

SKILLED**TRADES**<sup>BC</sup>

# Personal Record Book

*Boilermaker*

This is your Record Book!

## **DO NOT SUBMIT TO SkilledTradesBC**

This is not required to achieve certification

- It is a record of your progress towards achieving certification in the trade
- It provides a record of your experience
- It is your responsibility to keep it up-to-date
- Take it with you if you change employers

*Note: Employers and supervisors are not responsible for keeping your Record Book up-to-date. They are responsible for sign-off of hours and sign-off of competencies once you have achieved the required level of skills and knowledge.*

# APPRENTICE IDENTIFICATION

**Trade: BOILERMAKER**

Legal First Name:		Legal Last Name:	
Suite Number:	Street Number and Name:		
City:		Province:	Postal Code:
Telephone Number:		Email Address:	

## Work Safely!

A safe work attitude contributes to an accident free environment. Accident prevention and safe working conditions are the responsibility of both employers and employees.

Wear the required personal protective equipment, follow safe work practices and follow all safety regulations applicable to specific job activities.

Employer's responsibilities:

- Provide and maintain safety equipment and protective devices
- Ensure proper safe work clothing is worn
- Enforce safe work procedures
- Provide safeguards for machinery, equipment and tools
- Observe all accident prevention regulations
- Train employees in safe use and operation of equipment

Employee's responsibilities:

- Work in accordance with the safety regulations pertaining to job environment
- Work in such a way as not to endanger themselves or fellow workers.

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# EMPLOYER INFORMATION

## Originating Employer

Start Date:	End Date:
Employer:	
Contact Person:	
Address:	Phone:
	Email:
	Fax:
Supervisor/Journeyperson 1:	*TWID #:
	Phone:
	Email:
Supervisor/Journeyperson 2:	TWID #:
	Phone:
	Email:

\*TWID # - Trade Worker Identification Number

*If you have more than one employer during your apprenticeship, record the information for subsequent employers on the following page(s).*

If your job ends or you change employers...

**Before leaving your place of employment:**

- Please have your sponsor update your Work Based Training hours on their [SkilledTradesBC Portal account](#).
- Update Record of Competencies with your supervisor.
- Confirm with your employer that your workplace hours have been reported to SkilledTradesBC, and if possible get a copy of all Work-Based Training Hours reports submitted.
- Notify SkilledTradesBC of the change in your employment by submitting an [Online Registration Request](#) with your new employer on the SkilledTradesBC Portal.

When re-employed...

**You must be registered with your new employer before submitting any work-based training hours to SkilledTradesBC.**

## Subsequent Employers

Start Date:	End Date:
Employer:	
Contact Person:	
Address:	Phone:
	Email:
	Fax:
Supervisor/Journeyperson 1:	TWID #:
	Phone:
	Email:
Supervisor/Journeyperson 2:	TWID #:
	Phone:
	Email:

## Subsequent Employers

Start Date:	End Date:
Employer:	
Contact Person:	
Address:	Phone:
	Email:
	Fax:
Supervisor/Journeyperson 1:	TWID #:
	Phone:
	Email:
Supervisor/Journeyperson 2:	TWID #:
	Phone:
	Email:

# WORKPLACE HOURS

## Instructions

Make an entry in this section each time your hours are reported to SkilledTradesBC.

1. Get a copy of the *Workplace Hours Report* from your employer.
2. Fill in the dates of the reporting period and the hours reported.
3. Enter your employer name, address and phone number.
4. Keep your Record Book in a safe place.

### Workplace Hours

**Workplace hours** must be submitted to SkilledTradesBC by your employer on a regular basis. Your hours should be reported at least every six months; however, every three months is preferred.

At the beginning of your apprenticeship discuss the frequency of reporting with your employer.

Keeping Workplace hours up-to-date in your Record Book gives you the tools to better manage your apprenticeship. It provides you with the opportunity to:

- Follow up with your employer each reporting period to ensure your hours are reported on a regular basis.
- Discuss your progress with your direct supervisor/journeyperson on a regular basis.

DATE (TO-FROM)	EMPLOYER	HOURS
TOTAL HOURS		



# RECORD OF COMPETENCIES

## Instructions

The Record of Competencies is filled out and signed-off by the journeyperson supervising your work.

1. Know what skills are expected at each level of the program.
2. Ask the journeyperson to sign off on the competency when you have acquired the skills and are able to perform the task without supervision.
3. If the journeyperson agrees that you have the required skills, he/she will:
  - Record the date that the competency was achieved
  - Sign off on the competency
  - Enter his/her Trades Worker Identification Number (TWID #)

### What is a Record of Competencies?

The Record of Competencies lists all competencies you should be knowledgeable in prior to receiving your certification. Keeping this section up to date will allow you to track your progress towards certification and demonstrate proficiency in the skills within the scope of your trade. Completion of the entire program should result in you becoming a skilled and knowledgeable journeyperson.

- Refer to this section periodically to ensure you are getting the work experience you need.
- Use the competencies as a guide to ensure work tasks are assigned so that you acquire the skills and knowledge required to be successful in the trade.

Review the Record of Competencies on a regular basis with your direct supervisor/journeyperson to ensure they have been completed.

### Program Outline

The Program Outline provides detailed information on the scope of knowledge and skills expected at each level of the program, further defining the competencies listed in the Record Book. The Program Outline is a great resource for developing a training plan.

Download from: <https://skilledtradesbc.ca/boilermaker>

### Apprenticeship Toolkit

For general information on apprenticeship and tips for navigating the apprenticeship system in BC visit SkilledTradesBC's website to learn about the [apprenticeship basics](#).

# LEVEL 1

## IMPORTANT!

Download the Program Outline!

<https://skilledtradesbc.ca/boilermaker>

Read the competency tables

Some competencies are taught in many levels

For detailed information about that competency, go to the Program Outline

## THEORY

### LINE A: PERFORM SAFETY-RELATED FUNCTIONS

- Identify various classes of fires
- Identify workplace hazards
- Locate the relevant parts of the Occupational Health and Safety (OHS) regulation
- Recognize a confined space

### LINE C: ORGANIZE WORK

- Analyse a drawing
- Describe considerations when handling, ordering and coordinating materials
- Describe methods of communication

### LINE D: PERFORM CUTTING AND WELDING ACTIVITIES

- Identify standard weld and joint symbols
- Describe welding joints and weld types
- Describe weld testing procedures

### LINE E: USE RIGGING HOISTING AND LIFTING EQUIPMENT

- Describe rigging and hoisting equipment

## LINE F: LAY OUT, FABRICATE AND ASSEMBLE VESSELS AND COMPONENTS

- Describe bolt components

## LINE G: MAINTAIN, UPGRADE, REPAIR VESSELS AND COMPONENTS

- Describe upgrades to vessels and components
- Describe preventative maintenance on vessels and components
- Describe vessels and components
- Describe how to demolish vessels and components

# PRACTICAL

## LINE A: PERFORM SAFETY-RELATED FUNCTIONS

- Use personal protective equipment
- Use fall protection equipment and systems as per job requirements
- Apply preventative fire safety precautions
- Select appropriate fire extinguishers for the class of fire and environmental condition
- Use equipment to prevent various classes of fires
- Apply Level 1 First Aid certification principles
- Apply worksite safety policies
- Apply the relevant parts of the Occupational Health and Safety regulation
- Apply confined space awareness principles
- Monitor confined spaces

## LINE B: USE TOOLS, EQUIPMENT AND WORK PLATFORMS

- Use hand tools appropriate to the task
- Inspect and maintain tools
- Use power tools
- Use shop fabrication tools
- Inspect power tools
- Inspect fabrication tools
- Perform various methods of cutting
- Use ladders and platforms
- Use access equipment
- Apply aerial work platform certification principles

## LINE C: ORGANIZE WORK

- Apply mathematical principles to solve problems
- Sketch structural shapes
- Apply forklift certification principles
- Handle materials according to job requirements
- Communicate with others

## LINE D: PERFORM CUTTING AND WELDING ACTIVITIES

- Perform various methods of cutting
- Perform basic welding
- Use distortion control

## LINE E: USE RIGGING HOISTING AND LIFTING EQUIPMENT

- Perform a pre-lift analysis
- Plan a lift
- Rig loads
- Tie knots, bends and hitches
- Maintain rigging equipment
- Hoist loads with cranes
- Hoist loads with tuggers
- Hoist loads with manually operated hoisting equipment

## LINE F: LAY OUT, FABRICATE AND ASSEMBLE VESSELS AND COMPONENTS

- Use measurement and layout tools
- Use parallel and radial line development techniques
- Inspect and maintain measurement and layout tools
- Apply layout techniques
- Erect boilers and tanks according to job specifications
- Install fittings
- Expand tubes

## LINE G: MAINTAIN, UPGRADE, REPAIR VESSELS AND COMPONENTS

- Perform destructive and non-destructive testing procedures
- Inspect vessels and components for defects
- Remove materials from vessels and components

Supervisor Signature

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# NOTES FROM LEVEL 1

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## LEVEL 2

### **IMPORTANT!**

Download the Program Outline!

<https://skilledtradesbc.ca/boilermaker>

Read the competency tables

Some competencies are taught in many levels

For detailed information about that competency, go to the Program Outline

## THEORY

### **LINE C: ORGANIZE WORK**

- Analyse a drawing in detail
- Describe considerations when handling materials and relevant components

### **LINE G: MAINTAIN, UPGRADE, REPAIR VESSELS AND COMPONENTS**

- Identify metallurgical properties of vessels and components
- Recognize common vessel and component defects



# PRACTICAL

## LINE B: USE TOOLS, EQUIPMENT AND WORK PLATFORMS

- Select power tools and shop fabrication equipment
- Use power tools
- Use shop fabrication tools
- Inspect power tools and accessories
- Inspect fabrication tools
- Perform various methods of cutting plate
- Perform a rigging removal analysis
- Plan access for rigging removal

## LINE C: ORGANIZE WORK

- Handle materials and relevant components according to job requirements

## LINE D: PERFORM CUTTING AND WELDING ACTIVITIES

- Perform various methods of cutting on plate and tubes
- Prepare and fit joints for a hopper
- Perform basic welding for a hopper
- Use distortion control

## LINE E: USE RIGGING HOISTING AND LIFTING EQUIPMENT

- Perform a pre-lift analysis
- Plan a lift
- Apply formulas for rigging loads
- Rig and secure loads
- Hoist loads with cranes
- Assemble and disassemble jib

## LINE F: LAY OUT, FABRICATE AND ASSEMBLE VESSELS AND COMPONENTS

- Use measurement and layout tools to lay out a hopper
- Construct a metal hopper
- Perform hand lay-ups of fibreglass
- Bolt components using bolt tensioning equipment
- Remove and replace exchanger tubes

## LINE G: MAINTAIN, UPGRADE, REPAIR VESSELS AND COMPONENTS

- Upgrade vessels and components
- Perform preventative maintenance on vessels and components
- Dismantle bolted up components

Supervisor Signature

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## NOTES FROM LEVEL 2

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## LEVEL 3

### IMPORTANT!

Download the Program Outline!

<https://skilledtradesbc.ca/boilermaker>

Read the competency tables

Some competencies are taught in many levels

For detailed information about that competency, go to the Program Outline

## THEORY

### LINE C: ORGANIZE WORK

- Analyse multiple technical drawings in detail
- Describe considerations when handling materials and relevant components
- Demonstrate knowledge of learning skills
- Demonstrate knowledge of teaching skills

### LINE G: MAINTAIN, UPGRADE, REPAIR VESSELS AND COMPONENTS

- Describe codes for vessel inspection and construction
- Describe advanced testing

# PRACTICAL

## LINE B: USE TOOLS, EQUIPMENT AND WORK PLATFORMS

- Select appropriate grinders for pipe and nozzle application
- Use appropriate grinders for pipe and nozzle application
- Inspect power tools
- Cut pipe and vessel shells using various methods and tools
- Plan access to attachment points for rigging purposes

## LINE C: ORGANIZE WORK

- Apply information to perform layout for fabrication
- Handle materials and relevant components according to job requirements

## LINE D: PERFORM CUTTING AND WELDING ACTIVITIES

- Cut pipe using various methods and tools
- Prepare and fit joints for piping, nozzle installation and patch
- Perform basic welding for piping, nozzle installation and patch
- Use distortion control

## LINE E: USE RIGGING HOISTING AND LIFTING EQUIPMENT

- Plan and make a lift using a spreader bar
- Lift and transfer loads through an obstacle course
- Plan and execute a multiple-component lift
- Plan and execute lifts using tuggers
- Follow regulations for fabricating rigging equipment

## LINE F: LAY OUT, FABRICATE AND ASSEMBLE VESSELS AND COMPONENTS

- Use measurement and layout tools to layout pipe
- Lay out and fabricate given pipe configurations
- Fabricate and install a nozzle in a vessel and use the cut-out to complete a flush patch
- Lay out and install nozzle
- Install flush patch
- Remove and replace fire tubes
- Perform hand lay-ups of fibreglass

## LINE G: MAINTAIN, UPGRADE, REPAIR VESSELS AND COMPONENTS

- Upgrade vessels and components
- Perform preventative maintenance on vessels and components
- Dismantle welded vessels and components
- Remove flange and nozzle from vessel

Supervisor Signature

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## NOTES FROM LEVEL 3

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## MISSING COMPETENCIES?

To develop the best journeyperson possible employers should attempt to provide training in all competencies for the trade. This is not always possible.

If your employer is unable to provide training in any competency required for your trade, note that competency below. Competencies listed here will remain unsigned until your employer can provide training in that area or until you find an alternate way to gain the experience needed.

Competency:	Date:
Reason:	
Alternate plan:	

Competency:	Date:
Reason:	
Alternate plan:	



# TECHNICAL TRAINING

## Instructions

Keep a record of each level of technical training completed.

### Level 1

Date Completed:	Training Provider:
Mark:	Instructor:

### Level 2

Date Completed:	Training Provider:
Mark:	Instructor:

### Level 3

Date Completed:	Training Provider:
Mark:	Instructor:

# COMPLETION REQUIREMENTS

## Instructions

Keep a record of each program completion requirement achieved.

## BOILERMAKER

- Level 1 - Technical Training
- Level 2 - Technical Training
- Level 3 - Technical Training
  
- 4,950 Work-Based Training Hours
  
- Interprovincial Red Seal examination
- Recommendation for Certification signed by sponsor

Note: After all other completion requirements have been met, SkilledTradesBC sends a Recommendation for Certification form to the sponsor requesting signoff.

# CERTIFICATIONS

## Instructions

Keep a record of the credentials and endorsements you have earned, including the certification number and date of issue.

CREDENTIAL EARNED	NUMBER	DATE OF ISSUE

*If you have any questions, please contact SkilledTradesBC  
Customer Service at [customerservice@skilledtradesbc.ca](mailto:customerservice@skilledtradesbc.ca)  
778-328-8700 or toll free (within BC) at 1-800-660-6011*