

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.

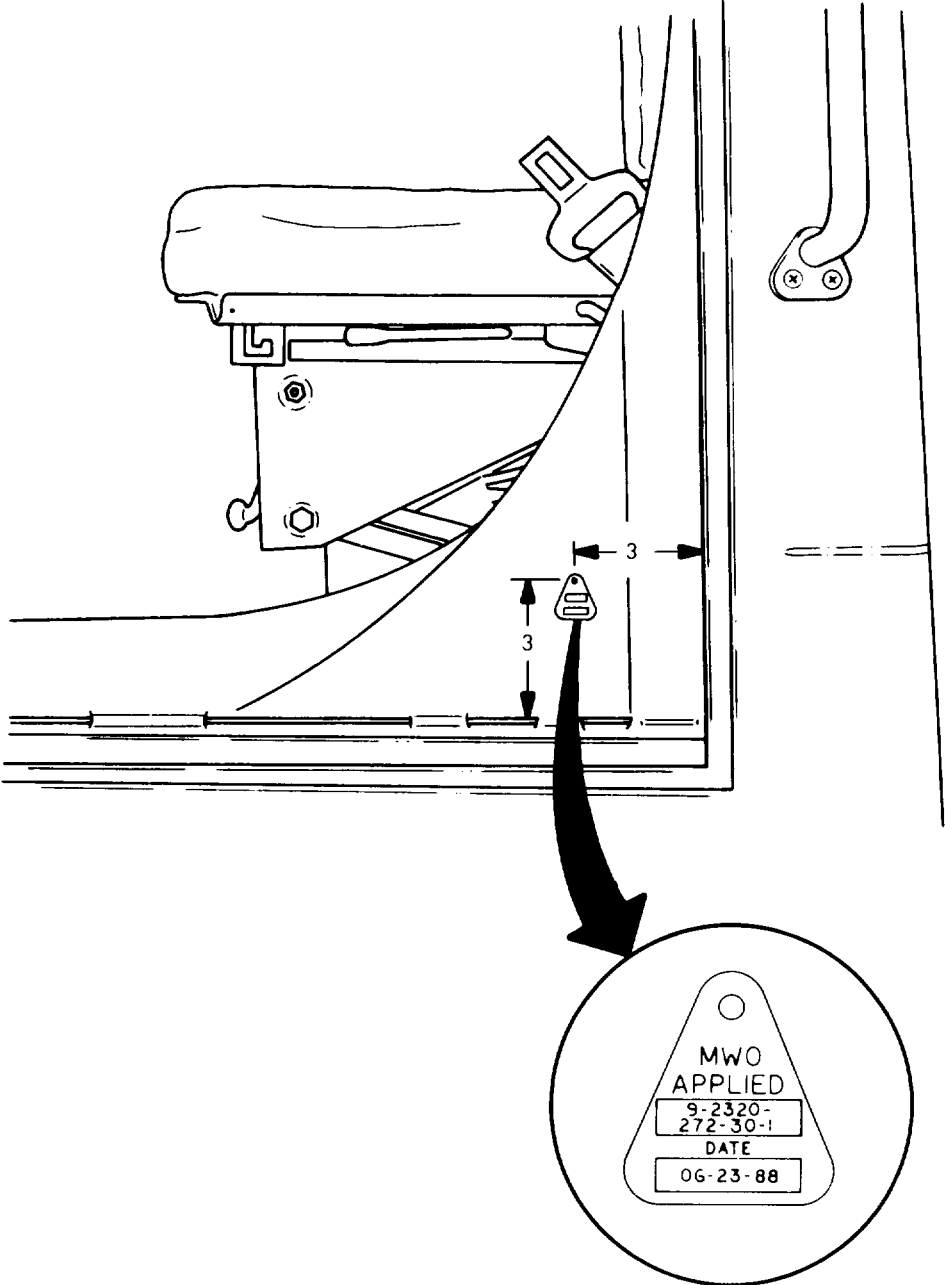
(3) After drivescrew is installed, flatten or remove protruding excess drivescrew material from inside of cab brace.

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

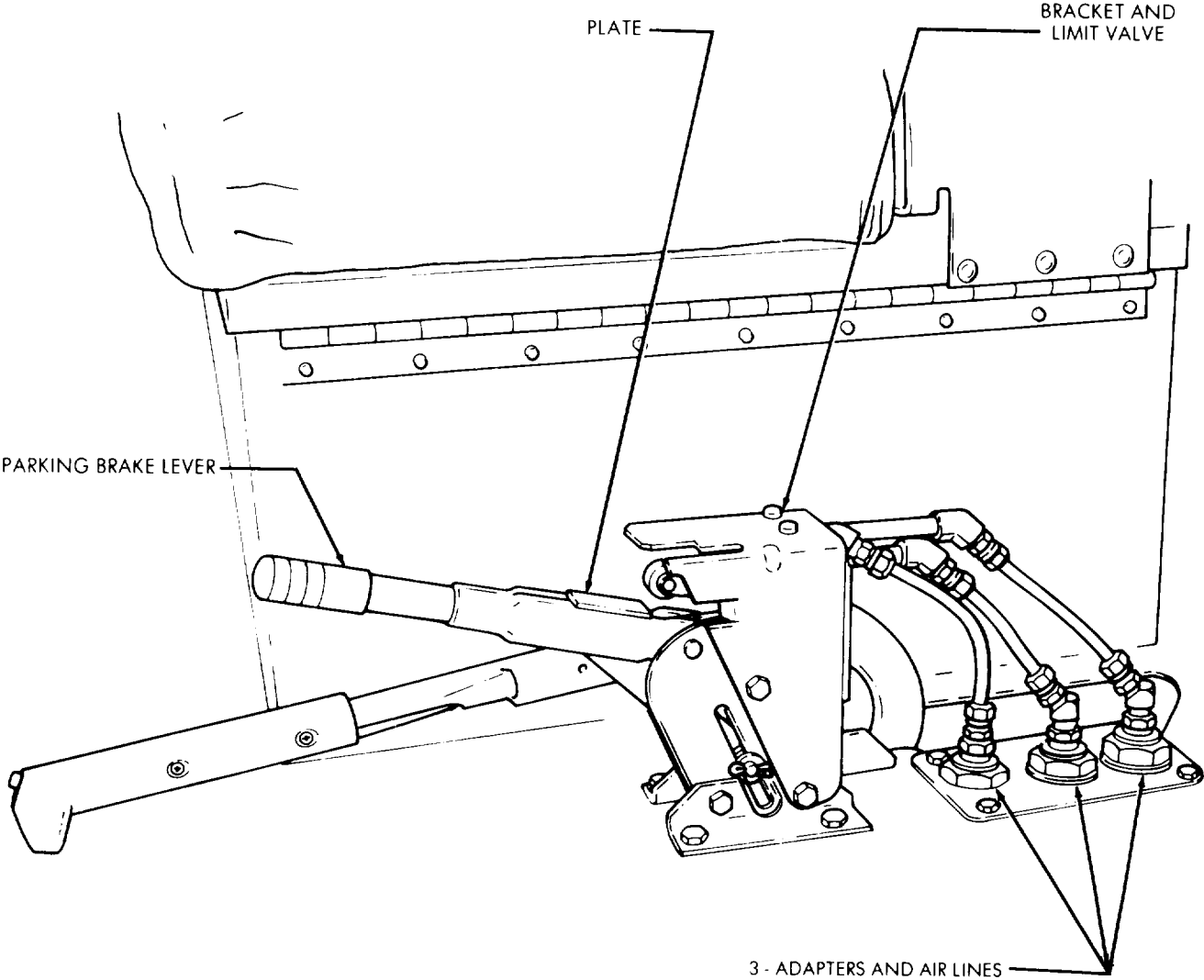


Figure 2

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. | | | | | | |
| SECTION I - EQUIPMENT DATA | | | | | | |
| CONTROL NUMBER 334095 | WORK ORDER NUMBER 9-00127 | WESDC BFD | ORG PD 06 | PD AUTHENTICATION Ted Bow CW2 MI ARNG | | |
| <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 |
| 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"/> C Test <input type="checkbox"/> E Storage <input type="checkbox"/> G Flight <input checked="" type="checkbox"/> B Handling <input type="checkbox"/> D Normal Op <input type="checkbox"/> F Inspection <input type="checkbox"/> H Other | | | <input checked="" type="checkbox"/> 008 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 | | | | | | |
| PREPARATION INSTRUCTIONS (Prior to using this form, read TM 38-750 for detailed preparation instructions) | | | | | | |
| (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 category (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 7d. Enter the equipment number if applicable. (18) Block 9b. 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 S. Smith | | 24. RECEIVED BY B. Brown | | | | |
| JULIAN DATE 9234 | | JULIAN DATE 9237 | | | | |

DA FORM 81 MAY 81 2407

EDITION OF JUL 79 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) | | | |
| b. LOCATION | | | | | | <input checked="" type="checkbox"/> 1 TOE <input type="checkbox"/> 2 TD <input type="checkbox"/> 3 CONTRACTOR | | | |
| 19. AMS ACCOUNT CODE | | | | | | | | | |
| 20a. ACT CODE | FAILURE CODE b | c. COMPONENT/PART NOUN, SVC, OR MWO NO. | | | MANHOURS (Hrs & tenths) e | NATIONAL STOCK NUMBER h | PART SOURCE CODE i | QTY j | PARTS COST k |
| | d. CB CODE | e. REF DESIGNATOR | f. MFR CODE | | | | | | |
| H | 801 | MWO 9-2320-272-24-1 MIL | | | 1.0 | | | 1 | |
| | | | | 3.0 | | | | | |
| | | FINAL INSP. | | .5 | | | | | |
| | | | | l. TOTAL MANHOURS 4.5 | | m. TOTAL MANHOURS COST | | n. TOTAL PARTS COST | |
| 21. DELAY (Select one) <input 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. Mott</i> | | 27. ACCEPTED BY <i>S. Smith</i> | |
| JULIAN DATE 9234 | | JULIAN DATE 9237 | | JULIAN DATE 9238 | | JULIAN DATE 9238 | | JULIAN DATE 9239 | |
| | | | | | | | | 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 | |

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.

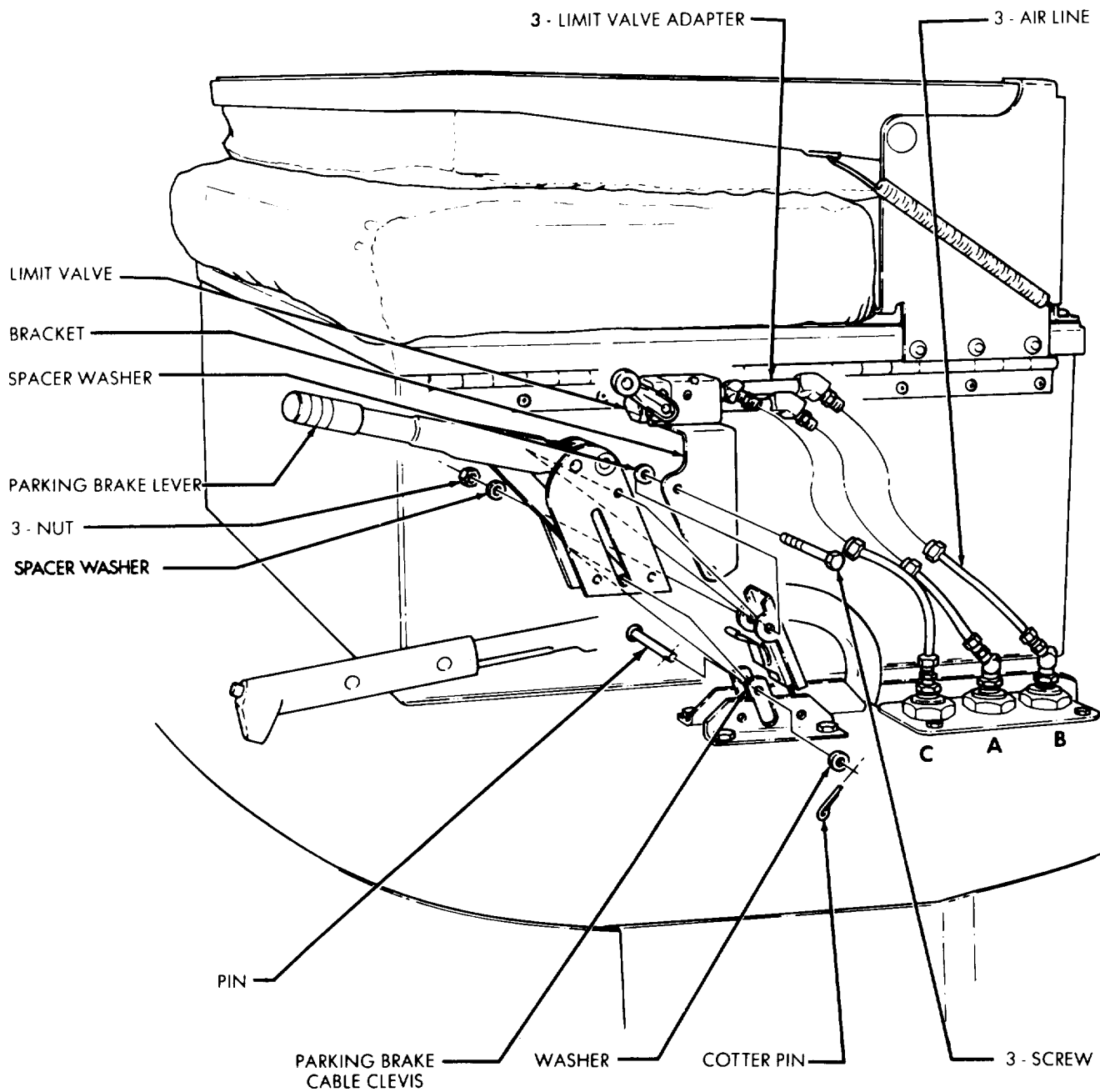
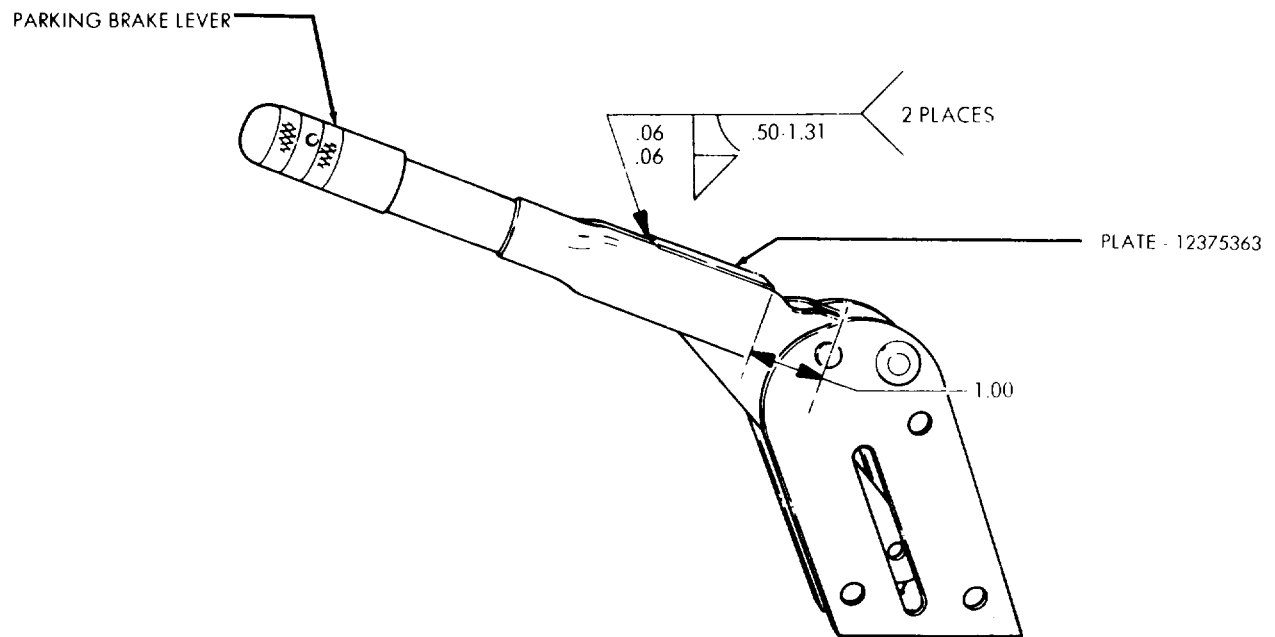


Figure B-1



NOTE: DIMENSIONS ARE IN INCHES

Figure B-2

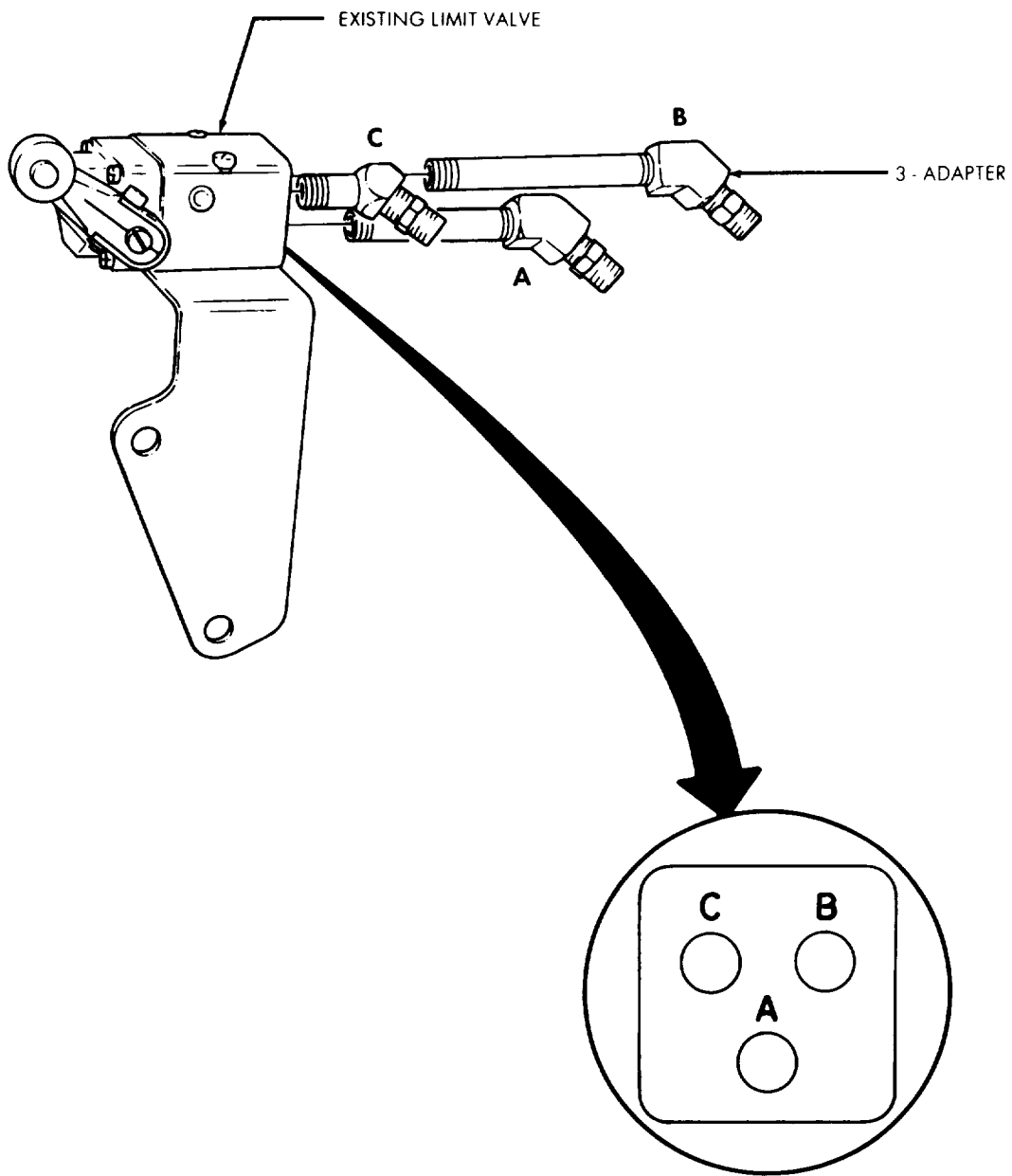


Figure B-3

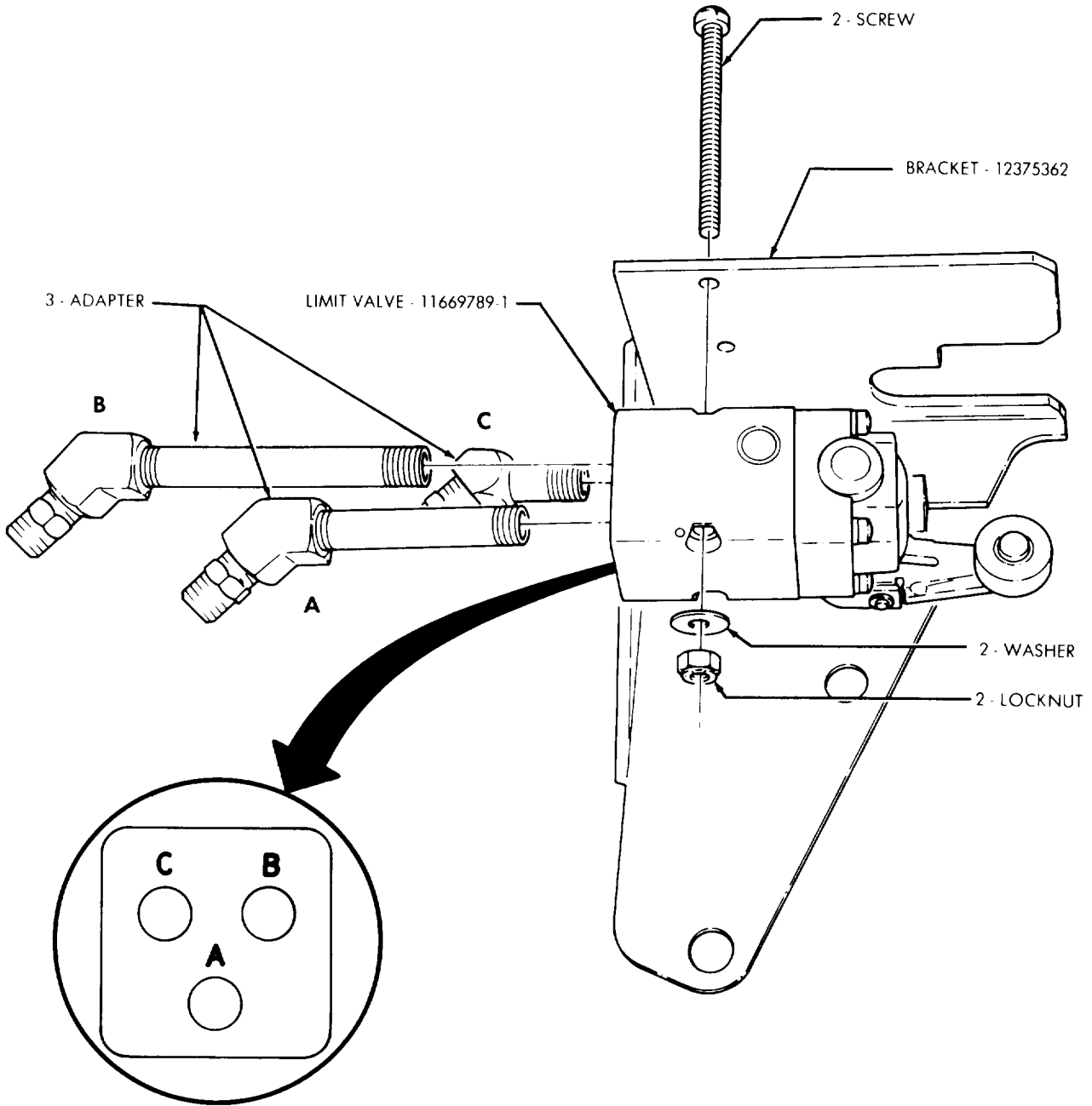


Figure B-4

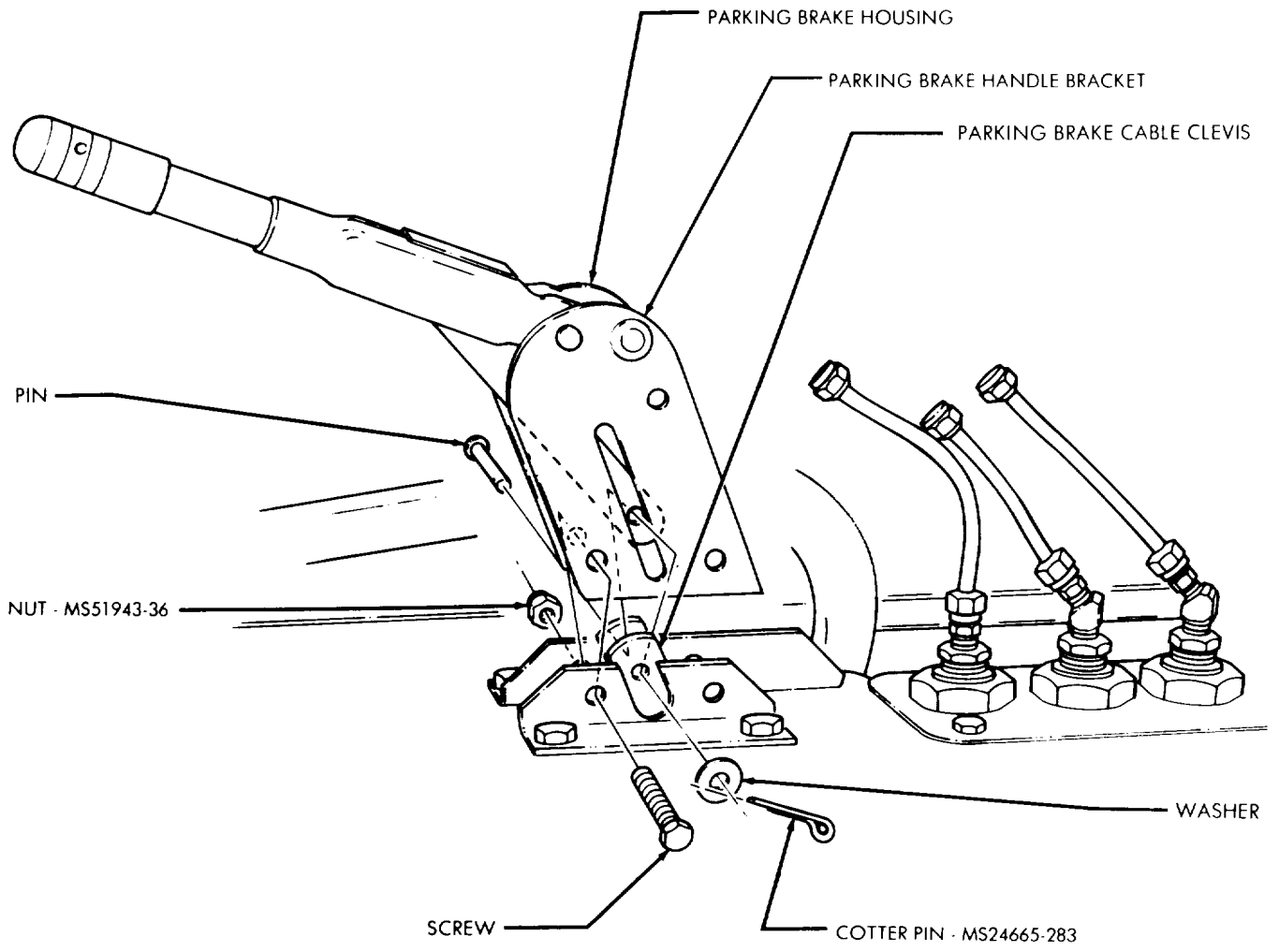


Figure B-5

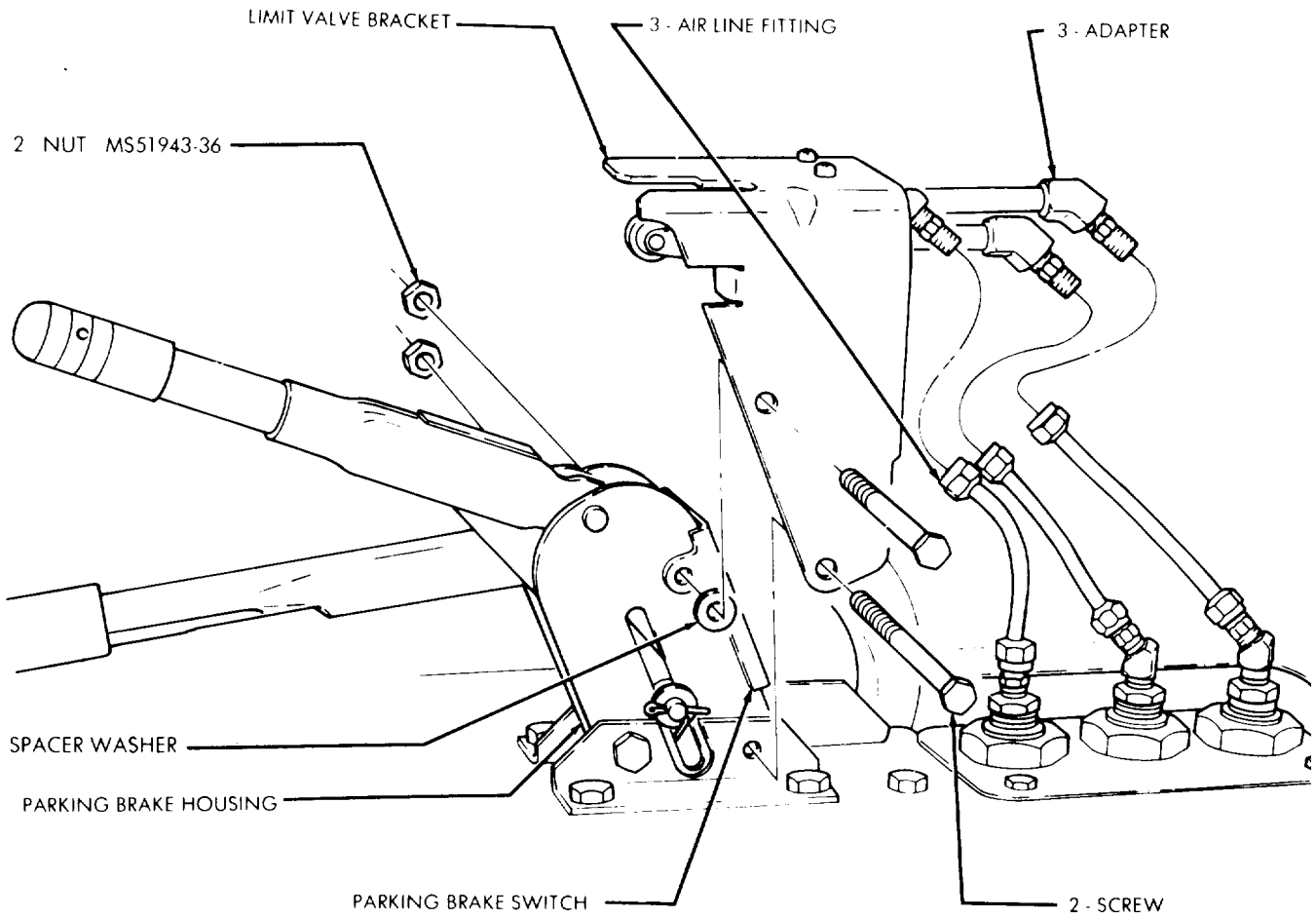
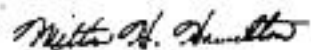


Figure B-6

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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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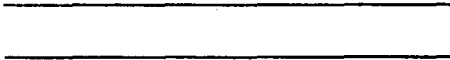
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