

TECHNICAL BULLETIN

**WARRANTY PROGRAM
FOR
600 GPH REVERSE OSMOSIS
WATER PURIFICATION UNIT (ROWPU)
MODEL NUMBERS: 0996109001**

Approved for public release; distribution is unlimited.

**HEADQUARTERS, DEPARTMENT OF THE ARMY
3 JULY 1992**

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

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Headquarters, Department of the Army, Washington, D.C.

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REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this bulletin. If you find any mistakes or if you know of away 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-MMTS, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798. A reply will be furnished to you.

1. General. This Warranty Technical Bulletin (WTB) identifies warranty conditions and procedures that apply to the 600 GPH Reverse Osmosis Water Purification Unit (ROWPU), NSN 4610-01-234-2196 Models 0996109(i01 as supplied under Contract DAAK01-85-C-B312. Warranty coverage is for a period of 36 months from the date of acceptance as shown on the Material Inspection and Receiving Report (DD Form 250).

2. Explanation of Terms. The following terms apply to the ROWPU warranty program:

a. Abuse. The improper use, repair, or handling of warranted items such that the warranty may become void. Failure to perform preventive maintenance, or improperly performed corrective maintenance also constitutes abuse.

b. Acceptance Date. The date an item of equipment is accepted into Department of Defense (DOD) inventory by the execution and signing of a DD Form 250 or an approved acceptance document by an authorized Government representative.

c. *Alterations/Modifications.* Any alteration after production, such as: retrofit, conversion, remanufacture, design change, engineering change, and the like.

d. *Contractor support.* Those services that are to be performed, and those responsibilities that are placed on the contractor by the Government as specified in the warranty contract/provisions of Contract DAAK01-85-C-B312. This support, which may include items such as: labor, parts, tools, training, technical packages, etc., will be used in support of the warranted equipment during the specified warranty period.

e. *Defect.* Any condition or characteristic in any supplies or services furnished by the contractor under the contract that is not in compliance with the requirements of the contract.

f. *Repair.* To restore an item to a serviceable condition without affecting the warranty.

g. *WARCO.* Warranty Control Offices established at the General Support/Director of Industrial Operations Level, or equivalent, who serve as the intermediary between the troops owning the equipment and the local dealer, contractor, or manufacturer. All warranty claim actions will be processed through the WARCO.

h. *Warranty.* A promise or statement of fact from a seller to a purchaser on the nature, usefulness, or condition of the supplies or performance of services to be furnished. The main purpose of a warranty in a government contract is to outline the rights and obligations of the contractor and the government for defective items and services. It also serves to foster quality performance by the contractor; but is not a substitute for an adequate quality assurance program.

i. *Warranty Claim.* Action started by the equipment user for authorized warranty repair, replacement, or reimbursement made from the local dealer or manufacturer.

3. Coverage Specific. Mechanical Equipment Company (MECO) (the contractor) warrants that each 600 GPH Reverse Osmosis Purification Unit (ROWPU) and each component of the ROWPU is manufactured to conform to specific performance requirements identified in contract DAAK01 -85-C-B312. Additionally, MECO warrants that each ROWPU and components of that same ROWPU are free from defects in materials and workmanship that would cause the ROWPU to fail to conform to performance requirements specified in contract DAAK01-85-C-B312. This warranty is for a period of 36 months from the date of acceptance as shown on the Material Inspection & Receiving Report (DD Form 250). This warranty applies only to components originally installed by MECO which can be identified by serial number as factory-installed on a specific ROWPU, or to components repaired under the conditions of this warranty. Upon determination that a defect is covered by this warranty, MECO will replace or repair (at its option), without charge to the Government. If the defect is determined not to be covered by this warranty, MECO will advise the Warranty Control Office (WARCO), and will not proceed until written authorization and costing information is agreed upon. Under this warranty, the contractor is limited to the repair or replacement of a defective article. If the contractor determines that a unit or component is not, for any reason, covered by this warranty, no warranty work will be performed except at the written direction of the Contracting Officer for Contract DAAK01-85-C-B312. Thereafter, the matter will proceed through the "Disputes" clause of this document. In the case of Government-Furnished Equipment or Property, MECO warrants that installation to (or of) Government-Furnished Equipment or Property by MECO will not degrade the performance or reliability of that Government-Furnished Equipment or Property. The Government Furnished Equipment or Property for contract DAAK-01-85-C-B312 is: Elements Reverse Osmosis, Spiral Wound, NSN 4610-00-937-0223, eight (8) for each ROWPU.

4. Contractor Responsibilities. In the event of a failure of any warranted item, to meet the conditions specified in paragraph 3 above, MECO shall promptly repair or replace such parts as are necessary to correct the defects in materials or workmanship, and MECO shall bear the cost.

a. On units used within the 50 states of the United States and the District of Columbia. MECO shall furnish new items to replace any defective items, without cost to the Government. MECO shall furnish, during the first 90 days of the warranty period, at no cost to the Government, a technical service representative to supervise and assist in replacing and adjusting the failed items affected in any unresolved type warranty action. Response by MECO shall be within 10 days after Government notification of this desired service.

b. On units used outside the 50 states of the United States and outside the District of Columbia. MECO will furnish new items to replace any that prove to be defective within the warranty period. Such items shall be delivered by MECO to the Port of Embarkation designated by the Government. Return of defective items to the contractor shall be at the option and the expense of the contractor. If the contractor maintains established business facilities servicing the geographic area of concern, a technical service representative shall be furnished in accordance with the terms of paragraph a relating to technical service representatives. Where the contractor maintains no such facilities. the repair and/or replacement item(s) shall be accompanied by detailed installation instructions.

c. The cost of any labor involved in the repair or replacement of items at MECO shall be at the expense of the contractor. When repair or replacement requires transportation of the nonconforming or defective item(s), shipping costs, not to exceed usual commercial method of shipment from line item delivery point to contractor's plant and return, shall be at the expense of the contractor.

5. Government Responsibilities. Using activities are responsible for reporting failures to: U.S. Army Troop Support Command, 4300 Goodfellow Boulevard, Attn: AMSTR-MEPN, St. Louis, MO 63120-1798, AUTOVON 693-9393, Commercial (314) 263-9393 during the hours of 0800 1600 Central Standard Time (CTS). U.S. Army Troop Support Command shall be responsible for administering the warranty program for the ROWPU.

6. Government Maintenance. The Government will be responsible for completing preventive and corrective maintenance in accordance with the approved Maintenance Allocation Chart.

7. Owning Unit Responsibilities. The owning unit responsibilities shall be the same as those identified in the **Government Responsibilities** and **Government Maintenance** paragraphs.

8. Warranty Control Office (WARCO) Responsibilities. The Warranty Control Office for the ROWPU is: U.S. Army Troop Support Command, ATTN: AMSTR-MEPN, 4300 Goodfellow Boulevard, St. Louis, MO. WARCO responsibilities are identified in the **Government Responsibilities** paragraph.

9. Army Oil Analysis Program (AOAP). The Army Oil Analysis Program does not apply to the ROWPU.

10. Alterations/Modifications. Alterations and modifications shall not be made unless expressly authorized or directed by: U.S. Army Troop Support Command, 4300 Goodfellow Boulevard, St. Louis, MO. 63120-1798.

11. Design/Performance Specifications. Equipment performance is as specified in the appropriate technical manual. The warranty tag for the unit is located on the unit control panel, or on the frame.

12. Nullification. Actions taken by Government personnel which will void ROWPU end item or component warranties are:

a. Failure to operate the ROWPU and/or components in accordance with approved Technical Manuals.

b. Failure to maintain the ROWPU and/or components in accordance with approved Maintenance Allocation Chart recommendation and Technical Manual procedures.

c. Failure to adequately preserve a ROWPU unit before placing said unit into storage, or failure to adequately depreserve a ROWPU when said unit is removed from storage.

- e. Transportation or storage of a ROWPU unit under conditions determined to be detrimental to the performance of the unit.
- f. Operation of the end item and/or components outside stated performance parameters.
- g. Operation of the end item and/or components for purposes other than intended (as a water purification system).
- h. Removal of components from one serial numbered ROWPU for reinstallation on a different serial numbered ROWPU (cannibalization). (Installation of components that have been repaired under this warranty program being an exception).
- i. Modification or retrofit of components or equipment not expressly authorized by MECO.
- j. Deployment of the end item in a combat zone, or exposure of the end item to combat conditions.
- k. This warranty does not apply to spare parts or equipment supplied by contractors other than MECO, or as noted otherwise in this WTB.
- l. Any abuse such as: improper use, repair, or handling of warranted item.

Actions required to keep this warranty in effect are:

- a. Proper maintenance (both preventive and corrective) of equipment as prescribed by approved Maintenance Allocation Charts and Technical Publications.
- b. Transportation, preservation, depreservation, and storage in accordance with technical documentation.
- c. Operation of the end item and components within stated performance envelope(s).
- d. Use of the end item for its intended purpose.

13. Abuse Determination. When abuse is suspected, but not obvious, it is the Government's responsibility to provide documentation of the maintenance of the item to allow the contractor, or a joint contractor/Government panel, to determine if abuse has occurred. If abuse (as defined in this bulletin) becomes evident, the Government will reimburse the contractor for the repair (associated repair and transportation costs). Warranties for replacement parts will be the same as the warranty on replacement parts supplied in non-abuse situations.

14. Abuse Avoidance. When abuse (intentional or unintentional) has been determined, a statement shall be made by the abuse determining activity as to how abuse can be avoided in the future.

15. Claim Procedures. A Warranty Claim Form, DA Form 2407, from the using field units, is to be forwarded to the U.S. Army Troop Support Command (TROSCOM) WARCO directly, or through the local WARCO. Refer to DA PAM 738-750, Maintenance Management Update (most current issue), Table J-I, for worldwide WARCO offices.

- a. **Identification of Failed Items.** Failed items should be identified as follows:

(1) Failed warranty items should be tagged/identified to prevent improper repair or use. DA Form 2402 Exchange Tag shall be completed and attached to the defective component. Refer to Appendix A for instructions on completing DA Form 2402.

(2) DA Form 2407 Maintenance Request is to be completed. Refer to Appendix B for instructions on completing DA Form 2407.

(3) Non-direct exchange (Non-DX) claim items. When the warranted item is not handled through direct exchange (DX) the unit prepares and sends a completed DA Form 2402 (with exhibit) and DA Form 2407 to the WARCO. The office then deals with the DA Form 2407 as follows:

(a) Send copy #1, #2, and #5 to: Commander, U.S. Army Troop Support Command, ATTN: AMSTR-MOF, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798. One of these copies will go to the Item Manager to show a supply demand.

(b) Keep copy #3 for 180 days (with exhibit and DA Form 2402) unless you are instructed differently. If you receive no instructions after 90 days, contact: Commander, U.S. Army Troop Support Command, ATTN: AMSTR-MEPN, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798, Telephone Number: 314-263-9393 for information.

(c) Copy #4 gives you the authority to tell the claim creator to get the new item through supply. Copy #4 is kept, at most, for 180 days or until you get notice that the claim has been honored.

(4) DX claim items. When the warranted item is handled through DX, the unit starting the claim action fills out the same forms and deals with them the way they do for a Non-DX item except as follows:

(a) The unit running the DX shop starts the replacement action for supported units. The DX shop uses copy #4 of the DA Form 2407 to start the action.

(b) Normal DX replacement actions will be made by the DX shop for like serviceable items in stock.

(5) Final processing of approved claims. Support of depot maintenance units will handle all claims promptly. These units will send approved claims to the creator, whose address and MILSTRIP document number is in Block 20 of DA Form 2407. The support, or depot, unit will also return to the replacing unit, all labor costs used in replacing the bad items. Refer to Appendix A for information on completing DA Form 2402 and Appendix B for information on completing DA Form 2407.

b. Disposition of Failed Items. Failed items will be dispositioned in accordance with instructions issued by the appropriate WARCO after review of the documentation submitted.

(1) False Returns. Government units returning items to the contractor for repair which are found to be serviceable will be penalized for the cost, loss of time, nonavailability of items, or other restrictions. False returns will be monitored by the Troop Support Command.

(2) Receipts/verification of contractor repairs.

c. Special Area Requirements. If an item or component is located in the Continental United States (CONUS), the item will be returned to the destination identified for that component or to seller's plant, whichever is advantageous to the Government. In the event components are located outside CONUS, the appropriate WARCO shall be contacted for disposition instructions.

d. Reimbursement for Army Repair. The Army shall proceed with non-contractor repair only after negotiation and settlement with the contractor concerning the scope of repairs to be performed by Army personnel. Army repair of hardware shall proceed only upon receipt of written instructions from the contractor and appropriate WARCO.


e. Claim Denials/Disputes. Claim denials/disputes will be addressed through the WARCO and by MECO. When a dispute arises, settlement will be established by negotiation between the Troop Support Command and MECO.

f. Reporting. Reporting or recording action on a failed item shall be as specified in DA Pam 738-750 or DA Pam 738-751.

Appendix A

DA Form 2402

Revision of Sep 73
is obsolete



U.S. GOVT PRINTING OFFICE
304-128

EXCHANGE TAG (TM 38-760)

1. SUPPORT AGENCY (DODAAC)		2. DATE	
3. ORGANIZATION (DODAAC)		4. <input type="checkbox"/> EIR EXHIBIT <input type="checkbox"/> EXCHANGE	
5. NSN		6. NOUN NOMENCLATURE	
7. PD		8. PD AUTHENTICATION	
END ITEM IDENTIFICATION	9. END ITEM NOUN NOMENCLATURE		
	10. MODEL	11. SERIAL NO.	
12. DEFICIENCY OR SYMPTOM			
13. DATE ACCEPTED		14. SIGNATURE	
		15. NMCS	
16. JON		17. INITIALS	
18. DATE REPAIRED		19. INITIALS	

COPY 1

DA FORM 2402
MAY 61

1. **SUPPORT AGENCY (DODAAC).** Enter the DODAAC of the support activity that will exchange the item for you. When this form is used for other than exchanges, use the DODAAC or UIC.
2. **DATE.** Enter the Julian date the item was prepared for exchange.
3. **ORGANIZATION (DODAAC).** Enter the DODAAC of the unit or organization needing to exchange the item. When this form is used for other exchanges, use the DODAAC or UIC.
4. **EIR EXHIBIT/EXCHANGE.** Mark the block to show an exchange or EIR exhibit. When used for warranty claims, put a "W" in the open space to the right of EIR EXHIBIT.
5. **NSN.** Enter the NSN of the item.
6. **NOUN NOMENCLATURE.** Print the noun abbreviation of the item to be exchanged.
7. **PD.** Enter the priority designator (PD) that applies to the action. The unit or organization listed in Block 3 normally assigns the PD. When the exchange supports a customer maintenance request, use the PD of the maintenance request.

8. PD AUTHENTICATION.

- a. The commander or the designated representative signs when a PD of 01 through 10 is in Block 7.
- b. Enter the job order number when a PD of 01 through 10 is taken from a maintenance request.

9. END ITEM NOMENCLATURE. Enter the noun abbreviation of the end item for the part or component in Block 5.

10. MODEL. Enter the model number of the end item

11. SERIAL NO. Enter the serial number of the end item.

12. DEFICIENCY OR SYMPTOM. Briefly describe the problem.

13. DATE ACCEPTED. When the form is used as a receipt. the exchange facility will enter the Julian date.

14. SIGNATURE. The person who receives the item for exchange, signs.

15. NMCS. Print the word "Yes" for an NMCS condition.

16. JON. The facility that will repair the item enters the job number.

17. INITIALS. The person receiving the item for repair initials in this block

18. DATE REPAIRED. The person doing the work enters the date the work was finished.

19. INITIALS. The person doing the work initials in this block.

APPENDIX B

DA FORM 2407

MAINTENANCE REQUEST <small>For Use of the Form, see TM 38 750 (the procuring agency is DCSLOG)</small>		PAGE NO	NO OF PAGES	REQUIREMENT CONTROL SYMBOL <small>CSGLD-1047(R1)</small>
SECTION I - EQUIPMENT DATA				
CONTROL NUMBER L08610	WORK ORDER NUMBER	WESDC	ORG PD	PD AUTHENTICATION
<input type="checkbox"/> WORK REQUEST <input type="checkbox"/> MWO <input type="checkbox"/> WARRANTY CLAIM	1a ORGANIZATION	b LOCATION		c UNIT IDENT CODE
3 SERIAL NO	4 NOUN NOMENCLATURE	5 LINE NO	6 MODEL	7 NATIONAL STOCK NUMBER

Page No/No of Pages. Enter the page number. Total pages will be entered when entries in Section II are complete.

Work Order Number. Leave blank.

WESDC. Leave blank.

ORG PD. Leave blank.

PD Authentication. Leave blank.

Work Request. Leave blank.

MWO. Leave blank.

Warranty. Mark this block.

1a ORGANIZATION. Enter location of organization sending in the report.

1b LOCATION. Enter the name of organization writing the request (over-seas list APO only).

1c UNIT IDENT CODE. Enter unit identification code (UIC) of the unit shown in block 1 a.

2. SERIAL NO.

- a. For nontactical wheeled vehicles, list the USA registration number.
- b. For ammunition, put in the lot number.
- c. For all other items, list the serial number, if known. For floating craft, list the Department of Army Hull number. If more than one serial number, leave blank.
- d. When using this form for more than one item or component, leave blank.

3. NOUN NOMENCLATURE

Put in name abbreviation of equipment for which the form was started.

4. LINE NO. Leave blank.

5. MODEL. Put in the item model number.

6. NATIONAL STOCK NUMBER. Put in the National Stock Number of equipment in block 3. When completing this form for many items having several NSNs, leave blank.

7. MAINTENANCE ACTIVITY	8. LEVEL	9. UTILIZATION CODE	10. MCSR ITEM	11. ERC	12. PACING ITEM	13. HOURS	14. MILES	15. ROUNDS	16. STARTS
14. FAILURE DETECTED DURING (Select one - use 7 or X)				15. FIRST INDICATION OF TROUBLE (Select one - use 7 or X)					
<input type="checkbox"/> A Scheduled Maintenance <input type="checkbox"/> C Tear <input type="checkbox"/> E Storage <input type="checkbox"/> G Flight <input type="checkbox"/> B Rebuilding <input type="checkbox"/> D Normal Op <input type="checkbox"/> F Inspection <input type="checkbox"/> H Other				<input type="checkbox"/> 008 Inoperative <input type="checkbox"/> 258 Overheating <input type="checkbox"/> 790 Out of Adjustment <input type="checkbox"/> 009 Noisy <input type="checkbox"/> 387 Low Performance <input type="checkbox"/> Other					
16. DESCRIBE DEFICIENCIES OR SYMPTOMS ON THE BASIS OF COMPLETE CHECKOUT AND DIAGNOSTIC PROCEDURE IN EQUIPMENT TAG (Do not prescribe repairs)									
16a. REMARKS									

7. **Maintenance Activity.** Put in the name of your support activity.
- a. **Level.** Put in the code of the maintenance level doing the maintenance.
 O - Unit
 F - Direct Support (DS)
 H- General Support (GS)
 D - Depot
 L - Special Repair Activity
8. **Utilization Code.** For nontactical wheeled vehicles in administrative use, use utilization code "V".
9. **MCSR Item.** Leave blank.
- 9a. **ERC.** Leave blank.
- 9b. **Pacing Items.** Leave blank.
10. **Hours.** Put in the hour reading (rounded to the nearest hour) from the hour meter on the equipment in block 3.
11. **Miles.** Put in the mileage (rounded to the nearest mile) of the equipment in block 3.
12. **Rounds.** Leave blank.
13. **Starts.** For turbine engines, put in the number of hot starts. If not needed, leave blank.
14. **Failure Detected During.** Mark the box that best describes when the failure was found.
15. **FIRST INDICATION OF TROUBLE.** Mark the box that best describes the conditions when you first found the trouble. Write in a code number from the table below. Leave blank if block 14 is left blank or when listing sampled items for unit maintenance.
- | | |
|------|--------------------------|
| Code | Description |
| 008 | Noisy |
| 068 | Inoperative |
| 258 | Overheating |
| 387 | Low performance |
| 790 | Out of adjustment |
| *380 | Intermittent |
| *432 | Off frequency |
| *580 | Unstable |
| *077 | Accident (motor vehicle) |
| *777 | Accident (motor vehicle) |
| *099 | Other |
- *The asterisk shows code numbers not listed in block 15, DA Form 2407. If you select one of these codes, the proper code number must be put in the space called "Other," block 15.

16 & 16a. Leave blank.

SECTION II - WORK ACCOMPLISHED									
17a. REPAIR ORGANIZATION/ACTIVITY			f. UNIT IDENT CODE		18. TYPE ORGANIZATION/ACTIVITY AC. COMPLETING WORK (Select one - use Y or X)			19. AMS ACCOUNT CODE	
b. LOCATION					<input type="checkbox"/> YD <input checked="" type="checkbox"/> TD				
20. ACT CODE	FAILURE CODE	c. COMPONENT/PART HOUR, SVC. OR MIND NO.		MANHOURS (Hrs & tenths)	NATIONAL STOCK NUMBER	PART SOURCE CODE	QTY	PARTS COST	
		d. CB CODE	e. REF DESIGNATOR						
				l. TOTAL MANHOURS	m. TOTAL MANHOURS COST	n. TOTAL PARTS COST			
21. DELAY (Select one)					22. DATA TRANSCRIBED				
<input checked="" type="checkbox"/> Parts <input type="checkbox"/> Manpower <input type="checkbox"/> Facilities <input type="checkbox"/> Funds <input type="checkbox"/> Tests					<input type="checkbox"/> A To User <input type="checkbox"/> B To Stock <input type="checkbox"/> C Salvaged <input type="checkbox"/> D Submitted <input type="checkbox"/> E Contrib/Relegation				
23. SUBMITTED BY		24. RECEIVED BY		25. WORK STARTED BY		26. INSPECTED BY		27. ACCEPTED BY	
JULIAN DATE		JULIAN DATE		JULIAN DATE		JULIAN DATE		JULIAN DATE	

DA FORM 2407
MAY 61

EDITION OF JUL 79 IS OBSOLETE.

ORGANIZATION COPY 4

17a thru 18. Leave blank.

19. **CONTRACT NUMBER (DAAK01-87-C-B312).**

20d. **CB CODE.** Put in the name of the part or assembly under warranty.

20e. **REF DESIGNATOR.** Put in the serial number of the part or assembly under warranty.

20g. Put in the estimated number of hours needed to replace the bad part. Use the proper technical bulletin time schedule guide to get the estimated hours. If you can't get the guide, use actual hours.

20h. **NATIONAL STOCK NUMBER.** Put in the NSN of the bad part. If an NSN is not found, use the part number.

20i.k.k. Leave blank.

20a thru 20k. Using the remaining spaces in block 20a-20k, put in this information: The NSN of the defective item.
 The name of the defective item.
 The date of the failure.
 The complete telephone number (AUTOVON/commercial with area code) of the person creating the form. State clearly all factors which added to the failure. Include factors such as type of operation and land and weather conditions. State clearly your opinion as to why the part failed.

201. **Total Manhours.** Self-explained.

20m. **Total Manhour Cost.** Leave blank.

20n. **Total Parts Cost.** Self-explained.

21 thru 22. Leave blank.

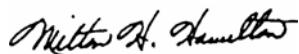
23. **Submitted.** The person authorized to send DA Form 2407 signs here.

24 thru 28. Leave blank.

By Order of the Secretary of the Army:

Official:

GORDON R. SULLIVAN
General, United States Army
Chief of Staff



MILTON H. HAMILTON
Administrative Assistant to the
Secretary of the Army
01900

DISTRIBUTION:

To be distributed in accordance with DA Form 12-25-E, block 5798, requirements for TB 10-4610-239-24.

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS



THEN... JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT. FOLD IT AND DROP IT IN THE MAIL!

SOMETHING WRONG WITH THIS PUBLICATION?

FROM (PRINT YOUR UNIT'S COMPLETE ADDRESS)
PFC JOHN DOE
COA, 3d ENGINEER BN
FT. BELLEARDWOOD, WA 63108
 DATE SENT

PUBLICATION NUMBER TB 10-4610-239-24	PUBLICATION DATE 3 JULY 1992	PUBLICATION TITLE 600 GPH ROWPU
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BE EXACT PIN-POINT WHERE IT IS				IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:
PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO	
6	2-1 a			In line 6 of paragraph 2-1a the manual states the engine has <u>6</u> cylinders. The engine on my set only has <u>4</u> cylinders. Change the manual to show <u>4</u> cylinders.
B1		4-3		Callout 16 on figure 4-3 is pointing at a <u>bolt</u> . In key to figure 4-3, item 16 is called a <u>shim</u> - Please correct one or the other.
125	line 20			I ordered a gasket, item 19 on figure B-16 by NSN 2910-05-762-3001. I got a gasket but it doesn't fit. Supply says I got what I ordered, so the NSN is wrong. Please give me a good NSN

TEAR ALONG PERFORATED LINE

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER JOHN DOE, PFC (268) 317-7111	SIGN HERE JOHN DOE
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DA FORM 2028-2 1 JUL 79

PREVIOUS EDITIONS ARE OBSOLETE.
 DRSTS-M Overprint 1, 1 Nov 80

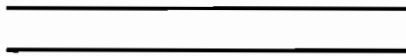
P.S. --IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS

FILL IN YOUR
UNIT'S ADDRESS



FOLD BACK

DEPARTMENT OF THE ARMY



OFFICIAL BUSINESS

COMMANDER
U.S. ARMY TROOP SUPPORT COMMAND
ATTN: AMSTR-MMTS
4300 GOODFELLOW BOULEVARD
ST. LOUIS, MO 63120-1798

TEAR ALONG PERFORATED LINE

The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
 1 decimeter = 10 centimeters = 3.94 inches
 1 meter = 10 decimeters = 39.37 inches
 1 dekameter = 10 meters = 32.8 feet
 1 hectometer = 10 dekameters = 328.08 feet
 1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = .15 grain
 1 decigram = 10 centigrams = 1.54 grains
 1 gram = 10 decigrams = .035 ounce
 1 dekagram = 10 grams = .35 ounce
 1 hectogram = 10 dekagrams = 3.52 ounces
 1 kilogram = 10 hectograms = 2.2 pounds
 1 quintal = 100 kilograms = 220.46 pounds
 1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliliters = .34 fl. ounce
 1 deciliter = 10 centiliters = 3.38 fl. ounces
 1 liter = 10 deciliters = 33.81 fl. ounces
 1 dekaliter = 10 liters = 2.64 gallons
 1 hectoliter = 10 dekaliters = 26.42 gallons
 1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
 1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches
 1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
 1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
 1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
 1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
 1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
 1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

<i>To change</i>	<i>To</i>	<i>Multiply by</i>	<i>To change</i>	<i>To</i>	<i>Multiply by</i>
inches	centimeters	2.540	ounce-inches	newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.461	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29.573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	newton-meters	1.356	metric tons	short tons	1.102
pound-inches	newton-meters	.11296			

Temperature (Exact)

°F	Fahrenheit	5/9 (after	Celsius	°C
	temperature	subtracting 32)	temperature	

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