

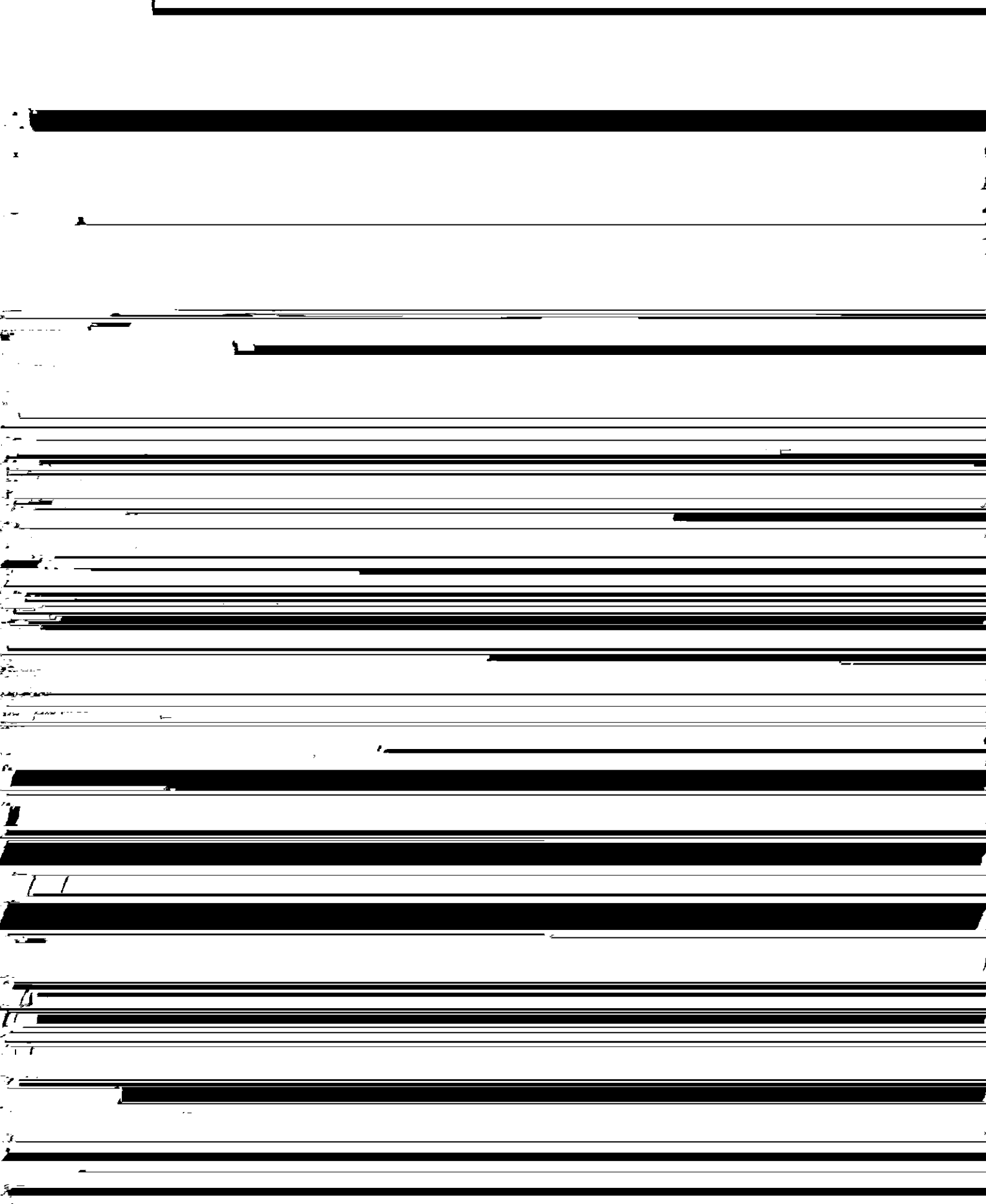
KAWASAKI STEEL TECHNICAL REPORT

No.15 (October 1986)

An Outline of New Block Mill and Its Operating Results

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An Outline of New Block Mill and Its Operating Results*



tinuous, no-twist-type layout. Consequently, the new "bar and wire-rod" mill has become a rolling mill unpre-

2.3 Equipment Layout

... ranging from 5 mm d. wire rods to 72 mm d. bars in ... and ...

3 Features of Major Facilities

3.1 Existing Bar Mill Line Facilities

sion control.

- (3) Manufacture of 2-t coils using a large cross-section billet is possible.

3.2 Black Mill and Tracking Facilities

When wire rods are rolled

To form a wire rod and bar combined type mill using

(6) To support high-speed controlled rolling sensors are

3.3 Winding and Adjust-Cooling Facilities

used to detect roll-neck metal temperature and load, thereby achieving adequate monitoring.

Since the block mill is also located 0.4 m from the

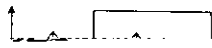
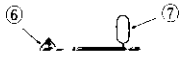
3.3.1 Winding facilities

It is an essential part of the rolling process.

existing final rolling equipment, careful consideration is given to the following points regarding tracking facilities:

failure of realizing high-speed rolling is determined by winding facilities, and the maximum rolling speed of all wire rod mills in operation is governed without excess

(2) The new conveyor line incorporates finishing



are described below.

(1) The first of the two cases is

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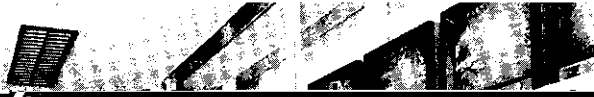
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3.6.4 Main equipment drive system

The entire facility was designed with main aims of

- (1) Impact drop compensation control
- (2) Programmed control

- (3) Tension control
- (4) Tail end speed pattern control
- (5) Programmed control

C.D. Shear

Side looper

NT Mill

4-zones spray box

Pinch

roll

Laying head

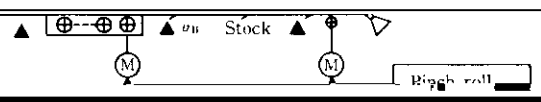
(6) Tail end speed pattern control

Rod tension

Pinch
roll

Laying
head

control modes have achieved originally intended func-



demands will become stricter in the future, and the diverse functions and high performance of this control

4.1 Problems during Setting-up Period

In the initial period of operation of the new block mill, problems due to high-speed rolling, an unknown at the time, were experienced together with the usual break-in period problems of new facilities. In the following prob

