D E P A R T M E N T O F T H E A R M Y T E C H N I C A L M A N U A L

DS, GS, AND DEPOT MAINTENANCE MANUAL
FILTER UNIT, GAS-PARTICULATE, GED, 300 CFM, ABC-M6A1
AND
EMD, 300 CFM, ABC-M6A1
(END ITEM CODE 567)

Headquarters, Department of the Army, Washington, D.C.
19 May 1965

CHAPTER 1
INTRODUCTION

Section I. GENERAL

1. Scope

This manual is published for the use of personnel responsible for direct support, general support, and depot maintenance of the Filter Unit, Gas-Particulate, GED, 300 CFM, ABCM6A1 (fig. 1) and Filter Unit, Gas-Particulate, EMD, 300 CFM, ABC-M6A1 (fig. 2). It contains information on the repair, replacement, and overhaul of major units as well as detailed lubrication, cleaning, and painting information as authorized in the maintenance allocation chart (TM 3-4240-241-12). Detailed maintenance information on the Military Standard gasoline engine is contained in TM 5-2805-206-14.

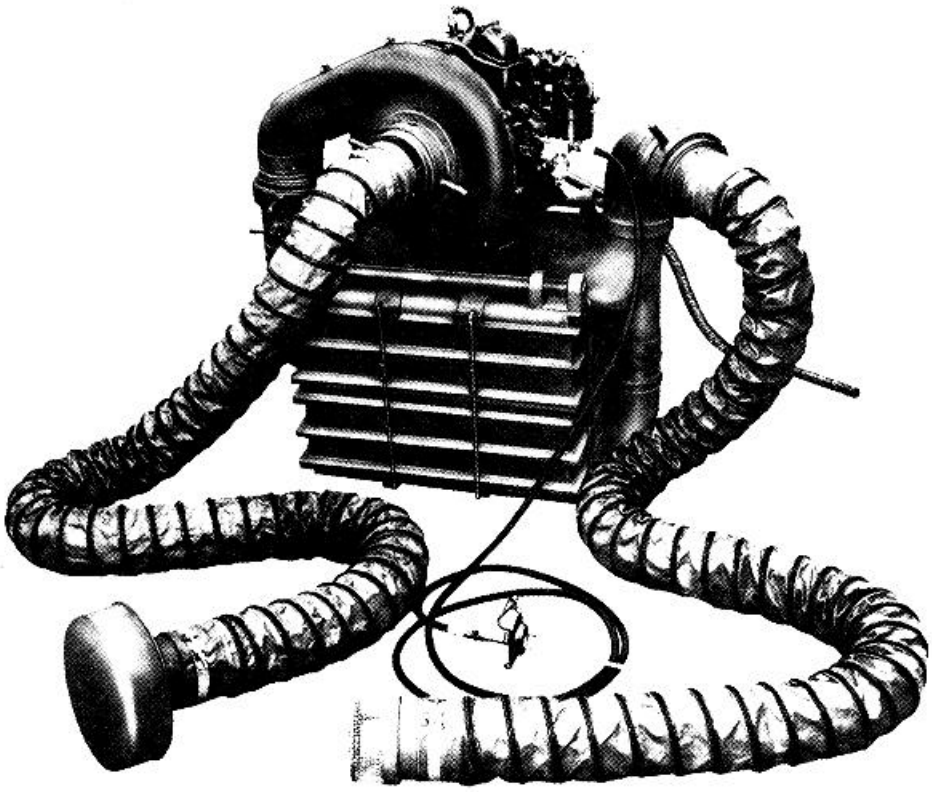


Figure 1. ABC-M6A1, 300 CFM, GED, gas-particulate filter unit.

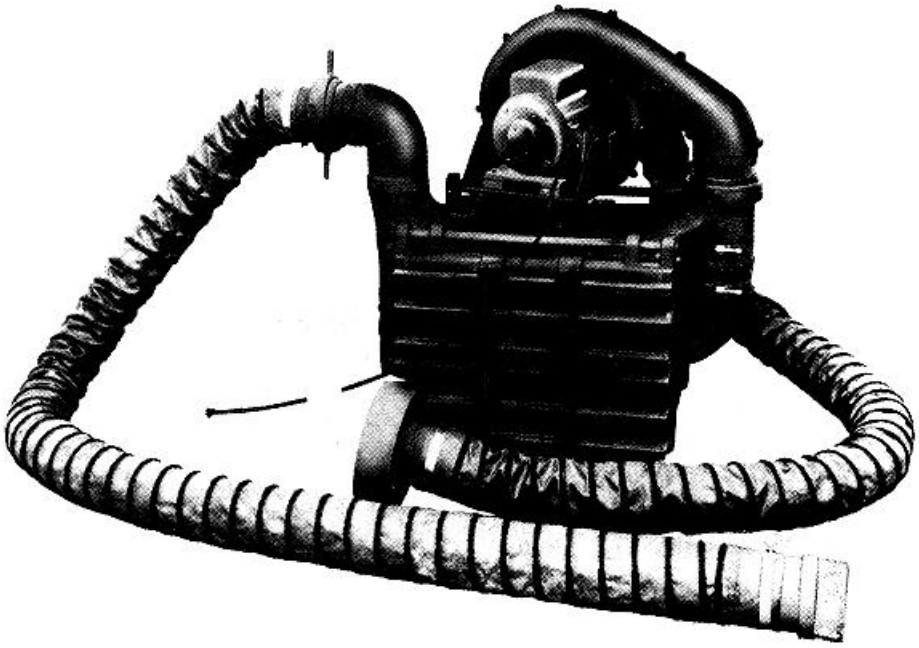


Figure 2. ABC-M6A1, 300 CFM, EMD, gas-particulate filter unit.

2. Appendix

The appendix contains a list of current references.

3. Record and Report Forms

a. Use the appropriate record and report forms prescribed in TM 38-750 in conjunction with the ABC-M6A1 300 CFM Gas-Particulate Filter Units.

b. The direct reporting by the individual user, of errors, omissions, and recommendations for improving this manual is authorized and encouraged. DA Form 2028 (Recommended Changes to DA Publications) will be used for reporting these improvements. This form will be completed in triplicate, using pencil, pen, or typewriter. The original and one copy will be forwarded direct to Commanding General, U.S. Army Edgewood Arsenal, ATTN: SMUEA-EIS-EM-EP, Edgewood Arsenal, Md. 21010. One information copy will be provided to the individual's immediate supervisor (e.g., officer, noncommissioned officer, supervisor, etc.).

4. Allocation of Maintenance

The maintenance allocation chart for the Filter Unit, Gas-Particulate, GED, 300 CFM, ABC-M6A1 and EMD, 300 CFM, ABC-M6A1 is contained in TM 3-4240-241-12.

Section II. DESCRIPTION AND DATA

5. Description

Description of the filter unit is contained in TM 3-4240-241-12.

6. Tabulated Data

a. Weights and Dimensions.

Overall length ..... 36 in.
Overall width..... 31 in.
Overall height ..... 37 in.
Weight, crated..... 548 lb
Weight, uncrated..... 325 lb
Cubage, unit crated..... 11 cu ft
Floor space required ..... 7.7 sq ft

b. Characteristics.

(1) *Gasoline engine.*

Horsepower.....1/2 at 3,600 rpm
Type .....Single cylinder, overhead, air cooled, 4-cycle.
Rated speed.....3,600 rpm
Starting .....Manual; rope on starting pulley
Spark plug gap.....0.025 in.
Fuel consumption.....1/2 pt/hr
Rotation .....Power shaft end (counter clockwise)

(2) *Electric motor.*

Horsepower 1
Voltage 115/230
Cycle 60
Phase .....Single
Rating .....Continuous
Rated speed.....3,450 rpm
Lubrication .....Sealed bearings
Degree of enclosure .....Fully enclosed
Rotation .....Counterclockwise

c. Recommended Wrench Torque for Steel Nuts and Bolts.

National Fine		*National Coarse*	
Thread size	*Torque (pound-feet)*	*Thread size*	*Torque (pound-feet)*
8-32	1 to 2	8-32	1 to 2
10-32	1 to 2	10-24	1 to 2
1/4-28	5 to 8	1/4-20	4 to 6
5/16-24	10 to 15	5/16-18	8 to 12
3/8-24	18 to 27	3/8-15	15 to 22
7/16-20	28 to 42	7/16-14	24 to 36
1/2-20	45 to 68	1/2-13	37 to 56
9/16-18	64 to 97	9/16-12	56 to 83
5/8-18	98 to 138	5/8-11	75 to 112
3/4-16	158 to 242	3/4-10	137 to 200
7/8-14	258 to 384	7/8-9	218 to 316
1-14	400 to 600	1-8	316 to 484

CHAPTER 2
DIRECT SUPPORT MAINTENANCE INSTRUCTIONS

Section I. GENERAL

7. Special Tools

No special tools are required for direct support maintenance of the ABC-M6A1 filter unit.

8. Painting

a. General. Direct support maintenance personnel are authorized to retouch or repaint the equipment. See TM 9-132 for general instructions in cleaning and methods of painting.

b. Paints to be Used.

(1) Prime all worn or scratched surfaces with one coat of appropriate primer.

(2) Repaint all previously painted surfaces with lusterless paint system No. 20.1 or 20.2, color olive drab, No. X34078, MIL-STD-171.

Section II. GASOLINE ENGINE INSTALLATION GROUP

9. Description and Function

The gasoline engine (fig. 3) is described in TM 5-2805-206-14. The engine stand assembly is welded from plate and sheet aluminum alloy. The engine is fastened to the stand assembly with twelve capscrews and lockwashers. Two aluminum alloy spacer blocks are used on one side to separate the engine and stand assembly. The engine shaft extends through a hole in the stand assembly. Four tapped holes are provided in the stand assembly for the capscrews that fasten the blower mount to the stand assembly. Two holes in the base of the stand assembly are provided for mounting the stand assembly on the canister.

10. Maintenance

Direct support maintenance personnel are authorized to replace the gasoline engine, engine stand assembly, spacer block and attaching hardware.

Note.

For detailed direct support maintenance information on the Military Standard gasoline engine, refer to TM 5-5805-206-14. This manual remains with the engine and is part of the ABC-M6A1 filter unit.

a. Removal and Disassembly. The gasoline engine cannot be removed from the canister without also removing the blower assembly, either along with or before removing the engine.

(1) To remove the engine and blower assembly as a single unit, remove two self-locking nuts (9, fig. 4) and washers (8), which fasten the engine stand assembly to the swivel base. Lift the engine, stand assembly, and blower assembly as one unit off the swivel base of the top manifold assembly.

(2) Remove blower assembly from engine as described in paragraph 14*a*.

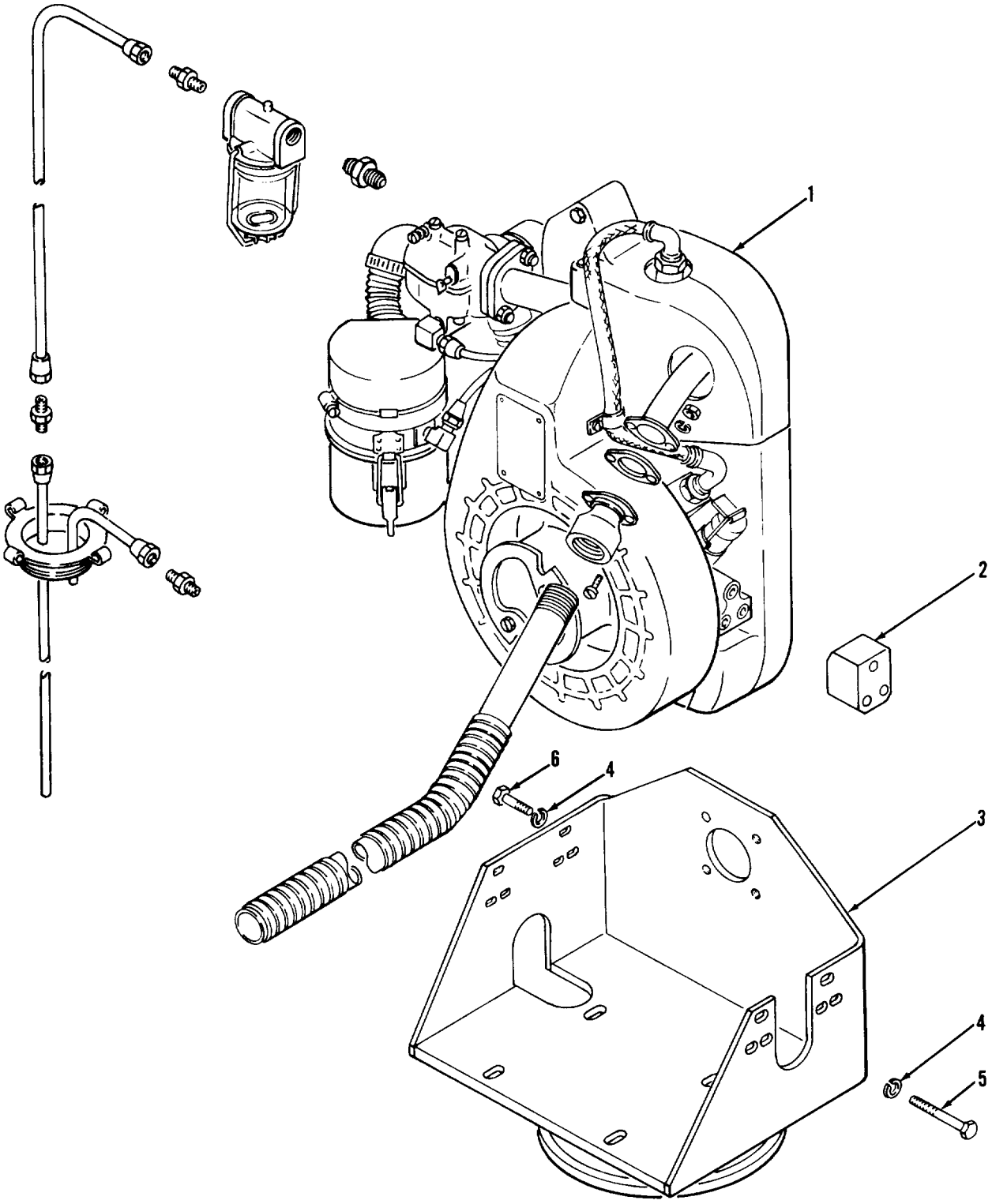
(3) Remove twelve capscrews (5 and 6, fig. 3) and lockwashers (4). Remove two spacer blocks (2) and gasoline engine (1) from stand assembly (3).

(4) Disassembly of the engine is described in TM 5-2805-206-14.

b. Cleaning and Inspection.

(1) Cleaning and inspection for the gasoline engine is contained in TM 5-2805-206-14.

(2) Clean engine stand assembly with drycleaning solvent. Inspect for cracks, especially at weld joints.



1. Gasoline engine
2. Spacer block
3. Engine stand assembly
4. Lockwasher
5. Capscrew
6. Capscrew

Figure 3. Gasoline engine Installation group.

Check tapped holes for stripping or cross-threading.

c. Repair.

(1) Repair cracks in engine stand assembly by inert gas welding. Dress all welds if required to prevent interference. Chase cross-threaded holes with a 3/8-16 UNC-2B tap.

(2) Repair for the gasoline engine is contained in TM 5-2805-206-14.

d. Assembly and Installation.

(1) Place gasoline engine (1, fig. 3) on engine stand assembly.

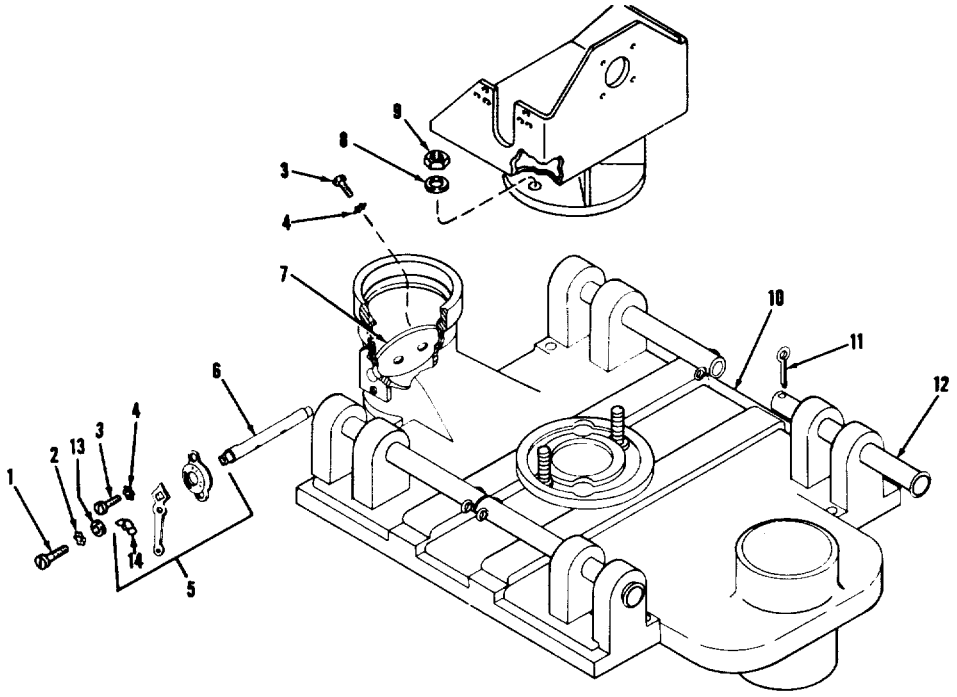
(2) Position two spacer blocks (2) between gasoline engine and engine stand assembly with chamfered edges toward engine.

(3) Install six 1 3/8-inch long capscrews (5) and lockwashers (4) through engine stand assembly and spacer blocks and screw into engine.

(4) Install six 3/4-inch long capscrews (6) and lockwashers (4) in opposite side.

Assemble and install blower assembly as described in paragraph 14*d*.

(5) Place engine, stand assembly, and blower assembly as one unit on swivel base of top manifold assembly and secure with two self-locking nuts (9, fig. 4) and washers (8).



1. Machine screw
2. Lockwasher
3. Machine screw
4. Lockwasher
5. Dial regulator assembly
6. Shaft
7. Damper
8. Washer
9. Self-locking
10. Top manifold
11. Cotter pin
12. Carrying handle
13. Washer
14. Wingnut

Figure 4. Top manifold assembly.

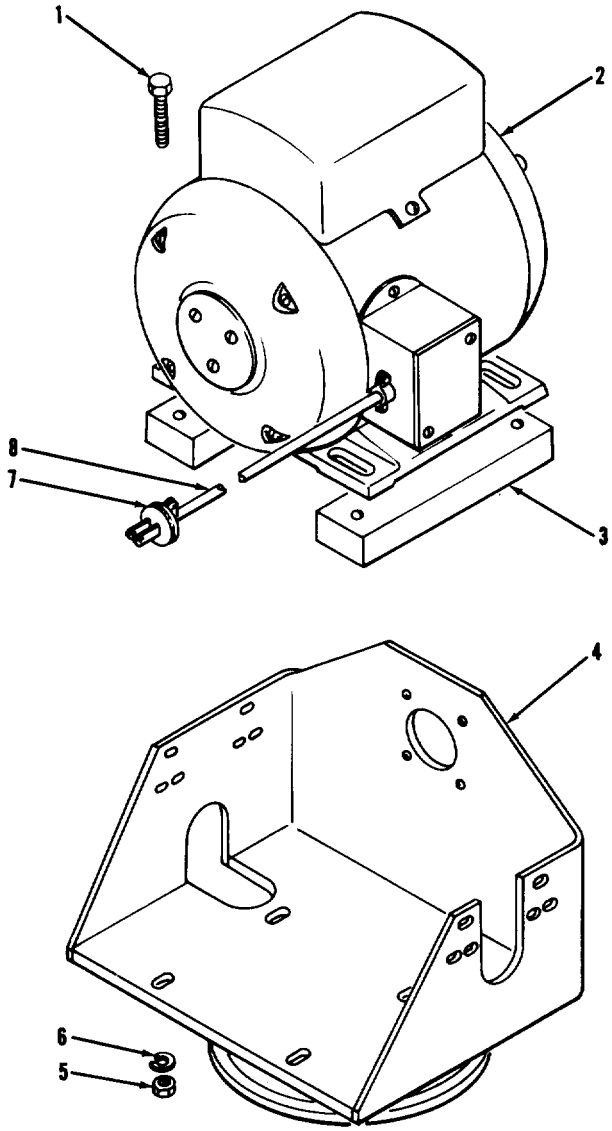
Section III. ELECTRIC MOTOR INSTALLATION GROUP

11. Description and Function

The electric motor (fig. 5) is described in TM 3-4240-241-12. The motor stand assembly is welded from plate and sheet aluminum alloy. The motor is fastened to the stand assembly with four capscrews, nuts and lockwashers. Two aluminum alloy spacer blocks are installed under the mounting feet of the motor to raise the motor power takeoff shaft in line with the blower connection. The motor shaft extends through a hole in the stand assembly. Four tapped holes are provided in the stand assembly for the capscrews that fasten the blower mount to the stand assembly. Two holes in the base of the stand assembly are provided for mounting the stand assembly on the canister.

12. Maintenance

Direct support maintenance personnel are authorized to replace the electric motor, motor



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1. Capscrew
2. Electric motor
3. Spacer block
4. Motor stand assembly
5. Hex nut
6. Lockwasher
7. Male plug connector
8. Electric cable

Figure 5. Electric motor installation group.

stand assembly, spacer blocks and attaching hardware.

a. Removal and disassembly. The electric motor cannot be removed from the canister without also removing the blower assembly either along with or before removing the motor.

(1) To remove the motor and blower assembly as a single unit, remove two self-locking nuts (9, fig. 4) and washers (8), which fasten the motor stand assembly to the swivel base. Lift the motor, stand assembly, and blower assembly as one unit off the swivel base of the top manifold assembly.

(2) Remove blower assembly from motor as described in paragraph 14*a*.

(3) Remove four screws (1, fig. 5) and nuts (5) and lockwashers (6). Remove two spacer blocks (3) and motor (2) from stand assembly (4).

b. Cleaning and Inspection.

(1) Clean motor and motor stand assembly with drycleaning solvent.

(2) Inspect for cracks, especially at weld joints. Check tapped holes for cross threading.

c. Repair. Repair cracks in motor stand assembly by inert gas welding. Dress all welds if required to prevent interference. Chase cross-threaded holes with a 3/8-16 UNC-2B tap.

d. Assembly and Installation.

(1) Place motor (2, fig. 5) on motor stand assembly (4).

(2) Position two spacer blocks (3) between motor feet and base of motor stand assembly.

(3) Install four capscrews (1), washers (6) and nuts (5).

(4) Assemble and install blower assembly as described in paragraph 14*d*.

(5) Place motor, stand assembly, and blower assembly as one unit on swivel base of top manifold assembly (fig. 4) and secure with two self-locking nuts (9) and washers (8).

CHAPTER 3
GENERAL SUPPORT MAINTENANCE INSTRUCTIONS

Section I. BLOWER ASSEMBLY

13. Description and Function

The blower assembly (fig. 6) consists of a six-bladed cast iron impeller that rotates in a two-piece cast aluminum casing. The blower casing is fastened by four screws to a blower mount that is in turn fastened to the engine or motor stand assembly by four capscrews. The impeller is fastened to the gasoline engine shaft or motor output shaft by a capscrew and two washers. A slotted brass drive bushing is used as a collet to prevent rotation of the impeller on the drive shaft. A locking coupling at the outlet of the blower casing provides a means for converting the air outlet hose. An adapter at the blower inlet provides connection of the locking coupling on the air inlet hose. The function of the blower assembly is described in TM 3-4240-241-12.

14. Maintenance

General support maintenance personnel are authorized to replace the blower gasket and mount, blower casings, impeller, drive bushing, locking coupling, coupling tube, adapter and attaching hardware.

a. Removal and Disassembly (fig. 6). The blower can be removed along with the gasoline engine (para 10a) or electric motor (para 12*a*). The blower is removed from the shaft of the gasoline engine or electric motor and disassembled as follows:

(1) Remove four drive screws (18) which fasten locking coupling tube (16) to blower air outlet. Slide tube from outlet and separate locking coupling (17) from locking coupling tube.

(2) Remove eleven machine screws (9) and nuts (4) that fasten left-hand and right-hand blower casings (8 and 5) together. Lift off left-hand blower casing.

(3) Remove four screws (6) that fasten locking coupling adapter (10) to left-hand blower casing (8). Remove locking coupling adapter and gasket (11).

(4) Remove cap screw (15), lockwasher (14), and flat washer (13). Using a suitable puller, remove impeller (7), and drive bushing (12) from shaft.

(5) Remove four screws (6) fastening right hand blower casing to blower mount (2). Lift off casing.

(6) Remove four capscrews (19) and lockwashers (3) that fasten blower mount (2) to engine stand assembly. Lift off blower mount and blower gasket (1).

b. Cleaning and Inspection.

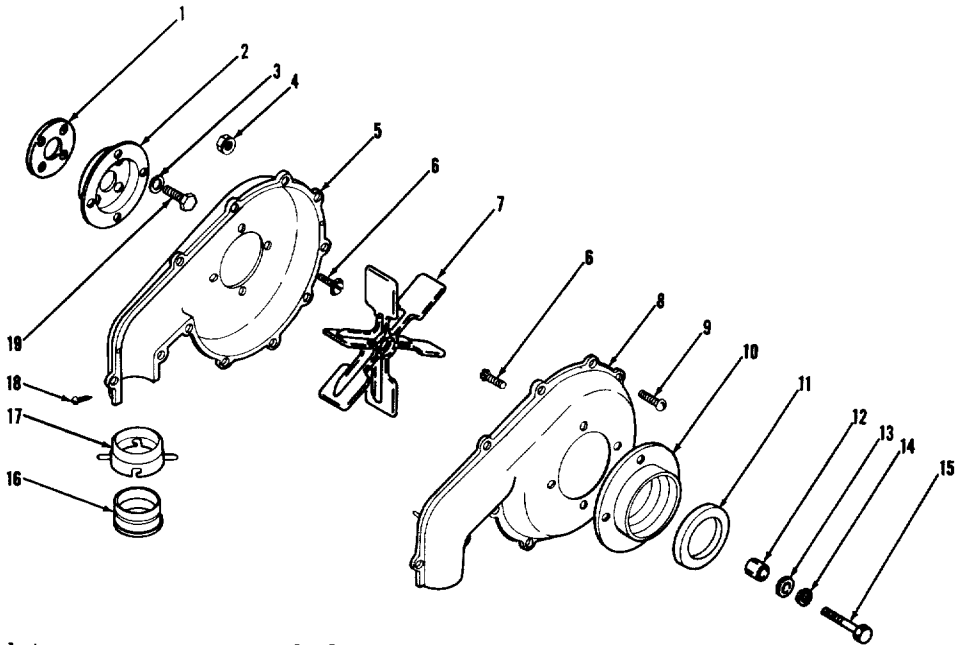
(1) Clean all metal parts of the blower with drycleaning solvent.

(2) Inspect blower casings, impeller, locking coupling, and locking coupling adapter for cracks. These are cast parts and require careful inspection, especially around screw holes and base of flanges and impeller blades. Replace the impeller if it is cracked or broken.

(3) Check to see if both dowel pins are tight in locking coupling adapter and that slots for dowel pins in locking coupling are not broken or worn excessively.

c. Repair.

(1) Use a round file and deepen the slots in locking coupling until it will lock securely to a mating adapter.



1 Blower gasket
2 Blower mount
3 Lockwasher
4 Self-locking nut
5 Right-hand blower casing
6 Screw
7 Impeller
8 Left-hand blower casing
9 Machine screw
10 Locking coupling adapter
11 Gasket
12 Drive bushing
13 Flat washer
14 Lockwasher
15 Capscrew
16 Locking coupling tube
17 Locking coupling
18 Drive screw
19 Capscrew

Figure 6. Blower assembly.

(2) Weld cracks in blower casings. Bolt or clamp blower casings to flat surface during welding operation to prevent warping of casting. Grind welds on inside of blower casings to allow proper clearance for impeller. Grind or machine mating surfaces of blower casings after welding. Remove nicks and burrs with a file and aluminum oxide abrasive cloth.

d. Assembly and Installation. (fig. 6). Assemble the blower and install on the shaft of the gasoline engine or electric motor as follows:

(1) Install blower gasket (1) and fasten blower mount (2) to engine or motor stand assembly with four capscrews (19) and lockwasher (3).

(2) Fasten right-hand blower casing (5) to blower mount (2) with four screws (6). Use gasket sealing compound, type II, Specification MIL-S-45180 on mating surfaces of blower casing and blower mount. Be sure screws are flush or below surface of the blower casing to prevent interface with the impeller (7) .

(3) Place impeller (7) on shaft of gasoline engine or electric motor. Be sure counterbore for washers in impeller (13 and 14) are facing outward toward end of shaft.

(4) Insert drive bushing (12) on shaft so that thin end fits between shaft and impeller (7). Install capscrew (15), lockwasher (14), and flat washer (13). Tighten capscrew to force the drive bushing into the impeller, locking it to the shaft.

(5) Coat mating surfaces of adapter (10) and left-hand blower casing (8) with gasket sealing compound. Fasten adapter to blower casing with four screws (6). Be sure screws are flush or below surface of blower casing to prevent interference with impeller (7).

(6) Cement new gasket (11) to adapter (10) with sealing adhesive, Specification MIL-A-3562.

(7) Coat mating surfaces of left-hand blower casing (8) and right-hand blower casing (5) with gasket sealing compound. Fasten casings together with eleven machine screws (9) and self-locking nuts (4).

(8) Slide locking coupling tube (16) through locking coupling (17) and insert tube in blower air outlet. Fasten tube with drive screws (18).

Section II. CANISTER GROUP

15. Description and Function

The canister group (fig. 7) is described in TM 3-4240-241-12.

16. Maintenance

General support maintenance personnel are authorized to replace the locking coupling and tube, elbow, bottom manifold, intake manifold, inlet manifold assembly and attaching hardware.

a. Removal and disassembly.

(1) Remove gasoline engine or electric motor and blower assembly (para 14*a*).

(2) Removal of intake manifold (15, fig. 7), bottom manifold (11), and top manifold (18), is described in TM 34240-241-12. These manifolds are removed for repair in the same way as they are removed for replacement of the filters by organizational maintenance personnel.

(3) Remove four drive screws (5) that fasten locking coupling tube (3) to elbow (6). Remove locking coupling tube and locking coupling (4) from elbow. Remove elbow from top manifold.

(4) Remove four drive screws (19) that fasten inlet manifold connector (20) to top manifold. Remove inlet manifold connector.

(5) Perform the following operations to remove the dial regulator assembly (5, fig. 4).

(a) Straighten and remove cotter pins (11). Slide carrying handles (12) from top manifold (10).

(b) Loosen wingnut and turn handle of dial regulator (5) until damper (7) is horizontal. Remove two machine screws (3), lockwashers (4), and damper.

(c) Remove two machine screws (3) and lockwashers (4) that hold the dial regulator (5) to air inlet of top manifold (10). Remove dial regulator and shaft (6).

(d) Separate handle of dial regulator (5) by removing machine screw (1), lockwasher (2), and fiat washer (13).

b. Cleaning and Inspection.

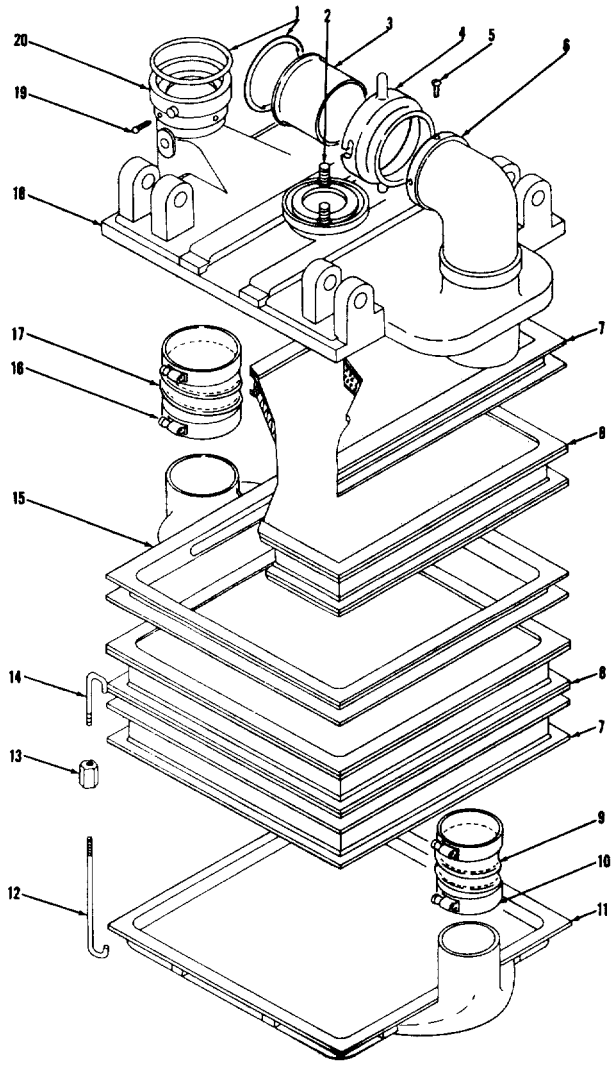
(1) Clean all metal parts of the canister group (fig. 7) with drycleaning solvent. Be sure that dirt or other foreign matter has not entered intake manifold (15), bottom manifold (11), or top manifold (18). Remove old gasket cement from intake manifold connector (20), locking coupling tube (3), and elbow (6).

(2) Inspect elbow, locking coupling, and top, intake, and bottom manifolds for cracks, nicks, or burrs. These are cast parts and require careful inspection, especially around holes and base of flanges and hoses. Replace these parts if cracked.

(3) Check to see if slots in locking coupling are broken or worn excessively.

(4) Check that markings on face of dial regulator are readable. Check to see if square hole for shaft in handle is worn.

(5) Inspect that damper is straight and flat and there are no burrs on edges that can cause it to bind in the air inlet. Replace shaft if tapped holes for screws holding damper are stripped.



1 Gasket
2 Bolt
3 Locking coupling tube
4 Locking
5 Drive screw
6 Elbow
7 Gas filter
8 Particulate filter
9 Air duct hose
10 Hose clamp
11 Bottom manifold
12 Turnbuckle lower bolt
13 Turnbuckle
14 Turnbuckle
15 Intake manifold
16 Hose clamp
17 Air duct hose
18 Top manifold
19 Drive screw
20 Inlet manifold connector

Figure 7. Canister group.

(6) Check carrying handles for bends and cracks.

c. Repair.

(1) Remove nicks or burrs from elbow, locking coupling, and top, intake, and bottom manifolds with a file and aluminum oxide abrasive cloth.
(2) Use a round file and deepen slots in locking coupling until the coupling will lock securely to a mating adapter.
(3) Straighten handle and mounting flanges of dial regulator if bent.
(4) Remove burrs from damper with a file so the damper will not bind in the air inlet.
(5) Straighten carrying handles if bent and weld cracks. Grind off welds so handles will slide in top manifold.

d. Assembly and Installation.

(1) Slide carrying handles (12, fig. 4) in top manifold (10). Insert a cotter pin (11) in each carrying handle and bend the ends.
(2) Install dial regulator assembly as follows:

(a) Install dial regulator (5) on shaft (6). Fasten handle to shaft with machine screw (1), lockwasher (2), and flat washer (13). Install wingnut (14).

(b) Insert shaft (6) through hole in air inlet and fasten dial regulator (5) with two machine screws (3) and lockwashers (4).

(c) Turn handle of dial regulator (5) until flat side of shaft (6) is up. Fasten damper (7) to shaft with two machine screws (3) and lockwashers (4).

(3) Coat mating surfaces of locking coupling tube (3, fig. 7) with gasket sealing compound, type II, Specification MIL-S-45180.
(4) Slide locking coupling (4) over locking coupling tube (3) so that slots in coupling face flanged end of tube.
(5) Slide locking coupling tube (3) into end of elbow (6). Align holes and install four drive screws (5).
(6) Install inlet manifold connector (20) over air inlet and position so that locking studs are parallel to carrying handles (12, fig. 4). Install four drive screws (19, fig. 7).
(7) Assemble intake manifold (15), bottom manifold (11), and top manifold (18) as described in TM 3-4240-24112 after inspection and maintenance of the filter unit by organizational maintenance personnel.

Section III. AIR INLET HOSE ASSEMBLY

17. Description and Function

The air inlet hose assembly (fig. 8) consists of a helical spring wire stiffened nylon hose with a locking coupling on one end and a cover assembly on the other end. The cover assembly contains a wire screen and is secured to the hose by a hose clamp. The locking coupling swivels on a locking coupling tube that is fastened to a hose adapter by four drive screws. The hose adapter is secured to the hose by a hose clamp. The function of the air inlet hose assembly is described in TM 3-4240-241-12.

18. Maintenance

(fig. 8)

General support maintenance personnel are authorized to replace the cover assembly, hose adapter, locking coupling, locking coupling tube and attaching hardware.

a. Disassembly.

(1) Loosen hose clamp (5) and remove cover assembly (4) from hose (6).
(2) Remove four drive screws (8) and separate locking coupling (9) and locking coupling tube (10) from hose adapter (7). Slide locking coupling from locking coupling tube.
(3) Loosen hose clamp (5) and remove hose adapter (7) from hose (6).

b. Cleaning and Inspection.

(1) Clean metal parts with drycleaning solvent. Wipe hose clean with a dry rag or a rag slightly moistened with solvent. Remove old gasket sealing

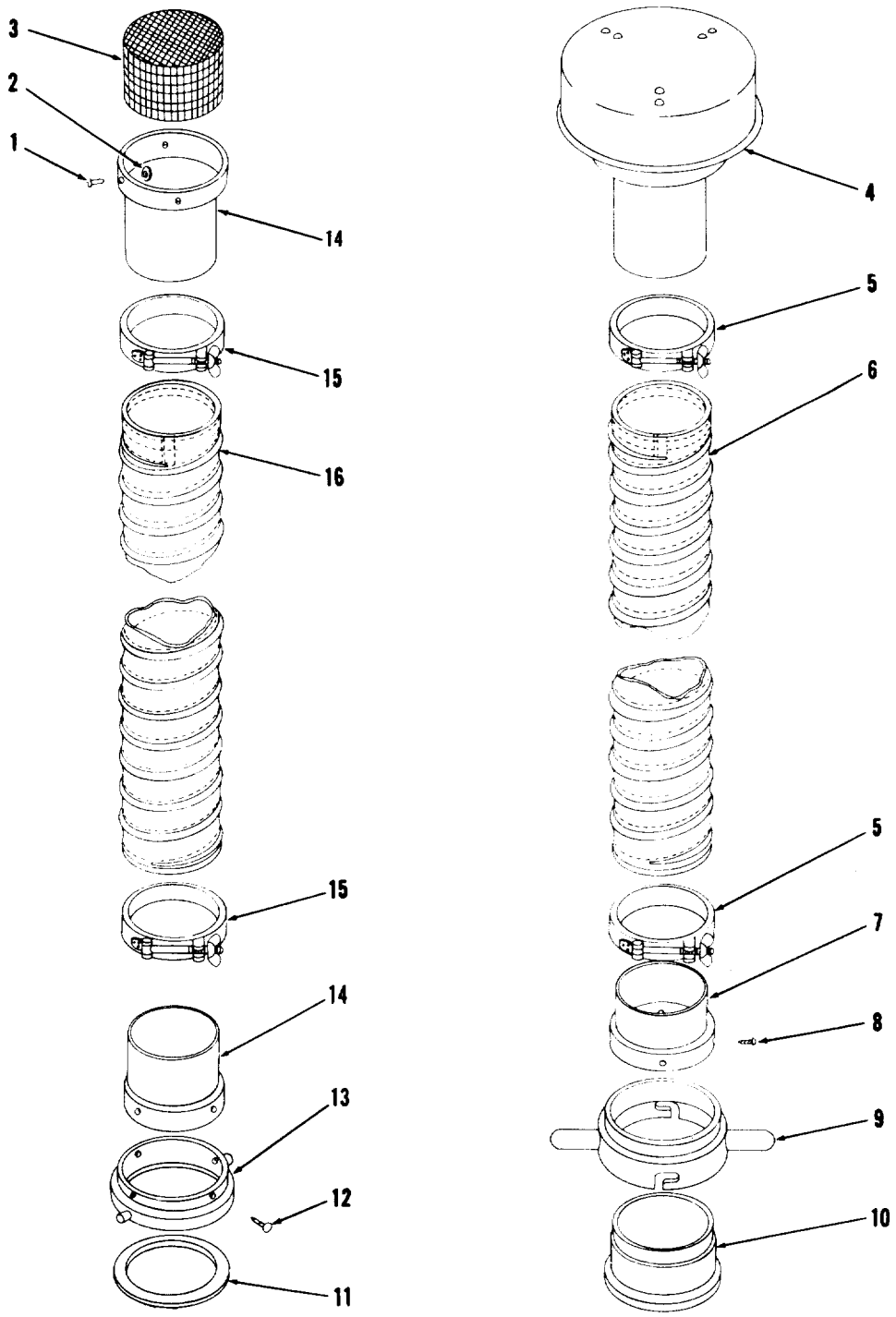


Figure 8. Air outlet and inlet hose assemblies.

1 Rivet
2 Plain washer
3 Screen assembly
4 Cover assembly
5 Hose clamp
6 Hose
7 Hose adapter
8 Drive screw
9 Locking coupling
10 Locking coupling tube
11 Rubber gasket
12 Drive screw
13 Connector
14 Hose adapter
15 Hose clamp
16 Hose

Figure 8-Continued.

compound from hose adapter (7) and locking coupling tube (10).

(2) Inspect hose (6) for chafing or tearing. Check helical spring wire for breaks or loose scuff strips and stitching.

(3) Inspect hose clamps (5) for cracks or distortion.

(4) Check to see if slots in locking coupling are broken or worn excessively.

(5) Inspect cover assembly (4) for dents, cracks, or loose rivets. Check screen in cover for torn wire mesh.

c. Repair.

(1) Remove nicks or burrs from locking coupling and tube with a file and aluminum oxide abrasive cloth. Use a round file and deepen slots in locking coupling until the coupling locks securely to a mating adapter.

(2) Straighten dents in cover assembly. Replace loose rivets. Replace cover assembly if screen is damaged.

d. Assembly.

(1) Install one hose clamp (5) over end of hose (6) and insert hose adapter (7) in hose. Tighten hose clamp.

(2) Apply gasket sealing compound, type II, Specification MIL-S-45180 to mating surfaces of hose adapter (7) and locking coupling tube (10). Slide locking coupling (9) over locking coupling tube with slots in coupling facing flange of tube. Insert tube in hose adapter and secure with four drive screws (8).

(3) Install hose clamp (5) over other end of hose (6) and insert cover assembly (4) in hose. Tighten hose clamp.

Section IV. AIR OUTLET HOSE ASSEMBLY

19. Description and Function

The air outlet hose assembly (fig. 8) consists of a helical spring wire stiffened nylon hose with a wire screen on one end and a connector on the other end. A hose adapter is secured to each end of the hose with a hose clamp. The screen is riveted to one hose adapter and the connector is secured to the other hose adapter with four drive screws. The function of the air outlet hose assembly is described in TM 3-4240-241-12.

20. Maintenance

(fig. 8)

General support maintenance personnel are authorized to replace the screen assembly, connector, hose adapter and attaching hardware.

a. Disassembly.

(1) Loosen hose clamp (15) and remove screen assembly (3) with hose adapter (14) from hose (16). To remove screen assembly from hose adapter, drill through and remove rivet heads; drive out rivets (1).

(2) Remove four drive screws (12) and separate connector (13) from hose adapter (14).

(3) Loosen other hose clamp (15) and remove hose adapter (14) from hose (16).

b. Cleaning and Inspection.

(1) Clean metal parts with drycleaning solvent. Wipe hose clean with a dry rag or a rag slightly moistened with solvent. Remove old gasket sealing compound from connector (13) and hose adapter (14).

(2) Inspect hose (16) for chafing or tearing. Check helical spring wire for breaks or loose scuff strips and stitching.

(3) Inspect hose clamps (15) for cracks or distortion.

(4) Check pins in connector (13) for tightness. Inspect connector for cracks, burrs, or nicks.

(5) Inspect screen assembly (3) for torn or distored wire mesh.

c. Repair. Straighten screen assembly if distorted. If the screen assembly cannot be repaired, secure new screen assembly to hose adapter with four rivets and plain washers.

d. Assembly.

(1) Install one hose clamp (15) over end of hose (16) and insert hose adapter (14) in hose. Tighten hose clamp.

(2) Apply gasket sealing compound, type II, Specification MIL-S-45180 to mating surfaces of hose adapter and connector (13). Slide connector to hose adapter until bottomed; align holes and install four drive screws (12).

(3) Install other hose clamp (15) over end of hose (16) and insert hose adapter (14) with screen assembly (3) into end of hose. Tighten hose clamp.

Section V. DESCRIPTION AND FUNCTION

21. Description and Function

The electric motor installation is described in paragraph 11.

22. Maintenance

General support personnel are authorized to repair and replace all assemblies and component parts that are contained in paragraph 11.

CHAPTER 4

DEPOT MAINTENANCE INSTRUCTIONS

23. General

Depot maintenance personnel are authorized to perform all maintenance services and inspections allocated to the lowest categories of maintenance and to overhaul the ABC-M6A1 filter unit as required.

24. Gasoline Engine Installation Group

Depot maintenance personnel are authorized to overhaul and replace all assemblies and component parts that are contained in technical manual TM 5-2805-206-14.

25. Electric Motor Installation Group

Depot maintenance personnel are authorized to overhaul and replace all assemblies and component parts that are contained in paragraph 11 of this manual.

APPENDIX I

REFERENCES

TM 3-4240-241-12	Operator and Organizational Maintenance Manual, Filter Unit, Gas-Particulate, GED, 300 CFM, ABC-M6A1 and EMD, 300 CFM, ABC-M6A1.
TM 3-4240-241-20P	Organizational Maintenance Repair Parts and Special Tool Lists, Filter Unit, Gas-Particulate, GED, 300 CFM, ABC-M6A1 and EMD, 300 CFM, ABC-M6A1.
TM 3-4240-241-35P	Direct Support, General Support, and Depot Repair Parts and Special Tool Lists, Filter Unit, Gas-Particulate, GED, 300 CFM, ABC-M6A1 and EMD, 300 CFM, ABC-M6A1.
TM 5-2805-206-14	Operator, Organizational, and Field Maintenance Manual for Engine, Gasoline, Military Standard Models 1A08-1, 1A08-2, 2A016-1, and 2A016-2.
TM 5-2805-206-24P	Organizational and Field Maintenance Repair Parts and Special Tool Lists, Filter Unit, Gas-Particulate, GED, 300 CFM, ABC-M6A1 and EMD, 300 CFM, ABC-M6A1.
TM 9-213	Painting Instructions for Field Use.
TM 38-750	The Army Equipment Record Procedures.

By Order of the Secretary of the Army:

HAROLD K. JOHNSON,
General, United States Army,
Chief of Staff.

Official:

J. C. LAMBERT,
Major General, United States Army,
The Adjutant General.

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USACMLCS (50)
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Dep (5)
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POE (1)
Instl (2)

USA Tml Comd (1)
Army Tml (1)
USAAPSA (5)
Arsenals (3) except Edgewood (50)
PG (5)
USAC (1)
Units org under fol TOE: (1 each UNOINDC)
3-7
3-32
3-36
3-47 (2)
3-67 (2)
3-117
3-147
3-500 AA-AC
29-1
29-11
29-15
29-17
29-21
29-25
29-27
29-35
29-37
29-45
29-51
29-55
29-56
29-57
29-75
29-79
29-105
29-109

NG: State AG (3); Div (1).

USAR: None.

For explanation of abbreviations used, see AR 320-50.

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

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 decigram = .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

To change	*To*	*Multiply by*	*To change*	*To*	*Multiply by*
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	6.451	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	1.365	metric tons	short tons	1.102
pound-inches	newton-meters	.11375			

Temperature (Exact)

^{o}F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	^{o}C

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