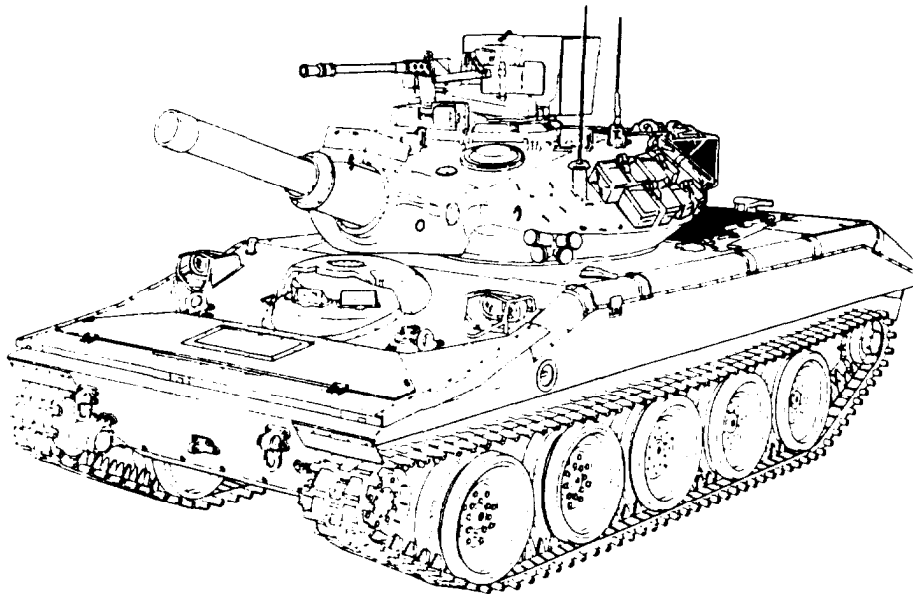


**DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL
FOR
HULL, SUSPENSION, AND MISCELLANEOUS HULL COMPONENTS
OF THE
ARMORED RECONNAISSANCE/AIRBORNE ASSAULT VEHICLE:
FULL-TRACKED, 152-MM GUN/LAUNCHER
M551A1 (2350-00-140-5151)
AND
M551NTC (2350-01-115-1579)**



Approved for public release; distribution is unlimited.

**HEADQUARTERS, DEPARTMENT OF THE ARMY
August 1978**

Change 2

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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

a. This manual contains instructions for direct support and general support of hull, suspension, final drive, and miscellaneous components for the Armored Reconnaissance/Airborne Assault Vehicle: Full Tracked, 152mm M551/M551A1 (figs. 1-1 and 1-2).

b. Other pertinent publications applicable to the M551 vehicle are listed in appendix A.

c. Direct support and general support maintenance procedures will be performed in accordance with the maintenance allocation chart (TM 9-2350-230-20-1).

1-2. Maintenance Forms and Records

a. *Authorized Forms.* For a listing of all authorized forms, refer to DA Pam 310-2. Maintenance forms and records which you are required to use are listed and explained in TM 38-750.

b. *Field Report Accidents.*

(1) Injury to personnel or damage to materiel (AR 385-40).

(2) Accident or malfunction of ammunition (AR 75-1).

c. *Equipment Improvement Recommendations* (EIR's). Refer to TM 38-750.

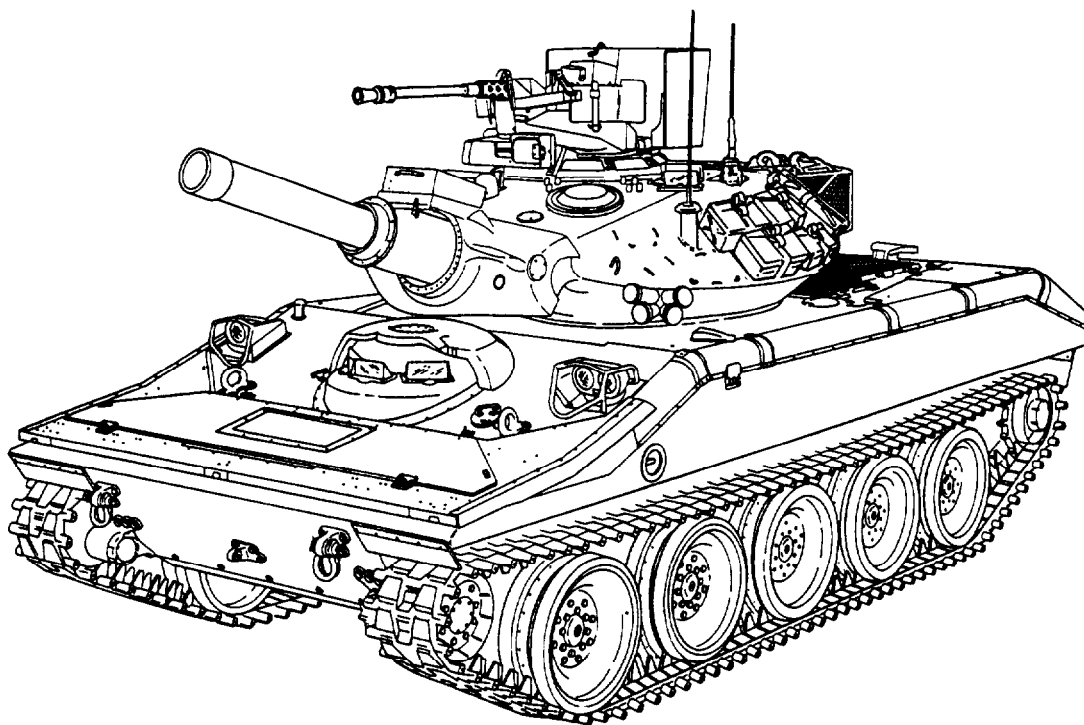


Figure 1-1. Armored reconnaissance/airborne assault vehicle: full tracked, 152mm M551/M551A1 — left front view.

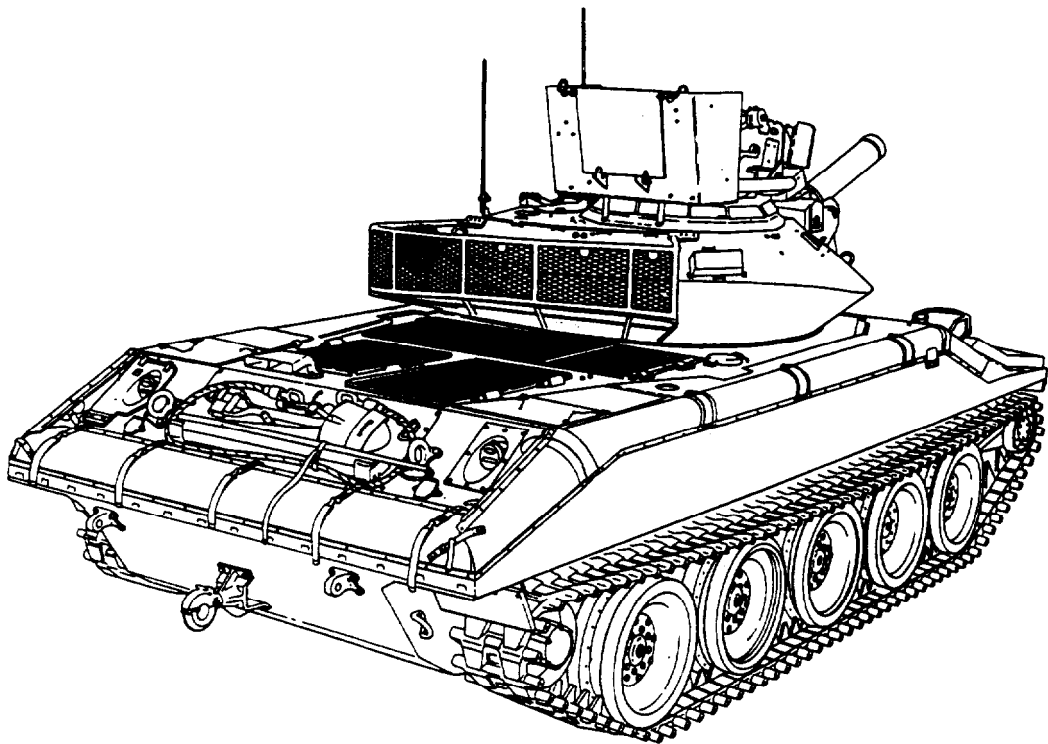


Figure 1-2. Armored reconnaissance/airborne assault vehicle: full tracked, 162mm M551/M551A1 — right rear view.

1-3. Calibration

All inspection and test equipment used in conjunction with the vehicle shall be controlled in accordance with requirements of Mil-Std-120, Mil-I-45607, and Mil-C-45662.

1-4. Quality Assurance/Quality Control

All parts repaired and/or replaced must conform to the standards published in this manual.

1-5. Reporting Equipment Improvement Recommendations (EIR)

EIR can and must be submitted by anyone who is aware of an unsatisfactory condition with the equipment design or use. It is not necessary to show a new design or list a better way to perform a procedure; just tell why the design is unfavorable or why a procedure is difficult. EIR may be submitted on SF368 (Quality Deficiency Report). Mail directly to: Commander, U.S. Army Tank-automotive and Armaments Command, AMSTRA-IM-MCP, Warren, MI 48397-5000. A reply will be furnished to you.

Section II. DESCRIPTION AND TABULATED DATA

1-6. Description

A description of the M551 Vehicle is contained in TM 9-2350-230-20-1.

1-7. Tabulated Data

Data furnished in table 1-1 is supplemental to data contained in TM 9-2350-230-20-1

Table 1-1. Installation References-Hull Items

Installation drawing title	Number	Weight in pounds	Paragraph
Air cleaner	10952493	36	
Hull left ammo rack	10956129	77	
Hull right ammo rack	10956150	68	
Batteries, relay and insulation	10952480	328	
Front bilage pump	11605368	30	3-44a
Rear bilage pump	10955410	43	3-44a
Brake control	11605434	54	
Cooling system	10954304	381	3-13
Driver's hood and rotatable hatch	10954628	533	2-10 and 3-37a

Table 1-1. Installation References - Hull Items - Continued

Installation drawing title	Number	Weight in pounds	Paragraph
Engine, aluminum block	10947063	1120	3-3
Engine, cast iron block	11669078	1440	3-3
Engine electrical	10948679	147	3-29a
Engine exhaust system	10949045	37	
Escape hatch	11644573	142	
Engine mounts	10948435	77	
Final drive shaft	10948876	51	
Fire extinguisher and fuel shutoff control	10955943	72	
Fuel system	11605618	318	2-10 and 3-11
Flotation barrier	10955592	203	3-37a
Headlights	10955329	34	
Hull assembly (complete)	11605220	7357	
Hull electrical	10948730	74	3-29a
Hull stowage	11594022	30	
Ground intercom door	10955870	7	
Land steer control	10949116	17	
Personnel heater	11605663	47	3-44b
Water steer shift control	11593477	8	
Power plant w/aluminum engine block	10948700	2611	3-3
Power plant w/cast iron engine block	10948700	2931	3-3
Shift control	11593544	11	
Surfboard	11605558	239	3-39
Suspension	10948525	7323	3-35
Taillights	10955691	10	
Accelerator and throttle controls	11605433	15	
Trans. oil cooler hoses	10948645	10	
Winterization kit	10955778 11678893	59	3-45a
Transmission	8356300	1316	3-3

1-8. Repair Parts, Special Tools, TMDE, and Support Equipment

a. Special Tools and Equipment Refer to table 1-2 and TM 9-2350-230-24P/1.

b. Spares and Repair Parts. Authorized repair parts are listed in TM 9-2350-230-24P/1.

c. Common Tools and Equipment Standard tools and equipment are authorized by tables of allowances

(TA) and tables of organization and equipment (TOE).

d. Improvised Tool. A stand, illustrated in figure 1-8, used to support the power plant may be fabricated locally by shops if they are engaged in repairing a number of identical components.

NOTE

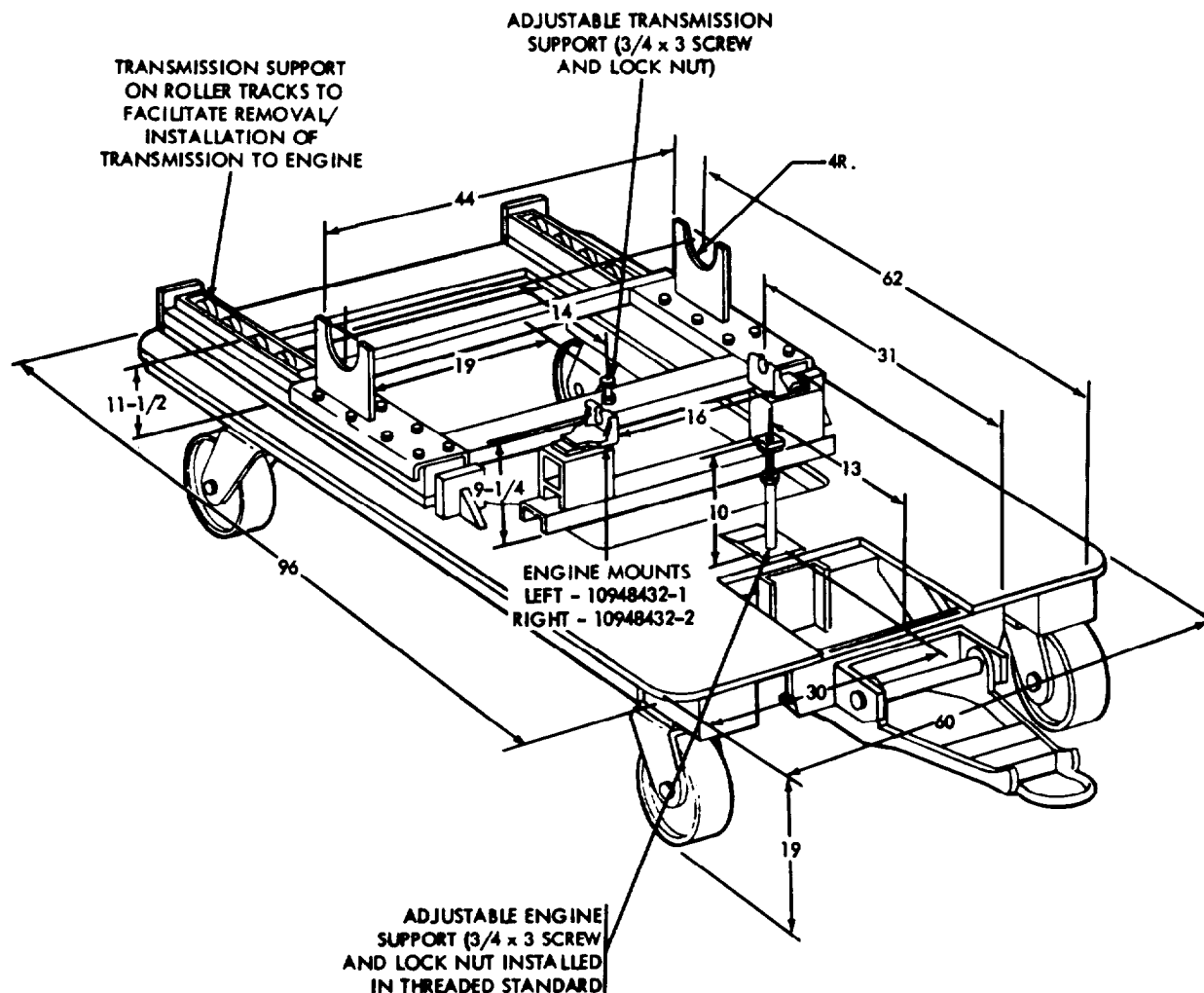
Improvised tools are not available for issue.

Table 1-2. Special Tools and Equipment

Item and identifying number	Paragraph	Figure	Use
Handle 5120-00-034-0884 (10914146)	3-35 and 3-36	3-81 and 3-82	Used with remover end replacers 5120-00-906-1058, 5120-00-907-1059, and replacer 5120-00-907-0697.
Remover and Replacer 5120-00-906-1059 (10954003-2)	3-35 and 3-36	3-81 and 3-82	Used with handle 5120-00-034-0884 to install roadwheel arm support housing inner bearing and to remove idler wheel hub bearing cup.
Remover and Replacer 5120-00-906-1058 (10954003-3)	3-35	3-81	Used with handle 5120-00-034-0884 to install roadwheel arm support housing outer bearing.
Remover and Replacer 5120-00-119-5244 (10922980)		3-81	To remove and install bearings in track hydraulic adjuster.
Replacer 5120-00-907-0697 (10954001)	3-36	3-82	Used with handle 5120-00-034-0884 to install inner and outer bearing cups in idler hub.
Tool, Stall Check 4910-00-907-0703 (8355989)	3-6	3-5	To stall check engine and/or transmission with power plant removed from vehicle.
Spanner Wrench NSN 5120-00-907-0698	3-17	3-21	Used in the removal/installation of the cooling fan system.
Open-end, Adjustable Wrench 5120-00-449-8084	3-17	3-21	Used in the removal/installation of the cooling fan system.

Table 1-2. Special Tools and Equipment - Continued

Item and identifying number	Paragraph	Figure	Use
Puller Kit NSN 5120-00-423-1596	3-18	3-27	Used in the removal/installation of the cooling fan system.
Heavy Duty Special Pliers NSN 5120-00-293-0186	3-19	3-32	Used in the removal/installation of retaining rings.
Torque Wrench NSN 5120-00-247-2540 or NSN 5120-00-640-6364	3-20	3-34	Used in the removal/installation of the cooling fan system
Socket Wrench 7/8-inch HD NSN 5130-00-227-6677	3-27	3-47	Used in torquing operation after heated pulley is positioned on clutch.
Impact Socket NSN 5130-00-449-7698	3-27	3-47	Used in torquing of multipiece pulley.
Torque Wrench NSN 5120-00-247-2536	3-27	3-47	Used in torquing of multipiece pulley.
Torque Wrench NSN 5120-00-221-7983	3-27	3-47	Used in torquing of multipiece pulley.



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Figure 1-3. Power plant stand (improved).