

TM 9-886A

RESTRICTED

WAR DEPARTMENT

TECHNICAL MANUAL



**6-TON SEMITRAILER,
COMBINATION STAKE AND PLATFORM
(BLACK DIAMOND)**

APRIL 22, 1943

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 No. 9-886A }

WAR DEPARTMENT
 Washington, April 22, 1943

6-TON SEMITRAILER, COMBINATION STAKE AND PLATFORM (BLACK DIAMOND)

Prepared under the direction of the
 Chief of Ordnance

(with the cooperation of Black Diamond Trailer Company)

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*This manual supersedes TM 9-886A, February 5, 1943.

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(BLACK DIAMOND)****PART TWO – Organization Instructions (Cont.)**

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PART ONE — Operating Instructions**Section I****INTRODUCTION**

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1. SCOPE.

a. TM 9-886A is published for the information of the using arms and services.

b. In addition to a description of the Semitrailer T-118-A, this manual contains technical information required for the identification, use, and care of the materiel.

c. Disassembly, assembly, and such repairs as may be handled by the using arm personnel may be undertaken only under the supervision of the officer in charge or the chief mechanic.

d. In all cases where the nature of repair, modification, or adjustment is beyond the scope or facilities of the unit, the responsible ordnance service should be informed so that trained personnel with suitable tools and equipment may be provided, or proper instructions issued.

2. DIFFERENCES AMONG MODELS.

Semitrailer model T-118 and T-118A have the same outward appearance. The only differences are in the manufacture of working parts. These do not affect the method of maintenance by the using arms.

3. DESCRIPTION (figs. 1 and 2).

a. **General.** The Semitrailer T-118-A is a 2-wheeled utility vehicle having dual wheels. A spare wheel and tire is carried on a bracket attached to the under side of the frame. A retracting type parking gear is attached to the frame and operated by a hand crank, located on the right front side. The combination stake and platform type body with a maximum payload of 7,000 pounds is mounted on a steel frame. The frame is carried on a one-piece axle through a slip end, semielliptical spring suspension. Two combination stop and tail lights for blackout and service use are installed on the rear end. Four clearance lights, two on each side, are located near the front and rear of the trailer.

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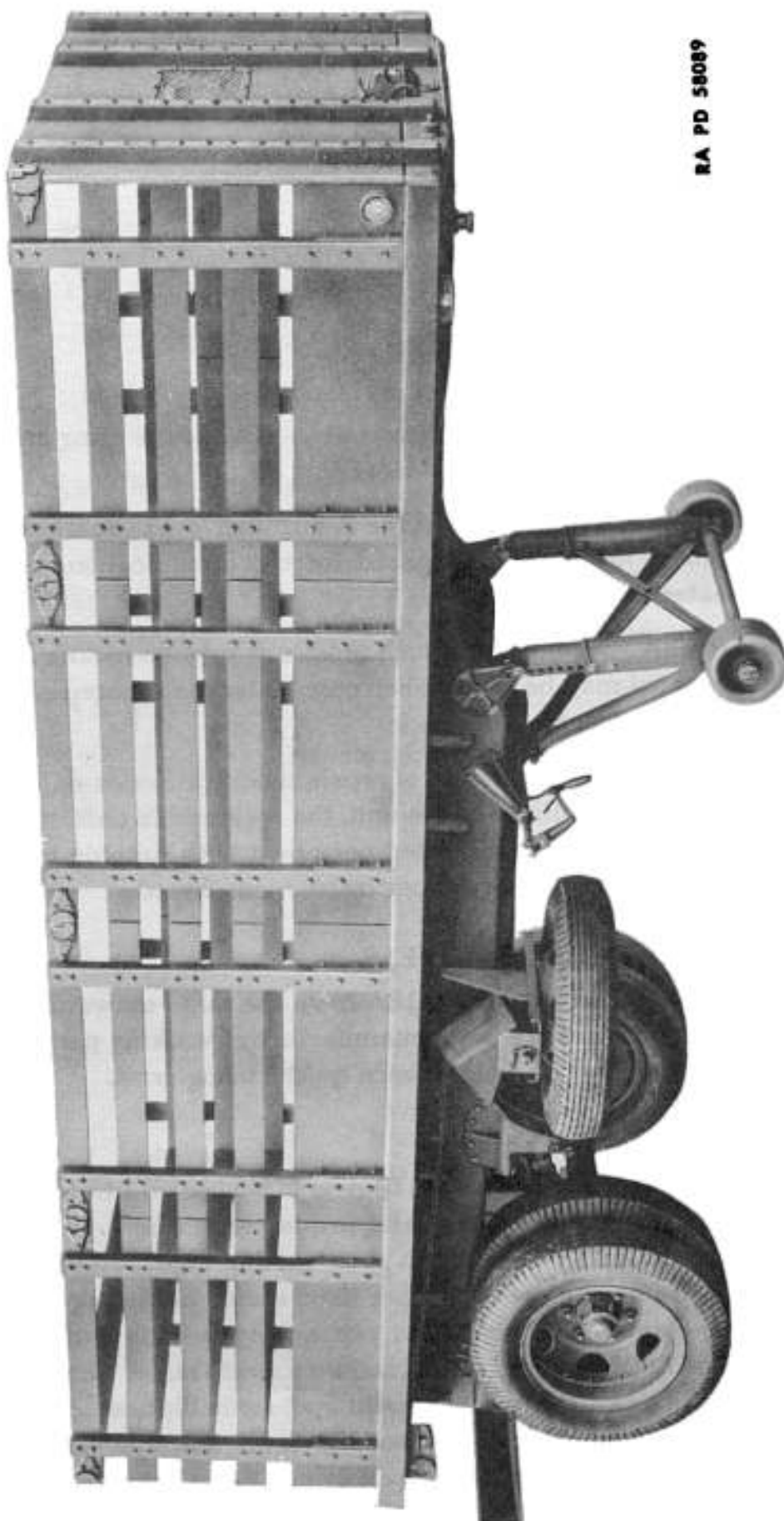
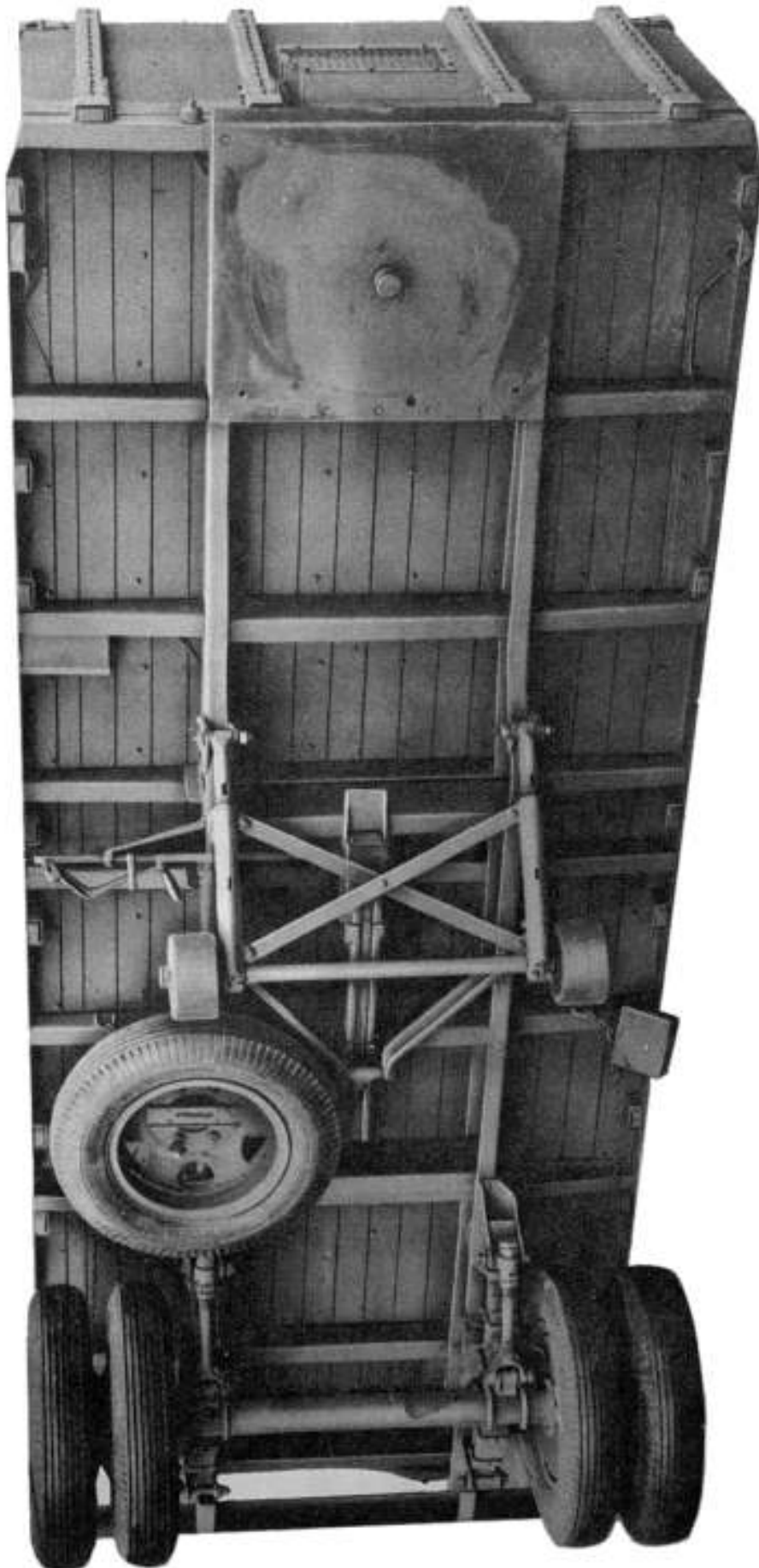


Figure 1 — Semitrailer T-118-A — Side View

INTRODUCTION



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Figure 2 — Semitrailer T-118-A — Bottom View

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b. Braking. The braking for the trailer is done by internal expanding electrically operated brakes located on each of the inner dual wheels. The brakes are applied by an electric controller either connected to the tractor-truck brake linkage or located in the cab and hand operated by the driver.

c. Towing. The semitrailer is towed by a tractor-truck equipped with a fifth wheel coupling. The upper fifth wheel for this coupling, consisting of a plate and king pin, is attached to the front end of the trailer.

4. DATA.**a. Physical Characteristics.**

Weight empty	4,950 lb
Maximum payload	7,000 lb
Height of bed empty	49½ in.
Height of bed loaded	47½ in.
Length over-all	204 in.
Width over-all	85½ in.
Height over-all	91½ in.
Ground clearance	14 in.
Wheel tread	66¾ in.
Maximum towing speed	45 mph

b. Tires.

Number	5
Size	7.50 x 20
Number of plies	8
Air pressure carried	55 lb

c. Brakes.

Type	Electric
Diameter	17¼ in.
Width	3 in.

Section II

CONTROLS AND OPERATION

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General information on controls	5
Towing operations	6
Loading	7

5. GENERAL INFORMATION ON CONTROLS.

a. Parking Gear. The end of the hand crankshaft for the parking gear is located at the right side of the trailer near the front. Raising the wheels is accomplished by turning the crank handle in a counterclockwise motion. When turning the parking gear crank, be sure to turn all the way so that the wheels will be in fully lowered or raised position. This will prevent damage to support legs when traveling or coupling (figs. 1 and 2).

b. Emergency Chains. The emergency safety chains are a means of applying the trailer brakes in case the vehicle breaks away from the tractor-truck. The chains turn on the switch which controls the hot-shot battery circuit located in the trailer. One chain is connected to the I-bolt on the tractor-truck and to the cable, the other chain to the safety switch at the front of the trailer and to the cable. In case of a breakaway, the slack in the feed cable will be taken up and the cable connection pulled from its socket at one end or the other. This will exert a pulling force on one or both chains thereby turning on the safety switch (fig. 3).

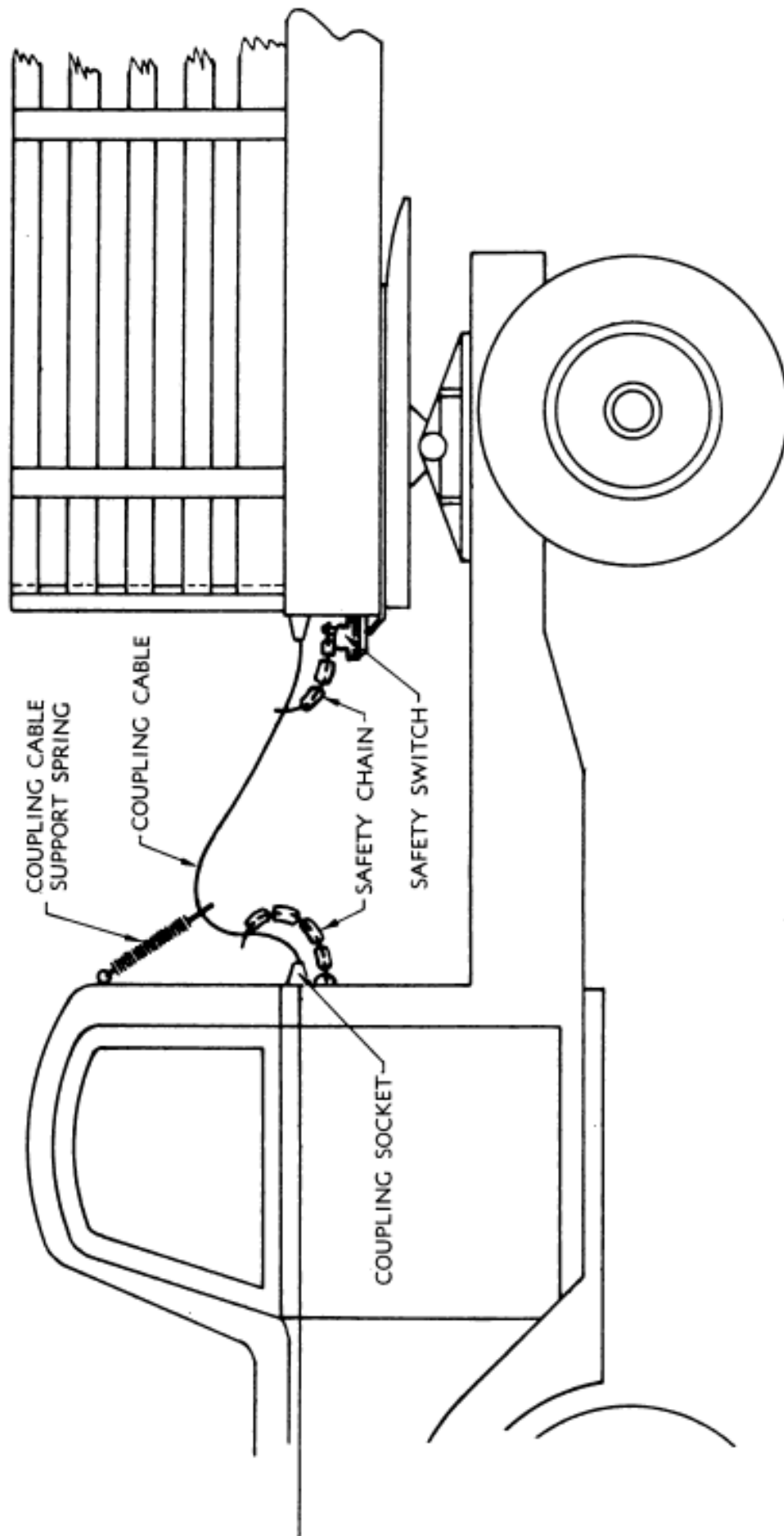
c. Brake And Light Connections. To connect the electric brake control and lights, lift up the socket cover at the rear of the tractor-truck cab and insert one end of the cable. Next, lift up the socket cover at the front end of the trailer and insert the other end of the cable (fig. 3). **NOTE:** If the safety chains have been disconnected from the cable, connect them as outlined in **b** of this paragraph.

d. Brake Operation (fig. 9). The brakes are internal expanding mechanical brakes operated by an electric magnetic clutch. The magnet remains stationary while the armature is bolted to the brake drum which revolves with the wheel. For maximum operation the brake requires about the same amount of current as used by a tail light. The brake controller is operated from the driver's seat and permits the operator to apply any degree of braking power. As the hand lever on the control box is moved, electric current flows through the electro-magnet. The current energizes the magnet and causes it to cling to the revolving armature disk. The more current the operator allows to reach the magnet the tighter it clings to the armature disk. This causes the magnet to move. Attached to the

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Figure 3 — Coupling Cable And Safety Switch