

Operator's Instruction Manual

Reprinted

CASE



TRACTOR

MODEL VAI SERIES

Third Edition

RI60

J. I. Case Co.

RACINE, WISCONSIN - U.S.A.



TO PURCHASERS OF NEW CASE TRACTORS



Congratulations on your purchase of a Case Tractor. Welcome to the ever-increasing number of satisfied Case Owners.

The dependability and economical performance of your new Case Tractor will prove that you were wise in making this choice.

The organization back of your machine has been building quality farm equipment for more than a century. Your Case Tractor was built in one of the largest and best equipped plants in the world. In this factory quality materials, the finest precision machinery, high grade workmanship, thorough inspection, and complete testing equipment are combined to give you the best in performance and economical operation.

The care which you give your tractor will have a great deal to do with the service and satisfaction you get from it. By observing the precautions and suggestions in this manual, your Case Tractor will serve you well for many years. Make this manual your guide. Should you need information not covered here, or should your machine require special servicing, contact your Case dealer. He has trained men who are kept informed on the best methods of servicing Case machines in the field or in his shop.

When it becomes necessary, after long use, to replace certain parts on your tractor, be sure to use only genuine Case parts which insure proper fit and continued good service. These may be obtained from your Case dealer. It is always helpful to provide him with the **MODEL AND SERIAL NUMBER** of your tractor in addition to a description of the parts required.

ALPHABETICAL INDEX

| | PAGES |
|---------------------------------|----------------|
| Air Cleaner | 12 |
| Battery | 36, 37 |
| Bearings, Front Wheel | 15, 42 |
| Belt Pulley | 53, 54 |
| Brakes | 38-41 |
| Carburetor | 21, 22 |
| Clutch | 37, 38 |
| Cooling System | 16-19, 62 |
| Crankcase Breather | 15 |
| Distributor | 12, 27-29 |
| Double-Acting Control | 49 |
| Eagle Hitch | 11, 44-49 |
| Fan Belt | 19 |
| Fuels | 19, 56, 62 |
| Fuel Filter | 20 |
| Generator | 11, 33-35 |
| Governor | 16, 22, 33, 34 |
| Hydraulic System | 15 |
| Lubrication | 10-16, 58, 62 |
| Magneto | 15, 29-32 |
| Manifold (Gasoline) | 20 |
| Manifold (Low-Cost) | 55, 57, 58 |
| Mower Extras | 60, 61 |
| Oil Filter | 12, 13 |
| Oil Pump, Engine | 14 |
| Power Take-Off | 59 |
| Radiator Shutter | 58 |
| Seat, Easy-Ride | 61 |
| Serial Numbers | 5 |
| Service Suggestions | 24, 25 |
| Single-Acting Control | 52 |
| Spark Plugs | 32, 33 |
| Specifications | 4 |
| Starting and Lighting | 33 |
| Starting the Engine | 7 |
| Stopping the Tractor | 38 |
| Tires | 8, 62 |
| Valves | 23 |
| Warranty | 63 |
| Wheel Weights | 43 |

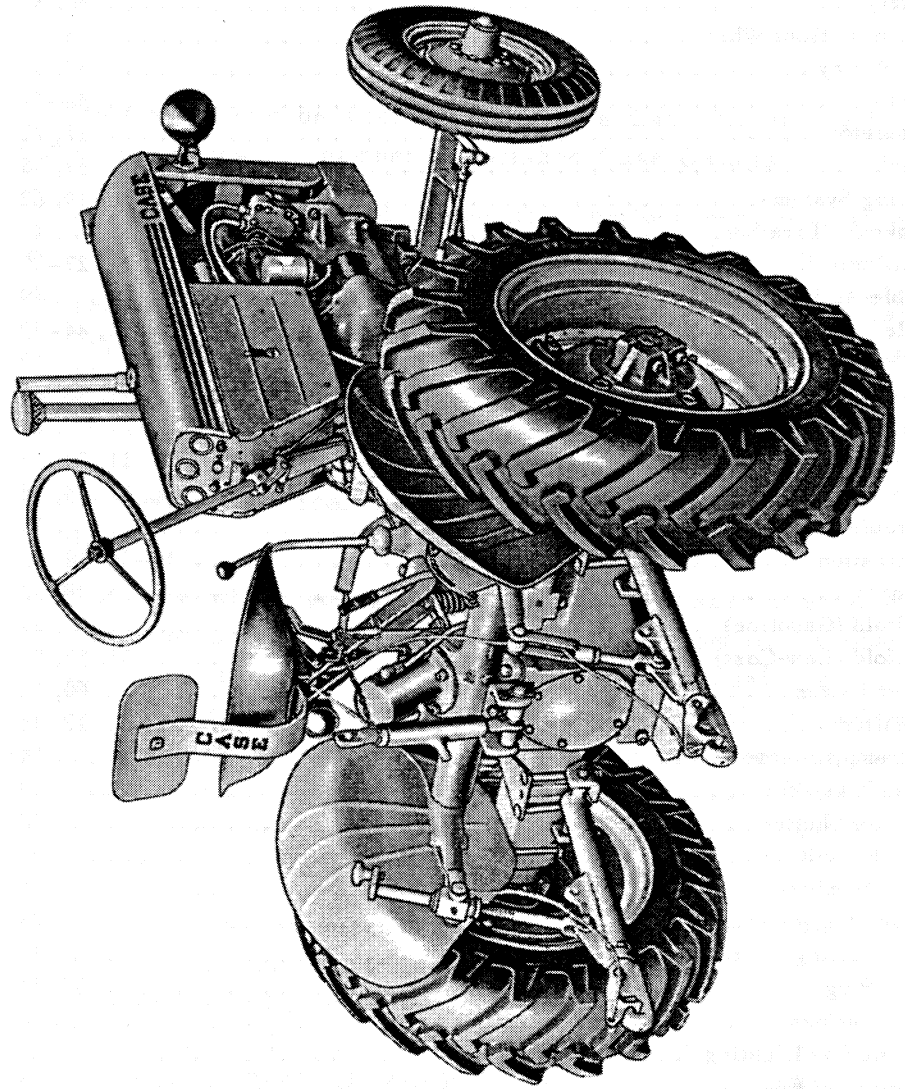


Figure 1. VAI Tractor with Eagle Hitch

SPECIFICATIONS CASE MODEL VAI TRACTOR

ENGINE

| | |
|---|-----------------------------------|
| Valve-in-head type | Firing order . . . 1-3-4-2 |
| Number of cylinders | 4 |
| Bore diameter | 3¼ inches |
| Stroke | 3¾ inches |
| Displacement | 124 cu. inches |
| Cylinder sleeves | Wet type |
| No load speed . . 1925 R.P.M. | Full load speed . . . 1800 R.P.M. |
| Valve clearance (cold) | .014 inch |
| Spark plugs . . .Champion No. 15A; AC type No. 87 (Thread 18-mm.—Gap .025 inch; Shank Length ½ inch) | |
| Carburetor (Marvel-Schebler) (Zenith) | Updraft 7/8-inch S.A.E. Flange |
| Air cleaner | Oil bath type |
| Governor | Flyweight |
| Magneto | Case, Model 41 |
| Oil Filter | Replaceable cartridge |

BELT PULLEY (extra)

| | |
|---|---------------------|
| Diameter . . . 10¼ inches | Face . . . 6 inches |
| Full load speed (at 1425 Engine R.P.M.) | 969 R.P.M. |
| Belt speed | 2600 Ft. per Min. |

POWER TAKE-OFF (extra)

| | |
|---|--------------------------------------|
| Speed (at 1425 Engine R.P.M.) | 525 R.P.M. |
| Spline . . . 1-3/8 inch A.S.A.E. | Standard guard . . . F.E.I. standard |

APPROXIMATE CAPACITIES

| | U.S. | IMPERIAL |
|--|------|-----------|
| Engine crankcase (1 additional quart for filter) | 4 | 3.34 Qt. |
| Cooling system | 13 | 10.85 Qt. |
| Fuel tank | 9¼ | 7.73 Gal. |
| Auxiliary fuel tank (when used) | 1 | .835 Gal. |
| Transmission, differential & axle housing | 7 | 5.85 Gal. |
| *Torque tube (without Eagle Hitch) | 2 | 1.67 Gal. |

APPROXIMATE TRAVEL SPEEDS

(With engine speed of 1800 R.P.M. and 9.00-24 rear tires on tractor)

| First | Second | Third | Fourth | Reverse |
|-------|--------|-------|--------|------------|
| 3.60 | 6.25 | 8.10 | 19.2 | 5.0 M.P.H. |

TIRE PRESSURES

| | |
|---------------------------|-----------|
| Rear (9.00-24) | 12 P.S.I. |
| Rear (10.00-24) | 12 P.S.I. |
| Front (6.00-16) | 28 P.S.I. |

WHEEL TREAD

| | | | |
|-----------------|------------|-----------------------------|-----------------|
| Front | 48¼ inches | Rear (adjustable) | 44 to 72 inches |
|-----------------|------------|-----------------------------|-----------------|

SHIPPING WEIGHT

With 9.00-24 rear, 6.00-16 Front tires 2577 lbs.

*Capacity varies with type of hydraulic equipment used.

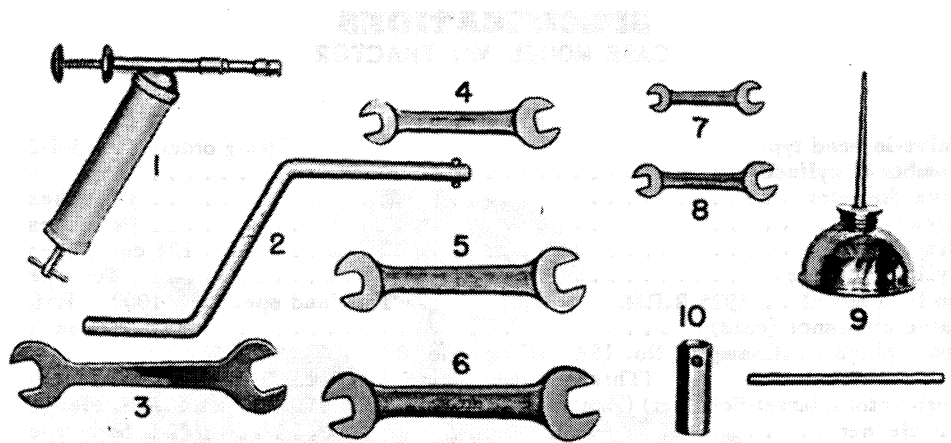


Figure 2. Small Tools for Tractor

- | | |
|-----------------|-----------------------------------|
| 1. No. 5950 | Grease Gun |
| 2. No. VIA-714 | Starting Crank |
| 3. No. VT-2549 | Wrench |
| 4. No. 07567AB | 5/8 - 3/4" Double End Wrench |
| 5. No. 07599AB | 13/16 - 1" Double End Wrench |
| 6. No. 07569AB | 15/16 - 1-1/16" Double End Wrench |
| 7. No. 07565AB | 3/8 - 1/2" Double End Wrench |
| 8. No. 07566AB | 7/16 - 9/16" Double End Wrench |
| 9. 1/2 pt. | Copper Oil Can |
| 10. No. VT-3538 | Spark Plug Wrench |
| 11. No. 06019A | Spark Plug Wrench Handle |

SERIAL NUMBERS

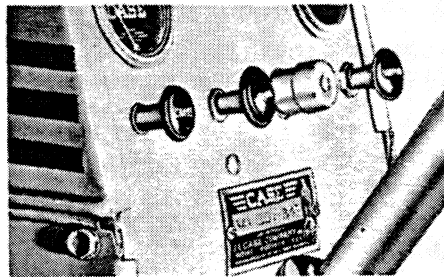


Figure 3. Tractor Serial Number

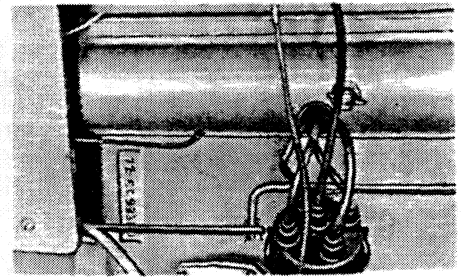


Figure 4. Engine Serial Number

When ordering parts, always give the tractor serial number. This is found on the name plate of the instrument panel. If the parts to be ordered are engine parts, give serial number of the engine, which is stamped on the right-hand side of the block.

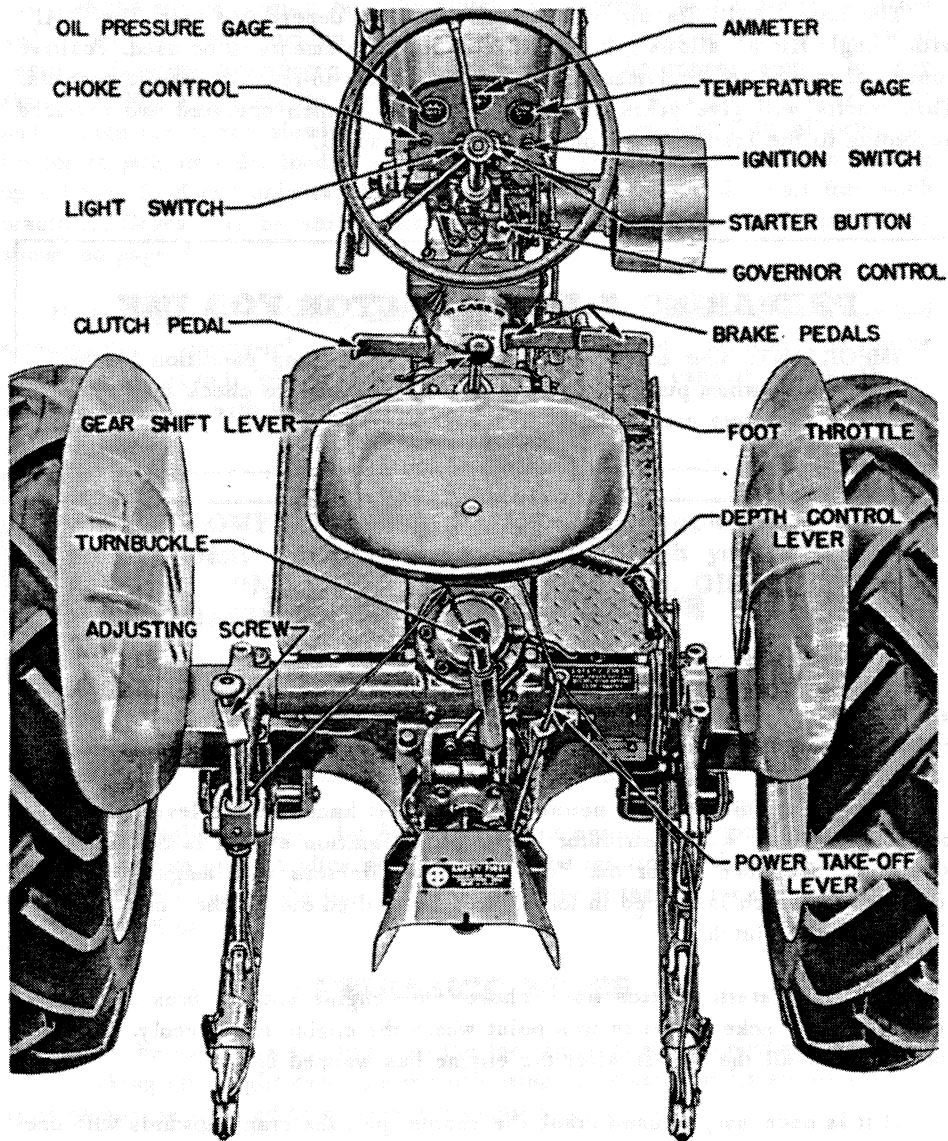


Figure 5. Tractor Operating Controls

CASE MODEL VAI TRACTORS

The Case "VAI" Tractor is a versatile, rugged, dependable unit. The "VAI" with "Eagle Hitch" allows numerous "latch-on" implements to be used. Positive control of tractor and implement is assured with easy-to-reach hydraulic controls. This tractor will give years of satisfying service when operated and serviced according to the instructions contained in this manual.

PREPARING A NEW TRACTOR FOR USE

IMPORTANT: Your tractor has been put in operating condition by the dealer from whom purchased. Regardless, it is well to check the entire tractor to insure everything is in order.

STARTING THE ENGINE

Before attempting to start the engine, see that the crankcase, torque tube, air cleaner and transmission are filled with oil to the proper level. See that the radiator is filled with clean water or with anti-freeze during cold weather.

Place gear shift lever in neutral position. Set hand throttle lever about mid-position. Tractors with distributor ignition: the ignition switch is pulled out for starting and pushed in for the "off" position. Tractors with magneto ignition: the ignition switch is pushed in for starting and pulled out for the "off" position. Disengage the clutch.

Press the starter button and "choke" the engine until it fires and starts, then push the choke button in to a point where the engine runs evenly. Push the choke button all the way in after the engine has warmed up.

If it is necessary to hand crank the engine, pull the crank upwards with one-quarter strokes. This will prevent the hand from being struck by the crank should the engine backfire.

Immediately after the engine starts, check the oil pressure gage to see whether it is registering pressure. If no pressure (or very low pressure) is indicated, STOP THE ENGINE. When the engine is warm and running, the gage should register between 10 and 12 pounds' pressure.

DRIVING THE TRACTOR

With the engine running, hold the clutch pedal forward in disengaged position and release the pedal locking latch. Move gear shift lever to position of speed desired. Positions for different speeds are marked on the transmission cover (see Figure 11. When starting the tractor, speed the engine with the foot accelerator and engage the clutch slowly. Do not engage the clutch suddenly, allowing the tractor to jerk into the load; there is no advantage in doing this when picking up a heavy load and only rapid clutch wear and breakage will result from such practice. Gears may be shifted while tractor is in motion. Road speeds are shown on page 4.

No fine piece of machinery should be loaded to full capacity until it has had a reasonable "running-in" period. For the first 50 hours of operation this tractor should be run at half load or less before it is put on full capacity loads. Do not confuse half load with half speed.

THE COMPLETE OBSERVANCE of one simple rule would prevent many thousand serious injuries each year. THAT RULE IS. "NEVER ATTEMPT TO CLEAN, OIL, OR ADJUST A MACHINE WHILE IN MOTION."

—National Safety Council.

STOPPING THE ENGINE

When gasoline is used for fuel, the tractor engine is stopped by throttling the engine down until it idles and "cutting" the ignition with the switch. It is also advisable to close the fuel tank shut-off valve if the tractor is to remain idle for any length of time.

PNEUMATIC TIRES

When the tractor is shipped from the factory, tires are over-inflated to facilitate blocking on freight cars. Before operating the tractor under its own power, tires should be deflated to pressures indicated below.

FRONT

6:00-16 — 28 P.S.I.

REAR

10:00-24 — 12 P.S.I.

9:00-24 — 12 P.S.I.

Air pressure should never be allowed to drop below those specified above. Check tires once a week with an accurate gage. Keep tire valve caps in place to prevent dirt and water from damaging the valve core.

FOR YOUR SAFETY

1. Never get on or off the tractor while it is in motion.
2. Never fill the gasoline tank when near an open flame or when the engine is running as the air for several feet around the liquid is charged with an explosive vapor which may cause accidents. When operating the tractor on crossed belt work during exceptionally dry weather conditions, a small steel chain should be attached to the tractor and the free end allowed to drag on the ground so as to discharge the static electricity developed in the tractor.
3. When the Power Take-Off is used, be absolutely sure the standard adapter guard furnished with the attachment is in place. This guard in itself is not sufficient to prevent clothing from being caught by the universal joint or revolving shaft. It is a standardized shield and will fit to a telescoping shield which should be furnished with all power take-off driven machines.
4. Never make short turns in high gear and avoid using high gear when rear wheels are in narrowest tread. Short turns should be made at slow traveling speed and with reduced throttle. The differential or rear wheel brakes operate independently of each other and when traveling in high gear, the foot brake pedals should always be locked together. Keep brakes in adjustment at all times. Do not apply brakes suddenly. Do not drive at high speed over rough and stony ground or roads having ruts.
5. When starting the tractor, always engage the clutch gradually to permit the engine to pick up the load slowly. Any tractor is likely to raise its front wheels if the clutch is engaged suddenly. Under such a condition the momentum of the flywheel adds to the power of the engine, increasing the tendency of the front end of the tractor to lift off the ground. To eliminate possible danger under such a condition, the operator should keep his foot on the clutch pedal, engaging the clutch gradually while allowing the engine to pick up the load and being prepared at all times to disengage the clutch promptly should the front end raise off the ground. Special precautions should be exercised when going up a steep hill, climbing out of mud holes or deep ditches, and when hitched to some heavy load. Never hitch the tractor to a stump or other object with a long chain or rope with slack, so that when the tractor moves forward it will jerk into the load. Under many conditions front wheel weights are desirable in operation.
6. When working on steep side hills, any tractor may tip over sideways, especially when the wheel on the lower side strikes a hole or ditch. The center of gravity on the CASE "VAI" tractor is low and is especially stable, but when operating under unusual conditions it must be used with reasonable care. The use of wheel weights lowers the center of gravity of a tractor and places the weight where it helps maintain balance. The use of wheel weights is especially beneficial when narrow wheel positions are required. Wheel weights are also an aid in developing additional traction.

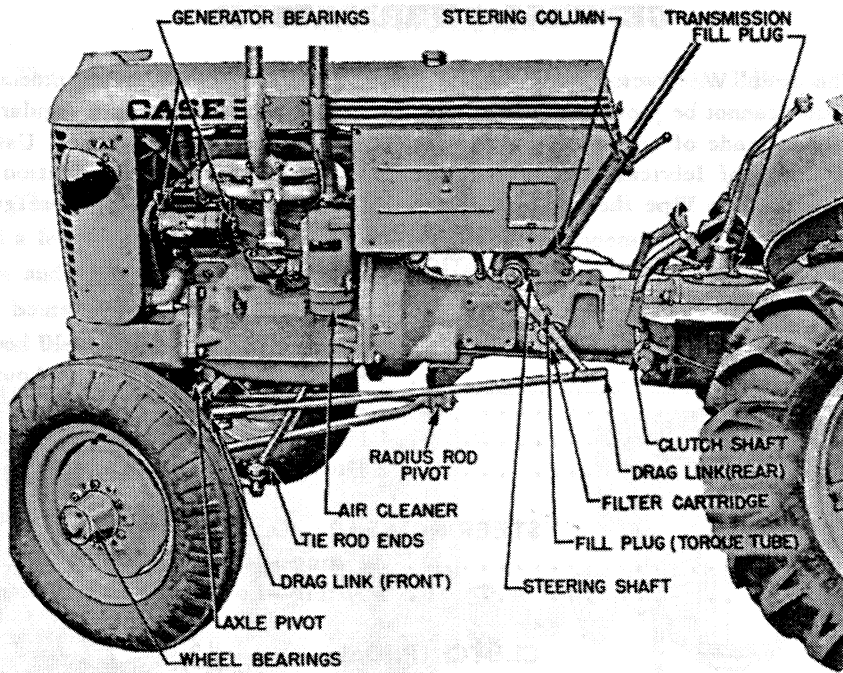


Figure 6. Lubrication Diagram—Left-Hand

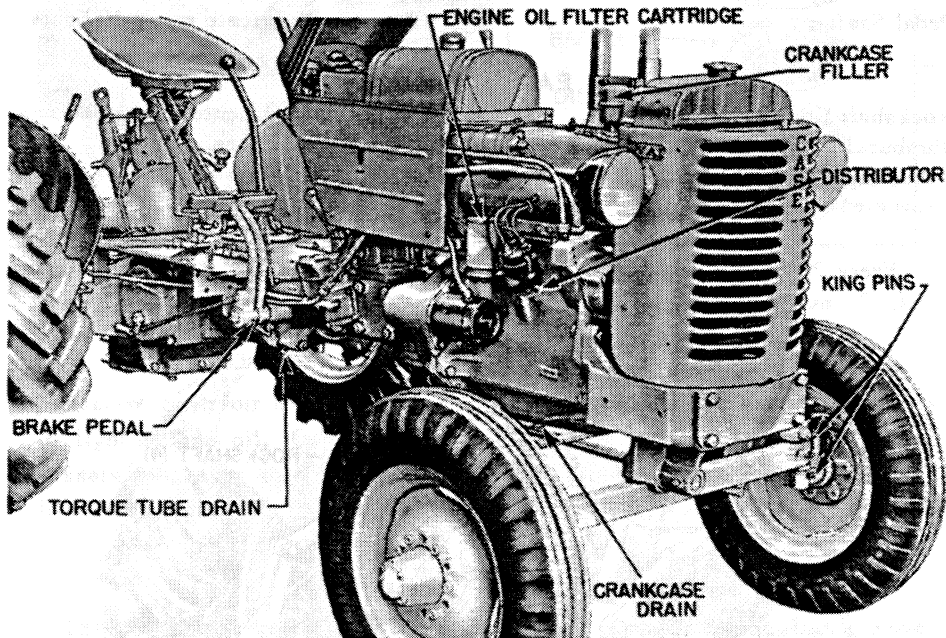


Figure 7. Lubrication Diagram—Right-Hand

GENERAL LUBRICATION

The model VAI Tractor is equipped with pressure fittings wherever automatic lubrication cannot be provided. Do not neglect to lubricate these points regularly. Use a good grade of semi-fluid pressure gun grease during warm weather. Use a lighter grade of lubricant during cold weather to insure proper lubrication of bearing surfaces. Wipe the pressure fittings clean before using the grease gun.

LUBRICATION POINTS

FRONT AXLE

| | |
|------------------------------|-------------------------------------|
| King Pins | 4 Fittings—Lubricate every 10 hours |
| Axle Pivot Bearing | 1 Fitting—Lubricate every 10 hours |
| Tie Rod Ends | 2 Fittings—Lubricate every 10 hours |
| Radius Rod Pivot | 1 Fitting—Lubricate every 10 hours |
| Drag Link | 2 Fittings—Lubricate every 10 hours |

STEERING GEAR

| | |
|---------------------------|-------------------------------------|
| Steering Column | 2 Fittings—Lubricate every 10 hours |
| Steering Shaft | 1 Fitting—Lubricate every 10 hours |

CLUTCH PEDAL

| | |
|------------------------|------------------------------------|
| Clutch Shaft | 1 Fitting—Lubricate every 10 hours |
|------------------------|------------------------------------|

BRAKE PEDALS

| | |
|-----------------------|------------------------------------|
| Pedal Shaft | 1 Fitting—Lubricate every 10 hours |
|-----------------------|------------------------------------|

EAGLE HITCH

| | |
|------------------------------|-------------------------------------|
| *Rockshaft Housing | 4 Fittings—Lubricate every 10 hours |
| Turnbuckle Body | 2 Fittings—Lubricate weekly |
| Adjusting Screw | 1 Fitting—Lubricate weekly |

*Do not overlubricate the two center fittings.

GENERATOR

Every 200 hours add a few drops of SAE #10 engine oil to each of the oil cups. Do not over-lubricate.

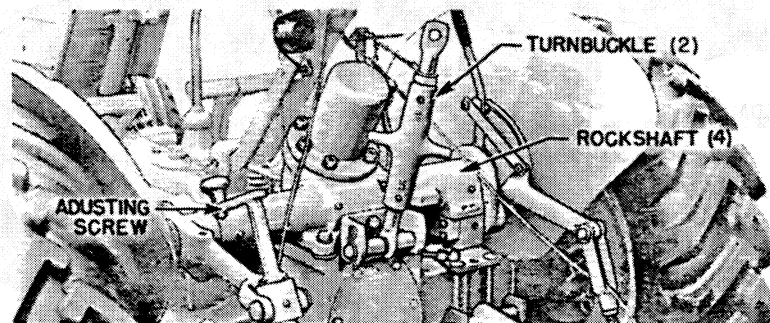


Figure 8. Lubrication of Eagle Hitch

STARTING MOTOR

The starting motor has sealed bearings which do not require lubrication.

DISTRIBUTOR

The distributor is equipped with small oiler, covered with a sliding cover. Add a few drops of light engine oil every 20 hours of operation. Remove cap and rotor and apply 5 drops of light engine oil to felt pad on top of cam sleeve every 150 hours of operation. Do not over-lubricate. Be especially careful not to get oil on breaker points. Oil the breaker arm pivot lightly.

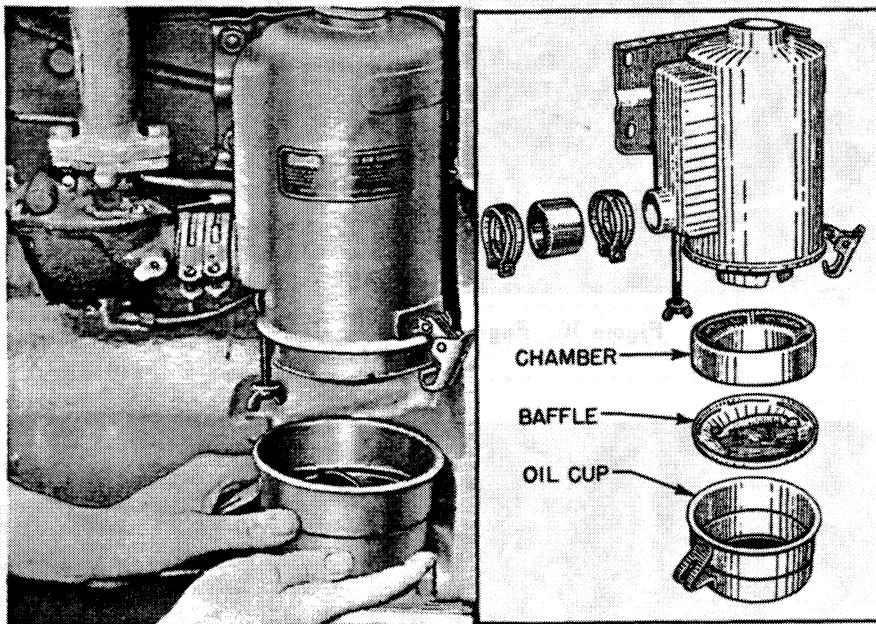


Figure 9. Servicing the Air Cleaner

AIR CLEANER

Remove reservoir every 10 hours of operation, clean and refill to the mark with light engine oil. Under extremely dusty operating conditions it may be necessary to change this oil every 5 hours or oftener. (Follow instructions on side of air cleaner.)

OIL FILTER

This is a flange-mounted replaceable cartridge type filter. The filter removes all foreign matter from the engine oil.

When using gasoline for fuel, change filter element whenever oil looks dirty or approximately every 300 hours of operation. Be sure filter element and gasket seal are tightened securely when installed to prevent oil leakage.

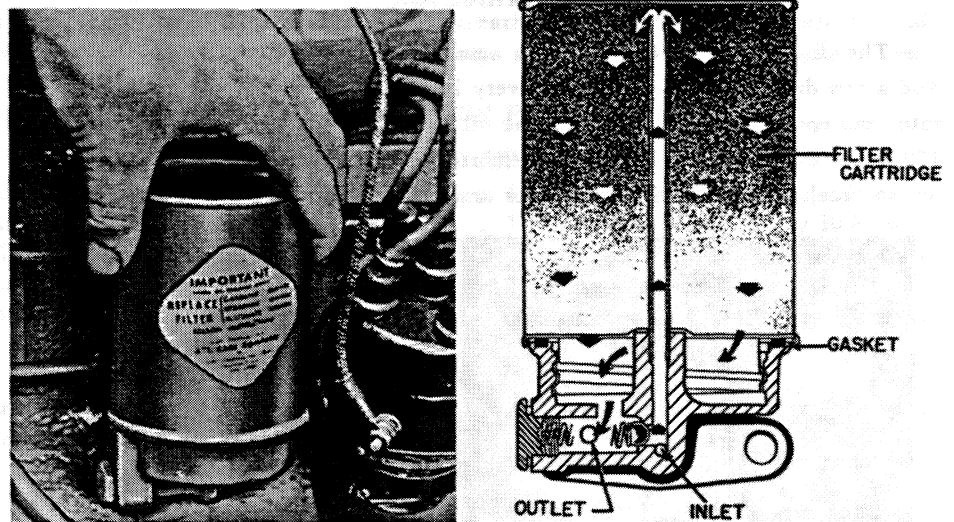


Figure 10. Engine Oil Filter Cartridge

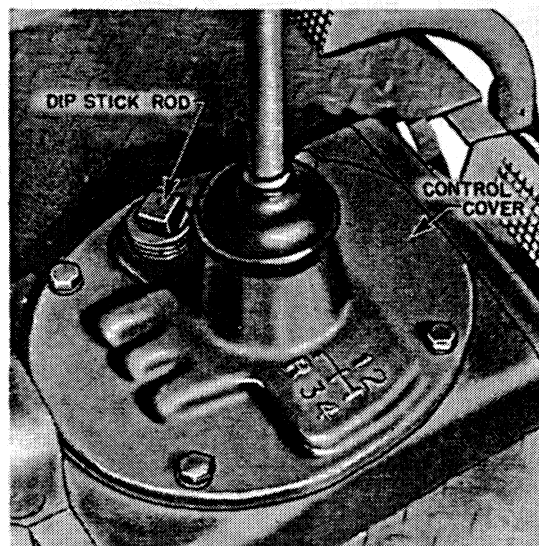


Figure 11. Gear Shift

TRANSMISSION LUBRICATION

Inspect oil level every 250 hours and refill if necessary. Once a year the transmission should be flushed and refilled with a high quality SAE #90 oil. This change can best be made when the weather is warm. Approximately 7 gallons of oil are required.

Buy Now



Our support email:

ebooklibonline@outlook.com