

This copy is a reprint which includes
current pages from Change 1.

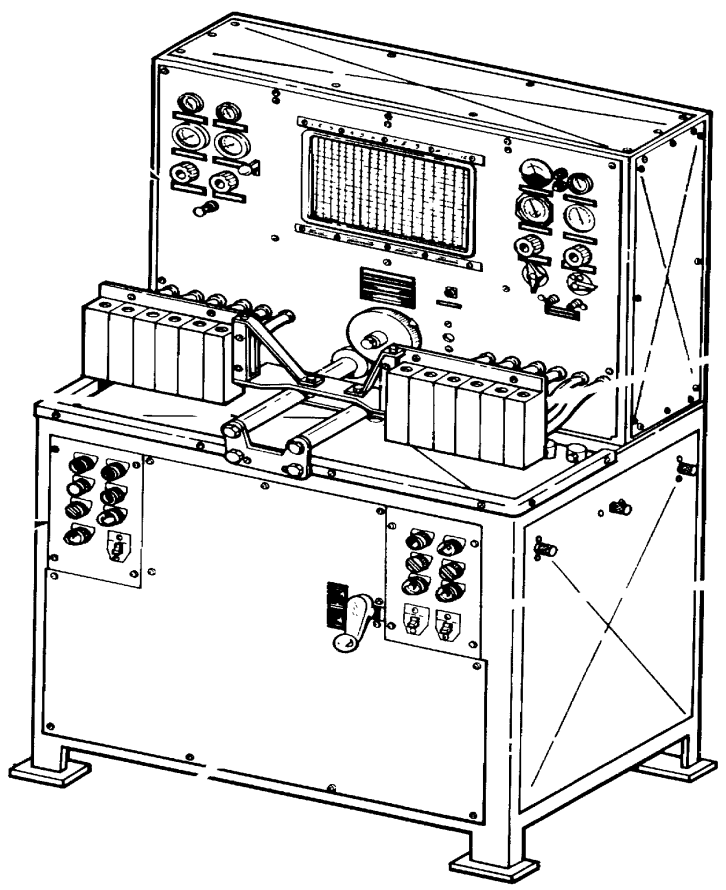
TM 9-4910-387-14-1

TECHNICAL MANUAL

OPERATOR, ORGANIZATIONAL, DIRECT SUPPORT,
AND GENERAL SUPPORT MAINTENANCE MANUAL, VOLUME I
FOR
TESTER, FUEL INJECTOR PUMP:
SINGLE END DRIVE, 150 TO 3600 RPM
(4910-01-037-9417)
AND
ADAPTER KITS, FUEL INJECTOR:
AMERICAN BOSCH APE-6BB (4910-01-005-2850),
AMERICAN BOSCH PSB-6A AND PSB-12BT (4910-01-005-2851),
AMERICAN BOSCH PSB-12BT (4910-01-005-2852),
SIMMONDS SU (4910-01-005-2853),
INTERNATIONAL HARVESTER 3200 (4910-01-006-3073),
AMERICAN BOSCH PSJ-6A (4910-01-006-3072),
CATERPILLAR (4910-01-005-2854),
ROOSA MASTER (4910-01-005-2855),
AND
CUMMINS (4910-00-763-7495)

HEADQUARTERS, DEPARTMENT OF THE ARMY

MAY 1982



PMCS- OPERATOR	ADAPTER KITS HOOK UP INSTRUCTIONS	LUBRICATION INSTRUCTION	TROUBLE- SHOOTING- OPERATOR	MAINTENANCE PROCEDURES- OPERATOR	PCMS- ORGANIZATIONAL	TROUBLE- SHOOTING- ORGANIZATIONAL	MAINTENANCE PROCEDURES ORGANIZATIONAL
2-8	2-26	3-3	3-10	3-20	4-9	4-15	4-24

Operator, Organizational, Direct Support, and
General Support Maintenance Manual
FOR
TESTER, FUEL INJECTOR PUMP:
SINGLE END DRIVE, 150 TO 3600 RPM (4910-01-037-9417)
AND
ADAPTER KITS, FUEL INJECTOR:
AMERICAN BOSCH APE-6BB (4910-01-005-2850), AMERICAN BOSCH PSB-6A AND PSB-6 (4910-01-005-2851).
■ AMERICAN BOSCH PSB-12BT (OLD STYLE AND NEW STYLE) (4910-01-005-2852), SIMMONDS SU (4910-01-0052853),
INTERNATIONAL HARVESTER 3200 (4910-01-006-3073), AMERICAN BOSCH PSJ-6A (4910-01-006-3072),
CATERPILLAR (4910-01-005-2854), ROOSA MASTER (4910-01-005-2855),
AND
CUMMINS (4910-00-763-7495)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2, located in the back of this manual, direct to: Commander, US Army Armament, Munitions and Chemical Command, ATTN: DRSMC-MAS, Rock Island, IL 61299. A reply will be furnished to you.

NOTE

Chapter 6, all appendixes, and the complete alphabetical index are contained in Volume II.

		Page
	HOW TO USE THIS MANUAL	iv
CHAPTER	1. INTRODUCTION, VOL I	
Section	I. General Information.....	1-1
	II. Equipment Description and Data.....	1-6

*This manual, together with TM 94910-387-14-2, 13 August 1982, and TM 94910-387-24P, 5 November 1982 supersedes TM 9-4910-387-14&P, 5 December 1974; TM 94910-387-12, 25 May 1962; and TM 94910-387-20P, 20 February 1962.

			Page
CHAPTER	2.	OPERATING INSTRUCTIONS, VOL I	
Section	I.	Description and Use of Operator's Controls and Indicators.....	2-1
	II.	Preventive Maintenance Checks and Services (PMCS).....	2-8
	III.	Operation Under Usual Conditions	2-18
CHAPTER	3.	OPERATOR MAINTENANCE INSTRUCTIONS, VOL I	
Section	I.	Lubrication Instructions.....	3-2
	II.	Troubleshooting.....	3-10
	III.	Maintenance Procedures	3-20
CHAPTER	4.	ORGANIZATIONAL MAINTENANCE INSTRUCTIONS, VOL I	
Section	I.	Repair Parts, Special Tools, TMDE, and Support Equipment.....	4-2
	II.	Service Upon Receipt.....	4-2
	III.	Preventive Maintenance Checks and Services (PMCS).....	4-9
	IV.	Troubleshooting.....	4-15
	V.	Maintenance Procedures	4-24
CHAPTER	5.	DIRECT SUPPORT MAINTENANCE INSTRUCTIONS, VOL I	5-1
		**ALPHABETICAL INDEX, VOL I	Index 1
	6.	GENERAL SUPPORT MAINTENANCE INSTRUCTIONS, VOL II	
Section	I.	Troubleshooting.....	6-2
	II.	Maintenance Procedures	6-160
APPENDIX	A.	REFERENCES, VOL II.....	A-1

APPENDIX	B.	MAINTENANCE ALLOCATION CHART, VOL II	
Section	I.	Introduction.....	B-1
	II.	Maintenance Allocation Chart for Tester	B-4
	III.	Tool and Test Equipment Requirements for Tester	B-12
APPENDIX	C.	EXPENDABLE SUPPLIES AND MATERIALS LIST, VOL II	
Section	I.	Introduction.....	C-1
	II.	Expendable Supplies and Materials List.....	C-2
APPENDIX	D.	ILLUSTRATED LIST OF MANUFACTURED ITEMS, VOL II	D-1
		***ALPHABETICAL INDEX,VOL II	Index 1

**This index contains entries for Volume I only.
***This index contains combined entries for Volumes I and II.

HOW TO USE THIS MANUAL

GENERAL

In order to use this manual efficiently, there are several things to know.

- a. The manual consists of two volumes. Volume contains chapters 1 through 5. Volume II contains chapter 6 and the appendixes. The Repair Parts and Special Tools List is a separate publication, TM 9-4910-387-24P.
- b. Read the entire maintenance procedure before beginning the maintenance task.
- c. References in the manual are to pages or to other publications.

INDEXES

This manual has several useful indexes to help the user quickly find the information needed:

- a. **Front Cover Indexes.** Are tabbed indexes of key sections, paragraphs, or appendixes. Keyed to tabbed pages in the manual.
- b. **Table of Contents.** Volume I lists in order all chapters, sections, appendixes, and alphabetical indexes contained in both volumes. Volume II lists chapter 6, sections, appendixes, and alphabetical index contained in that volume. Gives page references.
- c. **Official Nomenclature, Names, and Designations.**
 - (1) Nomenclature Cross-Reference List. Gives an alphabetical list of common names and official nomenclature used in the manual.

- (2) **List of Abbreviations.** Is an alphabetical list of uncommon abbreviations used in the manual.
- d. **Chapter Indexes.** At the beginning of each chapter. Lists paragraphs in alphabetical order. Reference pages.
- e. **Section Indexes.** At the beginning of maintenance procedures in chapters 3, 4, and 6. List paragraphs in alphabetical order. Reference pages.
- f. **Alphabetical Indexes.** Located at the end of each volume. An extensive subject index for everything in both volumes is found in volume II. Volume I contains an extensive subject index for everything in that volume. Give page references.

MAINTENANCE PROCEDURES

- Maintenance procedures found in chapters 4 and 6 are in two parts--summary procedures and detailed procedures. Procedures are in disassembly sequence as authorized in the maintenance allocation chart, appendix B.
- a. **Summary Procedure.** Made up of two parts-initial setup and list of tasks. Used only when doing more than one task on a particular component. (For maintenance of an individual assembly, use the detailed procedure immediately following each summary procedure.)
- (1) **Initial Setup.** Is a list of everything needed in order to do the maintenance task:
 - Tools and Special Tools--Lists tools required for the maintenance procedure.

Materials/Parts--Lists expendable materials and 100% replaceable parts. Each material or part is followed by a part number or appendix reference. If more than one part is needed, the quantity needed precedes the part number or reference.

References--Lists other publications or other detailed procedures in this manual containing necessary information.

Troubleshooting References--Lists malfunctions which can be corrected by following the maintenance procedure.

Equipment Conditions--Lists conditions to be met before starting the procedure.

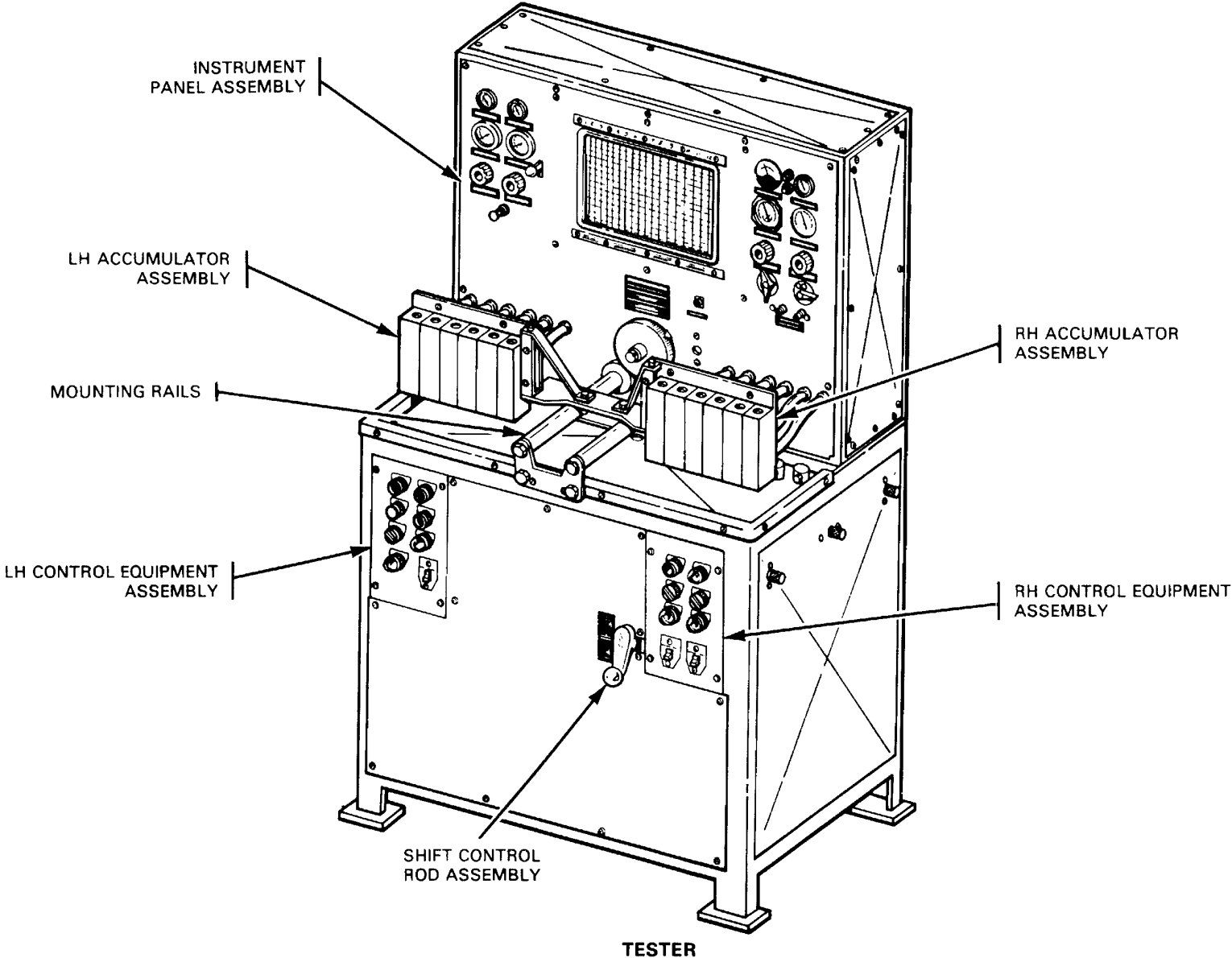
(2) List of Tasks. Summarizes in outline form the major tasks involved in the procedure. Gives page references to troubleshooting table and detailed procedures.

b. Detailed Procedures. Immediately follow each summary procedure. Also contain an initial setup plus step-by-step procedures.

(1) Initial Setup. Gives a list of everything needed in order to do maintenance on one assembly of the tester.

See explanation of initial setup above.

(2) Step-By-Step Procedures. Are illustrated procedures for maintenance authorized in the maintenance allocation chart, appendix B.



CHAPTER 1
INTRODUCTION

CHAPTER INDEX

	Page		Page
Destruction of Army Materiel to Prevent Enemy Use.....	1-1	Location and Description of Major Components.....	1-7
Differences between Models	1-13	Maintenance Forms, Records, and Reports	1-1
Equipment Characteristics, Capabilities, and Features	1-6	Official Nomenclature, Names, and Designations.....	1-3
Equipment Data	1-13	Reporting Equipment Improvement Recommendations (EIR).....	1-5
Hand Receipt	1-5	Scope.....	1-1

Section I. GENERAL INFORMATION

1-1. SCOPE

- a. **Type of Manual:** Operator, organizational, direct support, and general support maintenance.
- b. **Model Number and Equipment Name:** Tester, fuel injector pump (4910-01-037-9417).
- c. **Purpose of Equipment:** To simulate engine operating conditions for the complete pretesting, adjusting, and troubleshooting of diesel, multi-fuel, and gasoline fuel injector pumps.

1-2. MAINTENANCE FORMS, RECORDS, AND REPORTS

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by TM 38-750, The Army Maintenance Management System (TAMMS).

1-3. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE

- a. The tester, if subject to capture or abandonment in the combat zone, will be destroyed only when, in the judgment of the unit commander, such action is necessary in accordance with orders or policy of the Army Commander. When in the hands of Army maintenance personnel or in storage, destruction will be in accordance with FM 9-6 and the information below when applicable.
- b. The information which follows is for guidance only. Certain procedures require the use of explosives and incendiary grenades which may not be authorized items for the using organization. The issue of these and related materials and the conditions under which the tester will be destroyed are command decisions according to the tactical situation. Destruction of essential parts followed by burning will usually be enough to make the materiel useless.