## MOBILE PLANT SAFETY GUIDE: TELEHANDLERS



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## A FOREWORD FROM THE REGULATOR

When considering the question of what is reasonably practicable in the context of the HSWA the regulator and courts will apply relevant legislation, approved codes of practice and industry guidance from a recognised source.

CHASNZ is seen by WorkSafe NZ as a provider of industry guidance for the construction industry.



## MOBILE PLANT SAFETY GUIDE: ERS

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## **1.0** Introduction

This guide is designed to help telehandler owners and users to manage the risks presented by telehandlers.

Before reading this guidance, you should be familiar with the overarching principles of plant safety. You can understand these by reading the CHASNZ guide to mobile plant safety.

Telehandlers are a versatile piece of mobile plant. They are designed to lift and to transport materials and equipment.

Telehandlers can be fitted with different attachments to best suit the task at hand, and consideration should be given to the hazards and controls needed for the whole process of designing, purchasing, operating, maintaining and retiring a machine.

## 2.0 Telehandler types

There are two basic variations of telehandler, Non-rotating and Rotating. These have differing advantages which are explained in the section below:

## 2.1 Non-rotating

These machines comprise a powered wheeled chassis onto which is mounted a telescopic boom, pivoted on the chassis, which can be elevated from below the horizontal to an angle approaching the vertical. The outer end of the boom is fitted with a fork carriage and forks for handling unit loads. Levelling of the forks in the longitudinal plane, as the boom elevation changes, is carried out automatically.

These machines are able to transport loads from one part of a site to another and place the load at height. On construction sites, the wheels are generally fitted with lug grip tyres to enable the chassis to negotiate unpaved ground.

Many telehandlers are fitted with stabilizers (outriggers) which are deployed when the machine is stationary to provide additional stability and enhance the machine's lifting capacity.

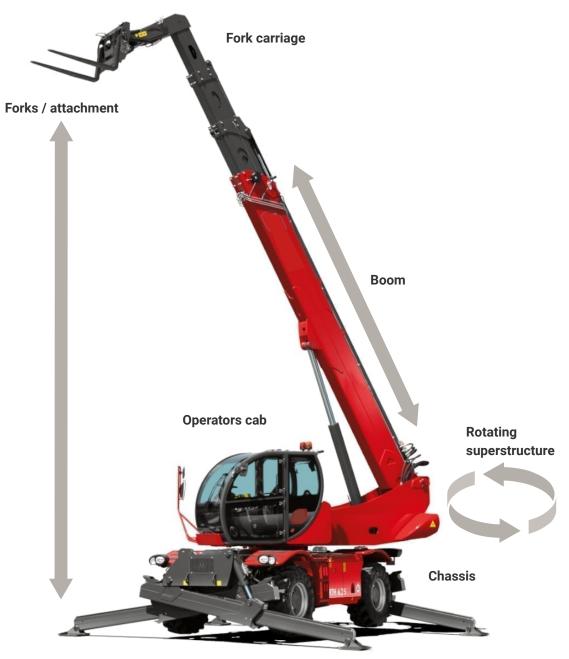


Outriggers

## 2.2 Rotating

Rotating telehandlers have all of the features of the non-rotating type with the addition of a rotating or slewing superstructure on which the boom and operator's cab are mounted. These machines also have outriggers fitted at either end of the chassis which enable the entire chassis to be lifted clear of the ground for maximum stability.

The main advantages of these machines over the non-rotating type is compact chassis size, enhanced lifting height, increased stability and ease of placing loads without moving the chassis.



Outriggers

### 2.3 Attachments

Telehandlers are very versatile machines which, in addition to lifting of unit loads on forks, can be fitted with a wide range of attachments such as:

- // Sideshift Forks
- // Sweepers
- // Block Grabs
- // Tipping Skips
- // Crane Hooks
- // Crane Jibs
- // Buckets General purpose and material handling
- // Integrated Access Platforms

It is essential that all attachments are compatible with the telehandler with which they are to be used. Where necessary and appropriate, the telehandler manufacturer should be consulted where third party attachments are to be used.

## 3.0 Telehandler design safety considerations

Machine owners have a duty to provide safe machinery for use. Before purchasing a specific telehandler, consideration should be given to the suitability of the machine to its intended use and its condition.

There are different variations of telehandler. Telehandlers vary by:

- // Size.
- // Weight.
- // Lifting capacity.
- // Suitability to terrain.
- // Manoeuvrability.

Before purchasing a specific telehandler or attachment, consideration should be given to:

- // The types of task the machine will undertake.
- // The types of work area it will operate in.
- // The frequency in which the machine will be used.
- // Whether the purpose of the machine meets your needs.
- // The age of the machine and its safety features relative to newly manufactured machinery.
- // Whether the machine meets your client, or industry minimum safety standards.

Telehandlers can be fitted with different attachments to best suit the task at hand, but they should only be used for specified purposes, and always within the limitations set by the manufacturer.

To best understand this, your company should **undertake a risk assessment** to determine the best type of **telehandler** (*or telehandlers*) **and attachments** to suit the needs of the expected work activity.

As with all mobile plant, consideration should be given to the age of a machine. Older machinery often lacks modern safety features. Prior to purchase of a machine, the buyer should undertake a risk assessment to determine the hazards, current safety features and any further controls needed to safely operate the machine, this is often important when clients have set a minimum standard for mobile plant safety that must be met.

Older telehandlers may carry increased risk from excessive use of braking systems and lifting systems, so specific consideration of each machines condition in these areas should be undertaken.

## There is industry data to indicate that cardan shaft park braking systems present a significant risk of failure in telehandlers when compared with alternative braking systems.

When importing machinery, the buyer should verify that the manufacturing standard of the machine meets the current New Zealand, or International standard for manufacture. These can be found by visiting www.standards.govt.nz.

A telehandler should never be modified or fitted with modified attachments without prior approval from the telehandler manufacturer.

Some telehandlers are road going. As such, consideration should be made to the requirements to legally drive a telehandler on a public road, including its registration and certificates of roadworthiness.

It is good practice to check current industry and manufacturer safety information about telehandlers to make an informed decision before purchasing a machine.

When purchasing a telehandler, each machine *and attachment* should be provided with documented records of:

- // Maintenance and servicing.
- // Any known faults and corrective actions taken.
- // Any modifications or changes from the manufacturer design.
- // Any certificates of fitness, warranty or registration as required by regulating authorities such as Waka Kotahi (New Zealand Transport Agency), WorkSafe or MBIE.

The manufacturers operator handbook and instruction on it's safe use.

## **4.0** Telehandler safety considerations when providing safe machinery

Machine owners have a duty to provide safe machinery for use. As such, any telehandler brought into a work area should be able to demonstrate its safe condition at the time of being installed or handed over to the work site.

To demonstrate this, the machine owner should establish a system to maintain the safe condition of each machine and each attachment. This system should consider the life cycle of the equipment, including any requirements for:

- // Periodic maintenance and servicing.
- // Renewal of any certificates of fitness, warranty or registration as required by regulating authorities such as Waka Kotahi (New Zealand Transport Agency), WorkSafe or MBIE.
- // Regular inspection of the telehandler, and of its attachments.
- // A minimum safety standard for operator competency to use the machine.
- // A process of familiarisation training for operators of a particular machine.

Telehandler owners should also take reasonable steps to keep up to date on any new safety features or requirements for specific machines, and telehandlers in general.

### 4.1 Demonstrating the safe condition of machinery

To demonstrate the safety of each telehandler and attachment, the machine owner should be able to provide to work area controllers (or clients) the documented records of:

- // Maintenance and servicing.
- // Any known faults and corrective actions taken.
- // Any modifications or changes from the manufacturer design.
- // Any certificates of fitness, warranty or registration as required by regulating authorities such as Waka Kotahi (New Zealand Transport Agency), WorkSafe or MBIE.
- // The machine operator handbook and instruction on it's safe use.
- // Operator competency records (In cases that the operator is an employee)
- // Hand over familiarisation training to operators.

Whilst it is the duty of machine owners to undertake safe maintenance of mobile plant, it should be considered at the time of installing a telehandler to a work site that this may need to take place in the work area. This can often be the case when telehandlers are leased for extended periods.

In instances like this, the work area controller and the machine owner should work together to document the safe process and arrangements for machine maintenance, and any overlapping responsibilities.

The machine owner should have a process to highlight and record any damaged or faulty telehandler. This information would usually be captured by an operator, who should be able to demonstrate competency as a telehandler operator, and familiarity with the specific machine in order to be able to identify any defects.

# **5.0** Competent inspection, servicing and maintenance considerations for machine owners

Machine owners have a duty to provide safe mobile plant. To meet this duty, telehandlers and their attachments should be regularly inspected, serviced and maintained in line with the manufacturer's requirements.

Mobile plant owners should establish a process of inspection and maintenance for all mobile plant, with records kept in a register.

### Details of how to implement a system can be found in the CHASNZ guide to Mobile Plant Safety.

Reasonably practicable control measures must be implemented to ensure the health and safety of the person conducting the maintenance or inspection, for example by ensuring that plant is switched off or isolated from the energy source to avoid accidental re-energising of dangerous parts.

Any guards that are removed must be replaced correctly to prevent access to the hazardous part of the plant when it is returned to use.

Telehandlers and their equipment must be maintained and repaired according to the manufacturer's specifications or, in the absence of such specifications, in accordance with a competent person's recommendations, particularly hazardous areas for telehandlers include:

- // Hydraulics (stabilisers and telescopic boom).
- // Braking systems (park brake and operating brake).
- // Wheel alignment.
- // Lifting equipment (hitching systems).
- // Guarding (including the operator cab and external guards protecting others).

It is advised that the frequency of periodic inspections for telehandlers should not exceed 12 months. For telehandler attachments that are frequently or heavily used, it is advised that a risk assessment be undertaken to determine inspection frequency, which may need to be more frequently inspected. This is particularly applicable to **lifting equipment** and attachments, which are commonly formally inspected a six or three monthly intervals.

Plant should be isolated before maintenance or cleaning commences. Where plant is isolated and plant shutdown will result, any total or partial shutdown should not allow a hazardous situation to be created.

Isolated or disengaged plant should:

- // not hinder or interfere with the operation of any other plant.
- // have guards in place where a risk of injury is identified.
- // not obstruct access.

A process should be put in place to enable effective communication and consultation with affected workers and other persons conducting a business or undertaking to prevent any risk to health and safety arising from restarting the operation of the plant which has been shut down due to inspection, maintenance or cleaning.

Where plant cannot be isolated, methods to prevent accidental operation must be implemented. The work should be carried out under controlled procedures to allow for maintenance and cleaning without risk to the health and safety of the person performing the work.

Following maintenance all guarding must be replaced prior to start-up of plant.

Damaged plant should be withdrawn from service until any risks to health and safety have been controlled.

The person inspecting or maintaining the telehandler should document the actions taken and confirm the safe condition of the machine to be operated before handing back to the machine operator.

## **6.0** Machine life cycle considerations for owners

In the same way that machine owners should follow a risk assessment process when selecting, operating and maintaining a telehandler, consideration should be given when decommissioning, disposing of, or trading a machine to third parties.

When trading a machine to another owner, the current machine owner has a duty to supply mobile plant in a safe condition as accepted by the new machine owner.

To support this, any machine that is traded should also pass on to the new owner, documented records of:

- // Maintenance and servicing.
- // Any known faults and corrective actions taken.
- // Any modifications or changes from the manufacturer design.
- // Any certificates of fitness, warranty or registration as required by regulating authorities such as Waka Kotahi (New Zealand Transport Agency), WorkSafe or MBIE.

When mobile plant is to be disposed of, or decommissioned by a third party, then a risk assessment process should be followed.

The hazards associated with dismantling or decommissioning mobile plant should be documented in a risk assessment by the party undertaking this work.

The machine owner should provide records of any known hazards relating to the machine, for example, any hazardous substances contained within it.

Any decommissioning or dismantling of mobile plant should be undertaken in accordance with the manufacturer's instruction. Where this is not possible, a person deemed competent, such as an engineer, or designer of similar mobile plant should be consulted.

When plant is to be disposed of, or scrapped, then consideration should be given to identify suitable facilities that can accommodate this, including any environmental considerations. Often local waste disposal authorities are best placed to provide this information.

If a part of mobile plant is to be re-sold, then the owner has a duty to provide this in a safe condition.

If a part is sold as scrap, or for a purpose other than it was designed for, then the seller should clearly indicate that the part is no longer safe for use in its originally designed function.

## 7.0 Competent operators

Telehandler operation presents a number of hazards that must be controlled. Unless under direct supervision, the telehandler operator holds the most influence over the operation of a machine.

It is important that telehandler operators are competent in its use and operation. Competent operators are then able to react to changed situations, and to identify any emerging safety problems with the work area or the machine.

Competency is not only a record of training, but a process of recognising operator knowledge, experience, skill and aptitude in an ongoing cycle of improvement. In simple terms, operator competency should indicate how good an operator is by measuring performance regularly.

The standard of worker competency that is permitted in a work area is determined by the work area controller and the machine owner.

Within the scope of a competent worker, there are three levels:

- // Industry standard applies to everyone in this industry and can be easily recognised.
- // Sector standard applies to all of an industry sub sector, for example, all telehandler operators
- // Business standard (often called a policy or may be contained in a procedure) applies to the specific competency levels of the company.

Of the three levels, where there is an industry or sector level standard, this is usually the most efficient way to recognise a standard that a work area controller can be confident in.

It is recommended that, as a minimum requirement, all operators who are not under direct supervision, before operating telehandlers in a work area should have:

- // Been trained in the general operation of telehandlers.
- // Completed an independent assessment of knowledge successfully.
- // Records of ongoing independent competency assessment and experience (such as a ConstructSafe competency record or equivalent).
- // Been inducted to the hazards and controls of the specific work area.
- // Specific familiarity training on the particular machine to be used

### Existing competency standards at industry level

**NZQA Unit standard 23637**. This is a training standard that can be delivered by multiple training providers. This demonstrates that a worker has met the minimum standard at a moment in time.

**ConstructSafe Telehandler operator competency framework**. The ConstructSafe Framework contains the contents of NZQA unit standard 23637 alongside other key safety considerations for operators. Any training provider is able to develop training from this framework.

Worker competency is measured through an independent ConstructSafe knowledge assessment and has a requirement for ongoing competency assessment whilst at work.

For those who control work area access, standards like these are easy to recognise because companies and workers have access to records of competency, whilst the standard is available to the public online.

**Existing competency standards at business level.** Many companies have internal competency assessment standards. For those who control work areas, consideration should be taken to assess the standard that each company is working to, and whether it meets, falls below, or exceeds existing industry or sector level standards.

When verifying operator competency levels, consideration should be given to the whole job scope of an operator, including:

- // Planning.
- // Pre-start.
- // Loading / unloading machinery.
- // Basic control and manoeuvrability.
- // Basic telehandler operations.
- // Close down and emergency operations.
- // Specialist telehandler operations (Such as competency to use specialist attachments)

A telehandler operator who has demonstrated their competency in using the machine should be considered an expert in the operation of a telehandler. As such any safety issue flagged by a competent operator should be addressed before proceeding further with any work plan.

Once machine owners are able to demonstrate the safety of a machine and when operators are able to demonstrate their competency to use a telehandler, then the work area in which the machine is operated should be assessed for safety.

## **8.0** Telehandler safety considerations when operating in work areas

### Installing telehandlers to a safe work area

The telehandler owner holds responsibility for providing safe mobile plant to the work area. When the machine owner is a leasing company, then they may hold overlapping duties with both the work area controller and the operating company.

Prior to selecting a telehandler for use on a work site, the work area controller should first undertake a risk assessment to determine if a telehandler is the best suited machine for the task at hand and for the work site itself. If a telehandler is best suited, then consideration should be given to the size and type of telehandler to be used.

To help work area controllers select appropriate mobile plant for a particular work area, a **work area risk assessment** should be documented. This should be undertaken by the controller of the work area **and** a competent operator of the type of machinery to be used.

When selecting a telehandler for use onsite the following items will need to be considered:

- // Terrain.
- // Overall Dimensions.
- // The suitability of the machine to the task.
- // Lifting capacity or suitable attachments.
- // The ability for a telehandler to manoeuvre safely within the work area.
- // Proximity of utilities and services to the telehandler operating area.
- // The age or specification of the telehandler (often older machines lack modern acceptable safety measures).
- // Availability of competent operators.

Once an assessment of the work area hazards has been undertaken, and the controls agreed by all parties, a telehandler can be installed to a work site.

Before handing the telehandler over to an operator on a work site, three steps should be taken:

- // Each operator should provide documentation of their general competency to operate a telehandler, in accordance with the minimum acceptable safety standard set by the work area controller and the machine owner.
- // The work area controller should induct the operator to the hazards and controls of the particular work site. This is usually through a site induction.
- // The machine owner (or their representative) should provide specific information to the operator in how to safely operate the specific telehandler. The machine owner should then verify and record that the operator has understood this information. This is usually captured in a machine handover checklist.

### **Operating Telehandlers on public roads**

Public roads are governed by Waka Kotahi (New Zealand Transport Agency) and local councils. As such, public roads can be considered a separate work area with specific controls that are set by the Agency. When operating a telehandler on Public Roads the following rules must be followed:

When operating mobile plant on public roads, the following rules should be followed:

- // The operator must hold a driving licence of an appropriate category:
  - Current Class 1 Drivers licence for machines under 18t.
  - Current Class 2 Drivers licence for machines greater than 18t.
- // Additionally, depending on the type of mobile plant being driven, the following must be considered:
  - F Endorsement if operating mobile plant with fork attachments on a road that the public have access to, or could access.
  - W Endorsement (special-type vehicle that runs on wheels).



- // Some mobile plant types must be registered in accordance with the NZ Land Transport regulations, display a number plate and be appropriately insured.
- // Mobile plant must be driven in compliance with the provisions of the NZ Road Code.
- // Mobile plant should be equipped with appropriate lighting.
- // Mobile plant should be equipped with a flashing amber beacon when travelling at less than 25 mph on an unrestricted dual carriageway.
- // Independent wheel braking systems, if fitted, must be linked.
- // Mobile plant fitted with all wheel steering systems should have the rear wheels locked in line with the chassis.
- // Four wheel drive systems should normally be disengaged, as should differential locks.
- // Before travelling on a public road, mobile plant attachments (Such as fork arms) should be either removed or folded back and secured. If this is not possible it is essential that marker plates are fitted to the attachment to warn oncoming traffic. These marker plates must be illuminated during the hours of darkness. Any forward projection must not exceed 2.0m.



## **9.0** Machine maintenance considerations for operators

Operators should be familiar with maintenance considerations following familiarisation handover from the machine owner.

An operator must never attempt to undertake maintenance on a machine if they lack the competency to do so, or if they feel that it is beyond their current competency.

Operators should not undertake detailed machine maintenance unless they hold a separate and specific competency to do so.

When undertaking maintenance of mobile plant on site, it is recommended that operators only undertake routine daily or weekly maintenance as required by the machine manufacturer, and only in cases where no specific additional skills are required to do so.

Operators should not undertake maintenance involving inspection or certification of safety specific controls on mobile plant without prior and specific competency.

Any operator maintenance checks should be undertaken in accordance with the manufacturer's guidance, and the machine should be in the most powered down state permissible to perform the activity. Performing maintenance tasks on a powered down and locked out machine should be considered wherever it is practical to do so.

When undertaking any routine maintenance, the outcomes should be recorded by the operator and records provided to both their own employer and the machine owner. The records may be made available to work area controllers to demonstrate the safe state of the machine.

If an operator encounters any safety issues during routine maintenance or operation of mobile plant, they have a duty to report this to their employer, who should report to the machine owner and work area controller.

In instances where a **safety issue is identified by the operator**, as soon as reasonably practicable, the machine must be **powered down, made safe, and locked out** until a competent machine engineer is able to address the issue.

The telehandler should only be returned to operation once its safe condition has been confirmed by the engineer, the machine owner and the work area controller. Any modifications or changes to the machine's operation should be communicated to operators through familiarisation information and training.

## **10.0** Implementing a machine safety management system for companies

This section lists the considerations of machine owners in setting up a safety management system for mobile plant.

### Before procuring mobile plant

- // Keep up to date with the latest telehandler safety information.
- // Undertake risk assessments to determine acceptable telehandler types and specifications.
- // Determine recognised operator competency standards and measurement.
- // Undertake a risk assessment prior to purchase of each specific machine.

### When managing mobile plant

- // Create a register of mobile plant. This should make it easy to identify each specific item of mobile plant, and its condition.
- // Create an inspection and maintenance register for each piece of plant. This identifies when inspection and maintenance has taken place and should identify when it is next due.
- // Create a competency register for your operators. Just like a machine inspection register, this should identify the current competency of your workers and any requirements for improvement, or renewal of competency.
- // Create an operator prestart and close down register for each piece of plant in line with the manufacturer that covers the safety checks needed.

### Record keeping for each item of mobile plant

Each telehandler and each attachment should have records of:

- // A pre purchase risk assessment.
- // Maintenance and servicing.
- // Any modifications or changes from the manufacturer design.
- // Any certificates of fitness, warranty or registration as required by regulating authorities such as Waka Kotahi (New Zealand Transport Agency), WorkSafe or MBIE.
- // The operator handbook and instruction on it's safe use.
- // Operator pre start and close down checks.
- // Any known faults and corrective actions taken.

### **Record keeping for work activities**

When working on sites, machine owning companies should have records of:

- // Machine familiarity training and handover to the operator / site.
- // The competency of the operator using the mobile plant.
- // Any specific risk assessment for the work area involving the operator.
- // Operator specific work area induction records (if the operator is an employee).

All of these records should be considered in an ongoing basis to understand the current risks presented by your telehandler and by your operators.

A system should allow telehandler operators to understand emerging safety hazards and to implement suitable controls in order to minimise any safety risks presented by specific machines or operators, and by the fleet of mobile plant and group of operators.

By implementing a system, the mobile plant owning company can display reasonably practicable steps in minimising the risks presented by mobile plant in a construction environment.

## References

This guide was produced in consultation with NZ construction companies and from international good practice reference material as listed below. When researching the purchase of a telehandler, it is recommended that the reference material below be considered as part of the process.

- // Health and Safety at Work Act 2015.
- // Safe Work Australia Code of Practice: Managing the risks of plant in the workplace.
- // Health & Safety Executive: HSG144 safe use of vehicles on construction sites.
- // Ministry of Business, Innovation & Employment Factsheet: Implementing the Health & Safety at Work Act 2015; Mobile Plant.
- // Waka Kotahi (NZ Transport Agency) Report into cardan shaft park brakes, March 2021.
- // Strategic Forum Plant Safety Group: Good Practice Guide; Safe use of telehandlers in construction. (Second revision)
- // Telescopic Handlers association: Good practice guide for telehandlers.
- // Crane Association of New Zealand Position paper: Telehandler Use : Lifting suspended loads.

## Appendix

### A) Common telehandler safety considerations

#### Fork carriage

Carries stored energy and can present risks of entrapment or crushing due to its pivoting movement. Overloading can present a risk of machine roll over.

This should be checked pre and post use alongside a formal inspection and maintenance schedule.

### Forks / attachment

Should be properly hitched to the carriage.

Each attachment should be used in line with manufacturer recommendations only.

Each attachment should have its own inspection and maintenance schedule.

Attachments can create risks of falls from height, object falling, or machine roll over if not used correctly.

#### **Telescopic Boom**

Source of stored energy.

Presents a crushing and entrapment hazards due to its movement.

Should be regularly inspected and maintained.

### **Operators cab**

This is a guard for the operator.

Windows and roll over protection are common safety features.

The door should be closed during operations.

The cab should always enclose the operator when in operation.

## Rotating superstructure

Swivels and presents a hazard to anyone entering the area of influence that must be managed.

The hydraulic rotating pivot should be inspected and maintained in line with the manufacturer recommendation.

#### Outriggers

Provide stability, but the stability of the ground underneath must be considered.

Contain stored energy and should be regularly maintained and checked.

### **Chassis and systems**

The chassis should be regularly inspected and maintained.

Braking systems must be maintained and checked regularly.

Machine guards should be checked and maintained.

A telehandler presents hazards to the operator and others who work in the area of influence, including when the machine is not in use.

These hazards must be controlled.

## B) Machine familiarisation checklist example

Telehandler operator familiarisation check sheet

Handover completed by (NAME)	
Operator name	
Date	
Machine ID number	
Attachments (Include ID)	

Operation of controls	Tick (x)	Fluid levels	Tick (x)
Gear selection		Fuel	
Forward and reverse selection		Hydraulic oil	
Steering mode selector		Engine oil	
Boom reach raised		Batteries	
Boom reach lowered		Transmission / powertrain	
Boom reach out		Coolant	
Boom reach in		Screen wash reservoir	
Carriage tilt		Brake system reservoir	
Stabiliser legs			
Chassis levelling operation		Documentation / equipment	
LLMI / LLMC unit test		Manufacturers operating manual	
Brake pedal		Load charts	
Horn		Thorough examination certificate	
Wiper		Operators record book	
Lights		Roadworthiness certificate	
Third service control		Grease gun / tyre pressure gauge	
Stop button		Pre start / closedown checklist	
Engine isolation switch and key		Fault reporting procedure	
Handbrake / park brake			

### Defects or safety concerns:

I, the operator confirm that I have been familiarised with the above controls and checks.

Operator signed:

You should return this sheet to your employer.

## C) Pre start / close down check example Telehandler Pre – Use / Closedown check sheet

Operator name	
Date	
Machine ID number	
Attachments (Include ID)	

When undertaking a pre use or closedown check, each check should be made. Each check is deemed as safe unless **you** report defects of safety risks. Add notes of any defects or safety concerns to the comments section at the bottom of the checklist.

Or, indicate that you are using the manufacturers check sheet, then indicate any defects in the comments section at the bottom of the checklist.

I am using the manufacturers pre start / closedown checklist.		Tick here (x)	
	Check item	Defect ?	N/A
	Visual walk around		
1	Verify location of handbook and confirm machine has a current report of Thorough Examination		
2	General condition and cleanliness, including cab		
3	Evidence of any oil leaks (include hydraulic cylinders, fittings, valves and wheel hubs)		
4	Fork carriage, (deformed arms, back rest damage, distortion)		
5	Attachments, (completeness, damage, decals, rated capacity, fastenings)		
6	Quick hitch fittings (if applicable)		
7	Pin security		
8	Wheels (bent rims and nut security) & tyres (worn tread, cuts and damage to side walls and tread)		
9	Tyre pressure (check using gauge)		
10	Hydraulic hose and pipe condition and security		
11	Cab condition, ROPS/FOPS mounting		
12	Cab windows, including roof section, to be clean.		
13	Cracked/unauthorised welding		
14	Guards, cowlings and fasteners		
15	Decals/labels, including manufacturer's rating plate		
16	Fire extinguisher (in-date, charged?)		
17	Manufacturer safety bars		
18	Mirrors / CCTV		

	Physical check of lubricants	
19	Engine oil	
20	Transmission oil	
21	Coolant	
22	Batteries	
23	Brake fluid	
24	Hydraulic oil	
25	Air filter indicator	
26	Fan belt deflection	
27	Fuel	
28	Visual check of all engine components	
	Running checks	
29	All controls for correct function	
30	All gauges and instruments including horn and hour meter	
31	All lights/indicators including beacon	
32	Heater, defroster and wipers for correct function	
33	Verify seat position and seat belt function	
34	Any unusual noises	
35	Service brakes	
36	Verify all steering modes	
37	Stabilisers/outriggers/chassis tilt/360 rotation. (as appropriate)	
38	Parking brake test	
39	Load charts	
40	LLMI	
41	LLMC (if fitted)	
42	All warning devices must be operational	

### Defects or safety concerns:

Operator signed:

You should return this sheet to your employer. Work should not start until any defects have been resolved.

For more information contact info@chasnz.org 0800 242 769 FTFTTTTTTTTTTTTTTT

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0800 2 GET HIGH

accessman

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