

- 3 parts
1. Engine Compartment
 2. Cab assembly
 3. Cargo body

MT. 270-C

MOTOR TRANSPORTATION SECTION

SYSTEMS OF THE MOTOR VEHICLE

MT-4

For the purpose of instruction in the subject "The Motor Vehicle", the Motor Transport School has broken its course down into the various systems of a Motor Vehicle. This permits the student to concentrate his learn- on one system at a time rather than confusing him with the presentation of information in a "hit or miss" fashion.

The following systems are universally recognized by both the Army and the Automotive Industry as being most important in the functioning of passenger cars and trucks and are being presented to the students of the Motor Transportation Section to orient them in the course to follow.

1. FUEL SYSTEM

1. Tank *1 1/2 parts air 1 pt gas*
2. Line (tank to filter)
3. Filter
4. Line (filter to pump)
5. Pump
6. Line (pump to carburetor)
7. Carburetor
8. Intake manifold
9. Intake valve

2. IGNITION SYSTEM

1. Storage battery
2. Ignition switch
3. Ignition coil *flipped up to 6-15,000 Volts (electromagnet)*
4. Condenser
5. Distributor *by rotation*
6. Spark plugs

GENERATING SYSTEM

1. Generator
2. Regulator

BRAKE SYSTEM-SERVICE (Hydraulic)

1. Brake pedal *Service brake*
2. Master cylinder
3. Lines
4. Wheel cylinders
5. Shoes and lining
6. Drums

Hand Brake (mechanical)

1. Lever *stops gears in transmission & so keeps*
2. Linkage *propeller shaft from*
3. Lining *revolving*
4. Drum

POWER TRANSMISSION SYSTEM

1. Engine
2. Clutch & clutch *fly wheel attached to crank rotates when shift done*
3. Transmission & Universal joints
4. Transfer case
5. Drive or propeller shaft *ring gear at end of propeller shaft*
6. Final drive gears
7. Differential *makes wheels on one side go slower for turning corner*
8. Axles (live) *Universal joint transmits power at an angle*

EXHAUST SYSTEM

1. Exhaust Valve
2. Manifold (heat control valve)
3. Exhaust pipe
4. Muffler
5. Tail pipe

STEERING SYSTEM

1. Steering wheel
2. Steering column & shaft
3. Gear box
4. Sector shaft
5. Pitman arm (steering arm)
6. Drag link (steering connecting rod)
7. Knuckle arm
8. Tie rod

CRANKING SYSTEM

1. Storage battery
2. Starter switch or starter button and solenoid switch
3. Starting motor
4. Starter gear

SUSPENSION SYSTEM

1. Frame, cross members, brackets
2. Spring hangers and shackles
3. Springs and shock absorbers
4. Axles (Dead and Live)
5. Torque Rods

LIGHTING SYSTEM

1. Storage battery
2. Wiring
3. Light switch
4. Head, tail, and blackout lamps
5. Stop light switch and stop light
6. Dimmer switch

2. COOLING SYSTEM

1. Radiator (overflow pipe & filler *flows to bottom cap then thru hoses*)
2. Hoses *clamped in place, rubber.*
3. Water pump *from hoses to water pump & then*
4. Water jackets *flows up thru*
5. Thermostat *opens up & lets water flow back to radiator to be cooled.*
6. Fan