



SFRITO
SPORT, FITNESS AND RECREATION
INDUSTRY TRAINING ORGANISATION

ASSESSMENT GUIDELINE

Select, set up and maintain a mountain or cycle touring bike

Unit Standard: 20138

Level: 2 Credit: 3 Version: 1
Published by Sfrito 2005

Purpose:

People credited with this unit standard are able to: demonstrate knowledge for bike selection; and select, set up and maintain a bike for either mountain biking or cycle touring.

Special Notes:

1. There are minimum assessor requirements for assessment against this unit standard. The details of these requirements are available on the Sfrito website <http://www.sfrito.org.nz/>.

Overview of assessment:

This assessment has 3 tasks

- Task 1: Find information and choose a bike for cycle touring or mountain biking
- Task 2: Select & prepare a bike for cycle touring or mountain biking
- Task 3: Carry out minor repairs

Resources for all tasks:

<http://www.parktool.com/repair/bikemap.asp>

<http://www.lightinside.org/bike/bikecare.htm>

<http://www.peterwhitecycles.com/fitting.htm>

Task 1: Find information and choose a bike for cycle touring or mountain biking

Resources:

Information brochures, manufacturers websites, bike retailers websites

Notes to the assessor

The candidate must demonstrate that they have researched and can explain the reasons for the selection of their bike. This could be in written form or through oral questioning. The bike they select could be a hypothetical bike, and does not need to be the one they use for the rest of the assessment.

Instruction to candidate:

During the task you are required to:

- Describe the type of biking you intend to do, and the type of bike you will use
- Explain the reasons for your selection
- Explain where you got the information to make your decision

Element 1: Demonstrate knowledge for bike selection.

Performance criteria	Evidence/Judgement
<p>1.1 Sources where information about bike selection can be gained are identified.</p> <p>Range: may include but is not limited to – internet, shops, manufacturers, clubs.</p>	<p>The candidate presents in written or oral form:</p> <ul style="list-style-type: none"> • the type of biking they intend to do, e.g. <ul style="list-style-type: none"> - cross country mountain biking - multi-day cycle touring - road training • the type of bike they will use, e.g. <ul style="list-style-type: none"> - mountain bike - road bike - fixed gear - town & country - cycle touring • the reasons why they have chosen that type of bike e.g. <ul style="list-style-type: none"> - dominant use - cost - components - service and maintenance - availability • the information sources they used to make the decision (or could go to for more information), e.g. <ul style="list-style-type: none"> - Website of manufacturers & retailers - Website or magazine reviews - Shops - Clubs
<p>1.2 Bike options are identified and the reasons for selecting one bike in preference to others are explained.</p> <p>Range: bike options may include but are not limited to – mountain bike, road bike, town and country, fixed gear;</p> <p>selection decisions may include but are not limited to – dominant use, cost, maintenance.</p>	

Task 2: Select & prepare a bike for cycle touring or mountain biking

Resources:

Bike, bike tools such as spanners, Allen keys etc., bike oil

Notes to the assessor

1. The bike the candidate selects does not need to be the one selected in Task 1
2. Cleaning and oiling the bike could happen after a bike ride if the bike is already clean and oiled. Checking must be done before a bike ride.

Instruction to candidate:

During the task you are required to prepare your bike for riding. This will include:

- Making adjustments to seat height, seat position, handle bars
- Making sure the frame is the right height
- Checking the bike
- Cleaning and oiling the bike

Element 2: Select, set up and maintain a bike for either mountain biking or cycle touring.

Performance criteria	Evidence/Judgement
<p>2.1 Bike is selected and adjusted to meets the need, size and proportions of the rider.</p> <p>Range: frame size, seat height and position, handlebar height, distance from seat to handlebars.</p>	<ul style="list-style-type: none"> • Candidate selects bike. • Adjusts seat and handle bar height to suit individual. • Adjusts seat position on the seat post (forward & aft) to suit individual. • Demonstrates that frame size is suitable.
<p>2.2 Bike is cleaned to prevent damage.</p> <p>Range: may include but is not limited to – dirt removed, excess oil removed, rust spores removed, water removed.</p>	<ul style="list-style-type: none"> • Cleans the bike: <ul style="list-style-type: none"> - Dirt removed using a brush or cloth. - Rust spores are removed from chain, cables or gear parts. - High pressure water is avoided - Excess water removed with cloth.
<p>2.4 Bike parts requiring lubrication are identified and lubrication is applied appropriately.</p> <p>Range: may include but is not limited to – chain, cable, hub.</p>	<ul style="list-style-type: none"> • Lubricates the bike with appropriate bike oil: <ul style="list-style-type: none"> - A drop on each roller of the chain - Cables, hub and derailleur pivot points. - Excess oil is removed with a cloth.

2.3 Bike parts are checked and adjusted to ensure correct functioning and safety based on the manufacturer's recommendations.

Range: frame, wheels, tyres, tyre pressure, brakes, brake cables, pedals, bottom brackets, crank, headset, bearings, seat, handlebars, shifters, derailleurs, suspension systems, gears and cables.

The following parts of the bike are checked and adjusted if necessary for:

- correct functioning
- to make sure there is no corrosion, wobble, play, strange noises, structural damage, loose nuts and bolts
- Frame - checked for fractures, cracks and breaks.
- Wheels and tyres:
 - tyre checked for wear
 - tube inflated to desired pressure (check with pressure gauge)
 - Quick releases (or nuts) checked
- Brakes and cables:
 - apply front and back brakes
 - check cables for rust or sticking (or hydraulics for leaks)
 - check pads and rims (or discs)
- Headset – apply front brakes and test for play
- While rotating the pedals and free-wheeling the rear wheel:
 - Shifters, bottom bracket and both derailleurs (if present) are checked by changing gears.
 - Checks pedals and crank
- Seat is stable and does not move up and down, forward or back, or twist sideways
- Handlebars are firm and do not move up or down.
- If using a bike with suspension, the suspension is tested by pushing down on suspension and then releasing.

Task 3: Carry out minor repairs

Resources:

Bike, punctured tyre, tyre repair kit, bike tools such as chain break, spanners etc

Notes to the assessor

1. Simulated faults or punctures can be used.
2. Manufacturer’s repair instructions should be used if available, otherwise another reputable source of guidelines such as advice from a reputable bike shop or website.
3. The repairs can be researched and practiced using repair instructions, but for the assessment must be carried out without referring to instructions.

Instruction to candidate:

During the task you are required to:

- fix a broken chain
- replace a cable (brake or gear)
- repair a tyre puncture

Element 2: Select, set up and maintain a bike for either mountain biking or cycle touring.

Performance criteria	Evidence/Judgement
2.5 A broken chain is fixed according to manufacturer’s recommendations.	Using advice from manufacturer’s instructions or another reputable source, the candidate: <ul style="list-style-type: none"> • Repairs a faulty chain by: <ul style="list-style-type: none"> - Removing the chain using chain break tool - Removing, replacing or repairing the faulty link - Replacing the chain • Replaces a brake or gear cable • Repairs a puncture by: <ul style="list-style-type: none"> - Removing the tube and identifying the hole - Cleaning, gluing, patching the hole - Checking the tyre or rim for debris or cause of puncture - Putting the tube back and inflating it • Checks each repair afterwards
2.6 A cable is replaced and fitted according to manufacturer’s recommendations.	
2.7 A puncture repair is demonstrated.	

Candidate Name _____ NSN _____

Unit 20138 Checklist

Select, set up and maintain a mountain or cycle touring bike

Assessor name: _____

Organisation name: _____

C/NYC

Comments

Task 1: Find information to assist in the selection of a bike for cycle touring or mountain biking

The candidate presents in written or oral form:

- the type of biking they intend to do
- the type of bike they will use
- the reasons why they have chosen that type of bike
- the information sources they used to make the decision

Task 2: Select & prepare a bike for cycle touring or mountain biking

- Selects bike.
- Adjusts seat and handle bar height to suit individual.
- Adjusts seat position on the seat post
- Demonstrates that frame size is suitable.

- Cleans the bike
- Lubricates the bike with appropriate bike oil:

The following parts of the bike are checked and adjusted if necessary

- Frame
- Wheels and tyres
- Brakes and cables
- Headset
- Shifters, bottom bracket and derailleurs
- Pedals and crank
- Seat
- Handlebars
- Suspension

Task 3: Carry out minor repairs

- Repairs a faulty chain
- Replaces a brake or gear cable
- Repairs a puncture
- Checks each repair afterwards

DATE

CANDIDATE'S SIGNATURE

ASSESSOR'S SIGNATURE

C/NYC

Comments: