Superheated steam in locomotive service

Goss W F
SUPERHEATED STEAM IN LOCOMOTIVE SERVICE

BY

WILLIAM F. M. GOSS
Dean of the College of Engineering, University of Illinois

WASHINGTON, D.C.
Published by the Carnegie Institution of Washington
1910
Superheated Steam in Locomotive Service

BY

William F. M. Goss
Dean of the College of Engineering, University of Illinois
CONTENTS.

Introduction—A Summary of Conclusions ........................................ 1
I. Foreign Practice in the use of Superheated Steam in Locomotive Service ... 5
II. American Attitude Toward the Use of Superheated Steam in Locomotive Service ................................................................. 23
III. Tests to Determine the Value of Superheating in Locomotive Service .... 25
IV. Performance of Boiler and Superheater ......................................... 31
V. Performance of the Engine and of the Locomotive as a Whole ............ 55
VI. Locomotive Efficiency as Affected by its Running Schedule: an Account of a Series of Intermittent Tests .................................... 65
VII. Economy Resulting from the Use of Superheated Steam ................. 75
APPENDIX  I. The Locomotive Experimented Upon .................................. 87
II. Tests Under Constant Conditions, Methods and Data ..................... 95
III. Test Under Intermittent Conditions of Running, Methods and Data .... 129
IV. An Exhibit of Typical Indicator-Cards ....................................... 139