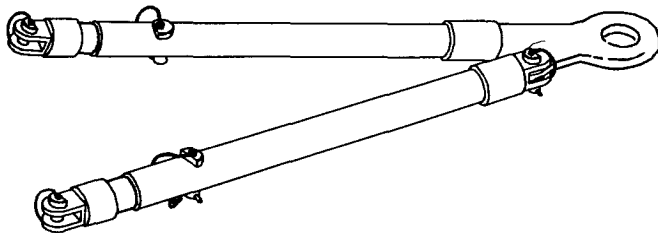


**OPERATOR'S AND UNIT MAINTENANCE MANUAL
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)
FOR
TOWBAR, MOTOR VEHICLE, WHEELED
(4910-01-365-9304)**



HEADQUARTERS, DEPARTMENT OF THE ARMY
May 1994

TM 9-4910-593-12&P

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WARNINGS

NEVER ATTEMPT TO HOOK UP THE TOWBAR ALONE (USE TWO PEOPLE).

DO NOT PERFORM U-TURNS. AVOID ALL SHARP TURNS. REDUCE SPEED AND USE AS LARGE A RADIUS AS POSSIBLE WHILE TURNING.

DURING COLD WEATHER (BELOW 32 DEGREES F) SPECIAL CARE IS REQUIRED. REDUCE SPEED FOR TURNS, TAKE-OFFS AND STOPS DURING COLD WEATHER. USE TOWBAR AS CLOSE TO FULLY RETRACTED AS POSSIBLE BUT NOT TOO CLOSE THAT BINDING (JACKKNIFE) COULD OCCUR DURING TOWING OPERATION.

WHEN BACKING UP DO SO SLOWLY. IF TURNING WHILE BACKING UP, MAKE SLOW GENTLE TURNS ONLY. IF THE VEHICLE STARTS TO JACKKNIFE, STOP, PULL AHEAD, AND THEN SLOWLY BEGIN TO BACK UP AGAIN.

WARNINGS (cont)

NEVER TOW AN UNSTABLE LOAD. IF EITHER VEHICLE WEAVES OR HANDLES POORLY. STOP AND INSPECT FOR THE CAUSE.

AFTER STOPPING FOR FUEL OR DRIVER CHANGE, ALWAYS INSPECT FOR WELD CRACKS, MISSING OR LOOSE PINS, AND BENT OR CRACKED TUBES BEFORE RESTARTING.

CAUTIONS

If the disabled vehicle has bumper shackle brackets (and steering, transmission, and front tires are in operating condition), tow by coupling into bumper shackle brackets; otherwise, use lift towing.

Wheeled vehicles up to and including 39,000 pounds gross weight can be towed with all wheels on the ground.

CAUTIONS (cont)

The towbar should not be used for lift towing wheeled vehicles with a gross weight over 39,000 pounds. The towbar, if used, must be connected to the vehicle axle for stabilization. The towbar must not touch the ground or bumper during towing operations. A wrecker must lift tow according to FM 20-22, Vehicle Recovery Operations. The towed vehicle operator's manual must be checked for applicable towing restrictions.

The disabled vehicle's emergency brake must be set or its wheels blocked before the towbar is hooked up.

Towbar is used for stabilization.

Be sure two hexagon head cap screws holding towbar hook to towbar clamp are tightened securely.

Keep length of towbar as short as possible, but long enough to provide clearance on turns.

CAUTIONS (cont)

Always use safety chains in conjunction with the towbar.

Set the emergency brake or block the wheels of the disabled vehicle BEFORE unhooking towbar's lunette from the recovery vehicle pintle.

NOTE

The towed load weight limit of the prime mover shall not be exceeded.
Refer to towing vehicle's -10 (operator's) manual for speed limits.

TECHNICAL MANUAL

No. 9-4910-593-12&P

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D. C., 3 May 1994

OPERATOR'S AND UNIT MAINTENANCE MANUAL
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)
FOR
TOWBAR, MOTOR VEHICLE, WHEELED
(4910-01-365-9304)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS.

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, let us know. Mail your letter or DA Form 2028 (Recommended Changes to Equipment Publications and Blank Forms) direct to: Director, Armament and Chemical Acquisition and Logistics Activity, ATTN: AMSMC-MAS, Rock Island, IL 61299-6000. A reply will be furnished you.

*This manual supersedes TM 9-4910-593-12&P dated 9 May 1983.

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CHAPTER 1 INTRODUCTION

Section I. GENERAL INFORMATION

1-1. SCOPE.

Type of Manual: Operator's and Unit

Model Number and Equipment Name: Towbar, Motor Vehicle, Wheeled

Purpose of Equipment: For ground wheel and lift towing.

1-2. MAINTENANCE FORMS AND RECORDS.

Forms and procedures used for equipment maintenance will be those prescribed by TM 38-750, The Army Maintenance Management System (TAMMS).

TM 9-4910-593-12&P

1-3. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR).

If your towbar needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. Put it on an SF 368 (Product Quality Deficiency Report). Mail it to us at: Director, Armament and Chemical Acquisition and Logistics Activity, ATTN: AMSMC-QAD, Rock Island, IL 61299-6000. We'll send you a reply.

1-4. CORROSION PREVENTION AND CONTROL (CPC).

The supplies and materials listed for CPC are not included in this TM. Refer to TB 43-0213, Rustproofing Procedures Trucks for Corrosion Prevention and Control (CPC). All expendable supplies and materials required are available among those authorized for your vehicles. Preventive Maintenance procedures are listed on page 2-6.

CPC of Army materiel is a continuing concern. It is important that any corrosion problems with the towbar be reported so that the problems can

be corrected and improvements can be made to prevent the problem in future items. While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials such as rubber and plastic. Unusual cracking, softening, swelling or breaking of these materials may be a corrosion problem. If a corrosion problem is identified, it should be reported using Standard Form 368, Product Quality Deficiency Report. Use of key words such as 'corrosion,' 'rust,' 'deterioration,' or 'cracking' will assure that the information is identified as a problem. The form should be submitted to: Director, Armament and Chemical Acquisition and Logistics Activity, ATTN: AMSMC-QAD, Customer Feedback Center, Rock Island, IL 61299-6000.

Section II. EQUIPMENT DESCRIPTION

1-5. EQUIPMENT CHARACTERISTICS, CAPABILITIES AND FEATURES.

The towbar is lightweight and can be easily maintained. Towing capacities are as follows:

**1-5. EQUIPMENT CHARACTERISTICS, CAPABILITIES AND FEATURES
(cont).**

Lift Tow Wheels Up: 39,000 lbs (17,690 kg) gross weight

Wheels Down (retracted): 39,000 lbs (17,690 kg) gross weight

1-6. EQUIPMENT DATA.

Maximum leg extension: 81 inches (205.7 cm)

Minimum leg extension: 53 inches (134.6 cm)

Leg spread: 37 inches (93.9 cm)

Weight: 250 pounds (est.) (112 kg)

Volume: 3.3 cubic feet (0.093 cubic meters)

CHAPTER 2 OPERATING INSTRUCTIONS

Section I. GENERAL

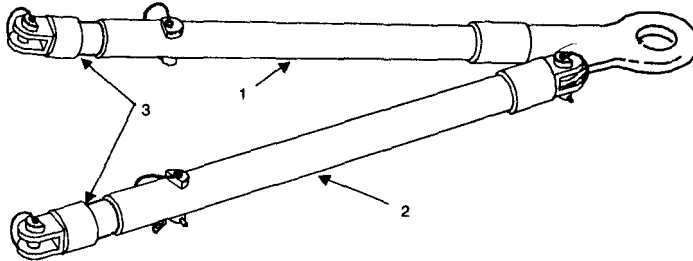
2-1. DESCRIPTION AND USE.

BEFORE OPERATION.

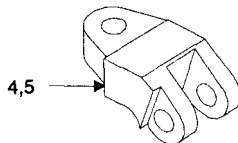
Before attempting to tow a disabled vehicle, make sure you are familiar with the location, features, and operation of all components of the towbar.

2-1. DESCRIPTION AND USE (cont).

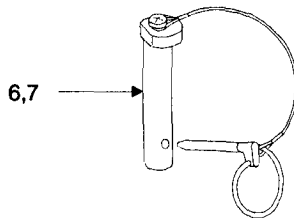
1. Fixed leg (1), movable leg (2), and male legs (two each) (3).



2. Rod end clevis is for towbar adaption, 3/4-inch rod end clevises (two each) (4), 1-inch rod end clevises (two each) (5).

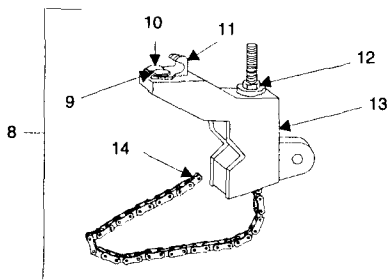


3. Pin assemblies used for connection of clevises and leg length adjustment are the 3/4-inch pin assemblies (four each) (6) and 1-inch pin assemblies (five each) (7).

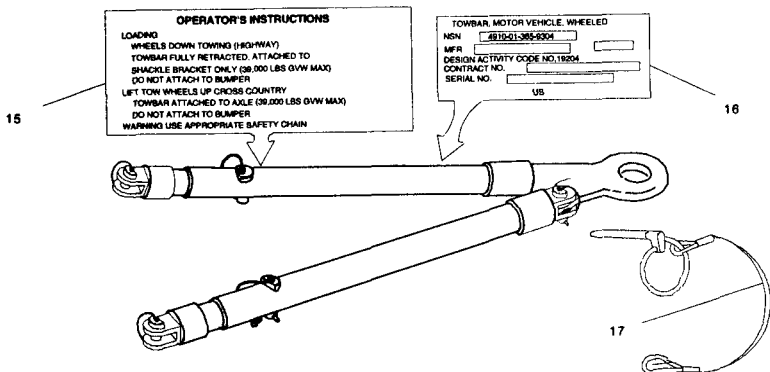


2-1. DESCRIPTION AND USE (cont).

4. Clamp assembly (two each) (8) is used for wheel tow or lift tow. It consists of lock washers (two each) (9), hexagon head cap screws (two each) (10), towbar hook (11), hexagon plain nut (12), towbar clamp (13), and chain assembly (14).



5. The towbar operator's instruction decal (15) (P/N 7356042) and towbar identification decal (16) (NSN 7690-01-372-5929), as depicted, should be read from the opposite side. Quick-release pins (nine each) (17) are components of pin assemblies (6 and 7) and are used to secure pin assemblies in place.



Section II. PREVENTIVE MAINTENANCE CHECKS AND SERVICES

2-2. PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS).

The only PMCS required of the towbar is that it be kept clean and dry.

2-3. OPERATION UNDER USUAL CONDITIONS.

PREPARATION FOR TOWING.

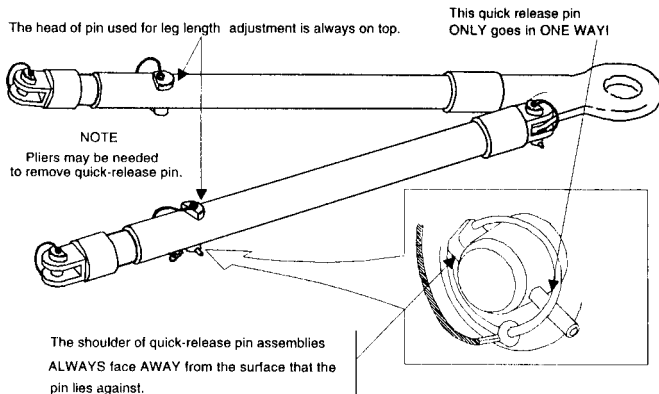
This section contains operator's instructions necessary to install and use the towbar under normal conditions. For operation under unusual conditions, see page 2-33.

1. Before attaching towbar to a disabled vehicle, chock wheels and/or set emergency brake.
2. After attaching towbar to a disabled vehicle, remove chocks and release emergency brake before moving. Refer to disabled vehicle's

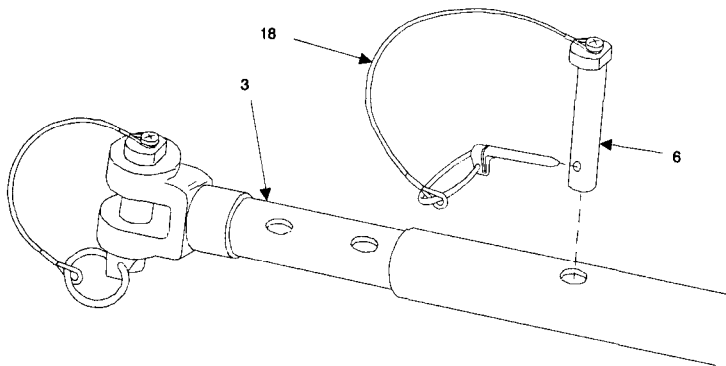
technical manual for proper towing procedures for vehicle involved (i.e., automatic versus standard transmission).

3. Be sure the proper pin assemblies are in the clevis holes and always be sure the quick-release pins are secured. They snap shut automatically.

2-3. OPERATION UNDER USUAL CONDITIONS (cont).



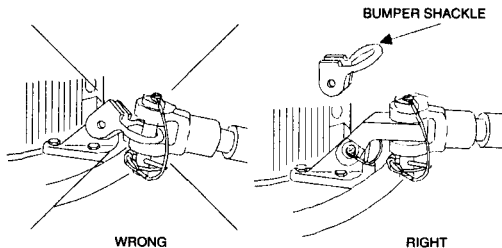
4. Use only the equipment, including quick-release pins (18), that comes with the towbar. Don't interchange pin assemblies from the towbar with pin assemblies from other vehicles. As for the length of the towbar, **KEEP IT AS SHORT AS POSSIBLE**. If it needs to be extended, simply remove the pin assembly (6) and slide out the male legs (3).



2-3. OPERATION UNDER USUAL CONDITIONS (cont).

If the disabled vehicle has bumper shackle brackets (and steering, transmission, and front tires are in operating condition), tow by coupling into bumper shackle brackets; otherwise, use lift towing.

5. Hook it up right! Do not use the disabled vehicle's bumper shackles with the towbar. Check the disabled vehicle's technical manual for preparation of the vehicle for towing and for the precautions that must be exercised. Clevises cannot be attached to bumper shackles. Remove bumper shackles.



WHEELS DOWN TOWING.

Couple towbar onto bumper shackle brackets.

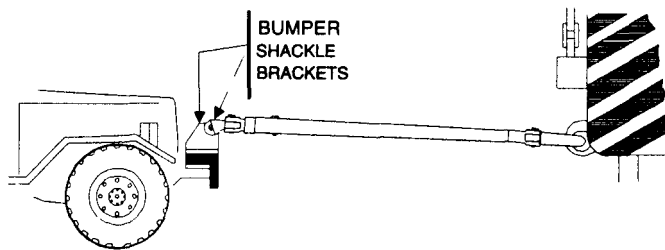
CAUTION

Wheeled vehicles up to and including 39,000 pounds gross weight can be towed with all wheels on the ground.

NOTE

The towed load weight limit of the prime mover shall not be exceeded.
Refer to towing vehicle's -10 (operator's) manual for speed limits.

2-3. OPERATION UNDER USUAL CONDITIONS (cont).



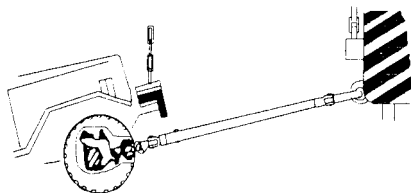
LIFT TOWING.

Detach the hydraulic brake lines on the axle and pull them back so that the clamp chain assembly, when tightened, will not collapse the brake lines. Attach the towbar clamp assembly to the front axle between the

springs and wheels of the vehicle to be towed. Refer to page 2-25 for disabled vehicle hook up to recovery vehicle attaching hook and hoist for towing.

CAUTION

The towbar should not be used for lift towing wheeled vehicles with a gross weight over 39,000 pounds. The towbar, if used, must be connected to the vehicle's axle for stabilization. The towbar must not touch the ground or bumper during towing operations. A wrecker must lift tow according to FM 20-22, Vehicle Recovery Operations. The towed vehicle operator's manual must be checked for applicable towing restrictions.



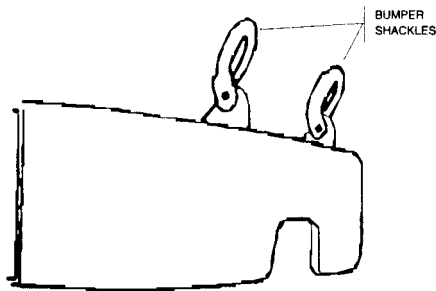
TOWING VEHICLES WITH BUMPER LIFTING BRACKETS.

2-3. OPERATION UNDER USUAL CONDITIONS (cont).

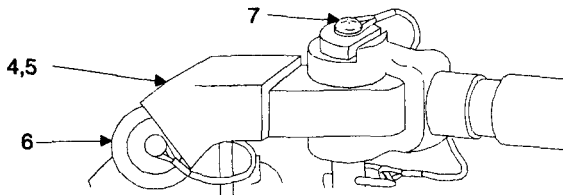
CAUTION

The disabled vehicle's emergency brake must be set or its wheels blocked before the towbar is hooked up.

Remove existing disabled vehicle bumper shackles from bumper and stow in the disabled vehicle. They won't be used.



Use 3/4-inch rod end clevis (4) and pin assembly (6) on HMMWV vehicles. Use 1-inch rod end clevis (5) and pin assemblies (7) on all other vehicles up to 5-ton. The hook should look like the illustration shown below.

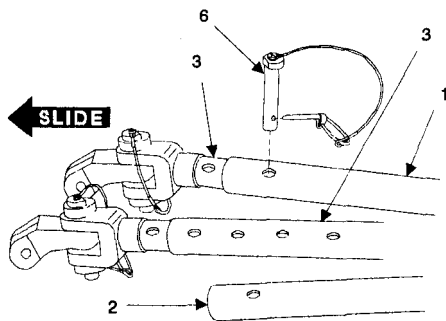


LIFT TOW HOOKUP.

CAUTION

Towbar is used for stabilization.

2-3. OPERATION UNDER USUAL CONDITIONS (cont).

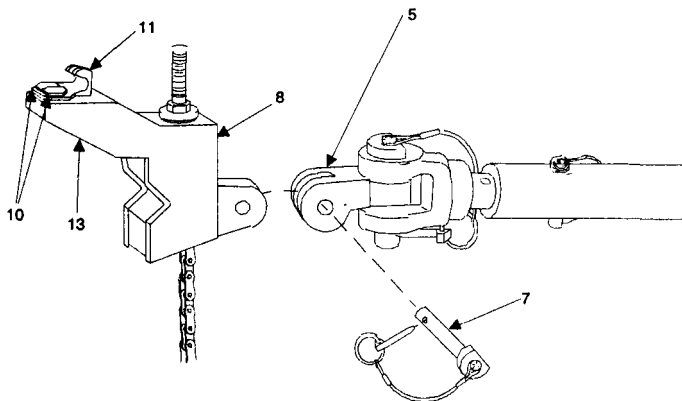


Remove 3/4-inch pin assemblies (6) from fixed leg (1) and movable leg (2). Slide male legs (3) completely out.

Attach clamp assembly (8) to 1-inch rod end clevis (5) of each leg with 1-inch pin assembly (7).

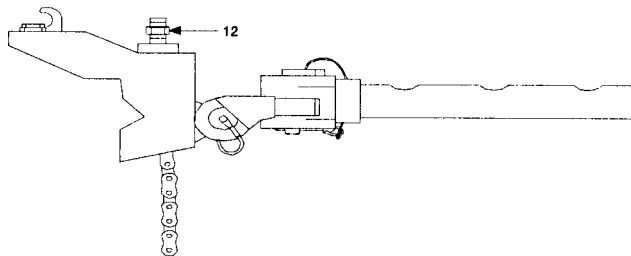
CAUTION

Be sure the two hexagon head cap screws (10) holding towbar hook (11) to towbar clamp (13) are tightened securely.

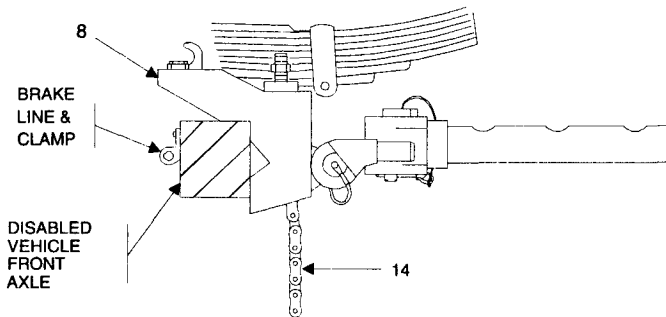


2-3. OPERATION UNDER USUAL CONDITIONS (cont).

Loosen nut (12), but don't unscrew it completely.

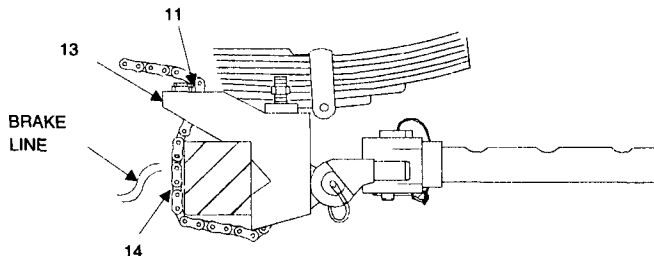


To attach clamp assembly (8) to the disabled vehicle's front axle, loosen vehicular line clamp loops that secure the brake line to the rear of front axle housing and move brake line back from axle far enough to thread chain assembly (14) between the line and axle. This is to prevent damage to brake line when chain assembly (14) is tightened. Attach clamp assembly (8) to each side of the disabled vehicle's front axle.

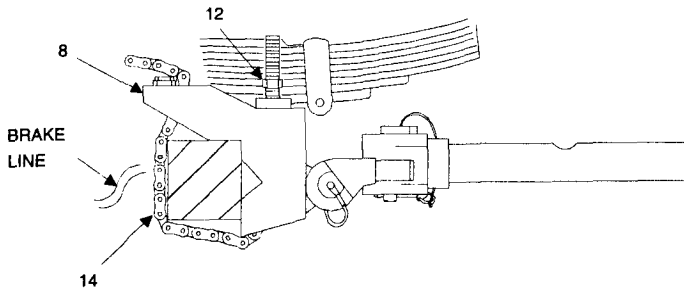


2-3. OPERATION UNDER USUAL CONDITIONS (cont).

Position each clamp assembly between the springs and wheels of the disabled vehicle's axle. Pull chain assembly (14) around axle and up through towbar clamp (13). Pull chain assembly (14) tight and place it on towbar hook (11).



Tighten the tension on the hexagonal plain nut (12) with an adjustable wrench from the recovery vehicle to remove slack from chain assembly (14) and make sure clamp assemblies (8) are firmly secured.

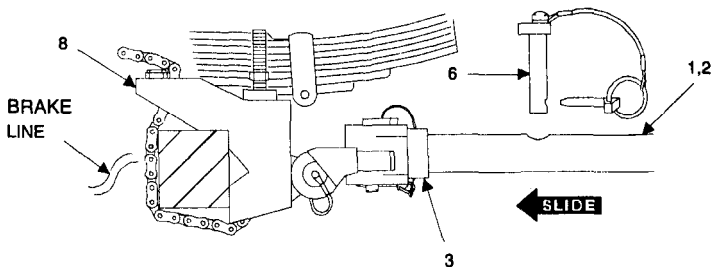


2-3. OPERATION UNDER USUAL CONDITIONS (cont).

CAUTION

Keep length of towbar as short as possible but long enough to provide clearance on turns.

When both clamp assemblies (8) are secured, slide legs (1 and 2) onto male legs (3) to the desired length and replace 3/4-inch pin assemblies (6) with head of pin on top.



Check to see all pin assemblies and quick-release pins are in place. Towbar is ready for connection to pintle of recovery vehicle.

**DISABLED VEHICLE HOOKUP TO RECOVERY VEHICLE FOR
WHEELS DOWN TOWING.**

WARNING

**NEVER ATTEMPT TO HOOK UP THE TOWBAR ALONE. USE TWO
PEOPLE.**

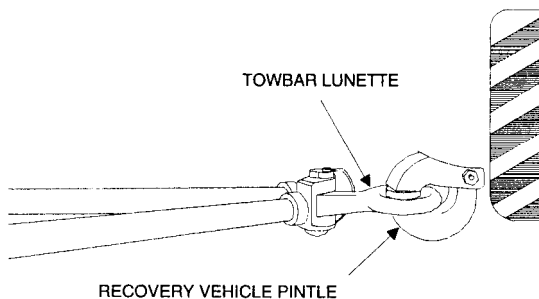
After clevises are connected, make sure all pin assemblies (including retaining pins) are in place. If necessary, back up the recovery vehicle.

CAUTION

Always use safety chains in conjunction with towbar and keep length of towbar as short as possible, but long enough to provide clearance on turns.

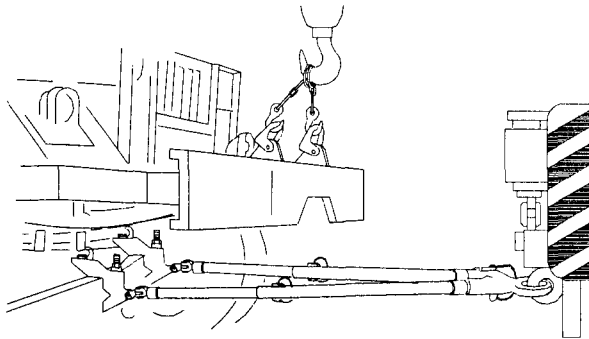
2-3. OPERATION UNDER USUAL CONDITIONS (cont).

Connect lunette to the recovery vehicle pintle. Remove chocks and/or release emergency brake of disabled vehicle. Then begin towing.



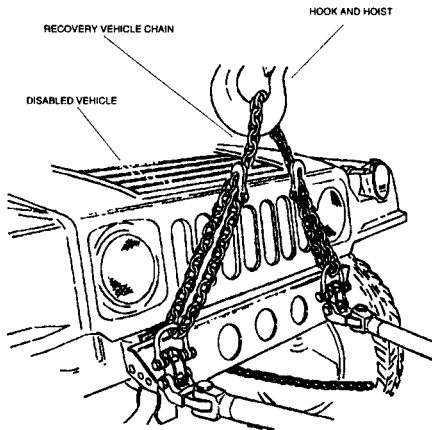
**DISABLED VEHICLE HOOKUP TO RECOVERY VEHICLE FOR
LIFT TOWING.**

Attach hook and hoist for lifting after connecting lunette to the recovery vehicle pintle.



2-3. OPERATION UNDER USUAL CONDITIONS (cont).

Attach recovery vehicle chain to disabled vehicle and raise so the towbar is parallel to the ground. Remove chocks and/or release emergency brake of disabled vehicle. Then begin towing.

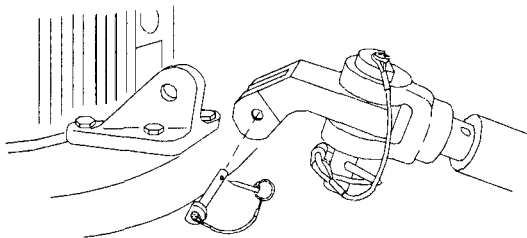


REMOVAL OF TOWBAR FROM VEHICLES.

CAUTION

First set the emergency brake or block the wheels of the disabled vehicle BEFORE unhooking towbar's lunette from the recovery vehicle's pintle.

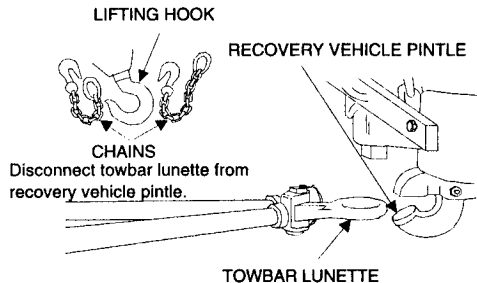
Uncouple clevises from disabled vehicle's bumper shackle brackets.



2-3. OPERATION UNDER USUAL CONDITIONS (cont).

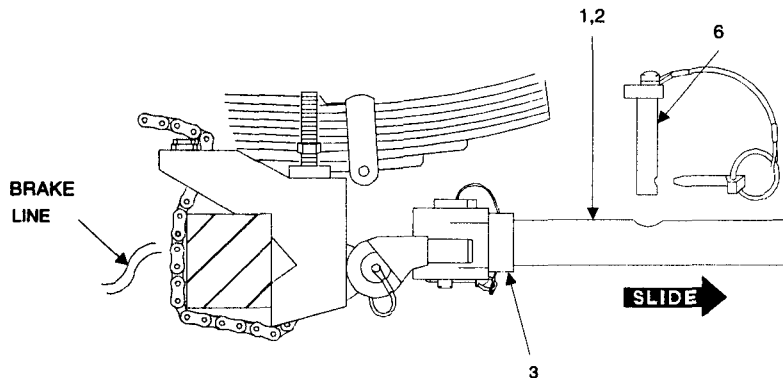
**REPLACE BUMPER SHACKLES THAT WERE REMOVED FROM
DISABLED VEHICLE.**

For lift tow removal, lower towed vehicle to ground. Remove lifting hooks and chains, and set emergency brake or block the wheels of towed vehicle.



Disconnect lunette from recovery vehicle's pintle.

Remove 3/4-inch pin assemblies (6) from fixed and movable legs (1 and 2) and slide male legs (3) out from towbar.

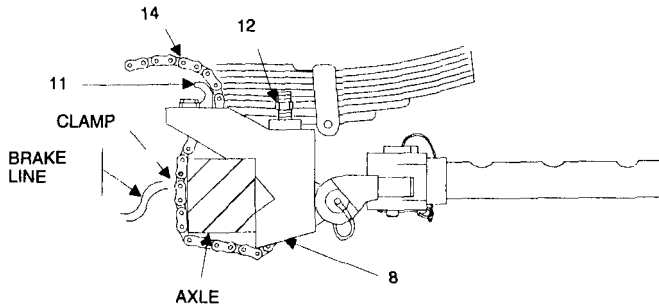


2-3. OPERATION UNDER USUAL CONDITIONS (cont).

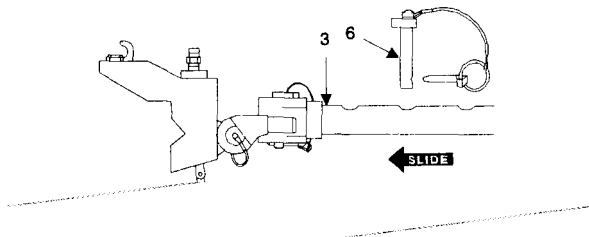
Loosen plain hexagon nut (12) and free chain assembly (14) from towbar hook (11) and remove clamp assembly (8) from axle.

NOTE

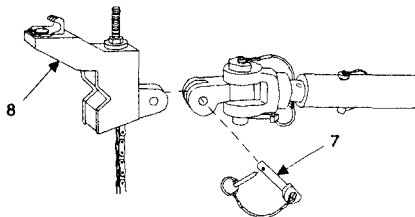
Reposition brake line and fasten clamp.



Slide male legs (3) back in place and replace pin assemblies (6).



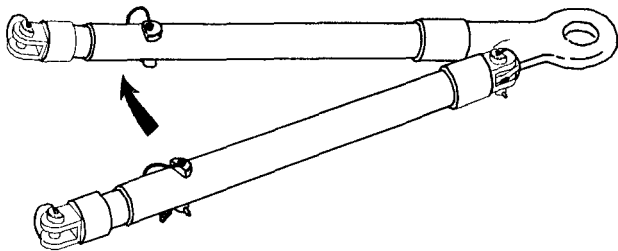
Remove pin assembly (7) and clamp assemblies (8) from towbar.



2-3. OPERATION UNDER USUAL CONDITIONS (cont).

PREPARING TOWBAR FOR STORAGE.

Put all pins back in place before storing. Less space will be used if the male legs are slid completely in.



Fold movable legs in for storing on recovery vehicles.

2-4. OPERATION UNDER UNUSUAL CONDITIONS.

This section provides information for operation of the motor vehicle towbar under unusual conditions.

EXTREME COLD.

WARNING

DURING COLD WEATHER (BELOW 32 DEGREES F) SPECIAL CARE IS REQUIRED. REDUCE SPEED FOR TURNS, TAKE OFFS AND STOPS DURING COLD WEATHER. USE TOWBAR AS CLOSE TO FULLY RETRACTED AS POSSIBLE BUT NOT TOO CLOSE THAT BINDING (JACKKNIFE) COULD OCCUR DURING TOWING OPERATIONS.

1. Keep water and moisture out of the towbar, otherwise ice may form and jam moving parts.

2-4. OPERATION UNDER UNUSUAL CONDITIONS (cont).

2. Manually move male leg through the entire range at intervals to keep it from freezing up.

3. Keep towbar inside when not in use.

HOT, MOIST CLIMATES.

After handling, be sure to wipe dry. Moisture could cause corrosion.

HOT, DRY CLIMATES.

Normal range,

DUSTY AND SANDY AREAS.

Remove dust and sand from towbar components when not in use.

CHAPTER 3
MAINTENANCE INSTRUCTIONS

Section I. TROUBLESHOOTING PROCEDURES

3-1. INTRODUCTION.

a. Table 3-1 lists the common malfunctions which may be found during the operation or maintenance of the towbar. Perform the tests/inspections and corrective actions in the order listed.

b. This manual cannot list all malfunctions which 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.

TABLE 3-1. TROUBLESHOOTING

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
-------------	--------------------	-------------------

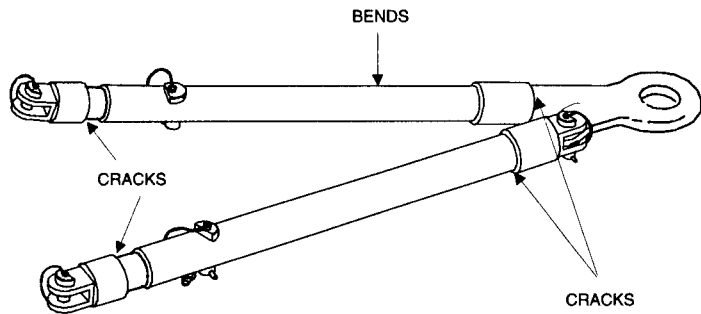
TOWBAR COMPONENTS WILL NOT MOVE FREELY.

STEP 1. Check if dirt or foreign particles (sand, snow, ice) are restricting towbar component movement.

Clean with water and dry.

STEP 2. Check all welded joints for cracked or bent towbar components.

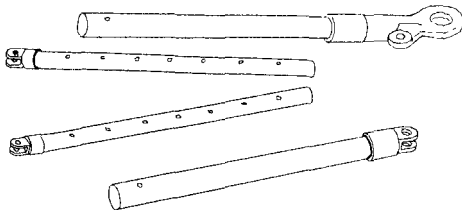
Replace bent or cracked components.



Section II. MAINTENANCE PROCEDURES

3-2. TOWBAR.

a. **DISASSEMBLY.** Disassemble in accordance with instructions for operation and use of towbar.



b. **CLEANING.** Clean with water and dry. Refer to FM 20-22.

c. **INSPECTION.** Inspect components for cracks, bends, or broken welds.

d. REPAIR. Service by replacing damaged, broken, deformed, or missing components.

e. REASSEMBLY. Reassemble in accordance with instructions for operation and use of towbar.

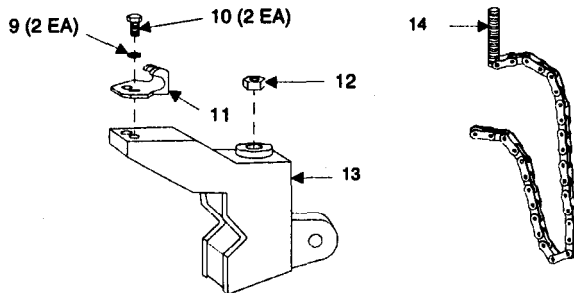
3-3. CLAMP ASSEMBLY.

a. DISASSEMBLY.

1. Remove two screws (10) and washers (9) and remove hook (11) from towbar clamp (13).

2. Remove nut (12) from chain assembly (14) and separate chain assembly (14) from towbar clamp (13).

3-3. CLAMP ASSEMBLY (cont).



b. **CLEANING.** Clean with water and dry.

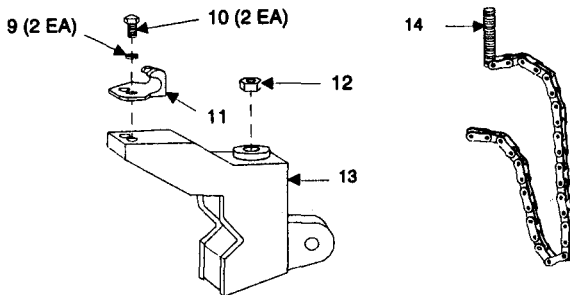
c. **INSPECTION.** Inspect for cracks or distortions.

d. **SERVICING.** Service by replacing missing, broken, bent or cracked parts of clamp assembly.

e. REASSEMBLY.

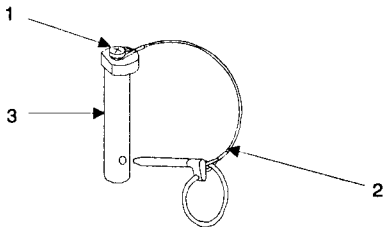
1. Thread bolt part of chain assembly (14) through towbar clamp (13) and secure with nut (12).

2. Place hook (11) over holes in tow bar clamp (13) and secure with two washers (9) and two screws (10).



3-4. PIN ASSEMBLIES.

- a. **DISASSEMBLY.** Remove screw (1) securing retainer (2) to pin (3).
- b. **CLEANING.** Clean with water and dry.
- c. **INSPECTION.** Inspect for damaged retainer.
- d. **REPAIR.** Repair by replacing unserviceable retainer.
- e. **REASSEMBLY.** Secure retainer (2) to pin (3) with screw (1).



**APPENDIX A
REFERENCES**

A-1. SCOPE. This appendix lists all forms, Army regulations, field manuals, technical bulletins and technical manuals referenced in this manual.

A-2. FORMS AND REPORTS.

DA Form 2028

Recommended Changes to
Publications and Blank Forms

SF Form 368

Quality Deficiency Report

A-3. REGULATIONS (AR).

AR 750-59

Corrosion Prevention and
Control Program

TM 9-4910-593-12&P

A-4. FIELD MANUALS (FM).

FM 20-22

Vehicle Recovery Operations

A-5. TECHNICAL BULLETINS (TB).

TB 43-0213

Rustproofing Procedures
Trucks for Corrosion
Prevention and Control

A-6. TECHNICAL MANUALS (TM).

TM 38-750

The Army Maintenance
Management System
(TAMMS)

APPENDIX B
MAINTENANCE ALLOCATION CHART

B-1. GENERAL. The Maintenance Allocation Chart (MAC) indicates specific maintenance operations performed at the proper maintenance levels.

B-2. EXPLANATION OF COLUMNS IN THE MAC.

a. **GROUP NUMBER** (Column 1). The group number matches the functional group code which appears at the top of the Repair Parts and Special Tools List (RPSTL).

b. **COMPONENT/ASSEMBLY** (Column 2). Self-explanatory.

B-2. EXPLANATION OF COLUMNS IN THE MAC (cont).

c. **MAINTENANCE FUNCTION** (Column 3). Self-explanatory.

d. **MAINTENANCE CATEGORY CODE** (Column 4).

Code/Explanation

C - Operator/Crew Maintenance

O - Unit (Organizational) Maintenance

F - Direct Support Maintenance

H - General Support Maintenance

D - Depot Maintenance

e. **TOOLS AND EQUIPMENT** (Column 5). Self-explanatory.

f. **REMARKS** (Column 6). Self-explanatory.

MAINTENANCE ALLOCATION CHART (MAC)

(1)	(2)	(3)	(4)	(5)	(6)				
GROUP NUMBER	COMPONENT/ ASSEMBLY	MAINTENANCE FUNCTION	MAINTENANCE CATEGORY					TOOLS AND EQUIP	REMARKS
			C	O	F	H	D		
00	TOWBAR 7551383	INSPECT	0.2						
		REPLACE	0.3						
		REPAIR	1.0						
01	CLAMP ASSEMBLY 7551068	INSPECT	0.1						
		REPLACE	0.1						
		REPAIR	0.2						
02	PIN ASSEMBLY 7551074 7551077	INSPECT	0.1						
		REPLACE	0.1						
		REPAIR	0.1						

B-3/(B-4 BLANK)

APPENDIX C
REPAIR PARTS AND SPECIAL TOOLS LIST

C-1. GENERAL. This appendix lists repair parts required for performance of Unit Maintenance of the motor vehicle towbar. It authorizes the requisitioning and issue of repair parts as indicated by the source and maintenance codes. There are no special tools for this item.

C-2. EXPLANATION OF COLUMNS.

a. **ILLUSTRATION AND ITEM NUMBER** (Column 1). Self-explanatory.

C-2 EXPLANATION OF COLUMNS (cont).

b. SOURCE, MAINTENANCE, AND RECOVERABILITY (SMR) CODES (Column 2).

Source Code	Maintenance Code		Recoverability Code
XX	X	X	X
How you get the item.	Who can replace (order the item).	Who can repair the item.	Who disposes of an unserviceable item.

(1) SOURCE CODES.

PA - Stocked item and may be ordered.

PB - Non-replaceable item.

(2) MAINTENANCE CODES.

Position 3: 0 - Unit (Organizational) Maintenance

Position 4: Z - No repair authorized.

0 - Repair authorized at Unit (Organizational) Maintenance.

(3) RECOVERABILITY CODES.

Code	Definition
Z	Nonreparable item. When unserviceable, condemn and dispose of the item at the category of maintenance shown in the third position of the SMR Code.

C-2. EXPLANATION OF COLUMNS (cont).

Code	Definition
o	Reparable item. When uneconomically reparable, condemn/dispose of the item at the Unit (Organizational) or aviation unit category.

c. **NATIONAL STOCK NUMBERS (NSN)** (Column 3). Use the NSN for requisitioning.

d. **COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE** (Column 4). Identifies the manufacturer or whoever it is that supplies the item.

e. **DESCRIPTION AND PART NUMBER** (Column 5). Self-explanatory.

f. **QUANTITY INCORPORATION INTO UNIT** (Column 6). Self-explanatory.

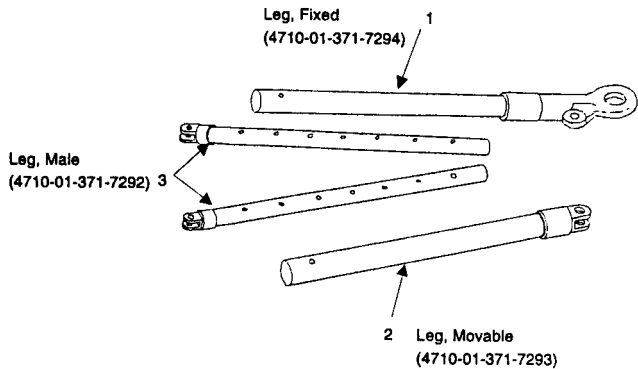


Figure C-1. Towbar

REPAIR PARTS AND SPECIAL TOOLS LIST

(1) FIG/ITEM NUMBER	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGEC	(5) DESCRIPTION AND PART NUMBER	(6) QTY. INC. IN UNIT
				GROUP 00 TOWBAR 7551383	
C-1/1	PAOZZ	4710-01-371-7294	59678	TUBE, STRUCTURAL 7551384	1
C-1/2	PAOZZ	4710-01-371-7293	59678	TUBE, STRUCTURAL 7551385	1
C-1/3	PAOZZ	4710-01-371-7292	59678	TUBE, STRUCTURAL 7551386	2

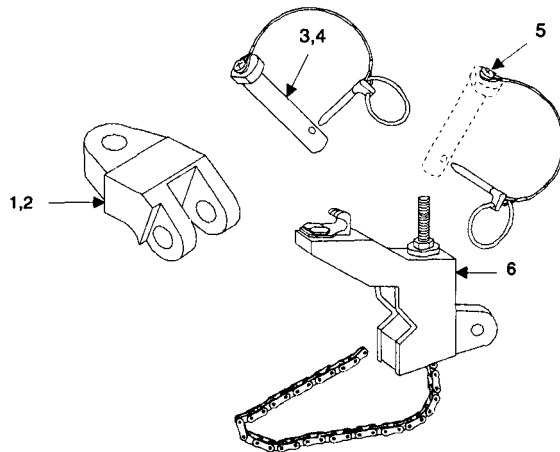


Figure C-2. Towbar adapters, brackets, clevises, pin assemblies

REPAIR PARTS AND SPECIAL TOOLS LIST (CONT).

(1) FIG/ITEM NUMBER	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGEC	(5) DESCRIPTION AND PART NUMBER	(6) QTY. INC. IN UNIT
				GROUP 00 TOWBAR 7551383 AND GROUP 02 PIN ASSEMBLY 7551074 AND 7551077	
C-2/1	PAOZZ	5340-01-022-4686	19204	CLEVIS,ROD END 3/4-IN. 7551067	2
C-2/2	PAOZZ	5340-01-023-9801	19204	CLEVIS,ROD END 1-IN. 7550983	2

REPAIR PARTS AND SPECIAL TOOLS LIST (CONT).

(1) FIG/ITEM NUMBER	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGEC	(5) DESCRIPTION AND PART NUMBER	(6) QTY. INC. IN UNIT
C-2/3	PAOOO	5315-00-624-0543	19204	PIN ASSEMBLY 3/4-IN. 7551077	4
C-2/4	PAOOO	5325-00-624-0528	19204	PIN ASSEMBLY 1-IN. 7551074	5

REPAIR PARTS AND SPECIAL TOOLS LIST (CONT).

(1) FIG/ITEM NUMBER	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGEC	(5) DESCRIPTION AND PART NUMBER	(6) QTY. INC. IN UNIT
C-2/5	PAOZZ	5315-01-131-0145	19204	PIN, QUICK RELEASE 7551076	1
C-2/6	PAOOO	5120-00-624-0556	19204	CLAMP ASSEMBLY 7551068	2

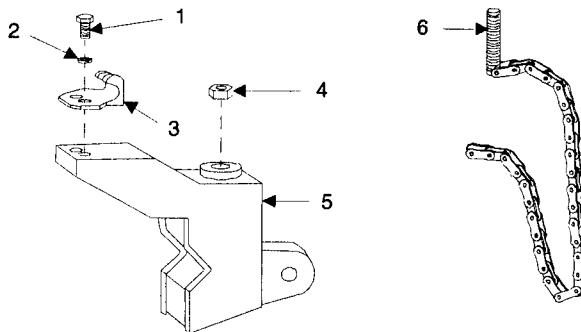


Figure C-3. Clamp Assembly

REPAIR PARTS AND SPECIAL TOOLS LIST (CONT).

(1) FIG/ITEM NUMBER	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGEC	(5) DESCRIPTION AND PART NUMBER	(6) QTY. INC. IN UNIT
				GROUP 01 CLAMP ASSEMBLY 7551068	
C-3/1	PAOZZ	5305-00-915-8087	96906	SCREW,CAP HEXAGON MS18154-113	4
C-3/2	PAOZZ	5310-00-584-5272	96906	WASHER,LOCK MS35338-48	4
C-3/3	PAOZZ	4910-01-005-2823	19204	HOOK,TOWBAR 7551073	2

REPAIR PARTS AND SPECIAL TOOLS LIST (CONT).

(1) FIG/ITEM NUMBER	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) CAGEC	(5) DESCRIPTION AND PART NUMBER	(6) QTY. INC. IN UNIT
C-3/4	PAOZZ	5310-00-763-8901	96906	NUT, PLAIN HEXAGON MS51968-23	2
C-3/5	PAOZZ	4910-00-624-0552	19204	CLAMP, TOWBAR 7551069	2
C-3/6	PAOZZ	3020-01-015-6192	19204	CHAIN ASSEMBLY 7551070	2

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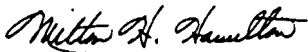
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By Order of the Secretary of the Army:

GORDON R. SULLIVAN
General, United States Army
Chief of Staff

Official:



MILTON H. HAMILTON
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