

TECHNICAL MANUAL
OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT
AND GENERAL SUPPORT MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST

FOR

TRUCK, FIREFIGHTING DRY CHEMICAL AFF
NSN 4210-00-484-5729

VOLUME III

HEADQUARTERS, DEPARTMENT OF THE ARMY

14 APRIL 1986

TECHNICAL MANUAL
No. 5-4210-222-14&P-3

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 14 April 1986

Operator's, Organizational, Direct Support,
and General Support Maintenance Manual
(Including Repair Parts and Special Tools List)

for

TRUCK, FIREFIGHTING, DRY CHEMICAL AFFF
NSN 4210-00-484-5729

This manual consists of 3 volumes.

Each volume has its own table of contents. The index found in Volume I pertains only to Volume I.

VOLUME I is the Illustrated Parts Breakdown for the entire truck.

VOLUME II contains the Operation, Maintenance, and Repair Manual for:
ENGINE, TRANSMISSION, CHASSIS, CAB and RELATED ITEMS

VOLUME III contains the Operation, Maintenance and Repair Manual for:
TWIN AGENT UNIT, INVERTER, HYDRAULIC RESCUE TOOL (Jaws of Life),
POWER UNIT, RESCUE SAW 10 TON HYDRAULIC RESCUE KIT,
ELECTRONIC SIREN

NOTE: Throughout these manuals, information has been deleted which is not pertinent.

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistake 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 directly to: Commander, U.S. Army Troop Support Command, ATTN: AMSTR-MCTS, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798. A reply will be furnished directly to you.

REPORTING EQUIPMENT IMPROVEMENT RECOMIENDATIONS (EIR)

If your fire truck 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. Put it on an SF 368 (Quality Deficiency Report). Mail it to us at Commander, U.S. Army Troop Support Command, ATTN: AMSTR-QX, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798. A reply will be furnished to you.

OPERATION, MAINTENANCE AND REPAIR MANUAL

VOLUME III

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
<u>ROCKWOOD INSTRUCTION AND SERVICE MANUAL</u>	
<u>TWIN AGENT 1500/250 DRY CHEMICAL/AFFF—UNIT</u>	4001
SECTION I TWIN AGENT UNIT (DRY CHEMICAL AND AFFF)	4002
Stand-By Mode	4003
Operation Instructions, Hose Reel.....	4005
Operation Instructions, Turret.....	4005
System Purging Operation, Dry Chemical.....	4006
System Purging Operation, AFFF	4006
Bleeding Operation, Dry Chemical	4008
Bleeding Operation, AFFF	4008
Filling Instructions, Dry Chemical	4009
Filling Instructions, AFFF	4009
Parts List and Schematic.....	4010
Dry Chemical Unit.....	4011
Scope	4011
Introduction	4011
Principle of Operation	4011
System Components.....	4012
Maintenance	4015
Troubleshooting	4015
Spare Parts	4016
AFFF Unit	4017
Scope	4017
Introduction	4017
Principle of Operation	4017
System Components.....	4017
Maintenance	4020
Troubleshooting	4020
Spare Parts	4021
SECTION II DATA SHEETS FOR COMPONENTS SUPPLIED	4023
1+ Inch M Series Ball Valve with Air Actuator	4023
Hannay Hose Reel.....	4029
SECTION III DISCHARGE DEVICES	4034
Twin Agent Handline Index.....	4036
Scope.....	4037
Nozzle Data	4037
Description.....	4037
Operating Instructions	4038
Maintenance	4038
Spare Parts.....	4038

OPERATION, MAINTENANCE AND REPAIR MANUAL

VOLUME III

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
Remote Manual Twin Agent Turret Foam/ Dry Powder Index	4043
Scope	4044
Introduction	4044
Figures	4044
Operating Instructions	4045
Maintenance	4045
Spare Parts.....	4046
 DYNAMOTE "A-30" INVERTER OPERATING, INSTALLATION AND SERVICE MANUAL	 4062
 SECTION I DYNAMOTE LIMITED WARRANTY	 4063
 SECTION II GENERAL INFORMATION	 4065
Introduction and Principle of Operation	4065
Specifications	4066
Product Configuration.....	4066
 SECTION III INSTALLATION INSTRUCTIONS.....	 4068
Instructions	4068
Route Harness to Alternator	4069
Install Automatic Throttle	4071
Attach Harness to Alternator	4071
Checkout of Harness Installation.....	4074
Checkout Inverter Operation	4082
 SECTION IV SERVICE AND TROUBLESHOOTING INSTRUCTIONS	 4084
General Information.....	4084
Inverter Removal from Vehicle for Servicing	4084
Troubleshooting Guide	4085
Inverter Parts List	4097

OPERATION, MAINTENANCE AND REPAIR MANUAL

VOLUME III

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
4 CYCLE HURST POWER UNIT INSTRUCTION MANUAL	4113
Parts List	4115
Assembling Instructions.....	4116
Operating Instructions	4120
Troubleshooting Instructions	4126
HURST JAWS OF LIFE MODEL 32b INSTRUCTION MANUAL.....	4130
Parts List	4132
Assembling Instructions.....	4133
Troubleshooting Instructions	4137
Maintenance	4137
Operating Instructions	4139
Cutting Instructions.....	4143
PARTNER K-1200 RESCUE SAW SERVICE MANUAL.....	4148
Safety Precautions.....	4149
Fitting Cutter Arm	4151
Turning Cutter Arm	4152
Replacing Belt.....	4153
Fuel Mixture	4153
Fuel Tank.....	4153
Controls	4153
Starter Unit	4154
Air Filter	4154
Carburetor	4154
Maintenance	4155
Technical Data.....	4156
PARTNER K-1200 RESCUE SAW OPERATOR'S MANUAL.....	4157
Table of Contents	4158
Forward	4159
Parts Description	4161
Pre-Checkout.....	4163
Cutter Wheels.....	4166
Diamond Blades	4167
Carbide-Tipped Blades	4169
Operation.....	4170
Safety Regulations.....	4176
10 TON HYDRAULIC PORTO-POWER RESCUE KIT OPERATING INSTRUCTIONS	4178
Troubleshooting Chart Solution.....	4180
Troubleshooting Chart.....	4180

OPERATION, MAINTENANCE AND REPAIR MANUAL

VOLUME III

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
10 TON HYDRAULIC PORTO-POWER RESCUE KIT OPERATING INSTRUCTIONS - Continued	
Function	4181
Operating Instructions	4181
Maintenance	4182
Inspection	4182
SIGNAL MODEL PA300* ELECTRONIC SIREN INSTALLATION AND SERVICE INSTRUCTIONS	4186
Section I General Description.....	4187
Section II Specifications	4188
Section III Installation	4189
Section IV Operation.....	4193
Section V Circuit Description	4195
Section VI Service and Maintenance	4198

OPERATION, MAINTENANCE AND REPAIR MANUAL

VOLUME III

LIST OF ILLUSTRATIONS

<u>TITLE</u>	<u>IDENTIFICATION/ ILLUSTRATION</u>	<u>PAGE(S)</u>
<u>ROCKWOOD INSTRUCTION AND SERVICE MANUAL</u>		
<u>TWIN AGENT 1500/250 DRY CHEMICAL/ AFFF UNIT</u>		
Rockwood Twin Agent RTA 1500/250 System Schematic.....	510-2120-1	4010
1" M Series Ball Valve with Air Actuator.....	C-509-0663	4023
Hannay Hose Reel	ISO-72	4029
Installation Instructions.....	6185-1	4032
Wiring Diagram (Hose Reel)	6185-1	4033
Dual Agent Handline Foam/Dry Powder.....	Figure I	4039
Turret Remote Manual Twin Agent	Figure I	4047
Turret Remote Manual Twin Agent Assembly	Figure 1A	4049
Remote Manual Turret	Figure II	4051
Shaper - AFFF.....	Figure III	4054
Dry Chemical Nozzle.....	Figure IV	4056
Twin Agent 1500/250 Dual Agent System.....	510-2120	4058 to 4061
 <u>INVERTER, DYNAMOTE A-30</u>		
Inverter Off	2.0.2A	4065
Inverter On	2.0.2B	4065
A30 Dimensions	2.2.5B	4067
Mounting Configuration	2.2.6A	4067
Belt Alignment	3.3.2A and 3.3.2B	4070
High Amperage By-Pass Installation.....	3.5.1A	4071
Diagram of Leece-Neville 4000AA Series Alternator.....	3.5.4C	4073
SCR Checkout Procedure	----	4091
Diode Checkout Procedure and Readings	4.3.10A	4095
A30-70D Unit Wire Diagrams	2075	4101
A30-70D Unit Schematic	2075-1	4102
 <u>HURST 4 CYCLE POWER UNIT</u>		
4 Cycle Schematic.....	----	4114
 <u>HURST JAWS OF LIFE</u>		
Rescue Tool Schematic	----	4131
Accessories	----	4132

OPERATION, MAINTENANCE AND REPAIR MANUAL

VOLUME III

LIST OF ILLUSTRATIONS

<u>TITLE</u>	<u>IDENTIFICATION/ ILLUSTRATION</u>	<u>PAGE(S)</u>
<u>PARTNER K-1200 RESCUE SAW</u>		
Rescue Saw Schematic	----	4150, 4160
Fitting the Cutter Arm	----	4151
Turning the Cutter Arm.....	----	4152
Tools	----	4155
Safety Regulations	----	4176
<u>10 TON HYDRAULIC PORTO-POWER RESCUE KIT</u>		
Spongy Effect	Figure 1	4180
Ram Won't Retract	Figure 2	4180
Clamps	Figure 3	4182
<u>SIGNAL MODEL PA300* ELECTRONIC SIREN</u>		
Model PA300 Electronic Siren	Figure 1-1	4187
Rear View of PA300	Figure 3-2	4190
Control Cable Wiring Diagram	Figure 3-3	4190
Horn Ring Connections	Figure 3-4	4190
Press and Hold Modification	Figure 3-5	4192
Relative PA Loudness Adjustment.....	Figure 3-6	4192
Model PA300 Front View	Figure 4-1	4193
Functional Block Diagram	Figure 5-1	4195
Chassis Removed	Figure 6-1	4199
Internal View	Figure 6-2	4199
Component Location Diagram.....	Figure 6-3	4200
Schematic Diagram	Figure 6-4	4201

OPERATION, MAINTENANCE AND REPAIR MANUAL

VOLUME III

LIST OF TABLES

<u>TITLE</u>	<u>IDENTIFICATION/ ILLUSTRATION</u>	<u>PAGE(S)</u>
ROCKWOOD TWIN AGENT 1500/250 DRY CHEMICAL/AFFF UNIT		
Pressure vs Temperature Chart	Table 1	4022
DYNAMOTE INVERTER		
Harness and Alternator	3.6.2A	4081

ROCKWOOD TWIN AGENT
1500/250 DRY CHEMICAL/AFFF UNIT

ROCKWOOD INSTRUCTIONS
LOG NO. RIM 1554

KOVATCH CORPORATION
500-600 WEST CATAWISSA ST.
NESQUEHONING, PA 18240
SALES ORDER C100360

MARCH, 1985

REVISED:
JULY, 1985

4001

ROCKWOOD SYSTEMS CORPORATION
640 East Main Street
Lancaster, Texas 75146