

# OCCUPATIONAL TOOLS AND EQUIPMENT LIST

## **Oil Heat System Technician**



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 2023 Atlantic Apprenticeship Curriculum Standard (AACs) for the Oil Heat System Technician trade. It identifies the necessary tools and equipment required by apprentices and training institutions for the completion of apprenticeships.

## **Acknowledgements**

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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.

**Tool and Equipment List  
 Oil Heat System Technician**

<b>SECTION A: TOOLS AND EQUIPMENT REQUIRED BY STUDENT</b>			
<b>Item</b>	<b>Units for Individual Students</b>	<b>Required for Level 1 &amp; PE (E) Advanced (A) Both (B)</b>	<b>Comments</b>
Gloves	1	B	
Hard Hat	1	B	CSA Type 2, Class E
Linesman Pliers	1	B	
Multimeter	1	B	
Reflective Safety Vest	1	B	CSA approved
Safety Glasses	1	B	CSA approved
Safety Boots	1	B	CSA Grade 1 - electric shock resistant
Screwdriver Set	1	B	
Wire Strippers	1	B	
Wrench Set (Standard and Metric)	1	B	

**SECTION B: TOOLS AND EQUIPMENT REQUIRED BY TRAINING INSTITUTION**

Item	Units Per 15 Students	Maximum Students per Unit	Required for Level 1 & PE (E) Advanced (A) Both (B)	Comments
<b>Fall Arrest Equipment</b>				
Fall Arrest Kit (includes harness, lanyard, anchors)	1 kit	15 per kit	E	For demonstration
<b>Safety Equipment</b>				
CO Detector	--	--	B	As required by OHS regulations
Dust Mask	15+	1+	B	Disposable – replenish as required
Ear Plugs	15+	1+	B	Disposable – replenish as required
Eye Wash Station	--	--	B	As required by OHS regulations
Face Shield	5	3	B	
First Aid Station (including a First Aid Kit)	--	--	B	As required by OHS regulations
Fire Blanket	--	--	B	As required by OHS regulations
Fire Extinguisher	--	--	B	As required by OHS regulations
Gloves	3	5	B	
Hard Hat	3	5	B	
<b>Hand Tools</b>				
Alignment Bar	1	15	B	
Aviation Snips:				
• Left Cut				
• Right Cut				
• Straight Cut	3 of each	5 per each	B	
Burner Brush	2	8	B	
Calipers	4	4	B	

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Item	Units Per 15 Students	Maximum Students per Unit	Required for Level 1 & PE (E) Advanced (A) Both (B)	Comments
Caliper Gauge	2	8	B	
Caulking Gun	2	8	B	
Chisel	1 set	15 per set	E	
Crimper	2	8	B	
Drill Bits	1 set	15 per set	B	
Drive Punch	2 sets	8 per set	E	
Duck Bill Snips	3	5	B	
Easy Out	1	15	E	
Electric Soldering Gun	1	15	E	
Electric Soldering Iron	1	15	E	
Flaring Tool - Single Flare	1 set	15 per set	B	
Flame Mirror	2	8	B	
Flashlight	15	1	B	
Hacksaw	5	3	B	
Hammer:				
• Ball Peen	5 of each	3 per each	B	
• Claw				
• Tinner's				
Hand Metal Punch	1	15	E	
Hand Tube Bender	1	15	B	
Humidity Sling Psychrometer	1	15	B	
Hand Bender Sheet Metal	2	8	E	
Level	2	8	B	
Measuring Tape	2	8	B	
Pipe Hickey	4	4	B	

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Item	Units Per 15 Students	Maximum Students per Unit	Required for Level 1 & PE (E) Advanced (A) Both (B)	Comments
Pipe Threader – Manual: <ul style="list-style-type: none"><li>• Power Pipe</li><li>• Electric Pipe</li><li>• Hand Adjustable Pipe – 1 in.</li><li>• Hand Adjustable Pipe – 2 in.</li></ul>	2	8	B	
Pliers: <ul style="list-style-type: none"><li>• Needle Nose</li><li>• Linesman</li><li>• Side Cutter</li></ul>	2 of each	8 per each	B	
Plumb Bob	1	15	B	
Pop Rivet Gun	2	8	E	
Porcelain Cutter	1	15	B	
Propane Soldering Kit	3	5	E	
Pry Bar	1	15	E	
Puller	1	15	B	
RPM Tester	1	15	E	
Scraper	1	15	B	
Square	2	8	E	
Swaging Tool	1	15	E	
Tap and Die	1 set	15 per set	B	
Try Square	4	4	E	
Trouble Light	2	8	B	
Tube Cutter	3	5	B	
Tube Reamer	1	15	B	

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Item	Units Per 15 Students	Maximum Students per Unit	Required for Level 1 & PE (E) Advanced (A) Both (B)	Comments
Wire Stripper	2	8	B	
Wrench:				
<ul style="list-style-type: none"> <li>• Adjustable – 6 in.</li> <li>• Adjustable – 8 in.</li> <li>• Pipe – 12 in.</li> <li>• Pipe – 18 in.</li> <li>• Pipe – 24 in.</li> <li>• Allen – Metric</li> <li>• Allen – Standard</li> <li>• Open Box End – Metric</li> <li>• Open Box End – Standard</li> <li>• Socket – Metric</li> <li>• Socket - Standard</li> </ul>	2 of each	8 per each	B	
<b>Power Tools</b>				
Cut-Off (Saw All)	1	15	B	
Electric Drill	2	8	E	
Grinder	1	15	B	
Hammer Drill	1	15	B	
Heat Gun	1	15	B	
Pipe Threader - Electric	1	15	B	
Powder-Actuated Tool	1	15	E	
Power Nibbler	1	15	E	
Power Saw	1	15	B	
Reciprocating Saw	1	15	B	
<b>Shop Tools and Equipment</b>				
Bench Grinder	2	8	E	

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Item	Units Per 15 Students	Maximum Students per Unit	Required for Level 1 & PE (E) Advanced (A) Both (B)	Comments
Bench Vice	5	3	B	
Bending Break - 4 ft.	1	15	E	
Circle Shear Sheet Metal	1	15	E	
Computer	1	15	B	
Drill Press	1	15	B	
Duct Pipe Seamer	1	15	E	
Pipe Cutter:				
• 1/8 in.	2 of each	8 per each	B	
• 2 in.				
Sheet Metal Shear	1	15	E	
Sheet Metal Lock Former	1	15	E	
Squaring Shear - 4 ft.	1	15	E	
Spot Welder	1	15	E	
Vacuum Cleaner	1	15	E	
Work Bench	8	2	E	
<b>Appliance Equipment</b>				
Automatic De-Aerator – Tiger Loop	2	8	B	
Cast Iron Radiator	1	15	E	
Chimney:				
• B-Vent				
• L-Vent				
• Oil Pre-Fab				
• Wood Pre-Fab S620	1 of each	15 per each	B	
Direct Vent (Kit and Burner/Furnace)	1	15	E	

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Item	Units Per 15 Students	Maximum Students per Unit	Required for Level 1 & PE (E) Advanced (A) Both (B)	Comments
Electronic Air Cleaner	2	8	E	
Fin-Type Heat Emitter	6	3	E	
Fuel Delivery System Alarm	2	8	E	
Fire Pot	4	4	E	
Oil Burner (various models)	20	1	B	
Oil Fired Hot Water Boiler (various models)	3	5	B	
Oil Fired Hot Water Heater	2	8	B	
Oil Fired Warm Air Furnace (various models)	6	3	B	
Oil Storage Tank - 100 Gal.	1	15	B	
Power Humidifier	2	8	E	
Reillo Burner Repair Kit	2	8	B	
Side Wall Venter	2	8	E	
Stainless Steel Liner	1	15	E	
Steam Boiler	1	15	B	
Tank Gauge	2	8	B	
Trailer Furnace	1	15	E	
Wood Fired Hot Water Furnace	1	15	B	
Wood/Oil Warm Air Furnace	1	15	B	
Wood Warm Air Furnace	1	15	B	
Wood Stove	1	15	B	
Zone Valve	6	3	B	
<b>Measuring and Testing Equipment</b>				

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Item	Units Per 15 Students	Maximum Students per Unit	Required for Level 1 & PE (E) Advanced (A) Both (B)	Comments
Air Velocity Meter	1	15	B	
Calipers:				
• Inside	2 of each	8 per each	E	
• Outside				
Clamp-on Ammeter	2	8	B	
CO <sub>2</sub> Test Kit:				
• Electronic	1 of each	15 per each kit	B	
• Bachrach				
Flame Signal Meter	1	15	B	
Flow Meter	1	15	B	
Hygrometer	1	15	E	
Manometer	1	15	B	
Megohmmeter	1	15	E	
Multimeter	3	5	B	
Pressure Gauge Riello	2	8	B	
Pump Pressure Gauge	4	4	B	
Riello Test Kit	2	8	B	
Tachometer	1	15	B	
Vacuum Gauge Riello	2	8	B	
Pump Vacuum Gauge	2	8	B	
<b>Lifting and Hoisting Equipment</b>				
Extension Ladder - 20 ft. when extended	1	15	B	
Chain Fall	1	15	E	
<b>Warm Air Heating Components</b>				

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Item	Units Per 15 Students	Maximum Students per Unit	Required for Level 1 & PE (E) Advanced (A) Both (B)	Comments
Diffuser (various sizes)	15	1	E	
Duct Fittings (various types and sizes)	10 of each	--	E	
Ductwork:				
• Round (various sizes)	50 ft. of each	--	E	
• Rectangular (various sizes)				
Fan Motor	2	8	B	
Filter (various types)	6	3	E	
Grill (various sizes)	6	3	E	
Register (various sizes)	15	1	E	

**Hot Water Heating Components**

Circulator	4	4	E	
Pipe Fittings:				
• Copper (various sizes)	10 of each	--	B	
• Black Iron (various sizes)				
• Brass (various sizes)				
Pipe:				
• Copper (various sizes)	3 lengths each	--	B	
• Black Iron (various sizes)				

**Steam Heating Components**

Pipe Fittings (various sizes)	5 of each	--	E	
Valves (various sizes and types)	1 of each	--	E	

**Heating Components**

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Item	Units Per 15 Students	Maximum Students per Unit	Required for Level 1 & PE (E) Advanced (A) Both (B)	Comments
Aquastat (various makes and models)	2 of each	--	B	
Cad Cell	10	2	B	
Electronic Energy Saver	2	8	B	
Fuel Pump (various makes and models)	1 of each	15	B	
Igniter	4	4	B	
Nozzles (various makes and sizes)	50	--	B	
Photocell	1	15	B	
Primary Control (various makes and models)	2 of each	8	B	
Stack Switch	2	8	B	
Thermostat:				
• Line Voltage				
• Low Voltage				
• Programmable	2 of each	8	B	
Transformer	4	4	B	
Warm Air Control (various makes and models)	2 of each	8	B	
<b>Consumables</b>				
Copper Tubing:				
• 3/8 in.				
• 1/2 in.	50 ft. of each	--	B	
In-Floor Hot Water Heating Pipe	50 ft.	--	B	
Oil Line:				
• 3/8 in.				
• 1/2 in.	50 ft. of each	--	B	

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Item	Units Per 15 Students	Maximum Students per Unit	Required for Level 1 & PE (E) Advanced (A) Both (B)	Comments
Oil Line Fitting (various sizes and types)	100	--	E	
Oil Valve: <ul style="list-style-type: none"> <li>• fusible link</li> <li>• ball</li> <li>• OSV</li> </ul>	10 of each	--	B	

Note: If identifying sets, please include specific information.