DRIVER'S INSTRUCTIONS

This vehicle should not be driven faster than 40 miles an hour for the first 100 miles nor more than 50 miles an hour from 100 to 500 miles. If the vehicle is operated at excessive speeds while new, the closely fitted parts may possibly become overheated, resulting in serious damage to mechanical units. Never race the Engine while making adjustments or when vehicle is standing idle.

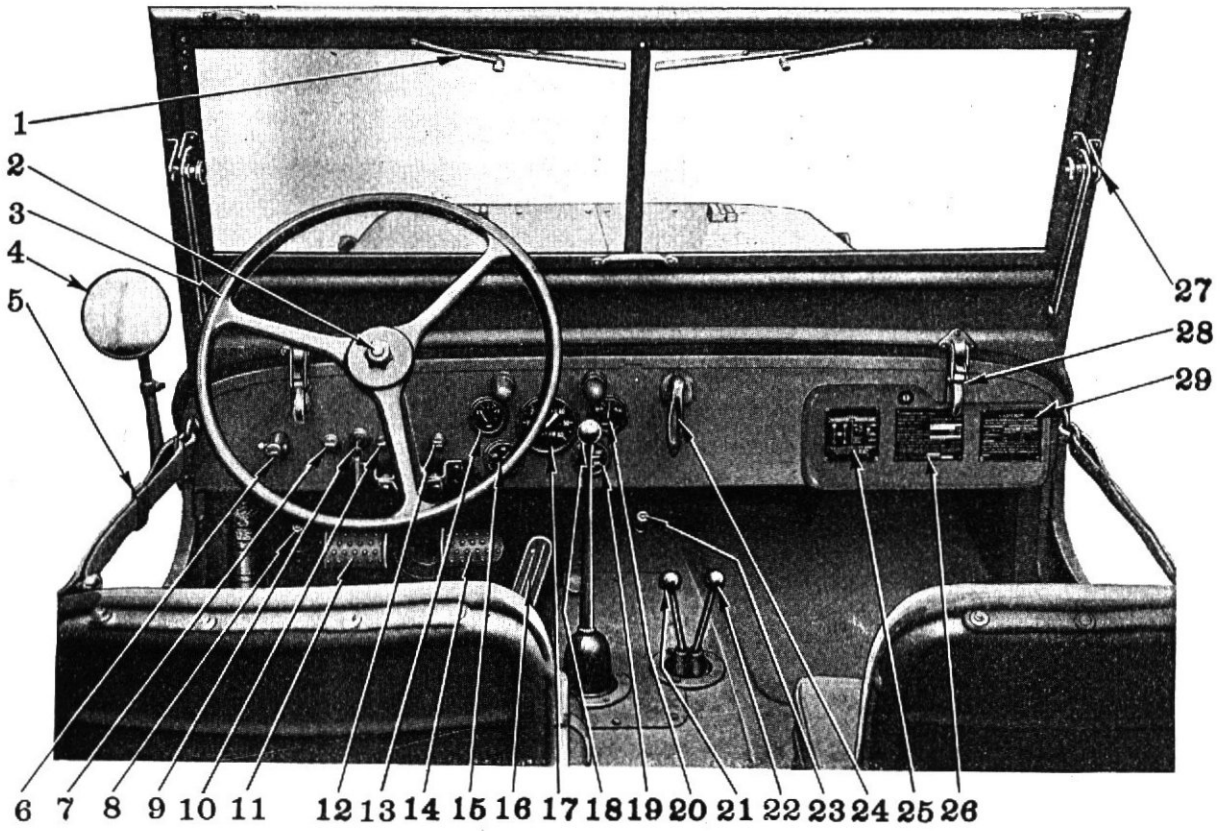

FIG. 1—CONTROLS

It is very important that the driver of this vehicle be thoroughly familiar with the various Controls and their proper use. The most experienced driver should study the Controls because there are a number which are not ordinarily found on standard vehicles.

Illustrations show the controls, instruments and instruction plates; in the following paragraphs we refer to these illustrations by the key numbers so the reader may easily follow the instructions.

Ignition Switch—No. 9, Fig. 1

Is operated by a key, turning key to right (clockwise) closes the ignition circuit. Turning key to left (counter clockwise) opens the ignition circuit and shuts off the engine.

Light Switch—No. 6, Fig. 1

The light switch is the push-pull type with safety lock.

This switch controls the entire lighting system including the instrument panel lights and stop lights.

When the control knob is pulled out to the first position, the blackout lamp circuit is closed—which consists of two blackout lamps, stop and tail lamps.

To obtain bright lights, push in lockout control button on left of switch and pull out control knob to second position. This closes entire bright light circuit, which consists of two head lamps—instrument panel lamps, stop and tail lamps.

CAUTION: When driving during the day press in lockout control button and pull Control Knob out to the last or Stop Light position to cause regular Stop Light to operate.

Panel Light Switch—No. 12, Fig. 1.

The Panel Light switch controls the Panel Lights when the main Light Switch is in Service (bright light) position, otherwise the Panel Lights do not operate.

Head Lamp Beam Control Switch—No. 8, Fig. 1

Pressing and releasing the button of the selector foot switch with the left foot alternately changes the headlight beam from high to low.

Starter Switch—No. 23, Fig. 1

Toe board mounted to the right of the accelerator; pushing button down closes starter circuit and causes starter to crank engine—release the button as soon as the engine starts.

Hand Throttle—No. 10, Fig. 1

Pulling control button out opens carburetor throttle valve and increases engine speed.

Carburetor Choke Control—No. 7, Fig. 1

Pulling control button out closes choke valve in carburetor to enrich gas mixture for starting the engine when cold, and opens throttle valve slightly for faster idle speed.

Oil Gauge—No. 15, Fig. 1

The instrument panel oil gauge indicates oil pressure delivered to camshaft, crankshaft, timing chain and connecting rod bearings when engine is running.

Proper registration should be not below 10 on idle nor more than 80 at speeds above 10 miles per hour.

This gauge does not indicate the amount of oil in crankcase.

Ammeter—No. 20, Fig. 1

The ammeter is used to indicate when the generator is charging the battery. It also indicates the amount of current being consumed.

If the ammeter shows discharge at all times, the cause should be immediately investigated and corrected, otherwise the wiring may be damaged and battery discharged.

Fuel Gauge—No. 13, Fig. 1

The fuel gauge registers the amount of fuel in the fuel tank when ignition switch is turned on. The dial graduations are for—empty, ¼, ½, ¾, and full.

Temperature Indicator—No. 19, Fig. 1

This is a thermal type gauge and registers the temperature of the liquid in the cooling system. The operator should watch this instrument closely.

The normal operating temperature is indicated when hand stands between 160 and 185. The driver should immediately investigate the cause if temperature becomes excessive. Continuous operation of an overheated engine will cause serious damage.

Never fill cooling system with cold water when engine is overheated.

Speedometer—No. 17, Fig. 1

The Speedometer indicates the speed at which vehicle is being driven. The Odometer (in upper part of speedometer face) registers the total number of miles the vehicle has been driven.

A trip mileage indicator (in lower part of speedometer face) gives miles covered on any trip. It can be reset by turning a knurled control shaft extendingthrough the rear of the speedometer.

Nomenclature Plate (Name Plate) –Fig. 2

The nomenclature plate identifies the vehicle and gives the manufacturer's model and serial number, date of delivery, recommended fuel and lubricating oil. Service publication numbers are also given for reference. (When ordering parts be sure to give serial number). See No. 26, Fig. 1.

NOMENCLATURE TRUCK ¼ TON 4 X 4
SUPPLY ARM OR SERVICE
MAINTAINING VEHICLE QUARTERMASTER CORPS
MAKE AND MODEL WILLYS MB.
SERIAL NUMBER:
GROSS WEIGHT LBS.
MAXIMUM PAYLOAD 800 LBS.
MAXIMUM TRAILEOLOAD 1000 LBS.
DATE OF DELIVERY.
RECOMMENDED BY MANUFACTURER
OCTANE RATING OF GASOLINE 68 MIN.
S A E GRADE OF OIL FOR SUMMER USE 30 SAE
S A E GRADE OF OIL FOR WINTER USE 10W SAE
PUBLICATIONS APPLYING TO THIS VEHICLE
PARTS LIST T/M 10-
MAINTENANCE MANUAL T/M 10-

FIG. 2—NAME PLATE

CAUTION

MAXIMUM PERMISSIBLE ROAD SPEEDS IN THE FOLLOWING GEAR POSITIONS

TRANSMISSION IN	TRANSFER CASE IN HIGH RANGE	TRANSFER CASE IN LOW RANGE
HIGH	65 M.P.H.	33 M.P.H.
INTERMEDIATE	41	21
LOW	24	12
REVERSE	18	9

TO DRAIN COOLING SYSTEM OPEN RADIATOR DRAIN COCK LOCATED ON HOSE FITTING AT LOWER LEFT SIDE OF RADIATOR AND CYLINDER BLOCK DRAIN COCK ON RIGHT FORWARD SIDE OF ENGINE.

FIG. 3—CAUTION PLATE

Caution Plate—Fig. 3 & No. 29, Fig. 1

Covers maximum permissible road speeds in different gear positions and gives instructions relative to complete draining of the cooling system.

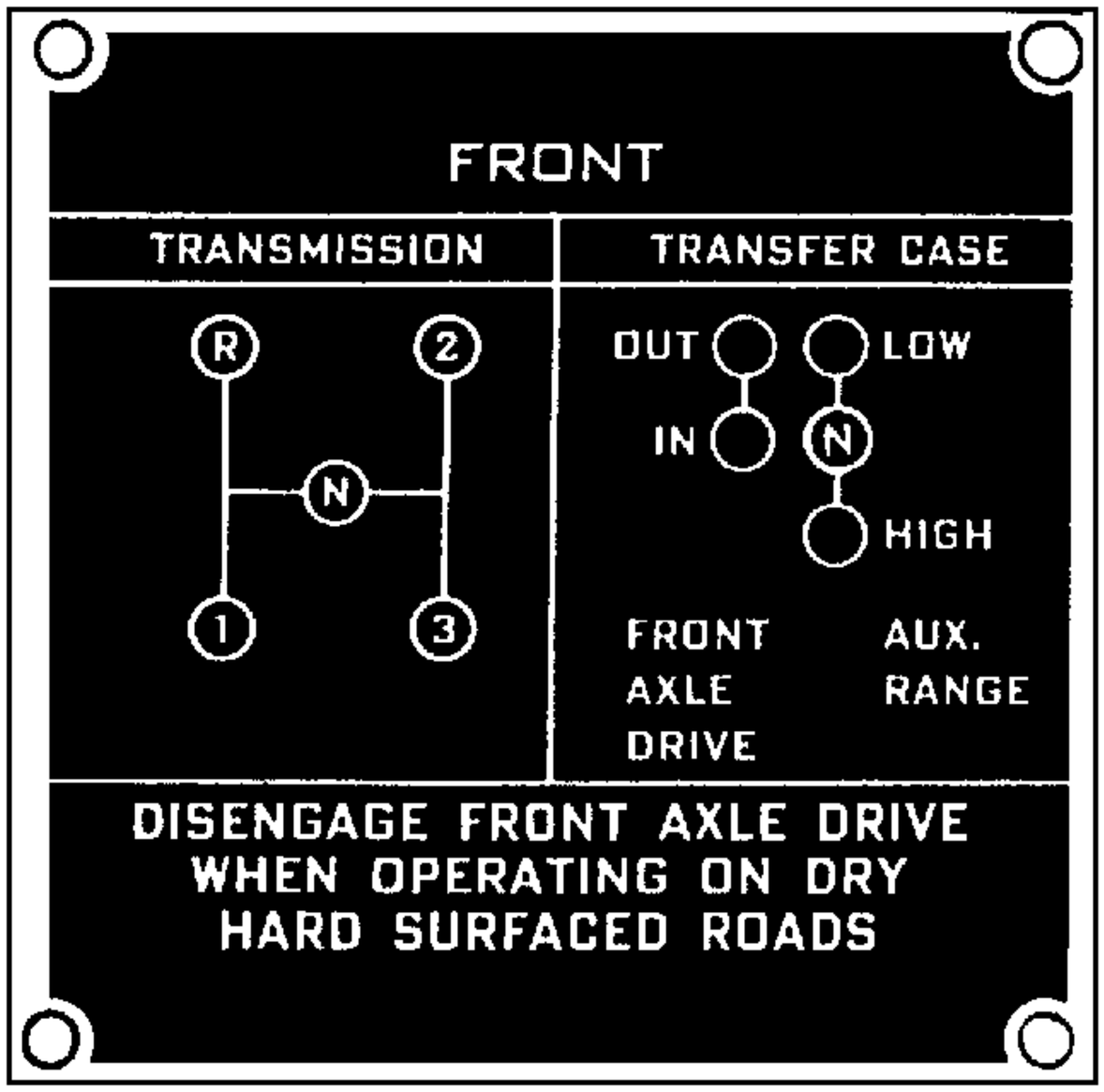

FIG. 4—SHIFT PLATE

Transfer Case Shifting Instructions—Fig. 4

This diagram gives relative position of shifting levers for front axle drive, low and high gear ratios.

On hard surface and flat roads disengage front axle drive by placing center shift lever, (front axle drive) in forward position. No. 21 & No. 25, Fig. 1.

The right hand lever (third from driver) controls transfer case gear ratio—low or high. No. 22, Fig. 1. The low gear ratio can only be used when front axle drive lever is in the rear position to engage front wheel drive.

Proper position for disengaging axles to use power take-off unit is shown as "N" in Fig. 4.

Clutch Pedal—No. 11, Fig. 1

The clutch pedal is used to disengage the engine power from transmission when shifting gears. Driving with the foot on pedal will cause excessive wear of clutch facings and release bearing. There should be ¾" free pedal travel before clutch starts to disengage.

Brake Pedal—No. 14, Fig. 1

Depressing the pedal applies the hydraulic brakes at all four wheels. Avoid driving with foot on brake pedal, as brakes will be partially applied and cause unnecessary wear of brake linings requiring early adjustment.

Hand Brake Lever—No. 24, Fig. 1

By pulling out on brake handle the external contracting brake at the transmission on rear propeller shaft is applied mechanically. Whenever vehicle is parked, the lever should be pulled out as far as possible. Before moving vehicle be sure lever is released.

Accelerator—No. 16, Fig. 1

The accelerator is foot operated and is used to govern the engine speed under ordinary driving conditions.

Transmission Gearshift Lever—No. 18, Fig. 1

This lever is used to shift the gears in the transmission. There are four positions in the movement of the lever in changing the gears in transmission. See diagram for lever location in different gears. Fig. 4.

Horn Button—No. 2, Fig. 1

Pressing on button closes circuit in horn wiring and causes horn to sound.

Steering Knuckle Oil Seal—Fig. 11, Page 90

When parking during cold, wet weather swing the front wheels from right to left to wipe away moisture adhering to the front axle universal joint housings and oil seals. This will prevent freezing with resulting damage to the oil seal felts. When the car is stored for any period the front axle universal joint housings should be coated with light grease to prevent rusting.

Fuel Tank

The fuel tank is located under Drivers seat. To fill tank raise seat cushion and remove filler cap. See Capacity Chart, Page 3.

Draining Radiator

When draining radiator be sure to open the drain cock on the right forward side of cylinder block as well as at the bottom of the radiator outlet. Remove the radiator cap to break any vacuum and thoroughly drain system. See Caution Plate, Fig. 3.

OPERATING INSTRUCTIONS

Before any trip the following inspections should be made before starting engine.

1. Check the oil level in crankcase, See "Lubrication" Section. Remove oil level indicator located in oil filler pipe on right side of engine, wipe off clean. Insert indicator in filler pipe to full depth. Remove indicator and note position of oil film, if below the full level add sufficient oil to bring to full mark.
2. Remove radiator filler cap and note water level. Should be up within ½" below filler neck. Check all hose connections for leaks also fan belt tension.
3. Check all lights and signal devices. Note condition of tires and see that they are properly inflated to 30 lbs.
4. DRIVING THROUGH WATER. See that Cap is on front drain hole under fuel tank so as to keep out stones and dirt. An extra cap is provided for the rear drain hole and this cap should be kept in the glove compartment so it will be readily available for use when fording small streams. Before driving through streams or deep puddles of water, INSTALL THE CAP ON THE REAR DRAIN HOLE. Remove this cap and return it to the glove compartment after passing through the water.
5. When there is a possibility of water being thrown over the engine by fan action in crossing streams, pull up on handle of the generator brace, then remove the fan belt. This will stop the fan. As soon as possible the belt should be replaced, then pull out on the generator. The generator will lock in place by spring action of the brace.

STARTING THE ENGINE

1. Transmission gearshift lever must be in neutral position. See Fig. 4.
2. Pull out hand throttle about ¾" to 1".
3. Pull out choke button all the way to obtain proper fuel and air mixture for starting, No. 7, Fig. 1. Choking is not necessary when engine is warm.
4. Insert key in ignition switch and turn to right.
5. Disengage clutch by depressing pedal, holding down till engine starts, No. 11, Fig. 1.
6. Step on starter button No. 23, Fig. 1, to crank engine. Release button when engine starts.
7. Push in on choke button and adjust hand throttle to obtain proper idling speed. When engine is cold, it is advisable to leave choke button pulled out about 1". As engine warms up, push choke button all the way in.

STARTING VEHICLE

(For day time driving, turn on Stop Light; See Light Switch, Page 02-5.)

1. Push clutch pedal down to disengage clutch No. 11, Fig. 1.
2. Shift transfer case (center hand lever) in forward position (front axle disengaged) No. 21, Fig. 1, right hand lever No. 22, Fig. 1 in rear position (high gear ratio).
3. Move transmission shift lever toward driver and back for first gear. Fig. 4.
4. Release hand brake, No. 24, Fig. 1, increase engine speed with accelerator by gradually pressing down on accelerator treadle No. 16, and slowly release clutch pedal, No. 11, increasing engine speed as load is picked up and vehicle starts to move.
5. As vehicle speed increases, release accelerator pedal and depress clutch pedal, move gearshift lever to neutral then in to second gear.

Press on accelerator and release clutch pedal slowly. Repeat these operations until transmission is in high gear.

SHIFTING GEARS IN TRANSFER CASE

Instructions for shifting gears in transfer case and engagement of the front axle drive are as follows: No. 21, Fig. 1 and Fig. 4.

1. Transfer case may be operated in either high or low speed range when front axle drive is ENGAGED.
2. The transfer case can be operated only in "High" (direct drive) when front ax'e drive is DISENGAGED.
3. To engage front axle drive, depress clutch pedal, release accelerator and move center shift lever to rear position, No. 21, Fig. 1.
4. To disengage front axle drive, release accelerator and shift lever to forward position.
5. Shifting from high to low gear should not be attempted except when the vehicle is being operated at low speeds or at a standstill. The front axle drive must be engaged for this shift. Release accelerator and depress clutch pedal—move center shift lever to rear position, engaging front wheel drive, No. 21, Fig. 1, then move right hand shift lever, No. 22, to forward position.
6. Shifting from low to high gear may be accomplished at any time, regardless of vehicle speed. Release accelerator and depress clutch pedal—shift right hand lever into rear position.

SHIFTING TO LOWER SPEED IN TRANSMISSION

The transmission gears should always be shifted to the next lower speed before engine begins to labor or before vehicle speed is reduced appreciably. Shifting to lower speed is accomplished as follows:

1. Depress clutch pedal quickly, increase engine speed and shift to next lower gear, release clutch slowly and accelerate.

It is advisable to use the same transmission gear going down a long hill as would be required to climb the same hill.

STOPPING THE VEHICLE

1. Remove foot from accelerator pedal and apply brakes by pressing down on brake pedal. No. 14, Fig. 1.
2. When vehicle speed has been reduced to idling engine speed, disengage clutch and move transmission shift lever, No. 18, Fig. 1 to neutral position. See Fig. 4.
3. When vehicle has come to a complete stop apply hand brake, No. 24, Fig. 1, and release clutch and brake pedals.

SHIFTING INTO REVERSE

Before attempting to shift into reverse the vehicle must be brought to a complete stop.

1. Push clutch pedal down to disengage clutch.
2. Shift transmission lever to the left and forward toward instrument board. Fig. 4.
3. Release clutch pedal slowly and accelerate as load is picked up.

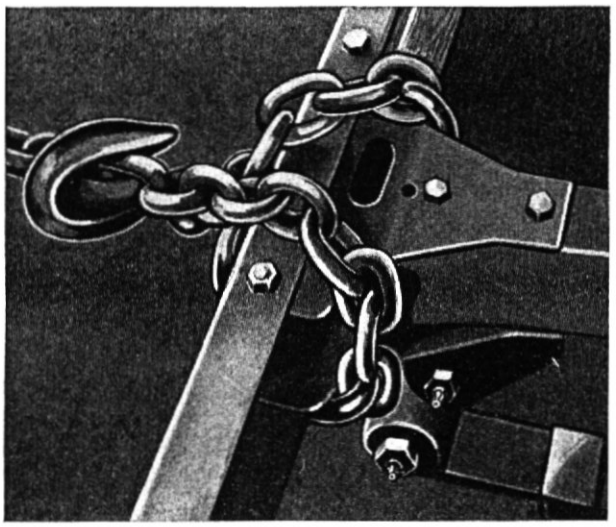

FIG. 5—CHAIN TOW

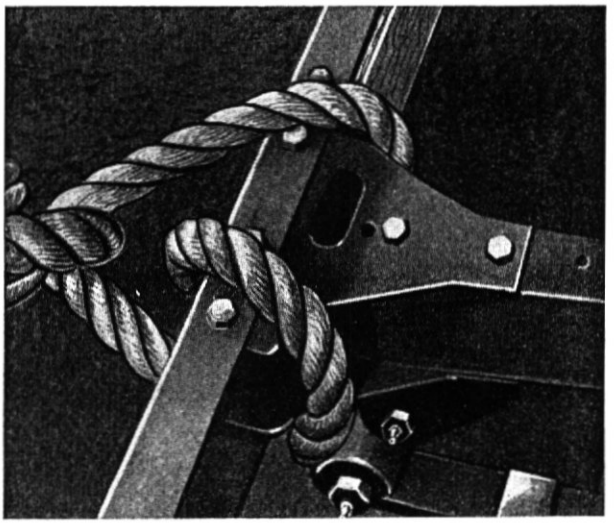

FIG. 6—ROPE TOW

TOWING VEHICLE

When necessary to tow vehicle the tow chain, rope or cable, should be attached to the front bumper bar and frame side rail gusset, Fig. 5 and 6.

Loop chain or rope over top of bumper and frame gusset bringing it up across face of bumper and back on opposite side of frame, then hook or tie. Do not tow from the middle of the bumper.

FIRE EXTINGUISHER

The fire extinguisher is mounted on left side cowl panel Fig. 1. To remove pull outward on clamp release lever.

To operate extinguisher, hold body in one hand and with the other turn handle to left ¼ turn which releases plunger lock. Use pumping action to force fluid on fire.

Read instructions on fire extinguisher plate.