

TM 9-1802B

WAR DEPARTMENT TECHNICAL MANUAL

**ORDNANCE MAINTENANCE
POWER TRAIN FOR 2½-TON
AMPHIBIAN TRUCK,
6x6 (GMC DUKW-353)**

WAR DEPARTMENT TECHNICAL MANUAL
*TM 9-1802B RESTRICTED

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POWER TRAIN FOR 2½-TON
AMPHIBIAN TRUCK,
6x6 (GMC DUKW-353)



WAR DEPARTMENT
23 NOVEMBER 1943

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TM 9-1802B POWER TRAIN FOR 2½-TON AMPHIBIAN TRUCK, 6 x 6 (GMC DUKW-353), is published for the information and guidance of all concerned.

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

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ORDNANCE MAINTENANCE

POWER TRAIN FOR 2½-TON AMPHIBIAN TRUCK 6x6 (GMC DUKW-353)

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CHAPTER I

INTRODUCTION

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1. SCOPE.

a. The instructions contained in this manual are for the information and guidance of personnel charged with the maintenance and repairs of 2½-ton Amphibian Truck, 6 x 6 (GMC DUKW-353). These instructions are supplementary to field and technical manuals prepared for the using arm. This manual does not contain information which is intended primarily for the using arm, since such information is available to ordnance maintenance personnel in 100-series TM's or FM's.

b. This manual contains a description of and procedure for the disassembly, inspection, repair, and assembly of transmission, main transfer case, power take-off, propeller shafts and universal joints (driving axle), front axle, rear axles, brake system units, spring suspension, and wheels and hubs.

c. TM 9-802 contains information concerning operation, service, maintenance, inspection, and lubrication of the entire vehicle.

d. TM 9-1802A contains a description of and procedure for the removal, disassembly, inspection, repair, and assembly of engine assembly, and includes such accessories as clutch, engine lubrication system units, ignition system units, generator and regulator, starter and controls, carbureter, governor, fuel filter, air cleaner, fuel pump, water pump, radiator, and fan and belts.

e. TM 9-1802C contains a description of and procedure for the disassembly, inspection, repair, and assembly of hull and frame associated parts, bilge pump systems, water propeller and drive, steering system, winch and drive, and air compressor systems.

2. MAINTENANCE ALLOCATION.

a. Indicated below are the maintenance duties for which tools and parts have been provided for the using arms personnel. Other replacements and repairs are the responsibility of ordnance maintenance personnel but may be performed by using arm personnel when circumstances permit, within the discretion of the commander concerned. Echelons and words as used in this list of maintenance allocations are defined as follows:

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FIRST AND SECOND ECHELON: Table III AR 850-15	Operating organizations, driver, operator, or crew, companies and detachments, battalions, squadrons, regiments, and separate companies and detachments (first and second echelons, respectively).
THIRD ECHELON: Table III AR 850-15	Technical light and medium maintenance units, including Post and Port Shops.
FOURTH ECHELON: Table III AR 850-15	Technical heavy maintenance and field depot units, including designated post and service command shops.
FIFTH ECHELON: Table III AR 850-15	Technical base Units.
SERVICE: Par. 24 a (2) and (3) in part AR 850-15	Preventive maintenance, checking and replenishing fuel, oil, grease, water and antifreeze, air, and battery liquid; checking and tightening nuts and bolts; cleaning; and making external adjustment of subassemblies or assemblies and controls.
REPLACE: Par. 24 a (5) AR 850-15	To remove an unserviceable part, assembly, or subassembly from a vehicle and replace it with a serviceable one.
REPAIR: Par. 24 a (4) in part AR 850-15	To restore to a serviceable condition, such parts, assemblies or subassemblies as can be accomplished without completely disassembling the assembly or subassembly, and where heavy riveting, or precision machining, fitting, balancing, or alining is not required.
REBUILD: Par. 24 a (6) AR 850-15	Consists of stripping and completely reconditioning and placing in serviceable condition any vehicle or unserviceable part, subassembly, or assembly of the vehicle, including welding, riveting, machining, fitting, alining, balancing, assembling, and testing.
RECLAMATION: AR 850-15 Par. 24 a (7) and in part CIR. 75, dated 3/16/43	Salvage of serviceable or economically repairable units and parts removed from vehicles, and their return to stock. This includes the process which recovers and/or reclaims unusable articles or component parts thereof and places them in a serviceable condition.

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- NOTES: (1) Operations allocated will normally be performed in the echelon indicated by "X."
- (2) Operations allocated to the third echelon as indicated by "E" may be performed by these units in emergencies only.
- (3) Operations allocated to the fourth echelon by "E" are normal fifth echelon operations. They will not be performed by the fourth echelon, unless the unit is expressly authorized to do so by the chief of the service concerned.
- (4) Technical Bulletins of the 2830-series should be consulted for detailed information relative to reclamation procedure.

	ECHELONS			
	2nd	3rd	4th	5th
ABSORBERS, SHOCK				
Absorber assemblies, shock (w/linkage)—replace . . .	X			
Absorber assemblies, shock (w/linkage)—repair . . .		X		
Absorber assemblies, shock (w/linkage)—rebuild . . .			E	X
AXLE, FRONT				
Arm, steering (knuckle)—replace		X		
*Axle assembly—replace	*	X		
Axle assembly—repair		X		
Axle assembly—rebuild			E	X
Bearings, wheel—adjust and/or replace	X			
Drums, brake—replace	X			
Gears, bevel and pinion—adjust		X		
Hub assemblies—replace	X			
Hub assemblies—repair		X		
Hub assemblies—rebuild			X	
Hub and drum assemblies—replace	X			
Retainers, wheel grease—replace	X			
Rod assembly, tie—replace	X			
Rod assembly, tie—repair		X		
Seals, axle shaft—replace		X		
Seals, trunnion housing oil—replace	X			
Shafts, axle—replace		X		
Wheel alinement, toe-in—adjust	X			
Wheel alinement, camber and caster—check		X		
AXLES AND SUSPENSION, REAR (TANDEM)				
*Axle assemblies—replace	*	X		
Axle assemblies—repair		X		
Axle assemblies—rebuild			E	X
Bearings, spring seat—adjust and/or replace	X			

*See note on page 16.

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AXLES AND SUSPENSION, REAR (TANDEM)	ECHELONS			
	2nd	3rd	4th	5th
Continued				
Bearings, wheel—adjust and/or replace	X			
Drums, brake—replace	X			
Gears, bevel and pinion—adjust		X		
Hub assemblies—replace	X			
Hub assemblies—repair		X		
Hub assemblies—rebuild			X	
Hub and drum assemblies—replace	X			
Retainers, wheel grease—replace	X			
Rod assemblies, torque—replace	X			
Rod assemblies, torque—repair		X		
Rod assemblies, torque—rebuild			X	
Seat assemblies, spring—replace	X			
Seat assemblies, spring—repair		X		
Seat assemblies, spring—rebuild			E	X
Shaft, trunnion—replace		X		
Shaft, trunnion—rebuild			E	X
Shafts, axle—replace	X			
Spring assemblies, rear suspension—replace	X			
Spring assemblies, rear suspension—repair		X		
Spring assemblies, rear suspension—rebuild			E	X
BRAKE, PARKING				
Band assembly—adjust and/or replace	X			
Band assembly—repair (reline)		X		
Controls and linkage—adjust and/or replace	X			
Controls and linkage—repair		X		
BRAKES, SERVICE (HYDROVAC)				
Cleaner assembly, air—service and/or replace	X			
Cleaner assembly, air—repair		X		
Controls and linkage—adjust and/or replace	X			
Controls and linkage—repair		X		
Cylinder assembly, master—replace	X			
Cylinder assembly, master—repair		X		
Cylinder assembly, master—rebuild			X	
Cylinder assembly, power (hydrovac)—replace	X			
Cylinder assembly, power (hydrovac)—repair		X		
Cylinder assembly, power (hydrovac)—rebuild			X	
Cylinder assemblies, wheel—replace	X			
Cylinder assemblies, wheel—repair		X		
Cylinder assemblies, wheel—rebuild			X	
Hose, flexible, lines and connections—replace and/ or repair	X			
Shoe assemblies—adjust and/or replace	X			
Shoe assemblies—repair (reline)		X		