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Maintenance after 50 hours of tractor operation

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- Servicing after each 50-60 hours of tractor operation
 1. Repeat the 10 hour service schedule





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2. Maintenance of Tractor Battery: -Inspect the battery for loose terminals and electrolyte level. Wash the battery top with washing soda using warm water and grease the terminals with petroleum jelly to prevent corrosion.



wiki How to Clean Battery Terminals



Attention to the following points will help to get a long life from the battery.

- a) Keep the battery electrolyte level with distilled water. The electrolyte or battery solution should be about 10 mm above the plates. Never allow the level of battery solution drop below the top of plates.
- b) Never allow the voltage of the cells drop below a terminal voltage of 1.5V.
- c) The holes in the vent plugs must be clear. Vent holes allow the battery to breathe, especially when being charged.
- d) The terminal should be clean, tight and lightly coated with petroleum jelly.
- e) Connections should be kept tight.
- f) The battery should be securely held in its box. If it moves above, the case may get damaged.



g) The top of battery should be kept clean & dry to stop leakage of electricity from one cell to another. Wipe out dirt, dust and any acid which splashed out of the battery.

h) Keep the earth strap tight. This is lead from the tractor chassis to the earth terminal on the battery.

i) Always charge the batteries to their full rated capacity. If the battery is not used for long periods, it should be taken off the tractor & stored in a cool shed. It should be charged once a month especially in winter

Interpret result with the help of following table

Specific. Gravity of cell	Interpretation
1.300	Electrolyte level low or battery over charge
1.225-1.1.280	Battery in good condition
1.225	Battery charge too low



- **Testing with cell tester:**

Cell should indicate voltage of 2 volts or above when prongs of cell tester applied on positive and negative plates of the same cell.

- **Checking battery frame and cable connections:**

If battery fitting clamps on the tractor are loose, battery is subjected to excessive vibrations and plates may get damaged. Loose terminals provide excessive resistance to flow of current and thus result in excessive damage to battery. Ensure that the cable connections are tight.

3. Check the fan-belt tension and adjust it if required: V-belts are designed to ride on the sides of pulleys. Too tight v-belts increase the wear of the belt and bearing. Too loose belt cause belt slippage which effects less engine cooling and battery charge.



4.Cleaning and servicing air cleaner:

Two types of air cleaners are in use:

- a) Oil bath type air cleaner and
- b) Dry type air cleaner

a) Servicing oil bath type air cleaner

To service the air cleaner "Oil bath type" following steps should be observed:

- Dismantle the air cleaner assembly completely.
- Remove pre-cleaner and clean it with air under pressure by passing air in the opposite direction of its normal flow.
- Remove the top screen and clean it with kerosene or diesel with the help of brush.
- Remove the used oil, clean with diesel and refill with fresh mobile oil to the level indicated.
- Clean air hose and air pipe with compressed air.
- Assemble the air cleaner assembly and attach it securely into its mounting on the tractor.



b) Servicing of dry type air cleaner Follow all the above steps for dry type of air cleaner except for "d" where element is cleaned by tapping or compressed air. It can also be cleaned with detergent if available.

5. Servicing of fuel supply system: This includes

- a) Check the fuel line for any leakage and clean it.
- b) Clean the sediment bowl and the screen.

it is essential to clean it and following procedure is adopted:

- Close fuel cock on fuel supply line
- Loosen the nut that holds the sediment bowl
- Remove bowl with twisting motion
- Remove gasket Remove strainer screen or filter
- Wash screen or filter element with diesel.
- Clean sediment bowl by washing with diesel or kerosene“
- Open fuel cock and observe flow
- Reinstall gasket, strainer and sediment bowl
- Tighten bowl against gasket



6. Check and adjust the brakes for proper operation:

- Check/see what provision is made for brake adjusting
- Jack up rear of tractor until both rear wheels are clean of the ground
- Release the brake interlock
- Tighten adjusting screw, adjusting rod through the adjustment screw as per match with the manual.
- Slacken the adjuster screw until the wheel revolves freely without shoe rubbing on the drum
- Adjust second brake in the similar manner
- Check to make sure that brakes are equalized tractor from jack test



7. Check and adjust the engine clutch:

A clutch will operate for longer period, unless' the driver has been operating the tractor with his foot resting on the clutch pedal. The clutch pedal should be adjusted to give a free play of 10-15 mm. The setting is obtained by adjusting the screw until the required measurement is obtained.

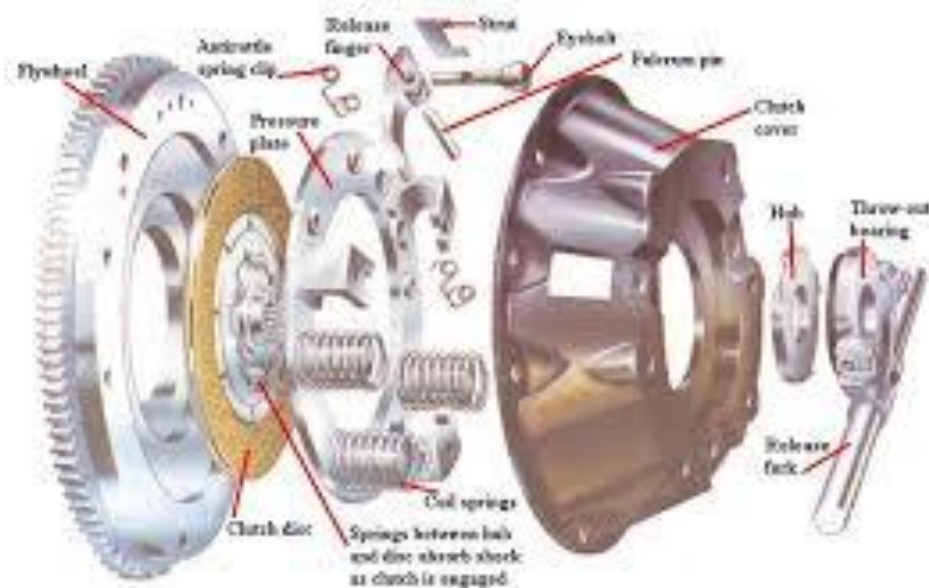
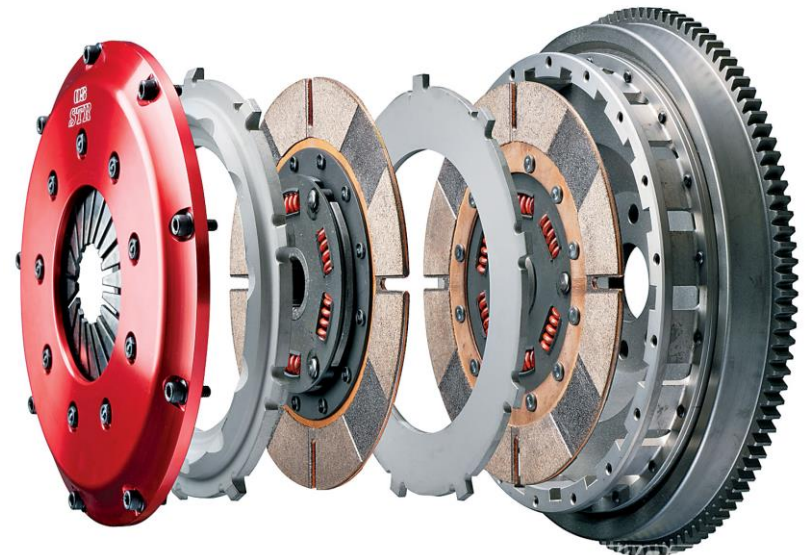


Fig. 10.1: Clutch

(Source: http://www.motorera.com/dictionary/pics/c/coil-spring_clutch.jpg)





8. Lubricate:

Lubricate the following:

- a) Fan-hub bearing
- b) Throttle-control lever
- c) Engine-clutch-release bearing, and
- d) Alternator bearing

9. Check the water-pump (water body) for leakage and tighten or replace the packing, if required.

10. Loosen the vent plug and the drain-tap of the primary fuel filter and run off a small quantity of fuel in order to remove any water which might have accumulated.