



**Skilled  
Trades**  
Ontario

**Métiers  
spécialisés**  
Ontario

Apprenticeship  
Training Standard  
Logbook

**Small Engine Technician**

435A

2004

# Apprenticeship Training Standard

The Apprenticeship Training Standard or herein after referred to as “Logbook” is a document issued to Apprentices who sign a Registered Training Agreement in the Province of Ontario as an official record of training. It is to be used by the Apprentice and Sponsor/trainer to guide the process of skills development in a particular trade.

## Training As An Apprentice

- ✓ Ensure you, your sponsor, and your witness sign a Training Agreement with the Ministry of Labour, Immigration, Training and Skills Development. Once it is registered, you will receive a copy of the registered Training Agreement for your records.
- ✓ Notify the local Service Delivery Office **immediately** if any changes to contact information or training agreement, especially if you change sponsors.
- ✓ Review the Logbook regularly with your trainer and sponsor to discuss your progress, ask questions, seek feedback and have the trainer **sign-off on competencies**
- ✓ Keep an accurate record of the hours you work.
- ✓ Attend classroom training when it is offered.
- ✓ Apply for the financial incentives for which you are eligible.



## Completing Your Logbook

- ✓ **Complete the Sponsor Record Form** – A form must be completed for each Sponsor/Trainer used during your apprenticeship.
- ✓ **Confirm Skill Sign-off is Complete**
  - **You and your trainer** sign-off each required skill to confirm that you have demonstrated competency in that skill.
  - Shaded boxes in your Logbook mean the skills are optional and do not have to be confirmed by your trainer or sponsor. However, you are encouraged to complete them as part of your training.
- ✓ **Confirm Skill Set Sign-off is Complete**
  - After you and your trainer have signed-off all the required skills in a skill set, your sponsor signs the signature box on the form in **Appendix C – “Skill Set Completion for Sponsors”** to confirm your completion of all competencies within each skill set.

This document is the property of the apprentice named inside and represents the official record of your training. For information about completing your apprenticeship, see inside of back cover.



Apprentice Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Phone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

Trade: \_\_\_\_\_

**Training Agreement # (for Compulsory and Non-Compulsory trades):**

**STO Account No. (for Compulsory trades only):**

**This document is the property of the Apprentice named herein and represents the official record of their training.**

**If you have questions about the use of this Logbook or about your Apprenticeship program, contact your local Service Delivery Office (see Appendix D in this book) or the Employment Ontario hotline at: 1-800-387-5656.**

# Apprenticeship Pathway to a Certificate of Qualification

Phase 1: Registration

Submit Application for Apprenticeship Training through the on-line portal or to local Service Delivery Office

For on-line portal, please follow instructions for registration. You will need to create a My Ontario account to access online services.

Training agreement signed and registered by both apprentice and sponsor

Access your Apprenticeship Training Standard Logbook\*\*  
skilledtradesontario.ca/about-trades/trades-information

\*\* This is the official record of your training progress. You are responsible for keeping it up-to-date.

Complete on-the-job training

*Demonstrate and receive sign-off on the competencies/skills in your Apprenticeship Training Standard Logbook*

Complete in-school training

*Attend and complete the in-class training set out in the Curriculum Training Standard*

Apprentices eligible to apply for apprenticeship incentive grants (Red Seal trades) and loans.

Review and finalize your logbook with your sponsor

Submit proof of apprenticeship completion via email, in-person or digital portal

Your Apprenticeship Training Standard Logbook details completion requirements. Submit the following:

- completed Apprenticeship Training Standard Logbook with signatures
- proof of hours

Certificate of Apprenticeship is issued

Trades without examination

CofA is the final step of the program

Trades with examination (compulsory and non-compulsory trades)\*

Provisional Certificate of Qualification issued for a 12 month term

To prepare for the CofQ examination download the Provincial and/or Red Seal Exam preparation guides.

Make payment for your Certificate of Qualification examination

Call to make a payment (647-847-3000 or 1-855-299-0028)

Schedule a date to write your Examination

To schedule your examination, contact your local Service Delivery Office.

Pass Certificate of Qualification examination

Apprentices eligible to apply for Apprenticeship Completion Grant (Red Seal trades) or Apprentice Completion Bonus (non-Red Seal)

Certificate of Qualification is issued

Upon completion, Sponsors may be eligible for Apprenticeship grants, incentives, bonuses or tax credits

Phase 2: Apprenticeship

Phase 3: Certification

\* For a list of trades subject to a certification examination, visit: skilledtradesontario.ca

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**Please Note:** This Standard has been revised to reflect the visual identity of Skilled Trades Ontario (STO) which replaced the Ontario College of Trades on January 1, 2022. The content of this Standard may refer to the former organization; however, all trade specific information or content remains relevant and accurate based on the original date of publishing.

Please refer to STO's website: [skilledtradesontario.ca](http://skilledtradesontario.ca) for the most accurate and up to date information. For information about BOSTA and its regulations, please visit [Building Opportunities in the Skilled Trades Act, 2021 \(BOSTA\)](#).

Any updates to this publication are available on-line; to download this document in PDF format, please follow the link: [Skilled Trades Ontario.ca](http://Skilled Trades Ontario.ca).

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*Maintained with transfer to Skilled Trades Ontario 2004 (V100)*

## **Foreword: Purpose, Terms and Conditions of the registered Training Agreement**

### **Purpose:**

- Prior to starting official apprenticeship activities, the apprentice, sponsor and a witness are required to sign a Training Agreement.
- The Training Agreement that you have signed is an important legal document that outlines your responsibilities as an apprentice and the responsibilities of your sponsor.
- Once registered, this training agreement (or contract) marks the start of your formal agreement between the apprentice, the sponsor and the Ministry.
- For compulsory trades, the apprenticeship registration document must be accessible when working.

### **The Apprentice agrees:**

- **To inform the local Service Delivery Office of any change to your contact information or change in sponsor within 7 days;**
- To follow the Sponsor's and Trainer's lawful instructions and make every effort to acquire the skills identified in the Logbook for the Trade which is part of the apprenticeship program established by Skilled Trades Ontario for the trade;
- To obtain written verification from the Sponsor and the Trainer(s) that the requirements in the Logbook for the trade have been met.
- When you receive an "Offer of Classroom Training", confirm your attendance by following the instructions in the offer. Failure to do so may result in losing your opportunity to attend school which delays the completion of your apprenticeship.

### **The Sponsor agrees:**

- To ensure that the Apprentice is provided with the training required as part of the apprenticeship program established by Skilled Trades Ontario for this trade;
- To review the progress of training with the Apprentice, and with the Trainer(s) where the Sponsor and the Trainer are not the same party.
- Release your apprentice from work to attend in-school training without penalty to the apprentice.
- To maintain the journeyperson/apprentice ratio for your trade, if applicable.
- To monitor their apprentice(s) progress
- To ensure that the Trainer(s) verifies, in writing, when each skill identified in the Logbook for the trade has been successfully completed by the Apprentice;
- To contact the Ministry should any changes in your capacity to train, your contact information, or your apprentice's status in the program change.

## Trade Specific Resources and Links

Trade Specific Resource	Link
Red Seal Program	<a href="http://red-seal.ca">red-seal.ca</a>
Apprenticeship in Ontario	<a href="http://ontario.ca/page/apprenticeship-ontario">ontario.ca/page/apprenticeship-ontario</a>
Employment Ontario	<a href="http://employmentontario.ca">employmentontario.ca</a>
Service Canada	<a href="http://servicecanada.gc.ca">servicecanada.gc.ca</a>
<i>Building Opportunities in the Skilled Trades Act, 2021</i>	<a href="http://ontario.ca">Building Opportunities in the Skilled Trades Act, 2021, S.O. 2021, c. 28 - Bill 288 (ontario.ca)</a>
Ministry of Labour, Immigration, Training and Skills Development	<a href="http://ontario.ca">Ministry of Labour, Immigration, Training and Skills Development   ontario.ca</a>
Exam Preparation Guide	<a href="http://ontario.ca">Exam Resources – Skilled Trades Ontario</a>
Skills Zone (Ontario Skills Passport)	<a href="http://www.skillszone.ca/">http://www.skillszone.ca/</a>

*\*Please note, all website addresses are current at time of printing*

## Methodology-Standard Development

A standard is developed with a broad group of trade representatives who form the initial working group. This includes subject matter experts/ tradespeople/ instructors and employers from a cross section of the sector/industry, with varying years of work experience in the field. The working group reviews, develops and recommends revision to the content of the standard. Their role also involves harmonizing and updating other supporting content for the product.

An essential part of the standard development is the validation process. This is the opportunity to have a broader representation of the sector provide feedback on the content of draft standard. This process is conducted in various ways and may include sending out a survey or the draft document (or both) directly to the sector. The comments received are reviewed by the working group and revisions are made as required based on a consensus model.



### Introduction to the Logbook

This “on-the job” Logbook is the training standard for Small Engine Technician 435A and was developed by Skilled Trades Ontario in consultation with representatives from industry. It identifies all the skills associated with and required to learn the trade.

The Logbook is divided into skill sets, which are further divided into skills. These skill sets and skills are written in statements that describe what the Apprentice must perform and to what standard, in order to be considered competent in that skill.

The successful performance of these skills is tracked in the Logbook. Once achieved, this skills’ sign-off, along with the completion of in-school program requirements or equivalent, is how the apprenticeship program is completed and apprentices receive a Certificate of Apprenticeship.

The Sponsor/trainer and Apprentice are required to sign-off and date each skill after the Apprentice has demonstrated proficiency in these skills. However, if a skill is shaded, it is optional and does not need to be signed-off, though it has been defined as a part of the scope of practice for the trade.

All practices described in this standard must be performed by the apprentice according to the specific criteria identified. In general, the standard of performance for this trade is to be performed according to all applicable jurisdictional codes and standards and all health and safety standards must be respected and observed.

All skills within the Apprenticeship Training Standard are to be performed, as applicable, according to and in compliance with the following:

- Occupational Health and Safety Legislation and Regulations;
- Other applicable legislation, regulation, codes and standards;
- Industry best practices;
- Company policies and procedures.

The information presented in this standard is, to the best of our knowledge, current at time of printing and is intended for general application. Please refer to the Skilled Trades Ontario website for the most accurate and up-to-date information: [skilledtradesontario.ca](http://skilledtradesontario.ca)

## Roles and Responsibilities

Under the [Building Opportunities in the Skilled Trades Act, 2021 \(BOSTA\)](#)

**Skilled Trades Ontario (STO)** is responsible for:

- Establishing and maintaining qualifications;
- Establishing Apprenticeship Programs and other training programs including training Standards, curriculum standards and certifying examinations;
- Issuing certificates for the purposes of this Act such as Certificates of Qualification;
- Maintaining a Public Registry for compulsory trades [skilledtradesontario.ca/public-register/](https://skilledtradesontario.ca/public-register/);
- Determining whether the experience and qualifications obtained by applicants for a certificate of qualification who do not complete an apprenticeship are equivalent to those received through completing an apprenticeship (Trade Equivalency Assessments)
- Promoting the skilled trades and conducting research.
- Conducting research and evaluate whether a trade should be prescribed as a trade for the purposes of this Act and to make recommendations on these matters to the Minister.

**Ministry of Labour, Immigration, Training and Skills Development (MLITSD)**

is responsible for:

- Classifying trades as compulsory trades;
- Prescribing scopes of practice for trades;
- Approving which persons may provide in-class training for apprenticeship programs (TDAs);
- Registering Training Agreements;
- Providing those who successfully complete an apprenticeship program with a certificate of apprenticeship (CofA);
- Administering examinations, including certifying examinations;
- Promoting the skilled trades and conducting research;
- Exercising such other powers and perform such other duties and functions as are provided for in this Act or the regulations.

***For any matter related to your registered Training Agreement or completing your apprenticeship, you must contact your local Service Delivery Office.***

### Roles and Responsibilities of the Apprentice

An Apprentice is an individual who has entered into a registered Training Agreement (refer to Foreword: *“Purpose, Terms and Conditions of TA” page 1*) with a Sponsor to receive training in a trade as part of an apprenticeship program established by Skilled Trades Ontario. As an Apprentice, you have certain roles and responsibilities to follow throughout your apprenticeship training:

1. As an Apprentice, you signed the Training Agreement and have entered into a contract with the Ministry of Labour, Immigration, Training and Skills Development and your Sponsor.
2. If you are registered as an Apprentice in a compulsory trade, your name will automatically appear in the Skilled Trades Ontario Public Register.
3. You are responsible for informing the staff at your local Service Delivery Office regarding changes to the following:
  - Your Sponsor’s address;
  - Your name and address; and/or,
  - Your Sponsor, including starting employment with a new Sponsor
4. As an Apprentice, you are responsible for completing skills or skill sets in this Logbook (as detailed in the *“Eligibility for Apprenticeship Program Completion”* section of this document) and ensuring that they are dated and signed by both you and your Trainer.
5. Once you have demonstrated competency in all the mandatory skills and received a sign off on each skill by your sponsor/trainer, you must have the Skill Set Completion Form completed and signed by your current Sponsor.
6. Submit your Logbook to your local Service Delivery Office.
7. Present your Apprentice Completion Form (Please refer to Appendix B), along with your authorized Logbook to your local Service Delivery Office.

### Roles and Responsibilities of Sponsors and Trainers

**Sponsors** are responsible for ensuring all terms are met as per the registered Training Agreement. They are named on the registered Training Agreement as the entity responsible for ensuring Apprentices receive the training required as part of an apprenticeship program. As a signatory to this agreement, they are designated as the 'Signing Authority' for the Apprentice's Skill Set Completion Form and are required to attest to successful achievement by signing the appropriate box at the completion of each skill set. Some sponsors may also act as the Trainer.

A **Trainer** is an individual who oversees the performance of a task and sets the workplace expectations and practices for the Apprentice.

In compulsory trades, a Trainer must hold a valid Certificate of Qualification and be registered with Skilled Trades Ontario.

In non-compulsory trades, a Trainer is an individual who holds one of the following:

- A Certificate of Qualification;
- A Certificate of Apprenticeship in the trade; or,
- Has completed both the workplace-based training (competencies and/or hours as applicable) and classroom training components of the trade's apprenticeship program; or,
- Has workplace experience equivalent to the apprenticeship program) and has the skills outlined in the Logbook.

Competency means being able to perform to the required standard (please refer to *"Introduction to the Logbook"*). Trainers/Sponsors and Apprentices are required to sign-off and date the skills in the Logbook following each successful acquisition. The Logbook forms a record of this achievement.

The Trainer must provide their signature based on their assessment and professional judgment that the apprentice is competent in the skills described above. The Trainer's signature is not a general warranty or guarantee of the apprentice's future conduct.

Sponsors participating in this training program will be designated as the Signing Authority and are required to attest to successful achievement by signing the appropriate box included at the end of each skill set.

### **Health and Safety**

Safe working procedures and conditions, accident prevention and the preservation of health are of primary importance for apprenticeship programs in Ontario. These responsibilities are shared and require the joint efforts of government, sponsors, employers, supervisors, workers, apprentices and the public to achieve the goal of making Ontario's workplaces safe and healthy.

The [Occupational Health and Safety Act](#) (OHSA) provides us with the legal framework and the tools to do this. It sets out the rights and duties of all parties in the workplace, placing ultimate responsibility on the employer for the health and safety of workers (in this case apprentices) by ensuring procedures, controls, and training are established for dealing with workplace hazards. Therefore, it is imperative that all parties become aware of circumstances that may lead to injury, illness or harm. Safe learning experiences and environments can be created by controlling the variables and behaviours that may contribute to or cause an accident injury or illness.

A sponsor who is not the employer is reminded that the employer has legal responsibilities respecting health and safety over the apprentice who is their worker. The sponsor should encourage safe work habits and adherence to the employer's occupational health and safety requirements for the workplace.

It is generally recognized that a positive attitude about safety in partnership with health and safety competency contributes to an accident-free environment. Everyone will benefit as a result of a healthy attitude towards the prevention of accidents.

Workers and apprentices can be exposed to a multitude of hazards and, therefore, should be familiar with the Occupational Health and Safety Act and regulations.

### **The Internal Responsibility System:**

One of the primary purposes of the Occupational Health and Safety Act (OHSA) is to facilitate a strong Internal Responsibility System (IRS) in the workplace. To this end, the OHSA lays out the duties of employers, supervisors, workers, apprentices, constructors and workplace owners.

Workplace parties' compliance with their respective statutory duties is essential to the establishment of a strong IRS in the workplace.

Simply put, the IRS means that everyone in the workplace has a role to play in keeping workplaces safe and healthy. Workers and apprentices in the workplace who see a health and safety problem such as a hazard or contravention of the OHSA in the workplace have a statutory duty to report the situation to the employer or a supervisor. Employers and supervisors are, in turn, required to address those situations and acquaint workers with any hazard in the work that they do.

The IRS helps support a safe and healthy workplace. In addition to the workplace parties' compliance with their legal duties, the IRS is further supported by well-defined health and safety policies and programs, including the design, control, monitoring and supervision of the work being performed.

### **Roles and Responsibilities under the Occupational Health and Safety Act**

#### **Employer's Responsibilities include but are not limited to the following:**

- Instruct, inform and supervise workers and apprentices to protect their health and safety.
- Appoint competent persons as supervisors.
- Inform a worker, apprentice, or a person in authority, about any hazard in the workplace and train them in the handling, storage, use, disposal and transport of any equipment, substances, tools, material, etc.
- Take every precaution reasonable in the circumstances for the protection of a worker/apprentice.
- In workplaces in which more than five workers are regularly employed, prepare and post a written occupational health and safety policy and set up and maintain a program to implement it.
- Prepare and post policies with respect to workplace violence and workplace harassment and develop programs supporting workplace harassment and workplace violence policies.
- Ensure knowledge of applicable legislative, regulatory, codes and standards so requirements to be followed are clear to all workers/apprentices.

#### **Trainer/Supervisor Responsibilities include but are not limited to the following:**

- Ensure that a worker or apprentice works in compliance with the Act and regulations.
- Ensure that any equipment, protective device or clothing required by the employer is used or worn by the worker or apprentice.
- Advise a worker/apprentice of any potential or actual health or safety dangers known by the supervisor.
- Take every precaution reasonable in the circumstances for the protection of workers.

#### **Worker/Apprentice Responsibilities include but are not limited to the following:**

- Work in compliance with the Act and regulations.
- Use or wear any equipment, protective devices or clothing required by the employer.
- Report to the employer or supervisor any known missing or defective equipment or protective device that may endanger the worker or another worker.
- Report any hazard or contravention of the Act or regulations to the employer or supervisor.
- Not remove or make ineffective any protective device required by the employer or by the regulations.
- Not use or operate any equipment or work in a way that may endanger any worker.

### **The Three Rights of Workers/Apprentices**

The OHSA gives workers and apprentices three important rights:

1. The right to know about hazards in their work and get information, supervision and instruction to protect their health and safety on the job.
2. The right to participate in identifying and solving workplace health and safety problems either through a health and safety representative or a worker member of a joint health and safety committee.
3. The right to refuse work that they believe is dangerous to their health and safety or that of any other worker in the workplace.

### **Ministry of Labour, Immigration, Training and Skills Development**

The Ministry of Labour, Immigration, Training and Skills Development conducts periodic inspections of workplaces to ensure that safety acts and regulations are being followed. Please direct any questions to the Occupational Health and Safety Contact Centre at 1-877-202-0008.

## Apprenticeship Program Summary/Guidelines

### Scope of Practice

The Scope of Practice for the trade of Small Engine Technician is set out in section 127 of Ontario Regulation 875/21 under BOSTA and reads as follows:

**127.** The scope of practice for the trade of small engine technician includes diagnosing, repairing and maintaining small engines and engine systems for off-road vehicles and powered equipment.

\*While the Logbook draws on the scope of practice regulation (Section 127 of Ontario Regulation 875/21 under BOSTA). The Logbook does not purport to add to or modify the scope of practice as provided in regulation. \*

### Program Guidelines

#### On-the-Job Training Duration

Industry has identified 4520 hours as the benchmark necessary for any Apprentice to become competent in the skills required. There may be circumstances in which the duration varies from this guideline.

#### In-Class Training Duration

Industry has identified 480 hours of in-school training as the duration necessary for an Apprentice to complete the in-school curriculum for this program.

#### Total Training Hours

5000 hours

### Journeyman to Apprentice Ratio

#### Industry Recommended Ratios:

While some of the trades regulated under BOSTA are subject to Journeyman to Apprentice ratios set out in regulation, this trade is not one of them. Instead, **industry has recommended a Journeyman to Apprentice ratio guideline of 1 Journeyman (or individual who is deemed equivalent to a journeyman) to 1 Apprentice** as the ratio necessary for an Apprentice to be properly trained on the job in this program.



### Program Requirements

#### Compulsory and Non-compulsory Classification

Regulations under the *Building Opportunities in the Skilled Trades Act, 2021*, classify each trade as either “compulsory” or non-compulsory.” This trade is non-compulsory.

It is the responsibility of an Apprentice to maintain a training record in the form of a Logbook. The Sponsor and Trainer are required to sign-off when competencies in the trade are achieved.

#### Skills for Success Summary

Skills for Success are needed in a quickly changing world for work, learning and life. They are foundational for building other skills and important for effective social interaction. Everyone benefits from having these skills as they help individuals get a job, progress at their current job and change jobs. They also help individuals become active members of their community and succeed in learning.

Through extensive research and consultations, the Government of Canada launched the new Skills for Success model renewing the previous Essential Skills framework to better reflect the needs of the current and future labour market.

The occupational specific Essential Skills profiles are available online. These will be updated over time to align with the new Skills for Success model found here: [Skills for Success model](#)

#### Restricted Skill Sets

This program does not contain any restricted skill sets as per Ontario Regulation 565/99, Restricted Skill Sets. Therefore, an individual is not required to be registered apprentice or possess certification in order to perform skills contained in the program.

#### Academic Standard

The Industry Committee has identified the minimum academic standard for entry to this program as completion of Grade 12 or ministry-approved equivalent.  
(See ACA Policy 102, Confirming Academic Requirements)

#### Eligibility for Exam Challenge (*for Non-apprentice C of Q Applicants*)

The challenger must:

- provide proof of competency in all mandatory (unshaded) skills as identified in the Training Standard or Schedule of Training; and
- demonstrate that he/she has acquired 5,000 hours of on-the-job training.

(See ACA Policy 150, Assessing Applicants for the Certificate of Qualification)

### **Eligibility for Program Completion (*for Apprentices*)**

The apprentice must:

- achieve competency in all mandatory (unshaded) skills as identified in the Training Standard or Schedule of Training.
- complete the in-school training as outlined in the industry and ministry- approved Curriculum Standard.

(ACA Policy 309, Completion of an Apprenticeship Program)

### **Other Resources**

Complete program requirements, policies, and standards can be obtained by referring to the following resources:

- *Apprenticeship and Certification Act, 1998 (ACA)*;
- ACA General Regulation 573/99;
- ACA Exemption Regulation 566/99;
- Program-specific Apprenticeship Training Standards or Schedules of Training; and
- ACA Program and Policy Manual

### **Academic Background**

Industry has identified relevant secondary school course(s) likely to increase an individual's chances of success if completed prior to program entry. For details, see the document Apprenticeship Subject Pathways.

### **Standard of Performance**

In general, the standard of performance for the trade of Small Engine Technician are to be performed, as applicable, according to and in compliance with the following:

Industry Safety Standards which are based upon:

- Occupational Health and Safety Legislation and Regulations;
- Jurisdictional legislation and regulations, codes and standards (municipal bylaws etc.)
- Company policies and procedures
- All applicable manufacturers specifications and engineering specifications

### **Other Suggested or Required Certification(s) and Training**

While an apprentice receives health, safety and occupational specific training and/or certification in a variety of fields during their apprenticeship, it is important to be aware that other occupational health and safety training and certification renewal or updating may also be required during their career before performing new types of work.

## Training the Apprentice - Tips for Apprentices, Sponsors and Trainers

### Tips for Apprentices

Remember, it takes time to learn. The following is a list of additional tips and tools to help make the most of your apprenticeship training:

- Practice safe work procedures early to create good habits;
- Use your Logbook as a journal to keep track of the skills you have achieved;
- Review your training plan with your Training Consultant, Trainer, or Sponsor;
- Discuss your training needs with your Trainer and/or Sponsor;
- Listen to the suggestions of your Trainer;
- Ask your Trainer questions if you are unsure of any skill you need to perform or any tools or equipment you need to use to perform your duties;
- Show enthusiasm and develop good work habits; and,
- Upon demonstration of competency, ensure that you and your Trainer sign-off the individual skills.

***To get the most from this mentoring experience, request exposure to the full scope of the trade; meet regularly with your Sponsor/Trainer to discuss your progress, ask questions and seek feedback.***

### Tips for Sponsors

- Select Trainers with good communication skills and who work well with others;
- Ensure that the Apprentice always works under the direction of or has access to a qualified Trainer;
- Encourage Trainers to take upgrading courses (e.g. Train the Trainer, Mentor, Coach, etc.);
- Set out clear expectations and involve both the Apprentice and Trainer in developing the training plan
- Encourage safe work habits;
- Allow time for the Trainer to train and demonstrate skills to the Apprentice;
- Provide opportunities and time for the Apprentice to learn the trade;
- Ensure that the Apprentice receives the varied on-the-job trade training experience outlined in this document;
- Recognize good performance;
- Observe frequently;
- Provide constructive feedback and conduct regular performance reviews involving the Apprentice and Trainer;
- Use the Logbook as a monitoring tool and a part of regular performance evaluations; and,
- Complete the Skill Set Completion Form once the Apprentice has demonstrated competency in the skills.

- The detailed content listed for each skill is not intended to represent an inclusive list; rather, it is included to illustrate the intended direction for the skill acquisition.

### **Tips for Trainers**

Trainers are responsible for ensuring the Apprentice is developing the skills outlined in this document. Here is a list of tips and tools to help Trainers in their supervision of Apprentices:

- Demonstrate model safe work habits;
- Provide opportunities and time for the Apprentice to learn the trade;
- Treat Apprentices fairly and with respect;
- Review the Logbook with the Apprentice and develop a training plan;
- Set out clear expectations and recognize good performance;
- Expose Apprentices to the full scope of the trade by providing training on the skills outlined in this document;
- Encourage and respond to all questions;
- Be patient;
- Explain, show and demonstrate the skill;
- **Meet regularly with the Apprentice to discuss the apprentice's progress**
- Provide continuous feedback;
- Sign-off skills when your Apprentice demonstrates competency, and,
- Use the Logbook as a guide to evaluate competence in each skill area. By using the Logbook, Trainers will be able to guide the process to and assist Apprentices to develop skills outlined in this document.

***The best mentoring experience is when an Apprentice is given as much training/exposure to the full scope of the trade as possible. If this is not possible, help them to determine other ways this may be possible.***

## Notice of Collection of Personal Information

1. At any time during your apprenticeship training, you may be required to show this Logbook to the local Service Delivery Office. You will be required to submit the signed Apprenticeship Completion form to the Service Delivery Office in order to complete your program. The Service Delivery Office will use your personal information to administer and finance Ontario's apprenticeship training system, including confirming your completion and issuing your Certificate of Apprenticeship.
2. The Service Delivery Office will disclose information about your program completion and your Certificate of Apprenticeship to Skilled Trades Ontario, as it is necessary for Skilled Trades Ontario to carry out its responsibilities.
3. Your personal information is collected, used and disclosed by the Ministry of Labour, Immigration, Training and Skills Development under the authority of the *Building Opportunities in the Skilled Trades Act, 2021 (BOSTA)*.
4. Questions about the collection, use and disclosure of your personal information by the Ministry may be addressed to the:

Manager, Employment Ontario Contact Centre  
Ministry of Labour, Immigration, Training and Skills Development  
33 Bloor St. E, 2nd floor, Toronto, Ontario M7A 2S3  
Toll-free: 1-800-387-5656; Toronto: 416-326-5656  
TTY: 1-866-533-6339 or 416-325-4084



**6400.0 Protect Self and Others**

**General Performance Objective**

Comply with occupational health and safety procedures by: identifying potential workplace health and safety hazards; handling, storing and disposing of hazardous materials; wearing and maintaining personal protective equipment; complying with workplace-related legislation; interpreting and applying service-related information; practicing good housekeeping in the workplace; complying with Workplace Hazardous Materials Information System (WHMIS) guidelines, according to the Occupational Health and Safety Act, government regulations, company policy and manufacturer’s recommendations.

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**Performance Objectives**

**Skills**

**6400.01 Identify and take corrective action against potential workplace health and safety hazards**, including: excessive exhaust and/or explosive fumes, dust, sound levels, electrical and mechanical hazards (i.e., damaged or faulty air lines and/or inadequate ventilation); so that the potential for personal injury, damage to equipment, vehicles, and the environment are minimized; according to government regulations and company policy.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice’s Sponsor.**



**6400.02**     **Handle, store and dispose of hazardous workplace materials**, including: cleaning solvents, anti-freeze, transmission and brake fluids, engine oil, brake dust, battery acid, refrigerants, and gases; using personal protective equipment and specified handling and storage equipment; so that individuals are protected from injury, the environment from contamination and safety procedures are followed; according to the government regulations and company policy.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6400.03**     **Wear and maintain personal protective equipment**, including: eye, ear, hand, respiratory, body, and foot protection; ensuring that correct fit and optimum protection is provided to the wearer for the specific task performed; according to the government regulations, manufacturer’s specifications and company policy.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6400.04**     **Comply with workplace-related legislation**, relating to highway traffic safety, parts, warranties, occupational health/safety, environmental protection, business and trade practices, including: *Occupational Health and Safety Act, Motive Vehicle Repair Act, Highway Traffic Act* and the *Environmental Protection Act*; by identifying the personal and legal liabilities of technicians, and vehicle owners, when performing and/or conducting vehicle safety inspections, emissions tests, work estimates and repairing and/or replacing defective parts; according to government regulations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6400.05**     **Practice good housekeeping in the workplace**, by: applying fire hazard prevention methods, including: maintaining a clean and orderly work area; identifying, removing and disposing of potential fire hazards; cleaning up grease, oil spills and/or fluids; ensuring work area is free of obstructions; and safely storing tools and shop equipment, to minimize accident or injury to self and others, according to according to government regulations and company policy.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6400.06**     **Comply with Workplace Hazardous Materials Information System (WHMIS) guidelines**, including; reading and interpreting labels and Material Safety Data Sheets (MSDS), ensuring receipt of training in WHMIS regulations and practices, according to the *Occupational Health and Safety Act*.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6400.07**     **Communicate with supervisors and co-workers**, identifying any unsafe or non-compliant conditions; tools and equipment requirements; scheduling and operational issues; and all other information required to create a safe and successful work environment.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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**6401.0 Perform General Trade Practices**

**General Performance Objective**

Perform general trade practice procedures by: Interpreting and applying service-related information, Demonstrating effective customer relations and activities, performing seasonal storage of engines, performing oxy-acetylene heating, cutting, welding and soldering, Metal inert gas (MIG) welding and Shielded Metal Arc Welding; according to manufacturer's recommendations and specifications, government safety regulations, and accepted industry standards.

**Performance Objectives**

**Skills**

**6401.01 Interpret and apply service-related information**, including: service bulletins, manuals and parts catalogues, by: locating and identifying Vehicle Identification Number (VIN) number, accessing microfiche and computerized service information systems, so that service/repair is performed according to accepted industry standards and/or manufacturer's recommendations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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**6401.02 Demonstrate effective customer relations** by using attentive listening skills, communicating clearly and effectively, accurately recording customer service requirements and related information and describing to the customer the recommended maintenance and operation of the powered equipment and unit and the warranty provisions and limitations.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6401.03 Perform customer relations activities**, including providing an honest interpretation of the vehicle’s condition, explaining repairs and costs, providing a written statement of work performed, as well as resolving customer’s complaints, so that customer’s expectations are met and information is communicated in a courteous and friendly manner.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6401.04 Perform seasonal storage of engines** by draining and winterizing cooling system, lubricating and draining carburettor, stabilizing fuel systems, and protecting intake and exhaust system from elements; according to manufacturer’s recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6401.05 Perform visual inspection of Oxy/fuel heating and cutting equipment**, including: tanks, gauges, oxygen/acetylene valves, hoses, fittings, regulators, lines, tips, by checking for: tank pressure, cracks, leaks, foreign matter, wear, and specific regulator settings; according to manufacturer’s recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6401.06 Prepare repair area, set up and operate oxy/fuel heating and cutting equipment**, including: opening gas valve, checking regulator for specified pressure, setting the regulators for cutting or heating, selecting tip, set mixture, igniting gas, fine tuning and adjust flame, by performing: heating and or cutting of seized bolts, nuts and other metal assemblies as specified by manufacturer’s repair procedures using: hand, power, specialized, precision and electronic service tools, lifting devices and safety stands, and personal protective equipment, fire retardant shielding, covering or removing exposed parts to prevent injuries and vehicle damage; according to manufacturer’s recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6401.07 Verify condition of heating and cutting area** by visually inspecting; checking for: damage or distortion to surrounding area and components, according to manufacturer’s and industry approved repair procedures and safety requirements.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6401.08 Perform visual inspection of Metal Inert Gas (MIG) and Tungsten Inert Gas (TIG) welding equipment**, including: tanks, gases, hoses, fittings, regulators, lines, electrical connectors, cables, ground clamps, tips and nozzles, drive assembly, and ventilation fans. By checking for: pressure, cracks, leaks, corrosion, fraying, foreign matter, wear, proper settings, connections, obstructions and ventilation, according to manufacturer’s recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6401.09 Prepare repair area, set up and operate Metal Inert Gas (MIG) and Tungsten Inert Gas (TIG) welding equipment**, including: attaching ground clamp to repair area to protect vehicle electronic components, turning on power switch, opening gas valve, checking regulator for specified pressure, adjusting wire speed, selecting required amperage, and fine tuning the welder to the repair area, applying weld-through primer to repair area by performing: welding on mild steel and aluminium components; and silicon bronze welding for cosmetic repairs only, using personal protective equipment, fire retardant shielding, covering or removing exposed parts to prevent injuries and vehicle damage according to manufacturer’s recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6401.10**     **Verify integrity of weld** including: correct penetration, absence of visible cracks, undercuts, melt-through, porosity, craters, excessive spatter, edge defects according to manufacturer’s recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6401.11**     **Perform visual inspection of arc welder**, including: ground clamp and holder, power cables, electrical connectors, electrodes, ventilation fans by checking for: wear, fraying, burns, corrosion, loose connections and electrode condition; according to manufacturer’s recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature



**6401.12 Prepare repair area, set up and operate arc welding equipment,** including: cleaning and preparing work area, selecting specified electrodes, adjusting amperage, attaching ground clamp, turning on power switch, fine tuning the welder to the repair area, as specified by manufacturer’s repair procedures, by performing: welding limited to heavy gauge steel when recommended by manufacturer’s repair procedures, using personal protective equipment, fire retardant shielding, covering or removing exposed parts to prevent injuries and vehicle damage; according to manufacturer’s recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6401.13 Verify integrity of the arc weld** including: correct penetration, without any slag in the weld, visible cracks, undercuts, melt-through, porosity, craters, excessive spatter, and edge defects by visually inspecting; checking for: damage to surrounding area and components; according to manufacturer’s recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6402.0 Perform Pre-Delivery Inspection (PDI)**

**General Performance Objective**

Perform powered equipment and unit pre-delivery and setup procedures by: performing a visual inspection; diagnosing and troubleshooting, completing a pre-delivery inspection report and verifying the pre-delivery inspection report accuracy; according to manufacturer's recommendations and specifications, government safety regulations, and accepted industry standards.

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**Performance Objectives**

**Skills**

**6402.01 Check powered equipment and unit systems and components** by visually inspecting, diagnosing, troubleshooting, testing and verifying performance and function, according to manufacturer's recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.**

**6402.02 Perform visual inspection of powered equipment, unit systems and components**, including the condition of exterior and interior components, accessories, engine systems, fuel system, intake and exhaust systems, emission systems, electrical and electronic systems, suspension system, steering systems, braking systems, cutting systems, hydraulic systems, fastening and mounting devices; by checking for cleanliness, structural integrity, cracks, distortion, corrosion, leaks, worn, loose, damaged, missing and defective components, according to manufacturer's recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6402.03 Diagnose and troubleshoot powered equipment, unit systems and components**, including, the condition of exterior and interior components, accessories, engine systems, fuel system, intake and exhaust systems, emission systems, electrical and electronic systems, suspension system, steering systems, braking systems, cutting systems, hydraulic systems, fastening and mounting devices; by visually inspecting, testing and analysing performance and function; checking for structural integrity, leaks, pressure, venting, flow, temperature, corrosion, vibration, noise, wear, misalignment, fractures, odour, and colour; using hand, power, and specialized electronic service tools, according to manufacturers' recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6402.04 Complete a Pre-Delivery Inspection Report** recording the results of the visual inspection, diagnosis and troubleshooting activities, including the condition of exterior and interior components, accessories, engine systems, fuel system, intake and exhaust systems, emission systems, electrical and electronic systems, suspension system, steering systems, braking systems, cutting systems, hydraulic systems, fastening and mounting devices; according to manufacturers' recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6402.05 Perform powered equipment and unit pre-delivery and setup procedures**, including re-torquing specified fasteners, installing required accessories and attachments, cleaning and applying corrosion protection, adjusting belt tensions and track drive alignment, topping up fluid levels; according to manufacturers' recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6402.06**    **Verify the Pre-Delivery Inspection report accuracy**, including the condition of exterior and interior components, accessories, engine systems, fuel system, intake and exhaust systems, emission systems, electrical and electronic systems, suspension system, steering systems, braking systems, cutting systems, hydraulic systems, fastening and mounting devices by visually inspecting, testing and analysing performance and function, and structural integrity, using hand, power, and specialized electronic service tools, according to manufacturers' recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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**6403.0 Repair Electrical Systems**

**General Performance Objective**

Diagnose and repair electrical systems, by: performing a visual inspection; diagnosing and troubleshooting batteries; servicing and boosting, or charging batteries; diagnosing, troubleshooting, repairing and verifying the repair of starting, charging, ignition, electrical and electronic lighting and accessory systems and components; according to manufacturer's recommendations and specifications, government safety regulations, and accepted industry standards.

**Performance Objectives**

**Skills**

**6403.01 Perform visual inspection of starting and charging systems**, identifying system types and applications, by: checking for worn, damaged, corroded, loose, or defective components, including: batteries, electrolyte levels, starters, cables, connectors, solenoids, relays, sensors, modules, regulators, circuit protection devices, wiring harnesses, gauges, magneto systems, generators, alternators, drive mechanisms, fastening and mounting devices, according to manufacturer's recommendations, specifications, and safety requirements.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.**

**6403.02**     **Diagnose and troubleshoot batteries**, by: visually inspecting, testing, and analysing performance and function; checking for damaged, worn, loose, and or missing components, electrolyte specific gravity, voltage, fluid level, leaks, cracks, corroded connections, distortion, and cleanliness, using hand, power specialized, precision and electronic service tools, load testers, chargers, and hydrometers; according to manufacturer’s recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6403.03**     **Service and boost/charge batteries**, including: single- and multi battery group; by removing, charging, and/or replacing; using hand and power tools, booster cables, booster packs, chargers, electrolyte, distilled water, pullers, cleaning tools and hydrometers; according to manufacturer’s recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6403.04 Diagnose and troubleshoot electrical starting system and components**, including: starting motors and drive mechanisms, batteries, cables, connectors, circuit protection devices, neutral safety devices, switches, solenoids, relays, wiring harnesses, fasteners and mounting devices; by visually inspecting, testing, and analysing performance and function; checking for wear, opens/shorts/grounds, high resistance connections, routing of wires, noise/vibration, odour, distortion, corrosion, fractures, and temperature; using hand, power, specialized, precision and electronic service tools, digital volt ohmmeter, ammeter, load testers; according to manufacturer’s recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6403.05 Repair starting systems and components**, including: starting motors and drive mechanisms, batteries, neutral safety devices, cables, connectors, circuit protection devices, switches, solenoids, relays, wiring harnesses, fasteners and mounting devices; by exchanging, reconditioning or servicing, using hand, power, specialized, and electronic service tools; according to manufacturer’s recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature



**6403.06**     **Verify repair of starting systems and components;** by visually inspecting, testing, and analysing performance and function; using hand, power, specialized, and electronic service tools; according to manufacturer’s recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6403.07**     **Diagnose and troubleshoot charging systems and components,** including: magneto systems, generators, alternators, drive mechanisms, batteries, cables, connectors, circuit protection devices, voltage regulators, switches, relays, sensors, modules, wiring harnesses, fasteners and mounting devices; by visually inspecting, testing, and analysing performance and function; checking for wear, opens/shorts/grounds, high resistance connections, parasitic draw, routing of wires, system voltage and amperage, vibration/noise, odour, corrosion, distortion, contamination, and temperature; using hand, power, specialized, precision and electronic service tools, digital volt ohmmeter (DVOM), amperage voltage resistance (AVR) testers and stethoscopes; according to manufacturer’s recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6403.08**     **Repair charging systems and components**, including: magneto systems, generators, alternators, drive mechanisms, batteries, cables, connectors, circuit protection devices, voltage regulators, switches, relays, sensors, modules, wiring harnesses, fasteners and mounting devices; by exchanging, reconditioning, or servicing; using hand, power, specialized, precision and electronic service tools digital volt ohmmeter (DVOM); according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6403.09**     **Verify repair of charging systems and components**, including: by visually inspecting, testing, and analysing performance and function using hand, power, specialized, precision and electronic service tools; according to manufacturer's recommendations, and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6403.10 Diagnose and troubleshoot electrical and electronically -controlled systems and components**, including: batteries, connectors, cables, display panels, gauges, switches, solenoids, relays, sensors, modules, data links, warning devices, lighting/illumination systems, circuit protection devices, theft-deterrent and electrical accessory devices, wiring harnesses, and fasteners and mounting devices; by visually inspecting, testing, analysing performance and function; checking for wear, opens/shorts/grounds, parasitic draw, diagnostic codes, routing of wires, temperature, corrosion, distortion, vibration/noise, colour, and odour; using hand, power, specialized, precision and electronic service tools and digital volt ohmmeter (DVOM); according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6403.11 Repair electrical and electronically -controlled systems and components**, including: batteries, connectors, cables, display panels, gauges, switches, solenoids, relays, sensors, modules, data links, warning devices, lighting/illumination, circuit protection, theft-deterrent and electrical accessory devices, wiring harnesses, and fasteners and mounting devices; by, exchanging, reconditioning, or servicing; using hand, power, specialized, precision and electronic service tools; according to manufacturer's recommendations and specifications, and government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6403.12 Verify repair of electrical, electronically-controlled systems and components**, by visually inspecting, testing, analysing performance and function; using hand, power, specialized, precision and electronic service tools; according to manufacturer’s recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6403.13 Diagnose and troubleshoot electrical/electronic ignition systems and components**, including: distributor components, coils, resistors, ignition modules, ignition timing components, spark advance mechanisms, high tension wires, spark plugs, data links, switches, sensors, pick-up assembly, modules, circuit protection devices, wiring harnesses, fasteners and mounting devices; by visually inspecting, testing, analysing performance and function; checking for wear, opens/shorts/grounds, diagnostic codes, routing of wires, temperature, colour, system voltage and amperage, electrical leakage, coil oil leakage, corrosion and vibration/ noise; using hand, power, specialized, precision and electronic service tools digital volt ohmmeter (DVOM); according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6403.14 Repair electrical/electronic ignition systems and components,** including: distributor components, coils, resistors, ignition modules, ignition timing components, spark advance mechanisms, high tension wires, spark plugs, data links, switches, sensors, pick-up assembly, modules, circuit protection devices, wiring harnesses, fasteners and mounting devices; by exchanging, reconditioning, or servicing; using hand, power, specialized, precision and electronic service tools; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6403.15 Verify repair of electrical/electronic ignition systems and components,** by visually inspecting, testing, analysing performance and function; using hand, power, specialized, precision and electronic service tools; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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**6404.0 Repair Engine Fuel Management Systems**

**General Performance Objective**

Diagnose and repair gasoline engine fuel management systems, by: performing a visual inspection; diagnosing and troubleshooting, repairing and verifying repair of fuel control system and components; ignition systems and components, computer- controlled systems and components; according to manufacturer’s recommendations and specifications, government safety regulations and accepted industry standards.

**Performance Objectives**

**Skills**

**6404.01 Perform visual inspection of mechanically and electronically-controlled gasoline engine fuel systems and components**, identifying system types and applications, including: fuel, tanks, valves, filters, pumps, lines, hoses and fittings, carburetors, injectors, fuel rails, pressure regulators, intake manifolds, emission control devices, diagnostic codes, warning devices, solenoids, relays, sensors, modules, actuators, data links, circuit protection devices, wiring harnesses, and fastening and mounting devices, by: checking: for worn, loose, damaged, leaking, missing, or defective components, according to manufacturer’s recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice’s Sponsor.**

**6404.02 Diagnose and troubleshooting mechanically and electronically-controlled gasoline engine fuel control systems and components**, including, fuel, tanks, valves, filters, pumps, lines, hoses and fittings, carburetors, injectors, fuel rails, pressure regulators, intake manifolds, emission control devices, diagnostic codes, warning devices, solenoids, relays, sensors, modules, actuators, data links, circuit protection devices, wiring harnesses, and fastening and mounting devices by: visually inspecting, testing, and analysing performance and function, checking for: odour, temperature, emissions, corrosion, colour, vibration/ noise, leaks, pressure, vacuum and flow; using hand, power, specialized, and electronic service tools, and lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6404.03 Repair mechanically and electronically-controlled gasoline engine fuel control systems and components**, including: fuel, tanks, valves, filters, pumps, lines, hoses and fittings, carburetors, injectors, fuel rails, pressure regulators, intake manifolds, emission control devices, diagnostic codes, warning devices, solenoids, relays, sensors, modules, actuators, data links, circuit protection devices, wiring harnesses, and fastening and mounting devices, by: exchanging, reconditioning, or servicing, using hand, power, specialized, and electronic service tools, and lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6404.04**     **Verify repair of gasoline engine fuel control systems and components**, by: visually inspecting, testing, and analyzing performance and function, using hand, power, specialized, and electronic service tools; according to manufacturer's recommendations and specifications government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6404.05**     **Diagnose and troubleshooting diesel engine fuel control systems and components**, including, fuel, tanks, valves, filters, pumps, lines, hoses and fittings, injectors, fuel rails, intake manifolds, emission control devices, diagnostic codes, warning devices, solenoids, relays, sensors, modules, actuators, data links, circuit protection devices, wiring harnesses, and fastening and mounting devices by: visually inspecting, testing, and analysing performance and function, checking for: odour, temperature, corrosion, colour, vibration/ noise, leaks, pressure, vacuum and flow; using hand, power, specialized, and electronic service tools, and lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature



**6404.06 Repair diesel engine fuel control systems and components**, including: fuel, tanks, valves, filters, pumps, lines, hoses and fittings, injectors, fuel rails, intake manifolds, emission control devices, diagnostic codes, warning devices, solenoids, relays, sensors, modules, actuators, data links, circuit protection devices, wiring harnesses, and fastening and mounting devices, by: exchanging, reconditioning, or servicing, using hand, power, specialized, and electronic service tools, and lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6404.07 Verify repair of diesel fuel control systems and components**, by: visually inspecting, testing, and analyzing performance and function, using hand, power, specialized, and electronic service tools; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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**6405.0 Perform Engine Tune-Ups**

**General Performance Objective**

Perform gasoline and diesel engine tune-ups, by: performing a visual inspection; diagnosing and troubleshooting engine operating systems, checking compression, replacing filters and crankcase oil, sparkplugs, fuel injectors, ignition components, checking and adjusting ignition and fuel pump timing, fuel pump pressure, and verifying the tune-up; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

**Performance Objectives**

**Skills**

**6405.01 Perform gasoline engine tune-ups**, by: checking or replacing spark plugs, performing compression, vacuum and leak-down tests, checking or replacing air filters, intake system and flame arresters, check fuel pressure, lines and hoses, adjusting cleaning and/or replacing carburetors or injectors, checking or replacing batteries, cables and connectors, ignition system components, fuel filter, and positive crankcase ventilation (PCV) valve; checking and/or adjusting ignition timing, timing control mechanisms, governors, idle speed, and emission control devices, check, adjust level and or replace engine oil, check and or repair exhaust system restrictions, using hand, power, specialized, and electronic service tools; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.**

**6405.02 Perform diesel engine tune-ups**, by: performing compression and leak-down tests, checking and/or replacing air filters and intake system components, fuel filters, check fuel pressure, lines and hoses, check and/or repair exhaust restriction, check manifold boost pressure, electrical system and valve adjustment, including: injectors and pumps, checking and/or adjusting injection timing, governors, idle speed, and emission control devices, using hand, power, specialized, and electronic service tools; according to manufacturer's recommendations, and specifications, government safety regulations and accepted industry standards.

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**6405.03 Verify engine tune-up**, by: visually inspecting, testing, and analyzing performance and function, using hand, power, specialized, and electronic service tools; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

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mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6406.0 Repair Engine Systems**

**General Performance Objective**

Diagnose and repair engines, by: performing a visual inspection; diagnosing and troubleshooting, repairing and verifying repairs of cooling system and components, engine lubricating system and components; cylinder head and components and engine block and components; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

**Performance Objectives**

**Skills**

**6406.01 Perform visual inspection of engine cooling systems** identifying system types and applications, including: coolant, radiators and reservoirs, cooling fins, surge tanks, coolant fans and hubs, coolant pumps, belts, hoses, lines, fittings, heat exchangers, gaskets, o-rings, seals, pipes, valves, sensors, temperature control devices, drive mechanisms, wiring harnesses, fastening and mounting devices; by: checking for: coolant level, worn, loose, damaged, missing, leaking or defective components, according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

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mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.**

**6406.02 Diagnose and troubleshoot cooling systems and components,** including: coolant, radiators, cooling fins, reservoirs, surge tanks, coolant fans, hubs, coolant pumps, belts, hoses, lines, fittings, heat exchangers, seals, gaskets, o- rings, pipes, valves, sensors, relays, temperature control devices, drive mechanisms, wiring harnesses, fastening and mounting devices; by: visually inspecting; testing, and analyzing performance and function; checking for: leaks, odour, temperature, corrosion, colour, vibration/noise, coolant type, quantity and condition; using hand, power, electronic service and specialized tools, and lifting, rigging, and blocking devices; according to manufacturer’s recommendations and specifications, government safety regulations and accepted industry standards.

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**6406.03 Repair cooling systems and components,** including: coolant, radiators and reservoirs, surge tanks, coolant, fans and hubs, coolant pumps, belts, hoses, lines, fittings, heat exchangers, seals, gaskets, o-rings, pipes, valves, sensors, relays, temperature control devices, drive mechanisms, wiring harnesses, fasteners and mounting devices; by: exchanging, reconditioning, or servicing, using, hand, power, electronic service, and specialized tools, and lifting, rigging, and blocking devices; according to manufacturer’s recommendations, and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6406.04**     **Verify repair of cooling systems and components;** by: testing, and analysing performance and function, using, hand, power, electronic service and specialized tools; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
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**6406.05**     **Perform visual inspection of engine lubrication systems** identifying system types and applications, including: pumps, housings, filters, lines, fittings, seals, oil, lubrication jets, gaskets, o-rings, heat exchangers, bypass valves, auxiliary devices, sensors, modules, gauges, warning devices, wiring harnesses, fastening and mounting devices by: checking for: oil levels, worn, loose, damaged, missing, leaking or defective components; according to manufacturer's recommendations, and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6406.06 Diagnose and troubleshoot engine lubricating systems and components**, including: pumps, housings, filters, lines, fittings, seals, oil, lubrication jets, gaskets, o-rings, heat exchangers, bypass valves, auxiliary devices, sensors, modules, gauges, warning devices, wiring harnesses, fastening and mounting devices; by: visually inspecting, testing, and analysing performance and function; checking for: leaks, odour, temperature, distortion, corrosion, colour, vibration/noise, pressure, contamination and oil analysis, using: hand, power, electronic service, and specialized tools; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6406.07 Repair engine lubricating systems and components**, including: pumps, housings, filters, lines, fittings, seals, oil, lubrication jets, gaskets, o-rings, heat exchangers, bypass valves, auxiliary devices, sensors, modules, gauges, warning devices, wiring harnesses, fastening and mounting devices; by: exchanging, reconditioning, or servicing; using hand, power, electronic service and specialized tools; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6406.08**     **Verify repair of engine lubricating systems and components**, by: testing, and analyzing performance and function, using hand, power, electronic and specialized tools; according to manufacturer’s recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6406.09**     **Perform visual inspection of engine cylinder heads, block and components** identifying system types and applications, including: cylinder heads, exhaust manifolds, cover plates, seats, guides, seals, gaskets, o-rings, springs, retainers, rotators, injector tubes, expansion plugs, valves, actuating mechanisms, camshafts, follower assemblies, drive mechanisms, engine blocks, piston assemblies, connecting rods, bearings, liners, counter-balancers, crankshafts, flywheel assemblies, balance shafts, gear trains, harmonic balancers, pulleys, auxiliary drives, oil pans, sensors, modules, gauges, warning devices, wiring harnesses, fastening and mounting devices by: checking for: worn, loose, damaged, , missing, leaking or defective components, ventilation and pressure; according to manufacturer’s recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature



**6406.10 Diagnose and troubleshoot cylinder head and components**, including: cylinder heads, exhaust manifolds, cover plates, seats, guides, seals, gaskets, o-rings, springs, retainers, rotators, injector tubes, expansion plugs, valves, actuating mechanisms, camshafts, follower assemblies, drive mechanisms, sensors, modules, gauges, warning devices, wiring harnesses fastening and mounting devices; by: visually inspecting, testing, and analyzing performance and function, checking for: corrosion, erosion, vibration/noise, carbon build-up, fractures, leaks, distortion, temperature, pressure and ventilation, using hand, power, electronic service, and specialized tools, and lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6406.11 Repair cylinder head and components**, including: cylinder heads, exhaust manifolds, cover plates, seats, guides, seals, gaskets, o-rings, springs, retainers, rotators, injector tubes, expansion plugs, valves, positive crankcase ventilation systems, actuating mechanisms, camshafts, follower assemblies, drive mechanisms, sensors, modules, gauges, warning devices, wiring harnesses fastening and mounting devices; by: exchanging, reconditioning, or servicing, using hand, power, electronic service and specialized tools and equipment, and lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6406.12**     **Verify repair of cylinder head and components**, by: testing, and analyzing performance and function, using hand, power, electronic service, and specialized tools, and lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6406.13**     **Diagnose and troubleshoot engine block and components**, including: engine blocks, expansion plugs, cover plates, positive crankcase ventilation systems, piston assemblies, connecting rods, bearings, seals, gaskets, liners, counter- balancers, crankshafts, flywheel assemblies, balance shafts, gear trains, camshafts, follower assemblies, harmonic balancers, pulleys, auxiliary drives, oil pans, fastening and mounting devices; by: visually inspecting, testing, and analysing performance and function, checking for: temperature, corrosion, erosion, vibration/noise, carbon build-up, fractures, distortion, alignment, leaks, ventilation and pressure, using hand, power, electronic service, and specialized tools, and lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6406.14 Repair engine block and components**, including: engine blocks, expansion plugs, cover plates, positive crankcase ventilation systems, piston and connecting rod assemblies, bearings, seals, gaskets, sealants, liners, counter-balancers, crankshafts, flywheel assemblies, balance shafts, gear trains, camshafts and follower assemblies, harmonic balancers, pulleys, auxiliary drives, oil pans, fastening and mounting devices; by: exchanging, reconditioning, or servicing, using hand, power, electronic service, and specialized tools; heating, cutting and welding equipment; lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6406.15 Verify repair of engine block and components**, by: testing, and analyzing performance and function, using hand, power, electronic service, and specialized tools, and lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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**6407.0 Repair Frames, Steering and Suspension Systems**

**General Performance Objective**

Repair suspension systems and frames, by: performing a visual inspection; diagnosing and troubleshooting suspension system and components; repairing suspension system, frames/sub-frames, and components, and verifying repair of suspension system, frames/sub-frames and components, according to manufacturer’s recommendations and specifications, government safety regulations and accepted industry standards.

**Performance Objectives**

**Skills**

**6407.01 Perform visual inspection of steering, frames, and suspension systems and components** identifying system types and applications; including: frames/sub- frames, control arms, I-beams, shock absorbers, springs, shackles, hangers, equalizers, bushings, air suspension, strut assemblies, sway bars, lines, hoses, fittings, gauges, valves, controls, and actuators, pumps and drive mechanisms, cylinders, reservoirs, seals, bearings, gaskets, steering boxes/racks/motors, linkages, tie rod ends, bushings, guides, column assemblies, grips, ball joints, kingpins, and fastening and mounting devices by checking for worn, loose, missing, leaking, damaged, or defective components,; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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**6407.02 Diagnose and troubleshoot frames, suspension systems and components**, including: frames/sub-frame assemblies, control arms, I-beams, shock absorbers, springs, shackles, hangers, equalizers, bushings, bearings, blocks, air suspension, strut assemblies, sway bars, lines, hoses, fittings, gauges, valves, controls, and actuators, fastening and mounting devices by: visually inspecting, testing, and analyzing performance and function, checking for: vibration/noise, corrosion, fractures, leaks, pressure, colour, alignment, stability, ride height, load distribution and controls, using hand, power and specialized tools; lifting, rigging, and blocking devices, according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6407.03 Repair frames, suspension systems and components**, including: frames/sub- frame assemblies, control arms, I-beams, shock absorbers, springs, shackles, hangers, equalizers, bushings, bearings, blocks, air suspension, strut assemblies, sway bars, lines, hoses, fittings, gauges, valves, controls, and actuators, fastening and mounting devices by: exchanging, reconditioning, aligning, or servicing, using hand, power and specialized tools, heating, cutting and welding equipment and lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations an accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6407.04**     **Verify repair of frames, suspension systems and components** by: visually inspecting, testing, and analysing performance and function, using hand, power and specialized tools; lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6407.05**     **Diagnose and troubleshoot steering systems and components**, including: pumps and drive mechanisms, cylinders, reservoirs, seals, bearings, gaskets, steering boxes/racks/motors, linkages, tie rod ends, bushings, guides, column assemblies, grips, ball joints, kingpins, and fastening and mounting devices, by: visually inspecting, testing, and analyzing performance and function, checking for: odour, temperature, colour, alignment, vibration/noise, corrosion, fluid type, contamination, pressure, leaks, and flow, using hand, power and specialized tools; lifting, rigging, and blocking devices; according to manufacturer's recommendations, and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6407.06 Repair steering systems and components**, including: pumps and drive mechanisms, cylinders, reservoirs, seals, bearings, gaskets, steering boxes/racks/motors, linkages, tie rod ends, bushings, guides, column assemblies, grips, ball joints, kingpins, and fastening and mounting devices, by: exchanging, reconditioning, aligning, or servicing; using hand, power and specialized tools, lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6407.07 Verify repair of steering systems and components** by: visually inspecting, testing, and analysing performance and function, using hand, power and specialized, tools; lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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**6408.0 Repair Transmission and Auxillary Power Systems**

**General Performance Objective**

Diagnose and repair transmission and auxiliary power systems including, clutches, torque converters and transmission systems; by: performing a visual inspection; diagnosing and troubleshooting, repairing and verifying repair of clutch systems and components; manual transmissions/transaxles, and components; automatic transmissions/transaxles, and components; variable ratio belt drive systems, hydrostatic transmissions, and components; transfer cases and components, according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

**Performance Objectives**

**Skills**

**6408.01 Perform visual inspection of transmissions, auxiliary power systems and components** identifying system types and applications, including: housings, shafts, gears, chains, sprockets, pulleys, tension devices, cams, sheaves, idlers, springs and weights, belts, bearings, seals, bushings, linkages, cables, controls, actuators, clutches, pressure plates, flywheels, switches, relays, solenoids, sensors, wiring harnesses, safety components, fluids/lubricants, coolers, power take-off unit (PTO), pumps, filters, level indicators, tubes, yokes, flanges and data displays, fastening and mounting devices, by: checking for: worn, loose, damaged, leaking, missing, or defective components, according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

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mm/dd/yy	Apprentice Print Name	Apprentice Signature

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**6408.02 Diagnose and troubleshoot clutch systems and components**, including: primary clutch assemblies, secondary clutch assemblies, centrifugal clutch assemblies, pressure plate assemblies, friction materials, cables, linkages, release mechanisms, bearings, springs, flywheel assemblies, input (pilot) shafts, intermediate plates, drive mechanisms, switches, relays, solenoids, sensors, fastening and mounting devices, by: visually inspecting, testing, and analysing performance and function, checking for: odour, temperature, corrosion, contamination, vibration/noise, alignment, colour, fluid level, pressure, free play, internal adjustments, slippage, disengagement and dragging, using hand, power, electronic service, and specialized tools and lifting, rigging and blocking devices; according to manufacturer's recommendations, and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6408.03 Repair clutch systems and components**, including: primary clutch assemblies, secondary clutch assemblies, centrifugal clutch assemblies, pressure plate assemblies, friction materials, cables, linkages, release mechanisms, bearings, springs, flywheel assemblies, input (pilot) shafts, intermediate plates, drive mechanisms, switches, relays, solenoids, sensors, fastening and mounting devices, by: exchanging, reconditioning, or servicing, using hand, power, electronic service, and specialized tools, and lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6408.04**     **Verify repair of clutch systems and components** by: testing, and analysing performance and function, using hand, power, electronic service, and specialized tools, and lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6408.05**     **Diagnose and troubleshoot manual transmissions/transaxles and components**, including: housings, gear trains, chain-case assembly, drive-axle assembly, synchronizers, differentials, shift mechanisms, power take-off (PTO) units, speedometer drives, bearings, seals, lubrication systems, oil, switches, relays, sensors, modules, circuit protection devices, wiring harnesses, fastening and mounting devices, by: visually inspecting, testing, and analyzing performance and function, checking for: odour, temperature, corrosion, contamination, colour, leaks, vibration/noise, wear, alignment, gear clash, using: hand, power, specialized, and electronic service tools, and lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6408.06 Repair manual transmissions/transaxles and components**, including housings, gear trains, chain-case assembly, drive-axle assembly, synchronizers, differentials, shift mechanisms, power take-off (PTO) units, speedometer drives, bearings, seals, lubrication systems, oil, switches, relays, sensors, modules, circuit protection devices, wiring harnesses, fastening and mounting devices, by: exchanging, reconditioning, or servicing, using: hand, power, specialized, and electronic service tools, and lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

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mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6408.07 Verify repair of transmissions/transaxles and components** by: visually inspecting, testing, and analyzing performance and function, using: hand, power, specialized, and electronic service tools, and lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards and safety requirements.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6408.08 Diagnose and troubleshoot hydrostatic transmissions and components**, including: housings, cooling fins, pulleys, belts, shafts, valves, accumulators, shift mechanisms, bearings, seals, filters, pumps, fluids, lines, hoses, fittings, lubrication systems, reservoirs, atmospheric vents, actuators, controls, fasteners and mounting devices; by: visually inspecting, testing and analyzing performance and function; checking for: wear, odour, oil levels, leaks, pressures, contamination, fractures, temperature, corrosion, distortion, colour, vibration/noise, alignment and clearances, routing of lines and hoses; using: hand, power, specialized and precision service tools, lifting, rigging and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6408.09 Repair hydrostatic transmissions and components**, including, housings, cooling fins, pulleys, belts, shafts, valves, accumulators, shift mechanisms, bearings, seals, filters, pumps, fluids, lines, hoses, fittings, lubrication systems, reservoirs, atmospheric vents, actuators, controls, fasteners and mounting devices; by exchanging, reconditioning or servicing; using: hand, power, specialized and precision service tools, lifting, rigging and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6408.10**    **Verify repair of hydrostatic transmissions and components** by: visually inspecting, testing, and analyzing performance and function, using: hand, power, specialized and precision service tools and lifting, rigging, and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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**6409.0 Repair Braking Systems**

**General Performance Objective**

Diagnose and repair braking systems, by: performing a visual inspection; diagnosing and troubleshooting, repairing, and verifying the repair of: mechanical braking systems, and components; hydraulic braking systems and components; according to manufacturer’s recommendations and specifications, government safety regulations and accepted industry standards.

**Performance Objectives**

**Skills**

**6409.01 Performs visual inspection of braking systems and components;** identifying type and application; including: drums, friction materials, cables, calipers, discs, rotors, bands, backing plates, springs, adjusting mechanisms, linkages, dust shields, lines, hoses, fittings, fluids, pumps, valves, reservoirs, lubricants, cylinders, actuators, warning devices, switches, solenoids, relays, sensors, modules, circuit protection devices, wiring harnesses, light bulbs, fasteners and mounting devices checking for worn, loose, damaged, defective, or missing components; according to manufacturer's recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice’s Sponsor.**

**6409.02 Diagnose and troubleshoot mechanical braking systems and components**, including: drums, friction materials, cables, callipers, discs, rotors, bands, backing plates, springs, adjusting mechanisms, linkages, clevis joints, pins, cams, dust shields, lubricants, warning devices, switches, solenoids, relays, sensors, modules, circuit protection devices, wiring harnesses, light bulbs, pedals, handles, control arms, fasteners and mounting devices; by: visually inspecting, testing, analysing performance, and function; checking for: wear, temperature, lubrication, contamination, clearances, vibration/noise, alignment, corrosion, distortion and fractures; using: hand, power, specialized, precision and electronic service tools, lifting, rigging and blocking devices, and personal protective and environmental control equipment; according to manufacturer's recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6409.03 Repair mechanical braking systems and components**, including : drums, friction materials, cables, callipers, discs, rotors, bands, backing plates, springs, adjusting mechanisms, linkages, clevis joints, pins, cams, dust shields, lubricants, warning devices, switches, solenoids, relays, sensors, modules, circuit protection devices, wiring harnesses, light bulbs, pedals, handles, control arms, fasteners and mounting devices by: exchanging, reconditioning, adjusting, or servicing; using: hand, power, specialized, precision and electronic service tools, lifting, rigging and blocking devices, heating, cutting and welding equipment, personal protective and environmental control equipment; according to manufacturer's recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6409.04**     **Verify repair of mechanical braking systems and components** by: visually inspecting, testing, and analysing performance and function; using: hand, power, specialized, precision and electronic service tools, lifting, rigging and blocking devices, and personal protective and environmental control equipment; according to manufacturer's recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6409.05**     **Diagnose and troubleshoot hydraulic braking systems and components**, including: drums, friction materials, calipers, discs, rotors, bands, backing plates, springs, lubricants, adjusting mechanisms, linkages, pedals, levers, dust shields, lines, hoses, fittings, valves, fluids, seals, reservoirs, hydraulic pumps, cylinders, actuators, warning devices, switches, relays, sensors, modules, circuit protection devices, wiring harnesses, fasteners and mounting devices; by: visually inspecting, testing, analysing performance and function; checking for: wear, opens/shorts/grounds, temperature, lubrication, leaks, contamination, pressure, flow, colour, clearances, vibration/noise, alignment, corrosion, distortion and fractures; using: hand, power, specialized, precision and electronic service tools, lifting, rigging and blocking devices, personal protective and environmental.

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**6409.06**     **Repair hydraulic braking systems and components**, including: drums, friction materials, cables, calipers, discs, rotors, bands, backing plates, springs, adjusting mechanisms, linkages, clevis joints, pins, cams, dust shields, lubricants, warning devices, switches, solenoids, relays, sensors, modules, circuit protection devices, wiring harnesses, light bulbs, pedals, handles, control arms, fasteners and mounting devices by: exchanging, reconditioning, adjusting, or servicing; using: hand, power, specialized, precision and electronic service tools, lifting, rigging and blocking devices, heating, cutting and welding equipment, personal protective and environmental control equipment; according to manufacturer's recommendations and specifications, government safety regulations, and accepted industry standards,

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6409.07**     **Verify repair of hydraulic braking systems and components** by: visually inspecting, testing, and analysing performance and function; using: hand, power, specialized, precision and electronic service tools, lifting, rigging and blocking devices, personal protective and environmental control equipment; according to manufacturer's recommendations, and specifications, government safety regulations, and accepted industry standards

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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**6410.0 Repair Compressed Air Supply Systems**

**General Performance Objective**

Diagnose and repair compressed air supply systems and components, by: performing a visual inspection; diagnosing and troubleshooting, repairing, and verifying the repair of: air supply systems and components; according to: manufacturer’s recommendations and specifications, government safety regulations and accepted industry standards.

**Performance Objectives**

**Skills**

**6410.01 Performs visual inspection of compressed air supply systems and components** identifying system type and application, including: compressors, drive mechanisms, regulator, cooling and lubrication systems, air filters, air manifolds, reservoirs, lines, hoses, fittings, seals, valves, gauges, moisture drains, fasteners and mounting devices; checking for worn, loose, damaged, missing, leaking, restricted, or defective components, according to manufacturer’s recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
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**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice’s Sponsor.**

**6410.02 Diagnose and troubleshoot compressed air supply systems and components**, including: compressors, drive mechanisms, regulator, cooling and lubrication systems, air filters, air manifolds, reservoirs, lines, hoses, fittings, seals, valves, gauges, moisture drains, fasteners and mounting devices by: visually inspecting, testing, analysing performance and function, checking for: wear, temperature, lubrication, leaks, contamination, pressure, flow/velocity, routing of lines and hoses, belt tension and condition, vibration/noise, corrosion, erosion, distortion and fractures using: hand, power, specialized, precision and electronic service tools; according to manufacturer’s recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6410.03 Repair compressed air supply systems and components**, including, compressors, drive mechanisms, regulator, cooling and lubrication systems, air filters, air manifolds, reservoirs, lines, hoses, fittings, seals, valves, gauges, moisture drains, fasteners and mounting devices by: exchanging, reconditioning, servicing, or calibrating; using: hand, power, specialized, precision and electronic service tools; according to manufacturer’s recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6410.04**    **Verify repair of compressed air supply and auxiliary air systems and components** by: visually inspecting, testing and analysing performance and function; using: hand, power, specialized, precision and electronic service tools; according to manufacturer’s recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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**6411.0 Repair Hydraulic Systems**

**General Performance Objective**

Diagnose and repair hydraulic systems by: performing a visual inspection; diagnosing and trouble shooting, repairing, and verifying the repair of: mechanically controlled hydraulic systems and components; electrically controlled hydraulic systems, and components; according to: manufacturer's recommendations and specification, government safety regulations and accepted industry standards

**Performance Objectives**

**Skills**

**6411.01 Perform visual inspection of hydraulic systems and components,** identifying systems types and applications including: pumps, valves, actuators, motors, cylinders, accumulators, reservoirs, atmospheric ventilating devices, controls, display panels, screens, filters, heat exchangers, drive mechanisms, fittings, lines, hoses, oil, seals, bearings, bushings, gaskets, switches, solenoids, relays, sensors, modules, circuit protection devices, wiring harnesses, fasteners and mounting devices; checking for: worn, loose, damaged, leaking, missing or defective components, oil level and condition; according to: manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.**

**6411.02 Diagnose and troubleshoot hydraulic systems and components,** including: pumps, valves, actuators, motors, cylinders, accumulators, reservoirs, atmospheric ventilating devices, controls, display panels, screens, filters, heat exchangers, drive mechanisms, fittings, lines, hoses, oil, seals, bearings, bushings, gaskets, switches, solenoids, relays, sensors, modules, circuit protection devices, wiring harnesses, fasteners and mounting devices by: visually inspecting, testing and analysing performance and function; checking for: wear, opens/shorts/grounds, fluid level, leaks, odour, colour, distortion, corrosion, cavitations, contamination, fractures, pressure, flow, routing of lines and hoses, temperature, and noise/vibration; using: hand, power, specialized precision and electronic service tools, lifting, rigging and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6411.03 Repair hydraulic systems and components,** including: pumps, valves, actuators, motors, cylinders, accumulators, reservoirs, atmospheric ventilating devices, controls, display panels, screens, filters, heat exchangers, drive mechanisms, fittings, lines, hoses, oil, seals, bearings, bushings, gaskets, switches, solenoids, relays, sensors, modules, circuit protection devices, wiring harnesses, fasteners and mounting devices by exchanging, reconditioning or servicing, using: hand, power, specialized precision and electronic service tools, lifting, rigging and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6411.04**    **Verify repair of mechanically and electrically controlled hydraulic systems and components**, by: visually inspecting, testing and analysing performance and function; using: hand, power, specialized precision and electronic service tools, lifting, rigging and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations, and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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**6412.0 Repair Tires, Wheels and Tracks**

**General Performance Objective**

Diagnose and repair tires, wheels and tracks by: performing a visual inspection; diagnosing and troubleshooting, repairing, and verifying the repair of: tire, wheel and track components; according to: manufacturer's recommendations and specifications, government safety regulations, and accepted industry standards.

**Performance Objectives**

**Skills**

**6412.01 Performs visual inspection of tire, wheel and track components,** identifying type and application, including: tires, tracks, tubes, flaps, rims, hubs, bearings, bushings, seals, lugs, guides, valves, caps, spacers, tire ballast, fasteners and mounting devices; checking for worn, misaligned, loose, damaged, missing, overheated, or defective components, chunking and leaks, according to manufacturer's recommendations and specifications, and government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**\* A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.**



**6412.02 Diagnose and troubleshoot, tire, wheel and track components,** including: tires, tracks, tubes, flaps, rims, hubs, bearings, bushings, seals, lugs, guides, valves, caps, spacers, tire ballast, fasteners and mounting devices; by: visually inspecting, testing and analysing performance and function; checking for: wear, alignment, tire matching, condition, chunking, corrosion, fraying, belt separation, contamination, pressure, leaks, temperature, noise/vibration, and distortion ; using: hand, power, specialized precision and service tools, torquing devices, lifting, rigging and blocking devices; according to: manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6412.03 Repair tire, wheel and track components** including: tires, tracks, tubes, flaps, rims, hubs, bearings, bushings, seals, lugs, guides, valves, caps, spacers, tire ballast, fasteners and mounting devices; by: exchanging, reconditioning, servicing, aligning or calibrating; using: hand, power, specialized and precision service tools, torquing devices, patches, plugs, adhesives, lubricants, lifting, rigging and blocking devices; according to: manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**6412.04**    **Verify repair of tire, wheel and track components**, by: visually inspecting, testing and analysing performance and function; using: hand, power, specialized and precision service tools, torquing devices, lifting, rigging and blocking devices; according to manufacturer's recommendations and specifications, government safety regulations and accepted industry standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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## Definitions

### Apprentice

- An individual who, pursuant to a registered Training Agreement, is receiving or is to receive training in a trade that is required as part of an apprenticeship program
- Holds a Training Agreement in either a compulsory or non-compulsory trade;
- Are subject to any ratios that have been set out in regulation and or recommended by industry for their trade(s);
- Remain as an Apprentice until they receive their Certificate of Apprenticeship

### BOSTA

*Building Opportunities in the Skilled Trades Act, 2021 (BOSTA)*

### Certificate of Apprenticeship (C of A)

A certificate issued to individuals who have demonstrated that they have completed an apprenticeship program in Ontario.

### Certificate of Qualification (C of Q)

A certificate issued to an individual who has completed an apprenticeship or equivalent AND passed the Certificate of Qualification examination.

### Competence

The ability of an individual to perform a skill, consistently without assistance, in the workplace as set out in the Logbook.

### Competency Analysis Profile (CAP Chart)

A chart that identifies the training needs of an individual trade and details the skills/skill sets that must be demonstrated during an apprenticeship program.

### Journeyman

Journeyman means an individual who holds a certificate of qualification (in a compulsory or non-compulsory trade) and/or an individual who practices as a journeyman in a non-compulsory trade who does not hold a certificate of qualification and has equivalent experience in that trade.

### Mandatory Skill

Status assigned to unshaded individual skills, skill sets or general performance objectives which must be signed-off for the Apprentice to complete their program.

### Optional Skill

Status assigned to shaded individual skills, skills sets or general performance objectives for which sign-off is not required for the Apprentice to complete the program.

### **Provisional Certificates of Qualification**

- A Provisional Certificate of Qualification is issued to an individual who has obtained a Certificate of Apprenticeship (in both compulsory and non-compulsory trades) in a program that has a Certificate of Qualification examination, to which the individual has not yet passed the Certificate of Qualification examination.
- A Provisional Certificate of Qualification shall have the prescribed term or, if no term is prescribed, a term of one year.
- In a compulsory trade, the Provisional Certificate of Qualification allows a person to continue working legally in the trade for up to 12 months while they work to pass the certifying exam.
- Individuals with a Provisional Certificate of Qualification are subject to any ratios that have been set out for their trade(s).

### **Ratios**

For the purpose of an Apprenticeship program, a ratio is the maximum number of Journeypersons to Apprentices. The purpose of ratios is to provide consistent supervision, training and continuity of work.

### **Sign-off**

Signature of the Sponsor of record, or an individual to whom that Sponsor has delegated signing authority, (e.g. Trainer) indicating an Apprentice's demonstration of competence.

### **Skill**

Individual competency/task described in the Logbook.

### **Skill Sets**

Group or selection of individual skills found in the Logbook.

### **Skill Set Completion for Sponsors**

Listing for all skill sets and includes space for sign-off by Sponsor of record.

### **Sponsor**

Means a person that has entered into a registered Training Agreement under which the person is required to ensure that an individual is provided with workplace-based training in a trade as part of an apprenticeship program.

### **Sponsor of Record**

Refers to the Sponsor documented as being signatory to the registered Training Agreement or Contract of Apprenticeship. In order for a Sponsor to be considered for the training of Apprentices, they must identify that the workplace has qualified persons or the equivalent on site, and can identify that the workplace has the tools, equipment, materials, and processes which have been identified by the Industry representatives for the trade.

### **Trainer**

An individual who oversees the performance of a task and sets the workplace expectations and practices for the Apprentice. For a compulsory trade, a qualified Trainer is an individual who holds a Certificate of Qualification. In a non-compulsory trade, a Trainer is an individual who either holds a CofQ, CofA, or is considered equivalent.

## Ready to Write Your Exam?

Many of the skilled trades in Ontario have a final certification examination that you must pass to become certified in your trade. Passing the examination gives you the right to hold yourself out as a Journeyperson and receive a Certificate of Qualification in your trade.

There are two types of trade certification examinations in Ontario:

1. Provincial (Ontario) examinations - which lead to a Certificate of Qualification.
2. Red Seal examinations – which lead to a Certificate of Qualification with an Interprovincial Red Seal endorsement.

If a trade is designated as Red Seal in Ontario, you will be writing the Red Seal examination. To access the Red Seal preparation guide please visit: [red-seal.ca](http://red-seal.ca)

## Ontario's Exam Preparation Guide

[Exam Resources – Skilled Trades Ontario](#)

### Basic Examination Details for You to Know

- You will have **up to four hours to write your examination.**
- Accommodations must be requested and approved prior to scheduling your examination.
- You can leave the examination centre if you complete the examination in less than four hours.
- Exam questions are multiple choice with four options from which you must choose the correct answer. Your examination may have between 90 and 150 multiple choice questions.
- You need a mark of 70% to pass.

### Scheduling Your Examination

The examination scheduling process is currently outlined in detail on the Skilled Trades Ontario website: [Exam Scheduling – Skilled Trades Ontario](#)

### Remember these 3 basic steps:

1. Confirm your eligibility to write the examination with Skilled Trades Ontario.
2. Contact Client Services at Skilled Trades Ontario to pay your examination fee.
3. Contact the local Service Delivery Office to schedule your examination in their examination centre: <https://www.ontario.ca/page/employment-ontario-apprenticeship-offices>

## **Instructions for Recording a Change in Sponsor**

1. Record your first sponsor's information in Sponsor Record #1 – this would be the sponsor who has signed your initial apprenticeship Training Agreement for this trade.
2. If you do change sponsors prior to completing this apprenticeship, please contact your local Service Delivery Office immediately to update your sponsor record.
3. Please make sure you record all the information regarding any additional sponsors of record towards your apprenticeship using the Sponsor Records on the following pages (if applicable).

**You must fill out a Change of Sponsor Record each time you change your sponsor.**

### Sponsor Record #1

Sponsor Information		
Apprentice Name		
Training Agreement #		Date (mm/dd/yy)
Sponsor Name		
Address		
Telephone		
E-mail Address		

Summary of Training	
Employment Start Date	
Employment End Date	
Total hours of training & instruction between dates of employment.	
Skill Sets Completed	

As the Sponsor, I hereby confirm that the above information is true and accurate to the best of my knowledge.

Signature: \_\_\_\_\_ Date: (mm/dd/yy) \_\_\_\_\_

The Sponsor is required to sign-off and date the skills after the Apprentice has proven competence in those skills. However, if a skill is shaded, it is optional and does not need to be signed-off.

**\*If you need additional copies of the Sponsor Record, visit [SkilledTradesOntario.ca](http://SkilledTradesOntario.ca) and search Sponsor Record Form.**



## Change of Sponsor Record #2

Sponsor Information		
Apprentice Name		
Training Agreement #		Date (mm/dd/yy)
Sponsor Name		
Address		
Telephone		
E-mail Address		

Summary of Training	
Employment Start Date	
Employment End Date	
Total hours of training & instruction between dates of employment.	
Skill Sets Completed	

As the Sponsor, I hereby confirm that the above information is true and accurate to the best of my knowledge.

Signature: \_\_\_\_\_ Date: (mm/dd/yy) \_\_\_\_\_

The Sponsor is required to sign-off and date the skills after the Apprentice has proven competence in those skills. However, if a skill is shaded, it is optional and does not need to be signed-off.

**\*If you need additional copies of the Sponsor Record, visit [SkilledTradesOntario.ca](http://SkilledTradesOntario.ca) and search Sponsor Record Form.**

### Change of Sponsor Record #3

Sponsor Information		
Apprentice Name		
Training Agreement #		Date (mm/dd/yy)
Sponsor Name		
Address		
Telephone		
E-mail Address		

Summary of Training	
Employment Start Date	
Employment End Date	
Total hours of training & instruction between dates of employment.	
Skill Sets Completed	

As the Sponsor, I hereby confirm that the above information is true and accurate to the best of my knowledge.

Signature: \_\_\_\_\_ Date: (mm/dd/yy) \_\_\_\_\_

The Sponsor is required to sign-off and date the skills after the Apprentice has proven competence in those skills. However, if a skill is shaded, it is optional and does not need to be signed-off.

**\*If you need additional copies of the Sponsor Record, visit [SkilledTradesOntario.ca](http://SkilledTradesOntario.ca) and search Sponsor Record Form.**

### Change of Sponsor Record #4

Sponsor Information		
Apprentice Name		
Training Agreement #		Date (mm/dd/yy)
Sponsor Name		
Address		
Telephone		
E-mail Address		

Summary of Training	
Employment Start Date	
Employment End Date	
Total hours of training & instruction between dates of employment.	
Skill Sets Completed	

As the Sponsor, I hereby confirm that the above information is true and accurate to the best of my knowledge.

Signature: \_\_\_\_\_ Date: (mm/dd/yy) \_\_\_\_\_

The Sponsor is required to sign-off and date the skills after the Apprentice has proven competence in those skills. However, if a skill is shaded, it is optional and does not need to be signed-off.

**\*If you need additional copies of the Sponsor Record, visit [SkilledTradesOntario.ca](http://SkilledTradesOntario.ca) and search Sponsor Record Form.**

## Appendix A — Instructions for Apprenticeship Program Completion

**Once an Apprentice has completed all the classroom training and benchmark on-the-job hours specified for the trade and has acquired all the mandatory skills included in this Logbook.**

The Apprentice and the Sponsor complete the Apprentice Completion Form and the Skill Set Completion for Sponsors Form located on the following pages.

1. They sign the forms and submit them to their local Service Delivery Office. To find the closest office, check the contact information at [ontario.ca/page/employment-ontario-apprenticeship-offices](http://ontario.ca/page/employment-ontario-apprenticeship-offices) or call the *Employment Ontario* toll free number at (1-800-387-5656).
2. For All Trades: All mandatory skills (or the combination indicated in the completion requirements for the trade) in the Logbook must be signed-off. The recommended hours are a benchmark. If the Sponsor is completing the Apprentice before the industry recommended training hours are done, staff may request further information regarding the Apprentice's on-the-job training. An example of a request would be a letter from the Sponsor confirming the Apprentice worked for some time in the trade before the initial Training Agreement was registered, thereby acquiring some skills beforehand.

If Apprentices are submitting the completion request form and supporting documentation to their local Service Delivery Office by mail, fax, or email (as a scanned document), they should not include their Logbook; if they are presenting this form in person at the local Service Delivery Office, they should bring their Logbook with them.

After staff verifies all the information in the completion request, they may contact either the Apprentice or the Sponsor for further information or documentation. Once the completion has been confirmed, the local Service Delivery Office will issue a Certificate of Apprenticeship to the Apprentice.

Skilled Trades Ontario will receive notification of this completion.

- If the Apprentice has completed a program in a **compulsory trade**, Skilled Trades Ontario will automatically register the Apprentice for a Provisional Certificate of Qualification to continue to work legally for one year while preparing for the certification examination.
- If an Apprentice completes their apprenticeship in a **non-compulsory trade** and there is a Certificate of Qualification exam, they must write and pass the exam to receive a Certificate of Qualification from Skilled Trades Ontario.

For permission to schedule an exam once completion is confirmed, the individual must first contact the Skilled Trades Ontario Client Services Department at 647-847-3000 or toll free at 1-855-299-0028 to pay the certification examination fee. Once you have paid your exam fee with Skilled Trades Ontario, book your exam by contacting your nearest Employment Ontario local Service Delivery Office.

## Appendix B — Apprentice Completion Form

Please fill out both sides of this form, including the Skill Set Completion for Sponsors (see back of form). Once both sides are completed, submit the form to your local Service Delivery Office (find contact information at [ontario.ca/page/employment-ontario-apprenticeship-offices](http://ontario.ca/page/employment-ontario-apprenticeship-offices) or by calling Employment Ontario at (1-800-387-5656).

Apprentice Information	
Name (print)	
Client ID # Issued by Ministry	
Telephone Number(s)	

Sponsor Information	
Legal Name	
Address	
Telephone Number(s)	
Sponsor's Signing Authority <i>(print name)</i>	
E-mail Address	

Program Information	
Trade Name	
Number of hours required as per Training Agreement <i>(hours-based trades only)</i>	
Hours completed? <i>(documentation attached)</i>	Yes ( )    No ( )    Not applicable ( )
Classroom training completed or exempt?	Yes ( )    No ( )    Not applicable ( )

I hereby confirm that the information submitted on both sides of this form is true and accurate.

X \_\_\_\_\_  
Apprentice's Signature                      Date

X \_\_\_\_\_  
Signature of Sponsor's Signing Authority                      Date

## Appendix C — Skill Set Completion for Sponsors

You will find the skill set numbers and titles in the Logbook's Table of Contents. By signing off each skill set in the table below, you are providing final confirmation, as the Apprentice's Sponsor, that the Apprentice has demonstrated competency in all the mandatory skills included in the skill set.

Skill Set #	Skill Set Title	Signing Authority Signature
6400.0	Protect Self and Others	
6401.0	Perform General Trade Practices	
6402.0	Perform Pre-Delivery Inspection	
6403.0	Repair Electrical Systems	
6404.0	Repair Engine Fuel Management Systems	
6405.0	Perform Engine Tune-Ups	
6406.0	Repair Engine Systems	
6407.0	Repair Frames, Steering and Suspension Systems	
6408.0	Repair Transmission and Auxiliary Power Systems	
6409.0	Repair Braking Systems	
6410.0	Repair Compressed Air Supply Systems	
6411.0	Repair Hydraulic Systems	
6412.0	Repair Tires, Wheels and Tracks	

**Ministry of Labour, Immigration, Training and Skills Development use only:**

Sponsor verified as most recent sponsor of record: Yes ( ) No ( )

Documentation to support completion of hours attached: Yes ( ) No ( )

Completion of classroom training verified: Yes ( ) No ( )

Staff Name \_\_\_\_\_ Signature \_\_\_\_\_

Date \_\_\_\_\_

## Appendix D — Local Service Delivery Offices in Ontario

For current office listings visit: [ontario.ca/page/employment-Ontario-apprenticeship-offices](http://ontario.ca/page/employment-Ontario-apprenticeship-offices)

Location	Contact	Location	Contact
<b>Barrie</b> 705-737-1431	55 Cedar Pointe Dr Unit 609, Barrie, ON L4N 5R7	<b>Marathon</b> 807-346-1550	52 Peninsula Road, Suite 103 Marathon, Ontario, P0T 2E0
<b>Belleville</b> 613-968-5558 1-800-953-6885	135 North Front St, Belleville, ON K8P 3B5	<b>Markham</b> 905-513-2695	140 Allstate Parkway, Suite 505, Markham, Ontario L3R 5Y8
<b>Brantford</b> 519-756-5197	505 Park Rd North Suite 201, Brantford, ON N3R 7K8	<b>North Bay</b> 705-495-8515 1-800-236-0744	200 First Ave West, North Bay, ON P1B 3B9
<b>Chatham</b> 519-354-2766 1-800-214-8284	870 Richmond St West 1st Floor, Chatham, ON N7M 5J5	<b>Ottawa</b> 613-731-7100 1-877-221-1220	Preston Square, 347 Preston Street, Suite 310, Ottawa, ON K1S 3H8
<b>Cornwall</b> 613-938-9702 1-877-668-6604	132 Second St East Ste 202, Cornwall, ON K6H 1Y4	<b>Owen Sound</b> 519-376-5790 1-800-838-9468	1450 1st Ave West, Suite 100, Owen Sound, ON N4K 6W2
<b>Dryden</b> 807-456-2665 1-800-734-9572	Provincial Government Building, 479 Government St, Dryden, ON P8N 3K9	<b>Peel</b> 905-279-7333 1-800-736-5520	The Emerald Centre, 10 Kingsbridge Garden Circle, Suite 404, Mississauga, ON L5R 3K6
<b>Durham</b> 905-433-0595 1-800-461-4608	78 Richmond Street West, Oshawa, ON L1G 1E1	<b>Pembroke</b> 613-735-3911 1-800-807-0227	615 Pembroke St East, Pembroke, ON K8A 3L7
<b>Elliot Lake</b> 1-800-236-8817	50 Hillside Dr North, Elliot Lake, ON P5A 1X4	<b>Peterborough</b> 705-745-1918 1-877-433-6555	901 Lansdowne St West, Peterborough, ON K9J 1Z5
<b>Fort Frances</b> 807-274-8634	922 Scott St 2nd Flr, Fort Frances, ON P9A 1J4	<b>Sarnia</b> 519-542-7705 1-800-363-8453	162 Lochiel Street, Suite 101, Sarnia, ON N7T 7W5
<b>Geraldton</b> 807-854-1966	208 Beamish Avenue West Geraldton, Ontario P0T 1M0	<b>Sault Ste. Marie</b> 705-945-6815 1-800-236-8817	477 Queen St East 4th Flr, Sault Ste Marie, ON P6A 1Z5
<b>Halton</b> 905-842-5105 1-844-901-5105	700 Dorval Dr., Suite 201, Oakville, ON L6K 3V3	<b>St Catharines</b> 905-704-2991 1-800-263-4475	Garden City Tower, 301 St Paul St East, 10th Flr, St Catharines, ON L2R 7R4
<b>Hamilton</b> 905-521-7764 1-800-668-4479	Ellen Fairclough Bldg, 119 King St West 8th Flr, Hamilton, ON L8P 4Y7	<b>Sudbury</b> 705-564-3030 1-800-603-5999	159 Cedar St Ste 506, Sudbury, ON P3E 6A5
<b>Kapuskasing</b> 705-465-5785 705-235-1950	Ontario Government Complex, 122 Government Rd West, Kapuskasing, ON P5N 2X8	<b>Thunder Bay</b> 807-346-1550 1-800-439-5493	189 Red River Rd Suite 103, Thunder Bay, ON P7B 1A2
<b>Kenora</b> 807-468-2879 1-800-734-9572	227 1/2 Second St South, Kenora, ON P9N 1G4	<b>Timmins</b> 705-235-1950 1-877-275-5139	Ontario Government Complex, 5520 Highway 101 East Wing B, South Porcupine, ON P0N 1H0
<b>Kingston</b> 613-548-1151 1-866-973-4043	Alliance Business Centre, 299 Concession St Ste 201, Kingston, ON K7K 2B9	<b>Toronto Centre</b> 416-927-7366 1-800-387-5656	2 St Clair West, 11 <sup>th</sup> floor Toronto, ON M4A 1L5
<b>Kitchener</b> 519-653-5758 1-866-877-0099	4275 King St East, Kitchener, ON N2P 2E9	<b>Toronto South</b> 416-326-5800	625 Church St 1st Fl, Toronto, ON M7A 2B5
<b>London</b> 519-675-7788 1-800-265-1050	1200 Commissioners Rd E, Unit 72, London, ON N5Z 4R3	<b>Windsor</b> 519-973-1441	Roundhouse Centre, 3155 Howard Ave 2nd Fl, Suite 200, Windsor, ON N8X 4Y8

### Competency Analysis Profile (CAP) Chart

<b>6400.0</b> Protect Self and Others	<b>6400.01</b> Identify and take corrective action against potential workplace health and safety hazards	<b>6400.02</b> Handle, store and dispose of hazardous workplace materials	<b>6400.03</b> Wear and maintain personal protective equipment	<b>6400.04</b> Comply with workplace-related legislation	<b>6400.05</b> Practice good housekeeping in the workplace
	<b>6400.06</b> Comply with Workplace Hazardous Materials Information System (WHMIS) guidelines	<b>6400.07</b> Communicate with supervisors and co-workers			
<b>6401.0</b> Perform General Trade Practices	<b>6401.01</b> Interpret and apply service-related information	<b>6401.02</b> Demonstrate effective customer relations	<b>6401.03</b> Perform customer relations activities	<b>6401.04</b> Perform seasonal storage of engines	<b>6401.05</b> Perform visual inspection of Oxy/fuel heating and cutting equipment
	<b>6401.06</b> Prepare repair area, set up and operate oxy/fuel heating and cutting equipment	<b>6401.07</b> Verify condition of heating and cutting area	<b>6401.08</b> Perform visual inspection of Metal Inert Gas (MIG) and Tungsten Inert Gas (TIG) welding equipment	<b>6401.09</b> Prepare repair area, set up and operate Metal Inert Gas (MIG) and Tungsten Inert Gas (TIG)	<b>6401.10</b> Verify integrity of weld
	<b>6401.11</b> Perform visual inspection of arc welder	<b>6401.12</b> Prepare repair area, set up and operate arc welding equipment	<b>6401.13</b> Verify integrity of the arc weld		



**Competency Analysis Profile: Small Engine Technician 435A** *(all unshaded skill sets must be completed)*

<b>6402.0</b> <b>Perform Pre-Delivery Inspection (PDI)</b>	<b>6402.01</b> Check powered equipment and unit systems and components	<b>6402.02</b> Perform visual inspection of powered equipment, unit systems and components	<b>6402.03</b> Diagnose and troubleshoot powered equipment, unit systems and components	<b>6402.04</b> Complete a Pre-Delivery Inspection report	<b>6402.05</b> Perform powered equipment and unit-pre-delivery and setup
	<b>6402.06</b> Verify the pre-delivery Inspection report accuracy				
<b>6403.0</b> <b>Repair Electrical Systems</b>	<b>6403.01</b> Perform visual inspection of starting and charging systems	<b>6403.02</b> Diagnose and troubleshoot batteries	<b>6403.03</b> Service and boost/charge batteries	<b>6403.04</b> Diagnose and troubleshoot electrical starting system and components	<b>6403.05</b> Repair starting systems and components
	<b>6403.06</b> Verify repair of starting systems and components	<b>6403.07</b> Diagnose and troubleshoot charging systems and components	<b>6403.08</b> Repair charging systems and components	<b>6403.09</b> Verify repair charging systems and components	<b>6403.10</b> Diagnose and troubleshoot electrical and electronically-controlled systems and components
	<b>6403.11</b> Repair electrical and electronically-controlled systems and components	<b>6403.12</b> Verify repair of electrical, electronically-controlled systems and components	<b>6403.13</b> Diagnose and troubleshoot electrical/ electronic ignition systems and components	<b>6403.14</b> Repair electrical/ electronic ignition systems and components	<b>6403.15</b> Verify repair of electrical/ electronic ignition systems and components

**Competency Analysis Profile: Small Engine Technician 435A** *(all unshaded skill sets must be completed)*

<b>6404.0</b> <b>Repair Engine Fuel Management Systems</b>	<b>6404.01</b> Perform visual inspection of mechanically and electronically-controlled gasoline engine fuel systems and components	<b>6404.02</b> Diagnose and troubleshoot mechanically and electronically-controlled gasoline engine fuel control systems and components	<b>6404.03</b> Repair mechanically and electronically-controlled gasoline engine fuel control systems and components	<b>6404.04</b> Verify repair of gasoline fuel control systems and components	<b>6404.05</b> Diagnose and troubleshoot diesel engine fuel control systems and components
	<b>6404.06</b> Repair diesel engine fuel control systems and components	<b>6404.07</b> Verify repair of diesel fuel control systems and components			
<b>6405.0</b> <b>Perform Engine Tune-Ups</b>	<b>6405.01</b> Perform gasoline engine tune-ups	<b>6405.02</b> Perform diesel engine tune-ups	<b>6405.03</b> Verify engine tune-ups		
<b>6406.0</b> <b>Repair Engine Systems</b>	<b>6406.01</b> Perform visual inspection of engine cooling systems	<b>6406.02</b> Diagnose and troubleshoot cooling systems and components	<b>6406.03</b> Repair cooling systems and components	<b>6406.04</b> Verify repair of cooling systems and components	<b>6406.05</b> Perform visual inspection of engine lubrication systems
	<b>6406.06</b> Diagnose and troubleshoot engine lubricating systems and components	<b>6406.07</b> Repair engine lubricating systems and components	<b>6406.08</b> Verify repair of engine lubricating systems and components	<b>6406.09</b> Perform visual inspection of engine cylinder heads, block and components	<b>6406.10</b> Diagnose and troubleshoot cylinder and components

*(continued on the next page)*

**Competency Analysis Profile: Small Engine Technician 435A** *(all unshaded skill sets must be completed)*

<b>6406.0</b> <b>Repair Engine Systems</b> <i>(continued)</i>	<b>6406.11</b> Repair cylinder head and components	<b>6406.12</b> Verify repair of cylinder head and components	<b>6406.13</b> Diagnose and troubleshoot engine block and components	<b>6406.14</b> Repair engine block and components	<b>6406.15</b> Verify repair of engine block and components
	<b>6407.01</b> Perform visual inspection of steering, frames and suspension systems and components	<b>6407.02</b> Diagnose and troubleshoot frames, suspension systems and components	<b>6407.03</b> Repair frames, suspension systems and components	<b>6407.04</b> Verify repair of frames, suspension systems and components	<b>6407.05</b> Diagnose and troubleshoot steering systems and components
<b>6407.0</b> <b>Repair Frames, Steering and Suspension Systems</b>	<b>6407.06</b> Repair steering systems and components	<b>6407.07</b> Verify repair of steering systems and components			
	<b>6408.01</b> Perform visual inspection of transmissions, auxiliary power systems and components	<b>6408.02</b> Diagnose and troubleshoot clutch systems and components	<b>6408.03</b> Repair clutch systems and components	<b>6408.04</b> Verify repair of clutch systems and components	<b>6408.05</b> Diagnose and troubleshoot manual transmission/transaxles and components
<b>6408.0</b> <b>Repair Transmission and Auxillary Power Systems</b>	<b>6408.06</b> Repair manual transmission/transaxles and components	<b>6408.07</b> Verify repair of transmission/transaxles and components	<b>6408.08</b> Diagnose and troubleshoot hydrostatic transmission and components	<b>6408.09</b> Repair hydrostatic transmission and components	<b>6408.10</b> Verify repair of hydrostatic transmissions and components

**Competency Analysis Profile: Small Engine Technician 435A** *(all unshaded skill sets must be completed)*

<b>6409.0</b> <b>Repair Braking Systems</b>	<b>6409.01</b> Performs visual inspection of braking systems and components	<b>6409.02</b> Diagnose and troubleshoot mechanical braking systems and components	<b>6409.03</b> Repair mechanical braking systems and components	<b>6409.04</b> Verify repair of mechanical braking systems and components	<b>6409.05</b> Diagnose and troubleshoot hydraulic braking systems and components
	<b>6409.06</b> Repair hydraulic braking systems and components	<b>6409.07</b> Verify repair of hydraulic braking systems and components			
<b>6410.0</b> <b>Repair Compressed Air Supply Systems</b>	<b>6410.01</b> Performs visual inspection of compressed air supply systems and components	<b>6410.02</b> Diagnose and troubleshoot compressed air supply systems and components	<b>6410.03</b> Repair compressed air supply systems and components	<b>6410.04</b> Verify repair of compressed air supply and auxiliary air systems and components	
<b>6411.0</b> <b>Repair Hydraulic Systems</b>	<b>6411.01</b> Perform visual inspection of hydraulic systems and components	<b>6411.02</b> Diagnose and troubleshoot hydraulic systems and components	<b>6411.03</b> Repair hydraulic systems and components	<b>6411.04</b> Verify repair of mechanically and electrically controlled hydraulic systems and components	
<b>6412.0</b> <b>Repair Tires, Wheels and Tracks</b>	<b>6412.01</b> Performs visual inspection of tires, wheels and track components	<b>6412.02</b> Diagnose and troubleshoot tires, wheels and track components	<b>6412.03</b> Repair tire, wheel and track components	<b>6412.04</b> Verify repair of tire, wheel and track components	

Notes

# Completing Your Apprenticeship Program

Once your sponsor agrees you are competent in the required skills, your hours are complete and you have completed all the levels of classroom training required for your trade:

- ✓ Follow the completion instructions on the Completion Form (Appendix A) in the Logbook.
- ✓ Answer any questions that MLITSD staff may have and provide any additional completion documentation that may be required.
- ✓ Once completion is confirmed, MLITSD will issue you a Certificate of Apprenticeship and notify Skilled Trades Ontario.

## After Your Apprenticeship

If you are in a trade with a certification exam, Skilled Trades Ontario will receive notice of your completion.

For compulsory trades, you will be issued a Provisional Certificate of Qualification which will allow you to work legally for up to 12 months until you write and pass your examination.

For a non-compulsory trade, once you pass your examination, you will be issued a Certificate of Qualification for your trade.

## Preparing For Your Exam

- **To pay for a Certificate of Qualification examination, contact Skilled Trades Ontario** Client Services Department at: 647-847-3000 or toll free at 1-855-299-0028
- **To schedule your exam:** Once you have paid, contact your local Service Delivery Office to book your exam.
- **Download Skilled Trades Ontario exam preparation guide at:** [Exam Resources – Skilled Trades Ontario](#) and/or view the exam preparation guide for Red Seal trades at: [red-seal.ca](http://red-seal.ca)



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