

**TECHNICAL MANUAL
ORGANIZATIONAL MAINTENANCE MANUAL
FOR
TRUCK, CHASSIS: 5-TON, 6X6
M39, M39A2, M40, M40A1, M40A2, M40A1C, M40A2C,
M61, M61A1, M61A2, M63, M63A1,
M63A2, M63C, M63A1C, M63A2C, M63A1D, M63A2D,
M139A1, M139A2, M139C, M139A2C, M139D,
M139A2D, M139F, M139A1F,
M139A2F; TRUCK, CARGO: M41, M41A2, M54, M54A1,
M54A2, M54A1C, M54A2C, M55, M55A1, M55A2;
TRUCK, DUMP: M51, M51A1, M51A2;
TRUCK, TRACTOR: M52, M52A1, M52A2, ;
TRUCK, TRACTOR, WRECKER: M246, M246A1,
M246A2; TRUCK, VAN, EXPANSIBLE:
M291A1, M291A2, M291A1C, M291A2C, M291A1D,
M291A2D; TRUCK, WRECKER, MEDIUM:
M62, M543, M543A1, M543A2; TRUCK, BRIDGING,
M139, M328A1, M328A2; TRUCK, LOGGING,
M748A1, M748A2.**

HEADQUARTERS, DEPARTMENT OF THE ARMY

This copy is a reprint which includes current
pages from Changes 1 through 3.

JUNE 1973

TECHNICAL MANUAL

No. 9-2320-211-20

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 1 June 1973

ORGANIZATIONAL MAINTENANCE MANUAL

FOR

TRUCK, CHASSIS: 5-TON, 6x6, M39, M39A2, M40, M40A1, M40A2t
M40A1C, M40A2C, M61, M61A1, M61A2, M63, M63A1, M63A2, M63C,
M63A1C, M63A2C, M63A1D, M63A2D, M139A1, M139A2, M139C,
M139A2C, M139D, M139A2D, M139F, M139A1F, M139A2F; TRUCK,
CARGO: M41, M41A2, M54, M54A1, M54A2, M54A1C, M54A2C, M55,
M55A1, M55A2; TRUCK, DUMP: M51, M51A1, M51A2; TRUCK,
TRACTOR: M52, M52A1, M52A2; TRUCK, TRACTOR,
WRECKER: M246, M246A1, M246A2; TRUCK, VAN, EX-
PANSIBLE: M291A1, M291A2, M291A1C, M2P1A2C, M291A1D,
M291A2D; TRUCK, WRECKER, MEDIUM: M62, M543, M543A1,
M543A2; TRUCK, BRIDGING: M139, M328A1, M328A2; TRUCK,
LOGGING, M748A1, M748A2.

		Paragraph	Page
CHAPTER	1. INTRODUCTION		
Section	I. General.	1-1	1-1
	II. Description and data	1-6	1-1
CHAPTER	2. ORGANIZATIONAL MAINTENANCE INSTRUCTIONS.		
Section	I. Service upon receipt of materiel	2-1	2-1
	II. Repair parts, special tools, and equipment	2-4	2-3
	III. Lubrication instructions	2-6	2-6
	IV. Preventive maintenance checks and services	2-8	2-6
	V. Troubleshooting the vehicle.. . . .	2-13	2-9
	VI. Troubleshooting the electrical system	2-15	2-20
	VII. Radio interference suppression.	2-36	2-71
	VIII. Field expedient repairs.. . . .	2-40	2-72
	IX. Engine maintenance in vehicle-gasoline	2-42	2-73
	X. Engine maintenance in vehicle-diesel	2-50	2-81
	XI. Engine maintenance in vehicle-multifuel	2-56	2-83
	XII. Maintenance of fuel system-gasoline	2-62	2-85
	XIII. Maintenance of fuel system-diesel and multifuel	2-76	2-94
	XIV. Maintenance of exhaust system-gasoline engine	2-99	2-111
	XV. Maintenance of exhaust system-diesel and multifuel	2-103	2-112
	XVI. Maintenance of cooling system	2-108	2-116
	XVII. Ignition system-gasoline engine	2-119	2-123
	XVIII. Maintenance of starting system-gasoline	2-123	2-128
	XIX. Maintenance of starting system—diesel and multifuel	2-127	2-129
	XX. Generator system	2-130	2-130
	XXI. Batteries and lighting system	2-133	2-131
	XXII. Wiring circuits and harnesses.. . . .	2-140	2-136

* This manual supersedes TM 9-2320-211-20, 29 March 1963, including all changes.

XXIII. Instrument cluster, switches, circuit breakers, sending units, horn, and directional signal controls,	2-142	2-137
XXIV. Maintenance of transmission	2-172	2-146
XXV. Maintenance of transfer	2-174	2-146
XXVI. Maintenance of propeller shafts, universal joints, and center bearing	2-178	2-147
XXVII. Maintenance of front axle	2-182	2-150
XXVIII. Maintenance of rear axle	2-184	2-151
XXIX. Maintenance of brake system.. . . .	2-188	2-152
XXX. Maintenance of compressed air system	2-198	2-161
XXXI. Maintenance of wheels, hubs, and drums	2-206	2-168
XXXII. Maintenance of steering system.	2-213	2-172
XXXIII. Maintenance of frame, towing attachments, and brackets	2-223	2-178
XXXIV. Maintenance of springs and shock absorbers,	2-230	2-181
XXXV. Maintenance of body, cab, and hood	2-235	2-185
XXXVI. Maintenance of dump body-M51, M51A1 and M51A2	2-241	2-187
XXXVII. Maintenance of expansible van body— M291A1, M291A1C, M291A1D, M291A2, M291A2C, M291A2D	2-246	2-195
XXXVIII. Maintenance of wrecker crane-M62, M246, M246A1, M246A2	2-279	2-212
XXXIX. Maintenance of wrecker M543, M543A1, M543A2	2-292	2-217
XL. Maintenance of front winch assembly	2-314	2-225
XLI. Maintenance of rear winch assembly-M62, M543, M543A1 and M543A2	2-319	2-228
XLII. Maintenance of body, chassis, and accessory items	2-329	2-233
XLIII. Maintenance of nonelectrical gages and measuring devices	2-332	2-233
CHAPTER 3. MAINTENANCE OF MATERIEL USED IN CONJUNCTION WITH MAJOR ITEM.		
Section I. Hot water personnel heater kit.. . . .	3-1	3-1
II. Gasoline personnel heater kit....	3-5	3-2
III. Fuel burning personnel heater kit-multifuel models	3-10	3-3
IV. Powerplant heaterkit—multifuel models	3-13	3-4
V. Primer pump	3-17	3-4
APPENDIX A. REFERENCES		A-1
B. MAINTENANCE ALLOCATION CHART		B-1
INDEX		Index-1

LIST OF ILLUSTRATIONS

Figure	Title	Page
1 - 1	Typical 5-ton truck, cargo	1 - 2
1 - 2	Typical 5-ton truck, tractor	1 - 2
1 - 3	Typical 5-ton truck, tractor, wrecker	1 - 3
1 - 4	Typical 5-ton truck, medium wrecker	1 - 3
1 - 5	Typical 5-ton truck, expansible van with rear lift platform	1 - 4
2 - 1	Deleted	2 - 1
2 - 2	Deleted	2 - 1
2-2.1	Deleted	2 - 2
2 - 3	Deleted	2 - 2
2 - 4	Special tools and equipment	2 - 4
2 - 5	Low-voltage circuit testers	2-24
2 - 6	Leads for electrical test equipment	2-24
2 - 7	Electrical test equipment adapter sets	2-25
2-7.1	Multimeter	2-26
2 - 8	Schematic layout of low-voltage circuit	2-27
2-8.1	DC voltage test with multimeter	2-29
2-8.2	AC voltage test with multimeter	2-30
2-8.3	Resistance test with multimeter	2-31
2-8.4	Continuity test with multimeter	2-31
2 - 9	General location of electrical components	2-33
2-10	Battery system	2-34
2-11	Battery voltage test	2-34
2-12	Load bank voltage test	2-34
2-13	Combined battery voltage check	2-35
2-14	Battery indicator	2-35
2-15	Battery indicator circuit	2-36
2-16	Generator adapter in place with connecting points shown	2-36
2-17	Regulator adapter in place with connecting points shown	2-36
2-18	Generating system wiring	2-37
2-19	Generator output test hook-up	2-37
2-20	Regulator voltage control test hookup	2-38
2-21	Regulator amperage control test hookup	2-39
2-22	Generator regulator line switch cut out test hookup	2-39
2-23	Starter circuit	2-40
2-24	Starter draw check at battery	2-41
2-25	Solenoid test hookup	2-41
2-26	Starter amperage draw test	2-42
2-27	Starter solenoid — diesel and multifuel	2-43
2-28	Starter switch test	2-44
2-29	Frame-to-battery cable ground loss test	2-44
2-30	Battery connector cable test	2-45
2-31	Battery-to-solenoid cable test	2-45
2-32	Starter solenoid-to-starter connector test	2-46
2-33	Instrument cluster—rear view	2-46
2-34	Electrical testing diagram	2-47
2-35	Ignition circuit test	2-49
2-36	Ignition circuit diagram	2-50
2-37	Distributor with cover removed	2-51
2-38	Lighting circuit diagram	2-53
2-39	Supplementary turn signal wiring diagram	2-54
2-39.1	Directional signal system solid state wiring diagram	2-55
2-40	Light switch positions	2-56
2-40.1	Directional signal system, tests 1 and 2	2-57
2-40.2	Directional signal system, tests 3,4, and 5	2-59
2-40.3	Directional signal system, tests 6 and 7	2-60
2-40.4	Directional signal system, test 8	2-61
2-41	Expansible van wiring diagram	2-62
2-41.1	Van body 24-volt dc system wiring diagram	2-63
2-41.2	Van body 24-volt dc system, tests 1, 2, and 3	2-64
2-41.3	Van body 120/208-volt ac system wiring diagram	2-65
2-41.4	Van body 120-volt lighting circuit, tests 1 and 2	2-66

LIST OF ILLUSTRATIONS—(Continued)

Figure	Title	Page
2-41.5	Van body 120/208-volt ac system, tests 1 and 2	2-67
2-41.6	Van body 120/208-volt ac system, test 3	2-68
2-41.7	Van body blackout relay system wiring diagram	2-69
2-41.8	Van body blackout relay system tests	2-70
2-42	Starter with cover removed	2-71
2-43	Carburetor and manifolds installed to right of engine	2-74
2-44	Top right view of installed engine	2-75
2-45	Adjusting valve clearance	2-77
2-46	Removing oil filter element	2-77
2-47	Removing filter housing	2-78
2-48	Removing filter base plate gasket	2-78
2-49	Removing crankcase breather cap and filter	2-78
2-50	Removing crankcase breather cup	2-78
2-51	Removing crankcase breather bracket and tube assembly	2-79
2-52	Lines and fittings	2-79
2-53	Diagram of clutch and control linkage	2-80
2-54	Adjusting rotochamber	2-81
2-55	Diesel engine oil filters	2-81
2-56	Filter housing base	2-82
2-57	Disconnecting lubrication line at turbocharger — diesel	2-82
2-58	Disconnecting lubrication line bracket at manifold heater housing — diesel	2-82
2-59	Disconnecting lubrication line at oil filter base — diesel	2-82
2-60	Crankcase breather assembly — exploded view	2-83
2-61	Multifuel engine oil filters	2-83
2-62	Replacing oil filter element	2-84
2-63	Disconnecting lubrication lines at turbocharger — multifuel models	2-84
2-64	Removing crankcase breather tube — multifuel models	2-85
2-65	Idle and throttle adjusting screws	2-86
2-66	Choke linkage	2-87
2-67	Top right section of cab cowl	2-89
2-68	Antidiesel control — carburetor with integral antidiesel valve	2-90
2-69	Antidiesel valve and controls — intake manifold modified degasser models	2-90
2-70	Fuel filter installed under left front fender	2-92
2-71	Lower right rear corner of cab	2-93
2-72	Air cleaner	2-94
2-73	Removing air cleaner locking mechanism	2-94
2-74	Pulling air cleaner element from housing	2-94
2-75	Removing rubber connectors and air cleaner tube	2-95
2-76	Removing air cleaner	2-95
2-77	Disconnecting rubber connector from air tube	2-95
2-78	Removing air tube	2-96
2-79	Disconnecting fuel shutoff control wire — diesel only	2-96
2-80	Removing fuel shutoff control from instrument panel	2-96
2-81	Removing shutoff valve — diesel only	2-97
2-82	Removing emergency fuel shutoff control wire — diesel only	2-97
2-83	Removing emergency fuel shutoff control from instrument panel — diesel only	2-97
2-84	Removing fuel shutoff control — multifuel only	2-97
2-85	Primary and secondary fuel filters — multifuel engine LDS465- 1	2-98
2-86	Fuel filter - exploded view - multifuel engine LDS 465-1	2-99
2-87	Accelerator and throttle linkage — diesel and multifuel	2-100
2-88	Fuel tank	2-101
2-89	Main tank on M51A2 model	2-101
2-90	Auxiliary tank	2-101
2-91	Braced fuel tank	2-101
2-92	Fuel transfer pump	2-102
2-93	Manifold heater supply and fuel return valves — multifuel engine LDS 465- 1	2-102
2-94	Fuel solenoid valves — multifuel engine LDS 465-1	2-103
2-95	Fuel filter - diesel models	2-103
2-96	Fuel filter exploded view	2-103
2-97	Secondary fuel filter - diesel models	2-104
2-98	Removing or installing element from fuel filter housing — diesel models	2-104

LIST OF ILLUSTRATIONS--(Contklued)

Figure	Title	Page
2-99	Spark plug	2-104
2-100	Injector nozzle	2-104
2-101	Removing spark plug housing.	2-105
2-102	Intake manifold, heater system components —multifuel models	2-105
2-103	Removing manifold heater wiring harness — multifuel models	2-107
2-104	Disconnecting electrical lead from manifold heater fuel pump diesel models	2-108
2-105	Disconnecting fuel lines at pump..	2-108
2-106	Removing manifold heater fuel pump	2-108
2-107	Removing ignition unit	2-109
2-108	Disconnecting electrical leads from coil	2-109
2-109	Removing coil from mounting plate	2-109
2-110	Disconnecting manifold heater fuel filter lines	2-109
2-111	Removing manifold heater fuel filter — multifuel models	2-110
2-112	Disconnecting electrical leads and fuel lines at two solenoids — diesel models	2-110
2-113	Removing two-valve solenoid assembly — diesel models	2-110
2-114	separating two solenoids from backing plate — diesel models	2-110
2-115	Muffler support and tailpipe	2-111
2-116	Removing front exhaust elbow clamp — diesel models	2-112
2-117	Removing front exhaust pipe — multifuel models	2-112
2-118	Removing exhaust pipe bracket.	2-112
2-119	Removing front exhaust pipe...	2-112
2-120	Removing center exhaust pipe front bracket	2-113
2-121	Removing center exhaust pipe rear bracket	2-113
2-122	Vertical exhaust stack - multifuel models — exploded view	2-114
2-122.1	Vertical exhaust stack - diesel models	2-115
2-123	Upper section of radiator - left rear view	2-116
2-124	Upper section of radiator - multifuel models	2-116
2-125	Radiator mounting	2-117
2-126	Removing radiator assembly	2-117
2-127	Drive belt adjustment	2-117
2-128	Adjusting drive belts	2-118
2-129	Drive belt deflection and adjustment	2-118
2-130	Removing fan and generator drive belts	2-119
2-131	Brush guard mountings	2-119
2-132	Removing fan	2-119
2-133	Removing fan pulley	2-119
2-134	Removing radiator stay rod from thermostat housing — gasoline models	2-120
2-135	Removing thermostats — gasoline models	2-120
2-136	Thermostat housing -multifuel models	2-120
2-137	Removing thermostat housing and thermostat — multifuel models	2-121
2-138	Removing thermostat and seal — multifuel models	2-121
2-139	Disconnecting thermostat housing-to-coolant pump hose and oil cooler inlet tube -multifue] models	2-121
2-140	Water pump – diesel engine...	2-122
2-141	Water pump –multifuel engine.	2-122
2-142	Timing light connected to adapters	2-123
2-143	Ignition timing indicator...	2-123
2-144	Ignition system — gasoline engine.	2-125
2-145	Positioning distributor breaker cam for distributor installation	2-125
2-146	Distributor assembly with cover attached	2-126
2-147	Checking distributor breaker lever spring tension	2-126
2-148	Checking and setting distributor contact point gap	2-126
2-149	Distributor with cover removed.	2-127
2-150	Starter and fuel pump installed on left rear side of engine	2-128
2-151	Starter and solenoid — diesel and multifuel models	2-130
2-152	Generator	2-131
2-153	Battery installation	2-132
2-154	Removing headlight rim....	2-132
2-155	Removing headlight retaining ring and sealed-beam lamp unit	2-133
2-156	Adjusting headlight	2-134
2-157	Headlight aiming diagram	2-134

LIST OF ILLUSTRATIONS—(Continued)

Figure	Title	Page
2-158	Removing parking and blackout marker lamp	2-135
2-159	Removing blackout driving light	2-135
2-160	Removing blackout driving light sealed-beam lamp unit	2-136
2-161	Locations of instruments and controls	2-138
2-162	Horn installed on vehicle (solenoid with mounting brackets)	2-139
2-163	Removing tachometer drive adapter	2-143
2-164	Horn installed in vehicle (solenoid without mounting brackets)	2-144
2-165	Directional signal control, removal and installation	2-145
2-166	Directional signal flasher unit — removal and installation	2-145
2-167	Directional signal control indicator — removal and installation	2-145
2-167.1	Removing transmission breather vent	2-146
2-168	Removing airshift lines and connectors	2-146
2-169	Diagram of axle driving propeller shafts	2-147
2-170	Yoke-mounted universal joint...	2-148
2-171	Propeller shaft assembly	2-148
2-172	Disassembly of universal joint...	2-149
2-173	Flange-mounted universal joint...	2-150
2-173.1	Steering knuckle boot removal and installation — outer retaining plate	2-151
2-173.2	Steering knuckle boot removal and installation — inner retaining clamp	2-151
2-174	Rear suspension system	2-152
2-175	Removing rear axle shaft	2-152.1
2-176	Handbrake mounted to rear of transfer	2-152.1
2-177	Brake pedal linkage with master cylinder attached	2-153
2-178	Turning brakeshoe adjusting cam.	2-153
2-179	Inspection cover attached to hub and drum assembly	2-153
2-180	Checking clearance between brakeshoe	2-154
2-181	Back side of backing plate assembly.	2-154
2-182	Brake and clutch pedal assembly mounted to vehicle	2-154
2-183	Brake master cylinder with pedal and linkage attached	2-156
2-184	Air hydraulic cylinder	2-157
2-185	Removing brakeshoe return spring.	2-158
2-186	Removing brakeshoes and anchor pins assembly	2-158
2-187	Removing handbrake shoe and lever assembly	2-160
2-188	Compressed air system piping diagram	2-161
2-189	Trailer brake coupling installed at front of vehicle	2-162
2-190	Checking and adjusting air compressor unloader	2-162
2-191	Air compressor air strainer (7539372) — exploded view	2-163
2-191.1	Air compressor air strainer (MS53005-1)	2-163
2-192	Air compressor (air cooled) -gasoline models	2-164
2-193	Loosening or tightening puller adjusting flange screws	2-164
2-194	Loosening or tightening air compressor pulley adjusting flange	2-164
2-195	Air compressor — multifuel models.	2-165
2-196	Air compressor governor (8330262) with air strainer disassembled	2-166
2-196.1	Air compressor governor (MS53006-1)	2-166
2-197	Air reservoirs installed to frame left side rail	2-167
2-198	Wheel and tire assembly with bolted-on type side ring (14.00x20 tires)	2-168
2-199	Wheel and tire assembly with snap-on type side ring (11.00x20 tires)	2-169
2-200	Hub assembly—cutaway view.	2-169
2-201	Removing hub and drum assembly.	2-169
2-202	Removing outer bearing adjusting nut	2-171
2-202.1	Steering piping installation, modification kit, P/N 11680896	2-172.2
2-203	Front wheel alignment	2-173
2-204	Front axle assembly with wheel and tire assembly removed	2-174
2-205	Steering gear unit	2-175
2-206	Removing steering wheel	2-175
2-207	Steering linkage under left fender.	2-175
2-208	Draglink assembly — exploded view	2-176
2-209	Removing hydraulic oil reservoir - gasoline and diesel models	2-177
2-210	Removing hydraulic oil reservoir — multifuel models	2-178
2-211	Pintle hook and safety chain shackle mounted to rear of vehicle	2-179

LIST OF ILLUSTRATIONS-(Continued)

Figure	Title	Page
2-212	Lifting shackle assembly	2-179
2-213	Fifth wheel - M52, M52A1, and M52A2	2-180
2-214	Approach plate - M52, M52A1, and M52A2	2-180
2-215	Center deckplate - M52, M52A1, and M52A2	2-180
2-216	Left front spring and shock absorber	2-182
2-217	Spring seat bearing adjustment.	2-183
2-218	Removing brush guard	2-185
2-219	Cab with tarpaulin removed	2-186
2-219.1	Driver's seat removal	2-187
2-219.2	Driver's seat cushion disconnect points	2-187
2-219.3	Driver's seat removal and installation	2-187
2-219.4	Driver's seat cushion removal and installation	2-187
2-219.5	Driver's seat backrest cushion removal and installation	2-188
2-219.6	Companion seat removal	2-188
2-220	Dump body troop seat accessory kit - M51, M51A2, and M51A2	2-188.2
2-221	Right front view of hydraulic pump mounting	2-188.2
2-222	Bottom view of control valve assembly with pump and adapter removed	2-189
2-223	Removing control valve assembly.	2-189
2-224	Hoist assembly flexible lines....	2-189
2-225	Installing seat hooks in slots....	2-190
2-226	Installing seat	2-191
2-227	Stowing seats	2-192
2-228	Seats, rack, bows, and safety strap.. . . .	2-193
2-229	Bow stowage racks	2-194
2-230	Van in operating position - rearview	2-196
2-231	Van body in retracted position - front interior view	2-197
2-232	Van electrical controls	2-198
2-233	Hinged roof-operated blackout switch	2-199
2-234	Ceiling fixtures and lights	2-200
2-235	Side panel counterbalance cables - disassembled view	2-201
2-236	Side panel locks	2-202
2-237	Sidepanel lock mechanism	2-202
2-238	Doorlocks and windows	2-204
2-239	Heater fuel pump - lines and connections	2-206
2-240	Bonnet door right-hand controls and linkage	2-206
2-241	Bonnet front door in opened position	2-207
2-242	Removing emergency and blackout lamp	2-209
2-243	Removing emergency and blackout light fixture	2-209
2-244	Fluorescent ceiling light fixture.	2-210
2-245	110-volt receptacle and blackout switch	2-212
2-246	Floodlight mounted on left side of shipper support	2-213
2-247	Floodlight - lamp and switch replacement	2-213
2-248	Removing or installing wiring harness - wrecker models	2-215
2-249	Electric brake lock mounted on frame left side rail	2-215
2-250	Hydraulic oil motor lines and restrictor valve	2-216
2-251	Hydraulic cylinder packing adjustment	2-217
2-252	Relief valve adjustment	2-218
2-252.1	Hydraulic system filter - partially exploded view	2-218.1
2-253	Governor override solenoid replacement	2-219
2-254	Removing or installing override switch	2-219
2-255	Removing or installing slipping brushes	2-220
2-256	Automatic brake band adjustment.	2-220
2-257	Hoist cable replacement	2-221
2-258	Boom foot end cable sheaves replacement	2-221
2-259	Attaching hoist cable connectors.	2-222
2-260	Patch plate over power divider assembly	2-223
2-261	Propeller shaft assembly replacement	2-223
2-261.1	Two-section shaft replacement	2-224
2-262	Adjusting boom roller assembly	2-224.1
2-263	Boom roller assembly replacement	2-225
2-264	Front winch - left rear view	2-225

LIST OF ILLUSTRATIONS—(Continued)

Figure	Title	Page
2-265	Front winch and propeller shaft — bottom view	2-226
2-266	Front winch and level wind installed to vehicle — right side view	2-226
2-267	Front winch and level wind — installed to vehicle	2-227
2-268	Rear winch — left rear view	2-228
2-269	Rear winch — top view of right end	2-229
2-270	Power divider installed to underside of M62 wrecker	2-229
2-271	Using crane to remove rear winch assembly	2-230
2-272	Rear end of M62 with floor plate raised — left side view	2-231
2-273	Underside of crane base plate (removed from M62)	2-231
2-274	Separating rear winch drive chain — M62, M543, M543A1, and M543A2	2-232
2-275	Cable guide rollers	2-233
2-275.1	Rear view mirror removal and installation	2-234
2-276	Tachograph chart divisions	2-237
2-277	Diagram scales	2-238
2-278	Speed recordings	2-239
2-279	Traveling and stationary times	2-239
2-280	Distances traveled	2-239
2-281	Engine rpm recording	2-240
2-282	Good driving	2-241
2-283	Bad driving	2-241
2-284	Speed and rpm diagram	2-242
2-285	Gear disengaged	2-242
2-286	Gradient driving (incorrect)	2-242
2-287	Gradient driving (correct)	2-242
2-288	Wrong gear	2-243
2-289	High rpm	2-243
2-290	Engine idling	2-243
2-291	Cold starting	2-243
2-292	Idling time	2-243
2-293	Lowered speed	2-244
2-294	No speed recorded	2-244
2-295	Interrupted recordings	2-245
2-296	Coinciding figures	2-245
2-297	Superimposed distance recordings	2-245
2-298	Constant speeds	2-245
2-299	Speed recordings	2-246
2-300	Vertical readings	2-246
3-1	Personnel heater kit — hot water	3-1
3-2	Heater unit — sideview	3-2
3-3	Removing lines and fittings - gasoline heater	3-3
3-4	Fuel filter	3-3
3-5	Removing primer pump	3-5
3-6	Decontamination apparatus location	3-5

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope

These instructions are for use by organizational level personnel. They apply to the following vehicles:

Truck, Cargo	5-Ton, 6x6, M41, M54, M54A1, M54A2, M55, M55A1, and M55A2.
Truck, Cargo, Dropside	5-Ton, 6x6, M54A1C, and M54A2C.
Truck, Dump	5-Ton, 6x6, M51, M51A1, and M51A2.
Truck, Tractor	5-Ton, 6x6, M52, M52A1, and M52A2.
Truck, Tractor, Wrecker	5-Ton, 6x6, M246, M246A1, and M246A2.
Truck, Van, Expansile	5-Ton, 6x6, M291A1, M291A2, M291A1C, M291A2C, M291A1D, and M291A2D.
Truck, Stake. Bridge Transporting.	5-Ton, 6x6, M139, M328A1, and M328A2.
Truck, Wrecker, Medium	5-Ton, 6x6, M62, M543, M543A1, and M543A2.
Truck, Bolster	5-Ton, 6x6, M748A1, and M748A2.

1-2. Maintenance Forms and Records

Maintenance forms, records, and reports which are to be used by personnel at all maintenance levels are listed in and prescribed by TM 38-750.

1-3. Reporting of Equipment Publication Improvements

The reporting of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications) and forwarded direct to: Commander, US Army Tank-Automotive Command, ATTN: AMST-MAP, 28251 Van Dyke, Warren, MI 48090.

1-4. Administrative Storage.

Refer to TM 740-90-1 for vehicle storage procedures.

1-5. Destruction of Army Materiel to Prevent Enemy Use.

Refer to TM 750-244-6 for procedures concerning destruction of materiel to prevent enemy use.

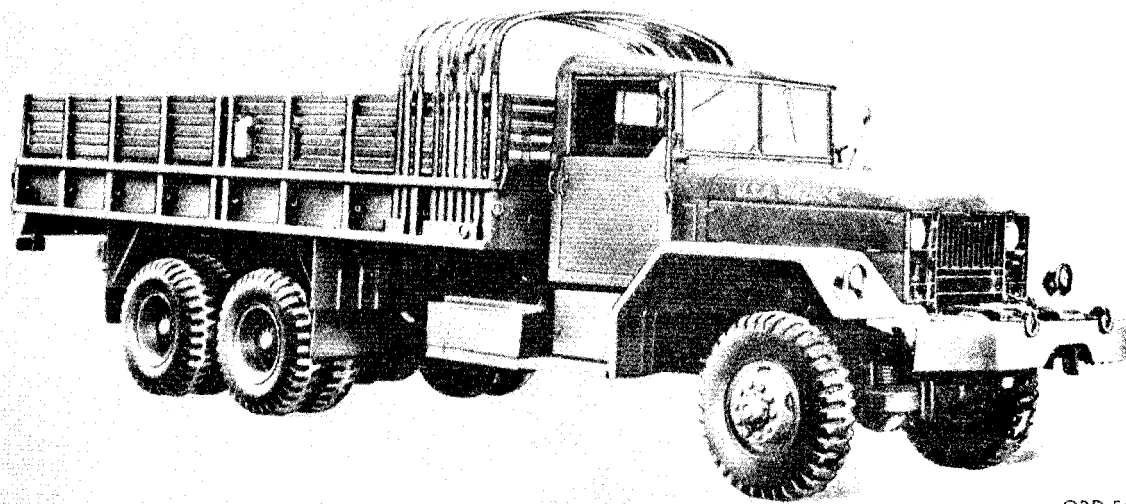
Section II. DESCRIPTION AND DATA

1-6. Description.

The 5-ton, 6x6, trucks (fig. 1-1 through 1-5) covered in this manual are described in detail in TM 9-2320-211-10. Additional descriptive information and data is covered in applicable sections of this manual.

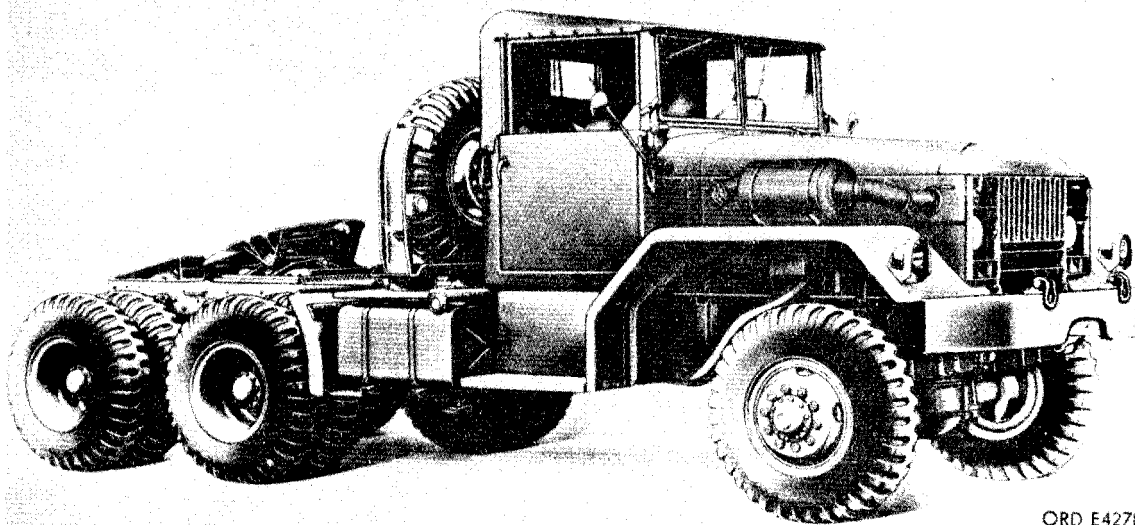
1-7. Identification and Tabulated Data.

a. Identification. Refer to operator's manual (TM 9-2320-211-10) for identification plates and additional data.



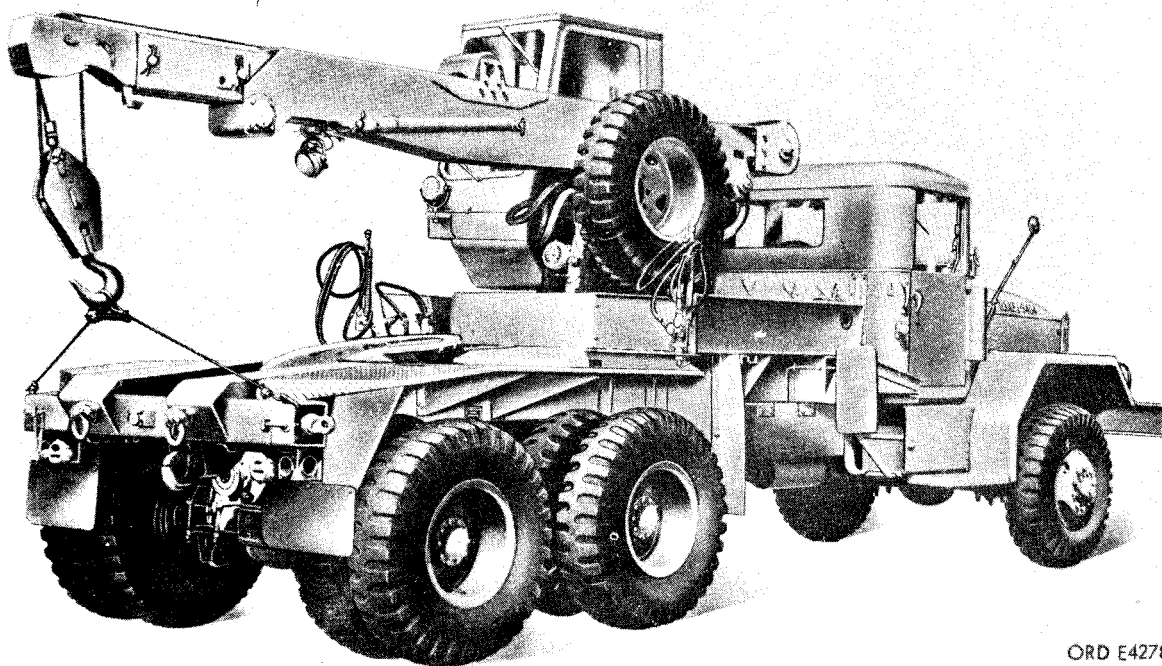
ORD E42775

Figure 1-1. Typical 5-ton truck, cargo.



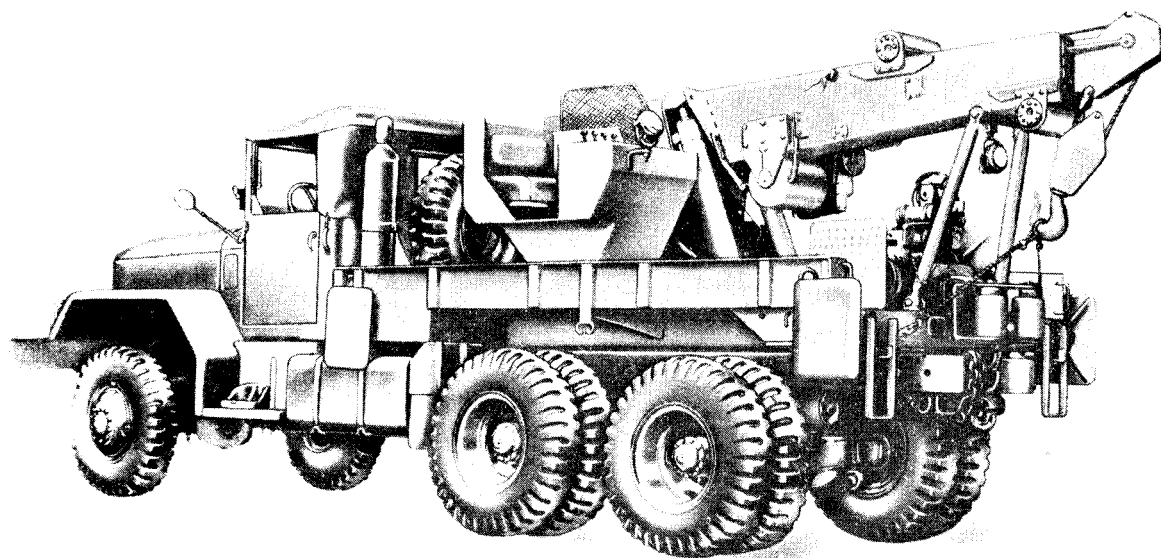
ORD E42780

Figure 1-2. Typical 5-ton truck, tractor.



ORD E42782

Figure 1-3. Typical 5-ton truck, tractor wrecker.



ORD E42786

Figure 1-4. Typical 5-ton truck, medium wrecker.