

# Trade Profile

# Oil Heat System Technician



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# Trade Profile

## Oil Heat System Technician



## Structure of the Trade Profile

This profile has two sections that provide a snapshot of the trade's description, and all trade activities as they are organized in the Red Seal Occupational Standard:

**Description of the Oil Heat System Technician trade:** an overview of the trade's duties, work environment, job requirements, similar occupations and career progression

**Task Matrix:** a chart which outlines graphically the major work activities, tasks and sub-tasks of this standard

**Major Work Activity (MWA):** the largest division within the standard that is comprised of a distinct set of trade activities

**Task:** distinct actions that describe the activities within a major work activity

**Sub-task:** distinct actions that describe the activities within a task

## **Description of the Oil Heat System Technician Trade**

“Oil Heat System Technician” is this trade’s official Red Seal occupational title approved by the CCDA. This standard covers tasks performed by oil heat system technicians.

Oil heat system technicians install, repair, maintain and retrofit all types of oil-fired domestic and commercial appliances, equipment, components and systems. On new installations, they may design, assemble and install the heating and ventilation systems, install oil burner components such as control devices, associated wiring, chimney and venting systems, install fuel supply systems and connect the plumbing to mechanical and electrical systems. They may also install, maintain and repair wood/oil heating systems.

Oil heat system technicians work in the residential, commercial and industrial sectors. They may be self-employed or employed by heating, ventilation and air conditioning (HVAC) installation and service companies.

Service calls and emergency calls may take place anytime: days, evenings or weekends. Full time and seasonal employment opportunities are available.

Oil heat system technicians must have good mechanical aptitude, problem-solving skills and good customer relations skills. A good understanding of basic electrical/electronic theory and “The House as a System” is also required. They may give cost estimates for required work and explain the operation and maintenance of appliances and systems.

This standard recognizes similarities or overlaps with the work of refrigeration and air conditioning mechanics, gasfitters, plumbers and sheet metal workers.

Experienced oil heat system technicians may advance into supervisory and management positions, move into self-employment or become mentors and trainers of apprentices.

# Oil Heat System Technician

## Task Matrix

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### Major Work Activity A – Performs common occupational skills 7%

Task A-1 Maintains safe and healthy workplace 23%	Sub-task A-1.01 Maintains clean and safe work environment	Sub-task A-1.02 Uses personal protective equipment (PPE) and safety equipment	Sub-task A-1.03 Participates in healthy and respectful work environment
Task A-2 Uses tools and equipment 40%	Sub-task A-2.01 Uses hand tools	Sub-task A-2.02 Uses power tools	Sub-task A-2.03 Uses powder-actuated tools
	Sub-task A-2.04 Uses measuring and testing equipment	Sub-task A-2.05 Uses hoisting, rigging and lifting equipment	Sub-task A-2.06 Uses access equipment
	Sub-task A-2.07 Uses soldering, flaring and threading equipment		
Task A-3 Organizes work 37%	Sub-task A-3.01 Interprets drawings, codes and documentation	Sub-task A-3.02 Completes documentation	Sub-task A-3.03 Performs basic distribution layout
	Sub-task A-3.04 Organizes material and components	Sub-task A-3.05 Commissions appliances and components	

Task A-4 Maintains continuous learning 0%	Sub-task A-4.01 Upskills in new trade practices and procedures	Sub-task A-4.02 Upskills in emerging technologies
Task A-5 Uses communication and mentoring techniques 0%	Sub-task A-5.01 Uses communication techniques	Sub-task A-5.02 Uses mentoring techniques

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## Major Work Activity B – Installs fuel supply and storage systems 18%

Task B-6 Installs fuel storage tanks 50%	Sub-task B-6.01 Selects fuel storage tanks	Sub-task B-6.02 Determines fuel storage tank location	Sub-task B-6.03 Positions fuel storage tanks
	Sub-task B-6.04 Installs fuel storage tank components	Sub-task B-6.05 Installs fill and vent pipes	
Task B-7 Installs fuel supply systems 50%	Sub-task B-7.01 Selects fuel supply components	Sub-task B-7.02 Installs fuel supply components	

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**Major Work Activity C – Installs oil-fired heating systems****21%**

Task C-8 Installs and retrofits oil-fired and wood/oil appliances and components 23%	Sub-task C-8.01 Selects appliances	Sub-task C-8.02 Positions appliances	Sub-task C-8.03 Installs components on appliance
	Sub-task C-8.04 Connects fuel supply to appliance	Sub-task C-8.05 Connects electrical supply to appliance	Sub-task C-8.06 Connects vent/exhaust piping to appliance
	Sub-task C-8.07 Installs dump zones	Sub-task C-8.08 Connects drain to appliance	
Task C-9 Installs and retrofits forced-air heating systems 35%	Sub-task C-9.01 Assembles ductwork	Sub-task C-9.02 Installs ductwork	
Task C-10 Installs and retrofits hydronic heating systems 43%	Sub-task C-10.01 Assembles boilers	Sub-task C-10.02 Installs hydronic distribution system and heating system components	Sub-task C-10.03 Installs indirect water heater
	Sub-task C-10.04 Installs oil-fired water heater		

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**Major Work Activity D – Installs venting systems, and combustion air and make-up air equipment and components 15%**

Task D-11 Installs venting systems 50%	Sub-task D-11.01 Selects venting system	Sub-task D-11.02 Prepares locations for termination	Sub-task D-11.03 Installs venting components
	Sub-task D-11.04 Secures venting system to structure		
Task D-12 Installs equipment and components for combustion air and make-up air 50%	Sub-task D-12.01 Selects equipment and components	Sub-task D-12.02 Prepares location for equipment and components for combustion air and make-up air	Sub-task D-12.03 Assembles equipment and components
	Sub-task D-12.04 Secures equipment and components to structure		



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## Major Work Activity E – Installs and tests electrical and electronic systems 20%

Task E-13 Installs electrical and electronic systems 47%	Sub-task E-13.01 Selects controls and components	Sub-task E-13.02 Selects location of controls and components	Sub-task E-13.03 Installs controls and components
Task E-14 Tests electrical and electronic systems 53%	Sub-task E-14.01 Cycles appliance controls	Sub-task E-14.02 Checks operating and safety controls	Sub-task E-14.03 Checks accessories and components
	Sub-task E-14.04 Sets up operating parameters		

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**Major Work Activity F – Performs maintenance, diagnosis, repair    19%  
and removal**

Task F-15 Maintains oil-fired heating systems and components 25%	Sub-task F-15.01 Checks oil-fired heating system and components	Sub-task F-15.02 Cleans oil-fired heating appliances and components	Sub-task F-15.03 Changes preventative maintenance components
	Sub-task F-15.04 Lubricates moving components		
Task F-16 Diagnoses oil-fired heating systems and components 36%	Sub-task F-16.01 Checks for electrical problems	Sub-task F-16.02 Checks for burner problems	Sub-task F-16.03 Checks for distribution problems
	Sub-task F-16.04 Checks for problems with distribution system for combustion air and make-up air		
Task F-17 Repairs oil-fired heating systems and components 30%	Sub-task F-17.01 Corrects electrical problems	Sub-task F-17.02 Corrects burner problems	Sub-task F-17.03 Corrects distribution problems
Task F-18 Removes appliances and components 10%	Sub-task F-18.01 Decommissions appliances and components	Sub-task F-18.02 Disposes of waste products	