

# TM 9-801

## WAR DEPARTMENT TECHNICAL MANUAL

---

**RESTRICTED—Dissemination of restricted matter.** The information contained in restricted documents and the essential characteristics of restricted materiel may be given to any person known to be in the service of the United States and to persons of undoubted loyalty and discretion who are cooperating in Government work, but will not be communicated to the public or to the press except by authorized military public relations agencies. (See also paragraph 23b, AR 380-5, 15 March 1944.)

---

# TRUCK, 2½ TON, 6x6 GMC CCKW-352 & 353



# WAR DEPARTMENT TECHNICAL MANUAL

\*TM 9-801

---

RESTRICTED

## TRUCK, 2½-TON, 6 x 6 (GMC CCKW-352 and 353)



*WAR DEPARTMENT*  
*24 APRIL 1944*

---

\* This manual, together with TM 9-1801 and TM 9-1802A, supersedes the following manuals:

TM 10-1105, 18 Jul 1941  
TM 10-1147, 26 Aug 1941  
TM 10-1253, 8 Oct 1941

TM 10-1269, 19 Jan 1942  
TM 10-1501, 12 Jul 1941  
TM 10-1563, 1 Jul 1942

In addition, this manual supersedes the following:

TM 9-801, 12 Apr 1943  
OFSTB 801-1, 6 Apr 1943  
OFSTB 10-1147-1, 6 Apr 1943

OFSTB 10-1501-1, 6 Apr 1943  
OFSTB 801-4, 24 Jan 1943

It also supersedes applicable portions of the following:

OFSTB 800-15, 14 Jul 1943  
TB ORD 13, 12 Jan 1944  
TB ORD 20, 24 Jan 1944

TB ORD 26, 9 Feb 1944  
TB ORD 32, 18 Feb 1944

---

**WAR DEPARTMENT**  
**Washington 25, D.C., 24 April 1944**

TM 9-801, 2½-ton 6x6 Truck (GMC CCKW-352 and 353) is published for the information and guidance of all concerned.

[A.G. 300.7 (20 Nov 43) ]

BY ORDER OF THE SECRETARY OF WAR:

**G. C. MARSHALL,**  
*Chief of Staff.*

OFFICIAL:

**J. A. ULIO,**  
*Major General,*  
*The Adjutant General.*

DISTRIBUTION: D 7 (5); B 18 (2); R 9 (4); Bn 2,4,5,6,7,8,9,17,  
18, 44 (2); C 9 (8); IC 2,4,6,7,8,10,17,18,44 (2).

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

# TRUCK, 2½-TON, 6 x 6 (GMC CCKW-352 & 353)

---

## CONTENTS

### PART ONE—GENERAL

SECTION		Paragraphs	Pages
	I. Introduction.....	1-2	5-6
	II. Description and tabulated data..	3-5	6-19
	III. Tools, parts, and accessories.....	6-10	20-27
<b>PART TWO—OPERATING INSTRUCTIONS</b>			
	IV. Controls and instruments.....	11-15	28-35
	V. Operation under usual conditions	16-23	35-54
	VI. Operation of auxiliary equipment	24-28	54-69
	VII. Operation under unusual condi- tions.....	29-35	69-79
<b>PART THREE—MAINTENANCE INSTRUCTIONS</b>			
	VIII. Lubrication.....	36-37	80-98
	IX. New vehicle run-in test.....	38-40	99-103
	X. First echelon preventive mainte- nance service.....	41-45	103-114
	XI. Second echelon preventive maintenance.....	46	114-137
	XII. Power plant trouble shooting and diagnosis.....	47-59	137-150
	XIII. Power train and miscellaneous trouble shooting and diagnosis.	60-74	150-161
	XIV. Engine description, data, mainte- nance, and adjustment on vehicle.....	75-82	161-177
	XV. Engine removal and installation.	83-85	178-186
	XVI. Ignition system.....	86-90	186-196
	XVII. Fuel and air intake system.....	91-101	196-215

**CONTENTS**

SECTION	Paragraphs	Pages
XVIII. Exhaust system . . . . .	102-105	215-219
XIX. Cooling system . . . . .	106-112	220-230
XX. Starting system . . . . .	113-115	230-233
XXI. Generating system . . . . .	116-118	233-238
XXII. Battery and lighting system . . . . .	119-125	238-249
XXIII. Wiring, harnesses, and circuits . . . . .	126-128	249-260
XXIV. Radio noise suppression system . . . . .	129-134	260-272
XXV. Instruments, gages, and switches . . . . .	135-148	272-283
XXVI. Clutch and controls . . . . .	149-152	284-288
XXVII. Transmission . . . . .	153-155	288-292
XXVIII. Power take-off and controls . . . . .	156-158	292-301
XXIX. Transfer case and control . . . . .	159-162	301-309
XXX. Front axle . . . . .	163-169	309-320
XXXI. Rear axles . . . . .	170-174	321-325
XXXII. Propeller shafts, universal joints, and pillow block . . . . .	175-177	325-329
XXXIII. Service brake system . . . . .	178-191	329-361
XXXIV. Hand brake system . . . . .	192-196	361-366
XXXV. Wheels, tires, and hubs . . . . .	197-202	366-386
XXXVI. Steering system . . . . .	203-207	386-392
XXXVII. Front and rear spring suspension . . . . .	208-213	392-403
XXXVIII. Frame . . . . .	214-219	404-412
XXXIX. Cab and associated parts . . . . .	220-224	412-418
XL. Sheet metal . . . . .	225-228	419-424
XLI. Cargo and dump bodies . . . . .	229-232	424-431
XLII. Gasoline and water tank bodies . . . . .	233-234	431-440
XLIII. Winch and controls . . . . .	235-242	440-448
XLIV. Power hoist and controls . . . . .	243-249	448-463

**APPENDIX**

XLV. Shipment and temporary storage . . . . .	250-252	463-469
XLVI. References . . . . .	253-255	469-471
Index . . . . .		472-480

## PART ONE—GENERAL

### Section I

## INTRODUCTION

### 1. SCOPE.

a. These instructions are published for the information and guidance of the personnel to whom this equipment is assigned. They contain information on the operation and maintenance of the Truck, 2½-Ton, 6x6, GMC CCKW-352 and 353, as well as descriptions of the major units and their functions in relation to the other components of this vehicle.

b. This manual has the following arrangement:

(1) Part One, General, contains description and data. It lists the tools, spare parts, and equipment carried on the vehicle. It also lists organizational special tools for this vehicle.

(2) Part Two, Operating Instructions, contains instructions for the operation of the vehicle with description and location of the controls and instruments.

(3) Part Three, Maintenance Instructions, contains information needed for the performance of the scheduled lubrication and preventive maintenance services, and instructions for maintenance operations which are the responsibility of the using organizations (first and second echelons). Stock numbers in this part were obtained from the Organizational Spare Parts and Equipment List of SNL G-508, 29 December 1943.

(4) The Appendix contains instructions for shipment and temporary storage, and a list of references including standard nomenclature lists, technical manuals, and other publications applicable to the vehicle.

### 2. RECORDS.

a. Forms and records applicable for use in performing prescribed operations are listed below with brief explanations of each.

(1) STANDARD FORM NO. 26, DRIVER'S REPORT—ACCIDENT, MOTOR TRANSPORTATION. One copy of this form will be kept with the vehicle at all times. In case of an accident resulting in injury or property damage, it will be filled out by the driver on the spot or as promptly as practical thereafter.

(2) WAR DEPARTMENT FORM NO. 48, DRIVER'S TRIP TICKET AND PREVENTIVE MAINTENANCE SERVICE RECORD. This form, properly executed, will be furnished to the driver when his vehicle is dispatched on non-tactical missions. The driver and the official user of the vehicle will complete in detail appropriate parts of this form. These forms need not be issued for vehicles in convoy or on tactical missions. The reverse side of this form contains the driver's daily and weekly preventive maintenance service reminder schedule.

(3) W.D., A.G.O. FORM NO. 478, MWO AND MAJOR UNIT ASSEMBLY REPLACEMENT RECORD. This form will be used by all personnel completing a modification or major unit assembly (engine,

**TRUCK, 2½-TON, 6 x 6**

transmission, transfer case, and tracks) replacement to record clearly the description of work completed, date, vehicle hours, and/or mileage, and MWO number or nomenclature of unit assembly. Personnel performing the operation will initial in the column provided. Minor repairs, parts, and accessory replacements will not be recorded.

(4) W.D., A.G.O. FORM NO. 6, DUTY ROSTER. This form, slightly modified, will be used for scheduling and maintaining a record of vehicle maintenance operations. It may be used for lubrication records.

(5) W.D., A.G.O. FORM NO. 461, PREVENTIVE MAINTENANCE SERVICE AND TECHNICAL INSPECTION WORK SHEET FOR WHEELED AND HALF-TRACK VEHICLES. This form will be used for all 1,000-mile (monthly) and 6,000-mile (semi-annual) maintenance services and all technical inspections performed on wheeled or half-track vehicles.

(6) W.D., O.O. FORM NO. 7353, SPOT-CHECK INSPECTION REPORT FOR ALL MOTOR VEHICLES. This form may be used by all commanding officers or their staff representatives in making spot-check inspection on all vehicles.

(7) W.D., A.G.O. FORM NO. 468, UNSATISFACTORY EQUIPMENT RECORD. This form will be used for reporting manufacturing, design, or operational defects in material with a view to improving and correcting such defects, and for use in recommending modifications of material. This form will not be used for reporting failures, isolated material defects, or malfunctions of material resulting from fair wear and tear or accidental damage, nor for the replacement, repair, or the issue of parts and equipment. It does not replace currently authorized operational or performance records.

(8) W.D., O.O. FORM NO. 7370, EXCHANGE PART OR UNIT IDENTIFICATION TAG. This tag, properly executed, may be used when exchanging unserviceable items for like serviceable assemblies, parts, vehicles, and tools.

---

**Section II****DESCRIPTION AND TABULATED DATA****3. DESCRIPTION.**

a. **General.** Vehicles described in this manual are designated as *TRUCK, 2½-ton, 6 x 6, GMC CCKW-352 and 353*. The vehicles are equipped with one driving front axle and two driving rear axles, and six driving wheels. Conventionally mounted open type cab is used on all vehicles with either cargo, cargo-dump, gasoline tank, or water tank body. In addition to special purpose use, depending upon type of body, vehicles may also be used for towing tractors, guns, and other wheeled equipment.

**b. General Characteristics.**

(1) **POWER PLANT.** Six-cylinder, in-line, valve-in-head engine



**DESCRIPTION AND TABULATED DATA**



LEFT FRONT VIEW



RIGHT REAR VIEW

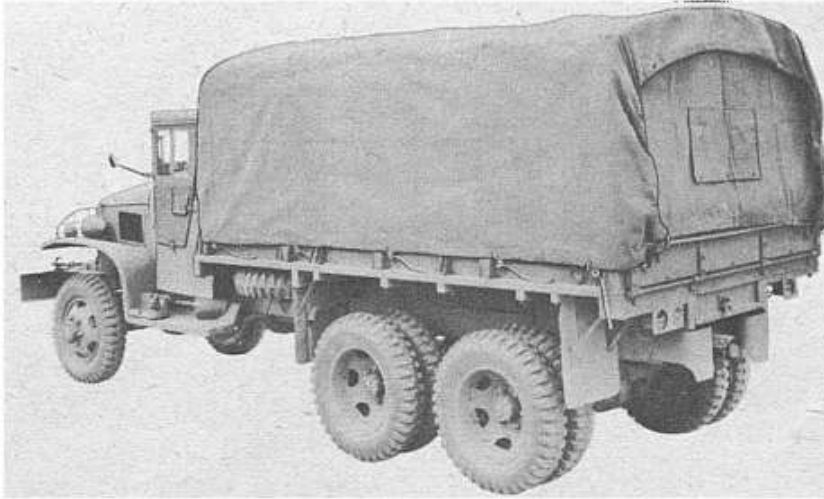


STRAIGHT FRONT VIEW

**Figure 1—CCKW-352 (Short Wheelbase) with Cargo Body  
and Winch—Less Tarpaulin**

RA PD 332854

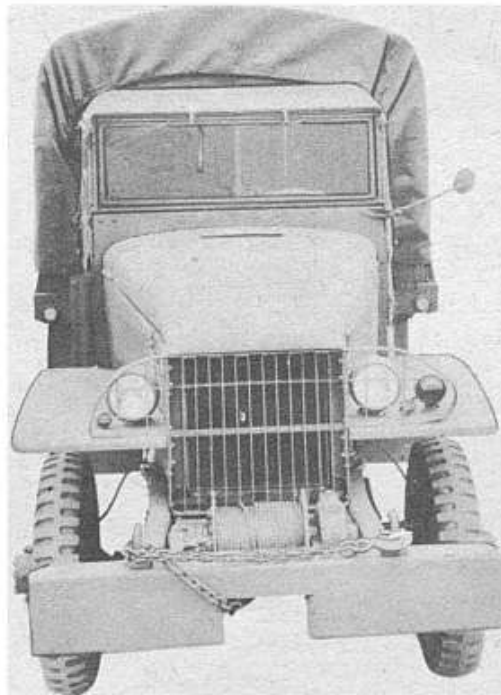
**TRUCK, 2½-TON, 6 × 6**



LEFT REAR VIEW



LEFT FRONT VIEW



STRAIGHT FRONT VIEW

**Figure 2—CCKW-353 (Long Wheelbase) with Cargo Body  
and Winch—Tarpaulin Installed**

RA PD 332891