

UNITED STATES DEPARTMENT OF COMMERCE
WASHINGTON

National Bureau of Standards
Certificate of Analyses

Spectrographic Boron Steel Standards
Standard Samples
425 to 430 and 825 to 830

No.		Name	Total Boron
			<i>Percent</i>
425	825	Mn-Ni-Cr (N. E. 9450).....	0.0006
426	826	Cr-Mo (SAE 4150).....	.0011
427	827	Cr-Mo (SAE 4150).....	.0027
428	828	Mn-Cr.....	.0059
429	829	Ni-Cr-B.....	.0091
430	830	Ni-Cr-B.....	.019

SIZES. Standards in the 400 series are rods $\frac{7}{32}$ inch in diameter, 4 inches long, and standards in the 800 series are rods $\frac{1}{2}$ inch in diameter, 2 inches long. The carbon contents of the six steels lie between 0.4 and 0.7 percent.

APPLICATION. Procedures for employing these standards in the determination of boron in steel are described in the NBS Research Paper RP1705, J. Research NBS 36, 351 (1946).

ANALYSTS. The certified values represent chemical determinations made by K. D. Fleischer of the National Bureau of Standards. Spectrographic tests for identification of rods and for homogeneity were made by C. H. Corliss of the National Bureau of Standards.

The steel rods for these standards were prepared by the Bethlehem Steel Co., Bethlehem, Pa.

WASHINGTON 25, D. C., August 2, 1951.

A. V. ASTIN, *Acting Director.*