

# **PERSONAL RECORD BOOK**

**Metal Fabricator (Fitter)** 



This is your Record Book!

# DO NOT SUBMIT TO THE ITA

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 upto-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 signoff of hours and sign-off of competencies once you have achieved the required level of skills and knowledge.

# **APPRENTICE IDENTIFICATION**

### Trade: METAL FABRICATOR (FITTER)

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:

- Update Workplace Hours through a <u>Work-Based Training Hours form</u> for the current reporting period and get signoff by your employer.
- Update Record of Competencies with your supervisor.
- Confirm with your employer that your workplace hours have been reported to ITA, and if possible get a copy of all Work-Based Training Hours reports submitted.
- Notify the ITA of the change in your employment by submitting an <u>Apprentice</u> <u>and Sponsor Registration form</u> with your new employer.

When re-employed...

You must be registered with your new employer before submitting any workbased training hours to the ITA.

### **Subsequent Employers**

Start Date:	End Date:
Employer:	I
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 the ITA.

- 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 the ITA 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://www.itabc.ca/program/metal-fabricator-fitter

#### Apprenticeship Toolkit

For general information on apprenticeship and tips for navigating the apprenticeship system in BC visit ITA's website to learn about the *apprenticeship basics*.



### **IMPORTANT!**

**Download the Program Outline!** 

https://www.itabc.ca/program/metal-fabricator-fitter

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

DESCRIBE SAFE WORK RULES AND PROCEDURES

**DESCRIBE FIRE PREVENTION METHODS AND PRECAUTIONS** 

DESCRIBE REQUIREMENTS FOR WORKING IN CONFINED SPACES

### LINE B: USE TOOLS AND EQUIPMENT

- DESCRIBE THE PROCEDURES FOR USING VARIOUS SPECIALIZED MEASURING TOOLS
- DESCRIBE THE USE OF NIBBLERS
- EXPLAIN SAFETY CONSIDERATIONS FOR STATIONARY MACHINERY
- DESCRIBE VARIOUS THERMAL CUTTING METHODS
- DESCRIBE WELDING EQUIPMENT
- □ IDENTIFY MOTORIZED ACCESS PLATFORMS

### LINE C: INTERPRET PLANS, DRAWINGS AND SPECIFICATIONS

- DESCRIBE AN ORTHOGRAPHIC DRAWING
- □ IDENTIFY STANDARD SYMBOLS AND ABBREVIATIONS ON DRAWINGS
- □ INTERPRET SPECIFICATIONS
- □ INTERPRET WELDING SYMBOLS
- DESCRIBE ADVANTAGES AND DISADVANTAGES OF CAD DRAWINGS
- INTERPRET STRUCTURAL STEEL DRAWING

### LINE D: PERFORM QUALITY CONTROL

- DESCRIBE TYPES AND APPLICATIONS OF FABRICATION CODES
- DESCRIBE INSPECTION AND NON-DESTRUCTIVE INSPECTION TECHNIQUES
- DESCRIBE THE CHARACTERISTICS OF VARIOUS TYPES OF STEELS
- DESCRIBE EFFECTS OF HEAT ON METALS
- DESCRIBE METHODS OF RELIEVING STRESS ON METALS
- DESCRIBE STANDARD TYPES AND METHODS OF TESTING COMMON METALS
- DESCRIBE THE ELEMENTS THAT CONTRIBUTE TO DISTORTION IN FABRICATION
- DESCRIBE HOW DISTORTION CAN BE OBSERVED AND MEASURED

### INE E: HANDLE MATERIALS

DESCRIBE SAFE RIGGING PROCEDURES

□ IDENTIFY THE LAYDOWN AREA REQUIREMENTS

### LINE F: PERFORM TRADE MATH AND LAYOUT

- DEFINE BASIC LAYOUT TERMS AND SEQUENCES
- DETERMINE STRETCH OUT LENGTHS

### LINE H: FABRICATE COMPONENTS

DESCRIBE FABRICATED COMPONENTS

LINE I: PERFORM WELDING ACTIVITIES

**IDENTIFY WELDING CODES AND STANDARDS** 

### PRACTICAL

### LINE B: USE TOOLS AND EQUIPMENT

- DESCRIBE AND MAINTAIN MEASURING, LAYOUT AND HAND TOOLS
- DESCRIBE AND MAINTAIN BENCH AND HAND GRINDERS
- DESCRIBE AND MAINTAIN HANDHELD POWER TOOLS
- USE AND MAINTAIN STATIONARY MACHINERY
- USE OXY-FUEL CUTTING EQUIPMENT
- SELECT AND IDENTIFY LADDERS, SCAFFOLDS AND PLATFORMS

### LINE C: INTERPRET PLANS, DRAWINGS AND SPECIFICATIONS

- SKETCH MULTI-VIEW DRAWINGS OF OBJECTS USING ISOMETRIC AND ORTHOGRAPHIC PROJECTION
- SKETCH DETAIL, AUXILIARY AND SECTION VIEWS
- □ CONSTRUCT A BILL OF MATERIAL
- DEVELOP A SIMPLE ESTIMATE

### LINE E: HANDLE MATERIALS

- □ CONVERT METRIC AND IMPERIAL UNITS
- □ CALCULATE AREA AND WEIGHTS/MASS OF VARIOUS PLATE SHAPES
- □ APPLY WORKSAFEBC REGULATIONS
- APPLY RIGGING METHODS TO LIFT LOADS
- DEVELOP A LIFT PLAN
- SELECT APPROPRIATE LIFTING AIDS AND EQUIPMENT FOR LIFTING JOBS

#### LINE F: PERFORM TRADE MATH AND LAYOUT

- **CREATE PATTERNS USING PARALLEL LINE DEVELOPMENT**
- DEVELOP SKETCHES OF FLAT PLATE LAYOUT

**SOLVE SIMPLE PROBLEMS USING RATIO AND PROPORTION** 

SOLVE A VARIETY OF PROBLEM TYPES INVOLVING WEIGHT, MASS AND THE CAPACITY OF VESSELS

#### LINE G: FORM MATERIALS

- **FABRICATE A J-HOOK**
- **FABRICATE A RING TO RING** 
  - **FABRICATE A 3-PIECE, 90° ELBOW COMPLETE WITH BRANCH**

#### LINE H: FABRICATE COMPONENTS

- □ ASSEMBLE AND USE JIGS
- LAYOUT AND DESIGN TEMPLATES
- □ FABRICATE A STRUCTURAL BEAM ASSEMBLY

LINE I: PERFORM WELDING ACTIVITIES

- APPLY STANDARD SYMBOLS
  - USE SMAW AND GMAW WELDING PROCESSES
- **PERFORM TACK WELDS**

Supervisor Signature

### **NOTES FROM LEVEL 1**

Note:			
Note:			

### **IMPORTANT!**

**Download the Program Outline!** 

https://www.itabc.ca/program/metal-fabricator-fitter

Read the competency tables Some competencies are taught in many levels For detailed information about that competency, go to the Program Outline

### THEORY

LINE B: USE TOOLS AND EQUIPMENT

□ IDENTIFY THE CNC SHAPE CUTTING MACHINE

### LINE C: INTERPRET PLANS, DRAWINGS AND SPECIFICATIONS

- □ INTERPRET COMPLEX DRAWINGS AND SPECIFICATIONS
- DESCRIBE CAD GENERATED DRAWINGS
- □ INTERPRET COMPLEX STRUCTURAL STEEL DRAWING
- DESCRIBE ELECTRONIC DETAILING

### LINE D: PERFORM QUALITY CONTROL

- DESCRIBE STRUCTURAL LAYOUT SYSTEMS
- □ IDENTIFY STRUCTURAL SHAPES AND NOMENCLATURE
- DESCRIBE THE PURPOSE AND METHOD OF LABELLING STRUCTURAL COMPONENTS
- DESCRIBE METHODS AND EQUIPMENT USED IN METAL IDENTIFICATION
- ☐ IDENTIFY METHODS OF RELIEVING STRESS ON METALS
- DESCRIBE STANDARD TYPES AND METHODS OF TESTING COMMON METALS
- DESCRIBE THE TOOLS AND EQUIPMENT USED TO MEASURE PREHEAT TEMPERATURES

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- DESCRIBE DISTORTION ALLOWANCES
- DESCRIBE PROCESSES TO CONTROL DISTORTION
- DESCRIBE PROCEDURES TO MINIMIZE DISTORTION

### LINE F: PERFORM TRADE MATH AND LAYOUT

- DETERMINE STRETCH OUT LENGTHS
- □ INTERPRET COMPLEX SKETCHES TO DEVELOP FLAT PLATE LAYOUT

#### LINE G: FORM MATERIALS

- DESCRIBE POWER PLATE ROLLS
- DESCRIBE THE VARIOUS SOFTWARE PROGRAM FUNCTIONS

### **\_INE H: FABRICATE COMPONENTS**

- INTERPRET STRUCTURAL DRAWINGS
- DESCRIBE FASTENERS USED IN FABRICATION
- DESCRIBE FITTING CONSIDERATIONS
- DESCRIBE LEVELLING FABRICATED COMPONENTS USING THE BUILDER'S LEVEL

### LINE I: PERFORM WELDING ACTIVITIES

- □ INTERPRET WELDING CODES AND STANDARDS
- □ INTERPRET WELDING PROCEDURE DATA SHEET (WPDS)
- DESCRIBE STANDARD WELD INSPECTION SYMBOLS
- DESCRIBE FCAW AND GTAW WELDING PROCESSES

### PRACTICAL

### LINE A: PERFORM SAFETY-RELATED FUNCTIONS

USE FALL ARREST/PREVENTION EQUIPMENT

DESIGN A CONFINED SPACE ENTRY PLAN

### LINE B: USE TOOLS AND EQUIPMENT

- USE PLASMA-ARC CUTTING PROCESS
- USE CNC SHAPE CUTTING MENUS

### LINE C: INTERPRET PLANS, DRAWINGS AND SPECIFICATIONS

- SKETCH VIEWS OF COMPLEX OBJECTS
- APPLY STANDARD SYMBOLS, ABBREVIATIONS AND SPECIFICATIONS
- DRAW COMPLEX WELDING SYMBOLS
- DRAW VIEWS OF COMPLEX OBJECTS
- **CONSTRUCT A BILL OF MATERIAL**
- DEVELOP A COMPLEX ESTIMATE

### LINE D: PERFORM QUALITY CONTROL

- APPLY QUALITY CONTROL
- DEVELOP A BILL OF MATERIAL

### LINE F: PERFORM TRADE MATH AND LAYOUT

- DEVELOP VARIOUS PATTERNS USING RADIAL LINE DEVELOPMENT
- □ CALCULATE MASS AND DIAGONALS
- PERFORM ARC LENGTH CALCULATIONS
- DEVELOP CONE PATTERNS
- DEVELOP HOPPER LAYOUTS

### LINE G: FORM MATERIALS

- **FORM MATERIAL USING SHAPE ROLLS**
- USE THE HYDRAULIC BRAKE PRESS
- PERFORM COMPLEX FORMING OPERATIONS
- FORM MATERIALS USING COMPUTER NUMERICAL CONTROLLED (CNC) BRAKE PRESS
- **FABRICATE A HOPPER**
- **FABRICATE A CONE**
- USE A THREAD CUTTING MACHINE
- □ FABRICATE A FOUR-NOZZLE TANK ASSEMBLY

#### INE H: FABRICATE COMPONENTS

- CONSTRUCT A JIG
- CONSTRUCT A TEMPLATE
- APPLY CODES AND SPECIFICATIONS
- APPLY QUALITY CONTROL
- TRANSFER DIMENSIONS TO MATERIAL
- PLAN FOR THE INSTALLATION AND ASSEMBLY OF ALL COMPONENTS ON SITE
- ☐ FABRICATE A STAIR ASSEMBLY COMPLETE WITH HANDRAIL

#### LINE I: PERFORM WELDING ACTIVITIES

APPLY COMPLEX WELD SYMBOLS

Supervisor Signature

### NOTES FROM LEVEL 2

Note:	
Note:	



### **IMPORTANT!**

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Read the competency tables Some competencies are taught in many levels For detailed information about that competency, go to the Program Outline

### THEORY

LINE B: USE TOOLS AND EQUIPMENT

DESCRIBE THE CNC SHAPE CUTTING MACHINE

LINE C: INTERPRET PLANS, DRAWINGS AND SPECIFICATIONS

□ INTERPRET ADVANCED MULTI-DRAWING SETS

INTERPRET AN ADVANCED STRUCTURAL STEEL DRAWING

LINE E: HANDLE MATERIALS

IDENTIFY SPECIFIC HANDLING AND STORAGE REQUIREMENTS FOR SPECIALTY MATERIALS AND PRODUCTS

LINE F: PERFORM TRADE MATH AND LAYOUT

DETERMINE STRETCH OUT LENGTHS

LINE H: FABRICATE COMPONENTS

□ INTERPRET COMPLEX STRUCTURAL DRAWINGS

LINE I: PERFORM WELDING ACTIVITIES

□ INTERPRET WELDING CODES AND STANDARDS

### LINE J: COMPLETE PROJECT

- DESCRIBE FINISHING PROCESSES
- DESCRIBE SAFETY AND ENVIRONMENTAL CONSIDERATIONS
- DESCRIBE METHODS AND EQUIPMENT USED
  - DESCRIBE METHODS USED TO PREPARE MATERIAL FOR FINISHING

### PRACTICAL

### LINE A: PERFORM SAFETY-RELATED FUNCTIONS

- APPLY THE FIELD LEVEL RISK ASSESSMENT (FLRA)
- APPLY THE JOB HAZARD ASSESSMENT (JHA)
- **CONDUCT AN ECCENTRIC LIFT**

### LINE B: USE TOOLS AND EQUIPMENT

USE THE CNC SHAPE CUTTING FEATURES

#### LINE C: INTERPRET PLANS, DRAWINGS AND SPECIFICATIONS

- □ APPLY SPECIFICATIONS
- APPLY WELDING SYMBOLS
- DEVELOP SIMPLE CAD DETAILS
- DEVELOP A DETAILED ESTIMATE
- USE COMPUTER SOFTWARE TO CONDUCT A SIMPLE TAKE-OFF
- DEVELOP AN ADVANCED ESTIMATE

### LINE D: PERFORM QUALITY CONTROL

- APPLY QUALITY CONTROL TO STRUCTURAL COMPONENTS
- DEVELOP A COMPLEX BILL OF MATERIAL
- CREATE AN ESTIMATE
- □ APPLY CONTROL METHODS TO PREVENT DISTORTION

#### LINE F: PERFORM TRADE MATH AND LAYOUT

- DEVELOP PATTERNS USING THE TRIANGULATION METHOD
- INTERPRET ADVANCED SKETCHES TO DEVELOP FLAT PLATE LAYOUT
- CALCULATE MASS AND DIAGONALS
- **SOLVE PROBLEMS USING TRIGONOMETRIC FUNCTIONS**

USE TRIANGULATION TO DEVELOP PATTERNS

SOLVE ADVANCED PROBLEMS INVOLVING MASS AND THE CAPACITY OF VESSELS

### LINE G: FORM MATERIALS

- **FORM MATERIAL USING SHAPE ROLLS**
- PERFORM COMPLEX FORMING OPERATIONS
- USE MACHINE OPERATIONS SOFTWARE
- FORM MATERIALS USING COMPUTER NUMERICAL CONTROLLED (CNC) BRAKE PRESS
- **FABRICATE A SQUARE TO ROUND TRANSITION**

### INE H: FABRICATE COMPONENTS

- CONSTRUCT A COMPLEX JIG
- LAYOUT A COMPLEX TEMPLATE
- APPLY CODES AND SPECIFICATIONS
- APPLY QUALITY CONTROL
- CONSTRUCT A MATERIAL LIST
- PLAN FOR FABRICATION
- PLAN FOR THE INSTALLATION AND ASSEMBLY OF ALL COMPONENTS
- USE BUILDER'S LEVEL TO ESTABLISH ELEVATIONS
- **FABRICATE A STRUCTURAL FRAME ASSEMBLY**

### LINE I: PERFORM WELDING ACTIVITIES

APPLY ADVANCED WELD SYMBOLS

Supervisor Signature

### NOTES FROM LEVEL 3

Note:			
Note:			

# **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.

### **METAL FABRICATOR (FITTER)**

Level 1 - Technical Training

Level 2 - Technical Training

Level 3 - Technical Training

□ 4,800 Work-Based Training Hours

□ ITA Interprovincial Red Seal examination

□ Recommendation for Certification signed by sponsor

Note: After all other completion requirements have been met, ITA 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 ITA Customer Service at <u>customerservice@itabc.ca</u> 778-328-8700 or toll free (within BC) at 1-800-660-6011