TECHNICAL MANUAL
OPERATION INSTRUCTIONS
DUMP TRUCK BODY

M917

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FRUEHAUF CORPORATION
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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.

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CHAPTER 1
INTRODUCTION

Section I. GENERAL

1-1. Scope.

This manual is for your use in operating and maintaining the M917 Dump Truck Body. Refer to the Operator's Manual (TM 9-2320-273-10) for instructions on operating and maintaining the vehicle chassis.

1-2. Maintenance Forms and Records.

Equipment maintenance forms and procedures for their use are contained in DA Pam 738-750, The Army Maintenance Management System (TAMMS).

1-3. Reporting Equipment Improvement Recommendations (EIR).

EIRs will be prepared on SF 368 (Quality Deficiency Report). Instructions for preparing EIRs are provided in DA Pam 738-750, The Army Maintenance Management System (TAMMS). EIRs should be mailed directly to: Commander, U.S. Army Tank-Automotive Command, ATTN: AMSTA-MP, Warren, Ml 48397-5000. A reply will be furnished to you.

Section II. DESCRIPTION AND DATA

1-4. Description.

a. Features and Capabilities. The M917 dump truck body provides the capability of hauling and dumping, or spreading heavy loads of hot asphalt, aggregate, dirt, and similar materials. The M917 vehicle chassis has off-road capabilities therefore providing a wide variety of terrain in which the dump truck can operate. The dump body contains a sealed hydraulic system for raising and lowering the dump bed. The hydraulic system is powered by the vehicle chassis PTO unit. The tailgate can be adjusted for dumping the load or for controlled spreading while the vehicle is moving.

b. Major Components. Figure 1-1 shows the location of major dump truck body components you will need to become familiar with to properly operate the M917 dump body.

(1) Guide rod. This steel rod, bolted to the cab protector, provides the operator a visual indication of when the bed is down.

(2) Dump bed. This is a rectangular shaped steel bed for hauling hot asphalt, aggregate, or various other materials. It incorporates a cab protector as a structurally integral component. Its purpose is to protect the cab. A dog house is provided in the front of the bed in which the top of the hoist cylinder is mounted.

(3) Tarpaulin hooks. There are fourteen hooks attached to the dump body for attaching the tarpaulin, five on each side, two in front and two in the back.

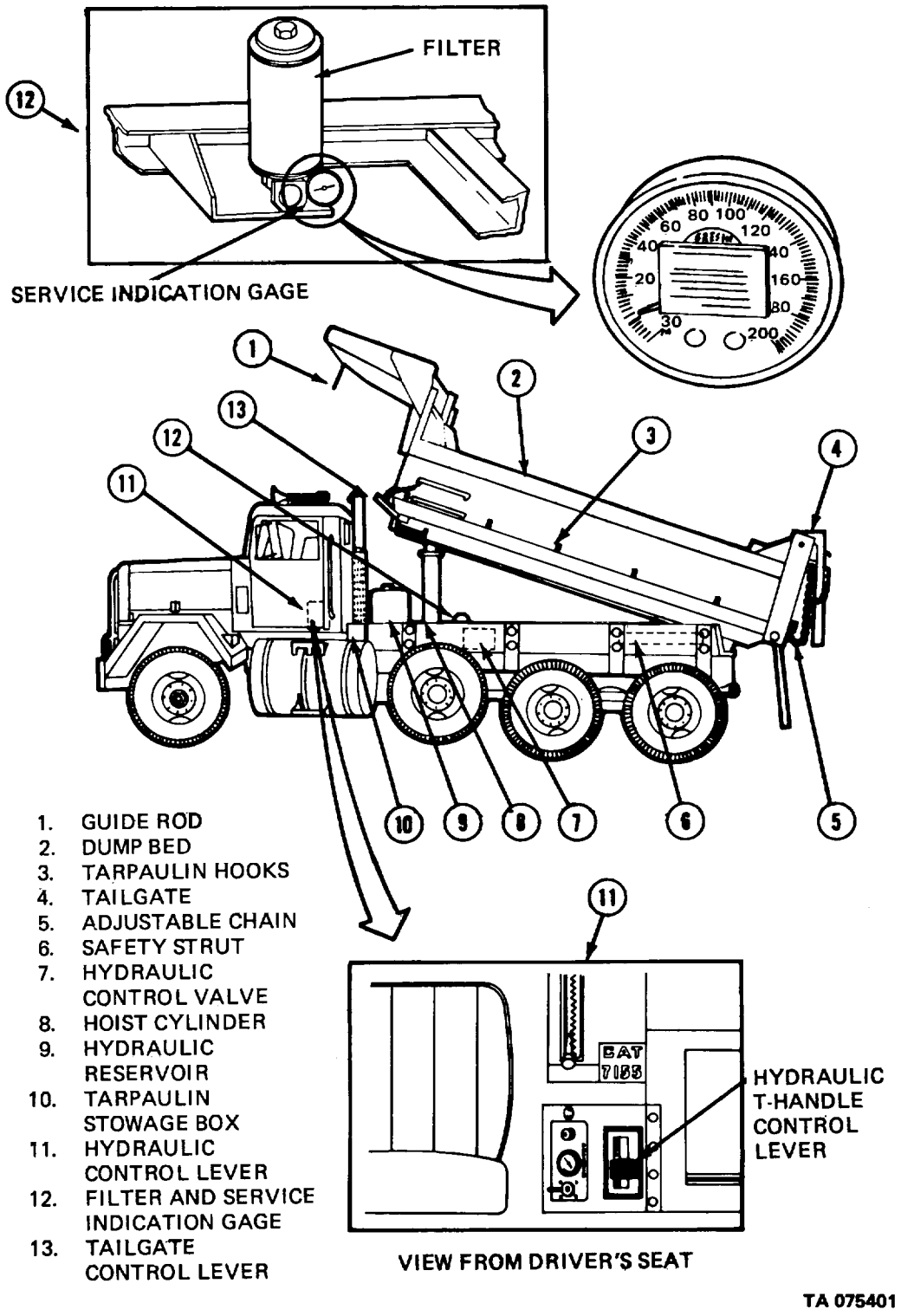

Figure 1-1. Major Components of the Dump Body.

(4) Tailgate. This is a double-acting tailgate in that it is hinged at the top and the bottom. For normal operation, the tailgate is hinged at the top and opens outward at the bottom. A locking mechanism, operated by the tailgate control lever, is provided to lock the tailgate in the closed position. When the control lever is up, two jaws, one on each side of the tailgate, clamp over the large pins or rods at the bottom of the tailgate. By removing the top pin and lowering the tailgate from the top to a level position and securing with the adjustment chain, extra long materials can be hauled.

(5) Adjustable Chain. An adjustment chain is provided which allows adjusting the maximum swing travel of the tailgate for spreading. This is accomplished by shortening or lengthening the linkage of the chain.

(6) Safety strut. When the bed is raised for purposes of inspection or other maintenance, the safety strut should be raised as an added safety precaution (fig. 2-10). The safety strut is hinged at the back, and when raised forms a cradle with the cross member braced across the bottom of the dump bed. When not in use, it rests between the chassis frame rails.

(7) Hydraulic control valve. This is a single-spool valve with the control piston mechanically linked to the hydraulic control lever in the cab. Its purpose is to supply hydraulic pressure to raise and lower the dump bed.

(8) Hoist cylinder. This is a three stage telescoping cylinder that, under hydraulic pressure, raises the dump bed. The cylinder piston is attached to the dump bed inside the dog house and the cylinder base is attached to the dump body sub-frame. In the lowering cycle, pressure is relieved through the pilot valve which allows the cylinder to compress under the weight of the dump bed.

(9) Hydraulic reservoir. The hydraulic reservoir is a 20-gallon, all steel tank mounted between the dump body sub-frame rails just in front of the hoist cylinder. The reservoir has top and bottom sight glasses for determining fluid level. The top sight glass can be viewed from the driver's side without raising the dump bed.

(10) Tarpaulin. The tarpaulin contains grommets for hooking to the front, side, and rear of the dump bed. Rubber tie down straps are provided for fastening over the tarpaulin hooks on the sides and rear. The tarpaulin is stowed in a stowage box located between the cab and the dump body. The stowage box is tubular with an access door on the driver's side of the truck.

(11) Hydraulic control lever. This is a floor mounted unit that is mechanically linked to the hydraulic control valve. By squeezing the T-handle control head, the lever can be shifted to the UP position to raise the dump bed, or to the DOWN position to lower the dump bed. Release the T-handle and place the lever in the N (neutral) position when you wish to stop the dump bed.

(12) Filter and service indication gage. The filter collects contaminants in the hydraulic system. When the filter is dirty it restricts oil flow and there is a buildup in pressure at the filter. The service indication gage registers this pressure. When the gage needle is in the red, the need for an oil filter change is indicated.

(13) Tailgate control lever. This control is a direct mechanical link to the tailgate locking mechanism. A safety loop and chain (attached to the dump body) are provided as a safety feature. When the control lever is in the full up position, place the loop over the control lever to prevent accidental releasing of the tailgate. To release the tailgate for dumping, remove the safety loop and pull the control lever forward and pull down. After dumping and lowering the bed, push the control lever back and pull up to lock the tailgate closed. If the tailgate is hanging open, the locking mechanism will not engage. Make sure the tailgate locking jaws have latched over the rod at the bottom of the tailgate. After locking the tailgate, slip the safety loop over the control lever.

c. Chassis Components. You will also need to become familiar with the truck chassis components. Refer to TM 92320-273-10.

1-5. Tabulated Data.

a. Capacities, Weights and Dimensions. Table 1-1 lists pertinent data on dump body capacities, weights, and dimensions which you may need to operate the equipment.

Table 1-1. M917 Dump Body Capacities, Weights, and Dimensions.

CAPACITIES

Dump Body

Struck (water level)	12.0 cu yd (9.17 m3)
Heaped (excluding cab protector)	15.2 cu yd (11.63 m3)
Heaped (with 12 in high side boards)	19.6 cu yd (14.99 m3)
Hydraulic System	27 gal (102.21 liter)

WEIGHTS (including Chassis)

Empty	34,080 lbs (15,459 kg)
Loaded	74,980 lbs (34,011 kg)

DIMENSIONS (including Chassis)

Height (empty, over cab protector)	141 in (3.58 m)
Width (outside)	96 in (2.44 m)
Length	350.6 in (8.90 m)
Loading Bucket Clearances (ground to top of side)	101 in (2.56 m)
Hopper Loading Clearances (drive through)	142 in (3.61 m)