China Titanium Industry Overview

Zou Wuzhuang
Mr. Zou Wuzhuang

- Chairman, China Titanium Association
- General Manager, Baoti Group Ltd.
- Board Chairman, Baoji Titanium Industry Co., Ltd.

30 years work experience in Baoti
1. The development of the Chinese titanium industry;

2. Chinese titanium market situation in 2011;

3. Titanium market report in the first half of 2012;

4. Future development focus of the Chinese titanium industry.
1. The development of the Chinese titanium industry

1.1. Establishment period (1954-1978):
-- China performed the technology research and industrial testing and application of titanium metal. The first titanium sponge plant and the first titanium mill products plant were established.

1.2. Growth period (1979-2000):
-- China invested significant efforts towards the development of new alloys and the promotion of titanium to be used in various fields. Titanium material has been widely used in China.
1.3. Rapid expansion period (2001 up to now):

Within 10 years, China has become one of the world's leading titanium manufacturing countries. The output of sponge and mill products has been increased by 33 and 22 times respectively.

Graph 1. Titanium sponge and ingot capacity in China from 2002 until 2010
2. Chinese titanium market situation in 2011

-Rapid growth trend remained in the first half of 2011

-In second half of 2011, demand has been restrained and market price turned to a lower and stable level
2.1. The output and demand of titanium in China

In 2011, the output of titanium sponge reached 65,000 tons. The output of titanium mill products reached 51,000 tons.

<table>
<thead>
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<th></th>
<th>Plate Sheet</th>
<th>Bar</th>
<th>Pipe Tube</th>
<th>Forging</th>
<th>Wire</th>
<th>Casting</th>
<th>New Products</th>
<th>Others</th>
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<tr>
<td>Output, Ton</td>
<td>30028</td>
<td>8258</td>
<td>9285</td>
<td>2181</td>
<td>196</td>
<td>501</td>
<td>166</td>
<td>347</td>
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<td>%</td>
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<td>16.2</td>
<td>18.2</td>
<td>4.3</td>
<td>0.4</td>
<td>1.0</td>
<td>0.3</td>
<td>0.7</td>
<td>100</td>
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</tbody>
</table>

Graph 1.
In 2011, the domestic demand of titanium sponge reached 56,000 tons. The domestic demand of titanium mill products reached 44,500 tons.

Graph 1. The demand rate of mill products in China
2.2. The import and export data for titanium material

-- Titanium sponge export quantity totaled 8735 tons, around 1.5 times greater than 2010 year’s quantity.

-- Mill products export quantity reached 11200 tons, which is a 50% increase compared to 2010.

-- The imported titanium products quantity increased by 5% compared to 2010 which was 6400 tons.
Chinese titanium market situation in 2011

Graph 5. The import and export data of titanium in China
Graph 3. The price of titanium sponge in 2011
3. Titanium market report in the first half of 2012

-- Under the double pressure of world economic conditions and domestic inflation, Chinese titanium industry is suffering from the lack of demand.
3. Titanium market report in the first half of 2012

-- Titanium sponge output is 32,000 tons, 8.6% decreased. Sponge price is dropping down.

-- Titanium mill products output is 28,000 tons, 8% increased compared to the figures of the first half year in 2011 due to the high backlogs in 2011.
The breakdown of titanium mill product output shows that the titanium flat products represent the largest portion (49.6%), forging products (34.0%), pipe & tube (14.6%).

Graph 1. The breakdown of mill products in the first half of 2012
Titanium market report in the first half of 2012

Despite of the slow down market demand, Chinese titanium industry still keep on its development. 8 strip coil rolling lines have start production. 50 titanium welded tube lines with capacity of 12,000 tons will be installed.
4. Future development focus of the Chinese titanium industry

4.1. Pay attention to the reasonable development of titanium resources

-- Titanium has been listed in the key support of the state new materials.

-- The annual capacity is planned to remain at 100,000 tons in the future.

-- The government is encouraging technology improvements and further integration of the titanium industry regarding improvement of resource usage.
4.2. To improve the technology strength of the Chinese titanium industry

-- Through more than 50 year’s of development, the output of titanium in China ranks one of the leading positions in the world, Chinese titanium manufacturers are still not offering several premium quality titanium alloys that are offered by their colleagues from other countries.

-- In the future Chinese titanium enterprises shall concentrate on technology innovations, new products development, quality upgrading and optimization of technical economic targets.
We believe that the titanium industry will keep on developing, Chinese titanium association welcome the information exchange, technology and business cooperation from the friends all over the world.
THANKS