# 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.

This publication is required for official use or administrative or operational purposes only. Distribution is limited to U.S. Government Agencies. Other requests for this document should be sent to U.S. Army Tank-Automotive Command, ATTN: AMSTA-MB, Warren, MI 48397-5000.

DESTRUCTION NOTICE-Destroy by any method that will Prevent disclosure of contents or reconstruction of the document.

#### 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. APPICATION.

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 of this MWO is 2 hours.	a single application			

- 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.

Technical publication	Date
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  $0.56 \times 0.40 \times 0.26$  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 dnvescrew NSN 5305-00-253-5614 as shown in figure 1.

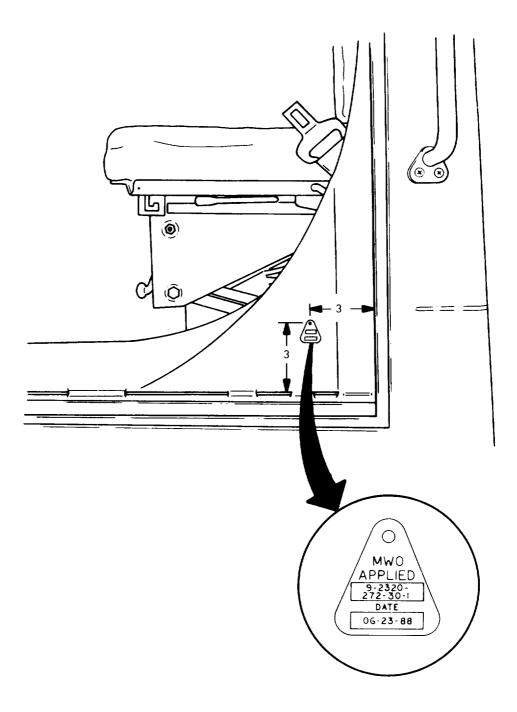
(3) After drivescrew is installed, flatten or remove protruding excess drivescrew material from inside of cab brace.

#### 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

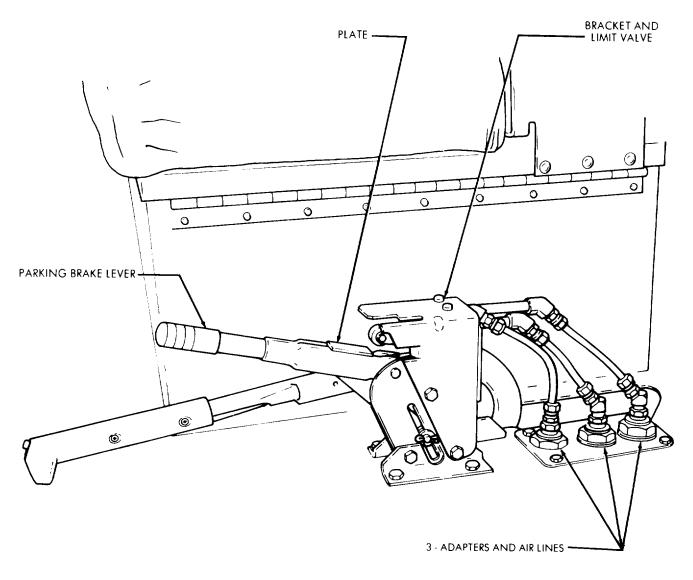


Figure 2

## APPENDIX A

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

N	AINTENANCE	E REQUEST		PAGE NO.	NO. OF PAGES	REQUIREMENT	CONTROL S	YMBOL		
		the proponent agency is DC				D-1047(R1)				
CONTROL NUMBER		RDER NUMBER	WESDC	ORG PD	PD AUTHEN					
334095		0127	BFD	<b>Ø</b> 6	Ted	Boar Chi	RINI	RNG		
WORK REQUEST	461	GS Co 107S ¢	DAG DETR	N TIOS	1 48237	C. UNIT IDENT CODE				
2. SERIAL NO. 306928	TRU	IOMENCLATURE	4. LINE NO.	5. MODEL MA3	6 A I	6. NATIONAL STO 2320-01				
7. MAINTENANCE ACTIVITY SMS LANSING, MI	•. LEVEL	B. UTILIZA- 9. MCSR TION CODE ITEM	4. ERC	8. PACING	10. HOURS 972	11. MILES 39277 M	12. ROUNDS 1	3. STARTS		
14. FAILURE DETECTED DU A Scheduled Bintenance C B Handling D M 16. DESCRIBE DEFICIENCIES preacribe repairs)	Test	Storage G Flight	058 Inop	erative	258 Overheatin	·	Out of Adjus Other ENT TM (Do n			
APPLY MWC	9-2320	-272-24-1								
	(Prior	PREPARA to using this form, read T	TION INSTRU M 38-750 for de		n instructions)					
(1) for	Place a "√" the type action	or an "X" in the box n required.		(13) Block 7. Enter the name of the support activity.						
		ESDC if the item is Status Reportable.		(14) Block 7a. The symbol of the maintenance $C$ , $F$ , $H$ , $D$ or $L$ )						
		iority designator as the urgency of need designator.		(15) Blr		vord "yes" if the				
wil	ivity or their de	ommander, Chief of TDA esignated representative by signature, a priority			Enter the e if applicable.					
(5) org		Enter the name of the itting the request		.s a pacing	item.	vord "yes" if the				
	Block 1b. I request; units			(19) Block 10. applicable		nileage from the				
	n code of the u			(21) Block 12	olicable.					
nur	Block 2 ial no. For a mber. For adı. er the USA regi	the lot 	:	ired if applicat (22) Block 13. the number of l	For turbine					
	Block 3. I n of the item.	Enter the noun abbrevia-		(23) Block 14. Enter a "✓" or "X" in the proper block.						
	) Block 4. I if applicable.	Enter the item line num-		(24) Block 15. proper block.	Enter a ''√'	' or "X" in the				
(12	) Block 6. I	Enter the model number. Enter the national stock n listed in block 3.		25) Block 16. or symptoms ne						
5. Smith D:	CEIVED BY	]								
9234 92	237									
DA 5078, 2407		EDITION	OF JUL 79 18 O	BOLETE.			RECEIP	T COPY		

21. DELAY (Select on 23. DELAY (Select on 23. SUBMITTED BY 5. Serie: JULIAN DATE 9.2.3.4	FINAL 		[2] Mer	L TOTAL M	<u>4.5</u>	3 DBY 27.4 S JULI G		8 22. (A) 0 28. DISPC		ISCRIBED Nect one) C Salvaged D Evacuated
23. SUBMITTED BY	24 AECEIV 24 AECEIV 24 AECEIV		25. WORK 5	L TOTAL MA	4.5 Facilities 26. INSPECTI MARK JULIAN DATI	3 D BY 27. /	Tools	8 22. (A) 0 28. DISPC	ATA TRAN SITION (Se o User o Stock	ISCRIBED Nect one) C Salvaged D Evacuated
23. SUBMITTED BY	o, []] [24, RECEIV	Parts ED BY	25. WOAK S	L TOTAL MA	4.5 Facilities 26. INSPECTI	3 [] Funds [D BY ] 27. /	Tools	8 22. 🔎 D 26. DISPO	ATA TRAN	SCRIBED
				L TOTAL MA	4.5	S	5 Tools	8 22. 🔎 O	ATA TRAN	SCRIBED
	FINAL					1			PARTS CO	
	FINAL					8				
	FINAL		S	P		81	K			
	FINAL		G	P		81	E			
	FINAL			P		81	F			
	FINAL			D		81	F			
	FINAL					<b>8</b> 1	F			
	FINAL					<b>8</b> 1	F			
	FINAL				· · · · · · · · · · · · · · · · · · ·	<b>8</b> 1	F			
	FINAL				· · · · · · · · · · · · · · · · · · ·	01	F			
	FINAL				· · ·		F			
	FINAL						E	+		
	FINAL									
	FINAL									
	FINAL									
	FINAL	, IN 3						1		
	FINAL									
		INS	P.		. 5					
1 1		1							<u> </u>	+
		1			3.0					
4 801 M	IWO 9-2	2320-2	272-24	l-1 MIL	1.0					
ODE D	d. CB CODE				(Hrs & tentha) I					PARTS COST
D FAILURE	c. COMPONEN	T/PART NO		MINO NO.	MANHOURS			PART SOLIDO		PARTS COST
LOCATION						📕 1 ТОЕ		2 70		
A REPAIR ORGAN	NIZATION/ACTI	VITY	ľ	UNIT IDEN	IT CODE	18. TYPE ORG	ANIZATION/AC	TIVITY AC- ne-une √or X)	19, AMS A	COUNT CODE
					- WORK ACC				10	COUNT CODE
6. REMARKS										
										<u></u>
		2320-	212-2	4-1						
APPLY N		2220	770 0	<u> </u>		· · ·	<b>-</b>			
6. DESCRIBE DEFIC rescribe repairs)	LENCIES OR SY	MPTOMS C	N THE BAS	IS OF COMP	LETE CHECKO	UT AND DIAG	SNOSTIC PROCI	EDURE IN EQ	UIPMENT T	FM (Do not
B Handling	D Normal (	0p [F]	Inspection	H Other		., C	387 Low Perfo	rmance	Othe	er .
4. FAILURE DETEC			uaer∛orX) Storage [	G Flight	15. FIRST INC		258 Overheatin	-		of Adjustment
•••••	11	F	ON			1	972	39277		
MAINTENANCE A			B. UTILIZA	9. MCSR	a. ERC	5. PACING	10 HOURS	11. MILES		DUNDS 13. START
306928		TRUCH	, WREC	KER		M93	16 AI	2320	-01-2	06-407
	NTY CLAIM		MENCLATU		A. LINE NO.		ROIT M	6. NATIONA	L STOCK N	
		ORGANI		07S ¢ S	S 8	DAG			c. UN	IT IDENT CODE
	-	9-00			BFD	Ø6		Son C		MARNG
33409		- ·	ER NUMBE	R	WESDC	ORG PD	PO AUTHEN			
CONTROL NU 33409			proponent		I - EQUIPME	NT DATA		L		
CONTROL NU		38-750, 64	MAINTENANCE REQUEST For use of this form, see TM 38 750, the proponent agency is DCSLOG.							(7(RI)
CONTROL NU	is form, see TM		REQUEST			PAGE NO.	NO. OF PAGES	L DEALUDE	MENT CON	TROL SYMBOL

A-3 (A-4 blank)

#### 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.

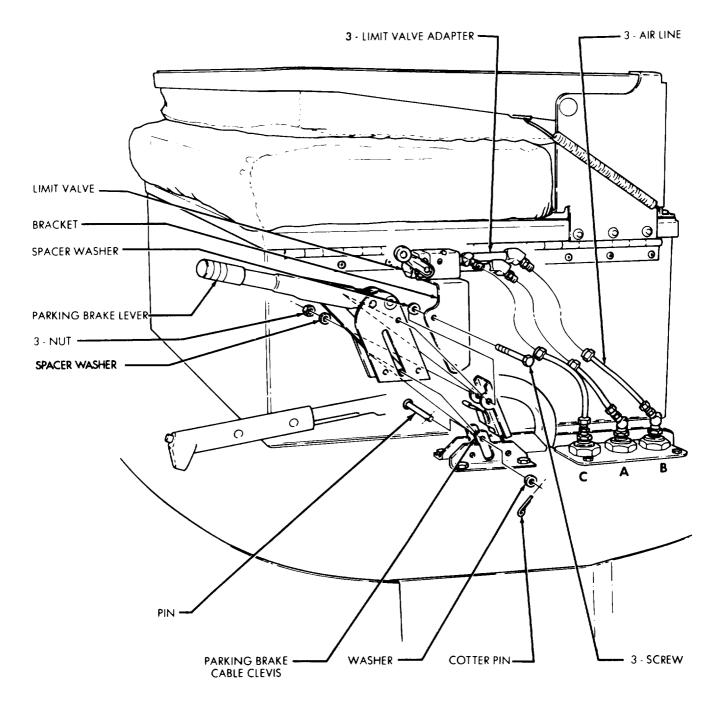
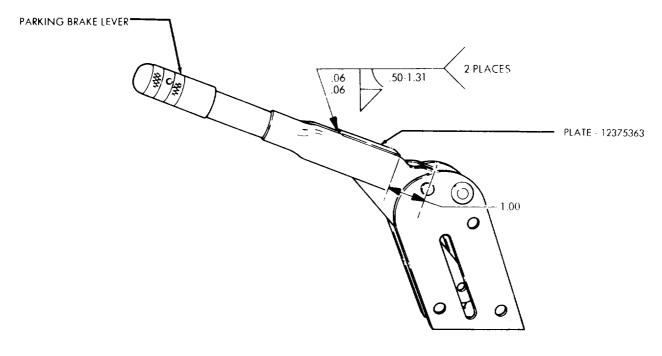


Figure B-1



**NOTE: DIMENSIONS ARE IN INCHES** 

Figure B-2

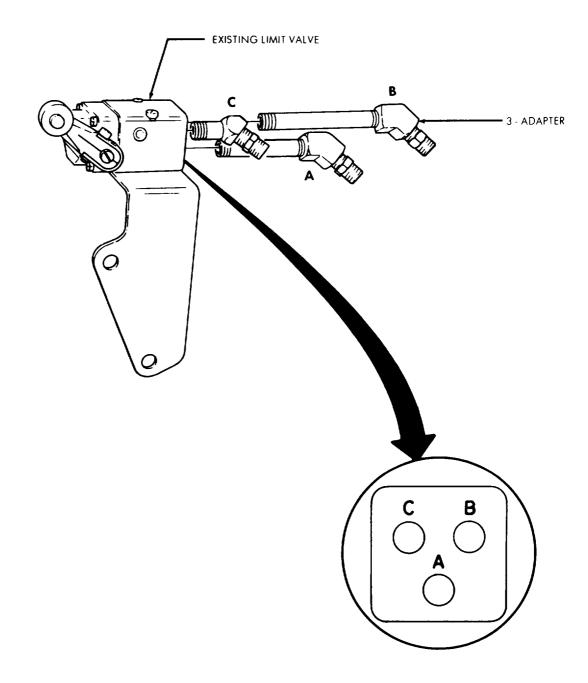
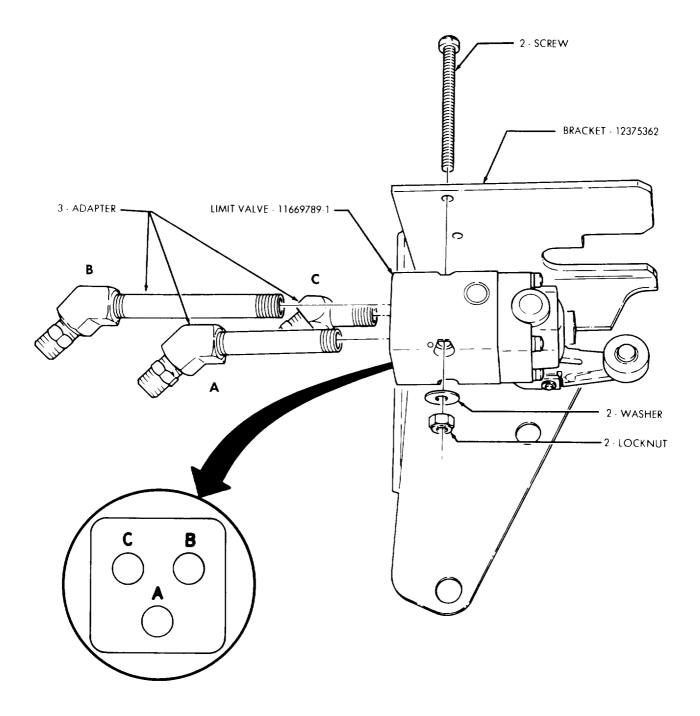


Figure B-3





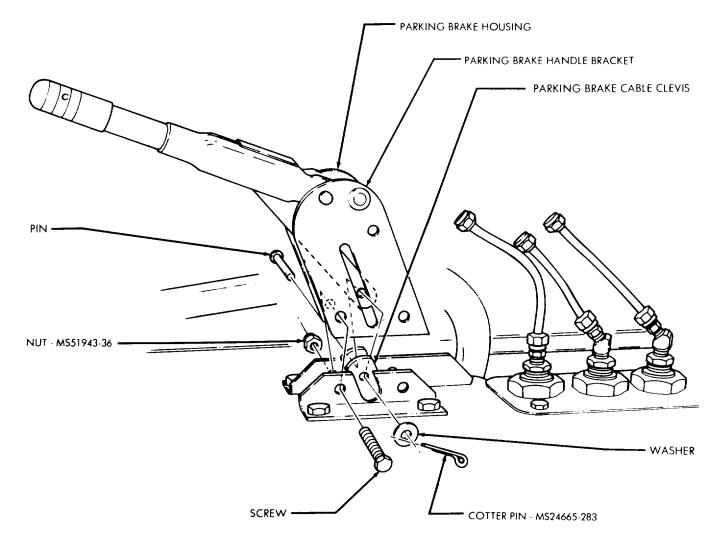


Figure B-5

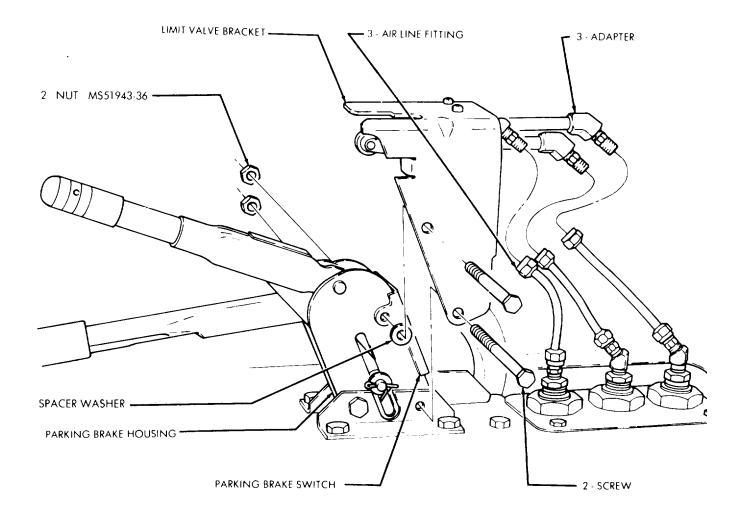


Figure B-6

By Order of the Secretary of the Army:

GORBON R. SULLIVAN General, United States Army Chief of Statf

**Official** Mitte N. chatto

MILTON H. HAMILTON Administrative Assistant to the Secretay of the Army

Distribution:

To be distributed in accordance with DA Form 12–38-E, Block 0887, Unit, Direct and General Support Maintenance requirements for MWO 9–2320-272-24-1.

"U.S. OOVERNMENT PRINTING OFFICE: 1892 - 64 3- 02 5/ 4 0 1 9 7

/		\			RECOMMENDE	CHAP	IGES TO EQUIPMENT TECHNICAL PUBLICATION			
	5			SON	<b>AETHING</b>	G W	RONG with this publication?			
	( iii)	り. (	THEN.	JOT DO	WN THE	FRON	: (PRINT YOUR UNIT'S COMPLETE ADDRESS)			
2 N			FORM. C	AREFUL	ON THIS LY TEAR IT D. DDOD 17	r	OUR MAILING ADDRESS			
()			IN THE		D DROP IT	DATE	SENT			
PUBLIC		JMBER 9-232	20-272-	-24-1	PUBLICATION DA FROM FRO COVER		PUBLICATION TITLE MODIFICATION OF 5-TON VEHICLE (SPRING BRAKE VALVE GUARD BRACKET)			
	CTPIN-P		IERE IT IS		SPACE TELL WHAT		NG			
PAGE NO.	PARA- GRAPH	FIGURE NO.	TABLE NO.							
4	8 d	-		"LIM	IT VALVE W	SCP	LISTED WITH NOMENCLATURI EWS." IT SHOULD BE IAL LINEAR VALVE."			
4	8 e	-	-				20 - THOUGHLISTED HERE AS DRIVE SCREW U.S. GOVT			
				STY	LE MANUAL	UJE	S ONE WORD VERSION			
				DRI	VESCREW.					
					G	P	NPLE			
THAD	NAME. GF EUS P. A	LERT	SGT	317-12	NE NUMBERS 27-1776 27-1776 7 EDITIONS	N HERE:	A.SIF YOUR OUTFIT WANIS TO KNOW ABOUT YO RECOMMENDATION MAKE A CARBON COPY OF THI			

l

ł

	SANNE	
FILL IN YOUR UNIT'S ADDRESS DEPARTMENT OF THE ARMY	FOLD BACK	
OFFICIAL BUSINESS		
	COMMANDER U.S. ARMY TANK-AUTOMOTIVE COMMAND ATTN: AMSTA-MB WARREN, MI 48397-5000	

/	$\sim$	\			RECOMME	NDE	CHAN	NGES TO EQUIPMENT TECHNICAL PUBLICATIONS	
$\square$	5	<u></u>		SON	ΛΕΤΗΙ	NC	g M	RONG with this publication?	
	<u>j</u>		DOPE A FORM. (				FROM	A: (PRINT YOUR UNIT'S COMPLETE ADDRESS)	
	\B		IN THE			J	DATE	SENT	
	PUBLICATION NUMBER MWO 9-2320-272-24			1-1	n DA	1991	PUBLICATION TITLE MODIFICATION OF 5-TON VEHICLE (SPRING BRAKE VALVE GUARD BRACKET)		
BE EXA PAGE	BE EXACT PIN-POINT WHERE IT IS				SPACE TELL W	HAT BE DO	IS WRO	NG OUT IT:	
PRINTED	NAME, G	RADE OR 1	IITLE, AND	TELEPHON	NE NUMBERS	SIG	N HERE:		
l								· · · · · · · · · · · · · · · · · · ·	
DA ,'	JUL 79 20	)28-2		PREVIOUS I ARE OBSO				P.S.—IF YOUR OUTFIT WANTS TO KNOW ABOUT YOÙI RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.	

#### **REVERSE OF DA FORM 2028-2**

