

OCCUPATIONAL TOOL AND EQUIPMENT LIST

Ironworker (Generalist)



Government of Newfoundland Labrador
Department of Education and Early Childhood Development
Apprenticeship and Trades Certification Division

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Preface

This document is intended as a companion to the 2012 Plan of Training for the **Ironworker (Generalist)** occupation. It identifies the necessary tools and equipment required by apprentices and training institutions for the completion of apprenticeships.

Acknowledgements

Advisory committees, industry representatives, instructors and apprenticeship staff provided valuable input to the development of this document. Without their dedication to quality apprenticeship training, this document could not have been produced.

We offer you a sincere thank you.

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Note:

The numbers suggested in the following Tool and Equipment List represent the required minimum. Please verify this list with your selected training institution.

Tools and Equipment List Ironworker (Generalist)

| SECTION A: TOOLS AND EQUIPMENT REQUIRED BY STUDENT | | | |
|--|-------------------------------|--|---|
| Item | Units for Individual Students | Required for Entry (E) Advanced (A) Both (B) | Comments |
| Hand Tools | | | |
| Adjustable Wrench | 1 | B | Item is listed for both Student and Institution |
| Bolt Bag | 1 | B | Item is listed for both Student and Institution |
| Chipping Hammer | 1 | B | Item is listed for both Student and Institution |
| Flashlight | 1 | B | Item is listed for both Student and Institution |
| Hammer (4lb) | 1 | B | Item is listed for both Student and Institution |
| Knives | 1 | B | Item is listed for both Student and Institution |
| Pliers | 1 set | B | Item is listed for both Student and Institution |
| Rod Bag | 1 | B | Item is listed for both Student and Institution |
| Side/Diagonal Cutters | 1 | B | Item is listed for both Student and Institution |
| Tool Belt | 1 | B | |
| Measuring and Layout Equipment | | | |
| Measuring Tape | 1 | B | Item is listed for both Student and Institution |
| Personal Protective Equipment (PPE) | | | |
| Chin Straps (Hat) | 1 | B | Item is listed for both Student and Institution |

SECTION A: TOOLS AND EQUIPMENT REQUIRED BY STUDENT

| Item | Units for Individual Students | Required for Entry (E) Advanced (A) Both (B) | Comments |
|----------------------------|-------------------------------|--|---|
| Coveralls (Fire Retardant) | 1 | B | |
| Ear Plugs | 1 | B | Item is listed for both Student and Institution |
| Face Shield | 1 | B | Item is listed for both Student and Institution |
| Gloves | 1 | B | Item is listed for both Student and Institution |
| Goggles | 1 | B | Item is listed for both Student and Institution |
| Hard Hat | 1 | B | Item is listed for both Student and Institution |
| Insulated Gloves | 1 | B | Item is listed for both Student and Institution |
| Rubber Gloves | 1 | B | Item is listed for both Student and Institution |
| Safety Belt | 1 | B | Item is listed for both Student and Institution |
| Safety Glasses | 1 | B | Item is listed for both Student and Institution |
| Safety Vest | 1 | B | Item is listed for both Student and Institution |
| Steel Toe Boots | 1 | B | |
| Welding Gloves | 1 | B | Item is listed for both Student and Institution |
| Welding Helmet | 1 | B | Item is listed for both Student and Institution |
| Welding Jacket | 1 | B | Item is listed for both Student and Institution |
| Welding Shield | 1 | B | Item is listed for both Student and Institution |

| SECTION B: TOOLS AND EQUIPMENT REQUIRED BY TRAINING INSTITUTION | | | | |
|---|-----------------------|---------------------------|--|---|
| Item | Units per 15 Students | Maximum Students per Unit | Required for Entry (E) Advanced (A) Both (B) | Comments |
| Hand Tools | | | | |
| Adjustable Wrench | 3 | 5 | B | Item is listed for both Student and Institution |
| Aligning Bar (Sleeve Bar) | 1 | 15 | B | |
| Allen Key Set | 1 set | 15 per set | B | |
| Bar clamps (6", 8" and 12") | 2 of each | 8 per each | B | |
| Beam Clamps | 1 | 15 | B | |
| Bolt Bag | 3 | 5 | B | Item is listed for both Student and Institution |
| Bolt Cutters | 1 set | 15 per set | B | |
| Centre Punch | 6 | 3 | B | |
| Chalk Line | 2 | 8 | B | |
| Chipping Hammer | 3 | 5 | B | Item is listed for both Student and Institution |
| Cold Chisel | 2 | 8 | B | |
| Combination Square | 2 | 8 | B | |
| Combination Wrench Set | 1 set | 15 per set | B | |
| Drill Bits (Asst Sizes) | 1 set | 15 per set | B | |
| Files (Asst Sizes) | 1 set | 15 per set | B | |
| Flashlight | 3 | 5 | B | Item is listed for both Student and Institution |

| SECTION B: TOOLS AND EQUIPMENT REQUIRED BY TRAINING INSTITUTION | | | | |
|---|-----------------------|---------------------------|--|---|
| Item | Units per 15 Students | Maximum Students per Unit | Required for Entry (E) Advanced (A) Both (B) | Comments |
| Hack saw | 6 | 3 | B | |
| Hammers (sledge) | 2 | 8 | B | |
| Hammers (4 lb) | 3 | 5 | B | Item is listed for both Student and Institution |
| Knives | 3 | 5 | B | Item is listed for both Student and Institution |
| Knocker (slam wrench) | 1 | 15 | B | |
| Needle Nose Pliers | 2 | 8 | B | |
| Nut Drivers | 1 set | 15 per set | B | |
| Pins (drift, and bull) | 1 of each | 15 per each | B | |
| Pipe Cutters | 1 set | 15 per set | B | |
| Pipe Wrench | 1 | 15 | B | |
| Pliers | 3 sets | 5 per set | B | Item is listed for both Student and Institution |
| Pry Bar | 2 sets | 8 per set | B | |
| Punch | 1 set | 15 per set | B | |
| Reamers (asst. sizes but require 3/4") | 1 set | 15 per set | B | |
| Reel Wire Holder | 1 | 15 | B | |
| Rod Bag | 3 | 5 | B | Item is listed for both Student and Institution |
| Scrapers | 6 | 3 | B | |
| Screwdrivers: Robertson, Phillips, Flat Blades | 2 of each | 8 for each | B | |
| Side/Diagonal Cutters | 3 | 5 | B | Item is listed for both Student and Institution |
| Socket Set | 1 set | 15 per set | B | |

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|---|-----------------------|---------------------------|--|--------------------------|
| Item | Units per 15 Students | Maximum Students per Unit | Required for Entry (E) Advanced (A) Both (B) | Comments |
| Spud Wrench | 1 | 15 | B | |
| Tap Set | 1 set | 15 per set | B | |
| Die Set | 1 set | 15 per set | B | |
| Tin Snips | 2 sets | 8 per set | B | |
| Tool Bucket | 6 | 3 | B | |
| Wire Brush | 10 | 2 | B | |
| Power Tools and Equipment | | | | |
| Air Chisel | 1 | 15 | B | |
| Band Saw/Electrical Saw | 1 | 15 | B | |
| Chop Saw | 1 | 15 | B | |
| Circular Saw | 1 | 15 | B | |
| Compressor | 1 | 15 | B | Can be a possible rental |
| Disk | 12 | 2 | B | |
| Gas Cut-off Saw | 1 | 15 | B | |
| Generator | 1 | 15 | B | |
| Grinder (bench) | 2 | 8 | B | |
| Grinder (portable) | 6 | 3 | B | |
| Hammer Drill | 1 | 15 | B | |
| Hydraulic Jacks | 1 | 15 | B | |
| Bottle Jacks | 1 | 15 | B | |
| Impact Gun (Electric) | 1 | 15 | B | |
| Impact Gun (Air) | 1 | 15 | B | |

| SECTION B: TOOLS AND EQUIPMENT REQUIRED BY TRAINING INSTITUTION | | | | |
|---|-----------------------|---------------------------|--|---|
| Item | Units per 15 Students | Maximum Students per Unit | Required for Entry (E) Advanced (A) Both (B) | Comments |
| Mag Drill | 1 | 15 | B | |
| Peening Tool | 1 | 15 | B | |
| Pencil Grinder | 1 | 15 | B | |
| Porta Band Saw | 1 | 15 | B | |
| Powder Actuated Tool | 1 | 15 | B | |
| Power Drill | 1 | 15 | B | |
| Reciprocating Saw | 1 | 15 | B | |
| Riveting Gun | 1 | 15 | B | |
| Tension Control Gun | 1 | 15 | B | Can be a possible rental |
| Measuring and Layout Equipment | | | | |
| Bevel Squares | 2 | 8 | B | |
| Builders Level | 2 | 8 | B | |
| Measuring Tape | 3 | 5 | B | Item is listed for both Student and Institution |
| Optical Levels | 1 | 15 | B | |
| Piano Wire | 1 roll | 15 per roll | B | |
| Plumb Bob | 6 | 3 | B | |
| Rod Level | 1 | 15 | B | |
| Scale/Slide Rule | 1 | 15 | B | |
| Squares (Framing, Combination) | 1 | 15 | B | |
| Straight Edges | 1 | 15 | B | |
| Torpedo Level | 1 | 15 | B | |
| Transit | 1 | 15 | B | |

| SECTION B: TOOLS AND EQUIPMENT REQUIRED BY TRAINING INSTITUTION | | | | |
|---|-----------------------|---------------------------|--|---|
| Item | Units per 15 Students | Maximum Students per Unit | Required for Entry (E) Advanced (A) Both (B) | Comments |
| Tripod | 1 | 15 | B | |
| Safety Equipment | | | | |
| Air Movers (Fans) | 6 | 3 | B | |
| Anchor Points | 7 | 2 | B | |
| Cables/Life Lines | 7 | 2 | B | |
| Chin Straps (Hat) | 3 | 5 | B | Item is listed for both Student and Institution |
| Eye Wash Facilities | 1 | 15 | B | |
| Fire Blankets | | | B | as per fire inspection regulations |
| Fire Extinguishers | | | B | as per fire inspection regulations |
| Life Lines | 1 | 15 | B | |
| Portable Lighting | 1 | 15 | B | Can be a possible rental |
| Ropes (Fiber) | 1 coil | 15 | B | |
| Ropes (Wire) | 6 wire | 3 | B | |
| Stanchion Posts | 1 | 15 | B | |
| Warning Tape | 1 roll | 15 per roll | B | |
| Welding Flash Screens (Stationary/Portable) | 15 | 1 | B | where less than 15 a rotation is required |
| Personal Protective Equipment (PPE) | | | | |
| Chin Straps (Hat) | 3 | 5 | B | |
| Coveralls (Fire Retardant) | 1 | 15 | B | |
| Ear Plugs | 3 | 5 | B | Item is listed for both Student and Institution |

| SECTION B: TOOLS AND EQUIPMENT REQUIRED BY TRAINING INSTITUTION | | | | |
|---|-----------------------|---------------------------|--|---|
| Item | Units per 15 Students | Maximum Students per Unit | Required for Entry (E) Advanced (A) Both (B) | Comments |
| Face Shield | 3 | 5 | B | Item is listed for both Student and Institution |
| Fall Arresters | 1 | 15 | B | |
| Full Body Harness | 15 | 1 | B | |
| Gloves | 3 | 5 | B | Item is listed for both Student and Institution |
| Goggles | 3 | 5 | B | Item is listed for both Student and Institution |
| Hard Hat | 3 | 5 | B | Item is listed for both Student and Institution |
| Insulated Gloves | 3 | 5 | B | Item is listed for both Student and Institution |
| Retractable Lanyard | 1 | 15 | B | |
| Rope Grabs | 1 set | 15 per set | B | |
| Rubber Gloves | 3 | 5 | B | Item is listed for both Student and Institution |
| Safety Belt | 3 | 5 | B | Item is listed for both Student and Institution |
| Safety Glasses | 3 | 5 | B | Item is listed for both Student and Institution |
| Safety Vest | 3 | 5 | B | Item is listed for both Student and Institution |
| Welding Apron | 1 | 15 | B | |
| Welding Gloves | 3 | 5 | B | Item is listed for both Student and Institution |
| Welding Helmet | 3 | 5 | B | Item is listed for both Student and Institution |
| Welding Jacket | 3 | 5 | B | Item is listed for both Student and Institution |
| Welding Shield | 3 | 5 | B | Item is listed for both Student and Institution |
| Scaffolding and Access Equipment | | | | |

| SECTION B: TOOLS AND EQUIPMENT REQUIRED BY TRAINING INSTITUTION | | | | |
|--|-----------------------|--|--|--------------------------|
| Item | Units per 15 Students | Maximum Students per Unit | Required for Entry (E) Advanced (A) Both (B) | Comments |
| Aerial Work Platforms | 1 | 15 | B | Can be a possible rental |
| Aluminum Framed Platform with Planks | 1 | 15 | B | Can be a possible rental |
| Extension Ladder | 1 | 15 | B | |
| Sawhorses | 2 | 8 | B | |
| Stepladders | 1 | 15 | B | |
| Tube and Clamps | 1 | 15 | B | |
| Overhead Crane | 1 | 15 | B | Minimum 5 ton |
| Specialty Tools and Equipment (Welding and Cutting Tools) | | | | |
| Arc Air (Gouger) | 1 | 15 | B | |
| Arc Welding Machine | 7 | Rotation schedule needed for class of 15 | B | |
| Cutting Tools (oxygen, acetylene, propane (propane is optional)) | 1 set | 15 per set | B | |
| Cutting Tool Torches | 3 sets | 6 | B | |
| Cutting Tool Gauges | 3 sets | 6 | B | |
| Cutting Tool Hoses | 3 sets | 6 | B | |
| MIG welder | 1 | 15 | B | |
| Plasma Cutter | 1 | 15 | B | |
| Stud Welding Equipment | 1 | 15 | B | |
| Stud Welding Gun | 1 | 15 | B | |
| Tiger Torch | 1 | 15 | B | |
| Handling Equipment | | | | |

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|---|-----------------------|---------------------------|--|--------------------------|
| Item | Units per 15 Students | Maximum Students per Unit | Required for Entry (E) Advanced (A) Both (B) | Comments |
| Boom Trucks | 1 | 15 | B | Can be a possible rental |
| Chain Falls | 1 | 15 | B | |
| Come-Along | 1 | 15 | B | |
| Pallet Jack | 1 | 15 | B | |
| Rigging Equipment | | | | |
| Cable Clamps | 12 | 2 | B | |
| Dunnage (wood) | | | B | As needed |
| Equalizer Beam (part of boom truck) | 1 | 15 | A | |
| Fiber Rope | 1 coil | 15 | B | |
| Hooks | 1 set | 15 | B | |
| Shackles | 1 set | 15 | B | |
| Softeners (Cardboard etc.) | | | B | As needed |
| Spreaders | 1 | 15 | B | |
| Synthetic Slings | 1 | 15 | B | |
| Turnbuckles | 1 | 15 | B | |
| Wire Rope | 1 coil | 15 | B | |
| Wire Rope Slings | 1 | 15 | B | |