

Make / Model:

<p>SOP – This procedure covers maintenance & Safety requirements and applies to all employees and contractors working using tractors in the workplace</p>	<p>Purpose – To safely operate a Tractor, using Best Practice, follow safety guidelines, not cause risk or harm to operator, other people, animals, or surrounding environment.</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

This SOP cannot cover every possible scenario and should be used in conjunction with the manufacturer's instructions, [WorkSafe](#) , [NZTA guidelines](#) and the controls put in place using the hierarchy of controls.



Tractors are heavy and powerful machines. Every year people are injured or die when using or being near tractors on farm. They can carry out a range of tasks depending on the implement that is being used but can cause substantial damage if not operated properly. Modern tractors are fitted with seatbelts, and these must be worn when operating the tractor on farm and/or on road. Windows must be clean enough for operator to see hazards from the driver's seat.

Make sure you select the right vehicle for the job – this may not be a tractor. Always check the preferred routes and “No Go” areas on farm before getting started.

TRACTOR HAZARDS

<p>Potential rollover: Due to excess speed, terrain, towing, unstable loads, liquid loads, inadequate tires. Tractor handling affected by loads on front-end loaders and/or on 3-point linkages. Left and right foot brakes operating independently.</p>	<p>Loss of control: Loose items inside cab can get caught under brakes or around levers and/or other controls. Wear seatbelt to avoid being bounced from the seat and to maintain hand and foot control. NEVER carry a passenger unless there is special passenger seat</p>
<p>Physical injury: Death / broken bones/ crushed</p>	<p>Accidental starting: Remove the keys (if leaving Tractor unattended)</p>
<p>Drivers lack of skill: Practice at low speed before increasing speed or adding loads</p>	<p>Terrain: Watch for pivot ruts, slippery lane, hills, slopes & potholes</p>
<p>Collision: Operating in areas with other vehicles, people or blind spots.</p>	<p>Incident/ accident: Assess how bad injury is, get help ASAP, Follow Dr ABCD emergency procedure</p>
<p>Working alone or in isolation: Tell someone where you are working and estimate job times.</p>	<p>Overhead obstacles: Tractors are tall vehicles – be aware when driving under overhead cables, pivot irrigators and low sheds, especially when front-end loader is up.</p>
<p>Speed: Drive to conditions and abide by the speed limits set on your farm, these may vary from farm and yard and what implements are being used</p>	<p>Operator physical ability: Operator must be able to see over the dashboard, use brakes, gearing and other controls while seated and secured using the seatbelt.</p>
<p>Unauthorised access: Operator must be granted permission and be under supervision or fully trained</p>	<p>Poor maintenance: Tractor must be in good working order or Lock it out (red stickered).</p>

Farm Specific Hazards:

COMPULSORY PPE





Wear hearing protection if working outside or if tractor cab is not sound-proofed



TO CARRY ON BOARD



Phone or radios



Fire Extinguisher



First Aid Kit

STOP

What you're doing?

THINK

About what could go wrong?

GO

Consciously & do it the safest way!

EMERGENCY EQUIPMENT / RESPONSE Drs ABCD

Do we need emergency services? Dial **111**

- GPS location: **GPS co-ordinates**
- Farm Rapid number; **or Farm Name / Location**
- First aider -
- First aid kit located -
- Fire-fighting equipment (only if safe to do so)
- Staff emergency contact details
- Response plan takes location into account
- Cell phone / RT Poor reception areas



- D**-Danger, check safe to help
- R**-Response, shout & tap patient on collar bone
- S**-Send/shout for help Call 111 or another work mate
- A**-Airways, head tilt chin lift (Do finger scoop of the mouth to make sure there is nothing in there)
- B**-Breathing, look, listen, and feel. If not breathing commence CPR, if alone, go for help first
- C**-Circulation/CPR, check for bleeding, if not breathing commence CPR 30 compressions/ 2 rescue breaths
- D**- Defibrillation (AED), apply defibrillator if available and follow voice prompts. Nearest AED:
(www.aedlocations.co.nz)



LICENCE REQUIRED TRAINING REQUIRED

NEW ZEALAND DRIVER LICENCE DRIVING ENTITLEMENT INFORMATION		
CLASS / ENDO	ISSUED	EXPIRES
1	21-05-1980	21-12-2029
2	16-08-2007	21-12-2029
4L	14-10-2008	21-12-2029
6	21-05-1980	21-12-2029



<https://www.nzta.govt.nz/assets/resources/agri-vehicles-guide/Agricultural-vehicles-guide.pdf>

All staff regardless of years of experience must have been through a training assessment for this vehicle. Must be either passed as competent or supervised while in training.

Refer to informative training videos sutherlandonfarmsolutions.com

License required to drive on public road

Class 1

- Travel less than 40kph
- Less than 18Ton (tractor only)
- Less than 25TON (tractor & trailer)
- Tractor should be registered for road use but may carry exemptions

KEY OPERATING TIPS

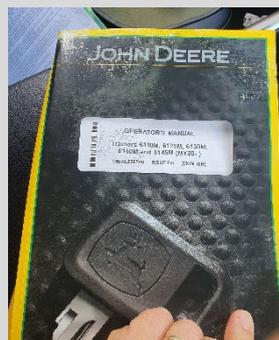
Before starting the Tractor, check the following

- Ensure Tractor is the right vehicle for the job you are about to do. Would an alternative vehicle be better?
- Check your own state of mind (operating machinery requires your full attention) if you are fatigued or unwell let someone know.
- Climbing in or out of the tractor while facing the tractor, using footsteps and handholds and minimum of 3 points of contact.
- **Never** drive under the influence (**Alcohol or illicit drugs**) some medications can alter clarity.
- Identify **No-Go zones** and consider the best route to take.
- Remember, if seatbelts are fitted, they **MUST** be worn.



Owner's Manual

- Familiarise yourself with this document
- Tread depth **(minimum 50% wear)**
- Grease points and greasing intervals
- Controls **(Orange, Black & Yellow)**
- Service intervals **(100 hours)**
- Detailed Checks **(Weekly/Monthly)**
- Max front end loader lifting limits **(????kg)**
- Max loadings **(non-braked implement must be less than 1.5 X gross weight of tractor and be attached to rated draw bar)**



Implements shall be equipped with brakes if the maximum fully loaded weight is greater than 1500 kg (3307 lbs) and greater than 1.5 times the weight of the towing unit.

Example: Implement mass is 1600 kg (3527 lbs) and towing unit mass is 1600 kg (3527 lbs), example implement is not required to have brakes.

Implements without brakes: Do not transport at speeds greater than 32 km/h (20 mph).

Implements with brakes.

- If the manufacturer does not specify a maximum transport speed, do not tow at speeds greater than 40 km/h (25 mph).
- When transporting at speeds up to 40 km/h (25 mph) the fully loaded implement must weigh less than 4.5 times the towing unit weight.
- When transporting at speeds between 40—50 km/h (25—31 mph) the fully loaded implement must weigh less than 3.0 times the towing unit weight.

Road & Rail Crossings

- When crossing intersection, rail, road or exiting the farm come to a complete **STOP, Look & listen**
- Consciously make sure the way is clear then slowly continue.



No cell use when operating vehicles, including Tractors

- Stop to answer or make calls

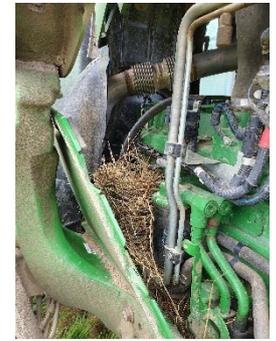
PRE-CHECKS - TCLOC Find something wrong at precheck? **DO NOT USE.**

- Always refer to Tractor Operating Manual for more information
- Position your tractor ready for safe inspection - machine in neutral (N) or park (P) and/or handbrake on and any hydraulics/PTO in neutral/off
- During bird season leave bonnet up.
- Place the loader in supported raised position ready to do checks



Before starting tractor

- Check under bonnet (engine oil, water, birds' nests) |
- Back-end oil level



Now start tractor engine and then get out of tractor and start your 360° walk around checks

this allows engine & fluids to warm up while carrying out pre-checks.

- Wheels – check correct pressure (2.5 lugs contacting the ground), wheel nuts are tight, no objects rapped around CV's (wrap, wire etc) & mud guards secure.
- Loader – pins secure and well-greased, look for damage loader & hoses
- Front Attachment – is secure (pin in) hoses free from pinching & damage, grab & forks spikes are all tight
- Rear attachment – Clips & pins located correctly, attachment point is rated for size of implement
- Windows clean so operators can see out and bystanders can see in. Clean windows reduce sunstrike.
- Lights and Mirrors – check front and rear – they are clean and are working



Now get into tractor seat/cab

- Check fuel gauge, level is sufficient for the task
- Remove or secure any loose items in cab (these can get caught under pedals and/or injure operator during sudden stop or rollover)
- Try the foot brakes and handbrakes (if fitted) one at a time. Make sure each brake, when applied, holds the Tractor. **Wheel brakes must be locked together** unless doing cultivation work or needing steering assistance when on hills
- Try each brake control and make sure each one flashes your brake light.
- Check that your horn works. Turn the key to the Light position, so headlights are on at all times (low beam unless high beam is required)
- Adjust the seat position so you can reach all the pedals and make sure you can operate hand controls when you sit comfortably on the seat
- Now clip in your seatbelt and check your surroundings before moving off.



Documented checks need to be completed a minimum of monthly, using paper tractor maintenance check sheet, once completed please take photo holding this completed check sheet up in front of your tractor and then uploading to Audit.

CONTROLS

Speed recommendations

- Drive to conditions
- Max speed limit 30km in paddocks and lanes
- Identify the speed limit when travelling in built-up areas



Operator Safety

- Doors closed (to prevent limbs getting caught or the door catching on something)
- Seatbelt worn (if tractor has one fitted)
- Hearing protection worn if cab is not sound-proofed
- Passengers only if passenger seat is fitted

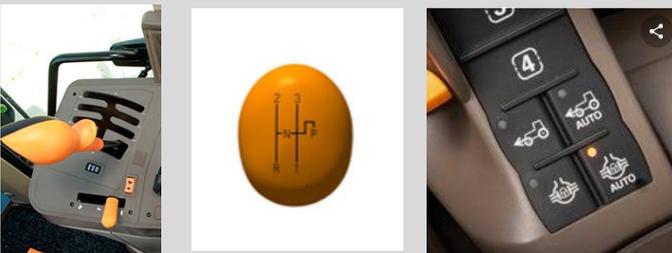


Familiarise yourself with all the controls

- Orange**- Is movement forward & reverse, shuttle, hand & foot throttle, gear lever & rabbit/turtle
- Yellow** – Is power take off (Start/Stop button) 540 & 540E or 1000 gear setting
- Black** – is hydraulics (Front end loader joy stick, 3 point linkage controller, rear hydraulic controls)

Dashboard

- Make sure you understand indicators and symbols and what they mean – refer to Operators Manual
- Make sure dashboard screen and indicators are clean and easy to see.



Changing gear ratios, 2/4WD & Diff lock

- When shifting range (e.g. D to C or between high & low range, plus shifting into reverse) make sure you use your clutch and Tractor is stationary
- Low is good for towing heavy loads or when working on slopes
- Make sure you know how and when to use 2WD, 4WD and to lock rear differentials (diff lock)



Lights ON

Position key to 'Lights' setting/light switch on – lights always on when engine is running. Run at 'low beam' during daylight (if that is an option)



Park Brake

- If the Tractor has a handbrake apply brake and click locking-device into place. Locking device retracts automatically by releasing button on end of brake handle.
- Some tractors do not have a handbrake – machine should be left with gear lever in 'park' (P) position.

OPERATING TRACTORS

Refer to Owner's Manual and safety videos for information about safe use of these vehicles

<https://sutherlandonfarmsolutions.com/series-20-tractors/>

OPERATING TRACTORS ON PUBLIC ROADS



Tractors on Roads (Safety requirements)

- Use Foot throttle only
- Foot brakes locked together
- Amber flashing light on
- Bonnet & taillights on low beam
- Loader low
- Seat belt on
- Flag over dimension tractor/implements (length and/or width)
- Carry drivers' licence (photo proof may help)



Loading & towing trailers/implements

- Secure load and being aware objects may slide if not secured properly
- Do not tow a trailer or implements too heavy for the tractor. Stay within the manufacturer's guidelines.
- Make sure drawbar pin fits properly and is long enough for locking pin/clip to be fitted.
- Safety chain between trailing implement & tractor
- Make sure there is enough space to turn without catching rear wheel lugs on the trailer when turning

Forks positioning when on road

- Projections must be positioned to minimise the risk to other road users.
- Do an assessment based on the design of the vehicle, and the function and shape of the projecting parts.
- By crowning forks under and lowering the loader point of impact on car will activate air bags and crumple zone.
- Caution that turning sharp could spike your tire



Front overhang (Standard sized vehicles)

- Front overhang is measured from the front edge of the driver's seat in the rear-most position to the front of the vehicle, flags or panels are required when over maximum distance of 4 meters.
- By positioning the loader & grab low the point of impact will activate air bags and crumple zone.



Width dimensions (Standard sized vehicles)

- Flags or panels must be reflective yellow with a reflective orange diagonal stripe when exceeding width of **2.55 meters**.
- **Note:** Instead of displaying a hazard warning panel, an agricultural tractor with a width not exceeding **3.1 meters** may instead be fitted with and use an amber flashing beacon when operated on a road.

CARRYING OUT THE TASK – PROCEDURE

Procedure

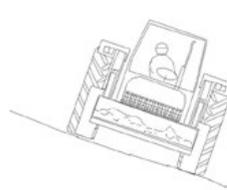
- Emergency Procedure in place
- Allow engine & fluids to warm up before driving off
- Be aware of 5 metre pedestrian exclusion zone
- When driving use the formed tracks as much as possible
- Drive at a speed slow enough to keep control over unexpected hazards
- Avoid slopes that are too steep for safe operation and go straight up or straight down any hills
- Engage 4WD when towing loads, in wet conditions and on hills, 2WD on flat terrain and on the road
- Avoid sudden stops or starts
- If the tractor has struck an obstacle, stop the tractor (and implement), and inspect it for damage.

Traveling with loader

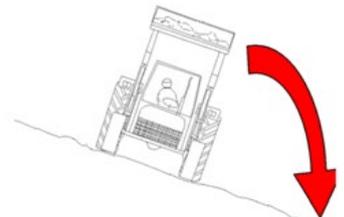
- Check front hitch & attachment are pinned/secure
- Check the tractor's front-end loader has a rated lifting capacity. Counterbalance options may need to be implemented e.g. water in rear tires
- Keep the speed down when carrying a load.
- Travel with forks/bucket as low as practicable and where possible slightly tilted back
- Keep a clear view of the path of travel
- Ascend or descend grades slowly and with caution
- Make all turns smoothly

Notes

- Only start the tractor from the driver's seat
- Only operate levers from the driver's seat
- Never jump on or off moving tractor
- When idling listen for any different or unusual sounds
- If a pedestrian is closer than 5 metres to the tractor STOP THE TRACTOR until they have moved
- (Note: - an exception to this could be if assistance is required to attach/hitch implements)
- Be aware of overhead hazards
- Keep away from ditches, holes or embankments which may collapse or have the potential for tractor to roll over
- Areas too steep for tractors to be identified as NO-GO ZONES
- When travelling or operating on a gradient maximize stability by keeping the centre of gravity of the load as low as possible



Safe Centre of Gravity of Load



Unsafe High Centre of Gravity of Load

COMPLETION OF TASK



Wash Tractor

- Wash Tractor according to farm policy and if there is excess mud or dirt on the tractor
- Complete detailed paper check (minimum monthly) and when completed hold check sheet up in front of tractor, take photo and load into Auditz

Care for the Tractor is part of the task

- Select flat/safe area to park Tractor (is it visible, not in danger of being hit by other vehicles)
- Position the loader, consider ease & safety when carrying out pre-check
- Turn your front wheels to make it easier to check engine oil in morning
- Select neutral gear (N), apply Park Brake and Turn off the Tractor
- Remove the keys (if leaving Tractor unattended)
- Cast your eye over the Tractor as you are moving away
- Always report any faults or damage to the Farm Manager immediately.
- Always report any incidents accidents or near misses.



ADDITIONAL NOTES

- Follow WorkSafe guide <https://worksafe.govt.nz/topic-and-industry/farm-vehicles/tractors/safe-use-of-tractors/fs/>
- Check out the NZTA guide <https://www.nzta.govt.nz/assets/resources/agri-vehicles-guide/Agricultural-vehicles-guide.pdf>

Tractor - SOP



COMPETENCY ASSESSMENT AND SIGN OFF

Use the template below to record date of training and 2 observations during different instances.

Name of Participant: _____ Tractor Make and model: _____

Record of training/Observation: Tractor - Standard Operating Procedure

Details	Name of person who did training / Assessor	Date
SOP Training		
Practical Training		

Note: The below competency assessment needs to be completed 2 weeks after the above SOP training

Competency Assessing		
----------------------	--	--

ASSESSOR QUESTIONS <i>(please write in staff answers)</i>	Completed
------------------------------------------------------------------	------------------

Knows about farm safety rules involving tractors, including speed limits, emergency plans & no-go zones	
Demonstrate how to carry out visual pre-start check	
Demonstrate to employer/manager how to fill in detailed tractor maintenance check sheet	
Explained all the controls on Tractor (Orange, Black & Yellow)	
Explain licences required & safety requirements when driving on road around <input type="checkbox"/> brakes, <input type="checkbox"/> throttle, <input type="checkbox"/> Lights, <input type="checkbox"/> seat belts, <input type="checkbox"/> loader positioning	
Looks well ahead keeping wide focus, uses side mirrors, picking best lines, with correct grip on steering wheel.	
Demonstrate knowledge and/or skills on how to safely reverse tractor	
Attaching and detaching implement's <input type="checkbox"/> front and/or <input type="checkbox"/> rear	
Wears an approved Seat belt	
Uses the hand brake correctly or Park brake and then sets the tractor up considering safety and convenience in preparation for next morning pre-start checks	
Demonstrate safe techniques when dismounting the tractor	

Comments:

SIGN OFF

Participant Name:

*I have been taught the above **Standard Operating Procedure** for Tractors and agree to follow the steps laid out in it.*

Signature _____

Date: _____

Name of Trainer/Assessor:

*I have tested understanding with a Q&A as part of this training process and am confident there is a good understanding of the steps required for this **Standard Operating Procedure***

Signature _____

Date: _____