# TM 9-4910-389-12

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR AND ORGANIZATIONAL

MAINTENANCE MANUAL

(INCLUDING REPAIR PARTS

AND SPECIAL TOOLS LIST)

## FOR

CLEANER AND TESTER, SPARK PLUG:

BENCH MOUNTED (CHAMPION SPARK PLUG CO.,

MODEL 800) (JAT INDUSTRIES, MODEL JAT5000)

(THE OILJAK MFG. CO. INC., MODEL B800M)

(THE VP COMPANY, MODEL VP500)

(4910 - 261 - 5868)



HEADQUARTERS, DEPARTMENT OF THE ARMY

**JULY 1972** 

HEADQUARTERS DEPARTMENT OF THE ARMY Washington, D. C., 6 July 1973

## Operator's and Organizational Maintenance Manual (Including Repair Parts List) for CLEANER AND TESTER, SPARK PLUG: BENCH MOUNTED (CHAMPION SPARK PLUG CO., MODEL 800) (JAT INDUSTRIES, MODEL JAT5000) (THE OILJAK MFG. CO. INC., MODEL B800M) (THE VP COMPANY, MOFEL VP500) (4910-261-5868)

TM 9-4910-389-12, 31 July 1972 is changed as follows: Title is changed as shown above.

Page ii. APPENDIX is superseded as follows:

Appendix	Α.	REFERENCES	A-1	A-1
	В.	BASIC ISSUE ITEMS LIST AND ITEMS		
		TROOP INSTALLED OR AUTHORIZED LIST	B-1	B-1
	C.	MAINTENANCE ALLOCATION CHART	C-1	C-1
	D.	ORGANIZATIONAL MAINTENANCE REPAIR		
		PARTS LIST	D-1	D-1

Page 1-1 Paragraph 1-1e is superseded as follows: e. Appendix D contains Repair Parts for operating and performing organizational maintenance on the spark plug cleaner and tester.

Paragraph 1-3 is superseded as follows

1-3. Recommendations for Maintenance Publications Improvements

You can improve this manual by calling attention to

errors and by recommending improvements using DA Form 2028 (Recommended Changes to Publications) or by a letter and mailing directly to Commander, US Army Weapons Command, ATTN: AMSWE-MAS-SP, Rock Island, IL 61201.

*Page 1-5*, Paragraph 1-7c is superseded as follows: c. Parts included with the end item and considered as components of the end item configuration are listed in the following table 1-1:

Change

Table 1-1. Components of the End Item

Components	Part number	(FSCM or FSCNM	Code	Qty
3 INCH NIPPLE ADAPTER, SPARK PLUG CLEANER ru, 10-MM spark plugs accommodated, 1-3/4 dia, 2-13/16	5210-1 1A125	(8G954) (11583)	B A and B	1 1
shoulder dia, 9/16 body h ADAPTER, SPARK PLUG CLEANER: ru, 14-MM spark plugs accommodated, 1-3/4 dia, 2-13/16	502	(11583)	A and B	1
shoulder dia, 9/16 body h ADAPTER, SPARK PLUG CLEANER: ru, 18-MM spark plugs accommodated, 1-3/4 dia, 2-13/16 shoulder dia, 9/16 body h	1A126	(11583)	A and B	1
ADAPTER, SPARK PLUG CLEANER: ru, 7/8 spark plugs accommodated, 1-3/4 dia, 2-13/16 shoulder dia. 9/16 body h	504	(11583)	A and B	1
ADAPTER, SPARK PLUG TESTER adapts compression chamber to accommodate 10-MM spark plugs, S body, 1-1/8 w o/a, 13/16 lg o/a	510	(11583)	A and B	2
ADAPTER, SPARK PLUG TESTER: adapts compression chamber to accommodate 14-MM spark plugs, S body, 1-1/8 w o/a, 13/16 lg o/a	514	(11583)	A and B	2
ADAPTER, SPARK PLUG TESTER adapts compression chamber to accommodate 18-MM spark plugs, S body, 1-1/8 w o/a, 13/16 lg o/a	518	(11583)	A and B	2
ADAPTER MOUNTING POSTS:	VP9-3817-530	(21246)	B	1
CLEANING ADAPTER MOUNTING BRACKET	VP9-381/-514 VD0 2817 521	(21246)	A and B	1
CLEANING CHAMBER SHIELD:	VF9-5817-551	(21240)	D A and D	1
for testing	083	(11385)	A allu D	1
COLIPLING HALF OLIICK-DISCONNECT	8050-11	(53477)	А	1
ELECTRICAL PLUG ADAPTER	VP9-3817-511	(21246)	В	1
ELECTRICAL PLUG ADAPTER:	8-811	(44678)	А	1
GAGE. GAP SETTING:	FB302	(55719)	A and B	1
GASKET:	MS35769/18	(96906)	A and B	3
asbestos, copper, 0.875 id, 1.125 od, 0.094 thk				
HOSE NIPPLE:	VP9-3817-521	(21246)	В	1
1/4 NPT, quick disconnect				
SPARK INDICATOR:	8-806	(44678)	A	1
SPARK PLUG TRAY;	VP9-3817-508	(21246)	В	1
SPARK PLUG TRAY	534 MD0 2017 500	(44678)	A	1
WAIEK IKAP	VP9-3817-309	(21246)	В	1

*Page 3-4*, table 3-1. After ABRASIVE GRAIN change "(MILG 9954:81349) (10 oz)" to read "(MIL-C-744B: 81349)."

## APPENDIX B BASIC ISSUE ITEMS LIST AND ITEMS TROOP INSTALLED OR AUTHORIZED LIST

## Section I. INTRODUCTION

## 1. Scope

This appendix lists basic issue items and items troop installed or authorized required by the crew/operator for operation of the spark plug cleaner and tester.

## 2. General

This Basic Issue Items List and Items Troop Installed or Authorized List is divided into the following sections:

a. Basic Issue Items List. Not applicable.

*b. Items Troop Installed or Authorized List.* Not applicable.

## 3. Explanation of Columns

The following provides an explanation of columns found in the tabular listings

*a. Federal Stock Number.* Indicates the Federal stock number assigned to the item and will be used for requisitioning purposes.

b. Description. Indicates the Federal item name and a minimum description required to identify the item. The last line indicates the reference number followed by the applicable Federal Supply Code for Manufacturer (FSCM) in parentheses. The FSCM is used as an element in item identification to designate manufacturer or distributor or government agency, etc., and is identified in SB 708-42. Items that are included in kits and sets and listed below the name of the kit or set with quantity of each item in the kit or set indicated in front of the item name.

c. Unit of Measure (U/M). Indicates the standard or basic quantity by which the listed item is used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation, e.g., ea, in., pr, and is the basis used to indicate quantities. When the unit of measure differs from the unit of issue, the lowest unit of issue that will satisfy the required units of measure will be requisioned.

d. Quantity Furnished with Equipment (Basic columns ItemsOnly). Indicates the quantity of the item furnished with the equipment.

e. Quanity Authorized (Items Troop Installed or Authorized Only). Indicates the quantity authorized to be used with the equipment.

f. Illustration (Basic Issue Items Only). This column is divided as follows

(1) Figure number. Indicates the figure number of the illustration in which the item is shown.

(2) *Item number*. Indicates the item number used to identify each item called out in the illustra-

*Page D-1*. Appendix D title is changed to read as follows:

## APPENDIX D ORGANIZATIONAL MAINTENANCE REPAIR PARTS LIST

Paragraph D-1 is superseded as follows:

## D-1. SCOPE

This appendix lists repair parts required by **the** crew/operator for operation and required for the performance of organizational maintenance of the

spark plug cleaner and tester.

Paragraph D-2d is rescinded. *Page D-5.* Section V, Tools and Support Equipment is rescinded.

Page D-6. Section VI is superseded as follows:

## Section VI. FEDERAL STOCK NUMBER AND REFERENCE NUMBER INDEX

Stock NUMBER	FIGURE NO.	ITEM NO.	REFERENCE NUMBER	MFG. CODE	FIG. NO.	ITEM NO
4910-387-9498	1-1	8	VP9-3817-525	21246	1-2	10
	2-1	6			2-1	5
	2-3	2	5-560	11583	1-1	13
5930-356-8129	1-1	13	622	11583	1-1	8
					2-1	6
					2-3	2

Page D-8, Alphabetical Index. Under "Tables:" delete: "Tools and support equipment ......1-1."

By Order of the Secretary of the Army:

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To be distributed in accordance with DA Form 12-38, (qty rqr block no. 250) Organizational maintenance requirements for Truck, Utility 1/4-Ton, M151, and DA Form 12-40, (qty rqr block no. 136) Organizational maintenance requirements for Rifle, 5.56 MM, M16, M16A1. USNG: AG (3)

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## OPERATOR AND ORGANIZATIONAL

MAINTENANCE MANUAL (INCLUDING REPAIR

## PARTS AND SPECIAL TOOLS LIST)

FOR

# CLEANER AND TESTER, SPARK PLUG: BENCH MOUNTED (CHAMPION SPARK PLUG CO., MODEL 800) (JAT INDUSTRIES, MODEL JAT5000) (THE OIL JAK MFG. CO. INC., MODEL B800M) (THE VP COMPANY MODEL VP500) (4910-261-5868)

Current as of 30 June 1972

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## INTRODUCTION

## Section I. GENERAL

#### **1-1. SCOPE**

*a.* This manual is for your use in operating and maintaining the spark plug cleaner and tester. (Champion, model 800) (JAT, model JAT5000) (Oiljak, model B800M) (VP, model VP500).

*b*. Appendix A contains a list of current references, including forms, technical manuals, and other available publications applicable to the spark plug cleaner and tester.

*c.* Appendix B—BASIC ISSUE ITEMS LIST (BILL) AND ITEMS TROOP INSTALLED OR AUTHORIZED LIST (ITIAL)-not applicable.

*d* Appendix C contains the Maintenance Allocation Chart for the spark plug cleaner and tester, listing all maintenance and repair operations authorized by maintenance echelons.

*e.* Appendix D contains Repair Parts, and Tools and Support Equipment for operating and performing organizational maintenance on the spark plug cleaner and tester.

#### **1-2. Maintenance Forms and Records.**

Maintenance forms and records that you are required to use are explained in TM 38-750.

**1-3. Reporting of Errors.** You can improve this manual by calling attention to errors and by recommending improvements, using DA Form 2028 (Recommended Changes to Publications], or by a letter, and mail directly to: Commanding General, Headquarters, U. S. Army Weapons Command, ATTN: AMSWE-MAS, Rock Island, IL 61,201 ..4 reply will be furnished directly to you.

**1-4. Equipment Serviceability Criteria** (ESC). This equipment is not covered by an ESC.

**1-5. Destruction of Army Materiel to Prevent Enemy Use.** Refer to DOD 4160.21-M-1 for destruction of materiel to prevent enemy use.

**1-6. Administrative Storage.** Refer to TM 740-90-1 for administrative storage.

## Section II. DESCRIPTION AND DATA

**1-7. Description.** You can clean and test used aircraft and automotive type spark plugs with any model listed. The maintenance paragraphs of this manual contains detailed descriptions of their

components. The four models of Cleaner and Tester, Spark Plug (4910-261-58-8) are designated as codes "A" and "B." Codes "A" and "B" vary only in appearance.

a. "Champion Spark Plug Co., model 800" and "The Oiljak Mfg. Co. Inc., model B800M" are identical. They are designated code "A" (Fig. 1-1).

KEY to Fig. 1-1:

- 1. 1/4 NPT quick-disconnect hose nipple
- 2. Water trap
- 3. Cleaner valve knob
- 4. Air line connection
- .5. Screw
- 6. Clip screw
- 7. Cleaner bag frame assembly
- 8. Rubber sand blast nozzle tip
- 9. Cleaning adapter mounting bracket
- 10. Cabinet top
- 11. Cap screw
- 12. Wire-switch OFF and ON-button
- 13. Switch OFF and ON-button
- 14. Screw
- 15. PRESSURE knob
- 16. Power supply unit
- 17. Lock nut
- 18. Adjustment screw
- 19. slot
- 20. Cord
- 21. Electrical plug adapter
- 22. Green pigtail
- 23. Spark plug tray
- 24. "Abrasive Blast"25. "Air Blast"
- 26. Flip-top shield
- 27, Spark indicator
- 28. Viewing chamber with mirrors
- 29. Compression chamber
- 30. High voltage lead

b. "JAT Industries, model JAT5000" and "The VP Company, model VP500" are identical. They are designed code "B" (Fig. 1-2).



Figure 1-1. Spark plug cleaner and tester-code "A" model.



- 1. "AIR" button 2. "BLAST" button
- 3. Cleaning chamber shield
- 4. Adapter mounting posts
- 5. Clip
- 6. High voltage lead
- 7. 7 / 8 inch testing adapter 8. Viewing chamber with mirror
- 9. PRESSURE knob

- 10. Electrical switch-button
- 11. Cap screw
- 12. Pressure gauge
- 13. 3 inch nipple
- 14. Water trap
- 15. ¼ NPT quick-disconnect hose nipple
  16. Electrical plug adapter

WE 38649

- 17. Green pigtail
- 18. Spark plug tray
- Figure 1-2. Spark plug cleaner and tester-code "B" model.

*c.* Parts included with end item and considered part of end item are listed in Table 1-1. Check part number in Appendix D for manufacturer's code, and location by figure and item number.

Table	1-1.	Parts	Included	With	End	Item
-------	------	-------	----------	------	-----	------

1-8. Tabulated Data. The identification plate is located on the exterior of unit. It identifies the nomenclature (SPARK PLUG CLEANER AND TESTER), manufacturer, model, FSN (4910-261-5868), serial and contract number, Table 1-2 contains tabulated data.

Part	Part Number:	Code
	FSCM or FSCNM	
3 inch nipple	5210-1:8G954	В
Adapter mounting posts	VP9-3817-530:21246	В
Cleaning chamber shield	VP9-3817-531:21246	В
Electrical plug adapter	8-811:44678	А
	VP9-3817-511:21246	В
Hose nipple, 1/4 NPT, quick-disconnect	VP9-3817-521:21246	В
Spark indicator	8-806:44678	А
Spark plug tray	534:44678	А
	VP9.3817-508:21246	В
Water trap	VP9-3817-509:21246	В

* Manufacturer and Nonmanufacturer	*Model	Height	Width	Depth	Weight	* Compressed Air	* Electrical Requirements	
						Requirements	Volts	Cycles
1. Champion Spark Plug Co.	800	14 in.	20 in.	15 in.	27 lbs (net)	120-180 psi	115	50-60
2. JAT Industries	<b>JAT</b> 5000	13 in.	18 in.	9 in.	20 lbs	120-150 psi	115	50-60
3. The Oiljak Mfg. Co. Inc.	<b>B800M</b>	14 in.	20 in.	15 in.	27 lbs (net)	120-180 psi	115	50-60
4. The VP Company	<b>VP</b> 500	13 in.	18 in.	9 in.	20 lbs	120-150 psi	115	50-60

## CHAPTER 2

## **OPERATING INSTRUCTIONS**

#### WARNING

Compressed air can produce air bubbles in the blood stream (embolism). Air can enter body through minor cuts. Embolism can be extremely painful and sometimes FATAL. Disconnect air line before performing maintenance or troubleshooting on compressed air system other than adjustment of air pressure. You will wear goggles when cleaning plugs. This will keep abrasive grain out of eyes. Use extreme caution to be sure voltage is not applied to high voltage lead except when required in test.

If equipment fails to operate, refer to troubleshooting procedures in chapter 3.

Do not inhale cleaning solvent for prolonged periods.

## Section I. OPERATING PROCEDURES

#### 2-1. Installation and Preparation for Use.

a. Secure Unit. Unit (Fig. 1-1 or 1-2) may be fastened to work bench through holes provided.

*b. Connect Cord.* Connect cord (20, Fig. 1-1 or 1, Fig. 2-1) to a mating 3 wire electrical outlet (115

VAC, 50-60 cycles). If this type outlet is not available, use the electrical plug adapter (21, Fig. 1-1 or 16, Fig. 1-2). Secure the green pigtail (22, Fig. 1-1 or 17, Fig. 1-2) to a suitable ground on the outlet box.



*c. Install Adapter Mounting Posts.* On code "B" models install two adapter mounting posts (4, Fig. 1-2) in holes located on top of the right-rear section of the unit. Secure in place with screws and lockwashers provided. The adapters not in use are placed on these posts. Place the spark plug cleaner adapters (1, 2, 3, and 4, Fig. 2-2) on one post and spark plug tester adapters (7, 8, and 9, Fig. 2-2) on the other post. On code "A" models holes are provided on right side of unit for adapters. Place the spark plug cleaner adapters on top row and spark plug tester adapters on bottom row.



Figure 2-2. Tools and support equipment.

d. Install Cleaning Chamber Shield. On code "13" models install cleaning chamber shield (3, Fig. 1-2) to left of above posts. Secure in place with screws, lockwashers, and nuts provided. On code "A" models a flip-top shield (26, Fig. 1-1) is attached on top-left position. The shield prevents abrasive grain from getting into your eyes, however, see above WARNING.

e. Install Water Trap and Air Line Hose. On code "B" models screw 3 inch nipple (13, Fig. 1-2) into elbow at bottom of "BLAST / AIR" valve (9, Fig. 2-1). using plumbing putty. This valve is located at the rear inside of unit on top right side. Screw water trap (14, Fig. 1-2) on 3 inch nipple. Screw 1/4 NPT quick-disconnect hose nipple (15, Fig. 1-2) on water trap. On all models connect standard air line (120 to 150 PSI) to the 1/4 NPT nipple on water trap to supply compressed air to unit. On code "A" models the 1/4 NPT quick-disconnect hose nipple (1, Fig, 1-1) is entended

from unit on left side. Water from compressed air is collected in water trap (2, Fig. 1-1 or 14, Fig. 1-2). When compressed air is used observe above WARNING.

f. Secure Shielded Spark Plug Contactor. O n code "B" models place shielded spark plug contactor (5, Fig. 2-2) into clip (5, Fig, 1-2) located between adapter mounting posts in c above. A clip is not provided on code "A" models. This contactor is used to test Army type plugs. It is inserted into plug to adapt it for use with high voltage lead (30, Fig. 1-1 or 6, Fig. 1-2). Observe above WARNING concerning high voltage lead.

g. Cleaning Chamber.

(1) On code "A" models the cleaner bag frame assembly (7, Fig. 1-1 and Fig. 2-3) is installed inside of unit below the flip-top shield in d above. The cleaner bag (8, Fig. 2-3) may be replaced or cleaned as follows:



- 1. Screw
- 2. Rubber sand blast nozzle tip
- 3. Steel nozzle tip(s)
- 4. Nozzle tube
- 5. Cleaning chamber
- 6. Inner bag clamp
- 7. Outer bag clamp-upper and lower
- 8. Cleaner bag
- 9. Hopper
- 10. Abrasive drain cap
- 11. Outer drain cap

(a) Remove cleaner valve knob (3, Fig. 1-1) located left-front top of unit.

(b) Remove screw (14, Fig. 1-1) located top of unit to right of flip-top shield.

(c) Lift cabinet top (10, Fig. 1-1) and secure in slot (19, Fig. 1-1).

(d) Disconnect two air line connections (4, Fig. 1-1) from cleaner bag frame assembly.

(e) Remove two screws (5, Fig. 1-1 or 1, Fig. 2-3) connecting cleaner bag frame assembly to unit. Remove entire assembly.

(f) Remove upper and lower outer bag clamps (7, Fig. 2-3).

(g) Fold back outside bag and remove inner bag clamp (6, Fig. 2-3).

(h) Remove dirt and abrasive grain as follows:

1. After cleaning 300-400 spark plugs remove both outer and abrasive drain caps (11, and 10, Fig. 2-3) on bottom of hopper (9, Fig. 2-3). Drain dirt and abrasive grain into a tray. Tap cleaner bag and hopper to remove sticking dirt or abrasive grain. Replace both the abrasive and outer drain caps.

2. After cleaning 900-1000 spark plugs remove hopper from bottom of cleaning chamber (5, Fig. 2-3) and clean.

(i) Slide cleaner bag off-shake or use air hose-to clean.

(j) Reassemble and reinstall in unit.

(2) on code "B" models the cleaning chamber canvas bag (11, Fig. 2-1) will be installed inside of unit below shield in d above. Secure open end of bag around circular part of cleaning chamber frame with bag clamp (7, Fig. 2-1). Adjust clamp opening by turning screw.

(a) Drain out dirt after cleaning 300-400 spark plugs.

1. Tap bag to loosen dirt.

2. Open bag zipper (12, Fig. 2-1).

3. Drain out dirt.

4. Close bag zipper.

(b) Dump dirt and abrasive grain after cleaning 900-1000 spark plugs.

1. Remove bag and clamp.

2. Open bag zipper.











Figure 2-3. Cleaner bag frame assembly.

- 3. Dump dirt and abrasive grain.
- 4. Shake—or use air hose—to clean bag.
- 5. Reinstall bag inside of unit.

(3) Pour required amount of abrasive grain into bag through hole in top of unit. Observe above **WARNING** when using abrasive grain. The abrasive grain applied to plug by compressed air will remove abrasive particles. The particles removed in cleaning chamber sift through inner bag. On code "A" models they are collected in bottom of hopper. On code "B" models they are collected in bottom of cleaning chamber canvas hag.

*h. Attach Spark Indicator.* On code "A" models attach spark indicator (27, Fig. 1-1) on top of unit to right of shield.

#### 2-2. Operating the Cleaner.

*a. Select Spark Plug Cleaner Adapter.* Select the correct size spark plug cleaner adapter (rubber) (1, 2, 3, and 4, Fig. 2-2) for spark plug being cleaned.

b. Install Spark Plug Cleaner Adapter.

(1) Insert spark plug cleaner adapter. Insert spark plug cleaner adapter in hole above bag (see 2-l. g. above). The top of chamber will be enclosed when plug is inserted into adapter for cleaning.

(2) Install cleaning adapter mounting bracket. Place cleaning adapter mounting bracket (6, Fig. 2-2) over adapter in 2-2. b. (1) above. Rotate bracket clockwise until it locks in place under the clip screws. This secures the adapter. Note: When cleaning spark plug, rotate clockwise or wobble in a circular manner.

c. Clean Spark Plug.

(1) First. Insert bottom of spark plug into the adapter in 2-2. b. (1) above.

(2) Second.

(a) On code "A" models the cleaner valve assembly is located inside of unit on left-front position. The cleaner valve knob (3, Fig. 1-1) of assembly is extended through opening in cover. It can be moved to two positions. Compressed air is released when knob is engaged in either position. These positions are marked "Abrasive Blast" (24, Fig. 1-1) and "Air Blast" (25, Fig. 1-1). The "Abrasive Blast" agitates the abrasive grain. The "Air Blast" is used to remove loose particles from plug.

(b) On code "B" models the compressed air from "BLAST / AIR" valve is released by pushing buttons marked either "BLAST" or "AIR. " These buttons are located on top of unit above "BLAST / AIR" valve in 2-1. e. above. The "BLAST" button (2, Fig. 1-2) agitates the abrasive grain, The "AIR" button (1, Fig. 1-2) is used to remove loose particles from plug. (3) Third.

(a) On code "A" models pull knob to "Abrasive Blast" position. Rotate spark plug for approximately five to ten seconds. Return knob to neutral position. This will clean most spark plugs.

(b) On code "B" models push "BLAST" button, rotate spark plug for approximately five to ten seconds, release button. This will clean most spark plugs.

(4) Fourth.

(a) On code "A" models push knob to "AIR BLAST" position for 2 or 3 seconds. This will remove loose particles from spark plug. Return knob to neutral position.

(b) On code "B" models push "AIR" button, for 2 or 3 seconds, to remove loose particles from spark plug, release button.

(5) *Fifth.* Remove spark plug. Perform test in paragraph 2-3. Reclean spark plug if test indicates plug can be reused.

#### 2-3. Operating the Tester.

a. Method I (Comparing a Used Plug to New Plug).

(1) *First.* Select two steel spark plug tester adapters (7, 8, and 9, Fig. 2-2) of the correct size for the spark plugs being tested.

Note: Screw plugs in finger-tight. Do not use wrench. Slight air-leakage at the adapter or spark plug threads facilitates steady control of air pressure. This is necessary to obtain a stable spark during test.

(2) Second. Insert plugs.

(a) on code "A" models screw adapters into compression chamber (29, Fig. 1-I). The compression chamber is located right-front on top of unit. The viewing chamber with mirrors (28, Fig. 1 -1) is located behind compression chamber. It is used to observe spark during test.

1. Screw the cleaned used spark plug in one adapter. Do not regap.

2. Screw the new spark plug in other adapter. The gap setting should correspond to that recommended for vehicle being checked.

(b) On code "B" models screw adapters into outside top part of the 7 / 8 inch testing adapter (7, Fig. 1-2). The 7 / 8 inch adapter is located in the unit above the viewing chamber with mirror (8, Fig. 1-2). This viewing chamber is located upperright front of unit. It is used to observe spark during test. This 7 / 8 inch adapter is used to adapt the other steel adapters. Screw new and cleaned used plugs in adapters as prescribed in (a) 1 and 2 above.

(3) *Third.* Connect the high voltage lead (30, Fig. 1-1 or 6, Fig. 1-2) to the terminal of the new spark plug. Return lead to position after use. If

shielded plugs are being tested, use shielded spark plug contactor as prescribed in paragraph 2-1. *f*. The high voltage lead with alligator clip, insulator and grommet is located between posts in 2-1. c. on code "B" models. On code "A" models it is located in front of compression chamber. It furnishes the voltage for spark. Observe above WARNING concerning high voltage lead.

(4) Fourth. Press switch OFF and ON button (13, Fig. 1-1) for code "A" models or electrical switch button (10, Fig. 1-2) for code "B" models, located left of viewing chamber. Watch spark in viewing chamber. Increase air pressure by turning PRESSURE knob (15, Fig. 1-1 or 9, Fig, 1-2) located to right of viewing chamber. The spark will quench out when pressure passes the sparking efficiency of the new plug. Reduce pressure until the spark becomes steady.

(5) Fifth. Mark reading of new plug.

(a) On code "A" models the spark indicator (27, Fig. 1-1 or Fig. 2-4) is located above and behind viewing chamber. Keep switch button pressed and move dial of indicator till the right edge of the "Green" or "Good" area (Fig. 2-4) is aligned with the gauge pointer (Fig. 2-4) (disregard gap setting arrow (Fig. 2-4)). The reading on indicator is the amount of pressure reached for new plug. This is the sparking efficiency of the new plug. Release switch button. The cleaned used spark plug will be compared to this reading. The scale on indicator is numbered every 20 psi. Numbering starts at 40 psi with markings every 4 psi to maximum of 200 psi.

"GREEN" OR GAUGE "GÖÖD" POINTER AREA (TYPICAL) SPARK INDICATORS "YELLOW" OR "FAIR" ARFA "RED " OR "REPLACE ' AREA "GREEN" OR "GOOD" AREA GAP SETTING ARROW GAUGE NEEDLE "YELLOW" OR "FAIR" AREA PRESSURE GAUGE "RED" OR "REPLACE" AREA WE 38653

Figure 2-4. Dials.

(b) On code "B" models the pressure gauge (12, Fig. 1-2 or Fig. 2-4) is located below viewing chamber. Keep switch button pressed and rotate dial on gauge until the "Green" or "Good" area (Fig. 2-4) lines up guage gauge needle (Fig. 2-4). (Only one needle on gauge, two needles are shown on illustration to show sample of readings for new and used plugs). This is the sparking efficiency of the new plug. Release switch button. The cleaned used spark plug will be compared to this reading. The scale on pressure gauge is numbered every 20 psi. The range is 0 psi to 200 psi wiith markings every 5 psi.

(6) *Sixth.* Remove the high voltage lead from the new spark plug and clip on the cleaned used plug.

(7) Seventh. Obtain a steady spark on used plug as prescribed in (4) above. Compare reading of cleaned used spark plug with reading of new plug in (5) (a) and (5) (b) above. The reading will be in one of the following areas:

(a) The green or good area (higher reading than this means used plug is better than new plug) indicates cleaned used spark plug is in good condition and will be reused.

(b) The yellow or fair area (Fig. 2-4) indicates cleaned used spark plug requires approximately 50 per cent of the available ignition system voltage. This area is located to left of area in (a) above. Replacement of plug is recommended. If conditions make this undesirable, the plug may be reused. The plug can generally be cleaned and serviced. The spark plug electrodes cannot be too severely eroded or deteriorated.

(c) The red or replace area (Fig. 2-4) indicates cleaned used spark plug requires 75 per cent or more of the available ignition system voltage. This area is located to left of area in (b) above. The plug is in bad condition and will be replaced.

b. *Method II (Testing Two Used Plugs).* Only code "A" models are equipped to perform this method.

(1) *First.* Select two steel spark plug tester adapters (7, 8, and 9, Fig. 2-2) of the correct size for the spark plugs being tested.

Note: Screw plugs in finger-tight. Do not use wrench.

Slight air-leakage at the adapter or spark plug threads facilitates steady control of air pressure. This is necessary to obtain a stable spark during test,

(2) Second. Screw adapters into compression chamber (29, Fig. 1-1). The compression chamber is located right-front on top of unit. The viewing chamber with mirrors (28, Fig. 1-1) is located behind compression chamber, It is used to observe spark during test. Screw one cleaned used spark plug in each adapter in compression chamber. Do not regap plugs.

(3) Third. Connect the hig~h voltage lead (30, Fig.1-1 to the terminal of either spark plug. Return lead to position after use. If shielded plugs are being tested, use shielded spark plug contactor as prescirbed, in paragraph 2-1. *f*. The high voltage lead with alligator clip, insulator and grommet is located in front of compression chamber. It furnishes the voltage for spark. Observe above WARNING concerning high voltage lead.

(4) Fourth.

*{al The* spark indicator (27, Fig. 1-1 or Fig. 2-4) is located above and behind viewing chamber. Move dial of indicator till the gap setting arrow (Fig.2-4) is aligned with setting of the gap for plug being tested. (See middle spark indicator.)

(b) Press switch OFF and ON button (13, Fig. 1-1) located left of viewing chamber. Watch spark in viewing chamber. Increase air pressure by turning PRESSURE knob (15, Fig. 1-1) located to right of viewing chamber. The spark will quench out when pressure passes the sparking efficiency of plug. Reduce pressure until the spark becomes steady.

(c) W bile still pressing switch button, observe gauge pointer (Fig. 2-4) of indicator. The reading on indicator is the amount of pressure reached and the sparking efficiency of plug being tested. (See spark indicator on right.) Release switch button. The scale on indicator is numbered every 20) psi. Numbering starts at 40 psi with markings every 4 psi to maximum of 200 psi. The gauge pointer points to an area on dial. It indicates condition of plug for gap tested, The areas with explanations are as follows:

1. The green or good area (Fig. 2-4) indicates cleaned used plug spark plug is in good condition and will be reused used.

2. The yellow or fair area (Fig. 2-4) indicuates clreaned used spark plg is in fair condition and maiy be reused. Replacement f plug is recommended.

3. The red or replace area (Fig. 2-4) indicates cleaned ui used spark plug is in bad condition and will be replaced.

(5) *Fifth. Move* high voltage lead to the other plug and repeat (4 I (b) and (4) (c) above. The test determines if both plugs are serviceable.

2-4. Remove the Equipment from Operation.

a. Put Equipment in Standby Condition.

(1) Disconnect cord. Disconnect cord from electrical outlet. Disconnect green pigtail from ground. Remove electrical plug adapter. (2) *Disconnect air line hose.* Disconnect air line hose from 1/4 NPT quick-disconnect hose nipple on water trap.

(3) *Remove 1 NPT quick-disconnect hose nipple.* Remove 1/4 NPT quick-disconnect hose nipple from water trap.

(4) *Remove water trap and ,3 inch nipple.* On code "B" models remove water trap from 3 inch nipple. Remove 3 inch nipple.

(5) *Secure.* Secure accessories removed in (1), (3), and (4) above in unit.

b. Put Equipment in Shutdown Status.

(1) Disconnect cord. Disconnect cord from electrical outlet. Disconnect green pigtail from ground. Remove electrical plug adapter.

(2) Secure flip-top shield. On code "A" models tape flip-top shield to cover.

(3) *Disconnect air line hose.* Disconnect air line hose from 1/4 NPT quick-disconnect hose nipple on water trap.

(4) *Remove 1/4 NPT quick-disconnect hose nipple.* Remove 11/4 NPT quick-disconnect hose nipple from water trap.

(5) *Remove water trap and* 3 *inch nipple.* On code "B" models remove water trap from 3 inch nipple. Remove 3 inch nipple.

(6) Remove shielded spark plug contactor. On code "B" models remove shielded spark plug contactor from clip located between adapter mounting posts.

(7) Remove cleaning adapter mounting bracket. Remove cleaning adapter mounting bracket. Rotate bracket counter-clockwise until it is free of the clip screws.

(8) *Remove spark plug* cleaner *adapters and spark plug tester adapters.* Remove spark plug cleaner adapter from hole above cleaning chamber.

(a) On code "A" models remove adapters from right side of unit. "Remove two spark plug tester adapters from compression chamber.

(b) on code "B" models remove adapters from adapter mounting posts. Remove two spark plug tester adapters from top of the 7 / 8 inch testing adapter.

(9) Secure.

(a) Cushion following items in box or bag to prevent loss or damage:

1. On code "A" models the loose shielded spark plug contactor.

2. Abrasive grain.

3. Spark plug tray.

4. Items removed in (1), and (4) through (8) above.

(b) Store in unit.

(10) Clean cleaner bag or cleaning chamber canvas bag. Clean cleaner bag or cleaning chamber canvas bag as prescribed in paragraph 2-1. g.

## Section II. OPERATION OF AUXILIARY EQUIPMENT

**2-5. Auxiliary Equipment.** No auxiliary equipment is required on the spark plug cleaner and tester.

## Section III. OPERATION UNDER UNUSUAL CONDITIONS

**2-6. Unusual Conditions.** The spark plug cleaner and tester has electrical and compressed air requirements. Area where these requirements can

be met would eliminate unusual operating conditions. No additional operating instructions required.

## CHAPTER 3

### **OPERATOR/ CREW MAINTENANCE INSTRUCTIONS**

#### Section I. LUBRICATION INSTRUCTIONS

**3-1. Lubricatoin.** No lubrication is required on the Spark Plug cleaner and tester.

#### .Section II. PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

3-2. General. To insure that the Spark Plug Cleaner and 'I'ester is ready for operation at all times, is must be inspected systematically so that defects may be discovered and corrected before they result in serious damage or failure. The necessary preventive maintenance checks and services to be performed are listed as described in paragraph 3-4. The item numbers indicate the sequence of minimum inspection requirements. The work measurement time in tenths of hour is included in Table 3-1 below item number. Defects discovered during operation of the unit will be noted for future correction to be made as soon as operation has ceased. Stop operation immediately if a deficiency is noted during operation which would damage the equipment if operation were continued. All deficiencies and shortcomings will be recorded together with the corrective action taken on DA Form 2404 at the earliest possible opportunity.

a. *Responsibility and Intervals.* The primary function of preventive maintenance is to prevent breakdowns and, therefore, the need for repair. These services consist generally of before-operation and after-operation services performed by the operator, Intervals are based on normal operations. Reduce intervals for abnormal operations for severe conditions. Intervals during the inactive periods may be extended accordingly.

b. *Definition of Terms.* The general inspection of each item applies also to any supporting member or connection and is generally a check to see whether the item is in good condition, correctly assembled. secure, and not excessively worn.

(1) The inspection for "good condition" is usually an external visual inspection to determine whether the unit is dam aged beyond serviceable limits. The term "good condition" is explained further by the following: not bent or twisted, not chaffed or burred, not broken or cracked, not bare or frayed, not dented or collapsed, not torn *or* cut, not deteriorated.

(2) The inspection of a unit to see that it is "correctly assembled" is usually an external visual

inspection to see whether it is in normal assembled position.

(3) Inspection of a unit to determine if it is "secure" is usually an external visual examination by hand or wrench for looseness. Such an examination must include any brackets, lockwashers, locknuts, locking wires, or cotter pins used.

(4) By "excessively worn" is meant worn beyond serviceable limits or to a point likely to result in failure if the unit is not replaced before the next scheduled inspection.

#### 3-3. Cleaning.

a. General. Any special cleaning instructions required for specified components or parts are contained in the pertinent section. General cleaning instructions are as outlined in (1) through (4) below:

(1) Metal parts.

(a) Use self-emulsifying decreasing solvent compound, mineral spirits paint thinner, or drycleaning solvent to clean or wash grease or oil from all metal parts of the spark plug cleaner and tester.

(b) Use clean water or a solution of either 1/4 pound of soap chips or 6 ounces of paintedsurface detergent to one gallon of hot water for all parts and overall general cleaning of painted surfaces.

(c) After parts are clean, dry them thoroughly. Apply a light film of special preservative lubricating oil to all parts having a polished surface to prevent misting.

(d) Before installing new parts, remove any rust-preventing compound, protective grease, etc.

(2) *Electrical part.* Use technical trichloroethane (methylchloroform) (O-T-620) for cleaning electrical parts. Clean painted parts and plastics by wiping, brushing, or spraying but never by immersing in trichloroethane. Do not use trichloroethane for cleaning leather or rubber parts (other than neoprene).

(3) *Rubber parts other than electrical.* Clean rubber parts with soap and warm water. Apply

coating of powdered technical talcum to preserve the rubber,

(4) *Meters.* Clean each meter window glass using a soft cloth dampened with a solution of common detergent and water. After cleaning, allow the meter window to dry without rubbing. Apply antistatic compound.

b. General Precautions in Cleaning.

(1) Trichloroethane. Provide adequate ventilation both during and after use of trichloroethane. Avoid prolonged inhalation of vapor. Rubber gloves should be worn since this cleaner has a drying effect on the skin.

(2) Other cleaning agents. Self-emulsifying decreasing solvent compound, mineral spirits paint thinner, and dry-cleaning solvent are flammable and should not be used near an open flame. Fire extinguishers should be provided when these materials are used. Use only in well ventilated places. These cleaners evaporate quickly and have a drying effect on the skin. If used without gloves, they may cause cracks in the skin, and, in the case of some individuals, a mild irritation or in-flammation.

(3) *Rubber parts.* Avoid getting petroleum products, such as mineral spirits paint thinner, drycleaning solvent, engine fuels, er lubricants, on rubber parts, as they will deteriorate the rubber.

(4) *Prohibited cleaning agents.* The use of Diesel fuel oil, gasoline, or benzene (benzol) for cleaning is prohibited.

c. Rust Removal. Remove rust or corrosion from all parts of the material. To remove rust or crrosion from unfinished surfaces, use steel cleaning brushes or abrasive cloth. On finished surfaces, other than highly polished surfaces, remove rust or corrosion by buffing with a rotary wheel wire brush constructed of steel wire between 0.010 and 0.025 inch in diameter. Crocus cloth may be used manually to remove rust or corrosion from polished surfaces.

## **3-4. Preventive Maintenance Checks and Services.**

a. Purpose. To insure efficient operation, it is necessary that the spark plug cleaner and tester be systematically inspected. It should be inspected at intervals each day it is operated. Inspection will discover defects. They will be corrected to prevent serious damage or failure. Certain scheduled maintenance services will be performed at these designated intervals. The correction of any defect or unsatisfactory operating characteristics beyond the scope of the operator must be reported at the earliest opportunity to organization maintenance personnel for correction.

*b. Services.* operator's preventive maintenance checks and services are listed in table 3-1. Every operator equipped with the spark plug cleaner and tester must be thoroughly familiar with mian - tenauce procedures for the materiel.

BOBefore OperationAOAfter OperationTime required:1.6Time required:0.3				W- Tir	W—Weekly Time required: 1.0		
Procedures			Interval and sequence No	i ). T	Paragraph reference		
		BO	AO	w			
CLEANING CHAMBER SHIELD a. Inspect for "good condition."				20	2-1.d. 3-2.b.(1)		
b. Inspect to see it is "correctly assembled	. ''			0.1 21 <b>**</b>	3-2: <i>b</i> . (2)		
c. Inspect to see it is "secure."		1		0.1	3-2. <i>b</i> .(3)		
d. Close shield.		0.1	19 <b>*</b>		2-1. <i>d</i> .		
CLEANING ADAPTER MOUNTING BE a. Inspect for "good condition."	ACKET	2	0.1		2-2. b. (2) 3-2. b. (1)		
b. Inspect to see it is "secure.		0.1 3 0.1			3-2. <i>b</i> .(3)		
ADAPTER MOUNTING POSTS a. Inspect for "good condition."		~		22 **	2-1.c. 3-2.b.(1)		
b. Inspect to see they are "correctly assen	nbled."			0.1 23 <b>**</b>	3-2. <i>b</i> .(2)		
c. Inspect to see they are "secure."		4**		0.1	3-2. <i>b</i> . (3)		
SPARK PLUG CLEANER AND SPA ADAPTERS	ARK PLUG TESTER	0.1			2-1.c. and 2-4. b. (8)		
a. Inspect for good condition.		0.1			3-2, b. (1)		
b. Inspect to see they are secure.		0 0.1			3-2. (3)		
c. Inspect to see they are not "excessively	y worn.	0.1			3-2. (4)		
d. Return spark plug cleaner and spark plug on outside of unit. e. Clean.	g tester adapters to storage		17 0.1	25	2-4. (8) 3-3.		
SPARK INDICATOR OR PRESSURE GA	UGE AND MIRROR(S)			0.5	2-1. h., 2-3. a., and 2-		
a. I for "good condition "		8			3.b. 3-2.b.1		
b. Inspect to see they are "secure."		0.1 9			3-2.		
ELECTRICAL CORDS AND AIR LINE	HOSE	0.1			2-1.		
a. Inspect for "good condition."		10			and 2-3. <i>b</i> . 3-2. <i>b</i> .(1)		
b. Inspect to see they are "correctly assem	bled. ''	0.1			3-2. <i>b</i> .(2)		
c. Inspect to see they are not "excessively	worn.' '	$12 \\ 0.1$			3-2. 6. (4)		
WATER TRAP a. Inspect for "good condition."		0.1		24	2-1.e. 3-2.b.(1)		
b. Inspect to see it is "correctly assemble	ed.''	13 **		0.1	3-2. <i>b</i> .(2)		
c. Inspect to see it is "secure."		0.1 14			3-2.6.(3)		
CLEANING CHAMBER a. Inspect for "good condition."		15			2-1. g. 3-2. b. (1)		
b. Inspect to see it is "secure."		0.1 16 0.1			3-2. (3)		

## Table 3-1. Operator's Preventive Maintenance Checks and Services

Table 3-1. Operator's Preventive Maintenance Checks and Services-Continued



\* Code "A" models only. \*\*Code "B" models only.

## Section III. TROUBLESHOOTING

3-5. Troubleshooting. Malfunctions are listed in table 3-2.

a. This section contains troubleshooting information for locating and correcting most of the operating troubles which may develop in the spark plug cleaner and tester. Each malfunction for an individual component, unit, or system is followed by a list of tests or inspections. They will help you to determine probable causes and corrective actions to take. You should perform the tests / inspections and corrective actions in the order listed.

b. This manual cannot list all malfunctions that may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed or is not corrected by listed corrective actions, notify your supervisor.

1. NO CLEANING ACTION.

Step 1. Check for abrasive grain in the cleaner bag or cleaning chamber canvas bag.

If empty or low, add abrasive grain as required.

Step 2. Check for moisture in abrasive grain.

If moisture is in abrasive grain, drain out dust and old abrasive grain. Replace with new abrasive grain.

2. POOR CLEANING ACTION.

Step 1. Check for contaminated abrasive grain.

If abrasive grain is contaminated, drain out dust and old abrasive grain. Replace with new abrasive grain.

Step 2. Check for low air pressure.

If air pressure is low, increase external pressure supply.

#### Section IV. MAINTENANCE PROCEDURES

**3-6. Maintenance Procedures.** You may test the shielded spark plug contactor (5, Fig. 2-2) as follows:

a. Inspect for "good condition, " and "excessively worn."

*b.* Service shielded spark plug contactor by cleaning contact points.

c. Use a new-Army type-plug to perform test

in paragraph 2-3. A spark should appear in viewing chamber during test. No spark indicates voltage not reaching plug.

*d.* Replace with new shielded spark plug contactor and retest.

*e*. A spark during test indicates malfunction was in old shielded spark plug contactor.

## CHAPTER 4

## ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

## Section I. SERVICE UPON RECEIPT OF MATERIEL

## 4-1. Inspecting and Servicing the Equipment.

a. General. When a new or reconditioned spark plug cleaner and tester is first received, it is the responsibility of the Officer in charge to determine whether the materiel has been properly prepared for service by the supply organization and to be sure it is in condition to perform its function. For this purpose, inspect assemblies and parts to be sure they are properly assembled, secured, cleaned, adjusted, and / or lubricated. Check all repair parts. and tools and support equipment with the listing in Appendix D to be sure every item is present and in good condition.

*b. Record.* Make a record of any missing repair parts, and tools and support equipment; and of any malfunctions. Correct any deficiencies as quickly as possible.

c. Unpacking and Checking. Remove the exterior wrapping from spark plug cleaner and tester. Remove the barrier material enveloping the unit. Remove the small box containing equipment from tester. Remove all cushioning materials, seals, wrappings and equipment from box and tester. Check all equipment with the listing in Appendix D, to be sure every item is present and in good condition.

*d. Cleaning.* Clean all parts of the spark plug cleaner and tester as prescribed in paragraph 3-3. *e. Inspection.* 

(1) Perform a general inspection of the spark plug cleaner and tester to assure all parts are properly and securely assembled and in good working condition.

(2) Inspect to see that all connections are secure.

(3) Perform the preventive maintenance checks and services as prescribed in tables 3-1 and 4-1.

## Section 11. REPAIR PARTS, SPECIAL TOOLS, AND EQUIPMENT

**4-2. Tools and Equipment.** Common tools and 4-4. Maintenance Repair Parts. Repair parts equipment having general application to this materiel are authorized by tables of allowances and tables of organization and equipment. Common tools and 4-4. Maintenance Repair Parts. Repair parts and tools and support equipment are supplied to the using organization. They are supplied for replacement of those parts most likely to become

**4-3. Special Tools and Equipment.** No tools or equipment specially designed for organizational maintenance are supplied or required for the spark plug Cleaner and tester.

4-4. Maintenance Repair Parts. Repair parts and tools and support equipment are supplied to the using organization. They are supplied for replacement of those parts most likely to become worn, broken, or unserviceable. The replacement of these items must be within the scope of organizational maintenance functions. Repair parts and tools and support equipment are listed and identified by illustration figure and item number in Appendix D.

## Section II. PREVENTIVE MAINTENANCE CHECKS AND SERVICES

**4-5. General.** Refer to paragraphs 3-2 through 3-4 for preventive maintenance checks and services for the operator, These instructions apply equally to maintenance personnel of the using organization.

**4-6.** Organizational Preventive Maintenance Checks and Services. The using organization is further responsible for services listed in table 4-1 and must thoroughly train its personnel in performing the maintenance procedures for this materiel.

W Weekly Time required : 1 .0	A 1—After 300-400 uses Time required : 0, 3		۱ T	2— After 900-1000 uses ime-required : 0,7
Procedures		Inter val a sequence	nd No	Paragraph
	w	A1	A2	
CLEANING CHAMBER SHIELD Clean.	0.21			2-1. <i>d</i> . 3-3.
CLEANING ADAPTER MOUNTING BR. Clean. ADAPTER MOUNTING POSTS Clean. SPARK INDICATOR OR PRESSURE GA Clean. ELECTRICAL CORDS AND AIR LINE : Clean. WATER TRAP Clean. CLEANING CHAMBER Clean. SAND BLAST NOZZLE TIP	ACKET AUGE AND MIRRORS HOSE $\begin{cases} 2 \\ 0.2 \\ 3* \\ 0.1 \\ 4 \\ 0.1 \\ 5 \\ 0.2 \\ 6 \\ 0.2 \end{cases}$	7 0.3	8 0.5	2-2. b. (2) 3-3. 2-1. c. 3-3. 2-1. h., 2-3. a., and 2- 3. b. 3-3 2-1. b., 2-1. e., 2-3. a., and 2-3. b. 3-3 2-1. e. 3-3. 2-1. g. 2-1. g. 4-8.

## Table 4-1. Organizational Preventive Maintenance Checks and Services

\*Code "B" models only.

## Section IV. TROUBLESHOOTING

**4-7. Troubleshooting.** Malfunctions are listed in tables 3-2 and 4-2. In effect, table 4-2 is the continuation of table 3-2, paragraph 3-5. Refer to

chapter three, paragraph 3-5 for troubleshooting procedures performed by the operator.

#### MALFUNCTION

#### TEST OR INSPECTION

CORRECTIVE ACTION

#### CLEANER ASSEMBLY GROUP

#### 1. POOR CLEANING ACTION.

Step 1. Check clean chamber steel nozzle tip(s) to see if plugged.

If plugged, remove and clean with wire or other suitable means.

Step 2. Check cleaning chamber nozzle tube to see if plugged.

If plugged, clean with wire or other suitable means.

#### 2. "BLAST" AND "AIR" BUTTONS STICKING (CODE "B" MODELS ONLY).

Check for abrasive or dirt between valve stem and nuts.

If abrasive or dirt between valve stem and nuts, clean buttons.

#### 3. WATER TRAP DOES NOT ACTUATE.

Check discharge port for leakage.

If leakage, probe gently with pencil to be sure valve stem is in upward position.

#### 4. FAULTY VOLTAGE.

Step	1.	Check	for low voltage.
			If voltage is low, increase.
Step	2.	Check	switch for no voltage.
			If no voltage is indicated, replace switch.
Step	3.	Check	for high voltage.
			If voltage is high, decrease.

## Section V. MAINTENANCE OF NOZZLE TUBE, STEEL NOZZLE TIP(S), AND RUBBER SAND BLAST NOZZLE TIP

**4-8.** Nozzle Tube, Steel Nozzle Tip(s), and **Rubber Sand Blast Nozzle Tip.** The nozzle tube (10, Fig. 2-1 or 4, Fig. 2-3) directs air to agitate abrasive grain. The steel nozzle tip(s) (8, Fig. 2-1 or 3, Fig. 2-3), and rubber sand blast nozzle tip (6, Fig. 2-1 or 2, Fig. 2-3) directs air to spark plug. The rubber sand blast nozzle tip prevents most clogging of this air supply by the abrasive grain,

a. Disassemb!y.

(1) Rotate cleaning adapter mounting bracket (9, Fig. 1-1) until it unlocks from clip screws (6, Fig. 1-1 ) and lift up to remove.

- (2) Remove spark plug cleaner adapter.
- (3) Remove rubber sand blast nozzle tip.
- (4) Remove steel nozzle tip(s).

b. Cleaning.

(1) Clean steel nozzle tip(s) with wire or other suitable means.

(2) Clean nozzle tube with wire or other suitable means.

(3) Replace removed rubber sand blast nozzle tip with new clean rubber sand blast nozzle tip.

c. Reassembly.

(1) Reinstall steel nozzle tip.

(2) Install the new rubber sand blast nozzle tip.

(3) Add abrasive grain as required before reinstalling spark plug cleaner adapter.

(4) Reinstall spark plug cleaner adapter.

(5) Reinstall cleaning adapter mounting

bracket by rotating until it locks under clip screws.

#### Section VI. MAINTENANCE OF "BLAST" AND "AIR" BUTTONS

4-9. "BLAST" and "AIR" Buttons. The "BLAST" and "AIR" buttons are marked "BLAST" and "AIR" on code "B" models. This instruction is for code "B" models only. The valve buttons are located on top of unit on left side. When the "BLAST" button (2, Fig. 1-2) is depressed, the

compressed air is released. This air agitates the abrasive grain. The abrasive grain performs the cleaning action. When the "AIR" button (1, Fig. 1-2) is depressed, the compressed air is released to remove loose particles from plug. a. Disassemby.

(1) Loosen nut below button on top of unit.

(2) Unscrew button Stem from unit.

(3) Remove rubber valve seat from button stem .

(4) Remove nut from button stem.

(3) Repeat (1) through (4) above on other button).

b. *Cleaning.* (Clean disassembled parts as prescribed in paragraph 3-3.

## Section VII. MAINTENANCE OF WATER TRAP

button.

**4-10. Water Trap.** The water trap (2, Fig. 1-1 or 14, Fig. 1-2) collects water from compressed air. The water is removed before air is used in cleaning and testing. On code "A" models the water trap is located inside of unit. It is located in the front left side in front of cleaner bag frame assembly and below cleaner valve assembly. On code "B" models

the water trap extends from rear of unit. The water trap may malfunction if valve stem is in the wrong position. Inspect discharge port at bottom of water trap. A leakage indicates valve stem is in wrong position. Probe valve stem gently with a pencil to adjust in upward position.

(1) Reinstall nut to button stem.

(3) Screw button stem to unit.

(2) Reinstall rubber valve seat to button stem.

(4) Tighten nut below button, on top of unit.

(5) Repeat (i) through (4) above on other

## Section VIII. MAINTENANCE OF SWITCHES

**4-11. Switches.** The switch turns the electrical power "ON" and "OFF. " This electrical power is used in testing the spark plug. When it is applied to the plug, the electrical spark is used to determine the amount of voltage required by spark plug. This test for sparking efficiency of spark plug determines the replacement of plug. When the push button of switch is depressed, the current is turned "ON." When released the button returns to "OFF" position.

a. Switch for Code "A "Models. SWITCH OFF AND ON (13, Fig. 1-1) is the name of code "A" models' switch. It is located front-center on cover. The push button part of switch extends through cover from the inside. It is secured in place with a cap screw (11, Fig. 1-1).

b. Switch for Code "B" Models. ELEC-TRICAL SWITCH (10, Fig. 1-2 and 5, Fig. 2-1) is the name of code "B" models' switch. It is located top-center to left of viewing chamber on front of unit. The push button part of switch extends through unit from the inside. It is secured in place with a cap screw (11, Fig. 1-2).

**4-12. Testing.** Test voltage by performing test on new spark plug gapped at 0.025". Perform the test as prescribed in paragraphs 2-3. a. (1) through 2-*3.a.* (4). In paragraph 2-3. *a*, (4) the spark of the new plug will quench out at 140 PSI. This will be the standard used to determine adjustment.

#### 4-13. Adjustment.

a. *Remove*. On code "B" models' remove metal button (2, Fig. 2- 1) on power supply unit (3, Fig. 2-1).

*b. Loosen.* Loosen lock nut (17, Fig. l-l) on adjustment screw (18, Fig. 1-1). Lock nut and adjustment screw not shown on code "B" models (see *a.* above).

c. Adjust.

c. Reassembly.

(1) If spark did not quench out at 140 PSI in paragraph 4-12 above, the voltage is too high. Decrease voltage by turning adjustment screw counter-clockwise,

(2) If spark quenched out before 140 PSI was reached in paragraph 4-12. above, the voltage is too low. Increase voltage by turning adjustment screw clockwise. Switch will be replaced if this adjustment cannot be made.

*d. Tighten.* Tighten lock nut on adjustment screw.

*e. Reinstall.* On code "B" models reinstall metal button on power supply unit.

## 4-14. Disassembly.

#### WARNING

Unplug cord from electrical outlet before disassembly.

a. Cap Screw. Unscrew cap screw on outside of unit from switch on inside of unit.

b. Switch.

(1) Pull pole part through hole to loosen from unit.

(2) Cut wire (12, Fig. 1-1 or 4, Fig. 2-1) at switch. This wire leads to power supply unit (16, Fig. 1-1 or 3, Fig. 2-1).

**4-15. Repair.** Repair faulty switch by replacing with new switch.

#### 4-16. Reassembly.

a. Switch.

(1) Solder switch on loose end of wire from power supply unit.

(2) Push pole part through hole used in 4-14. b. (l) above.

b. Cap Screw. Screw cap screw on outside of unit to switch on inside of uni.,

c. Cord. Reconnect cord in electrical outlet.

## APPENDIX A

## REFERENCES

A-1. Forms
DA Form 2028, Recommended Changes to Publications
DA Form 2404, Equipment Inspection and Maintenance Worksheet
A-2. Publications
a. General.
Defense Demilitarization Manual
Federal Supply Code for Manufacturers
Nongovernment Organization Codes
for Military Standard Contract Administration Procedures (MLSCAP)
United States and Canada Code to Name (Handbook H 8-2)
The Army Maintenance Management Systems (TAMMS)
b. Maintenance and Repair.
classification, Reclassification, Maintenance,
Issuance and Reporting of Maintenance Training Aircraft
Joint Regulation Governing the Use and
Application of Uniform Source Maintenance and Recoverability Codes
Organization, Policies, and Responsibilities
for Maintenance Operation
Repair Parts Special Tools and Test Equipment
Allocation and Allowances
c. Storage.
Administrative Storage of Equipment

## APPENDIX C

## MAINTENANCE ALLOCATION CHART

## Section I. INTRODUCTION

**C-1. General.** The Maintenance Allocation Chart allocates maintenance operations to the proper category of maintenance. Avocations of maintenance operations are made on the basis of time, tools, and skills normally available to the various categories of maintenance to combat situation and influenced by maintenance policy and sound maintenance practices, as outlined in AR 750-5.

**C-2. Maintenance** Functions. Maintenance functions will be limited to and defined as follows:

a. *INSPECT. To* determine serviceability of an item by comparing its physical, mechanical, and electrical characteristics with established standards.

*b. TEST.* To verify serviceability and to detect electrical or mechanical failure by use of test equipment.

c. SERVICE. To clean, to preserve, to charge, and to add fuel lubricants, cooling agents, and air.

*d. ADJUST. To* rectify to the extent necessary to bring into proper operating range.

*e.* ALIGN. To adjust specified variable elements of an item to bring to optimum performance.

f. CALIBRATE. To determine the corrections to be made in the readings of instruments or test equipment used in precise measuremnent. Consists of the comparison of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared with the certified standard.

*g. INSTALL. To* set up for use in an operational environment such as an emplacement, site, or vehicle.

*h.* REPLACE. *To* replace unserviceable items with serviceable like items.

*i. REPAIR. Those* maintenance operations necessary to restore an item to serviceable condition through correction of material damage or a specific failure. Repair may be accomplished at each category of maintenance.

*j. OVERHAUL.* Normally, the highest degree of maintenance performed by the Army in order to

minimize time work in process is consistent with quality and economy of operation. It consists of that maintenance necessary to restore an item to completely serviceable condition as prescribed by maintenance standards in technical publications for each item of equipment. Overhaul normally does not return an item to like new, zero mileage, or zero hour condition.

k. REBUILD. The highest degree of materiel maintenance. It consists of restoring equipment as nearly as possible to new condition in accordance with original manufacturing standards. Rebuild is performed only when required by operational considerations or other paramount factors and then only at the depot maintenance category. Rebuild reduces to zero the hours or miles the equipment, or component thereof, has been in use.

*l. SYMBOLS.* The uppercase letter placed in the appropriate column indicates the lowest level at which that particular maintenance function is to be performed.

**C-3. Explanation of Format.** Purpose and use of the Maintenance Allocation Chart format are as follows :

a. Column 1, Group Number. Column 1 lists group numbers, the purpose of which is to identify components, assemblies, subassemblies and modules with the next higher assembly.

b. Column 2, Functional Group. Column 2 lists the noun names of components, assemblies, subassemblies and modules on which maintenance is authorized.

c. Column 3, Maintenance Functions. Column 3 lists the category of maintenance.

*d. Use of Symbols. See* legend at bottom of Maintenance Allocation Chart.

e. Work Measurement Time. Work measurement time is the amount of time required to perform function. This time is shown in manhours by tenths of hour. It is shown below each symbol,

f. Column 4, Tools and Equipment. This column shall be used to specify, by code, those tools and test equipment required to perform the designated function.

g. Column 5, Remarks. Self-explanatory.

## Section II. MAINTENANCE ALLOCATION CHART FOR SPARK PLUG CLEANER AND TESTER

(1)	(2) Functional group	(3) MAINTENANCE FUNCTION										(4) TOOLS AND	(5) REMARKS	
GROUP N		Inspec	Test	Service	Adjust	Align	Calibrate	Install	Replace	Repair	Overhaul	Rebuild	AUT MENT	
1 2	Cleaner Assembly Group Equipment Group LEGEND: C—Operator / crew O—Organizational Mair tenance F— Direct Support Mair tenance H—General Support Mair tenance D—Depot Maintenance	C 1.8 C 0.6	C ).3 C ).2		D.4			0.6 C 0.7	D 9.9 C 2.2	0				

## APPENDIX D

## ORGANIZATIONAL MAINTENANCE REPAIR PARTS LIST, AND TOOLS AND SUPPORT EQUIPMENT

### Section I. INTRODUCTION

**D-1. Scope.** This appendix lists repair parts, and tools and support equipment required by the crew / operator for operation and required for the performance of organizational maintenance of the spark plug cleaner and tester.

**D-2. General.** This Repair Parts List, and Tools and Support Equipment is divided into the following sections:

*a. Basic Issue Items List-Section II.* Not applicable.

b. Items Troop Installed or Authorized List-Section III. Not applicable.

c. Repair Parts List-Section IV. A list of repair parts authorized at the organizational level for the performance of maintenance in figure and item number sequence.

*d. Tools and Support Equipment-Section V.* A list of operating tools and support equipment authorized at the organizational level for use by spark plug cleaner and tester operator and crew.

e. Federal Stock Number and Reference Number Index-Section VI. A list. in ascending numerical sequence, of all Federal stock numbers appearing in the listings, followed by a list, in alphanumerical sequence, of all reference numbers appearing in the listings. Federal stock numbers and reference numbers are cross-referenced to each illustration figure and item number appearance.

**D-3. Explanation of Columns.** The following provides an explanation of columns found in the tabular listings.

a. Source, Maintenance, and Recoverability Codes (SMR). SMR codes are assigned in accordance with instructions contained in AR 700-18 ant] AR 700-82.

(1) Source code. The source code is a two position alphabetical code assigned to support items. They are entered in the first and second position of the SMR code. They indicate the manner of acquiring support items for maintenance, repair, or overhaul of end item. Following are authorized source codes:

Code

#### Explanation

PA Item procured and stocked for anticipated or known usage.

Code PB Exp

I procured and stocked for insurance purposes because essentiality dictates that a minimum quantity be available in the supply system.

(a) Items to be designated as insurance items must meet all the following criteria:

1. No failure is predicted and no demand can be predicted based upon the planned operational usage.

2. The lack of a replacement item or inability to obtain the item from procurement in a reasonable time w seriously hamper the operational capability of an end item or system.

3. Item cannot be manufactured by the supporting depot facility within a reasonable time.

(Repair parts procured as insurance items will normally be stocked only in CONUS depot. As an exception, insurance items selected as an E item may be stocked in oversea theater depots when the theater commander determines that they are necessary to maintain an acceptable level of system readiness.

- PC Item procured and stocked and which otherwise would be coded "PA" except that it is deteriorative in nature.
- KD An item of depot overhaul / repair kit and not purchased separately. Depot kit defined as a kit that provides items required at the time of overhaul.
- KF An item of a maintenance kit and not purchased separately. Maintenance kit defined as a kit that provides an item that can be replaced at Organizational or intermediate (or GS) levels of maintenance.
- KB Item included in both a depot overhaul / repair kit and a maintenance kit.
- PD Support item, excluding support equipment, procured for initial issue or outfitting and stocked only for subsequent or additional initial issues or outfitting. Not subject to automatic replenishment. Use for establishing Modification Kits.
- PE Support equipment procured and stocked for initial issue or outfitting to specified maintenance repair activi:
- PF Support equipment which will not be stocked but which will be centrally procured on demand.
- MO Item to be manufactured or fabricated at Organizational level.
- MF Item to be manufactured or fabricated at Direct Support level.
- MH I to be manufactured or fabricated at General Support level.
- MD I to be manufacture or fabricated at Depot Maintenance level.
- AO I to be assembled at Organizational level.

Code	Explanation
AF	Item to be assembled at Direct Support level.
AH	Item to be assembled at General Support level.
AD	Item to be assembled at Depot Maintenance level.
XA	Item is not procured or stocked because the requirements for the item will result in the replacement of the next higher assembly
ХВ	Item is not intended for procurement and is not stocked. If not available thru salvage, requisition.
ХС	Installation drawing, diagram, instruction sheet, field service drawing, that is identified by

Note: Cannibalization or salvage may be used as a source of supply for any items source coded above except those coded XA and aircraft support items as restricted by AR 700-42.

manufacturers part number.

(2) Maintenance code. The maintenance code is a two position alphabetical code designed to indicate the levels of maintenance authorized to USE and REPAIR support items. They are entered in the third and fourth position of the SMR code.

(a) USE code. The USE code will indicate the lowest maintenance level authorized to remove. replace, and use the support item. The decision to code the item for removal and replacement at the indicated maintenance level will require that all capabilities necessary to install and insure proper operation after installation of a replacement item (i.e., pre-installation inspection, testing and postinstallation checkout) are provided. This code will indicate one of the following levels of maintenance:

Code	Explanation											
C	Used to denote crew or operator maintenance performed within Organizational level of main-											
	tenance.											
0	Support item is removed, replaced, used at the											
	Organizational level of maintenance.											

F Support item is removed, replaced, used at the Direct Support level of maintenance.

- **H** Support item is removed, replaced, used at the General Support level of maintenance.
- **D** Support item is removed, replaced, used at the Depot level of maintenance only.

(b) **REPAIR** code. The **REPAIR** code will indicate wheteher the item is to be repaired and identifies the lowest maintenance level with the capability to perform complete repair (i. e., all authorized maintenance functions). The decision to code the support item for repair at the indicated maintenance level requires that all maintenance capability (remove, replace, repair, assemble, and test) for the support items be provided to that level. This does not preclude some repair which may be accomplished at a lower level of maintenance. Codes are as follows:

Code Explanation **0** The lowest maintenance level capable of complete repair of the support item is the Organizational level.

F The lowest maintenance level capable of complete repair of the support item is the Direct Support level.

Code

н

#### Explanation

- The lowest maintenance level capable of complete repair of the support item is the General Support level. The lowest maintenance level capable of complete
- D The lowest maintenance level capable of complete repair of the support item is the Depot level.
   Z Non-reparable. No repair is authorized.

(3) *Recoverability code.* The recoverability code is a one position alphabetical code designed to indicate when the responsible Army activity desires the return of unserviceable repair parts and / or tools and test equipment. Codes are as follows:

Code	Explanation
Z	Non-reparable item. When unserviceable, con
	demn and dispose at the level authorized to
	replace the item.
F	Reparable item. When uneconomically reparable,
	condemn and dispose at Direct Support level.
Н	Reparable item. When uneconomically reparable.

- D condemn and dispose at General Support level. Reparable item. When beyond lower level repair capability, return to Depot. Condemnation and disposal not authorized below Depot level.
- L Reparable item. Repair, condemnation and disposal not authorized below depot /' specialized repair activity level.
  - Item requires special handling or condemnation procedure because of specific reasons (i.e., precious metal content, high dollar value, critical material, or hazardous material).

**b.** Federal Stock Number. Indicates the Federal stock number assigned to the item and will be used for requisitioning purposes.

c. Description. Indicates the Federal item name and a minimum description required to identify the item. The last line indicates the reference number followed by the applicable Federal Supply Code for Manufacturer (FSCM) or Federal Supply Code for nonmanufacturers (FSCNM) in parentheses. The FSCM and FSCNM are used as elements in item identification to designate manufacturer or distributor or Government agency, etc., and is identified in SB 708-42 or SB 708-82 C8.

**d.** Unit of Measure (U/M). Indicates the standard or basic quantity by which the listed item is used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation, e.g., ea, in., pr, etc., and is the basis used to indicate quantities and allowances in subsequent columns. When the unit of measure differs from the unit of issue, the lowest unit of issue that will satisfy the required units of measure will be requisitioned.

e. Quantity Incorporated in Unit. Indicates the quantity of the item used in the breakout shown on the illustration figure,. which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column in lieu of a quantity indicates that no specific quantity is applicable, e.g., shims, spacers, etc. f. Maintenance Allowances. All items are authorized for use as required.

g. *Illustration.* This column is divided as Follows:

(1) *Figure number.* Indicates the figure number of the illustration on which the item is shown.

(2) Item number. Indicates the callout number used to reference the item on the illustration.

**D-4. Special Information.** Usable on codes are included in Column 3. Uncoded items are applicable to all models. Identifications of the usable on codes used in this publication are:

Code

## Used On

Manufacturer	Model

A	Champion Spark Plug Co.	800
	The Oiljack Mfg. Co. Inc.	B800M
В	JAT Industries	JAT5000
	The VP Company	VP500

#### **D-5.** How to Locate Repair Parts.

a. When Federal Stock Number or Reference Number Is Unknown:

(1) *First.* Find the illustration of the unit or functional group to which the repair part belongs.

(2) Second. Identify the repair part on the illustration and note the illustration figure and item number of the repair part.

(3) *Third.* Using the Repair Parts Listing, find the figure and item number listed in the illustration column.

b. When Federal Stock Number or Reference Number Is Known:

(1) First. Using the Index of Federal Stock Numbers and Reference Numbers, find the pertinent Federal stock number or reference number. This index is in ascending FSN sequence followed by a list of reference numbers in ascending alphanumerica] sequence, cross-referenced to the illustration figure and item number.

(2) Second. Using the Repair Parts Listing, find the illustration figure number and item number referenced in the Index of Federal Stock Numbers and Reference Numbers.

#### **D-6.** Abbreviations.

Abbreviation

Exp[anation

h									,				 										,		high, height
mn	1			•	,			 							 		 						,		millimeter(s)
0/	a						 		,		 			÷		,		,	×						overall
ru		-	•		 						 						,				,		,	.,	rubber
$\mathbf{S}$	• •						 					. ,	 		,							,	,		steel
w				,		,											 		 	Ċ.					wide. width

## D-7. Federal Supply Codes.

Code	Manufacturer and Nonmanufacture
11583	Champion Spark Plug Co.
	Toledo, OH 43601
21246	The VP Company
	Pasadena, CA 91101
44678	The Oiljak (Oiljack) Mfg. Co. Inc.
	(Now: Banner Metals Inc.
	Stroudsburg, PA 18300)
8G954	JAT Industries
00001	Altadena, CA 91001

## Section IV. REPAIR PARTS LIST

(1) SMR code	(2) Federal stock	(3) Description		(4) Unit of	(5) ⊋ty inč	15	( i-day org mainter	6) anizatio ance alv	nal v	(7) 1 Illustratio		
	number				ın ınit	(a) 1-5	(b) 6-20	(c) 1-56	(d) 1-100	(a)	( <b>b</b> )	
		Reference Number & Mfr. Code	Usable on Code							no.	no.	
		REPAIR PARTS										
PAOZZ	4910-387-9498	NOZZLE TIP, 5AND BLAST RU 522 (11583)		EA	1	*	*	*	*	1-1 2-1	8 6 2	
PAOZZ	5930-356-8129	3WITCH OFF AND ON	Α	EA	1	*	*	*	*	1-1	13	
PAOZZ	NA	ELECTRICAL SWITCH VP9-3817-525 (21246)	В	EA	1					1-2 2-1	10 5	
D-4												

#### (7) (2) (3) (4) 5) (6) (1)15-day organizational llustration Init Description ţy SMR Federal of nc. maintenancealw code stock ieas n. number (h) (**d**) (a) b) nit (a) c) 1-5 **⊱2**0 l-50 I-100 gure em Usable on Code Reference Number & Mfr. Code no. ю. LEANING ADAPTER MOUNTING ΞA 1 9 1-1 PACZZ NA RACKET 2-26 P9-3817-514 (21246) DAPTER, SPARK PLUG CLEANER RU, ΞA 1 ¥ ¥ ¥ \* 2-2 PACZZ 1 4910-356-8775 8 SPARK PLUGS ACCOMMODATED, -3/4 DIA, 2-13 / 16 SHOULDER DIA, 9 / 16 ODY H 04(11583) $\mathbf{E}\mathbf{A}$ ¥ \* ¥ ¥ ADAPTER, SPARK PLUG CLEANER RU. 1 2-22 PACZZ 4910-356-8774 8-MM SPARK PLUGS ACCOMMODATED -3/4 DIA, 2-13 / 16 SHOULDER DIA, 9 / 16 **30DY H** A126 (11583) ¥ $\mathbf{E}\mathbf{A}$ 1 ¥ \* ¥ 2-23 PACZZ 4910-356-8773 DAPTER, SPARK PLUG CLEANER RU, 4-MM SPARK PLUGS ACCOMMODATED, -3 / 4 DIA, 2-13 / 16 SHOULDER DIA, 9 / 16 **IODY H** 02 (11583) ΞA ¥ I \* ¥ ¥ 2-2PACZZ 4910-356-8772 DAPTER, SPARK PLUG CLEANER RU, 4 0-MM SPARK PLUGS ACCOMMODATED, -3 / 4 DIA, 2-13 / 16 SHOULDER DIA, 9 / 16 **JODY H** A125 (11583) ¥ \* 2-25 CONTACTOR, SHIELDED SPARK PLUG EA 1 ¥ ¥. 4910-822-1712 PACZZ 'OR TESTING 83 (11583) **IDAPTER, SPARK PLUG TESTER ADAPTS** ΞA 2 ¥ \* ж. ж 2 - 27 PACZZ 4910-224-4970 COMPRESSION CHAMBER TO AC-COMMODATE 10-MM SPARK PLUGS, S 30DY, 1-1 / 8 W 0 / A, 13 / 16 LG 0 / A (11583)2 ¥ ¥ × ¥ 2-28 ADAPTER, SPARK PLUG TESTER ADAPTS 4910-224-4971 ΞA PACZZ COMPRESSION CHAMBER TO AC-COMMODATE 14-MM SPARK PLUGS, S 30DY, 1-1 / 8 W 0 / A, 13 / 16 LG 0 / A (11583)¥ ¥ ¥ ¥ 2-2 9 EA $\mathbf{2}$ **NDAPTER, SPARK PLUG TESTER ADAPTS** PACZZ 4910-288-5129 COMPRESSION CHAMBER TO AC-COMMODATE 18-MM SPARK PLUGS, S 30DY, 1-1 / 8 W O / A, 13 / 16 LG O / A 518 (11583)

## Section V. TOOLS AND SUPPORT EQUIPMENT

Section VI.	FEDERAL	ѕтоск	NUMBER	AND	REFERENCE	NUMBER	INDEX	
	FIGURE	ITEM				FIGURE	ITEM	
STOCKNUMBER	NO	NO			STOCKNUMBER	NO	NO	
4910-224-4970	2-2	7			4910-356-8775	2-2	1	
4910-224-4971	2-2	8			4910-387-9498	1-1	8	
4910-288-5129	2-2	9				2-1	6	
4910-356-8772	2-2	4				2-3	2	
4910-356-8773	2-2	3			4910-822-1712	2-2	5	
4910-356-8774	2-2	2			5930-356-8129	1-1	13	
	MFC	G FIG	ITEM			MFG	FIG	ITEM
REFERENCENUMBER	CODE	NO	NO	REFERE	ENCENUMBER	CODE	NO	NO
VP9-3817-508	21246	1-2	18	5	02	11583	2-2	3
VP9-3817-509	21246	$\overline{1}-\overline{2}$	14	5	04	11583	2-2	ĩ
VP9-3817-511	21246	1-2	16	5	10	11583	2-2	7
VP9-3817-514	21246	1-1	9	5	14	11583	2-2	8
		2-2	6	5	18	11583	2-2	, 9
VP9-3817-521	21246	1.2	15	5	210-1	8G954	1.2	13
VP9-3817-525	21246	$\overline{1} - \overline{2}$	10	5	34	44678	1-1	23
		2-1	5		$\overline{22}$	11583	1.1	8
VP9-3817-530	21246	1-2	4.				2-1	6
VP9-3817-531	21246	1-2	3				$\bar{2} - \bar{3}$	$\overline{2}$
1A125	11583	2-2	4	6	83	11583	2-2	5
1A126	11583	2-2	2	8	-806	44678	1-1	27
5-560	11583	1-1	13	8	-811	44678	1-1	21

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Aunihistrative storage		. 1-0	90	Diaggembly
Auxiliary equipment		240	2.0	Bassembly
	D			Reassembly
"BI AST" and "AIR" butte				Switches
maintenance of	<i>J</i> 118,	4.0	1.3	Testing
manuebunee of	*************	4-9	10	Maintenance renair narts
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Cleaning chamber (See	,			Method II (Testing two used
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paration for use)				the tester)
Cleaning chamber shield				,
(See Installation and				Ν
preparation for use)				Nozzle tube, maintenance of
Cord (See Installation				·
and preparation for use)				0
				Operating the cleaner
	D			Operating the tester
Destruction of Army materie	el			
to prevent enemy use		. 1-5	1-1	Р
Dials, reading of (See				Preventive maintenance checks and
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	E			General (Operator / crew)
Electrical plug adapter				General (Organizational)
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preparation for use)				checks and services
	г			Preventive maintenance checks and
	r			services (Operator / crew)
Flip-top shield (See				Put equipment in shutdown
for usa)	n			status (See Remove the
tor use)				Put equipment in standby
	н			condition (See Remove the equipment
High voltage lead (See	11			from operation)
Installation and preparatic	)n			Hom operation)
for use)	/ <b>11</b>			R
				Records (See Maintenance forms
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Installation and pre-				Remove the equipment from
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				Repair parts
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Spark plug cleaner and				Since spark plug contactor
tester-code B model-		<b>9</b> 1	9 9	(See Installation and preparation for use)
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		· 0-1	0-0	manuchance procedures for

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4-2

4-2

3-1

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1-1

4-3

4-1

3-5

1.1

1-2

4-13

4-14

4-16

4-15

4-11

4-12

4-4

4-8

2-2

2-3

3-3

3-2

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