

Japan & Asia: An Overview of Mn production & Future Trends

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Ladies and gentlemen,

I am Keigo Takahashi from Nippon Denko.

My theme today is “An overview of manganese production & future trends in Japan and Asia”. After my presentation, I would like to ask the 4 members on the podium to each comment on a matter, and then shift to questions and answers from the floor.

As you know, world crude steel production exceeded 900 million tons in 2002 for the first time ever. As a result, the demand for manganese ferroalloys has also steadily grown. For the manganese industry to healthily develop in tangent with the future expansion of demand, it will be necessary for each company to seek higher efficiency and further strengthening of competitiveness, and also to establish mutual understanding and trust among the people involved in this field.

1. Crude steel production in the world and in Asia (See Fig.1)

The demand for manganese ferroalloys is mainly from the steel sector, and it is reasonable to say that the manganese industry is dependent on the steel industry. With this in mind, firstly I will review the trend in crude steel production.

- 1) World crude steel production ultimately recorded 902 million tons in 2002, exceeding 900 million tons, and maintained a good level of

production.

Among the regions, Asia has been increasing its production mainly in China, which recorded 393 million tons in 2002.

As a result, Asia substantially increased its world market share from 37% in 1995 to 44% in 2002.

Let us see the averaged annual growth ratio over 7 years. Although the growth in total world production was 3%, that of Asia was much higher at 5%. The major reason for this jump is due to China's increased ratio of 10%.

We can quickly see that Asia is expanding as a market for manganese as a result of these gains in crude steel production.

2) In particular, a huge expansion of steel demand is expected in China driven by planned international projects such as the Beijing Olympic Games in 2008 and Shanghai EXPO in 2010. At the same time, the demand for manganese is also expected to increase greatly.

However, it is also true that the Chinese Government shows strong concern about the expansion of facilities and supply in the Chinese steel industry at a time when the OECD has been promoting the elimination of excessive capacity.

It is important for the manganese industry to carefully examine the trend in world steel production.

2. Asian manganese industry

1) Now, I would like to brief you on manganese ferroalloy production. (See Fig. 2)

While world manganese ferroalloy production in 1995 was 7.1 million tons, Asia's production by the top 4 countries, China, Japan, India, and South Korea was 2.9 million tons. In 2002 it increased to 7.8 million tons worldwide with 3.3 million tons in Asia.

Over this period of 7 years, world production increased by 714 thousand tons. 380 thousand tons were from Asia and 301 thousand tons by China. Namely, this increase in world manganese ferroalloy production was attributed to an increase in China, just like crude steel production.

2) Next, I would like to give you an outline of the major manganese ferroalloy producing countries in Asia.

(1) China (See Fig.3)

According to a presentation made by the China Ferroalloy Association at the IMnI Shanghai Conference in 2002, the number of manganese ferroalloy producers in China was about 230 and their capacities were 2.7 million tons.

According to IMnI's statistics, China's production in 2002 was 2.2 million tons, accounting for 28% of total world production making it the world largest producer.

While production of ferromanganese (HC and Refined FeMn) was 1.14 million tons, 132 thousand tons were exported. The export ratio was not high.

On the other hand, while silicomanganese production was 1.06 million tons, its exported volume was 399 thousand tons. It showed a structure substantially dependent upon exports. The export of silicomanganese amounted to 21% of world traded tonnage (1.86 million tons), resulting in a depressed market in Asia in comparison with the European market as I shall mention a little later on.

(2) India (See Fig.4)

According to available information, there are 8 manganese ferroalloy producers in India.

According to IMnI statistics, manganese ferroalloy production in 2002 was 447 thousand tons but only 63 thousand tons were exported. We can guess that products are allocated mainly for domestic demand.

(3) South Korea (See Fig.5)

According to Korea Iron and Steel statistics, there are 3 manganese ferroalloy producers in Korea. Their annual capacities and production in 2002 were 387 thousand tons and 242 thousand tons respectively. In 2002, 142 thousand tons of ferromanganese (HC and Refined FeMn) were produced, while imports and exports numbered 50 thousand tons and 12 thousand tons respectively.

As to silicomanganese, while production was 100 thousand tons, imports

and exports were 133 thousand tons and 13 thousand tons respectively. The Koreans have maintained a good level of production in comparison with Japan though their import ratio is still high.

(4) Japan (See Fig.6)

Currently 4 companies produce manganese ferroalloy, 3 by electric furnace and 1 by blast furnace. Operations using electric furnaces are conducted mostly in the night-time when cheap electricity is available. Current effective capacity is 613 thousand tons.

Production in 2002 was 431 thousand tons as saleable tonnage and 562 thousand tons including the tonnage used as raw materials. As such, Japan has maintained a stable balance of demand and supply.

While consumption of ferromanganese (HC and Refined FeMn) was 407 thousand tons, production was 357 thousand tons. Imports and exports were 58 thousand tons and 11 thousand tons respectively, keeping a high ratio of domestic production.

As to silicomanganese, while consumption was 304 thousand tons, production and imports were 74 thousand tons and 254 thousand tons respectively, an extremely high import ratio.

It is believed that there is unreasonably cheap foreign silicomanganese being imported into the Japanese market. This has negatively influenced the sound management of the Japanese manganese ferroalloy industry. Considering such a situation, we hope for the establishment of a fair and orderly market in the trading of manganese ferroalloys.

3) I would like to explain the manganese ore situation in Asia. (See Fig.7)

Manganese ore imported by China, Japan and South Korea in 2002 amounted to 3.7 million tons in total, accounting for 45% of 8.2 million tons (estimated) of world trade. As such, it has a big influence on the manganese ore market.

China has been increasing the importation of manganese ores due to an increase in local manganese ferroalloy consumption and its export. Their imports in 2002 increased by 22%, as compared with the previous year, to 2.1 million tons, accounting for 26% of total world trade.

Some imports are used for manganese ferroalloys which are exported to Asian countries in conversion deals.

3. Future development of the manganese industry

I have reviewed crude steel production and demand & supply of manganese in Asia. I would like to conclude my presentation by giving you my opinion in the hope that it will contribute to the development of the manganese industry.

I believe the following actions need to be taken;

- 1) The establishment of a supply system meeting customers' demand and an orderly market in world trade (See Fig.8)

I think the present capacity and production of the world manganese ferroalloy industry is excessive in general. While we could see price improvement reflecting an increase in demand and uncertain supply in European market since the middle of last year, we could not see price improvement in imports from China to Japan even early this year due to the stagnant Asian market. Recently, prices have begun to move up in the Asian market due to increases in manganese ferroalloy demand as a result of the expansion of crude steel production and decreasing production due to power shortages in the south eastern area of China.

Over-production not only wastes valuable natural resources and energy, it also affects the profitability of the whole manganese industry through accelerated and serious price wars.

I hope a reasonable market shall be established in Asia that reflects the overall conditions worldwide.

- 2) Promotion of efficiency (See Fig.9)

During the 1960 and 1970 decades, the Japanese ferroalloy industry accelerated grouping and consolidation in order to assure stable supply and also up-sized to improve efficiency.

After then, the Japanese ferroalloy industry built up its technology coping with such conditions as relatively high electricity and labor costs, and a lack of domestic natural resources through continued efforts at resource-saving, energy-saving and labor-saving.

While Chinese ferroalloy demand is increasing along with the rapid

expansion of crude steel production, we have learnt that structural adjustment of the Chinese ferroalloy industry is currently being carried out under the leadership of the Central Government focusing on 1) promotion of enlarging producers 2) disposal of small and outmoded facilities 3) suspension of new furnaces 4) promotion of environmental measures 5) promotion of technology. We do hope the effects will be seen as soon as possible.

I think it is essential for further development of the ferroalloy industry to promote sound competition among competitive producers that leads to further improved efficiency.

3) Environmental measures (See Fig.10)

Greater consideration of the global environment is an even more important theme. In addition to measures taken against air and water pollution, it will become a serious matter to reduce carbon dioxide emissions as a measure against global warming. Emission control of polluting chemical substances like manganese is also an important issue for the ferroalloy industry as the OECD has been encouraging the establishment of the PRTR (Pollutant Release and Transfer Register) system. Japan decided on the implementation of the PRTR in 1999.

In order for the manganese industry to develop as a clean industry, it is an urgent matter to promote measures such as the elimination of inefficient production facilities, the development and prevalence of energy-saving technology and the installment of environmental equipment.

It is my wish to further the development of the manganese industry.

Thanks for your kind attention.