



BC Forest Safety

Mechanized Harvesting Package

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Version Control

Version includes date and control number. Comment section lists a summary of changes from previous version.

Version		Comments
2024-07-15	v. 1.0	Final draft

In consultation with industry subject matter experts, the BC Forest Safety Council (BCFSC) facilitated the production of this material.

Printed copies are considered uncontrolled and may be outdated. Current versions are available from the BCFSC.

Feedback is welcome and may be sent to training@bcforestsafe.org.

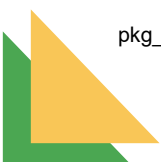


Industry Toolbox

A package is the foundation document for an occupation or group of related occupations. The package provides the framework for the occupation(s) and includes:

- Occupational Analysis Chart and descriptions
- Units of Competency which specify in terms of outcomes what is required to work effectively to a standard required by industry and regulations where applicable.

The purpose of the above documentation and process is to provide industry with a 'toolbox' that will support training and assessment of workers in the relevant occupations.



Occupation Descriptions

The following occupations are part of this package:

- Feller Buncher Operator
- Skidder Operator
- Forwarder Operator
- Hoe Chucker Operator
- Dangle Head Processor Operator
- Log Loader Operator

Feller Buncher Operator

A feller buncher is a type of harvester used in logging. It is a motorized vehicle with an attachment that can rapidly cut and gather several trees together in a bunch before placing them on the ground.

Skidder Operator

A skidder is a type of harvesting equipment used to grab bunches or piles of logs, and forward the logs to the landing or roadside so they can be processed.

A skidder can be tracked or wheeled.

Tracked skidders are generally used on steeper terrain and can also be used for building roads and trails where needed.

Wheeled skidders are used on ground that is not too steep to forward logs from grapple yarders and hoe chucks to the landing.

Forwarder Operator

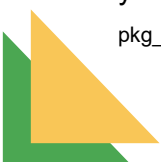
A forwarder is a type of harvesting equipment that loads wood onto a platform (on the forwarder) and moves it to a landing or roadside. These can be processed or unprocessed timber or logs. Some forwarders will process the log before putting it on bunks.

Hoe Chucker Operator

A hoe chucker is a type of harvesting equipment that builds trails, moves felled trees to the roadside or landing, or bundles trees for a skidder. The hoe chucker also piles debris, and is typically used on steep or wet ground.

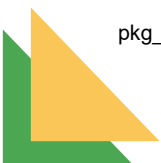
Dangle Head Processor Operator

A dangle head processor is a type of harvesting equipment that processes trees into logs by removing the limbs and cutting them to length before the logs are hauled to the mill or sort yard.



Log Loader Operator

A log loader is a machine used to load and unload logs from log transportation vehicles and storage piles.



Occupational Analysis Chart

This Master OAC outlines the scope of the mechanized harvesting occupations in the forest industry and shows the correlation between the following occupations and their competencies:

1. Feller Buncher Operator (FB)
2. Skidder Operator (SK)
3. Forwarder Operator (FW)
4. Hoe Chucker Operator (HC)
5. Dangle Head Processor Operator (DH)
6. Log Loader Operator (LL)
7. All (A)

INTRODUCTION A	Describe Forest Industry											
	1002											
A												
OCCUPATIONAL SKILLS B	Describe Personal and Worksite Safety		Communicate in the Workplace		Describe and Apply Workplace Attributes		Recognize Hazards Related to General Forestry		Describe Workplace Documentation		Describe Emergency Preparedness	
	1003		1004		1008		1005		1006		1007	
A		A		A		A		A		A		



Describe Regulations and Standards related to General Forestry				
				1036
A				

Describe Regulations and Standards related to Heavy Equipment in Forestry				
				1084
A				

Describe Risk and Risk Control				
				1039
A				

MECHANIZED HARVESTING OCCUPATIONAL SKILLS
C

Describe Signals Used in Forestry				
				1068
A				

Describe Harvesting Methods				
				1090
A				

Describe Tools and Equipment for Heavy Machinery				
				1081
A				

Describe General Heavy Equipment Inspection and Maintenance Procedures				
				1082
A				

Describe Heavy Equipment Mechanical Systems				
				1083
A				

WINCH ASSIST
D

Describe Winch Assist				
				1138
FB	SK	FW		

Use Winch Assist in Steep Slope Environments				
				1139
FB	SK	FW		

OPERATE EQUIPMENT
E

Describe and Operate Feller Buncher				
				1092
FB				

Describe and Operate Skidder				
				1093
SK				

Describe and Operate Forwarder				
				1094
FW				

Describe and Operate Hoe Chucker				
				1095
HC				

Describe and Operate Dangle Head Processor				
				1096
DH				

Describe and Operate Hydraulic Log Loader				
				1097
LL				

OPTIONAL
F

Describe and Operate Chainsaw				
				1028
A				



Units/Modules

The following are part of the formative assessment for general Forestry occupational skills.

Unit	Title
1002	Describe Forest Industry
1003	Describe Personal and Worksite Safety
1004	Communicate in the Workplace
1005	Recognize Hazards Related to General Forestry
1006	Describe Workplace Documentation
1007	Describe Emergency Preparedness
1008	Describe and Apply Workplace Attributes
1036	Describe Regulation and Legislation related to General Forestry
1039	Describe Risk and Risk Control

The following are part of the formative assessment for Mechanized Harvesting occupational skills.

Unit	Title
1084	Describe Regulations and Standards related to Heavy Equipment in Forestry
1068	Describe Signals used in Forestry
1090	Describe Harvesting Methods
1081	Describe Tools and Equipment for Heavy Machinery
1082	Describe General Heavy Equipment Inspection and Maintenance Procedures
1083	Describe Heavy Equipment Mechanical Systems
1084	Describe Regulations and Standards related to Heavy Equipment in Forestry



Feller Buncher	Skidder	Forwarder	Hoe Chucker	Dangle Head Processor	Hydraulic Log Loader
Core Units	Core Units	Core Units	Core Units	Core Units	Core Units
1002	1002	1002	1002	1002	1002
1003	1003	1003	1003	1003	1003
1004	1004	1004	1004	1004	1004
1005	1005	1005	1005	1005	1005
1006	1006	1006	1006	1006	1006
1007	1007	1007	1007	1007	1007
1008	1008	1008	1008	1008	1008
1036	1036	1036	1036	1036	1036
1039	1039	1039	1039	1039	1039
1068	1068	1068	1068	1068	1068
1090	1090	1090	1090	1090	1090
1081	1081	1081	1081	1081	1081
1082	1082	1082	1082	1082	1082
1083	1083	1083	1083	1083	1083
1138	1138	1138	1138	1138	1138
Additional Units	Additional Units	Additional Units	Additional Units	Additional Units	Additional Units
1092	1093	1094	1095	1096	1097
Optional Units	Optional Units	Optional Units	Optional Units	Optional Units	Optional Units
1028	1028	1028	1028	1028	1028



Standards/Guidelines

	General Forestry occupational skills
	Mechanized Harvesting occupational skills
	Units specific to the package

Units of Competency define, in terms of outcomes, the skills, knowledge and attributes required to perform effectively in the workplace. They inform the development of any assessment or evidence requirement and the learning resources.



Unit	1002
Title	Describe Forest Industry
Document	Unit of Competency

Description	<p>This is a knowledge unit about:</p> <ul style="list-style-type: none"> • Terminology; • Phases of Forestry; • Harvesting Methods; • Environmental and Cultural Considerations; • Types of Trees and Logs; • Transportation Methods; and • Regulations.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites:</p> <ul style="list-style-type: none"> • There are no prerequisites for this unit.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • All forest industry occupations.
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Element	Competence Outcomes
1. Terminology and Phases of Forestry	<p>1.1. Explain general terminology in the forest industry in accordance with industry accepted terms.</p> <p>General terminology may include:</p> <ul style="list-style-type: none"> • General forestry, hand falling, mechanized falling, yarding, road building, log hauling. <p>1.2. Describe the phases of forestry and forestry planning.</p> <p>Phases of forestry and forestry planning must include:</p> <ul style="list-style-type: none"> • Engineering and planning, road building, falling, yarding, log hauling, dryland sort (booming, scaling, grading), end location of product, salvage, waste management, deactivation and silviculture.
2. Forestry as a Business	<p>2.1. Describe forestry as a business in accordance with industry best practice.</p> <p>Forestry as a business must include:</p> <ul style="list-style-type: none"> • Sustainable forestry, tenures, privately managed forest lands.
3. Harvesting Methods	<p>3.1. Explain application of harvesting methods.</p> <p>Harvesting methods may include:</p> <ul style="list-style-type: none"> • Cable yarding, grapple yarding, super snorkel, long line, single tree select harvesting, helicopter, horse logging, clean up (salvaging). <p>3.2. Identify types of equipment used for mechanical harvesting.</p> <p>Equipment used for Mechanical Harvesting methods may include:</p> <ul style="list-style-type: none"> • Feller bunchers, skidders, forwarders, processors (dangle head and hot saw), delimiters, dozers.
4. Environmental and Cultural Considerations	<p>4.1. Describe environmental considerations when undertaking forestry operations in accordance with industry best practices.</p> <p>Environmental considerations must include:</p> <ul style="list-style-type: none"> • Ground and site disturbance, waterway and streams, wildlife.



Element	Competence Outcomes
	<p>4.2. Describe <i>cultural considerations</i> when undertaking forestry operations in accordance with industry best practices.</p> <p><i>Cultural considerations</i> must include:</p> <ul style="list-style-type: none"> • First nations, government ministries.
<p>5. Types of Trees and Logs</p>	<p>5.1. Identify <i>types of trees</i> logged in British Columbia and their use.</p> <p><i>Types of trees</i> may include:</p> <ul style="list-style-type: none"> • Douglas Fir, Larch, Pine, Spruce • Western Red Cedar and Yellow Cedar • Hemlocks and Balsam • All deciduous. <p>5.2. Describe <i>grade of logs</i> and their characteristics found in the worksite.</p> <p><i>Grade of logs</i> must include:</p> <ul style="list-style-type: none"> • Cedar and Douglas fir poles, chip and saw logs, cull logs, cut-to-length logs, gang, high grade, mulch, peeler logs, pulp logs, shake and shingle logs, tree lengths logs.
<p>6. Transportation Methods</p>	<p>6.1. Identify <i>transportation methods</i> used within the forest industry.</p> <p><i>Transportation methods</i> may include:</p> <ul style="list-style-type: none"> • Ground • Aviation – fixed wing and helicopter • Marine – small passenger vessel, boom boat, tug boat.
<p>7. Regulations</p>	<p>7.1. Identify <i>regulations and legislation</i> and how they apply in the forestry setting.</p> <p><i>Regulations and legislation</i> must include:</p> <ul style="list-style-type: none"> • OHSR Part 1, 2, 3, 4, 12, 15, 16, 17, 19, 21 • OHSR 26 - Forestry.

Summary of Knowledge and Skills



<p>Summary of Knowledge to be Assessed</p>	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • General forestry terminology • Phases of forestry and forestry planning • Forestry as a business • Harvesting methods • Harvesting equipment • Environment considerations • Cultural considerations • Sustainability in forestry • Types of trees in British Columbia • Grades of logs • Transportation methods • General legislation and regulations related to working in forestry.
<p>Summary of Skills to be Assessed</p>	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • This is a knowledge only unit.

General Forestry Assessment Guide

<p>General Information</p>	<ul style="list-style-type: none"> • Training modules are available for this unit.
<p>Evidence to be Assessed</p>	<p>Minimum evidence requirements for this unit must include:</p> <ul style="list-style-type: none"> • Completion of related training module.
<p>Evidence Sign Off</p>	<p>Evidence must be signed off by:</p> <ul style="list-style-type: none"> • No evidence sign-off required.



Unit	1003
Title	Describe Personal and Worksite Safety
Document	Unit of Competency

Description	<p>This is knowledge unit about:</p> <ul style="list-style-type: none"> • Personal Safety; and • Worksite Safety.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites for fallers:</p> <ul style="list-style-type: none"> • 1002 – Describe Forest Industry; or • 1033 – Describe Wildfire Preparedness; or • 1034 – Describe Oil and Gas Industry.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • Bucker – Forest Industry, Wildfire Service, Oil and Gas Industry • Faller – Forest Industry, Wildfire Service, Oil and Gas Industry • All Forestry occupations as required
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Element	Competence Outcomes
<p>1. Personal Safety</p>	<p>1.1. Explain the use of, maintenance, and when Personal Protective Equipment (PPE) must be removed from service in accordance with safe work procedures and relevant regulations.</p> <p>Use of must include:</p> <ul style="list-style-type: none"> • Dress appropriate to the weather and work activity • Hard hat, eye and face protection, hearing protection, hand protection, leg protection, safety footwear, hi-vis apparel. <p>1.2. Explain the importance of walking in the bush safely throughout the workday.</p> <p>1.3. Explain OHSR regulation related to working alone or in isolation.</p> <p>1.4. Explain the right to refuse unsafe work in accordance with OHSR.</p> <p>Right to refuse unsafe work must include:</p> <ul style="list-style-type: none"> • What is unsafe, obligation to refuse, WSBC resolution process
<p>2. Worksite Safety</p>	<p>2.1. Describe shutdown criteria for weather in accordance with site conditions and environmental standards.</p> <p>Shutdown criteria for weather may include:</p> <ul style="list-style-type: none"> • Heat, cold, rain, fog, smoke, wind, lightning, frost, ice, snow, avalanches. • Break-up. <p>2.2. Describe how to control access to working area in accordance with regulation.</p> <p>2.3. Recognize safe zones and hazard zones in accordance with company policy and legislation.</p> <p>Hazard zones must include:</p> <ul style="list-style-type: none"> • Low side of equipment, well sites and pipelines, low side of worker, two-tree lengths radius from other workers and equipment, low side of log decks, uphill of active wildfire, low side of roadside debris, standing within swing radius of equipment, runaway zones,



Element	Competence Outcomes
	<p style="text-align: center;">highway/public roads, blast radius, overhead hazards (lines, rigging, trees).</p> <p>2.4. Identify common contributors, and common types of MSI in the forest industry.</p> <p>Common types of MSI must include:</p> <ul style="list-style-type: none"> • Repetitive strain injury, tendinitis, hearing loss, tenosynovitis, Raynaud’s syndrome. <p>Common contributors of MSI must include:</p> <ul style="list-style-type: none"> • Lifting, reaching, repetitive motions, cutting with the chainsaw, walking on logs and uneven terrain, vibration.

Summary of Knowledge and Skills

<p>Summary of Knowledge to be Assessed</p>	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • PPE required for the job including use, maintenance, storage, and removal • What PPE is required for the work activity • How to walk in the bush safely • Regulation related to working alone or in isolation • Regulation and process related to refusal of unsafe work • Weather related shutdown criteria • Control access to the work area • Safe zones and hazard zones • Definition of MSI • Common types of MSI in the forest industry.
<p>Summary of Skills to be Assessed</p>	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • This is a knowledge only unit.



General Forestry Assessment Guide

<p>General Information</p>	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence should be on record showing the outcomes have been met.</p> <ul style="list-style-type: none"> • Training modules are available for this unit. • A competency conversation is available for this unit. • This unit is required for Certificate of Qualification - Faller.
<p>Evidence to be Assessed</p>	<p>Minimum evidence requirements to achieve this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable.
<p>Evidence Sign Off</p>	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1004
Title	Communicate in the Workplace
Document	Unit of Competency

Description	<p>This is a knowledge unit about:</p> <ul style="list-style-type: none"> • Communication; and • Resource Road Signage.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites for fallers:</p> <ul style="list-style-type: none"> • 1002 – Describe Forest Industry; or • 1033 – Describe Wildfire Preparedness; or • 1034 – Describe Oil and Gas Industry.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • Bucker – Forest Industry, Wildfire Service, Oil and Gas Industry • Faller – Forest Industry, Wildfire Service, Oil and Gas Industry • All forestry occupations where applicable.
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Element	Competence Outcomes
1. Communicate	<p>1.1. Describe resource road communication in accordance with relevant road use procedures.</p> <p>Resource road communication must include:</p> <ul style="list-style-type: none"> • Radio frequency/channel, call procedure, road name/contact information. <p>1.2. Describe hazard communication in accordance with relevant site-specific policy and procedures.</p> <p>1.3. Describe emergency communication.</p> <p>1.4. Describe communication failure in the workplace related to operations and the means to control the hazard.</p>
2. Signage	<p>2.1. Recognize road signs in accordance with company policy and the Ministry of Forest, Lands Natural Resources Operations and Rural Development (MFLNRORD).</p> <p>Road signs may include but not limited to:</p> <ul style="list-style-type: none"> • Road name, kilometer signs, radio channels, radio call points, must call signs. <p>2.2. Recognize active area signs in accordance with company policy and MFLNRO.</p> <p>Active area signs may include:</p> <ul style="list-style-type: none"> • Hazard zones, do not enter, blasting signs, active falling area, helicopter landing areas, machinery working, call for clearance, explosive storage, environmental signs, prime contractor signs, men working, seismic crew, seismic crew ahead active falling area, and active wildfire area.



Summary of Knowledge and Skills

<p>Summary of Knowledge to be Assessed</p>	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • Resource road communication • Hazard communication • Emergency communication • Communication failure • Resource road signs and active area signs.
<p>Summary of Skills to be Assessed</p>	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • This is a knowledge only unit.

General Forestry Assessment Guide

<p>General Information</p>	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence should be on record showing the outcomes have been met.</p> <ul style="list-style-type: none"> • Training modules are available for this unit. • A competency conversation is available for this unit. • This unit is required for Certificate of Qualification – Faller.
<p>Evidence to be Assessed</p>	<p>Minimum evidence requirements to achieve this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable.
<p>Evidence Sign Off</p>	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign-off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1005
Title	Recognize Hazards Related to General Forestry
Document	Unit of Competency

Description	<p>This is a knowledge unit about:</p> <ul style="list-style-type: none"> • Health Hazards; • Operational Hazards; and • Environmental Hazards.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites for fallers:</p> <ul style="list-style-type: none"> • 1002 – Describe Forest Industry; or • 1033 – Describe Wildfire Preparedness; or • 1034 – Describe Oil and Gas Industry.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • Bucker – Forest Industry, Wildfire Service, Oil and Gas Industry • Faller – Forest Industry, Wildfire Service, Oil and Gas Industry • All Forestry occupations where applicable.
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Element	Competence Outcomes
1. Recognize, Evaluate and Control Hazards	1.1. Describe the recognize, evaluate and control process.
2. Health Hazards	2.1. Describe and recognize toxins in the workplace and its effect on the worker and the means to control the hazard. Toxins in the workplace may include: <ul style="list-style-type: none"> • Pesticides, herbicides, asbestos, silica, exhaust emissions, misting, nitro glycerin, oil and gas.
3. Operational Hazards	3.1. Describe and recognize potential hazards from machines and surroundings and the means to control the hazard. Potential Hazards may include: <ul style="list-style-type: none"> • Overloading, damage to machine, injury from machine maintenance, noise from machine and vehicles, overhead hazards, danger trees.
4. Environmental Hazards	4.1. Describe hazards related to steep terrain and terrain stability. 4.2. Recognize adverse condition hazards in the workplace related to operations and the means to control the hazard. Adverse condition hazards may include: <ul style="list-style-type: none"> • After a fire, lightning blowdown, wind, earthquake, danger trees, snow, rain, fog/smoke, heat, cold, dust, exposure to sun. 4.3. Recognize wildlife and insect hazards in the workplace. Wildlife and insect hazards may include: <ul style="list-style-type: none"> • Bees, ticks (Lyme disease), bears, cougars, wolves, moose.



Summary of Knowledge and Skills

Summary of Knowledge to be Assessed	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • Recognize, evaluate and control process • General health hazards • General operation hazards • Hazards related to steep terrain and terrain stability • Adverse conditions hazards • Wildlife and insect hazards
Summary of Skills to be Assessed	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • This is a knowledge only unit.

General Forestry Assessment Guide

General Information	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence should be on record showing the outcomes have been met.</p> <ul style="list-style-type: none"> • Training modules are available for this unit. • This unit is required for Certificate of Qualification - Faller
Evidence to be Assessed	<p>Minimum evidence requirements to achieve this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments.
Evidence Sign Off	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1006
Title	Describe Workplace Documentation
Document	Unit of Competency

Description	<p>This is a knowledge unit about:</p> <ul style="list-style-type: none"> • General Forestry Documentation.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites for fallers:</p> <ul style="list-style-type: none"> • 1002 – Describe Forest Industry; or • 1033 – Describe Wildfire Preparedness; or • 1034 – Describe Oil and Gas Industry.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • Bucker – Forest Industry, Wildfire Service, Oil and Gas Industry • Faller – Forest Industry, Wildfire Service, Oil and Gas Industry • All Forestry occupations where applicable.
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Element of Competence	Competence Outcomes
<p>1. General Forestry Documentation</p>	<p>1.1. Describe safe work procedures and job safety breakdown documentation and how to access them in accordance with workplace policy and procedure.</p> <p>Safe work procedures and job safety breakdown documentation must include:</p> <ul style="list-style-type: none"> • Where they are located and how to access them, how often to be reviewed. <p>1.2. Identify documentation required before starting work in accordance with workplace policy and procedure.</p> <p>Documentation required before starting work may include:</p> <ul style="list-style-type: none"> • Site hazard assessment, initial safety meeting for new worksite, first aid risk assessment, emergency response procedures, working alone assessment and man check records, carbon monoxide reporting. <p>1.3. Confirm map.</p> <p>Map must include:</p> <ul style="list-style-type: none"> • Legend including direction, hazards, symbols, orientation skills, environmental constraints, scales. <p>1.4. Explain why operator manuals must be readily available.</p> <p>Operator manuals may include:</p> <ul style="list-style-type: none"> • Mobile equipment, chainsaws, vehicles, tools.



Summary of Knowledge and Skills

Summary of Knowledge to be Assessed	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • Safe work procedures • Job Safety Breakdown documentation • How to read maps • Operator manuals
Summary of Skills to be Assessed	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • This is a knowledge only unit.

General Forestry Assessment Guide

General Information	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence must be on record of competence achieved.</p> <ul style="list-style-type: none"> • Training modules are available for this unit. • A competency conversation is available for this unit. • This unit is required for Certificate of Qualification - Faller
Evidence to be Assessed	<p>Minimum evidence requirements to achieve this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable.
Evidence Sign Off	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1007
Title	Describe Emergency Preparedness
Document	Unit of Competency

Description	<p>This is a knowledge unit about:</p> <ul style="list-style-type: none"> • Emergencies; and • First Aid.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites for fallers:</p> <ul style="list-style-type: none"> • 1002 – Describe Forest Industry; or • 1033 – Describe Wildfire Preparedness; or • 1034 – Describe Oil and Gas Industry.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • Bucker – Forest Industry, Wildfire Service, Oil and Gas Industry • Faller – Forest Industry, Wildfire Service, Oil and Gas Industry • All Forestry occupations where applicable.
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Element	Competence Outcomes
1. Emergencies	<p>1.1. Describe roles and responsibilities that may occur within the ERP including triggers.</p> <p>Triggers may include:</p> <ul style="list-style-type: none"> • Environmental emergencies, wildfire emergencies, avalanche, excessive rain, flooding, medical, landslide, excessive snowfall, windstorm, gas release, water rescue, helicopter down, vessel sinking or lost. <p>1.2. Explain incidents that must be reported immediately in accordance with WCA.</p> <p>Incidents that must be reported immediately must include:</p> <ul style="list-style-type: none"> • Fatality/Serious injury, a serious blasting incident, major structural failure or collapse, major release of hazardous substance, dangerous incident involving a fire or explosion. <p>1.3. Identify the components of an ERP and where to find and identify on site location of medical/environmental/fire emergency response plans in accordance with company policy and procedure.</p> <p>Medical/environmental/fire emergency response plans must include:</p> <ul style="list-style-type: none"> • Contact numbers or radio channel/frequency, First Aid designates, helicopter landing area coordinates, muster points, communication protocols for emergencies, outside resources for emergencies, location of emergency response equipment, worksite coordinates, access/egress routes, methods and routes to medical aid.
2. First Aid	<p>2.1. Explain First Aid procedures.</p> <p>First Aid procedures must include:</p> <ul style="list-style-type: none"> • Personnel, how to call First Aid, First Aid attendant authority, transportation of injured worker. • What and where First Aid supplies must be on site. <p>2.2. Identify specialized First Aid equipment.</p> <p>Specialized First Aid equipment may include:</p> <ul style="list-style-type: none"> • Spine board, hard and soft neck collars, splints, oxygen, EPI pen, AED, baby aspirin, naloxone.



Element	Competence Outcomes
	<p>2.3. Identify what First Aid requirements are needed at the workplace in accordance with workplace policy, procedure, and regulations.</p> <p>First Aid requirements must include:</p> <ul style="list-style-type: none"> • Where to find number of First Aid attendants and levels required. • When and where approved Emergency Transport Vehicle (ETV) or Mobile Transport Center (MTC) is required.

Summary of Knowledge and Skills

<p>Summary of Knowledge to be Assessed</p>	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • Roles and responsibilities related to the ERP in different emergencies scenarios • Incident reporting and timelines. • Components of an ERP • Location of ERP • First Aid procedures • First Aid requirements on worksite • Specialized First Aid equipment.
<p>Summary of Skills to be Assessed</p>	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • This is a knowledge only unit.



General Forestry Assessment Guide

<p>General Information</p>	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence should be on record showing the outcomes have been met.</p> <ul style="list-style-type: none"> • Training modules are available for this unit. • A competency conversation is available for this unit. • This unit is required for Certificate of Qualification – Faller.
<p>Evidence to be Assessed</p>	<p>Minimum evidence requirements to achieve this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable.
<p>Evidence Sign Off</p>	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1008
Title	Describe and Apply Workplace Attributes
Document	Unit of Competency

Description	<p>This is a knowledge and ability unit about:</p> <ul style="list-style-type: none"> • Professionalism; • Safe Productivity; and • Physical and Mental Well-Being.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites for fallers:</p> <ul style="list-style-type: none"> • 1002 – Describe Forest Industry; or • 1033 – Describe Wildfire Preparedness; or • 1034 – Describe Oil and Gas Industry.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • Bucker – Forest Industry, Wildfire Service, Oil and Gas Industry • Faller – Forest Industry, Wildfire Service, Oil and Gas Industry • All Forestry occupations where applicable.
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Element	Competence Outcomes
<p>1. Professionalism</p>	<p>1.1. Describe why it is important to be prepared and demonstrate ability to arrive at work prepared for the task and the day.</p> <p>Work prepared for the task and the day may include:</p> <ul style="list-style-type: none"> • Task specific PPE, additional nutrition and hydration, change of clothes, task specific equipment, and site or work specific paperwork. <p>Why be prepared may include:</p> <ul style="list-style-type: none"> • Minimize operational delays, for safety, avoid being rushed, attend safety meetings, ensure tools and equipment are in working order, pre-trips. <p>1.2. Describe how to effectively deal with problems.</p> <p>Problems may include:</p> <ul style="list-style-type: none"> • Personal and interpersonal problems, problems as a result of changing work conditions. <p>1.3. Give and receive constructive feedback.</p> <p>1.4. Explain why it is important to have a good work ethic.</p> <p>Good work ethic may include:</p> <ul style="list-style-type: none"> • Self-respect/pride, respect for others/others respect for you, meet workplace expectations, deliver good product, minimize down time.
<p>2. Safe Productivity</p>	<p>2.1. Demonstrate ability to work in an organized manner within specific worksite requirements.</p> <p>Organized manner may include:</p> <ul style="list-style-type: none"> • Teamwork, predictability, work progressively. <p>2.2. Demonstrate ability to achieve outcomes while maintaining safe work practices.</p>
<p>3. Physical and Mental Well-Being</p>	<p>3.1. Explain why and demonstrate ability to be fit for work.</p> <p>Fit for work must include:</p> <ul style="list-style-type: none"> • Self-awareness, recognition of personal limitations, impairment, drugs, alcohol, nutrition, eating right.



Element	Competence Outcomes
	<p>3.2. Describe physical conditions that can affect ability to perform job and how to mitigate them.</p> <p>Physical conditions may include:</p> <ul style="list-style-type: none"> • Dehydration, frostbite, hypothermia, heat stress, fatigue/exhaustion, injuries. <p>Describe mental conditions that can affect ability to perform job and how to mitigate them.</p> <p>Mental conditions may include:</p> <ul style="list-style-type: none"> • Mental fatigue, personal problems/emotions, over/lack confidence, sleep deprivation, anger, lack of trust, depression, money stress, family stress, interpersonal behavior, bullying, aggression, target or production fixation, peer pressure, unsafe behavior of others.

Summary of Knowledge and Skills

<p>Summary of Knowledge to be Assessed</p>	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • The importance of arriving at work prepared and on time • How to effectively deal with problems • Why constructive criticism is important • Importance of good work ethic • How to work in an organized manner • Importance of achieving outcomes • Physical conditions that affect work • Mental conditions that affect work.
<p>Summary of Skills to be Assessed</p>	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • Be fit for work • Manage time and productivity including: <ul style="list-style-type: none"> ○ Planning, scheduling and prioritizing of time ○ Working under self-motivation or limited supervision ○ Having a positive hard-working ethic.



	<ul style="list-style-type: none"> • Achieve outcomes.
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General Forestry Assessment Guide

General Information	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence should be on record showing the outcomes have been met.</p> <p>Competence outcomes requiring “ability to” or skills must have evidence on record demonstrating competence multiple times in a variety of contexts and may be holistically assessed with relevant work activities.</p> <ul style="list-style-type: none"> • Training modules are available for this unit. • Training audit/competency check tool is available for this unit. • A competency conversation is available for this unit. • *Skills to be assessed or “ability to” for this unit are holistically assessed with the summative practical tool.
Evidence to be Assessed	<p>Minimum evidence requirements for this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable. • All required “skills to be assessed” demonstrated multiple times in a variety of contexts. Valid evidence must be on record through training audit/competency check tool.
Evidence Sign Off	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1036
Title	Describe Regulations and Standards related to General Forestry
Document	Unit of Competency

Description	<p>This is a knowledge unit about:</p> <ul style="list-style-type: none"> Regulations and Legislation related to Working in Forestry
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites for fallers:</p> <ul style="list-style-type: none"> 1002 – Describe Forest Industry; or 1033 – Describe Wildfire Preparedness; or 1034 – Describe Oil and Gas Industry.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> All forestry occupations where applicable.
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Element	Competence Outcomes
1. Legislation	<p>1.1. Describe the purpose of the Workers Compensation Act 21 - 26 and where it can be accessed.</p> <p>1.2. Describe the Wildfire Act and how it affects forestry operations.</p> <p>1.3. Explain the purpose of the Workers Compensation Act Division 10 Accident Reporting and Investigation, how it applies and where it can be accessed.</p> <p>1.4. Explain the purpose of the Forest and Range Practices Act and where it can be accessed.</p> <p>1.5. Explain the purpose of “Notice to Airmen” how it applies and where it can be accessed.</p>
2. Regulations	<p>2.1. Describe enforcement and WorkSafeBC responsibilities.</p> <p>2.2. Explain general regulations that apply to the forest industry including part 26.</p> <p>General Regulations must include:</p> <ul style="list-style-type: none"> • Definitions, general requirements, equipment operation, manual falling and bucking, mechanical falling, traffic control, yarding, skidding, forestry work areas, hauling, roads and road maintenance, water operations. <p>2.3. Explain how to access regulations and standards in the workplace environment.</p>



Summary of Knowledge and Skills

Summary of Knowledge to be Assessed	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • Workers Compensation Act Division 10 • Wildfire Act • Forest and Range Practice Act • Notice to Airmen • WorkSafeBC responsibilities and enforcement • General regulations related to Forestry • How to access regulations.
Summary of Skills to be Assessed	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • This is a knowledge only unit.

General Forestry Assessment Guide

General Information	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence must be on record of competence achieved.</p> <ul style="list-style-type: none"> • Training modules are available for this unit. • A competency conversation is available for this unit. • This unit is required for Certificate of Qualification – Faller.
Evidence to be Assessed	<p>Minimum evidence requirements for this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable.
Evidence Sign Off	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1039
Title	Describe Risk and Risk Control
Document	Unit of Competency

Description	<p>This is a knowledge only unit about:</p> <ul style="list-style-type: none"> • Hierarchy of Controls; and • Evaluating Risk.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites for fallers:</p> <ul style="list-style-type: none"> • 1002 – Describe Forest Industry; or • 1033 – Describe Wildfire Preparedness; or • 1034 – Describe Oil and Gas Industry.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • Bucker – Forest Industry, Wildfire Service, Oil and Gas Industry • Faller – Forest Industry, Wildfire Service, Oil and Gas Industry. • All Forestry occupations where applicable.
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Element	Competence Outcomes
1. Hierarchy of Controls	1.1. Describe the risk assessment process. 1.2. Explain the <i>hierarchy of controls</i> . <i>Hierarchy of controls</i> must include: <ul style="list-style-type: none"> • Elimination, substitution, engineering controls, administration controls, PPE. 1.3. Describe the levels of effectiveness for safety controls.
2. Evaluating Risk	2.1. Evaluate long term and general risk including frequency and probability. 2.2. Evaluate immediate risks including frequency and probability. 2.3. Evaluate how change or unexpected events affect risk levels.

Summary of Knowledge and Skills

Summary of Knowledge to be Assessed	For this unit, a competent worker must understand: <ul style="list-style-type: none"> • Risk assessment • Hierarchy of controls • Levels of effectiveness for safety controls • Evaluating long term and general risks • Evaluating immediate risk • How change or unexpected events affect risk levels.
Summary of Skills to be Assessed	For this unit a competent worker must be able to: <ul style="list-style-type: none"> • This is a knowledge only unit.



General Forestry Assessment Guide

<p>General Information</p>	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence should be on record showing the outcomes have been met.</p> <ul style="list-style-type: none"> • Training modules are available for this unit. • A competency conversation is available for this unit. • A standardized hazard identification form has been developed to support this unit. • This unit is required for Certificate of Qualification – Faller.
<p>Evidence to be Assessed</p>	<p>Minimum evidence requirements for this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable.
<p>Evidence Sign Off</p>	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1068
Title	Describe Signals used in Forestry
Document	Unit of Competency

Description	<p>This is a knowledge unit about:</p> <ul style="list-style-type: none"> • Hand signals for Yarding; • Blasting signals; • Audible yarding signals; and • Loading and Hauling signals.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites:</p> <ul style="list-style-type: none"> • 1002 – Describe Forest Industry.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • All yarding occupations. • All mechanized harvesting occupations.
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Element of Competence	Competence Outcomes
1. Hand and Blasting Signals	1.1. Demonstrate knowledge of hand signals in accordance with OHSR table 26 – 7. 1.2. Demonstrate knowledge of blasting signals used in forestry.
2. Yarding, Loading, and Hauling Signals	2.1. Demonstrate knowledge of yarding signals. Yarding signals may include: <ul style="list-style-type: none"> • Audible, verbal 2.2. Demonstrate knowledge of loading and hauling signals.

Summary of Knowledge and Skills

Summary of Knowledge to be Assessed	For this unit, a competent worker must understand: <ul style="list-style-type: none"> • Hand signals used in forestry • Blasting signals • Yarding signals • Loading and hauling signals
Summary of Skills to be Assessed	For this unit a competent worker must be able to: <ul style="list-style-type: none"> • This is a knowledge only unit.



Mechanized Harvesting Assessment Guide

<p>General Information</p>	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence must be on record of competence achieved.</p> <ul style="list-style-type: none"> • Training modules are available for this unit. • Competency conversations are available for this unit.
<p>Evidence to be Assessed</p>	<p>Minimum evidence requirements for this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable.
<p>Evidence Sign Off</p>	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1090
Title	Describe Harvesting Methods
Document	Unit of Competency

Description	<p>This is unit is about:</p> <ul style="list-style-type: none"> • Forest Harvesting Systems and Terminology; and • Logging Plans.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites:</p> <ul style="list-style-type: none"> • 1002 – Describe Forest Industry.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • All Mechanized Harvesting Equipment
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Element of Competence	Competence Outcomes
<p>1. Forest Harvesting Systems and Terminology</p>	<p>1.1. Demonstrate knowledge of cable logging, ground based mechanized harvesting and related terms.</p> <p>Cable logging systems and terms must include:</p> <ul style="list-style-type: none"> • Hand fall and buck, yarded to roadside with cable system (tower or grapple), log loading and hauling • Cable components – Mainline, strawlines, guylines, haulback, blocks and rigging. <p>Ground based mechanized harvesting and terms must include:</p> <ul style="list-style-type: none"> • Mechanical tree falling, skidding and hoe forwarding, mechanized tree processing, log loading, hauling. <p>1.2. Demonstrate knowledge of safety related to ground based mechanized harvesting.</p> <p>Safety related to ground based mechanized harvesting must include:</p> <ul style="list-style-type: none"> • Machine limitations (slopes, and stability, handling loads), ground conditions, understanding of safe work procedures, lock out, 3-point contact, crush points, minimum safe separation, overhead or buried power or gas, dangerous trees. <p>1.3. Demonstrate knowledge of safety related to cable logging systems.</p> <p>Safety related to cable logging systems must include:</p> <ul style="list-style-type: none"> • Downhill yarding, bight, clearing Chokerperson or spotter, understanding safe work procedures, 3-point contact, minimum safe separation, dangerous trees, runaway trees.
<p>2. Logging Plan</p>	<p>2.1. Demonstrate knowledge of a logging plan and why it is used.</p> <p>2.2. Demonstrate knowledge of the importance of the pre-work meeting for logging plan.</p>

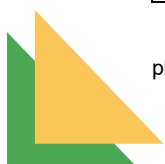


Summary of Knowledge and Skills

<p>Summary of Knowledge to be Assessed</p>	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • Cable logging terms • Mechanized harvesting terms • Safety related to ground based mechanized harvesting • Safety related to cable logging systems • Logging plans • Importance of pre-work in the implementation of plans • Knowledge of consequences related to deviating from plan • When to stop and consult.
<p>Summary of Skills to be Assessed</p>	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • This is a knowledge only unit.

Mechanized Harvesting Assessment Guide

<p>General Information</p>	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence must be on record of competence achieved.</p> <ul style="list-style-type: none"> • Training modules are available for this unit. • Competency conversations are available for this unit.
<p>Evidence to be Assessed</p>	<p>Minimum evidence requirements for this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable.
<p>Evidence Sign Off</p>	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1081
Title	Describe Tools and Equipment for Heavy Machinery
Document	Unit of Competency

Description	<p>This is a knowledge unit about:</p> <ul style="list-style-type: none"> • Mechanic Tools; • Welding Equipment and Supplies; • Gas Powered Tools; and • Lubricants.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites:</p> <ul style="list-style-type: none"> • 1002 – Describe Forest Industry
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • All Road Building Equipment • All Mechanized Harvesting Equipment.
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Element of Competence	Competence Outcomes
<p>1. Mechanic Tools</p>	<p>1.1. Identify common and specialty tools used on heavy equipment.</p> <p>Common and Specialty tools used on heavy equipment may include:</p> <ul style="list-style-type: none"> • Multi testers, inspection mirrors, pick up magnets, “easy outs”, wrenches, taps and dies, hammers, shovels, drift and pry bars, chisel, files, jack, air tools, impact wrench, ratchets, die grinder, greaser, hose press.
<p>2. Welding Equipment and Supplies</p>	<p>2.1. Identify welding equipment and supplies used on heavy equipment.</p> <p>Welding equipment and supplies used on heavy equipment may include</p> <ul style="list-style-type: none"> • Oxy acetylene cutting systems, Propane gas torch ‘tiger torch’, chip hammers, wire brush, chalk, tip cleaner, grinder, drill, cut off saw, air tools, flux chippers, grinders, vice, cutting table, plasma cutter, air arc. <p>2.2. Describe types of welding used on heavy equipment.</p> <p>Types of welding may include:</p> <ul style="list-style-type: none"> • Stick welding, wire feed, brazing. <p>2.3. Describe PPE required when using welding equipment.</p> <p>PPE required when using welding equipment Must include</p> <ul style="list-style-type: none"> • Gloves, welding helmet, cutting goggles.
<p>3. Gas Powered Tools</p>	<p>3.1. Describe gas-powered tools used on heavy equipment.</p> <p>Gas-powered tools used on heavy equipment may include:</p> <ul style="list-style-type: none"> • 2 stroke vs. 4 stroke – mixed gas vs. straight gas



Element of Competence	Competence Outcomes
	<ul style="list-style-type: none"> • Cut off saw, chainsaw, pressure washers, gas or electric compressors, gas or diesel generators, pumps, plate compactor.
<p>4. Lubricants</p>	<p>4.1. Describe <i>lubricants used on heavy equipment</i> and their application.</p> <p><i>Lubricants used on heavy equipment</i> may include:</p> <ul style="list-style-type: none"> • Grease, oils (engine, gear, hydraulic), specialty oils, viscosity, Safety Data Sheets (SDS).
<p>5. Common Supplies</p>	<p>5.1. Explain <i>common supplies used on heavy equipment</i>.</p> <p><i>Common supplies used on heavy equipment</i> may include:</p> <ul style="list-style-type: none"> • De-ice, methyl hydrate, starting fluid, antifreeze, brake cleaner • Duct tape, insulating tape, 'hay' wire, cable ties, tie downs • Fasteners, nuts and bolts, washers, screws, rivets, pins hose clamps • O-rings, seals, grease nipples, pipefittings, grommets, hydraulic hoses • Bucket teeth, pins, locks, corner bits, cutting edges.



Summary of Knowledge and Skills

Summary of Knowledge to be Assessed	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • Common and specialty tools • Welding equipment and supplies • Gas powered tools • Lubricants • Common supplies.
Summary of Skills to be Assessed	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • This is a knowledge only unit.

Road Building and Mechanized Harvesting Assessment Guide

General Information	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence must be on record of competence achieved.</p> <ul style="list-style-type: none"> • Training modules are available for this unit. • Competency conversations are available for this unit.
Evidence to be Assessed	<p>Minimum evidence requirements for this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable.
Evidence Sign Off	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1082
Title	Describe General Heavy Equipment Inspection and Maintenance Procedures
Document	Unit of Competency

Description	<p>This is a knowledge unit about:</p> <ul style="list-style-type: none"> • Major Mechanical Components and Problems; and • Pre-start, Shut Down and Maintenance;
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites:</p> <ul style="list-style-type: none"> • 1002 – Describe Forest Industry
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • All Road Building Equipment • All Mechanized Harvesting Equipment.
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Element of Competence	Competence Outcomes
<p>1. Major Mechanical Components and Problems</p>	<p>1.1. Describe major mechanical components requiring maintenance and inspection.</p> <p>Major mechanical components may include:</p> <ul style="list-style-type: none"> • Engines, hydraulic systems, electrical systems, attachments, undercarriage. <p>1.2. Describe potential failures, symptoms and indicators of failure.</p> <p>Potential failures, symptoms and indicators of failure may include:</p> <ul style="list-style-type: none"> • Noise, vibration, smells, leaks, cracks, lack of power, improper function, exhaust colour, gauges, warning lights.
<p>2. Pre- Start, Shut Down and Maintenance</p>	<p>2.1. Describe pre-start procedures.</p> <p>Pre-start procedures must include:</p> <ul style="list-style-type: none"> • Accessing checkpoint, OEM requirements, visual checks, fluid checks, and operational checks. <p>2.2. Describe shut down procedures.</p> <p>Shut down procedures may include:</p> <ul style="list-style-type: none"> • OEM requirements, parking position, maintenance, attachments grounded. <p>2.3. Explain maintenance procedures.</p> <p>Maintenance procedures may include:</p> <ul style="list-style-type: none"> • Lockout or zero energy state, greasing, adding fluids and fuel, draining fuel sumps and water separators, tightening loose hardware, adjusting belt tension, repairing leaks, replacing O-rings, replacing hoses, replacing filters, bleeding air from fuel systems, adjusting track tension, maintaining tire pressure, clean and maintain batteries.



Summary of Knowledge and Skills

Summary of Knowledge to be Assessed	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • Major mechanical components requiring maintenance and inspection • Potential failures, symptoms and indicators of failure • Pre-start procedures • Shut down procedures • Maintenance procedures.
Summary of Skills to be Assessed	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • This is a knowledge only unit.

Road Building and Mechanized Harvesting Assessment Guide

General Information	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence must be on record of competence achieved.</p> <ul style="list-style-type: none"> • Training modules are available for this unit. • Competency conversations are available for this unit.
Evidence to be Assessed	<p>Minimum evidence requirements for this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable.
Evidence Sign Off	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1083
Title	Describe Heavy Equipment Mechanical Systems
Document	Unit of Competency

Description	<p>This is a knowledge unit about:</p> <ul style="list-style-type: none"> • Engines; • Hydraulic Systems; • Powertrain Systems; • Track Systems; • Braking Systems; • Electrical Systems; and • Ground Engaging Tools Systems.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites:</p> <ul style="list-style-type: none"> • 1002 – Describe Forest Industry
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • All Road Building Equipment • All Mechanized Harvesting Equipment.
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Element of Competence	Competence Outcomes
1. Engines	1.1. Explain basic engine theory including parts and functions. 1.2. Explain lubrication theory systems and functions. 1.3. Explain cooling systems and functions. 1.4. Explain fuel systems and functions. 1.5. Explain air induction and exhaust systems and functions.
2. Hydraulic Systems	2.1. Describe hydraulic theory including basic parts . Basic parts must include: <ul style="list-style-type: none"> • Pumps, motor, cylinders, hoses, rotary manifolds • Tank and fluid level indicator.
3. Powertrain Systems	3.1. Describe drive systems theory including basic parts and function. Basic parts must include: <ul style="list-style-type: none"> • Travel motors, transmissions, differentials, final drives, engine, pumps.
4. Track Systems	4.1. Describe tracked systems theory including basic parts and function. Basic parts must include: <ul style="list-style-type: none"> • Pads, chains (rails), idler, sprocket, bottom and top (carrier) rollers, track adjuster.
5. Braking Systems	5.1. Explain systems theory including basic parts and function. Basic parts and function must include:



Element of Competence	Competence Outcomes
	<ul style="list-style-type: none"> • Air, hydraulic, spring, park brake, air/hydraulic, engine-braking systems (compression, exhaust), hydrostatic, brake controls, retarder (transmission brake)
<p>6. Electrical Systems</p>	<p>6.1. Explain electrical systems theory including basic parts and function.</p> <p>Basic parts must include:</p> <ul style="list-style-type: none"> • 12V and 24V systems, alternators, starters, batteries, fuses and solenoids, switches, wiring • Other systems – lights, heater motors, auxiliary equipment.
<p>7. Ground Engaging Tool Systems</p>	<p>7.1. Explain ground engaging tools, systems and functions.</p> <p>Systems must include:</p> <ul style="list-style-type: none"> • Blades, buckets, Scarifiers, grapples, rock hammers, compactors, drill hammers.



Unit	1084
Title	Describe Regulations and Standards related to Heavy Equipment
Document	Unit of Competency

Description	<p>This unit is about:</p> <ul style="list-style-type: none"> • Legislation; • Regulations • Guidelines; and • Documentation related to Mobile Logging Equipment.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites:</p> <ul style="list-style-type: none"> • 1002 – Describe Forest Industry • 1036 – Describe Regulations and Legislation related to General Forestry.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • All Mechanized Harvesting Equipment.
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Element of Competence	Competence Outcomes
1. Legislation	<p>1.1. Demonstrate knowledge of suppliers' responsibilities related to Workers compensation Act, section 120, general duties of suppliers.</p> <p>Section 120 must include:</p> <ul style="list-style-type: none"> • (a),(b),(c),(d),(e).
2. Regulations	<p>2.1. Demonstrate knowledge of regulations part 16 related to operating mobile equipment.</p> <p>2.2. Part 16 must include:</p> <ul style="list-style-type: none"> • 16.21 protective structures, 16.22 rollover protective structures, 16.17 escape from cab. 16.34 – competency of operators. <p>2.3. Demonstrate knowledge of regulations related part 26 related to operating mobile equipment.</p> <p>Part 26 must include:</p> <ul style="list-style-type: none"> • Section 26.2 - planning and conducting a forestry operation • 26.12.2 – radio-controlled equipment • 26.12.1 – equipment capabilities • 26.16 – slope limitations (known, not known, operating beyond the slope limitations) • 26.3 – Training • 26.5 Initial safety meeting • 26.7 Highly visible clothing • 26.11 Dangerous trees • 26.13.4 Saw chain shot • 26.14.1 Hazard area of logging equipment • 26.14.2 Designated safe work area



Element of Competence	Competence Outcomes
	<ul style="list-style-type: none"> • 26.29.2 Limits on use of mechanical harvester • 26.29.3 Incomplete falling cuts • 26.29.4 Hazard area • 26.29.5 No additional hazards • 26.30 Traffic control • 26.56 Work area arrangement • 26.59 Suspended logs • 26.61 Vehicle movements.
3. Guidelines and Documentation	<p>3.1. Demonstrate knowledge of guidelines related to using mobile equipment.</p> <p>Guidelines must include:</p> <ul style="list-style-type: none"> • Cab guarding – Cab G602 • Roof G608 or SAE231 • WSB standard G603, G604 and SAE J1084 • WSBC document “Understanding the requirements of mobile logging.

Summary of Knowledge and Skills

Summary of Knowledge to be Assessed	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • Legislation related to WCA 120 • Regulations Part 16 • Regulation part 26 • Guidelines related to operating mobile equipment
Summary of Skills to be Assessed	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • This is a knowledge only unit.



Mechanized Harvesting Assessment Guide

General Information	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence must be on record of competence achieved.</p> <ul style="list-style-type: none"> • Training modules are available for this unit. • Competency conversations are available for this unit.
Evidence to be Assessed	<p>Minimum evidence requirements for this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable.
Evidence Sign Off	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1138
Title	Describe Winch Assist
Document	Unit of Competency

Description	<p>This is unit is about:</p> <ul style="list-style-type: none"> • Planning; • Best Practices when using Winch Assist; • Features of Winch Assist; and • Wire Rope and Anchors.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites for fallers:</p> <ul style="list-style-type: none"> • All occupational skills units related to Mechanized Harvesting. • Minimum of one piece of Mechanized Harvesting Equipment.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • Mechanized Harvesting Equipment.
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Element of Competence	Competence Outcomes
<p>1. Best Practice</p>	<p>1.1. Demonstrate knowledge of the capabilities, advantages and limitations of winch assist systems..</p> <p>1.2. Demonstrate knowledge of manufacturers instructions or safe work procedures related to winch assist.</p> <p>Manufacturers instructions or safe work procedures related to winch assist must include:</p> <ul style="list-style-type: none"> • Stump selection, method of securement, and frequency of inspection, winch, wire rope and attachment point inspection – frequency and standard, potential to damage or sever wire rope with head, boom or logs, abrasion of wire rope on rock outcrops or other obstacles, safe working area around the machine and wire rope. area of no entry, rescue procedure for breakdown or emergency, worker training, lockout and de-energize procedures, winch capacity/load rating, safety systems, and fail safes, wire rope size and strength, snubbing loads on steep grades. <p>1.3. Demonstrate knowledge of best practices when using winch assist to maximize safe operations.</p> <p>1.4. Demonstrate knowledge of when additional best practices or safe work procedures may be required.</p> <p><i>Additional best practices or safe work procedures must include:</i></p> <ul style="list-style-type: none"> • Applications systems differences, cutting head type, task performed • Back up systems – blade, double line, warning systems.
<p>2. Machine Components and Design</p>	<p>2.1. Demonstrate knowledge of basic mechanical and non-mechanical elements in winch assist systems.</p> <p><i>Basic mechanical and non- mechanical elements must include:</i></p> <ul style="list-style-type: none"> • Base machine, machine or natural anchor, associated rigging components



Element of Competence	Competence Outcomes
	<ul style="list-style-type: none"> • Machine operator, environmental conditions, operating procedures. <p>2.2. Demonstrate knowledge of machine design for winch assist systems.</p> <p>Machine design must include:</p> <p>For tree cutting and/or log processing</p> <ul style="list-style-type: none"> • Leveling or non-leveling wheeled harvester • Leveling or non-leveling tracked harvester/feller-director/feller-buncher. <p>For log or tree extraction</p> <ul style="list-style-type: none"> • Leveling or non-leveling tracked excavator forwarder (hoe-chucker or shovel logger) • Wheeled forwarder or clambunk skidder • 4 or 6-wheeled rubber-tired skidder
3. Features	<p>3.1. Demonstrate knowledge of features that should be included in base machines used in winch assist operations.</p> <p>Features must include:</p> <ul style="list-style-type: none"> • Inclinometers, fluid systems for steep slopes (hydraulics, engine oil, coolant, fuel), wire rope attachment points engineered for the expected loads, live display of wire rope tension Leveling or non-leveling tracked harvester/feller-director/feller-buncher. • Secure operator restraints, i.e., minimum 4 or 5 point harness system, ideally with an adjustable locking mechanism e.g. as fitted to winch-cat snow groomers • Display of the remaining available rope length and rope length in use. <p>Features may include:</p> <ul style="list-style-type: none"> • Audible and visual warning for wire rope overloads, winch failure, spooling errors, wire rope damage, anchor movement and when the minimum number of wire rope wraps is reached



Element of Competence	Competence Outcomes
	<ul style="list-style-type: none"> • Tractive and swing power for steep slopes, traction devices suitable for the conditions • GPS navigation system with potential hazards identified on a map display • Camera display of winch drum(s) if not visible from the operators cab • Camera display of obstructed view areas • Hour meter that tallies the number of hours the winch and wire rope has operated, to monitor wire rope use and life. <p>3.2. Demonstrate knowledge of features where winch is mounted on the logging machine working on the slope.</p> <p>3.3. Demonstrate knowledge of features for the stationary winch/anchor machine.</p> <p>Stationary winch/anchor machine must include:</p> <ul style="list-style-type: none"> • Winch auto stop system if there is a power failure • Hour meter for winch use • Anchor movement monitoring device <p>Stationary winch/anchor machine may include:</p> <ul style="list-style-type: none"> • Guyline drum(s) to secure the anchor machine • Anti-lock style braking system that applies winch brake gradually in an emergency to prevent shock loading to the wire rope and other system components.
4. Wire Rope and Anchors	<p>4.1. Demonstrate knowledge of best practice for wire rope integrity when used for winch assist in forestry equipment.</p> <p>4.2. Demonstrate knowledge of common wire rope failure.</p> <p>Wire rope failure must include:</p> <ul style="list-style-type: none"> • Shock loading, fatigue, abrasions.



Element of Competence	Competence Outcomes
	<p>4.3. Demonstrate knowledge of anchoring.</p> <p>Anchoring must include:</p> <ul style="list-style-type: none"> • Machine anchors, stump and tree anchors, deadman, rock anchors. <p>4.4. Demonstrate knowledge of how to maximize machine stability when using winch assist systems.</p> <p>4.5. Demonstrate knowledge of how to maximize traction when using winch assist systems.</p> <p>4.6. Demonstrate knowledge of best practice for connecting hardware.</p> <p>4.7. Demonstrate knowledge of best practices for machine attachment points.</p> <p>4.8. Demonstrate knowledge of felling best practices when using winch assist.</p> <p>4.9. Demonstrate knowledge of rope management and the practice of catching.</p>
<p>5. Planning and Records</p>	<p>5.1. Demonstrate knowledge of planning and layout considerations.</p> <p>5.2. Demonstrate knowledge of how to recognize, evaluate and control hazards related to working with winch assist systems.</p> <p>5.3. Demonstrate knowledge of emergency response procedures when working with winch assist systems including retrieval of equipment.</p> <p>5.4. Demonstrate knowledge of environmental considerations when using winch assist systems.</p> <p>5.5. Demonstrate knowledge of best practice or record keeping related to winch assist.</p>



Summary of Knowledge and Skills

<p>Summary of Knowledge to be Assessed</p>	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • Capabilities, advantages and limitations of winch assist systems • Manufacturers instructions or safe work procedures related to winch assist • Best practices when using winch assist • Basic mechanical and non mechanical components • Machine design for winch assist systems • Features required on base machines • Features required for the stationary winch/anchor machine • Wire rope capabilities and causes of failure • How to connect hardware • How to connect appropriate attachment points to the machine • Felling best practices • Rope management and catching • Anchoring • Emergency response procedures for working with winch assist • Planning and layout considerations • Environmental considerations when using winch assist • Record keeping •
<p>Summary of Skills to be Assessed</p>	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • This is a knowledge only unit.



Mechanized Harvesting Assessment Guide

<p>General Information</p>	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence must be on record of competence achieved.</p> <ul style="list-style-type: none"> • Training Modules are available for this unit. • Competency conversations are available for this unit.
<p>Evidence to be Assessed</p>	<p>Minimum evidence requirements for this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable.
<p>Evidence Sign Off</p>	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1139
Title	Use Winch Assist in Steep Slope Environments
Document	Unit of Competency

Description	<p>This unit is about:</p> <ul style="list-style-type: none"> • Prepare to Use Winch Assist; and • Use Winch Assist.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites:</p> <ul style="list-style-type: none"> • All occupational skills units related to Mechanized Harvesting. • Minimum competency in one piece of Mechanized Harvesting Equipment.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • Mechanized Harvesting Equipment.
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Element of Competence	Competence Outcomes
<p>1. Prepare to Use Winch Assist</p>	<p>1.1. Demonstrate ability to use equipment manuals and specifications to determine safe operating procedures and operational restrictions of winch assist systems.</p> <p>1.2. Demonstrate ability to recognize, evaluate and control hazards related to using winch assist systems.</p> <p>1.3. Demonstrate ability to inspect components and machine for deficiencies or defects.</p> <p>Inspect components must include:</p> <ul style="list-style-type: none"> • Rigging, wire ropes, base machines, stationary machines, anchors, hardware, attachment point <p>1.4. Demonstrate ability to keep accurate records related to using winch assist systems.</p> <p>1.5. Demonstrate ability to set up anchors so that they are safe and within safe work procedures.</p> <p>1.6. Demonstrate ability to set up winch assist in accordance with safe work practices and within manufacturers specifications.</p> <p>1.7. Demonstrate that the backup system is in place and operational.</p>
<p>2. Use Winch Assist System</p>	<p>2.1. Demonstrate ability to use winch assist system within safe work procedures and manufactures specifications.</p> <p>2.2. Demonstrate ability to operate winch assist system smoothly.</p> <p>2.3. Demonstrate ability to monitor winch assist system when in use.</p> <p>2.4. Demonstrate ability to communicate with relevant people while operating the winch assist system to ensure safety of others and equipment in the area.</p>



Summary of Skills and Knowledge

Summary of Knowledge to be Assessed	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • This is an ability only unit.
Summary of Skills to be Assessed	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • Plan for using winch assist system • Inspect machine and components • Keep accurate records • Set up anchors, anchor movement monitoring device • Set up winch assist systems • Set up backup systems • Use winch assist systems within safe operating parameters • Monitor winch assist system while in operation • Communicate with others for the purpose of safe operation

Mechanized Harvesting Assessment Guide

General Information	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence must be on record of competence achieved.</p> <p>Competence outcomes requiring “ability to” or skills must have evidence on record demonstrating competence multiple times in a variety of contexts and may be holistically assessed with relevant work activities.</p> <ul style="list-style-type: none"> • Training Modules are available for this unit. • Training audit/competency check tool is available for this unit. • Competency conversations are available for this unit.
Evidence to be Assessed	<p>Minimum evidence requirements for this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable. • All required “skills to be assessed” demonstrated multiple times in a variety of contexts. Valid evidence must be on record through training audit/competency check tool.



Evidence Sign Off	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none">• Trainer• Assessor• Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>
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Unit	1092
Title	Describe and Operate Feller Buncher
Document	Unit of Competency

Description	<p>This is a knowledge and ability unit about:</p> <ul style="list-style-type: none"> • Pre Work Activities related to Operating Feller Bunchers; • Operating Feller Bunchers; • Completing Tasks Post Operations; and • Feller Buncher attachments.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites:</p> <ul style="list-style-type: none"> • All occupational skills units related to Mechanical Harvesting Equipment. <p>This unit may be taken in conjunction with:</p> <ul style="list-style-type: none"> • 1139 – Use Winch Assist in a Steep Slope Environment.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • Feller Buncher Operator.
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Element of Competence	Competence Outcomes
<p>1. Pre-Work Activities</p>	<p>1.1. Demonstrate knowledge of the capabilities, advantages and limitations of Feller Bunchers.</p> <p>1.2. Demonstrate ability to use equipment manuals and specifications to determine safe operating procedures and operational restrictions of Feller Bunchers.</p> <p>1.3. Demonstrate knowledge of and ability to read harvesting plan map and plan days activities including falling plan.</p> <p>Falling plan must include:</p> <ul style="list-style-type: none"> • Develop falling plan, implementation of plan, adjusting as needed, affect on other phases. • Terrain and soil conditions including drainage patterns, adjust plan as required. • Identify site sensitive areas and no-go zones. • Skid direction, bunch and tree size, leave trees. <p>1.4. Demonstrate knowledge of hazards related to operating Feller Bunchers and means to control them.</p> <p>Hazards related to operating Feller Bunchers must include:</p> <ul style="list-style-type: none"> • Slip and falls, fire from debris build up within machine, high speed saw blade, roll over, wildfire from blade, crush injuries • Flying debris from a rotating saw blade. • Limitations of saw head. (saw blade could contact tracks or other parts of machine) • Control workers or public in active work area. • De-energize and lockout the machine. <p>1.5. Demonstrate ability to perform pre-start equipment checks.</p> <p>Pre-start equipment checks must include:</p> <ul style="list-style-type: none"> • Check fluid levels,



Element of Competence	Competence Outcomes
	<ul style="list-style-type: none"> • Check - guards, windows, doors, undercarriage, and attachments. <p>1.6. Demonstrate ability to perform startup procedures.</p> <p>Startup procedures must include:</p> <ul style="list-style-type: none"> • Gauges, warning systems, start and warm up hydraulics, lights, wipers, 2- way radio, seat belt, lock out device, check emergency escape routes/devices, loose items in cab secured, fire extinguishers or suppression systems, 3-point contact maintained • Function test on major systems – boom up and down, stick in and out, swing right and left, head tilt, saw function, grab arm movement, and cab tilting if applicable.
<p>2. Operate Feller Buncher</p>	<p>2.1. Demonstrate ability to determine machine position within block and on slope including working within machine operating limits throughout work activity.</p> <p>2.2. Demonstrate ability to operate a Feller Buncher.</p> <p>Operate a Feller Buncher must include:</p> <ul style="list-style-type: none"> • Raise and lower boom, retract and extend the stick and tilt head up and down and side to side, coordinate boom and stick movement, walk machine backwards and forwards, turn left and right, rotate the house left and right and up and down • Multi functions at same time. • Smooth operations. • Coordination of the cut, control and placement of the tree and in bunches of appropriate size • Collect multiple stems in felling head. <p>2.3. Demonstrate ability to communicate with co-workers, mechanics or supervisor to complete tasks.</p> <p>2.4. Demonstrate ability to monitor performance of equipment during operation.</p>



Element of Competence	Competence Outcomes
	<p>2.5. Demonstrate knowledge of and ability to operate equipment in an ergonomically correct posture to minimize MSI.</p>
<p>3. Complete Tasks</p>	<p>3.1. Demonstrate ability to perform shut down procedures.</p> <p>Shut down procedures must include:</p> <ul style="list-style-type: none"> • Safe parking position, lower attachments, position for ease of access, level position for fluid checks, cool down before shut down, walk around and general check, secure machine, maintain 3 point contact. <p>3.2. Demonstrate ability to perform daily maintenance tasks.</p> <p>Daily maintenance tasks must include:</p> <ul style="list-style-type: none"> • Lubrication systems, air intake systems, radiator and cooling systems, fuel tank sump, water separator, fuel filters, inspect and clean components, housekeeping, track tension. <p>3.3. Demonstrate ability to describe basic repairs and maintenance on a Feller Buncher.</p> <p>Basic repairs must include:</p> <ul style="list-style-type: none"> • Hydraulic hoses, fuel filter, engine oil change, lube filter, adjust belt tension, battery terminals, fluids, saw teeth (rotate or replace).
<p>4. Attachments</p>	<p>4.1. Demonstrate knowledge of attachments and safety operating procedures for feller bunchers.</p> <p>Attachments and safety operations for feller bunchers must include:</p> <ul style="list-style-type: none"> • Hot saw • Intermittent saw. • Winch assist system.



Summary of Skills and Knowledge

<p>Summary of Knowledge to be Assessed</p>	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • Capabilities, advantages and limitations of Feller bunchers • Hazards related to operating a Feller Buncher and the means to control them • Read maps • How to use equipment manuals including safe operating procedures and Feller Buncher limitations • Basic maintenance and repairs on a Feller Buncher • Ergonomics related to job function.
<p>Summary of Skills to be Assessed</p>	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • Use equipment manuals • Read maps • Lock out equipment • Perform pre-start equipment checks • Perform pre – start up procedures • Operate a Feller Buncher • Communicate with others while undertaking work • Monitor equipment during operations • Conduct shut down procedures • Perform daily maintenance • Install, use and maintain attachments • Work with ergonomically correct posture • Perform basic repairs.



Mechanized Harvesting Assessment Guide

<p>General Information</p>	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence must be on record of competence achieved.</p> <p>Competence outcomes requiring “ability to” or skills must have evidence on record demonstrating competence multiple times in a variety of contexts and may be holistically assessed with relevant work activities.</p> <ul style="list-style-type: none"> • Training Modules are available for this unit. • Training audit/competency check tool is available for this unit. • Competency conversations are available for this unit.
<p>Evidence to be Assessed</p>	<p>Minimum evidence requirements for this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable. • All required “skills to be assessed” demonstrated multiple times in a variety of contexts. Valid evidence must be on record through training audit/competency check tool.
<p>Evidence Sign Off</p>	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1093
Title	Describe and Operate Skidder
Document	Unit of Competency

Description	<p>This is a knowledge and ability unit about:</p> <ul style="list-style-type: none"> • Pre Work Activities related to Operating Skidders; • Operating Skidders; • Completing Tasks Post Operations; and • Skidder Attachments.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites:</p> <ul style="list-style-type: none"> • All occupational skills units related to Mechanical Harvesting Equipment. <p>This unit may be taken in conjunction with:</p> <ul style="list-style-type: none"> • 1139 – Use Winch Assist in a Steep Slope Environment.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • Tracked or Wheeled Skidder Operator
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Element of Competence	Competence Outcomes
<p>1. Pre-Work Activities</p>	<p>1.1. Demonstrate knowledge of types capabilities, advantages and limitations of skidders.</p> <p>Skidders must include:</p> <ul style="list-style-type: none"> • Tracked and wheeled. <p>1.2. Demonstrate knowledge of and ability to use equipment manuals and specifications to determine safe operating procedures and operational restrictions for wheeled and tracked Skidder.</p> <p>1.3. Demonstrate ability to read harvesting plan map to plan days activities including harvesting plan.</p> <p>Harvesting plan must include:</p> <ul style="list-style-type: none"> • Identify decking locations, skid trail locations, understand terrain and soil conditions including drainage patterns, adjust plan as required. • Identify site sensitive areas and no-go zones <p>1.4 Demonstrate knowledge of hazards related to operating Skidders and means to control them.</p> <p>Hazards must include:</p> <ul style="list-style-type: none"> • Pinch points, roll over, jill pokes. • De-energize and lockout the machine. • Control workers and public in active area. <p>1.5 Demonstrate ability to perform pre-start equipment checks.</p> <p>Pre-start equipment checks must include:</p> <ul style="list-style-type: none"> • Hazards related to pre-start, check fluids, 2 sided dipsticks, visual and operational checks • Check – guards, windows, doors.



Element of Competence	Competence Outcomes
	<p>Pre-start equipment checks (wheeled) may include:</p> <ul style="list-style-type: none"> • Tire and tire chains, lug nuts. <p>Pre-start equipment checks (tracked) may include:</p> <ul style="list-style-type: none"> • Pads and rollers. <p>1.4. Demonstrate ability to perform start up procedures.</p> <p>Start up procedures must include:</p> <ul style="list-style-type: none"> • Gauges, warning systems, transmission, lights, wipers, seat belt, lock out device, loose items in cab secured, fire extinguisher or suppression system, maintain 3 point contact • Functions test on major systems – hydraulics, service brake, parking brake, steering, and grapple functionality.
<p>2. Operate Wheeled or Tracked Skidder</p>	<p>2.1. Demonstrate ability to determine machine position within block and on slope including working within machine operating limits throughout work activity.</p> <p>2.2. Demonstrate ability to perform operate a Skidder.</p> <p>Operate a Skidder must include:</p> <ul style="list-style-type: none"> • Lift grapple and blade, move forward, stop, back up, stop, raise or lower arch, move boom ahead and back, rotate grapple left or right and open and close, watch for tail swing, build a bladed skid trail • Function of differential locks and/or traction assist <p>2.3. Demonstrate ability to yard logs.</p> <p>Yard logs must include:</p> <ul style="list-style-type: none"> • Plan and prepare log landing, stable piling, logs pile in lay, crew in the clear • Trails located in correct locations according to terrain and soil conditions • Clean up of logs in work area (good housekeeping).



Element of Competence	Competence Outcomes
	<p>2.4. Demonstrate ability to maneuver safely over a variety of terrain.</p> <p>2.5. Demonstrate ability to communicate with co-workers, mechanics, or supervisor.</p> <p>2.6. Demonstrate ability to monitor performance of equipment during operation.</p> <p>2.7. Demonstrate knowledge of and ability to operate skidder in an ergonomically correct posture to minimize MSI.</p>
<p>3. Complete Tasks</p>	<p>3.1. Demonstrate ability to perform shut down procedures.</p> <p>Shut down procedures must include:</p> <ul style="list-style-type: none"> • Safe parking position and lower all attachments, brakes applied, position for ease of access, level position for fluid checks, cool down before shut down, walk around and general check, secure machine, maintain 3 point contact. <p>3.2. Demonstrate ability to perform daily maintenance tasks.</p> <p>Daily maintenance tasks must include:</p> <ul style="list-style-type: none"> • Lubrication systems, air intake systems, air system reservoir, fuel tank sump, water separator, fuel filters, inspect and clean components, housekeeping. <p>3.3. Demonstrate ability to describe basic repairs and maintenance on a Skidder.</p> <p>Basic repairs must include:</p> <ul style="list-style-type: none"> • Hydraulic hoses, fuel filter, engine oil change, lube filter, adjust belt tension, air tire pressure, battery terminals, fluids, adjust tire chain tightness
<p>4. Attachments</p>	<p>4.1. Demonstrate knowledge of attachments for tracked and wheeled skidders.</p> <p>Attachments for tracked and wheeled skidders must include:</p> <ul style="list-style-type: none"> • Winch, blade, chokers, mainline, boom, grapple.



Summary of Skills and Knowledge

<p>Summary of Knowledge to be Assessed</p>	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • Types, capabilities, advantages and limitation of Skidders • How to use equipment manuals • Read maps • Yarding plans • Hazards related to operating a Skidder and the means to control them • How to use equipment manuals including safe operating procedures and Skidder limitations • Basic maintenance and repairs on a Skidder. • Attachments for tracked and wheeled Skidders • Ergonomics related to job function.
<p>Summary of Skills to be Assessed</p>	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • Use operator manuals • Read maps • Perform pre-start equipment checks • Perform pre – start up procedures • Perform basic tasks on a Skidder • Haul logs • Move on a variety of terrain • Communicate with others • Monitor equipment during operations • Conduct shut down procedures • Perform daily maintenance

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<p>General Information</p>	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence must be on record of competence achieved.</p> <p>Competence outcomes requiring “ability to” or skills must have evidence on record demonstrating competence multiple times in a variety of contexts and may be holistically assessed with relevant work activities.</p> <ul style="list-style-type: none"> • Training Modules are available for this unit. • Training audit/competency check tool is available for this unit. • Competency conversations are available for this unit.
<p>Evidence to be Assessed</p>	<p>Minimum evidence requirements for this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable. • All required “skills to be assessed” demonstrated multiple times in a variety of contexts. Valid evidence must be on record through training audit/competency check tool.
<p>Evidence Sign Off</p>	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1094
Title	Describe and Operate Forwarder
Document	Unit of Competency

Description	<p>This is a knowledge and ability unit about:</p> <ul style="list-style-type: none"> • Pre Work Activities related to operating Forwarders; • Operating Forwarders; • Completing Tasks Post Operations; and • Forwarder Attachments.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites:</p> <ul style="list-style-type: none"> • All occupational skills related to Mechanical Harvesting Equipment. <p>This unit may be taken in conjunction with:</p> <ul style="list-style-type: none"> • 1139 – Use Winch Assist in a Steep Slope Environment.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • Forwarder Operator.
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Element of Competence	Competence Outcomes
1. Pre-Work Activities	<p>1.1. Demonstrate knowledge of the capabilities, advantages and limitations of Forwarders.</p> <p>1.2. Demonstrate ability to use equipment manuals and specifications to determine safe operating procedures and operational restrictions of Forwarders.</p> <p>1.3. Demonstrate ability to read harvesting map to plan days activities including yarding plan.</p> <p>Yarding plan must include:</p> <ul style="list-style-type: none"> • Identify decking locations, skid trail locations, understand terrain and soil conditions including drainage patterns, adjust plan as required. • Identify site sensitive areas and no-go zones. <p>1.4. Demonstrate knowledge of hazards related to operating Forwarders and means to control them.</p> <p>Hazards must include:</p> <ul style="list-style-type: none"> • Slips and falls, roll over, runaway logs, logs entering cab, jill pokes • De-energize and lockout the machine. <p>1.5. Demonstrate ability to perform pre-start equipment checks.</p> <p>Pre-start equipment checks must include:</p> <ul style="list-style-type: none"> • Check fluid levels • Check – windows, doors, attachments. • Cab Guard. <p>1.6. Demonstrate ability to perform start up procedures.</p> <p>Start up procedures must include:</p>



Element of Competence	Competence Outcomes
	<ul style="list-style-type: none"> • Gauges, warning systems, start and warm up hydraulics, transmission, lights, wipers, seat belt, lock out device, parking brake, emergency escape route/device, loose items in cab secured, 2 way radio working, fire extinguishers • Function test on major systems - hydraulics, service brake, parking brake, steering, grapple functionality. 3 point contact
<p>2. Operate Forwarder</p>	<p>2.1. Demonstrate ability to determine machine position within block and on slope including working within machine operating limits throughout work activity.</p> <p>2.2. Demonstrate ability to operate a Forwarder.</p> <p>Operate a Forwarder must include:</p> <ul style="list-style-type: none"> • Lift boom, move forward, stop, back up, raise or lower boom and grapple, move boom ahead and back, rotate grapple left or right and open and close • Load logs on units, transport to landing locations, unload logs in suitable decks • Trails located in correct locations according to terrain and soil conditions • Clean up of logs in work area (good housekeeping). <p>2.3. Demonstrate ability to communicate with co-workers, mechanics or supervisor to complete tasks.</p> <p>2.4. Demonstrate ability to monitor performance of equipment during operation.</p> <p>2.5. Demonstrate knowledge of and ability to operate in an ergonomically correct posture to minimize MSI.</p>
<p>3. Complete Tasks</p>	<p>3.1. Demonstrate ability to perform shut down procedures.</p> <p>Shut down procedures must include:</p>



Element of Competence	Competence Outcomes
	<ul style="list-style-type: none"> • Safe parking position and lower all attachments, brakes applied, position for ease of access, level position for fluid checks, cool down before shut down, walk around and general check, secure machine, 3 point contact <p>3.2. Demonstrate ability to perform daily maintenance tasks.</p> <p>Daily maintenance tasks must include:</p> <ul style="list-style-type: none"> • Lubrication systems, air intake systems, air system reservoir, fuel tank sump, water separator, fuel filters, inspect and clean components, housekeeping. <p>3.3. Demonstrate ability to describe basic repairs and maintenance on a Loader.</p> <p>Basic repairs must include:</p> <ul style="list-style-type: none"> • Hydraulic hoses, fuel filter, engine oil change, lube filter, adjust belt tension, air tire pressure, battery terminals, fluids, adjust tire chain tightness.
4. Attachments	<p>4.1. Demonstrate ability to use and maintain attachments for Forwarders.</p> <p>Use and maintain attachment must include:</p> <ul style="list-style-type: none"> • Boom stick, grapple.



Summary of Skills and Knowledge

<p>Summary of Knowledge to be Assessed</p>	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • Capabilities, advantages and limitations of forwarders • Read maps • Yarding plans • Hazards related to operating a forwarder and the means to control them • How to use equipment manuals including safe operating procedures and forwarder limitations • Basic maintenance and repairs on a forwarder • Ergonomics related to job function • Basic repairs.
<p>Summary of Skills to be Assessed</p>	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • Read maps • Conduct pre-start equipment checks • Conduct pre – start up procedures • Perform basic tasks on a Forwarder • Monitor equipment during operations • Conduct shut down procedures • Perform daily maintenance • Install, use and maintain attachments.



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<p>General Information</p>	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence must be on record of competence achieved.</p> <p>Competence outcomes requiring “ability to” or skills must have evidence on record demonstrating competence multiple times in a variety of contexts and may be holistically assessed with relevant work activities.</p> <ul style="list-style-type: none"> • Training Modules are available for this unit. • Training audit/competency check tool is available for this unit. • Competency conversations are available for this unit.
<p>Evidence to be Assessed</p>	<p>Minimum evidence requirements for this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable. • All required “skills to be assessed” demonstrated multiple times in a variety of contexts. Valid evidence must be on record through training audit/competency check tool.
<p>Evidence Sign Off</p>	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1095
Title	Describe and Operate Hoe Chucker
Document	Unit of Competency

Description	<p>This is a knowledge and ability unit about:</p> <ul style="list-style-type: none"> • Pre Work Activities related to Operating Hoe Chuckers; • Operating Hoe Chuckers; • Completing Tasks Post Operations; and • Hoe Chucker Attachments.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites:</p> <ul style="list-style-type: none"> • All occupational skills related to Mechanized Harvesting. <p>This unit may be taken in conjunction with:</p> <ul style="list-style-type: none"> • 1084 – Describe and Apply Winch Assist in a Steep Slope Environment
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • Hoe Chucker Operator.
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Element of Competence	Competence Outcomes
<p>1. Pre-Work Activities</p>	<p>1.1. Demonstrate knowledge of the capabilities, advantages and limitations of Hoe Chuckers.</p> <p>1.2. Demonstrate ability to use equipment manuals and specifications to determine safe operating procedures and operational restrictions of Hoe Chuckers.</p> <p>1.3. Demonstrate knowledge of hazards related to operating Hoe chackers and means to control them.</p> <p>Hazards must include:</p> <ul style="list-style-type: none"> • Pinch points, roll over, Jill pokes logs poking into cab or machine. • De-energize and lockout the machine. • Attachment or log contacting cab or other parts of machine <p>1.4. Demonstrate ability to read harvesting map to plan days activities including yarding plan.</p> <p>Yarding plan must include:</p> <ul style="list-style-type: none"> • Identify decking locations, hoe trail locations, understand terrain and soil conditions, including drainage patterns, adjust plan as required. • Identify site sensitive areas and no-go zones. <p>1.5. Demonstrate ability to perform pre-start equipment checks.</p> <p>Pre-start equipment checks must include:</p> <ul style="list-style-type: none"> • Check fluid levels • Check – guards, windows, doors, undercarriage, attachments, and emergency exit.



Element of Competence	Competence Outcomes
	<p>1.6. Demonstrate ability to perform start up procedures.</p> <p>Start up procedures must include:</p> <ul style="list-style-type: none"> • Gauges, warning systems, lights, wipers, seat belt, lock out device, loose items in cab secured, fire extinguisher or suppression system • Functions test on major systems – hydraulics, grapple functionality, track travel, horn, maintain 3 point contact
<p>2. Operate Hoe Chucker</p>	<p>2.1. Demonstrate ability to determine machine position within block and on slope including working within machine operating limits throughout work activity.</p> <p>2.2. Demonstrate ability to operate a Hoe Chucker.</p> <p>Operate a Hoe Chucker must include:</p> <ul style="list-style-type: none"> • Raise and lower boom, extend retract stick, operate grapple (open, close, rotate) track forward and back, swing with load. <p>2.3. Demonstrate ability to control logs to and keep machine stable on different types of terrain and soil conditions</p> <p>2.4. Demonstrate ability to communicate with co-worker, mechanic and supervisors during workday.</p> <p>2.5. Demonstrate ability to monitor performance of equipment during operation.</p> <p>2.6. Demonstrate knowledge of and ability to operate in an ergonomically correct posture to minimize MSI.</p>
<p>3. Complete Tasks</p>	<p>3.1. Demonstrate ability to perform shut down procedures.</p> <p>Shut down procedures must include:</p> <ul style="list-style-type: none"> • Safe parking position and lower all attachments, brakes applied, position for ease of access, level position for fluid checks, cool down before shut down, walk around and general check, secure machine, maintain 3 point contact. <p>3.2. Demonstrate ability to perform daily maintenance tasks.</p> <p>Daily maintenance tasks must include:</p>



Element of Competence	Competence Outcomes
	<ul style="list-style-type: none"> • Lubrication systems, air intake systems, air system reservoir, fuel tank sump, water separator, fuel filters, inspect and clean components, housekeeping. <p>3.3 Demonstrate knowledge of basic repairs and maintenance on a Hoe Chucker.</p> <p>Basic repairs must include:</p> <ul style="list-style-type: none"> • Hydraulic hoses, fuel filter, engine oil change, lube filter, adjust belt tension, battery terminals, fluids, adjust track tension.

Summary of Skills and Knowledge

<p>Summary of Knowledge to be Assessed</p>	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • Capabilities, advantages and limitations of Hoe Chuckers • Read maps • Yarding plans • Hazards related to operating a hoe chucker and the means to control them • How to use equipment manuals including safe operating procedures and hoe chucker limitations • Basic maintenance and repairs on a hoe chucker • Ergonomics related to job function.
<p>Summary of Skills to be Assessed</p>	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • Use equipment manuals • Conduct pre-start equipment checks • Conduct pre-start up procedures • Perform basic tasks on a Hoe chucker • Monitor equipment during operations • Conduct shut down procedures • Perform daily maintenance • Basic repairs



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<p>General Information</p>	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence must be on record of competence achieved.</p> <p>Competence outcomes requiring “ability to” or skills must have evidence on record demonstrating competence multiple times in a variety of contexts and may be holistically assessed with relevant work activities.</p> <ul style="list-style-type: none"> • Training Modules are available for this unit. • Training audit/competency check tool is available for this unit. • Competency conversations are available for this unit.
<p>Evidence to be Assessed</p>	<p>Minimum evidence requirements for this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable. • All required “skills to be assessed” demonstrated multiple times in a variety of contexts. Valid evidence must be on record through training audit/competency check tool.
<p>Evidence Sign Off</p>	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1096
Title	Describe and Operate Dangle Head Processor
Document	Unit of Competency

Description	<p>This unit is about:</p> <ul style="list-style-type: none"> • Pre Work Activities related to operating Dangle Head Processors; • Operating Dangle Head Processors; and • Complete Tasks Post Operations.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites:</p> <ul style="list-style-type: none"> • All occupational skills related to Mechanical Harvesting Equipment.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • Dangle Head Processor Operator.
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Element of Competence	Competence Outcomes
1. Pre-work Activities	<p>1.1. Demonstrate knowledge of the capabilities, advantages and limitations of Dangle Head Processors.</p> <p>1.2. Demonstrate ability to use equipment manuals and specifications to determine safe operating procedures and operational restrictions of Dangle Head Processors.</p> <p>1.3. Demonstrate knowledge of hazards related to operating Dangle Head Processors and means to control them.</p> <p>Hazards related operating Dangle Head Processors must include:</p> <ul style="list-style-type: none"> • Slip and falls, fire from debris build up within machine, roll over, crush injuries, sharp chains and de-limbing knives • Other workers in work area. • De-energize and lockout the machine. • Chain shot hazard zone. <p>1.4. Demonstrate ability to read harvest map to plan days activities to facilitate forward load and haul.</p> <p>1.5. Demonstrate knowledge of bucking cards, log quality specifications, species, and variations in length.</p> <p>1.6. Demonstrate ability to perform pre-start equipment checks.</p> <p>Pre-start equipment checks must include:</p> <ul style="list-style-type: none"> • Check fluid levels • Checks – guards, windows, doors, undercarriage, attachments, saws, bars are straight, chains have tension, de-limbing knives, emergency escapes, tires and wheels. <p>1.7. Demonstrate ability to perform start up procedures.</p> <p>Start up procedures must include:</p>



Element of Competence	Competence Outcomes
	<ul style="list-style-type: none"> • Gauges, warning systems, lights, wipers, seat belt, lock out device, loose items in cab secured, fire extinguisher or suppression system, 2 way radio • Functions test on major systems – hydraulics, computer check, boom up and down, stick in and out, swing right and left, head tilt, saw function, grab arm movement, maintain 3 point contact.
<p>2. Operate Dangle Head Processor</p>	<p>2.1. Demonstrate ability to determine machine position within block and on slope including working within machine operating limits throughout work activity.</p> <p>2.2. Demonstrate knowledge of and ability to use computer to set control for cut length and calibrate computer system.</p> <p>2.3. Demonstrate knowledge of automatic functions on heads for safety and productivity.</p> <p>2.4. Demonstrate ability to communicate in a professional manner with co-workers, supervisors and mechanics.</p> <p>2.5. Demonstrate ability to operate a Dangle Head Processor.</p> <p>Operate a Dangle Head Processor must include:</p> <ul style="list-style-type: none"> • Move forward, stop, back up, stop, raise or lower boom, extend and retract stick, watch for tail swing • Pick up tree, trim the butt and run variety of wood lengths, buck out defects. <p>2.6. Demonstrate ability to position machine for safety, efficiency and productivity.</p> <p>Position machine for safety, efficiency and productivity must include:</p> <ul style="list-style-type: none"> • Reasons for deck position, safety, efficiency and productivity, • Following cut list.



Element of Competence	Competence Outcomes
	<ul style="list-style-type: none"> • Position the machine to reduce the hazard of Chain Shot for yourself and other workers. <p>2.7. Demonstrate ability to monitor performance of equipment during operation.</p> <p>2.8. Demonstrate knowledge of and ability to operate in an ergonomically correct posture to minimize MSI.</p>
3. Complete Tasks	<p>3.1. Demonstrate ability to perform shut down procedures.</p> <p>Shut down procedures must include:</p> <ul style="list-style-type: none"> • Safe parking position, lower attachments, position for ease of access, level position for fluid checks, cool down before shut down, walk around and general check, secure machine, maintain 3 point contact. <p>3.2. Demonstrate ability to perform daily maintenance tasks.</p> <p>Daily maintenance tasks must include:</p> <ul style="list-style-type: none"> • Lubrication systems, air intake systems, radiator and cooling systems, fuel tank sump, water separator, fuel filters, inspect and clean components, housekeeping, track tension • Inventory and maintenance of saw bar and chains (sharp and dull) • Lock out or zero energy state before maintenance on processing head. <p>3.3. Demonstrate knowledge of basic repairs and safety related to maintenance on a Dangle Head Processor.</p> <p>Basic repairs must include:</p> <ul style="list-style-type: none"> • Hydraulic hoses, fuel filter, engine oil change, lube filter, adjust belt tension, battery terminals, fluids, changing of saw bar and chains.



Summary of Skills and Knowledge

<p>Summary of Knowledge to be Assessed</p>	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • Capabilities, advantages and limitations of a Dangle Head Processor • Read maps • How to plan for day including facilitating load and haul • Hazards related to operating a Dangle Head Processor and the means to control them • How to use equipment manuals including safe operating procedures and Dangle Head Processor limitations • Bucking cards, log quality specifications and variations in length • Computers to set control for cut length • Automatic functions on heads • Basic maintenance and repairs on a Dangle Head Processor • Ergonomics related to job function.
<p>Summary of Skills to be Assessed</p>	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • Use equipment manuals • Conduct pre-start equipment checks • Conduct pre – start up procedures • Perform basic tasks on a Dangle Head Processor • Use computers in cab • Position machine for safety, efficiency, and productivity • Monitor equipment during operations • Conduct shut down procedures • Perform daily maintenance.



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<p>General Information</p>	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence must</p> <p>Competence outcomes requiring “ability to” or skills must have evidence on record demonstrating competence multiple times in a variety of contexts and may be holistically assessed with relevant work activities. be on record of competence achieved.</p> <ul style="list-style-type: none"> • Training Modules are available for this unit. • Training audit/competency check tool is available for this unit. • Competency conversations are available for this unit.
<p>Evidence to be Assessed</p>	<p>Minimum evidence requirements for this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable. • All required “skills to be assessed” demonstrated multiple times in a variety of contexts. Valid evidence must be on record through training audit/competency check tool.
<p>Evidence Sign Off</p>	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1097
Title	Describe and Operate Hydraulic Log Loader
Document	Unit of Competency

Description	<p>This unit is about:</p> <ul style="list-style-type: none"> • Pre-Work Activities related to Operating Hydraulic Log Loaders; • Operating Hydraulic Log Loaders; • Completing Tasks Post Operations; and • Hydraulic Log Loader Attachments.
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites:</p> <ul style="list-style-type: none"> • All occupational skills units related to Mechanical Harvesting Equipment.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • Hydraulic Log Loader Operator
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Element of Competence	Competence Outcomes
1. Pre-work Activities	<p>1.1. Demonstrate knowledge of the capabilities, advantages and limitations of Hydraulic Log Loaders.</p> <p>1.2. Demonstrate ability to use equipment manuals and specifications to determine safe operating procedures and operational restrictions of Hydraulic Log Loaders.</p> <p>1.3. Demonstrate knowledge of hazards related to operating Hydraulic Log Loaders and means to control them.</p> <p>Hazards related to operating Hydraulic Log Loaders must include:</p> <ul style="list-style-type: none"> • Slip and falls, fire from debris build up within machine, roll over, crush injuries. • Other workers in work area. • D-energize and lockout the machine. <p>1.4. Demonstrate knowledge of species and roadside sorts.</p> <p>1.5. Demonstrate ability to read harvesting map to plan days activities.</p> <p>1.6. Demonstrate ability to perform pre-start equipment checks.</p> <p>Pre-start equipment checks must include:</p> <ul style="list-style-type: none"> • Check fluid levels • Check – guards, windows, doors, undercarriage, attachments, and emergency escape routes. <p>1.7. Demonstrate ability to perform start up procedures.</p> <p>Start up procedures must include:</p> <ul style="list-style-type: none"> • Gauges, warning systems, lights, wipers, seat belt, lock out device, loose items in cab secured, fire extinguisher or suppression system, 2 way radio, horn • Function test on major systems – boom up and down, stick in and out, swing right and left, travel forward and reverse



Element of Competence	Competence Outcomes
	<ul style="list-style-type: none"> • Attachment - grapple open and close, rotate left and right, outriggers up/ down if applicable, maintain 3-point contact.
<p>2. Operate Hydraulic Log Loader</p>	<p>2.1. Demonstrate ability to determine machine position within block and on slope including working within machine operating limits throughout work activity.</p> <p>2.2. Demonstrate ability to operate a Hydraulic Log Loader Operate a Hydraulic Log Loader must include:</p> <ul style="list-style-type: none"> • Move forward, stop, back up, stop, raise or lower boom, extend or retract stick, rotate grapple right or left, and open and close, watch for tail swing • Operate using mutli- functions at same time • Smooth operation. <p>2.3. Demonstrate ability to move or sort decked wood. Decked wood may include:</p> <ul style="list-style-type: none"> • Building stable piles. <p>2.4. Demonstrate ability to build stable, balanced and compact load within bunks.</p> <p>2.5. Demonstrate ability to build stable debris piles.</p> <p>2.6. Demonstrate ability to hook up, load and unload logging trailer from truck.</p> <p>2.7. Demonstrate ability to communicate in a professional manner with co-workers including truck driver, mechanics and supervisors through out the workday</p> <p>2.8. Demonstrate ability to operate hydraulic log loader attachments. Log loader attachments may include:</p> <ul style="list-style-type: none"> • Power clam, butt n'top, live heel. <p>2.9. Demonstrate ability to monitor performance of equipment during operation.</p> <p>2.10. Demonstrate knowledge of and ability to operate in an ergonomically correct posture to minimize MSI.</p>



Element of Competence	Competence Outcomes
3. Complete Tasks	<p>3.1. Demonstrate ability to perform shut down procedures and record deficiencies/issues for mechanic.</p> <p>Shut down procedures must include:</p> <ul style="list-style-type: none"> • Safe parking position and lower all attachments, position for ease of access, level position for fluid checks, cool down before shut down, walk around and general check, secure machine, maintain 3 point contact. <p>3.2. Demonstrate ability to perform daily maintenance tasks.</p> <p>Daily maintenance tasks must include:</p> <ul style="list-style-type: none"> • Lubrication systems, air intake systems, air system reservoir, fuel tank sump, water separator, fuel filters, inspect and clean components, housekeeping. <p>3.3. Demonstrate knowledge of basic repairs and maintenance on a log loader.</p> <p>Basic repairs must include:</p> <ul style="list-style-type: none"> • Hydraulic hoses, fuel filter, engine oil change, lube filter, adjust belt tension, battery terminals, fluids, adjust track tension.

Summary of Knowledge and Skills

Summary of Knowledge to be Assessed	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • Capabilities, advantages and limitations of Hydraulic Log Loaders • Hazards related to operating a Hydraulic Log Loader and the means to control them • How to use equipment manuals including safe operating procedures and Hydraulic Log Loader limitations • Types of Hydraulic Log Loaders • Basic maintenance and repairs on a Hydraulic Log Loader • Ergonomics related to job function.
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<p>Summary of Skills to be Assessed</p>	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • Conduct pre-start equipment checks • Conduct pre – start up procedures • Perform basic tasks on a Hydraulic Log Loader • Move or sort decked wood • Unload logging trailer from truck • Communicate with truck driver • Operate clam, butt n’ top, live heel • Load trucks • Monitor equipment during operations • Conduct shut down procedures • Perform daily maintenance.
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Mechanical Harvesting Assessment Guide

<p>General Information</p>	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence must be on record of competence achieved.</p> <p>Competence outcomes requiring “ability to” or skills must have evidence on record demonstrating competence multiple times in a variety of contexts and may be holistically assessed with relevant work activities.</p> <ul style="list-style-type: none"> • Training Modules are available for this unit. • Training audit/competency check tool is available for this unit. • Competency conversations are available for this unit.
<p>Evidence to be Assessed</p>	<p>Minimum evidence requirements for this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable.



	<ul style="list-style-type: none"> • All required “skills to be assessed” demonstrated multiple times in a variety of contexts. Valid evidence must be on record through training audit/competency check tool.
Evidence Sign Off	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



Unit	1028
Title	Describe and Operate Chainsaw
Document	Unit of Competency

Description	<p>This is a knowledge and ability unit about:</p> <ul style="list-style-type: none"> • Chainsaw Components and Safety Features; • Chainsaw Inspection and Maintenance; • Safe Transport and Carrying of Chainsaw; • Potential Risks associated with Chainsaw Use; • Basic Chainsaw Operation and Ergonomics; and • Limbing and Taping
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Regulatory Requirements	<p>It is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulations related to the work being conducted. A full list of OHSR related to this unit can be found in the relevant package.</p>
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Prerequisite(s)	<p>This unit has the following prerequisites for fallers:</p> <ul style="list-style-type: none"> • 1002 – Describe Forest Industry; or • 1033 – Describe Wildfire Preparedness; or • 1034 – Describe Oil and Gas Industry.
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Occupations	<p>This unit is a component of the following occupations:</p> <ul style="list-style-type: none"> • Bucker – Forest Industry, Wildfire Service, Oil and Gas Industry • Faller – Forest Industry, Wildfire Service, Oil and Gas Industry • Other forest industry occupations where applicable.
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Element	Competence Outcomes
<p>1. Chainsaw Components and Safety Features</p>	<p>1.1. Identify components of a chainsaw in accordance with manufacturers' specifications.</p> <p>Components of a chainsaw must include:</p> <ul style="list-style-type: none"> • Handlebar, throttle lock, chain brake, chain catcher, on/off switch, muffler, dogs, bar tip, chain, sight lines, choke, guide bar, pull cord, anti-vibration mounts, fuel tank and cap, oil tank and cap, bar nuts, decompression switch, spark plug, air filter, rear hand guard. <p>1.2. Identify the safety features of a chainsaw and the control of hazard or injury they provide.</p> <p>Safety features of a chainsaw must include:</p> <ul style="list-style-type: none"> • Chain brake, chain catcher, throttle lock. • Handlebar (full wrap for falling), chain muffler and spark arrestor, chainsaw dogs, sight lines, anti-vibration mounts, decompression switch. <p>1.3. Describe when a chainsaw should not be operated.</p> <p>Chainsaw should not be operated must include:</p> <ul style="list-style-type: none"> • Dragging clutch, missing a chain catcher, the chain brake is not working, the throttle lock is not working, and broken anti-vibration mounts.
<p>2. Chainsaw Inspection and Maintenance</p>	<p>2.1. Inspect and maintain chainsaw in accordance with manufacturers' specifications including requirements for daily, weekly, and monthly maintenance.</p> <p>Inspect and maintain chainsaw must include:</p> <ul style="list-style-type: none"> • Air filter, chain brake, fuel filter, spark plug, fuel/oil tanks, spark arrestor, starter recoil assembly, guide bar, idle screw, clutch, chain sprocket, chain catcher, throttle lock-out, vibration mounts, dog screws, plastic chain guides, recoil spring. <p>Inspect and maintain chainsaw may include:</p> <ul style="list-style-type: none"> • Carburetor, muffler, saw body, cooling fins and air intake.



Element	Competence Outcomes
	<p>2.2. Identify chain parts and conduct chain maintenance in accordance with manufacturers' specifications.</p> <p>Chain parts must include:</p> <ul style="list-style-type: none"> • Cutting edge, gullet, raker, rivet, side strap, driver. <p>Conduct chain maintenance must include:</p> <ul style="list-style-type: none"> • Filing procedure and tools (including using a raker gauge), floating drive sprocket inspections, guide bar and chain inspection, selecting appropriate chain length and gauge for the guide bar. <p>2.3. Identify spare parts and repair tools required on the worksite in accordance with best practices.</p> <p>Spare parts must include:</p> <ul style="list-style-type: none"> • Spare chains and guide bar or bar tip, air filter, starter rope, sprockets, spark plugs, screws, spare filing tools, clutch bearing, clutch, chain tensioner. • Second operational chainsaw may cover spare parts. <p>Repair tools must include:</p> <ul style="list-style-type: none"> • Bar wrench, round file, flat file.
<p>3. Safe Transport and Carrying of Chainsaw</p>	<p>3.1. Demonstrate ability to secure chainsaw when using transport.</p> <p>Transport may include:</p> <ul style="list-style-type: none"> • Potential hazards related to types of transport. • Vehicle, ATV, helicopter and airplane, snowmobile, UTV, marine.
<p>4. Potential Risks Associates with Chainsaw Use</p>	<p>4.1. Explain the hazards related to fueling and ability to fuel safely.</p> <p>Hazard related to fueling may include:</p> <ul style="list-style-type: none"> • Open flames, fuel geyser. <p>Ability to fuel safely must include:</p> <ul style="list-style-type: none"> • Two stroke engine fuel to oil mix ration, distance from worksite.



Element	Competence Outcomes
	<p>4.2. Describe immediate potential risks related to chainsaw use.</p> <p>Immediate potential risks related to chainsaw use may include:</p> <ul style="list-style-type: none"> • Kickbacks, chain thrown, burns, exhaust emissions, crush or struck by objects, slips, trips, falls, projectiles from chain. <p>4.3. Describe potential long-term injuries related to chainsaw.</p> <p>Potential long-term injuries related to chainsaw use may include:</p> <ul style="list-style-type: none"> • Loss of hearing, vibration disease (Raynaud's), MSI.
<p>5. Basic Chainsaw Operation and Ergonomics</p>	<p>5.1. Use personal protective equipment (PPE related to chainsaw use).</p> <p>PPE related to chainsaw use must include:</p> <ul style="list-style-type: none"> • Leg, hand, face, eye protection. <p>5.2. Compare chainsaw size and bar length suitability for the job in accordance with timber type and ergonomic factors (avoidance of overreaching).</p> <p>5.3. Carry chainsaw to and from the worksite and from cut to cut safely.</p> <p>Carry chainsaw must include:</p> <ul style="list-style-type: none"> • Chain stopped before moving from cut to cut, apply chain brake if taking more than three steps without making another cut or saw shut off, brake applied before taking either hand off chainsaw. <p>5.4. Describe the step and demonstrate the ability to conduct basic bucking and cutting sequences in a controlled environment.</p> <p>Basic bucking must include:</p> <ul style="list-style-type: none"> • Top bind, bottom bind, end bind, side bind, boring, V cut. • Use of dogs.



Element	Competence Outcomes
	<ul style="list-style-type: none"> • Identify pivot points. <p>Cutting sequences must include:</p> <ul style="list-style-type: none"> • Determining compression and tension, sequences of cut, cutting compression side first, monitor log for movement, finishing the cut. <p>5.5. Demonstrate knowledge of and ability to conduct bucking activities ergonomically correct to reduce MSI.</p>
<p>6. Limbing and Taping</p>	<p>6.1. Describe hazards related to limbing.</p> <p>Hazards related to limbing may include:</p> <ul style="list-style-type: none"> • Struck by overhead debris/material, unexpected movement, cuts from chainsaw, struck by limb or chainsaw as a result of limb compression or limb tension, chainsaw kickback, cut or puncture injury by angled cuts (pigs ears) and branch stubs, projectiles from chain (loose bark and small branches), falling from log, slips, trips and falls. <p>6.2. Apply safe limbing procedures.</p> <p>Safe limbing procedures may include:</p> <ul style="list-style-type: none"> • Know when to cut supporting limbs, use relief cuts to release tension on loaded limbs, make flush cuts at bole of tree (no pig ears), limb top and both sides of tree, no cross-body limb cutting, constantly reassess for overhead hazards, power head should not be above shoulder height, ensure secure footing before making each cut, cut large limbs off in sections. <p>6.3. Describe hazards related to taping and how to tape and measure in accordance with safe work procedures.</p> <p>Hazards related to taping may include:</p> <ul style="list-style-type: none"> • Slips, trips or falling off log • Cutting fingers on the tape edge as it rewinds • Being struck by tape as it rewinds • Puncture wounds from tape



Summary of Knowledge and Skills

<p>Summary of Knowledge to be Assessed</p>	<p>For this unit, a competent worker must understand:</p> <ul style="list-style-type: none"> • Components of a chainsaw • Safety features of a chainsaw • Inspection and maintenance requirements of chainsaws • Chain parts and chain maintenance • Common repair tools • Common spare parts • How to secure and transport chainsaws • Hazards related to fueling • Immediate potential risks related to chainsaw use • Potential long-term injuries related to chainsaw use • PPE related to chainsaw use • Chainsaw and bar length suitability for job • When chainsaws should not be operated • How to carry a chainsaw • Hazards related to chainsaw use • Basic bucking and cutting sequences • Hazards related to limbing and tapping • Safe limbing procedures • How to buck in an ergonomically correct position.
<p>Summary of Skills to be Assessed</p>	<p>For this unit a competent worker must be able to:</p> <ul style="list-style-type: none"> • Inspect and maintain a chainsaw • Conduct chainsaw maintenance • Secure chainsaw for transport



	<ul style="list-style-type: none"> • Carry chainsaw long distances safely • Fuel chainsaw safely • Operate chainsaw with both hands • Carry chainsaw to reduce MSI • Conduct pre-work inspections of a chainsaw • Conduct basic bucking and cutting sequences • Apply safe limbing procedures • Use PPE related to chainsaw • Handle chainsaw using safe work procedures • Buck in an ergonomically correct position.
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General Forestry Assessment Guide

General Information	<p>Competence outcomes requiring “knowledge of” can be assessed through competency conversations or written assessment. Evidence should be on record showing the outcomes have been met.</p> <p>Competence outcomes requiring “ability to” or skills must have evidence on record demonstrating competence multiple times in a variety of contexts and may be holistically assessed with relevant work activities.</p> <ul style="list-style-type: none"> • The outcomes of this unit may be met through a training course. • Training modules are available for this unit. • Training audit/competency check tool is available for this unit. • A competency conversation is available for this unit. • *Skills to be assessed or “ability to” for this unit are holistically assessed with the summative practical tool. • This unit is required for Certificate of Qualification – Faller.
Evidence to be Assessed	<p>Minimum evidence requirements for this unit must include:</p> <ul style="list-style-type: none"> • Completion of training module and formative assessments. • Completion of competency conversation where applicable.



	<ul style="list-style-type: none"> • All required “skills to be assessed” demonstrated multiple times in a variety of contexts. <p>Faller - Valid evidence must be recorded using documentation mapped to the outcomes or by using the electronic evidence gathering tool.</p>
Evidence Sign Off	<p>Evidence must be signed off by designated:</p> <ul style="list-style-type: none"> • Trainer • Assessor • Supervisor. <p>Final evidence sign off for Certificates of Qualification is the responsibility of the Quality Assurance – Internal and External Verifiers, a function of the relevant administrator.</p>



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