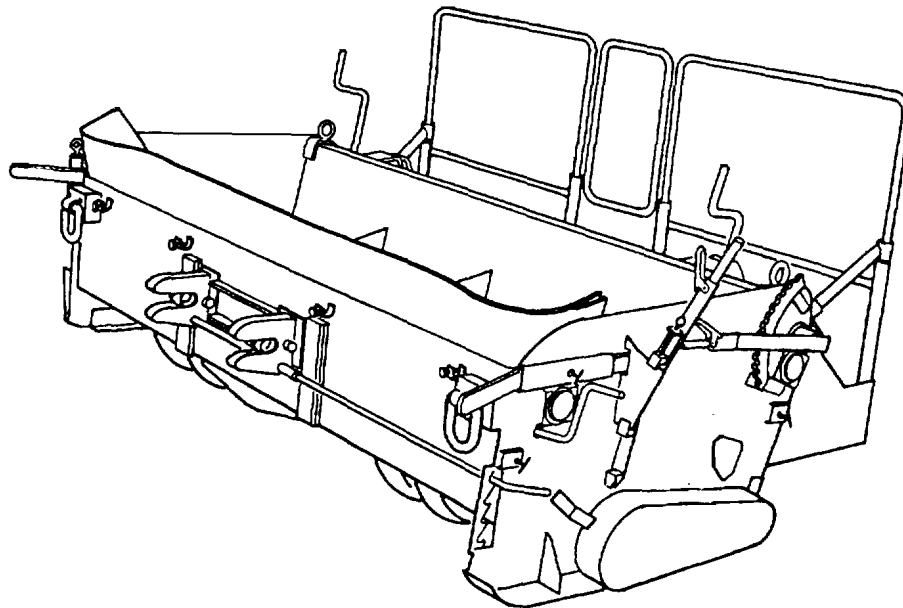


**TECHNICAL MANUAL  
OPERATOR, UNIT, DIRECT SUPPORT,  
AND GENERAL SUPPORT MAINTENANCE MANUAL  
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)  
FOR  
SPREADER, AGGREGATE: TOWED; 8 FT SPREAD  
FF-8 (NSN 3895-01-329-5096)**



**OPERATOR PMCS 2-3**

**LUBRICATION  
INSTRUCTIONS 3-1**

**OPERATOR  
TROUBLESHOOTING  
PROCEDURES 3-6**

**UNIT PMCS 4-2**

**UNIT TROUBLESHOOTING  
PROCEDURES 4-4**

**PREPARATION FOR  
OPERATION 4-9**

**MAINTENANCE  
ALLOCATION CHART  
(MAC) B-1**

**REPAIR PARTS AND  
SPACIAL TOOLS LIST  
(RPSTL) F-1**

**Approved for public release; distribution is unlimited**

**HEADQUARTERS, DEPARTMENT OF THE ARMY**

**20 APRIL 1992**

**OPERATOR, UNIT, DIRECT SUPPORT,  
AND GENERAL SUPPORT MAINTENANCE MANUAL  
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)  
FOR**

**Spreader, Aggregate: Towed; 8 ft Spread  
FF-8 (NSN 3895-01-329-5096)  
Current as of 14 February 1992**

**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, please let us know. Mail your letter, DA Form 2028 (*Recommended Changes to Publications and Blank Forms*), or DA Form 2028-2, located in the back of this manual, direct to: Commander, U.S. Army Tank-Automotive Command, ATTN: AMSTA-MB, Warren, MI 48397-5000. A reply will be furnished to you.

**TABLE OF CONTENTS**

|                                                                                                                            | Page       |
|----------------------------------------------------------------------------------------------------------------------------|------------|
| <b>HOW TO USE THIS MANUAL .....</b>                                                                                        | <b>v</b>   |
| <b>CHAPTER 1 INTRODUCTION .....</b>                                                                                        | <b>1-1</b> |
| Section I. General Information .....                                                                                       | 1-1        |
| Section II. Equipment Description and Data .....                                                                           | 1-2        |
| Section III. Technical Principles of Operation .....                                                                       | 1-6        |
| <b>CHAPTER 2 OPERATING INSTRUCTIONS .....</b>                                                                              | <b>2-1</b> |
| Section I. Description and Use of Operator's Controls and Indicators.....                                                  | 2-2        |
| Section II. Operator Preventive Maintenance Checks and Services (PMCS) .....                                               | 2-3        |
| Section III. Operation Under Usual Conditions .....                                                                        | 2-7        |
| Section IV. Operation Under Unusual Conditions .....                                                                       | 2-12       |
| <b>CHAPTER 3 OPERATOR MAINTENANCE.....</b>                                                                                 | <b>3-1</b> |
| Section I. Lubrication Instructions .....                                                                                  | 3-1        |
| Section II. Operator Troubleshooting Procedures .....                                                                      | 3-6        |
| <b>CHAPTER 4 UNIT MAINTENANCE .....</b>                                                                                    | <b>4-1</b> |
| Section I. Repair Parts; Special Tools; Test, Measurement, and<br>Diagnostic Equipment (TMDE); and Support Equipment ..... | 4-2        |

*Approved for public release, distribution is unlimited*

## TABLE OF CONTENTS (CONT)

|                                                                            | Illus/<br>Fig | Page             |
|----------------------------------------------------------------------------|---------------|------------------|
| Section II. Unit Preventive Maintenance Checks and Services (PMCS) .....   |               | 4-2              |
| Section III. Unit Troubleshooting Procedures .....                         |               | 4-4              |
| Section IV. Preparation for Operation .....                                |               | 4-9              |
| Section V. Unit Maintenance Procedures .....                               |               | 4-31             |
| Section VI. Preparation for Storage or Shipment .....                      |               | 4-71             |
| <b>CHAPTER 5 DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE .....</b>      |               | <b>5-1</b>       |
| <b>APPENDIX A REFERENCES .....</b>                                         |               | <b>A-1</b>       |
| <b>APPENDIX B MAINTENANCE ALLOCATION CHART .....</b>                       |               | <b>B-1</b>       |
| Section I. Introduction .....                                              |               | B-1              |
| Section II. Maintenance Allocation Chart .....                             |               | B-3              |
| Section III. Tool and Test Equipment Requirements .....                    |               | B-6              |
| Section IV. Remarks .....                                                  |               | B-6              |
| <b>APPENDIX C COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LISTS .....</b> |               | <b>C-1</b>       |
| Section I. Introduction .....                                              |               | C-1              |
| Section II. Components of End Item .....                                   |               | (Not Applicable) |
| Section III. Basic Issue Items .....                                       |               | C-2              |
| <b>APPENDIX D ADDITIONAL AUTHORIZATION LIST .....</b>                      |               | <b>D-1</b>       |
| <b>APPENDIX E EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST .....</b>     |               | <b>E-1</b>       |
| Section I. Introduction .....                                              |               | E-1              |
| Section II. Expendable/Durable Supplies and Materials List .....           |               | E-2              |
| <b>APPENDIX F REPAIR PARTS AND SPECIAL TOOLS LIST .....</b>                |               | <b>F-1</b>       |
| Section I. Introduction .....                                              |               | F-1              |
| Section II. Repair Parts List                                              |               |                  |
| GROUP 06 ELECTRICAL SYSTEM                                                 |               |                  |
| 0609 LIGHTS .....                                                          |               | 1-1              |
| 0613 TAILLIGHT ASSEMBLY .....                                              | 1             | 1-1              |
| HULL OR CHASSIS WIRING HARNESS .....                                       |               | 2-1              |
| MAIN BODY HARNESS .....                                                    | 2             | 2-1              |
| GROUP 11 REAR AXLE                                                         |               |                  |
| 1100 REAR AXLE ASSEMBLY .....                                              |               | 3-1              |
| AXLE ASSEMBLY (TRANSPORT) AND MOUNTING                                     |               |                  |
| HARDWARE .....                                                             | 3             | 3-1              |

## TABLE OF CONTENTS (CONT)

|              |                                                                  | Illus/<br>Fig | Page   |
|--------------|------------------------------------------------------------------|---------------|--------|
| GROUP 13     | WHEELS AND TRACKS                                                |               |        |
| 1311 -       | WHEEL ASSEMBLY .....                                             |               | 4-1    |
|              | TRANSPORT WHEEL AND HUB COMPONENTS .....                         | 4             | 4-1    |
| 1313 -       | TIRES, TUBES, TIRE CHAINS .....                                  |               | 5-1    |
|              | TIRES AND TUBES .....                                            | 5             |        |
| 5-1          |                                                                  |               |        |
| GROUP 15     | FRAME, TOWING ATTACHMENTS, DRAWBARS,<br>AND ARTICULATION SYSTEMS |               |        |
| 1501 -       | FRAME ASSEMBLY.....                                              |               | 6-1    |
|              | OPERATOR PLATFORM ASSEMBLY AND COMPONENTS                        | 6             | 6-1    |
| 1503 -       | PINTLES AND TOWING ATTACHMENTS .....                             |               | 7-1    |
|              | TRANSPORT TONGUE COMPONENTS .....                                | 7             | 7-1    |
|              | TRUCK HITCH COMPONENTS .....                                     | 8             | 8-1    |
|              | COUPLER HITCH ASSEMBLY AND RELATED PARTS .....                   | 9             | 9-1    |
| 1507 -       | LANDING GEAR, LEVELING JACKS .....                               |               | 10-1   |
|              | LEVELING LEG ASSEMBLY .....                                      | 10            | 10-1   |
| GROUP 22     | BODY, CHASSIS, AND HULL ACCESSORY ITEMS                          |               |        |
| 2202 -       | ACCESSORY ITEMS .....                                            |               | 11-1   |
|              | REFLECTOR, TOOLBOX, AND ACCESSORY ITEMS .....                    | 11            | 11-1   |
| 2210 -       | DATA PLATES AND INSTRUCTION HOLDERS .....                        |               | 12-1   |
|              | DATA PLATES .....                                                | 12            | 12-1   |
| GROUP 7      | 3CONCRETE AND ASPHALT EQUIPMENT COMPONENTS                       |               |        |
| 7303 -       | CONTROLS .....                                                   |               | 13-1   |
|              | CLUTCH SHIFT ARM AND FEED ROLL CONTROL LEVER                     |               | 13     |
| 13-1         |                                                                  |               |        |
|              | GATE CONTROL LEVER AND GATE ADJUSTMENT SCREW<br>COMPONENTS ..... | 14            | 14-1   |
| 7304 -       | HOPPERS, GATES, AND CHUTES .....                                 |               | 15-1   |
|              | HOPPER ASSEMBLY AND GATE RELATED COMPONENTS                      | 15            | 15-1   |
| 7305 -       | MAIN DRIVE .....                                                 |               | 16-1   |
|              | GEARBOX ASSEMBLY .....                                           | 16            | 16-1   |
| 7309 -       | VANE OR SCREW FEEDERS OR CONVEYORS .....                         |               | 17-1   |
|              | AGITATOR ASSEMBLY AND RELATED PARTS .....                        | 17            | 17-1   |
| 7311 -       | FEEDING OR CONVEYOR SHAFT .....                                  |               | 18-1   |
|              | FEED ROLL AND RELATED PARTS .....                                | 18            | 18-1   |
|              | BALANCE ROLLER AND RELATED PARTS .....                           | 19            | 19-1   |
| 7315 -       | TRACTION DRIVE .....                                             |               | 20-1   |
|              | TRACTION WHEEL ASSEMBLY AND RELATED PARTS ...                    | 20            | 20-1   |
| GROUP 95     | GENERAL USE STANDARDIZED PARTS                                   |               |        |
| 9501         | -BULK MATERIEL .....                                             |               | BULK-1 |
|              | BULK .....                                                       | BULK          | BULK-1 |
| Section III. | Special Tools List (Not Applicable)                              |               |        |
| Section IV.  | Cross-reference Indexes                                          |               |        |
|              | NATIONAL STOCK NUMBER INDEX .....                                |               | I-1    |
|              | PART NUMBER INDEX1-5 .....                                       |               |        |
|              | FIGURE AND ITEM NUMBER INDEX .....                               |               | I-13   |

TABLE OF CONTENTS (CONT)

|                                                         | Page    |
|---------------------------------------------------------|---------|
| APPENDIX G ILLUSTRATED LIST OF MANUFACTURED ITEMS ..... | G-1     |
| Section I. Introduction .....                           | G-1     |
| Section II. Manufactured Items Illustrations .....      | G-1     |
| APPENDIX H TORQUE SPECIFICATIONS .....                  | H-1     |
| INDEX .....                                             | Index-1 |

## HOW TO USE THIS MANUAL

This manual contains all the Information you need to effectively operate and maintain the FF-8 aggregate spreader.

The front cover index will help you locate the most frequently used sections of the manual. If you need to find another section of the manual, check the table of contents. The table of contents lists each chapter, section, and appendix in the manual.

To find a specific paragraph, go to the first page in the chapter. Listed below the chapter title are the paragraph number, title, and starting page number for each paragraph in that chapter.

If you still can't find the information you need, check the index in the back of the manual. The index alphabetically lists every paragraph in the manual in a variety of ways. For example, "Transport Truck Axle Replacement" will

also be listed under "Axle" and "Replacement". The index tells you the page number where the task begins.

The directions "front", "back", "left", and "right" are always used as if the spreader were coupled to the dump truck and ready for use. The front of the spreader will always be where the coupler hitch is mounted, the rear of the spreader will always be where the operator's platform is mounted, the left side will always be the side with the gate control lever and clutch control lever, and the right side will always be the side where the leveling legs are installed.

Torque values within the maintenance procedures are based on clean, dry threads with torque being applied to existing capscrews or bolts. Refer to Appendix H for torque requirements for new capscrews or bolts and other exceptions to stated torque.

**v/vi (blank)**

## CHAPTER 1 INTRODUCTION

### Section I. GENERAL INFORMATION

| Page                                                                  | Page                                             |
|-----------------------------------------------------------------------|--------------------------------------------------|
| 1-1 Scope .....1-1                                                    | 1-4 Destruction of Army Materiel to              |
| 1-2 Maintenance Forms, Records,<br>and Reports .....1-1               | Prevent Enemy Use..... 1-2                       |
| 1-3 Reporting Equipment Improvement<br>Recommendations (EIRs).....1-2 | 1-5 Preparation for Storage or Shipment..... 1-2 |

### Section II. EQUIPMENT DESCRIPTION AND DATA

| Page                                                                 | Page                                                      |
|----------------------------------------------------------------------|-----------------------------------------------------------|
| 1-6 Equipment Characteristics, Capabilities,<br>and Features.....1-2 | 1-8 Location and Content of Stencil<br>Markings ..... 1-5 |
| 1-7 Location and Description of Major<br>Components.....1-2          | 1-9 Equipment Data ..... 1-5                              |

### Section III. TECHNICAL PRINCIPLES OF OPERATION

| Page                   | Page                                         |
|------------------------|----------------------------------------------|
| 1-10 Agitator .....1-6 | 1-13 Traction Drive..... 1-6                 |
| 1-11 Feed Roll.....1-6 | 1-14 Coupler Hitch and Truck Hitch ..... 1-6 |
| 1-12 Gearbox .....1-6  |                                              |

### Section I. GENERAL INFORMATION

#### 1-1. SCOPE.

a. *Type of Manual.* Operator, Unit, Direct Support, and General Support Maintenance Manual (Including Repair Parts and Special Tools List).

b. *Model Number and Equipment Name.* FF-8 Spreader, Aggregate:  
Towed; 8 ft Spread.

c. *Purpose of Equipment.* Used to spread aggregate in widths between 4 and 8 ft. The spreader can be used with the following dump trucks:

| Model No        | NSN              | Operator's TM      |
|-----------------|------------------|--------------------|
| M51A2           | 2320-00-055-9262 | TM 9-2320-211-10-1 |
| (without winch) |                  |                    |
| M51A2           | 2320-00-055-9263 | TM 9-2320-211-10-1 |
| (with winch)    |                  |                    |
| M817            | 2320-00-050-8970 | TM 9-2320-260-10   |
| (without winch) |                  |                    |
| M817            | 2320-00-051-0589 | TM 9-2320-260-10   |
| (with winch)    |                  |                    |

| Model No | NSN              | Operator's TM    |
|----------|------------------|------------------|
| M929     | 2320-01-047-8756 | TM 9-2320-272-10 |
| M929A1   | 2320-01-206-4079 | TM 9-2320-272-10 |
| M929A2   | 2320-01-230-0305 | TM 9-2320-272-10 |
| M930     | 2320-01-047-8755 | TM 9-2320-272-10 |
| M930A1   | 2320-01-206-4080 | TM 9-2320-272-10 |
| M930A2   | 2320-01-230-0306 | TM 9-2320-272-10 |

Always refer to the applicable operator's TM when instructed to operate the dump truck.

d. *Special Limitations on Equipment.* The maximum operating speed of the spreader is 5 mph (8 kph). Do not use the spreader to spread sand.

#### 1-2. MAINTENANCE FORMS, RECORDS, AND REPORTS.

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA Pam 738-750, *The Army Maintenance Management System (TAMMS)*.

### 1-3. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIRs).

It your spreader 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 Commander, U.S. Army Tank-Automotive Command, ATTN: AMSTA-QRD, Warren, MI 48397-5000. We'll send you a reply.

### 1-4. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE.

Refer to TM 750-244-6, Procedures for Destruction of Tank-Automotive Equipment to Prevent Enemy Use.

### 1-5. PREPARATION FOR STORAGE OR SHIPMENT.

Refer to Chapter 4, Section VI for procedures for preparing the spreader for storage or shipment.

## Section II. EQUIPMENT DESCRIPTION AND DATA

### 1-6. EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES.

a. *Characteristics.* The spreader described in this manual is non-metric and does not require metric common or special tools; therefore, metric units are not supplied.

b. *Capabilities and Features.*

- (1) Can spread aggregate in widths between 4 and 8 ft
- (2) Can operate in forward and reverse directions at a maximum speed of 5 mph (8 kph)
- (3) Can be transported short distances while coupled to dump truck
- (4) Removable transport truck and tongue allows spreader to be towed long distances at a maximum speed of 40 mph (64 kph)
- (5) Can spread between 1 and 106 lb of aggregate per sq yd
- (6) Aggregate spread can be flat or tapered

### 1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS.

**HOPPER (1).** Receives aggregate from towing vehicle. Inserts can be inserted into hopper to vary width of spread from 8 to 4 ft.

**OPERATOR'S PLATFORM (2).** Provides stable surface from which operator can monitor flow of aggregate.

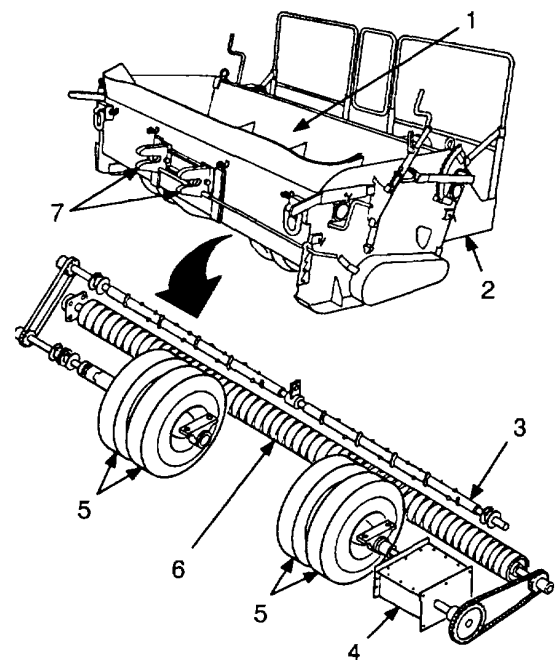
**AGITATOR (3).** Located at bottom of hopper. Distributes aggregate from hopper to feed roll.

**GEARBOX (4).** Contains the clutch, shafts, and gears that engage and disengage the feed roll.

**TRACTION WHEELS (5).** Roll along road bed. Provide power to operate agitator and feed roll.

**FEED ROLL (6).** Located beneath agitator. Spreads aggregate evenly on the ground to the desired depth.

**COUPLER HITCH (7).** Latches onto hitch mounted on dump truck so that dump truck can pull spreader.



| US ARMY                    |      |           |                  |            |     |     |    |  |  |
|----------------------------|------|-----------|------------------|------------|-----|-----|----|--|--|
| SPREADER, AGGREGATE, TOWED |      |           |                  |            |     |     |    |  |  |
| MODEL                      | FF-8 | CONTR NO  | DAAE07-90-C-1279 |            |     |     |    |  |  |
| SER                        |      | CAPACITY  | 1.06 CU YARDS    |            |     |     |    |  |  |
| REG NO                     |      | GVW       |                  | LB         | LG  | 144 | IN |  |  |
| NSN                        |      | DATE MFD  |                  | HGT        | 68  | IN  |    |  |  |
| ENG SER                    |      | SHIP WT   | 2850             | LB         | W   | 75  | IN |  |  |
| WARRANTY                   |      | MO OR     | MI               | CUBE       | 425 | FT  |    |  |  |
| DATE SHIPPED               |      | DATE INSP |                  | INSP STAMP |     |     |    |  |  |

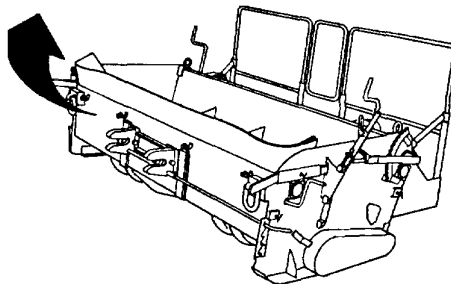
Technical drawing of the FF-8 Spreader, Aggregate, Towed, showing dimensions and lift points. The drawing includes a side view and a top view. Dimensions are given in inches and millimeters. Lift points A, B, C, and D are indicated.

LIFT/SLING TIE DOWN - (4) PTS.  
 RATED STRENGTH AT  
 A = 5915 LBS  
 B = 6070 LBS  
 C = 5635 LBS  
 D = 5735 LBS

SEE OPERATOR'S MANUAL FOR TRANSPORTATION REQUIREMENTS

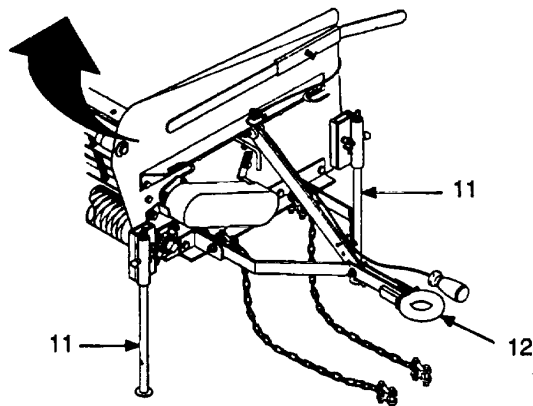
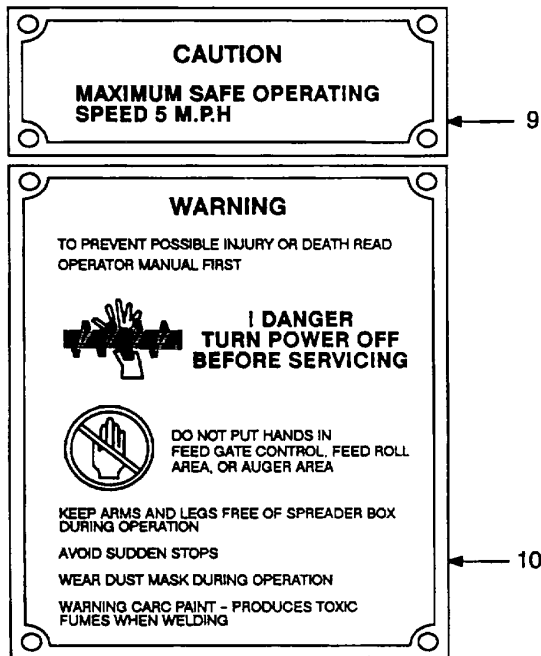
THE GLEDHILL ROAD MACHINERY CO.  
 GALION, OH

MFD BY



IDENTIFICATION AND TRANSPORT PLATE (8). Lists equipment data and transport dimensions.

## 1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (CONT)

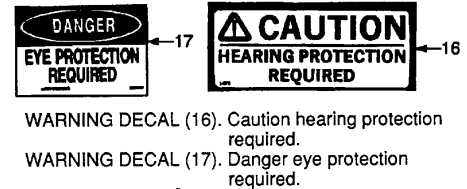
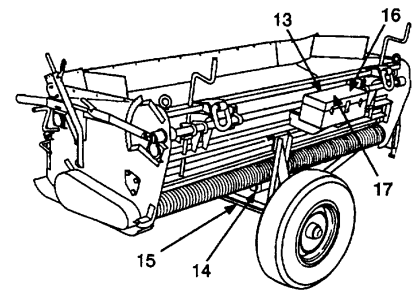


**CAUTION DATA PLATE (9).** For operator safety and effective spreading, spreader must never be operated over 5 mph (8 kph).

**WARNING DATA PLATE (10).** Lists warnings applicable to operation and maintenance of the spreader.

**LEVELING LEGS (11).** Support front of hopper when spreader is installed on transport truck.

**TRANSPORT TONGUE (12).** Installed for long distance travel; removed for normal operation. Drawbar connects to towing vehicle pintle.



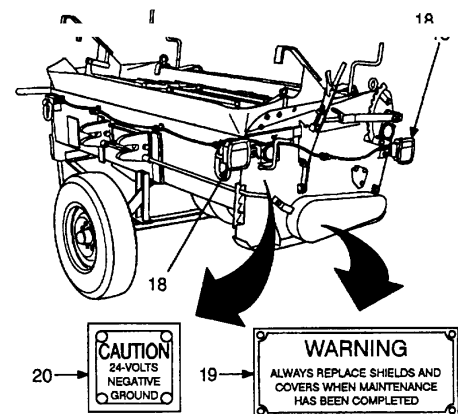
**WARNING DECAL (16).** Caution hearing protection required.

**WARNING DECAL (17).** Danger eye protection required.

**TOOL BOX (13).** Stowage for basic Issue Items.

**BALANCE ROLLER (14).** Prevents spreader from tipping over onto feed roll. Provides some mobility when positioning spreader manually.

**TRANSPORT TRUCK (15).** Installed for long distance travel.



**TAILLIGHTS (18).** Installed when spreader is mounted on transport truck. Provide brake lights and turn signals.

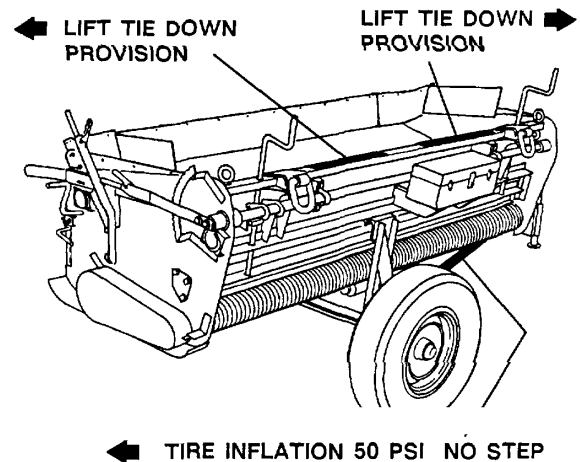
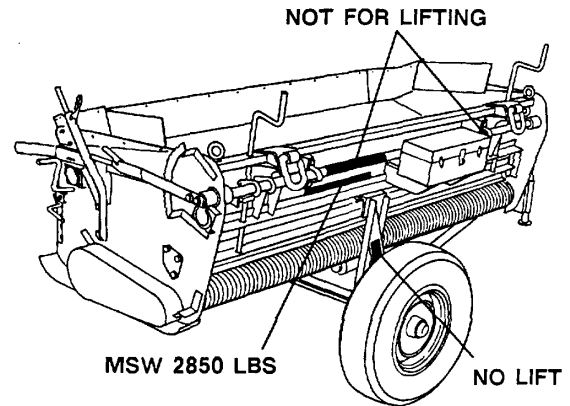
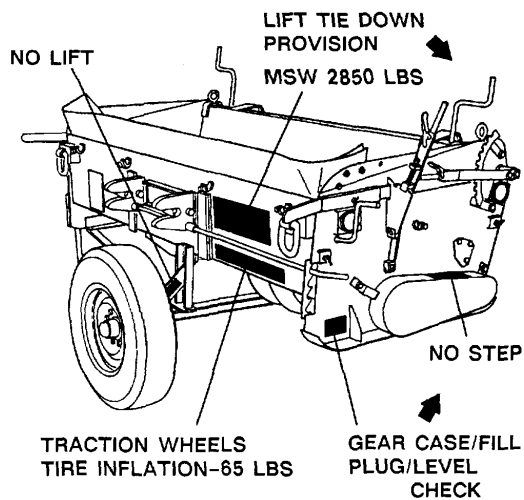
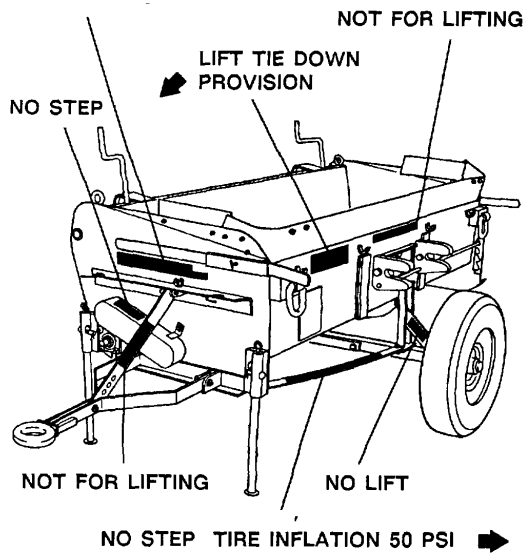
**SHIELDS AND COVERS WARNING PLATE (19).** For operator and maintainer safety, chain guards must always be installed. Plate is installed on both chain covers.

**24-VOLTS CAUTION PLATE (20).** Spreader taillights can only be used with a 24-volt, negative ground power source.

## 1-8. LOCATION AND CONTENT OF STENCIL MARKINGS.

The following illustrations show the location and contents of all stencil markings.

Maintain all stencil markings so that the information remains legible. If any stencil marking is illegible, notify unit maintenance.



## 1-9. EQUIPMENT DATA.

Dimensions (approximate)

Operational configuration

Length ..... 71 in.

Width ..... 111 5/8 in.

Height ..... 577/16 in.

Transport configuration

Length ..... 143 5/8 in.

Width ..... 75 in.

Height ..... 68 in.

Ground clearance ..... 14 X in.

Shipping weight ..... 2850lb

Hopper capacity ..... 1.06 cu yd

Tires:

Transport truck

Type ..... LT235/85R16 M/S

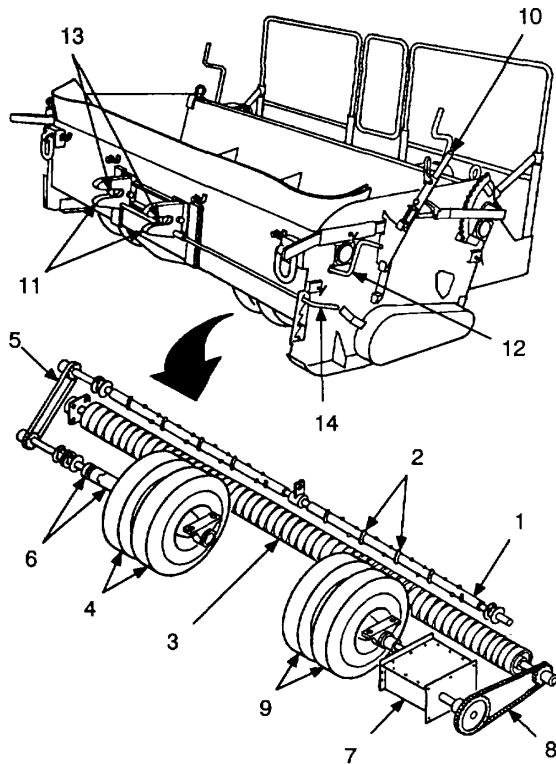
Inflation pressure ..... 50 psi

Traction drive

Type ..... 6.90 x 15, 6 ply

Inflation pressure ..... 65 psi

### Section III. TECHNICAL PRINCIPLES OF OPERATION



#### 1-10. AGITATOR.

With the clutch engaged and the spreader and towing vehicle moving, the agitator (1) rotates at the same speed and in the same direction as the towing vehicle is moving. Right-hand and left-hand vanes (2) welded to the agitator evenly distribute the aggregate to the feed roll (3). The agitator is directly driven by the right-hand traction drive wheels (4) by a chain (5) and two sprockets. A control handle on the right side of the hopper engages and disengages the clutch (6) that drives the agitator.

#### 1-11. FEED ROLL.

With the clutch engaged and the spreader and towing vehicle moving, the feed roll (3) rotates at the same

speed as the towing vehicle is moving. The feed roll is driven by the gearbox (7) by a chain (8) and two sprockets. Grooves in the feed roll catch the aggregate and distribute it on the road bed.

#### 1-12. GEARBOX.

The gears in the gearbox (7) are directly driven by the left-hand traction drive wheels (9) by a coupling and shaft. Gears inside the gearbox ensure that the feed roll (3) always rotates in the same direction, whether the spreader is traveling forward or backward. A slip clutch inside the gearbox automatically disengages the feed roll if the feed roll control lever (10) is set for the wrong direction.

#### 1-13. TRACTION DRIVE.

The traction drive wheels (4 and 9) roll along the road bed and provide the mechanical motion that drives the agitator (1) and feed roll (3). A coupling and shaft on the left set of traction drive wheels drive the gearbox (7), which in turn drives the feed roll through a chain (8) and two sprockets. A clutch on the right set of traction drive wheels drives the agitator through a chain (5) and two sprockets.

#### 1-14. COUPLER HITCH AND TRUCK HITCH.

The truck hitch is mounted on the back of the dump truck. The coupler hitch (11) is mounted on the front of the spreader. A crank (12) raises and lowers the coupler hitch by opening and closing a set of pantograph links, allowing the spreader to be used with a variety of dump trucks of differing heights. Dogs (13) inside the coupler hitch housing latch onto the truck hitch. A spring-loaded latch lever (14) opens the dogs inside the coupler hitch housing, allowing the spreader to be coupled and uncoupled.

## CHAPTER 2 OPERATING INSTRUCTIONS

---

### Section I. DESCRIPTION AND USE OF OPERATOR'S CONTROLS AND INDICATORS

|                                   | Page |
|-----------------------------------|------|
| 2-1 Controls and Indicators ..... | 2-2  |

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

|                            | Page |                                   | Page |
|----------------------------|------|-----------------------------------|------|
| 2-2. General.....          | 2-3  | 2-4. Explanation of Columns ..... | 2-4  |
| 2-3. PMCS Procedures ..... | 2-4  | 2-5. Leakage Definitions .....    | 2-4  |

### Section III. OPERATION UNDER USUAL CONDITIONS

|                                   | Page |                                          | Page |
|-----------------------------------|------|------------------------------------------|------|
| 2-6 Spreading Aggregate .....     | 2-7  | 2-8 Operating Instructions on Decals and |      |
| 2-7 Preparation for Movement..... | 2-9  | Instruction Plates.....                  | 2-11 |

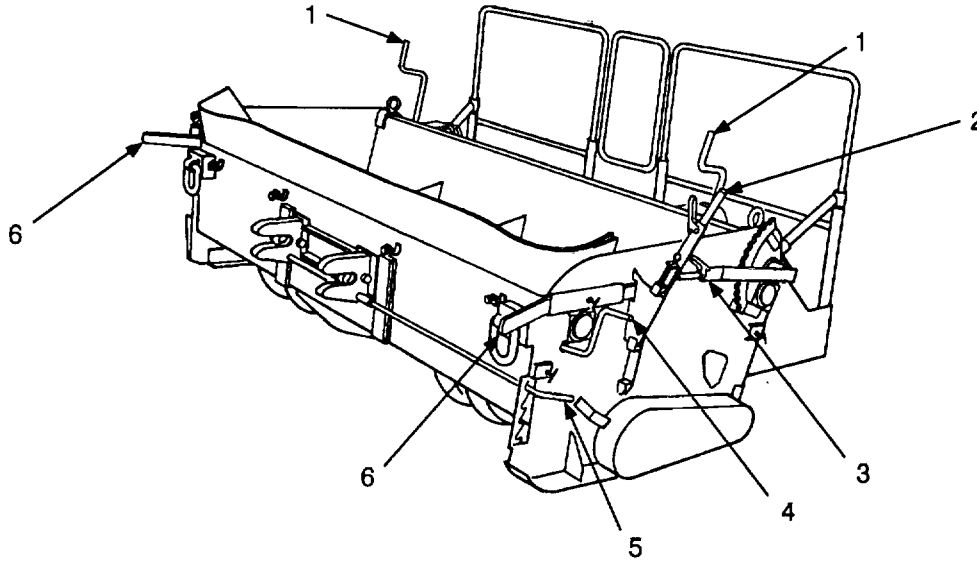
### Section IV. OPERATION UNDER UNUSUAL CONDITIONS

|                                      | Page |                                              | Page |
|--------------------------------------|------|----------------------------------------------|------|
| 2-9. Operation in Extreme Cold.....  | 2-12 | 2-12. Operation in Sandy or Dusty Areas..... | 2-12 |
| 2-10. Operation in Extreme Heat and  |      | 2-13. Operation in Saltwater Areas.....      | 2-12 |
| High Humidity .....                  | 2-12 | 2-14. Fording.....                           | 2-12 |
| 2-11. Operation In Snow and Mud..... | 2-12 |                                              |      |

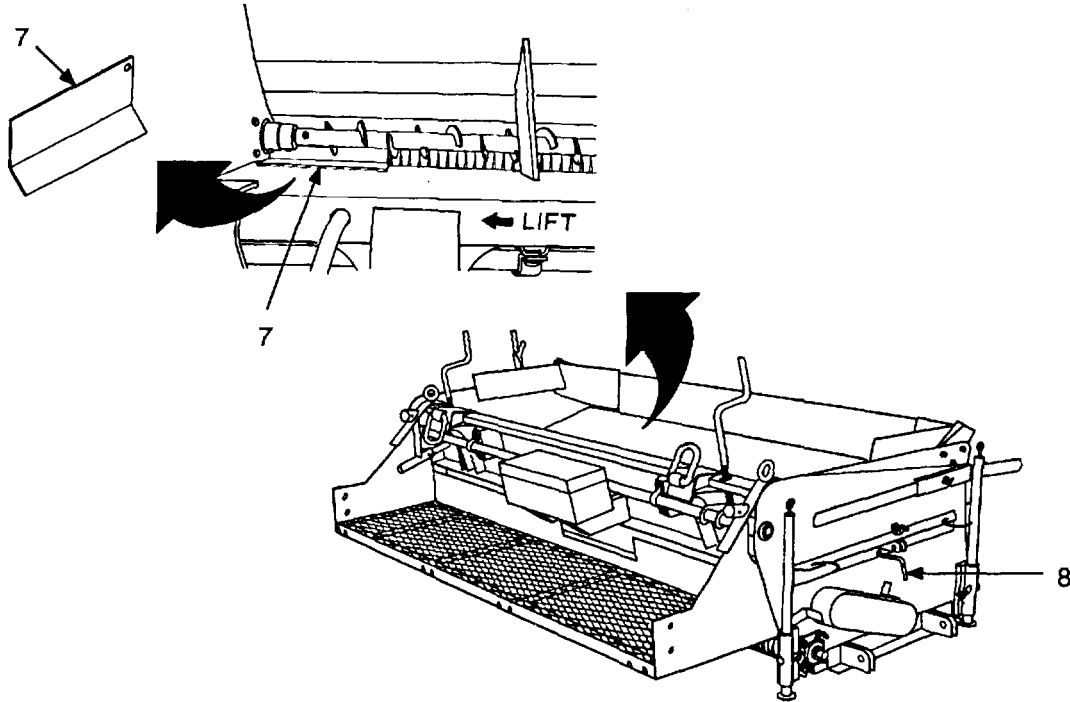
## Section I. DESCRIPTION AND USE OF OPERATOR'S CONTROLS AND INDICATORS

### 2-1. CONTROLS AND INDICATORS.

This section lists and describes each of the controls and indicators required to operate the spreader. Learn how each control operates before using the spreader.



| Key | Control/Indicator       | Function                                                                                                                                                                                                                                                                                                              |
|-----|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Gate adjusting screws   | Used for fine adjustments of the gate assembly. Screws can be set individually to taper the spread. Turn screws counterclockwise to open the gate, clockwise to close the gate.                                                                                                                                       |
| 2   | Feed roll control lever | Engages or disengages feed roll. Towing vehicle and spreader must be stopped before changing setting of feed roll control lever. To operate spreader in a forward direction, set feed roll control lever to FORWARD SPREAD. To operate spreader in backward direction, set feed roll control lever to REVERSE SPREAD. |
| 3   | Gate adjusting lever    | Opens and closes gate assembly. Lever has 15 lever positions. Maximum gate opening is 5 in.                                                                                                                                                                                                                           |
| 4   | Hitch adjusting crank   | Raises and lowers coupler hitch.                                                                                                                                                                                                                                                                                      |
| 5   | Latch lever             | Used to engage and disengage coupler hitch from truck hitch. Rotate latch lever upward to open coupler hitch. Latch lever is spring loaded and will return to closed position.                                                                                                                                        |
| 6   | Balancing handles (two) | Used to balance and position spreader. Unscrew thumbscrew and slide handle out of guide. When spreader is positioned, slide handle into guide and tighten thumbscrew.                                                                                                                                                 |



| Key | Control/Indicator             | Function                                                                                                                                                                                   |
|-----|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                               | <p><b>NOTE</b></p> <p><b>For clarity, operator's platform is shown with rails and gate removed. Never operate spreader unless rails and gate are installed.</b></p>                        |
| 7   | Inserts                       | Inserted into hopper to vary width of spread. Hopper must be empty, clutch control lever must be set to NEUTRAL, and towing vehicle and spreader must be stopped before inserting inserts. |
| 8   | Agitator clutch control lever | Used to engage or disengage agitator. Pull lever out to engage agitator, push lever in to disengage agitator.                                                                              |

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

### 2-2. GENERAL PMCS INFORMATION.

a. *Before You Operate.* Always keep In mind the WARNINGS and CAUTIONS. Perform your before (B) PMCS prior to the equipment leaving its containment area or performing its intended mission.

b. *While You Operate.* Always keep in mind the WARNING s and CAUTIONS. Perform your during (D) PMCS when the equipment is being used in its intended mission.

c. *After You Operate.* Be sure to perform your after (A) PMCS after the equipment has been taken out of its mission mode or returned to its containment area.

d. *If Your Equipment Fails to Operate.* Troubleshoot with proper equipment. Report any deficiencies using the proper forms. See DA Pam 738-750.