

KAWASAKI STEEL TECHNICAL REPORT

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Tubarao Steel Works Project and Its construction

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Synopsis :

On the 30th of November, 1983, the inaugurating ceremony of Tubarao Steel Works was held with the honorable presence of the President of the Federative Republic of Brazil, and the newly-built steel works, with an annual production capacity of 3 000 000t of slabs and the largest blast furnace in North and South America, went into successful operation. This project has been carried out with the tripartite close cooperation of Brazil's SIDER- BRAS group, Italy's FINSIDER group and Japan's Kawasaki Steel group. Main equipment of the steelo works is as follows:

Coke oven : 49 ovens x 3 batteries Blast furnace : Inner volume of 4415m³ x 1 unit Steelmaking plant : 280t converter x 1 units Slabbing mill : Universal types rolling mill x 1 unit. This report describes the outlines of the progress of the project and the equipment and operational conditions of the works.

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this concept was that the making of semi-finished products would not only open the market for steel supply sources but also to reduce financial and technological burdens. The significance of Kawasaki Steel joining in the present project lies in the promotion of economic cooperation between Brazil and Japan in the long-term perspective, ensuring a new type of steel sources, and a new step in the company's international activities by

revision of basic concept and reconsideration of construction plan by participants from Brazil, Italy and Japan, a new fundamental strategy was established. At last, in March 1976, three stockholders agreed in putting the present project into execution. In June 1976, the pilot company was replaced by a new company—Companhia Siderurgica de Tubarão (CST). Lumbering work at the construction site was started in September 1976

effective utilization of technologies and manpower. Lumbering work in November and land preparation in April

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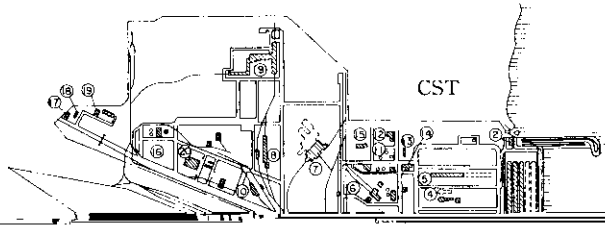
center of Espirit Santo State, with adequate levels of

Fresh water for industrial use is taken from Santa

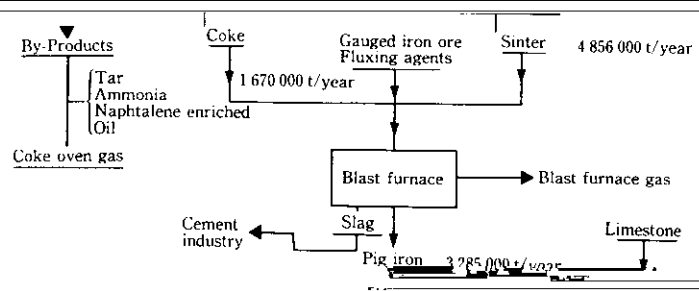
roads, railways, port facilities and so on.

Ample supply of high quality labor resources

supplied by Companhia Espirito Santense de Seneamento (CESAN) The planned water consumption in



1. Coal yard
2. Water system (SEA)
3. Ore yard
4. Sinter plant
5. Coke oven plant
6. Blast furnace plant



4.2.2 Coal yard and coke ovens

equipment in torpedo car through ATH process and a process computer for operation control and blowing

and 45 m wide. Coal carried from the port through belt conveyors is received by two stackers to be stored in the yard, and then delivered by two reclaimers, blended in blending bins to give uniform quality and sent to coke

quality and efficient production. For dust collection, a primary dust collector of BAUMCO type and a secondary dust collector of bag filter type are installed.

liar conditions (weather, environment, and so on) at the site, and selecting spare parts and consumables available in Brazil as much as possible.



5.3.1 Work control and erection supervision

The erection work was conducted by Brazilian constructor under the technical guidance by erection su-

erection work.

- (1) Strict control of manufacturing process to eliminate delay in delivery.
- (2) Taking adequate care in loading and transporting to

Table 5 Number of engineers for operation guidance



US\$3.1 billion dollars and its characteristics of multinational joint venture involving Japan, Brazil and Italy, it might be deemed only natural that the project came to see some unexpected hindrances, thus taking longer time than originally planned.

After all, however, the spirit of cooperation and dedi-

that Tubarão Steelworks was put into operation, but spurred by a sign of recovery in the world economy, there is something of a bright hope seen in the steel market. We would like to expect continuing satisfactory operations and the stable management of Tubarão Steel-

ation demonstrated by all parties to full extent from the The authors are sincerely grateful to those



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