

TECHNICAL MANUAL

**OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT, AND GENERAL
SUPPORT MAINTENANCE MANUAL**

(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LISTS)

FOR

**SEMITRAILER, TANK: FUEL, 5000 GALLON, 4 WHEEL,
M131A4 (NSN 2330-00-994-9459)**

**SEMITRAILER, TANK: FUEL SERVICING,
5000 GALLON, 4 WHEEL,
M131A4C (NSN 2330-00-994-9458)**

**SEMITRAILER, TANK: FUEL 5000 GALLON, 4 WHEEL,
M131A5 (NSN 2330-00-226-6079) AND
SEMITRAILER, TANK: FUEL SERVICING,
5000 GALLON, 4 WHEEL,
M131A5C (NSN 2330-00-226-6080)**

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Current as of 1 December 1982

REPORTING OF ERRORS

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, US Army Tank-Automotive Command, ATTN: DRSTA-MB, Warren, Michigan 48090. A reply will be furnished to you.

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope

This manual contains operating instructions, operator, organizational, and direct support and general support maintenance instructions, and repair parts and special tools list for the 12-ton, 4-wheel, 5000-gallon fuel tank semitrailers M131A4, M131A4C, M131A5, and M131A5C.

1-2. Maintenance Forms and Records

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

1-3. Administrative Storage

For information on administrative storage, refer to TM 740-90-1, Administrative Storage of Equipment.

1-4. Destruction of Army Materiel to Prevent Enemy Use

For information on 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. Reporting Equipment Improvement Recommendations (EIR).

EIR will be prepared on Standard Form 368, Quality Deficiency Report. Instructions for preparing EIR's are provided in DA PAM 738-750. The Army Maintenance Management System. EIR's should be mailed direct to Commander, US Army Tank Automotive Command, ATTN: DRSTA-MV, Warren, MI 48090. A reply will be furnished direct to you.

Section II. DESCRIPTION AND DATA

1-6. Description (fig 1-1 through 1-8)

a. The 12-ton, 4-wheel, 5000-gallon fuel tank semitrailers M131A4, M131A4C, M131A5, and M131A5C are designed to be towed by a 5-ton 6x6 tractor or similar vehicle equipped with a fifth wheel.

b. All semitrailers are equipped with a 24-volt electrical system, air-over-hydraulic brake system, spare wheel and tire carrier, landing gear, tank body, auxiliary engine and fuel dispensing pump assembly, portable and fixed fire extinguishing systems, and three sections of 3-inch fuel transfer hose.

1-7. Differences Among Models

a. The M131A4 and M131A4C semitrailers have four fuel tank compartments. Each compartment has a capacity of 1250 gallons.

b. The M131A5 and M131A5C semitrailers have two fuel tank compartments. Each compartment has a capacity of 2500 gallons.

c. The M131A4 and M131A5 semitrailers are used for fuel transport or fuel transfer only.

d. The M131A4C and M131A5C semitrailers are used for fuel transport, fuel transfer, or fuel servicing of containers, ground vehicles, or aircraft having over-

the-wing fueling facilities with a maximum fuel acceptance rate of 225 gpm.

e. The M131A4 and M131A5 semitrailers consist of an integral fuel tank with one curbside cabinet, housing an air-cooled auxiliary engine and fuel dispensing pump unit, fuel manifold, flow control valves, and static reel.

f. The M131A4C and M131A5C semitrailers consist of an integral fuel tank with one curbside cabinet, housing an air-cooled auxiliary engine and fuel dispensing pump unit and one roadside cabinet, housing a fuel manifold, flow control valves, volumetric meter, static reel, hose reels, and nozzles.

g. Differences on the M131A4C areas follows:

(1) *Instrument panel.* Semitrailers with serial numbers 1 through 340 house the instrument panel in the curbside cabinet. Semitrailers with serial numbers after 340 have the instrument panel on the roadside of the trailer near the equipment cabinet.

(2) *Filter-segregator.* Semitrailers with serial numbers 1 thru 113 are equipped with Warner Lewis designed filter-segregators; those with serial numbers after 113 are equipped with Bowser, Inc. designed filter-segregators.

h. Similar models of semitrailers were produced by

different manufacturers and as a result some minor differences in design among these semitrailers do exist. The serial numbers and contract numbers listed be-

low should be indicated in any reports, inquiries, or recommendations.

Serial No.	Manufacturer	Contract No, 20-113-AMC	Vehicle Model
1 thru 115	City Tank Corp.	DA-11-022-AMC-1894 (T)	M131A4
1 thru 113	The Heil Co.	DA-11-022-AMC-2012 (T)	M131A4C
114 thru 340	Butler Mfg. Co.	DA-11-022-AMC-1864 (T)	M131A4C
341 thru 396	The Heil Co.	DA-11-022-AMC-2012 (T)	M131A4C
397 thru 497	Butler Mfg. Co.	DA-11-022-AM-1864 (T)	M13A4C
498 thru 607	The Heil Co.	DA-11-022-AMC-2264 (T)	M131A4C
1 thru 840	The Heil Co.	DA-11-022-AMC-5431 (T)	M131A5
841 thru 1640	The Heil Co.	DA-11-022-AMC-10112 (T)	M131A5
1641 thru 2635	Fruehauf Trailer Co.	DA-11-022-AMC-10420 (T)	M131A5
2636 thru 2644	The Heil Co.	DA-11-022-AMC-10112 (T)	M131A5
1 thru 428	Fruehauf Trailer Co.	DA-11-022-AMC-11226 (T)	M131A5C

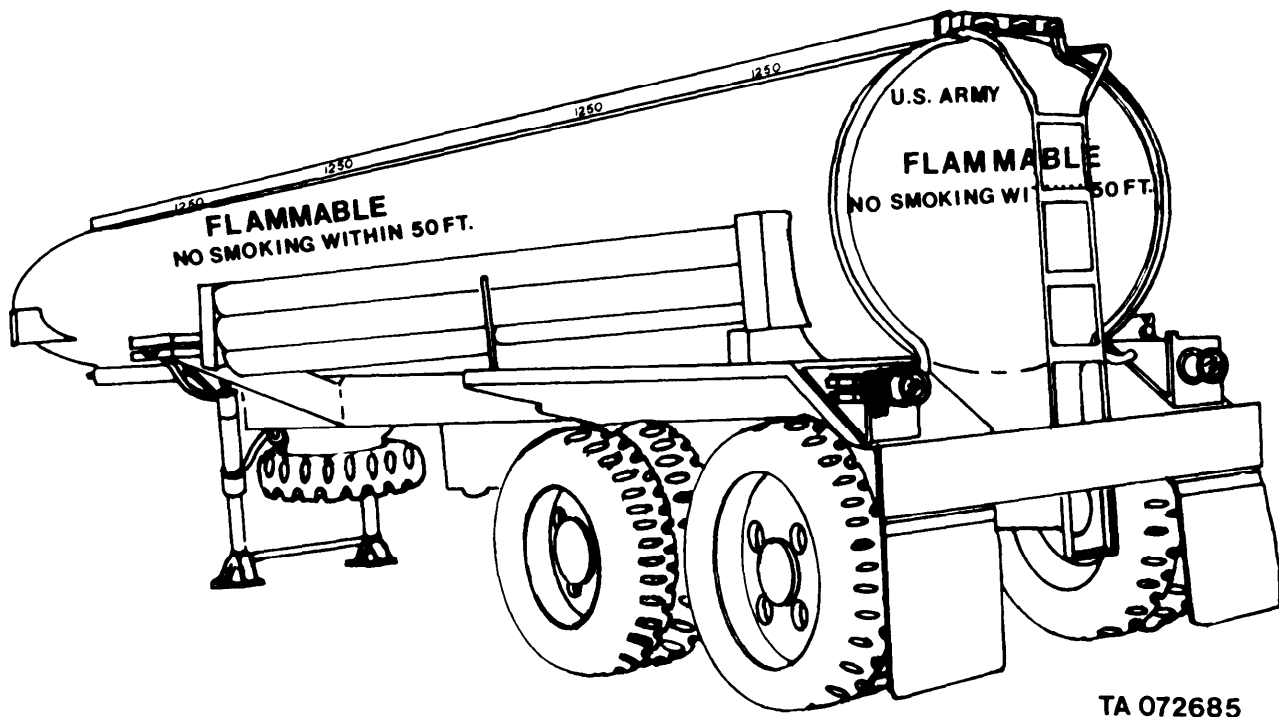


Figure 1-1 Fuel tank semitrailer M131A4-left rear view.

1-8. Electrical System

a. The semitrailer chassis is equipped with a 24-volt electrical system. For operation with a towing vehicle having a 6- or 12-volt system, the using organization will ensure that lamp bulbs of the proper voltage are installed.

b. Clearance lights, taillights, stoplights, and turn signals on the semitrailer chassis are controlled from the towing vehicle through the intervehicular cable on the rear of the towing vehicle and the wiring harness assembly on the semitrailer chassis. The system is protected by a circuit breaker on the towing vehicle.

c. Early model taillight, stoplight, and turn signal

systems consist of two service taillights, stoplights, and blackout taillight assemblies which are mounted at the rear of the semitrailer on each side of the frame. Each taillight is used as a turn signal indicator in both service and blackout mode of operation, A blackout stoplight is mounted by the side of the right taillight.

d. Late model systems have two composite tail, stop, turn, and marker lights instead of the old taillight and blackout stoplight.

1-9. Hubs and Brake Drums

a. Each hub is mounted on the spindle of the axle on two adjustable, tapered roller bearings. The bearing