

Trade Profile

Motorcycle Technician



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TRADE PROFILE

MOTORCYCLE TECHNICIAN



STRUCTURE OF THE TRADE PROFILE

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

Description of the motorcycle technician trade: an overview of the trade's duties, work environment, job requirements, similar occupations and career progression

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

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

A complete version of the occupational standard, which provides additional detail for the trade activities, skills and knowledge can be found at www.red-seal.ca.

DESCRIPTION OF THE MOTORCYCLE TECHNICIAN TRADE

“Motorcycle technician” is this trade’s official Red Seal occupational title approved by the CCDA. This standard covers tasks performed by motorcycle technicians. Please note that the official Red Seal name was changed from motorcycle mechanic to motorcycle technician by the CCDA in 2020.

Motorcycle technicians work primarily on two and three-wheeled motorcycles and other units such as motor scooters. They inspect, clean, test, assemble, diagnose, maintain and repair engines, transmissions, drive systems, steering assemblies, braking systems, chassis and suspension, electrical systems, vehicle management systems, fuel systems and exhaust systems. They may specialize in repairing, rebuilding, customizing or servicing these systems or assemblies.

Motorcycle technicians work with hand, power, pneumatic, measuring, diagnostic and testing tools, and shop equipment. Reference material, documentation, computers and software are also necessary tools in this trade.

Motorcycle technicians may work in service shops of motorcycle dealerships, distributors and retailers or in independent service establishments. They may specialize in specific makes and types.

The work environment may include noise, fumes, odours, hazardous compounds, drafts and vibrations; therefore, safety procedures are important. The work often requires considerable standing, bending, crawling, lifting, pulling and reaching.

Some important attributes of motorcycle technicians are good hand-eye coordination, mechanical aptitude, time management skills, document use, numeracy, logical thinking and decision-making skills, excellent communication and the ability to educate themselves as technology advances. They must also be competent to test ride motorcycles.

Experienced motorcycle technicians may advance to supervisory positions, service managers or instructors. Some technicians may open their own garage or motorcycle specialty shop. With additional training, motorcycle technicians can transfer their skills and knowledge to related units and equipment such as, but not limited to, all-terrain vehicles, snowmobiles, watercraft and outdoor power equipment.

MOTORCYCLE TECHNICIAN

TASK MATRIX AND WEIGHTINGS

A – Performs common occupational skills

7%

Task A-1 Performs safety-related functions 19%	A-1.01 Maintains safe work environment	A-1.02 Uses personal protective equipment (PPE) and safety equipment	
Task A-2 Performs routine work practices 31%	A-2.01 Uses trade-related consumables	A-2.02 Performs periodic maintenance	A-2.03 Performs storage procedures
	A-2.04 Prepares new motorcycles	A-2.05 Conducts safety inspection	A-2.06 Verifies repairs
Task A-3 Uses tools, equipment and documentation 34%	A-3.01 Uses diagnostic tools and equipment	A-3.02 Uses precision measuring instruments	A-3.03 Uses hand tools
	A-3.04 Uses heating/cutting tools and equipment	A-3.05 Uses pneumatic and electric power tools and equipment	A-3.06 Uses shop equipment
	A-3.07 Uses documentation		
Task A-4 Uses communication and mentoring techniques 16%	A-4.01 Uses communication techniques	A-4.02 Uses mentoring techniques	

B – Maintains chassis and suspension

10%

Task B-5 Diagnoses chassis and components 25%	B-5.01 Diagnoses frame	B-5.02 Diagnoses steering head	B-5.03 Diagnoses steering systems for three-wheel motorcycles
	B-5.04 Diagnoses handle bars, foot rests and controls	B-5.05 Diagnoses chassis ancillary and accessory components	
Task B-6 Services chassis and components 23%	B-6.01 Services frame	B-6.02 Services steering head	B-6.03 Services steering systems for three-wheel motorcycles
	B-6.04 Services handle bars, foot rests and controls	B-6.05 Services chassis ancillary and accessory components	
Task B-7 Diagnoses suspension systems 27%	B-7.01 Diagnoses front suspension components	B-7.02 Diagnoses front suspension components for three-wheel motorcycles	B-7.03 Diagnoses rear suspension components
	B-7.04 Diagnoses swing arm		
Task B-8 Services suspension systems 25%	B-8.01 Services front suspension components	B-8.02 Services front suspension components for three-wheel motorcycles	B-8.03 Services rear suspension components
	B-8.04 Services swing arm		

C – Maintains wheels and tires

8%

Task C-9 Diagnoses wheels and tires 43%	C-9.01 Diagnoses tires	C-9.02 Diagnoses spoked wheels	C-9.03 Diagnoses one-piece wheels
	C-9.04 Diagnoses multi-piece wheels		
Task C-10 Services wheels and tires 57%	C-10.01 Services tires	C-10.02 Services spoked wheels	C-10.03 Services one-piece wheels
	C-10.04 Services multi-piece wheels		

D – Maintains brakes

10%

Task D-11 Diagnoses braking systems 50%	D-11.01 Diagnoses hydraulic braking systems	D-11.02 Diagnoses mechanical braking systems	D-11.03 Diagnoses braking control systems
	D-12.01 Services hydraulic braking systems	D-12.02 Services mechanical braking systems	D-12.03 Services braking control systems
Task D-12 Services braking systems 50%			

E – Maintains engines

14%

Task E-13
Diagnoses two-stroke and four-stroke engines
48%

E-13.01 Diagnoses cylinder heads	E-13.02 Diagnoses valve systems on two-stroke engine	E-13.03 Diagnoses valve train on four-stroke engine
E-13.04 Diagnoses cylinders and pistons	E-13.05 Diagnoses crankshaft assembly	E-13.06 Diagnoses counterbalance assemblies
E-13.07 Diagnoses engine cases	E-13.08 Diagnoses lubrication system	E-13.09 Diagnoses cooling system

Task E-14
Services two-stroke and four-stroke engines
52%

E-14.01 Services cylinder heads on four-stroke engine	E-14.02 Services valve systems on two-stroke engine	E-14.03 Services valve train on four-stroke engine
E-14.04 Services cylinders and pistons	E-14.05 Services crankshaft assembly	E-14.06 Services counterbalance assemblies
E-14.07 Services engine cases	E-14.08 Services lubrication system	E-14.09 Services cooling system

F – Maintains power transfer

12%

Task F-15 Diagnoses clutches and primary drive 16%	F-15.01 Diagnoses primary drive and driven gears	F-15.02 Diagnoses primary drive chain and sprockets	F-15.03 Diagnoses primary drive belt and pulleys
	F-15.04 Diagnoses manual clutches	F-15.05 Diagnoses automatic clutches	F-15.06 Diagnoses kick start
Task F-16 Services clutches and primary drive 16%	F-16.01 Services primary drive and driven gears	F-16.02 Services primary drive chain and sprockets	F-16.03 Services primary drive belt and pulleys
	F-16.04 Services manual clutches	F-16.05 Services automatic clutches	F-16.06 Services kick start
Task F-17 Diagnoses transmissions 15%	F-17.01 Diagnoses constant mesh transmissions	F-17.02 Diagnoses continuously variable transmission (CVT)	
Task F-18 Services transmissions 23%	F-18.01 Services constant mesh transmissions	F-18.02 Services continuously variable transmission (CVT)	
Task F-19 Diagnoses final drive 12%	F-19.01 Diagnoses final drive chain and sprockets	F-19.02 Diagnoses final drive shaft and gears	F-19.03 Diagnoses final drive belt and pulleys
Task F-20 Services final drive 18%	F-20.01 Services final drive chain and sprockets	F-20.02 Services final drive shaft and gears	F-20.03 Services final drive belt and pulleys

G – Maintains electrical systems

15%

Task G-21 Diagnoses electrical systems 67%	G-21.01 Diagnoses battery and charging system	G-21.02 Diagnoses electrical ancillary and accessory components	G-21.03 Diagnoses wiring harness systems
	G-21.04 Diagnoses ignition system	G-21.05 Diagnoses electric starting system	
Task G-22 Services electrical systems 33%	G-22.01 Services battery and charging system	G-22.02 Services electrical ancillary and accessory components	G-22.03 Services wiring harness systems
	G-22.04 Services ignition system	G-22.05 Services electric starting system	

H – Maintains vehicle management systems

14%

Task H-23 Diagnoses vehicle management systems 60%	H-23.01 Reads fault codes	H-23.02 Interprets fault code results	H-23.03 Tests system circuitry and components
Task H-24 Services vehicle management systems 40%	H-24.01 Updates software	H-24.02 Services system circuitry and components	

I – Maintains fuel and exhaust systems

10%

Task I-25
Diagnoses fuel and exhaust systems
57%

I-25.01 Diagnoses fuel tanks and components

I-25.02 Diagnoses air delivery system

I-25.03 Diagnoses carburetor system

I-25.04 Diagnoses fuel injection system

I-25.05 Diagnoses exhaust system

Task I-26
Services fuel and exhaust systems
43%

I-26.01 Services fuel tanks and components

I-26.02 Services air delivery system

I-26.03 Services carburetor system

I-26.04 Services fuel injection system

I-26.05 Services exhaust system