



DATE July 2019
SUBJECT Tractor Operating Guidelines – 2WD and 4WD
Approved by Lifesaving Committee

1. INTRODUCTION

Tractors enable suitably qualified surf lifesavers and members to move essential life saving equipment to and from storage areas across difficult and sandy terrain for use both inside and outside of the patrol area. These vehicles are used **solely** to take equipment on and off the beach.

The following information gives advice on the safe use of these vehicles. It covers the two main types of tractors:

- 2 wheel drive machines; and
- 4 wheel drive machines.

2. DEFINITIONS

The procedures in this document govern the use of both types for surf lifesaving purposes.

- 2 wheel drive machines – provide drive through two of the tractor’s four wheels; and
- 4 wheel drive machines – provide drive through all four wheels of the tractors.

3. DRIVER QUALIFICATIONS

Operators shall be 17 years of age and shall:

- Hold a driver’s licence if the vehicle is under 4.5 tonnes; for vehicles over 4.5 tonnes the operator will need to hold a LR or Light Rigid licence. For provisional license holders “P” plates must be displayed as per Queensland Transport Regulations;
- Be a financial member of an affiliated surf life saving club;
- Have completed an SLSQ tractor operator induction; and
- Be wearing an approved patrol shirt and shorts as required for your surf club except in circumstances where the tractor is being used outside operational patrol hours for your club where the operator will wear a high visibility vest.

4. EQUIPMENT

The vehicle shall display the following equipment:

- ROPS or roll over protective structure ;
- Turn indicators and stop/brake lights;
- Reversing beeper;
- Rotating yellow light;
- Guards covering the rear wheels;
- The positioning of the exhaust outlet to direct gases away from the operator;
- Non-slip surfaces for access and exit;
- Dual working headlights; and
- Draw bar that is adequate for the load being pulled or a carryall suitably strengthened and

braced from the rear of the carryall to the tow ball or hitch point.

Note: Any modifications including roll bars carry racks and storage containers must adhere to manufacturer's guidelines and be carried out in consultation with the manufacturer, dealer or trailer weight compliance specifications (see your local trailer builder). Carryalls are designed to carry objects not tow trailers so a trailer manufacturer will be able to strengthen the base of the carryall so that it can draw loads suitable for the application.

5. PERSONAL PROTECTIVE CLOTHING

Operators shall at all times wear the following personal protective equipment whilst operating any tractor:

- Minimum of a patrol shirt and shorts except in circumstances where the tractor is being used outside operational patrol hours for your club (should the vehicle be used outside patrol operating hours or tasks, then a high visibility safety vest shall be worn at all times).

6. SPEED, LIGHTS AND REVERSING BEEPER

Any tractor when operating on any beach shall not exceed 20km/hr. Headlights and an amber flashing light shall be fitted to the vehicle and "on" whilst the vehicle is operating. An audible reversing beeper shall be fitted to all vehicles.

7. COLOUR & SIGNAGE

Colour Scheme:

There is no preferred colour scheme as most vehicles will appear as the manufacturer intended however should the club repaint or order a new vehicle then the preferred colour is to be yellow or red. Advertising is allowed but not so large as to impede the operation and/or visibility of the vehicle.

8. MAINTENANCE

Maintenance shall be carried out in accordance with manufacturer's instructions, although, more regular maintenance will be needed to combat the harsh conditions of operating in a beach environment. The condition of the equipment also reflects and affects the image of the association and the operators shall ensure the vehicle is in good condition at all times.

Tyre Pressures:

You should check these daily as only 1 psi (0.07kg/cm²) difference in pressure can cause vehicle control problems. Use a gauge that is designed for measuring and displaying low pressures. Check the manufacturer's guidelines for correct pressure.

9. FUEL AND OIL

Fuel shall be used in accordance with the manufacturer's guidelines and shall be stored in an appropriate container in a suitable location. Guidelines (Australian standards, local authorities, etc.) will need to be conformed to.

Fuel levels should be checked at pre-operation and post-operations for best usage. All tractors are run on diesel fuel, and should the vehicle run out of fuel consult your manufacturer's handbook for the correct re priming technique as all fuel pumps operate differently.

- Always store fuel in an appropriate storage facility;
- Always have a fire extinguisher available when dispensing fuel; and
- Always clean up spills, in particular any fuel spilt into the vehicle.

10. PASSENGERS

Never carry a passenger on a tractor as the vehicle was meant to be operated by one person only. The

vehicle will be fitted with two safety belts if it was designed to carry a passenger. SLSQ prohibits the carrying of passengers except where a machine is suitable for that purpose e.g. two designated seats. You should not carry a passenger in a trailer or on the carryall of the vehicle as this practice is extremely dangerous and voids your insurance should an accident occur. This type of accident usually results in **death**.

11. ROADWAY AND BEACH USAGE

Legislative requirements and road rules must be complied with at all times when the vehicle is driven on a roadway and/or beach. Permits will also be required from the police to operate on the road. A permit will be required from the local authority to operate the vehicle on the beach.

12. ACCIDENT REPORTING

All accidents must be reported to the appropriate officer of the surf life saving club or service (President, Club Captain, Secretary, and/or Patrol Captain) immediately following the accident. All accidents must also be reported to SurfCom in the region and the Branch Director of Lifesaving in the region. All information must be obtained at the scene of the accident if possible including the names and addresses of people involved, vehicle types and registration, photographs and/or diagrams of the incident. Police must be notified in the event of a major accident (involving significant damage to the vehicle or property), multiple vehicle collision or the injury of a person. Insurance guidelines which apply to the vehicles, property and/or persons should be complied with and the necessary claims lodged

13. VEHICLE SPECIFICATIONS

All tractors used for life saving purposes must hold a Queensland Transport registration label and a concessional registration plate.

14. INDUCTION TRAINING REQUIREMENTS

In line with OH&S guidelines, the SLSQ Lifesaving Panel has gazetted that all tractor operators will be required to complete a tractor operators induction course in accordance with guidelines outlined herewith. This operator's induction is necessary to:

- Ensure ongoing competency of members in their field of training and activities;
- Maintain the standards of knowledge and expertise of ATV operators;
- Satisfy legal and statutory requirements; and
- Reinforce and maintain our service commitment to the bathing and beach-going community.

Minimum Induction Requirements:

To operate a tractor, members must successfully comply with and/or complete the following:

- The applicant must be a minimum of 17 years old on day of induction
- Hold a current and valid state manual Driver's License (not Learners permit)
- Be a current and financial member of an affiliated SLSC
- Have completed an SLSQ tractor Induction course
- Be wearing an approved patrol shirt and shorts as required for your surf club or high visibility vest

All existing and new operators must successfully complete the operators induction workbook prior to operating the vehicle. Directors of Lifesaving may include additional checks in cases where there is doubt of a member's competency. Further, a member may be requested at any time during the season to complete an additional proficiency check by a SLSC, assessor or authorised SLSQ official. A member who fails a proficiency check at any time during the two year period is deemed to be non-proficient until such time as proficiency is successfully completed. Each state/territory will be responsible for prescribing the appointment of facilitators for the operator's induction and any subsequent proficiency assessment/check.

15. OPERATING PROCEDURES

General safety principles and pre-operational checks:

Daily checklist

- Check chocks are in place
- Check machine for oil leaks
- Check tyre inflation
- Check oil and fuel levels
- Check hydraulic oil level
- Check power steering oil level
- Check battery and radiator level
- Do visual check of ROPS/ carry all
- Check operation of hand/foot brake
- Check flashing light operates
- Check for danger before startup
- Remove chocks
- Report defects to vehicle officer

16. SAFE AND EFFICIENT DRIVING

Safe and efficient driving is the ability to apply a driving behaviour that is consistent with incident-free operations, taking into account the prevailing conditions and factors associated with operational safety.

The speed limit in heavily populated areas and between the red and yellow flags is 5km/hr. Headlights and the amber rotating beacon shall be "on" at all times whilst the vehicle is operating.

NOTE: An audible reversing beeper shall be fitted to all vehicles.

17. CORNERING

All tractors are fitted with independent rear wheel brakes. Brakes on tractors are not designed to stop the vehicle at high speeds, especially on older vehicles. They are used to hold the vehicle on slopes and flat ground whilst hitching trailers and equipment, to turn the vehicle in soft terrain and stop the vehicle after it has slowed via engine braking to a snail's pace. The brakes only operate on the rear wheels and have a split operation in that they can be operated independently of each other.

One rear wheel can be braked with the other operating normally. This allows the tractor to turn in a tighter radius or circle in soft or difficult terrain. It is very rare to use independent wheel braking as most areas for operation are at the beach and we usually have plenty of room to manoeuvre, however if independent braking has been needed for a short period it is **imperative that you reconnect the**

pedal connecting mechanism immediately after you have negotiated the difficult area and proceed normally.

Failure to do this will endanger the next operator of the vehicle should they need to brake quickly and may cause **death** or **injury**.

18. GROUND CLEARANCE

Because of the size of the rear wheels a large clearance is between the ground and the axels/differential's or body. This is great for not getting hung up (resting on earth with wheels spinning without grip) in ruts/tracks/mud/sand, but causes a higher centre of gravity and subsequent handling disadvantages. A higher centre of gravity will make the vehicle unstable for manoeuvring on slopes and uneven ground.

19. TYRE SIZE/TYPE

The wider the front and rear tyres on the vehicle are, the easier it will be to manoeuvre in the sand. It is not the tread depth that allows us traction but the amount of surface area in touch with the ground that gives us traction.

This is why some operators lower tire pressures to negotiate soft sand areas. Lowering of tyre pressures is OK for 4WDs but tractor tyres are operated at very low pressure and if too low will roll off the rim due to the load and/or weight of the vehicle.

It is common for water to be added to the rear tyres as this will lower the centre of gravity and make the tractor more stable, however if tractors were designed to have water in the tyres then we would buy them off the manufacturer this way and this never happens. Water adds more weight to the vehicle and as the brakes are not designed to stop the vehicle at speed, the extra weight will endanger the operator and render the vehicle unsafe.

Should water be added to the rear tyres it must not be higher than 10 min to or 10 min past the hour as if the wheel represents a clock face.

Never add water to the front tyres as this will increase the weight at the front of the tractor and make it more difficult to steer and add unnecessary load on the steering components and shorten their working life.

20. ROLLOVERS

Rollovers are a major cause of injury in tractors and can occur in circumstances which include:

- Level ground – A tractor has a lot of torque with the large rear wheels and dropping the clutch severely when towing can force the front wheels to lift off the ground and the front of the tractor will roll backwards over the top and crush everything underneath. Take offs should be firm and cautious.
- Uneven ground – Because tractors have a high centre of gravity they can roll sideways on uneven ground, slight or steep slopes. Always proceed straight up or straight down a slope – never across at an angle; avoid braking going down hills; use the engine to brake the vehicle going down slopes. Before descending, change to a lower gear and allow the engine to take the weight of the vehicle, take your foot off the accelerator and allow the vehicle to drive itself, fan the brakes if necessary. If you feel the vehicle tipping, steer hard in the direction the vehicle is tipping and accelerate (you will need to react quickly).

21. FALLS FROM TRACTORS

One of the most common causes of accidents with tractors is from mounting and dismounting the vehicle. Care must be taken to use to hand hold points when mounting. It is an unwritten rule that you need three points of contact to mount or dismount the vehicle – two hands and one foot.

22. SAFETY

Unusual situations can arise with tractor operations and all of these will have inherent risks to persons and equipment. In every case you need to stop the vehicle, determine the possible outcomes, decide on the best action, do nothing or seek assistance. Tractors are not able to go anywhere at any time, under any conditions, they have their limitations.

23. ROUTE PLANNING

Get to know your own ground over rough terrain and stick to the planned routes where possible. Walk new routes if necessary to check for hidden obstructions. When selecting routes, allow for changes to the surface and weather conditions and for any loads or attachments. These make a marked difference to the stability and abilities of the machine.

24. PARKING

Park clear of entrances and exits. Park clear of fire hazards. Park clear of tidal and flood areas. Park on a firm level ground or if on an incline, park facing the slope. Engine is stopped in accordance with manufacturer's manual (idle engine before turning off). Secure parking brake; leave controls in park position or in neutral. Always remove the keys.

25. SAFETY MEASURES WITH EQUIPMENT

Trailed equipment and loads:

Ensure all operators know the manufacturer's recommended towing capacity and drawbar loading limit. Always operate within these requirements.

Selection of Trailed Equipment:

In nearly every case the tractor will be strong and large enough to draw trailers suited for use in a life saving capacity. However consult the manufacturer's operator's handbook to find the correct towing capacity of the vehicle being used.

26. HAND THROTTLE

Most tractors are fitted with a hand throttle for use in farm work and as club tractors are to be used primarily for towing equipment on and off the beach, it is **IMPERATIVE** that this be disconnected at the fuel pump before using in beach work. These vehicles cannot be stopped easily when the hand throttle is in use as the operator needs to be in control of the vehicle at all times.