

WAR DEPARTMENT TECHNICAL MANUAL
TM 55 - 270

This manual supersedes TB 55-270-1, 27 July 1944; TB 55-270-2, 8 August 1944; TB 55-270-3, 24 August 1944; and TB 55-270-4, 23 August 1944.

OPERATION OF RAILROADS
GENERAL INSTRUCTIONS
FOR THE INSPECTION AND
MAINTENANCE OF LOCOMOTIVES
AND LOCOMOTIVE CRANES



WAR DEPARTMENT

APRIL 1945

United States Government Printing Office

Washington : 1945

CONTENTS

	<i>Paragraphs</i>	<i>Page</i>
CHAPTER 1. GENERAL INSTRUCTIONS	1-6	1
CHAPTER 2. ECHELONS OF MAINTENANCE	7-12	3
CHAPTER 3. WATER TREATMENT	13	5
CHAPTER 4. REGULATIONS GOVERNING INSPECTION AND TESTING OF STEAM LOCOMOTIVES.		
<i>Section I.</i> Boilers and their appurtenances	14-25	6
<i>II.</i> Brake equipment	26-35	9
<i>III.</i> Cabs, warning signals, and sanders	36-40	11
<i>IV.</i> Drawgear, draft gear, driving gear, and running gear	41-43	11
<i>V.</i> Wheels	44-48	13
<i>VI.</i> Lights	49-52	15
<i>VII.</i> Throttle and reversing gear; ash pans	53-55	16
<i>VIII.</i> Tenders	56-59	16
<i>IX.</i> Reports	60-61	16
CHAPTER 5. INSPECTION AND MAINTENANCE OF STEAM LOCOMOTIVES.		
<i>Section I.</i> Basic principles	62-63	17
<i>II.</i> Firing locomotives	64-65	18
<i>III.</i> Feedwater control and boiler maintenance	66-67	20
<i>IV.</i> Machinery maintenance, lubrication, and inspection	68-72	22
<i>V.</i> Locomotives out of service	73-76	25
CHAPTER 6. REGULATIONS GOVERNING INSPECTION AND TESTING OF LOCOMOTIVES, OTHER THAN STEAM.		
<i>Section I.</i> Brake equipment	77-84	28
<i>II.</i> Drawgear and running gear	85-86	29
<i>III.</i> Wheels	87-89	32
<i>IV.</i> Cabs, lights, whistles, bells, sanders, and signals	90-92	33
<i>V.</i> Electrical equipment	93-108	34
<i>VI.</i> Internal combustion equipment	109-114	36
<i>VII.</i> Boilers	115-142	37
<i>VIII.</i> Reports	143-144	41
CHAPTER 7. DIESEL-ELECTRIC LOCOMOTIVES.		
<i>Section I.</i> General	145-146	49
<i>II.</i> Operation of locomotive	147-168	50
<i>III.</i> Maintenance of locomotive	169-177	54
<i>IV.</i> Inspection of locomotive	178-183	57
<i>V.</i> Locomotives out of service	184-187	58
CHAPTER 8. LOCOMOTIVE CRANES, DERRICKS, AND PILE DRIVERS	188-193	60

	<i>Paragraphs</i>	<i>Page</i>
CHAPTER 9. GASOLINE-MECHANICAL LOCOMOTIVES	194-200	65
CHAPTER 10. OPERATION AND MAINTENANCE OF AUTO- RAILERS	201-203	68
CHAPTER 11. SURFACE MAINTENANCE	204	70
CHAPTER 12. OPERATING AND INSPECTION REPORT FORMS	205-226	71
APPENDIX I. VACUUM BRAKE AND COMBINED VACUUM AND AIR BRAKE EQUIPMENT FOR LOCOMOTIVES		101
APPENDIX II. CONDEMNING LIMITS FOR MOTOR-DRIVEN AIR COMPRESSORS		103
APPENDIX III. NUMERICAL INDEX OF REGULATIONS GOVERNING INSPECTION AND TESTING OF STEAM LOCOMOTIVES (CH. 4)		112
APPENDIX IV. NUMERICAL INDEX OF REGULATIONS GOVERNING INSPECTION AND TESTING OF OTHER THAN STEAM LOCOMOTIVES (CH. 6)		114
INDEX		117