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**Familiarization with different makes and models of 4-
wheeled tractors Study
of points to be checked daily, starting and safety checks**

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Introduction

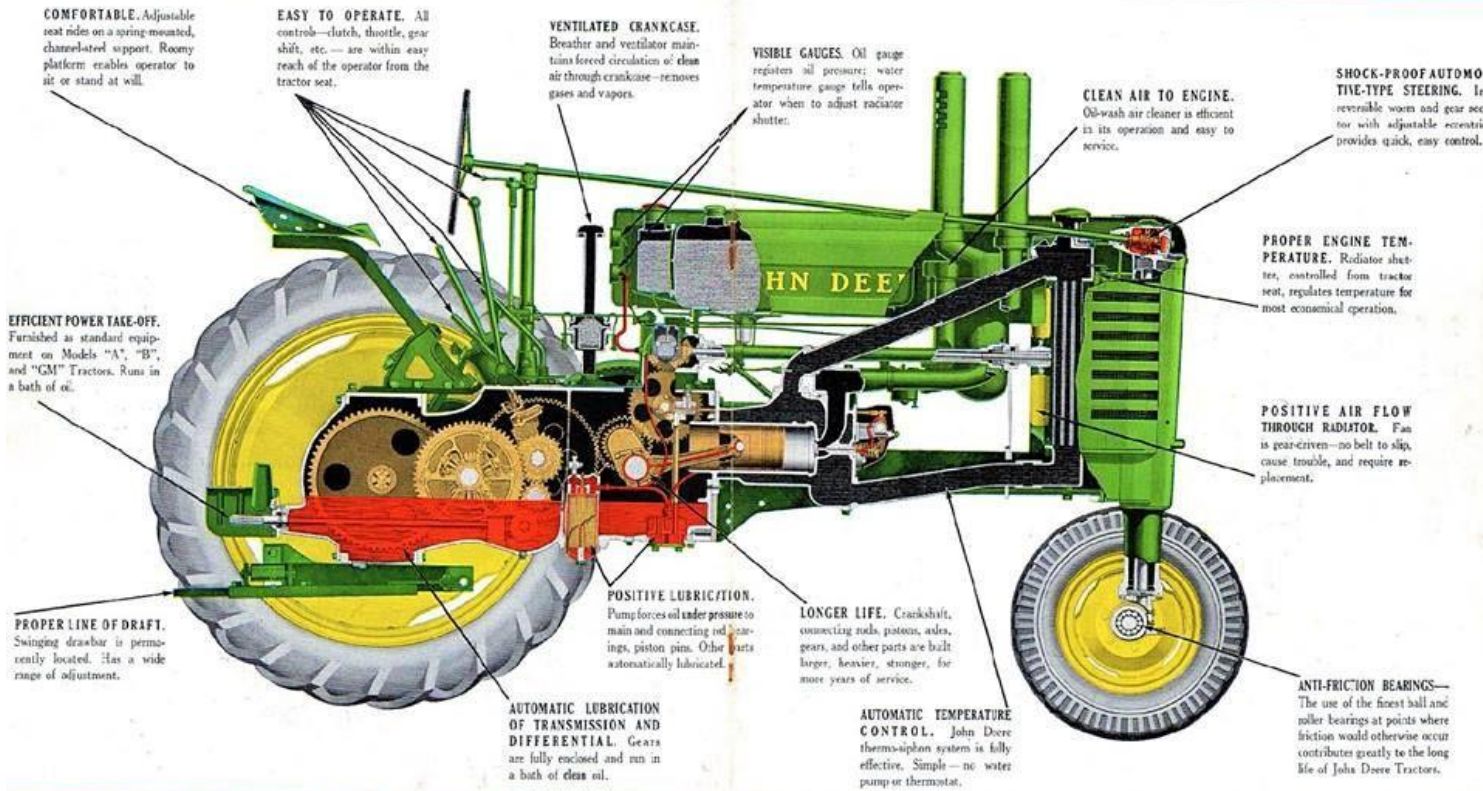
- The tractor is a prime-mover which can be used for carrying out farm operations such as ploughing; harrowing, seeding, inter-cultivation, harvesting, transportation, land levelling and operating stationary machines
- All the machines require periodical servicing, maintenance and repairs for efficient and economical performance to stay in good operating conditions throughout working life.
- Although, most of the tractor manufacturers have appointed their dealers to provide operational know how, after sales and services of their products, yet, these are inadequate.
- Due to improper maintenance and servicing of the tractors, it has been found that many tractors have been rendered unserviceable within a short period of 5000 hours or even less.



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A typical 4-wheel general purpose tractor :





View of tractor power train



Tractor Assembly & Controls

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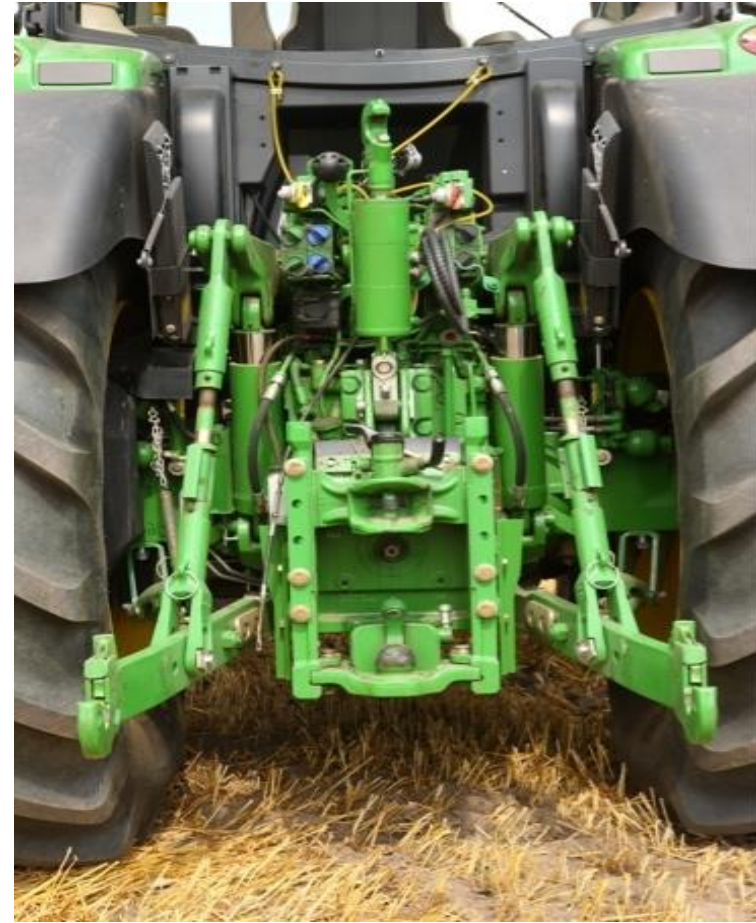
1. Power Trains: The power trains consist of engine, clutch, transmission (gear box), differential, final drives, axle shafts, wheels or tracks, steering & brakes



View of power transmission system of tractor



Power outlets: The tractor power is made available for use through hydraulic lift, drawbar hitch, belt pulley & PTO shaft.





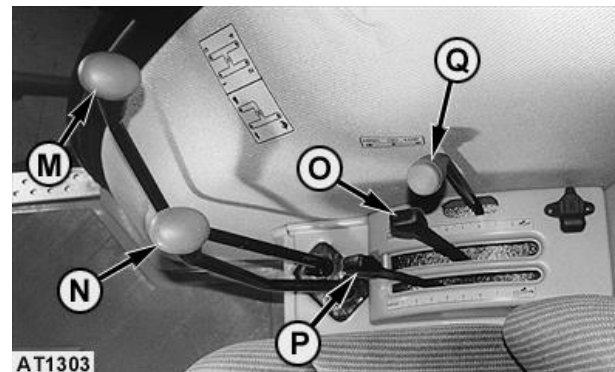
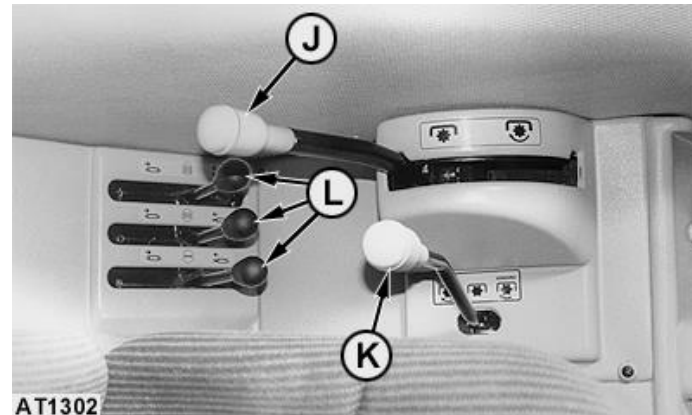
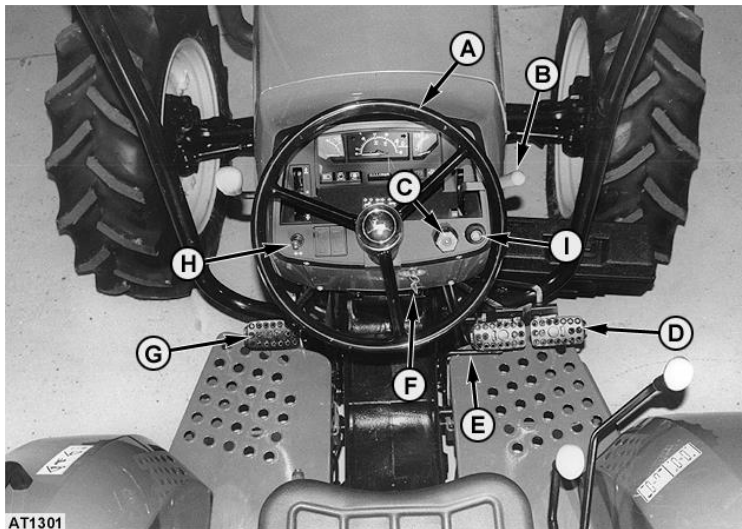
3. Instruments and gauges: Most of the tractors are equipped with gauges and meters such as fuel pressure gauge, oil pressure gauge, water temperature gauge, hour meter, hydraulic pressure gauge and temperature gauge to indicate their operating conditions





4. Levers and controls

The tractor is also provided with throttle or accelerator lever/ pedal, clutch pedal/ lever, brake pedal/ lever, gear shift lever (main & auxiliary), steering wheel/ lever, hydraulic control, PTO pulley lever, differential lock/ pedal/ lever etc. to exercise control on different operations





Daily, starting and safety checks in tractor:

1. Check fuel in fuel tank (is there enough fuel to complete the task).
2. Check coolant level in the radiator, or inspect cooling fins on air cooled models of tractor.
3. Check tire inflation pressure (refers to owner's manual for proper inflation of front and rear tyres for each job).
4. Check the condition of the tyres. Look for cuts, cracks and buckling.
5. Check the battery, cables and terminals and electrolyte level.
6. Check the transmission and hydraulic oil levels.
7. Check air filter elements, or the oil level in an oil bath type air cleaner.
8. Check the guards and shields to ensure that they are correctly installed and in good conditions.
9. Check operator's station. Be sure that it is clear of spilled fuel, oil, grease, crop residue, or loose objects.
10. Check the lighting system and ensure "Slow Moving Vehicle Emblem" is placed