired a number of small manufacturers. The scale of UNIWHEEL is relatively smaller, but has much shares in after-market. BORBET and RONAL cooperate with BMW, Mercedes-Benz, Audi and Porsche. American SUPERIOR and Hayes Lemmerz are surviving difficultly

Market Shares of Global Aluminum Wheel Manufacturers in 2008 (by Revenue)

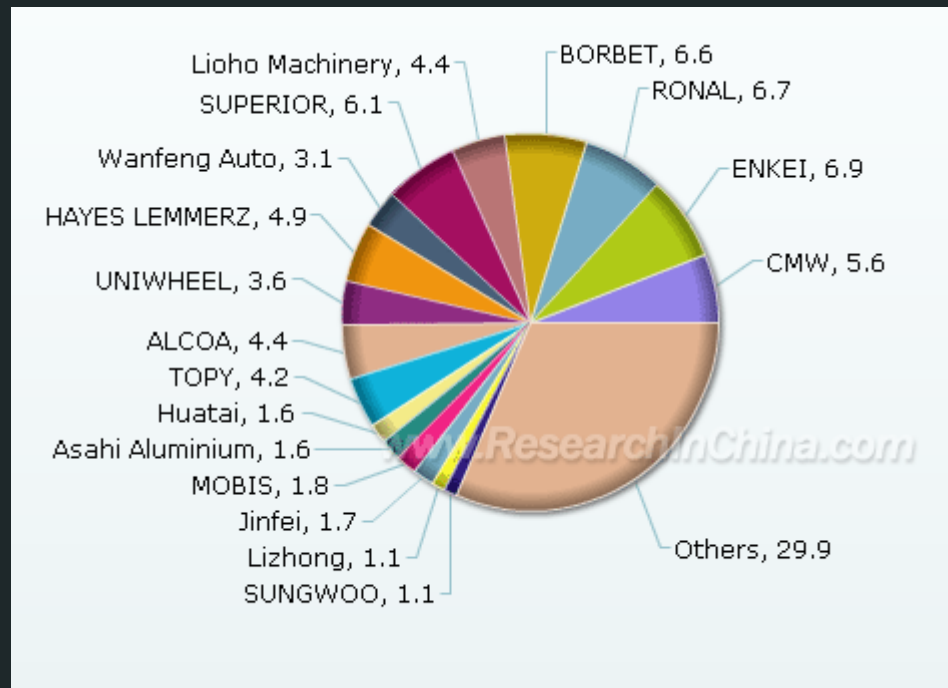


Table of Contents

- **1. Global Automobile Market**
 - 1.1 Global Automobile Market
 - 1.2 Automobile Markets of Major Countries in 2008
 - 1.2.1 the United States
 - 1.2.2 Germany
 - 1.2.3 Japan
 - 1.2.4 the United Kingdom
 - 1.2.5 Italy
 - 1.2.6 South Korea
 - 1.2.7 France
 - 1.2.8 Brazil
 - 1.2.9 Spain
 - 1.2.10 Russia
- **2. Global Automobile Industry**
 - 2.1 Rank of Global Automobile Manufacturers
 - 2.2 Geographical Distribution of Global Automobile Industry
- **3. China Automobile Market**
 - 3.1 Overview
 - 3.2 Types of Passenger Car Market Structure
 - 3.3 Passenger Car by Emission
 - 3.4 Commercial Vehicle
- **4. China Automobile Industry**
 - 4.1 Current Situation, Jan-Apr 2009
 - 4.2 Output of Major Automobile Manufacturers, 2008-2015
 - 4.3 Finance of Major Automobile Manufacturers
- **5. Overview of Aluminum Automotive Wheel Technology**
 - 5.1 Manufacturing Methods
 - 5.1.1 Welding
 - 5.1.2 Casting
 - 5.1.3 Forging
 - 5.2 Magnesium-alloy Wheel
 - 5.3 Advantages of Aluminum-alloy Wheel
 - 5.4 Quality System and Certification for Aluminum-alloy Wheel
- **6. Aluminum Automotive Wheel Industry & Market**
 - 6.1 Global Aluminum Automotive Wheel Market
 - 6.2 Global Aluminum Automotive Wheel Industry

- 6.3 Relationship between Global Aluminum Automotive Wheel Manufacturers and Automobile Manufacturers
- 6.4 China Aluminum Automotive Wheel Industry & Market

- **7. Major Aluminum Automotive Wheel Manufacturers**
- 7.1 Citic Dicastal
- 7.2 Lizhong Wheel
- 7.3 Zhengxing Wheel
- 7.4 Jinfei
- 7.5 Huatai
- 7.6 Lioho Machinery
- 7.7 Nanhai Zhongnan Aluminum Wheel
- 7.8 Tianyang Aluminum Alloy
- 7.9 Wanfeng Auto
- 7.10 Durui Wheel
- 7.11 Shanghai Jinheli
- 7.12 Nanjing Huashun Aluminium Wheels
- 7.13 Surperior
- 7.14 Hayes Lemmerz
- 7.15 Enkei
- 7.16 UBE
- 7.17 Borbet
- 7.18 Uniwheel
- 7.19 Ronal
- 7.20 Dongfeng Suizhou Wheel
- 7.21 Jiangsu Yuantong
- 7.22 Youfa Group
- 7.23 BBS
- 7.24 Daya Wheel
- 7.25 Fuhai Group
- 7.26 Mingqi
- 7.27 CMW
- 7.28 Topy
- 7.29 Alcoa
- 7.30 Others
- 7.30.1 Jingyuan Heavy Duty Machinery
- 7.30.2 Yongle Aluminum Wheel
- 7.30.3 Wuxi Zhenfa
- 7.30.4 Xiamen Minxing & Shanghai Guoxing
- 7.30.5 Wonder Kosei

Selected Charts

- Geographical Distribution of Global Demand for Light Vehicles, 2006-2015
- Sales Volume of Automobiles in All Regions, 2007-2010
- Monthly Output of Automobiles in the World, Jan 2008 – Apr 2009
- Sales Volume of Automobiles in China, 1998-2008
- Monthly Sales Volume of Basic-type Passenger Cars, 2005-Apr 2009
- Year-on-year Monthly Sales Increase of Basic-type Passenger Cars, 2005-Apr 2009
- Sales Volume of Passenger Cars in China by Type, 2005-Apr 2009
- Sales Increase of Passenger Cars in China by Type, 2005-Feb 2009
- Monthly Sales Volume of Passenger Cars (Displacement<1L), 2005-Apr 2009
- Year-on-year Monthly Sales Increase of Passenger Cars (Displacement<1L), 2006-Apr 2009
- Monthly Sales Volume of Passenger Cars (1L<Displacement<1.6L), 2005-Apr 2009
- Year-on-year Monthly Sales Increase of Passenger Cars (1L<Displacement<1.6L), 2006-Apr 2009
- Monthly Sales Volume of Passenger Cars (1.6L<Displacement<2L), 2005-Apr 2009
- Year-on-year Monthly Sales Increase of Passenger Cars (1.6L<Displacement<2L), 2006-Apr 2009
- Year-on-year Monthly Sales Increase of Passenger Cars (2L<Displacement<2.5L), 2006-Apr 2009
- Sales Volume and Displacement of Passenger Cars in China, 2005-Apr 2009
- Displacement Increase of Passenger Cars in China, 2004-Feb 2009
- Monthly Sales Volume of Trucks, 2005-Apr 2009
- Year-on-year Monthly Sales Increase of Trucks
- Sales Volume of Trucks in China by Carrying Capacity, 2005-Feb 2009
- Sales Volume of Heavy Trucks in China, 2005-Feb 2009

- Year-on-year Monthly Sales Increase of Heavy Trucks in China, 2006-Apr 2009
- Monthly Sales Volume of Medium Trucks in China, 2006-Apr 2009
- Year-on-year Monthly Sales Increase of Medium Trucks in China, 2006-Apr 2009
- Monthly Sales Volume of Light Trucks in China, 2006-Apr 2009
- Year-on-year Monthly Sales Increase of Light Trucks in China, 2006-Apr 2009
- Monthly Sales Volume of Mini-trucks in China, 2006-Apr 2009
- Year-on-year Monthly Sales Increase of Mini-trucks in China, 2006-Apr 2009
- Sales Volume of Buses by Carrying Capacity , 2005-Feb 2009
- Monthly Output and Sales Volume of Automobiles in China, 2007-Apr 2009
- Gross Profit Margin & Pretax Profit Margin of Chinese Finished Automobile Enterprises, 1999-Feb 2009
- Gross Profit Margin & Pretax Profit Margin of Chinese Automobile Parts Enterprises, 1999-Feb 2009
- Operating Income Growth Rate & Profit Growth Rate of Chinese Finished Automobile Enterprises, 1999-Feb 2009
- Operating Income Growth Rate & Profit Growth Rate of Chinese Automobile Parts Enterprises, 1999-Feb 2009
- Expenses of Chinese Automobile Enterprises, 2003-Feb 2009
- Expenses of Chinese Finished Automobile Enterprises, 1999-Feb 2009
- Expenses of Chinese Automobile Parts Enterprises, 2003-Feb 2009
- Global Output of Light Vehicles and Application Rate of Aluminum Wheels, 2006-2012
- Global Shipment of Aluminum-alloy Wheels, 2006-2012
- Global Market Scale of Aluminum Wheels, 2006-2012
- Geographical Distribution of Aluminum Automotive Wheel After-market, 2008
- Global Shipment of Aluminum Wheels, 2008

- Market Shares of Global Aluminum Wheel Manufacturers (by Revenue), 2008
- Aluminum Automotive Wheel Suppliers of Toyota, 2008
- Aluminum Automotive Wheel Suppliers of Nissan, 2008
- Aluminum Automotive Wheel Suppliers of General Motors, 2008
- Aluminum Automotive Wheel Suppliers of Ford, 2008
- Aluminum Automotive Wheel Suppliers of Volkswagen, 2008
- Aluminum Automotive Wheel Suppliers of BMW, 2008
- Aluminum Automotive Wheel Suppliers of Mercedes-Benz, 2008
- Aluminum Automotive Wheel Suppliers of Hyundai, 2008
- Market Shares of Chinese Aluminum Wheel Manufacturers (by Revenue), 2008
- Shipment of Chinese Aluminum Wheel Manufacturers, 2008
- Organizational Structure of Sanmenxia Dicastal Wheel Manufacturing Co., Ltd.
- Revenue & Operating Profit Rate of Lizhong Wheel, 2003-2008
- Subsidiaries of Lizhong Group
- Products of Lizhong Wheel, 2006-2009
- Revenue of Lizhong Wheel by Region, 2006-2009
- Production Capacity & Capacity Utilization of Lizhong Wheel, 2004-2008
- Organizational Structure of Jinfei Machinery Group
- Share Structure of Wanfeng Auto
- Income & Operating Profit Rate of Superior Industries International, 2004-2008
- Income & Operating Profit Rate of Hayes Lemmerz, 2005-2009
- Income of Hayes Lemmerz by Country
- Income & Operating Profit of UBE, 2001-2009
- Income of UBE by Region, 2004-2008

- Income of UBE by Product, 2007-2009
- Operating Profit of UBE by Product, 2007-2009
- Income & Operating Profit of UBE's Aluminum Wheels, 2006-2009
- Global Distribution of BORBET
- Shipment of BORBET, 1996-2008
- Income of BORBET, 2001-2008
- Client Structure of BORBET
- Income & Operating Profit of Youfa Group, 2004-2008
- Income of Youfa in Distribution and Manufacturing, 2004-2008
- Sales Volume of Automobiles in Russia, Q1 2009
- Sales Volume of 14 Largest Automobile Manufacturers in the World, 2007-2008
- Sales Increase of Commercial Vehicles in China, 2005-Feb 2009
- Sales Volume of Top 10 Chinese Automobile Enterprises, Jan-Apr 2009
- Sales Volume of Passenger Cars and Commercial Vehicles in China, Jan-Apr 2009
- Sales Volume of Major Automobile Manufacturers in China, 2008
- Output of Major Automobile Manufacturers in China, 2008-2015
- Top 16 Aluminum Wheel Manufacturers in the World by Shipment, 2008 (Unit: 10,000)
- Top 16 Aluminum Wheel Manufacturers in the World by Income, 2008 (US\$ in million)
- Clients of Chinese Aluminum Wheel Manufacturers
- Rank of 45 Chinese Aluminum Wheel Manufacturers by Income, 2008
- Financial Data of Citic Dicastal, 2004-2007
- Financial Data of Qinhuangdao Dicastal Xinglong, 2004-2007
- Financial Data of Sanmenxia Dicastal, 2004-2007
- Financial Data of Guangzhou Dicastal Xulv, 2005-2007
- Financial Data of Qinhuangdao Dicastal Meilv, 2004-2007
- Financial Data of Zhengxing Wheel Group, 2004-2007
- Financial Data of Zhengxing Wheel (Chengdu), 2004-2007
- Financial Data of Zhengxing Wheel (Benxi), 2004-2007



- Financial Data of Jinfei Machinery, 2004-2007
- Financial Data of Huatai (Taian), 2004-2007
- Financial Data of Dongfeng Huatai (Tianmen), 2004-2007
- Finance of Dongfeng Huatai (Tianmen), 2007
- Financial Data of Huatai (Jiangmen), 2004-2007
- Financial Data of Kunshan Liufeng Machinery, 2004-2007
- Financial Data of Lioho Light Alloy (Kunshan), 2004-2007
- Financial Data of Changfeng Lioho, 2006-2007
- Financial Data of Nanhai Zhongnan Aluminum Wheel, 2004-2007
- Financial Data of Hengju Aluminum , 2002-2004, 2007
- Members of Wanfeng Auto
- Financial Data of Wanfeng Auto, 2004-2007
- Income, Cost & Operating Profit Rate of Wanfeng Auto by Product, 2007、2008
- Cost Structure of Wanfeng Auto, 2007-2008
- Income & Operating Profit of Weihai Wanfeng Auto, 2006-2008
- Income & Net Profit of Ningbo Orwell, 2006-2008
- Financial Data of Shenyang Durui, 2004-2007
- Financial Data of Shenyang Sanhua Durui, 2004-2007
- Financial Data of Sahnghai Jinheli, 2004-2007
- Shipment of 3 Large American Automakers in Surperior Industries International, 2006-2008
- Automobile Models of Surperior Industries International
- Global Presence of Hayes Lemmerz
- Financial Data of Enkei Aluminium Industry (China), 2004-2008
- Financial Data of Dongfeng Suizhou Wheel Factory, 2004-2007
- Financial Data of Jiangsu Yuantong, 2004-2007
- Financial Data of Guangzhou Zhongjing, 2006-2007



How to Buy

Product details			How to Order
	USD	File	By email: report@researchinchina.com
Single user	2,900	PDF	By fax: 86-10-82600829
Enterprisewide	3,900	PDF	By online: www.researchinchina.com
Publication date: Jun. 2009			
For more information, call our office in Beijing, China:			
Tel: 86-10-82600828			
Website: www.researchinchina.com			