

Tractor Safety and Operation Assessment

General Safety Practices

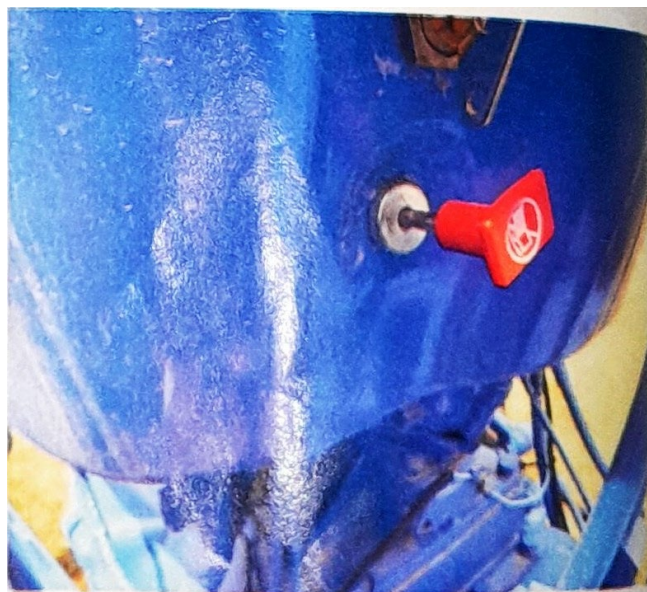
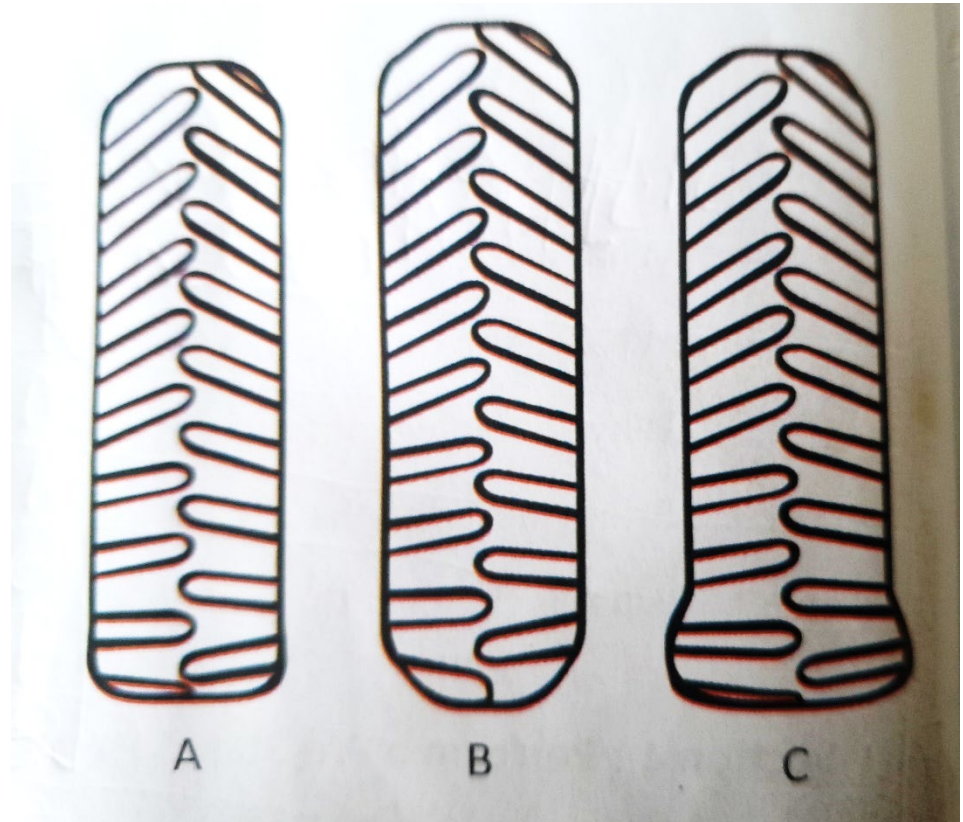
1. What is our number one safety precaution? **Pray and ask for Gods blessing**
 2. Are you allowed passengers on a trailer? **No**
 3. What are the rules for passengers on tractors? **There are to be no passengers other than a 16 or older for the purpose of feeding out.**
 4. What is the only place a tractor should be started from? **The seat.**
 5. Why should we not mount and dismount a moving tractor? **Lest we lose our footing and be run over by the tractor.**
 6. Briefly describe the correct way to mount and dismount a tractor? **three points of contact at all times**
 7. What is the best thing to do when feeling tired at the wheel? **Stop and have a rest/tell someone.**
- 8. Section 1**

Perform a Pre-Start Safety Check on the Ground

1. List 9 pre-start checks that should be carried out before getting on the tractor. Briefly describe what is being checked and what you are checking for. **Make sure all hydraulically operated equipment is lowered to the ground. Look for problems that may have occurred in the previous operating period. Check engine oil and fuel check power steering level check radiator coolant level check fan belt condition check gearbox oil level check tire pressure.**
2. How often should your tractor be greased? **Every 10 hours of operation.**
3. Describe what is “wrong” in each of these photo’s A, B, C, D and what should be done to solve the problem. **In A pic the chain is a tripping hazard it needs to be removed, in Bpic there is a loose fitting it needs to be tightened, in Cpic the fan belt is damaged and needs t be replaced, in Dpic the radiator fluid needs topping up.**



4. What precautions should be taken when checking the water level and why? Making sure the radiator is cool so the hot water doesn't explode in your face.
5. What are the problems associated with running out of fuel? you could wreck the pump and condensate can form and contaminate the tank.
6. Which of the tyres in this diagram are inflated correctly? A

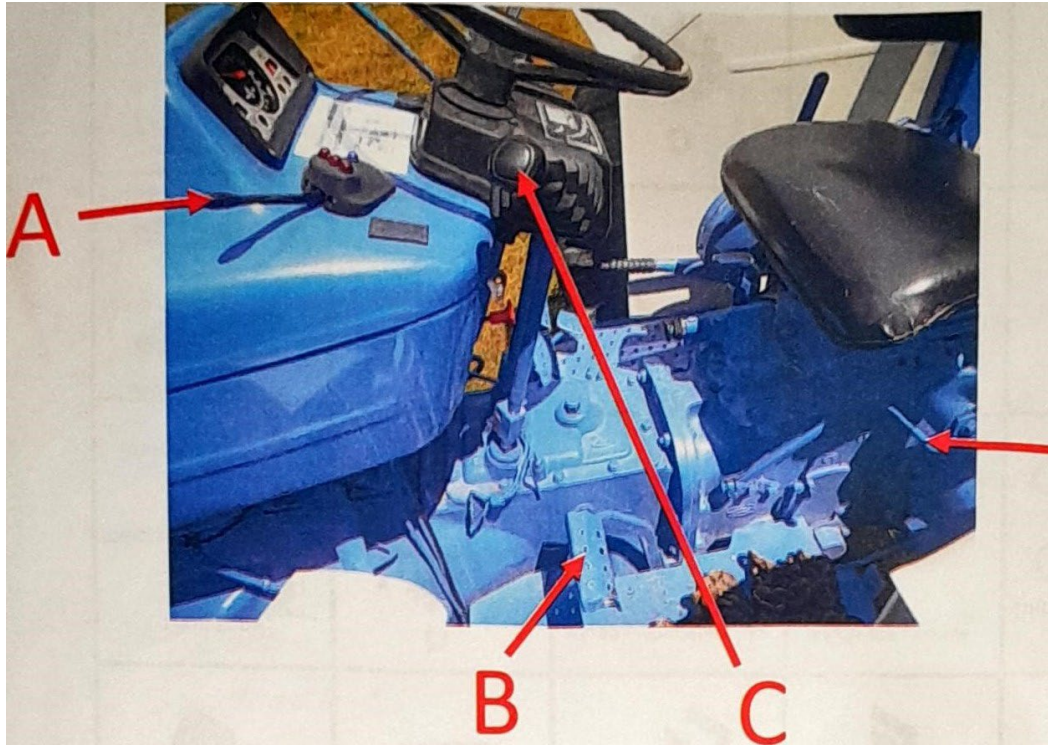


Section 2

Perform a Pre-Start Safety Check in the Seat

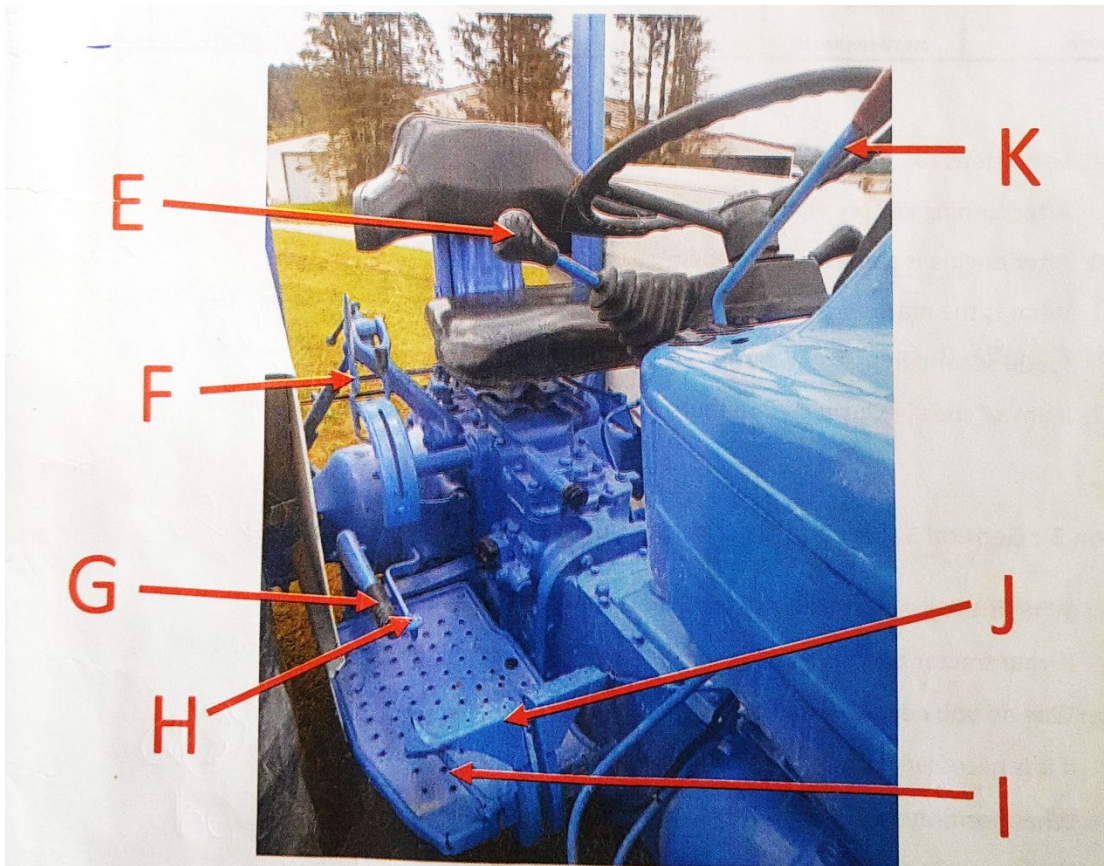
1. What must you know before starting any tractor or machine? Safety belt familiarise yourself with the controls
2. What is the control pictured here? Stop
3. What is free play in relation to clutch and brake pedals? Free play is making sure the brakes move independently as well as the clutch.
4. How much free play should the brake pedals have? 20mm
5. Should this be checked with the pedals locked or unlocked? unlocked
6. How much free play should the clutch pedal have? 40mm

7. Name the controls and symbols labelled in the three pictures below.



A: indicators
C: High low ratio

B: Clutch
D: PTO



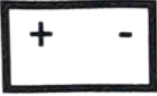








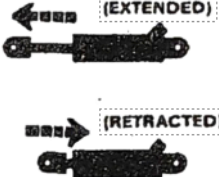



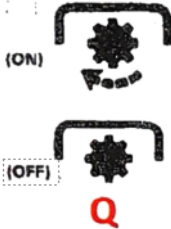
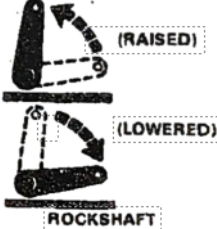





E: Gear stick F: lever

Rear arm

G: Handbrake

H: Diff Lock

I: Foot throttle J: Foot Brake

 M	 N	 O	 P	 ENGINE R P M
 SPEED RANGE	 VEHICLE FORWARD REVERSE	 NEUTRAL	 PARK	 REMOTE CYLINDER
 LIGHTS	 WINDSHIELD WIPER	 WINDSHIELD DEFROSTER	 Q	 ROCKSHAFT
 HORN	 CLUTCH ENGAGED	 CLUTCH DISENGAGED	 GREASE FREQUENCY	 OIL TYPE AND FREQUENCY

COMMON SYMBOLS

M:Ammeter N:Transmission oil temperature O:Transmission oil filter P:engine oil pressure Q: Power take off

- List 4 steps to be taken before turning the key on? **Check handbrake is on Check the area is clear of any small children Check gears are in neutral Check stop cable is in.**
- After turning key on, what should be checked? **Check all gauges and lights are working.**
- After engine is started, what should be checked? **Check all warning lights are off and the instruments are reading correctly.**
- What is the maximum time a starter motor should be operated for, before letting it rest for 20 seconds? **No more than 40 seconds**
- If any of the above checks are found to be unsatisfactory, what should you do? **Report it to the workshop**

Section 3

General Safety and Operating Principal

- What is the greatest cause of tractor accidents **Fast driving**
- If your tractor becomes tangled in high voltage wires, what do you do? **Stay on the tractor**
- Why do you need to become familiar with your gear changes? **Be able to change gears without looking down**
- If it is necessary to park on a hill, what precautions should be taken? **Engine off handbrake applied and a chock behind the wheels**
- What position should implements be left in before you leave the tractor? **Hydraulic implements be lowered to the ground all the lights should be off**
- Should you ever leave a tractor running unattended? **No**

Section 4

Stability

1. Briefly describe the term “centre of gravity”. **It is the point where all parts of the tractor are balanced**
2. How does this affect the performance and safety of your tractor? **it can cause a tip over**

Sideways Roll-overs

1. Briefly describe the term 'tipping axis'. **It is the pint between stability and the point of tipping over**
2. Name the 2-tipping axis' on a tractor. **Back wheels**
3. Briefly describe the effect “centrifugal force” has on stability and how this force comes to be applied. **Centrifugal force tries to pivot the tractor on its outside wheels causing a roll over.**
4. Where have most tractor fatalities occurred and why? **Flat ground less than 9 degrees**
5. Under the 3-headings listed below briefly describe how sideways roll-overs can be prevented.
 - a. Speed **Going a slow speed even on flat ground**
 - b. Ballast **Adding a ballast and lowering it helps lateral stability by lowering the centre of gravity**
 - c. Wheel Track **widening the rear wheel track of a tractor pushes the tipping axis out increasing stability**

Rearward Roll-overs

7. How fast can a rearward overturn occur? **¼ of a second**
8. From what point are tractors specifically designed to pull from? **The drawbar**
9. Should you ever pull from the top link? Why? **No because this shifts the weight to the back causing a rear wheel tip over**
10. For what purpose should a three-point linkage drawbar be used? Why? **Only for wheeled implements it won't be to heavy for the tractor**
11. How can ballasting be used to prevent a rearward roll-over? **It is front weights water in the front wheels reduce the possibility of rear ending.**

Section 5

Terrain

7. What is the easiest and most effective precaution to take on sloping ground to prevent accidents? **Keep your front wheels pointed upward and drive slow**
8. It is safer to reverse up a steep hill. **True / False**
9. It is safer on a tractor with no implement to reverse down a steep hill. **True / False**
10. When preparing to drive up or down a hill, what gear should be selected? **One as ow as possible to be able to go up and down without needing to change gears at all.**
11. When travelling down a hill, using your brakes, your wheels begin to skid. What should you do? **Go with the slide and stop at the bottom of the hill.**
12. If travelling in a paddock with tall grass or crop, what would you need to be looking out for? **Holes or large rocks.**
13. If there is a creek in the paddock with a bank 1 metre high, how far away from the edge should you stay? **You should be as far away from the bank as the bank is high**



Section 6

Trailers

1. What three things MUST you do before allowing anyone to go behind your tractor? **apply handbrake put it in neutral remove your foot off the clutch.**
2. Are you allowed passengers on trailers? **Only if there is a responsible adult (16 or up) with you**
3. What problems can you see in the 2 photos below? **The trailer is about to hit the drawbar causing damage. The wheels are dirty causing rust and may loosen the wheelnuts.**
4. List the checks that should be done on a trailer before use. **It should have a safety chain and a good connection to the tractor.**

Section 7

Three Point Linkage

1. Where should you be when adjusting the height of your rear arms? **In the cab or standing to the side of the tractor.**
2. Where should your hands be when someone else is helping hook up the rear arms? **Off the steering wheel and on the handbrake.**
3. With someone helping you what should be done before making any adjustments to your arm height or tractor position? **Making sure they are out of the way and not in harm's way.**
4. Before storing your implement, what should be done? **Checking it has a full tank of fuel making sure it is clean for the next person**
5. How often should an implement be greased? **Approximately every 10hrs of use.**