

LIMITED URGENT

MWO effective date is 1 July 1992 and completion date is 1 July 1994

MWO 9-2320-272-24-1

MODIFICATION WORK ORDER

MODIFICATION OF 5-TON VEHICLE M939 AND M939A1 SERIES TRUCKS SPRING BRAKE CONTROL VALVE IMPROVEMENT

NOMENCLATURE	NSN	NOMENCLATURE	NSN
Truck, Cargo	2320-01-050-2084	Truck, Wrecker	2320-01-206-4078
Truck, Cargo	2320-01-206-4087	Truck, Chassis	2320-01-047-8744
Truck, Cargo	2320-01-047-8769	Truck, Chassis	2320-01-205-2661
Truck, Cargo	2320-01-206-4088	Truck, Chassis	2320-01-048-2450
Truck, Cargo	2320-01-047-8771	Truck, Chassis	2320-01-205-2660
Truck, Cargo	2320-01-206-4089	Truck, Chassis	2320-01-047-8743
Truck, Cargo	2320-01-047-8770	Truck, Chassis	2320-01-205-2662
Truck, Cargo	2320-01-206-4090	Truck, Chassis	2320-01-047-8742
Truck, Dump	2320-01-047-8756	Truck, Chassis	2320-01-205-2664
Truck, Dump	2320-01-206-4079	Truck, Chassis	2320-01-047-8741
Truck, Dump	2320-01-047-8755	Truck, Chassis	2320-01-205-2663
Truck, Dump	2320-01-206-4080	Truck, Chassis	2320-01-047-8739
Truck, Tractor	2320-01-047-8753	Truck, Chassis	2320-01-205-2666
Truck, Tractor	2320-01-206-4077	Truck, Chassis	2320-01-047-8738
Truck, Tractor	2320-01-047-8752	Truck, Chassis	2320-01-205-2665
Truck, Tractor	2320-01-205-2684	Truck, Chassis	2320-01-047-8740
Truck, Van	2320-01-047-8750	Truck, Chassis	2320-01-047-8745
Truck, Van	2320-01-205-2682	Truck, Chassis	2320-01-205-2667
Truck, Van	2320-01-047-8751	Truck, Chassis	2320-01-050-4894
Truck, Van	2320-01-205-2683	Truck, Chassis	2320-01-205-2668
Truck, Wrecker	2320-01-047-8754		

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

21 SEPTEMBER 1991

REPORTING OF ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this MWO. If you find any mistakes or if you know of a way to improve these procedures, please let us know. Write a letter or complete and mail a DA Form 2028, Recommended Changes to Publications and Blank Forms, to: U.S. Army Tank-Automotive Command, ATTN: AMSTA-MB, Warren, MI 48397-5000. A reply will be provided to you.

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1. PURPOSE.

The purpose of this modification is to improve operational safety of the vehicle by installation of a redesigned spring brake valve and mounting bracket.

2. PRIORITY.

a. This modification is classified as **LIMITED URGENT** as a result of an Operational Safety of Use/Flight Message: 021900 Z Oct 87 Control Number 87-62. Operating restrictions provided therein remain in effect until this modification is applied.

b. Equipment in use (includes equipment in supply or maintenance activities below depot level and equipment in administrative storage). Equipment in use will be modified as soon as practical, but not later than the scheduled completion date. Equipment not modified after expiration date of the MWO will be administratively deadlined and not used until modification is complete in accordance with (IAW) AR 385-55 and DA PAM 738-750.

c. Equipment in wholesale supply, depot supply, or maintenance activities. All MWOs, including those in Depot Maintenance Work Requirements (DMWRs), will be accomplished on serviceable materiel prior to issue and/or subsequent scheduled completion date. Project stock stored at depots will be modified concurrently with depot stock. Issue of unmodified materiel is prohibited. The MWO will be applied to unserviceable materiel during scheduled depot maintenance.

d. Prepositioned stock. Equipment which is prepositioned will be modified during cyclic maintenance and will be consistent with TM 38-450.

3. END ITEM TO BE MODIFIED.

a. Truck, 5-ton, 6x6, M939 and M939A1 Series.

NOMENCLATURE	NSN	PART NO.	FSCM	MODEL NO.	SERIAL NO.
Truck, Cargo	2320-01-050-2084	8736986-2	19207	M923	All
Truck, Cargo	2320-01-206-4087	8750151	19207	M923A1	All
Truck, Cargo	2320-01-047-8769	8736986-1	19207	M925	All
Truck, Cargo	2320-01-206-4088	8750152	19207	M925A1	All
Truck, Cargo	2320-01-047-8771	8736987-2	19207	M927	All
Truck, Cargo	2320-01-206-4089	8750155	19207	M927A1	All
Truck, Cargo	2320-01-047-8770	8736987-1	19207	M928	All
Truck, Cargo	2320-01-206-4090	8750156	19207	M928A1	All
Truck, Dump	2320-01-047-8756	8736989-2	19207	M929	All
Truck, Dump	2320-01-206-4079	8750157	19207	M929A1	All
Truck, Dump	2320-01-047-8755	8736989-1	19207	M930	All
Truck, Dump	2320-01-206-4080	8750158	19207	M930A1	All
Truck, Tractor	2320-01-047-8753	8736990-2	19207	M931	All
Truck, Tractor	2320-01-206-4077	8750159	19207	M931A1	All
Truck, Tractor	2320-01-047-8752	8736990-1	19207	M932	All
Truck, Tractor	2320-01-205-2684	8750160	19207	M932A1	All

a. Truck, 5-ton, 6x6, M939 and M939A1 Series (Contd)

NOMENCLATURE	NSN	PART NO.	FSCM	MODEL NO.	SERIAL NO.
Truck, Van	2320-01-047-8750	8736992	19207	M934	All
Truck, Van	2320-01-205-2682	8750161	19207	M934A1	All
Truck, Van	2320-01-047-8751	8736993	19207	M935	All
Truck, Van	2320-01-205-2683	8750162	19207	M935A1	All
Truck, Wrecker	2320-01-047-8754	8736988	19207	M936	All
Truck, Wrecker	2320-01-206-4078	8750163	19207	M936A1	All
Truck, Chassis	2320-01-047-8744	8736978-2	19207	M939	All
Truck, Chassis	2320-01-205-2661	8750143	19207	M939A1	AU
Truck, Chassis	2320-01-048-2450	8736978-1	19207	M939	All
Truck, Chassis	2320-01-205-2660	8750142	19207	M939A1	All
Truck, Chassis	2320-01-047-8743	8736979	19207	M940	All
Truck, Chassis	2320-01-205-2662	8750144	19207	M940A1	All
Truck, Chassis	2320-01-047-8742	8736980-2	19207	M941	All
Truck, Chassis	2320-01-205-2664	8750146	19207	M941A1	All
Truck, Chassis	2320-01-047-8741	8736980-1	19207	M941	All
Truck, Chassis	2320-01-205-2663	8750145	19207	M941A1	All
Truck, Chassis	2320-01-047-8739	8736981-2	19207	M942	All
Truck, Chassis	2320-01-205-2666	8750148	19207	M942A1	All
Truck, Chassis	2320-01-047-8738	8736981-1	19207	M942	All
Truck, Chassis	2320-01-205-2665	8750147	19207	M942A1	All
Truck, Chassis	2320-01-047-8740	8736982	19207	M943	All
Truck, Chassis	2320-01-047-8745	8736983	19207	M944	All
Truck, Chassis	2320-01-205-2667	8750149	19207	M944A1	All
Truck, Chassis	2320-01-050-4894	8736984	19207	M945	All
Truck, Chassis	2320-01-205-2668	8750150	19207	M945A1	All

b. Vehicle National Stock Number (NSN) will not change as a result of this MWO.

4. MODULE TO BE MODIFIED.

Not applicable.

5. PARTS TO BE MODIFIED.

Not applicable.

6. APPLICATION.

a. Time Compliance Schedule: The effective date of this MWO is 1 July 1992 and its completion date is 1 July 1994.

b. The lowest level of maintenance authorized to apply this MWO is Organizational with Direct Support. Initial application of the MWO will be by depot/contract retrofit teams.

c. Work force and man-hour requirements for application of the MWO to a single unit, end item, or system:

REQUIREMENTS	
WORK FORCE/SKILLS	MAN-HOURS
1 Wheeled Vehicle Mechanic (MOS 63W) or equivalent	2
Total man-hours required for a single application of this MWO is 2 hours.	

d. MWOS that must be applied prior to application of this MWO. Not applicable.

e. Additional information necessary to apply this MWO. Not applicable.

7. TECHNICAL PUBLICATIONS AFFECTED/CHANGED AS A RESULT OF THE MWO.

<u>Technical publication</u>	<u>Date</u>
TM 9-2320-272-10	28 December 1988
TM 9-2320-272-20	25 March 1991
TM 9-2320-272-20P	2 September 1988
TM 9-2320-272-34P	12 May 1988

8. MWO KITS, PARTS, AND THEIR DISPOSITION.

a. The following kit is required to accomplish this modification. The security classification of the kit is unclassified. Shipping data is: Weight 1.89 lbs; the kit measures 0.56 x 0.40 x 0.26 ft; its volume is 0.058 cu ft.

NSN	NOMENCLATURE	FSCM	PART NO.
2530-01-286-7754	Spring Brake Valve Guard Kit	19207	12375360

b. Spring Brake Valve Guard Kit component parts are listed below and in the instructions for installation included in the Spring Brake Valve Guard Kit. The listing is used to inventory the kit for completeness.

NSN	NOMENCLATURE	FSCM	PART NO.	QUANTITY
	Valve	19207	11669789-1	1
	Installation Instructions	19207	12375361	1
	Bracket Assembly	19207	12375362	1
	Plate	19207	12375363	1
5315-00-842-3044	Cotter Pin	96906	MS24665-283	1
5310-00-814-0672	Nut	96906	MS51943-36	3

c. Bulk and expendable material.

NSN	NOMENCLATURE	FSCM	PART NO.	QUANTITY REQUIRED TO ACCOMPLISH ONE MWO
8030-01-054-0740	Sealant	19207	12302758	1

d. Parts disposition. Parts listed below are replaced by other parts during installation of MWO. They will be disposed of IAW AR 725-50.

NSN	NOMENCLATURE	FSCM	PART NO.
4820-01-187-9542	Limit Valve W/Screws	19207	11669789
2530-00-033-5252	Bracket	19207	12302655
5310-00-814-0672	Nut	96906	MS51943-36
5315-00-842-3044	Cotter Pin	96906	MS24665-283

e. The below listed items are not included in Spring Brake Valve Guard Kit and must be requisitioned from stock.

NSN	NOMENCLATURE	FSCM	PART NO.	QUANTITY REQUIRED TO ACCOMPLISH ONE MWO
9905-00-858-5682	Instruction Plate	19207	10930014	1
5305-00-253-5614	Screw, Drive	96906	MS21318-20	1

9. SPECIAL TOOLS; TOOL KITS; JIGS; TEST, MEASUREMENT AND DIAGNOSTIC EQUIPMENT (TMDE); AND FIXTURES REQUIRED.

a. Hand tools necessary to perform premodification and to apply MWO are contained in this tool kit.

NOMENCLATURE	NSN	FSCM	SUPPLY CATALOGUE
Tool Kit, General Mechanic's	5180-00-177-7033	50980	SC 5180-90-N26

b. Welding and metal drilling equipment necessary to apply MWO are contained in this shop set.

NOMENCLATURE	NSN	FSCM	SUPPLY CATALOGUE
Shop Equipment, Automotive Maintenance and Repair, Common No. 1	4910-00-754-0654	19204	SC 4910-95-CL-A74

10. MODIFICATION PROCEDURES.

a. Vehicle Preparation. Prepare vehicle for application of MWO by ensuring that vehicle air and mechanical brake systems operate IAW TM 9-2320-272-10 and TM 9-2320-272-20. Correct any faults found in brake system before installing this MWO by using the troubleshooting charts and repair procedures in above cited technical manuals.

WARNING

FAILURE TO DRAIN VEHICLE AIR TANKS COULD RESULT IN INJURY TO PERSONNEL.

b. Installation of Kit. Spring Brake Valve Guard Kit is installed IAW installation instructions and drawings included in the kit and provided in Appendix B.

CAUTION

ENSURE AIR LINES ARE NOT TWISTED WHEN INSTALLED.

c. Functional test. Ensure brake system operates properly. Be sure there are no improperly installed or damaged components of air lines causing a leak or other failure. Conduct this operational test IAW Preventive Maintenance Checks and Services (PMCS) listed in TM 9-2320-272-10 and TM 9-2320-272-20. Correct faults before vehicle is returned to service.

11. CALIBRATION REQUIREMENTS.

Not applicable to this MWO.

12. WEIGHT AND BALANCE DATA.

Weight and balance are not significantly affected.

13. QUALITY ASSURANCE REQUIREMENTS.

a. General. The following information is supplied to ensure the proper application of this MWO and to clarify the installer's responsibilities for an adequate quality assurance program. The installer's inspection methods and procedures shall include, as a minimum, provisions for installer responsibility, Government verification, in-process inspection, and job inspection. Inspections shall be IAW TM 750-245-45, TM 9-2320-272-20, TM 9-237, TM 43-0139, and the Spring Brake Valve Guard Kit installation instructions.

b. Installer Responsibilities. Unless otherwise specified in Government contract or purchase order, installer is responsible to perform all inspection requirements cited or referenced in this MWO. These requirements must be the basis of installer's minimum quality assurance (QA) program. Installer's QA inspections and tests will comply specifically with all provisions of this MWO pertaining to premodification inspection, installation instructions, tests, and adjustments, and for notifying the Government representative of any kits received incomplete or with damaged contents. The installer is responsible for quality of work for each job in applying this MWO.

c. Government Verification. All quality assurance procedures performed by installer are subject to Government verification conducted at varying intervals on an unannounced basis. Verification will consist of observations, inspections, and tests to determine that the installer's written quality assurance inspection plan is properly applied, that all practices, methods, and procedures in effecting the purposes of this MWO are done to contractual standards, and that the requirements of this MWO, including cited references, are fully met. Deviation from prescribed or agreed upon procedures will be immediately brought to the attention of the installer. Failure of the installer to promptly correct noted deficiencies shall be cause for suspension of acceptance until corrections have been made or until product and service conform to prescribed criteria.

d. In-process Inspection. During normal assembly operations, inspect cab floor, parking brake lever, housing, cable, clevis, and associated reused parts ensuring they are rust-free and serviceable. The installer shall reject any vehicle that has damaged, inoperative, or missing brake system components cited in Preventive Maintenance Checks and Services (PMCS) found in TM 9-2320-272-10 and TM 9-2320-272-20.

e. Job Inspection. Inspect all installed or replaced parts used during the installation of this MWO for security of mounting and smooth operation of components. Inspect weld of plate to parking brake lever for conformity to installation instructions and TM 9-237. Ensure that parking brake cable is adjusted IAW TM 9-2320-272-20. Check for missing, chipped, or cracked paint in the area modified. Prepare and paint as necessary IAW TM 43-0139. Ensure that air lines are not twisted, pinched, or leaking. Check for loose and cross-threaded tube fittings and correct as necessary.

14. RECORDING AND REPORTING OF THE MODIFICATION.

NOTE

It is imperative that vehicle serial number is entered in block 2 of DA form 2407 or block 11 of DA form 5504.

- a. Records and Report Forms. (Refer to DA PAM 738-750.)
- b. Marking Equipment.

(1) After Spring Brake Valve Guard Kit is installed, mark MWO number "9-2320-272-30-1" in the MWO Applied Block and date applied in Date Block on Instruction Plate NSN 9905-00-858-5682.

(2) Install instruction plate by drilling one 7/64-inch hole in cab brace and secure with drivescrew NSN 5305-00-253-5614 as shown in figure 1.

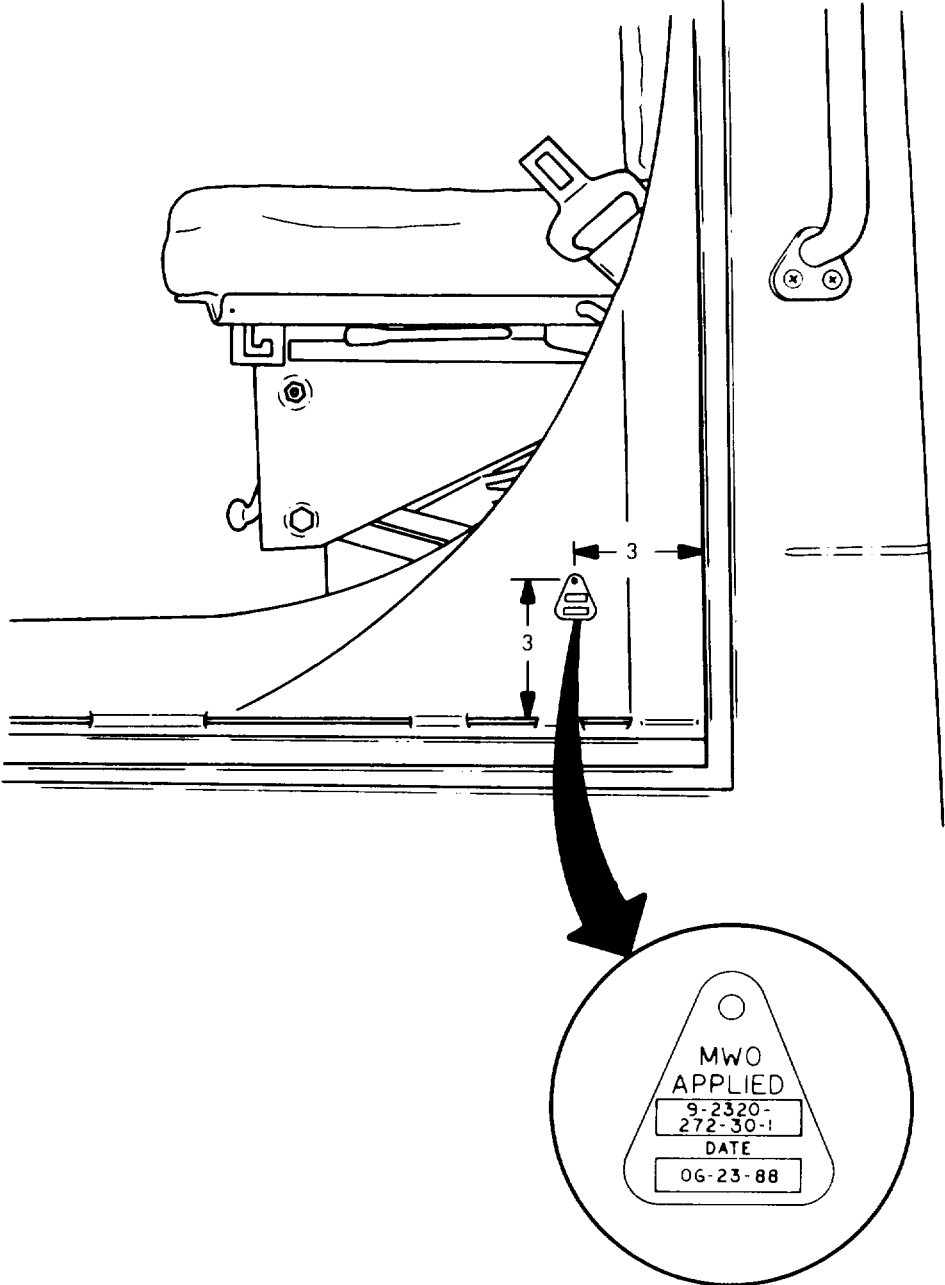
(3) After drivescrew is installed, flatten or remove protruding excess drivescrew material from inside of cab brace.

15. MATERIAL CHANGE NUMBER.

This MWO is authorized by Material Change Number 1-88-06-6001.

16. MODIFICATION IDENTIFICATION.

When installed correctly, spring brake valve guard modification to the cab assembly will appear as shown in figure 2.



NOTE: DIMENSIONS ARE IN INCHES

Figure 1

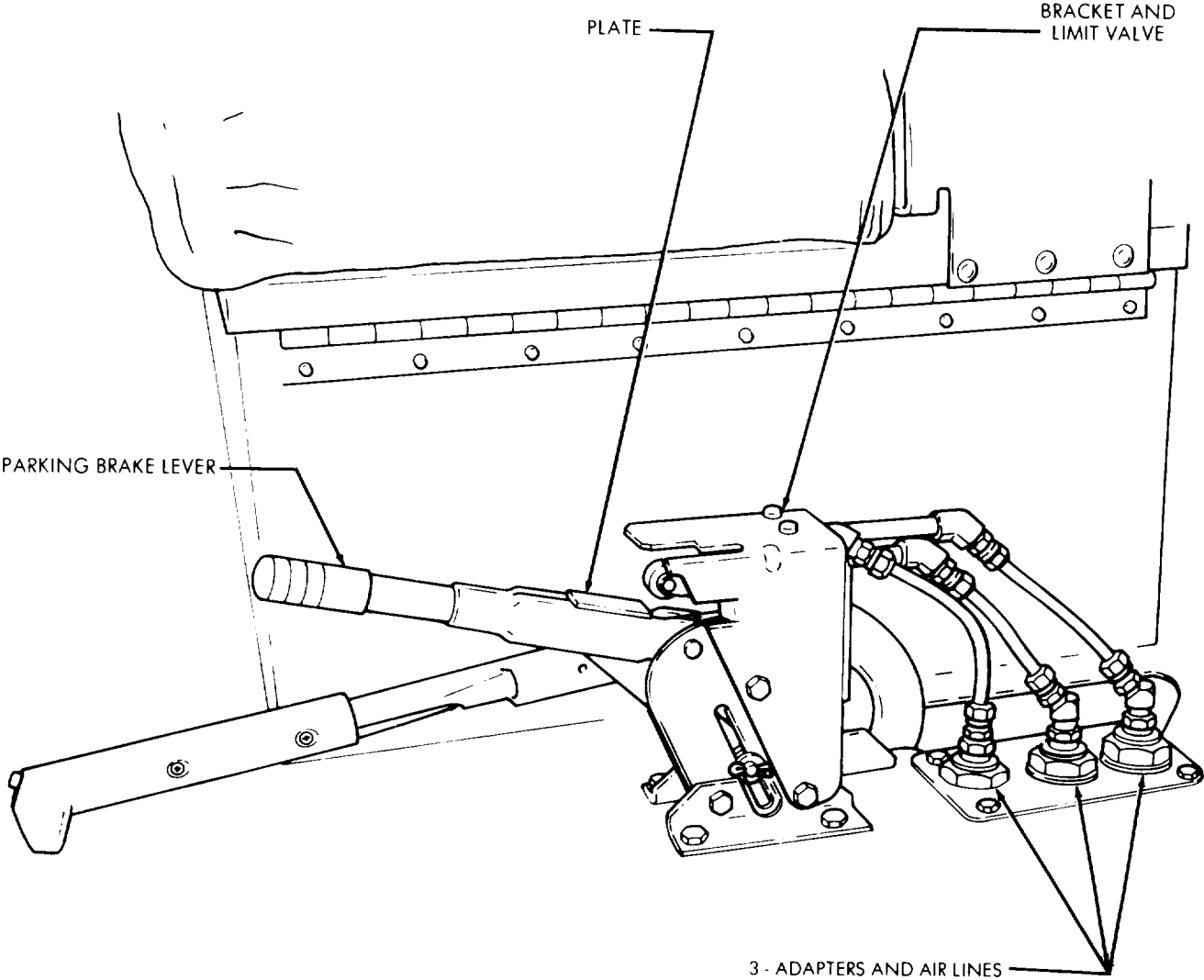


Figure 2

APPENDIX A

SAMPLE COPIES OF DA FORM 2407, WORK ORDER REQUESTS, USED TO REPORT MODIFICATION WORK ORDER TO DIRECT SUPPORT.

MAINTENANCE REQUEST				PAGE NO.	NO. OF PAGES	REQUIREMENT CONTROL SYMBOL	
For use of this form, see TM 38-750; the proponent agency is DCSLOG.						CSGLD-1047(R1)	
SECTION I - EQUIPMENT DATA							
CONTROL NUMBER 334095		WORK ORDER NUMBER 9-00127		WESDC BFD	ORG PD 06	PD AUTHENTICATION <i>Ted Bow CW2 MI ARNG</i>	
<input type="checkbox"/> WORK REQUEST <input checked="" type="checkbox"/> MWO <input type="checkbox"/> WARRANTY CLAIM		1a. ORGANIZATION 461 GS Co 107S & S Bn			b. LOCATION DAGTC DETROIT MI 48237		c. UNIT IDENT CODE
2. SERIAL NO. 306928		3. NOUN NOMENCLATURE TRUCK, WRECKER		4. LINE NO.	5. MODEL M936 A1	6. NATIONAL STOCK NUMBER 2320-01-206-4078	
7. MAINTENANCE ACTIVITY SMS LANSING, MI		a. LEVEL F	b. UTILIZATION CODE ON	9. MCSR ITEM	a. ERC	b. PACING ITEM	10. HOURS 972
						11. MILES 39277M	12. ROUNDS
							13. STARTS
14. FAILURE DETECTED DURING (Select one - use ✓ or X)				15. FIRST INDICATION OF TROUBLE (Select one - use ✓ or X)			
<input type="checkbox"/> A Scheduled Maintenance <input type="checkbox"/> B Handling <input type="checkbox"/> C Test <input type="checkbox"/> D Normal Op <input type="checkbox"/> E Storage <input type="checkbox"/> F Inspection <input type="checkbox"/> G Flight <input type="checkbox"/> H Other				<input checked="" type="checkbox"/> 058 Inoperative <input type="checkbox"/> 008 Noisy <input type="checkbox"/> 258 Overheating <input type="checkbox"/> 387 Low Performance <input type="checkbox"/> 790 Out of Adjustment <input type="checkbox"/> Other			
16. DESCRIBE DEFICIENCIES OR SYMPTOMS ON THE BASIS OF COMPLETE CHECKOUT AND DIAGNOSTIC PROCEDURE IN EQUIPMENT TM (Do not prescribe repairs)							
<p>APPLY MWO 9-2320-272-24-1</p>							
16a. REMARKS							
<p>PREPARATION INSTRUCTIONS</p> <p><i>(Prior to using this form, read TM 38-750 for detailed preparation instructions)</i></p>							
(1) Place a "✓" or an "X" in the box for the type action required. (2) Enter the WESDC if the item is Materiel Condition Status Reportable. (3) Enter the priority designator as determined from the urgency of need and force activity designator. (4) The Unit Commander, Chief of TDA activity or their designated representative will authenticate, by signature, a priority of 01 through 08. (5) Block 1a. Enter the name of the organization submitting the request. (6) Block 1b. Enter the unit number of the request; units overseas. (7) Block 1c. Enter the utilization code of the unit. (8) Block 2. Enter the equipment serial no. For aircraft, enter the lot number. For armored vehicles, enter the USA reg. number. (9) Block 3. Enter the noun abbreviation of the item. (10) Block 4. Enter the item line number if applicable. (11) Block 5. Enter the model number. (12) Block 6. Enter the national stock number of the item listed in block 3.				(13) Block 7. Enter the name of the support activity. (14) Block 7a. Enter the symbol of the maintenance condition (F, H, D or L). (15) Block 7b. Enter the utilization code. (16) Block 7c. Enter the word "yes" if the item is Materiel Condition Status Reportable. (17) Block 8. Enter the equipment number, if applicable. (18) Block 9a. Enter the word "yes" if the item is a pacing item. (19) Block 10. Enter the hour reading if applicable. (20) Block 11. Enter the mileage from the odometer if applicable. (21) Block 12. Enter the total rounds fired if applicable. (22) Block 13. For turbine engines, enter the number of hot starts. (23) Block 14. Enter a "✓" or "X" in the proper block. (24) Block 15. Enter a "✓" or "X" in the proper block. (25) Block 16. Describe briefly the fault or symptoms needing correction.			
23. SUBMITTED BY <i>S. Smith</i>		24. RECEIVED BY <i>B. Brown</i>					
JULIAN DATE 9234		JULIAN DATE 9237					

DA FORM 2407 MAY 81

EDITION OF JUL 78 IS OBSOLETE.

RECEIPT COPY 1

MAINTENANCE REQUEST				PAGE NO.	NO. OF PAGES	REQUIREMENT CONTROL SYMBOL	
For use of this form, see TM 38 750, the proponent agency is DCSLOG.						CSGLD-1047(R1)	
SECTION I - EQUIPMENT DATA							
CONTROL NUMBER 334095		WORK ORDER NUMBER 9-00127		WESDC BFD	ORG PD 06	PD AUTHENTICATION <i>Ted Bow CWA MI ARNG</i>	
<input type="checkbox"/> WORK REQUEST <input checked="" type="checkbox"/> MWO <input type="checkbox"/> WARRANTY CLAIM		1a. ORGANIZATION 461 GS Co 107S&S BN			b. LOCATION DAGTC DETROIT MI 48237		c. UNIT IDENT CODE
2. SERIAL NO. 306928		3. NOUN NOMENCLATURE TRUCK, WRECKER		4. LINE NO.	5. MODEL M936 A1	6. NATIONAL STOCK NUMBER 2320-01-206-4078	
7. MAINTENANCE ACTIVITY SMS LANSING, MI		a. LEVEL F	b. UTILIZATION CODE ON	9. MCSR ITEM	d. ERC	b. PACING ITEM 972	10. HOURS 39277M
14. FAILURE DETECTED DURING (Select one - use / or X) <input type="checkbox"/> A Scheduled Maintenance <input type="checkbox"/> C Test <input type="checkbox"/> E Storage <input type="checkbox"/> G Flight <input type="checkbox"/> B Handling <input type="checkbox"/> D Normal Op <input type="checkbox"/> F Inspection <input type="checkbox"/> H Other				15. FIRST INDICATION OF TROUBLE (Select one - use / or X) <input type="checkbox"/> 068 Inoperative <input type="checkbox"/> 258 Overheating <input type="checkbox"/> 790 Out of Adjustment <input type="checkbox"/> 008 Noisy <input type="checkbox"/> 387 Low Performance <input type="checkbox"/> Other			
16. DESCRIBE DEFICIENCIES OR SYMPTOMS ON THE BASIS OF COMPLETE CHECKOUT AND DIAGNOSTIC PROCEDURE IN EQUIPMENT TM (Do not prescribe repairs)							
APPLY MWO 9-2320-272-24-1							
16a. REMARKS							
SECTION II - WORK ACCOMPLISHED							
17a. REPAIR ORGANIZATION/ACTIVITY			c. UNIT IDENT CODE		18. TYPE ORGANIZATION/ACTIVITY ACCOMPLISHING WORK (Select one - use / or X) <input checked="" type="checkbox"/> 1 TOE <input type="checkbox"/> 2 TD <input type="checkbox"/> 3 CONTRACTOR		19. AMS ACCOUNT CODE
b. LOCATION							
20a ACT CODE	FAILURE CODE b	c. COMPONENT/PART NOUN, SVC, OR MWO NO. d. CB CODE e. REF DESIGNATOR f. MFR CODE	MANHOURS (Hrs & tenths) g	NATIONAL STOCK NUMBER h	PART SOURCE CODE i	QTY j	PARTS COST k
H	801	MWO 9-2320-272-24-1 MIL	1.0			1	
			3.0				
		FINAL INSP.	5				
			4.5	l. TOTAL MANHOURS COST		m. TOTAL MANHOURS COST	
21. DELAY (Select one) <input checked="" type="checkbox"/> 1 Parts <input type="checkbox"/> 2 Manpower <input type="checkbox"/> 3 Facilities <input type="checkbox"/> 4 Funds <input type="checkbox"/> 5 Tools			22. <input checked="" type="checkbox"/> DATA TRANSCRIBED				
23. SUBMITTED BY <i>S. Smith</i>	24. RECEIVED BY <i>B. Brown</i>	25. WORK STARTED BY <i>R. Jones</i>	26. INSPECTED BY <i>M. Martin</i>	27. ACCEPTED BY <i>S. Smith</i>	28. DISPOSITION (Select one) <input checked="" type="checkbox"/> A To User <input type="checkbox"/> C Salvaged <input type="checkbox"/> B To Stock <input type="checkbox"/> D Evacuated <input type="checkbox"/> E Cannibalization		
JULIAN DATE 9234	JULIAN DATE 9237	JULIAN DATE 9238	JULIAN DATE 9238	JULIAN DATE 9239			

SAMPLE

APPENDIX B**INSTALLATION INSTRUCTIONS AND ILLUSTRATIONS USED TO INSTALL SPRING BRAKE VALVE GUARD KIT.****B-1 . VEHICLE PREPARATION.**

- a. Chock wheels. (Refer to TM 9-2320-272-10.)
- b. Drain air tanks. (Refer to TM 9-2320-272-10.)
- c. Release tension from parking brake cable. (Refer to TM 9-2320-272-20.)
- d. Remove driver's seat assembly. (Refer to TM 9-2320-272-20.)
- e. Tag air lines "a," "%," and "c," and remove them from limit valve adapters as shown in figure B-1.
- f. Remove parking brake lever and existing hardware as shown in figure B-L

NOTE

Refer to TM 9-237 for metal preparation and welding instructions.

- g. Position 12375363 plate to parking brake lever and secure with braze grade B, type optional, spec MIL-B-7883 or weld class 1, spec MIL-STD-1261 as shown in figure B-2.

NOTE

Prime and paint parking brake lever in accordance with TM 43-0139.

B-2. KIT PREPARATION.

- a. Remove adapters "b," "a," and "c" from existing limit valve assembly ports as shown in figure B-3.
- b. Coat male pipe threads with 12302758 sealant and install adapters in ports "c," "a," and "b" of 11669789-1 limit valve as shown in figure B-4.
- c. Position limit valve assembly to 12375362 bracket and secure with two screws, washers, and locknuts supplied with limit valve as shown in figure B-4. Tighten screws to 23-31 lb-in. (2.6-3.5 N•m).

B-3. KIT INSTALLATION.

- a. Position parking brake cable clevis in parking brake housing and secure with pin, washer, and MS24665-283 cotter pin as shown in figure B-5.
- b. Install parking brake housing to parking brake handle bracket and secure with front screw and MS51943-36 nut as shown in figure B-5.
- c. Position parking brake switch and limit valve bracket to parking brake housing and secure with top screw, spacer washer, and MS51943-36 nut as shown in figure B-6.

- d. Secure parking brake housing with bottom screw and MS51943-36 nut as shown in figure B-6.

CAUTION

Ensure air lines are not twisted when installed.

- e. Install air lines to limit valve adapters as shown in figure B-6.

NOTE

After completion of installation, perform functional test of parking brake lever as follows:

- Ensure limit valve toggle roller makes contact with plate on parking brake handle when engaged.
- Ensure limit valve roller arm does not touch limit valve mounting bracket.
- If interference occurs between limit valve roller arm and mounting bracket, loosen mounting screws and adjust for clearance.

B-4. VEHICLE EQUIPMENT.

- a. Install driver's seat assembly. (Refer to TM 9-2320-272-20.)
- b. Adjust parking brake cable. (Refer to TM 9-2320-272-20.)
- c. Perform the following fictional tests.

WARNING

NO ONE SHOULD BE IN FRONT OF VEHICLE DURING TESTING OF BRAKES. FAILURE TO CLEAR AREA IN FRONT OF VEHICLE MAY RESULT IN DEATH OR INJURY.

- (1) Parking Brake. With engine at normal idle speed –

- Depress spring brake release control.
- Apply parking brake.
- Engage transmission in “1-5 drive.” (Vehicle should not move.)

- (2) Spring Brake

- Apply service brakes.
- Apply parking brake.
- Engage transmission in “1-5 drive.”
- Increase engine speed to 1000 RPM.
- Slowly release service brakes. (Vehicle should not move.)

- (3) Air System Leakage. With air system at 130 psi and engine turned off, check newly installed air line fittings for leaks.

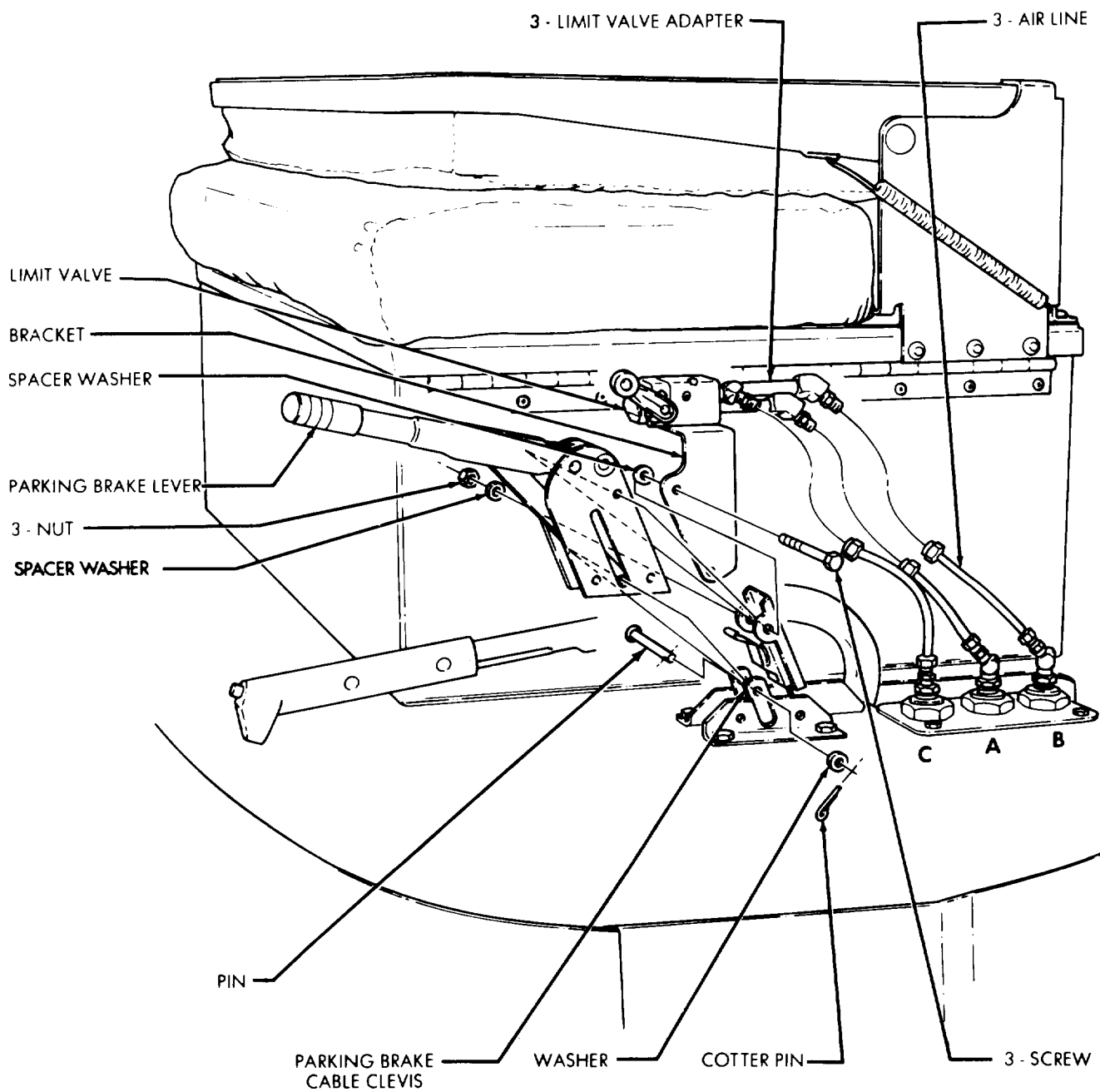
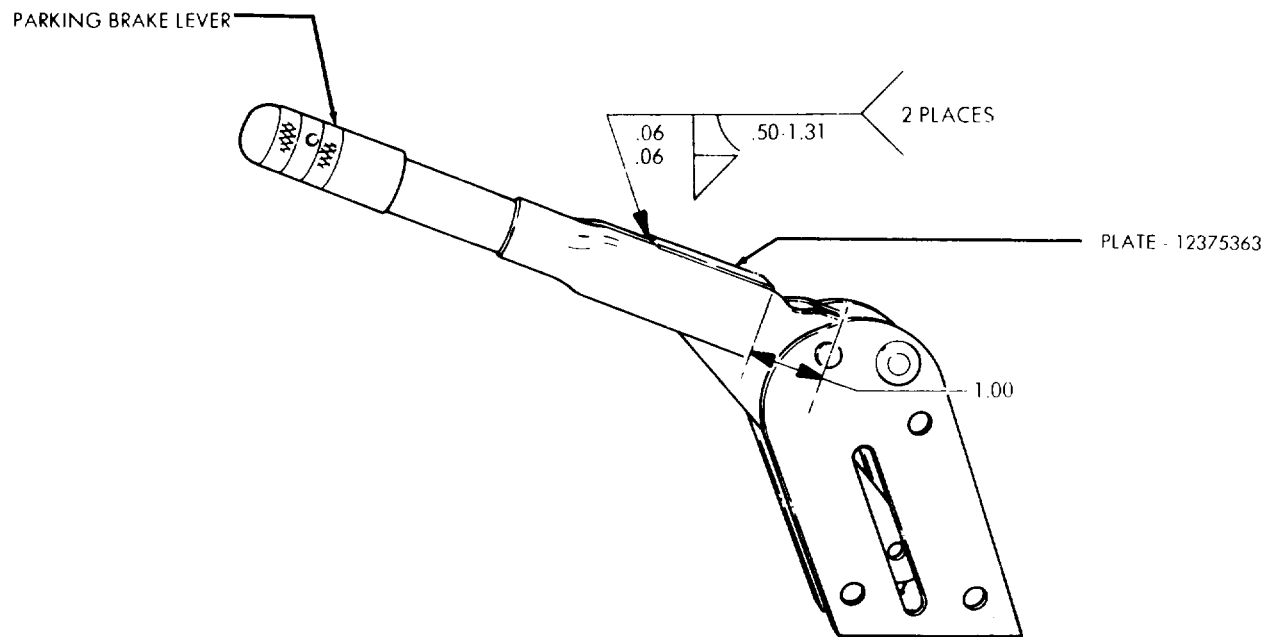


Figure B-1



NOTE: DIMENSIONS ARE IN INCHES

Figure B-2

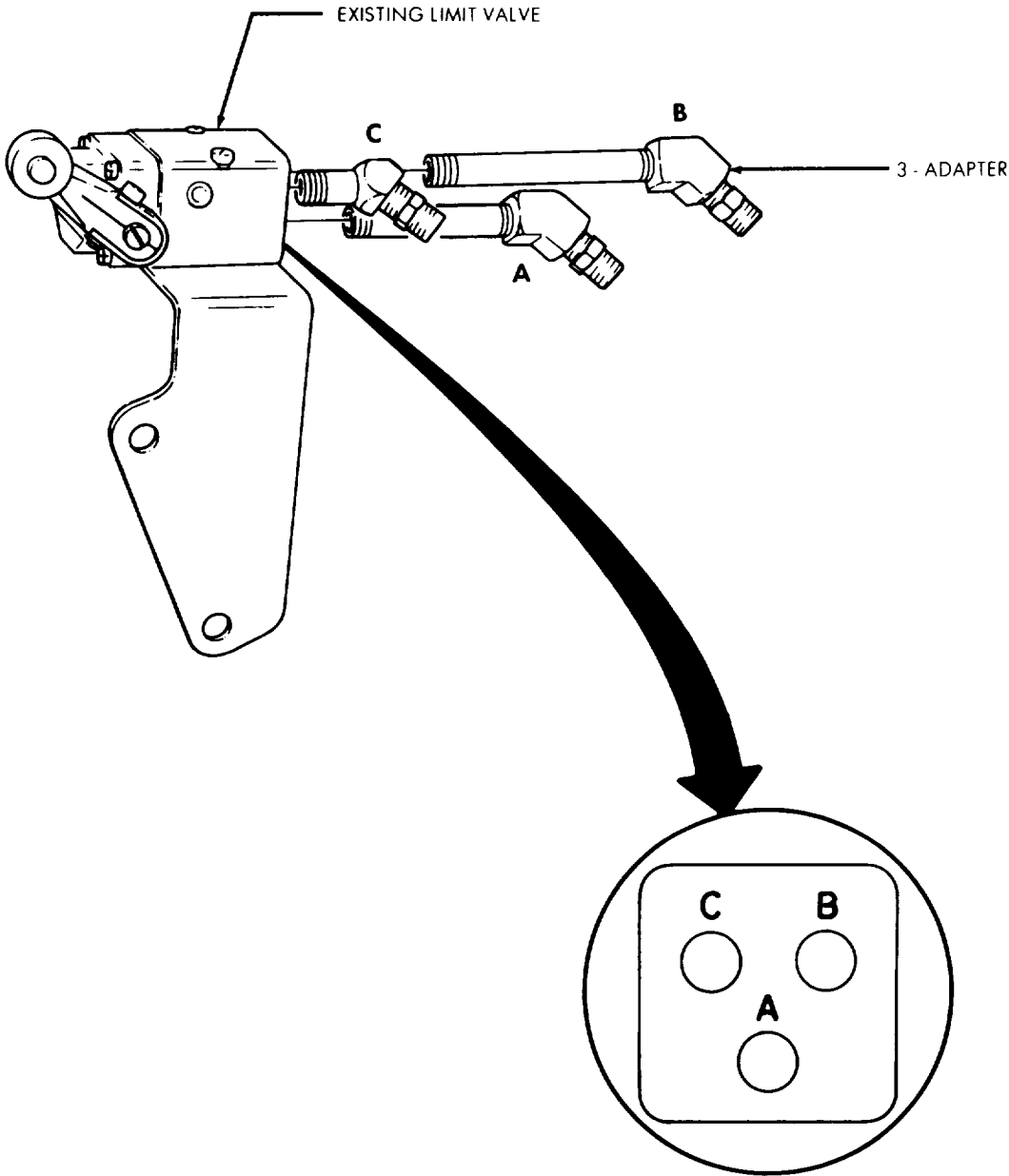


Figure B-3

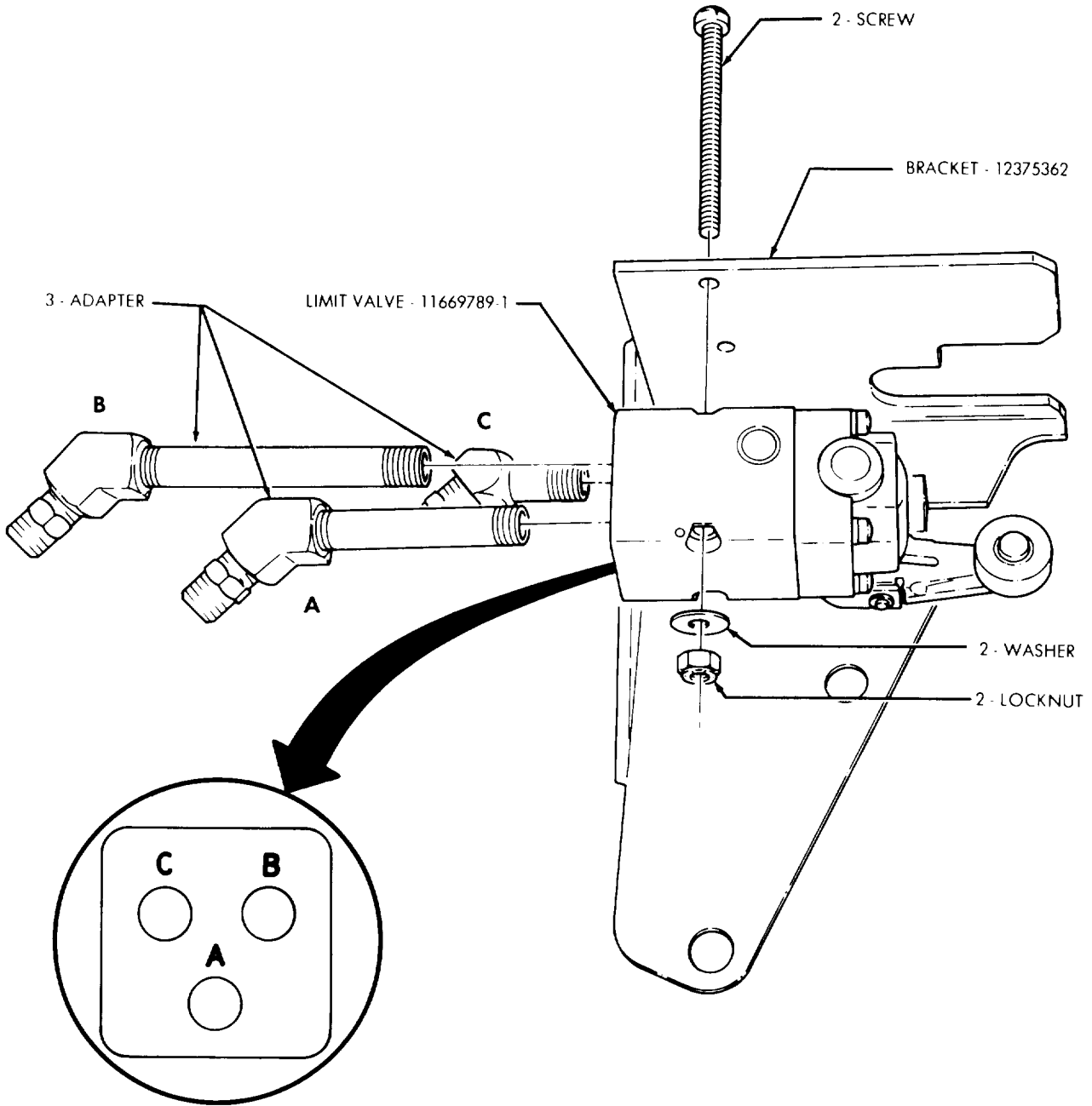


Figure B-4

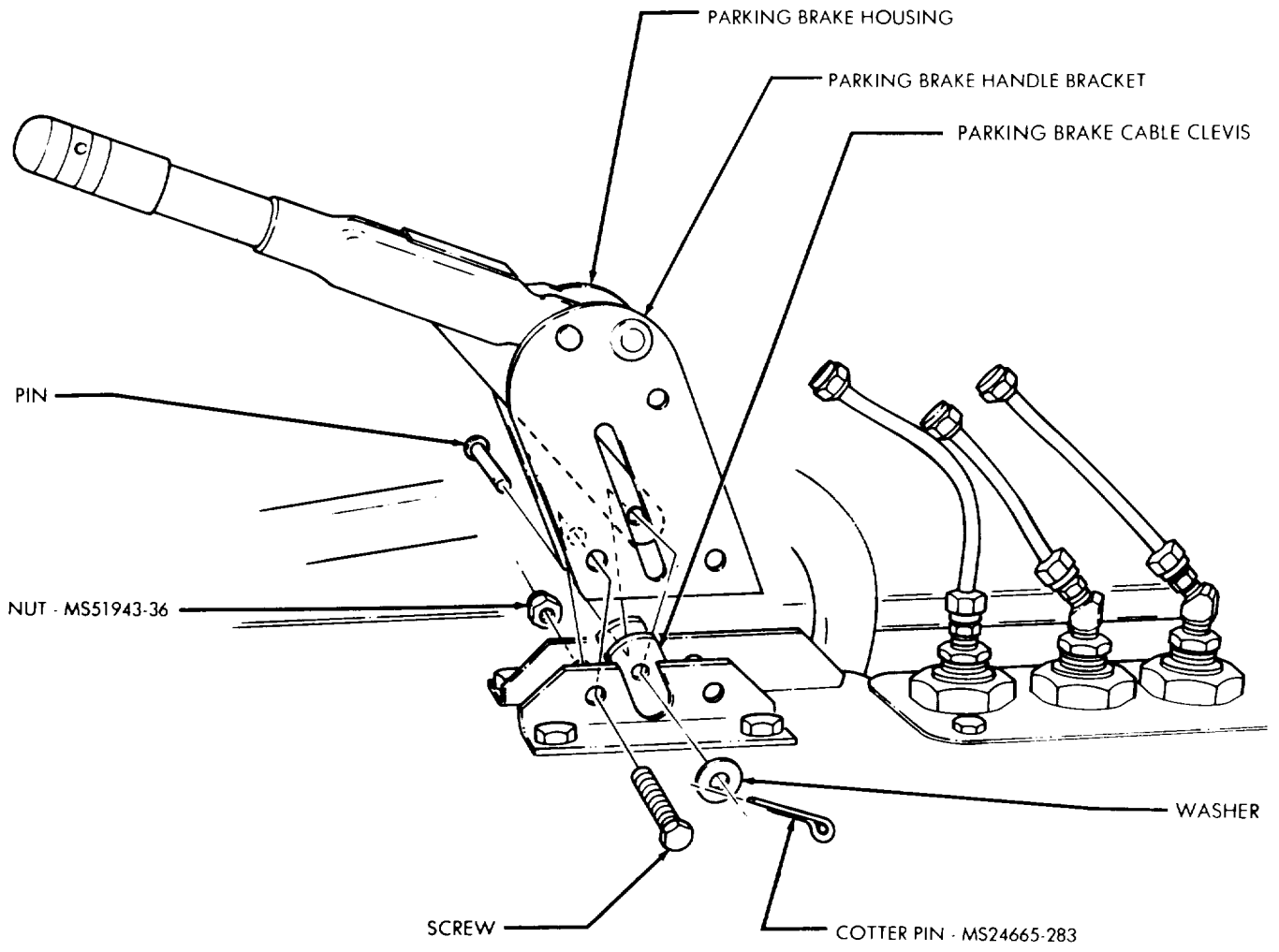


Figure B-5

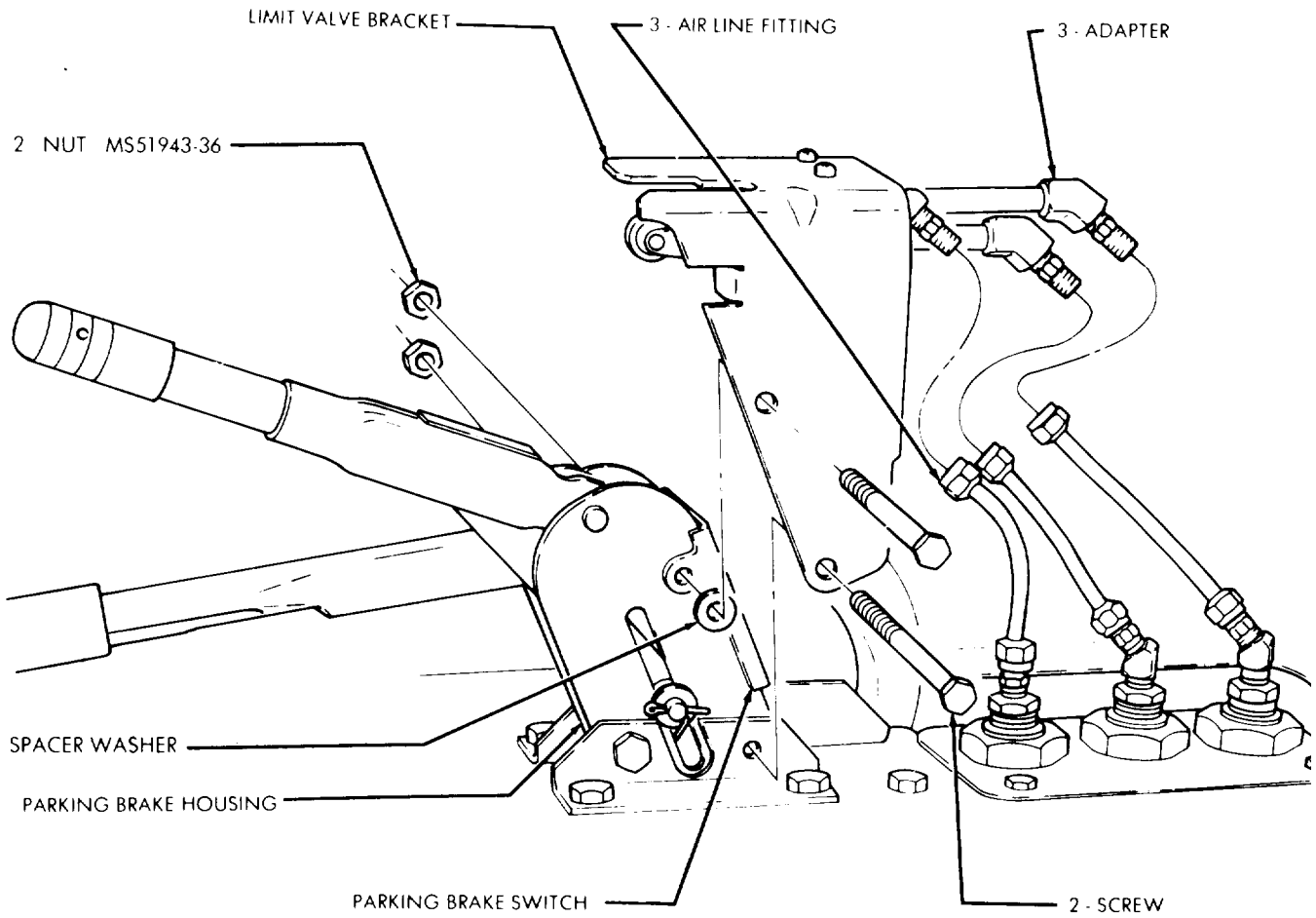
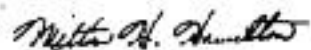


Figure B-6

By Order of the Secretary of the Army:

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General, United States Army
Chief of Staff

Official:



MILTON H. HAMILTON

*Administrative Assistant to the
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PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.
4	8 d	-	-
4	8 e	-	-

PART No. 11669789 IS LISTED WITH NOMENCLATURE "LIMIT VALVE W/SCREWS." IT SHOULD BE "CONTROL DIRECTIONAL LINEAR VALVE."

REF. PART MS21318-20 - THOUGH LISTED HERE AND IN OTHER PUBS AS DRIVE SCREW U.S. GOVT. STYLE MANUAL USES ONE WORD VERSION DRIVESCREW.

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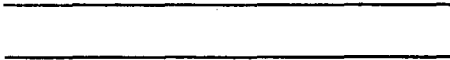
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