A TRIP THROUGH THE TIMKEN STEEL EXHIBIT

in the

CHRYSLER BUILDING at the

CENTURY OF PROGRESS

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ACTUAL WORKING MODEL IN MINIATURE OF THE WORLD'S LARGEST ELECTRIC STEEL MILL
THE TIMKEN STEEL & TUBE COMPANY

In the alloy steel and tube industry, Timken has consistently been a leader in applying new methods and creating improved alloys...

It was Timken who pioneered in the control of grain size...

It was Timken who brought the use of nickel molybdenum steels to the highest plane of development they have ever attained...

And it was Timken who established such accurate control in the manufacture of steel tubing—including the making of the steel itself—that Timken has long been the world’s largest manufacturer of alloy steel tubes.

Timken steel owes its origin to the fact that seventeen years ago The Timken Roller Bearing Company adopted a policy of assuming complete control over the quality of the materials used in Timken Bearings.

The bearings achieved such a reputation for endurance that the steel itself achieved a similar reputation; and a large increased demand for it rapidly developed from manufacturers of other types of high-grade automotive parts and products.

As a result, the steel mills have been continually enlarged and The Timken Steel & Tube Company has become one of the largest manufacturers of high grade alloy steel and tubing, and the world’s largest manufacturer of electric furnace alloy steels.

An actual working model of the Timken steel plant, in miniature, is included in the Chrysler Motors Exhibit. Photographs of the equipment in the actual mill are shown on the following pages.
Tapping one of the modern electric furnaces in the plant of The Timken Steel & Tube Company. The furnace illustrated has a capacity of 250,000 pounds per charge, the largest in the world. Other furnaces in the Timken Mills range upwards from 6 tons. The working model in the "Century of Progress" Exhibit is a miniature of one of Timken's 30-ton electrics.

Tapping one of the open hearth furnaces in the Timken Steel Plant. Timken's enviable quality reputation as a maker of electric furnace steels sometimes over-shadowed its open hearth equipment, but this is as complete and modern as Timken electric furnace facilities.
Casting ingots of Timken Alloy Steel in Gathmann-type fluted ingot moulds, hot topped. This is an extra precaution taken by Timken to assure high and uniform quality. The miniature ingots poured in the exhibit in the Chrysler Building are of the same shape, but the actual ingots weigh 5,000 pounds.

Removing ingots from soaking pits for rolling into blooms and billets on the 35-inch mill. "Soaking" is in reality a process of heating at exactly the correct temperature for efficient rolling. A model soaking pit is included in the Timken Steel Exhibit.
The ingots after being heated in the soaking pits are rolled into blooms on this 35-inch blooming mill, a model of which is included in the Steel Exhibit in the Chrysler Building.

The blooms from the 35-inch mill, after being reheated, are delivered to this two-stand, three-high 28-inch mill having two tilting transfer tables. Here they are reduced still further in size by several "passes" through the mill.
Products of
The Timken Steel & Tube Co.

ELECTRIC FURNACE AND
OPEN HEARTH ALLOY STEELS
Special Carburizing Steels
General Purpose Alloy Steels
Special Analysis Steels

SEAMLESS TUBES
Carbon Alloy and Stainless for
All Purposes
Mechanical Tubes
Cracking Still Tubes
Alloy Boiler Tubes
Condenser Tubes

The working model in the "Century of Progress" Exhibit is an actual replica, in
every detail, of one of the piercing mills at The Timken Steel & Tube Company. "Piercing" means changing a round solid piece of
steel into a hollow tube.
This actual working model of the world’s largest electric steel mill in miniature is included in The Timken Steel & Tube Company Exhibit in the Chrysler Building. The miniature electric furnace melts and pours ingots, which are rolled into bars and rounds on the working models of rolling mills and finally pierced into small tubing on the miniature piercing mill.