

UNITED STATES MARINE CORPS
Motor Transport School Company
Marine Corps Service Support Schools
Marine Corps Base
Camp Lejeune, North Carolina 28542

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INTRODUCTION TO THE M939 SERIES VEHICLES

Student Outline

LESSON PURPOSE: To impart to the student the fundamental background information peculiar to the M939 series vehicles.

REQUIRED RESOURCES: None

ADDITIONAL RESOURCES: None

HERE'S WHAT TO DO:

1. Attend Introduction lecture.
2. Fill in student handout.

INFORMATION:

The M939 series vehicle is a new series of vehicles in the Marine Corps. Your attention to detail will make you a more knowledgeable mechanic in the field.

OUTLINE:

1. Characteristics of the M939 Series Vehicle.

a. The truck cargo, 5 Ton, 6X6, M939 series is a tactical vehicle, designed for use on all types of roads, highways, cross country terrain, and extreme Cold WEATHER operations.

b. The M939 series vehicles are an improved version of the M-809 series vehicle. These improved versions make the M939 more Reliable and easier to operate.

c. There are Eight major improvements made to the M939 series vehicle. They are:

- (1) an automatic transmission. Allison M.T. 54CR
- (2) a power steering unit. Hydraulic ASSIST cylinder on (R) front LINKAGE
- (3) a complete air brake system. Fockwell STANDARD STOPMASTER wedge.
- (4) an improved cooling system. which holds 5gts MORE coolant.
47 qt TOTAL

- (5) an improved electrical system. *Which uses both 12V & 24V System*
- (6) a three man cab. *FIRST TRUCK design TO CARRY THREE MARINE IN THE CAB.*
- (7) a tilt hood. *made of Fiberglass, Light weight.*
- (8) a hydraulic power front winch.

2. Tabulated Data.

- a. Engine - Cummins NHC-250-Incline 6 cylinder, *240 HORSE power AT 2100 RPM*
liquid cooled, COMPRESSION ignition
855 Cubic in displacement
- b. Transmission - Allison 5 speed Automatic MT 654CR
- c. Fuel Diesel only (DEF, DEB, DFA) DF (ARTIC) *81 gal TANK*
60 gal 75% full
- d. Brake Horsepower- 240 HP at 2100 RPM.
- e. Radiator - CROSS flow Type
- f. Brake System - STRAIGHT AIR SYSTEM
- g. Electrical System 12 volt and 24 volts.
- h. Front wheel drive - MANUALLY engaged in high transfer
Automatically engaged in low transfer.

3. Vehicles in the M939 Series Family.

a. Basically, there are seven vehicles in the M939 Family; and with the addition of winches and extra length wheel bases, the family grows to thirteen vehicles. They are:

- (1) M923 Cargo truck without winch and with drop sides. *This is what you will be working on*
- (2) M924 Cargo truck without winch, *+ DROPSIDE*
- (3) M925 Cargo truck with winch and drop sides. *923 with winch*
- (4) M926 Cargo truck with winch.
- (5) M927 Cargo truck without winch, with extended length wheel base.
- (6) M928 Cargo truck with winch and extended length wheel base.
- (7) M929 Dump truck without winch.
- (8) M930 Dump truck with winch.
- (9) M931 Tractor truck without winch.
- (10) M932 Tractor truck with winch.
- (11) M934 Expandable van without winch

(12) M935 Expandable van without winch with hydraulic lift gate.

(13) M936 Medium wrecker with winch.

4. STE/ICE.

a. STE/ICE is an acronym for: SIMPLIFIED TEST EQUIPMENT FOR INTERNAL COMBUSTION ENGINES.

b. STE/ICE provides the functional capability for a TRAINED mechanic to rapidly perform all essential tests and measurements on the internal combustion engine and it's accessories.

c. The M939 is the first vehicle which has permanently mounted connectors for the STE/ICE system.

5. Performance of the M939 Series Vehicles.

a. A fully loaded M923 and M925 dropside cargo truck can achieve a maximum speed of 52 miles per hour.

b. They will climb road grades as steep as 23 degrees with a maximum load.

c. Without a load, they will climb a 34 degree grade.

d. This vehicle, without a fording kit, will ford 30 inches of water with a hard bottom surface and 7 inches of water with a fording kit.

e. The cruising range of a fully loaded truck is 350 miles per tank of diesel fuel. ^{And TRAILER 300}

f. The turning radius is 39 feet.

