



Roscommon Equipment Center

PROJECT NO. 35

6X6 AUTOMATIC TRANSMISSION

REPAIR MANUAL

Sept. 1981

NORTHEAST FOREST FIRE SUPERVISORS

6X6 AUTOMATIC TRANSMISSION REPAIR MANUAL
ROSCOMMON EQUIPMENT CENTER
PROJECT NO. 35

This project originated because state fire control agencies and local volunteer fire departments were experiencing problems with the automatic transmissions of excess military GMC 2½-ton 6x6's modified for fire control purposes. When transmission problems developed, they were difficult and expensive to repair due to lack of parts and maintenance manuals.

The original project objective was to develop a repair manual or hand-book for the states. The manual was to have the following features:

1. Apply to truck models M135, M211, M211, M215, M217, M221 and M222.
2. Include a cross reference table of military parts and their commercial or civilian equivalents.
3. Include information on all phases of repair from simple troubleshooting to complete overhaul.

After review and discussion of the problem it quickly became evident that it was impractical for REC to produce its own repair manual and the original project objective was modified. The U.S. Army publishes parts and repair manuals covering 2½-ton trucks. The manuals, which are listed later in this report, contain complete parts lists and the civilian manufacturer's name and part number. The manuals also contain step by step repair procedures and diagrams.

Since project No. 35 was initiated in 1976, several other classes of military vehicles in addition to the 2½-ton 6x6, have been adapted by REC for fire control use. This report also lists the parts and repair manuals applicable to these vehicles. Each state should obtain a copy of the manuals covering the types of vehicles it uses.

The manuals listed may be obtained from:

Department of the Army
US Army AG Publications Center
1655 Woodson Road
St. Louis, Missouri 63114

Jeep Model M38A1

Operation and Organizational Maintenance

TM 9-8014

Jeep Model M422

Operator's Manual
Organizational Maintenance Manual

TM 9-2320-225-10

TM 9-2320-225-20

3/4-Ton M37 Series

Operator's Manual	TM 9-2320-212-10
Organizational Maintenance, Repair Parts and Special Tool List	TM 9-2320-212-20P
Depot Maintenance, Repair Parts and Special Tool List	TM 9-2320-212-34P
Power Train, Body and Frame	TM 9-8031-2

5/4-Ton M715 Series

Operator's Manual	TM 9-2320-244-10
Organizational Maintenance Manual	TM 9-2320-244-20
Organizational Maintenance Repair Parts and Special Tool List	TM 9-2320-244-20P
Direct Support and General Support Maintenance Manual	TM 9-2320-244-34
Direct Support and General Support Maintenance Repair Parts and Special Tool List	TM 9-2320-244-34P

2½-Ton M44 Series (REO)

Operator's Manual	TM 9-2320-209-10
Operation, Installation and Reference Data, Operator Level (multifuel)	TM 9-2320-209-10-1
Organizational Maintenance Manual	TM 9-2320-209-20
Organization Maintenance Repair Parts and Special Tools List	TM 9-2320-209-20P
Direct and General Support Maintenance Repair Manual	TM 9-2320-209-34
Direct and General Support Maintenance Repair Parts and Special Tools List	TM 9-2320-209-34P-2REV
Cab, Chassis and Body Components Repair	TM 9-2320-209-35
Cab, Chassis and Body Components Repair Parts	TM 9-2320-209-35P

2½-Ton M135 and M211 Series (GMC)

Operation and Organizational Maintenance	TM 9-8024
Ordnance Maintenance	TM 9-1819AC
List of All Service Parts	ORD 9 SNL G-749
Note: Much of the information contained in the M44 series trucks is applicable to the M135 and M211 series.	

5-Ton M39 Series

Operator's Manual	TM 9-2320-211-10
Organizational Maintenance Manual	TM 9-2320-211-20
Organizational Maintenance Repair Parts and Special Tool Lists	TM 9-2320-211-20P
Truck Chassis Repair Manual	TM 9-2320-211-35
Direct Support and General Support Maintenance Repair Parts and Special Tool Lists	TM 9-2320-211-34P

5-Ton 809 Series

Operator's Manual	TM 9-2320-260-10
Organizational Maintenance Manual	TM 9-2320-260-20
Organization Maintenance Repair Parts and Special Tools Lists	TM 9-2320-260-20P
Direct Support and General Support Maintenance Manual	TM 9-2320-260-34-1
Direct Support and General Support Maintenance Repair Parts and Special Tools List	TM 9-2320-260-34P/1

There are several ways to obtain needed parts if they are no longer commercially manufactured. The most simple method is to remove the defective part and take it to a local parts supply dealer. Many dealers stock parts that fit, or can be easily adapted to fit military vehicles. Cannibalizing worn out or discarded vehicles to maintain an inventory of hard to find parts is also recommended. There are also private companies which specialize in supplying parts for military vehicles. Three such companies are:

Memphis Equipment Company
766 South 3rd Street
Memphis, Tenn. 38106
(901) 774-0600

Winer Motor Company
3417 East Waterloo
Akron, Ohio 44312
(216) 628-4881

Charles R. Dadlow
Route 1
29430 Western Avenue
New Carlisle, Indiana 46552
(219) 654-8649

This is the final report on REC Project No. 35 and the project is closed.

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USER'S CAUTION...

A NOTE ABOUT GROSS VEHICLE WEIGHT (GVW)

American truck manufacturers have long relied on GVW (gross vehicle weight) to designate the maximum allowable loading of their vehicles. These gross weight limits are carefully established through numerous design considerations and often depend, amongst other factors, on the strength and life expectancy of such vehicle components as frames, axles, springs, wheels, tires and power trains. Most manufacturers will not guarantee their products if users exceed GVW specifications.

The U. S. Armed Forces are acutely conscious of the importance of vehicle reliability. They have insisted that manufacturers clearly specify vehicle gross vehicle weight and have rigidly adhered to these weight limits to the full extent that conditions will allow.

At the present time, a large number of military vehicles are becoming available to state and local agencies through federal government excess property programs and surplus sales. Many of these vehicles are being converted into fire fighting units. Those anticipating such conversions are urged to heed the GVW limits, and other vital information, posted on the dashboard of most of these vehicles. Federal excess property vehicles, on loan through State Forestry organizations, may be recalled if they are abused.

Blueprints and construction procedures prepared and issued by the Roscommon Equipment Center are intended to serve as guidelines for potential users of this equipment. It is possible that if all the options and alternatives specified on these drawings are used on any single vehicle, that GVW limits may be exceeded.

Therefore, users are cautioned to:

- (1) plan design and construction carefully,
- (2) weigh each unit before actual duty assignment, and
- (3) make whatever weight adjustments are necessary to bring the system into safe load limits.