

KAWASAKI STEEL TECHNICAL REPORT

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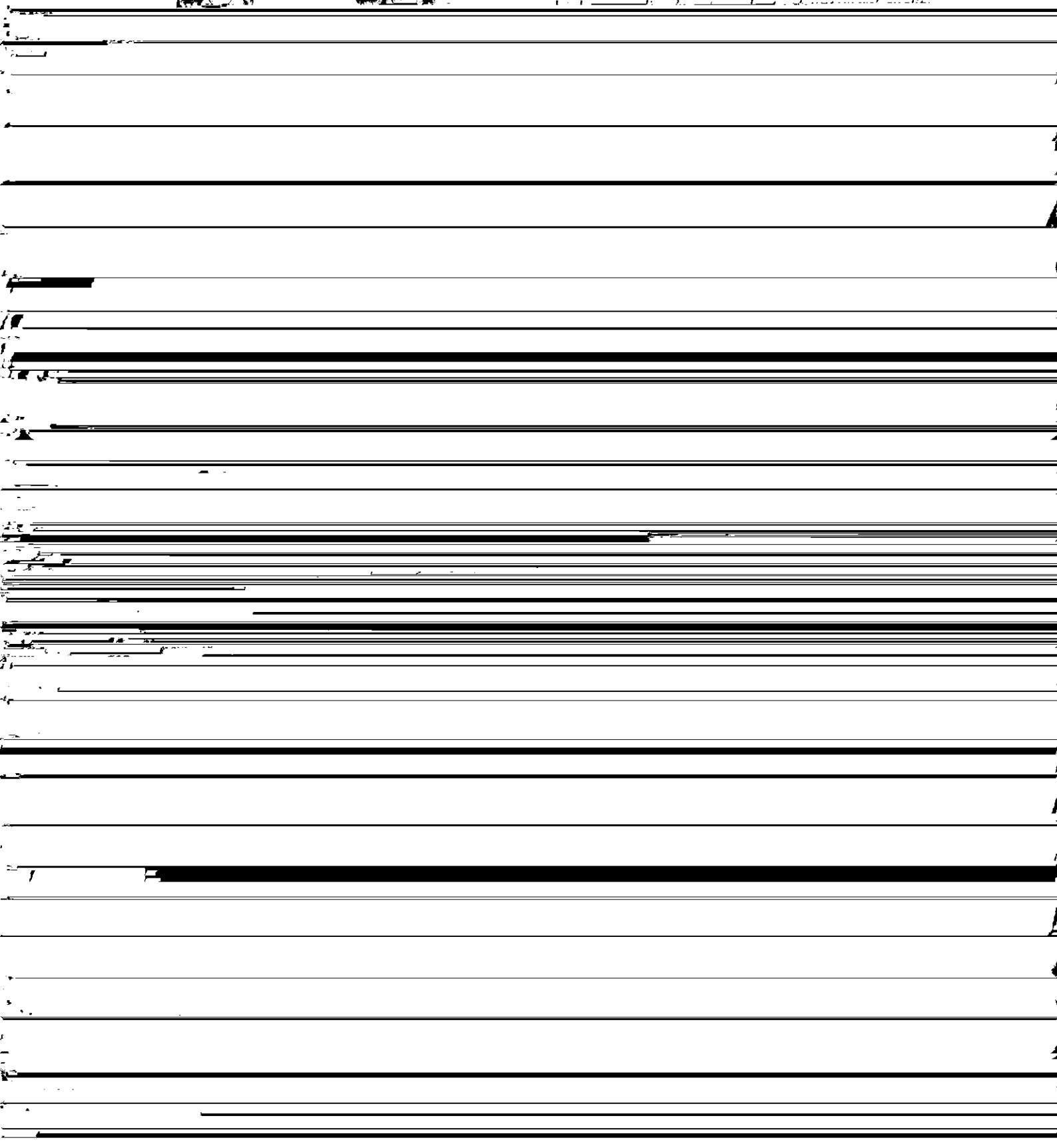
Special Issue on 'H-Shapes with

Quality Assurance System of Steel Pipe and Tubes at Kawasaki Steel Corporation*



Synopsis:

Summary of the quality assurance system of steel pipe



processes

(3) Quality assurance by inspection of products

shift from a production-oriented to a market-oriented philosophy in terms of quality, cost, and delivery.

niques necessary to achieve the required quality
(5) To audit the production and inspection processes for compliance with the program

3 System of Information Transmission from Inquiry to Product Shipment

set up as works-wide standards for each product type.

Customers naturally demand quality assurance from the standpoint of product reliability; material suppliers must meet this requirements as one of their basic responsibilities on a business-to-business basis. In recent years, the service

basis for all aspects of the quality assurance activity.

Computer-based information systems have been fully established by constructing a dedicated high-speed digital network between the head office and all the works and installing control systems (MIS) within each work.

and various information analysis functions. It thus is essential to the company's quality assurance system.

An outline of the computer system flow is given in Fig. 2.

3.1 Preliminary Study of Inquiry

3.1.1 Computer system for preliminary study

obtain an immediate and correct judgment on the possibility of producing products of the quality required by the customer, based on an examination of the customer's quality specifications

The computer judgment on producibility is made by checking the required specifications input from terminals against a standard data base which represents process capabilities and was incorporated on a great deal

appropriate station in the works. Customers' specifications finalized in accordance with agreed specifications or prepared for each order are added to orders by persons in charge of products as limited product specifica-

3.3 Operation Results and Actual Quality

3.3.1 Control of manufacturing, examination data, and process status

computer master table of customer's specifications, and the same information is automatically added to repeat orders. Quality characteristics and manufacturing specifications for which there are no special requirements are

a computer by input from various sensors or terminals installed at the production lines. If results differ from instructions, comments are made to that effect so that appropriate action to ensure that correct information

Manufacturing Spec.
(Quality Control Sec./Works)

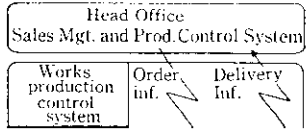
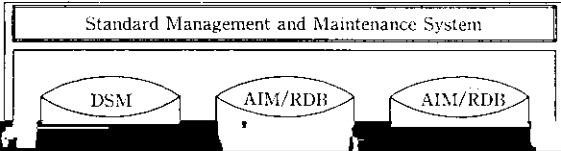


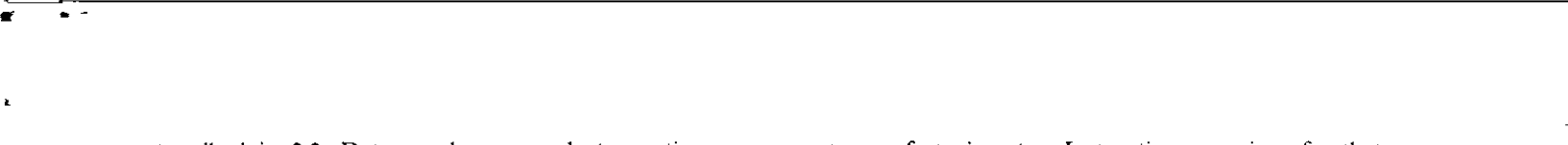
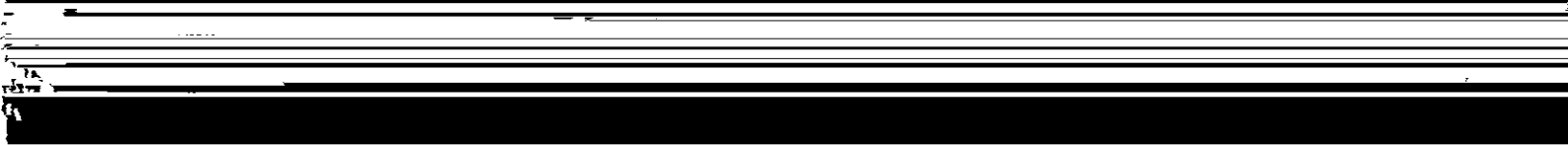
Standard Product Spec.
<A Spec.>
(Quality Control Sec./Works)



Processing Procedure
(Quality Control Sec./Works)

End User





2



Tracking begins when a plate number is input from a

In addition, employees are encouraged to participate

in technical and scientific programs outside the

in technical and scientific programs outside the

and techniques are improved by taking measures against nonconformance and correcting nonconforming conditions.

eliminated.

In CARAVAN, the use of mobile radio terminal equipment permits control of wire and tube material

... distribution to provide some of operations including

Quality data is keyed to manufacturing conditions (piece logging data) through instruction and specification information, and appropriate quality level control is conducted based on quality analysis information. The

main points discussed are:

- (1) System of information processing and transmission in all processes from order inquiry to product shipment

in subsequent products by means of in-line quality
apparatus, making it possible to build quality into the

manufacturing process

- (2) Education and training of employees