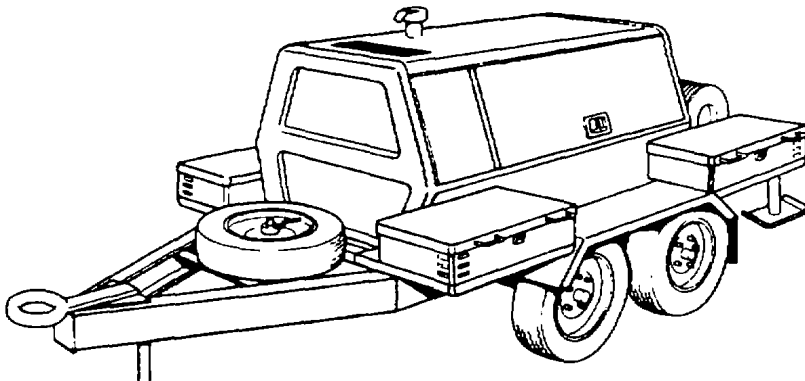


TECHNICAL MANUAL
OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT,
AND GENERAL SUPPORT MAINTENANCE MANUAL
FOR
COMPRESSOR, ROTARY, AIR, DED, 250 CFM,
100 PSI TRAILER-MOUNTED
NSN 4310-01-158-3262
COMPONENT OF PNEUMATIC TOOL
AND
COMPRESSOR OUTFIT
NSN 3820-01-195-4167
INGERSOLL-RAND MODEL NUMBER P-250-WDM-H268



Operating Instructions	2-1
------------------------	-----

Operator PMCS	2-6
---------------	-----

Operator Troubleshooting	3-1
--------------------------	-----

Operator Maintenance Procedures	3-6
---------------------------------	-----

Organizational PMCS	4-3
---------------------	-----

Organizational Troubleshooting	4-9
--------------------------------	-----

DS/GS Maintenance	5-1
-------------------	-----

DS/GS Troubleshooting	5-2
-----------------------	-----

Appendices	A-1
------------	-----

This manual and Army TM 5-4310-452-24P/Marine Corps TM 08917A-24P supersede Army TM 5-4310-452-14&P/Marine Corps TM 08917A-14&P, dated 15 July 1987.
Approved for public release; distribution is unlimited.

HEADQUARTERS, DEPARTMENT OF THE ARMY DECEMBER 1990

TECHNICAL MANUAL

TM 5-4310-452-14

TM 08917A-14

HEADQUARTERS

DEPARTMENT OF THE ARMY

Washington D. C., 27 December 1990

**OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT,
AND GENERAL SUPPORT MAINTENANCE MANUAL
FOR
COMPRESSOR, ROTARY, AIR, DED, 250 CFM,
100 PSI TRAILER-MOUNTED
NSN 4310-01-158-3262
COMPONENT OF PNEUMATIC TOOL
AND
COMPRESSOR OUTFIT
NSN 3820-01-195-4167
INGERSOLL-RAND MODEL NUMBER P-250-W-D-M-H268**

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, U.S. Army Tank-Automotive Command, ATTN: AMSTA-MB, Warren, MI 48397-5000. (Marine Corps) Submit NAVMC 10772 to the Commanding General, Marine Corps Logistics Base (Code 850), Albany, GA 31704. A reply will be furnished to you.

Approved for public release; distribution is unlimited.

TABLE OF CONTENTS

	Page
How To Use This Manual	v
CHAPTER 1 INTRODUCTION	
Section I. General Information	1-1
Section II. Equipment Description	1-3
Section III. Technical Principles of Operation	1-11
CHAPTER 2 OPERATING INSTRUCTIONS	
Section I. Description and Use of Operator's Controls and Indicators	2-1

*This manual and Army TM 5-4310-452-24P/Marine Corps TM 08917A-24P supersede Army TM 5-4310-452-14&P/TM 08917A-14&P, dated July 1987.

TABLE OF CONTENTS (Con't)

	Page
Section II. Operator/Crew Preventive Maintenance Checks and Services (PMCS)	2-6
Section III. Operation Under Usual Conditions	2-15
Section IV. Operation Under Unusual Conditions	2-26
CHAPTER 3 OPERATOR MAINTENANCE	
Section I. Lubrication Instructions	3-1
Section II. Operator Troubleshooting	3-1
Section III. Operator Maintenance Procedures	3-6
CHAPTER 4 ORGANIZATIONAL MAINTENANCE	
Section I. Service Upon Receipt	4-1
Section II. Organizational Preventive Maintenance Checks and Services (PMCS)	4-3
Section III. Organizational Troubleshooting	4-9
Section IV. Engine Component Maintenance	4-19
Section V. Engine Lubrication System Maintenance	4-29
Section VI. Engine Fuel System Maintenance	4-37
Section VII. Exhaust System Maintenance	4-55
Section VIII. Cooling System Maintenance	4-59
Section IX. Electrical System Maintenance	4-71
Section X. Brake System Maintenance	4-123
Section XI. Wheels and Hubs Maintenance	4-145
Section XII. Frame and Towing Assembly Maintenance	4-147
Section XIII. Suspension Maintenance	4-153
Section XIV. Body Maintenance	4-155
Section XV. Compressor Maintenance	4-165
Section XVI. Preparation for Storage and Shipment	4-215
CHAPTER 5 Direct Support and General Support Maintenance	
Section I. Troubleshooting Procedures	5-1
Section II. Engine Maintenance	5-5
Section III. Fuel System Maintenance	5-41
Section IV. Electrical System Maintenance	5-47
Section V. Axle Assembly Maintenance	5-52
Section VI. Frame and Towing Assembly Maintenance	5-54
Section VII. Suspension Maintenance	5-56
Section VIII. Body Maintenance	5-59
Section IX. Air Compressor Assembly Maintenance	5-83

TABLE OF CONTENTS (Con't)

	Page
APPENDIX A References	A-1
APPENDIX B Maintenance Allocation Chart (MAC)	B-1
APPENDIX C Components Of End Item And Basic Issue Items Lists	C-1
APPENDIX D Additional Authorization List	D-1
APPENDIX E EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST	E-1
APPENDIX F Torque Limits	F-1
APPENDIX G Illustrated List Of Manufactured Items	G-1
INDEX	Index 1

iii/(iv Blank)

HOW TO USE THIS MANUAL

This manual is designed to help maintain the 250 CFM Trailer-Mounted Compressor Unit. This manual describes in detail the Operator's, Organizational, Direct Support, and General Support Maintenance prescribed by the Maintenance Allocation Chart (Appendix B) and Source, Maintenance, and Recoverability (SMR) Codes (TM 5-4310-452-24P).

FEATURES OF THIS MANUAL:

- Bleed-to-edge indicators on the cover and on the edge of the applicable manual pages provide quick access to chapters and sections most often used.
- A table of contents is provided for all chapters, sections, and appendices.
- **WARNINGS, CAUTIONS, NOTES**, subject headings, and other important information is highlighted in bold print as a visual aid.
- Statements and words of particular importance are printed in capital letters to create emphasis.
- Instructions are located together with figures that illustrate the specific task on which the maintainer is working. In many cases, the task steps and illustrations are located side-by-side, making identification and procedure sequence easier to follow.
- An alphabetical index is provided at the end of the manual to assist in locating information not readily found in the table of contents.
- Technical instructions include metric in addition to standard units. A metric conversion chart is provided on the inside back cover.

FOLLOW THESE GUIDELINES WHEN YOU USE THE MANUAL:

- Read through this manual and become familiar with its contents before proceeding to specific maintenance tasks.
- A warning summary is provided at the beginning of this manual and should be read before performing any maintenance tasks.
- In the actual maintenance tasks, follow all **WARNINGS, CAUTIONS, and NOTES**. These are given immediately preceding the procedural steps to which they apply. If these instructions are not followed or care is not taken, injury to personnel or equipment damage may result.
- With a chapter, section, or paragraph, headings are used to help group the material and assist in quickly finding tasks. Read all preliminary information found at the beginning of each task. After completing a task, **ALWAYS** perform the follow-on maintenance at the end of the task.

v/(vi Blank)

CHAPTER 1 INTRODUCTION

Section I. GENERAL INFORMATION

Paragraph Number	Title	Page Number
1-1	Scope	1-1
1-2	Maintenance Forms, Records, and Reports	1-1
1-3	Destruction of Army Material Prevent Enemy Use	1-1
1-4	Preparation for Storage or Shipment	1-1
1-5	Reporting Equipment Improvement Recommendations (EIRs)	1-1
1-6	Warranty Information	1-1
1-7	Tools and Repair Parts	1-2

1-1. SCOPE.

This manual describes the operation, troubleshooting, and maintenance of the 250 CFM Trailer-Mounted Compressor Unit for crew, organizational, direct support, and general support mechanics.

1-2. MAINTENANCE FORMS, RECORDS, AND REPORTS.

Maintenance forms, records, and reports which are to be used by maintenance personnel at all maintenance levels are listed in and prescribed by DA Pam 738-750, The Army Maintenance Management System (TAMMS).

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

For destruction of Army materiel to prevent enemy use, refer to TM 750-244-6, Procedures for the Destruction of Tank-Automotive Equipment to Prevent Enemy Use.

1-4. PREPARATION FOR STORAGE OR SHIPMENT.

For information on preparing the 250 CFM Trailer-Mounted Compressor Unit for storage or shipment, refer to Chapter 4, Section XVI.

1-5. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIRs).

If your compressor unit needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance, Put it on an SF 368 (Quality Deficiency Report). Mail it to us at: Commander, U.S. Army Tank-Automotive Command, ATTN: AMSTA-MP, Warren, MI 48397-5000. We'll send you a reply.

1-6. WARRANTY INFORMATION.

The compressor unit is warranted by Ingersoll-Rand for 15 months or 1500 hours, whichever comes first. Warranty begins on the date shown in Block 23 of DA Form 2408-9 (Equipment Control Record). Report all defects in materiel or workmanship to your supervisor, who will take appropriate action through your unit maintenance shop.