

TECHNICAL MANUAL

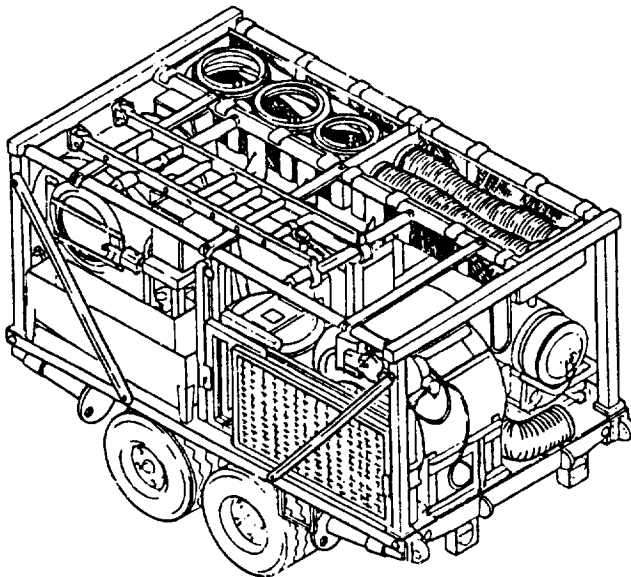
UNIT,

DIRECT SUPPORT,

AND

GENERAL SUPPORT

MAINTENANCE MANUAL



LAUNDRY UNIT, TRAILER
MOUNTED, MODEL M85-100
NSN 3510-01-291-8169

Approved for public release; distribution is unlimited.

TABLE OF CONTENTS

PAGE i

EQUIPMENT DATA

PAGE 1-3

UNIT MAINTENANCE

PAGE 2-1

PREVENTIVE MAINTENANCE
CHECKS AND SERVICES

PAGE 2-2

TROUBLESHOOTING
PROCEDURES

PAGE 2-11

DIRECT SUPPORT
MAINTENANCE

PAGE 3-1

GENERAL SUPPORT
MAINTENANCE

PAGE 4-1

ALPHABETICAL INDEX

PAGE INDEX-1

TECHNICAL MANUAL

NO. 10-3510-220-24

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON D.C., 27 August 1990

UNIT, DIRECT
SUPPORT, AND GENERAL SUPPORT
MAINTENANCE MANUAL

LAUNDRY UNIT, TRAILER-MOUNTED
MODEL M85-100
NSN 3510-01-291-8169

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 Aviation and Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. A reply will be furnished directly to you.

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

TABLE OF CONTENTS

	Page
CHAPTER 1 INTRODUCTION	1-1
Section I General Information	1-1
Section II Equipment Description and Data	1-2
Section III Principles of Operation	1-6
CHAPTER 2 UNIT MAINTENANCE PROCEDURES	2-1
Section I Lubrication Instructions	2-1
Section II Repair Parts, Special Tools, Test; Measurement, and Diagnostic Equipment (TMDE); and Support Equipment	2-1
Section III Service Upon Receipt	2-1
Section IV Unit Preventive Maintenance Checks and Services	2-2
Section V Unit Troubleshooting	2-11
Section VI Unit Maintenance Procedures	2-43
Section VII Administrative Storage	2-205

TABLE OF CONTENTS (Cont)

	<u>P a g e</u>
CHAPTER 3	
DIRECT SUPPORT MAINTENANCE PROCEDURES	3 - 1
Section I General	3-1
Section II Direct Support Troubleshooting Procedures	3-2
Section III Direct Support Maintenance Procedures	3-11
Section IV Preparation for Storage or Shipmment	3-138
CHAPTER 4	
GENERAL SUPPORT MAINTENANCE PROCEDURES	4-1
Section I General	4-1
Section II General Support Maintenance Procedures	4-1
Section III Auxiliary Equipment	4-5
APPENDIX A REFERENCES.	A - 1
APPENDIX B MAINTENANCE ALLOCATION CHART	B - 1
APPENDIX C EXPENDABLE/DURABLE MATERIALS AND SUPPLIES LIST	C - 1
APPENDIX D TORQUE LIMITS.	D - 1
APPENDIX E CABLE DIAGRAMS, WIRE RUN LIST, AND CONTROL CIRCUITS	E - 1
ALPHABETICAL INDEX	INDEX 1

CHAPTER 1

INTRODUCTION

Section I. GENERAL INFORMATION

1-1. SCOPE. This manual is for use by personnel responsible for the maintenance of the M85-100, Trailer-Mounted Laundry.

- a. **Type of manual:** unit, direct support, and general support maintenance
- b. **Equipment model number and name:** M85-100, Trailer-Mounted Laundry
- c. **Purpose of Equipment:** to provide regular troop units and hospitals with field laundry service.

1-2. MAINTENANCE FORMS, RECORDS, AND REPORTS. Department of the Army forms and procedures used for equipment maintenance will be those 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 Destruction of Tank-Automotive Equipment to Prevent Enemy Use. To prevent enemy use of laundry, add sand or soil to fuel pumps, bearings, drive motors, and water pump. Cut drive belts, wiring harnesses, and hoses. Scatter and conceal vital components. Break washer door glass and control panel buttons. Use explosives or set fire to unit using flammable liquids.

1-4. PREPARATION FOR STORAGE OR SHIPMENT.

Refer to paragraph 3-29 for storage and shipment instructions.

1-5. ADMINISTRATIVE STORAGE

Refer to paragraph 2-62 for administrative storage instructions.

1-6. NOMENCLATURE CROSS-REFERENCE.

<u>Common Name</u>	<u>Official Nomenclature</u>
Compressor	Compressor, air
Controller	Program control, washer
Control stand	Stand, controller
Dryer	Drying tumbler
Dryer Bin	Bin assembly, dryer
Extractor	Extractor, laundry, centrifugal
Extractor Bin	Pre-extraction bin
Generator	Generator set, diesel engine driven, 10 kW, 60 Hz
Hose Bin	Basket assembly
Laundry	Model M85-100 laundry unit, trailer-mounted
Platform	Work platform
Trailer	Trailer, cargo, 5-ton, Model M10-61E1
Washer	Washing machine, laundry, open end
Water Heater	Heater, water, liquid fuel fired, Model M-85

2-8. PREVENTIVE MAINTENANCE CHECKS AND SERVICES, COLUMAR ENTRIES.

(a.) Item number column. This is the order in which you perform checks and services on the laundry unit. The entry in this column will also be used as a source of item numbers for the "TM Item Number" column on DA Form 2404, Equipment Inspection Worksheet, in recording results of PMCS.

(b.) Interval columns. The interval column of your PMCS table tells you when to do a certain check or service.

(c.) Item to be inspected. Identification of item to be inspected.

(d.) Procedures column. The procedures column of your PMCS table tells you how to do the required checks and services. Carefully follow these instructions.

(e.) Equipment is not ready/available if column. Entries in this column will be keyed specifically to checks listed in the Procedures column for the purpose of identifying, for the check, the criteria that will cause the equipment to be classified as not ready/available because of inability to perform its primary Combat mission. An entry in this column will:

- (1) Identify conditions that make the equipment not ready/available for readiness reporting.
- (2) Deny use of the equipment until corrective maintenance has been performed.

2-9. SPECIAL INSTRUCTIONS. Leakage definitions for operator/crew PMCS shall be classified as follows:

CAUTION

*Equipment operation is allowable with minor leakages (Class I or II).
Of course, you must consider the fluid capacity in the item/system being
checked/inspected. When in doubt, notify your supervisor.*

CAUTION

*When operating with Class I or II leaks, continue to check fluid levels
as required in your PMCS.*

CAUTION

Class III leaks should be reported to your supervisor

- a. Class I - Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops.
- b. Class II - Leakage of fluid great enough to form drops but not enough to cause drops to drip from item being check/inspected.
- c. Class III - Leakage of fluid great enough to form drops that fall from the item being checked/inspected.

Table 2-1. Unit Preventive Maintenance Checks and Services

NOTE: Within designated interval, these checks are to be performed in the order listed.

M – Monthly				S – Semiannually		A – Annually	
Item No.	Interval			Item to be Inspected Procedures	Equipment is Not Ready/ Available if		
	M	S	A				
1				WASHER a. Check that water temperature gage is operational. b. Check water level for proper adjustment (High/Low). c. Check hoses and conduit for damage. WASHER SHAFT SEAL Check for leaks, noise, and unusual vibration during operation.	Temperature gage does not operate Hose(s) are damaged or leaking		

Table 2-1. Unit Preventive Maintenance Checks and Services (Continued)

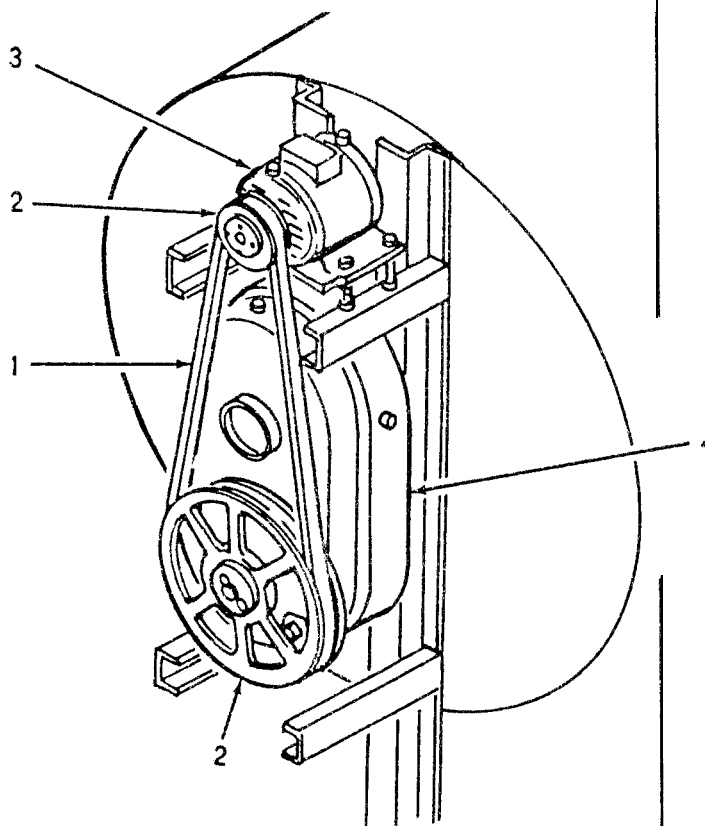
Item No.	M - Monthly			S - Semiannually	A - Annually	Item to be Inspected Procedures	Equipment is Not Ready/ Available if:
	M	S	A				
2						WASHER DRIVE UNIT  ● a. Check drive belts (1) for fraying, wear, and improper tension. ● b. Check pulleys (2) for breaks, cracks, and loose mounting. ● c. Check electric motor (3) for signs of overheating, obstructions to ventilation, and loose mounting. ● d. Check gearbox (4) for loose mounting, oil leaks, and improper operation. ● e. Check for slipping belts. ● f. Check for overheating of components.	Pulleys are broken Motor overheats Overheating occurs

Table 2-1. Unit Preventive Maintenance Checks and Services (Continued)

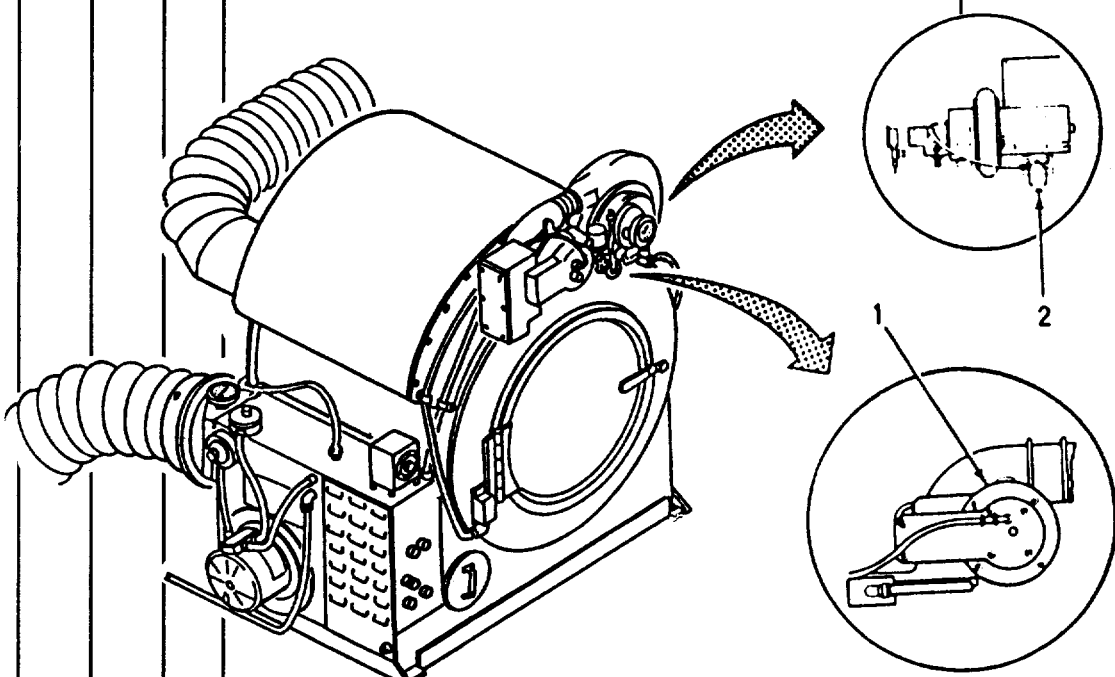
Item No.	Interval			Item to be Inspected Procedures	Equipment is Not Ready/ Available if:
	M	S	A		
3		•		WASHER CONTROLLER a. Check indicator lights and switches on control unit for proper operation.	
4				DRYER TUMBLER ASSEMBLY 	
	•			a. Inspect burner assembly (1) for cracks, breaks, and loose mounting.	Burner assembly is cracked or broken
	•			b. Inspect fuel filter for sediment in bowl (2). Bleed if needed.	
	•			c. Inspect controls and instruments for damage, loose wiring, and inoperative condition.	Controls and instruments are inoperative

Table 2-1. Unit Preventive Maintenance Checks and Services (Continued)

Item N o .	Interval			Item to be Inspected Procedures	Equipment is Not Ready/ Available if:
	M	S	A		
4 (cont)	●			d. With unit operating, check for proper operation. Normal readings for instruments are as follows: (1) Fuel Pressure Gage: 90 to 110 psi (621 to 758 kPa) (2) Exhaust Temperature Gage: Adjustable from 130 to 250°F (54 to 118°C)	Fuel Pressure gage does not operate Exhaust temperature gage does not operate Over temperature limit switch does not operate.
	●			e. Check gear reducer and couplings for loose mounting, oil leaks, and improper operation.	
	●			f. Check electric motors for signs of overheating, obstructions to ventilation, and loose mounting.	Motor overheats
			●	g. Inspect filter element, refer to paragraph 2-47.	

Table 2-1. Unit Preventive Maintenance Checks and Services (Continued)

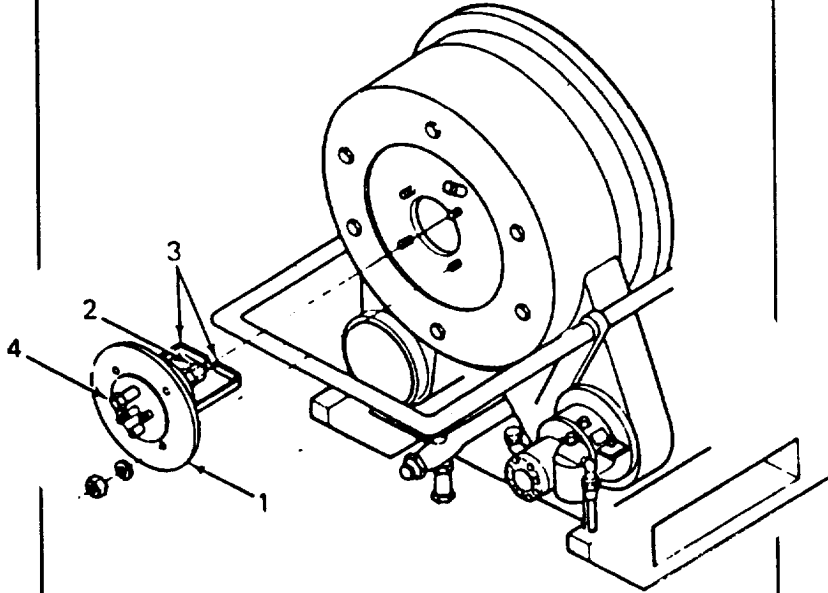
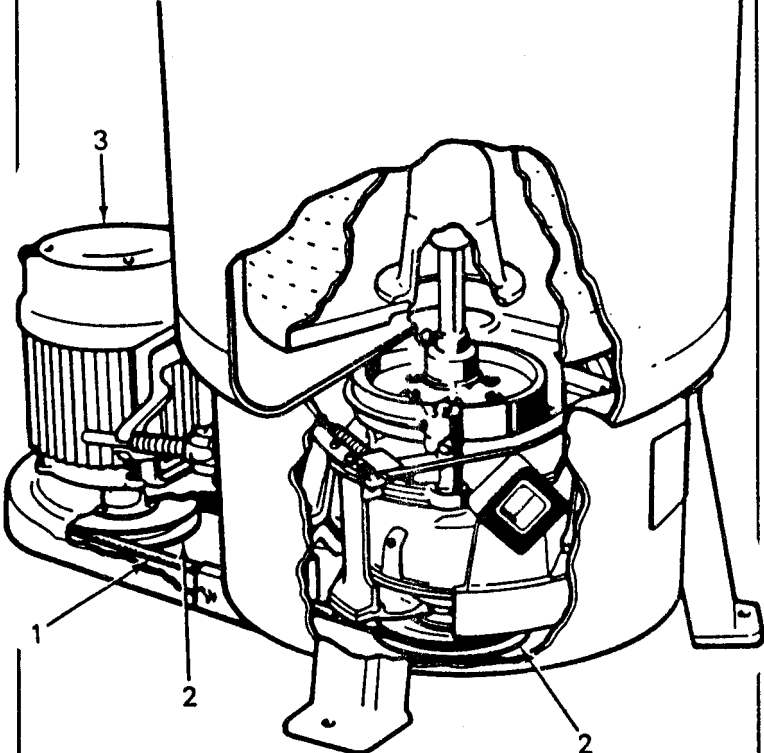
Item No.	Interval			Item to be Inspected Procedures	Equipment is Not Ready/ Available if:
	M	S	A		
5				WATER HEATER BURNER HEAD AND NOZZLE ASSEMBLY  a. Inspect burner head (1) for cracks, breaks, and damage. b. Inspect nozzle assembly (2) for carbon deposits, damage, and loose mounting. c. Check electrodes (3) for carbon deposits and loose connections. d. Look through sight glass (4) during operation and check for proper spark. e. With unit operating, check for proper operation. f. Check for proper temperature indication. Refer to table 2-2. g. Check gasket on control box for proper sealing.	Burner head is cracked or broken Nozzle is broken Proper operating temperature cannot be maintained

Table 2-1. Unit Preventive Maintenance Checks and Services (Continued)

Item No.	M - Monthly S - Semiannually A - Annually			Item to be Inspected Procedures	Equipment is Not Ready/ Available if
	M	S	A		
6				EXTRACTOR BRAKE AND DRIVE TRAIN  a. During operation observe for any unusual noise or vibration. Check for slipping belts. b. Check drive belt (1) for fraying, wear, and improper tension. c. Check pulleys (2) for breaks, cracks, and loose mounting. d. Check electric motor (3) for signs of overheating, obstructions to ventilation, and loose mounting. e. Check brake during operation (should slow load to a stop in 30 seconds or less).	Pulley(s) are broken Motor overheats Brake fails to stop load