TM 9-811 WAR DEPARTMENT TECHNICAL MANUAL

4-TON, 6x6 TRUCKS
(DIAMOND T MODELS
96.8A CARGO,
969A WRECKER,
970A PONTON,
AND 972 DUMP)

WAR DEPARTMENT TECHNICAL MANUAL

*TM 9-811

4-TON, 6x6 TRUCKS (DIAMOND T MODELS 968A CARGO, 969A WRECKER, 970A PONTON, AND 972 DUMP)



WAR DEPARTMENT
25 January 1944

*This manual supersedes TB 811-1 dated 22 October 1943. This manual also contains pertinent information from TM 10-1297, TM 10-1335, TM 10-1517, TM 10-1533, TM 10-1605, and TM 10-1607, and, together with TM 9-1811 and TM 9-1832A, supersedes these manuals.

WAR DEPARTMENT Washington 25, D. C., 25 January 1944

TM 9-811, 4-ton, 6 x 6 Trucks (Diamond T Models 968A Cargo, 969A Wrecker, 970A Ponton, and 972 Dump) is published for the information and guidance of all concerned.

[A. G. 300.7 (3 June 43)]

By Order of the Secretary of War:

G. C. MARSHALL, Chief of Staff.

OFFICIAL:

J. A. ULIO,

Major General,

The Adjutant General.

DISTRIBUTION: X

(For explanation of symbols, see FM 21-6)

CONTENTS

PART ONE-VEHICLE OPERATING INSTRUCTIONS

Section I	Testero duration	Paragraph:	Pages 5– 6
		_	
11		2-4	7–23
III	6	5–8	24–37
IV	Operation of auxiliary equipment	9–13	38-53
v	Operation under unusual conditions	14–19	54–66
VI	Inspection and preventive maintenance service	20-24	67–76
VII	Lubrication	25-26	77–84
VIII	Tools and equipment stowage		
	on vehicles	27–31	85–96
PART T	WO-VEHICLE MAINTENANCE IN	STRUCTIO	NS
Section IX	FSMWO and major unit as- sembly replacement record.	32	97
х	Organizational tools and equip- ment	33	98
X	New vehicle run-in test	34-36	99-103
XII	Organization preventive main- tenance services	37	104–118
XIII	Trouble shooting	38-56	119–133
XIV			
	justment in vehicle	57-68	134–148
xv	Engine removal and installation	69–70	149–154
XV.	Clutch	71–74	155-160
xvi	I Fuel system	75-79	161–169
XVII	Intake and exhaust systems	80-82	170-173
XIX	Cooling system	83-88	174–186
xx		89-92	187-192
xx		93-95	193-198
XXI		96–99	199–202

4-TON, 6 x 6 TRUCKS (DIAMOND T MODELS 968A CARGO, 969A WRECKER, 970A PONTON, AND 972 DUMP)

		Paragraphs	Pages
SECTION XXIII	Batteries and lighting system.	100-102	203-218
XXIV	Transmission	103-105	219-225
xxv	Transfer	106–109	226-232
XXVI	Propeller shafts and universal		
	joints	110–112	233–239
XXVII	Front axle	113–117	240–245
XXVIII	Rear axles	118–121	246–249
XXIX	Brakes	122-136	250-279
xxx	Wheels	137–139	280-291
XXXI	Suspension	140-144	292-307
XXXII	Steering	145–149	308-311
XXXIII	Frame and bodies	150-154	312-320
XXXIV	Power take-off	155–157	321–323
xxxv	Front-mounted winch	158–163	324-330
XXXVI	Wrecker	164–171	331–343
XXXVII	Wrecker air compressor	172–176	344–348
XXXVIII	Dump pump and hoist	177–179	349–354
XXXIX	Cab	180-184	355–361
XL	Sheet metal	185–190	362-368
XLI	Instruments	191–198	369-372
XLII	Radio interference suppression	199-203	373–378
XLIII	Shipment and temporary		
	storage	204–206	379–383
References			384–385
INDEX			386

PART ONE—VEHICLE OPERATING INSTRUCTIONS

Section I

INTRODUCTION

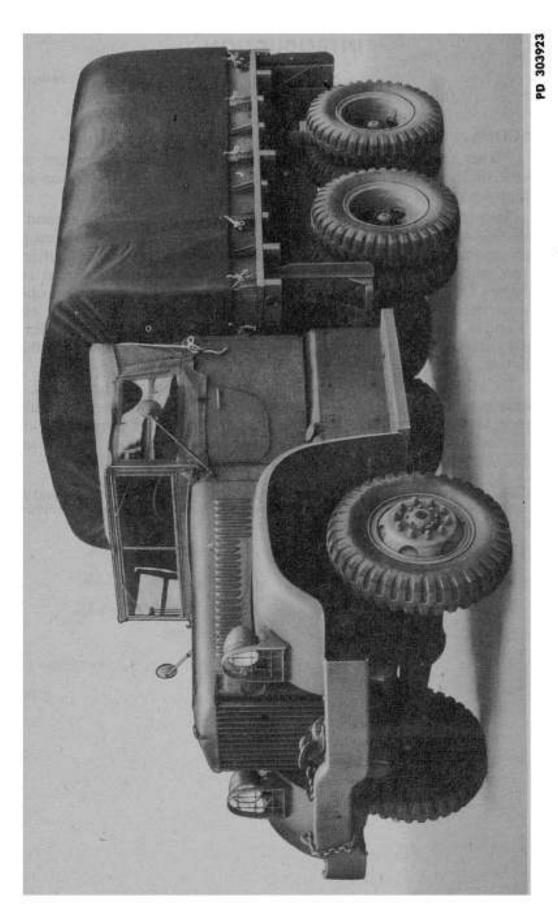
									Pα	ragrap
Scope	 	 	 	 	 ٠.	 	 	 		1

1. SCOPE.

- a. *This technical manual is published for the information and guidance of the using arm personnel charged with the operation and maintenance of this material.
- b. In addition to a description of the 4-ton, 6 x 6 truck (Diamond T, Models 968A Cargo, 969A Wrecker, 970A Ponton, and 972 Dump), this manual contains technical information required for the identification, use, and care of the material. The manual is divided into two parts. Part One, section I through section VIII, contains vehicle operating instructions. Part Two, section IX through section XLIII, contains vehicle maintenance instructions for the using arm personnel charged with the responsibility of doing maintenance work within their jurisdiction.
- c. In all cases where the nature of the repair, modifications, 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.

^{*}To provide operating instructions with the materiel, this technical manual has been published in advance of complete technical review. Any errors or omissions will be corrected by changes, or, if extensive, by an early revision.

4-TON, 6 x 6 TRUCKS (DIAMOND T MODELS 968A CARGO, 969A WRECKER, 970A PONTON, AND 972 DUMP)



Section II

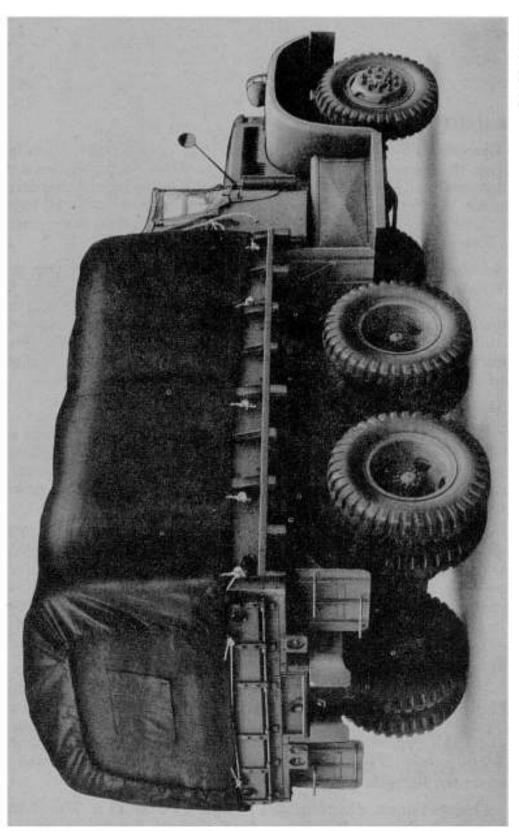
DESCRIPTION AND TABULATED DATA

		P	aragraph
Description	 	 ÷	. 2
Designations	 		. 3
Data	 		. 4

2. DESCRIPTION.

- a. General. The various models covered by this publication are all built on the same basic chassis, which is a 4-ton, 6 x 6 job, powered with a conventional six-cylinder gasoline engine. A five-speed overdrive transmission and a direct and underdrive transfer are used on all models. All three axles are driving axles of conventional double-reduction design. Rear axles are dual-wheeled.
- b. Identification. The four chassis are similar in appearance, and are built with open-type and closed-type cabs. These vehicles may be recognized by the design of the cabs, the contour of the fenders, and the appearance of the hood and radiator. The axle housings are clearly visible under the vehicle, and may be recognized as the banjo type. The vehicles may be positively identified by the nomenclature plate mounted on the left cowl side under the hood.
 - Differences among Models (figs. 1, 2, 3, and 4).
- (1) CARGO TRUCK (MODEL 968A). The cargo truck is built on the standard 4-ton, 6 x 6 chassis. Special equipment consists of a standard-type wooden cargo body with a tarpaulin top and troop seats, a power-driven, front-mounted winch, and two spare tires. The power take-off is mounted on the transmission.
- (2) WRECKER TRUCK (MODEL 969A) (figs. 5, 6, 7, and 8). The wrecker truck is built on the standard 4-ton, 6 x 6 chassis. Special equipment consists of a steel wrecker body, twin boom power-driven wrecker equipment, welding tanks and equipment, a gasoline-driven air compressor unit, a power-driven front-mounted winch, and two spare tires. The power take-off which drives the wrecker equipment is mounted on the transfer, and the power take-off which drives the winch is on the transmission.
- (3) PONTON TRUCK (MODEL 970A) (figs. 9 and 10). The ponton truck is built on a chassis which is the same as the standard 4-ton, 6 x 6 chassis, except that it has a longer wheelbase (par. 5). Special equipment consists of a standard-type wooden ponton body, with a tarpaulin top and a power-driven front-mounted winch. The power take-off is mounted on the left side of the transmission.
- (4) DUMP TRUCK (MODEL 972) (figs. 11 and 12). The dump truck is built on the standard 4-ton, 6 x 6 chassis. Special equipment consists of a steel dump body, with power-driven hoist equipment. The power take-off for the hoist is mounted on the transfer case. There is no winch on this model.

4-TON, 6 x 6 TRUCKS (DIAMOND T MODELS 968A CARGO, 969A WRECKER, 970A PONTON, AND 972 DUMP)



RA PD 303924

Figure 2—Model 968A Cargo Truck with Open Cab—2/3 Rear

DESCRIPTION AND TABULATED DATA



