

41347**Operate a tractor safely in complex driving conditions**

Kaupae Level	3
Whiwhinga Credit	12
Whāinga Purpose	This standard is for people working, or intending on working, in an agribusiness operation. They will be able to operate a tractor safely in complex driving conditions, with limited supervision. This skill standard is aligned to the New Zealand Certificate in Farm Skills (Level 3) [Ref: 5678].

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Operate a tractor safely in complex driving conditions.	a. Operate tractor safely while following planned routes.
	b. Use vehicle controls and mechanical functions of tractor to manage complex driving conditions.
	c. Ensure attached equipment is securely attached and configured for safe operation, as appropriate.
	d. Maintain the stability of the tractor and the attached equipment while driving and turning.
	e. Ensure attached equipment is safely detached and stored, as appropriate.
	f. Report near misses, accidents, or new hazards encountered while operating the tractor.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria*Assessment specifications*

All activities must be carried out in accordance with workplace health and safety requirements, workplace procedures, legislative requirements, regulatory requirements, licencing requirements, and manufacturer's requirements.

Providers must give due consideration to embedding ngā kaupapa (principles) o Te Tiriti o Waitangi when designing delivery activities relevant to this standard. These principles are outlined in [Guidelines for Providers: Embedding Tirohanga Māori](#).

Providers must give due consideration to the needs and values of Pacific peoples and other cultural groups when designing delivery activities relevant to this standard, ensuring practices are inclusive and equitable.

It is recommended that ākonga/learners hold skill standard 41343, *Carry out pre-start checks and plan routes for an agribusiness vehicle*, or demonstrate equivalent knowledge and skills before undertaking assessment against this standard.

Ākonga/learners should be assessed against this standard in a real-life context using naturally occurring evidence. A verifier's checklist with appropriate comments confirming competency is acceptable if accompanied by evidence that includes examples from the ākonga/learner's performance, which may include but is not limited to work diaries, driving logs, machine hour records, GPS data, photographic or video evidence.

If assessment occurs outside the ākonga/learner's workplace, assessment conditions must reflect, as closely as practicable, the complexity and operating conditions likely to be encountered in the learner's intended workplace context.

Training and assessment should occur using a tractor designed for general farm use, typically between 65 and 200 horsepower.

Assessment must consider the ākonga/learner's behaviour while operating a tractor, including compliance with safety requirements and workplace procedures.

Ākonga/learners must maintain control of a tractor under five complex driving conditions. These conditions must include factors that materially affect vehicle handling and may include, but are not limited to:

- terrain (e.g. slopes, uneven ground)
- surface conditions (e.g. wet, loose, rough, or changing surfaces)
- load or equipment effects (e.g. mounted loads, trailed equipment, non-static loads)
- environmental factors (e.g. weather, visibility, lighting)
- operational constraints (e.g. confined spaces, obstacles, livestock, or proximity to hazards).

Complex driving conditions may arise individually or in combination and must require demonstrable adjustments to speed, positioning, control inputs, or vehicle configuration to maintain safe operation.

Where access to specific terrain-based conditions is limited, alternative conditions that create equivalent complexity in vehicle control, stability, traction, load dynamics, or hazard management may be used.

Ākonga/learners should be assessed operating a tractor with mounted equipment and trailed equipment, but not both simultaneously.

At least one item of trailed or mounted equipment must require the attachment, safe operation, and detachment of a power take-off (PTO). In addition, for mounted equipment, the size of any load must be within manufacturer's specifications and be significant enough to affect the ākonga/learner's driving technique, but must not impede their ability to drive safely.

Evidence must demonstrate consistent and reliable performance across multiple operating occasions and under conditions that materially affect vehicle stability, traction, load dynamics, and hazard response. Evidence must not be limited to repeated performance under the same or similar conditions.

Ākonga/learners must provide a verifiable record of operating experience that demonstrates sufficient duration and frequency of practice to support the credit value of this standard. This will typically involve approximately 80 hours of tractor operation, which may be accumulated through current and/or prior experience. Evidence derived from a single or limited-duration event is unlikely to be sufficient to demonstrate the consistency and range of performance required for this standard.

Definitions

Attached equipment refers to mounted equipment and trailed equipment. Examples of mounted equipment may include front-end loaders, toppers, mowers, bale feeders, spray tanks, and cultivation equipment. Examples of trailed equipment may include feed-out wagons, hay rakes and farm trailers. Attached equipment may contain non-static contents.

Behaviour refers to actions demonstrating compliance with safety requirements and workplace procedures. Examples include – operation speed, wearing a seatbelt, operating the vehicle in a manner which minimises risk to self and others, avoiding ‘no go’ areas, and following instructions regarding care and maintenance of vehicles.

Complex driving conditions refers to environmental, operational, and load-related factors that increase the difficulty of controlling a vehicle and require the ākonga/learner to actively adjust driving technique to maintain stability, traction, and safety.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content

Tractor operation

- functional controls, e.g. even throttle, even braking, wheel-braking, gear use and selection, differential-lock, counterweights, two-wheel drive and four-wheel drive
- design limitations that affect driving, e.g. tractor size, electronic controls, dual tyres, counterweights, synchronised gearboxes, differential-lock engagement
- dynamics and stability, e.g. loader height, counterweights, widening the wheelbase, tyre pressures, ballast, dual tyres, differential-lock
- complex conditions, e.g. loads, uphill, downhill, traversing a slope, wet, loose surfaces, rough terrain, change of surfaces
- completing operational activities within workplace timeframes
- operating vehicle in safe manner, e.g. safety for self, others and livestock, appropriate speed.

Attached equipment

- power take-off (PTO), e.g. attachment/detachment, correct PTO speed selection, safe PTO engagement/disengagement, operating PTO-driven implements (engine rpm/load matching, vibration monitoring), guarding requirements, and safe shut-down of rotating components
- operating and managing hydraulics and hydraulic equipment, e.g. attaching and detaching hydraulic hoses, managing hydraulic risk, e.g. leaks, split hoses, safe handling.
- effect of attached equipment on tractor stability and dynamics
- effect of non-static loads on tractor stability and dynamics
- load security
- pre-drive checks, e.g. load security, load balance, weight on drawbar, maximum towed weight.

Rauemi | Resources

- [Health and Safety at Work Act \(2015\)](#)
- [Land Transport \(Driver Licensing\) Rule \(1999\)](#)
- [Land Transport \(Road User\) Rule \(2004\)](#)
- [Safe use of tractors](#) – fact sheet (WorkSafe New Zealand)
- Workplace Standard Operating Procedures
- Manufacturer's specifications.

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Food and Fibre Industry Skills Board
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Agriculture, Forestry and Fisheries > Agriculture > Agricultural Vehicles and Machinery
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0052

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	30 July 2026	N/A
Kōrero whakakapinga Replacement information	This skill standard replaced unit standards 24538, 24539 and 27604.		
Rā arotake Planned review date	31 December 2031		

Please contact the Food and Fibre Industry Skills Board at info@foodandfibreisb.nz to suggest changes to the content of this skill standard.