



Auto Body and Collision Technician On-the-Job Training Guide

2024

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Recognition:

To promote transparency and consistency, this document has been adapted from the 2019 Auto Body and Collision Technician Red Seal Occupational Standard (Employment and Social Development Canada).

A complete version of the Occupational Standard can be found at www.red-seal.ca.



STRUCTURE OF THE ON-THE-JOB TRAINING GUIDE

To facilitate understanding of the occupation, this on-the-job training guide contains the following sections:

Task Matrix: a chart which outlines graphically the major work activities, tasks and sub-tasks of this standard detailing the essential skills and the level of training where the content is covered.

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

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

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

On-the-Job Training Content for the Auto Body and Collision Technician Trade: a chart which outlines the topics of technical training with on-the-job examples for apprentice to achieve relevant experience at work.

TRAINING REQUIREMENTS FOR THE **AUTO BODY AND COLLISION TECHNICIAN TRADE**

To graduate from each level of the apprenticeship program, an apprentice must successfully complete the required technical training and compile enough on-the-job experience to total at least 1800 hours each year. Total trade time required is 7200 hours and at least 4 years in the trade.

Journeyman to apprentice ratio for this trade is: 1:2

The information contained in this document serves as a guide for employers and apprentices. Apprenticeship training is mutually beneficial to both employer and apprentice. The employer's investment in training apprentices results in skilled and certified workers. The document summarizes the tasks to be covered by the apprentice during their on-the-job portion of apprenticeship training. An apprentice spends approximately 85% of their apprenticeship term training on-the-job.

It is the employer's or journeyman's responsibility to supervise an apprentice's practical skills development until a satisfactory level of proficiency has been reached.

EMPLOYER TRAINING RESPONSIBILITY

- promote a safety-conscious workplace
- provide mentored, hands-on practice in the use of tools and equipment
- demonstrate procedures relevant to the inspecting, diagnosing, servicing, repairing, replacing and overhauling of all components of an automobile, light truck or light bus
- provide the opportunity for apprentices to service the above systems and vehicles
- further the apprentice's ability to interpret technical drawings and schematics
- ensure that the apprentice can troubleshoot, diagnose and repair the vehicle and its systems

Employers should make every effort to expose their apprentices to work experience in as many areas of the trade as possible.

In the On-the-Job Training Guide, in-school instruction is listed first; on-the-job suggestions to help employers assist the apprentice to prepare for in-school training are listed next.

The content of the training components is subject to change without notice.

AUTO BODY AND COLLISION TECHNICIAN

TASK MATRIX

This chart outlines the major work activities, tasks and sub-tasks from the 2019 Auto Body and Collision Technician Red Seal Occupational Standard. Each sub-task details the corresponding essential skill and level of training where the content is covered. *

* Sub Tasks with numbers in the boxes is where the content will be delivered in training.

A – Performs Common Occupational Skills

12%

A-1 Performs safety-related functions	1.01 Maintains safe work environment 1 (2, 3, 4 In Context)	1.02 Uses personal protective equipment (PPE) and safety equipment 1 (2, 3, 4 In Context)			
A-2 Uses and maintains tools and equipment	2.01 Maintains hand and power tools 1	2.02 Maintains frame and unibody repair and measuring equipment 3, 4	2.03 Uses lifting equipment 1, 2	2.04 Uses diagnostic equipment 3, 4	2.05 Maintains refinishing tools and equipment 1, 2
A-3 Uses and Maintains welding equipment	3.01 Uses welding equipment 1, 2, 3, 4	3.02 Maintains welding equipment 1, 2, 3, 4			
A-4 Organizes work and uses documentation	4.01 Prepares estimates and supplements 3, 4	4.02 Prepares repair plan 2	4.03 Organizes parts, materials and work area 1, 2	4.04 Uses documentation 1, 2, 3, 4	
A-5 Uses communication and mentoring techniques	5.01 Uses communication techniques 1 (2, 3 In Context)	5.02 Uses mentoring techniques 4			

A-6 Removes and installs trim and hardware	6.01 Removes trim and hardware 1	6.02 Installs trim and hardware 1
A-7 Performs final inspections	7.01 Performs final operational check 3	7.02 Performs final quality control inspection 4
A-8 Applies corrosion protection and sound deadening materials	8.01 Applies corrosion inhibitors and undercoats 2	8.02 Applies seam sealers and sound deadeners 2

B – Repairs Frame and Structural Components

23%

B-9 Prepares for repair and replacement of structural components	9.01 Identifies extent of damage 3, 4	9.02 Removes components for access 3, 4	9.03 Performs vehicle setup 3, 4
B-10 Repairs, removes and installs structural components	10.01 Repairs structural components 3, 4	10.02 Removes structural components 3, 4	10.03 Installs structural components 3, 4
B-11 Removes, installs and repairs structural and laminated glass	11.01 Removes structural glass 2 (3 In Context)	11.02 Installs structural glass 2 (3 In Context)	11.03 Repairs laminated glass 2 (3 In Context)

C – Repairs Non-Structural Outer Body Panels and Related Components

20%

<p>C-12 Removes, repairs and installs metal panels and components</p>	<p>12.01 Prepares metal panels and components for repair</p> <p>1</p>	<p>12.02 Removes metal panels and components</p> <p>1</p>	<p>12.03 Repairs metal panels and components</p> <p>1, 2</p>	<p>12.04 Installs metal panels and components</p> <p>1</p>
<p>C-13 Removes, repairs and installs plastic and composite panels and components</p>	<p>13.01 Prepares plastic and composite panels and components for repair</p> <p>1, 2</p>	<p>13.02 Removes plastic and composite panels and components</p> <p>1, 2</p>	<p>13.03 Repairs plastic and composite panels and components</p> <p>1, 2</p>	<p>13.04 Installs plastic and composite panels and components</p> <p>1, 2</p>
<p>C-14 Removes and installs non-structural glass</p>	<p>14.01 Removes non-structural glass</p> <p>2 (3 In Context)</p>	<p>14.02 Installs non-structural glass</p> <p>2 (3 In Context)</p>		

D – Repairs Mechanical, Electrical and Alternative-Fuel System Components

12%

<p>D-15 Deactivates and reactivates alternative-fuel systems</p>	<p>15.01 Deactivates alternative-fuel systems</p> <p>3</p>	<p>15.02 Reactivates alternative-fuel systems</p> <p>3</p>
<p>D-16 Removes and installs mechanical components</p>	<p>16.01 Removes mechanical components</p> <p>3, 4</p>	<p>16.02 Installs mechanical components</p> <p>3, 4</p>

D-17 Removes, repairs and installs electrical and electronic components	17.01 Removes electrical components 3	17.02 Repairs damaged wires and protective coverings 3	17.03 Installs electrical components 3	17.04 Services advanced electronic components 3, 4
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E – Repairs Interior Components and Services Restraint Systems

10%

E-18 Repairs and replaces interior components	18.01 Repairs interior components 2	18.02 Replaces interior components 2
E-19 Services supplemental restraint systems (SRS)	19.01 Services seat belt restraint systems 3	19.02 Services air bags and related components 3

F – Performs Refinishing Procedures

18%

F-20 Prepares surface	20.01 Performs initial preparation 1 (3, 4 In Context)	20.02 Masks surface 1 (3, 4 In Context)	20.03 Strips surface 1 (3, 4 In Context)	20.04 Sands surface 1 (3, 4 In Context)
F-21 Uses repair materials	21.01 Mixes repair materials 1	21.02 Applies repair materials 1		
F-22 Prepares refinishing equipment	22.01 Prepares spray booth 1, 2	22.02 Performs spray gun setup 1, 2		

F-23 Prepares refinishing materials

23.01 Mixes refinishing materials

1, 2, 3, 4

23.02 Performs colour adjustments

2, 3, 4

F-24 Applies refinishing materials

24.01 Applies sealers

1, 2

24.02 Applies base coat

1, 2

24.03 Applies single-stage paint

1, 2

24.04 Applies clear coat

1, 2

F-25 Prepares post-refinishing functions

25.01 Removes masking materials

1

25.02 Corrects surface imperfections

2

G – Performs Detailing and Cleaning

5%

G-26 Details exterior

26.01 Removes minor imperfections

1

26.02 Polishes vehicle

1

26.03 Touches up stone chips

1

G-27 Cleans vehicle

27.01 Cleans exterior

1

27.02 Cleans interior

1

TRAINING PROFILE CHART

This Training Profile Chart represents Saskatchewan Apprenticeship and Trade Certification Commission (SATCC) technical training at the topic level.

Level One	Transcript Code	Hours
Trade Mathematics	MATH 131 – Theory	12
Metal Repair	METL 122 – Theory	20
	METL 123 – Shop	36
Refinishing	PNTG 122 – Theory	24
	PNTG 123 – Shop	32
Vehicle Body Trim Repair	VEHC 122 – Theory	24
	VEHC 123 – Shop	32
		180

Level Two	Transcript Code	Hours
Refinishing	PNTG 222 – Theory	20
	PNTG 223 – Shop	40
Vehicle Body Trim Repair	VEHC 222 – Theory	23
	VEHC 223 – Shop	47
Welding	WELD 230 – Theory	15
	WELD 231 – Shop	35
		180

Level Three	Transcript Code	Hours
Frames	ATBD 320 – Theory	15
	ATBD 321 – Shop	45
Metal Repair	METL 320 – Theory	30
	METL 321 – Shop	60
Refinishing	PNTG 320 – Theory	15
	PNTG 321 – Shop	45
		210

Level Four	Transcript Code	Hours
Wheel Alignment	ATBD 420 – Theory	15
	ATBD 421 – Shop	15
Metal Repair	METL 420 – Theory	30
	METL 421 – Shop	90
Refinishing	PNTG 420 – Theory	15
	PNTG 421 – Shop	45
		210

ON-THE JOB AND IN-SCHOOL TRAINING

CONTENT FOR THE AUTO BODY AND COLLISION

TECHNICIAN TRADE

This chart outlines on-the-job examples for apprentices to achieve relevant work experience to prepare for the topics of technical training. Topics of technical training are provided with the associated learning outcomes.

Level One	6 weeks	180 hours
Trade Mathematics <ul style="list-style-type: none">• use basic mathematics• use basic algebra• use metric system and formulas <p>Mentors can assist the apprentice to prepare for this section of technical training by:</p> <ul style="list-style-type: none">• <i>having the apprentice perform calculations using basic math, algebra and formulas for trade related activities</i>		12 hours
Metal Repair – Theory <ul style="list-style-type: none">• discuss auto body hand and power tools• identify metal shaping procedures• discuss metal preparation procedures• describe minor dent repair procedures• describe application and finishing procedures of fillers• describe oxy-acetylene cutting and heating procedures• describe plasma cutting procedures• describe trade-related documents		20 hours
Metal Repair – Shop <ul style="list-style-type: none">• demonstrate knowledge of trade terminology• use auto body hand tools• use auto body power tools• demonstrate metal working procedures• perform the application and finish filler process• use oxy-acetylene equipment• use plasma arc <p>Mentors can assist the apprentice to prepare for this section of technical training by:</p> <ul style="list-style-type: none">• <i>having the apprentice participate in training for workplace safety and health regulations such as Material Safety Data Sheets (MSDS), Workplace Hazardous Material Information Systems (WHMIS) and Occupational Health and Safety (OH&S)</i>• <i>describing the care, use, and maintenance of body hand tools</i>• <i>describing the procedures and techniques for shrinking metal so that it conforms to its original contour</i>• <i>allowing the apprentice to perform rough-out procedures for buckles and creases</i>		36 hours

- *exposing the apprentice to repairs required to damaged panels to conform to their original shape, strength, and alignment with the undamaged panels*
- *providing instruction on repairing minor dents so that the panel conforms to its original shape*
- *having the apprentice apply and finish body filler to the original contour of the panel*
- *allowing the apprentice to operate oxy-acetylene cutting equipment*
- *allowing the apprentice to operate plasma arc cutting equipment*

Refinishing – Theory

24 hours

- describe preparation of panel to be painted
- identify methods of stripping paint
- describe undercoat application procedures
- identify primer sealers
- describe spray equipment
- describe paint mixing procedures
- explain paint application procedures
- describe procedures for paint defect correction
- describe air supply systems
- describe vehicle detailing procedures

Refinishing – Shop

32 hours

- prepare panel to be painted
- strip painted panel
- apply undercoats
- apply primer sealers
- clean and maintain spray equipment
- mix paint
- apply paint to a panel
- correct paint defects
- service air supply systems
- perform an interior and exterior vehicle clean up

Mentors can assist the apprentice to prepare for this section of technical training by:

- *describing the procedures for service, maintenance, and cleaning of spray equipment*
- *describing the procedures for service, maintenance, and cleaning of air supply systems*
- *describing the appropriate selection and maintenance of respirators*
- *describing the procedures for paint booth maintenance*
- *having the apprentice identify substrate and panel preparation to ensure compatibility with paint manufacturer's specifications*
- *allowing the apprentice to mask and tape a panel for refinishing*
- *exposing the apprentice to the selection and application of primers for various substrate*
- *exposing the apprentice to the selection and application of sealers designed to perform various functions*
- *allowing the apprentice to select and mix paints according to colour code and compatibility with existing vehicle finish*
- *allowing the apprentice to paint various substrate in accordance to paint manufacturer's specifications*
- *describing the procedures for the disposal of paint, solvent, and shop wastes*
- *having the apprentice polish a refinished panel or vehicle*
- *describing the procedure for the selection and use of cleaners for removing various types of stains and dirt from upholstery materials and interior components*
- *having the apprentices to perform vehicle interior and exterior cleanup*
- *allowing the apprentice to complete a final checklist*

Vehicle Body Trim Repair – Theory**24 hours**

- discuss personal and shop safety
- discuss electrical systems
- identify fastening devices
- describe body trim and mouldings
- identify passenger restraint systems
- describe plastic repair
- describe body panel replacement and alignment

Vehicle Body Trim Repair – Shop**32 hours**

- repair electrical systems
- replace vehicle trim components
- repair plastic components
- replace body panels and associated trim

Mentors can assist the apprentice to prepare for this section of technical training by:

- *allowing the apprentice to remove, install and align of bumpers, header panels, hoods, fenders and skirts, bolt-on radiator supports and deck lids*
- *showing the apprentice procedures on diagnosing and repairing air, dust, and water leaks*
- *allowing the apprentice to remove, install and align headlights*
- *allowing the apprentice remove, install, and align of doors and door hardware*
- *allowing the apprentice remove, install, and align of moveable glass*
- *having the apprentice use a multimeter to diagnose electrical circuits and components*
- *describing the operation, basic diagnosis, and repair of electrical wiring and lighting systems*
- *discussing the protection of electronic components from static discharge and damage from welding processes, impact, or heat*

Level Two

6 weeks

180 hours

Refinishing – Theory

20 hours

- describe preparation procedures for a blend repair
- discuss colour matching procedures
- describe painting procedures for a blend repair
- identify plastic parts refinishing procedures
- explain decal removal and installation methods

Refinishing – Shop

40 hours

- perform blend panel preparation techniques
- perform colour matching procedure
- perform paint blending procedures
- paint projects

Mentors can assist the apprentice to prepare for this section of technical training by:

- *having the apprentice perform a blend repair*
- *allowing the apprentice to prepare panels for spot repairs*
- *having the apprentice perform colour matching for a spot repair*
- *describing the procedures and allowing the apprentice to paint spot repairs such that the painted surface has no imperfections and matches colour and texture*
- *describing the methods and allowing the apprentice to install decals and pin stripes*
- *having the apprentice perform decal removal and replacement procedures*

Vehicle Body Trim Repair – Theory

23 hours

- describe metal panel collision repair procedures
- describe procedures to repair weakened and damaged metal panels
- describe plastic panel repair procedures
- describe structural glass replacement procedures
- describe the removal and installation process of vehicle door components
- discuss electrical system components and protection procedures

Vehicle Body Trim Repair – Shop

47 hours

- repair metal panels.
- repair plastic panels
- replace structural glass
- perform removal and installation of vehicle door components
- perform basic electrical repairs

Mentors can assist the apprentice to prepare for this section of technical training by:

- *having the apprentice select compatible bonding materials, and perform adhesive bonding repairs plastic components*
- *allowing the apprentice to repair rust damage appropriate to the panel to restore its original shape and contour*
- *describing the reinforcement of weak, damaged area (ridging, bending, beading, fish-plating) so that damage control areas remain unaffected*
- *describing the procedures and application for panel bonding*
- *exposing the apprentice to plastic painting techniques and procedures*
- *describing the removal and installation of stationary glass to conform to manufacturer's specifications*
- *allowing the apprentice to remove and install stationary glass*

Welding – Theory**15 hours**

- discuss safe working procedures
- identify metals
- describe GMAW procedures
- describe resistance spot welding

Welding – Shop**35 hours**

- demonstrate safe working procedures
- use GMAW welding equipment
- use STRSW equipment

Mentors can assist the apprentice to prepare for this section of technical training by:

- *describing the hazards and safe work practices for the set-up, adjustment, and maintenance and of welding and cutting equipment*
- *exposing the apprentice to welding and cutting of various metal types*
- *describing the procedures and allowing the apprentice to setup, adjust, and maintain GMAW welding equipment*
- *exposing the apprentice to GMAW welding processes to perform spot, butt, lap, fillet, and plug welds in all positions*
- *allowing the apprentice to operate and maintain squeeze-type resistance spot welding equipment*
- *describing the identification of types of plastic, selecting compatible welding materials, and plastic welding techniques*
- *allowing the apprentice to perform plastic welding*

Level Three

7 weeks

210 hours

Frames – Theory

15 hours

- describe types of automobile construction
- identify effects of collision forces
- identify high strength steel components
- identify hydro-formed components
- describe stress relieving
- determine the extent of impact damage
- explain the use of measuring systems
- explain straightening techniques

Frames – Shop

45 hours

- confirm the extent of damage
- use measuring systems
- assemble a complete plan of repair
- perform straightening techniques

Mentors can assist the apprentice to prepare for this section of technical training by:

- *exposing the apprentices to various automobile construction such as conventional, unitized and space frames*
- *describing the effects of collision forces*
- *exposing the apprentice to repairs of high strength steel components*
- *exposing the apprentice to repairs of hydro-formed steel components*
- *describing the procedures and allowing the apprentice to perform stress relieving of vehicle frames*
- *describing the procedure to assess the extent of impact damage to a damaged vehicle frame*

Metal Repair – Theory

30 hours

- describe structural parts replacement and sectioning procedures
- identify damaged air conditioning components
- identify damaged mechanical heating and cooling components
- identify SRS systems and components
- explain electrical troubleshooting procedures
- explain a complete vehicle inspection
- identify hybrid repair safety procedures

Metal Repair – Shop

60 hours

- use structural parts replacement and sectioning procedures
- replace damaged air conditioning components
- replace damaged mechanical heating and cooling system components
- demonstrate electrical troubleshooting procedures
- perform a complete vehicle inspection

Mentors can assist the apprentice to prepare for this section of technical training by:

- *exposing the apprentices to structural parts replacement and sectioning for metal repairs*
- *allowing the apprentice, the opportunity to obtain CFC training/certification*
- *describing the procedures and allowing the apprentice to identify damage and perform an R&R of air conditioning components*
- *describing the procedures and allowing the apprentice to perform an R&R of heating and cooling systems, components, and controls*
- *describing the hazards and safe work practices for passive restraint systems*
- *exposing the apprentice to the safety repair procedure when servicing hybrid vehicles*
- *exposing the apprentice to the inspection, removal and installation of passive restraint systems*

- *allowing the apprentice to inspect, remove and install active restraint systems*
- *describing the use of flow charts and wiring diagrams for troubleshooting electrical circuits and components*
- *exposing the apprentice to electrical system testing using various diagnostic test equipment*
- *describing the procedures and monitoring the apprentice during a final check of vehicle repairs to ensure work performed has restored the vehicle to manufacturer's specifications*
- *describing the final inspection and testing of vehicle systems and components to verify operation*

Refinishing – Theory

15 hours

- discuss multi-coat refinishing

Refinishing – Shop

45 hours

- prepare multi-coat panels
- finish multi-coat panels
- refinish student projects

Mentors can assist the apprentice to prepare for this section of technical training by:

- *allowing the apprentice to perform a multi-coat colour match for a vehicle repair*
- *exposing the apprentice to the refinishing of a multi-coat on complete vehicles*
- *exposing the apprentice to multi-coat refinishing repairs*

Level Four

7 weeks

210 hours

Wheel Alignment – Theory

15 hours

- identify suspension components
- identify steering components
- identify wheel alignment angles
- identify theoretical and practical mentoring techniques

Wheel Alignment – Shop

15 hours

- perform a computerized four-wheel alignment
- replace suspension and steering parts as required

Mentors can assist the apprentice to prepare for this section of technical training by:

- *describing the procedures and allowing the apprentice to straighten damaged suspension structures to restore alignment*
 - *exposing the apprentice to replacement of suspension components*
 - *exposing the apprentice to replacement of steering components*
 - *exposing the apprentice to 4-wheel alignments*
 - *describe the procedures to diagnose wheel alignment and vehicle tracking problems*
-

Metal Repair – Theory

30 hours

- explain estimate essentials and flat rate operations
- describe a computerized damage report
- describe rollover damage repair procedures
- explain roof replacement procedures
- explain aluminum repair procedures
- explain electrical system diagnostic procedures
- identify hybrid repair safety procedures

Metal Repair – Shop

90 hours

- prepare a computerized damage report
- perform pulling and alignment procedures
- perform structural panel replacement
- perform aluminum welds
- troubleshoot vehicle electrical problems

Mentors can assist the apprentice to prepare for this section of technical training by:

- *describing the procedures and allowing the apprentice to inspect and analyze vehicle damage to produce repair estimates that include cost of parts, Labour, materials, and identifying hidden damage*
- *exposing the apprentice to the safety repair procedure when servicing hybrid vehicles*
- *exposing the apprentice to computer software for preparing estimates, sourcing vehicle*
- *allowing the apprentice to pull and align frames, panels, and components*
- *exposing the apprentice to structural panel replacement*
- *specifications, locating parts, preparing work orders, and other related office functions*
- *exposing the apprentice to all aspects of collision repair including frames, interior, and exterior panels*
- *exposing the apprentice to vehicles with rollover damage*
- *allowing the apprentice to replace roof panels*
- *describing the setup, adjustment, and operation of GMAW welding equipment to perform aluminum welds in the horizontal position*
- *allowing the apprentice to perform aluminum welding*
- *describing the procedures and allowing the apprentice to use of electrical diagnostic test equipment*

- *allowing the apprentice to troubleshooting and repair electrical circuits, wiring, and components*
-

Refinishing – Theory

15 hours

- discuss multi-coat color matching and blending procedures
- discuss automotive refinishing

Refinishing – Shop

45 hours

- perform the preparation and refinishing of multi-coat panels
- perform the preparation and refinishing of the project vehicle

Mentors can assist the apprentice to prepare for this section of technical training by:

- *allowing the apprentice to perform color matching for multi-coat refinishes*
- *exposing the apprentice to the refinishing of complete vehicles*
- *describing the procedures and allowing the apprentice to prepare vehicles for delivery and perform final vehicle inspections*



Consider apprenticeship training as an investment in the future of your company and in the future of your workforce. Ultimately, skilled and certified workers increase your bottom line.

Get involved in the apprenticeship training system. Your commitment to training helps to maintain the integrity of the trade.

Do you have employees who have been working in the trade for a number of years but don't have trade certification?

Contact your local apprenticeship office for details on how they might obtain the certification they need.

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